

NOTICE OF OFFICE OF MANAGEMENT AND BUDGET ACTION

Date 03/06/2009

Department of Commerce
National Oceanic and Atmospheric Administration
FOR CERTIFYING OFFICIAL: Suzanne Hilding
FOR CLEARANCE OFFICER: Diana Hynek

In accordance with the Paperwork Reduction Act, OMB has taken action on your request received 09/24/2008

ACTION REQUESTED: Extension without change of a currently approved collection
TYPE OF REVIEW REQUESTED: Regular
ICR REFERENCE NUMBER: 200808-0648-009
AGENCY ICR TRACKING NUMBER:
TITLE: Atlantic Highly Migratory Species Observer Notification Requirements
LIST OF INFORMATION COLLECTIONS: See next page

OMB ACTION: Approved without change
OMB CONTROL NUMBER: 0648-0374

The agency is required to display the OMB Control Number and inform respondents of its legal significance in accordance with 5 CFR 1320.5(b).

EXPIRATION DATE: 03/31/2012

DISCONTINUE DATE:

BURDEN:	RESPONSES	HOURS	COSTS
Previous	8,520	282	4,000
New	4,829	160	2,415
Difference			
Change due to New Statute	0	0	0
Change due to Agency Discretion	247	8	124
Change due to Agency Adjustment	-3,938	-130	-1,709
Change Due to Potential Violation of the PRA	0	0	0

TERMS OF CLEARANCE:

OMB Authorizing Official: Kevin F. Neyland
Deputy Administrator,
Office Of Information And Regulatory Affairs

List of ICs

IC Title	Form No.	Form Name	CFR Citation
Tuna Vessel Observer Notification Requirements	NA	Observer notification form	50 CFR 635.7
Swordfish vessel observer notification requirements	NA	Observer notification form	50 CFR 635.7
Shark research fishery observer notification requirements	NA	Observer notification form	50 CFR 635.7
Shark gillnet fishery observer notification requirements	NA	Observer notification form	50 CFR 635.7
Commercial shark fishery vessels not included in research or gillnet sampling	NA	Observer notification form	50 CFR 635.7
Charter/headboat observer notification requirements	NA	Observer notification form	50 CFR 635.7

PAPERWORK REDUCTION ACT SUBMISSION

Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form, the collection instrument to be reviewed, the supporting statement, and any additional documentation to: Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington, DC 20503.

1. Agency/Subagency originating request	2. OMB control number b. <input type="checkbox"/> None a. _____ - _____
3. Type of information collection (<i>check one</i>) a. <input type="checkbox"/> New Collection b. <input type="checkbox"/> Revision of a currently approved collection c. <input type="checkbox"/> Extension of a currently approved collection d. <input type="checkbox"/> Reinstatement, without change, of a previously approved collection for which approval has expired e. <input type="checkbox"/> Reinstatement, with change, of a previously approved collection for which approval has expired f. <input type="checkbox"/> Existing collection in use without an OMB control number For b-f, note Item A2 of Supporting Statement instructions	4. Type of review requested (<i>check one</i>) a. <input type="checkbox"/> Regular submission b. <input type="checkbox"/> Emergency - Approval requested by _____ / _____ / _____ c. <input type="checkbox"/> Delegated
7. Title	5. Small entities Will this information collection have a significant economic impact on a substantial number of small entities? <input type="checkbox"/> Yes <input type="checkbox"/> No
8. Agency form number(s) (<i>if applicable</i>)	6. Requested expiration date a. <input type="checkbox"/> Three years from approval date b. <input type="checkbox"/> Other Specify: _____ / _____
9. Keywords	10. Abstract
11. Affected public (<i>Mark primary with "P" and all others that apply with "x"</i>) a. ___ Individuals or households d. ___ Farms b. ___ Business or other for-profit e. ___ Federal Government c. ___ Not-for-profit institutions f. ___ State, Local or Tribal Government	12. Obligation to respond (<i>check one</i>) a. <input type="checkbox"/> Voluntary b. <input type="checkbox"/> Required to obtain or retain benefits c. <input type="checkbox"/> Mandatory
13. Annual recordkeeping and reporting burden a. Number of respondents _____ b. Total annual responses _____ 1. Percentage of these responses collected electronically _____ % c. Total annual hours requested _____ d. Current OMB inventory _____ e. Difference _____ f. Explanation of difference 1. Program change _____ 2. Adjustment _____	14. Annual reporting and recordkeeping cost burden (<i>in thousands of dollars</i>) a. Total annualized capital/startup costs _____ b. Total annual costs (O&M) _____ c. Total annualized cost requested _____ d. Current OMB inventory _____ e. Difference _____ f. Explanation of difference 1. Program change _____ 2. Adjustment _____
15. Purpose of information collection (<i>Mark primary with "P" and all others that apply with "X"</i>) a. ___ Application for benefits e. ___ Program planning or management b. ___ Program evaluation f. ___ Research c. ___ General purpose statistics g. ___ Regulatory or compliance d. ___ Audit	16. Frequency of recordkeeping or reporting (<i>check all that apply</i>) a. <input type="checkbox"/> Recordkeeping b. <input type="checkbox"/> Third party disclosure c. <input type="checkbox"/> Reporting 1. <input type="checkbox"/> On occasion 2. <input type="checkbox"/> Weekly 3. <input type="checkbox"/> Monthly 4. <input type="checkbox"/> Quarterly 5. <input type="checkbox"/> Semi-annually 6. <input type="checkbox"/> Annually 7. <input type="checkbox"/> Biennially 8. <input type="checkbox"/> Other (describe) _____
17. Statistical methods Does this information collection employ statistical methods <input type="checkbox"/> Yes <input type="checkbox"/> No	18. Agency Contact (person who can best answer questions regarding the content of this submission) Name: _____ Phone: _____

19. Certification for Paperwork Reduction Act Submissions

On behalf of this Federal Agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9

NOTE: The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8(b)(3), appear at the end of the instructions. *The certification is to be made with reference to those regulatory provisions as set forth in the instructions.*

The following is a summary of the topics, regarding the proposed collection of information, that the certification covers:

- (a) It is necessary for the proper performance of agency functions;
- (b) It avoids unnecessary duplication;
- (c) It reduces burden on small entities;
- (d) It used plain, coherent, and unambiguous terminology that is understandable to respondents;
- (e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;
- (f) It indicates the retention period for recordkeeping requirements;
- (g) It informs respondents of the information called for under 5 CFR 1320.8(b)(3):
 - (i) Why the information is being collected;
 - (ii) Use of information;
 - (iii) Burden estimate;
 - (iv) Nature of response (voluntary, required for a benefit, mandatory);
 - (v) Nature and extent of confidentiality; and
 - (vi) Need to display currently valid OMB control number;
- (h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected (see note in Item 19 of instructions);
- (i) It uses effective and efficient statistical survey methodology; and
- (j) It makes appropriate use of information technology.

If you are unable to certify compliance with any of the provisions, identify the item below and explain the reason in Item 18 of the Supporting Statement.

Signature of Senior Official or designee

Date

Agency Certification (signature of Assistant Administrator, Deputy Assistant Administrator, Line Office Chief Information Officer, head of MB staff for L.O.s, or of the Director of a Program or StaffOffice)

Signature

Date

Signature of NOAA Clearance Officer

Signature

Date

**SUPPORTING STATEMENT
ATLANTIC HIGHLY MIGRATORY SPECIES OBSERVER NOTIFICATION
REQUIREMENTS
OMB CONTROL NO. 0648-0374**

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

This Supporting Statement is submitted as part of a Paperwork Reduction Act (PRA) information collection for the mandatory observer program of permitted vessels in Atlantic Highly Migratory Species (HMS) fisheries. A proportion of permitted vessels in the Atlantic sharks, swordfish, and tunas fisheries would be selected for at-sea observer coverage. Additionally, the National Marine Fisheries Service (NMFS) would select a proportion of vessels annually for observer coverage in the recreational fisheries for HMS.

This collection is an extension of a currently approved collection (OMB Control No. 0648-0374) which includes observer notification requirements for swordfish, shark, tuna, and billfish vessels. Therefore, this collection is a comprehensive and consolidated collection for observer notification requirements for all HMS fisheries.

NMFS has management authority over Atlantic HMS for United States Atlantic, Gulf of Mexico, and Caribbean waters. The Secretary of Commerce (Secretary) is responsible for managing domestic HMS fisheries under the [Magnuson-Stevens Fishery Conservation and Management Act](#) (Magnuson-Stevens Act; 16 U.S.C. 1801 et seq.) and the Atlantic Tunas Convention Act (ATCA; 16 U.S.C. 971 et seq.). ATCA implements recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT), of which the United States (U.S.) is a member. [Section 971 d\(c\)\(3\) of ATCA](#) provides the statutory authority to require the collection of information necessary to implement the recommendations of ICCAT.

Under ATCA and as a contracting party of ICCAT, the U.S. is required to take part in the collection of biological, catch, and effort statistics for research and management purposes. In addition to this requirement, the United States must abide by the specific quotas assigned to it by ICCAT. Congress reauthorized the Magnuson-Stevens Act in October 1996 by passing the [Sustainable Fisheries Act](#) (SFA). Section 304(e) of the Magnuson-Stevens Act, as amended by the SFA and as amended and reauthorized in 2007, requires the Secretary to report annually to Congress and the Regional Fishery Management Councils on the status of the fisheries and to identify those fisheries that are overfished or are approaching an overfished condition. Specific reference to mandatory observer program coverage are included under [50 CFR Part 600](#) and [635](#), and selected vessels must meet safety requirements as specified under [§ 600.746](#).

Thus, collection of observer information serves three purposes: (1) it provides stock assessment and research information, (2) it monitors the catch so as not to exceed the allocated quotas domestically or internationally, and (3) it monitors the fishing techniques of the fishery. Of particular interest is the documentation of bycatch statistics, including discard mortality. Besides quotas, other conservation measures include the time/area closures of spawning and

nursery areas for several species in the Atlantic and Gulf of Mexico. Management measures to the shark fishery will establish a shark research fishery of approximately 10 boats, with 100 percent coverage, to gather more information on the stock status of the large coastal shark complex. Additionally, in order to better monitor incidental landings of bluefin tuna in the Gulf of Mexico during bluefin tuna spawning season, pelagic longline vessels fishing in the Gulf are subject to 100 percent observer coverage from March 9–June 9 (41 vessels).

One of the major responsibilities of NMFS is to allocate HMS quotas assigned to the U.S. by ICCAT among numerous and competing user groups, and to generally monitor HMS covered by ICCAT. As management falls under the Magnuson-Stevens Act as well as ATCA, and the National Environmental Protection Act (NEPA), data and analyses on the catch of the U.S. HMS fisheries constitute an integral part of the basis for rulemaking, particularly in preparing the mandatory Regulatory Impact Reviews (RIR), Environmental Assessments/Impact Statements (EA/EIS), and other documentation associated with management.

In addition to collecting information necessary for monitoring HMS quotas, observers will be documenting the use of sea turtle handling and release equipment implemented in a July 2004 rulemaking in compliance with a Biological Opinion issued under Section 7 of the Endangered Species Act (ESA). Observers may document fishing techniques and patterns as part of the background information on the fishery itself. Thus, the observer program will provide essential information for management of HMS fisheries in the United States, particularly in terms of total quota and allocation decisions which follow ICCAT recommendations and legal requirements (consider traditional fishing patterns and the participation of various user groups). For non-ICCAT managed species such as Atlantic sharks, catch and effort information, bycatch, and other fishery statistics must also be collected in order to ensure appropriate monitoring and allocation of quotas in compliance with domestic regulations.

The overall purpose of the collection of information contained in the observer program for HMS fisheries is thus to comply with the requirements of the Magnuson-Stevens Act, [ESA](#) and [NEPA](#), as well as with the U.S.'s international obligations under ATCA.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

The information collected in the observer program will be used by NMFS to monitor U.S. fishing activities in relation to the appropriate quotas, thereby ensuring that the U.S. complies with its domestic obligations under the Magnuson-Stevens Act and international obligations under ICCAT. Other provisions of the domestic regulations can be monitored through this collection of information, such as compliance with time/area closures, fishing seasons, bycatch restrictions, and subquotas by gear type and/or user group. This information will also provide detailed catch and effort data which may be used to assess the status of the HMS stocks. Assessments of tunas, swordfish, billfish, and some sharks are conducted and presented to ICCAT every few years. Assessments of most species of sharks are conducted by NMFS every few years. These data provide the basis for domestic shark quotas and ICCAT management

recommendations which become binding on member nations. In addition, the observer program will provide essential information for domestic management policy and rulemaking.

The observer program operates as follows: All vessels fishing for, or incidentally taking Atlantic HMS, both commercial and recreational, will be eligible for selection. If NMFS determines that vessels targeting a certain species, size class and/or area should be studied via an observer program, a statistically-based sample of the fishing vessels would be selected by NMFS scientists, and selected vessels would need to notify NMFS by telephone or in writing of the time and place of departure for future fishing trips. After this notification, NMFS will decide whether an observer is available to accompany the vessel for that fishing trip. If an observer is dispatched to the vessel, the observer will collect information to characterize the vessel, nature of the fishing trip and type of fishing gear, and fishing location; will record effort and catch data during the course of the trip; and will note offloading information after the trip. As information collected by observers is not subject to approval under the PRA, public burden for this request thus consists only of the initial notification of a planned fishing trip.

The shark research fishery operates as follows: Vessels must apply to participate in the fishery and selections are made by NMFS staff. If approved, these vessels will be subject to 100 percent observer coverage and must notify NMFS via telephone or in writing of the time and place of departure for future fishing trips. An observer must be available for a research fishery participant to fish under the provisions of the shark research fishery. However, research fishery participants may be required to fish at times specified by the observer program coordinator. If an observer is dispatched to the vessel, the observer will collect information to characterize the vessel, nature of the fishing trip and type of fishing gear, and fishing location; will record effort and catch data during the course of the trip; and will note offloading information after the trip. Public burden for this request thus consists only of the initial notification of a planned fishing trip.

As explained in the preceding paragraphs, the information gathered has utility. NMFS will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of the Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. There is no plan to disseminate this information, but if dissemination is warranted, the information will be subjected to quality control measures and a pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#).

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

This collection of information does not lend itself to the use of automated, electronic, mechanical, or other technological techniques. The notification form is mailed as a hard copy to selected participants in the various HMS fisheries. This form must be mailed back to the observer program coordinator or a phone call may be placed to the coordinator notifying them of a pending trip.

4. Describe efforts to identify duplication.

There is no duplication with other collections.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

Nearly all vessels in the HMS fisheries are categorized as small businesses. The collection will not have a significant impact on small businesses, and no special modifications of the requirements were considered necessary to accommodate the needs of small businesses.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

If the collection were not conducted or were conducted less frequently, the accuracy of stock assessments, total fishing effort, landings, and estimates of bycatch would be diminished. For example, Biological Opinions issued in 2003 and 2004 for HMS fisheries require estimates of sea turtle interactions that can only be accurately estimated through collection of observer information. Observer coverage and/or notification less than that required for a specified level of statistical precision will render expanded estimates of total effort, catch and bycatch less reliable. Notification prior to every trip for a selected vessel is essential for NMFS to maintain sampling proportions which are representative of the fleet at large.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

The collection would not be conducted in a manner inconsistent with Office of Management and Budget (OMB) guidelines, except that notification could be more frequent than quarterly because NMFS needs to be informed of all trips in order to coordinate observer placement.

8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice published on April 7, 2008 (73 FR 18781) solicited public comments on this collection. There were no comments received on this collection.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts are to be offered as part of this information collection.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

It is Agency policy not to release confidential data, other than in aggregate form, as section 402(b) of the Magnuson-Stevens Fisheries Conservation and Management Act protects (in perpetuity) the confidentiality of those submitting data. An assurance of confidentiality is on the notification form. Whenever data are requested, the Agency ensures that information identifying the pecuniary business activity and personal information of a particular vessel operator is not identified.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

No information of a sensitive nature is requested.

12. Provide an estimate in hours of the burden of the collection of information.

Tuna

As of October 2007, there were approximately 3,873 commercial permit holders (purse seine, handline, and harpoon categories) in the Atlantic tuna fishery. Approximately one percent of the total number of permitted vessels in the tuna fishery is selected annually for observer coverage (39 vessels). It is estimated that the average number of trips for all gear types in the commercial tuna fishery would be 50 trips annually. The total number of trips requiring notification in the commercial tuna fishery would be $39 \times 50 = 1,950$ trips. If a vessel is selected for observer coverage, NMFS must be notified before commencing any fishing trip that may result in the harvest of Atlantic HMS. Notification time is estimated at 2 minutes (.033 hours) per response. **Therefore, in the commercial Atlantic tuna fishery, the total number of respondents would be 39, the total number of responses would be 1,950, and the total burden would be $1,950 \times 2 \text{ minutes}/60 \text{ minutes} = 65 \text{ hours}$.**

Swordfish

As of October 2007, the total number of vessels permitted to fish for swordfish in the U.S. exclusive economic zone (EEZ) was estimated at approximately 180. Due to possible protected species interactions in the swordfish fishery, a biological opinion (BiOp) issued in 2004 under section 7 of the Endangered Species Act requires a minimum of 8 percent observer coverage in the pelagic longline fishery. Additionally, there will be 100 percent observer coverage in the Gulf of Mexico for one quarter (March 9-June 9). NMFS anticipates selecting approximately 10 percent of swordfish vessels, when the Gulf of Mexico 100 percent coverage is not active, for a total of 18 vessels annually. The selection of an additional 2 percent of vessels is to compensate for vessels that may not be fishing or may not be eligible for observer placement if safety requirements are not met. It is estimated that the average number of trips for swordfish vessels would be 3 trips annually, or 2.25 (2) trips over the three quarters covered, for a total of 36 trips ($18 \times 2 = 36$).

From March 9 through June 9, during the Gulf of Mexico 100 percent observer coverage, 139 vessels fishing outside the Gulf of Mexico will be selected for 10 percent observer coverage which is estimated at a total of 14 vessels and trips. (0.10×0.75 trips per quarter or 1).

Forty-one vessels will be selected for 100 percent observer coverage in the Gulf of Mexico from March 9 to June 9 and it is estimated that each vessel will take 3 trips during the coverage period: $41 \times 3 = 123$ trips.

Notification time is estimated at 2 minutes per response. **Therefore, for all observations in the swordfish fishery, the total number of respondents would be 73 (18 + 14 + 41), the total number of responses would be 173 (36 + 14 + 123), and the total burden would be 173×2 minutes/60 minutes = 5.8 (6) hours.**

Shark

Due to management measures to the shark fishery, a 10 vessel shark research fishery has been established. NMFS will use 100 percent observer coverage for this research fishery, and vessels are expected to take an average of 10 trips annually. The total number of annual trips would be $10 \times 10 = 100$ trips. Notification time is estimated at 2 minutes per response. **Therefore, in the shark research fishery, the total number of respondents would be 10, the total number of responses would be 100, and the total burden would be 100×2 minutes/60 minutes = 3.33 (3) hours.**

The shark gillnet fishery, consisting of 5 vessels, receives 100 percent observer coverage when the season is open from April 15-November 15. One hundred percent observer coverage is used in the gillnet to adequately monitor marine mammal and other protected resource interactions with gillnet gear. During this time it is estimated that gillnet vessels will take 2 trips each. The total number of trips will be 10 trips for the monitoring period ($5 \times 2 = 10$). Notification time is estimated at 2 minutes per response. **Therefore, in the shark gillnet fishery, the total number of respondents would be 5, the total number of responses would be 10, and the total burden would be 10×2 minutes/60 minutes = 0.33 (0.3) hours.**

As of October 2007, the total number of vessels permitted to target sharks in the U.S. EEZ was estimated at 231. Due to the shark research fishery and shark gillnet fishery observation requirement, the pool of vessels for observation outside of these fisheries is 216. NMFS anticipates selecting approximately 15 percent of shark vessels annually for a total of 32 vessels annually (216×0.15). It is estimated that the average number of trips in the commercial shark fisheries would be 3 trips per season. The total number of trips would be $32 \times 3 = 96$ trips. Notification time is estimated at 2 minutes per response. **Therefore, in the commercial Atlantic shark fishery, the total number of respondents would be 32, the total number of responses would be 96, and the total burden would be 96×2 minutes/60 minutes = 3.2 (3) hours.**

Total respondents are 47 (10+5+32), total responses are 107 (10 + 1+ 96) and total hours are 6.3 (3+ 0.3 + 3).

Charter/headboat or Angling

Additionally, NMFS would select approximately 50 HMS charter/headboat or angling category vessels, annually out of 28,115 (0.2%), for observer coverage in the Atlantic HMS recreational fisheries. It is estimated that the average number of trips for all gear types in the recreational HMS fishery would be 50 trips annually. The total number of trips requiring notification in the recreational HMS fishery would be $50 \times 50 = 2,500$ trips. **Therefore, in the recreational HMS fishery, the total number of respondents would be 50, the total number of responses would be 2,500, and the total burden would be $2,500 \times 2/60$ minutes = 83.3 (83) hours.**

For all HMS fisheries, the annual burden for observer notification is estimated at 160.3 (160) hours for 4,829 responses by 209 respondents. Vessels operating in other HMS fisheries are not observed currently but are subject to observer coverage under the regulations.

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in #12 above).

There will be no start-up costs for respondents as a result of this collection. Notification costs by phone, fax or letter are estimated at \$0.50 per response x 4,829 responses, a total of \$2,415 per year.

14. Provide estimates of annualized cost to the Federal government.

There is no cost to the Federal Government associated with notification.

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB 83-I.

There is a net decrease in hours and costs. Adjustments downward reflect the current number of vessels, which has declined in recent years. However, the net decrease includes the effect of increases in burden and costs, due to percentage of vessels selected for certain swordfish and shark fisheries, based on new requirements. Response times are unchanged.

Note: the decrease in cost shown in ROCIS is based on the rounded off current cost; the exact current cost is \$4,260, not \$4,000.

16. For collections whose results will be published, outline the plans for tabulation and publication.

The results will not be published.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

The expiration date will be posted on any forms.

18. Explain each exception to the certification statement identified in Item 19 of the OMB 83-I.

No exceptions are requested.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

This collection of information will employ statistical methods to reduce the respondent burden and the data processing cost to the government. The potential respondent universe consists of all currently permitted vessels that are active in the swordfish, shark, and tuna fisheries. Active vessels are considered to be those that have a valid permit and that have reported landings during the previous year. Actual response rates from selected vessels may vary. Thus, in addition to sending out selection letters, NMFS follows up with phone calls to selected vessel owners to determine their schedules and ability to carry an observer. The number of potential vessels for each of the fisheries is provided in response to Question 12 and summarized below.

Table 1. Number of permitted vessels, percentage selection, and number of corresponding respondents for each of the three HMS observer programs.

Category	Permits	Percent Coverage	Number of Vessels	Trips per coverage period	Total Responses	Burden (hr)
Tuna	3,873	1%	39	50	1,950	65
Swordfish w/o GOM coverage (3 quarters)	180	10%	18	2	36	1
Swordfish during Gulf coverage (1 quarter)	139*	10%	14	1	14	1
Swordfish GOM	41*	100%	41	3	123	4
Shark	216	15%	32	3	96	3
Shark Research Fishery	10	100%	10	10	100	3
Shark Gillnet Fishery	5	100%	5	2	10	.5
HMS CHB and Angling	28,115	.0177%	50	50	2,500	83
Total	32,399	n/a	209	n/a	4,829	160.5 (161)

* These numbers are two subtotals of the total number of current swordfish permits

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

A Biological Opinion (BiOp) issued in 2004 mandates 8 percent observer coverage for the pelagic longline fishery (swordfish fishery). Although there is no mandated observer coverage level for the commercial shark bottom longline fishery, NMFS has established a target of 5

percent observer coverage based on a 2001 BiOp for the pelagic longline fishery and a requirement of a 2003 BiOp that the observer coverage remain at the same level or increase. The shark gillnet fishery (5 vessels) observer coverage is 100 percent when the fishery is open due to right whale concerns. Observer coverage is distributed according to a stratified random sampling scheme that is required to adequately sample the fishery to determine levels of protected species takes. In order to ensure adequate observer coverage, NMFS currently selects 10 percent of all permitted swordfish vessels for observer placement, and 15 percent of all active permitted shark vessels. In addition, new management measures have established a shark research fishery of 10 vessels which receive 100 percent coverage. Commercial tuna permit holders are subject to 1 percent observer coverage throughout the year. Recreational permit holders are also subject to observer coverage at a level of < 1 percent. Selected respondents are stratified across all statistical areas based on information reported in logbooks the previous year. The random sample for the shark and swordfish fleet would be stratified according to: (1) location of fishing in the previous year within designated statistical areas and (2) level of activity (landings versus no landings/held a permit or did not hold a permit). The HMS logbook form contains sufficient information to determine where a vessel was fishing and the level of activity in the previous year. Numerous analyses of logbook data have already designated the statistical areas. These same areas would be used in the random sample. Sample size for selection of these vessels would be designed to ensure adequate representation across the fleet and across all areas.

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.

In order to maximize the response rate, brochures have been developed and circulated to educate fishermen in various sectors about reporting requirements. NMFS has also published compliance guides to remind fishermen of their obligations. Non-responders are typically contacted first by phone and then are notified by the NMFS Office of Law Enforcement of their delinquency. If there continues to be no response, citations could be issued. To account for vessels that may not respond to the information request, or that may no longer have an active permit, NMFS may select an additional percentage of vessels to ensure that observer coverage goals are met. Additionally, to ensure that observer coverage matches regional distribution of fishing effort, NMFS selects vessels from each region based on the proportion of current fishing effort in each region. In combination, these different methods help to ensure that an adequate number of positive responses to the information request are received, and that the target observer coverage levels are met.

4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.

There are no plans to test any of the current procedures.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

NMFS, Office of Science and Technology (sampling design/analysis):

Dr. Rita Curtis 301-713-2328

NMFS, Southeast Fisheries Science Center (data collection):

Dr. John Carlson (Shark Observer Program)

Dr. Lawrence Beerkircher (Pelagic Longline Observer Program)

Highly Migratory Species Observer Notification Form

This form is provided for your response. Please provide the information requested below and return by mail or FAX (305-361-4282) at least 5 days prior to your estimated departure. If the vessel is not fishing or is involved in another fishery during the selection period, please indicate this under Vessel Fishing Status.

Captain's Name: _____ Vessel Name: _____

Documentation/Vessel Number: _____ Overall Length: _____(ft)

Crew Size: _____ (include skipper) Bunk Capacity: _____ Life Raft Capacity: _____

Contact Person/Telephone Number(s): _____

Communication Equipment (please check)	Commercial Fishing Vessel Safety Examination Decal
Cellular phone:	Serial Number:
VHF:	Date of issuance: _____/_____/_____ Month Year
Single Side Band:	
Call sign:	

Vessel Fishing Status:

Port of Departure:

Dock Facility: _____

Street: _____

City: _____ State: _____

Telephone Number: () _____ Departure Date: _____ Departure Time: _____ (AM or PM)

Expected Landing Port:

Dock Facility: _____

Street: _____

City: _____ State: _____

Telephone Number: () _____

Anticipated Landing Date: _____

I certify under penalty of perjury under the laws of the United States of America that the information given on this form is true and correct, and that I have full authority to execute this form.

Signature

Date

For the Pelagic Observer Program, please return by mail to SEFSC Pelagic Observer Program, 75 Virginia Beach Dr. Miami, FL 33149 or fax to 305-361-4282. For questions call 800-858-0624.

For the Shark Observer Program, please return by mail to SEFSC Shark Bottom Longline Observer Program, 3500 Delwood Beach Rd, Panama City, FL 32408-7403 or fax to (850) 235-3559. For questions call (850) 234-6541.

PAPERWORK REDUCTION ACT STATEMENT: Collection of information through the observer program provides data for stock assessments and estimates of bycatch. Public reporting burden for completing the vessel information form above is estimated at 2 minutes per response. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: National Marine Fisheries Service, F/SF1, 1315 East West Highway, Silver Spring, MD 20910. Providing the requested information is mandatory for managing HMS fisheries under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.) In accordance with NOAA Administrative Order 216-100, it is agency policy not to release confidential information, other than in aggregate form. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. This is an approved information collection under OMB Control No.: 0648-0374 and Expiration Date: 09/30/2008.

**Endangered Species Act - Section 7 Consultation
Biological Opinion**

Action Agency: National Marine Fisheries Service, Office of Sustainable Fisheries,
Highly Migratory Species Division

Activity: Reinitiation of Consultation on the Atlantic Pelagic Longline
Fishery for Highly Migratory Species

Consulting Agency: National Marine Fisheries Service, Southeast Regional Office

Approved by:

Roy E. Crabtree, Ph.D., Regional Administrator
NOAA Fisheries, Southeast Regional Office
Saint Petersburg, Florida

Date Issued:

INTRODUCTION

Section 7(a)(2) of the Endangered Species Act (ESA) (16 U.S.C. § 1531 *et seq.*) requires that each federal agency shall ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of any critical habitat of such species.

When the action of a federal agency may affect a protected species, that agency is required to consult with either the National Marine Fisheries Service (NOAA Fisheries) or the U.S. Fish and Wildlife Service (USFWS), depending upon the protected species that may be affected. Formal consultations on most listed marine species are conducted between the action agency and NOAA Fisheries. Consultations are concluded after NOAA Fisheries' issuance of a biological opinion (opinion) that identifies whether a proposed action is likely to jeopardize the continued existence of a listed species, or destroy or adversely modify critical habitat. If jeopardy or destruction or adverse modification is found to be likely, the opinion must identify the reasonable and prudent alternatives (RPAs) to the action, if any, that would avoid jeopardizing any listed species and avoid destruction or adverse modification of designated critical habitat. The opinion also includes an incidental take statement (ITS) which specifies the amount or extent of incidental taking that may result from the proposed action. Non-discretionary reasonable and prudent measures (RPMs) to minimize the impact of the incidental taking are included, and conservation recommendations are made. Notably, there are no reasonable and prudent measures associated with critical habitat, only reasonable and prudent alternatives that must avoid destruction or adverse modification.

The present consultation considers the continued authorization of the Atlantic pelagic longline fishery as managed under the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP). NOAA Fisheries has dual responsibilities as both the action agency under the Magnuson-Stevenson Fishery Conservation and Management Act (MSA) (16 U.S.C. 1801 *et seq.*) and the consulting agency under the ESA. For the purposes of this consultation, the Highly Migratory Species Management Division (HMS Division) of NOAA Fisheries' Office of Sustainable Fisheries (OSF) is considered the action agency, and NOAA Fisheries' Southeast Regional Office (SERO) is the consulting agency. This opinion has been prepared by the SERO Protected Resources Division (SERO-PRD). This document constitutes NOAA Fisheries' opinion on the effects of the U.S. Atlantic pelagic longline fishery (herein referred to as the HMS pelagic longline fishery), on threatened and endangered species and critical habitat, in accordance with section 7 of the ESA. Specifically, this opinion analyzes the effects of proposed regulatory modifications to the HMS FMP that address the impacts of the HMS pelagic longline fishery on endangered green (*Chelonia mydas*), hawksbill (*Eretmochelys imbricata*), Kemp's ridley (*Lepidochelys kempii*), and leatherback sea turtles (*Dermochelys coriacea*) and on threatened loggerhead (*Caretta caretta*), and olive ridley sea turtles (*Lepidochelys olivacea*). This opinion also evaluates the likelihood of effects on other marine listed species.

This opinion is based on the following information sources:

- The February 11, 2004, proposed rule to modify regulatory requirements for the HMS pelagic longline fishery to reduce sea turtle bycatch and mortality (69 FR 6621);
- The Draft Supplemental Environmental Impact Statement (DSEIS) associated with the February 11, 2004, proposed rule;
- The April 20, 2004, memorandum from OSF to SERO regarding revised alternatives under consideration for the final rule to modify regulatory requirements for the HMS pelagic longline fishery to reduce sea turtle bycatch and mortality.
- The June 20, 2003, proposed rule to implement north and south Atlantic swordfish recommendations from the 2002 International Commission for the Conservation of Atlantic Tunas (ICCAT) meeting (68 FR 36967);
- The DSEIS associated with the June 20, 2003, proposed rule;
- Sea turtle recovery plans;
- Past and current research and population modeling efforts;
- Observer and logbook data on fishery effort and protected species interactions in the HMS pelagic longline fishery;
- The results of recent experiments to evaluate methods to reduce sea turtle bycatch and mortality in the HMS pelagic longline fishery;
- Other relevant scientific data and reports, consultation with HMS Division staff; and
- Previous opinions for this and other relevant fisheries.

A complete administrative record of this consultation is maintained at SERO.

1.0 CONSULTATION HISTORY

1.12 Previous Consultations

Over the past two decades, NOAA Fisheries has conducted numerous formal and informal ESA section 7 consultations on Atlantic HMS fisheries managed under the HMS FMP and Amendment 1 to the Billfish Fishery Management Plan (Billfish FMP). Earlier consultations are summarized in the June 30, 2000, and June 14, 2001, consultations. The June 30, 2000, and June 14, 2001 consultations and subsequent consultations are discussed below. Collectively, these consultations have comprehensively covered all components of the Atlantic HMS fisheries: the fisheries for tuna, swordfish, sharks, and billfish (recreational only) in the western Atlantic, Caribbean, and Gulf of Mexico, including the pelagic driftnet, drift gillnet, pelagic longline, bottom longline, purse seine, and hand gear (hook and line, handline, and harpoon) fisheries.

The June 30, 2000, opinion on the continued authorization of HMS fisheries considered a December 15, 1999, proposed rule (64 FR 69982) to implement various time-area closures in the HMS pelagic longline fishery. The time-area closures were intended to conserve billfish and undersized swordfish. That opinion concluded that, even with the proposed closures, the HMS pelagic longline fishery was likely to jeopardize the continued existence of loggerhead and leatherback sea turtles. To avoid this jeopardy, the opinion offered two possible RPAs. Regulations implementing the selected RPA closed the Northeast Distant (NED) statistical reporting area to pelagic longline fishing and required HMS pelagic longline vessels to carry dipnets and line-cutters to minimize entanglement and post-release mortality of sea turtle bycatch.

The final rule implementing the proposed time-area closures was published on August 1, 2000, and became effective September 1, 2000 (65 FR 47214). In that final rule, the proposed closure of the western Gulf of Mexico to conserve billfish was replaced with a Gulf-wide prohibition on the use of live bait with pelagic longline gear. Also, a year-round closure of the DeSoto Canyon area in the northeastern Gulf of Mexico was added to further reduce dead discards of small swordfish. Lastly, the final rule also modified the time-area closures proposed for the South Atlantic region, and included a year-round closure of the area south of 31°N. latitude (the “East Florida Coast” closure area) and a February 1 through April 30 closure of the area between 31°N - 34° N latitude (i.e., the “Charleston Bump” closure area).

NOAA Fisheries issued emergency regulations on October 13, 2000, that closed a 55,970 square nautical mile L-shaped portion of the NED area to pelagic longline fishing from October 10, 2000, through April 9, 2001 (65 FR 60889). This closure, as required under the June 30, 2000, opinion’s RPA, was intended to reduce the incidental capture of loggerhead and leatherback sea turtles. The emergency regulations also required the use of dipnets and line-cutters to remove entangling fishing gear and reduce post-release mortality of sea turtles captured in the HMS pelagic longline fishery. To prevent a lapse in sea turtle post-release mortality reduction measures, NOAA Fisheries published an interim final rule on March 30, 2001 (66 FR 17370), which continued the requirement to possess and use dipnets and line-cutters for all vessels in the HMS pelagic longline fishery.

NOAA Fisheries conducted a series of public scoping hearings in July and August 2000 to

present the findings of the June 30, 2000, opinion and to gather information and insights from affected constituents. During that process, NOAA Fisheries concluded that further analyses of observer data and additional population modeling of loggerhead sea turtles were needed to determine more precisely the impact of the HMS pelagic longline fishery on sea turtles. For that reason, NOAA Fisheries reinitiated consultation on the HMS fisheries on September 7, 2000.

The reinitiated consultation on HMS fisheries was concluded with the issuance of a June 14, 2001, opinion. The opinion represented a comprehensive examination of the effects of all of the fisheries covered under the HMS FMP and the Billfish FMP on sea turtles in the western Atlantic Ocean. The opinion incorporated findings from a January 2001, technical gear workshop in Silver Spring, Maryland, that was attended by scientists, fishermen, environmentalists, and other interested parties. Additionally, the opinion incorporated findings of a February 2001 document: *Stock Assessments of Loggerhead and Leatherback Sea Turtles and an Assessment of the Impact of the Pelagic Longline Fishery on the Loggerhead and Leatherback Sea Turtles of the Western North Atlantic* prepared by NOAA Fisheries' Southeast Fisheries Science Center (SEFSC). The opinion concluded that the continued prosecution of the HMS pelagic longline fishery was likely to jeopardize the continued existence of loggerhead and leatherback sea turtles. All other fishery components, including the Atlantic bottom longline and gillnet fisheries for sharks, were found not to jeopardize the continued existence of any ESA-listed species.

The June 14, 2001, opinion specified an RPA for the pelagic longline fishery that would avoid the likelihood of jeopardizing the continued existence of loggerhead and leatherback sea turtles. The RPA included the following elements:

- Closure of the NED area to HMS pelagic longline fishing, effective July 15, 2001;
- A requirement that gangions be placed no closer than twice the average gangion length from the suspending floatlines, effective August 1, 2001;
- A requirement that gangion lengths be 110 percent of the length of the floatline in sets of 100 meters or less in depth, effective August 1, 2001;
- A requirement for the use of corrodible hooks effective August 1, 2001; and
- A requirement for additional gear modification or fishing practices prior to reopening the NED based on a new cooperative research program.

The opinion included a term and condition as part of the ITS that required action by NOAA Fisheries no later than September 15, 2001, to reduce post - release mortality of turtles caught on longline gear. The term and condition required all commercial and recreational HMS-permitted vessels to post inside the wheelhouse guidelines for the safe handling and release of sea turtles following longline interactions.

On July 13, 2001, NOAA Fisheries published an emergency rule to implement several of the opinion requirements (66 FR 36711). Regulations implemented by this emergency rule included a closure of the NED Area to HMS pelagic longline fishing, restrictions regarding gear deployment, and a requirement to post the safe handling procedures inside the wheelhouse. Subsequently, an August 31, 2001, memorandum from NOAA Fisheries' Office of Protected Resources modified the terms and conditions to post the safe handling procedures inside the wheelhouse so that it applied only to bottom and pelagic longline vessels. Therefore, on September 24, 2001, NOAA Fisheries published an amendment to the emergency rule (66

FR48812) to incorporate this change. These requirements, effective through January 9, 2002, were extended to July 8, 2002 (66 FR 64378, December 13, 2001). On January 14, 2002, NOAA Fisheries published an amendment to the emergency rule extension clarifying the effective dates (67 FR 1688).

On July 9, 2002, NOAA Fisheries published the final rule (67 FR 45393) implementing all the measures identified in the RPA to reduce the incidental catch and post-release mortality of sea turtles and other protected species in HMS fisheries. The rule implemented the closure of the NED statistical reporting area, required the length of any gangion to be 10 percent longer than the length of any floatline if the total length of any gangion plus the total length of any floatline was less than 100 meters, prohibited vessels from having hooks on board other than corrodible, non-stainless steel hooks, and required all HMS bottom and pelagic longline vessels to post sea turtle handling and release guidelines in the wheelhouse. The final rule additionally established regulations for the HMS shark gillnet fishery that required: both the observer and vessel operator to look for whales; the vessel operator to contact NOAA Fisheries if a listed whale was taken; and shark gillnet fishermen to conduct net checks every 0.5 to 2 hours to look for and remove any sea turtles or marine mammals from their gear. NOAA Fisheries did not implement the gangion placement requirement because it was found to result in an unchanged number of interactions with loggerhead sea turtles and an apparent increase in interactions with leatherback sea turtles.

On August 1, 2003, NOAA Fisheries published a proposed rule for Draft Amendment 1 to the HMS FMP. Amendment 1 dealt exclusively with measures affecting the management of sharks and the directed shark fishery components (i.e., bottom longline, Southeast shark drift gillnet, and recreational shark fisheries) of the HMS FMP. NOAA Fisheries determined there was a need for a new formal consultation on the effects of the directed shark fisheries on listed species because of new information obtained subsequent to the June 14, 2001, opinion, as well as the recent listing of smalltooth sawfish (*Pristis pectinata*). The proposed rule and new information was limited to directed shark fisheries and did not affect pelagic longline fishing effort or fishing patterns previously analyzed in the June 2001 opinion, therefore, the scope of the reinitiated consultation was focused on the directed shark fisheries.

On October 29, 2003, the Southeast Regional Office completed its opinion on the continued operation of Atlantic shark fisheries under the HMS FMP and Amendment 1. The opinion concluded that the continued prosecution of the Atlantic shark fisheries was not likely to jeopardize the continued existence, or destroy or adversely modify critical habitat, of any ESA-listed species. An ITS was included that specified the extent of anticipated take of sea turtles and smalltooth sawfish and the reasonable and prudent measures necessary to minimize the impacts of the take. For the directed shark fisheries, the October 29, 2003, opinion superseded the June 14, 2001, opinion.

The RPA of the June 14, 2001, opinion required NOAA Fisheries to initiate and conduct a cooperative research program which would develop, modify, and test gear technologies and fishing strategies to “(1) reduce the likelihood of interactions between fishing gear and sea turtles and (2) dramatically reduce immediate and delayed mortality rates of sea turtles captured in the fisheries.” The RPA went on to require;

Upon completion of the aforementioned research and its final analysis, NMFS Highly Migratory

Species Division must promptly conduct a rulemaking to require the adoption of complementary bycatch reduction measures that, in concert with the bycatch reduction measures required by this opinion and the June 30, 2000, opinion, have been shown to achieve overall sea turtle mortality reductions of at least 55 percent. This rulemaking must be completed before pelagic longline vessels are allowed to fish within the NED area, other than as participants in permitted scientific research.

1.2 Present Consultation

Over the course of 2001, 2002, and 2003, the SEFSC undertook a series of research activities in coordination and collaboration with the HMS pelagic longline fishery, academic partners, and other NOAA Fisheries researchers to complete the above-prescribed research program. Three seasons of field experiments were conducted aboard commercial longline vessels working in the NED under an ESA Section 10(a)(1)(A) scientific research permit. These studies, collectively known as the NED experiment, evaluated various fishing techniques in regard to their effectiveness at reducing sea turtle bycatch. The studies additionally evaluated safe-handling techniques to reduce post-release mortality for sea turtles. On March 3, 2004, the SEFSC submitted a final report to NOAA Fisheries' Office of Protected Resources (OPR) per section 10 permitting reporting requirements, summarizing the results of the 3-year NED experiment. The report (discussed in detail in section 4) was made available on the SEFSC's Pascagoula Laboratory website (<http://www.mslabs.noaa.gov/mslabs/docs/pubs.html>).

On September 15, 2003, the HMS Division sent a memorandum to the OPR regarding a proposed rule that would implement modifications to the U.S. quota for swordfish. This proposed rule responded to recommendations put forth by ICCAT at its 2002 meeting. The HMS Division sought concurrence with their conclusion that the proposed rule would not be expected to alter fishing practices or fishing effort any way that would alter the conclusions of the June 14, 2001, opinion. The memorandum and its supporting documents were subsequently forwarded to SERO-PRD for review.

While SERO-PRD's consultation was underway on this proposed rule, on November 17, 2003, the SEFSC notified HMS Division and SERO-PRD that the total takes specified in the June 14, 2001, opinion's ITS had been exceeded in 2002 for loggerheads and in 2001 and in 2002 for leatherbacks. The SEFSC issued a final report on the estimated bycatch levels in the longline fishery on December 12, 2003 (Garrison 2003a). Staff from SERO-PRD and the HMS Division began investigating potential causes of the excess take, effectively initiating consultation in November 2003.

Based on this new information, NOAA Fisheries determined that a more comprehensive management strategy might be needed for the HMS pelagic longline fishery. Further consultation on the proposed rule to implement the U.S. quota for swordfish was postponed pending consideration of additional management actions. NOAA Fisheries announced a Notice of Intent (NOI) (68 FR 66783, November 28, 2003) to prepare SEIS to assess the potential effects on the human and biological environment from such a comprehensive management strategy.

On January 12-13, 2004, NOAA Fisheries hosted a workshop with industry representatives and other interested constituents to present the preliminary results of the NED experiment. In

addition, NOAA Fisheries provided the workshop participants with an overview of the NOI, the time-line for rulemaking, and the associated ESA section 7 consultation process to implement sea turtle conservation measures.

Because of the expansion of proposed actions, on January 29, 2004, OSF sent a memorandum to SERO-PRD requesting formal acknowledgment that the ongoing consultations between HMS Division and SERO-PRD represented a reinitiation of consultation on the HMS pelagic longline fishery, pursuant to ESA Section 7. That memorandum noted that the application of the results of the NED experiment would allow the formulation of a new fishery management regulatory regime for the HMS pelagic longline fishery. This new management strategy would meet the June 14, 2001, opinion's requirement for the fishery to sustain a multi-year reduction in take and mortality of loggerhead and leatherback sea turtles, thereby avoiding jeopardy for those species. The memorandum also stated that a final rule to implement this new management strategy was expected to go into effect in June 2004.

On February 3, 2004, SERO concurred with the need to reinitiate Section 7 consultation, as the proposed rulemaking was expected to change significantly the extent and the manner in which the HMS pelagic longline fishery interacts with sea turtles. The SERO-PRD offered to provide advice and assistance to the HMS Division during the development of their sea turtle conservation rulemaking.

On February 11, 2004, NOAA Fisheries published the subject proposed rule and announced the availability of the DSEIS (69 FR 6621), with a comment period extending through March 15, 2003. Through the proposed measures, NOAA Fisheries sought to reopen the NED closed area and implement the gear modification results from the NED experiment throughout the fishery, including certain hook and bait measures proven to be effective at reducing sea turtle interactions and bycatch mortality. The intent of the proposed rule was to reduce bycatch and bycatch mortality of sea turtles caught incidentally in the HMS pelagic longline fishery.

On April 20, 2004, OSF informed SERO-PRD that they were considering revising the actions in the final rule from those described in the proposed rule. The potential revisions were based on public comment received during the comment period, as well as information regarding sea turtle mortalities derived from refined post-hooking mortality estimates, changes in the environmental baseline of the June 14, 2001, opinion for Atlantic sea turtles including new turtle excluder device requirements in the shrimp fishery, and a re-examination of data pertaining to reductions in bycatch and bycatch mortality associated with various hook and bait combinations. The OSF requested that the SERO-PRD opinion be prepared based on the changes to the details of the hook and bait requirements being considered for the final rule. The OSF also reiterated its request that the consultation consider the proposed rule implementing the North and South Atlantic swordfish quotas. It was further requested that the consultation consider exempted fishing permits (EFPs) and scientific research permits (SRPs) issued under the HMS FMP. Lastly, OSF requested that the consultation consider removal of the current reporting requirement for operators of HMS pelagic longline vessels. Operators are required to call NOAA Fisheries by telephone within 48 hours of returning to port to report any sea turtles that were dead when captured, or that died during capture. This request was based on the Office of Management and Budget's directive for NOAA Fisheries to review and eliminate duplicative reporting requirements. NOAA Fisheries already collects the above information through the observer and logbook programs, and no reports had been received by telephone. Considering this requirement adds no monitoring value beyond observer and logbook program requirements,

the SERO-PRD will no longer include this requirement as a term and condition.

The proposed regulatory actions are specific to the HMS pelagic longline fishery that targets tuna, swordfish, and pelagic sharks, and not any of the other fisheries under the HMS FMP or Billfish FMP. As previously discussed, the June 14, 2001, opinion evaluated the entire HMS FMP comprehensively, including all of its separately managed fisheries. The October 29, 2003, opinion superseded the June 14, 2001, opinion, for the directed shark fisheries only. In a similar manner, the proposed regulatory action would affect only the HMS pelagic longline fishery. Thus, this opinion will only evaluate the HMS pelagic longline fishery in regard to their effects on ESA-listed species under purview of NOAA Fisheries.

In summary, this reinitiated consultation evaluates the effects on listed species by the HMS pelagic longline fishery: (1) as it is currently being prosecuted, including fishing under EFPs and SRPs, and (2) as it would be prosecuted under the proposed regulations that require new sea turtle bycatch and mortality reduction measures. The effects of the proposed rule to implement the 2002 ICCAT swordfish quota recommendations are also evaluated in this consultation. For the HMS pelagic longline fishery, this opinion will supersede the June 14, 2001, opinion. There is no new information suggesting that the manner or extent of effects to any listed species from the remaining fisheries under the HMS FMP (i.e., purse seine, harpoon, hand line, rod-and-reel fisheries) has changed. Reinitiation of consultation is not required for those fisheries, and the June 14, 2001, opinion and its no-jeopardy conclusion still apply for those fisheries.

2.0 DESCRIPTION OF THE PROPOSED ACTION

The HMS Division proposes to promulgate regulations for the continued authorization and management of the HMS pelagic longline fishery for tunas and swordfish. The action would modify the HMS FMP and regulations at 50 CFR part 635 under the authority of Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Atlantic Tunas Convention Act (ATCA). The MSA is the principle federal statute governing the management of U.S. marine fisheries. The management units covered under the HMS FMP consist of the populations of swordfish (*Xiphias gladius*), bluefin tuna (*Thunnus thynnus*), yellowfin tuna (*T. albacares*), bigeye tuna (*T. obesus*), albacore tuna (*T. alalunga*), skipjack tuna (*Katsuwonus pelamis*), and the species of sharks that inhabit the western North Atlantic Ocean. The management units and fishing activity for these species extend across federal, state, and international jurisdictional boundaries. For the purposes of the FMP, each stock is identified as "Atlantic" (i.e., Atlantic bluefin tuna). Tunas and swordfish are also subject to recommendations made by ICCAT, which is responsible for the international conservation and management of tuna and tuna-like fishes. The ATCA provides the authority to issue regulations may be necessary and appropriate to implement ICCAT recommendations.

The authority to develop fishery management plans, including the HMS FMP, is established by the MSA. The goal of the HMS FMP is to maximize to the region and nation the net benefits of the fisheries regulated by the FMP. Some of the objectives stated in the FMP are summarized as follows:

- to rebuild overfished stocks
- to avoid and reduce bycatch and bycatch mortality
- to establish a foundation for international negotiation on conservation and management

- measures to rebuild overfished fisheries
- to better coordinate domestic conservation and management of the fisheries for Atlantic tunas, swordfish, sharks, and billfish, considering the multi-species nature of many HMS fisheries, overlapping regional and individual participation, international management concerns, and other relevant factors
- to develop eligibility criteria for participation in the shark and swordfish fisheries based on historical participation, including access for traditional swordfish handgear fishermen to participate fully as the stock recovers, and
- to create a management system to make fleet capacity commensurate with resource status so as to achieve the dual goals of economic efficiency and biological conservation.

NOAA Fisheries is required to avoid and reduce fishing bycatch and bycatch mortality to the extent practicable under national and international laws and agreements, including the MSA, the Marine Mammal Protection Act (MMPA), the ESA, and through recommendations of ICCAT. In recent years, NOAA Fisheries has taken action to avoid jeopardy of Atlantic sea turtles in the HMS fisheries by implementing measures to mitigate mortality and minimize bycatch (see Section 1.0, Consultation History). The MSA further requires NOAA Fisheries to minimize the adverse economic impacts of regulations on fishing communities to the extent practicable.

The proposed regulations are necessary to reduce bycatch and bycatch mortality of sea turtles caught incidentally in the Atlantic HMS pelagic longline fishery, consistent with the requirements of the ESA, and to implement the 2002 ICCAT swordfish quota recommendations. Summary information describing the HMS pelagic longline fishery and the proposed regulations is presented below. Further detail regarding the proposed regulations can be found in the proposed rule and DSEIS. Additional information on the HMS pelagic longline fishery and the status of target species stocks can be found in numerous other documents, including the Final HMS FMP Volumes I, II, and III (April 1999), 15 CFR Part 902 and 50 CFR Part 635 et al., Amendment 1 to the Atlantic Billfish Fishery Management Plan (April 1999), Regulatory Amendment One to the HMS FMP (NMFS 2000a), and the 2000 - 2004 Stock Assessment and Fishery Evaluation Reports.

2.1 Description of the HMS Pelagic Longline Fishery

U.S. pelagic longline fishermen began targeting highly migratory species in the Atlantic Ocean in the early 1960s. U.S. landings of swordfish did not exceed 1,500 metric tons until the mid-1970s. The gear used in the fishery has evolved over time. Presently, fishermen use monofilament mainline that is rigged with various hook and float configurations depending on whether the target is tunas or swordfish. Pelagic longline fishermen locate fish by looking for temperature fronts between cooler and warmer water masses and typically set the gear across these breaks. These temperature fronts are often associated with currents, specifically the Gulf Stream Current, thus much of the fishing effort is associated with the edges of these currents. In recent years, the availability of high resolution satellite-generated sea surface temperature data has greatly influenced landings.

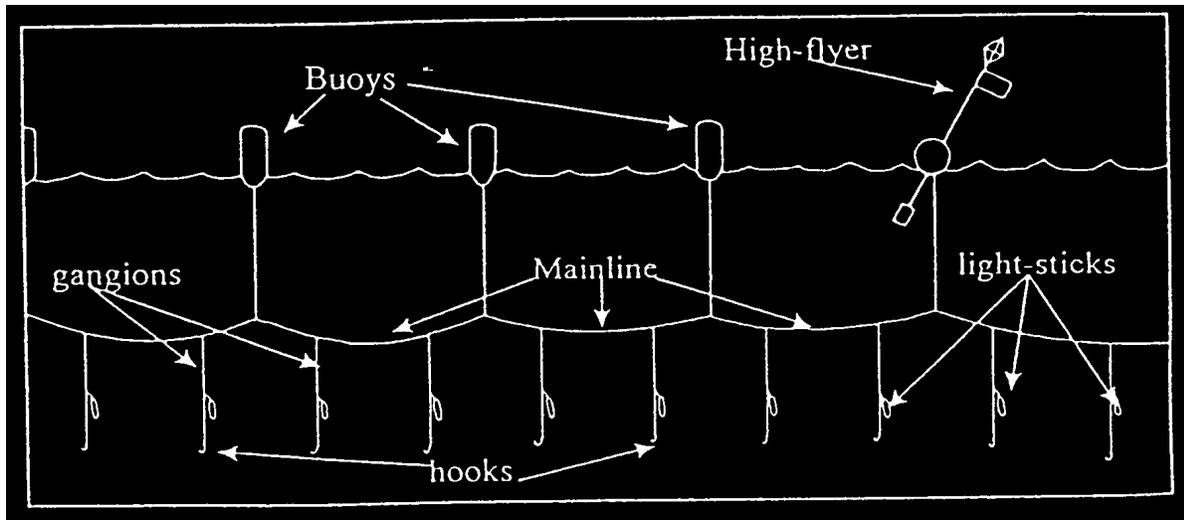
The HMS pelagic longline fishery primarily targets swordfish, yellowfin tuna, or bigeye tuna in various areas and seasons. Secondary marketable species include dolphin; albacore tuna; and pelagic sharks including mako, thresher, and porbeagle sharks; as well as several species of large coastal sharks. Permit holders range from Maine to Texas, and fishing techniques vary by region

according to target species. The HMS pelagic longline fishery is comprised of five relatively distinct segments, including the: Gulf of Mexico yellowfin tuna fishery; southern Atlantic (Florida East Coast to Cape Hatteras) swordfish fishery; mid-Atlantic and New England swordfish and bigeye tuna fishery; U.S. Atlantic Distant Water swordfish fishery; and Caribbean tuna and swordfish fishery. In addition to geographical distinctions, these segments contribute differing percentages of various target and non-target species. The different segments also use differing gear types, bait, and deployment techniques. Fishing characteristics are dependent on a specific vessel's range capabilities based on fuel capacity, hold capacity, size, and construction. Some vessels fish in more than one segment, targeting different species during the course of the year. The typical longline fishing trip is 10-14 days with approximately 7-10 sets. Crew size is usually three or four persons, including the captain.

Although pelagic longline gear can be modified (e.g., depth of set, hook type, etc.) to more selectively target swordfish, tunas, or sharks, it is generally a multi-species fishery. Vessel operators are opportunistic, switching gear style and making other subtle changes to take advantage of economic opportunities during each trip. Longline gear, particularly swordfish gear, can incidentally hook many different pelagic species. Some of the incidental catch is retained and sold, but also includes economic discards (non-target fish with little commercial value) and regulatory discards (undersized target species or prohibited species such as billfish). Pelagic longline gear also interacts with protected species such as marine mammals, sea turtles, and seabirds. The gear has been classified as a Category I fishery with respect to the MMPA List of Fisheries process. Any species that cannot be landed because of fishery regulations must be released, whether dead or alive.

2.1.1 Pelagic Longline Gear

Pelagic longline gear used in the Atlantic Ocean (including the Gulf of Mexico and Caribbean Sea) is composed of several parts (see Figure 2.1.1.A). The primary fishing line, or mainline, of the longline system can vary from five to 40 nautical miles (nm) in length, with approximately 20 to 30 hooks per nm. The average mainline length in the fleet is 20-30 nm. The depth of the mainline is determined by ocean currents and the length of the floatlines which connect the mainline to floating buoys. The buoys and other periodic markers with high flyers or radio beacons are attached at intervals along the mainline. Each hook is connected to the mainline by a length of monofilament line called a gangion. Chemical lightsticks, which emit a glowing light, are usually used when targeting swordfish. It is believed that when attached to the gangion and suspended near the hook, lightsticks attract bait fish which may, in turn, attract pelagic predators.



The number of hooks per set varies with line configuration and target catch (Table 2.1.1). In recent years, the HMS pelagic longline fishery has used “J” hooks almost exclusively. When targeting swordfish, the lines generally are deployed at sunset and hauled at sunrise to take advantage of swordfish nocturnal near-surface feeding habits (Berkeley et al.1981). Some fishing captains preferentially target swordfish during periods when the moon is in its full or waxing phase to take advantage of increased densities of pelagic species near the surface. Other captains prefer fishing on the new moon phase, but again while the moon is waxing. Pelagic longlines targeting tunas (primarily yellowfin) are set in the morning (pre-dawn) , deeper in the water column, and hauled in the evening.

Table 2.1.1 Average Number of Hooks per pelagic longline set, 1995-2002.

Source: Longline logbook data.

Target Species	1995	1996	1997	1998	1999	2000	2001	2002
Swordfish	539	529	550	563	521	550	625	695
Bigeye Tuna	752	764	729	688	768	454	671	755
Yellowfin Tuna	721	679	647	685	741	772	731	715
Mix of tuna species	NA	NA	NA	NA	NA	638	719	767
Mix of species	658	695	713	726	738	694	754	756

2.1.2 Pelagic Longline Target Species

2.1.2.1 Swordfish

Swordfish (*Xiphias gladius*) are large migratory predators that are distributed globally in tropical and subtropical marine waters. In the western Atlantic, swordfish range from Canada to Argentina. These large pelagic fishes feed throughout the water column on a wide variety of prey including groundfish, pelagics, deep-water fish, and invertebrates. Swordfish show extensive diel migrations and are typically caught on pelagic longlines at night when they feed in surface waters. Their broad distribution, large spawning area, and prolific nature have

contributed to the resilience of the species in spite of the heavy fishing pressure being exerted on it by many nations. During their annual migration, north Atlantic swordfish follow the major currents that circle the north Atlantic Ocean (including the Gulf Stream, Canary and North Equatorial Currents), and the currents of the Caribbean Sea and Gulf of Mexico. The primary habitat in the western north Atlantic is the Gulf Stream, which flows northeasterly along the U.S. coast then turns eastward across the Grand Banks, the primary area within the NED where HMS pelagic longlining occurs. North-south movement of swordfish along the eastern seaboard of the United States and Canada is significant (SAFMC 1990).

In 2002, the estimated swordfish catch by U.S. vessels in the western Atlantic, including dead discards, was 2,708.7 metric tons (mt) (NOAA Fisheries 2003). This represents a modest increase of 55.4 mt from 2001, but a 22.5 percent decrease from 2000. The pelagic longline fishery operates year-round in all pelagic waters of the U.S. EEZ and beyond, and currently accounts for approximately 98 percent of the U.S. domestic swordfish landings. About 16 to 31 percent of U.S. swordfish landings are harvested on the Grand Banks.

NOAA Fisheries believes that the existing license limitation system and restrictions on upgrading to a higher license class has capped the number of U.S. vessels fishing on the Grand Banks and effort has decreased. The NOAA Fisheries Pelagic Logbook Newsletter reports that 22 U.S. vessels fished on the Grand Banks in 1996 and 1997 (making 710 and 762 sets, respectively), and only 15 U.S. vessels fished on the Grand Banks 1998 (618 sets). Beideman (2001, pers. comm.) reported that in the 1990s there were more than 60 longline vessels fishing the Grand Banks, but only 10-12 vessels fished there in 2000. It appears that pelagic longline effort in the Grand Banks has steadily decreased over the past few years, but there is a possibility for a change.

Effective December 3, 2003, an agreement between Canada and the United States allows U.S. fishermen to apply for a license to conduct activities in Canadian waters and ports. This agreement may lead to additional effort in the NED in excess of projected levels. Additional vessels may participate in the fishery, or there may be an increased number of trips because of a shortened steaming time to and from Canadian ports. These potential increases in effort are not quantifiable at this time. However, data over the last six years indicate that less than 12 vessels, on average, fished in the NED. NOAA Fisheries will monitor effort in the NED and modify its management strategy as appropriate.

2.1.2.2 Atlantic Tuna

Tunas are highly migratory fish found in many of the world's tropical, subtropical, and temperate ocean regions. Bluefin (*Thunnus thynnus*), bigeye (*Thunnus obesus*), albacore (*Thunnus alalunga*) and skipjack (*Katsuwonus pelamis*) tunas are widely distributed throughout the Atlantic. Yellowfin tuna (*Thunnus albacores*) are considered to be a more tropical species. Smaller yellowfin tuna form mixed schools with skipjack tuna and juvenile bigeye tuna and are mainly limited to surface waters, whereas larger yellowfin tuna are found in surface and sub-surface waters. Bigeye tuna inhabit waters deeper than those of any other tuna species and undertake extensive vertical movements. Albacore tuna also tend to inhabit deep waters, except when young. Many of these tunas are opportunistic feeders, eating mainly fish and squid (SCRS 1999). Commercial and recreational fishermen from numerous countries participate in fisheries for several species of Atlantic tuna.

In 2002, the estimated tuna catch by U.S. pelagic longline vessels in the western Atlantic, including dead discards, was 3,252 metric tons (mt) (NOAA Fisheries 2003). Yellowfin tuna dominated tuna landings by weight (2,542 mt), with the pelagic longline fishery accounting for approximately 43 percent of those landings.

2.1.2.3 Pelagic Sharks and Other Finfish

Pelagic sharks are commonly caught by the pelagic longline fishery. Pelagic sharks include the following species that are commonly caught on pelagic longlines: shortfin mako, porbeagle, common thresher, and blue sharks. Other pelagic shark species, such as longfin mako, sixgill, bigeye sixgill, and sevengill sharks are occasionally or rarely taken. Several commercially valuable species of finfish are also caught by the pelagic longline fishery, including dolphin (*Coryphaena hippurus*), and wahoo (*Acanthocybium solanderi*).

2.1.3 U.S. Atlantic Pelagic Longline Fishery Catches Catch in Relation to International Catches

Table 2.1.3 A summarizes the total catch (in numbers) of important species caught during 1995 through 2002 in the U.S. pelagic longline fishery.

Table 2.1.3 A

Reported catch of species caught by U.S. Atlantic pelagic longlines, in number of fish 1995-2002. Reported in pelagic longline logbook.

Species	1995	1996	1997	1998	1999	2000	2001	2002
Swordfish Kept	72,788	73,111	68,274	68,345	64,370	60,101	49,220	49,360
Swordfish Discarded	29,789	23,831	20,613	22,579	20,066	16,711	14,448	13,039
Blue Marlin Discarded	3,091	3,310	2,614	1,291	1,248	338	164	401
White Marlin Discarded	3,432	2,924	2,812	1,490	1,971	504	295	709
Sailfish Discarded	1,195	1,443	1,766	827	1,404	517	61	158
Spearfish Discarded	445	553	390	105	156	79	29	51
Bluefin Tuna Kept	239	209	180	206	239	232	183	178
Bluefin Tuna Discarded	2,852	1,709	688	1,304	601	737	348	593
Bigeye, Albacore, Yellowfin, Skipjack Tunas Kept	120,548	85,964	102,798	75,268	99,957	94,677	82,973	80,104
Pelagic Sharks Kept	5,885	5,270	5,134	3,624	2,705	2,932	3,511	2,997
Pelagic Sharks Discarded	90,173	84,330	82,220	44,000	28,910	26,281	23,953	22,844
Large Coastal Sharks Kept	57,676	36,022	21,382	8,742	1,025	7,752	6,510	4,077
Large Coastal Sharks Discarded	11,013	10,403	8,243	5,908	5,774	6,800	4,891	3,815
Dolphin Kept	72,463	35,888	62,811	21,864	29,902	28,095	27,913	30,452
Wahoo Kept	4,976	3,635	4,570	4,303	4,112	3,887	3,084	4,212
Sea Turtles Discarded	1,142	498	267	885	627	270	421	465
<i>Number of Hooks (X 1,000)</i>	<i>11,064</i>	<i>10,657</i>	<i>9,861</i>	<i>7,676</i>	<i>7,488</i>	<i>7,570</i>	<i>7,740</i>	<i>7,151</i>

The U.S. HMS fleet is a small part of the international fleet that competes on the high seas for catches of tunas and swordfish (Table 2.1.3 B). In 1990, the U.S. fleet landed as much as 35 percent of the swordfish from the north Atlantic, north of 5° N latitude, but this proportion decreased to 25 percent by 1997. For tunas, the U.S. proportion of landings was 23 percent in 1990, decreasing to 16 percent by 1997. The U.S. fleet accounts for almost none of the landings

of swordfish and tuna from the Atlantic Ocean south of 5° N latitude, and it does not operate in the Mediterranean Sea. Tuna and swordfish landings by foreign fleets operating in the tropical Atlantic and Mediterranean are greater than the catches from the north Atlantic area where the U.S. fleet operates. Within the area where the U.S. fleet operates, the U.S. portion of fishing effort (in numbers of hooks fished) is less than 10 percent of the international fleet's effort. Even this low estimate may be inflated because of differences in effort reporting methods among ICCAT countries (NMFS SEFSC 2001).

Because some ICCAT nations do not monitor incidental catches of sea turtles, it is not possible to accurately assess the impact of international fishing efforts on sea turtles. However, high absolute numbers of sea turtle catches by the foreign fleets have been reported from other sources (NMFS SEFSC 2001, Lewison et al. 2004). If the sea turtle catch rates by foreign fleets are similar to the catch rates of the American fleet, then the American fleet may represent less than one-tenth, and certainly no more than one-third, of the total catch and mortality of sea turtles in north Atlantic pelagic longline fisheries.

Table 2.1.3 B Estimated International Longline Landings of HMS, Other than Sharks, for All Countries in the Atlantic: 1998-2002 (mt wet weight)*. Source: SCRS, 2003

	1998	1999	2000	2001	2002
Swordfish (N.Atl + S. Atl)	24,432	25,201	24,990	21,773	21,770
Yellowfin Tuna (W. Atl)**	8,795	11,596	11,465	12,535	12,141
Bigeye Tuna	71,825	76,513	70,902	54,842	43,773
Bluefin Tuna (W. Atl.)**	764	914	859	610	727
Albacore Tuna (N. Atl + S. Atl)	23,574	27,209	28,881	28,959	27,491
Skipjack Tuna (N. Atl + S. Atl)	99	51	60	70	88
Blue Marlin (N. Atl. + S. Atl.)***	2,519	2,359	2,187	1,638	1,247
White Marlin (N. Atl. + S. Atl.)***	918	981	893	592	705
Sailfish (W. Atl.)***	1,058	524	811	812	1,050
Total	133,984	145,348	141,048	121,831	108,992
U.S. Longline Landings (from U.S. Natl. Report, 2003)#	7,139.9	8,356.0	7,319.7	6,012.0	5,893.2
U.S. Longline Landings as a Percent of Total Longline Landings	5.3	5.7	5.2	4.9	5.4

* Landings include those classified by the SCRS as longline landings for all areas

** Note that the United States has not reported participation in the E. Atl yellowfin tuna fishery since 1983 and has not participated in the E. Atl bluefin tuna fishery since 1982.

***Includes U.S. *dead discards*.

Includes swordfish longline discards and bluefin tuna discards.

2.1.4 Management of the HMS Longline Fishery

Pelagic longlines are a highly regulated gear type due to the nature of the gear and its catch and bycatch. Minimum sizes are established for yellowfin, bigeye, and bluefin tuna, and swordfish to reduce the mortality of small fish. There are target species catch limits associated with a vessel's ability to retain bluefin tuna. Billfish regulations prohibit the retention of billfish by commercial vessels, or the sale of billfish taken from the Atlantic; therefore, all billfish must be discarded. Regulatory discards compose a large portion of the bycatch in the fishery. In some areas and at certain times of the year, much of the bycatch in this fishery is released dead. Because it is difficult for pelagic longline fishermen to effectively avoid undersized fish or other regulatory discards in some areas, NOAA Fisheries has closed areas in the Gulf of Mexico and along the east coast of the U.S. (see Figure 2.3.1.C). The intention of these closures is to relocate some of the fishing effort into areas where bycatch is expected to be lower. To facilitate enforcement of the time/area closures, all pelagic longline vessels are required to use vessel monitoring systems (VMS), which report the location of the vessel at all times. In addition to regulations designed to reduce bycatch, pelagic longline fishermen are subject to quota management for swordfish, sharks, and bluefin tuna. Quota monitoring requires seasonal regulations and closures. To document catch and effort, since 1992, pelagic longline fishermen have been subject to permitting and reporting requirements, including logbooks and observer coverage. The pelagic longline reporting program is managed by the SEFSC. In 1999, NOAA Fisheries established a limited entry system for swordfish, shark, and tuna longline category permits. Pelagic longline fishermen who target swordfish or BAYS (Bigeye, Albacore, Yellowfin, Skipjack) tunas must possess swordfish, shark, and tuna longline category permits. NOAA Fisheries is currently re-evaluating the limited access program and may consider gear-specific permits in the future. As of November 2003, approximately 235 tuna longline limited access permits had been issued. In addition, approximately 203 directed swordfish limited access permits had been issued.

HMS fish dealers are also subject to reporting requirements. NOAA Fisheries has extended dealer permitting and reporting requirements to all swordfish importers as well as dealers who buy domestic swordfish taken from the Atlantic. These data are used to evaluate the impacts of harvesting on the stock and the impacts of regulations on affected entities.

2.1.5 Management of HMS Pelagic Longline Fishing EFPs and SRPs

Every year, NOAA Fisheries issues a small number of exempted fishing permits (EFPs) and scientific research permits (SRPs) under the MSA, authorizing the collection of a limited number of HMS from federal waters in the Atlantic Ocean using pelagic longline gear. These catches are for the purposes of scientific data collection and/or public display. On November 10, 2003, NOAA Fisheries issued a final rule that modified regulations for HMS fishing activities conducted under EFPs and SRPs (68 FR 63738). The new regulations are intended to improve accountability of these fishing activities through increased monitoring and additional reporting requirements. Under these regulations (effective December 10, 2003):

- EFP holders must notify their local NOAA Fisheries Office for Law Enforcement at least 24 hours prior to departure for all fishing trips conducted to collect HMS for the purpose of public display;
- All live HMS retained for the purpose of public display must be tagged while still on board the fishing vessel with either a conventional dart tag or a microchip Passive Integrated Transponder (PIT) tag, both of which will be supplied by NOAA Fisheries;
- If warranted, NOAA Fisheries may specify conditions for conducting fishing activities to

collect HMS for public display to minimize mortalities of either targeted or bycatch species;

- NOAA Fisheries reserves the right to place an at-sea observer on board an authorized HMS collection vessel;
- EFP and SRP holders must report all HMS collection activities regardless of whether they occur inside or outside the Exclusive Economic Zone (EEZ);
- Negative reports must be submitted for months when no HMS are collected;
- To obtain a new permit, applicants for EFP and SRP renewals must include with the application the previous year's year-end report and any delinquent reports for permits issued in prior years;
- For the pelagic longline directed swordfish fishery, separate EFPs are no longer required to delay offloading swordfish for vessels equipped with an operational VMS; and
- Several prohibitions are established concerning the submission of false information and violations of the terms and conditions of EFPs and SRPs to facilitate enforcement of EFP application and reporting requirements.

Many of the EFPs and SRPs involve fishing with pelagic longline gear by commercial or research vessels, similar or identical to the fishing methods of the pelagic longline fishery, which is the primary object of this opinion. In those cases, the types and rates of interactions with listed species from the EFP or SRP activity would be expected to be similar to those from the larger pelagic longline fishery. If the fishing type is similar, and the associated fishing effort does not represent a significant increase over the effort levels for the overall fishery considered in this opinion, then issuance of some EFPs or SRPs would be expected to fall within the level of effort and impacts considered in this opinion. For example, issuance of an EFP to an active commercial vessel likely does not add additional effects than would otherwise accrue from the vessel's normal commercial activities. Also, issuance of an EFP to a research vessel to conduct a limited number of pelagic longline sets likely would not add sufficient fishing effort to produce a detectable change in the overall amount of fishing effort in a given year. With the improved monitoring and reporting of EFPs and SRP fishing activities as a result of the December 10, 2003, regulations, reported fishing effort, and any associated listed species turtle takes, will be documented. Those data will be combined with the HMS pelagic longline fishery data. Any impacts on protected species from EFP and SRP fishing activities, therefore, can be included in bycatch analysis for the HMS pelagic longline fishery. Therefore, we consider the issuance of some EFPs and SRPs by HMS Division to be within the scope of this opinion. The included EFPs and SRPs would be those that involve fishing with pelagic longline gear, consistent with the requirements of section 2.2 below, and that are not expected to increase fishing effort significantly.

HMS Division may consider issuance of EFPs or SRPs meeting these conditions to be covered by this consultation, and takes of sea turtles would be included against the authorized take levels of this opinion. HMS Division must minimize sea turtle bycatch and bycatch mortality from EFP and SRP fishing activities by specifying permit conditions similar to the requirements under which the HMS pelagic longline fishery operates (e.g., hook type, handling and release equipment). If in doubt whether a particular EFP or SRP is consistent with this consultation, HMS Division should seek the concurrence of SERO. For EFPs and SRPs that are not covered under this consultation, separate consultation, pursuant to section 7 of the ESA, may be required prior to issuance of the permits.

2.1.6 Pelagic Observer Program

The SEFSC Miami Laboratory has been responsible for the administration of the Pelagic Observer Program (POP) since 1992. NOAA Fisheries places observers aboard HMS-permitted vessels under the authority of the MSA, as well as the MMPA and ESA. The objective and mission of the POP is to document the effort, directed catch, and bycatch, as well as collect data on species morphometrics and biological characteristics. Additionally, the program documents fishery interactions with marine mammals, sea turtles, and birds. The observer data are used to estimate catch of target species, bycatch of non-target species, and the incidental take of protected species.

Observer coverage is based on number of sets reported by the U.S. pelagic longline fleet in the eleven statistical reporting areas (Figure 2.3.1.C) of the North Atlantic Ocean (north of 5 deg. N latitude). Vessels are issued a certified letter prior to the start of a calendar quarter indicating that they have been randomly chosen for observer coverage and must schedule an observer trip with the POP within the quarter that the vessel was chosen. Five percent coverage was the sampling target for the POP until 2002. The five percent level was required both for ICCAT reporting and by the June 14, 2001, opinion. The sampling fraction has varied from 2.5 to more than 5 percent, depending on available resources. In 2002, the POP raised their target coverage level to 8 percent, to meet new ICCAT targets and to improve the precision of catch and bycatch estimates specified in NOAA Fisheries' guidelines for fisheries observer coverage levels (NMFS 2003). NOAA Fisheries strives to achieve coverage levels that will yield a 20-30 percent coefficient of variation for bycatch estimates regarding protected species. In 2002, 856 pelagic longline sets were observed and recorded by the POP (8.9 percent overall coverage: 100 percent coverage in the NED experiment and 3.7 percent coverage in remaining areas). Table 2.3.6 compares the amount of observer coverage in past years for this fleet.

Table 2.3.6 Observer Coverage of the Pelagic Longline Fishery.

Source: Yeung (2001) and Garrison (2003a)

Year	Number of Sets Observed			Percentage of Total Number of Sets		
1995	696			5.2		
1996	361			2.5		
1997	448			3.1		
1998	287			2.9		
1999	420			3.8		
2000	464			4.2		
2001*	Total	Non-NED	NED	Total	Non-NED	NED
	403	217	186	3.7	2.0	100.0
2002*	856	353	503	8.9	3.7	100.0

*In 2001 and 2002, 100 percent observer coverage was required in the NED experimental fishery.

2.2 Proposed Regulations for the Atlantic Pelagic Longline Fishery

NOAA Fisheries is proposing new regulations for the Atlantic pelagic longline fishery to reduce

sea turtle bycatch and bycatch mortality (69 FR 6621, February 11, 2004). The multiple objectives of the regulations, as stated in the DSEIS, are:

- To be consistent with the objectives of the HMS FMP and all applicable laws;
- To implement measures proven during the NED research experiment to reduce sea turtle interactions;
- To avoid jeopardizing the continued existence of leatherback and loggerhead sea turtles by implementing new management measures within the U.S. Atlantic pelagic longline fishery intended to reduce or, at a minimum, prevent increases in incidental takes of sea turtles in this fishery and reduce the mortality associated with such interactions;
- To reconsider, in light of possible gear modifications, the NED closure and other time/area closures; and,
- To minimize, to the extent practicable, the economic impact of sea turtle bycatch mitigation measures on U.S. pelagic longline fishery participants.

The proposed change in management regime under the HMS FMP would affect commercial pelagic longline gear and fishermen targeting swordfish, tuna, and sharks. The DSEIS analyzed numerous alternatives, representing the range of options considered by NOAA Fisheries, to reduce the incidental catch and bycatch mortality of sea turtles in the pelagic longline fishery for Atlantic HMS. The alternatives ranged from no action to a total prohibition of the gear type, with alternatives A3 (hook and bait requirements outside the NED), A10 (hook and bait requirements for fishing in the NED), and A16 (gear removal and handling requirements for sea turtles), together, comprising NOAA Fisheries' Preferred Alternatives in the proposed regulations. As discussed in the Consultation History section of this opinion, those alternatives have subsequently been modified. The alternatives currently under consideration for the final rule are thus considered as part of the proposed action for this opinion.

NOAA Fisheries is also proposing to amend the regulations governing the North and South Atlantic swordfish fisheries. The proposed changes would implement recommendations adopted at the 2002 meeting of the ICCAT. These proposals are also considered part of the proposed action for this opinion.

2.2.1 Hook and Bait Requirements Outside the NED (Alternative A5 (b))

NOAA Fisheries is considering modifying its preferred alternative for this action from A3 to A5 (b). Alternative A5 (b) would limit vessels with pelagic longline gear onboard, at all times, in all areas open to pelagic longline fishing, excluding the NED, to possessing onboard and/or using only 16/0 or larger non-offset circle hooks and/or 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Offsets must be set by the manufacturer and not by the fishermen. Only whole finfish and squid baits may be possessed and/or utilized with allowable hooks. This alternative would maintain the current requirement for possession or use of non-stainless steel corrodible hooks, and the live-bait restriction in the western Gulf of Mexico.

2.2.2 Hook and Bait Requirements for Fishing inside the NED (Alternative A10 (b))

NOAA Fisheries is also considering modifying alternative A10 as A10 (b). Alternative A10 (b) would re-open the NED to pelagic longline fishing and limit vessels with pelagic longline gear onboard in that area, at all times, to possessing onboard and/or using only 18/0 or larger circle

hooks with an offset not to exceed 10 degrees. Only whole mackerel or squid baits may be possessed and/or utilized with allowable hooks. This alternative would maintain the current requirement for possession or use of non-stainless steel corrodible hooks.

2.2.3 Gear Removal and Handling Requirements for Sea Turtles to Reduce Post-Release Mortality (Alternative A16)

Alternative A16 would require vessel operators aboard all federally permitted vessels, or those required to be permitted, for Atlantic HMS with pelagic longline gear on board to possess and maintain line cutters and dipnets meeting newly revised design and performance standards. Alternative A16 would also require vessel operators to possess, maintain, and utilize additional sea turtle handling and release equipment and comply with handling and release guidelines, as specified by NOAA Fisheries, to facilitate the removal of fishing gear from incidentally captured sea turtles. The following additional or newly revised equipment would include:

- A- (1) long-handled line cutter;
- B- (1) long-handled dehooker for ingested hooks;
- C- (1) long-handled dehooker for external hooks (the long-handled dehooker for ingested hooks used for item B will also satisfy this requirement);
- D- (1) long-handled device to pull an "Inverted V" (if 6' J-style dehooker is used for item C, it will also satisfy this requirement);
- E- (1) dipnet;
- F- (1) standard automobile tire;
- G- (1) short-handled dehooker for ingested hooks;
- H- (1) short-handled dehooker for removing external hooks (the short-handled dehooker for ingested hooks used for item G will also satisfy this requirement);
- I- (1) long-nose or needle-nose pliers;
- J- (1) bolt cutter;
- K- (1) monofilament line cutter; and,
- L- (2) types of mouth openers/mouth gags.

The use of items A - D would be required when sea turtles cannot be boated. The use of items E - L would be required when sea turtles can be boated. All equipment would be required to be used in accordance with the handling and release guidelines specified by NOAA Fisheries.

2.2.4 Proposed Adjustment of Swordfish Quota

Consistent with ICCAT recommendations, proposed regulations would establish annual quotas for North and South Atlantic swordfish, implement a dead discard allowance for the 2003 fishing year and beyond, allow 200 mt wet weight (ww) of North Atlantic swordfish quota to be taken in the area between 5 degrees North latitude and 5 degrees South latitude, and transfer 25 mt ww of North Atlantic swordfish to Canada. Specifically, the proposed rule would:

- Increase the United States North Atlantic swordfish quota to 3,877 mt ww in 2003 and 3,907 mt ww in 2004 and 2005;
- Allow 200 mt ww of the North Atlantic swordfish catch limit to be harvested from an area between 5 degrees North latitude and 5 degrees South latitude;
- Allocate the United States an 80 mt ww dead discard allowance in addition to the country

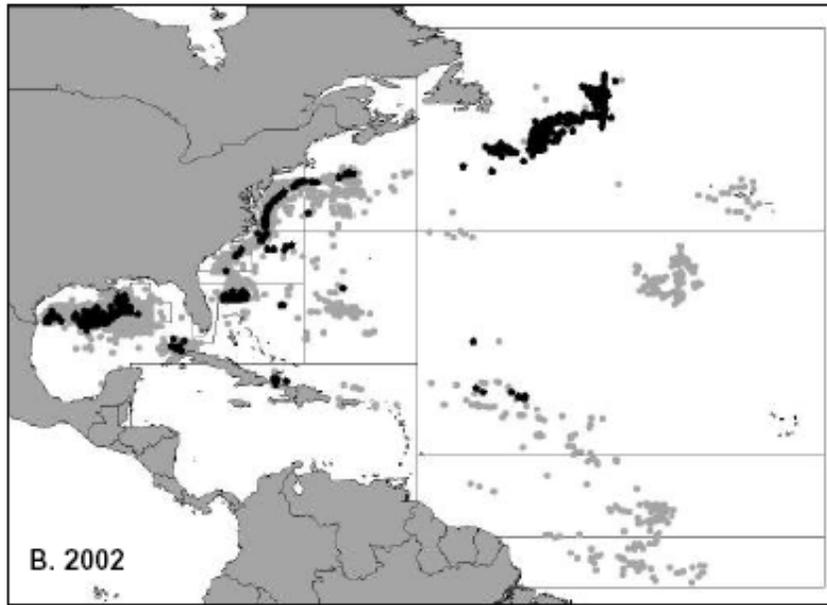
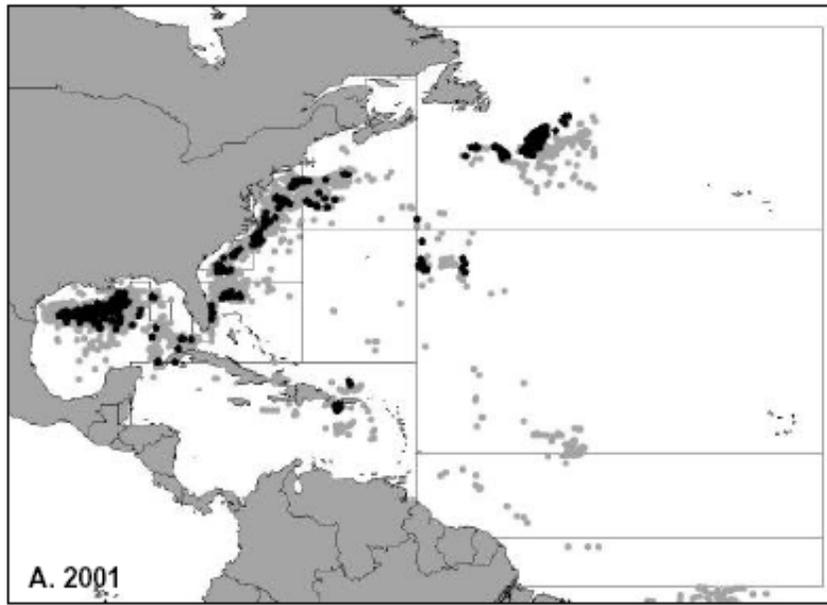
- specific quota allocation for North Atlantic swordfish;
- Transfer 25 mt ww of North Atlantic swordfish quota to Canada in 2003, 2004, and 2005; and
- Allocate the United States 100 mt ww of South Atlantic swordfish quota in 2003, 2004, and 2005 and 120 mt ww in 2006.

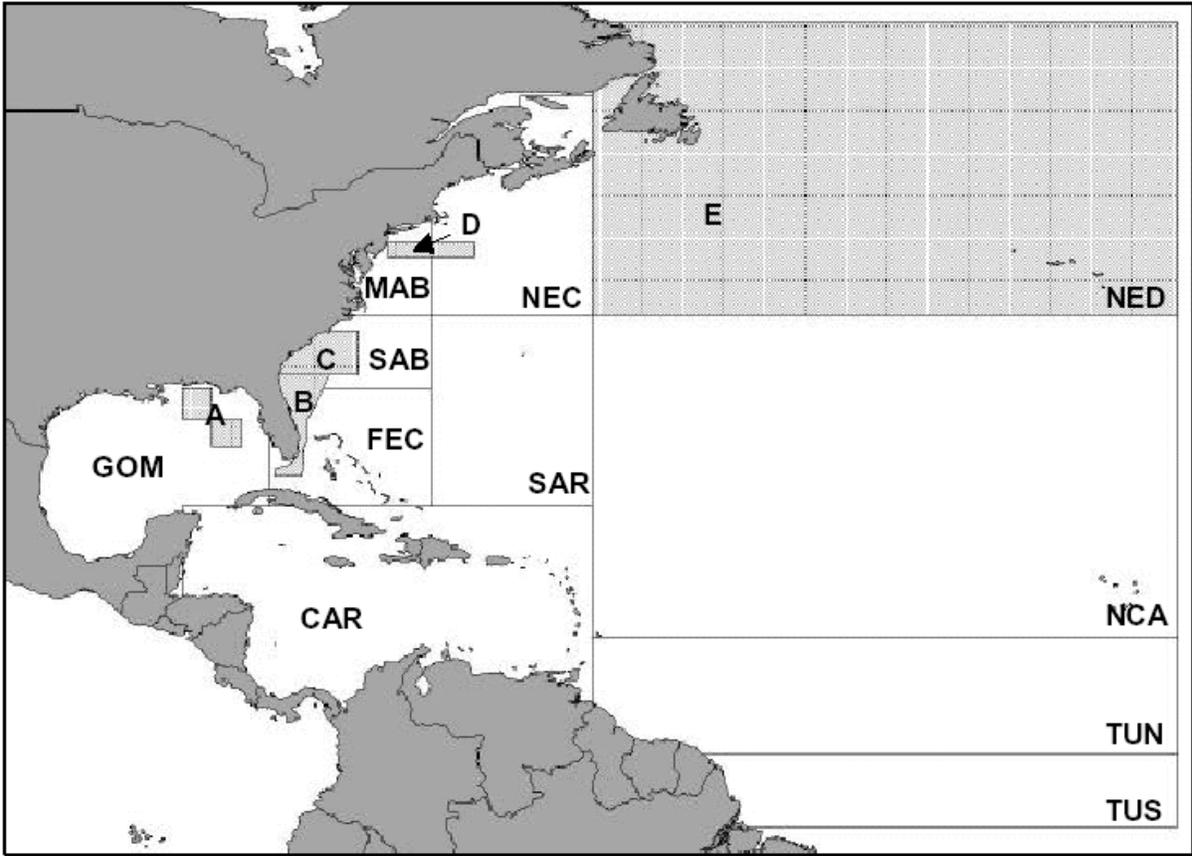
2.3 Action Area

The action area for a biological opinion is defined as all the areas affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR 402.02). The HMS pelagic longline fishery operates in large areas of the Gulf of Mexico, the Caribbean Sea, and the Atlantic Ocean, ranging throughout the U.S. EEZ and beyond. Figures 2.3.1. A and B illustrate the wide ranging nature of the longline fishery throughout the western North Atlantic.

Figure 2.3.1. C shows the statistical reporting areas for the HMS pelagic longline fishery and the existing regulatory closure areas. Area E (the NED) would be reopened to fishing under the proposed regulations. Close examination of Figures 2.3.1.A and B reveals that HMS pelagic longline vessels occasionally have reported sets or even observed sets in the closed areas, where their fishing was illegal, and in the EEZs of other nations under chartering arrangements. The HMS Division is currently aware of only three vessels that have, over the past year or two, fished under such arrangements off of Namibia, Brazil, and Uruguay. Based on that information, the HMS Division currently estimates that less than 10 HMS-permitted vessels may participate in chartering arrangements. HMS-permitted vessels fishing under a charter arrangements are still subject to U.S. regulations, including all monitoring and reporting requirements, unless otherwise exempted under exempted fishing permits. NOAA Fisheries recently published a proposed rule to establish chartering permits to better monitor such activities (69 FR 25357).

With the requirement that all longline vessels carry VMS, NOAA Fisheries' Office of Enforcement will now be able to detect and prosecute illegal incursions into closed areas or other nation's EEZs. In the future, therefore, we expect that the vast majority of longline fishing by the U.S. fleet will occur within areas of the U.S. EEZ and the high seas that are open to U.S. longliners, and on very rare occasions, in other nation's EEZ under a legal charter agreement. Throughout their wide-ranging fishing grounds, HMS fisheries may interact with listed species of sea turtles; therefore, the action area for this opinion includes all of these areas.





3.0 STATUS OF LISTED SPECIES, CRITICAL HABITAT, AND ENVIRONMENTAL BASELINE

3.1 List of Species and Critical Habitat

The following endangered and threatened species and designated critical habitat occur in the action area, as defined in Section 2.3, and may be affected by the proposed action.

Marine Mammals

	Status
Blue whale (<i>Balaenoptera musculus</i>)	Endangered
Humpback whale (<i>Megaptera novaeangliae</i>)	Endangered
Fin whale (<i>Balaenoptera physalus</i>)	Endangered
Northern right whale (<i>Eubalaena glacialis</i>)	Endangered
Sei whale (<i>Balaenoptera borealis</i>)	Endangered
Sperm whale (<i>Physeter macrocephalus</i>)	Endangered

Sea turtles

Leatherback sea turtle (<i>Dermochelys coriacea</i>)	Endangered
Hawksbill sea turtle (<i>Eretmochelys imbricata</i>)	Endangered
Green turtle (<i>Chelonia mydas</i>)	Endangered/Threatened
Kemp's ridley sea turtle (<i>Lepidochelys kempii</i>)	Endangered
Loggerhead sea turtle (<i>Caretta caretta</i>)	Threatened
Olive ridley turtle (<i>Lepidochelys olivacea</i>)	Threatened

Fish

Smalltooth sawfish (<i>Pristis pectinata</i>)	Endangered
Gulf of Maine Atlantic salmon	Endangered

Critical Habitat

Northern Right Whale (<i>Eubalaena glacialis</i>)	Endangered
-----------------------------------------------------	------------

**Green sea turtles in U.S. waters are listed as threatened except for the Florida breeding population, which is listed as endangered. Due to the inability to distinguish between the populations away from the nesting beaches, green sea turtles are considered endangered wherever they occur in U.S. waters.*

3.2 Analysis of the Species and Critical Habitat Not Likely to be Adversely Affected

We have determined that the proposed action being considered in this opinion is not likely to adversely affect the following listed species or critical habitat under the ESA: blue whale, sei whale, humpback whale, fin whale, Northern right whale, sperm whale, smalltooth sawfish, or right whale critical habitat. These species and critical habitat are therefore excluded from further analysis and consideration in this opinion. The following discussion summarizes our rationale for these determinations and conclusions.

3.2.1 Whales

Blue, sei, and sperm whales are predominantly found in offshore waters where pelagic longline fishing targeting HMS occurs. Observed or reported interactions between any of these species and pelagic longline gear are rare. There has been one observed entanglement of a sperm whale in the Hawaii-based Pacific pelagic longline fishery; that animal was released without any hooking injury or any trailing gear. Sperm whales have also been observed during hauling operations for longline fisheries in the southern hemisphere but there were no confirmed entanglements (Ashford et al. 1996; Nolan et al. 2000). With respect to the U.S. Atlantic pelagic longline fishery, the final Atlantic Offshore Cetacean Take Reduction Plan and a report by Scott and Brown (1997) stated that there is no evidence of interactions with offshore large whales. In the 12 years that NOAA Fisheries observers have been collecting data in the Atlantic longline fishery (observer coverage based on 5 percent of the total reported sets and 100 percent observer coverage during the NED experimental fishery 2001-2002), there have been no documented interactions between this pelagic longline fishery and offshore large whales. In 2003, however, a baleen whale was incidentally entangled in pelagic longline gear used in the NED experimental fishery. The fishery observer was unable to definitively identify or photograph the animal, so it is not known if it was a listed or unlisted species. However, it is reasonable to believe that this was an ESA-listed species based on the baleen whale species whose range overlaps with the operation of the fishery. The observer was able to document that the animal was released alive with no gear left on the animal. Although the Atlantic Scientific Review Group (ASRG) has not yet made a “serious injury” determination for this event in accordance with the Marine Mammal Protection Act, based on the serious injury determination criteria for marine mammals (Angliss and DeMaster, 1998), the “unidentified” whale was likely unharmed, with no chance of post-release mortality.

Northern right, fin, and humpback whales are more coastal in their distribution, although they can occur in offshore areas as well. We believe that, because of their more coastal distribution, right, fin, and humpback whales are even less likely to interact with the longline fishery than the offshore large whales. There have been no reported or documented interactions between these whales species and the Atlantic pelagic longline fishery. Given their more coastal distribution, it is unlikely that the 2003 unidentified baleen whale was one of these species.

Because Northern right, fin, humpback, blue, sei, and sperm whales occur in the action area, we acknowledge there is a possibility of interaction with the longline fishery. The available evidence indicates interactions are exceedingly rare, and in two of the three known cases, non-injurious. There is only one documented interaction that may have been injurious (a humpback whale that was released with trailing gear), and that was the result of a near-coastal set in the Pacific. Most near-coastal areas are closed to pelagic longline fishing in the Atlantic. We believe the chances of a fin, humpback, Northern right, blue, sei, or sperm whale being adversely affected by the Atlantic pelagic longline fishery in the foreseeable future are discountable. We conclude the proposed action is not likely to adversely affect these species, and these species will not be considered further in this opinion.

3.2.2 Fish

The endangered Gulf of Maine Atlantic salmon distinct population segment (DPS) includes the wild population of Atlantic salmon found in rivers and streams from the lower Kennebec River north to the U.S.-Canada border. These include the Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap, and Sheepscot Rivers and Cove Brook. Atlantic salmon are an anadromous species. Spawning and juvenile rearing occur in freshwater rivers followed by migration to the marine environment. Juvenile salmon in New England rivers typically migrate to sea in May after a two to three year period of development in freshwater streams. The salmon remain at sea for two winters before returning to their U.S. natal rivers to spawn from mid October through early November. While at sea, salmon generally undergo extensive migrations in the Northwest Atlantic to waters off Canada and Greenland, thus, they are widely distributed seasonally over much of the region. Captures of wild Atlantic salmon in U.S. commercial fishing or by research/survey operations are rare. There have been a few reported taken by trawls in the Gulf of Maine and southern New England, but there are no records since 1992. An adult salmon caught by a commercial fishing vessel in 2001 was subsequently determined to be an escaped aquaculture fish. Based on this information, it is highly unlikely that the action being considered in this opinion will affect the Gulf of Maine DPS of Atlantic salmon. This species will not be considered further in this opinion.

Smalltooth sawfish historically occurred commonly in the shallow waters of the Gulf of Mexico and along the eastern seaboard as far north as North Carolina, with rare records of occurrence as far north as New York. The smalltooth sawfish range has subsequently contracted to predominantly peninsular Florida and, within that area, they can only be found with any regularity off the extreme southern portion of the state. Smalltooth sawfish are generally shallow warm-water fish, known to spend most of their time at or near the bottom of inshore bars, mangrove edges, and seagrass beds. Younger (smaller) animals are believed to be restricted to shallow depths; however, larger animals roam over a much greater depth range, with records from as deep as over 70 m.

In the 14 years that NOAA Fisheries observers have been collecting data in the Atlantic longline fishery, there have been no documented interactions between the HMS pelagic longline fishery and smalltooth sawfish. The only areas where smalltooth sawfish are likely to occur in the Atlantic EEZ are off the coast of Florida and northern Georgia. Since March 1, 2001, the waters off the east coast of Florida have been closed to HMS pelagic longline fishing year-round, and the Charleston Bump, which encompasses federal waters off of Georgia, is closed seasonally to HMS pelagic longline fishing (see Figure 2.3.1. C). Based on the rarity of smalltooth sawfish in federal waters where HMS pelagic longline fishing occurs, their benthic habits, and the absence of records in observer data, it is highly unlikely that the action being considered in this opinion will affect the smalltooth sawfish. Thus, this species will not be considered further in this opinion.

3.2.3 Northern Right Whale Critical Habitat

Northern right whale critical habitat (50 FR 28793) has been designated in the action area in the following general areas: (1) coastal Florida and Georgia, (2) the Great South Channel, east of Cape Cod, (3) Cape Cod Bay and Massachusetts Bay. The closure of the Florida East Coast area to longline fishing almost totally eliminates the coastal Florida and Georgia critical habitat area from the action area. The remaining critical habitat areas that are not closed to longline fishing

are shallow, coastal areas that are not used by the longline fishery (see Figures 2.3.1. A and B). The environmental features (typically referred to as the primary constituent elements) of the critical habitat areas relate to water depth, water temperature, bathymetry, and food availability. Pelagic longline gear, even if used in the critical habitat areas, will have no impact on these features. Thus, the proposed action will not adversely affect the constituent elements of designated critical habitat for the North Atlantic right whale.

3.3 Analysis of the Species Likely to be Adversely Affected

The following subsections are synopses of the current state of knowledge on the life history, distribution, and population trends of sea turtle species which may be affected by the proposed action. Additional background information on the range-wide status of these species can be found in a number of published documents, including: recovery plans for the U.S. population of loggerhead sea turtles (NMFS and USFWS 1991b), Kemp's ridley sea turtle (USFWS and NMFS 1992), green sea turtle (NMFS and USFWS 1991a), hawksbill sea turtle (NMFS and USFWS 1993), and leatherback sea turtle (NMFS and USFWS 1992); Pacific Sea Turtle Recovery Plans (NMFS and USFWS, 1998a-e) and sea turtle status reviews and biological reports (NMFS and USFWS 1995; Marine Turtle Expert Working Group (TEWG) 1998 & 2000, NMFS SEFSC 2001). Further information for olive ridley sea turtles can also be found at: http://www.nmfs.noaa.gov/prot_res/species/turtles/olive.html and <http://northflorida.fws.gov/SeaTurtles/Turtle%20Factsheets/olive-ridley-sea-turtle.htm>

Green, leatherback, loggerhead, hawksbill, Kemp's ridley, and olive ridley sea turtles are highly migratory or have migratory phases in their life history. As a result, they are exposed to a multitude of fisheries in which they can be caught and injured, as well as other sources of anthropogenic mortality throughout their range, such as vessel traffic. In addition to anthropogenic factors, natural threats to nesting beaches and marine habitats such as coastal erosion, seasonal storms, predators, and temperature variations also affect the survival and recovery of sea turtle populations. As a result, sea turtles still face many of the original threats that were the cause of their listing under the ESA.

These subsections focus primarily on the Atlantic Ocean populations of sea turtle species since these are the populations that may be directly affected by the proposed action. However, because these species are listed as global populations (with the exception of Kemp's ridleys and Florida greens, whose distribution is entirely in the Atlantic), the global status and trends of these species are included to provide a basis and frame of reference for our final determination of the effects of the proposed action on the species as listed under the ESA.

3.4.1 Loggerhead Sea Turtle

The loggerhead sea turtle was listed as a threatened species throughout its global range on July 28, 1978. It was listed because of direct take, incidental capture in various fisheries, and the alteration and destruction of its habitat. Loggerhead sea turtles inhabit the continental shelves and estuarine environments along the margins of the Atlantic Ocean, Pacific Ocean, Indian Ocean, Caribbean Sea and Mediterranean Sea. In the Atlantic, developmental habitat for small juveniles is the pelagic waters of the North Atlantic and the Mediterranean Sea (NMFS and USFWS 1991b). Within the continental United States, loggerhead sea turtles nest from Texas to

New Jersey. Major nesting areas include coastal islands of Georgia, South Carolina, and North Carolina, and the Atlantic and Gulf coasts of Florida, with the bulk of the nesting occurring on the Atlantic coast of Florida.

3.4.1.1 Pacific Ocean

In the Pacific Ocean, major loggerhead nesting grounds are generally located in temperate and subtropical regions with scattered nesting in the tropics. Within the Pacific Ocean, loggerhead sea turtles are represented by a northwestern Pacific nesting aggregation (located in Japan) and a smaller southwestern nesting aggregation that occurs in eastern Australia (Great Barrier Reef and Queensland) and New Caledonia (NMFS SEFSC 2001). There are no reported loggerhead nesting sites in the eastern or central Pacific Ocean basin. Data from 1995 estimated the Japanese nesting aggregation at 1,000 female loggerhead turtles (Bolten et al. 1996). However, loggerhead nesting populations in Japan have declined 50-90% in the last 50 years (N. Kamezaki, Sea Turtle Association of Japan, personal communication, August, 2001). Recent genetic analyses on female loggerheads nesting in Japan suggest that this “subpopulation” is comprised of genetically distinct nesting colonies (Hatase et al., 2002) with precise natal homing of individual females. As a result, Hatase et al. (2002) indicate that loss of one of these colonies would decrease the genetic diversity of Japanese loggerheads; recolonization of the site would not be expected on an ecological time scale. In Australia, long-term census data has been collected at some rookeries since the late 1960s and early 1970s, and nearly all the data show marked declines in nesting populations since the mid-1980s (Limpus and Limpus, 2003). The nesting aggregation in Queensland, Australia, was as low as 300 females in 1997.

Pacific loggerhead turtles are captured, injured, or killed in numerous Pacific fisheries including Japanese longline fisheries in the western Pacific Ocean and South China Seas; direct harvest and commercial fisheries off Baja California, Mexico; commercial and artisanal swordfish fisheries off Chile, Columbia, Ecuador, and Peru; purse seine fisheries for tuna in the eastern tropical Pacific Ocean; and California/Oregon drift gillnet fisheries. In addition, the abundance of loggerhead turtles on nesting colonies throughout the Pacific basin has declined dramatically over the past 10 to 20 years. Loggerhead turtle colonies in the western Pacific Ocean have been reduced to a fraction of their former abundance by the combined effects of human activities that have reduced the number of nesting females and reduced the reproductive success of females that manage to nest (e.g., due to egg poaching).

3.4.1.2 Atlantic Ocean

In the western Atlantic, most loggerhead sea turtles nest from North Carolina to Florida and along the Gulf coast of Florida. There are at least five western Atlantic subpopulations, divided geographically as follows: (1) a northern nesting subpopulation, occurring from North Carolina to northeast Florida at about 29° N; (2) a south Florida nesting subpopulation, occurring from 29°N on the east coast to Sarasota on the west coast; (3) a Florida Panhandle nesting subpopulation, occurring at Eglin Air Force Base and the beaches near Panama City, Florida; (4) a Yucatán nesting subpopulation, occurring on the eastern Yucatán Peninsula, Mexico (Márquez 1990 and TEWG 2000); and (5) a Dry Tortugas nesting subpopulation, occurring in the islands of the Dry Tortugas, near Key West, Florida (NMFS SEFSC 2001). The fidelity of nesting females to their nesting beach is the reason these subpopulations can be differentiated from one

another. This nest beach fidelity will make recolonization of nesting beaches with sea turtles from other subpopulations unlikely.

Life history and Distribution

Past literature gave an estimated age at maturity of 21-35 years (Frazer and Ehrhart 1985, Frazer et al. 1994) with the benthic immature stage lasting at least 10-25 years. However, based on new data from tag returns, strandings, and nesting surveys NMFS SEFSC (2001) estimated ages of maturity ranging from 20-38 years and benthic immature stage lasting from 14-32 years.

Mating takes place in late March-early June, and eggs are laid throughout the summer, with a mean clutch size of 100-126 eggs in the southeastern United States. Individual females nest multiple times during a nesting season, with a mean of 4.1 nests/individual (Murphy and Hopkins 1984). Nesting migrations for an individual female loggerhead are usually on an interval of 2-3 years, but can vary from 1-7 years (Dodd 1988). Generally, loggerhead sea turtles originating from the western Atlantic nesting aggregations are believed to lead a pelagic existence in the North Atlantic Gyre for as long as 7-12 years or more. Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length they begin to live in coastal inshore and nearshore waters of the continental shelf throughout the U. S. Atlantic and Gulf of Mexico, although some loggerheads may move back and forth between the pelagic and benthic environment (Witzell 2002). Benthic immature loggerheads (sea turtles that have come back to inshore and nearshore waters), the life stage following the pelagic immature stage, have been found from Cape Cod, Massachusetts, to southern Texas, and occasionally strand on beaches in Northeastern Mexico. Tagging studies have shown loggerheads which have entered the benthic environment undertake routine migrations along the coast that are limited by seasonal water temperatures. Within the action area of this consultation, loggerhead sea turtles occur year round in offshore waters off of North Carolina where water temperature is influenced by the Gulf Stream. As coastal water temperatures warm in the spring, loggerheads begin to immigrate to North Carolina inshore waters (e.g., Pamlico and Core Sounds) and also move up the coast (Epperly et al. 1995c; Epperly et al. 1995 a; Epperly et al. 1995b), occurring in Virginia foraging areas as early as April and on the most northern foraging grounds in the Gulf of Maine in June. The trend is reversed in the fall as water temperatures cool. The large majority leave the Gulf of Maine by mid-September but some may remain in Mid-Atlantic and Northeast areas until late Fall. By December loggerheads have emigrated from inshore North Carolina waters and coastal waters to the north to waters offshore of North Carolina, particularly off of Cape Hatteras, and waters further south where the influence of the Gulf Stream provides temperatures favorable to sea turtles ($\geq 11^{\circ}$ C) (Epperly et al. 1995c; Epperly et al. 1995a; Epperly et al. 1995b). Loggerhead sea turtles are year-round residents of central and south Florida.

Pelagic and benthic juveniles are omnivorous and forage on crabs, mollusks, jellyfish, and vegetation at or near the surface (Dodd 1988). Sub-adult and adult loggerheads are primarily coastal and typically prey on benthic invertebrates such as mollusks and decapod crustaceans in hard bottom habitats.

Population Dynamics and Status

A number of stock assessments (TEWG 1998, TEWG 2000, NMFS SEFSC 2001, Heppell et al. 2003) have examined the stock status of loggerheads in the waters of the United States, but have

been unable to develop any reliable estimates of absolute population size. Based on nesting data of the five western Atlantic subpopulations, the south Florida-nesting and the northern-nesting subpopulations are the most abundant (TEWG 2000 and NMFS SEFSC 2001). Between 1989 and 1998, the total number of nests laid along the U.S. Atlantic and Gulf coasts ranged from 53,014 to 92,182, annually with a mean of 73,751 (TEWG 2000). On average, 90.7% of these nests were of the south Florida subpopulation and 8.5% were from the northern subpopulation (TEWG 2000). The Turtle Expert Working Group's (TEWG) (2000) assessment of the status of these two better-studied populations concluded that the south Florida subpopulation is increasing, while no trend is evident (maybe stable but possibly declining) for the northern subpopulation. However, more recent analysis, including nesting data through 2003, indicate that there is no discernable trend in the south Florida nesting subpopulation (Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute, Statewide and Index Nesting Beach Survey Programs). Another consideration that may add to the importance and vulnerability of the northern subpopulation is the sex ratios of this subpopulation. NOAA Fisheries' scientists have estimated that the northern subpopulation produces 65 percent males (NMFS SEFSC 2001). However, new research conducted over a limited time-frame has found sex ratios opposite to this (Wyneken et al. 2004), and so further information is needed to clarify the issue. Since nesting female loggerhead sea turtles exhibit nest fidelity, the continued existence of the northern subpopulation is related to the number of female hatchlings that are produced. Producing fewer females will limit the number of subsequent offspring produced by the subpopulation.

The remaining three subpopulations (the Dry Tortugas, Florida Panhandle, and Yucatán) are much smaller subpopulations but no less relevant to the continued existence of the species. Nesting surveys for the Dry Tortugas subpopulation are conducted as part of Florida's statewide survey program. Survey effort has been relatively stable during the 9-year period from 1995-2003 (although the 2002 year was missed). Nest counts ranged from 168-270 but with no detectable trend during this period (Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute, Statewide Nesting Beach Survey Data). Nest counts for the Florida Panhandle subpopulation are focused on index beaches rather than all beaches where nesting occurs. Currently, there is not enough information to detect a trend for the subpopulation (Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute, Index Nesting Beach Survey Database). Similarly, nesting survey effort has been inconsistent among the Yucatán nesting beaches and no trend can be determined for this subpopulation. However, there is some optimistic news. Zurita et al. (2003) found a statistically significant increase in the number of nests on seven of the beaches on Quintana Roo, Mexico from 1987-2001 where survey effort was consistent during the period.

Threats

The diversity of a sea turtle's life history leaves them susceptible to many natural and human impacts, including impacts while they are on land, in the benthic environment, and in the pelagic environment. Hurricanes are particularly destructive to sea turtle nests. Sand accretion and rainfall that result from these storms as well as wave action can appreciably reduce hatchling success. For example, in 1992, all of the eggs over a 90-mile length of coastal Florida were destroyed by storm surges on beaches that were closest to the eye of Hurricane Andrew (Milton et al. 1994). Other sources of natural mortality include cold stunning and biotoxin exposure.

Anthropogenic factors that impact hatchlings and adult female turtles on land, or the success of nesting and hatching include: beach erosion, beach armoring and nourishment; artificial lighting; beach cleaning; increased human presence; recreational beach equipment; beach driving; coastal construction and fishing piers; exotic dune and beach vegetation; and poaching. An increased human presence at some nesting beaches or close to nesting beaches has led to secondary threats such as the introduction of exotic fire ants, feral hogs, dogs and an increased presence of native species (e.g., raccoons, armadillos, and opossums) which raid and feed on turtle eggs. Although sea turtle nesting beaches are protected along large expanses of the northwest Atlantic coast (in areas like Merritt Island, Archie Carr, and Hobe Sound National Wildlife Refuges), other areas along these coasts have limited or no protection. Sea turtle nesting and hatching success on unprotected high density east Florida nesting beaches from Indian River to Broward County are affected by all of the above threats.

Loggerhead sea turtles are affected by a completely different set of anthropogenic threats in the marine environment. These include oil and gas exploration; coastal development, and transportation; marine pollution; underwater explosions; hopper dredging, offshore artificial lighting; power plant entrainment and/or impingement; entanglement in debris; ingestion of marine debris; marina and dock construction and operation; boat collisions; poaching; and fishery interactions. In the pelagic environment loggerheads are exposed to a series of longline fisheries that include the HMS pelagic longline fisheries, an Azorean longline fleet, a Spanish longline fleet, and various fleets in the Mediterranean Sea (Aguilar et al. 1995; Bolten et al. 1994; Crouse 1999b). In the benthic environment in waters off the coastal U.S., loggerheads are exposed to a suite of fisheries in federal and state waters including trawl, purse seine, hook and line, gillnet, pound net, longline, and trap fisheries (see further discussion in the Environmental Baseline of this opinion).

3.4.1.3 Summary of Status for Loggerhead Sea Turtles

In the Pacific Ocean, loggerhead turtles are represented by a northwestern Pacific nesting aggregation (located in Japan) and a smaller southwestern nesting aggregation that occurs in Australia (Great Barrier Reef and Queensland) and New Caledonia. The abundance of loggerhead turtles on nesting colonies throughout the Pacific basin have declined dramatically over the past 10 to 20 years. Data from 1995 estimated the Japanese nesting aggregation at 1,000 female loggerhead turtles (Bolten et al. 1996), but it has probably declined since 1995 and continues to decline (Tillman 2000). The nesting aggregation in Queensland, Australia, was as low as 300 females in 1997.

In the Atlantic Ocean, absolute population size is not known, but based on nesting information, loggerheads are likely much more numerous than in the Pacific Ocean. NOAA Fisheries recognizes five subpopulations of loggerhead sea turtles in the western north Atlantic based on genetic studies. Cohorts from all of these are known to occur within the action area of this consultation. There are no detectable nesting trends for the two largest western Atlantic subpopulations: the South Florida subpopulation and the northern subpopulation. Because of its size, the South Florida subpopulation may be critical to the survival of the species in the Atlantic Ocean. In the past, this nesting aggregation was considered second in size only to the nesting aggregation on islands in the Arabian Sea off Oman (Ross 1979, Ehrhart 1989, NMFS and USFWS 1991b). However, the status of the Oman colony has not been evaluated recently and it

is located in an area of the world where it is highly vulnerable to disruptive events such as political upheavals, wars, catastrophic oil spills, and lack of strong protections for sea turtles (Meylan et al. 1995). Given the lack of updated information on this population, the status of loggerheads in the Indian Ocean basin overall is essentially unknown.

All loggerhead subpopulations are faced with a multitude of natural and anthropogenic effects that negatively influence the status of the species. Many anthropogenic effects occur as a result of activities outside of U.S. jurisdiction (i.e., fisheries in international waters).

3.4.2 Green Sea Turtle

Federal listing of the green sea turtle occurred on July 28, 1978, with all populations listed as threatened except for the Florida and Pacific coast of Mexico breeding populations, which are endangered. The complete nesting range of the green sea turtle is located within NOAA Fisheries' Southeast Region and includes sandy beaches of mainland shores, barrier islands, coral islands, and volcanic islands between Texas and North Carolina and the U. S. Virgin Islands (U.S.V.I.) and Puerto Rico (NMFS and USFWS 1991a). Principal U. S. nesting areas for green sea turtles are in eastern Florida, predominantly Brevard through Broward counties (Ehrhart and Witherington 1992). Green sea turtle nesting also occurs regularly on St. Croix, U.S.V.I., and on Vieques, Culebra, Mona, and the main island of Puerto Rico (Mackay and Rebolz 1996).

3.4.2.1 Pacific Ocean

Green turtles are thought to be declining throughout the Pacific Ocean, with the exception of Hawaii, from a combination of overexploitation and habitat loss (Eckert 1993, Seminoff 2002). In the western Pacific, the only major (>2,000 nesting females) populations of green turtles occur in Australia and Malaysia, with smaller colonies throughout the area. Indonesia has a widespread distribution of green turtles, but has experienced large declines over the past 50 years. The Hawaii green turtles are genetically distinct and geographically isolated, and the population appears to be increasing in size despite the prevalence of fibropapilloma and spirochidiasis (Aguirre et al. 1998 in Balazs and Chaloupka, in press). In the Eastern Pacific, mitochondrial DNA analysis has indicated that there are three key nesting populations: Michoacan, Mexico; Galapagos Islands, Ecuador; and Islas Revillagigedo, Mexico (Dutton 2003). There is also sporadic green turtle nesting along the Pacific coast of Costa Rica.

3.4.2.2 Atlantic Ocean

Life history and Distribution

The estimated age at sexual maturity for green sea turtles is between 20-50 years (Balazs 1982, Frazer and Ehrhart 1985). Green sea turtle mating occurs in the waters off the nesting beaches. Each female deposits 1-7 clutches (usually 2-3) during the breeding season at 12-14 day intervals. Mean clutch size is highly variable among populations, but averages 110-115 eggs/nest. Females usually have 2-4 or more years between breeding seasons, whereas males may mate every year (Balazs 1983). After hatching, green sea turtles go through a post-hatchling pelagic stage where they are associated with drift lines of algae and other debris. At approximately 20 to 25 cm carapace length, juveniles leave pelagic habitats and enter benthic

foraging areas (Bjorndal 1997).

Green sea turtles are primarily herbivorous, feeding on algae and sea grasses, but also occasionally consume jellyfish and sponges. The post-hatchling, pelagic-stage individuals are assumed to be omnivorous, but little data are available.

Green sea turtle foraging areas in the southeastern United States include any coastal shallow waters having macroalgae or sea grasses. This includes areas near mainland coastlines, islands, reefs, or shelves, and any open-ocean surface waters, especially where advection from wind and currents concentrates pelagic organisms (Hirth 1997; NMFS and USFWS 1991a). Principal benthic foraging areas in the southeastern United States include Aransas Bay, Matagorda Bay, Laguna Madre, and the Gulf inlets of Texas (Doughty 1984; Hildebrand 1982; Shaver 1994), the Gulf of Mexico off Florida from Yankeetown to Tarpon Springs (Caldwell and Carr 1957; Carr 1984), Florida Bay and the Florida Keys (Schroeder and Foley 1995), the Indian River Lagoon System, Florida (Ehrhart 1983), and the Atlantic Ocean off Florida from Brevard through Broward counties (Wershoven and Wershoven 1992; Guseman and Ehrhart 1992). Adults of both sexes are presumed to migrate between nesting and foraging habitats along corridors adjacent to coastlines and reefs.

Population Dynamics and Status

The vast majority of green sea turtle nesting within the southeastern United States occurs in Florida (Meylan et al. 1995, Johnson and Ehrhart 1994). It is known that current nesting levels in Florida are reduced compared to historical levels, but the extent of the reduction is not known (Dodd 1981). However, green sea turtle nesting in Florida has been increasing since 1989 (Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute Index Nesting Beach Survey Database). Total nest counts and trends at index beach sites during the past decade suggest the numbers of green sea turtles that nest within the southeastern United States are increasing.

Although nesting activity is obviously important in determining population distributions, the remaining portion of the green turtle's life is spent on the foraging and breeding grounds. Some of the principal feeding pastures in the western Atlantic Ocean include the upper west coast of Florida and the northwestern coast of the Yucatán Peninsula. Additional important foraging areas in the western Atlantic include the Mosquito and Indian River Lagoon systems and nearshore wormrock reefs between Sebastian and Ft. Pierce Inlets in Florida, Florida Bay, the Culebra archipelago and other Puerto Rico coastal waters, the south coast of Cuba, the Mosquito Coast of Nicaragua, the Caribbean Coast of Panama, and scattered areas along Colombia and Brazil (Hirth 1971). The summer developmental habitat for green turtles also encompasses estuarine and coastal waters from North Carolina to as far north as Long Island Sound (Musick and Limpus 1997).

There are no reliable estimates of the number of immature green sea turtles that inhabit coastal areas (where they come to forage) of the southeastern United States. However, information on incidental captures of immature green sea turtles at the St. Lucie Power Plant (they have averaged 215 green sea turtle captures per year since 1977) in St. Lucie County, Florida (on the Atlantic coast of Florida) show that the annual number of immature green sea turtles captured has increased significantly in the past 26 years (FPL 2002).

It is likely that immature green sea turtles foraging in the southeastern United States come from multiple genetic stocks; therefore, the status of immature green sea turtles in the southeastern United States might also be assessed from trends at all of the main regional nesting beaches, principally Florida, Yucatán, and Tortuguero. Trends at Florida beaches were previously discussed. Trends in nesting at Yucatán beaches cannot be assessed because of a lack of consistent beach surveys over time. Trends at Tortuguero (ca. 20,000-50,000 nests/year) showed a significant increase in nesting during the period 1971-1996 (Bjorndal et al. 1999), and more recent information continues to show increasing nest counts (Schroeder pers. comm.). Therefore, it seems reasonable that there is an increase in immature green sea turtles inhabiting coastal areas of the southeastern United States; however, the magnitude of this increase is unknown.

Threats

The principal cause of past declines and extirpations of green sea turtle assemblages has been the over-exploitation of green sea turtles for food and other products. Although intentional take of green sea turtles and their eggs is not extensive within the southeastern United States, green sea turtles that nest and forage in the region may spend large portions of their life history outside the region and outside U. S. jurisdiction, where exploitation is still a threat. However, there are still significant and ongoing threats to green sea turtles from human-related causes in the United States. These threats include beach armoring, erosion control, artificial lighting, beach disturbance (e.g., driving on the beach), pollution, foraging habitat loss as a result of direct destruction by dredging, siltation, boat damage, other human activities, and interactions with fishing gear. Sea sampling coverage in the pelagic driftnet, pelagic longline, southeast shrimp trawl, and summer flounder bottom trawl fisheries has recorded takes of green turtles. There is also the increasing threat from green sea turtle fibropapillomatosis disease. Presently, this disease is cosmopolitan and has been found to affect large numbers of animals in some areas, including Hawaii and Florida (Herbst 1994, Jacobson 1990, Jacobson et al. 1991).

3.4.2.3 Summary of Status for Atlantic Green Sea Turtles

Green turtles range in the western Atlantic from Massachusetts to Argentina, including the Gulf of Mexico and Caribbean, but are considered rare in benthic areas north of Cape Hatteras (Wynne and Schwartz 1999). Green turtles face many of the same natural and anthropogenic threats as for loggerhead sea turtles described above. In addition, green turtles are also susceptible to fibropapillomatosis which can result in death. In the continental United States, green turtle nesting occurs on the Atlantic coast of Florida (Ehrhart 1979). Recent population estimates for the western Atlantic area are not available. However, the pattern of green turtle nesting shows biennial peaks in abundance, with a generally positive trend during the ten years of regular monitoring since establishment of index beaches in 1989. However, given the species' late sexual maturity, caution is warranted about over interpreting nesting trend data collected for less than 15 years.

3.4.3 Kemp's Ridley Sea Turtle

The Kemp's ridley was listed as endangered on December 2, 1970. Internationally, the Kemp's ridley is considered the most endangered sea turtle (Zwinnenberg 1977; Groombridge 1982;

TEWG 2000). Kemp's ridleys nest primarily at Rancho Nuevo, a stretch of beach in Mexico, Tamaulipas State. The species occurs mainly in coastal areas of the Gulf of Mexico and the northwestern Atlantic Ocean. Occasional individuals reach European waters (Brongersma 1972). Adults of this species are usually confined to the Gulf of Mexico, although adult-sized individuals sometimes are found on the east coast of the United States. This species occurs only in the Atlantic Ocean.

Life history and Distribution

The TEWG (1998) estimates age at maturity from 7-15 years. Females return to their nesting beach about every 2 years (TEWG 1998). Nesting occurs from April into July and is essentially limited to the beaches of the western Gulf of Mexico, near Rancho Nuevo in southern Tamaulipas, Mexico. The mean clutch size for Kemp's ridleys is 100 eggs/nest, with an average of 2.5 nests/female/season.

Little is known of the movements of the post-hatching stage (pelagic stage) within the Gulf. Studies have shown the post-hatchling pelagic stage varies from 1-4 or more years, and the benthic immature stage lasts 7-9 years (Schmid and Witzell 1997). Benthic immature Kemp's ridleys have been found along the east coast seaboard of the United States and in the Gulf of Mexico. Atlantic benthic immature sea turtles travel northward as the water warms to feed in the productive, coastal waters off Georgia through New England, returning southward with the onset of winter (Lutcavage and Musick 1985, Henwood and Ogren 1987, Ogren 1989). Studies suggest that benthic immature Kemp's ridleys stay in shallow, warm, nearshore waters in the northern Gulf of Mexico until cooling waters force them offshore or south along the Florida coast (Renaud 1995).

Stomach contents of Kemp's ridleys along the lower Texas coast consisted of nearshore crabs and mollusks, as well as fish, shrimp, and other foods considered to be shrimp fishery discards (Shaver 1991). Pelagic stage Kemp's ridleys presumably feed on the available sargassum and associated infauna or other epipelagic species found in the Gulf of Mexico.

Population Dynamics and Status

Of the seven extant species of sea turtles in the world, the Kemp's ridley has declined to the lowest population level. Most of the population of adult females nest on the Rancho Nuevo beaches (Pritchard 1969). When nesting aggregations at Rancho Nuevo were discovered in 1947, adult female populations were estimated to be in excess of 40,000 individuals (Hildebrand 1963). By the mid-1980s nesting numbers were below 1,000 (with a low of 702 nests in 1985). However, observations of increased nesting (with 6,277 nests recorded in 2000) suggest that the decline in the ridley population has stopped and the population is now increasing (USFWS 2000).

A period of steady increase in benthic immature ridleys has been occurring since 1990 and appears to be due to increased hatchling production and an apparent increase in survival rates of immature sea turtles beginning in 1990. The increased survivorship of immature sea turtles is attributable, in part, to the introduction of turtle excluder devices (TEDs) in the United States and Mexican shrimping fleets. As demonstrated by nesting increases at the main nesting sites in Mexico, adult ridley numbers have increased over the last decade. The population model used by TEWG (2000) projected that Kemp's ridleys could reach the Recovery Plan's intermediate

recovery goal of 10,000 nesters by the year 2015.

Next to loggerheads, Kemp's ridleys are the second most abundant sea turtle in Virginia and Maryland waters, arriving in these areas during May and June (Keinath et al. 1987; Musick and Limpus 1997). The juvenile population of Kemp's ridley sea turtles in Chesapeake Bay is estimated to be 211 to 1,083 turtles (Musick and Limpus 1997). These juveniles frequently forage in submerged aquatic grass beds for crabs (Musick and Limpus 1997). Kemp's ridleys consume a variety of crab species, including *Callinectes spp.*, *Ovalipes spp.*, *Libinia sp.*, and *Cancer spp.* Mollusks, shrimp, and fish are consumed less frequently (Bjorndal 1997). Upon leaving Chesapeake Bay in autumn, juvenile ridleys migrate down the coast, passing Cape Hatteras in December and January (Musick and Limpus 1997). These larger juveniles are joined there by juveniles of the same size from North Carolina sounds and smaller juveniles from New York and New England to form one of the densest concentrations of Kemp's ridleys outside of the Gulf of Mexico (Musick and Limpus 1997; Epperly et al. 1995a; Epperly et al. 1995b).

Threats

Kemp's ridleys face many of the same natural threats as loggerheads, including destruction of nesting habitat from storm events, natural predators at sea, and oceanic events such as cold-stunning. Although cold-stunning can occur throughout the range of the species, it may be a greater risk for sea turtles that utilize the more northern habitats of Cape Cod Bay and Long Island Sound. For example, in the winter of 1999/2000, there was a major cold-stunning event where 218 Kemp's ridleys, 54 loggerheads, and 5 green turtles were found on Cape Cod beaches (R. Prescott, pers. comm.). Annual cold-stun events do not always occur at this magnitude; the extent of episodic major cold stun events may be associated with numbers of turtles utilizing Northeast waters in a given year, oceanographic conditions and the occurrence of storm events in the late fall. Although many cold-stun turtles can survive if found early enough, cold-stunning events can represent a significant cause of natural mortality.

Although changes in the use of shrimp trawls and other trawl gear have helped to reduce mortality of Kemp's ridleys, this species is also affected by other sources of anthropogenic impacts similar to those discussed above. For example, in the spring of 2000, a total of five Kemp's ridley carcasses were recovered from the same North Carolina beaches where 275 loggerhead carcasses were found. Cause of death for most of the turtles recovered was unknown, but the mass mortality event was suspected to have been from a large-mesh gillnet fishery operating offshore in the preceding weeks. The five ridley carcasses that were found are likely to have been only a minimum count of the number of Kemp's ridleys that were killed or seriously injured as a result of the fishery interaction since it is unlikely that all of the carcasses washed ashore.

Summary of Kemp's ridley Status

The only major nesting site for ridleys is a single stretch of beach near Rancho Nuevo, Tamaulipas, Mexico (Carr 1963). The number of nests observed at Rancho Nuevo and nearby beaches increased at a mean rate of 11.3% per year from 1985 to 1999. Current totals exceed 3,000 nests per year (TEWG 2000). Kemp's ridleys mature at an earlier age (7 - 15 years) than other chelonids, thus 'lag effects' as a result of unknown impacts to the non-breeding life stages would likely have been seen in the increasing nest trend beginning in 1985 (USFWS and NMFS 1992).

The largest contributors to the decline of Kemp's ridleys in the past were commercial and local exploitation, especially poaching of nests at the Rancho Nuevo site, as well as the Gulf of Mexico trawl fisheries. The advent of TED regulations for trawlers and protections for the nesting beaches have allowed the species to begin to rebound. Many threats to the future of the species remain, including interactions with fishery gear, marine pollution, foraging habitat destruction, illegal poaching of nests and potential threats to the nesting beaches from such sources as global climate change, development, and tourism pressures.

3.4.4 Leatherback Sea Turtle

The leatherback sea turtle was listed as endangered throughout its global range on June 2, 1970. Leatherbacks are widely distributed throughout the oceans of the world, and are found in waters of the Atlantic, Pacific, and Indian oceans; the Caribbean Sea; and the Gulf of Mexico (Ernst and Barbour 1972). Leatherback sea turtles are the largest living turtles and range farther than any other sea turtle species. Their large size and their tolerance of relatively low temperatures allows them to occur in northern waters such as off Labrador and in the Barents Sea (NMFS and USFWS 1995). Adult leatherbacks forage in temperate and subpolar regions from 71°N to 47°S latitude in all oceans and undergo extensive migrations to and from their tropical nesting beaches. In 1980, the leatherback population was estimated at approximately 115,000 adult females globally (Pritchard 1982). That number, however, is probably an overestimation as it was based on a particularly good nesting year in 1980 (Pritchard 1996). By 1995, this global population of adult females had declined to 34,500 (Spotila et al. 1996). Pritchard (1996) also called into question the population estimates from Spotila et al. (1996), and felt it may be somewhat low, because it ended the modeling on data from a particularly bad nesting year (1994) while excluding nesting data from 1995, which was a good nesting year. However, at this time, Spotila et al. (1996) represents the best overall estimate of adult female leatherback population size.

3.4.4.1 Pacific Ocean.

Based on published estimates of nesting female abundance, leatherback populations have collapsed or have been declining at all major Pacific basin nesting beaches for the last two decades (Spotila et al. 1996; NMFS and USFWS 1998c; Sarti et al. 2000; Spotila et al. 2000). For example, the nesting assemblage on Terengganu, Malaysia – which was one of the most significant nesting sites in the western Pacific Ocean – has declined severely from an estimated 3,103 females in 1968 to 2 nesting females in 1994 (Chan and Liew 1996). Nesting assemblages of leatherback turtles are in decline along the coasts of the Solomon Islands; a historically important nesting area (D. Broderick, pers. comm., in Dutton et al. 1999). In Fiji, Thailand, Australia, and Papua New Guinea (East Papua), leatherback turtles have only been known to nest in low densities and scattered colonies.

Only an Indonesian nesting assemblage has remained relatively abundant in the Pacific basin. The largest extant leatherback nesting assemblage in the Indo-Pacific lies on the north Vogelkop coast of Irian Jaya (West Papua), Indonesia, with over 3,000 nests recorded annually (Putrawidjaja 2000; Suarez et al. 2000). During the early-to-mid 1980s, the number of female leatherback turtles nesting on the two primary beaches of Irian Jaya appeared to be stable. More

recently, this population has come under increasing threats that could cause this population to experience a collapse that is similar to what occurred at Terengganu, Malaysia. In 1999, for example, local Indonesian villagers started reporting dramatic declines in sea turtle populations near their villages (Suarez 1999). Unless hatchling and adult turtles on nesting beaches receive more protection, this population will continue to decline. Declines in nesting assemblages of leatherback turtles have been reported throughout the western Pacific region, with nesting assemblages well below abundance levels observed several decades ago (e.g., Suarez 1999).

In the western Pacific Ocean and South China Seas, leatherback turtles are captured, injured, or killed in numerous fisheries, including Japanese longline fisheries. Leatherback turtles in the western Pacific are also threatened by poaching of eggs, killing of nesting females, human encroachment on nesting beaches, beach erosion, and egg predation by animals.

In the eastern Pacific Ocean, nesting populations of leatherback turtles are declining along the Pacific coast of Mexico and Costa Rica. According to reports from the late 1970s and early 1980s, three beaches on the Pacific coast of Mexico supported as many as half of all leatherback turtle nests for the eastern Pacific. Since the early 1980s, the eastern Pacific Mexican population of adult female leatherback turtles has declined to slightly more than 200 individuals during 1998-99 and 1999-2000 (Sarti et al. 2000). Spotila et al. (2000) reported the decline of the leatherback turtle population at Playa Grande, Costa Rica, which had been the fourth largest nesting colony in the world. Between 1988 and 1999, the nesting colony declined from 1,367 to 117 female leatherback turtles. Based on their models, Spotila et al. (2000) estimated that the colony could fall to less than 50 females by 2003-2004. Leatherback turtles in the eastern Pacific Ocean are captured, injured, or killed in commercial and artisanal swordfish fisheries off Chile, Columbia, Ecuador, and Peru; purse seine fisheries for tuna in the eastern tropical Pacific Ocean; and California/Oregon drift gillnet fisheries. Because of the limited data, we cannot provide high-certainty estimates of the number of leatherback turtles captured, injured, or killed through interactions with these fisheries. However, between 8 and 17 leatherback turtles were estimated to have died annually between 1990 and 2000 in interactions with the California/Oregon drift gillnet fishery; 500 leatherback turtles are estimated to die annually in Chilean and Peruvian fisheries; 200 leatherback turtles are estimated to die in direct harvests in Indonesia; and before 1992, the North Pacific driftnet fisheries for squid, tuna, and billfish captured an estimated 1,000 leatherback turtles each year, killing about 111 of them each year.

Although all causes of the declines in leatherback turtle colonies in the eastern Pacific have not been documented, Sarti et al. (1998) suggest that the declines result from egg poaching, adult and sub-adult mortalities incidental to high seas fisheries, and natural fluctuations due to changing environmental conditions. Some published reports support this suggestion. Sarti et al. (2000) reported that female leatherback turtles have been killed for meat on nesting beaches like Piedra de Tiacoyunque, Guerrero, Mexico. Eckert (1997) reported that swordfish gillnet fisheries in Peru and Chile contributed to the decline of leatherback turtles in the eastern Pacific. The decline in the nesting population at Mexiquillo, Mexico occurred at the same time that effort doubled in the Chilean driftnet fishery. In response to these effects, the eastern Pacific population has continued to decline, leading some researchers to conclude that the leatherback is on the verge of extinction in the Pacific Ocean (e.g., Spotila et al. 1996; Spotila et al. 2000). NOAA Fisheries' assessment of three nesting aggregations in its February 23, 2004, opinion supports this conclusion: if no action is taken to reverse their decline, leatherback sea turtles

nesting in the Pacific Ocean either have high risks of extinction in a single human generation (for example, nesting aggregations at Terrenanu and Costa Rica) or they have a high risk of declining to levels where more precipitous declines become almost certain (for example Irian Jaya) (NOAA Fisheries 2004).

3.4.4.2 Atlantic Ocean.

In the Atlantic Ocean, leatherbacks have been recorded as far north as Newfoundland, Canada, and Norway, and as far south as Uruguay, Argentina, and South Africa (NMFS SEFSC 2001). Female leatherbacks nest from the southeastern United States to southern Brazil in the western Atlantic and from Mauritania to Angola in the eastern Atlantic. The most significant nesting beaches in the Atlantic, and perhaps in the world, are in French Guiana and Suriname (NMFS SEFSC 2001). Genetic analyses of leatherbacks to date indicate that within the Atlantic basin there are genetically different nesting populations; the St. Croix nesting population (U.S. Virgin Islands), the mainland nesting Caribbean population (Florida, Costa Rica, Suriname/French Guiana) and the Trinidad nesting population (Dutton et al. 1999). When the hatchlings leave the nesting beaches, they move offshore but eventually utilize both coastal and pelagic waters. Very little is known about the pelagic habits of the hatchlings and juveniles, and they have not been documented to be associated with the sargassum areas as are other species. Leatherbacks are deep divers, with recorded dives to depths in excess of 1,000 m (Eckert et al. 1989; Hayes et al. 2004).

Life History and Distribution

Leatherbacks are a long-lived species, living for over 30 years. They reach sexual maturity somewhat faster than other sea turtles (except Kemp's ridley), with an estimated range from 3-6 years (Rhodin 1985) to 13-14 years (Zug and Parham 1996). They nest frequently (up to 10 nests per year) during a nesting season and nest about every 2-3 years. During each nesting, they produce 100 eggs or more in each clutch and, thus, can produce 700 eggs or more per nesting season (Schultz 1975). However, a significant portion (up to approximately 30%) of the eggs can be infertile. Thus, the actual proportion of eggs that can result in hatchlings is less than this seasonal estimate. The eggs will incubate for 55-75 days before hatching. Based on a review of all sightings of leatherback sea turtles of <145 cm curved carapace length (ccl), Eckert (1999) found that leatherback juveniles remain in waters warmer than 26°C until they exceed 100 cm ccl.

Leatherbacks are the most pelagic of the sea turtles, but enter coastal waters on a seasonal basis to feed in areas where jellyfish are concentrated. Leatherback sea turtles feed primarily on cnidarians (medusae, siphonophores) and tunicates.

Evidence from tag returns and strandings in the western Atlantic suggests that adult leatherback sea turtles engage in routine migrations between boreal, temperate and tropical waters (NMFS and USFWS 1992). A 1979 aerial survey of the outer Continental Shelf from Cape Hatteras, North Carolina to Cape Sable, Nova Scotia showed leatherbacks to be present throughout the area with the most numerous sightings made from the Gulf of Maine south to Long Island. Leatherbacks were sighted in waters where depths ranged from 1-4151 m, but 84.4% of sightings were in areas where the water was less than 180 m deep (Shoop and Kenney 1992). Leatherbacks were sighted in waters of a similar sea surface temperature as loggerheads; from 7-

27.2 ° C (Shoop and Kenney 1992). However, this species appears to have a greater tolerance for colder waters because more leatherbacks were found at the lower temperatures (Shoop and Kenney 1992). This aerial survey estimated the in-water leatherback population from near Nova Scotia, Canada to Cape Hatteras, North Carolina at approximately 300-600 animals.

Population Dynamics and Status

The status of the Atlantic leatherback population is less clear than the Pacific population. The total Atlantic population size is undoubtedly larger than in the Pacific, but overall population trends are unclear. In 1996, the entire western Atlantic population was characterized as stable at best (Spotila et al. 1996), with numbers of nesting females reported to be on the order of 18,800.

A subsequent analysis by Spotila (pers. comm.) indicated that by 2000, the western Atlantic nesting population had decreased to about 15,000 nesting females. According to NMFS SEFSC (2001) the nesting aggregation in French Guiana has been declining at about 15 percent per year since 1987. However, from 1979-1986, the number of nests was increasing at about 15 percent annually which could mean that the current 15 percent decline could be part of a nesting cycle which coincides with the erosion cycle of Guiana beaches described by Schultz (1975). In Suriname, leatherback nest numbers have shown large recent increases (with more than 10,000 nests per year since 1999 and a peak of 30,000 nests in 2001), and the long-term trend for the overall Suriname and French Guiana population may show an increase (Girondot 2002 in Hilterman and Goverse 2003). The number of nests in Florida and the U.S. Caribbean has been increasing at about 10.3 percent and 7.5 percent, respectively, per year since the early 1980s but the magnitude of nesting is much smaller than that along the French Guiana coast (NMFS SEFSC 2001). Also, because leatherback females can lay 10 nests per season, the recent increases to 400 nests per year in Florida may only represent as few as 40 individual female nesters per year.

In summary, the conflicting information regarding the status of Atlantic leatherbacks makes it difficult to characterize the current status. Numbers at some nesting sites are increasing, but are decreasing at other sites. Tag return data emphasize the wide-ranging nature of the leatherback and the link between South American nesters and animals found in U.S. waters. For example, a nesting female tagged May 29, 1990, in French Guiana was later recovered and released alive from the York River, Virginia. Another nester tagged in French Guiana on June 21, 1990, was later found dead in Palm Beach, Florida (STSSN database). Genetic studies performed within the NED indicate that the leatherbacks captured in the HMS pelagic longline fishery were primarily from the French Guiana and Trinidad nesting stocks (over 95%), though individuals from West African stocks were surprisingly absent (Roden et al. In press).

There are a number of problems contributing to the uncertainty of the leatherback nest counts and population assessments. The nesting beaches of the Guianas (Guyana, French Guiana, and Suriname) and Trinidad are by far the most important in the western Atlantic. However, beaches in this region undergo cycles of erosion and reformation, so that the nesting beaches are not consistent over time. Additionally, leatherback sea turtles do not exhibit the same degree of nest-site fidelity demonstrated by loggerhead and other hard-shell sea turtles, further confounding analysis of population trends using nesting data. Reported declines in one country and reported increases in another may be the result of migration and beach changes, not true population changes. Nesting surveys, as well as being hampered by the inconsistency of the nesting beaches, are themselves inconsistent throughout the region. Survey effort varies widely

in the seasonal coverage, areal coverage, and actual surveyed sites. Surveys have not been conducted consistently throughout time, or have even been dropped entirely as the result of wars, political turmoil, funding vagaries, etc. The methods vary in assessing total numbers of nests and total numbers of females. Many sea turtle scientists agree that the Guianas (and some would include Trinidad) should be viewed as one population and that a synoptic evaluation of nesting at all beaches in the region is necessary to develop a true picture of population status (Reichert 2001). No such region-wide assessment has been conducted recently. The most recent, complete estimates of regional leatherback populations are in Spotila et al. (1996). As discussed above, nesting in the Guianas may have been declining in the late 1990s but may have increased again in the early 2000s. Spotila et al. estimated that the leatherback population for the Atlantic basin, including all nesting beaches in the Americas, the Caribbean, and West Africa totaled approximately 27,600 nesting females, with an estimated range of 20,082-35,133. We believe that the current population probably still lies within this range, taking into account the reported nesting declines and increases and the uncertainty surrounding them. We therefore choose to rely on Spotila et al.'s (1996) published total Atlantic population estimates, rather than attempt to construct a new population estimate here, based on our interpretation of the various, confusing nesting reports from areas within the region.

Threats

Zug and Parham (1996) pointed out that the main threat to leatherback populations in the Atlantic is the combination of fishery-related mortality (especially entanglement in gear and drowning in trawls) and the intense egg harvesting on the main nesting beaches. Other important ongoing threats to the population include pollution, loss of nesting habitat, and boat strikes.

Of the turtle species, leatherbacks seem to be the most vulnerable to entanglement in fishing gear. This susceptibility may be the result of their body type (large size, long pectoral flippers, and lack of a hard shell), their attraction to gelatinous organisms and algae that collect on buoys and buoy lines at or near the surface, possibly their method of locomotion, and perhaps to the lightsticks used to attract target species in longline fisheries. They are also susceptible to entanglement in gillnets and pot/trap lines (used in various fisheries) and capture in trawl gear (e.g., shrimp trawls).

Leatherbacks are exposed to pelagic longline fisheries in many areas of their range. Unlike loggerhead turtle interactions with longline gear, leatherback turtles do not usually ingest longline bait. Instead, leatherbacks are foul hooked by longline gear (e.g., on the flipper or shoulder area) rather than mouth hooked or swallowing the hook. According to observer records, an estimated 6,363 leatherback sea turtles were caught by the U.S. Atlantic tuna and swordfish longline fisheries between 1992-1999, of which 88 were released dead (NMFS SEFSC 2001). The U.S. fleet accounts for only 5-8% of the hooks fished in the Atlantic Ocean, and adding up the under-represented observed takes of the other 23 countries that actively fish in the area would lead to annual take estimates of thousands of leatherbacks over different life stages. Basin-wide, Lewison et al. (2004) estimated that 30,000 - 60,000 leatherback sea turtle captures occurred in Atlantic pelagic longline fisheries in the year 2000 alone (note that multiple captures of the same individual are known to occur, so the actual number of individuals captured may not be as high).

Leatherbacks are also susceptible to entanglement in the lines associated with trap/pot gear used in several fisheries. From 1990-2000, 92 entangled leatherbacks were reported from New York through Maine (Dwyer et al. 2002). Additional leatherbacks stranded wrapped in line of unknown origin or with evidence of a past entanglement (Dwyer et al. 2002). Fixed gear fisheries in the Mid-Atlantic have also contributed to leatherback entanglements. In North Carolina, two leatherback sea turtles were reported entangled in a crab pot buoy inside Hatteras Inlet (D. Fletcher, pers. comm. to S. Epperly). A third leatherback was reported entangled in a crab pot buoy in Pamlico Sound near Ocracoke. This turtle was disentangled and released alive; however, lacerations on the front flippers from the lines were evident (D. Fletcher, pers. comm. to S. Epperly). In the Southeast, leatherbacks are vulnerable to entanglement in Florida's lobster pot and stone crab fisheries. In the U.S. Virgin Islands, where one of five leatherback strandings from 1982 to 1997 was due to entanglement (Boulon 2000), leatherbacks have been observed with their flippers wrapped in the line of West Indian fish traps (R. Boulon, pers. comm. to J. Braun-McNeill). Because many entanglements of this typically pelagic species likely go unnoticed, entanglements in fishing gear may be much higher.

Leatherback interactions with the southeast Atlantic shrimp fishery, which operates predominately from North Carolina through southeast Florida (NOAA Fisheries 2002), have also been a common occurrence. Leatherbacks, which migrate north annually, are likely to encounter shrimp trawls working in the coastal waters off the Atlantic coast from Cape Canaveral, Florida to the Virginia/North Carolina border. For many years, TEDs that were required for use in the southeast shrimp fishery were less effective at excluding leatherbacks than the smaller, hard-shelled turtle species. To address this problem, on February 21, 2003, NOAA Fisheries issued a final rule to amend the TED regulations. Modifications to the design of TEDs are now required in order to exclude leatherbacks and large and sexually mature loggerhead and green turtles. Other trawl fisheries are also known to interact with leatherback sea turtles. In October 2001, a Northeast Fisheries Science Center observer documented the take of a leatherback in a bottom otter trawl fishing for *Loligo* squid off of Delaware; TEDs are not required in this fishery. The winter trawl flounder fishery, which did not come under the revised TED regulations, may also interact with leatherback sea turtles.

Gillnet fisheries operating in the nearshore waters of the Mid-Atlantic states are also suspected of capturing, injuring, and/or killing leatherbacks when these fisheries and leatherbacks co-

occur. Data collected by the NEFSC Fisheries Observer Program from 1994 through 1998 (excluding 1997) indicate that a total of 37 leatherbacks were incidentally captured (16 lethally) in drift gillnets set in offshore waters from Maine to Florida during this period. Observer coverage for this period ranged from 54% to 92%.

Poaching is not known to be a problem for nesting populations in the continental U.S. However, the NMFS SEFSC (2001) notes that poaching of juveniles and adults is still occurring in the U.S. Virgin Islands and the Guianas. In all, four of the five strandings in St. Croix were the result of poaching (Boulon 2000). A few cases of fishermen poaching leatherbacks have been reported from Puerto Rico, but most of the poaching is on eggs.

Leatherback sea turtles may be more susceptible to marine debris ingestion than other species due to their pelagic existence and the tendency of floating debris to concentrate in convergence zones that adults and juveniles use for feeding areas and migratory routes (Lutcavage et al. 1997; Shoop and Kenney 1992). Investigations of the stomach contents of leatherback sea turtles revealed that a substantial percentage (44% of the 16 cases examined) contained plastic (Mrosovsky 1981). Along the coast of Peru, intestinal contents of 19 of 140 (13%) leatherback carcasses were found to contain plastic bags and film (Fritts 1982). The presence of plastic debris in the digestive tract suggests that leatherbacks might not be able to distinguish between prey items and plastic debris (Mrosovsky 1981). Balazs (1985) speculated that the object may resemble a food item by its shape, color, size or even movement as it drifts about, and induce a feeding response in leatherbacks.

It is important to note that, like marine debris, fishing gear interactions and poaching are problems for leatherbacks throughout their range. Entanglements are common in Canadian waters where Goff and Lien (1988) reported that 14 of 20 leatherbacks encountered off the coast of Newfoundland/Labrador were entangled in fishing gear including salmon net, herring net, gillnet, trawl line and crab pot line. Leatherbacks are reported taken by many other nations that participate in Atlantic pelagic longline fisheries, including Taipei, Brazil, Trinidad, Morocco, Cyprus, Venezuela, Korea, Mexico, Cuba, U.K., Bermuda, People's Republic of China, Grenada, Canada, Belize, France, and Ireland (see NMFS SEFSC 2001, for a description of take records). Leatherbacks are known to drown in fish nets set in coastal waters of Sao Tome, West Africa (Castroviejo et al. 1994; Graff 1995). Gillnets are one of the suspected causes for the decline in the leatherback sea turtle population in French Guiana (Chevalier et al. 1999), and gillnets targeting green and hawksbill turtles in the waters of coastal Nicaragua also incidentally catch leatherback turtles (Lagueux et al. 1998). Observers on shrimp trawlers operating in the northeastern region of Venezuela documented the capture of six leatherbacks from 13,600 trawls (Marcano and Alio 2000). An estimated 1,000 mature female leatherback sea turtles are caught annually in fishing nets off of Trinidad and Tobago with mortality estimated to be between 50-95% (Eckert and Lien 1999). However, many of the turtles do not die as a result of drowning, but rather because the fishermen butcher them in order to get them out of their nets (NMFS SEFSC 2001).

3.4.4.3 Summary of Leatherback Status

In the Pacific Ocean, the abundance of leatherback turtle nesting individuals and colonies has declined dramatically over the past 10 to 20 years. Nesting colonies throughout the eastern and

western Pacific Ocean have been reduced to a fraction of their former abundance by the combined effects of human activities that have reduced the number of nesting females. In addition, egg poaching has reduced the reproductive success of the remaining nesting females. At current rates of decline, leatherback turtles in the Pacific basin are a critically endangered species with a low probability of surviving and recovering in the wild.

In the Atlantic Ocean, our understanding of the status and trends of leatherback turtles is much more confounded, although the picture does not appear nearly as bleak as in the Pacific. The number of female leatherbacks reported at some nesting sites in the Atlantic Ocean has increased, while at others they have decreased. Some of the same factors that led to precipitous declines of leatherbacks in the Pacific also affect leatherbacks in the Atlantic: leatherbacks are captured and killed in many kinds of fishing gear and interact with fisheries in state, federal and international waters. Poaching is a problem and affects leatherbacks that occur in U.S. waters. Leatherbacks also appear to be more susceptible to death or injury from ingesting marine debris than other turtle species.

3.4.5 Olive Ridley Sea Turtle

The olive ridley sea turtle was listed on July 28, 1978, with all breeding populations listed as threatened except for the Pacific coast of Mexico population which is endangered. There have also been recommendations that the western Atlantic olive ridley populations be reclassified as endangered (Reichart 1993). The olive ridley is a small, hard-shelled sea turtle with an olive-colored shell. It typically occurs within the tropical regions of the Pacific, Atlantic, and Indian Oceans. This species does not nest in the United States, but during feeding migrations, olive ridley turtles nesting in the Pacific may disperse into waters of the southwestern U.S., occasionally as far north as Oregon.

The olive ridley is most noted for its massive nesting aggregations, known as arribadas, with thousands of females nesting in large simultaneous waves over small stretches of beach. Arribadas may be precipitated by climatic events, such as a strong offshore wind, or by certain phases of the moon and tide; however, there is a major element of unpredictability regarding the trigger and timing at all arribada sites. Although not every adult female participates in these arribadas, the vast majority do.

3.4.5.1 Pacific Ocean.

In the eastern Pacific, olive ridleys nest primarily on beaches from Mexico south to at least Colombia (NMFS and USFWS 1995) with major nesting beaches at Escobilla, Mexico; La Flor, Nicaragua; and Ostional and Nancite, Costa Rica. Declines in nesting have been documented for Playa Nancite, Costa Rica. However, other nesting populations along the Pacific coast of Mexico and Costa Rica appear stable or increasing (NMFS 2004). When not at the nesting areas, adult olive ridleys are generally found in warm waters from Baja California, Mexico to Chile (Silva-Batiz et al. 1996). In the western Pacific, nesting information is not available for several countries, but information from Indonesia suggests an increase in nesting, while information from Malaysia and Thailand suggests that nesting has declined to very low levels in those countries (NMFS 2004). In the Indian Ocean, olive ridleys nest in great abundance in eastern India and Sri Lanka, although minor nesting also occurs at other localities. Gahirmatha,

located in the Bhitarkanika Wildlife Sanctuary, India, supports perhaps one of the largest nesting populations in the world with an average of 398,000 females nesting in a given year. These populations, however, are suffering high mortality from nearshore gillnets and trawl fisheries.

3.4.5.2 Atlantic Ocean.

A small and declining population of olive ridleys nests in the western Atlantic, primarily along the coasts of Suriname and French Guiana. The best studied is the relatively large aggregation in Suriname, but numbers there have decreased dramatically, and there have been recommendations that the western Atlantic population be reclassified as endangered (Reichert, 1993). As is the case with olive ridleys in the Pacific, the overall range of the species is much broader than the nesting range. Sporadic sightings of olive ridleys have occurred in the Caribbean and recently in Florida, and one confirmed individual was captured on a longline set in the northern Atlantic Ocean.

Life history and Distribution

Age at sexual maturity for olive ridleys is not known, but if similar to its close relative the Kemp's ridley, it would be 7 to 15 years. Olive ridleys typically nest 1 to 3 times per season, producing about 100 to 110 eggs on each occasion. The inter-nesting interval is variable, but for most localities it is approximately 14 days for solitary nesters and 28 days for arribada nesters. Incubation takes about 50 to 60 days.

As described above, there are no known nesting sites for olive ridleys in U.S. waters. In the past several years, olive ridley turtles have been occasionally documented in stranding records in the southeastern U.S. and U.S. Caribbean, where they had never been documented before. In addition, the documented capture of an olive ridley in the NED experiment in 2003 is the first known interaction with the HMS pelagic longline fishery. Caution should be used to avoid over interpreting these very few occurrences, but the change from absence to presence in U.S. Atlantic records is notable.

There are surprisingly few data relating to the feeding habits of the olive ridley. However, those reports that do exist suggest that the diet in the western Atlantic and eastern Pacific includes crabs, shrimp, rock lobsters, jellyfish, and tunicates. In some parts of the world, it has been reported that the principal food is algae.

Population Dynamics and Status

The olive ridley is widely regarded as the most abundant sea turtle in the world because of the continued existence of several large arribadas. However, since its listing under the ESA, there has been a decline in abundance of this species in the western Atlantic, probably the result of continued direct and incidental take, particularly in shrimp trawl nets and nearshore gill nets. The western North Atlantic (Suriname, French Guiana, and Guyana) nesting population has declined more than 80 percent since 1967. Similar declines have been seen in the Pacific, although some nesting populations appear to be stable or increasing as described above. The Indian Ocean continues to support one of the largest nesting populations in the world. However, these populations are also known to suffer high anthropogenic mortality from fishery interactions.

Threats

The decline of this species is primarily due to human activities, including the direct harvest of adults and eggs, incidental capture in commercial fisheries, and loss of nesting habitat. However, their characteristic form of nesting, the arribada, also leaves them susceptible to natural predation (as well as poaching) and a high incidence of incidental nest destruction by other nesting turtles. Even the close proximity of a rotting nest can lead to bacterial contamination and destruction of all or part of the surrounding nests (NMFS 2004).

3.4.5.3 Summary of Status for Olive Ridley Sea Turtles

The western North Atlantic (Suriname, French Guiana, and Guyana) nesting population has declined more than 80 percent since 1967. Anthropogenic impacts similar to those experienced by other sea turtle species (i.e., such as fishing interactions and poaching) appear to be primarily responsible for the decline. There are no olive ridley turtle nesting sites within the U.S. In the past several years, however, olive ridley turtles have been occasionally documented in stranding records in the southeastern U.S. and U.S. Caribbean, where they had never been documented before. In addition, in 2003, the NED experimental longline fishery in the northern western Atlantic documented capture of an olive ridley sea turtles. Caution should be used to avoid overinterpreting these very few occurrences, but the change from absence to presence in U.S. Atlantic records is notable.

3.4.6 Hawksbill Sea Turtle

The hawksbill turtle was listed as endangered under the precursor of the ESA on June 2, 1970, and is considered Critically Endangered by the International Union for the Conservation of Nature (IUCN). The hawksbill is a medium-sized sea turtle with adults in the Caribbean ranging in size from approximately 62.5 to 94.0 cm straight carapace length. The species occurs in all ocean basins, although it is relatively rare in the Eastern Atlantic and Eastern Pacific, and absent from the Mediterranean Sea. Hawksbills are the most tropical of the marine turtles, ranging from approximately 30° N latitude to 30° S latitude. They are closely associated with coral reefs and other hard-bottom habitats, but they are also found in other habitats including inlets, bays and coastal lagoons (NMFS and USFWS 1993). There are five regional nesting populations with more than 1,000 females nesting annually. These populations are in the Seychelles, Mexico, Indonesia, and two in Australia (Meylan and Donnelly 1999). There has been a global population decline of over 80% during the last three generations (105 years) (Meylan and Donnelly 1999).

3.4.6.1 Pacific Ocean.

Anecdotal reports throughout the Pacific indicate that the current population is well below historical levels (NMFS 2004). It is believed that this species is rapidly approaching extinction in the Pacific because of harvesting for its meat, shell, and eggs as well as destruction of nesting habitat (NMFS 2001). Hawksbill sea turtles nest in the Hawaiian Islands as well as the islands and mainland of southeast Asia, from China to Japan, and throughout the Philippines, Malaysia, Indonesia, Papua New Guinea, the Solomon Islands, and Australia (NMFS 2004). However, along the eastern Pacific rim where nesting was common in the 1930's, hawksbill's are now rare

or absent (Cliffon et al. 1982; NMFS 2004).

3.4.6.2 Atlantic Ocean.

In the Western Atlantic, the largest hawksbill nesting population occurs in the Yucatán Peninsula of Mexico (Garduño-Andrade et al. 1999). With respect to the U.S., nesting occurs in Puerto Rico, the U.S. Virgin Islands, and the southeast coast of Florida. Nesting also occurs outside of the U.S. and its territories in Antigua, Barbados, Costa Rica, Cuba, and Jamaica (Meylan 1999a). Outside of the nesting areas, hawksbills have been seen off of the U.S. gulf states and along the eastern seaboard as far north as Massachusetts, although sightings north of Florida are rare (NMFS 2004).

Life History and Distribution

The best estimate of age at sexual maturity for hawksbill sea turtles is about 20-40 years (Chaloupka and Limpus 1997; Crouse 1999a; NMFS 2004). Reproductive females undertake periodic (usually non-annual) migrations to their natal beach to nest. Movements of reproductive males are less well known, but are presumed to involve migrations to the nesting beach or to courtship stations along the migratory corridor (Meylan 1999b). Females nest an average of 3-5 times per season (Meylan and Donnelly 1999, Richardson et al. 1999). Clutch size is larger on average (up to 250 eggs) than that of other turtles (Hirth 1980). Reproductive females may exhibit a high degree of fidelity to their nest sites.

The life history of hawksbills consists of a pelagic stage that lasts from the time they leave the nesting beach as hatchlings until they are approximately 22 - 25 cm in straight carapace length (Meylan 1988, Meylan and Donnelly 1999), followed by residency in developmental habitats (foraging areas where immatures reside and grow) in coastal waters. Adult foraging habitat, which may or may not overlap with developmental habitat, is typically coral reefs, although other hard-bottom communities and occasionally mangrove-fringed bays may be occupied. Hawksbills show fidelity to their foraging areas over several years (van Dam and Diez 1998).

The hawksbill's diet is highly specialized and consists primarily of sponges (Meylan 1988) although other food items, notably corallimorphs and zooanthids, have been documented to be important in some areas of the Caribbean (van Dam and Diez 1997, Mayor et al. 1998, Leon and Diez 2000).

Population Dynamics and Status

Estimates of the annual number of nests at hawksbill sea turtle nesting sites are of the order of hundreds to a few thousand. Nesting within the southeastern U.S. and U.S. Caribbean is restricted to Puerto Rico (>650 nests/yr), the U.S. Virgin Islands (~400 nests/yr), and, rarely, Florida (0-4 nests/yr) (Eckert 1995, Meylan 1999a, Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute's Statewide Nesting Beach Survey data 2002). At the two principal nesting beaches in the U.S. Caribbean where long-term monitoring has been carried out, populations appear to be increasing (Mona Island, Puerto Rico) or stable (Buck Island Reef National Monument, St. Croix, USVI) (Meylan 1999a).

Threats

As described above for other sea turtle species, hawksbill sea turtles are affected by habitat loss,

habitat degradation, fishery interactions, and poaching in some parts of their range. There continues to be a black market for hawksbill shell products (“tortoiseshell”), which likely contributes to the harvest of this species.

3.4.6.3 Summary of Status for Hawksbill Sea Turtles

Worldwide, hawksbill sea turtle populations are declining. They face many of the same threats affecting other sea turtle species. In addition, there continues to be a commercial market for hawksbill shell products despite protections afforded to the species under U.S. law and international conventions.

3.5 Environmental Baseline

This section contains an analysis of the effects of past and ongoing human and natural factors leading to the current status of the species, their habitat, and the ecosystem, within the action area. The environmental baseline is a snapshot of the factors affecting the species and includes federal, state, tribal, local, and private actions already affecting the species, or that will occur contemporaneously with the consultation in progress. Unrelated, future federal actions affecting the same species that have completed formal or informal consultation are also part of the environmental baseline, as are implemented and ongoing federal and other actions within the action area that may benefit listed species.

3.5.1 Factors Affecting Sea Turtles in the Action Area

The environmental baseline for this opinion includes the effects of several activities that affect the survival and recovery of threatened and endangered species in the action area. As noted above, sea turtles found in the action area may travel widely throughout the Atlantic, Gulf of Mexico, and Caribbean Sea. Therefore, individuals found in the action area can potentially be affected by activities anywhere within this wide range. The most thorough account of permitted and non-permitted activities, including research activities that are not harmful to the turtles, in the entire U.S. Atlantic, Gulf of Mexico, and Caribbean can be found in Appendix 2 of the NOAA Technical Memorandum NMFS-SEFSC-455, *Stock Assessments of Loggerhead and Leatherback Sea Turtles and an Assessment of the Impact of the Pelagic Longline Fishery on the Loggerhead and Leatherback Sea Turtles of the Western North Atlantic* (NMFS SEFSC 2001).

The most significant activities affecting sea turtles in the Atlantic are fisheries and conservation activities directed at fisheries. Other environmental impacts to turtles may result from vessel operations, discharges, dredging, military activities, oil and gas development activities, industrial cooling water intake, aquaculture, recreational fishing, coastal development, directed take, and marine debris.

3.5.1.1 Federal Actions

In recent years, NOAA Fisheries has undertaken numerous ESA section 7 consultations to address the effects of federally-permitted fisheries and other federal actions on threatened and endangered sea turtle species. Each of those consultations sought to develop ways of reducing the probability of adverse effects of the action on sea turtles. Similarly, recovery actions NOAA

Fisheries has undertaken under the ESA are addressing the problem of take of sea turtles in the fishing and shipping industries and other activities such as Army Corps of Engineers (COE) dredging operations. The summary below of anticipated sources of incidental take of sea turtles from federal actions includes only those actions which have already concluded or are currently undergoing formal section 7 consultation.

Fisheries

Adverse effects on threatened and endangered sea turtles from several types of fishing gear occur in the action area. Gillnet, longline, trawl gear, and pot fisheries have all been documented as interacting with sea turtles. For all fisheries for which there is a fishery management plan (FMP) or for which any federal action is taken to manage that fishery, impacts have been evaluated under section 7. Formal section 7 consultations have been conducted on the following fisheries that NOAA Fisheries has determined are likely to adversely affect threatened and endangered sea turtles : American lobster, Atlantic bluefish, Atlantic herring, Atlantic mackerel/squid/Atlantic butterfish, Atlantic sea scallop, dolphin/wahoo, monkfish, northeast multispecies, red crab, skate, spiny dogfish, southeastern shrimp trawl fishery, commercial directed shark, summer flounder/scup/black sea bass fisheries, and tilefish. An Incidental Take Statement (ITS) has been issued for the take of sea turtles in each of the fisheries. A summary of each consultation is provided below but more detailed information can be found in the respective opinions.

The *American lobster trap fishery* has been identified as a source of gear causing serious injuries and mortality of leatherback sea turtles. Consultation on the American lobster pot fishery was reinitiated in 2002 to consider the effects of limited access for parts of the federal lobster management area, and implementation of a conservation equivalency measure for state-permitted New Hampshire lobster fishers who also held a federal lobster permit. This consultation concluded, on October 31, 2002, that the proposed action was not likely to jeopardize the continued existence of leatherbacks but was expected to result in the take of one additional leatherback sea turtle biennially. NOAA Fisheries reinitiated consultation on the federal lobster fishery on July 29, 2003, because of its impacts on right whale. This consultation is on-going but is not expected to reconsider the effects of the fishery on leatherbacks.

The *Atlantic Bluefish fishery* may pose a risk to protected marine mammals, but is most likely to interact with sea turtles (primarily Kemp's ridley and loggerheads) given the time and locations where the fishery occurs. Gillnets are the primary gear used to commercially land bluefish. Turtles can become entangled in the buoy lines of the gillnets or in the net panels.

Section 7 consultation was completed on the *Atlantic Herring FMP* on September 17, 1999, and concluded that the federal herring fishery may adversely affect loggerhead, leatherback, Kemp's ridley, and green sea turtles as a result of capture in gear used in the fishery. NOAA Fisheries currently authorizes the use of trawl, purse seine, and gillnet gear in the commercial herring fishery (64 FR 4030). There is no direct evidence of takes of ESA-listed species in the herring fishery from the NOAA Fisheries sea sampling program. However, observer coverage of this fishery has been minimal. Sea turtles have been captured in comparable gear used in other fisheries that occur in the same area as the herring fishery. Because much of the herring fishery occurs in state waters, the fishery is managed in these waters under the guidance of the Atlantic States Marine Fisheries Commission (ASMFC). The ASMFC plan, implemented through

regulations promulgated by member states, is expected to benefit sea turtles by reducing effort in the herring fishery.

The *Atlantic Mackerel/Squid/Atlantic Butterfish fishery* is known to take sea turtles. Several types of gillnet gear may be used in the mackerel/squid/butterfish fishery. Other gear types that may be used in this fishery include midwater and bottom trawl gear, pelagic longline/hook-and-line/handline, pot/trap, dredge, poundnet, and bandit gear. Entanglements or entrapments of sea turtles have been recorded in one or more of these gear types.

It was previously believed that the *Atlantic Sea Scallop fishery* was unlikely to take sea turtles given differences in depth and temperature preferences for sea turtles and the optimal areas where the fishery occurs. However, after the reopening of a closed area in the mid-Atlantic, and the accumulation of more extensive observer effort, NOAA Fisheries initiated formal section 7 consultation on the fishery. NOAA Fisheries concluded that operation of the fishery may adversely affect loggerhead, Kemp's ridley, green, and leatherback sea turtles as a result of capture in scallop dredge and/or trawl gear. Consultation was reinitiated in 2003 following receipt of additional information on the capture of sea turtles in scallop dredge gear. A new ITS was provided for sea turtles. NOAA Fisheries anticipates additional information from the Northeast Fisheries Science Center in 2004 may result in reinitiation of consultation.

The FMP for the *Dolphin/Wahoo fishery* was approved in December 2003. NOAA Fisheries conducted a formal section 7 consultation to consider the effects of implementation of the FMP on sea turtles. The biological opinion concluded that loggerhead, leatherback, hawksbill, green, and Kemp's ridley sea turtles may be adversely affected by operation of the fishery. However, the proposed action was not expected to jeopardize the continued existence of any of these species. An ITS has been provided.

The federal *Monkfish fishery* occurs in all waters under federal jurisdiction from Maine to the North Carolina/South Carolina border. The current commercial fishery operates primarily in the deeper waters of the Gulf of Maine, Georges Bank, and southern New England, and in the Mid-Atlantic. The monkfish fishery uses several gear types that may entangle sea turtles, including gillnet and trawl gear. NOAA Fisheries reinitiated consultation on the Monkfish FMP on May 4, 2000, in part, to reevaluate the effects of the monkfish gillnet fishery on sea turtles. A new ITS was provided for the take of sea turtles in the fishery as a result of capture in monkfish gillnet and trawl gear. Consultation was subsequently reinitiated in 2002 and 2003 to consider, first, the one year delay in reducing Days-at-Sea (DAS) to zero (which would have effectively eliminated directed monkfish fishing effort) and then elimination of the DAS reduction altogether. A new ITS was provided for sea turtles in each case. Reducing DAS to zero would have likely been of benefit to sea turtles by eliminating directed gillnet and trawl effort in the fishery. In March 2002, NOAA Fisheries published new restrictions for the use of gillnets with larger than 8 inch (20.3 cm) stretched mesh, in federal waters (3-200 nautical miles) off of North Carolina and Virginia. These restrictions were published in an Interim Final Rule under the authority of the Endangered Species Act (67 FR 13098) and were implemented to reduce the impact of the monkfish and other large-mesh gillnet fisheries on endangered and threatened species of sea turtles in areas where they are known to concentrate. Following review of public comments submitted on the Interim Final Rule, NOAA Fisheries published a Final Rule on December 3, 2002, that establishes the restrictions on an annual basis. These measures are in addition to

Harbor Porpoise Take Reduction Plan measures in place that prohibit the use of large-mesh gillnets in southern Mid-Atlantic waters (territorial and federal waters from Delaware through North Carolina out to 72° 30'W longitude) from February 15-March 15, annually. Operation of the gillnet sector of the monkfish fishery is further modified by management measures implemented under the Atlantic Large Whale Take Reduction Plan (ALWTRP).

Multiple gear types are used in the *Northeast Multispecies fishery*. However, the gear type of greatest concern is sink gillnet gear that can entangle sea turtles (*i.e.*, in buoy lines and/or net panels). The northeast multispecies sink gillnet fishery has historically occurred from the periphery of the Gulf of Maine to Rhode Island in water as deep as 60 fathoms. In recent years, more of the effort in the fishery has occurred in offshore waters and into the Mid-Atlantic. Participation in this fishery has declined because extensive groundfish conservation measures have been implemented; the latest of these occurring under Amendment 13 to the Multispecies FMP. Effort in the fishery is expected to be significantly reduced as a result of the Amendment 13 measures.

The *Red crab fishery* is a pot/trap fishery that occurs in deep waters along the continental slope. There have been no recorded takes of ESA-listed species in the red crab fishery. However, given the type of gear used in the fishery, takes of loggerhead and leatherback sea turtles may be possible where gear overlaps with the distribution of ESA-listed species. An ITS has been provided.

Traditionally, the main gear types used in the *Skate fishery* include mobile otter trawls, gillnet gear, hook and line, and scallop dredges, although bottom trawling is by far the most common gear type, accounting for 94.5% of skate landings. Gillnet gear is the next most common gear type, accounting for 3.5% of skate landings. The Northeast skate complex is comprised of seven different skate species. The seven species of skate are distributed along the coast of the northeast U.S. from the tide line to depths exceeding 700m (383 fathoms). There have been no recorded takes of ESA-listed species in the skate fishery. However, given that sea turtle interactions with trawl and gillnet gear have been observed in other fisheries, sea turtle takes in gear used in the skate fishery may be possible where the gear and sea turtle distribution overlap. Section 7 consultation on the new Skate FMP was completed July 24, 2003, and concluded that implementation of the Skate FMP may adversely affect ESA-listed sea turtles as a result of interactions with (capture in) gillnet and trawl gear. An ITS was provided.

The primary gear types for the *Spiny dogfish fishery* are sink gillnets, otter trawls, bottom longline, and driftnet gear. Spiny dogfish are landed in every state from Maine to North Carolina, throughout a broad area with the distribution of landings varying by area and season. During the fall and winter months, spiny dogfish are captured principally in Mid-Atlantic waters from New Jersey to North Carolina. During the spring and summer months, spiny dogfish are landed mainly in northern waters from NY to ME. Sea turtles can be incidentally captured in all gear sectors of this fishery. NOAA Fisheries reinitiated consultation on the Spiny Dogfish FMP on May 4, 2000, to reevaluate, in part, the effects of the spiny dogfish gillnet fishery on sea turtles. A new ITS has been provided for the take of sea turtles in the fishery.

The FMP for spiny dogfish called for a 30% reduction in quota allocation levels for 2000 and a 90% reduction in 2001. Although there have been delays in implementing the plan, quota

allocations are expected to be substantially reduced over the 4½ year rebuilding schedule which should result in a substantial decrease in effort directed at spiny dogfish. The reduction in effort should be of benefit to protected species by reducing the number of gear interactions that occur.

The *Southeast shrimp trawl fishery* affects more sea turtles than all other activities combined (NRC 1990). On December 2, 2002, NOAA Fisheries completed the opinion for shrimp trawling in the southeastern United States under proposed revisions to the TED regulations (68 FR 8456, February 21, 2003). This opinion determined that the shrimp trawl fishery under the revised TED regulations would not jeopardize the continued existence of any sea turtle species. This determination was based, in part, on the opinion's analysis that shows the revised TED regulations are expected to reduce shrimp trawl related mortality by 94 percent for loggerheads and 97 percent for leatherbacks.

The *Summer Flounder, Scup and Black Sea Bass fisheries* are known to interact with sea turtles.

Summer flounder, scup and black sea bass are managed under one FMP since these species occupy similar habitat and are often caught at the same time. They are present in offshore waters throughout the winter and migrate and occupy inshore waters throughout the summer. The primary gear types used in the summer flounder, scup and black sea bass fisheries are mobile trawl gear, pots and traps, gillnets, pound nets, and handlines. Significant measures have been developed to reduce the take of sea turtles in summer flounder trawls and trawls that meet the definition of a summer flounder trawl (which would include fisheries for other species like scup and black sea bass) by requiring the use TEDs throughout the year for trawl nets fished from the North Carolina/South Carolina border to Oregon Inlet, North Carolina and seasonally (March 16-January 14) for trawl vessels fishing between Oregon Inlet, North Carolina and Cape Charles, Virginia. Developmental work is also ongoing for a TED that will work in the flynets used in the summer flounder fisheries. The gillnet, pot gear and staked trap sectors could also entangle whales and sea turtles. As a result of new information not considered in previous consultations, NOAA Fisheries has reinitiated section 7 consultation on this FMP to consider the effects of the fisheries on sea turtles.

The North Carolina inshore fall *southern flounder gillnet fishery* was identified as a source of large numbers of sea turtle mortalities in 1999 and 2000, especially loggerhead sea turtles. In 2001, NOAA Fisheries issued an ESA section 10 permit to North Carolina with mitigative measures for the southern flounder fishery. Subsequently, the sea turtle mortalities in these fisheries were drastically reduced. The reduction of sea turtle mortalities in these fisheries reduces the negative effects these fisheries have on the environmental baseline.

The management unit for the *Tilefish FMP* is all golden tilefish under U.S. jurisdiction in the Atlantic Ocean north of the Virginia/North Carolina border. Tilefish have some unique habitat characteristics, and are found in a warm water band (8-18° C) approximately 250 to 1200 feet deep on the outer continental shelf and upper slope of the U.S. Atlantic coast. Because of their restricted habitat and low biomass, the tilefish fishery in recent years has occurred in a relatively small area in the Mid-Atlantic Bight, south of New England and west of New Jersey. Section 7 consultation was completed on this newly regulated fishery in March 2001. An ITS is provided for loggerhead and leatherback sea turtles.

Formal Section 7 consultation has also been conducted for the issuance of an Exempted Fisheries Permit (EFP) for the collection of horseshoe crabs from the Carl N. Shuster, Jr. Federal Horseshoe Crab Reserve (in federal waters off of the mouth of Delaware Bay), and for an EFP for Jonah crab. The EFP for the collection of horseshoe crabs was first issued in October 2001 and includes an ITS for loggerhead sea turtles (NOAA Fisheries 2001b). Horseshoe crabs collected under this permit are used for data collection on the species and to obtain blood for biomedical purposes. The EFP for Jonah crab was issued to the Maine Department of Marine Fisheries to allow lobster trap fishers to fish additional (modified) lobster traps in federal waters off of Maine in order to determine the traps efficiency at catching Jonah crabs while excluding lobster. The biological opinion concluded, in part, that the proposed activities may adversely affect but were not likely to jeopardize the continued existence of leatherback sea turtles. An ITS as well as non-discretionary RPMs and discretionary Conservation Recommendations were provided to address the anticipated take of leatherback sea turtles.

Vessel Operations

Potential sources of adverse effects from federal vessel operations in the action area and throughout the range of sea turtles include operations of the U.S. Navy (USN) and Coast Guard (USCG), the Environmental Protection Agency, the National Oceanic and Atmospheric Administration (NOAA), and the COE. NOAA Fisheries has conducted formal consultations with the USCG, the USN, and NOAA on their vessel operations. Through the section 7 process, where applicable, NOAA Fisheries has and will continue to establish conservation measures for all these agency vessel operations to avoid or minimize adverse effects to listed species. At the present time, however, they present the potential for some level of interaction.

In addition to vessel operations, other military activities including training exercises and ordnance detonation also affect sea turtles and cetaceans. Consultations on individual activities have been completed, but no formal consultation on overall USCG or USN activities in any region has been completed at this time.

Dredging

The construction and maintenance of federal navigation channels has also been identified as a source of sea turtle mortality. Hopper dredges move relatively rapidly (compared to sea turtle swimming speeds) and can entrain and kill sea turtles, presumably as the drag arm of the moving dredge overtakes the slower moving sea turtle. A regional opinion with the COE's South Atlantic Division has been completed for the southeastern Atlantic waters. Consultation on a new regional opinion for the COE's Gulf of Mexico hopper dredging operations was completed in November, 2003.

Oil and Gas Exploration

The COE and the Minerals Management Service (MMS) authorize oil and gas exploration, well development, production, and abandonment/rig removal activities that also may adversely affect sea turtles. Both of these agencies have consulted with NOAA Fisheries on these types of activities. These activities include the use of seismic arrays for oil and gas exploration in the Gulf of Mexico, the impacts of which have been addressed in opinions for individual and multi-lease sales. These impacts are expected to result from vessel strikes, noise, marine debris, and the use of explosives to remove oil and gas structures.

Electrical Generating Plants

Another action with federal oversight (the Federal Energy Regulatory Commission and the Nuclear Regulatory Agency) which has impacts on sea turtles is the operation of electrical generating plants. Sea turtles entering coastal or inshore areas have been affected by entrainment in the cooling-water systems of electrical generating plants, though it is important to note that almost all of the turtles are caught and released alive; NOAA Fisheries estimates the survival rate at 98.5% or greater (NMFS 1997). Biological opinions have already been written for a number of electrical generating plants, and others are currently undergoing section 7 consultation.

3.5.1.2 State or Private Actions

Vessel Traffic

Commercial traffic and recreational pursuits can adversely effect sea turtles through propeller and boat strikes. Private vessels participate in high speed marine events concentrated in the southeastern United States and are a particular threat to sea turtles. The magnitude of these marine events is not currently known. NOAA Fisheries and the USCG are in early consultation on these events, but a thorough analysis has not been completed. The Sea Turtle Stranding and Salvage Network (STSSN) also reports many records of vessel interaction (propeller injury) with sea turtles off coastal states such as New Jersey and Florida, where there are high levels of vessel traffic.

State Fisheries

Various fishing methods used in state fisheries, including trawling, pot fisheries, fly nets, and gillnets are known to incidentally take listed species, but information on these fisheries is sparse (NMFS SEFSC 2001). Although few of these state regulated fisheries are currently authorized to incidentally take listed species, several state agencies have approached NOAA Fisheries to discuss applications for a section 10(a)(1)(B) incidental take permit. Since NOAA Fisheries' issuance of a section 10(a)(1)(B) permit requires formal consultation under section 7 of the ESA, the effects of these activities are considered in section 7 consultation. Any fisheries that come under a section 10(a)(1)(B) permit in the future will likewise be subject to section 7 consultation.

Although the past and current effects of these fisheries on listed species is currently not determinable, NOAA Fisheries believes that ongoing state fishing activities may be responsible for seasonally high levels of observed strandings of sea turtles on both the Atlantic and Gulf of Mexico coasts. Most of the state data are based on extremely low observer coverage or sea turtles were not part of data collection; thus, these data provide insight into gear interactions that could occur but are not indicative of the magnitude of the overall problem. In addition to the lack of interaction data, there is another issue that complicates the analysis of impacts to sea turtles from these fisheries. Certain gear types may have high levels of sea turtle takes, but very low rates of serious injury or mortality. For example, the hook and line takes rarely result in death, but trawls and gillnets frequently do. Leatherbacks seem to be susceptible to a more restricted list of fisheries, while the hard shelled turtles, particularly loggerheads, seem to appear in data on almost all of the state fisheries.

The North Carolina Observer program documented 33 flynet trips from November through April of 1991-1994 and recorded no turtles caught in 218 hours of trawl effort. However, a NOAA Fisheries- observed vessel fished for summer flounder for 27 tows with an otter trawl equipped

with a TED and then fished for weakfish and Atlantic croaker with a flynet that was not equipped with a TED. They caught 1 loggerhead in 27 TED-equipped tows and 7 loggerheads in 9 flynet tows without TEDs. In addition, the same vessel using the flynet on a previous trip took 12 loggerheads in 11 out of 13 observed tows targeting Atlantic croaker. NOAA Fisheries is testing designs for TEDs that may be required in the flynet fishery in the future.

Other state bottom trawl fisheries that are suspected of incidentally capturing sea turtles are the horseshoe crab fishery in Delaware (Spotila et al. 1998) and the whelk trawl fishery in South Carolina (S. Murphy, pers. comm. to J. Braun-McNeill, November 27, 2000) and Georgia (M. Dodd, pers. comm. to J. Braun-McNeill, December 21, 2000). In South Carolina, the whelk trawling season opens in late winter and early spring when offshore bottom waters are $> 55^{\circ}\text{F}$. One criterion for closure of this fishery is water temperature: whelk trawling closes for the season and does not reopen throughout the state until six days after water temperatures first reach 64°F in the Fort Johnson boat slip. Based on the South Carolina Department of Natural Resources Office of Fisheries Management data, approximately six days will usually lapse before water temperatures reach 68°F , the temperature at which sea turtles move into state waters (D. Cupka, pers. comm.). From 1996-1997, observers onboard whelk trawlers in Georgia reported a total of three Kemp's ridley, two green, and two loggerhead sea turtles captured in 28 tows for a CPUE of 0.3097 turtles/100 ft net hour. As of December 2000, TEDS are required in Georgia state waters when trawling for whelk. There has also been one report of a loggerhead captured in a Florida try net (W. Teas, pers. comm.). Trawls for cannonball jellyfish may also be a source of interactions.

A detailed summary of the gillnet fisheries currently operating along the mid- and southeast U.S. Atlantic coastline, which are known to incidentally capture loggerheads, can be found in the TEWG reports (1998, 2000). Although all or most nearshore gillnetting is prohibited by state regulations in state waters of South Carolina, Georgia, Florida, Louisiana, and Texas, gillnetting in other states' waters and in federal waters does occur. Of particular concern are the nearshore and inshore gillnet fisheries of the mid-Atlantic operating in Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina state waters and/or federal waters. Incidental captures in these gillnet fisheries (both lethal and non-lethal) of loggerhead, leatherback, green and Kemp's ridley sea turtles have been reported (W. Teas, pers. comm., J. Braun-McNeill pers. comm.). In addition, illegal gillnet incidental captures have been reported in South Carolina, Florida, Louisiana and Texas (NMFS SEFSC 2001).

Georgia and South Carolina prohibit gillnets for all but the shad fishery. This fishery was observed in South Carolina for one season by the NOAA Fisheries SEFSC (McFee et al. 1996). No takes of protected species were observed. Florida banned all but very small nets in state waters, as has the state of Texas. Louisiana, Mississippi and Alabama have also placed restrictions on gillnet fisheries within state waters such that very little commercial gillnetting takes place in southeast waters, with the exception of North Carolina. Gillnetting activities in North Carolina associated with the southern flounder fishery had been implicated in large numbers of sea turtle mortalities. The Pamlico Sound portion of that fishery was closed and has subsequently been reopened under a section 10(a)(1)(B) permit.

Pound nets are a passive, stationary gear that are known to incidentally capture loggerhead sea turtles in Massachusetts (R. Prescott pers. comm.), Rhode Island, New Jersey, Maryland (W.

Teas pers. comm.), New York (Morreale and Standora 1998), Virginia (Bellmund et al. 1987) and North Carolina (Epperly et al. 2000). Although pound nets are not a significant source of mortality for loggerheads in New York (Morreale and Standora 1998) and North Carolina (Epperly et al. 2000), they have been implicated in the stranding deaths of loggerheads in the Chesapeake Bay from mid-May through early June (Bellmund et al. 1987). The turtles were reported entangled in the large mesh (>8 inches) pound net leads (NMFS SEFSC 2001).

Incidental captures of loggerheads in fish traps set in Massachusetts, Rhode Island, New York, and Florida have been reported (W. Teas, pers. comm.). Although no incidental captures have been documented from fish traps set in North Carolina and Delaware (Anon 1995), they are another potential anthropogenic impact to loggerheads and other sea turtles. Lobster pot fisheries are prosecuted in Massachusetts (Prescott 1988), Rhode Island (Anon 1995), Connecticut (Anon 1995) and New York (S. Sadove, pers. comm.). Although they are more likely to entangle leatherback sea turtles, lobster pots set in New York are also known to entangle loggerhead sea turtles. No incidental capture data exist for the other states. Long haul seines and channel nets in North Carolina are known to incidentally capture loggerhead and other sea turtles in the sounds and other inshore waters (J. Braun-McNeill, pers. comm.). No lethal takes have been reported (NMFS SEFSC 2001).

Observations of state recreational fisheries have shown that loggerhead, leatherback, Kemp's ridley, and green sea turtles are known to bite baited hooks, and loggerheads and Kemp's ridleys frequently ingest the hooks. Recreational fishermen have reported hooking turtles when fishing from boats, piers, and beach, banks, and jetties. Commercial fishermen fishing for reef fish and for sharks with both single rigs and bottom longlines have also reported hooked turtles (NMFS 2001). A detailed summary of the known impacts of hook and line incidental captures to loggerhead sea turtles can be found in the TEWG reports (1998, 2000).

Coastal Development

Beachfront development, lighting and beach erosion control all are ongoing activities along the Gulf of Mexico and Atlantic coasts. These activities potentially reduce or degrade sea turtle nesting habitats or interfere with hatchling movement to sea. Nocturnal human activities along nesting beaches may also discourage sea turtles from nesting sites. The extent to which these activities reduce sea turtle nesting and hatchling production is unknown. However, more and more coastal counties are adopting stringent protective measures to protect hatchling sea turtles from the disorienting effects of beach lighting.

3.5.1.3 Other Sources of Impacts

International

For sea turtle species in the Atlantic, international activities, particularly fisheries, are significant factors impacting populations. The U.S. and 26 other nations participate in longline fishing throughout the western North Atlantic Ocean and the relative proportion of total hooks fished by the U.S. fleet is small compared to the cumulative total hooks fished by foreign fleets. As with U.S. fleets, sea turtles are incidentally captured in foreign fleets (NMFS SEFSC 2001). Takes of pelagic juvenile loggerheads in U.S. and international longline fisheries as a whole are large and NMFS SEFSC (2001) concludes that it could alter population trends. Takes in international gillnet fisheries are also known to be prevalent. Additional information on the impacts of

international fisheries is found in NMFS SEFSC (2001) and Lewison et al. (2004). NOAA Fisheries estimates that, each year, thousands of sea turtles of all species are incidentally caught and a proportion of them killed incidentally or intentionally by international activities. The impact of international fisheries is a significant factor in the baseline inhibiting sea turtle recovery.

Significant anthropogenic impacts threaten nesting populations of all species in areas outside of the U.S. These impacts include poaching of eggs, immatures and adults as well as beach development problems. There are other more indirect factors; for a complete list refer to NOAA Fisheries SEFSC (2001).

Marine Pollution

A number of activities that may indirectly affect listed species in the action area of this consultation include discharges from wastewater systems, dredging, ocean dumping and disposal, aquaculture, recreational fishing, and anthropogenic marine debris. The impacts from these activities are difficult to measure. Where possible, conservation actions are being implemented to monitor or study impacts from these sources. Close coordination is occurring through the section 7 process on both dredging and disposal sites to develop monitoring programs and ensure that vessel operators do not contribute to vessel-related impacts.

Sources of pollutants in Atlantic and Gulf of Mexico coastal regions include atmospheric loading of pollutants such as PCBs, storm water runoff from coastal towns, cities and villages, runoff into rivers emptying into the bays, groundwater and other discharges, and river input and runoff. Nutrient loading from land-based sources such as coastal community discharges is known to stimulate plankton blooms in closed or semi-closed estuarine systems. The effects on larger embayments is unknown. Although pathological effects of oil spills have been documented in laboratory studies of marine mammals and sea turtles (Vargo et al. 1986), the impacts of many other anthropogenic toxins have not been investigated.

Disease

A little understood disease is posing a new threat to loggerhead sea turtles. Between the period of September 2000 to January 2001, 45 debilitated and 95 dead loggerhead turtles have been found in south Florida between Indian River and Charlotte Counties, elevating stranding data for this period to more than 3 times the previous 10-year average (Foley, pers. comm., 2000). These numbers may represent only 10 to 20% of the turtles that have been affected by this disease because many dead or dying turtles likely never wash ashore. If the agent responsible for debilitating these turtles re-emerges in Florida, the scope of this die-off may increase substantially. In addition, if the agent is infectious, nesting females could spread the disease throughout the range of the adult loggerhead population. Symptoms of the unknown disease include extreme lethargy and pneumonia. Of the diseased turtles found alive, even with extensive care, many have died and none have fully recovered. The cause of the disease has yet to be determined but potential causes include bacteria, virus, or exposure to some toxin.

Acoustic impacts

NOAA Fisheries and the USN have been working cooperatively to establish a policy for monitoring and managing acoustic impacts from anthropogenic sound sources in the marine environment. Acoustic impacts to sea turtles can include temporary or permanent injury, habitat

exclusion, habituation, and disruption of other normal behavior patterns.

3.5.1.4 Conservation and Recovery Actions Benefitting Sea Turtles

NOAA Fisheries has implemented a series of regulations aimed at reducing potential for incidental mortality of sea turtles in commercial fisheries. In particular, NOAA Fisheries has required the use of TEDs in southeast U.S. shrimp trawls since 1989 and in summer flounder trawls in the mid-Atlantic area (south of Cape Charles, Virginia) since 1992. It has been estimated that TEDs exclude 97 percent of the sea turtles caught in such trawls. These regulations have been refined over the years to ensure that TED effectiveness is maximized through proper placement and installation, configuration (e.g., width of bar spacing), floatation, and more widespread use. Analyses by Epperly and Teas (2002) indicated that the minimum requirements for the escape opening dimensions in TEDs in use at that time were too small, and that as many as 47 percent of the loggerheads stranding annually along the Atlantic Seaboard and Gulf of Mexico were too large to fit through existing openings. On February 21, 2003, NOAA Fisheries published a final rule to require larger escape openings in TEDs used in the southeast shrimp trawl fishery (68 FR 8456, February 21, 2003). Based upon the analyses in Epperly et al. (2002), leatherback and loggerhead sea turtles will greatly benefit from the new regulations, with expected reductions of 97 percent and 94 percent, respectively, in mortality from shrimp trawling. Several states have regulations requiring the use of TEDs in state-regulated trawl fisheries, and the federal regulations also apply in state waters.

In 1993 (with a final rule implemented in 1995), NOAA Fisheries established a Leatherback Conservation Zone to restrict shrimp trawl activities from the coast of Cape Canaveral, Florida, to the North Carolina/Virginia border. This provided for short-term closures when high concentrations of normally pelagically-distributed leatherbacks are recorded in near coastal waters where the shrimp fleet operates. This measure was necessary because, due to their size, adult leatherbacks were larger than the escape openings of most NOAA Fisheries-approved TEDs. With the implementation of the new TED rule requiring larger opening sizes on all TEDs, the reactive emergency closures within the Leatherback Conservation Zone became unnecessary, and the Leatherback Conservation Zone was removed from the regulations.

NOAA Fisheries is also working to develop a TED which can be effectively used in a type of trawl known as a flynet, which is sometimes used in the mid-Atlantic and Northeast fisheries to target sciaenids and bluefish. Limited observer data indicate that takes can be quite high in this fishery. Prototype designs have been tested since December 2002, but an effective TED for this fishery has not yet been developed. Development of a larger TED for the winter trawl fishery is also underway.

NOAA Fisheries closed part of Pamlico Sound to the setting of gillnets targeting southern flounder in fall 1999 after the strandings of relatively large numbers of loggerhead and Kemp's ridley sea turtles on inshore beaches. This is a state-regulated fishery. NOAA Fisheries also closed the waters north of Cape Hatteras to 38° N latitude, including the mouth of the Chesapeake Bay, to large (> 6 inch stretched) mesh gillnets for 30 days in mid-May 2000 due to the large numbers of loggerhead strandings in North Carolina, and will continue to implement

such proactive measures as necessary. A large proportion of these stranded loggerheads was assumed to be from the northern subpopulation. This assumption is partly supported by analyses conducted by Bass et al. (1999) on genetic samples collected from sea turtles stranding on U.S. Atlantic and Gulf of Mexico shores. The northern subpopulation accounted for 25-28 percent of the animals that stranded off the Carolinas, and 46 percent of the animals sampled that stranded in the northernmost area sampled, Virginia (TEWG 2000). Most recently, on October 27, 2000, the North Carolina Division of Marine Fisheries (NCDMF) closed waters in the southeastern portion of the Pamlico Sound as a result of elevated takes by the commercial large-mesh flounder gillnet fishery. The fishery was closed when anticipated incidental take levels were met for green turtles. The NCDMF estimated that there were 50 loggerheads captured at the time of closure and that 44 of those had been drowned (NMFS SEFSC 2001, Part 1). The fishery has subsequently been reopened under a section 10(a)(1)(B) permit.

In March 2002, NOAA Fisheries published new restrictions for the use of gillnets with larger than 8 inch (20.3 cm) stretched mesh, in federal waters (3-200 nautical miles) off of North Carolina and Virginia. These restrictions were published in an Interim Final Rule under the authority of the Endangered Species Act (67 FR 13098) and were implemented to reduce the impact of the monkfish and other large-mesh gillnet fisheries on endangered and threatened species of sea turtles in areas where sea turtles are known to concentrate. Following review of public comments submitted on the Interim Final Rule, NOAA Fisheries published a Final Rule on December 3, 2002, that establishes the restrictions on an annual basis. As a result, gillnets with larger than 8 inch stretched mesh are not allowed in federal waters (3-200 nautical miles) north of the North Carolina/South Carolina border at the coast to Oregon Inlet at all times; north of Oregon Inlet to Currituck Beach Light, North Carolina from March 16 through January 14; north of Currituck Beach Light, North Carolina to Wachapreague Inlet, Virginia from April 1 through January 14; and, north of Wachapreague Inlet, Virginia to Chincoteague, Virginia from April 16 through January 14. Federal waters north of Chincoteague, Virginia are not affected by these new restrictions although NOAA Fisheries is looking at additional information to determine whether expansion of the restrictions are necessary to protect sea turtles as they move into northern Mid-Atlantic and New England waters. These measures are in addition to Harbor Porpoise Take Reduction Plan measures that prohibit the use of large-mesh gillnets in southern Mid-Atlantic waters (territorial and federal waters from Delaware through North Carolina out to 72° 30'W longitude) from February 15-March 15, annually.

Existing information indicates that pound nets with large mesh and stringer leaders as used in the Chesapeake Bay incidentally take sea turtles. To address the high and increasing level of sea turtle strandings, NOAA Fisheries published a temporary rule in June 2001 (66 FR 33489) that prohibited fishing with pound net leaders with a mesh size measuring 8 inches or greater (20.3 cm) and pound net leaders with stringers in mainstream waters of the Chesapeake Bay and its tributaries for a 30-day period beginning June 19, 2001. NOAA Fisheries subsequently published an Interim Final Rule in 2002 (67 FR 41196, June 17, 2002) that further addressed the take of sea turtles in large-mesh pound net leaders and stringer leaders used in the Chesapeake Bay and its tributaries. Following new observations of sea turtle entanglements in pound net leaders in the spring of 2003, NOAA Fisheries issued a temporary final rule (68 FR 41942, July 16, 2003) that restricted all pound net leaders throughout Virginia's waters of the Chesapeake Bay and a portion of its tributaries from July 16-July 30, 2003. As a follow-up to this action, NOAA Fisheries recently published a final rule (69 FR 24997, May 5, 2004) that prohibits the

use of all pound net leaders, set with the inland end of the leader greater than 10 horizontal feet (3m) from the, mean low water line, from May 6 to July 15 each year in the mainstream waters of the Chesapeake Bay, south of 37° 19.0' N. latitude and west of 76° 13.0' W. longitude, and all waters south of 37° 13.0' N. latitude to the Chesapeake Bay Bridge Tunnel at the mouth of the Chesapeake Bay, and the James and York Rivers downstream of the first bridge in each tributary. Outside this area, the prohibition of leaders with greater than or equal to 12 inches (30.5 cm) stretched mesh and leaders with stringers, as established by the June 17, 2002, interim final rule, will apply from May 6 to July 15 each year. The final rule also includes a framework mechanism by which NMFS may take additional action as necessary.

As described above for the Atlantic sea scallop fishery, NOAA Fisheries received new information in 2001 which demonstrated that scallop dredge gear posed a risk of injury and mortality for hard-shelled sea turtles as a result of being captured in the dredge. Subsequently, industry representatives and interested parties began working in conjunction with NOAA Fisheries, Northeast Fisheries Science Center to test a modified dredge that is intended to reduce the risk of sea turtle captures in the gear. The first year of the study produced promising results. Further testing is planned for 2004.

NOAA Fisheries has also been active in public outreach efforts to educate fishermen regarding sea turtle handling and resuscitation techniques. As well as making this information widely available to all fishermen, NOAA Fisheries recently conducted a number of workshops with HMS pelagic longline fishermen to discuss bycatch issues including protected species, and to educate them regarding handling and release guidelines. NOAA Fisheries intends to continue these outreach efforts and hopes to reach all fishermen participating in the HMS pelagic longline fishery over the next one to two years. There is also an extensive network of Sea Turtle Stranding and Salvage Network participants along the Atlantic and Gulf of Mexico coasts who not only collect data on dead sea turtles, but also rescue and rehabilitate any live stranded sea turtles.

Loggerheads, leatherbacks, greens, and Kemp's ridleys are known to bite a baited hook, frequently ingesting the hook. Hooked turtles have been reported by the public fishing from boats, piers, beaches, banks, and jetties. Necropsies have revealed hooks internally, which often were the cause of death. NOAA Fisheries currently is exploring adding questions about encounters with sea turtles to intercept interviews of recreational fishermen conducted by the Texas Parks and Wildlife Department under the auspices of the Marine Recreational Fishery Statistics Surveys conducted throughout the Gulf of Mexico and along the Atlantic Coast as well as adding such information to the MRFSS database. NOAA Fisheries is also considering questioning recreational fishermen aboard headboats throughout the southeast U.S. Atlantic and the Gulf of Mexico to quantify their encounters with sea turtles (TEWG 2000). A detailed summary of the impact of hook and line incidental captures on loggerhead sea turtles can be found in the TEWG reports (1998, 2000). The Recovery Plans for loggerhead and Kemp's ridley sea turtles are in the process of being updated. Recovery teams comprised of sea turtle experts have been convened and are currently working towards revising these plans based upon the latest and best available information.

4.0 EFFECTS OF THE PROPOSED ACTION

In this section of the opinion, we assess whether it is reasonable to expect the HMS pelagic longline fishery, as conducted under the proposed regulations, to appreciably reduce the likelihood of survival and recovery of threatened and endangered species in the wild. This section begins with a discussion of the factors to be considered in that assessment. Specifically, we will assess the types of effects expected from the proposed action and discuss some of the available data and assumptions used in making our overall assessment. Then, we will look at the extent of those effects.

4.1 Approaches to the Effects Analysis

4.1.1 Scope of the Analysis

Although all six species of sea turtles are potentially impacted by the Atlantic pelagic longline fishery, leatherback and loggerhead turtles are by far the dominant species caught. Interactions with green, Kemp's ridley, hawksbill, and olive ridley turtles occur only on rare occasions. Moreover, the 2001 opinion on HMS fisheries concluded that the fisheries, as prosecuted without the proposed regulations, would not jeopardize the continued existence of any of these less frequently caught species. There is no new information to alter that conclusion; therefore, the effects analysis focuses on loggerhead and leatherback sea turtles.

The analysis in this section forms the foundation for our jeopardy determination. A jeopardy determination is reached if we would reasonably expect a proposed action to cause reductions in numbers, reproduction, or distribution that would appreciably reduce a listed species' likelihood of surviving and recovering in the wild. The ESA defines an endangered species as "...in danger of extinction throughout all or a significant portion of its range..." and a threatened species as "...likely to become an endangered species within the foreseeable future..." Sea turtles are listed because of their global status; on a worldwide basis, the loggerhead turtle is listed as threatened, and the leatherback turtle is listed as endangered. A jeopardy determination must find that the proposed action will appreciably reduce the likelihood of survival and recovery of the global species.

The Atlantic and Pacific Ocean populations of both loggerhead and leatherback sea turtles contribute substantially to the total reproduction, numbers, and distribution of their respective species (see Status of the Species for population estimates). For example, the Pacific leatherback sea turtle is at high risk of extinction (Spotila et al. 1996, Spotila et al. 2000); therefore, the global survival of the leatherback turtle is dependent on the survival of Atlantic populations. The loss of either population from a catastrophic event would severely impact the stability and long-term prospects of the global species. Similarly, the Pacific populations of loggerhead turtles are small relative to the Atlantic populations, and in decline. Significant nesting of loggerhead turtles occurred in the Indian Ocean, with the largest nesting assemblage in Oman (Ross and Barwani 1982). However, little new information is available regarding the status of the stock in this region. In addition, the recovery of loggerhead and leatherback sea turtles require meeting the goals of both the Atlantic and the Pacific recovery plans. Thus, reductions in numbers, reproduction, or distribution of either basin's populations could potentially lead to an appreciable reduction in a global species' likelihood of both survival and recovery. The analysis performed in this section will therefore focus on expected impacts to the Atlantic populations as a result of the proposed action occurring in the Atlantic.

4.1.2 Conservative Decisions

The quantitative and qualitative analyses in this section are based upon the best available commercial and scientific data on sea turtle biology and the effects of the proposed action. Frequently, the best available information may include a range of values for a particular aspect under consideration, or different analytical approaches may be applied to the same data sets. In those cases, in keeping with the direction from the U.S. Congress to resolve uncertainty by providing the “benefit of the doubt” to threatened and endangered species [House of Representatives Conference Report No. 697, 96th Congress, Second Session, 12 (1979)], we will generally select the value yielding the most conservative outcome for sea turtles (i.e., would lead to conclusions of higher, rather than lower, risk to endangered or threatened species).

4.1.2.1 Consideration of Indirect Effects

When analyzing the effects of any action, it is important that the indirect effects as well as the direct effects be considered. Indirect effects include aspects such as habitat degradation, reduction of prey/foraging base, etc. In the case of the proposed action analyzed in this opinion, there are no expected indirect effects to sea turtles. The operation of the longline fishery (i.e., vessel operations, longline gear deployment and retrieval) is not expected to impact any habitat features of significance to sea turtles in the pelagic environment. Sea turtles do not forage on the longline fishery’s target or bycatch species, so prey competition is not a factor. Therefore, all analyses will be based on direct effects.

4.1.3 Consideration of Direct Effects

The gear used by the HMS pelagic longline fishery presents a significant threat to sea turtles. Entangled or hooked turtles can drown if they cannot surface to breathe. Turtles that are released alive may succumb to injuries sustained at the time of capture or from exacerbated trauma from fishing hooks or lines that were ingested, entangling, or otherwise still attached when they were released. Other turtles hooked or entangled may not die from their wounds, but may suffer impaired swimming or foraging abilities, altered migratory behavior, and altered breeding or reproductive patterns.

Although some studies have attempted to examine post-release mortality rates and sub-lethal effects on sea turtles captured in longline fisheries, such long-term effects are very difficult to monitor satisfactorily with existing technologies. Therefore, a quantitative measure of the effect of longlining on sea turtle populations is very challenging. The following discussion summarizes the information on how individual sea turtles are likely to respond to these interactions. The remainder of this section focuses on quantifying direct impacts on individual animals from the proposed action. Section 6 integrates the analysis of this section with the status of the species and cumulative effects and uses quantitative approaches to evaluate the effects of the proposed action on the species’ populations.

4.2 Capture on Longline Gear

4.2.1 Factors That May Attract Sea Turtles to Longline Gear

Floats

Sea turtles may be attracted to the floats used on longline gear. According to a study by Arenas and Hall (1992), turtles show a preference for nearly submerged objects floating horizontally, and are strongly attracted to brightly colored objects. Lab experiments have shown sea turtles prefer bright colors (i.e., red and yellow) over dull or darker colors (i.e. black, green or blue) (e.g. Fontaine, et al. 1985). Controlled experiments and qualitative evaluations were conducted by the SEFSC using captive reared sea turtles to evaluate their responses to various components of pelagic longlining gear and other stimuli. One experiment tested the attraction of sea turtles to orange and white colored longline floats in a 80' x 35' pen enclosure. Sea turtles were introduced into the pen with a single float treatment. Preliminary analysis of the results indicated that the test turtles may have been more attracted to orange-colored floats than to white-colored floats (J. Watson, SEFSC, personal communication, July 2001). Floats typically used during swordfish-style sets are bright orange, bullet-shaped, and slightly submerged. Deep sets generally use larger cylindrical inflatable or rigid spherical buoys and floats, and these also are typically orange in color (L. Enriquez, NOAA Fisheries, personal communication, January 2001; e.g. www.lindgren-pitman.com/floats.htm).

Mainline and hardware

The SEFSC also conducted evaluations at the Panama City Laboratory which involved placing longline gear in open water pens with captive reared loggerhead turtles to investigate turtle entanglement with various longline gear components. During these experiments, scientists observed turtles tracking along the mainline and biting at the hardware (snaps). Turtles placed in a pool without longline gear (i.e., control) tended to track along the outside edges of the pool. These observations support at-sea observations by divers and remotely operated vehicles, which indicate that turtles may be attracted to the highly visible mainline and hardware used by the fishing industry, and that the turtles may swim along the mainline (J. Watson, SEFSC, personal communication, August 2001).

Lightsticks

Sea turtles foraging at night may be attracted to the lightsticks, confusing them for prey or simply investigating novel items in their environment. Lightsticks are often used by longliners targeting swordfish in order to attract the swordfish to the bait. Whether lightsticks attract swordfish directly or whether they attract baitfish, which in turn attract the swordfish, is not entirely clear; however, fishermen report higher takes of swordfish when they use lightsticks. Lightsticks are generally attached to every gangion, approximately a meter above the hook. Leatherback, loggerhead, and olive ridley turtles are known to prey on pyrosomas, the so-called "fiery bodies"; however, there is little information on the ingestion of lightsticks by sea turtles. In addition, statisticians have not been able to find any correlation between sea turtle take and the proximity of a lightstick to the hook or branchline the turtle was hooked on or entangled in. Experimental studies have, however, indicated that juvenile sea turtles orient towards green, blue, and yellow chemical lightsticks, and orange, green, and shaded green battery powered LEDs (Wang, et al. 2004).

Bait

Sea turtles may also be attracted to the bait used on longline gear. Four olive ridleys necropsied after being taken dead by Hawaii-based longliners were found with bait in their stomachs (Work

2000). In addition, leatherback turtles are known to eat squid. Skillman and Balazs (1992) speculated the lightsticks used on this gear type may have initially attracted the turtle, by simulating natural prey. As will be discussed later, the NED experiment found significant differences in the catch rates of loggerhead and leatherback turtle based on the bait type used. It is not clear, however, whether it is the bait's attractiveness, its ability to shield the hook, the manner in which turtle feed on different baits, or a combination of behaviors, that is responsible for the effect.

4.2.2 Entanglement

Sea turtles are particularly prone to entanglement as a result of their body configuration and behavior. Records of stranded or entangled sea turtles reveal that fishing gear can wrap around the neck, flipper, or body of a sea turtle and severely restrict swimming or feeding. If the sea turtle is entangled when young, the fishing line will become tighter and more constricting as the sea turtle grows, cutting off blood flow and causing deep gashes, some severe enough to remove an appendage.

Pelagic longline gear is fluid and drifts according to oceanographic conditions, including wind and waves, surface and subsurface currents, etc.; therefore, depending on both sea turtle behavior, environmental conditions, and location of the set, turtles can become entangled in longline gear. Sea turtles have been found entangled in gangions, mainlines and floatlines. Sea turtles entangled in the longline fishery are most often entangled around the neck and foreflippers, and, in the case of leatherback turtles, are often found snarled in mainlines, floatlines, and gangions (e.g., Hoey 2000). If sea turtles become entangled in monofilament line (mainline, gangion or float line) the gear can inflict serious wounds, including cuts, constriction, or bleeding anywhere on a turtle's body. In addition, entangling gear can interfere with a turtle's ability to swim or impair its feeding, breeding, or migration and can force the turtle to remain submerged, causing it to drown.

4.2.3 Hooking

In addition to being entangled in a longline, sea turtles are also injured and killed by being hooked. Hooking can occur as a result of a variety of scenarios, some of which will depend on foraging strategies and diving and swimming behavior of the various species of sea turtles. Sea turtles are either hooked externally — generally in the flippers, head, shoulders, armpits, or beak — or internally, inside the mouth or when the animal has swallowed the bait and the hook is ingested into the gastro-intestinal tract, often a major site of hooking (E. Jacobson *in* Balazs *et al.* 1995). Whereas entanglement and foul hooking is the primary form of interaction that occurs between leatherback turtles and the longline fishery, internal hooking is much more prevalent in hard-shelled turtles, especially loggerheads. Internal hooking of leatherback turtles is much more rare. As NOAA Fisheries became more aware of the differential hooking patterns for different species of turtles and of the implications of hooking location on the severity of the injury from longline interactions, the POP began collecting more detailed information on sea turtle hooking location. Data on hooking location from the Atlantic longline observer program in 1999 and 2000 (in NMFS SEFSC 2001) and from the NED experiment (Watson *et al.* 2003) agreed closely. For leatherback turtles, the large majority of interactions (at least 75%) are external foul-hookings, usually in the front flipper, shoulder or armpit. The remainder of the

interactions are primarily entanglements without hooking; and only a few leatherbacks are hooked in the mouth. For loggerheads, almost all interactions result from taking the bait and hook; only a very small percentage of loggerheads are entangled or foul-hooked externally. Loggerheads caught on J-hooks most often swallow the hooks (67% of interactions in Watson et al. [2003]). The J-hook is the standard hook style in the HMS pelagic longline fishery.

Turtles that have swallowed hooks are of the greatest concern. The esophagus is lined with strong conical papillae directed caudally towards the stomach (White 1994). The presence of these papillae in combination with an S-shaped bend in the esophagus make it difficult to see hooks when looking through a turtle's mouth, especially if the hooks have been deeply ingested. Because of a turtle's digestive structure, deeply-ingested hooks are also very difficult to remove without seriously injuring the turtle. A turtle's esophagus is attached firmly to underlying tissue; therefore, if a turtle swallows a hook and tries to free itself or is hauled on board a vessel, the hook can pierce the turtle's esophagus or stomach and can pull organs from their connective tissue. These injuries can cause the turtle to bleed internally or can result in infections, both of which can kill the turtle.

If a hook does not lodge into, or pierce, a turtle's digestive organs, it can pass through to the turtle's colon or it can pass through the turtle entirely (E. Jacobson *in* Balazs et al. 1995; Aguilar et al. 1995) with little damage (Work 2000). Of 38 loggerheads deeply hooked by the Spanish Mediterranean longline fleet and subsequently held in captivity, six loggerheads expelled hooks after 53 to 285 days (average 118 days) (Aguilar et al. 1995). If a hook passes through a turtle's digestive tract without getting lodged, the hook probably has not harmed the turtle. Tissue necrosis that may have developed around the hook may also get passed along through the turtle as a foreign body (E. Jacobson *in* Balazs et al. 1995).

4.2.4 Trailing Line

Trailing line (i.e., line left on a turtle after it has been captured and released), particularly line trailing from an ingested hook, poses a serious risk to sea turtles. Line trailing from an ingested hook is likely to be swallowed, which may occlude the gastrointestinal tract, or it may prevent or hamper foraging, leading to eventual death. Sea turtles that swallow monofilament still attached to an embedded hook may suffer from the "accordion effect" described by Mediterranean sea turtle researchers, usually fatal, whereby the intestine, perhaps by its peristaltic action in attempting to pass the unmoving monofilament line through the alimentary canal, coils and wraps upon itself (Pont, pers. comm. 2001). Trailing line may also become snagged on a floating or fixed object, further entangling a turtle and potentially slicing its appendages which may affect its ability to swim, feed, avoid predators, or reproduce. Sea turtles have been found trailing gear that has been snagged on the bottom, or has the potential to snag, thus anchoring them in place (Balazs 1985; Hickerson, pers. comm. 2001). Long lengths of trailing gear are likely to entangle the turtle eventually, leading to impaired movement, constriction wounds, and potentially death.

4.2.5 Forcible Submergence

Sea turtles can be forcibly submerged by longline gear. Forcible submergence may occur through a hooking or entanglement event, where the turtle is unable to reach the surface to

breathe. This can occur at any time during the set, including the setting and hauling of the gear. Forced submergence can occur when the sea turtle encounters a line too deep below the surface, or because the line is too heavy to be brought up to the surface by the swimming sea turtle. For example, a sea turtle hooked on a 3 meter gangion attached to a mainline set at depth by a 6 meter floatline will generally not be able to swim to the surface unless it has the strength to drag the mainline approximately 3 more meters (discussed further below). The RPA in the June 14, 2001, opinion specified that gangion length be at least 110% of floatline length on shallow longline sets. This requirement was intended to reduce or eliminate the threat to turtles presented in that example situation.

When interacting with longline gear, hooked sea turtles will sometimes drag the clip, attached to the gangion, along the mainline. If this happens, the potential exists for a turtle to become entangled in an adjacent gangion which may have another species hooked such as a shark, swordfish, or tuna. If a turtle were to drag the gangion against another gangion with a live animal attached, the likelihood of the turtle becoming entangled in the second gangion is greater. If the turtle becomes entangled in the gear, then the turtle may be prevented from reaching the surface. The potential also exists, if a turtle drags the gangion next to a float line, the turtle may wrap itself around the float line and become entangled.

Sea turtles forcibly submerged for extended periods show marked, even severe, metabolic acidosis as a result of high blood lactate levels. With such increased lactate levels, lactate recovery times are as long even as 20 hours. Kemp's ridley turtles stressed from capture in an experimental trawl (≤ 7.3 minute forcible submergence) experienced significant blood acidosis, which originated primarily from non-respiratory (metabolic) sources. Visual observations indicated that the average breathing frequency increased from approximately 1-2 breaths/minute pre-trawl to 11 breaths/minute post-trawl (a 5 to 10-fold increase). Given the magnitude of the observed acid-base imbalance created by these trawl experiments, complete recovery of homeostasis may have required 7 to 9 hours (Stabenau et al. 1991). Similar results were reported for Kemp's ridleys captured in entanglement nets, where turtles showed significant physiological disturbance, and post-capture recovery depended greatly on holding protocol (Hoopes et al. 2000).

This long recovery time suggests that turtles would be more susceptible to lethal metabolic acidosis if they experience multiple captures in a short period of time (*in* Lutcavage and Lutz 1997). Presumably, a sea turtle recovering from a forced submergence would most likely remain resting on the surface (given it had the energy stores to do so), which would reduce the likelihood of being recaptured by a submerged longline. Recapture would also depend on the condition of the turtle and the intensity of fishing pressure in the area. NOAA Fisheries has no information on the likelihood of recapture of sea turtles by HMS pelagic longline fisheries. However, turtles in the Atlantic Ocean have been captured more than once by longliners (on subsequent days), as observers reported clean hooks already in the jaw of captured turtles. Such multiple captures were thought to be most likely on three or four trips that had the highest number of interactions (Hoey 1998).

Stabenau and Vietti (2003) studied the physiological effects of multiple forced submergences in loggerhead turtles. The initial submergence produced severe and pronounced metabolic and respiratory acidosis in all turtles. Successive submergences produced significant changes in

blood pH, PCO₂, and lactate, but as the number of submergences increased, the acid-base imbalances were substantially reduced relative to the imbalance caused by the first submergence.

Increasing the time interval between successive submergences resulted in greater recovery of blood homeostasis. The authors conclude that as long as sea turtles have an adequate rest interval at the surface between submergences, their survival potential should not change with repetitive submergences.

Respiratory and metabolic stress from forcible submergence is also correlated with additional factors such as size and activity of the sea turtle (including dive limits), water temperature, and biological and behavioral differences between species. These factors affect the survivability of an individual turtle. For example, larger sea turtles are capable of longer voluntary dives than small turtles, so juveniles may be more vulnerable to the stress of forced submergence than adults. Gregory et al. (1996) found that corticosterone concentrations of captured small loggerheads were higher than those of large loggerheads captured during the same season. During the warmer months, routine metabolic rates are higher, so the impacts of the stress from entanglement or hooking may be magnified (e.g. Gregory et al., 1996). In addition, disease factors and hormonal status may play a role in anoxic survival during forced submergence. Any disease that causes a reduction in the blood oxygen transport capacity could severely reduce a sea turtle's endurance on a longline. Because thyroid hormones appear to have a role in setting metabolic rate, they may also play a role in increasing or reducing the survival rate of an entangled sea turtle (Lutz and Lutcavage 1997). Turtles necropsied following capture (and subsequent death) by longliners were found to have pathologic lesions. Two of the seven turtles (both leatherbacks) had lesions severe enough to cause probable organ dysfunction, although whether or not the lesions predisposed these turtles to being hooked could not be determined (Work 2000).

Sea turtles also exhibit dynamic endocrine responses to stress. In male vertebrates, androgen and glucocorticoid hormones [corticosterone (CORT) in reptiles] can mediate physiological and behavioral responses to various stimuli, influencing both the success and costs of reproduction. Typically, the glucocorticoid hormones increase in response to a stressor in the environment, including interaction with fishing gear. "During reproduction, elevated circulating CORT levels in response to a stressor can inhibit synthesis of testosterone or other hormones mediating reproduction, thus leading to a disruption in the physiology or behavior underlying male reproductive success" (Jessop et al. 2002). A study in Australia examined whether adult male green turtles decreased CORT or androgen responsiveness to a capture/restraint stressor to maintain reproduction. Researchers found that migrant breeders, which typically had overall poor body condition because they were relying on stored energy to maintain reproduction, had decreased adrenocortical activity in response to a capture/restraint stressor. Smaller males in poor condition exhibited a pronounced and classic endocrine stress response compared to the larger males with good body condition. The authors state: "We speculate that the stress-induced decrease in plasma androgen may function to reduce the temporary expression of reproductive behaviors until the stressor has abated. Decreased androgen levels, particularly during stress, are known to reduce the expression of reproductive behavior in other vertebrates, including reptiles." Small males with poor body condition that are exposed to stressors during reproduction and experience shifting hormonal levels may abandon their breeding behavior (Jessop et al., 2002).

Female green turtles have also been studied to evaluate their stress response to capture/restraint.

Studies showed that female green turtles during the breeding season exhibited a limited adrenocortical stress response when exposed to ecological stressors and when captured and restrained. Researchers speculate that the apparent adrenocortical modulation could function as a hormonal tactic to maximize maternal investment in reproductive behavior such as breeding and nesting (Jessop, et al. 2002).

Although a low percentage of turtles that are captured by longline fishermen actually are reported dead, sea turtles can drown from being forcibly submerged. Such drowning may be either “wet” or “dry.” With wet drowning, water enters the lungs, causing damage to the organs and/or causing asphyxiation, leading to death. In the case of dry drowning, a reflex spasm seals the lungs from both air and water. Before death due to drowning occurs, sea turtles may become comatose or unconscious. Studies have shown that sea turtles that are allowed time to stabilize after being forcibly submerged have a higher survival rate. This depends on the physiological condition of the turtle (e.g. overall health, age, size), time of last breath, time of submergence, environmental conditions (e.g. sea surface temperature, wave action, etc.), and the nature of any sustained injuries at the time of submergence (NRC 1990).

4.2.6 Mortality at Time of Capture

As stated in the previous subsection, relatively few sea turtles captured on longlines are dead as a result of injury or forcible submergence when boated or released. Based on the POP database, only 1.1% of the total number of sea turtles (all species) are dead when brought on board, (see Table 4.4 –Yeung & Garrison summary). This result does not vary much if the data are separated into leatherbacks (1.3% dead) and hard-shell turtles (1.0% dead). Based on these data, we believe that turtles are generally hardy enough to survive the initial interaction with longline gear, at least until released by the vessel’s crew. We further believe that “immediate” mortality is a rare event occurring with an unusual hooking and/or entanglement or when the turtle’s health is already compromised by disease or previous injury. We believe that the 1.3% and 1.0% immediate mortality rates, based on 12 years of observer data from the HMS pelagic longline fishery, are reasonable values for predicting the outcome of future sea turtle-longline interactions.

4.3 Post-Release Mortality

Even though the vast majority of turtles caught with longline gear are released alive, most or all of them will have experienced a physiological injury from forced submergence and/or a traumatic injury from hooking and many may still be carrying penetrating or entangling gear. A number of studies have attempted to assess the post-release mortality in these turtles. Because of limitations in the technology or methods of these studies, the application of their results has not been straight-forward and has generated some controversy, particularly with longline fishermen. Therefore, NOAA Fisheries has developed post-release mortality criteria, based on the best available information on the subject, to set standard guidelines for the post-release mortality estimation.

4.3.1 February 2001 Post-Release Mortality Criteria

In February 2001, NOAA Fisheries established a policy and criteria for estimating sea turtle

survival and mortality following interactions with longline fishing gear (NMFS SEFSC 2001; see Table 4.3.1). These criteria were based on the information available at the time on the survival of sea turtles after they were captured and released from longline gear. The June 14, 2001, opinion applied the February 2001 criteria to the available data on hooking location and calculated a net post-release mortality rate of up to 22.8% for leatherbacks and 35.6% for hard-shell turtles.

Table 4.3.1. Sea turtle mortality rates based on level and type of interaction with longline fishing gear. Source: NMFS SEFSC 2001

Interaction Type	Release Condition	Injury Categorization	Mortality Rate
Entangled / no hooking	Disentangled	No injury	0%
Entangled / external hooking	Disentangled, no gear	Minor	27%
	Disentangled, trailing gear	Moderate	27%
	Dehooked, no gear	Minor	27%
Hooked in lip (beak) or mouth	Hook left, no gear	Moderate	27%
	Hook left, trailing gear	Serious	42%
	Dehooked, no gear	Moderate	27%
Hook swallowed	Hook left, no gear	Serious	42%
	Hook left, trailing gear	Serious	42%
Turtle Retrieved Dead	- - -	Lethal	100%

4.3.2 January 2004 Post-Release Mortality Criteria

In 2003, the OPR was charged with conducting a review of NOAA Fisheries' February 2001 post-hooking mortality criteria and recommending whether or not, and if so, how, the earlier criteria should be modified. As part of that review, the OPR convened a Workshop on Marine Turtle Longline Post-Interaction Mortality on January 15-16, 2004. During the workshop, 17 experts in the areas of biology, anatomy, physiology, veterinary medicine, satellite telemetry and longline gear deployment presented and discussed the more recent data regarding the survival and mortality of sea turtles subsequent to being hooked by fishing gear. Based on the information presented and discussed at the workshop, and a comprehensive review of all of the information available on the issue, the OPR proposed a series of changes and improvements to the earlier criteria. The new draft criteria are presented in Table 4.3.2. The criteria are still subject to additional review, but nonetheless constitute the best available science on this topic at this time.

Interaction Type/Nature of Interaction Categories

The February 2001 interaction type categories were expanded in the new criteria to better describe the specific nature of the interaction and to reflect the severity of the injury. For example, the February 2001 criteria described two categories for mouth hooking: (1) hook does

not penetrate internal mouth structure; and (2) mouth hooked (penetrates) or ingested hook. The new criteria, however, divide the mouth hooking event into three classes: (1) hooked in lower jaw (not adnexa); (2) hooked in cervical esophagus, glottis, jaw joint, soft palate, or adnexa¹ (insertion point of the hook is visible when viewed through the open mouth); and (3) hooked in esophagus at or below the heart (insertion point of the hook is not visible when viewed through the open mouth). The new criteria also separate external hooking from mouth hooking, add a new category for comatose/resuscitated, and eliminate the February 2001 qualitative injury categories (no injury, minor, etc.), using only the quantitative percentage rates of mortality to describe the impact.

Probable Improvement in Survivorship When Gear Is Removed

The new criteria also account for the probable improvement in survivorship resulting from removal of gear, where appropriate, for each injury. They recognize that in most cases removal of some or all of the gear (except deeply-ingested hooks) is likely to improve the probability of survival. The categories for gear removal are: (1) released with hook and with line that is greater than or equal to half the length of the carapace; (2) released with hook and with line that is less than or equal to half the length of the carapace; and (3) released with all gear removed. Turtles that have all or most of the gear removed are expected to have, on average, a higher probability of survival.

Species Differences

Species differences between hard-shelled turtles and leatherback turtles appear to play a role in post-release survival. The new criteria take these differences into consideration and assign slightly higher rates of post-release mortality for leatherback turtles.

¹ Subordinate part such as tongue, extraembryonic membranes

Table 4.3.2. Criteria for assessing marine turtle post-interaction mortality after release from longline gear. Percentage rates of mortality are shown for hard-shelled turtles, followed by percentages for leatherbacks (in parentheses).			
Nature of Interaction	Released with hook and with line greater than or equal to half the length of the carapace	Release with hook and with line less than half the length of the carapace	Released with all gear removed
	Hard-shell (Leatherback)	Hard-shell (Leatherback)	Hard-shell (Leatherback)
Hooked externally with or without entanglement	20 (30)	10 (15)	5 (10)
Hooked in lower jaw (not adnexa ¹) with or without entanglement	30 (40)	20 (30)	10 (15)
Hooked in cervical esophagus, glottis, jaw joint, soft palate, or adnexa (and the insertion point of the hook is visible when viewed through the mouth) with or without entanglement	45 (55)	35 (45)	25 (35)
Hooked in esophagus at or below level of the heart (includes all hooks where the insertion point of the hook is not visible when viewed through the mouth) with or without entanglement	60 (70)	50 (60)	n/a ²
Entangled Only	Released Entangled 50 (60)		Fully Disentangled 1 (2)
Comatose/resuscitated	n/a ³	70(80)	60(70)

¹ Subordinate part such as tongue, extraembryonic membranes

² Per veterinary recommendation hooks would not be removed if the insertion point of the hook is not visible when viewed through the open mouth.

4.4 Extent of the Effects – Past Sea Turtle Interactions in the Longline Fishery

Observations of sea turtle bycatch in the pelagic longline component of the swordfish/tuna/shark fishery number in the thousands. Estimates of the number of turtles taken incidental to the fisheries in the April 23, 1999, opinion on the HMS fisheries (Scott and Brown 1997) were revised and updated by estimates provided in Johnson et al. (1999) and Yeung (1999) for NMFS' June 30, 2000, opinion on the HMS Fisheries. In 1999, the number of turtles incidentally taken in the HMS fisheries was estimated using a delta lognormal method of preferred pooling order (quarter, year, area). Total estimated take for loggerheads, over the period 1992 - 1999, was 7,891 (95% CI = 3,835 - 18,805) (See NMFS SEFSC 2001 for full discussion of the method). Totals for 1999 estimated 991 loggerhead sea turtles incidentally taken (95% CI = 510 - 2,089). For leatherback sea turtles, an estimated incidental take of 6,363 turtles (95% CI = 2,491 - 17,613) occurred in the fisheries between 1992-1999. For 1999, an estimated 1,012 leatherbacks were taken (95% CI = 410 - 2,786). Of these estimated 7,891 loggerhead and 6,363 leatherback turtles captured by the HMS pelagic longline fisheries from 1992-1999, 66 loggerhead and 88 leatherbacks were estimated to have been released dead (NMFS SEFSC 2001). Of the 991 loggerhead and 1,012 leatherbacks estimated from observer records to have been captured by the HMS pelagic longline fisheries from 1999, 23 loggerhead were estimated to have been released dead; there were no leatherbacks released dead that year. These data are important as they were the latest data available during the previous consultation on the HMS pelagic longline fishery.

Since 1992, green, hawksbill, and Kemp's ridley sea turtles have been infrequently reported by the POP. Annual take estimates for these species have ranged from 1 to 87, usually based on the reported catch of 1 or 2 individuals. More than likely, these are misidentified records of loggerhead turtle captures (NMFS SEFSC 2001). Loggerhead turtles are the most common hard-shelled turtles taken in the fishery (Hoey 1998; Witzell 1999). As observer experience and training in the POP has improved with time, the reported number of reported green, hawksbill, and Kemp's ridley turtles has declined.

Since the June 14, 2001, opinion and the implementation of the HMS pelagic longline closed areas, a new report of estimated sea turtle takes has been generated for the years 2001 and 2002 (Garrison 2003a). This report updates the previous estimates of interactions in the HMS pelagic longline fishery. The bycatch estimates for 2002 in this updated report meet the criteria established in NOAA Fisheries' report, "National Approach to Standardized Bycatch Monitoring Programs," (NMFS 2003) with a coefficient of variation (cv) less than the specified precision level goal of 20-30% for protected species.

In the most recent report of sea turtle interactions in the HMS pelagic longline fishery, Garrison (2003a) estimates bycatch of sea turtles by using observer data including those interactions occurring during the NED experimental fishery. The methodology and approach were similar to that used in previous assessments of sea turtle interactions in the HMS pelagic longline fishery. The main difference from the previous assessment by Yeung (1999), which pooled data across areas to fill empty strata, is that Garrison (2003a) incorporated the mean bycatch rate of interactions observed in the quarter-area stratum across the previous five years. This was done because it is believed that the population sizes of long-lived species, such as marine mammals and sea turtles, are less likely to undergo large inter-annual fluctuations. Therefore, large inter-annual differences in bycatch rate are not as important relative to seasonal (quarter) and

geographic (area) effects. No bycatch estimates were incorporated into the analysis when there was no historical observer coverage information within the previous five years. This approach avoided the potential biases associated with pooling across geographical strata, while allowing bycatch estimates for the majority of unobserved strata. However, it should be noted that in the cases where no bycatch estimate was incorporated, no takes are assumed to occur, and these strata have been highlighted as potential sources of underestimating bias.

Observed sea turtle captures in the HMS pelagic longline fishery in 2001 and 2002 (Figure 4.4) illustrate that take was higher than predicted in the June 14, 2001, opinion. Garrison (2003a) estimated leatherback sea turtle incidental catch in the HMS pelagic longline fishery to have been 1,208 (95% CI = 851-1716) in 2001 and 962 (95% CI = 708-1308) in 2002. Garrison (2003a) estimated that there were 312 (95% CI = 155-629) loggerhead sea turtles incidentally caught by the HMS pelagic longline fishery in 2001 and 548 in 2002. Thus, the estimated historical total number of loggerhead sea turtles caught between 1992-2002, by the U.S. pelagic longline fishery, is 10,034, of which 81 were estimated to be brought to the vessel already dead (Table 4.4). The estimated historical total number of leatherback sea turtles caught between 1992-2002, by the U.S. pelagic longline fishery, is 9,302, of which 121 were estimated to be brought to the vessel already dead (Table 4.4). This figure does not account for post-release mortalities. The total number of observed leatherback interactions in 2001, including the NED experiment, was 273. The total number of observed interactions for 2002, again including the NED experiment, was 335. Interactions in the NED experiment are not shown in Table 4.4.

One loggerhead turtle was observed to have been killed during 2001 and one leatherback was observed dead during 2002. In 2003, one leatherback sea turtle was observed dead and no loggerhead sea turtles were observed dead (Garrison, personal communication, 2004). Results corroborate earlier data that most leatherback sea turtles are hooked externally, typically in the shoulder or front flipper, whereas loggerhead turtles more often swallowed the hook or were hooked in the mouth region. In 2001, the highest number of leatherback interactions occurred during Quarter 3 in the Florida East Coast (FEC) region (254 estimated interactions), and in the Gulf of Mexico (GOM) statistical area during the 2nd and 3rd quarters (180 and 157 estimated takes, respectively), with additional high numbers of interactions occurring in the South Atlantic Bight (SAB) and Mid-Atlantic Bight (MAB) regions. The highest number of loggerhead turtle interactions occurred during the 3rd quarter in the NEC statistical areas (106 estimated), and 4th quarter in the NED statistical area (97. Note all takes from the NED are observed, not estimated). In 2002, the highest number of leatherback sea turtle interactions occurred during the 2nd-4th quarters again in the GOM (Garrison 2003a). The estimated number of interactions for the GOM during 2002 was 694.6. The highest number of loggerhead turtle interactions occurred during the 2nd quarter in the NEC and GOM statistical areas.

During the 3-year cooperative research study to develop gear measures for reducing sea turtle interactions (conducted in the NED statistical sampling area) there were incidental captures of sea turtles. In the 2001 NED experiment, with 100% observer coverage, there were 186 sets made by 8 vessels that incidentally caught 142 loggerhead and 77 leatherback sea turtles with no sea turtles released dead. In 2002, with 100% observer coverage, there were 501 sets made by 13 vessels that incidentally caught 100 loggerhead and 158 leatherback sea turtles. In 2003, there were 539 sets made by 11 vessels that incidentally caught 92 loggerhead sea turtles, 79 leatherback sea turtles, and 1 olive ridley sea turtle. No sea turtles were released dead in the

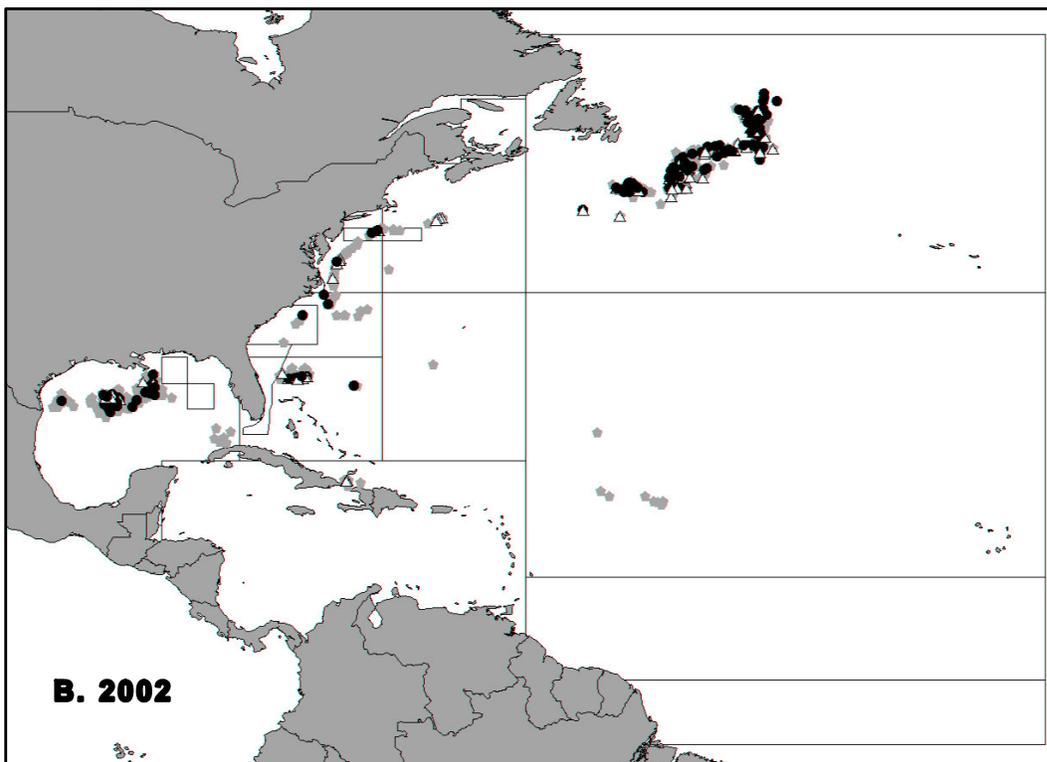
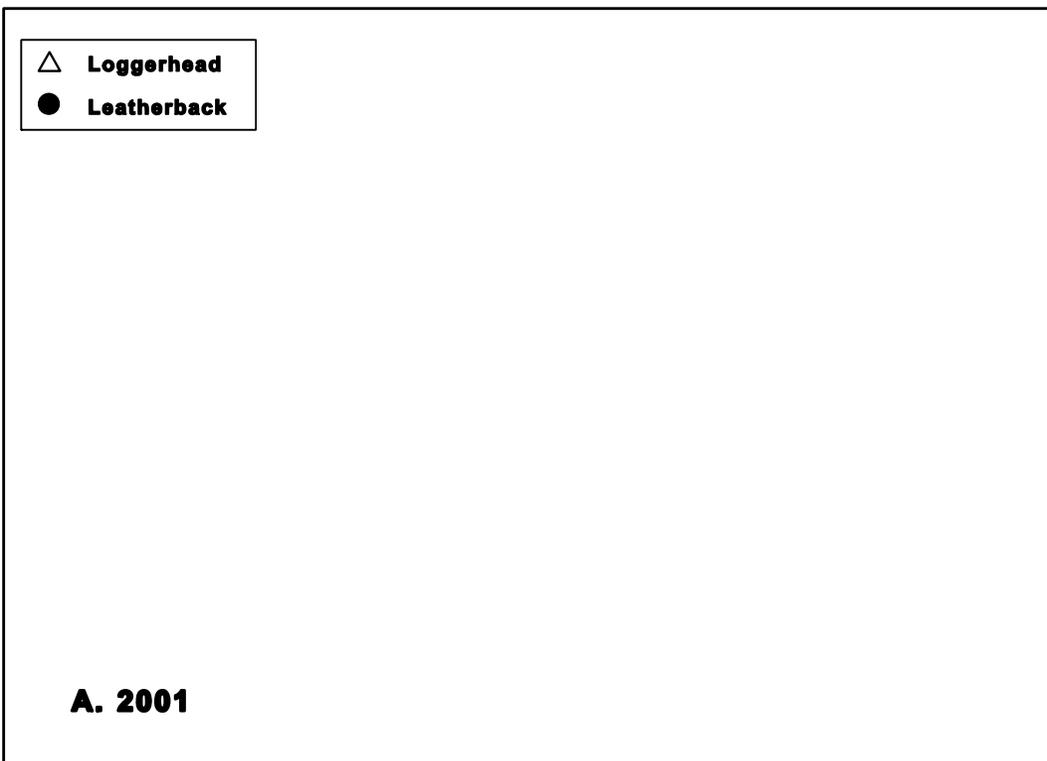
NED experiment.

Table 4.4. Annual Estimates of Total Marine Turtle Bycatch and the Subset that were Dead When Released in the U.S. Pelagic Longline Fishery.

Source: NMFS SEFSC 2001 (1992-1999 data); Yeung. 2001 (2000 data); Garrison, 2003a (2001-2002 data).

Species	Loggerhead		Leatherback		Green		Hawksbill		Kemp's Ridley		Unidentified		Sum Total
	Total	Dead*	Total	Dead*	Total	Dead*	Total	Dead*	Total	Dead*	Total	Dead*	
1992	293	0	914	88	87	30	20	0	1	0	26	0	1,341
1993	417	9	1,054	0	31	0					31	0	1,533
1994	1,344	31	837	0	33	0			26	0	34	0	2,274
1995	2,439	0	934	0	40	0					171	0	3,584
1996	917	2	904	0	16	2					2	0	1,839
1997	384	0	308	0			16	0	22	0	47	0	777
1998	1,106	1	400	0	14	1	17	0			1	0	1,538
1999	991	23	1,012	0							66	0	2,069
2000	1,256	0	769	0							128	0	2,153
2001	312	13	1,208	0							0	0	1,520
2002	575	2	962	33							50	0	1,587
Total	10,034	81	9,302	121	221	33	53	0	49	0	556	0	20,215

* Does not account for fishing related mortality that may occur after release.



4.5. Extent of the Effects – Anticipated Future Sea Turtle Interactions

The proposed action would, in part, increase the 2003 North Atlantic swordfish quota from 2,951 mt ww to 3,877 mt ww and increase the quota in 2004 and 2005 to 3,907 mt ww. If the increase in available quota triggers an increase in fishing effort, that would then increase the incidental catch of protected species. Currently, HMS Division believes it is unlikely that effort will increase. For the past several years, the level of effort in the HMS pelagic longline fishery has been steadily declining. Additionally, a number of restrictions, such as limited access and time and area closures, have been placed on the pelagic longline fleet. This declining effort has led to under-harvests: despite the existing 2,951 mt ww swordfish quota, only 1,025.4 mt ww was harvested in the 2001 fishing year. We agree with HMS Division that the level of effort in the fleet is unlikely to increase despite the change in quota. Therefore, there should not be an increase in the incidental take of protected species by the HMS pelagic longline fleet.

In the June 14, 2001, opinion, NOAA Fisheries used the sea turtle bycatch estimates from the most recent year available (1999). Although inter-annual variation in the bycatch estimates has been high, NOAA Fisheries believes using data from a single, recent year is more likely to be representative of the level of interactions in future years than using long-term averages. Long-term averages may include underlying changes in the level and distribution of effort, fishing tactics, and possibly the distribution of sea turtles. For example, HMS pelagic longline fishery time-area closures went into effect in 2000 and 2001. These closures have changed fishing effort levels and the distribution of that effort. Therefore, it would be impossible to rely on pre-2002 take estimates for future projections.

In this opinion, we take the same approach, and use the 2002 pelagic longline fishery take estimates from Garrison (2003a), summarized in section 4.4. We believe this information is representative of the level of take expected if the status quo were maintained and none of the proposed rule provisions were enacted. The 2002 data represents the most complete information available (observer data, but not effort data, are available for 2003), and the fishery is not expected to significantly change in scope or distribution in the near term. To assess the effects of reopening the NED, we concur with and rely on the approach used in the DSEIS, which uses the observed catch per unit effort (CPUE) in the NED experiment and multiplies it by the amount of effort anticipated to return to the NED.

For the hard-shell turtles, other than loggerheads, it is difficult to make predictions about future levels of interactions. The reported interactions are very low, usually 1 or 2 per year at most, and often none per year. Also, the existing reports from the POP may include species misidentifications. Still, we cannot discount the possibility of rare or “out of habitat” interactions. For example, the NED experiment, with 100% observer coverage, did capture one confirmed olive ridley and one confirmed Kemp’s ridley in 2003, and other fisheries have had similar unexpected interactions (e.g., hawksbill turtles in the North Carolina winter trawl fishery and in the North Carolina fall, estuarine, gillnet fishery). Thus, the observed take of 1 or 2 individuals per year, while not a regular event, would not be surprising. Based on previous extrapolation results, this rate would correspond to an estimated take of roughly 35 turtles per year in the entire HMS pelagic longline fishery .

In this sub-section, we discuss the outcome of the NED experiment and how those results apply

to the future anticipated effects of the action; explain how we chose which results were used to calculate the anticipated effects; show how the calculations were made and the results of those calculations; and then calculate and discuss the expected mortality that would be associated with those takes.

4.5.1 Bycatch Reduction Expected from the Proposed Action

In 2001, the SEFSC launched a cooperative research program to study means to reduce the catch rates of sea turtles in the HMS pelagic longline fishery and to reduce the mortality of those captured sea turtles. The research spanned three fishing seasons in the NED, an area with historically high sea turtle capture rates. These high catch rates offered the opportunity to generate statistically valid results when testing sea turtle bycatch reduction measures. The NED experiment was a substantial improvement over previous efforts by NOAA Fisheries to determine the factors affecting sea turtle catch rates in the HMS pelagic longline fishery. Previous efforts had relied on post-hoc analyses of observer data that were confounded by the autocorrelations of the possible factors in the fishery. In contrast, the NED research was a true experiment that compared experimental versus control treatments within and across sets and used a rigorous statistical approach to more definitively determine the factors affecting sea turtle bycatch rates.

The research focused on modifying the actual fishing gear rather than efforts to change the timing or location of fishing. Gear modification measures are believed to be the most easily and consistently adopted measures throughout the domestic and international longline fleets and therefore are expected to achieve the greatest conservation benefit for sea turtles. Although a number of gear modification measures have potential for bycatch reduction, the SEFSC selected measures for the NED experiment that appeared to have high bycatch reduction potential and that could be combined into a single experiment, thus allowing the simultaneous testing of multiple factors. In the final two years of the experiment, the SEFSC focused its research on terminal gear characteristics only: hook type, bait type, and their interaction.

Between 2001 and 2003, nine potential mitigation techniques were evaluated during 1,214 research sets, with a total of 1,169,864 hooks fished. Data were collected to evaluate the effectiveness of the mitigation measures and to investigate variables that affect sea turtle interaction rates with pelagic longline gear. The results of the research in 2001 indicate that a significant reduction in loggerhead catch may be achieved by reducing daylight soak time, but in 2002 only total soak time was significant. Blue-dyed squid bait appeared to have no effect on sea turtle interactions. Moving hooks 20 fathoms away from float lines did not reduce sea turtle interactions and appeared to have increased leatherback interactions. 18/0 circle hooks and mackerel bait were both found to significantly reduce loggerhead and leatherback sea turtle interactions when compared with industry standard J-hooks and squid bait, but mackerel had no significant effect over squid when circle hooks were used. Also, circle hooks significantly reduced the rate of hook ingestion by the loggerheads, reducing the post-hooking mortality associated with the interactions. The combination of 18/0 circle hooks and mackerel bait was found to be the most efficient mitigation measure for loggerhead turtles. The relationship was less clear for leatherback sea turtles, with squid bait and circle hooks showing the highest reduction rates in some situations (Table 4.5.1). The effect of offset versus non-offset hooks may play a role in those differences, however, in all cases 18/0 circle hooks provide a substantial

reduction in interactions between sea turtles and longline fishing gear versus J-hooks. Mackerel bait was found to be more efficient for swordfish than squid bait, and circle hooks were more efficient for tuna than J-hooks (Watson et al. 2004a, Shah et al. 2004).

In anticipation of the need for mitigation measures in tuna directed fisheries, research was initiated by NOAA Fisheries late in 2003 comparing 16/0 circle hooks with 18/0 circle hooks. Only a small number of sets (n=29) could be completed at the time, so the differences could not be assessed using those data. Information from other studies have shown that there is no difference in interaction rates between 9/0 J-hooks and 16/0 circle hooks for loggerhead sea turtles (Bolten et al. 2002; Javitech 2002). Other data (Garrison 2003b) from the observer program show that no loggerhead turtles have been observed captured on circle hooks in the Gulf of Mexico (total number of observed circle hook sets = 416). Additionally, it is known that smaller J-hooks (7/0 and 8/0) are frequently used in the Gulf of Mexico tuna fishery, and are expected to have a higher catch rate for turtles than the 9/0 J-hook, but the only experimental data available compares the 16/0 circle hook with the larger 9/0 J-hook (Watson et al. 2004b). However, despite these caveats, we use the most protective, conservative assumptions in our analysis, and therefore the take rate for loggerheads on 16/0 circle hooks are considered the same as that for the 9/0 J-hooks (therefore no take reduction attributed to use of 16/0 circle hooks). Leatherback interactions are primarily foul hooking, and therefore the use of 16/0 circle hooks instead of J-hooks is expected to reduce the take of this species. NOAA Fisheries data are primarily for the 18/0 and 20/0 circle hooks, but there is every reason to believe that a 16/0 circle hook would be just as effective in reducing leatherback captures by foul hooking, if not more so (because of the smaller gap between the shank and point) (Watson et al. 2004b). The non-offset 16/0 circle hook with squid is therefore considered to have the same bycatch reduction for leatherback sea turtles as the non-offset 18/0 circle hook with squid.

HMS Division is now considering, as part of the proposed action, requiring the use of specific hook and bait combinations in the HMS pelagic longline fishery, based on the results of the NED experiment and other available information. The allowable hook and bait combinations in the longline fishery would be:

NED pelagic longline fishery-

18/0 or larger circle hook with an offset not to exceed 10 degrees. Only mackerel and squid baits may be possessed and/or utilized with allowable hooks.

Atlantic/Gulf of Mexico pelagic longline fishery outside of the NED-

16/0 or larger non-offset circle hooks and/or 18/0 or larger circle hooks with an offset not to exceed 10 degrees. Only whole finfish and squid baits may be possessed and/or utilized with allowable hooks.

We expect that these hook and bait combinations will achieve the same levels of sea turtle bycatch reduction demonstrated in the NED experiment when used throughout the longline fishery (with the exception of 16/0 circle hooks and loggerheads, as discussed above). For all of the hooks (except 18/0 non-offset circle hooks for leatherbacks), squid bait is believed to be the worst-case bait for sea turtle captures. There were significant reductions in both loggerhead and leatherback catch rates when squid bait was switched for mackerel bait on standard J-hooks. Additionally, feeding studies involving captive loggerhead turtles show that the turtles usually attempt to gulp down squid baits whole, taking any hook that may be embedded. When hooks

are baited with fish, a loggerhead usually tears off discrete bites and may be able to scavenge a fish bait without swallowing or even taking the hook into its mouth. Feeding behavior can also be impacted by how the hook is baited (e.g. single hooked versus threaded). Garrison (2003b) reported that use of fish bait resulted in lower turtle capture rates than squid bait, although numerous other fishing variables were not controlled for. We believe it is a reasonable, conservative assumption that equivalent circle hooks baited with whole fish will have at least the same level of sea turtle bycatch reduction as the same circle hooks baited with squid. This is supported by the reduction percentages shown in Table 4.5.1.

Shah et al. (2004) fitted generalized linear models to investigate the relationship between the catch rate (or catch probability) and explanatory variables such as hook type, sea surface temperature, day light soak time, total soak time, vessel effect, and pairing effect in case of matched-paired hook types per set.

Table 4.5.1 Sea Turtle Bycatch Reduction Rates for Hook and Bait Combinations. All reductions are compared to industry standard J-hook and squid bait combination.

Sources: Shah et al. (2004), Watson et al. (2003), Watson et al. (2004a), Bolten et al. (2002)

Species	Year	Treatment	Reduction Rate (%)	Significant Effect of Year
Loggerhead	2002	Non-offset 18/0 circle hook with squid bait	87.5	Yes (p=0.0002)
Loggerhead	2003	Non-offset 18/0 circle hook with squid bait	64.6	
Loggerhead	2002	10° Offset 18/0 circle hook with mackerel bait	90.4	No (p=0.3027)
Loggerhead	2003	10° Offset 18/0 circle hook with mackerel bait	85.8	
Loggerhead	N/A	Non-offset 16/0 circle hook with squid bait	0	N/A
Leatherback	N/A	Non-offset 16/0 circle hook with squid bait	63.9 (est.)	N/A
Leatherback	2002	10° Offset 18/0 circle hook with squid bait	50.0	N/A (only tested in 2002)
Leatherback	2002	Non-offset 18/0 circle hook with squid bait	63.9	Yes (p=0.0017)
Leatherback	2003	Non-offset 18/0 circle hook with squid bait	89.7	
Leatherback	2002	10° Offset 18/0 circle hook with mackerel bait	65.4	Yes (p=0.0258)
Leatherback	2003	10° Offset 18/0 circle hook with mackerel bait	64.8	

A notable aspect of Shah et al.'s results is the significant effect of year on the sea turtle reduction rates. The same significant effect of year was found for target species catch rates. Because the reduction rates associated with the hook and bait combinations varied significantly between years, we do not believe it is appropriate to combine the two years' results (combined results were presented in Shah et al. {2004}) when making forecasts about future years. The significance of year suggests the effect of inter-annual environmental variation or some other factors not yet understood, which we cannot predict. To be conservative in anticipating a benefit from the proposed action, therefore, we will base our projections of bycatch reduction for each species and hook and bait combination on the lower value of the two years.

The proposed action includes various hook and bait combinations for fishermen to select. We expect the non-offset hook with squid or finfish combination to be used when targeting tunas (16/0) or tuna-swordfish mixed (16/0 and/or 18/0), and the 18 /0 offset hook with mackerel combination to be used when targeting swordfish. We cannot predict with any certainty the actual mix of hook and bait combinations that will be used in the fishery. In anticipating a conservative benefit from the proposed action, we will base our projections of bycatch reduction for each species on the value for the less effective of the two hook and bait combinations. For leatherbacks we used the bycatch reduction value for the 10 degree offset 18/0 hook with squid bait in both the NED and non-NED fisheries. This results in a take reduction of 50% compared to the 2002 bycatch levels using the base configuration of a 9/0 J-hook with squid. For loggerheads, we used the bycatch reduction value from the non-offset 18/0 hook with squid or finfish combination for the NED (64.6% reduction) and the 16/0 non-offset circle hook with squid for the areas outside of the NED (no reduction). For green, hawksbill, Kemp's ridley and olive ridley turtles, we have no direct information, but the effects of varying hook type are probably more similar to loggerheads. Also, because we anticipate, at most, only a few observed catches of these other hard-shell species per year, we are not applying a further bycatch reduction factor to these rare events, based on the hook and bait types in the proposed action.

4.5.2 Calculation of Anticipated Takes

The next step in determining the effects of the proposed action was to utilize the analyses described above to calculate the total expected take that would occur on an annual basis if the proposed action was implemented. Using total estimated take for 2002, a reduction was then applied based on the proposed hook and bait requirement. The estimated annual take from the proposed action to reopen the NED was then added to get the total take estimate.

Estimated annual take was calculated separately for 2004 and for the future. A separate estimate for 2004 was needed because the proposed action would not be implemented, and any reductions in take resulting from the action, would not occur until the second half of the year. Because fishing effort is often not uniform throughout the year, Garrison's (2003) effort data by set was used to determine what percentage of effort occurred in the first two quarters of 2002 versus the last two quarters. When adding in the NED take estimates, the entire yearly estimate was added. The majority of the effort in the NED is expected to take place in the second half of the year, but the actual percentage of effort that can be expected is unknown. Therefore, we have taken a conservative approach and added in the total annual estimate for 2004. The NED take estimates are taken from the DSEIS and were calculated based on the CPUE observed in the NED experiment with the experimental hook and bait combinations and the amount of annual effort

that the HMS division anticipates to return to the NED.

The total annual take estimation formulas are as follows:

2004 take estimate = (2002 take estimate)(% of effort in 1st two quarters) + (2002 take estimate)(% of effort in 2nd two quarters)(100% - estimated % reduction from use of circle hooks) + (estimated NED takes per HMS analysis)

2005 and beyond take estimate = (2002 take estimate)(100% - estimated % reduction from use of circle hooks) + (estimated NED takes per HMS analysis)

The resulting take estimates are:

2004

Leatherback = (962)(49%) + (962)(51%)(100 % - 50%) + 88 = **805**

Loggerhead = (575)(49%) + (575)(51%)(100%-0%) + 24 = **599**

2005 and beyond

Leatherback = (962)(50%) + 107= **588/year**

Loggerhead = (575)(100%) + 60= **635/year**

For green, hawksbill, Kemp's ridley and olive ridley turtles, we anticipate an estimated take of up to 35 individuals from these four species combined in any year.

4.5.3 Mortality Estimates

To estimate the total impact of the HMS pelagic longline fishery under the proposed action, it is necessary to estimate the future mortality associated with those takes to better understand the impact to the species. We utilized the January 2004 post-release mortality ratios presented earlier in Table 4.3.2, along with sea turtle bycatch and release data from the NED experiment and non-NED observer data. In some situations, the observer data did not clearly fit into one of the interaction categories. Following the guidance provided in Epperly and Boggs (2004), those takes were included in the most conservative *category*. This captured the highest likelihood of mortality and the assumption that the take was a deep ingestion. Data for all of these analyses come from the 2002-2003 fishing season as they are the most recent and complete data available. Overall mortality ratios are dependent upon both the type of interaction (*i.e.*, where hooked, entangled or not, comatose or dead upon retrieval) and the gear that was left following the release (hook remaining, amount of line remaining, entangled or not). Therefore, in addition to how the turtle interacted with the gear, the experience, ability, and willingness of the crew to remove gear, and the available gear-removal equipment are very important factors in the post-release mortality ratios.

4.5.3.1 NED Experiment – Interaction and Gear Removal Results

Observer data from the NED experiments were compiled into the new post-release mortality categories to determine an overall mortality ratio for J-hooks and circle hooks in those experiments (Epperly and Boggs 2004). Using J-hooks in the NED experiment (Table

4.5.3.1.A), a total of 147 leatherback and 131 loggerhead sea turtles were captured. Based upon the amount of gear that was removed prior to release, and the type of interactions that occurred in those studies, the overall mortality ratio was calculated to be 0.138 (13.8%) for leatherbacks and 0.330 (33%) for loggerheads. When using circle hooks in the experiment (Table 4.5.3.1.B), a total of 103 leatherback and 46 loggerheads were captured, with mortality ratios of 0.131 (13.1%) and 0.170 (17%), respectively. The benefit of using circle hooks versus J-hooks was more evident for loggerheads, where there was a substantial drop in mortality. The mortality benefit to loggerheads is because circle hooks are more likely to result in mouth hooking and less deep ingestion than the J-hooks, and that loggerhead sea turtles are known to actively feed on baited longline hooks. There was little to no mortality benefit to leatherback sea turtles when interactions occurred because 90% of the interactions, external foul hooking and entanglement, remain the same regardless of hook type. The NED experiment had 100% observer coverage, as well as captains and crew that were well trained, well equipped, and experienced in gear removal from sea turtles. All of this information is based upon 18/0 circle hooks. The use of 16/0 circle hooks is assumed to result in the same degree of hook removal ability and post-release mortality as the 18/0 hook. Post hooking mortality is impacted by hooking location, and the 16/0 is known to hook in similar locations to the 18/0 circle hook (Javitech Ltd. 2002; Watson et al. 2004b). The mortality ratios attained for circle hooks in the NED experiment represent the best reasonably expected (under real fishing conditions) mortality ratio for the HMS pelagic longline fishery under the proposed circle hooks and gear removal equipment requirements.

4.5.3.2 Non-NED Observed Fishery – Interaction and Gear Removal Results

To better understand how the current HMS pelagic longline fishery may be impacting sea turtle populations, we determined mortality ratios based upon 2002-2003 observer data outside of the NED experiment, and the post-release mortality guidelines (Table 4.5.3.2). The current HMS pelagic longline fishery almost exclusively uses J-hooks; therefore, the calculated mortality ratios assume the use of J-hooks. In observed sets of the non-NED fishery during 2002-2003, a total of 116 leatherback and 95 loggerhead sea turtles were incidentally captured. Based on the observer data, these takes were separated into the appropriate post-release mortality categories. The resulting post interaction mortality ratios were 0.319 (31.9%) for leatherback and 0.404 (40.4%) for loggerhead sea turtles.

It is important to note that the data for the non-NED analysis is based on 12 vessels of which 10 participated in the NED cooperative experiment; thus, NOAA Fisheries believes that this information may not be representative of the entire fleet. The vessels on which the analysis is based were not only equipped with all the sea turtle mitigation gear, but also had been trained in sea turtle mitigation techniques and were supportive of the NED research project objectives to reduce sea turtle mortality. However, some of the benefit of experienced, well-equipped crews is countered by the fact that this fishery used J-hooks, which are prone to hooking in manners resulting in higher mortality than circle hooks. Additionally, a sizeable, but undetermined, portion of the fishery used relatively small 7/0 and 8/0 J-hooks, which are even more prone to deep ingestion. In the NED experiment with J-hooks (which only used larger 9/0 hooks) less than 34% (44 of 131) of loggerhead sea turtles had deeply ingested hooks, while over 47% (45 of 95) in the non-NED fishery had deeply ingested hooks. There was also a large difference in leatherback interactions, with 11% (13 of 116) in the non-NED fishery having a deeply ingested hook (category IV), whereas no deep ingestion occurred for leatherback sea turtles in the NED

experiments despite their use of both J-hook (n=147) and circle hook (n=103). In the non-NED data, many of the leatherback observations were listed as “unknown if hooked” or “hooking location unknown.” To be conservative, these were placed into the category IV. In most cases, they were probably not deeply ingested because that is a very rare occurrence with leatherback sea turtles; therefore this represents a very conservative overestimate of leatherback post-release mortality.

4.5.3.3 Anticipated Interaction and Gear Removal Rates

To examine the reasonably expected levels of mortality that would occur under the proposed action, we applied the levels of gear removal that occurred outside of the NED to the data which best represents the expected interaction types under the proposed rule (the NED circle hook data). To estimate the level of gear removal that occurs in this fishery, the ratio of gear removal (hook and line greater than ½ carapace length remaining, etc.) for each interaction type (external, lower jaw, etc.) was determined for the non-NED observer data. The NED circle hook data were then redistributed within each interaction category according to the proportion of gear removal from the non-NED fishery. Again, these results indicate the mortality ratios that could be expected if circle hooks are used throughout the fishery and gear removal occurs to the degree it had in the 2002-2003 non-NED fishery. The resulting overall mortality ratios were 0.328 (32.8%) for leatherback sea turtles and 0.218 (21.8%) for loggerhead sea turtles (Table 4.5.3.3). These values indicate that, compared to the recent non-NED fishery, the mortality levels for loggerhead sea turtles would drop from 40.4% to 21.8% . This can be attributed to the change from J-hooks to circle hooks in the fishery. The leatherback mortality ratio would remain approximately the same as the fishery prior to enactment of the circle hook requirement (32.8% vs. 31.9%); again, because the type of interaction does not change as the hook-type changes.

4.5.3.4 Anticipated Lethal Takes

The mortality ratios calculated above were then used to estimate the number of lethal takes resulting from the fishery under the proposed action by multiplying the estimated total takes by the mortality ratios. The least conservative approach would be to apply the mortality ratio for the NED circle hook data. This mortality ratio relies on the fishery being required to use circle hooks, to have all required gear-removal equipment on board, and to have the experience and willingness to use the equipment, as was the case in the NED experiment. A more conservative estimate, which was used for this assessment, is obtained by applying the mortality estimates based on non-NED removal proportions and NED circle hook interactions. This is based on the fishery being required to use circle hooks, but removing gear at a rate similar to that occurring fishery-wide prior to the proposed action. Prior to calculating the post-release mortality, immediate mortality (dead when brought aboard) must be considered. As explained in section 4.2.6, 1.3% of leatherbacks and 1.0% of hard-shell turtles observed in the longline fishery over 12 years were dead upon gear retrieval. Those percentages are applied to the expected total take for the purposes of this opinion, although they are probably overestimates because the circle hooks required in the proposed action are anticipated to decrease immediate mortality. For 2004 only, where the rule will only be in effect for the second half of the year, the mortality ratios in Table 4.5.3.2 were applied to the take for the first half of the year, with the take for the second half of the year being treated the same as that for subsequent years.

The 2004 mortality estimates are as follows:

-For leatherback sea turtles, based on estimates of 471 pre-rule takes, 334 post-rule takes, 1.3% immediate mortality (10 turtles), and the mortality ratios discussed above, the mortality in 2004 is expected to be **266** individuals.

-For loggerhead sea turtles, based on estimates of 282 pre-rule takes, 293 post-rule takes, 1.0% immediate mortality (6 turtles), and the mortality ratios discussed above, the mortality in 2004 is expected to be **182** individuals.

For subsequent years, mortality is estimated as follows:

-For leatherback sea turtles, based on 588 total annual takes after the proposed action goes into effect, 1.3% immediate mortality (8 turtles), and the mortality ratios discussed above, total annual mortality is expected to be **198** individuals.

-Loggerhead sea turtle annual mortality, based on 635 total annual takes, 1.0% immediate mortality (6 turtles), and the mortality ratios previously discussed, would be **143** individuals.

For greens, hawksbills, Kemp's ridleys and olive ridleys, based on 35 total annual takes, and the mortality ratios previously discussed, annual mortality would be up to **8** individuals from these four species combined in any year.

Table 4.5.3.1.A. Mortality ratio data for turtles caught on swordfish-style gear using J hooks by NED research fleet in 2002-2003 [based on SEFSC summaries of hooked turtles and estimates of turtles entangled only (not hooked)*]

		Released Alive														Dead	
		Hooked with or without entanglement											V. Entangled only*		VI. Comatose and resuscitated		
		I. Externally			II. Lower jaw			III. Upper mouth/throat			IV. Deep esophagus						
Species	Total	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re-moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re-moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re-moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	releas-ed entangled	disen-tangled	Hook & line <.5 cp. len.	All gear re-moved	
Leatherback	147	22	30	60	0	1	0	0	1	2	0	0	2	29	0	0	0
Loggerhead	131	0	0	17	0	0	2	0	36	30	0	44	0	2	0	0	0
All species	278	22	30	77	0	1	2	0	37	32	0	44	2	31	0	0	0

Mortality ratio:

Hard-shells	0.20	0.10	0.05	0.30	0.20	0.10	0.45	0.35	0.25	0.60	0.50	0.50	0.01	0.70	0.60	1.00
Leatherbacks	0.30	0.15	0.10	0.40	0.30	0.15	0.55	0.45	0.35	0.70	0.60	0.60	0.02	0.80	0.70	1.00

Overall Ratio:	Calculated mortality for each cell in the matrix (no. turtles times mortality ratio)																
Leatherback	0.138	6.6	4.5	6	0	0.3	0	0	0.45	0.7	0	0	1.2	0.58	0	0	0
Hard-shell**	0.330	0	0	0.85	0	0	0.2	0	12.6	7.5	0	22	0	0.02	0	0	0
All species	0.228	6.6	4.5	6.85	0	0.3	0.2	0	13.05	8.2	0	22	1.2	0.6	0	0	0

*Estimates of the ratio of entangled only to total takes were obtained from a subsample of sets where all turtles were caught on J hooks.

This ratio was used to estimate entangled only takes from the hooked takes on J hooks from 2002-2003. The ratio of released entangled leatherbacks to total entangled was 0.05 for all baits and hooks in 2002-2003. This ratio was used to estimate the number of released entangled leatherbacks for J hooks. No loggerheads were ever released entangled. All other numbers of turtles by categories are totals from the NED observer data as summarized by Epperly (SEFSC).

**All hard-shell turtles assumed to have a mortality ratio like loggerheads, since there were too few NED data on other spp to make direct estimates for olive ridley or green turtles

Table 4.5.3.1.B. Mortality ratio data for turtles caught on swordfish-style gear using 18/0 and 20/0 circle hooks by NED research fleet in 2002-2003 [(based on SEFSC summaries of hooked turtles and estimates of turtles entangled only (not hooked)*)]

Species	Total	Released Alive														Dead	
		Hooked with or without entanglement											V. Entangled only*		VI. Comatose and resuscitated		
		I. Externally			II. Lower jaw			III. Upper mouth/throat			IV. Deep esoph.		releas- ed en- tangled	disen- tangled	Hook & line <.5 cp. len.		All gear re- moved
Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.							
Leatherback	103	7	20	32	0	0	1	0	1	8	0	0	2	32	0	0	0
Loggerhead	46	0	0	12	0	0	10	0	2	14	0	4	0	4	0	0	0
All species	149	7	20	44	0	0	11	0	3	22	0	4	2	36	0	0	0

Mortality ratio:

Hard-shells	0.20	0.10	0.05	0.30	0.20	0.10	0.45	0.35	0.25	0.60	0.50	0.50	0.01	0.70	0.60	1.00
Leatherbacks	0.30	0.15	0.10	0.40	0.30	0.15	0.55	0.45	0.35	0.70	0.60	0.60	0.02	0.80	0.70	1.00

Overall Ratio:	Calculated mortality for each cell in the matrix (no. turtles times mortality ratio)																
Leatherback	0.131	2.1	3	3.2	0	0	0.15	0	0.45	2.8	0	0	1.2	0.64	0	0	0
Hard-shell**	0.170	0	0	0.6	0	0	1	0	0.7	3.5	0	2	0	0.04	0	0	0
All species	0.143	2.1	3	3.8	0	0	1.15	0	1.15	6.3	0	2	1.2	0.68	0	0	0

*Estimates of the ratio of entangled only to total takes were obtained from a subsample of sets where all turtles were caught on 18/0 and 20/0 circle hooks. This ratio was used to estimate entangled only takes from the hooked takes on 18/0 and 20/0 circle hooks from 2002-2003. The ratio of released entangled to total entangled was 0.05 for all baits, and hooks in 2002-2003. This ratio was used to estimate the number of released entangled leatherbacks for 18/0 and 20/0 circle hooks. No loggerheads were ever released entangled. All other numbers of turtles by categories are totals from the NED observer data as summarized by Epperly.

**All hard-shell turtles assumed to have a mortality ratio like loggerheads, since there were too few NED data on other spp to make direct estimates for olive ridley or green turtles

Table 4.5.3.2. Mortality ratio data for turtles caught on swordfish-style gear (J-hooks) in the non-NED during 2002-2003 (based on SEFSC summaries of observer data)

Species	Total	Released Alive															Dead
		Hooked with or without entanglement											V. Entangled only*		VI. Comatose and resuscitated		
		I. Externally			II. Lower jaw			III. Upper mouth/throat			IV. Deep esoph.		releas- ed en- tangled	disen- tangled	Hook & line <.5 cp. len.	All gear re- moved	
Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.							
Leatherback	116	46	34	7	0	0	0	2	0	0	11	2	9	3	0	0	2
Loggerhead	95	1	1	2	0	0	0	6	19	21	9	36	0	0	0	0	0
All species	211	47	35	9	0	0	0	8	19	21	20	38	9	3	0	0	2

Mortality ratio:

Hard-shells	0.20	0.10	0.05	0.30	0.20	0.10	0.45	0.35	0.25	0.60	0.50	0.50	0.01	0.70	0.60	1.00
Leatherbacks	0.30	0.15	0.10	0.40	0.30	0.15	0.55	0.45	0.35	0.70	0.60	0.60	0.02	0.80	0.70	1.00

Overall Ratio:	Calculated mortality for each cell in the matrix (no. turtles times mortality ratio)																
Leatherback	0.319	13.8	5.1	0.7	0	0	0	1.1	0	0	7.7	1.2	5.4	0.06	0	0	2
Hard-shell*	0.404	0.2	0.1	0.1	0	0	0	2.7	6.65	5.25	5.4	18	0	0	0	0	0
All species	0.358	14	5.2	0.8	0	0	0	3.8	6.65	5.25	13.1	19.2	5.4	0.06	0	0	2

*All hard-shell turtles assumed to have a mortality ratio like loggerheads, since there were too few NED data on other spp to make direct estimates for olive ridley or green turtles

Table 4.5.3.3. Mortality ratio estimates for turtles caught on swordfish-style gear using 18/0 and 20/0 circle hooks based on NED circle hook bycatch data and non-NED gear-removal ratios.

Species	Total	Released Alive															Dead
		Hooked with or without entanglement											V. Entangled only*		VI. Comatose and resuscitated		
		I. Externally			II. Lower jaw			III. Upper mouth/throat			IV. Deep esoph.		releas- ed- entangled	disen- tangled	Hook & line <.5 cp. len.	All gear re- moved	
Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & line <.5 cp. len.	All gear re- moved	Hook & line >.5 cp. len.	Hook & & line <.5 cp. len.							
Leatherback	103	31	23	5	1	0	0	9	0	0	0	0	25	9	0	0	0
Loggerhead	46	3	3	6	1	4	5	2	7	7	1	3	0	4	0	0	0
All species	149	34	26	11	2	4	5	11	7	7	1	3	25	13	0	0	0

Gear removal ratios:

Leatherback	0.529	0.391	0.08	***	***	***	1.0	0	0	0.841	0.154	0.75	0.25
Loggerhead	0.25	0.25	0.5	***	***	***	0.13	0.413	0.457	0.2	0.8	0	1.0

Mortality ratio:

Hard-shells	0.20	0.10	0.05	0.30	0.20	0.10	0.45	0.35	0.25	0.60	0.50	0.50	0.01	0.70	0.60	1.00
Leatherbacks	0.30	0.15	0.10	0.40	0.30	0.15	0.55	0.45	0.35	0.70	0.60	0.60	0.02	0.80	0.70	1.00

Overall Ratio:	Calculated mortality for each cell in the matrix (no. turtles times mortality ratio)																
Leatherback	0.328	9.3	3.45	0.5	0.4	0	0	4.95	0	0	0	0	15	0.18	0	0	0
Hard-shell**	0.218	0.6	0.3	0.3	0.3	0.8	0.5	0.9	2.45	1.75	0.6	1.5	0	0.04	0	0	0
All species	0.294	9.9	3.75	0.8	0.7	0.8	0.5	5.85	2.45	1.75	0.6	1.5	15	0.22	0	0	0

*Estimates of the ratio of entangled only to total takes were obtained from a subsample of sets where all turtles were caught on 18/0 and 20/0 circle hooks. This ratio was used to estimate entangled only takes from the hooked takes on 18/0 and 20/0 circle hooks from 2002-2003. The ratio of released entangled to total entangled was 0.05 for all baits, and hooks in 2002-2003. This ratio was used to estimate the number of released entangled leatherbacks for 18/0 and 20/0 circle hooks. No loggerheads were ever released entangled. All other numbers of turtles by categories are totals from the NED observer data as summarized by Epperly.

**All hard-shell turtles assumed to have a mortality ratio like loggerheads, since there were too few NED data on other spp to make direct estimates for olive ridley or green turtles

***No incidences of lower jaw hooking occurred in the non-NED fishery so a ratio could not be established. A conservative approach was used instead where the ratios from category III were used, with the rationale that gear removal a category II interaction would be the same difficulty or even easier than category III.

5.0 CUMULATIVE EFFECTS

Cumulative effects include the effects of future state, tribal, local, or private actions that are reasonably expected to occur in the action area. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA.

Cumulative effects from unrelated, non-federal actions occurring in the northwest Atlantic may affect sea turtles and their habitats. Stranding data indicate sea turtles in Atlantic waters die of various natural causes, including cold stunning, as well as human activities, such as incidental capture in state fisheries, ingestion of or entanglement in debris, ship strikes, and degradation of nesting habitat. The cause of death of most sea turtles recovered by the stranding network is unknown.

Most of the fisheries described as occurring within the action area (*Status of the Species and Environmental Baseline*), are expected to continue as described into the foreseeable future. Most of these fisheries will be prosecuted concurrent with the fisheries prosecuted under the Atlantic Highly Migratory Species Fishery Management Plan and can be expected to continue into the future. Numerous fisheries in State waters along the Atlantic coast have been known to adversely affect threatened and endangered sea turtles. The past and present impacts of these fisheries have been discussed in the *Environmental Baseline* section of this Opinion. NOAA Fisheries is not aware of any proposed or anticipated changes in most of these fisheries that would substantially change the impacts each fishery has on the sea turtles covered by this Opinion.

In addition to fisheries, NOAA Fisheries is not aware of any proposed or anticipated changes in other human-related actions (e.g. poaching, habitat degradation) or natural conditions (e.g. over-abundance of land or sea predators, changes in oceanic conditions, etc.) that would substantially change the impacts that each threat has on the sea turtles covered by this Opinion. Therefore, NOAA Fisheries expects that the levels of take of sea turtles described for each of the fisheries and non-fisheries will continue at similar levels into the foreseeable future.

6.0 JEOPARDY ANALYSIS: Effect of Action on Likelihood of Survival and Recovery

The analyses conducted in the previous sections of this opinion serve to provide a basis to determine whether the proposed action would be likely to jeopardize the continued existence of ESA listed sea turtles known to interact with the fishery. In Section 4, we have outlined how the interactions with the pelagic longline fishery can affect sea turtles, and the extent of those effects in terms of annual estimates of numbers of turtles captured and killed. Now we turn to an assessment of the species' response to this impact, in terms of overall population effects from the estimated take, and whether those impacts would appreciably reduce the species' likelihood of surviving and recovering in the wild, thereby jeopardizing the continued existence of the species.

6.1 Loggerhead Sea Turtles

As discussed in the status of the species section, five northwestern Atlantic loggerhead subpopulations have been identified (NMFS SEFSC 2001), with the South Florida nesting and the northern nesting subpopulations being the most abundant. The TEWG (2000) was able to assess

the status of those two better-studied populations and concluded that the South Florida subpopulation is increasing, while no trend is evident for the northern subpopulation, which is thought to be stable. However, more recent analysis, including nesting data through 2003, indicate that there is no discernable trend over the past 15 years in the South Florida nesting subpopulation (Witherington pers. comm.). For the three smaller nesting aggregations (Yucatán, Florida Panhandle, and Dry Tortugas), there are not sufficient or consistent data to determine trends, as explained in section 3 of this opinion.

Data on the bycatch proportion of loggerheads by subpopulation are not available for the entire U.S. Atlantic pelagic longline fishery. Previous biological opinions have used estimates based upon turtle capture on foraging grounds. The application of coastal foraging grounds data suggested, in the NED, 71-72% of turtles would be from the South Florida nesting aggregation, 17-19% would be from the northern nesting aggregation, and 10-11% would be from the Yucatán nesting aggregation. However, recent genetic analysis of bycaught loggerheads from the NED experiment suggests that individuals from the northern Atlantic loggerhead stock and the larger South Florida Atlantic loggerhead stock are captured roughly in proportion to their population sizes (LaCasella et al. in press). Further data collection and larger sample sizes from all of the rookeries are needed before more reliable mixed stock analysis estimates can be achieved. Although the coastal foraging ground data encompass a wider area, the results of the genetic analysis from the NED-caught turtles are expected to be more applicable, as the turtles were caught in the pelagic environment as opposed to coastal habitats, which can be expected to be utilized differently from the pelagic environment. Additionally, other research has shown that juveniles appear to return to benthic foraging grounds near their natal beaches after they leave the pelagic stage (Bowen et al. in review). Therefore, between the findings of LaCasella et al. (in press) and the fact the longline fishery is widespread throughout the pelagic waters of the Atlantic and Gulf of Mexico, it is assumed that the overall interaction of loggerhead sea turtles with the pelagic longline fishery is in proportion with the overall stock sizes of each nesting aggregation. That is, the longline fishery is not believed to be affecting any stock disproportionately, which would be a factor to consider when examining the threat of any individual stock being extirpated.

The individuals taken in the pelagic longline fisheries are pelagic juveniles or juveniles making the transition between pelagic and benthic modes, but not breeding age adults or even large sub-adults. All life stages are important to the survival and recovery of the species; however, it is important to note that individuals of one life stage are not equivalent to those of other life stages. Loggerhead sea turtles have very long developmental times before reaching maturity (up to 38 years). Individuals in earlier life stages are subject to many potential sources of mortality, both natural and human-induced, prior to reaching sexual maturity. The number of individuals in the pelagic juvenile stage is therefore probably much, much larger than the older stages, because only a small proportion of individuals survive through the long pelagic juvenile stage to reach sexual maturity. Only a fraction of pelagic juveniles are ever expected to contribute to the population through reproduction, and thus are not as valuable to the population as a breeding age adult. The loss of a certain number of pelagic juveniles, therefore, is less of a threat to the species' survival and recovery compared to an equal loss of sexually-mature adults. On the other hand, because the pelagic juvenile stage has large numbers, the species' overall population rate of growth (or decline) can be quite sensitive to changes in survival and mortality rates of the pelagic juvenile stage. In the absence of information on absolute sizes of the various age classes, however, we cannot directly convert the anticipated annual mortality of loggerheads from the proposed action,

expressed in number of individuals, into a change in the mortality rate acting on the pelagic juvenile stage.

In 2001, NOAA Fisheries' (SEFSC) issued a stock assessment of loggerhead and leatherback sea turtles that had population assessments for these turtles in the Atlantic (NMFS SEFSC 2001). These analyses included estimates of the nesting abundance and trends, estimation of vital rates, population modeling and projections of population status under various scenarios for loggerheads (there was insufficient data for leatherback modeling), evaluation of genetic relationships between populations, assessment of the impact of the pelagic longline fishery on leatherbacks and loggerheads, and evaluation of available data on other anthropogenic effects on these populations. This document built upon the modeling and analysis presented in the Heppell et al. (2003) chapter in Bolten and Witherington (2003), which was in press at the time NMFS SEFSC 2001 was published. The chapter contained a review of loggerhead population modeling and updated the modeling technique with new information compared to those previously used by Frazer, Crouse, Crowder, and Heppell. Additionally, the SEFSC document reviews the scientific literature on previous evaluations of status, trends and biological parameters of Atlantic loggerheads and leatherbacks. The NMFS' SEFSC (2001) assessment was reviewed by three independent experts [Center for Independent Experts (CIE) 2001]. As a result, the SEFSC' stock assessment report, the reviews of it and the body of scientific literature upon which these documents were derived, represent the best available scientific and commercial information for the Atlantic and provide further analysis for the jeopardy determinations in this opinion.

The loggerhead population model developed in NMFS SEFSC (2001) was intended to evaluate, among other things, the effects on overall population growth rates when the survival rate of the pelagic juvenile stage was varied. This allowed them to model changes in impacts from basin-wide longline fisheries. The model was run with three different population growth rates (population lambda), pre-1990 (before TED use might be expected to confound mortality estimates from strandings). Those lambdas are 0.95 (from Cape Island, S.C. – the most important nesting beach for the northern subpopulation – nesting trends [TEWG 2000]), 0.97 (from Cumberland Island, Georgia – one of the longest continuously monitored nesting sites for the northern subpopulation – nesting trends [Frazer 1983]), and 1.0 (from the nesting trends meta-analysis of multiple separate northern subpopulation nesting beaches [NMFS SEFSC 2001 Appendix 1]). NMFS SEFSC (2001) cautions with respect to the meta-analysis, however, that “it is an unweighted analysis and does not consider the beaches' relative contribution to the total nesting activity of the subpopulation and must be interpreted with some caution.” Additionally, the lambda=0.95 scenario (a 5% annual decline in population), while the most conservative, is not supported by other data sets in the region, and much of the Cape Island decline occurred long ago and may not be indicative of more recent population performance.

The modeling included analyses of three different sex ratios as well, with female offspring accounting for 35%, 50%, and 80% of the hatchlings. Based upon observed sex ratios and genetic data of foraging ground populations, the sex ratio for the northern nesting subpopulation was thought to be skewed towards males, with only 35% of hatchlings being female. The sex ratios for the South Florida nesting subpopulation were thought to be skewed as high as 80% female. An ongoing study by Wyneken et al. (2004), however, indicates that the sex ratio issue may not be as clear as previously thought, but the initial results are preliminary and based on only one year of sampling, which may not be reflective of long-term conditions. Further research is necessary to

better understand the dynamics of the sex ratios produced by each nesting subpopulation.

The model looked at population level effects of pelagic longline mortality by examining changes in annual pelagic juvenile survival of +10%, +5%, -5%, and -10%. The base-case, or status quo, pelagic juvenile survival rate was solved for assuming a stable age distribution and survival rates of benthic juvenile and adult stages derived from pre-1990 strandings information. Because loggerhead turtles are so long-lived, the adult and large benthic juveniles that contributed to the pre-1990 data set may not have been exposed to pelagic longline fishing when they were pelagic juveniles, or the fishing effort when they were in that stage had not yet increased to present levels.

It may be, then, that the base-case pelagic juvenile survival in the SEFSC (2001) model is optimistic, compared to present conditions. The SEFSC report did not attempt to assign a most likely scenario and certainly did not say that pelagic longline fishing had altered pelagic juvenile survival by any specified amount. The model is still useful for assessing how large of a change in survival (increase or decrease) is necessary to produce corresponding population growth or decline. The June 14, 2001, opinion concluded that the longline fishery, as then prosecuted, was likely to jeopardize loggerhead sea turtles. The RPA of that opinion used the NMFS SEFSC (2001) models to determine how large a reduction in pelagic mortality was necessary to move the modeled population from declining to stable or from stable to increasing. Such a population response would be evidence that the appreciable reduction in likelihood of survival and recovery had been removed. The RPA determined that a 55% reduction in longline mortality on loggerheads in the Atlantic was necessary. The RPA also provided measures to achieve that rate of mortality reduction in the U.S. longline fleet. Calculation of the 55% bycatch mortality reduction target was based on achieving a positive change in overall pelagic juvenile survival of 10%.

The proposed action continues to achieve the 55% bycatch mortality reduction for loggerheads from the U.S. fishery, compared to the status quo considered at the time of the 2001 opinion. Anticipated annual total takes of loggerheads are about a third less (635 vs. 991), and post-hooking mortality associated with the use of circle hooks instead of J-hooks will be about half as much (21.8% vs. 40.4% mortality). Therefore, the total loggerhead mortality is expected to be reduced from over 400 to 143 per year.

In addition, the new TED regulation (published on February 21, 2003 [68 FR 8456]) represents a significant improvement in the baseline affecting loggerhead sea turtles. Shrimp trawling is considered to be the largest source of anthropogenic mortality on loggerheads. Because the rule went into effect only recently, its beneficial effects have not been realized yet. The SEFSC (2001) model, however, can be used to look at the expected population effect of the new TED regulations. The model has built in that the effect of introducing fully effective TEDs is a 30% reduction in total mortality on any life stages small enough to escape through the openings. Based on the findings of Epperly and Teas (2002), the NMFS SEFSC model assumes that small benthic juvenile loggerheads (<70 cm) have benefitted from TED requirements since 1990, but that large juveniles and adults had previously experienced no reduction in total mortality compared to pre-TED days. It is now expected that the full 30% mortality reduction benefit is being extended to large juvenile and breeding adult loggerheads. Note, this is not a 30% reduction in shrimp-related mortality, but a reduction from the total level of mortality from all sources. Epperly et al. (2002) estimated a 94% decrease in shrimp-related mortality for loggerheads in the southeast U.S. as a result of the new TED rule.

Even assuming that pelagic juvenile survival has already been reduced below the model's base-case by as much as 10%, the results of the models show that under any sex ratio and an initial lambda of 0.97 or 1.0 (as explained above, 0.95, even for the northern nesting subpopulation, is considered to be overly pessimistic and not supported by the most recent data), loggerhead populations are expected to increase (rather than merely stabilize) with a 10% increase in pelagic juvenile survivorship. The proposed action is expected to reduce mortality resulting from the U.S. portion of the pelagic longline fishery by an amount commensurate with what is required of the international longline fleets to effect a 10% increase in pelagic juvenile survival. Applying the same standard used in the June 14, 2001, opinion, this reduced impact from the U.S. longline fishery would be at a level where it would not be expected to contribute to the appreciable reduction of the likelihood of survival and recovery for loggerhead sea turtles. It is important to note that although this modeling of the effect of the longline mortality reductions and TED rule expansion benefits applies most directly to the northern and South Florida subpopulations, the same benefits are expected for the other, smaller subpopulations for which there is not enough nesting data to model. Because the take from the longline fishery is expected to be proportional to the subpopulations' sizes, no disparate impact is expected for any of the smaller subpopulations. Additionally, although there is insufficient data to determine nesting trends, none of the smaller subpopulations show indications that they are currently in decline. Therefore, the fact that the modeling predicts positive trends for the larger subpopulations under the various scenarios indicates that the same should be expected for the smaller subpopulations.

In this opinion's analysis, we will also look at the actual estimated take and mortality levels of loggerheads associated with the proposed action, in light of the species' status and cumulative effects, and not just examine relative mortality changes in the models. Loggerhead sea turtles are highly migratory and have the potential to interact with pelagic longline fisheries throughout the Atlantic basin. An analysis of the international pelagic longline fisheries' impacts on loggerhead sea turtles throughout the Atlantic and Mediterranean estimated that the annual take ranged from 210,000-280,000 incidences (Lewison et al. 2004). Using a 40.4% post-interaction mortality (assuming use of J-hooks and minimal dehooking and gear removal), and the mid-point of the take range (245,000), it is estimated that 98,989 mortalities occur annually in the international pelagic longline fishery in the Atlantic and Mediterranean. Of course, there is a great deal of uncertainty and variability around these basin-wide estimates. Based on the proposed action, the U.S. Atlantic pelagic longline fleet is expected to take 599 loggerhead sea turtles (182 mortalities) in 2004, and 635 (143 mortalities) annually in subsequent years. This represents only 0.6% of the takes and 0.1% of the estimated mortality (0.2% in 2004) from all of the Atlantic pelagic longline fisheries.

Loggerheads affected by pelagic longline fisheries still have many years, perhaps decades, before reaching maturity. During this time they experience mortality from numerous natural and human sources, so we expect that the effect of longline fisheries on loggerhead populations will be difficult to detect in the only long-running, reliable index of loggerhead abundance – nesting data. The international pelagic longline fleet has a large estimated annual take for the entire Atlantic basin. The proposed action would reduce the U.S. contribution to basin-wide longline mortality to only one-tenth of a percent: if the U.S. fishery did not exist, the difference in overall take would likely not even be noticeable. Although any level of take and mortality theoretically has a negative effect on the overlying population, we believe that the take and mortality of loggerheads associated with the proposed action is not likely to be a detectable adverse effect given that:

- Interactions are with the pelagic juvenile stage, which is likely the most numerous age class;
- Basin-wide interaction levels and mortality are very large;
- The U.S. longline fleet represents only 0.1% of the annual loggerhead mortality; and
- Although we have concerns about the status of some loggerhead populations in the western Atlantic due to their failure to recover, the data do not indicate that any of the nesting subpopulations are currently declining, despite having experienced capture and mortality in pelagic longline gear for years.

Therefore, as a result of the above analysis and the various factors considered, we believe that the takes and resulting mortality of loggerhead turtles associated with the proposed action are not reasonably expected to cause, directly or indirectly, an appreciable reduction in the likelihood of either the survival and recovery of loggerhead sea turtles in the wild.

6.2 Other Hard-shell Sea Turtle Species

Other hard-shell sea turtle species are known to interact with the longline fishery, but only in rare instances. We anticipate that up to 35 individuals from the combined species, Kemp's ridley, olive ridley, green, and hawksbill, may be estimated taken in any year. This level of take would be predicted to correspond to up to 8 lethal takes per year (through post-release mortality). Because of the high variability in the observed capture of these species, some years may have no observed and thus no estimated captures. It is unlikely that any single species of these four will be consistently impacted year after year. Because of the rarity and intermittence of the interactions, we believe that the effects of the proposed action are not reasonably expected to cause, directly or indirectly, an appreciable reduction in the likelihood of survival and recovery of green, hawksbill, Kemp's ridley, or olive ridley sea turtles in the wild.

6.3 Leatherback Sea Turtles

The best available stock assessment for evaluating Atlantic leatherback populations is NMFS SEFSC (2001). That assessment is somewhat confounded by the near absence of data or high uncertainty for estimates of juvenile and adult survival and mortality, age and growth; and also, by the intermittence of nesting data from the major leatherback nesting beaches on the north coast of South America. Nevertheless, a very strong signal of declining nesting was detected for the nesting aggregation of Suriname and French Guiana, the largest remaining leatherback nesting aggregation in the world. Nesting there had been declining at about 15% per year since 1987 through the 1990s. From the period 1979-1986, however, the number of nests had been increasing at about 15% annually. As explained in Section 3, there is a great degree of uncertainty and inconsistency regarding the leatherback sea turtle population status and trends. The uncertain trends in nesting at U.S. beaches versus South American beaches complicates our evaluation. Additionally, because of a lack of sufficient data, the population modeling scenarios performed for loggerhead sea turtles are not possible at this point for leatherback sea turtles. Therefore, we are using Spotila et al. (1996) as the latest, most complete estimation of leatherback populations throughout the Atlantic basin (from all nesting beaches in the Americas, the Caribbean, and West Africa) (approximately 27,600 nesting females with an estimated range of 20,082-35,133).

In contrast to the situation with loggerheads, which are mostly impacted by longline fishing early

in their development, the leatherbacks captured in the longline fishery are adults and large juveniles. An exact assessment of the leatherback life stages affected by longlining is hampered by the animals' size; it is almost always impossible to bring a captured leatherback safely aboard for any detailed measurements. Therefore, the POP records leatherback size information based on the observer's best estimate of the turtle's carapace length, to the nearest foot, so the information is not very precise. The POP data show that 56% of the leatherbacks are 5' or greater in carapace length. Average straight carapace lengths of nesting females in St. Croix are about 5' (~150 cm) (Eckert et al. 1984). Therefore, it appears that at least half of the bycaught leatherbacks are mature breeders, and the rest are sub-adult animals.

The death of mature breeding females can have an immediate effect on the reproduction of the species. Sub-lethal effects on adult females may also reduce reproduction by hindering foraging success, as sufficient energy reserves are probably necessary for producing multiple clutches of eggs in a breeding year. Additionally, because leatherback sea turtles reach sexual maturity in only 5-15 years, the importance of sub-adults taken in the pelagic longline fisheries is relatively much higher than for loggerhead sea turtles. According to Spotila et al. (1996), survivorship in the juvenile/sub-adult stage of leatherback sea turtles is vitally important to the future of the species; population models are most sensitive to variation in juvenile/sub-adult survival. The number of individuals in the various stages would also not be as disparate in leatherbacks as in loggerheads. Because of the duration of the stages and the required, associated survivals (see Spotila et al. 1996), the total number of subadult leatherbacks is probably similar to the total number of adults in the population, and is certainly within the same order of magnitude. The roughly equal distribution of subadults and adults in the POP database support this conclusion. Once juvenile leatherbacks become susceptible to capture in longline gear (whether by size, behavior, or distribution), we believe susceptibility likely remains relatively constant.

We do not have good information on the sex ratios of the leatherbacks caught in the longline fishery, or even leatherbacks generally. We assume the population sex ratio is 50%. In their published leatherback population model, Spotila et al. (1996) also assume a 50% sex ratio.

As with loggerhead sea turtles, leatherbacks are highly migratory and have the potential to interact with the pelagic longline fishery wherever it is prosecuted in the Atlantic. Throughout the Atlantic basin, including the Mediterranean Sea, a total of 30,250-70,000 leatherback sea turtles are estimated to be captured every year by pelagic longline fisheries (Lewison et al. 2004). Using a middle value from the take range (50,000), a 32.8% post interaction mortality, a 50% sex ratio, and a 50% adult to juvenile ratio, total annual international longline mortality of adult females is estimated to be 4,100 per year. According to these calculations, this accounts for approximately 15% of the total 27,600 nesting female population estimated by Spotila et al. (1996) (20,082 - 35,133).

Under the proposed action, the U.S. pelagic longline fleet is expected to take 805 individuals (266 mortalities) in 2004, and 588 per year (198 mortalities per year) in subsequent years. Using the same calculations as above for the rest of the fishery, the estimated mortality of breeding-age females is expected to be 67 in 2004, and 50 per year thereafter. The U.S. fleet would therefore account for 1.2% of the total longline fishery mortality annually (1.6% in 2004). This is equivalent to 0.18% (0.14 - 0.24%) of the total nesting female population annually (0.24% [0.19 - 0.33 %] in 2004). Another estimated 50 subadult females per year (67 in 2004) are expected to be

killed by the U.S. fleet as a result of the proposed action. If numbers of adult females and subadult females are similar, as we believe, the proportional impact to the subadult stage from the proposed action would also be similar.

The overall numbers of leatherback takes reported in Lewison et al. (2004) are very high, and the U.S. contribution appears small relative to the overall pelagic longline fishery in the Atlantic and Mediterranean. The mortality of adult and subadult leatherbacks – 50 females from each stage, every year – is not discountable, however. If the mortality were one-time or short-term, there seems little doubt that a species with a life history like leatherbacks would easily replace the losses and that level of mortality would not have a noticeable effect on the population. Continued year after year, as the pelagic longline fishery is expected to continue, however, the loss of 50 adult females and 50 subadult females, from a population whose adult females number only in the low tens of thousands, is expected to have appreciable population effects. The loss of the adult females will directly affect our only population metric – nesting – and will also eliminate those nesters' immediate contribution to the species reproduction. The fact that similar numbers of subadult females are also being removed directly reduces the likelihood that the population will replace the lost adults quickly, as those sub-adults are the exact animals that would recruit to the breeding population soonest. Continued depressed reproduction from the reduced replacement of the lost adult females will, in turn, further depress the numbers of hatchlings and juveniles going into the population that could eventually replace the lost sub-adults. At some point, compensatory effects (e.g., increased hatching success on the nesting beach as the density of nests declines) may slow or even stop such a decline, but the population would already be reduced and thus more vulnerable to extirpation. On the other hand, compensatory effects may also occur with ever smaller populations (e.g., increased risk of predation to solitary individuals or nests or inability to find a mate) and further accelerate the decline.

Despite some apparent similarities between the situations with loggerhead and leatherback mortality in the longline fishery in the Atlantic, there are some notable differences. First, the leatherback populations are probably smaller than loggerheads. Second, the mortality from the longline fishery is acting directly on leatherback breeders and soon-to-be breeders, rather than small juveniles. Third, while the impacts from the U.S. longline fleet are small compared to the international fleet for both species, the U.S. fleet's relative contribution to leatherback mortality is an order of magnitude higher than for loggerheads. At over 1% of the total annual longline mortality, and annually killing about 0.2% of the estimated number of adult and subadult females in the population, we believe that the long-term continuation of the proposed action can be expected to appreciably affect leatherback populations in the Atlantic. Fourth, while we stated that our concern for loggerheads was lessened by the absence of evidence that the western Atlantic subpopulations are currently declining, that was based on loggerhead nesting data that is exponentially more accurate, precise, and longer-term than what is available for leatherbacks. Our concern for leatherbacks is heightened by the fact that any assessment of the status and trends of the largest remaining leatherback nesting assemblage in the world is so confused and confounded. The U.S. longline fishery primarily affects leatherbacks from this assemblage, and the absence of evidence on the effects on that population is not a reasonable assurance that those effects are not occurring. Fifth, while we have well-parameterized population models for loggerhead turtles that allow us to assess the effects of changes in pelagic and coastal fishery mortality on population growth rates, we have little or no knowledge of the life history parameters for leatherbacks. We therefore do not have robust population models with relatively optimistic outlooks, as we do for

loggerheads. Sixth, the beneficial effects of the proposed action for leatherbacks are much less certain than for loggerheads. The effects of the 16/0 circle hook on leatherback catch rates have not been measured, but we are assuming they will be the same as observed with the 18/0 circle hook. With loggerheads on the other hand, the effect of 16/0 circle hooks on hooking location – and thus post-hooking mortality – has been studied.

We believe that the effects of the proposed action on leatherbacks, considering the species status and cumulative effects, can be reasonably expected to appreciably reduce the likelihood of the survival and recovery of leatherbacks in the Atlantic, by reducing their numbers and reproduction. Taking into consideration the global status of leatherback sea turtles and that the Pacific population is known to be much smaller than the Atlantic population and is in drastic decline, an action that appreciably reduces the likelihood of leatherbacks' survival and recovery in the Atlantic most certainly reduces the likelihood of the species' survival and recovery globally.

6.4 Summary

Based upon our review of the best available information, including the effects of the proposed action, the status of the species, and cumulative effects, we believe that the proposed action *is not* likely to reduce appreciably the likelihood of the survival and recovery of loggerhead, green, hawksbill, Kemp's ridley, or olive ridley sea turtles in the wild by reducing their reproduction, numbers, or distribution. Based on the same review, we believe that the proposed action *is* likely to reduce appreciably the likelihood of the survival and recovery of leatherback sea turtles in the wild by reducing their reproduction and numbers.

7.0 CONCLUSION

We have analyzed the best available scientific and commercial data, the current status of the species, environmental baseline, effects of the proposed action, and cumulative effects to determine whether the proposed action is likely to jeopardize the continued existence of any sea turtle species. In doing so, the analysis focused on the impacts and population response of sea turtles in the Atlantic Ocean. However, as discussed in section 4.1.1 Scope of the Analysis, the impact of the effects of the proposed action on the Atlantic populations is directly linked to the global populations of the species, and the final jeopardy analysis is for the global populations as listed in the ESA.

Based upon the analyses described above, it is our opinion that long-term continued operation of the Atlantic pelagic longline fishery, authorized under the Atlantic Highly Migratory Species FMP:

- is not likely to jeopardize the continued existence of loggerhead, green, hawksbill, Kemp's ridley, or olive ridley sea turtles; and

- is likely to jeopardize the continued existence of leatherback sea turtles.

Critical habitat has not been designated for these species in the action area; therefore, the destruction or adverse modification of critical habitat will not occur.

8.0 REASONABLE AND PRUDENT ALTERNATIVE

This opinion has concluded that the HMS pelagic longline fishery, as proposed, is likely to jeopardize the continued existence of leatherback sea turtles. The clause “jeopardize the continued existence of” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species” (50 CFR §402.02).

Regulations implementing section 7 of the ESA (50 CFR §402.02) define RPAs as alternative actions, identified during formal consultation, that: (1) can be implemented in a manner consistent with the intended purpose of the action; (2) can be implemented consistent with the scope of the action agency's legal authority and jurisdiction; (3) are economically and technologically feasible; and (4) we believe would avoid the likelihood of jeopardizing the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

Throughout this opinion, we have recognized that threatened and endangered sea turtles face a risk of global extinction because of a wide array of human activities and natural phenomena. We recognize, for example, that the number of turtles killed by foreign longline fleets poses a much larger and more serious threat to the survival and recovery of sea turtles than U.S. HMS fisheries in the Atlantic Ocean. Further, this opinion recognizes that sea turtles will not recover without addressing the full range of human activities and natural phenomena that could cause these animals to become extinct in the foreseeable future. The existence of these other threats, however, does not affect NOAA Fisheries' responsibility to ensure that the proposed action is not likely to jeopardize the continued existence of leatherback turtles. An RPA that ensures that the HMS pelagic longline fishery is not likely to jeopardize the continued existence of listed species may not necessarily ensure that the species will recover in the wild and may not prevent other human activities from causing their ultimate extinction.

8.1 Specific Elements of the Reasonable and Prudent Alternative

NOAA Fisheries must undertake management and conservation measures to address and reduce the adverse effects to leatherback populations expected to result from the proposed action. Specifically, NOAA Fisheries must (1) reduce post-release mortality of leatherbacks, (2) improve monitoring of the effects of the fishery, (3) confirm the effectiveness of the hook and bait combinations that are required as part of the proposed action, and (4) take management action to avoid long-term elevations in leatherback takes or mortality. These measures are necessary to avoid the likelihood of jeopardy and to authorize the continued prosecution of the HMS pelagic longline fishery. The RPA is designed to reduce the effects of the HMS pelagic longline fishery to such a degree that the effects are not likely to appreciably reduce these turtles' likelihood of surviving and recovering in the wild. What follows is a single RPA, with four elements, that must be implemented in its entirety to avoid jeopardizing leatherback sea turtles.

8.1.1 Maximize Gear Removal to Maximize Post-release Survival

Sea turtle post-release survival is not only dependent on the type of interaction (i.e., where hooked, entangled or not), but also on the amount of gear left following the release. Removal of some or all of the gear – except deeply-ingested hooks – is likely to improve the probability of a sea turtle surviving an interaction event. The January 2004 draft post-release mortality criteria account for the probable improvement in survivorship resulting from removal of gear, where appropriate, for each injury. Maximizing gear removal therefore is critical for lowering mortality ratios (see section 4.3).

In this opinion, our jeopardy conclusion for leatherbacks was based on an estimated 805 takes and 266 mortalities in 2004, and an estimated 588 takes and 198 mortalities in subsequent years, continuing indefinitely. The post-release mortality ratio used in estimating the anticipated lethal takes was 32.8%. This post-release mortality ratio was based on the observed fishery's (non-NED experiment) gear removal proportions and the NED experiment's hooking locations with circle hooks. That post-release mortality ratio, therefore, represents the level of post-release mortality we expect if the fishery is being required to use circle hooks, and gear removal rates remain the same.

Based on results from the NED experiment, substantial reductions in mortality can be achieved by maximizing the amount of gear removed from hooked sea turtles. The post-release mortality ratio for leatherbacks using the NED gear removal proportions and circle hook data was only 13.1%. The NED experiments had 100% observer coverage and captains and crew that were well trained, well equipped, and experienced in gear removal from sea turtles. That post-release mortality ratio, therefore, represents the level of mortality we expect if the fishery is required to use circle hooks and to have all required gear-removal equipment on board, and has the training, experience, and willingness to use the equipment.

It is critical that the same level of gear removal achieved in the NED be attained throughout the fishery. Improving the post-release mortality ratio in the entire HMS pelagic longline fishery to levels associated with circle hook use in the NED experiment would decrease total leatherback mortality caused by the fishery by 58%. The NED experience shows that extensive training, experience, and high motivation are needed to achieve these high rates of success. Therefore, NOAA Fisheries must provide outreach and training to maximize gear removal and must monitor the effectiveness of its efforts through the POP.

8.1.1.1 Outreach

NOAA Fisheries must establish a comprehensive outreach program to ensure that fishermen are aware of the safe handling and gear removal requirements of the proposed action, understand how to use the required gear, and understand the importance of maximizing gear removal to maximizing post-release survival of sea turtles. NOAA Fisheries must carry out the following specific tasks:

Training materials

HMS Division must develop and distribute training materials on safe handling of sea turtles and gear removal techniques to all HMS pelagic longline permitted vessels by September 30, 2004.

We believe that video (VHS or DVD) is the most effective training format and the most likely format to be reviewed by vessel crews. Development and distribution of a training video should be the first priority for training materials. Additional training materials may include booklets, laminated placards, *etc.*, and electronic versions of these materials to further enhance availability. A significant number of participants in the fishery are Vietnamese-Americans or Latino-Americans. Critical outreach materials must be translated into Vietnamese and Spanish and distributed to vessels likely to have Vietnamese-speaking or Spanish-speaking crew. Translation may be time-consuming. Every effort must be made to complete distribution of translated materials by September 30, 2004. Distribution of translated materials must be completed, however, no later than November 30, 2004.

Fishery outreach point of contact

NOAA Fisheries possesses technical expertise on longline gear, sea turtle science, and HMS regulatory requirements in multiple offices. NOAA Fisheries must select a single office, or even an individual, as the point of contact (POC) for permittees and fishermen with questions on requirements for safe handling of turtles and gear removal. Point of contact information must be published in the final rule implementing the sea turtle conservation requirements in the longline fishery and should be included in the training materials, as appropriate.

The POC will have a critical role in ensuring that fishermen learn the requirements, the techniques, and the reasons for maximum gear removal. In addition to simply answering fishermen's questions, the POC must actively reach out to fishermen to learn about their experiences, troubleshoot problems, and share solutions and successful experiences with other fishermen and NOAA Fisheries' scientists and managers.

Training workshops

NOAA Fisheries must conduct training workshops to explain the final sea turtle conservation requirements to fishermen. We recommend that the POC conduct the training workshops to maximize the POC's overall rapport and effectiveness; however, NOAA Fisheries may design and staff the training workshops as deemed appropriate. At least three voluntary training workshops must be given by September 30, 2004: one each in the Gulf of Mexico, the mid-Atlantic, and the New England regions. Additional workshops beyond the minimum three are encouraged, as are workshops after September 2004, to ensure the broadest possible contact with affected fishermen.

Outreach through the POP

Pelagic longline observers are the face of NOAA Fisheries to many longline fishermen. Observers will interact longer and more closely with a greater depth of the fishery participants than any training workshops, and they will do so under actual fishing conditions where the effectiveness of the learning can be much greater. The SEFSC must train and require the POP observers to provide additional outreach and training to captains and crews on sea turtle safe handling and gear removal techniques.

At the outset of trips, the observer must offer to review the safe handling and gear removal techniques with the captain and crew and to provide instruction in the use of the required onboard equipment. Because the observer's fundamental role is to document how the fishery is conducted and its effects on sea turtles, and because the integrity of the data they collect on sea turtle release condition must be protected if it is to be valid for extrapolations to the overall fishery, observers

may not assist the crew in any way during sea turtle handling and release. Observers may still handle turtles that have been brought aboard by the crew to carry out permitted scientific tasks (e.g., attaching standard or telemetry tags, identifying and measuring animals, taking genetic samples, etc.). During the course of a trip, observers should be encouraged to share with the captain and crew the turtle handling and gear removal experiences, both successes and problems, that they have observed. Observers should provide constructive feedback to captain and crew at an appropriate opportunity after a turtle is captured and released. Before disembarking, the observer must inspect any sea turtle safe handling and gear removal equipment onboard and record whether the required gear was available. The SEFSC must include this information in its quarterly reports (see 8.1.2 below) so that the HMS Division and SERO-PRD can assess the implementation of this RPA. The information is not intended to be used for enforcement purposes.

The SEFSC must strive to place an observer on each active, permitted longline vessel at least once over the course of 2004, 2005, and 2006. The Director, SEFSC, may specify the most appropriate way to implement this requirement to preserve the accuracy of take estimates based on observer data. If the Director, SEFSC, determines that this requirement cannot be achieved in any form without seriously compromising the scientific validity of the take estimates, this requirement need not be implemented. In any event, the SEFSC must include in its quarterly reports (see section 8.1.2 below) the number of unique vessels that were observed. Through 2006, the quarterly report must also include the cumulative number of unique vessels observed since the effective date of the final rule implementing the sea turtle conservation requirements and an estimate of the number of active vessels that have not been observed over the same period.

Maintenance of Outreach Function

NOAA Fisheries must maintain a viable outreach function, beyond the time necessary merely to accomplish the initial steps identified in this sub-element of the RPA. While demand for training workshops will likely diminish over time, interaction with fishermen will remain critical for long-term success, and materials may need occasional reproduction or updating based on industry experiences or new scientific information.

8.1.1.2 Fisherman Training Certification

The HMS Division must develop and implement training and certification program to ensure that the captain of each permitted HMS vessel authorized to fish with pelagic longline gear has successfully completed training on sea turtle safe handling and gear removal by December 31, 2005. Training must include demonstrations of safe turtle release equipment and protocols and pelagic longline equipment modifications required under proposed HMS regulations. Training should also include hands-on instruction, which has proven highly effective in transferring technical information. Training content must be developed in consultation with the SEFSC. The certification process must reasonably ensure that the certified individual has actually completed and understood the training material. The certification process must also include documentation requirements so that law enforcement officers can readily verify a vessel's compliance with the requirement to have a certified captain. Provision must be made for periodic training and certification opportunities, after 2005, so new captains can receive training.

8.1.1.3 Verification of Maximized Gear Removal

We believe that the outreach and certification requirements specified in this RPA element, along with experience the fishermen gain with time, will bring the whole fleet up to the high level of gear removal performance that was seen in the NED experiment. The fleet will receive initial outreach in 2004, mandatory training and certification in 2005, and will gain experience after that training throughout 2006. By the beginning of 2007, then, we believe that the fleet will have reached the maximum performance level seen in the NED experiment.

NOAA Fisheries must monitor the overall expected mortality of sea turtles caught in the longline fishery, based on their release condition and the January 2004 draft post-release mortality criteria discussed in section 4.3 above. The SEFSC must instruct POP observers to continue collecting detailed information on all sea turtle interactions including initial interaction type, hooking location, amount of gear remaining upon release, and the animal's condition upon release. The SEFSC must use this information to determine the net mortality ratio associated with the observed captures, according to the method of Epperly and Boggs (2004). The net mortality ratio calculated for leatherbacks and loggerheads³ must be included in the quarterly and annual reports (see section 8.1.2 below).

We have established net mortality ratio targets to ensure that the fleet's progress in improved sea turtle handling and gear removal reach the net mortality ratios of 13.1% for leatherbacks and 17.0% for loggerheads by the beginning of 2007 (the long-term targets). These targets are based on even, annual progress in 2004, 2005, and 2006. The targets are presented in Table 8.1.1.3.

Table 8.1.1.3 Net Mortality Rate Performance Standards

	Assumed 3 rd & 4 th Quarters, 2004	Target for 1 st Quarter, 2005	Target for 1 st Quarter, 2006	Target for 1 st Quarter, 2007 and onward
Leatherbacks	32.8%	26.2%	19.6%	13.1%
Loggerheads	21.8%	20.2%	18.6%	17.0%

8.1.2 Improve the Accuracy and Timeliness of Reporting and Analysis

The sea turtle take estimates used in our jeopardy analysis are produced from observed bycatch rates and logbook effort data. Bycatch rates (currently catch per hook) are quantified based on observer data by geographic area and quarter. The estimated bycatch rate is then multiplied by the total fishing effort (currently number of hooks) reported in the mandatory logbook to obtain estimates of the total interactions for sea turtles. Both the accuracy of the data and the timeliness of its reporting are critical to monitoring the effects of the fishery and assessing whether the RPA avoids jeopardy for leatherbacks. Observer coverage must be sufficient to produce a statistically reliable sample of the HMS pelagic longline fishery that accurately represents the entire fishery. These data must also be available in a timely fashion to monitor the fishery and take corrective action to avoid long-term elevation of turtle takes beyond those authorized in this opinion. Levels

³This RPA is designed to remove jeopardy for leatherback turtles. Implementing the measures in this RPA will also benefit loggerhead turtles. Where those benefits affect the anticipated impact on loggerhead turtles in a quantifiable way, we are including those reduced impacts in the RPA.

of observer coverage and timeliness of reporting have been insufficient in the past. Improvement in the level of observer coverage and within-year and annual reporting are needed.

The June 14, 2001, opinion included terms and conditions concerning observer coverage and reporting that were intended to ensure that monitoring would: (1) detect adverse effects resulting from the HMS pelagic longline fishery; (2) assess the actual level of incidental take in comparison with the anticipated incidental take documented in that opinion; and (3) detect when the level of anticipated take is exceeded. As in previous consultations, 5 percent observer coverage in the pelagic longline fishery was required. Observer coverage was required to be distributed according to a stratified random sampling scheme that would adequately sample the fishery to determine levels of protected species takes. At a minimum, the regime had to ensure that sampling occurs annually at a statistically reliable level of coverage within all statistical areas fished. Reporting requirements included quarterly reports of observed takes and annual reports of estimated takes.

Between 1992 and 2000, the overall average coverage was 4 percent (Beerkircher et al. 2002). The only time the 5 percent coverage was actually achieved was between 1993 and 1995, when POP funding was at its highest level. From 1996 to 2000, funding and logistical problems (e.g. not being able to place observers on all selected trips) resulted in an average of only 3.4 percent observer coverage, and the 5 percent target level was never achieved in any single year.

In 2001 through 2003, there was 100 percent coverage for the NED experiment which was technically not part of the fishery authorized in the 2001 opinion. Observer coverage in areas excluding the NED was only 2 percent during 2001 and overall coverage averaged only 3.7 percent for that year. The POP target coverage level was raised to 8 percent in 2002 to meet new ICCAT targets and to improve the precision of catch and bycatch estimates specified in NOAA Fisheries' guidelines for fisheries observer coverage levels (NMFS 2003). Overall observer coverage (including the NED experiment) achieved the new target level in 2002, but was only 3.7 percent excluding the NED experiment. Thus, a representative cross section of the fishing effort in each area and during each quarter of the year was not achieved. Reported effort data in 2003 are not available. Quarterly reports, which estimate the percent coverage obtained based on the previous year's reported effort data, estimate overall coverage was 6.3 percent. It is critical that NOAA Fisheries achieve not only its new target level, but achieve that target level in as many areas and quarters as possible.

Garrison (2003a) identifies several sources of bias and uncertainty in the take estimates from a lack of observer coverage in certain statistical fishing areas and quarters. Fishery observer effort is allocated across 11 large geographic areas and the calendar quarters based on the historical fishing range of the HMS pelagic longline fishery (see Figure 2.3.1 C). Offshore areas in the SAR, TUN, and TUS areas have only rarely been included in the POP observer coverage. Bycatch rates for year-quarter-area strata with greater than 10 reported HMS pelagic longline fishery sets and no corresponding observer coverage were replaced in the take estimation method with the mean bycatch rate observed in the quarter-area stratum across the previous five years. For some strata, there was no observer coverage within the previous five years, thus no bycatch estimates were made, and turtle catches were assumed to be zero, despite reported fishing effort in those strata. Applying observer data from previous years is inherently uncertain since bycatch rates can vary strongly in time and space. The most glaring omission is the generally low current and historical coverage of the offshore areas including the SAR, TUN, and TUS. It is currently unknown,

therefore, if there are significant interactions with listed species in these sectors of the longline fishery

Although all of the required quarterly and annual reports have been completed to date, they have not always been done in a timely fashion. The timeliness of reporting and take analysis are dependent on the availability of POP observer data and pelagic longline logbook data. Observer data collected during a fishing trip are entered into a computer usually within seven days upon the observer's return to port. Because observers are sometimes still at sea at the end of a quarter, it takes a minimum of 30 days after the close of each quarter before all the data are available to complete the quarterly report. Quarterly reports, therefore, are typically completed by the middle of the subsequent quarter. Because of the work load caused by the 2001-2003 NED Experiment project, the submission of protected species summary documents by the POP was often greatly delayed. Annual reports have taken significantly longer to prepare than the quarterly reports and have sometimes been prepared only every other year. For example, the estimated sea turtle takes in 2001 were presented in the same report as the estimated sea turtle takes in 2002, which was not completed until December 2003. Annual reports of estimated takes depend on the availability of observer data, and also on reported effort data. Late logbook forms and quality control procedures have resulted in final effort data not being available until six-months into the subsequent year.

Quarterly reports are presently required to include observed take data, the number of sets observed by statistical area, and an estimate of the observed coverage level. Because the SEFSC does not compile effort data until the end of the year, however, they have not developed take estimates for the quarterly reports. Thus, the fishery is ultimately monitored by the annual take estimate reports. The delay in receiving these takes estimates caused exceedances of the incidental take level established in the June 2001 opinion in 2001 and 2002 to go undetected until November 2003. Had the 2001 take estimates been available in a timely manner, corrective action may have been taken to avoid exceeding take in 2002.

In our jeopardy analysis, we concluded that the long-term, incidental mortality of 198 leatherback turtles annually, based on the estimated annual capture of 588 animals, was expected to reduce the likelihood of leatherback turtles' survival and recovery in the wild. The first element of this RPA will, over the next two-and-a-half years, reduce the net post-release mortality for leatherback turtles by about 60%, and we have specified requirements to monitor this reduction. No measures are specified, however, in this RPA that further reduce the estimated annual bycatch levels of leatherbacks beyond the level predicted for the proposed action. Because the basis of our jeopardy determination – total estimated mortality – is the product of the post-release mortality ratio and the estimated take levels, we must also ensure that take levels do not become elevated.

In the jeopardy analysis, we stressed that one-time or short-term mortality on leatherbacks, on the scale of the proposed action's annual impacts, is not likely to produce any noticeable effect on the population. Similarly, minor, short-term exceedance of estimated take and mortality levels is not expected to have noticeably worse population effects, as long as take and mortality do not also increase on average over the long term. High degrees of variability in natural and anthropogenic mortality, nesting levels, recruitment success, and the inherent ability of long-lived animals to withstand short-term impacts require us to focus on long-term, rather than short-term effects, because of both the biological significance of long-term effects and our likely inability to detect a population response from short-term impacts.

NOAA Fisheries has issued incidental take for the fishery on an annual basis in the past. Annual take estimates have high variability, however, because of natural and anthropogenic variation. For example, leatherback takes over the history of the observer program have ranged from as low as 308 in 1997 to the all time high of 1,208 in 2001. This high variability and the absence of within-year take monitoring of estimates have prevented HMS Division from being able to detect possible take exceedance early and pursue corrective action to prevent exceedance of the annual authorized levels of incidental take.

To ensure that the long-term operation of the fishery does not jeopardize the continued existence of leatherback turtles, NOAA Fisheries must improve its ability to monitor takes in the fishery and must be able to take timely corrective action. However, corrective action within any one single year will likely never be practicable, and minor or short-term exceedance of annual predicted take levels is not believed to be sufficient to jeopardize leatherbacks. Therefore, this RPA and the associated ITS will establish a three-year authorized take level for sea turtles. The SEFSC must provide timely take information during the course of each three-year period to allow the HMS Division ample time to detect significant problems in remaining within the authorized take levels and to take corrective action (e.g., closure of sea turtle interaction hot spots, additional gear restrictions). We believe a three-year period is the shortest practicable time period for the SEFSC and the HMS Division to detect and avoid potential long-term take exceedance. We also believe that three years is sufficiently protective of leatherback turtles: within a reporting period, highly elevated takes could only theoretically continue for two consecutive years before corrective action would be taken in the third year to maintain the total take at the authorized annual average level. Maintaining long-term takes at the average 3-year level considered in this opinion, even though higher take levels may occur in certain years, will ensure that the effects of elevated takes do not reduce appreciably the likelihood of leatherbacks' survival and recovery in the wild.

8.1.2.1 Improve Observer Coverage

The SEFSC must achieve at least 8% observer coverage in the HMS pelagic longline fishery, based on total annual reported sets. For this RPA, the 8% observer coverage level is a minimum level, not a target. NOAA Fisheries must provide the POP funding at a level that will ensure the availability of an observer for any scheduled trip. The SEFSC must adjust the POP's internal target number of observed sets to achieve the 8% minimum coverage level, taking into account the program's average success rate of observing only 81% percent of the planned sets. The SEFSC must strive to improve communication between vessel operators and the POP to increase the POP's success rate in placing observers on longline trips. The SEFSC must increase efforts to achieve observer coverage in areas and quarters where sampling has historically been low: by December 31, 2006, there must be no quarter-area stratum with an assumed sea turtle take of zero because of lack of current or historic observer coverage and current year reported effort over 30 sets.

8.1.2.2 Improve Observer Data Collection

The different types of hooks and baits authorized for use in the pelagic longline fishery may have different effects on rates of sea turtle and target species catch (see 8.1.3 below for in-depth discussion). The POP currently records some information on hooks and bait used on observed

trips. To be able to use POP data to analyze the potential effects of the newly required hooks and baits, the SEFSC must improve the detail of hook and bait information collected by the POP. The SEFSC must train and require the POP observers to record not only hook size and brand, but also amount of hook offset and whether different sizes, brands, and/or offset hooks are used on a given set. In the case of sets with multiple hook or bait styles, observers must record the proportion of each hook and bait style used, and if any sea turtles are captured, the exact hook and bait involved. It is also recommended that exact hook and bait details be recorded for catches of the primary target species.

8.1.2.3 Improve Within-Year Monitoring

The SEFSC must improve within-year monitoring to detect high take levels as soon as possible by improving the existing quarterly reports:

- uu) Sea turtle take estimates must be prepared using observer data and preliminary effort data for that quarter. If preliminary effort data are not available, quarterly take estimates must be prepared based on effort data from previous years.
- vv) Quarterly reports must be submitted to SERO, HMS Division, the Northeast Regional Office Protected Resources Division, and the Office of Protected Resources no later than 45 days into the subsequent quarter. In addition to the information previously provided in the quarterly reports, they must include the quarterly take estimates specified here, the number of unique vessels observed, the cumulative number of unique vessels observed since the effective date of the sea turtle conservation regulations, and the percent of observed vessels that had the required turtle handling and gear removal results.
- ww) Observed takes by statistical area and quarter over the history of the POP must be reviewed for any notable trends or patterns that can be used to further interpret the significance of the number of observed takes reported during each quarter. A summary of that review should be completed by March 31, 2005. Any take prediction hypotheses stemming from that review must be tested retrospectively using the 2004 quarterly and annual take estimates. Results should be included in the 2004 final estimated takes report.

8.1.2.4 Improve Timeliness of Reporting Yearly Take Estimates

The SEFSC must improve the timeliness of reporting yearly sea turtle take estimates by:

- a) Compiling logbook effort data in computer databases and conducting quality control as logbooks are submitted throughout the year, so that effort data are available for analysis as soon as possible after the end of the year;
- b) Completing annual take estimates based on observer and effort data by March 15 of each year;
- c) Subsequently revising the annual estimates by May 31, if quality control of the effort data for ICCAT purposes results in changes in the effort data; and
- d) Immediately providing these take estimates to SERO, HMS Division, the Northeast Regional Office Protected Resources Division, and the Office of Protected Resources.

8.1.3 Confirm Effectiveness of Hook and Bait Combinations

By far the most comprehensive study of the effects of varying hooks and baits on sea turtle bycatch rates and hooking locations is the NED experiment. The NED experiment conclusively demonstrated that significant reductions in loggerhead and leatherback catch rates can be achieved by the use of 18/0 or larger circle hooks or large mackerel bait, instead of the industry-standard J-hooks and squid bait. The NED experiment also demonstrated that an 18/0 or larger circle hook with a 10° offset, in combination with mackerel bait, could outfish the industry-standard J-hook and squid for the target species of swordfish in cold waters, primarily by catching and retaining larger fish. Thus, in the NED at least, the NED experiment produced a fishing gear solution that was beneficial to fishermen and sea turtle conservation.

Concerns have been raised, however, about the economic impacts of applying the NED experiment's results to other areas or other target species. For example, the 18/0 circle hook-mackerel bait combination's ability to catch larger swordfish may not be realized in other swordfish grounds, if those larger fish are not available. In addition, a large portion of the U.S. longline fleet – and probably the large majority of the international longline fleet globally – targets tunas or a mixture of tunas and swordfish. The effect of the 18/0 or larger circle hook on catch rates of tuna has not been extensively studied. The smaller 16/0 circle hook is the gear of choice for tuna-directed fishing in some other fleets (*e.g.* Canada), and the 16/0 circle hook has been demonstrated to outfish a 7/0 J-hook (the industry standard in the U.S. Gulf of Mexico tuna fishery) by 150% (Falterman and Graves 2002). Thus, the 16/0 circle hook is assumed to be an effective gear choice for tuna-directed fishing. In a limited number of sets in the NED experiment directly comparing the target-species performance of 16/0 vs. 18/0 circle hooks in tuna-directed sets, there was no difference in catch rates of yellowfin or bigeye tuna between the two hook sizes, although the sample size was small. In a more extensive hook and bait comparison in the NED experiment, the 18/0 circle hooks baited with squid nominally, but not significantly, outperformed 9/0 J-hooks in catch of bigeye tuna, but this was during swordfish directed catch, where the tuna was only a desirable bycatch

The work of Bolten in the Azores is similar to the NED experiment's approach and is also excellent, with controlled hook-type comparisons. Bolten did examine the effect of 16/0 circle hooks, compared to 9/0 J-hooks, on sea turtle captures and found that the 16/0 hook, either offset or non-offset, did not reduce captures of loggerheads. Fishing in the Azores, Bolten did not have high enough leatherback encounter rates to develop any conclusions on effects of 16/0 hooks for leatherbacks. In the NED experiment, where leatherback encounters were much more frequent, 16/0 circle hooks were not investigated for sea turtle effects, because of Bolten's earlier negative results with loggerheads. Watson et al. (2004b) postulate convincingly that the reduction in leatherback captures seen in the NED experiment with the 18/0 circle hook is the result of the circle hook's shape alone and not a function of its size; therefore, the bycatch reduction rate of the 16/0 circle hook should be equivalent to the 18/0 circle hook. We believe that this reasoning is likely correct, although it has not been empirically demonstrated.

Because of the concern over economic impacts in tuna- and swordfish-directed components of the longline fishery outside the NED, the proposed action will require the use of 16/0, non-offset, or

18/0 or larger, with up to 10° offset, circle hooks. The 16/0 hook has been proven to be successful for tuna-directed fisheries, even though it has not been much used in the U.S. longline fleet, while the 18/0 hook has not been fully tested. Giving fishermen the option of using the smaller circle hook is intended to minimize the risk of adverse economic consequences to fishermen, while still reducing the catch rate of leatherbacks and the post-release mortality rates of loggerheads. This rationale depends on two hypotheses that are reasonable and supported by the best available information, but that have not been scientifically confirmed:

a) Economic impacts to fishermen from required use of the 18/0 or larger circle hook – demonstrated to reduce both loggerhead and leatherback catch rates – would be severe, compared to current industry-standard J-hooks, but the economic impacts from required use of the 16/0 circle hook – demonstrated not to reduce loggerhead catch rates and believed, but not yet demonstrated, to reduce leatherback catch rates – would be more acceptable; and

b) Leatherback catch rates on 16/0 and 18/0 circle hooks would be equivalent.

Also in this opinion, we have made conservative decisions on the use of offset hooks, even though the databases to compare the effects of non-offset vs. 10° offset hooks are small. Additional research on the effect of offsetting hooks is needed to determine how significant a factor hook offsets are in turtle catch rates. If 10° offsets can be demonstrated not to increase turtle catch rates significantly, then our assessment of turtle impacts could be less pessimistic. Also, restrictions on the use of offset hooks could potentially be eased, improving acceptance of the required circle hooks by the U.S. longline industry and possibly other fleets as well. On the other hand, if our conservative decision is confirmed, there would be less question about the necessity of the current offset restrictions in the proposed action, again, both domestically and internationally.

It is critical to validate these assumptions. NOAA Fisheries must ensure that the long-term implementation of the proposed action is at least as effective for leatherback take reduction as we have assumed in this opinion (a 50% reduction compared to U.S. longline industry-standard practice). In addition, while this opinion focuses on the effects just of the U.S. Atlantic longline fleet, the sea turtle population impacts from the longline fleets of other nations, both in the Atlantic and globally, are much more severe than the effects of the U.S. fleet. Convincing other nations to adopt comparable gear and/or bait modifications to reduce the impacts of the global longline fleets is essential if there is to be hope of conserving leatherback and loggerhead turtles globally. And convincing those other nations will likely depend on solid information on target-species catch effects. As long as uncertainty remains about the economic effects of the use of the 16/0 or the 18/0 circle hook, there is little hope that the international longline fleets will adopt alternate fishing gear and therefore little hope of achieving significant threat reduction for sea turtles from international longline gear. NOAA Fisheries must undertake a research project, with an expected completion date of December 31, 2006, to address these outstanding uncertainties.

8.1.3.1 Evaluation of Leatherback Bycatch

NOAA Fisheries must conduct experiments and/or monitoring of the longline fishery to confirm whether the assumed bycatch reduction rate of leatherbacks with the use of the 16/0 circle hook is equivalent to the 18/0 circle hook by:

- e) comparison of the effects of the 16/0 and 18/0 hooks in controlled fishing experiments, or
- f) comparison of the effects of the 16/0 hook to the former status quo hooks in

- g) controlled fishing experiments, or comparison of fishery dependent data.

8.1.3.2 Evaluation of Effect of Offset Circle Hooks

NOAA Fisheries must conduct experiments and/or monitoring of the longline fishery to determine more precisely the effect of offsets up to 10° on rates of sea turtle bycatch, hooking location, and post-release mortality by:

- a) comparison of the effects of the 16/0, non-offset and 16/0, 10° offset circle hooks in controlled fishing experiments, or
- b) comparison of the effects of the 18/0, non-offset and 18/0, 10° offset circle hooks in controlled fishing experiments.

8.1.3.3 Evaluation of Economic Impacts

NOAA Fisheries must conduct experiments and/or monitoring of the longline fishery to verify the target species catch effects of the 18/0 circle hook in tuna-directed fishing by either:

- b) comparison of the effects of the 16/0 and 18/0 hooks in controlled fishing experiments, or
- c) comparison of the effects of the 16/0 hook to the former status quo hooks in controlled fishing experiments.

8.1.3.4 Principles for Conducting Evaluations

NOAA Fisheries must continue its successful practice of working cooperatively with government and academic researchers, the U.S. longline industry, and foreign partners to accomplish the required research effectively, efficiently, and with broad buy-in. The SEFSC, the Southwest Fisheries Science Center, and the Pacific Islands Fisheries Science Center are the most likely actors within NOAA Fisheries to carry out these evaluations; they are encouraged to collaborate with each other and their external partners in developing actual research designs. Separate evaluations may be combined in individual projects for efficiency. In particular, sea turtle and target species evaluations may be particularly amenable to combined study.

In selecting among the various alternatives and designing actual experiments, NOAA Fisheries will be cognizant that some catch rate effects will be difficult to detect because of the low rates of catch and bycatch in the pelagic longline fishery, and the high variability in those rates. Experiments looking at negative effects (i.e., intended to support a conclusion that two rates are *not* different), in particular, will be carefully statistically designed with an understanding of the power of the test and an understanding that decisions involving conservation of endangered and threatened species are to be risk-averse. That is, statistical analysis of sea turtle catch effects shall err on the side of assuming an adverse effect does exist or a beneficial effect does not exist, rather than the converse.

Research funded or implemented by NOAA Fisheries may be subject to permit requirements under the ESA or the MSA. NOAA Fisheries conducts section 7 analyses on the issuance of any such permits. Some of the research may not require additional authorizations or section 7 analysis, however, if it would involve fishing with allowed gear (under the requirements of the proposed

action) and interventions with any bycaught sea turtles would be consistent with the proposed action and the currently authorized operation of the pelagic observer program or any other properly authorized research program.

8.1.3.5 Application of Evaluation Results

Within 3 months of the completion of each fishing season (i.e., before April 2005, April 2006, and April 2007), NOAA Fisheries must analyze the results of the previous years' scientific experiment (or require reporting from government-funded researchers) for the effects of all the tested parameters on sea turtle and target species catch rates. The research results must be communicated and coordinated with research partners and other interested parties in a timely manner, so that continuing research might be adapted or modified appropriately.

HMS Division must evaluate the interim and final research results against the requirements of the proposed action. HMS Division must consider the possible application of the results through rulemaking to modify the proposed action, if necessary to reduce sea turtle interactions or improve fishery economic performance. Because element 2 of this RPA (section 8.1.2) is designed to limit sea turtle interactions to prevent long-term exceedance of authorized take levels, we do not perceive a need at this time to mandate application of the evaluation results in any particular way. We expect, however, that the evaluation results would be critical to HMS being able to take corrective action that would be minimally disruptive to the fishery, in the event that estimated takes are projected to exceed the authorized takes.

8.1.4 Take Corrective Action to Prevent Long-Term Elevated Take and Mortality

8.1.4.1 Implement Adaptive Management Strategy to Prevent Exceedance of 3-Year ITS

The ITS accompanying this opinion specifies authorized incidental take levels for sea turtles, over three-year periods, beginning with 2004. The final annual reports of take estimates prepared by the SEFSC will be the basis for assessing actual vs. authorized takes. During the course of each three-year period, the HMS Division must review each quarterly and annual report as soon as it becomes available. If these reports indicate that the fishery is not likely to stay within the authorized three-year take levels, the HMS Division must take protective/corrective action to avoid long-term elevations in sea turtle takes and ensure that take levels in the ITS are not exceeded. Such actions may include time-area closures, additional gear modifications or restrictions, or any other action deemed appropriate. HMS Division should consider establishing a rule that would allow implementation of corrective measures through framework action. Such a rule would provide industry with greater certainty on the types of management responses that may occur and would allow for more timely action, reducing the need for later, more drastic action.

8.1.4.2 Reduce Near-Term (2004-2006) Mortality of Leatherbacks by Reducing Fishery Interactions, If Necessary

The conservation measures in the first and third elements of this RPA will be carried out over the next two-and-a-half years. The post-release mortality reduction is not expected to be fully effective until 2007. Likewise, completion of testing that can confirm the effectiveness of the required hook and bait combinations is not required or likely to be completed before 2007. When

those elements are successfully implemented, after 2006, long-term average annual capture and mortality of leatherback turtles are expected to be 588 interactions and 84 mortalities, and the three-year authorized incidental take for leatherback turtles would be 1,764 interactions, with a corresponding 252 mortalities. In the meantime, however, mortality will be quite a bit higher as gear removal and post-release survival incrementally improve. Estimated three-year capture and mortality of leatherbacks for 2004-2006 would be 1,981 interactions and 548 mortalities. The 548 mortalities in 2004-2006 would be more than double the level expected in 2007-2009 and beyond, and they represent only a 17% reduction in mortalities, compared to the proposed action without the first element of the RPA. Also, the risk to leatherbacks from the proposed action during this initial three-year period will be higher, as the effectiveness of the required hook and bait combinations will not have been confirmed. Therefore, it is particularly important that mortality rates associated with the fishery not be allowed to exceed the targets laid out in the first element of the RPA.

The RPA requirements of section 8.1.4.1 will ensure that total leatherback sea turtle *takes* do not exceed long-term average take rates, over three year periods. HMS Division may also need to take additional management action to reduce leatherback *mortality* in the near-term (2004-2006), while the other elements of this RPA are being implemented and reaching full effectiveness. Because the impacts to leatherbacks during the near-term are already expected to be greater than the future impacts, NOAA Fisheries must monitor post-hooking survival particularly carefully during the next two-and-a-half years. If fleet-wide gear removal rates are not sufficient to meet the performance targets in Table 8.1.1.3, HMS Division must take immediate action to offset the increased mortality rates and bring overall anticipated mortality back down to the level specified in the first element of the RPA. The proposed action and the first element of this RPA already include requirements to use circle hooks, known to reduce leatherback bycatch rates, and to maximize gear removal to maximize post-release survival. Therefore, the only remaining way to achieve further reductions in leatherback mortality in the pelagic longline fishery would be through closures that reduce fishing effort in areas of high leatherback bycatch.

Closure of the Gulf of Mexico to Pelagic Longline Fishing

We believe that most closures of small, discrete areas will not produce significant sea turtle catch reductions because of the relative ease of shifting fishing to nearby areas. For example, HMS Division analyzed an alternative in their DSEIS to close, year-round, a 25,000 nm² area in the central Gulf of Mexico that accounted for about 41% of the fishery's total leatherback takes. The DSEIS estimated, however, that the net reduction in leatherback interactions from that closure would only be about 16%, because fishermen would simply relocate their effort to other areas where leatherback interactions would still occur. Following the June 30, 2000, jeopardy opinion, HMS Division closed an "L-shaped" portion of the NED to reduce sea turtle captures. However, NMFS SEFSC (2001) analyzed the effects of closing only a limited portion of the NED and found that interactions were spread throughout the area and not just a small portion. Consequently, HMS Division's closure of the NED area, following the June 14, 2001, jeopardy opinion, was a total closure.

The Gulf of Mexico fishing area in the second and third quarters (April-September) accounted for fully half of the estimated leatherback bycatch in the longline fishery, based on 2002 observer data. We believe that a large-scale closure of the Gulf of Mexico during that time is the most effective available alternative that will significantly reduce fishing effort – and thus turtle

interactions – and likely not simply result in effort displacement. The effect of such a closure would be a 41% reduction in leatherback interactions, annually, if there is no effort redistribution. Some redistribution of longline effort would likely occur, but we believe it will be minimized under the large-area closure scenario. Many Gulf of Mexico-based vessels may convert to other fisheries or stay idle for a six-month closure.

If fleet-wide gear removal rates are not sufficient to meet the performance targets in Table 8.1.1.3, HMS Division must immediately implement a closure for the entire Gulf of Mexico (to minimize redistribution of effort). The timing and duration of the closure must be sufficient to offset, through reduced interactions, the effects of the higher post-release mortality associated with the poor gear removal levels, and may be longer or shorter than the six-month closure discussed above.

Substitution of Equally Effective Alternative Closure

HMS Division may substitute an alternative closure or closures to the required Gulf of Mexico closure, if their analysis shows that the alternative closure(s) would be equally effective at reducing leatherback sea turtle bycatch, after accounting for redistribution of fishing effort. HMS Division may consider whether alternative closure formulations would be more desirable because of reduced socioeconomic impacts, increased bycatch reduction of other species (e.g. loggerhead turtles, billfish, bluefin tuna, undersize target species), or other relevant factors.

Removal of Closure Requirement

The time-area closure(s) may be removed when data collected on gear removal and post-release survival show that fleet-wide interaction types and gear removal rates have met the post-release mortality targets. With successful implementation of the other elements of this RPA, those criteria should be met by early 2007. If they are not met, the closure(s) must remain in effect until they are.

Corrective Action to Achieve Post-Release Survival Targets

If the 2005 and 2006 targets (Table 8.1.1.3) are not achieved, in addition to the closure discussed above, HMS Division must consult with the SEFSC to determine whether there are identifiable problems in training, compliance in the fishery, effectiveness of the circle hooks, or effectiveness of the gear removal tools and techniques. HMS Division must then take corrective action, as appropriate, to ensure that the long-term targets are successfully achieved. If HMS Division and SEFSC determine that the long-term target for leatherbacks cannot be achieved because of some unseen circumstance, HMS Division must determine whether and how it intends to proceed with the continued authorization of the fishery in light of the requirement to avoid jeopardizing the continued existence of leatherback turtles, and inform SERO of its intended course of action.

8.2 Effect of the Reasonable and Prudent Alternative

This RPA includes requirements intended to reduce post-release mortality of sea turtles, improve monitoring of the effects of the fishery, confirm the effectiveness of the hook and bait combinations that are required as part of the proposed action, and take management action to avoid long-term elevations in sea turtle takes. The RPA is designed to reduce the effects of the HMS pelagic longline fishery to a level where they are not likely to appreciably reduce the leatherback sea turtle's likelihood of surviving and recovering in the wild. The measures in the RPA will also

necessarily affect the impacts of the action on loggerhead and other hard-shell turtles, which were not found likely to be jeopardized by the proposed action. In this sub-section, we will briefly summarize the effects of the proposed action, as modified by the RPA, on all affected species of sea turtles. Then we will specifically evaluate the population effects to leatherback turtles to ensure that the RPA will remove the action's appreciable reduction of the leatherback's likelihood of survival and recovery.

Section 4 of this document explained the anticipated annual take levels and the status quo anticipated post-release mortality rates for each sea turtle species. The first element of the RPA provides measures to minimize post-release mortality over a two-and-a-half year period. The second element of the RPA requires improvements in the monitoring of the fishery's effects. The third element of the RPA requires NOAA Fisheries to undertake a comprehensive research program to confirm the presumed effects of the required hook and bait types. The fourth element of the RPA requires the HMS Division to ensure long-term average take rates are not exceeded. The fourth element also requires careful monitoring of the progress the fishery makes towards maximum gear removal and conditionally requires the closure of the Gulf of Mexico area (or an equivalent alternative) for a period necessary to offset the mortality effects if the fishery does not meet the necessary post-release mortality reduction targets. Table 8.2 summarizes the anticipated take levels and associated mortality based on implementation of the RPA and contrasts it with the mortality associated with the proposed action without the RPA (shown in parentheses). Because the Gulf of Mexico closure is conditional, Table 8.2 does not reflect the effect of a closure in the take levels. The purpose and effect of such a closure would be to reduce the total number of captures and maintain the total estimated mortality.

Table 8.2 Anticipated triennial incidental takes and mortality of listed species in the longline fishery with implementation of the RPA. Total estimated mortality without the RPA is shown in parentheses.

Species	Time Period	Total Captures	Post-Release Mortality	Total Estimated Mortality
Leatherback	2004-2006	1981	32.8% in 2004, declining to 26.2% in 2005, declining to 19.6% in 2006	548 (662)
	2007-2009, 2010-2012...	1764	13.1%	252 (594)
Loggerhead	2004-2006	1869	40.3% in 1 st & 2nd Qtrs 2004, declining to 20.2% in 2005, declining to 18.6% in 2006	438 (468)
	2007-2009, 2010-2012...	1905	17.0%	339 (429)
OtherHhard-shells	2004-2006	105	40.3% in 1 st & 2nd Qtrs 2004, declining to 20.2% in 2005, declining to 18.6% in 2006	25 (25)
	2007-2009,	105	17.0%	18 (21)

	2010-2012...			
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Long-term mortality under the RPA is reduced by 21% for loggerhead turtles and by 15% for the other hard-shell species. Because we found in the jeopardy analysis that the mortality of loggerhead, green, Kemp’s ridley, hawksbill, and olive ridley turtles under the proposed action is not likely to jeopardize the continued existence of those species, we reach the same conclusion for the reduced level of mortality under the RPA.

Leatherbacks receive even greater benefits from the RPA in reduced total mortality, both over time and compared to the proposed action. In the near-term, 2004-2006, the RPA reduces total estimated mortality by 17% for leatherback turtles. The gains that can be made in the near-term are limited, because 2004 will be at least halfway over before the benefits from the required use of circle hooks will begin to accrue, and because we expect that the benefits from improved sea turtle handling and gear removal will take two-and-a-half years to fully materialize. Long-term, the benefits to leatherbacks from the RPA will be large: a 58% in mortality compared to the proposed action without the RPA.

Our jeopardy analysis for leatherback turtles focused on the action’s effects on females. We expect that the effects on males would be the same as on females, with an assumed 50:50 sex ratio and no reason to believe that there is a sex-selectivity in pelagic longline captures of leatherbacks. Female turtles were critical to our analysis, however, as their numbers are most measurable as nesters and their survival more directly affects the species’ reproduction. In the analysis, we stated that, “If the mortality were one-time or short-term,... [it] would not have a noticeable effect on the population. Continued year after year..., however, the loss of 50 adult females and 50 subadult females, from a population whose adult females number only in the low tens of thousands, is expected to have appreciable population effects.” We also highlighted a number of concerns resulting from aspects of the species’ biology, the impacted segments of the population, and the scientific uncertainty about the species’ status, the species’ life history, and the effectiveness of the hook and bait combinations in the proposed action.

With implementation of the first element of the RPA, continued prosecution of the longline fishery is expected to result, long-term, in mortality of only 21 adult and 21 subadult females annually. This reduced level of mortality represents only 0.5% of the total leatherback mortality from pelagic longline fleets in the Atlantic and the Mediterranean and less than 0.1% of the estimated adult female leatherback population in the Atlantic. In addition, the second and fourth elements of the RPA will ensure that the fishery’s effects will not exceed the predicted take levels for three-year periods. Previous monitoring and management of the HMS pelagic longline fishery had allowed significant increases in interactions to go undetected and/or uncorrected for extended periods, increasing the risk posed to leatherback populations. The third element of the RPA further reduces the risk to leatherback populations associated with the proposed action by more definitively confirming the effects of hook and bait combinations and the implications of the sea turtle conservation rulemakings. The third element is also expected to have important conservation implications for sea turtles, beyond just the RPA, by improving the scientific and management arguments available to convince other nations – whose sea turtle impacts are much larger than the HMS pelagic longline fleet’s – to adopt hook and bait requirements for sea turtle conservation. The fourth element also provides an important check on the effectiveness of the first

element by requiring that closures be implemented if the post-release survival gains are not achieved in a timely manner. Our jeopardy analysis did state that one-year or short-term mortality – at the level of the proposed action – would not have a noticeable population effect, but we were aware that it would be part of a continuing action. Therefore, during the near-term period when mortality will be higher than the long-term target for the RPA, but below the level of the proposed action without the RPA, the fourth element assures that mortality will be tightly controlled and not allowed to exceed the near-term targets. With the near-term risks controlled and long-term annual leatherback mortality reduced to exceedingly low levels, compared to the overall mortality (half-a-percent of longline mortality in the basin) and the population's size (less than a tenth of a percent), we believe that the effects of these losses will be below the threshold where they would produce a detectable change in Atlantic leatherback populations. Taken together, the elements of the RPA are expected to reduce the threat posed by the HMS pelagic longline fishery to leatherback sea turtles to a level where it is unlikely that the proposed action would appreciably reduce the likelihood of the species' survival and recovery. Therefore, we conclude that – if NOAA Fisheries fully implements all of the elements of this RPA – the long-term continued operation of the Atlantic pelagic longline fishery is not likely to jeopardize the continued existence of leatherback sea turtles.

9.0 INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and protective regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the reasonable and prudent measures and terms and conditions of the ITS.

Section 7(b)(4)(c) of the ESA specifies that in order to provide an incidental take statement for an endangered or threatened species of marine mammal, the taking must be authorized under section 101(a)(5) of the MMPA. Since no incidental take of listed marine mammals is expected or has been authorized under section 101(a)(5) of the MMPA, no statement on incidental take of endangered whales is provided and no take is authorized. Nevertheless, the HMS Division must immediately (within 24 hours, if communication is possible) notify the NOAA Fisheries' Office of Protected Resources should a take of an endangered whale occur.

9.1 Amount or extent of take

We believe that the levels of incidental take shown in Table 9.1 may be expected to occur as a result of the proposed action and the implementation of the RPA. These numbers represent the total takes over three-year periods, beginning with 2004. Total annual takes in the fishery are estimated by the SEFSC based on their pelagic observer program, the NED experiment results, and reported fishing effort. The reasonable and prudent measures specified in this ITS, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation

of consultation and review of the reasonable and prudent measures provided. The HMS Division must immediately reinitiate formal consultation, providing an explanation of the causes of the take exceedance, and review with the SERO PRD the need for possible modification of the reasonable and prudent measures (50 CFR 402.16). The RPA contains specific requirements to prevent the incidental take levels from being exceeded, so take exceedance should only occur under exceptional circumstances.

Table 9.1 Anticipated incidental takes of listed species in the longline fishery

Species	Number Captured from 2004-2006	Number Captured each Subsequent 3-Year Period
Leatherback turtle	1981	1764
Loggerhead turtle	1869	1905
Green, Hawksbill, Kemp's ridley, and Olive Ridley turtle, in combination	105	105

9.2 Effect of the Take

NOAA Fisheries has determined that the level of anticipated take specified in Table 9.1 is not likely to result in jeopardy to the green, hawksbill, Kemp's ridley, olive ridley, or loggerhead sea turtle. This level of take is also not likely to result in jeopardy to leatherback sea turtles when the RPA specified in section 8 is enacted, and the following reasonable and prudent measures are fully implemented. The RPA reduces the level of mortality affecting captured sea turtles, improves monitoring and reporting, requires management action to avoid long-term elevations in sea turtle takes, and confirms the effectiveness of hook and bait combinations.

9.3 Reasonable and Prudent Measures

Section 7(b)(4) of the ESA requires that, when an agency action is found to comply with section 7(a)(2) of the ESA and the proposed action may incidentally take individuals of listed species, NOAA Fisheries will issue a statement specifying the impact of any incidental taking. It also states that reasonable and prudent measures necessary to minimize impacts, and terms and conditions to implement those measures be provided and must be followed to minimize those impacts. Only incidental taking by the federal agency or applicant that complies with the specified terms and conditions is authorized.

The reasonable and prudent measures and terms and conditions are specified as required by 50 CFR § 402.14 (i)(1)(ii) and (iv) to document the incidental take by the HMS pelagic longline fishery and to minimize the impact of that take on sea turtles. These measures and terms and conditions are non-discretionary, and must be implemented by NOAA Fisheries in order for the protection of section 7(o)(2) to apply. NOAA Fisheries has a continuing duty to regulate the activity covered by this incidental take statement. If NOAA Fisheries fails to adhere to the terms and conditions of the incidental take statement through enforceable terms, and/or fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section

7(o)(2) may lapse. In order to monitor the impact of the incidental take, the HMS Division must report the progress of the action and its impact on the species to NOAA Fisheries as specified in the incidental take statement [50 CFR 402.14(i)(3)].

We note that the HMS pelagic longline fishery has been the subject of several previous biological opinions which have specified their own reasonable and prudent measures to monitor and minimize the impacts of incidental take. Most of those reasonable and prudent measures have been permanently implemented by NOAA Fisheries through regulations or as standard operating procedures. In addition, the purpose of HMS Division's February 11, 2004, proposed rule is to reduce the bycatch rates and bycatch mortality of sea turtles in the pelagic longline fishery. Thus, the proposed action already includes many measures to monitor and minimize the impact of the longline fishery's incidental take of sea turtles. Further, the RPA in this opinion contains additional sea turtle conservation measures, necessary to remove jeopardy to leatherback sea turtles, that also monitor and minimize the impact of the proposed action's incidental take of sea turtles. We believe the following reasonable and prudent measures are necessary and appropriate to monitor and minimize the effect of take of listed species considered in this opinion:

- a) NOAA Fisheries must improve the understanding of leatherback sea turtle life history and population status and provide updated information to be used in management decisions
- b) NOAA Fisheries must continue efforts to better understand sea turtle post-release mortality rates and the factors affecting these rates.
- c) NOAA Fisheries must take action to ensure improved compliance with safe handling and release gear required on board.
- d) NOAA Fisheries must improve the HMS pelagic longline fishery's compliance with vessel safety requirements to reduce the number of inadequate or unsafe vessels for purposes of carrying an observer and for allowing operation of normal observer function vessels in the fleet.

9.4 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, NOAA Fisheries must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

- a) *Convene an expert working group on leatherback sea turtles.* By December 31, 2004, NOAA Fisheries must select and assemble a group of population biologists, sea turtle scientists, and life history specialists, and natural resource managers who are known experts on sea turtle conservation issues, especially for leatherback sea turtles. These experts may come from academic, government, industry, and/or non-profit organization backgrounds. This group will be charged with compiling the best, most up-to-date information on leatherback sea turtle life history, ecology, population status, and threats. The information is then to be synthesized and presented in a NOAA technical memorandum to be used as a reference on the ecology and status of leatherback sea turtles in the Atlantic and to provide information to be used in making

sound management and conservation decisions.

- b) *Leatherback research plan.* NOAA Fisheries must develop and implement a research plan to obtain the necessary demographic data to conduct stock assessment analysis and determine the status of the Atlantic leatherback sea turtle. These include, but are not limited to survivorship in each life history stage, age and growth, age and size at stage, age and size at maturity, fecundity and the associated variability of each, and recruitment and dispersal.
- c) *Finalize post-release mortality criteria.* OPR must issue final post-release mortality criteria by December 31, 2004.
- d) *Post-release mortality studies.* NOAA Fisheries must initiate a full study of post-hooking mortality of loggerheads based on the results of the pilot study conducted in the NED and begin a pilot study for leatherbacks. NOAA Fisheries has demonstrated the ability to capture control (fishery independent) and treatment (fishery dependent) loggerheads, and should now implement a full study in order to attain an appropriate sample size to compare survival between the two groups. A similar study should be initiated for leatherbacks as well. Results of these studies would refine post-hooking mortality estimates currently used by the OPR.
- e) *Compliance with Safe Handling and Release Equipment On Board.* NOAA Fisheries must ensure NOAA Fisheries' Office of Law Enforcement (OLE), in cooperation with the U.S. Coast Guard and state law enforcement partners, receive training on the new safe handling and release equipment requirements and conduct dock-side and at-sea boardings that ensure that the gear is on board.
- f) *Compliance with vessel safety requirements for observer coverage.* NOAA Fisheries must establish procedures to notify OLE of any vessel authorized to fish with pelagic longline gear and selected for observer coverage that is found to be inadequate or unsafe for purposes of carrying an observer and for allowing operation of normal observer function. Such vessels are prohibited from fishing without observer coverage. NOAA Fisheries must establish procedures for those vessels issue regulations requiring vessels authorized to fish with HMS pelagic longline gear to notify the OLE and POP when safety problems have been corrected, before the vessel conducts another fishing trip.

10.0 CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- (a) *In-water Abundance Studies.* In order to better understand sea turtle populations and the impacts of incidental take in HMS fisheries, NOAA Fisheries should support in-water abundance estimates of sea turtles to achieve more accurate status assessments for these species and improve our ability to monitor them.

- (b) *Population Modeling.* Once reasonable in-water estimates are obtained, NOAA Fisheries should support population modeling or other risk analyses of the sea turtle populations affected by HMS, as well as other, fisheries. This will help improve the accuracy of future assessments of the effects of different levels of take on sea turtle populations.
- (c) *International Fisherman Education.* NOAA Fisheries should ensure that the *Sea Turtle Handling Guidelines* and *Careful Release Protocols for Release with Minimum Injury* are translated into various languages (e.g., Portuguese, Spanish, Italian, Greek, Vietnamese, Japanese, Chinese), printed, and distributed appropriately throughout the longline fisheries operating in the North Atlantic and Mediterranean in order to enhance survival of all turtles/subpopulations hooked, even those taken by foreign countries (as these fisheries all impact shared sea turtle populations).
- (d) *International Negotiations.* NOAA Fisheries should focus efforts on the broader impacts from longline fishing on loggerhead and leatherback populations throughout the Atlantic by using its available legal authorities (e.g., Sec. 202(h) of the MSFCMA and Sec. 609(a) of Public Law 101-162) to pursue bilateral or multilateral agreements for the protection and conservation of sea turtles with other nations whose commercial longline fleets may affect sea turtles. NOAA Fisheries, in partnership with the U.S. Department of State, should make every effort to use existing bilateral and multilateral mechanisms to which the U.S. is a party to focus the actions of those mechanisms on the problem of sea turtle-longline bycatch and to promote the use of the mitigation measures described in the proposed action. Such existing multi-lateral mechanisms may include ICCAT, the U.N. Food and Agriculture Organization Committee on Fisheries (FAO/COFI), the Inter-American Convention for the Protection and Conservation of Sea Turtles, the Asia Pacific Fisheries Commission, and the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific. Another potential additional mechanism includes the Indian Ocean Regional MOU for the Conservation and Management of Sea Turtles. Efforts should focus on strengthening information collection on rates of sea turtle interactions, promoting bycatch reduction measures that have proven effective, stimulating international research on reducing sea turtle-longline interactions, and promoting the development of binding international mechanisms to address sea turtle-longline interactions. If successful adoption of bycatch reduction measures by foreign fleets does not occur, NOAA Fisheries should seek additional legislative authority to address the threat of international longline fisheries to sea turtles, similar to section 609(b) of Public Law 101-162. In addition, NOAA Fisheries should pursue similar avenues to promote international sea turtle conservation in general, but with particular emphasis on protecting leatherback sea turtles in the Guianas on their nesting beaches and from incidental capture in coastal gillnet and trawl fisheries.
- (e) *Enhance understanding of leatherback nesting status.* NOAA Fisheries should examine ways to obtain more accurate, consistent surveys of leatherback nesting beaches in the Guianas, Suriname, and Trinidad. These beaches are by far the largest and most important nesting beaches for leatherbacks in the western Atlantic. A better understanding of the dynamics of these beaches, as well as more consistent data, are necessary to be able to utilize the information to make valid assessments about the population status and trends, and therefore to make better management decisions.

- (f) *Effectiveness of MARPOL*. NOAA Fisheries should meet with representatives of the U.S. Coast Guard to determine what benefits, if quantifiable, have accrued since the signing of the MARPOL agreement limiting pollution and dumping at sea; and explore ways with the Coast Guard to make this agreement more effective and to improve compliance through enforcement and outreach.
- (g) *Improved method of evaluating take levels*. The SEFSC should devise a probability-based approach or other statistical method to evaluate take in the HMS pelagic longline fishery. Use of such a method, instead of using a single number to indicate exceedance of the ITS, may provide a better approach to evaluating the actual risk of greater than expected take levels occurring. Such an approach would allow NOAA Fisheries to establish a trigger that reduces the likelihood of requiring reinitiation unnecessarily because of inherent variability in take levels (which is expected to be large), but still allows for an accurate assessment of how the fishery is performing versus expectations. Once such a method is devised, SEFSC and SERO-PRD would then consult to determine whether the new approach is biologically valid and equivalent to the current method, and provides a better tool for evaluating and managing takes in the HMS pelagic longline fishery.

11.0 REINITIATION OF CONSULTATION

This concludes formal consultation on the continued operation of the HMS pelagic longline fishery, as regulated by the HMS FMP, as amended. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of taking specified in the incidental take statement is exceeded, (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the Opinion (*i.e.*, proposed quota reduction and limited access rules are changed), or (4) a new species is listed or critical habitat designated that may be affected by the identified action. If the amount or extent of incidental take is exceeded, the HMS Division must immediately request reinitiation of formal consultation.

12.0 LITERATURE CITED

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Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, FL 33702
(727) 570-5312; Fax 570-5517
<http://caldera.sero.nmfs.gov>

F/SER3: JLL

MEMORANDUM FOR: F/SF - Jack Dunnigan

FROM: F/SER3 - Roy E. Crabtree, Ph.D.

SUBJECT: Biological Opinion (Opinion) on the continued operation of Atlantic shark fisheries (commercial shark bottom longline and drift gillnet fisheries and recreational shark fisheries) under the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP) and the Proposed Rule for Draft Amendment 1 to the HMS FMP, July 2003.

The attached document constitutes the National Marine Fisheries Service's (NOAA Fisheries) Opinion based on our review of the Proposed Rule for Draft Amendment 1 to the HMS FMP, and its effects on listed species in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). A complete review of the consultation history is provided in the Opinion. This Opinion is based on information provided in Amendment One to the HMS FMP; observer and logbook data (and associated analyses) of fishery effort and protected species interactions within the U.S. Atlantic, Gulf of Mexico, and Caribbean shark fisheries; ESA recovery plans; and the most current sea turtle stock assessment reports. A complete administrative record of this consultation is on file at this office.

In the attached Opinion, we conclude that the proposed action is not likely to jeopardize the continued existence of any listed species under NOAA Fisheries' purview. Incidental takes of sea turtles (primarily loggerhead and leatherback sea turtles) and smalltooth sawfish are anticipated. An incidental take statement is included which specifies the extent of anticipated take and the reasonable and prudent measures necessary to minimize the impacts of the take.

Attachment

cc: F/SF1
F/PR

File: 1514.22.d

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Endangered Species Act - Section 7 Consultation

Biological Opinion

Agency: National Marine Fisheries Service, Office of Sustainable Fisheries,
Highly Migratory Species Division

Activity: The continued operation of Atlantic shark fisheries (commercial shark
bottom longline and drift gillnet fisheries and recreational shark
fisheries) under the Fishery Management Plan for Atlantic Tunas,
Swordfish, and Sharks (HMS FMP) and the Proposed Rule for Draft
Amendment 1 to the HMS FMP, July 2003.

Consultation Conducted by: National Marine Fisheries Service, Southeast Region, Protected
Resources Division; I.D. No. F/SER/2003/00953

Approved by: _____
Roy E. Crabtree, Ph.D., Regional Administrator
National Marine Fisheries Service, Southeast Region
St. Petersburg, Florida

Date Issued:

This document represents the National Marine Fisheries Service's (NOAA Fisheries) biological opinion (Opinion) based on our review of the Proposed Rule for Draft Amendment 1 to the Fishery Management Plan for Tunas, Swordfish, and Sharks, and its effects on listed species. This Opinion has been prepared in accordance with section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Introduction

Section 7(a)(2) of the ESA requires that each federal agency shall ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. When the action of a federal agency may affect a protected species, that agency is required to consult with either NOAA Fisheries or the U.S. Fish and Wildlife Service, depending upon the protected species that may be affected. For actions described in this document, NOAA Fisheries has dual responsibilities, under the Magnuson-Stevens Fishery Conservation and Management Act (MSA)(16 U.S.C. 1801 *et seq.*) and the ESA; therefore, the agency must conduct intra-service consultation. For the purposes of this Opinion, the action agency is NOAA Fisheries' Highly Migratory Species Division of the Office of Sustainable Fisheries (F/SF1) and the consulting agency is NOAA Fisheries' Protected Resources Division of the Southeast Regional Office (F/SER3).

This Opinion is based on information provided in the ESA recovery plans, the most current stock assessment reports, observer and logbook data (and associated analyses) of fishery effort and protected species interactions within the U.S. Atlantic, Gulf of Mexico, and Caribbean shark fisheries.

Consultation History

Previous consultations

For two decades, fisheries targeting Highly Migratory Species (HMS) have undergone many formal and informal section 7 consultations. These consultations are summarized in the June 30, 2000, and June 14, 2001, Opinions and have collectively covered all components of the Atlantic HMS fisheries, including the pelagic driftnet, drift gillnet, pelagic longline, bottom longline, purse seine, and hand gear (hook-and-line, handline, and harpoon) fisheries in the western Atlantic, Caribbean, and Gulf of Mexico. Consultations that have specifically addressed shark fisheries include:

- A September 7, 1989, informal consultation on the initial draft Secretarial Shark FMP.
- A September 23, 1991, formal consultation on fishing conducted under the Final Secretarial Shark FMP of 1991, which concluded with a “no jeopardy” Biological Opinion.
- A February 2, 1996, reinitiated formal consultation on the drift gillnet component of the directed swordfish fishery and the drift gillnet component of the shark fishery, which concluded with a “no jeopardy” Biological Opinion.
- A May 29, 1997, formal consultation on all components of the pelagic fishery (except billfish), which concluded with a “jeopardy” Biological Opinion and included reasonable and prudent alternatives to avoid jeopardy. That jeopardy conclusion was primarily based on concerns regarding future lethal take of right whales in the northeast swordfish driftnet fishery, as well as the Southeast shark gillnet fishery.
- A July 10, 1998, informal consultation amending the May 29, 1997, Biological Opinion to revise the incidental take statement, clarifying the percent observer coverage needed in the shark gillnet fishery outside of right whale season in the Southeast.
- An April 23, 1999, formal consultation on the proposed rule to implement the HMS FMP. The resulting Opinion concluded that the continued operation of HMS fisheries was not likely to jeopardize the continued existence of any species under NOAA Fisheries’ purview, including right whales, assuming that the reasonable and prudent alternative to avoid jeopardizing the continued existence of the right whale in the previous (May 29, 1997) jeopardy Opinion was fully implemented. This Opinion also concluded that HMS fisheries were likely to lethally and non-lethally take large numbers of threatened and endangered sea turtles and identified several reasonable and prudent measures with terms and conditions to minimize the effects of the anticipated take of those listed sea turtles.
- A formal consultation completed on June 30, 2000. That Opinion analyzed a regulatory amendment to the HMS FMP intended to reduce bycatch, and data indicating that the fishery exceeded its levels for leatherback and loggerhead sea turtle takes authorized for the pelagic longline component of the fishery in the April 23, 1999, Biological Opinion. The resulting Opinion concluded “jeopardy” for the Atlantic pelagic longline component of the fishery due its high level of leatherback and loggerhead takes, both lethal and non-lethal. All other fishery components, including the Atlantic bottom longline and gillnet fisheries for sharks, were found not likely to jeopardize the continued existence of any ESA-listed species.
- A June 14, 2001, formal consultation on the effects of the continued authorization of fisheries under the HMS FMP and the Billfish FMP. In addition to new information on sea turtle interactions and sea turtle status, the consultation considered the effects of several regulatory changes: implementation of the bycatch reduction regulatory amendment with an August 1, 2000, final rule; the October 13, 2000, emergency rule on the pelagic longline fishery that temporarily closed an area off the Grand Banks; and the interim final rule requiring pelagic longline vessels to carry and use line clippers and dipnets. The resulting Opinion concluded that the continued prosecution of the pelagic longline fishery in the manner described in the HMS FMP was likely to jeopardize the continued existence of loggerhead and leatherback sea turtles. All other fishery components, including the Atlantic bottom longline and gillnet fisheries, were found not to jeopardize the continued existence of any ESA-listed species. This Opinion specified a

reasonable and prudent alternative (RPA) which would allow the continuation of the pelagic longline fishery without jeopardizing the continued existence of loggerhead and leatherback sea turtles.

- A December 19, 2002, informal consultation on an emergency rule to implement management measures in the Atlantic shark fisheries consistent with the 2002 stock assessments.

Consultations on Atlantic shark fisheries have primarily been concerned with the impact of drift gillnet gear on endangered large whales (particularly right whales), offshore cetaceans, and sea turtles. Terms and conditions have included gear regulations, monitoring requirements, implementation of observer programs to document incidental take, regulations to reduce/eliminate mortalities in areas and season where the takes of threatened or endangered species are likely to occur, and outreach efforts including workshops with shark gillnet fishermen to provide information on sea turtle handling and resuscitation guidelines.

The Atlantic Large Whale Take Reduction Team (ALWTRT) was formed on August 6, 1996, because of interaction between strategic stocks of large whales and pot and gillnet fisheries in the western Atlantic. The gillnet segment of the HMS shark fishery was considered by the ALWTRT. The February 1999 rule implementing the Atlantic Large Whale Take Reduction Plan (ALWTRP) includes: closure of the Southeast U.S. right whale critical habitat and adjacent area (approximately Savannah, GA to Sebastian Inlet, FL) to drift gillnet gear during the calving season (November 15 - March 31) when whale distribution may coincide with the fishery; allowing strike gillnet fishing for sharks in the right whale critical habitat during the calving season (under certain specified conditions); requiring observers aboard 100 percent of shark gillnet trips (drift or strike) from November 15 to March 31 between Savannah, GA and approximately West Palm Beach, FL; and gear marking requirements. These requirements were first implemented under the Marine Mammal Protection Act (MMPA), and later also adopted in the April 1999 HMS FMP under the authority of the MSA to ensure regulatory consistency.

The June 30, 2000, and June 14, 2001, Opinions both discussed the need to update and improve observer information and take estimates in the bottom longline fishery. From 1994 through 2000, the observer program was a voluntary program and the observers only went on vessels that agreed to take them. Thus, the data for 1994-2000 was not based on a random selection process and did not cover the entire range of the fishery. However, it did cover vessels operating in the major fishing grounds off of Florida and North Carolina, and it is the only observer data available for the fleet. Since 2001, the observer program has switched to a mandatory program with vessels selected randomly across areas based on historic participation patterns.

Present Consultation

The emergency rule subject to the last consultation, and under which large and small coastal shark quotas and other management measures are presently in place, will expire on December 29, 2003. That emergency rule was intended as an interim measure to maintain the status quo of large coastal shark (LCS) and small coastal shark (SCS) management, pending the re-evaluation of new data and management measures in the context of the rebuilding plan through an FMP amendment. NOAA Fisheries announced its intent to conduct an Environmental Impact Statement and prepare an amendment to the HMS FMP to address the Atlantic shark fisheries on November 15, 2002 (67 FR 69180). The proposed rule for Draft Amendment 1 to the HMS FMP and the notice of availability of the Draft Amendment were published on August 1, 2003.

On July 16, 2003, F/SF1 requested that NOAA Fisheries' Office of Protected Resources (F/PR) consider the proposed rule for Draft Amendment 1 to the HMS FMP with respect to the consultations previously concluded on HMS fisheries under Section 7 of the ESA. F/SF1 sought concurrence with their determination that the measures in the proposed rule were not expected to have adverse effects on

protected species or to alter fishing practices or fishing effort in any way not previously considered in the June 14, 2001, Opinion. F/PR conferred with the Protected Resources Division of the Northeast Regional Office and F/SER3 and decided that the consultation would be conducted by F/SER3. F/PR forwarded the consultation to the Southeast Region's Protected Resources Division for action. On August 28, 2003, F/SER3 responded via e-mail that they did not concur with F/SF1's determination that the and requested additional information regarding sea turtle and smalltooth sawfish take estimates. The smalltooth sawfish had been listed as an endangered species on April 1, 2003. Impacts on this species from the shark fisheries had not been considered in previous Opinions or in a conference, and observer information indicates that they are occasionally taken incidentally in the shark bottom longline fishery and the shark drift gillnet fishery. There is also new information on sea turtle interactions in the shark bottom longline fishery. The HMS Draft Amendment 1 included reports of takes, but no estimates of fishery-wide interactions. On September 26, F/SF1 provided F/SER3 with draft take estimates for sea turtles, as well as smalltooth sawfish, based on observer data in the shark bottom longline fishery from 1994 through 2001. The final estimates were received on October 2, 2003, and subsequently supplemented on October 10, 2003 and October 15, 2003. On October 10, 2003, the NOAA Fisheries Southeast Fisheries Science Center provided estimates of fishery-wide interaction estimates for the shark gillnet fisheries, based on observer data from 1999 through 2002.

On October 15, 2003, the Deputy Director of the Office of Sustainable Fisheries informed F/SER3 via e-mail of possible changes to the shark proposed rule based on public comments, and requested they be analyzed in the current consultation as part of the proposed action. These changes include:

- 1) An increase in the large coastal shark quota reduction from 40 percent to 45 percent, resulting in a commercial LCS quota of 1,017 metric tons (mt) dressed weight (dw) instead of the 1,109 mt dw proposed.
- 2) A reduction in the proposed time/area closure. The rule proposed to close an area from Virginia to the northern part of South Carolina. The revised closure would encompass an area from approximately Oregon Inlet, North Carolina, to Cape Fear, North Carolina, out to around the 60 fathom line.
- (3) The continuation of the drift gillnet fishery. The rule proposed allowing only strikenet gear and removing drift gillnet gear from the authorized gear types.
- (4) A requirement for workshops for commercial and recreational fishermen. At these workshops, fishermen would learn species-identification, how to use release equipment (including line cutters, dipnets, and dehooking devices), and more about current regulations.

In that same e-mail, it was noted that not all the regulations in the final rule would be effective at the same time. Management measures, such as trimester commercial fishing seasons, the time/area closure, and the workshops would likely not be effective until the 2005 fishing season. The vessel monitoring requirement would likely be effective by November 2004 for the start of right whale calving season.

This Opinion will consider the effects of implementation of the proposed rule, as subsequently modified by F/SF1 (as described above). In the remainder of this Opinion, this modified proposed rule will simply be referred to as the proposed rule or the proposed action.

I. Description of the Proposed Action

NOAA Fisheries proposes to amend its commercial and recreational regulations governing shark fisheries in the Atlantic, Gulf of Mexico, and Caribbean Sea. The Atlantic shark fisheries are managed under the

authority of the Magnuson Stevens Fishery Management and Conservation Act, as amended by the Sustainable Fisheries Act (MSA). The MSA is the principle federal statute governing the management of U.S. marine fisheries. The proposed rule for Draft Amendment 1 to the HMS FMP and the notice of availability of the Draft Amendment were published on August 1, 2003. The purpose of the proposed Amendment is to rebuild overfished stocks and prevent overfishing on Atlantic sharks consistent with the National Standards of the MSA, based on the results of the 2002 small coastal shark (SCS) and large coastal shark (LCS) stock assessments. These stock assessments are the best available science and, in some cases, have resulted in a change in status of some shark species from previous stock assessments. Based on the new stock assessments, NOAA Fisheries F/SF1 has decided that many of the shark management measures in the HMS FMP should be re-examined and amended. Additionally, because of the change in status of some species, some essential fish habitat identifications need to be updated. Amendment 1 examines numerous alternatives to revise commercial and recreational shark management measures; reduce bycatch and bycatch mortality; update, as appropriate, Essential Fish Habitat; and update and present a plan to rebuild LCS and to prevent overfishing of LCS, sandbar sharks, and finetooth sharks.

This Opinion considers the effects of NOAA Fisheries' F/SF1's continued authorization of directed Atlantic shark fisheries regulated under the HMS FMP, as proposed to be amended. The management unit covered under the Atlantic HMS FMP consists of populations of tunas, swordfish, and sharks. Amendment 1 to the HMS FMP, however, pertains only to the management of Atlantic sharks. There are no changes proposed to the pelagic longline fishery regulations; therefore, implementation of the Amendment would not change pelagic longline fishing effort or fishing patterns previously analyzed in the June 14, 2001, Opinion for their effects on listed species. For this reason, this consultation will only address other components of Atlantic shark fisheries, namely, the commercial bottom longline and gillnet shark fisheries and the recreational shark fishery, as well as the proposed measures in the draft Amendment.

The FMP does authorize the retention of a limited number of incidentally-caught LCS and SCS by fishing vessels targeting other species. The Draft Amendment does not propose any changes to these incidental catch allowances, and, therefore, is not expected to affect fishing effort or fishing patterns in other, non-shark fisheries. Those fisheries are not considered part of the proposed action--they are not interrelated to or interdependent on the HMS authorization--as they would still occur but for the HMS FMP.

A summary description of current Atlantic shark fisheries and the proposed management changes is provided below. Further detail can be found in the Draft Amendment and associated proposed rule.

A. Description of Shark Fisheries and Management Measures

F/SF1 prepared a summary of the management measures for commercial and recreational shark fisheries, highlighting the proposed new measures or changes in Draft Amendment 1. The summary is contained in Table 1.

Table 1. Summary of Atlantic shark fishery management regime. *Changes proposed in Amendment 1 are in italics.*

PROHIBITED SPECIES				
The following sharks cannot be kept commercially or recreationally: Whale, basking, sand tiger, bigeye sand tiger, white, dusky, night, bignose, Galapagos, Caribbean reef, narrowtooth, longfin mako, bigeye thresher, sevengill, sixgill, bigeye sixgill, Caribbean sharpnose, smalltail, and Atlantic angel sharks. <i>There is a mechanism proposed to add or remove species, as needed, via rulemaking.</i>				
COMMERCIAL REGULATIONS				
Management Unit	Species that can be retained	Quota (mt dw)	Regional Quotas	Authorized Gears
Large Coastal Sharks - directed commercial retention limit of 4,000 lb dw per trip - incidental retention limit	Sandbar, silky, tiger, blacktip, bull, spinner, lemon, nurse, smooth hammerhead, scalloped hammerhead, great hammerhead	1,017	NA = 4% SA = 54% GM = 42%	Pelagic or Bottom Longline; Strikenet; Rod and Reel; Handline; Bandit Gear
Pelagic Sharks - no directed retention limit - incidental retention limit	Shortfin mako, thresher, oceanic whitetip	488	None	
	Porbeagle	92		
	Blue	273		
Small Coastal Sharks - no directed retention limit - incidental retention limit	Atlantic sharpnose, blacknose, finetooth, bonnethead	454	NA = 13% SA = 83% GM = 4%	
<p><u>Additional remarks:</u></p> <ul style="list-style-type: none"> - All sharks not retained must be released in a manner that ensures the maximum probability of survival - Finning is prohibited for all sharks regardless of species - <i>Fishing seasons January 1 to April 30; May 1 to August 30; September 1 to December 31</i> - <i>Fishing regions: NA = Maine through Virginia; SA = N. Carolina through East Florida and Caribbean; GM = Gulf of Mexico</i> - Quota overharvest and underharvest adjustments will be made for the same season the following year; on reopening that season - <i>Time/area closure for bottom longline January through July from approximately Oregon Inlet to Cape Fear out to around the 60 fathom line</i> - <i>Vessel Monitoring Systems required for all vessels during right whale calving season and during time/area closure for all permit holders with bottom longline gear between 33 and 36.30 degrees north latitude.</i> - Limited access; Exempted Fishing Permit (EFP) requirements; <i>Display permits</i> - Observer and reporting requirements - <i>Count state landing after federal closure against federal quota</i> - For incidental limited access permit holders: 5 large coastal sharks per trip; a total of 16 pelagic or small coastal sharks (all species combined) per vessel per trip - Vessel with bottom longline must: (1) <i>have non-stainless steel corrodible hooks; (2) have a dehooking device (when approved), linecutters, and a dipnet on board; (3) move 1 nmi after an interaction with a protected species; and (4) post sea turtle handling and release guidelines in the</i> 				

wheelhouse			
RECREATIONAL REGULATIONS			
Management Unit	Species that can be kept	Retention Limit	Authorized Gear
Large Coastal, Pelagic, and Small Coastal Sharks	<p>LCS: Sandbar, silky, tiger, blacktip, bull, spinner, lemon, nurse, smooth hammerhead, scalloped hammerhead, great hammerhead</p> <p>Pelagic: shortfin mako, thresher, oceanic whiteip, porbeagle, blue</p> <p>SCS: Atlantic sharpnose, blacknose, finetooth, bonnethead</p>	1 shark per vessel per trip (all species) with a 4.5 feet fork length minimum size; allowance for 1 Atlantic sharpnose and 1 <i>bonnethead</i> per person per trip (no minimum size)	<i>Rod and Reel; Handline</i>
<p><u>Additional remarks:</u> Harvested sharks must have fins, head, and tail attached (can be bled and gutted if tail is still attached).</p>			

B. Description of Commercial Shark Fisheries

An estimated 1,684 mt dw of U.S. Atlantic LCS were landed in 2000 and 1,616 mt dw were landed in 2001. Approximately 84 to 91 percent of LCS landings came from the Southeast Region, mainly Louisiana, Florida, and North Carolina (Cortes and Neer 2002). An estimated 159 and 165 mt dw of U.S. Atlantic pelagic sharks were landed in 2000 and 2001, respectively. From 56 to 64 percent of pelagic shark landings occurred in the southeast region during 1998 - 2001 (Cortes and Neer 2002). An estimated 269 and 326 mt dw of U.S. Atlantic SCS were landed in 2000 and 2001, respectively (Cortes and Neer 2002). Of the small coastal sharks caught during 1995 - 2000, the majority were caught in the South Atlantic region. In those years, gillnets were the dominant type of gear catching small coastal sharks. Commercial landings of small coastal sharks peaked in 1999 at 330 mt (Cortes 2002). Data from the shark bottom longline fishery observer program indicates that SCS caught on longlines are generally not landed (1.6 percent), but are used for bait (98.3 percent) (Burgess and Morgan 2003). Commercial landings of SCS represent only a small fraction of all catches, because they are also caught as bycatch and discarded in a variety of fisheries.

Fishing Seasons

Since 1997, the LCS fishing season has generally been open for three months (January-March) in the first fishing season and a few weeks (July-August) in the second season. The seasons are closed to keep the LCS fishery within the annual quota. While the LCS fishing season has generally been open for only a few months a year, the SCS and pelagic shark fisheries have never closed, as their quotas have not been reached.

Number of Participants/Permit Holders

Given the short, directed fishing season for sharks, fishermen have had to diversify in order to maintain their financial viability, either into other fisheries or other occupations. Many participants in the commercial shark fishery are engaged in the longline fishery for swordfish and tuna, the hook-and-line fisheries, or the snapper-grouper or reef fish fisheries. The NOAA Fisheries permit databases indicate that approximately 98 percent of permitted shark fishermen hold fishing permits in other fisheries.

Fishermen who wish to sell sharks caught in federal waters must possess a federal shark permit (directed or incidental). As part of the HMS FMP, NOAA Fisheries implemented a limited access system for the commercial fishery so permits can only be obtained through transfer or sale, subject to upgrading restrictions. The purpose of limited access was to reduce latent effort in the shark fishery and prevent further overcapitalization. Based on current and historical participation, implementation of limited access reduced the number of shark permit holders from over 2,200 permit holders before limited access, to 607 in October of 2003. As of October 17, 2003, approximately 351 fishermen had active incidental commercial shark limited access permits and 256 had active directed commercial shark limited access permits.

In the directed fishery, vessels range in length from 14 to 87 feet, with an average length of 45.5 feet. Vessels range in length from 15 to 125 feet in the incidental category, with an average length of 50.6 feet. The addresses of these permit holders range from Texas through Maine with nearly half of the permit holders located in Florida.

Monitoring and Reporting

Commercial fisheries for Atlantic sharks are monitored through a combination of vessel logbooks, dealer reports, port sampling, cooperative agreements with states, and scientific observer coverage. NOAA Fisheries collects shark data through reports from owners/operators of permitted vessels under a mandatory commercial logbook program, the Commercial Shark Fishery Observer Program (CSFOP), the Pelagic Observer Program (POP), and the shark gillnet observer program. Logbooks contain information on fishing vessel activity, including dates of trips; number of sets; area fished; number of fish; and other marine species caught, released, and retained. Observer data contains additional information such as gear information and biological data for individual animals. Observer data can be used to verify logbook data.

In 2003, NOAA Fisheries began to collect economic data such as volume and cost of fishing inputs from 20 percent of the fleet. Commercial landings data for sharks are also collected by seafood dealers and port agents who routinely record the weight and average ex-vessel price of sharks. Dealer reports must be submitted to NOAA Fisheries twice a month for all sharks.

The University of Florida and the Florida Museum of Natural History are continuing an observer program of the directed bottom longline shark fishery in the Atlantic and Gulf of Mexico – the CFSOP – to enhance the reliability of management strategies for the shark fishery. Since 1994, the CSFOP has been monitoring and reporting on commercial bottom longline shark fishery catches. This program has been funded by the U.S. Department of Commerce through the MARFIN and S-K granting programs and more recently with contracts through NOAA Fisheries (Burgess and Morgan 2003). The CSFOP provides baseline characterization information, by region, on the species composition, relative abundance, and size composition within species for the large coastal and small coastal bottom longline shark fisheries. As of January 2002, the observer coverage requirements in the bottom longline fishery for sharks changed from voluntary participation to mandatory participation if selected. Vessels are selected, on a random basis, if they have a current directed shark permit and if they have reported fishing for sharks in the past. Selections are also made to ensure that areas with more fishing effort will have more vessels selected. NOAA Fisheries has selected over 30 vessels each season since January 2002.

The shark gillnet fishery observer program is coordinated by the NOAA Fisheries Southeast Fisheries Science Center (SEFSC). Observers are deployed on vessels participating in the shark gillnet fishery and collect information specific to shark gillnet gear set in both the driftnet and strikenet fashion. For each set and haul back, observers record beginning and end times of setting and hauling; estimated length of net set; sea and wind states; latitude and longitude coordinates; and water depth. As the nets are retrieved, observers record species caught, estimate lengths and weights, and disposition (kept, discarded alive, or discarded dead) (Carlson and Lee 1999).

Bottom Longline Fishery

The Atlantic bottom longline fishery targets LCS, with landings dominated by sandbar and blacktip sharks. Bottom longlines were the primary commercial gear-type used to catch LCS from 1987-2001 in

all regions (Cortes and Neer 2002). Gear characteristics vary by region, but in general, a ten-mile long monofilament bottom longline, containing about 750 hooks, is fished overnight. Skates, sharks, or various finfishes are used as bait (GSAFDF 1997). The gear typically consists of a heavy monofilament mainline with lighter weight monofilament gangions. Some fishermen may occasionally use a flexible 1/16 inch wire rope as gangion material or as a short leader above the hook. According to the most recent observer data report, Carolina region fishermen set more hooks (1288.5 hooks/set) and fished longer (24.5 hr/set) than Florida Gulf fishermen (599 hooks/set, 11.25 hr/set) and Florida East Coast fishermen (382 hooks/set, 9.0 hrs/set) (Burgess and Morgan 2003).

Gillnet Fisheries

Gillnets are the dominant gear type for catching SCS. The Southeast shark drift gillnet fishery is comprised of about six vessels that use nets typically 456 to 2,280 meters long and 6.1 to 15.2 meters deep, with stretched mesh from 12.7 to 22.9 cm. The entire fishing process for a set (time net was first set through time the haulback was completed) averaged 8.9 hours in 2002 (Carlson and Baremore 2002a).

Shark fishermen also use gillnet gear in a “strikenet” fashion. Generally, a “strike” means to make a short set, directed on a known concentration of sharks. Concentrations of sharks are sometimes located through cooperation with a spotter plane or by actively setting the net in the wake of a shrimp vessel, whose discarded bycatch attracts sharks. In the regulatory definition in the ALWTRP and the proposed regulatory definition in draft Amendment 1, strikenetting is specified to be a deployment that encircles or encloses an area of water with the net. This sometimes involves fishing with a small second vessel actively setting the net around a school of sharks or the drift. Vessels fishing in a strikenet fashion used shorter, deeper nets than for regular drift gillnetting: 364.8 meters long, 30.4 meters deep, and with mesh size 22.9 cm (Carlson and Baremore 2002a). To clarify our terminology, strikenets are a category of drift gillnets, fished in a particular way. In this Opinion, however, we will use “strikenets” or “strike gillnets” to refer to this gear and the manner of fishing, as differentiated from “drift nets” or “drift gillnets” by which we mean drift gillnet gear fished in the usual manner involving longer sets and non-encircling deployment of the gear.

Legislation in South Carolina, Georgia, and Florida has prohibited the use of commercial gillnets in state waters, thereby forcing some of these vessels into deeper waters under federal jurisdiction, where gillnets are less effective. To reduce the risk of bycatch of right whales, NOAA Fisheries implemented a restricted area along parts of the Georgia and Florida coast from November 15 through March 31, where only strikenets can operate. Operation in this area and time requires 100 percent observer coverage. NOAA Fisheries also designated an area to the south – from about Sebastian Inlet, Florida to about West Palm Beach, Florida – open to shark drift gillnet fishing, but also only with 100 percent observer coverage during right whale calving season. Outside of the right whale calving season, observer coverage is currently not sufficient to produce reliable estimates of bycatch in both the strikenet and driftnet fisheries (the observer converge for this portion of the fishery is below 5%).

A total of 69 drift gillnet sets were observed in 2002. During non-right whale season (28 sets), the observed drift gillnet catch consisted of 12 shark species (84.9 percent of total catch), 26 bony fish and rays, and one species of marine mammal (Carlson and Baremore, 2002a). During right whale season (41 sets), the observed driftnet catch consisted of 10 species of shark (90.7 percent of total catch), 26 species of teleosts and rays and two species of sea turtle (Carlson and Baremore, 2002b). A total of 38 strikenet sets were observed in 2002 in the shark gillnet fishery observer program.

C. Description of Recreational Shark Fisheries

Recreational fishing for Atlantic sharks occurs in federal and state waters from New England to the Gulf of Mexico and Caribbean Sea. In the past, sharks were often called “the poor man’s marlin.” Recreational

shark fishing with rod and reel is now a popular sport at all social and economic levels, largely because of accessibility to the resource. Sharks can be caught virtually anywhere in salt water, with even large specimens available in the nearshore area to surf anglers or small boaters. Most recreational shark fishing takes place from small to medium-size vessels. Makos, white sharks, and large pelagic sharks are generally accessible only to those aboard ocean-going vessels. Recreational shark fisheries are exploited primarily by private vessels and charter/headboats although there are some shore-based fishermen active in the Florida Keys. Charter vessel fishing for sharks is becoming increasingly popular. In most U.S. waters, this type of fishing occurs from May to September. In some regions, certain species are heavily targeted, e.g., sharpnose and blacktip in the Carolinas, and makos and large white sharks at Montauk, New York. Many charter vessels also fish for sharks out of ports in Ocean City, Maryland and Wachapreague, Virginia. Headboats may land the smaller shark species, but they usually do not target sharks specifically, except for a headboat fishery for sharpnose sharks based in Port Aransas, Texas.

Recreational Landings

U.S. recreational shark harvests of LCS have declined by 80 percent from the peak recorded catch in 1983 of 746,600 fish to 142,000 in 2001 (Cortes and Neer 2002). Blacktip and sandbar sharks dominate the catches of LCS at 36 and 27 percent, respectively. Recreational harvests of SCS have fluctuated between 34,000 and 190,000 fish per year since the mid 1980s, with Atlantic sharpnose comprising about 60 percent of the catch in recent years. For pelagic species, some of which are considered prized game fish (e.g., makos), recreational harvests have fluctuated from a peak of approximately 93,000 fish in 1985 to a low of about 6,000 fish in 1994. Recreational harvests of blue sharks accounted for 47 and 53 percent of the total catches of pelagic sharks in 1999 and 2000. From 1991 through 2001, the Marine Recreational Fishing Statistics Survey (MRFSS) intercept survey sampled 13,056 shore- and vessel-based fishing trips which reported catching a shark in the management unit. These sampled trips caught a total of 40,960 sharks. The number of sharks caught per total trips sampled shows no trend, but the percentage of sharks released by private and party boats has increased as trip limits have been reduced. The percentage of sharks released from shore-based fishing trips has remained constant (Babcock and Pikitch 2002).

Number of Participants/ Permits

NOAA Fisheries has recently implemented an Atlantic HMS recreational fishing permit (67 FR 77437). The HMS angling permit became effective March 2003. NOAA Fisheries now requires the owners of vessels that target, retain, or possess any HMS in federal waters of the Atlantic, Gulf of Mexico, and U.S. Caribbean to obtain this federal vessel permit. The HMS angling permit allows all anglers aboard permitted vessels to fish for HMS and is required to fish for, retain or possess, including catch and release fishing, any federally-regulated HMS, sharks, swordfish, white and blue marlin, sailfish, spearfish, and federally-regulated Atlantic tunas (bluefin, yellowfin, bigeye, skipjack, and albacore). As of September 30, 2003, 18,249 HMS angling permits had been issued.

Monitoring and Reporting

By definition, recreational landings of Atlantic HMS are those that are not marketed through commercial channels; therefore, it is not possible to monitor anglers' catches through ex-vessel transactions as in the commercial fishery. Instead, NOAA Fisheries conducts statistical sampling surveys of the recreational fisheries. These survey programs have been used for well over a decade. The two primary survey vehicles of the recreational sector conducted by NOAA Fisheries are the MRFSS and the Large Pelagic Survey.

In April 1998, NOAA Fisheries implemented a mandatory registration system for tournaments involving any billfish, with mandatory reporting if selected. The HMS FMP extended the requirement to tournaments directed at any Atlantic HMS, in order to improve estimates of HMS catches and landings by tournament participants. Tournament registration allows NOAA Fisheries to establish a universe in order to expedite outreach to recreational fishermen who participate in tournaments. The reporting forms also

provide NOAA Fisheries with catch, release, and fishing effort statistics that are useful in characterizing the fishery. Because the Large Pelagic Survey does not collect recreational fishing data in the southeastern United States or the Gulf of Mexico, tournament data can provide information on which species are targeted in these areas, as well as release rates for each species.

D. Proposed Preferred Management Measures in Draft Amendment 1

Table 1 provides a summary of overall management measures in place and proposed for Atlantic shark fisheries. This section gives greater detail of the proposed measures in draft Amendment 1.

The draft Amendment examines numerous alternatives to revise commercial and recreational shark management measures; update and present a plan to rebuild LCS and prevent overfishing of LCS, sandbar sharks, and finetooth sharks; and update, as appropriate, Essential Fish Habitat, consistent with the MSA, National Environmental Policy Act, ESA, Marine Mammal Protection Act (MMPA), the Coastal Zone Management Act, the Regulatory Flexibility Act, and other domestic laws.

Proposed commercial management measures address LCS classification, shark quota administration, shark quota basis, and minimum size restrictions. The preferred alternative would:

- Aggregate LCS and establish one commercial quota for the complex.
- Establish regional quotas for the Gulf of Mexico (Texas-West Florida), South Atlantic (East coast Florida - North Carolina and the Caribbean), and North Atlantic (Virginia - Maine) commercial shark fisheries.
- Implement trimester fishing season quotas (January 1 - April 30, May 1- August 31, and September 1 - December 31).
- Implement commercial quota levels based upon percentage of maximum sustainable yield.
- Eliminate minimum size for any commercially caught sharks.

Proposed recreational management measures address retention limits, minimum size restrictions, and authorized gears. The preferred alternatives would:

- Maintain the current recreational retention limits of one shark per vessel per trip (inclusive of LCS, SCS, and pelagic sharks) and the allowance for one Atlantic sharpnose shark per person per trip to accommodate charter and headboat operations, but also allow the retention of one bonnethead shark per person per trip.
- Maintain the existing minimum size limit of 4.5 feet (137 cm) fork length for all sharks and no minimum size limit for Atlantic sharpnose sharks, plus allow the retention of bonnethead sharks with no minimum size.
- Allow only handline and rod and reel gear in the recreational shark fishery.

Proposed bycatch reduction management measures address gear restrictions and time area closures. The preferred alternatives would:

- Maintain the existing observer, net check, and LWTRP requirements on vessels participating in the shark gillnet fishery and the requirement for bottom longline vessels to post sea turtle handling and release guidelines.
- Implement voluntary fishermen workshops on species-identification, how to use release equipment (including line cutters, dipnets, and dehooking devices), and more about current regulations.
- Require vessel monitoring systems on shark bottom longline and gillnet vessels to enforce time/area closures and to monitor vessel locations in relation to protected species.
- Require the use of non-stainless steel hooks and the possession of clippers, dipnets, and dehooking devices on vessels with shark bottom longline gear.
- Require bottom longline vessels to move one nautical mile (nmi) after an interaction with a protected species.

- Implement a time/area closure for bottom longline fishing encompassing an area from approximately Oregon Inlet to Cape Fear out to around the 60 fathom line from January through July to protect sandbar and dusky shark nursery and pupping areas.

Other proposed management measures address deep water and other sharks, prohibited species, and exempted fishing permits. The preferred management alternative would:

- Remove the current deepwater/other species group from the management unit and require data collection only.
- Retain established prohibited species group and establish criteria for the addition and removal of species to/from the prohibited species group.
- Update and revise essential fish habitat identifications for species whose stock status has changed (sandbar, blacktip, finetooth, dusky, and nurse sharks).
- Provide criteria to increase or decrease essential fish habitat for individual species based on special needs.
- Develop a separate display permitting system for sharks apart from research or exempted fishing permits.

E. Other Actions and Regulations Affecting the Proposed Action

In addition to the previously mentioned measures in the FMP, there are a number of other actions that affect the prosecution of this fishery and are therefore, part of the proposed action. There is a regulatory amendment to the FMP to reduce bycatch and bycatch mortality from the longline fishery. The ALWTRP, which was implemented via a rule published February 16, 1999 (64 FR 7529), and the reasonable and prudent measures and the reasonable and prudent alternatives of previous biological opinions also include measures specifically to reduce the risk of protected species interactions with the shark fisheries.

The ALWTRP is a plan to reduce serious injury and mortality to four large whale stocks that occur incidental to certain fisheries. The target whale stocks are the North Atlantic right whale western North Atlantic stock, humpback whale western North Atlantic stock, fin whale western North Atlantic stock, and minke whale Canadian East Coast stock. Covered by the plan are fisheries for: Multiple groundfish species, including monkfish and dogfish, in the New England Multispecies sink gillnet fishery; multiple species in the U.S. mid-Atlantic coastal gillnet fisheries; lobster in the Gulf of Maine and U.S. mid-Atlantic trap/pot fisheries; and sharks in the Southeastern U.S. Atlantic gillnet fishery. The final rule includes time and area closures for the lobster, anchored gillnet and shark gillnet fisheries; gear requirements, including a general prohibition on having line floating at the surface in these fisheries; a prohibition on storing inactive gear at sea; and restrictions on setting shark gillnets off the coasts of Georgia and Florida and drift gillnets in the mid-Atlantic. The plan also contains non-regulatory aspects, including gear research, public outreach, scientific research, a network to inform mariners when right whales are in an area, and increasing efforts to disentangle whales caught in fishing gear.

The HMS FMP addresses the ALWTRP for the shark drift gillnet component of the HMS fisheries. Measures under the FMP to prevent potential interaction between whales and this fishery include: closure of the Southeast U.S. right whale critical habitat and adjacent area (approximately Savannah, GA to Sebastian, FL) to all gillnet gear during the calving season (November 15 - March 31) when whale distribution may coincide with the fishery (with exemption for strike gillnet gear under certain specified conditions); a 100 percent observer requirement from November 15 to March 31 for anyone fishing outside (to the east or south) of the closed area (i.e., between Savannah, Georgia and approximately West Palm Beach, Florida) or fishing with strikenet gear inside the closed area; and gear marking requirements. These requirements were previously implemented under the MMPA regulations establishing the

ALWTRP. The HMS FMP adopted these regulations under authority of the MSA to ensure regulatory consistency.

The HMS FMP prohibits shark drift gillnet fishing without an observer onboard, which is believed to strengthen the provisions of the ALWTRP. Since issuance of the June 30, 2000, Opinion, 100 percent observer coverage of the shark gillnet fishery has been maintained during right whale calving season, as required in lieu of a vessel monitoring system (VMS).

Other Biological Opinions

The consultation history section of this Opinion lists the previous biological opinions for the HMS fishery. Many of these opinions resulted in incidental take statements (ITSs) that authorize take of listed species. These ITSs contain reasonable and prudent measures (RPAs) and their implementing terms and conditions meant to limit the take's effects on listed species. Some of these Opinions determined that the fishery was likely to jeopardize the continued existence of listed species and issued RPAs to avoid jeopardy. These RPAs have provisions that limit the fishery. The May 29, 1997, Opinion found that the prosecution of the Southeast shark gillnet fishery was likely to jeopardize the continued existence of right whales, while the June 14, 2001, Opinion found that the prosecution of the HMS pelagic longline fishery was likely to jeopardize the continued existence of leatherback and loggerhead sea turtles. The provisions of the RPAs for these Opinions are incorporated by reference as part of the proposed action and can be found in Appendix I.

F. Action Area

Atlantic shark fisheries are managed under the HMS FMP throughout the U.S. EEZ in the Atlantic Ocean, the Gulf of Mexico, and the Caribbean Sea. Throughout this range of operation, Atlantic shark fisheries may affect one or more listed species, therefore the action area for this Opinion is the U.S. Atlantic, Gulf of Mexico, and Caribbean EEZ. For the directed commercial bottom longline and gillnet fisheries, the distribution of observed sets in the observer programs gives a useful picture of areas of concentration of commercial fishing effort (see Appendix II). The range of most bottom longline sets runs from the Panhandle of Florida in the Gulf of Mexico to southern Virginia in the Atlantic, with concentrations of activity around the Florida Keys, Cape Canaveral, and North Carolina. Gillnet fishery effort has concentrations northwest of the Florida Keys and along the central, east coast of Florida.

II. Status of the Species

The following endangered (E) and threatened (T) marine mammal, sea turtle, fish, and marine plant species and designated critical habitat under the jurisdiction of NOAA Fisheries are known to occur in or near the action area:

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
<i>Marine Mammals</i>		
Blue whale	<i>Balaenoptera musculus</i>	E
Humpback whale	<i>Megaptera novaeangliae</i>	E
Fin whale	<i>Balaenoptera physalus</i>	E
Northern right whale	<i>Eubalaena glacialis</i>	E
Sei whale	<i>Balaenoptera borealis</i>	E
Sperm whale	<i>Physeter macrocephalus</i>	E

Sea Turtles

Leatherback sea turtle	<i>Dermochelys coriacea</i>	E
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	E
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	E
Green sea turtle	<i>Chelonia mydas</i> *	E/T
Olive ridley sea turtle	<i>Lepidochelys olivacea</i>	T
Loggerhead sea turtle	<i>Caretta caretta</i>	T

Fish

Smalltooth sawfish	<i>Pristis pectinata</i>	E
Shortnose sturgeon	<i>Acipenser brevirostrum</i>	E
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	T
Gulf of Maine Atlantic salmon	<i>Salmo samar</i> **	E

Critical Habitat

Northern Right Whale *Eubalaena glacialis*

**Green sea turtles in U.S. waters are listed as threatened except for the Florida breeding population, which is listed as endangered. Due to the inability to distinguish between the populations away from the nesting beaches, green sea turtles are considered endangered wherever they occur in U.S. waters.*

***Only the wild Gulf of Maine Distinct Population Segment (DPS) is listed as endangered.*

A. Analysis of the Species and Critical Habitat Not Likely to be Affected

NOAA Fisheries has determined that the action being considered in this Opinion is not expected to affect the following listed species or critical habitat under the ESA: shortnose sturgeon, Gulf sturgeon, Gulf of Maine Distinct Population Segment (DPS) of Atlantic salmon, blue whale, sei whale, humpback whale, fin whale, Northern right whale, sperm whale, or right whale critical habitat. These species and critical habitat are therefore excluded from further analysis in this Opinion. The following discussion summarizes NOAA Fisheries' rationale for these determinations.

i. Marine Mammals

Blue, sei, and sperm whales are predominantly found seaward of the continental shelf. Their numbers are not well known in the area seaward of the continental shelf adjacent to the shark gillnet and bottom longline fishing grounds; however, their concentrations in these areas are thought to be low compared to more northern latitudes. The gillnet portion of this fishery primarily takes place in water depths ranging from 5 to 21 meters (Trent et al. 1997), while the longline portion of this fishery takes place in water depths ranging from 5 to 155 meters, with the vast majority of the effort concentrated in water depths ranging from 10 to 55 meters (Cutis, pers. comm.); therefore, based on the depth at which Atlantic shark fishing occurs, these species of whales are expected to be rare in the action area. Based on observer information there have been no interactions between large whales and this fishery in the southeast (the observer effort and information is detailed in the Effects of the Action section of this Opinion). Based on the rarity of these species in the action area and the lack of interactions between large whales and the fishery, NOAA Fisheries believes the chances of a blue, sei, or sperm whale being affected by the proposed action are discountable.

Northern right whales, fin, and humpback whales are coastal animals and have been sighted in the nearshore environment in the Atlantic along the southeastern United States from November through March on their migration south. The Atlantic shark fisheries are subject to the rules and provisions resulting from the ALWTRP. The proposed action is also subject to the provisions of the RPA of the May 29, 1997 jeopardy Opinion. The RPA of that Opinion requires actions by the HMS fishery to protect right whales (see Appendix I). Based on the protections afforded these species by the ALWTRP, and the RPA of the May 29, 1997, Opinion and the lack of interactions between large whales and the Atlantic shark fishery since these measures have been in place, NOAA Fisheries believes that the effects of the proposed action on right, fin, and humpback whales will be insignificant. Listed large whale species will not be discussed further in this Opinion.

ii. Turtles

Olive ridley turtles in the United States are mainly found in the Pacific Ocean and rarely found in the southeastern United States. In the past two years, only three confirmed strandings of olive ridleys have been recorded in South Florida. Based on this information, NOAA Fisheries believes that this species is rare in the action area and the chances of an olive ridley turtle being affected by the proposed action are discountable. Therefore, olive ridley turtles will not be discussed further in this Opinion.

iii. Fish

Gulf of Maine Atlantic salmon DPS

The endangered Gulf of Maine Atlantic salmon DPS includes the wild population of Atlantic salmon found in rivers and streams from the lower Kennebec River north to the U.S.-Canada border. These include the Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap, and Sheepscot Rivers and Cove Brook. Atlantic salmon are an anadromous species and spawning and juvenile rearing occur in freshwater rivers followed by migration to the marine environment. Juvenile salmon in New England rivers typically migrate to sea in May after a two to three year period of development in freshwater streams, and remain at sea for two winters before returning to their U.S. natal rivers to spawn from mid October through early November. While at sea, salmon generally undergo extensive migrations in the Northwest Atlantic to waters off Canada and Greenland, where they are widely distributed seasonally over much of the region. The areas of the Atlantic EEZ where the Gulf of Maine Atlantic salmon DPS generally occur are north of where shark fishing occurs. Additionally, captures of Atlantic salmon in U.S. commercial fishing or by research/survey operations are relatively rare, with only a few reported in the Gulf of Maine and southern New England in trawls. Based on this information, it is highly unlikely that the action being considered in this Opinion will affect the Gulf of Maine DPS of Atlantic salmon.

Shortnose sturgeon

Endangered shortnose sturgeon are benthic fish found in large rivers and their associated estuaries along the western Atlantic coast from St. Johns River, Florida (possibly extirpated from this system), to the Saint John River in New Brunswick, Canada. The species is anadromous in the southern portion of its range (i.e., south of Chesapeake Bay), while some northern populations are freshwater amphidromous (NMFS 1998b). Some adult shortnose sturgeon have been reported as being captured in the nearshore marine habitat (Dadswell *et al.* 1984); however, it is not well documented. NOAA Fisheries has no reports of shortnose sturgeon in federal waters. Since the activities proposed to be authorized by the HMS FMP will be conducted in federal waters beyond where concentrations of shortnose sturgeon are most likely to be found, it is highly unlikely that the action will affect shortnose sturgeon.

Gulf sturgeon

Gulf sturgeon are an anadromous fish, inhabiting coastal rivers from Louisiana to Florida during the warmer months and over wintering in estuaries, bays, and the Gulf of Mexico. Available data indicates

that Gulf sturgeon in the marine environment spread along the coast in nearshore waters in depths less than 10 meters (mainly state waters). There have been no recorded takes of Gulf sturgeon in fisheries occurring in federal waters (shrimp, snapper grouper). Since the activities proposed to be authorized by the HMS FMP, will be conducted in federal waters beyond where concentrations of Gulf sturgeon are most likely to be found, the chances of the proposed action affecting Gulf sturgeon are discountable.

iv. Critical Habitat

Northern Right Whale Critical Habitat

Northern right whale critical habitat (50 FR 28793) has been designated in the action area in the following general areas: (1) coastal Florida and Georgia, (2) the Great South Channel, east of Cape Cod, (3) Cape Cod and Massachusetts bays. Of these, only the first designated area (coastal Florida and Georgia) overlaps with where Atlantic shark fishing regularly occurs. The unit is defined from the mouth of the Altamaha River, Georgia, to Jacksonville, Florida, out 15 nmi and from Jacksonville, Florida, to Sebastian Inlet, Florida, out five nmi. The area was designated because of its importance as a calving area. Although sightings off Georgia and Florida primarily include adult females and calves, juveniles and adult males have also been observed. Northern right whales are most abundant in this area from mid-November through March (Slay et al. 1996).

Vessel traffic and fisheries are the major activities identified in the southeastern critical habitat area as potentially adversely affecting critical habitat through ship strikes or entanglements. However, regulations currently in place already address concerns regarding right whale entanglements and mortality risks from Atlantic shark fisheries (see right whale discussion above). The environmental features (typically referred to as the primary constituent elements) of the southeastern critical habitat area relate to water depth, water temperature, and bathymetry. The gears used to fish for Atlantic sharks, (bottom longline, gillnet, rod and reel) will have no impact on these features. Thus, the proposed action will not destroy or adversely affect the constituent elements of designated critical habitat for the North Atlantic right whale. Consequently, critical habitat will not be discussed further in this Opinion.

B. Analysis of the Species Likely to be Affected

The remainder of the species listed above in section II (sea turtles and smalltooth sawfish) is likely to be adversely affected by the proposed action. These species are found throughout all or a portion of the action area and have been documented as taken incidentally in one or more components of the Atlantic shark fishery. The remaining sections of this Opinion will focus solely on these species.

i. Species Descriptions

This section presents the biological and ecological information to provide background for analyses in later sections of the Opinion. Additional background information on the range-wide status of these species can be found in a number of published documents, including: recovery plans for loggerhead sea turtle (NOAA Fisheries and USFWS 1991a), Kemp's ridley sea turtle (USFWS and NOAA Fisheries 1992), green sea turtle (NOAA Fisheries and USFWS 1991b) and leatherback sea turtle (NOAA Fisheries and USFWS 1992); sea turtle status reviews and biological reports (NOAA Fisheries and USFWS 1995; Marine Turtle Expert Working Group (TEWG) 1998 & 2000, NOAA Fisheries 2001), and the smalltooth sawfish status review (available online at http://www.nmfs.noaa.gov/prot_res/PR3/status_reviews.html).

a. Loggerhead Sea Turtle

The loggerhead sea turtle was listed as a threatened species on July 28, 1978. This species inhabits the continental shelves and estuarine environments along the margins of the Atlantic, Pacific, and Indian Oceans, and within the continental United States it nests from Louisiana to Virginia. The major nesting areas include coastal islands of Georgia, South Carolina, and North Carolina, and the Atlantic and Gulf coasts of Florida, with the bulk of the nesting occurring on the Atlantic coast of Florida. Developmental habitat for small juveniles is the pelagic waters of the North Atlantic and the Mediterranean Sea (NMFS and USFWS 1991).

Life history

In the western Atlantic, most loggerhead sea turtles nest from North Carolina to Florida and along the Gulf coast of Florida. There are five western Atlantic subpopulations, divided geographically as follows: (1) a northern nesting subpopulation, occurring from North Carolina to northeast Florida at about 29° N; (2) a south Florida nesting subpopulation, occurring from 29° N on the east coast to Sarasota on the west coast; (3) a Florida Panhandle nesting subpopulation, occurring at Eglin Air Force Base and the beaches near Panama City, Florida; (4) a Yucatán nesting subpopulation, occurring on the eastern Yucatán Peninsula, Mexico (Márquez 1990 and TEWG 2000); and (5) a Dry Tortugas nesting subpopulation, occurring in the islands of the Dry Tortugas, near Key West, Florida (NMFS SEFSC 2001). The fidelity of nesting females to their nesting beach is the reason these subpopulations can be differentiated from one another. This nest beach fidelity will prevent recolonization of nesting beaches with turtles from other subpopulations.

Mating takes place in late March-early June, and eggs are laid throughout the summer, with a mean clutch size of 100-126 eggs in the southeastern United States. Individual females nest multiple times during a nesting season, with a mean of 4.1 nests/individual (Murphy and Hopkins 1984). Nesting migrations for an individual female loggerhead are usually on an interval of 2-3 years, but can vary from 1-7 years (Dodd 1988). Generally, loggerhead sea turtles originating from the western Atlantic nesting aggregations are believed to lead a pelagic existence in the North Atlantic Gyre for as long as 7-12 years or more. Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length they begin to live in coastal inshore and nearshore waters of the continental shelf throughout the U. S. Atlantic and Gulf of Mexico. Benthic immature loggerheads (sea turtles that have come back to inshore and near shore waters), the life stage following the pelagic immature stage, have been found from Cape Cod, Massachusetts, to southern Texas, and occasionally strand on beaches in Northeastern Mexico.

Past literature gave an estimated age at maturity of 21-35 years (Frazer and Ehrhart 1985, Frazer et al. 1994) with the benthic immature stage lasting at least 10-25 years. However, based on new data from tag returns, strandings, and nesting surveys NMFS SEFSC (2001) estimates ages of maturity ranging from 20-38 years and a benthic immature stage lasting from 14-32 years.

Pelagic and benthic juveniles are omnivorous and forage on crabs, mollusks, jellyfish, and vegetation at or near the surface (Dodd 1988). Sub-adult and adult loggerheads are primarily coastal and typically prey on benthic invertebrates such as mollusks and decapod crustaceans in hard bottom habitats.

Population dynamics and status

A number of stock assessments (TEWG 1998, TEWG 2000, and NMFS SEFSC 2001) have examined the stock status of loggerheads in the waters of the United States, but have been unable to develop any reliable estimates of absolute population size. Based on nesting data of the five western Atlantic subpopulations, the south Florida-nesting and the northern-nesting subpopulations are the most abundant (TEWG 2000 and NMFS SEFSC 2001). The Turtle Expert Working Group (TEWG) (2000) was able to assess the status of these two better-studied populations and concluded that the south Florida subpopulation is increasing, while no trend is evident (maybe stable but possibly declining) for the

northern subpopulation. Another consideration adding to the vulnerability of the northern subpopulation is that NOAA Fisheries' scientists estimate that the northern subpopulation produces 65 percent males (NMFS SEFSC 2001).

The latest and most extensive stock assessment (NMFS SEFSC 2001) was successful in assembling the best available information on loggerhead sea turtle life history and developing population models that can be used to predict the response of the loggerhead populations to changes in their mortality and survival. The new turtle excluder device rule (68 FR 8456, February 21, 2003) requiring larger openings is expected to reduce trawl related loggerhead mortality by 94 percent (Epperly et al. 2002). Based on the loggerhead population models in NMFS SEFSC (2001), this change in the mortality rate is expected to move the northern nesting population from stable to increasing.

The southeast U. S. nesting aggregation is second in size only to the nesting aggregation on islands in the Arabian Sea off Oman (Ross 1979, Ehrhart 1989, NMFS and USFWS 1993). The southeast U. S. nesting aggregation is especially important because the status of the Oman colony has not been evaluated recently. It is located in an area of the world where it is highly vulnerable to disruptive events such as political upheavals, wars, catastrophic oil spills, and lack of strong protections (Meylan et al. 1995).

Ongoing threats to the western Atlantic populations include incidental takes from dredging, commercial trawling, longline fisheries, and gill net fisheries; loss or degradation of nesting habitat from coastal development and beach armoring; disorientation of hatchlings by beachfront lighting; nest predation by native and non-native predators; degradation of foraging habitat; marine pollution and debris; watercraft strikes; and disease.

b. Green Sea Turtle

Federal listing of the green sea turtle occurred on July 28, 1978, with all populations listed as threatened except for the Florida and Pacific coast of Mexico breeding populations, which are endangered. The complete nesting range of the green sea turtle within the NOAA Fisheries' Southeast Region includes sandy beaches of mainland shores, barrier islands, coral islands, and volcanic islands between Texas and North Carolina and the U. S. Virgin Islands (U.S.V.I.) and Puerto Rico (NMFS and USFWS 1991a). Principal U. S. nesting areas for green sea turtles are in eastern Florida, predominantly Brevard through Broward counties (Ehrhart and Witherington 1992). Green sea turtle nesting also occurs regularly on St. Croix, U.S.V.I., and on Vieques, Culebra, Mona, and the main island of Puerto Rico (Mackay and Rebholz 1996).

Life history

Green sea turtle mating occurs in the waters off the nesting beaches. Each female deposits 1-7 clutches (usually 2-3) during the breeding season at 12-14 day intervals. Mean clutch size is highly variable among populations, but averages 110-115 eggs/nest. Females usually have 2-4 or more years between breeding seasons, while males may mate every year (Balazs 1983). After hatching, green sea turtles go through a post-hatchling pelagic stage where they are associated with drift lines of algae and other debris.

Green sea turtle foraging areas in the southeastern United States include any coastal shallow waters having macroalgae or sea grasses near mainland coastlines, islands, reefs, or shelves, and any open-ocean surface waters, especially where advection from wind and currents concentrates pelagic organisms (Hirth 1997, NMFS and USFWS 1991a). Principal benthic foraging areas in the southeastern United States include Aransas Bay, Matagorda Bay, Laguna Madre, and the Gulf inlets of Texas (Doughty 1984, Hildebrand 1982, Shaver 1994), the Gulf of Mexico off Florida from Yankeetown to Tarpon Springs (Caldwell and Carr 1957, Carr 1984), Florida Bay and the Florida Keys (Schroeder and Foley 1995), the Indian River Lagoon System, Florida (Ehrhart 1983), and the Atlantic Ocean off Florida from Brevard

through Broward counties (Wershoven and Wershoven 1992, Guseman and Ehrhart 1992). Adults of both sexes are presumed to migrate between nesting and foraging habitats along corridors adjacent to coastlines and reefs. Age at sexual maturity is estimated to be between 20-50 years (Balazs 1982, Frazer and Ehrhart 1985).

Green sea turtles are primarily herbivorous, feeding on algae and sea grasses, but also occasionally consume jellyfish and sponges. The post-hatchling, pelagic-stage individuals are assumed to be omnivorous, but little data are available.

Population dynamics and status

The vast majority of green sea turtle nesting within the southeastern United States occurs in Florida (Meylan et al. 1995, Johnson and Ehrhart 1994). It is unclear how greatly green sea turtle nesting in the whole of Florida has been reduced from historical levels (Dodd 1981). However, based on 1989-2002 nesting information, green sea turtle nesting in Florida has been increasing (Florida Marine Research Institute Statewide 2002 Nesting Database). Total nest counts and trends at index beach sites during the past decade suggest that green sea turtles that nest within the southeastern United States are recovering.

There are no reliable estimates of the number of immature green sea turtles that inhabit coastal areas (where they come to forage) of the southeastern United States. However, information on incidental captures of immature green sea turtles at the St. Lucie Power Plant (they have averaged 215 green sea turtle captures per year since 1977) in St. Lucie County, Florida (on the Atlantic coast of Florida) show that the annual number of immature green turtles captured has increased significantly in the past 26 years (FPL 2002). It is not known whether or not this increase is indicative of the whole east coast of Florida or just a local increase.

It is likely that immature green sea turtles foraging in the southeastern United States come from multiple genetic stocks; therefore, the status of immature green sea turtles in the southeastern United States might also be assessed from trends at all of the main regional nesting beaches, principally Florida, Yucatán, and Tortuguero. Trends at Florida beaches were previously discussed. Trends in nesting at Yucatán beaches cannot be assessed because of a lack of consistent beach surveys over time. Trends at Tortuguero (ca. 20,000-50,000 nests/year) show a significant increase in nesting during the period 1971-1996 (Bjorndal et al. 1999). Therefore, it seems reasonable to assume an increase in immature green sea turtles inhabiting coastal areas of the southeastern United States; however, the magnitude of this increase is unknown.

The principal cause of past declines and extirpations of green sea turtle assemblages has been the over-exploitation of green sea turtles for food and other products. Although intentional take of green sea turtles and their eggs is not extensive within the southeastern United States, green sea turtles that nest and forage in the region may spend large portions of their life history outside the region and outside U. S. jurisdiction, where exploitation is still a threat. However, there are still significant and ongoing threats to green sea turtles from human-related causes in the United States. These threats include beach armoring, erosion control, artificial lighting, beach disturbance (e.g., driving on the beach), pollution, foraging habitat loss as a result of direct destruction by dredging, siltation, boat damage, and other human activities and with fishing gear. There is also the increasing threats from occurrences of green sea turtle fibropapillomatosis disease. Presently, this disease is cosmopolitan and has been found to affect large numbers of animals in some areas, including Hawaii and Florida (Herbst 1994, Jacobson 1990, Jacobson et al. 1991).

c. Kemp's Ridley Sea Turtle

The Kemp's ridley was listed as endangered on December 2, 1970. Internationally, the Kemp's ridley is considered the most endangered sea turtle (Zwinnenberg 1977, Groombridge 1982, TEWG 2000). Kemp's

ridleys nest primarily at Rancho Nuevo, a stretch of beach in Mexico, Tamaulipas State. The species occurs mainly in coastal areas of the Gulf of Mexico and the northwestern Atlantic Ocean. Occasional individuals reach European waters (Brongersma 1972). Adults of this species are usually confined to the Gulf of Mexico, although adult-sized individuals sometimes are found on the east coast of the United States.

Life history

Females return to their nesting beach about every 2 years (TEWG 1998). Nesting occurs from April into July and is essentially limited to the beaches of the western Gulf of Mexico, near Rancho Nuevo in southern Tamaulipas, Mexico. The mean clutch size for Kemp's ridleys is 100 eggs/nest, with an average of 2.5 nests/female/season.

Benthic immature Kemp's ridleys have been found along the east coast seaboard of the United States and in the Gulf of Mexico. Atlantic benthic immature sea turtles travel northward as the water warms to feed in the productive, coastal waters off Georgia through New England, returning southward with the onset of winter (Lutcavage and Musick 1985, Henwood and Ogren 1987, Ogren 1989). Studies suggest that benthic immature Kemp's ridleys stay in shallow, warm, nearshore waters in the northern Gulf of Mexico until cooling waters force them offshore or south along the Florida coast (Renaud 1995). Little is known of the movements of the post-hatching stage (pelagic stage) within the Gulf. Studies have shown the post-hatchling pelagic stage varies from 1-4 or more years, and the benthic immature stage lasts 7-9 years (Schmid and Witzell 1997). The TEWG (1998) estimates age at maturity from 7-15 years.

Stomach contents of Kemp's ridleys along the lower Texas coast consisted of mainly nearshore crabs and mollusks, as well as fish, shrimp, and other foods considered to be shrimp fishery discards (Shaver 1991). Pelagic stage Kemp's ridleys presumably feed on the available sargassum and associated infauna or other epipelagic species found in the Gulf of Mexico.

Population dynamics and status

Of the seven extant species of sea turtles in the world, the Kemp's ridley has declined to the lowest population level. Most of the population of adult females nest on the Rancho Nuevo beaches (Pritchard 1969). When nesting aggregations at Rancho Nuevo were discovered in 1947, adult female populations were estimated to be in excess of 40,000 individuals (Hildebrand 1963). By the mid-1980s nesting numbers were below 1,000 (with a low of 702 nests in 1985). However, recent observations of increased nesting (with 6,277 nests recorded in 2000) suggest that the decline in the ridley population has stopped and the population is now increasing (USFWS 2000).

A period of steady increase in benthic immature ridleys has been occurring since 1990 and appears to be due to increased hatchling production and an apparent increase in survival rates of immature sea turtles beginning in 1990. The increased survivorship of immature sea turtles is due in part to the introduction of turtle excluder devices (TEDs) in the United States and Mexican shrimping fleets. As demonstrated by nesting increases at the main nesting sites in Mexico, adult ridley numbers have grown. The population model used by TEWG (2000) projected that Kemp's ridleys could reach the Recovery Plan's intermediate recovery goal of 10,000 nesters, by the year 2015.

The largest contributor to the decline of the ridley in the past was commercial and local exploitation, especially poaching of nests at the Rancho Nuevo site, as well as the Gulf of Mexico trawl fisheries. The advent of TED regulations for trawlers and protections for the nesting beaches have allowed the species to begin to rebound. Many threats to the future of the species remain, including interactions with fishery gear, marine pollution, foraging habitat destruction, illegal poaching of nests and potential threats to the nesting beaches from such sources as global climate change, development, and tourism pressures.

d. Leatherback Sea Turtle

The leatherback was listed as endangered on June 2, 1970. Leatherbacks are widely distributed throughout the oceans of the world, and are found in waters of the Atlantic, Pacific, and Indian oceans; the Caribbean Sea; and the Gulf of Mexico (Ernst and Barbour 1972). Adult leatherbacks forage in temperate and subpolar regions from 71°N to 47°S latitude in all oceans and undergo extensive migrations between 30°N and 20°S, to and from the tropical nesting beaches. In the Atlantic Ocean, leatherbacks have been recorded as far north as Newfoundland, Canada, and Norway, and as far south as Uruguay, Argentina, and South Africa (NMFS SEFSC 2001). Female leatherbacks nest from the southeastern United States to southern Brazil in the western Atlantic and from Mauritania to Angola in the eastern Atlantic. The most significant nesting beaches in the Atlantic, and perhaps in the world, are in French Guiana and Suriname (NMFS SEFSC 2001).

Life History

Genetic analyses of leatherbacks to date indicate that within the Atlantic basin there are genetically different nesting populations; the St. Croix nesting population (U.S. Virgin Islands), the mainland nesting Caribbean population (Florida, Costa Rica, Suriname/French Guiana) and the Trinidad nesting population (Dutton et al. 1999). When the hatchlings leave the nesting beaches, they move offshore but eventually utilize both coastal and pelagic waters. Very little is known about the pelagic habits of the hatchlings and juveniles, and they have not been documented to be associated with the sargassum areas as are other species. Leatherbacks are deep divers, with recorded dives to depths in excess of 1,000 m (Eckert et al. 1989).

Leatherbacks are a long-lived species, living for over 30 years. They reach sexually maturity somewhat faster than other sea turtles, with an estimated range from 3-6 years (Rhodin 1985) to 13-14 years (Zug and Parham 1996). They nest frequently (up to 7 nests per year) during a nesting season and nest about every 2-3 years. During each nesting, they produce 100 eggs or more in each clutch and, thus, can produce 700 eggs or more per nesting season (Schultz 1975).

Leatherbacks are the most pelagic of the sea turtles, but enter coastal waters on a seasonal basis to feed in areas where jellyfish are concentrated. Leatherback sea turtles feed primarily on cnidarians (medusae, siphonophores) and tunicates.

Population Dynamics, Status, and Distribution

The Pacific population is in a critical state of decline, estimated by Spotila et al. (2000) to number less than 3,000 total adult and subadult animals. The status of the Atlantic population is less clear. In 1996, it was reported to be stable, at best (Spotila et al. 1996), with numbers of nesting females in the western Atlantic reported to be on the order of 18,800. However, according to Spotila (pers. comm.), the western Atlantic population currently numbers about 15,000 nesting females. According to NMFS SEFSC (2001) the nesting aggregation in French Guiana has been declining at about 15 percent per year since 1987. However from 1979-1986, the number of nests was increasing at about 15 percent annually which could mean that this current 15 percent decline could be part of a nesting cycle which coincides with the erosion cycle of Guiana beaches described by Schultz (1975). The number of nests in Florida and the U.S. Caribbean has been increasing at about 10.3 percent and 7.5 percent, respectively, per year since the early 1980s but the magnitude of nesting is much smaller than that along the French Guiana coast (NMFS SEFSC 2001). In summary, the conflicting information regarding the status of Atlantic leatherbacks makes it difficult to conclude whether or not the population is currently in decline.

Zug and Parham (1996) pointed out that the main threat to leatherback populations in the Atlantic are the combination of fishery-related mortality (especially entanglement in gear and drowning in trawls) and the intense egg harvesting on the main nesting beaches. Other important ongoing threats to the population include pollution, loss of nesting habitat, and boat strikes.

e. Hawksbill Sea Turtle

The hawksbill turtle was listed as endangered under the ESA (1973) on June 2, 1970, and is considered Critically Endangered by the International Union for the Conservation of Nature (IUCN). The hawksbill is a medium-sized sea turtle with adults in the Caribbean ranging in size from approximately 62.5 to 94.0 cm straight carapace length. The species occurs in all ocean basins although it is relatively rare in the Eastern Atlantic and Eastern Pacific, and absent from the Mediterranean Sea. Hawksbills are the most tropical of the marine turtles, ranging from approximately 30°N to 30°S. They are closely associated with coral reefs and other hard-bottom habitats, but they are also found in other habitats including inlets, bays and coastal lagoons (NMFS and USFWS 1993).

Life History

There are five regional nesting populations with more than 1,000 females nesting annually. These populations are in the Seychelles, Mexico, Indonesia, and two in Australia (Meylan and Donnelly 1999). Reproductive females undertake periodic (usually non-annual) migrations to their natal beach to nest. Movements of reproductive males are less well known, but are presumed to involve migrations to the nesting beach or to courtship stations along the migratory corridor (Meylan 1999b). Females nest an average of 3-5 times per season (Meylan and Donnelly 1999, Richardson et al. 1999). Clutch size is higher on average (up to 250 eggs) than that of other turtles (Hirth 1980). Reproductive females may exhibit a high degree of fidelity to their nest sites.

The life history of hawksbills consists of a pelagic stage that lasts from the time they leave the nesting beach as hatchlings until they are approximately 22 - 25 cm in straight carapace length (Meylan 1988, Meylan and Donnelly 1999), followed by residency in developmental habitats (foraging areas where immatures reside and grow) in coastal waters. Adult foraging habitat, which may or may not overlap with developmental habitat, is typically coral reefs, although other hard-bottom communities and occasionally mangrove-fringed bays may be occupied. Hawksbills show fidelity to their foraging areas over periods of time as great as several years (van Dam and Diez 1998).

Their diet is highly specialized and consists primarily of sponges (Meylan 1988) although other food items, notably corallimorphs and zooanthids, have been documented to be important in some areas of the Caribbean (van Dam and Diez 1997, Mayor et al. 1998, Leon and Diez 2000).

Population Dynamics, Status, and Distribution

There has been a global population decline of over 80 percent in hawksbill populations during the last three generations (105 years) (Meylan and Donnelly 1999).

In the Western Atlantic, the largest hawksbill nesting population occurs in the Yucatán Peninsula of Mexico, where several thousand nests are recorded annually in the states of Campeche, Yucatán, and Quintana Roo (Garduño-Andrade et al. 1999). Important but significantly smaller nesting aggregations are documented elsewhere in the region in Puerto Rico, the U.S. Virgin Islands, Antigua, Barbados, Costa Rica, Cuba, and Jamaica (Meylan 1999a). Estimates of the annual number of nests for each of these areas are of the order of hundreds to a few thousand. Nesting within the southeastern U.S. and U.S. Caribbean is restricted to Puerto Rico (>650 nests/yr), the U.S. Virgin Islands (~400 nests/yr), and, rarely, Florida (0-4 nests/yr) (Eckert 1995, Meylan 1999a, Florida Statewide Nesting Beach Survey database 2002). At the two principal nesting beaches in the U.S. Caribbean where long-term monitoring has been carried out,

populations appear to be increasing (Mona Island, Puerto Rico) or stable (Buck Island Reef National Monument, St. Croix, USVI) (Meylan 1999a).

f. Smalltooth sawfish

The U.S. smalltooth sawfish DPS was listed as endangered under the ESA on April 1, 2003 (68 FR 15674). The smalltooth sawfish is the first marine fish to be listed in the United States. Critical habitat has not been designated for the U.S. DPS of smalltooth sawfish. Historically smalltooth sawfish occurred commonly in the shallow waters of the Gulf of Mexico and eastern seaboard up to North Carolina, and more rarely as far north as New York. The smalltooth sawfish range has subsequently contracted essentially to peninsular Florida and, within that area, the species can only be found with any regularity off the extreme southern portion of the state. Smalltooth sawfish are most common within the boundaries of the National Everglades National Park and the Florida Keys (Simpfendorfer 2002).

All extant sawfish belong to the Suborder Pristoidea, Family Pristidae, Genus *Pristis*. Although they are rays, sawfish appear to be more shark-like than ray-like, with only the trunk and especially the head ventrally flattened. The snout of all sawfish is extended as a long narrow flattened rostral blade with a series of transverse teeth along either edge, and commonly referred to as a saw.

Life History

Smalltooth sawfish are euryhaline, occurring in waters with a broad range of salinities from freshwater to full seawater (Simpfendorfer 2001). The literature indicates that smalltooth sawfish are most common in shallow coastal waters less than 25 m (Bigelow & Schroeder 1953, Adams and Wilson 1995); however, recent data from sawfish encounter reports and from satellite tagging indicate that mature animals are regularly found in waters in excess of 50 meters (Simpfendorfer 2002). Shallow estuarine and sometimes freshwater areas appear especially important for juvenile sawfish, found near inshore bars, mangrove edges, and seagrass beds.

Bigelow and Schroeder (1953) concluded that the U.S. smalltooth sawfish population included a migratory segment that moved north along the east coast as temperatures warmed and south as temperatures cooled. Historic records indicate that some mature individuals migrate north along the Atlantic coast during the summer. Little is known about migrations or movements in other parts of their range, but it is hypothesized that similar temperature driven migrations occur in the Gulf of Mexico (Simpfendorfer 2002)

As in all elasmobranchs, fertilization is internal. Development in sawfish is believed to be ovoviviparous. Gravid smalltooth sawfish females have been found with 15 to 20 embryos (Bigelow and Schroeder 1953). The gestation period for smalltooth sawfish is not known, but may be inferred based on that of the largetooth sawfish, sharing the same genus and similarities in size and habitat. Thorson (1976) reported the gestation period for largetooth sawfish was approximately 5 months and females likely produce litters every second year.

Smalltooth sawfish are generally about 2 feet long at birth and may grow to a length of 18 feet or greater (Bigelow and Schroeder 1953). Males mature at approximately 270 cm and females approximately 360 cm (Simpfendorfer 2002). Individuals have been maintained in public aquaria for up to 20 years (Cerkleski, pers. comm., 2000). Although no formal studies on the age and growth of the smalltooth sawfish have been conducted to date, growth studies of largetooth sawfish suggest slow growth, late maturity (10 years) and long lifespan (30 years) (Thorson 1982a; Simpfendorfer 2000). These characteristics suggest very low intrinsic rate of increase (Simpfendorfer 2000).

Smalltooth sawfish feed primarily on fish, with mullet, jacks, and ladyfish believed to be their primary food resources (Simpfendorfer 2001). By moving their saw rapidly side to side through the water, the relatively slow moving sawfish is able to strike at these fish. Norman and Frase (1937) suggested that the saw was mostly used to slash through schooling fish; however Breder (1952) also demonstrated that sawfish are capable of using their saw to strike accurately at individual fish. The teeth on the saw stun, impale, injure or kill the fish. The fish are then consumed after being rubbed off the saw on the bottom (if necessary). In addition to fish, small smalltooth sawfish also consume crustaceans (mostly shrimp and crabs) that they locate by disturbing bottom sediment with their saw. The saw may also be used by small sawfish to disturb the bottom sediment and uncover crustaceans such as shrimp and crabs (Norman & Fraser 1937, Bigelow and Schroeder 1953).

Status and trends

The Mote Marine laboratory sawfish reporting database was established in 2000 to compile information on the distribution and abundance of sawfish. The records in the database extend back to the 1950's, but are mostly from 1999 to the present. The Mote Marine Laboratory sawfish sightings reporting database contains 387 reports of sawfish sightings. The majority of these reports are from the southwest coast of Florida between Goodland and Florida Bay, but cover much of the Florida coast. The majority of the reports have been from fishing (72.3%), research (15.7%), boating (2.3 %), and diving (4.1%), which have been reported between 1999 and 2003 (Simpfendorfer 2003).

Historically, smalltooth sawfish were abundant in the inshore waters of the Gulf of Mexico and western North Atlantic to New York. Today smalltooth sawfish are only regularly observed in the waters of south Florida. Smalltooth were reported as abundant and large numbers were caught as bycatch in the early part of this century. They continued to be common throughout their range up until the middle of the 20th century. The decline in the population of smalltooth sawfish is attributed to fishing (both commercial and recreational), habitat modification, and sawfish life history. The magnitude of the decline in the population is difficult to estimate. The species was not well studied before incidental bycatch severely reduced its numbers because of its limited importance in commercial and recreational fisheries and its large size and toothed rostrum which made it difficult to handle. The U.S. DPS of smalltooth sawfish has been extirpated from ninety percent of its range and has experienced severe declines in abundance based on present and historical reports of the smalltooth sawfish. Simpfendorfer (2002) estimates, based on the contraction in the range and anecdotal data, that the population is currently at less than 5 percent of the size it was at the time of European settlement.

There are no data available to estimate the present population size. Dr. Simpfendorfer offers a rough estimate of 2, 000 individuals based on his four years of field experience and data collected from the public, but cautions that actual numbers may be plus or minus at least 50 percent. Encounters with neonates (young of the year), juveniles and sexually mature sawfish indicate, however, that a reproducing population exists at least in southern Florida. The recent capture of a smalltooth sawfish off Georgia is the first record north of Florida since 1963 and suggests that some smalltooth sawfish may be undergoing seasonal northern migrations and/or expanding their range. Data from recreational fishing catch rates within the Everglades National Park indicate that there may have been little change in the size of the population during the 1990s. Simpfendorfer (2002) suggests that the population decline that occurred during most of the last century may be slowing or stopping.

Fishing regulations implemented over the past decade in the southeast, such as the Florida net ban in 1994, have started to reduce threats to the species over parts of its range. Issues such as habitat modification remain to be addressed. Due to the K-selected strategy of the smalltooth sawfish, recovery of the population is expected to be very slow; thus the smalltooth sawfish is vulnerable to even small changes to the population. Species with low intrinsic rates of increase are particularly vulnerable to excessive mortalities and rapid stock collapse, after which recovery may take decades (Musick et al.

2000). For example, rapid stock collapses have been documented for many elasmobranchs shown to have low intrinsic rates of increase, particularly larger species (Musick et al. 2000)

Present threats to the smalltooth sawfish include loss of coastal habitat resulting from increased urbanization of the southeastern coastal states from development, commercial activities, dredge and fill operations, recreational boating, erosion, and diversions of freshwater run-off. Loss and/or degradation of habitat has contributed to the decline of many marine species, and is unknown, but fully expected, to have impacted the distribution and abundance of smalltooth sawfish. Smalltooth sawfish may be especially vulnerable to coastal habitat degradation due to their affinity to shallow, estuarine systems. Smalltooth sawfish are also still occasionally incidentally caught in commercial shrimp trawls, bottom longlines, and recreational rod and reel.

Smalltooth sawfish have historically been caught as bycatch in various fishing gears throughout their historic range, including gillnet, otter trawl, trammel net, seine, and to a lesser degree, hand line. Frequent accounts in earlier literature of smalltooth sawfish being entangled in fishing nets from areas where smalltooth sawfish were once common, but are now rare (Everman and Bean, 1898). Today, smalltooth sawfish are occasionally incidentally caught in commercial shrimp trawls and bottom longlines and recreational rod and reel.

III. Environmental Baseline

This section contains an analysis of the effects of past and ongoing human and natural factors leading to the current status of the species, their habitat (including designated critical habitat), and ecosystem, within the action area. The environmental baseline is a snapshot of a species' health at a specified point in time and includes state, tribal, local, and private actions already affecting the species, or that will occur contemporaneously with the consultation in progress. Unrelated federal actions affecting the same species or critical habitat that have completed formal or informal consultation are also part of the environmental baseline, as are federal and other actions within the action area that may benefit listed species or critical habitat.

The environmental baseline for this Opinion includes the effects of several activities that affect the survival and recovery of threatened and endangered species in the action area. The activities that shape the environmental baseline in the action area of this consultation generally fall into the following three categories: vessel operations, fisheries, and recovery activities associated with reducing those impacts. Other environmental impacts include effects of discharges, dredging, military activities, oil and gas development activities, industrial cooling water intake, aquaculture, recreational fishing, and marine debris.

A. Status of the Species Within the Action Area

The species of sea turtles that are expected to be affected by the proposed action are all highly migratory. NOAA Fisheries believes that no individual members of any of the species are likely to be year-round residents of the action area. Individual animals will make migrations into nearshore waters as well as other areas of the North Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea. Therefore, the range-wide status of the affected species of sea turtles, given above, most accurately reflects the species' status within the action area.

Smalltooth sawfish are not highly migratory species, although some large mature individuals may engage in seasonal north/south movement. The U.S. DPS of smalltooth sawfish is confined to only a small portion of the action area, mainly waters off Florida and possibly occasionally off Georgia. Only large, mature individuals are known to occur in the action area. Information is not available regarding how

much time smalltooth sawfish of different sizes spend at different depths. Generally, however, smaller (younger) animals are restricted to shallower waters, whereas large animals are believed to roam over a larger depth range. Smalltooth sawfish may only be present in the U.S. EEZ intermittently, spending the rest of their time in shallower waters. Based on this information, the range-wide status of smalltooth sawfish described in the preceding section most accurately reflects the species' status within the action area.

B. Factors Affecting the Species' Environments Within the Action Area.

As noted above, sea turtles found in the action area are not year-round residents of the area, and may travel widely throughout the Atlantic, Gulf of Mexico, and Caribbean Sea. Therefore, individuals found in the action area can potentially be affected by activities anywhere else within this wide range. Smalltooth sawfish may be found in the southern portion (primarily off Florida) of the action area throughout the year but intermittently, spending the rest of their time in state waters. Individuals found in the action area, therefore, can potentially be affected by activities both within the southeast portion of the action area and adjacent state waters.

i. Federal Actions

Sea Turtles

In recent years, NOAA Fisheries has undertaken several ESA section 7 consultations to address the effects of federally-permitted fisheries and other federal actions on threatened and endangered species. Each of those consultations sought to develop ways of reducing the probability of adverse effects of the action on sea turtles and/or cetaceans. Similarly, recovery actions NOAA Fisheries has undertaken under the ESA and the MMPA are addressing the problem of take of sea turtles and cetaceans in the fishing and shipping industries and other activities such as Army Corps of Engineers (COE) dredging operations. A summary of anticipated sources of incidental take of sea turtles includes only those federal actions that have undergone formal section 7 consultation.

Adverse effects on threatened and endangered species from several types of fishing gear occur in the action area. Gillnet, longline, trawl gear, and pot fisheries have all been documented as interacting with sea turtles. For all fisheries for which there is a fishery management plan (FMP) or for which any federal action is taken to manage that fishery, impacts have been evaluated under section 7. Several formal consultations have been conducted on the following fisheries that NOAA Fisheries has determined are likely to adversely affect threatened and endangered species: American lobster, monkfish, dogfish, southeastern shrimp trawl fishery, Northeast multispecies, Atlantic pelagic swordfish/tuna/shark, and summer flounder/scup/black sea bass fisheries. Additional formal consultations are listed in Table 2.

The Southeast shrimp trawl fishery affects more sea turtles than all other activities combined (NRC 1990). On December 2, 2002, NOAA Fisheries completed the Opinion for shrimp trawling in the southeastern United States under proposed revisions to the TED regulations (68 FR 8456, February 21, 2003). This Opinion determined that the shrimp trawl fishery under the revised TED regulations would not jeopardize the continued existence of any sea turtle species. This determination is based, in part, on the Opinion's analysis that shows the revised TED regulations are expected to reduce shrimp trawl related mortality by 94 percent for loggerheads and 97 percent for leatherbacks. Further, even under the old TED regulations, with the exception of the northern nesting population of loggerhead sea turtles, nesting for all species of sea turtles in the southeastern United States (and Rancho Nuevo, Mexico in the case of Kemp's ridleys) has been increasing. NMFS (SEFSC 2001) used population models that indicate that the northern nesting population of loggerhead sea turtles is expected to increase, with a 30 percent reduction in total mortality. The shrimp trawling Opinion is incorporated by reference and can be found at the following Web site:

http://www.nmfs.noaa.gov/prot_res/readingrm/ESAsec7/Biop_shrimp_trawling.PDF

On June 14, 2001, NOAA Fisheries issued a jeopardy opinion for the highly migratory species (HMS) fisheries off the eastern United States. The HMS Opinion found that the continued prosecution of the pelagic longline fishery in the manner described in the HMS FMP was likely to jeopardize the continued existence of loggerhead and leatherback sea turtles. This determination was made by analyzing the effects of the fishery on sea turtles in conjunction with the environmental baseline and cumulative effects (for loggerheads this determination was based on the effects on the northern nesting population). The environmental baseline section of the HMS Opinion is incorporated herein by reference and can be found at the following NOAA Fisheries Web site:

http://www.nmfs.noaa.gov/prot_res/readingrm/ESAsec7/HMS060801final.pdf

The environmental baseline for the June 14, 2001, HMS Opinion also considered the impacts from the North Carolina offshore spring monkfish gillnet fishery and the inshore fall southern flounder gillnet fishery, both of which were responsible for large numbers of sea turtle mortalities in 1999 and 2000, especially loggerhead sea turtles. However, during the 2001 season NOAA Fisheries implemented an observer program that observed 100 percent of the effort in the monkfish fishery. Then in 2002, a rule was enacted creating a seasonal monkfish gillnet closure along the Atlantic coast based upon sea surface temperature data and sea turtle migration patterns. In 2001, NOAA Fisheries also issued an ESA section 10 permit to North Carolina with mitigative measures for the southern flounder fishery. Subsequently, the sea turtle mortalities in these fisheries were drastically reduced. The reduction of sea turtle mortalities in these fisheries reduces the negative effects these fisheries have on the environmental baseline. Reinitiation of consultation for the summer flounder fishery has also begun.

NOAA Fisheries has implemented a reasonable and prudent alternative (RPA) in the HMS fishery which would allow the continuation of the pelagic longline fishery without jeopardizing the continued existence of loggerhead and leatherback sea turtles. The provisions of this RPA include the closure of the Grand Banks region off the northeastern United States and gear restrictions that are expected to reduce the bycatch of loggerheads by as much as 76 percent and of leatherbacks by as much as 65 percent. Further, NOAA Fisheries is implementing a major research project to develop measures aimed at further reducing longline bycatch. The implementation of this RPA reduces the negative effects that the HMS fishery has on the environmental baseline. The conclusions of the June 14, 2001, HMS Opinion and the subsequent implementation of the RPA are hereby incorporated into the environmental baseline section of this Opinion.

Potential adverse effects from federal vessel operations in the action area and throughout the range of sea turtles include operations of the Navy (USN) and Coast Guard (USCG), the Environmental Protection Agency, the National Oceanic and Atmospheric Administration (NOAA), and the COE. NOAA Fisheries has conducted formal consultations with the USCG, the USN, and NOAA on their vessel operations. Through the section 7 process, where applicable, NOAA Fisheries will continue to establish conservation measures for all these agency vessel operations to avoid or minimize adverse effects to listed species. At the present time, however, they present the potential for some level of interaction.

In addition to vessel operations, other military activities including training exercises and ordnance detonation also affect sea turtles and cetaceans. Consultations on individual activities have been completed, but no formal consultation on overall USCG or USN activities in any region has been completed at this time.

The construction and maintenance of federal navigation channels has also been identified as a source of sea turtle mortality. Hopper dredges move relatively rapidly (compared to sea turtle swimming speeds) and can entrain and kill sea turtles, presumably as the drag arm of the moving dredge overtakes the slower moving sea turtle. A regional biological opinion (RBO) with the COE's South Atlantic Division has been completed for the southeastern Atlantic waters. Consultation on a new RBO for the COE's Gulf of Mexico hopper dredging operations is currently underway.

The COE and the Minerals Management Service (MMS) authorize oil and gas exploration, well development, production, and abandonment/rig removal activities that also may adversely affect sea turtles. Both of these agencies have consulted with NOAA Fisheries on these types of activities. These activities include the use of seismic arrays for oil and gas exploration in the Gulf of Mexico, the impacts of which have been addressed in Opinions for individual and multi-lease sales. These impacts are expected to result from vessel strikes, noise, marine debris, and the use of explosives to remove oil and gas structures.

Another action with federal oversight (the Federal Energy Regulatory Commission and the Nuclear Regulatory Agency) which has impacts on sea turtles is the operation of electrical generating plants. Sea turtles entering coastal or inshore areas have been affected by entrainment in the cooling-water systems of electrical generating plants. Biological opinions have already been written for a number of electrical generating plants, and others are currently undergoing section 7 consultation.

Below is a table summarizing formal ESA section 7 consultations completed for federal actions taking place in the southeastern United States that affect sea turtles:

Table 2. Summary of annual incidental take levels anticipated under the incidental take statements associated with NOAA Fisheries' existing biological opinions in the US Atlantic and Gulf of Mexico.					
Federal Action	Annual Anticipated Incidental Take Level (lethal) ¹				
	Loggerhead	Leatherback	Green	Kemp's	Hawksbill
Coast Guard Vessel Operation	1(1) ²	1(1) ²	1(1) ²	1(1) ²	1(1) ²
Navy – SE Ops Area ³	91(91)	17(17) ²	16(16) ²	16(16) ²	4(4) ²
Navy-NE Ops Area	10(10)	0	1(1) ²	1(1) ²	0
Shipslock – Seawolf/Winston Churchill ⁴	276(58) ²	276(58) ²	276(58) ²	276(58) ²	276(58) ²
COE Dredging-NE Atlantic	27(27)	1(1)	6(6) ²	5(5) ²	0
COE Dredging – S. Atlantic	35(35)	0	7(7)	7(7)	2(2)
COE Dredging - N & W Gulf of Mexico	30(30)	0	8(8)	14(14)	2(2)
COE Dredging - E Gulf of Mexico	8 (8) ⁵	5(5) ⁵	5(5) ⁵	5(5) ⁵	5(5) ⁵
COE Rig Removal, Gulf of Mexico	1(1) ²	1(1) ²	1(1) ²	1(1) ²	1(1) ²

MMS Destin Dome Lease Sales	1(1) ^{2;6}	1(1) ^{2;6}	1(1) ^{2;6}	1(1) ^{2;6}	1(1) ^{2;6}
MMS Rig Removal, Gulf of Mexico	10(10) ⁷	5(5) ^{2;7}	5(5) ^{2;7}	5(5) ^{2;7}	5(5) ^{2;7}
Dolphin/Wahoo	16 ² (2) ²	16 ² (1)	2 ² (1)	2 ² (1)	2 ² (1)
NE Multispecies Sink Gillnet Fishery	10(10)	4(4)	4(4)	2(2)	0
ASMFC Lobster Plan	10 (10)	4(4)	0	0	0
Bluefish	6(3)	0	0	6(6)	
Herring	6(3)	1(1)	1(1)	1(1)	0
Mackerel, Squid, Butterfish	6(3)	1(1)	2(2)	2(2)	0
Monkfish Fishery ⁷	6(3)	1(1)	1(1)	1(1)	0
Dogfish Fishery	6(3)	1(1)	1(1)	1(1)	0
Sargassum	15(15) ⁸	1(1) ²	1(1) ²	1(1) ²	1(1) ²
Summer Flounder, Scup & Black Sea Bass	15(5)	3(3) ²	3(3) ²	3(3) ²	3(3) ²
Shrimp Fishery ⁹	163,160 (3,948)	3,090 (80)	18,757 (514)	155,503 (4,208)	NA(640) ¹³
Weakfish	20(20)	0	0	2(2)	0
HMS - Pelagic Longline Fishery ¹⁰	468(7)	358(6)	46(2)	23(1)	46(2)
HMS - Shark gillnet Fishery ¹¹	20(20)	2(2)	2(2)	2(2)	2(2)
HMS - Bottom Longline Fishery ¹¹	12(12)	2(2)	2(2)	2(2)	2(2)
NRC - St. Lucie, FL ¹²	1000 ² (10) ²	1000 ² (1)	1000 ² (10) ²	1000 ² (1)	1000 ² (1)
NRC - Brunswick, NC	50 ² (6) ²	50 ²	50 ² (3) ²	50 ² (2) ²	50 ²
NRC - Crystal River, FL	55 ² (1) ²	55 ² (1) ²	55 ² (1) ²	55 ² (1) ²	55 ² (1) ²
Total	165,386(4,348)	4,896(198)	20,254(657)	156,987(4,349)	1,457(836)

¹Anticipated Take level represents '**observed**' unless otherwise noted. Number in parenthesis represents lethal take and is a subset of the total anticipated take; numbers less than whole are rounded up.

² The anticipated take level may represent any combination of species and thus is tallied under each

column.

³ Includes Navy Operations along the Atlantic Coasts and Gulf of Mexico, Mine warfare center, Eglin AFB, Moody AFB

⁴ Total **estimated** take includes acoustic harassment

⁵ Up to 8 sea turtles total, of which, no more than 5 may be leatherbacks, greens, Kemp's or hawksbill, in combination.

⁶ Total anticipated take is 3 sea turtles of any combination over a 30-year period

⁷ Not to exceed 25 sea turtles, in total.

⁸ Anticipated take for post-hatchlings over a 5-year period

⁹ Represents **estimated** take (interactions between sea turtles and trawls). Lethal take in parentheses.

¹⁰ Represents **estimated** total take and **observed** lethal take in parentheses

¹¹ Represents **estimated** total and lethal take

¹² Annual incidental capture of up to 1,000 sea turtles, in any combination of the five species found in the action area. NOAA Fisheries anticipates 1 percent of the total number of green and loggerhead sea turtles (combined) captured (i.e., if there are 900 total green and loggerhead sea turtles captured in one year, then 9 sea turtles in any combination of greens and loggerheads are expected to be injured or killed as a result. In cases where 1 percent of the total is not a whole number, then the total allowable incidental take due to injury or death will be rounded to the next higher whole number) will be injured or killed each year over the next 10 years as a result of this incidental capture. NOAA Fisheries also anticipates two Kemp's ridley sea turtles will be killed each year and one hawksbill or leatherback sea turtle will be injured or killed every 2 years for the next 10 years.

¹³ Actual mortalities of hawksbills, as a result of sea turtle/trawl interactions, is expected to be much lower than this number. This number represents the estimated total number of mortalities of hawksbill sea turtles from all sources in areas where shrimp fishing takes place.

Smalltooth Sawfish

Regulations developed under the ESA allow for the taking of ESA-listed species for the purposes of scientific research. Prior to issuance of these authorizations for taking, the proposal must be reviewed for compliance with section 7 of the ESA. There is presently one active research permit issued for the smalltooth sawfish. The proposed permit allow researchers to capture, handle, collect tissue samples, and tag up to 60 smalltooth sawfish per year. Although the research may result in disturbance and injury of smalltooth sawfish, the activities are not expected to affect the reproduction of the individuals that are caught, nor result in mortality.

Smalltooth sawfish may infrequently be taken in various other federal fisheries involving trawl, gillnet, or bottom longline gear. Since the sawfish was only listed as endangered on April 1, 2003, NOAA Fisheries is in the process of collecting data to analyze the impacts of these fisheries and will conduct section 7 consultations as appropriate.

ii. State or Private Actions

Sea turtles

Commercial traffic and recreational pursuits can have an adverse effect on sea turtles through propeller and boat strike damage. Private vessels participate in high speed marine events concentrated in the southeastern United States and are a particular threat to sea turtles. The magnitude of these marine events is not currently known. NOAA Fisheries and the USCG (who permits these events) are in early consultation on these events, but a thorough analysis has not been completed.

Various fishing methods used in state fisheries, including trawling, pot fisheries, fly nets, and gillnets are known to cause interactions with sea turtles Georgia and South Carolina prohibit gillnets for all but the shad fishery. Florida and Texas have banned all but very small nets in state waters. Louisiana,

Mississippi, and Alabama have also placed restrictions on gillnet fisheries within state waters such that very little commercial gillnetting takes place in southeastern waters, with the exception of North Carolina. Most pot fisheries in the Southeast are prosecuted in areas frequented by sea turtles.

Smalltooth sawfish

A significant proportion of the Florida coast has been degraded by inland hydrological projects, urbanization, agricultural activities, and other anthropogenic activities such as dredging, canal development, sea wall construction, and mangrove clearing. These activities have led to the loss and degradation of smalltooth sawfish habitat and may adversely affect their recovery.

Smalltooth sawfish are known to be taken incidental to state recreational fisheries, particularly those that occur in the vicinity of the Everglades National Park. NOAA Fisheries has initiated discussions with Florida Fish and Wildlife Commission regarding the issuance of an ESA section 10 incidental take permit for such fisheries.

iii. Other Potential Sources of Impacts in the Environmental Baseline

A number of activities that may indirectly affect listed species include discharges from wastewater systems, dredging, ocean dumping and disposal, and aquaculture. The impacts from these activities are difficult to measure. Where possible, however, conservation actions are being implemented to monitor or study impacts from these elusive sources.

NOAA Fisheries and the USN have been working cooperatively to establish a policy for monitoring and managing acoustic impacts from anthropogenic sound sources in the marine environment. Acoustic impacts to sea turtles can include temporary or permanent injury, habitat exclusion, habituation, and disruption of other normal behavior patterns.

iv. Conservation and Recovery Actions Shaping the Environmental Baseline

Sea turtles

NOAA Fisheries has implemented a series of regulations aimed at reducing potential for incidental mortality of sea turtles in commercial fisheries. In particular, NOAA Fisheries has required the use of TEDs in southeast U.S. shrimp trawls since 1989 and in summer flounder trawls in the mid-Atlantic area (south of Cape Charles, Virginia) since 1992. It has been estimated that TEDs exclude 97 percent of the sea turtles caught in such trawls. These regulations have been refined over the years to ensure that TED effectiveness is maximized through proper placement and installation, configuration (*e.g.*, width of bar spacing), floatation, and more widespread use. Analyses by Epperly and Teas (2002) indicate that the minimum requirements for the escape opening dimensions were too small, and that as many as 47 percent of the loggerheads stranding annually along the Atlantic Seaboard and Gulf of Mexico were too large to fit through existing openings. On February 21, 2003, NOAA Fisheries published a final rule to require larger escape openings in TEDs used in the southeast shrimp trawl fishery (68 FR 8456, February 21, 2003). Based upon the analyses in Epperly et al. (2002), leatherback and loggerhead sea turtles will greatly benefit from the new regulations, with expected reductions of 97 percent and 94 percent, respectively, in mortality from shrimp trawling.

In 1993 (with a final rule implemented in 1995), NOAA Fisheries established a Leatherback Conservation Zone to restrict shrimp trawl activities from the coast of Cape Canaveral, Florida, to the North Carolina/Virginia border. This provided for short-term closures when high concentrations of normally pelagically-distributed leatherbacks are recorded in near coastal waters where the shrimp fleet operates. This measure was necessary because, due to their size, adult leatherbacks were larger than the escape openings of most NOAA Fisheries-approved TEDs. With the implementation of the new TED rule

requiring larger opening sizes on all TEDs, the reactive emergency closures within the Leatherback Conservation Zone are no longer necessary.

NOAA Fisheries is also working to develop a TED which can be effectively used in a type of trawl known as a fly net, which is sometimes used in the mid-Atlantic and Northeast fisheries to target sciaenids and bluefish. Limited observer data indicate that takes can be quite high in this fishery. A prototype design has been developed, and testing has been underway as of December 2002 and is still continuing as of June 2003.

In addition, NOAA Fisheries has been active in public outreach efforts to educate fishermen regarding sea turtle handling and resuscitation techniques. As well as making this information widely available to all fishermen, NOAA Fisheries recently conducted a number of workshops with longline fishermen to discuss bycatch issues including protected species, and to educate them regarding handling and release guidelines. NOAA Fisheries intends to continue these outreach efforts and hopes to reach all fishermen participating in the pelagic longline fishery over the next one to two years. There is also an extensive network of Sea Turtle Stranding and Salvage Network participants along the Atlantic and Gulf of Mexico who not only collect data on dead sea turtles, but also rescue and rehabilitate any live stranded sea turtles.

Smalltooth sawfish

State regulations restricting the use of gear known to incidentally catch smalltooth sawfish may benefit the species by reducing their incidental capture and/or mortality in these gear types. In 1994, entangling nets (including gillnets, trammel nets, and purse seines) were banned in Florida state waters. Although intended to restore the populations of inshore gamefish, this action removed possibly the greatest source of fishing mortality on smalltooth sawfish (Simpfendorfer 2002). Florida's ban of the use of shrimp trawls within three miles of the Gulf of Mexico coast and within one mile of the coast of the Atlantic Ocean may also aid recovery of this species.

Under section 4(f)(1) of the ESA, NOAA Fisheries is required to develop and implement a recovery plan for the conservation and survival of endangered and threatened species. NOAA fisheries recently convened a recovery team for smalltooth sawfish and is in the initial stages of developing a recovery plan for the species.

Mote Marine Laboratory began a research project on the conservation biology of smalltooth sawfish in 1999. Funded in part by NOAA Fisheries, the project's aim is to provide data on the current status of smalltooth sawfish and to provide scientific information on which to base effective conservation measures. The project has several components including: surveys conducted using a variety of gears, a public sightings database, acoustic tagging and tracking, and genetic analysis. Data collected are providing new information on the species' current distribution and abundance, habitat use patterns, and the impact of population decline. Computer models of smalltooth sawfish populations are also being developed to investigate the rate of change in the population and how the population will recover under different conservation strategies. In addition to these benefits, public outreach efforts to increase awareness of the database are helping to also educate the public regarding smalltooth sawfish status and handling techniques.

IV. Effects of the Action

Sea turtles can be captured as a result of the use of bottom longlines, gillnets and rod and reel/hand line fishing gear. Captured sea turtles can be released alive uninjured or can be killed as a result of the interaction. Some sea turtles that are released alive from these gears may die later as a result of the ingestion of a hook, entanglement in the gear, of the trailing of monofilament gear that was not cut away prior to release. There are detailed descriptions of effects of hooking, entanglement, and forced

submergence on sea turtles, including a detailed discussion on post release mortality in the June 19, 2001, Opinion on the Reinitiation of Consultation on the Atlantic Highly Migratory Species Fishery Management Plan and its Associated Fisheries. This information is incorporated herein by reference.

Smalltooth sawfish can also be captured as a result of the use of bottom longlines, gillnets, and rod and reel/handline. This Opinion represents the first formal consultation for this species on a federal fishery.

A. Effects of Gillnets (Drift and Strikenet)

Effects on sea turtles

Sea turtles are vulnerable to entanglement and drowning in gillnets, especially when the gear is left untended. The main risk to sea turtles from capture in gillnets is forced submergence. Entanglement in gillnets can also result in severe abrasions on entangled turtles. In 2001, NOAA Fisheries was notified by the Florida Fish and Wildlife Conservation Commission of three leatherback strandings in the area of the shark drift gillnet fishery. One stranding was an adult male with abrasions around the shoulders, consistent with entanglement in gillnet gear. A necropsy concluded that the abrasions occurred prior to death.

Effects on smalltooth sawfish

Shark drift gillnets are best described as entanglement nets rather than gillnets, since the objective is to “entangle” rather than to “gill” sharks. The long, toothed rostrum of the smalltooth sawfish causes this species to be particularly vulnerable to such gear. The saw penetrates easily through nets, causing the animal to become entangled when it attempts to escape. Such nets are believed to be the primary reason for the decline of the smalltooth sawfish. Bigelow and Schroeder (1953), who described smalltooth sawfish as “plentiful in Florida waters,” noted that they were of “considerable concern to fishermen as nuisances because of the damage they do to drift-and turtle-nets, to seines, and to shrimp trawls in which they often become entangled and because of the difficulty of disentangling them without being injured by their saws.” The toothed saw makes it very difficult to easily remove the saw with out causing mortal damage to the animal, or damaging gear. Entangled specimens frequently had to be cut free, causing extensive damage to nets and presenting a substantial hazzard if brought on board. For these reasons, smalltooth sawfish were typically killed out right or released only after removal of their saws.

Estimate of Sea Turtle Take

Estimates for sea turtle takes in the drift gillnet fishery are based upon the analysis of observer data from the NOAA Fisheries’ Southeast Fisheries Science Center. These analyses are presented in Appendix II.

Observer data gathered by the SEFSC observer program from 1999-2002 were used to estimate takes in the drift gillnet fishery. Prior to 1999, observer coverage was limited and inconsistent, but since 1999, a much higher degree of observer coverage has occurred, including very high coverage in the southern Florida area during the right whale calving season (November 15 - March 30) when sea turtle takes are known to be much more likely (Table 3, Appendix III).

Methods Used/Selected for Estimating Takes

The shark drift gillnet fishery is typically prosecuted at night with each vessel making one set per fishing day. The average soak times range between 6-10 hours, but vary widely and are often not well reported, so the unit of effort used in the analysis is individual fishing trips and not soak time or length of net. This effort data, along with observed bycatch, mortality data, and other information was then used to calculate the estimated mortality and live take for the fishery, with the exception of southern Florida data in 2001. For 2001, in the southern Florida area, the number of observed trips exceeded the reported effort.

Therefore, it was assumed that observer coverage accounted for 100 percent of the fishing effort, and thus the observed takes were recorded as the total take for that time period in that region.

Results/Extrapolated Estimates/Evaluation/Discussion

Incidental takes and mortality estimates for each year are detailed in Table 4 of Appendix III. Combining the takes from each season and area for each year, the estimated takes were as follows:

Leatherback sea turtles-

- 1999 and 2000, no takes
- 2001, 2 mortalities, 12 live takes (observed takes as explained above)
(14 total takes)
- 2002, 3.4 live takes (calculated estimate)

Loggerhead sea turtles-

- 1999, no takes
- 2000, 1 mortality, 4.4 live takes (calculated estimate)
(5.4 total takes)
- 2001, 1 live take (observed take)
- 2002, 1.7 live takes (calculated estimate)

Because of the high degree of variability in takes which is associated with variability in water temperatures, sea turtle abundances, and other factors that cannot be predicted, a 5-year estimated take will be utilized for the incidental take statement (ITS) and jeopardy analysis of this Opinion instead of a 1-year average estimated take. Over a 5-year period the expected take from the drift gillnet fishery would be as follows:

Leatherback sea turtles: 22 total captures of which 3 would be expected to be killed.

Loggerhead sea turtles: 10 total captures of which 1 would be expected to be killed.

Estimate of Smalltooth Sawfish Take

To date, only one smalltooth sawfish has been observed incidentally caught in the Atlantic shark drift gillnet fishery. On June 25, 2003, a female smalltooth sawfish, estimated to be 400 cm in total length, was incidentally caught in an observed set off southeast Florida. The set was characteristic of a typical drift gillnet set, with gear extending 30 to 40 feet deep in 50 to 60 feet of water (Carlson, pers. comm.). Prior to this event it was speculated by some that the depth at which drift gillnets are set above the sea floor may exclude smalltooth sawfish from being caught. Although sometimes described as a lethargic demersal species, smalltooth sawfish feed mostly on schooling fish and thus would occur higher in the water column during feeding activity. In fact, smalltooth sawfish and Atlantic sharks may be attracted to the same schools of fish, potentially making smalltooth sawfish quite vulnerable if present in the area fished. The previous absence of smalltooth sawfish incidental capture records is more likely attributable to the relatively low effort in this fishery and the rarity of smalltooth sawfish (especially in federal waters) resulting in little overlap of the species with the gillnet gear.

The recently observed smalltooth sawfish was cut from the net and released alive with no visible injuries. This indicates that smalltooth sawfish can be removed safely if entangled gear is sacrificed. As discussed in the proposed action, gillnets are also used to "strikenet" by targeting and encircling specific schools of sharks after visually detecting them, usually by a spotter pilot. Given the large and/or distinct morphology of smalltooth sawfish, this species would likely be detected visually, as well as distinguished from shark species, and thus avoided. This fishing method has been shown to also reduce potential encounters by limiting the time that gear is in the water. Strike gillnet sets are typically only one

to two hours in contrast to six to ten hours for each drift gillnet set. There are no observed takes of smalltooth sawfish, sea turtles, or marine mammals in strike sets.

Given the high rate of observer coverage in the shark gillnet fishery, NOAA Fisheries believes that smalltooth sawfish takes in this fishery are very rare. The fact that there were no smalltooth sawfish caught during 2001, when observer coverage reached 100 percent of the fishing effort, indicated that smalltooth sawfish takes (observed or total) most likely do not occur on an annual basis. Based on this information, NOAA Fisheries believes that one incidental capture of a smalltooth sawfish (released alive) over the next five years, will occur as a result of the use of gillnets in this fishery.

B. Bottom Longline

Effects on smalltooth sawfish

Bottom longline fisheries affect smalltooth sawfish by hooking and entanglement. Hooking location data are not available for smalltooth sawfish caught on shark bottom longlines. Based on data from hooking events in other fisheries and research surveys, however, the vast majority of smalltooth sawfish are hooked in the mouth (Simpfendorfer, pers. comm; Burgess, pers. comm; Seitz and Poulakis, pers. comm). Foul hooking (i.e., hooking in fin, near eye, etc.) reports are not nearly as frequent, but do occur occasionally. There are no reports, however, of smalltooth sawfish being deeply hooked. Once hooked, the gangion frequently becomes wrapped around the animals' saw (Burgess, pers. comm; Seitz and Poulakis, pers. comm). This may be due to slashing during the fight, from spinning on the line (like sharks sometimes do), or any other action that brings the rostrum in contact with the line.

All individuals observed in the bottom longline fishery have been very active when reaching the water's surface, and were released in apparent good health, without any noticeable damage to their rostrums. Additional information stems from research surveys conducted by Dr. Simpfendorfer of Mote Marine Laboratory, who has been undertaking surveys for smalltooth sawfish since 2000, using bottom longlines as his primary gear. He has caught and handled at least nine individuals ranging in size from 140 cm to 350 cm. All the animals were alive upon capture and released in good condition. Soak times do not seem to be a factor for smalltooth sawfish. Simpfendorfer speculates that the animal's natural habit consists of laying on the seafloor, using its spiracles to breath (Simpfendorfer, pers.com). Thorson (1982) reports that when largetooth sawfish were caught by fishermen at night or when no one was present to tag them, they were left tethered in the water with a line tied around the rostrum for several hours with no apparent harmful effects. There are no studies on the post-release mortality of smalltooth sawfish. Based on their lively condition at capture and tagging recapture data, however, NOAA Fisheries believes post-release mortality would be extremely low.

There are no observed reports of smalltooth sawfish caught in the shark bottom longline fishery damaging their rostra while fishermen are preparing to release the fish. There are reports from recreational hooking encounters where this has occurred. Smalltooth sawfish caught incidental to recreational fishing have damaged their rostra by hitting it against the vessel or other nearby objects (e.g., piling, bridge) Reported damage ranges from broken rostral teeth (which are not replaced) to broken rostrums. Since smalltooth sawfish have been caught missing their entire rostrum, but otherwise appearing healthy, smalltooth sawfish appear to be able to survive without their rostra. Given the use of their rostra in feeding activities, however, it is expected that damage to their rostra, depending on the extent, would hinder their ability to feed and thus ultimately may impact the affected animal's growth.

Effects on sea turtles

Atlantic shark bottom longline and gillnet fisheries are known to take sea turtles. Based on NOAA Fisheries' knowledge of sea turtle life history and the location of these sharks fisheries, the majority of sea turtles that would interact with Atlantic shark fisheries are juvenile, large benthic immature loggerhead and adult leatherback sea turtles. Loggerhead and leatherback sea turtles are the only species observed

incidentally caught in the shark bottom longline and drift gillnet fisheries. Available size data on incidentally caught loggerhead sea turtles indicates, most of these are large benthic immatures, with recorded sizes 75cm CL and greater. Based on our knowledge of the life history of leatherback sea turtles, we anticipate most to be subadult and adult individuals. Green, hawksbill, and Kemp's ridley sea turtles may also occur in the action area and in areas where Atlantic shark fisheries are concentrated and may also be exposed to Atlantic shark gear. Since not all sea turtles caught incidentally have been identified at the species level, it is possible that these other species have also occasionally been taken. The effects of these takes can range from being released alive to being found dead as a result of forced submergence. Some turtles released alive may subsequently die from hook ingestion, trailing gear, or injuries suffered when entangled in gear.

Estimated Sea Turtle and Smalltooth Sawfish Takes

Data Sets Available for Analysis of Takes

Several different data sets from 1994 through 2002 were used in analyzing the number of takes in the bottom longline fishery (see bycatch maps in Appendix III). The first data set was the Bottom Longline Observer data from 1994 through 2002. These data are collected and maintained by George Burgess and his staff at the University of Florida and the Museum of Natural History Observer Program. From 1994 through 2000, the observer program was a voluntary program and the observers only went on vessels that agreed to take them. Thus, the data for this time period, while the only observer data available for the fleet, was not based on a random selection process and did not cover the entire range of the fishery. However, it did cover vessels operating in the major fishing grounds off Florida and North Carolina. In 2001, the observer program became mandatory, with vessels selected randomly across areas based on historic participation patterns. The observed sea turtle and smalltooth sawfish takes reported by the observer coverage appear to be relatively low. Thus, use of these data in expanded take estimates must take into account its increased level of uncertainty because of the low number of observed takes and the overall low percentage of observer coverage (see Results section).

The second data set was self-reported data from the Gulf of Mexico reef fish, South Atlantic snapper-grouper, king and Spanish mackerel, and shark logbook. Data in this logbook are maintained in the Southeast Fisheries Science Center and are reported by fishermen for each trip. Fishermen report the gear used, the average number of hooks used for each set, the area fished (based on a grid system), and the number of days spent away from port. In order to calculate the number of hooks used per trip, we assumed fishermen would take half a day to travel to the fishing grounds and half a day to return. Thus, if fishermen were away from port for 5 days, we estimated that they made 4 sets (5 days away from port - 1 day for steaming). The number of sets was multiplied by the average number of hooks to give the total number of hooks per trip. Only trips that used bottom longline and reported landing sharks were used in the calculations below to estimate sea turtle and smalltooth sawfish takes.

The third data set was self-reported data from the HMS logbook. These data are also maintained by the Southeast Fisheries Science Center. Fishermen report the gear used, the number of hooks, the date fished, and the latitude and longitude for each set. Only sets that used bottom longline and reported keeping sharks were used in the following calculations to estimate sea turtle and smalltooth sawfish takes.

Methods Used/Selected for Estimating Takes

Estimates of take were calculated using fishery effort (i.e., number of hooks) split into two seasons (1 = January through June; 2 = July through December); this was a natural split based on the current fishing seasons. This method combines areas where there was no observed effort with areas where there was reported effort, and, thus, provides estimates for the entire fishery. The level and spatial distribution of observer coverage precluded any estimates by region (Gulf vs. Atlantic) without extrapolation to areas with no observer coverage. These extrapolations would assume sea turtles and smalltooth sawfish are distributed in the same way in areas with and without observer coverage, a questionable assumption.

Based on discussions with Dr. G. Scott of the Southeast Fisheries Science Center, the following equation was used to estimate takes in the bottom longline fishery:

Observed takes * (Number of hooks reported in logbooks/Number of observed hooks)

Confidence intervals (95 % CI) were then calculated by putting the number of sets in which takes were observed and the total number of sets observed into a worksheet found at: http://www.swogstat.org/stat/public/binomial_conf.htm. The limit number derived in this worksheet was divided into the ratio of sets with observed takes to number of sets observed. The resulting number was then multiplied by the estimated take to give a lower or an upper confidence limit:

(Number of sets with observed take/Number of sets observed)/limit number*Estimated takes

Low observed takes of sea turtles and smalltooth sawfish did not allow takes to be broken out into live or dead releases. As a result, the following take estimates reflect total take.

Results/Extrapolate Estimates

The observer program covered approximately 598,384 hooks or 1.6 percent of all hooks set in the shark bottom longline fleet between 1994 and 2002. Over that time period, four leatherback sea turtles, 31 loggerhead sea turtles, eight unidentified sea turtles, and seven smalltooth sawfish were observed caught. Table 3 contains the estimates of take each season by year for the period 1994 to 2002, along with the associated 95 percent confidence intervals.

Between 1994 and 2002, sea turtle estimated takes were: 269 leatherback sea turtles, 2003 loggerhead sea turtles, and 503 unidentified sea turtles. Annual average takes were: 30 leatherback sea turtles, 222 loggerhead sea turtles, and 56 unidentified sea turtles (Table 4).

Between 1994 and 2002, an estimated 466 smalltooth sawfish were caught, yielding an average of 52 smalltooth sawfish takes per year (Table 4). It is important to note that all the smalltooth sawfish takes observed, except for one with missing data, were released alive.

Evaluation/Discussion of Accuracy of Take Estimates

The majority of takes occur in Season 1 for all species of sea turtles. Additionally, there were no observed takes of leatherback sea turtles in Season 2. This may result in an underestimate of leatherback interactions with the fishery as leatherbacks were taken during all other seasons. In general, the small number of observed takes creates a large amount of variability around the take estimates and they should be viewed with caution.

Furthermore, this analysis only estimates takes without discriminating between live and dead releases. Of the observed sea turtle takes here, 23 percent were lethal. Precision of estimates is likely to improve with greater observer coverage. Based on this information and the numbers in Table 3, it is estimated that 51 loggerhead sea turtles (222 x 23 percent) will be killed annually as a result of an interaction with a bottom longline. The highest percentage of post-release mortality is 42 percent (NMFS 2001). This is for sea turtles that ingested the hook (the percent mortality is lower depending on how the animal was hooked). Assuming all animals ingest the hook, we estimate that 42 percent of the animals released alive will die as a result of their interaction with the bottom longline fishery which means another 72 loggerhead sea turtles (222-51=171 then 171 x 42 percent) will be killed each year. This results in a total of 123 loggerheads killed (72 + 51) per year as a result of the proposed action. Applying the same calculations for leatherbacks predicts the total number of leatherbacks killed as a result of the proposed action as 17 per year. The leatherback mortality is very conservative because it is known that leatherbacks, rarely

ingest or bite hooks, but are usually foul hooked on their flippers or carapaces, reducing the likelihood of post-hooking release mortality. However, leatherback-specific data for this fishery is not available and therefore the most conservative estimate is used to be protective of the species in evaluating the effects of the fishery. The data provides an estimate of 56 unidentified sea turtles captured per year. Given the relative abundances of the sea turtle species in the action area in documented interactions with the fishery, most of these unidentified turtles are probably loggerheads, with small numbers of greens and Kemp's ridleys. Some of these sea turtles may be hawksbills but NOAA Fisheries believes this would be rare. The June 14, 2002, Opinion included an observed incidental take of two hawksbills, two greens, and two Kemp's ridleys, and since there is no new information that would lead us to change this conclusion, the ITS of this Opinion will reflect those numbers. The rest of the unknown turtles are expected to be loggerhead turtles.

As with sea turtles, most sawfish takes occurred in Season 1 (Table 4). The high estimated takes for smalltooth sawfish appear to be the result of one set in 1997 and may not be typical of the entire fleet or fishery. Smalltooth sawfish are known to be most common within the vicinity of Everglades National Park and the Florida Keys, and become less common with increasing distance from this area. The northern limit of their current range was thought to be Florida; however the recent incidental catch of a smalltooth sawfish off Georgia indicates they may now occur slightly further north as well. The range of most bottom longline sets runs from the federal waters off the Panhandle of Florida in the Gulf of Mexico to southern Virginia in the Atlantic, with concentrations of activity off the Florida Keys, Cape Canaveral, and North Carolina. Six of the eight sawfish captures were all located off the Florida Keys, including the four caught during one set. One was reported in the Gulf of Mexico fishing grounds off Madeira Beach, and the remaining one was caught off Georgia. Because of the foregoing factors, we may be overestimating current take. Sawfish take estimates are conservative and thus protective of the species when used in a jeopardy analysis. These estimates should be revisited in the future when additional data are available.

Under current observer coverage, an observed interaction with a smalltooth sawfish is a rare event. The observer data, in combination with anecdotal information collected in databases, indicate that lethal takes may be extremely rare, but more data is needed to confirm such a finding. The estimates of lethal and non-lethal takes would be greatly improved with more observer coverage. NOAA Fisheries presently has no data to indicate that lethal takes occur. Based on this information, NOAA Fisheries expects that no smalltooth sawfish will be killed as a result of the proposed action over the next five years.

Table 3. Seasonal Take Estimates with 95 percent Confidence Interval Limits.

YEAR	SEASON	TAKE ESTIMATE	LOWER LIMIT	UPPER LIMIT
Leatherback				
1994	1	66	12	2500
	2	0	0	0
1995	1	0	0	0
	2	0	0	0
1996	1	71	13	2611
	2	0	0	0
1997	1	81	15	3117

	2	0	0	0
1998	1	0	0	0
	2	0	0	0
1999	1	0	0	0
	2	0	0	0
2000	1	0	0	0
	2	0	0	0
2001	1	51	9	2021
	2	0	0	0
2002	1	0	0	0
	2	0	0	0
Loggerhead				
1994	1	199	58	1630
	2	145	43	1194
1995	1	117	33	962
	2	82	23	685
1996	1	356	126	1703
	2	76	14	2862
1997	1	327	133	1173
	2	98	20	3762
1998	1	58	11	2263
	2	76	15	3119
1999	1	190	55	1558
	2	0	0	0
2000	1	0	0	0
	2	0	0	0
2001	1	102	29	829
	2	0	0	0
2002	1	88	17	3326

	2	92	37	329
Unidentified Sea Turtles				
1994	1	331	120	1589
	2	73	14	2686
1995	1	0	0	0
	2	41	8	1540
1996	1	0	0	0
	2	0	0	0
1997	1	0	0	0
	2	0		0
1998	1	58	11	2263
	2	0	0	0
1999	1	0	0	0
	2	0	0	0
2000	1	0	0	0
	2	0	0	0
2001	1	0	0	0
	2	0	0	0
2002	1	0	0	0
	2	0	0	0

Table 4. Average Seasonal Take From Bottom Longline Gear

Species	Season 1	Season 2	Total
Leatherback	30	0	30
Loggerhead	159	63	222
Unidentified Sea Turtles	43	13	56
Sawfish	44	8	52

C. Effects of Rod and Reel/Handline

Sea Turtles

Recreational fishermen targeting sharks generally use bait and hook. Sea turtles are known to take baited hooks. Hooked sea turtles have been reported by the public fishing from boats, piers, the beach, banks, and jetties (TEWG 2000). NOAA Fisheries has no data specifically showing, however, that sea turtles are taken by recreational anglers fishing for sharks. Most recorded sea turtle captures by recreational fishermen occur off fishing piers where sea turtles are known to congregate due to lighting and the concentration of bait. The proposed action pertains to recreational shark fishing in federal waters not from fishing piers. Based on the information above NOAA Fisheries believes that chances of a recreational shark fishermen catching a sea turtle in federal waters is discountable.

Smalltooth Sawfish

Smalltooth sawfish are known to be occasionally hooked with rod and reel and/or handline during recreational fishing. These captures occur most frequently in state waters in the vicinity of the Everglades National Park and Florida Bay, where the current population is concentrated. North of this area, the number of reported captures declines greatly. The National Park Service, Everglades National Park, monitors fishing activity and harvest in this area in part by conducting interviews with anglers and fishing guides at local boat ramps. These interviews indicate that the majority of anglers do not try to catch any particular kind of fish. Target species of the minority group that did try to catch a particular type, however, included snook, spotted sea trout, red drum, and tarpon. Thus, the vast majority of incidental smalltooth sawfish captures are not from shark fishing.

The only indication that smalltooth sawfish may be occasionally hooked by a fishermen targeting sharks stems from the Gulf Coast Shark Census (operating out of Sarasota, Florida). Between 1991 and 1999, five smalltooth sawfish were captured and released in 20,000 line hours of recreational fishing effort. The captures, however, were all from either inside the barrier islands or just offshore of barrier islands, along the southwest Florida coast between Cape Romano and Saint Petersburg, thus all within state waters.

Given the overall scarcity of smalltooth sawfish encounters in state waters where smalltooth sawfish are believed to occur in greater abundances and density, the chance of a smalltooth sawfish being encountered during recreational shark fishing in federal waters is extremely rare. The MRFFS database has no records of smalltooth sawfish capture in federal waters, let alone one during fishing targeting sharks. Therefore, NOAA Fisheries believes that the chances of a recreational shark fisherman catching a smalltooth sawfish in federal waters are discountable.

D. Effects of the Proposed Measures

The proposed regulations to reduce the LCS commercial quota from 1997-2002 levels, resulting in a 45 percent reduction, is expected to reduce fishing effort for the shark bottom longline fishery. Effort reductions are not expected in the shark gillnet fishery because it primarily targets SCS and drift gillnet fishing is no longer proposed to be eliminated. The reduction in bottom longline effort could result in a reduction in the number of sea turtle interactions. However, based on available information it is equally plausible that take levels may remain the same. Therefore, to be conservative NOAA Fisheries assumes no reduction in take of sea turtles when making its jeopardy determination. Any effort reductions will only reduce smalltooth sawfish interactions if they specifically occur in the southern fishing areas where smalltooth sawfish are known to be most abundant. Currently NOAA Fisheries cannot predict where fishing effort will be reduced; therefore, NOAA Fisheries cannot assume a reduction in sawfish take.

NOAA Fisheries F/SF1 is also proposing to implement a time/area closure in the Atlantic shark fishery off North Carolina, and require vessel monitoring systems on gillnet and bottom longline vessels. Although the time/area closure is primarily proposed to reduce the bycatch of prohibited species such as the dusky shark, it may have the added benefit of reducing sea turtle interactions. This depends, however, on how much effort reduction actually results from this action. Most bottom longline fishermen tend to fish close to their home port, so if redistribution of effort occurs as a result of the closure, the effort could

be expected to stay the same and to redistribute to areas adjacent to or seaward of the closure. Sea turtle interactions may occur in these areas as well; thus, reduced sea turtle interactions may not be realized if effort merely redistributes. The proposed time/area closure occurs north of where smalltooth sawfish occur, thus it will provide no benefit to smalltooth sawfish. Conversely, should effort redistribute to the southern fishing grounds, smalltooth sawfish interactions could potentially increase as a result of the time/area closure. Based on the expected area of any effort redistributions, however, NOAA Fisheries believes the time area closure will have no effects on smalltooth sawfish interactions.

A requirement to have VMS on directed shark gillnet and bottom longlining vessels is proposed as a measure to aid NOAA in enforcing the time/area closure. Additionally, this proposed measure could lead to improvements in effort data in this area that is used in estimating takes.

NOAA Fisheries is not proposing to reduce the recreational bag limit on sharks but is proposing to increase compliance with the existing regulations. Because NOAA Fisheries implemented an HMS angling permit in March 2003, NOAA Fisheries is proposing to restrict the authorized gear in the recreational fishery to handline and rod and reel. Post-release mortality of these gear types is lower than that of traditional commercial gears such as bottom longline or gillnet. However, since these gears are presently not used in recreational fishing, little benefit to sea turtles and smalltooth sawfish is expected.

Some of the proposed regulations were specifically designed with the intent to reduce, to the extent practicable, bycatch and bycatch mortality of sea turtles and marine mammals. These alternatives include; requiring the use of corrodible hooks, dehooking devices (once a dehooking device is approved), dipnets, and line cutters on bottom longline vessels (similar to the requirements for pelagic longline vessels); and requiring bottom longline vessels to move 1 nm after an interaction with a protected species (also similar to the requirement for pelagic longliners). These measures proposed in the FMP amendment are expected to have a positive impact on protected species. Non-stainless steel corrodible hooks are proposed for the directed shark bottom longline fishery which will minimize impacts to sea turtles and smalltooth sawfish if they are accidentally hooked. Dehooking equipment designed to safely release incidentally caught sea turtles is also being proposed.

V. Cumulative Effects

Cumulative effects are the effects of future state, local, or private activities that are reasonably certain to occur within the action area considered in this Opinion. Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA.

Within the action area, major future changes are not anticipated in the ongoing human activities described in the environmental baseline. The present, major human uses of the action area—commercial and recreational fishing (that affect sea turtles and smalltooth sawfish) and recreational beach use and boating (that affect sea turtles)—are expected to continue at the present levels of intensity in the near future. State-regulated commercial and recreational fishing activities in Atlantic Ocean and Gulf of Mexico waters currently result in the incidental take of threatened and endangered species. It is expected that states will continue to license/permit large vessel and thrill-craft operations which do not fall under the purview of a federal agency, and issue regulations that will affect fishery activities. Any increase in recreational vessel activity to include fishing in inshore and offshore waters of the Gulf of Mexico and Atlantic Ocean will likely increase the number of sea turtles and smalltooth sawfish taken by injury or mortality in vessel collisions (in the case of sea turtles). Recreational hook-and-line fisheries have been known to target and lethally take sea turtles and smalltooth sawfish in state waters. Future cooperation between NOAA Fisheries and the states on these issues should help decrease take of sea turtles and smalltooth sawfish caused by recreational activities. NOAA Fisheries will continue to work with coastal

states to develop and refine ESA section 6 agreements and section 10 permits to enhance programs to quantify and mitigate these takes.

Beachfront development, lighting, and beach erosion control are ongoing activities along the Atlantic and Gulf coasts. These activities potentially reduce or degrade sea turtle nesting habitats or interfere with hatchling movement to sea. Nocturnal human activities along nesting beaches may also discourage sea turtles from nesting sites. The extent to which these activities reduce sea turtle nesting and hatchling production is unknown. However, as conservation awareness spreads, more and more coastal cities and counties are adopting more stringent measures to protect hatchling sea turtles from the disorienting effects of beach lighting.

VI. Conclusion

Sea Turtles

The number of sea turtles estimated to be taken over the next 5 years as a result of the proposed action are listed in the tables below in the ITS. These represent a small increase in the total numbers of turtles taken by federal actions detailed in Table 2 in the Environmental Baseline section of this Opinion.

With the exception of the northern nesting population of loggerheads, nesting for loggerheads, Kemp's ridley, green, and leatherback sea turtles has been increasing or remaining stable in the southeastern United States and Rancho Nuevo, Mexico (in the case of Kemp's ridleys). These population increases have occurred despite the take levels associated with this fishery. Amendment 1 is not expected to significantly change this fishery's effects on sea turtles (it most likely will decrease the number of lethal takes to an undetermined level as described above). Based on information presented in the Environmental Baseline section of this Opinion and the analysis in the December 2, 2002, Opinion on the shrimp fishery (for which the entire HMS fishery was part of the baseline) the increase in TED opening sizes associated with the final TED rule, published in the *Federal Register* on February 21, 2003 (68 FR 8456), is expected to allow the northern nesting population of loggerheads, as well as the other sea turtle populations to increase given a large decrease expected in loggerhead mortality. Therefore, NOAA Fisheries believes that the effects of the proposed action are not likely to appreciably reduce either the survival or recovery of loggerheads, Kemp's ridley, green, hawksbill or leatherback sea turtles in the wild by reducing their reproduction, numbers, or distribution. In particular, NOAA Fisheries determined that it does not expect activities associated with the proposed action, when added to ongoing activities affecting these species in the action area (see Table 2) and the cumulative effects (Section V), to affect sea turtles in a way that reduces the number of animals born in a particular year (i.e., a specific age-class), the reproductive success of adult sea turtles, or the number of young sea turtles that annually recruit into the adult breeding population, because as stated above, turtle populations in the area affected by the proposed action have been or are expected to begin increasing even with take levels in the shark fishery. Based on these facts, NOAA Fisheries believes that the proposed action is not likely to jeopardize the continued existence of the endangered Kemp's ridley, green, hawksbill, and leatherback sea turtles, and the threatened loggerhead sea turtle. Critical habitat has not been designated for these species in the action area; therefore, none will be affected.

Smalltooth sawfish

The number of smalltooth sawfish estimated to be taken over the next 5 years as a result of the proposed action are listed in the tables below in the ITS (which includes no lethal take). Although Atlantic shark fisheries would result in the temporary disturbance of behavior and short term injury in the case of bottom longline hooking of smalltooth sawfish, based on available information, the activities are not expected to affect the reproduction of the individuals that are caught, nor result in mortality. Based on this information, Atlantic Shark fisheries would not affect the reproduction, numbers, or distribution of wild populations of smalltooth sawfish. Therefore, the proposed action will not reduce the smalltooth sawfish

population's likelihood of surviving and recovering in the wild. Thus, NOAA Fisheries believes that the proposed action is not likely to jeopardize the continued existence of smalltooth sawfish.

VII. Incidental Take Statement

Anticipated Amount or Extent of Incidental Take

Based on observer data, observed and self-reported effort data, and the distribution and density of sea turtles in the action area, NOAA Fisheries anticipates that the continued prosecution of the Atlantic shark fisheries under the HMS FMP, including implementation of Amendment 1 as proposed may result in take. Currently available information on the relationship between sea turtles and smalltooth sawfish and the Atlantic shark fishery indicates that capture, injury and/or death of sea turtles and smalltooth sawfish is likely to occur. Therefore, pursuant to section 7(b)(4) of the ESA, NOAA Fisheries anticipates an actual 5-year total incidental take for the Atlantic shark fishery of:

- **172 leatherback sea turtles of which 88 will be lethal.**
- **1370 (1120 + 250 of the expected 280 unidentified, which are most likely loggerhead sea turtles) loggerhead sea turtles of which 755 will be lethal.**
- **30 total in any combination of hawksbill, green, and Kemp's ridley sea turtles (remaining 30 of the expected 280 unidentified), with 5 lethal takes per species.**
- **261 smalltooth sawfish, of which no lethal takes are expected.**

The above take estimates can be further broken down by gear type. These limits represent the number of total estimated takes, based on observed takes, extrapolated across total effort levels for this fishery. Each gear type must be considered independently, and **if the actual calculated incidental captures or mortalities exceed the amount estimated below for a gear type, NOAA Fisheries F/SF1 must immediately reinitiate formal consultation for that gear type.** The take estimates by gear type are as follows:

Bottom Longline Gear

Species	Total Takes (5-year)	Mortalities (5-year)
loggerhead sea turtle	1360	754
leatherback sea turtle	150	85
other sea turtle species (green, Kemp's ridley, or hawksbill)	30 (combined for all species)	5 (5 per species)
smalltooth sawfish	260	0

Drift Gillnet Gear

Species	Total Takes (5-year)	Mortalities (5-year)
loggerhead sea turtle	10	1
leatherback sea turtle	22	3
smalltooth sawfish	1	0

Effect of the Take

In the accompanying Opinion, NOAA Fisheries determined that this level of anticipated take is not likely to jeopardize the continued existence of the endangered green, leatherback, and Kemp's ridley sea turtles, the endangered smalltooth sawfish or the threatened loggerhead sea turtle.

Reasonable and Prudent Measures (RPM)

F/SF1 must implement the proposed action as described or reinitiation of consultation will be necessary (see section VIII, Reinitiation of Consultation). Takings of listed species are only exempt from the prohibitions of the ESA if they are consistent with legal implementation of the HMS FMP as proposed and the terms and conditions specified below.

In addition to the proposed and existing bycatch reduction measures contained in the proposed action, NOAA Fisheries F/PR has determined that the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of sea turtles and smalltooth sawfish in the Atlantic shark fishery:

21. NOAA Fisheries F/SF1 shall implement or fund outreach programs for shark fishers aimed at reducing the potential for serious injury or mortality of hooked sea turtles and smalltooth sawfish.
22. NOAA Fisheries F/SF1 shall ensure that monitoring of Atlantic shark fisheries will: (1) estimate the total effort levels in this fishery in order to provide accurate estimates of sea turtle and smalltooth sawfish bycatch; (2) detect adverse effects resulting from these fisheries; (3) assess the actual level of incidental take in comparison with the anticipated incidental take specified in this opinion; (4) detect when the level of anticipated incidental take is exceeded; (5) collect improved data from each protected species encountered; and (6) determine the effectiveness of reasonable and prudent measures and their implementing terms and conditions.
23. NOAA Fisheries F/SF1 shall require fishermen to handle protected species taken during fishing in such a way as to increase their chances of survival.

Terms and Conditions

In order to be exempt from liability for take prohibited by section 9 of the ESA, NOAA Fisheries F/SF1 must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

Terms and Conditions Relating to RPM 1

1. *Fisherman Outreach.* The June 2001 Opinion required that NOAA Fisheries F/SF1 must finance, and work with the Northeast and Southeast Regions and F/PR in developing and supporting an outreach program to be implemented by a Protected Species Outreach Coordinator. Outreach efforts were to include dockside fisher education patterned after the Northeast Region's ALWTRP outreach program, including production and distribution of outreach materials, staff assistance/expertise as needed in development of outreach materials, and education. Development of an approach was to be conducted, in consultation with F/PR and the Northeast and Southeast Regions, by December 31, 2001. Because smalltooth sawfish were just listed on April 1, 2003, these outreach efforts must be changed to include information on smalltooth sawfish.
 - a. For the Atlantic shark fisheries, NOAA Fisheries F/SF1 must implement a series of workshops or other training programs that at a minimum provide information regarding gear handling techniques and protocols that deal with entanglements and protected species in general, information on smalltooth sawfish, and information on the requirements of Amendment 1. These

workshops should concentrate on ways to reduce the potential for serious injury or mortality should incidental capture via hooking or entanglement occur. Recommendations from the ALWTRP should be followed in the development of these programs. F/SF1 must notify F/SER3, by April 1, 2004 of its intended approach and provide a timetable. The outreach program must be operational by December 1, 2004.

Terms and Conditions Relating to RPM 2

1. NOAA Fisheries F/SF1 must continue to implement an observer program at current or higher levels, or ensure that financial support is provided to fund an external program such as the one in existence currently, to monitor incidental takes of listed species in the Atlantic shark fisheries.
 - b. Observer coverage is required and shall be sufficient to produce statistically reliable results to evaluate the impact of the fishery on sea turtles and smalltooth sawfish, including appropriate seasonal and area coverage. Observers will collect information to: (i) facilitate the understanding of the dynamics of the interaction with sea turtles and smalltooth sawfish; (ii) evaluate possible relationships between gear type/fishing strategies and sea turtle and smalltooth sawfish interactions; (iii) better understand the population structure, status, and life history of sea turtles and smalltooth sawfish incidentally taken by the fishery, and (iv) to better determine actual effort levels.
3. NOAA Fisheries F/SF1 observers must record information on the condition of sea turtles, smalltooth sawfish, and marine mammals when released, as well as describe in detail the interaction with the gear (e.g., for longline interactions: whether hooked or entangled; where, and to what extent; whether hooks and lines are removed; and how much gear remains on the animal). Photographs must be taken to confirm species identity and release condition. Collection of these data are critical to accurately monitor incidental take levels and assess mortality levels of sea turtles and smalltooth sawfish in this fishery. NOAA Fisheries must ensure that when protected species are taken, dealing with each animal (e.g., resuscitating, tagging/scanning for tags, collecting a full suite of samples and releasing, etc.) must be the observer's sole priority.
4. A report must be submitted to and received by PR, the Southeast Region, and SF for each fishing season (i.e., semester in 2004, trimesters starting 2005) before any fishing can start in the following season.
 - a. The report must provide the following information on each observed sea turtle and smalltooth sawfish take: species, date and location of interaction, target catch, tag identification (if appropriate), and whether photographs or genetic samples were taken.
 - b. This report must also include data on the condition of each individual sea turtle and smalltooth sawfish, in order to obtain better data on the level of impact that this fishery may be having with respect to post-release survival. These data should include information on where the animal was hooked or otherwise entangled, depths of imbedded hooks, and actual written comments by the observers. In this regard, observer data coordinators must consult with F/PR and Northeast and Southeast Regions and Centers to ensure data collected is sufficient in detail to accomplish this goal.
 - c. The report must also estimate the total take in the fishery based on effort and the observed takes. If the estimated take of sea turtles and smalltooth sawfish is unusably high, (because take is issued for a five year period unusually high take for any one season would be anything greater than about 1/10 of the estimated take listed above) the report must include an analysis of the

possible reasons for the higher than expected level of take and weather or not this level of take represents new information that requires a reinitiation of this consultation.

- d. These reports must be forwarded to the Assistant Regional Administrator for Protected Resources, Southeast Regional Office, Protected Resources Division, 9721 Executive Center Drive North, St. Petersburg, Florida 33702.
5. Observers must report any sea turtle take and/or high densities of jellyfish within 24 hours to the SEFSC Observer Program Coordinator, who in turn must provide this information to the Southeast Region, F/PR and F/SF.
6. NOAA Fisheries must continue to ensure that observers associated with the Atlantic shark fisheries collect tissue samples from sea turtles caught in the fisheries and ensure that these tissue samples are analyzed to determine the genetic identity of individual sea turtles caught in the fishery. To fulfill this requirement, NOAA Fisheries must ensure that observers associated with the Atlantic fisheries are equipped with the tools, supplies, training, and instructions to collect and store tissue samples and that the SEFSC is funded to analyze those samples.
7. NOAA Fisheries must analyze the possibility of requiring the use of VMS in all areas during all times for the Atlantic shark fishery. This analysis must be sent to the Assistant Regional Administrator for Protected Resources, Southeast Regional Office, Protected Resources Division, 9721 Executive Center Drive North, St. Petersburg, Florida 33702 and is due to by December 2004.
8. NOAA Fisheries must implement special smalltooth sawfish reporting procedures to be followed by fishermen:
 - a. For 2004, all smalltooth sawfish encountered must be reported in the logbook required in the space allotted for listing "other species caught."
 - b. NOAA Fisheries must add smalltooth sawfish to the species listed on 2005 logbooks (Pelagic and Coastal Pelagics) and maintain it thereafter.
 - c. For any smalltooth sawfish caught the following information must be recorded: date, time, exact location (GPS reading) of the encounter, habitat type (sand, mud etc.) water depth, weather conditions (wind, cloud cover, temp) sea conditions (e.g., wave height, water clarity, temperature), estimated total length and saw length, whether or not tags were present, the tag number if available, the location and type of tag if the number is not available.
 - d. For 2004, NOAA Fisheries must encourage fishermen to report any smalltooth sawfish encounters to Mote Marine Laboratory by distributing information regarding the smalltooth sawfish sightings database and reporting program.

Terms and Conditions Relating to RPM 3

1. NOAA Fisheries must require that captured smalltooth sawfish be handled in such a way as to increase their chances of survival. All fishermen participating in this fishery must be notified of the following procedures.
 - a. For the safety of both the animals and the fishermen, all smalltooth sawfish caught must be left in the water. The fishing vessel should maintain a minimum speed in order to immobilize the smalltooth sawfish while maintaining water flow over the gills. The animal should be inspected for tags and any tag recorded. Length of the animal should be estimated. Removing the hook

with de-hookers should not be attempted. Instead, the line should be cut as close to the hook as possible.

2. NOAA Fisheries must continue to distribute appropriate sea turtle resuscitation and handling techniques found in 50 CFR part 223.206(d)(1-5), to all fishermen participating in this fishery. All fishermen must have the following gridlines posted on their vessels.
 - a. Resuscitation must be attempted on sea turtles that are comatose or inactive by:
 - i. Placing the sea turtle on its bottom shell (plastron) so that the sea turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 to 24 hours. The amount of elevation depends on the size of the sea turtle; greater elevations are needed for larger sea turtles. Periodically, rock the sea turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.
 - ii. Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a sea turtle moist.
 - iii. Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be returned to the water in the same manner as that for actively moving sea turtles.
 - iv. A sea turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise, the sea turtle is determined to be comatose or inactive and resuscitation attempts are necessary.
 - v. Any sea turtle so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

Conservation Recommendations

Section 7(a)(1) of the ESA directs federal agencies to utilize their authority to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The following additional measures are recommended regarding incidental take and marine mammal, sea turtle, and smalltooth sawfish conservation:

In order for F/SER3 to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, F/SER3 requests notification of the implementation of any conservation recommendations.

Smalltooth sawfish:

1. The greatest number of interactions between bottom longline and smalltooth sawfish occur in the vicinity of the Florida Keys, where fishing occurs nearest areas where smalltooth sawfish are known

to occur in the greatest concentration. NOAA Fisheries should consider taking additional action to reduce fishery interactions in this area.

2. NOAA Fisheries should conduct or fund research on the distribution, abundance and migratory behavior of smalltooth sawfish to better understand their occurrence in federal waters.
3. NOAA Fisheries should also conduct or fund reproductive behavioral studies to ensure that the incidental capture of smalltooth sawfish in Atlantic shark fisheries is not disrupting any such activities

Sea Turtles:

4. Sea turtle mitigation techniques found to be successful at reducing sea turtle interactions rates with pelagic longline gear in the western Atlantic Northeast distant waters experiments should be evaluated for their potential use and tested for their effectiveness in reducing sea turtle interactions rates in bottom longline fisheries.
2. NOAA Fisheries, in cooperation with federal and non-federal researchers should conduct additional studies to develop and evaluate fishing gear modifications and tactics to reduce the likelihood of interactions between fishing gear and sea turtles and reduce immediate and delayed mortality rates of sea turtles captured in bottom longline fisheries (e.g., visual or acoustic cues, dyed bait, hook type). Research funded or implemented by NOAA Fisheries must receive a research and enhancement permit pursuant to section 10(a)(1)(a) of the ESA. NOAA Fisheries shall conduct section 7 analyses on the issuance of any such permits. The goal of any research shall be to use robust experimental assessments to develop technologies or methods that would achieve the goals outlined in the preceding paragraph and remain economically and technically feasible for fishermen to implement.

VIII. Reinitiation of Consultation

This concludes formal consultation on Atlantic shark fisheries, as authorized under the HMS FMP and as proposed to be amended. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of the taking specified in the incidental take statement is exceeded; (2) new information reveals effects of the action that may affect listed species or critical habitat (when designated) in a manner or to an extent not previously considered; (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion; (4) a new species is listed or critical habitat designated that may be affected by the identified action; or (5) after five years from the date of this Opinion. In instances where the amount or extent of incidental take is exceeded, F/SF1 must immediately request reinitiation of formal consultation.

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**Endangered Species Act - Section 7 Consultation
Biological Opinion**

Action Agency: National Marine Fisheries Service, Office of Sustainable Fisheries,
Highly Migratory Species Division

Activity: Reinitiation of Consultation on the Atlantic Highly Migratory
Species Fishery Management Plan and its Associated Fisheries

Consulting Agency: National Marine Fisheries Service, Office of Protected Resources,
Endangered Species Division

Approved by:

Don Kunkle

Date Issued:

JUN 14 2001

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Section 7(a)(2) of the Endangered Species Act (ESA) (16 U.S.C. § 1531 *et seq.*) requires that each federal agency shall ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. When the action of a federal agency may affect a protected species, that agency is required to consult with either the National Marine Fisheries Service (NMFS) or the U.S. Fish and Wildlife Service, depending upon the protected species that may be affected. In this instance, NMFS has dual responsibilities under the Magnuson-Stevenson Fishery Conservation and Management Act (MSA) and ESA, respectively.

The NMFS Highly Migratory Species Division, Office of Sustainable Fisheries’s proposal to authorize fisheries under the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP) and Amendment 1 to the Atlantic Billfish FMP places them in the role of “action agency;” while NMFS’ Endangered Species Division, Office of Protected Resources is NMFS’ “consulting agency”. This biological opinion has been prepared by NMFS’ Office of Protected Species and Southeast Regional Office, Protected Resources Division. This document constitutes the NMFS’ biological opinion (Opinion) based on review of NMFS’ HMS FMP and Amendment 1 to the Billfish FMP and their effects on threatened and endangered marine mammals and sea turtles in accordance with section 7 of the ESA.

This Opinion is based on information provided in the June 30, 2000, Opinion; March 8, 2001, draft Opinion prepared by NMFS Endangered Species Division, Southwest Region, on authorization of Western Pacific Region pelagic fisheries under the FMP for the Pelagic Fisheries of the Western Pacific Regions; bycatch data analyses conducted by the NMFS Southeast Fisheries Science Center (SEFSC); recent sea turtle satellite tagging studies conducted by the NMFS Honolulu Laboratory in Hawaii and contract researchers in the Azores; recent (February 2001) stock assessments of loggerhead and leatherback sea turtles including an assessment of the impact of the pelagic longline fishery on the loggerhead and leatherback sea turtles of the Western North Atlantic, conducted by the NMFS Southeast Fisheries Science Center (NMFS 2001); recent NMFS - industry longline gear workshops and NMFS expert working group meeting held to review and discuss methods to minimize sea turtle - longline fishery interactions; the May 28, 1999, final regulations for the HMS fishery (64 FR 29090) which established a Northeast U.S. Closed Area (closed June 1-June 30 annually); the June 14, 2000 “Final Supplemental Environmental Impact Statement on the Regulatory Amendment to the Atlantic Tunas, Swordfish, and Sharks Fishery Management Plan”; the draft Technical Memorandum “Using Time and Area Closures to Minimize Incidental Catch and Bycatch in U.S. Atlantic Pelagic Longline Fisheries;” the August 1, 2000, Final Rule

on Atlantic Highly Migratory Species Pelagic Longline Management (65 FR 47214) that prohibits pelagic longline fishing in certain areas including the DeSoto Canyon in the Gulf of Mexico, Charleston Bump and the East Coast of Florida at certain times; the September 27, 2000 “Environmental Assessment and Regulatory Impact Review for an Emergency Rule to Reduce Bycatch and Bycatch Mortality in the Atlantic Pelagic Longline Fishery;” the October 13, 2000, emergency regulations which closed an L-shape portion of the Northeast Distant Statistical Sampling Area (NED) from October 10, 2000, through April 9, 2001 (65 FR 60889); the February 5, 2001, technical amendment redefining the East Coast Florida and Charleston Bump closed areas and delaying the effectiveness date to March 1, 2001 (66 FR 8903); a February 16, 2001 decision memorandum on mortality of sea turtles in pelagic longline fisheries; a review of Spanish swordfish longline fishery - sea turtle interactions in the Mediterranean; communications with Spanish and Italian sea turtle - longline fishery researchers; telephone conversations with NMFS' Office of Sustainable Fisheries, Highly Migratory Species staff; meetings between the Highly Migratory Species staff and the Protected Species staff; and other sources of information. A complete administrative record of this consultation is on file in NMFS' Southeast Regional Office in St. Petersburg, Florida.

1.0 CONSULTATION HISTORY

Previous consultations. For almost two decades, fisheries targeting Highly Migratory Species have undergone many formal and informal section 7 consultations. The consultations are summarized in the June 30, 2000, Opinion and have collectively covered all components of the Atlantic pelagic fishery, including the pelagic driftnet, drift gillnet, pelagic longline, bottom longline, purse seine, and hand gear (hook and line, handline, and harpoon) in the western Atlantic, Caribbean, and Gulf of Mexico.

On September 7, 2000, NMFS' Office of Sustainable Fisheries asked the Office of Protected Resources to reinitiate consultation on the HMS fisheries, citing the need for further analyses of observer data, estimates of sea turtle mortalities from longline hook ingestion, satellite tagging data from “lightly” hooked and “deeply” hooked sea turtles, and additional population modeling of loggerhead and leatherback sea turtles to more precisely determine the impact of the pelagic longline fishery on sea turtles. On September 7, 2000, NMFS' Office of Protected Resources re-initiated consultation on all the HMS fisheries.

On November 1, 2000, the year-round closure for the DeSoto Canyon area went into effect. On March 1, 2001, the Charleston Bump area closure (February 1 - April 30) and the year-round East Florida Coast area closure, which had been scheduled for February 1, 2001, went into effect.

Implementation of the proposed VMS requirement for Atlantic pelagic longline fishing has been delayed indefinitely as a result of a September 25, 2000, decision by the U.S. District Court of the District of Columbia that the NMFS “reconsider its implementation.” On January 10, 2001, NMFS issued a notice requesting additional comments on the requirement with respect to the court decision. The comment period closed February 8, 2001.

The emergency rule requiring the use of dipnets and line clippers meeting NMFS design and specification criteria to remove entangling fishing gear and reduce post-release mortality of captured sea turtles, and allowing the Atlantic pelagic longline fishery to continue operating pending issuance of the present Opinion, expired April 9, 2001. NMFS implemented an interim final rule to extend these requirements indefinitely effective April 10, 2001, so there will be no lapse in dipnet/line cutter requirements (See 66 FR 17370, March 30, 2001).

On January 17-18, 2001, NMFS hosted a technical gear/longline fishery/sea turtle interaction workshop in Silver Spring, MD, which was attended by NMFS biologists and gear experts, pelagic longline fishermen and swordfish vessel captains, and representatives of the Blue Water Fishermen's Association and NGO representatives. A previous, similar 2-day NMFS internal workshop was held in Miami, FL on August 31-September 1, 1999, and a working group on reducing turtle bycatch in the Hawaii longline fishery met in Los Angeles, CA on September 12-13, 2000.

NMFS is currently drafting a proposed rule and request for comments to amend the regulations protecting sea turtles to enhance their effectiveness in reducing sea turtle mortality resulting from shrimp trawling in the Atlantic and Gulf Areas of the southeastern United States. NMFS intends to publish a proposed rule in the *Federal Register* during summer 2001. A final rule could be in place soon thereafter. These proposed changes to existing Turtle Excluder Device (TED) regulations are designed to strengthen conservation measures required in the shrimp fishery and include a proposal to increase the minimum size of the TED opening. Current TED openings may be allowing continued high incidental take of large loggerhead, green, and leatherback turtles. Since this means that a proportion of the pre-reproductive and reproductive turtles are not being excluded, it may preclude most of the benefits gained from excluding small juveniles.

During the reconsultation process on the June 30, 2000, Opinion on the HMS fisheries, the shark drift gillnet fishery component exceeded its incidental take of leatherback sea turtles authorized by the June 30 Opinion. Reconsultation on the shark drift gillnet fishery is incorporated into the present Opinion. The shark drift gillnet fishery was subsequently closed by emergency rule on March 9, 2001 through April 9, 2001 (66 FR 15045, March 15, 2001), and the large coastal shark season closed on March 24, 2001, before the fishery was allowed to reopen.

2.0 DESCRIPTION OF THE PROPOSED ACTION

NMFS's Office of Sustainable Fisheries proposes to continue implementing the HMS FMP, as amended by HMS FMP regulatory amendment (15 CFR Part 902 and 50 CFR Part 285 *et al.*), and Amendment 1 to the Atlantic Billfish FMP. This Opinion considers the effects of NMFS' continued authorization of fisheries under the HMS FMP and Billfish FMP as considered in the June 30, 2000, Opinion; implementation of the August 1, 2000, final rule; the October 13, 2000, emergency rule on the HMS longline fishery; the proposed rule (in preparation) to amend the regulations protecting sea turtles from shrimp trawling; the March 30, 2001 interim final rule requiring pelagic longline vessels to carry and use line clippers and dipnets and to reduce the level of observer coverage outside the right whale calving season from 100% to 53%.

NMFS' Office of Sustainable Fisheries proposes to take this action under the authority of the MSA; 16 U.S.C. 1801 *et seq.* The MSA is the principal federal statute governing the management of U.S. marine fisheries. The management unit covered under the Atlantic HMS FMP consists of the populations of North Atlantic swordfish (*Xiphias gladius*) north of 5°N; western Atlantic bluefin tuna (*Thunnus thynnus*) west of a line that follows 45°W longitude from Greenland to 10°N, then to the southeast to 25°W at the equator, and then south along 25°W; Atlantic yellowfin tuna (*T. albacares*); Atlantic bigeye tuna (*T. obesus*); north Atlantic albacore tuna (*T. alalunga*) north of 5°N; west Atlantic skipjack tuna (*Katsuwonus pelamis*); and the species of sharks that inhabit the western North Atlantic Ocean. The management unit, and fishing activity for these species, extend across federal, and in some cases, state and international jurisdictional boundaries. The management units covered under the Billfish FMP include Atlantic blue marlin and white marlin, west Atlantic sailfish in the North and South Atlantic Ocean west of

30°W longitude, and longbill spearfish in the entire Atlantic Ocean. In the Gulf of Mexico and Caribbean Sea, these fish are also covered under the Billfish FMP.

The stated purpose of the Atlantic HMS FMP and Atlantic Billfish FMP is to maximize the net benefits of the fisheries to the region and the nation. Some of the objectives stated in the FMPs are summarized as follows:

- to rebuild overfished stocks
- avoid and reduce bycatch and bycatch mortality
- establish a foundation for international negotiation on conservation and management measures to rebuild overfished fisheries
- better coordinate domestic conservation and management of the fisheries for Atlantic tunas, swordfish, sharks, billfish, considering the multispecies nature of many HMS fisheries, overlapping regional and individual participation, international management concerns, and other relevant factors
- to develop eligibility criteria for participation in the shark and swordfish fisheries based on historical participation, including access for traditional swordfish handgear fishermen to participate fully as the stock recovers (Atlantic HMS FMP only), and
- to create a management system to make fleet capacity commensurate with resource status so as to achieve the dual goals of economic efficiency and biological conservation (Atlantic HMS FMP only).

Refer to the Final HMS FMP Volumes I, II, and III (April 1999), 15 CFR Part 902 and 50 CFR Part 635 *et al.*, and Amendment 1 to the Atlantic Billfish Fishery Management Plan (April 1999) for a complete description.

2.1 HMS FMP and Billfish FMP: Gear Types and Associated Management measures

2.1.1 HMS FMP Management Measures

The HMS FMP manages the following gear types: pelagic longline, bottom longline, gillnet, harpoon, purse seine, rod and reel, bandit gear and handline. (See 50 CFR 600.725 for allowable gear types in HMS fisheries.) For certain species, the FMP establishes minimize sizes and quotas, requires observers on fishing vessels and permits for certain time periods or gear. The gear prohibitions and fishing years established by the FMP are listed in Table 1. Also see Figure 1 for HMS time/area closures.

Table 1.			
Fishery	Gear Prohibitions	Time/Area Closure	Fishing Year
Tuna	driftnet gear is prohibited	North mid-Atlantic for pelagic longlines in June (1x6 degree block: 39 to 40°N, 68 to 74°W)	June 1 to May 31
Swordfish	driftnet gear is prohibited	Not Implemented	June 1 to May 31
Sharks	Gillnet gear prohibited unless a NMFS-approved observer is on board; harpoon gear is prohibited	None	January 1 to December 31

In addition to the previously mentioned measures in the FMP, there are a number of other actions that affect the closure of areas to fishing. There is a regulatory amendment to the FMP to reduce bycatch and bycatch mortality from the longline fishery and there are two take reduction plans for marine mammals which affect HMS fisheries - the Atlantic Large Whale Take Reduction Plan (ALWTRP), which was implemented via a rule published February 16, 1999 (64 FR 7529) and the Atlantic Offshore Cetacean Take Reduction Plan (AOCTRP).

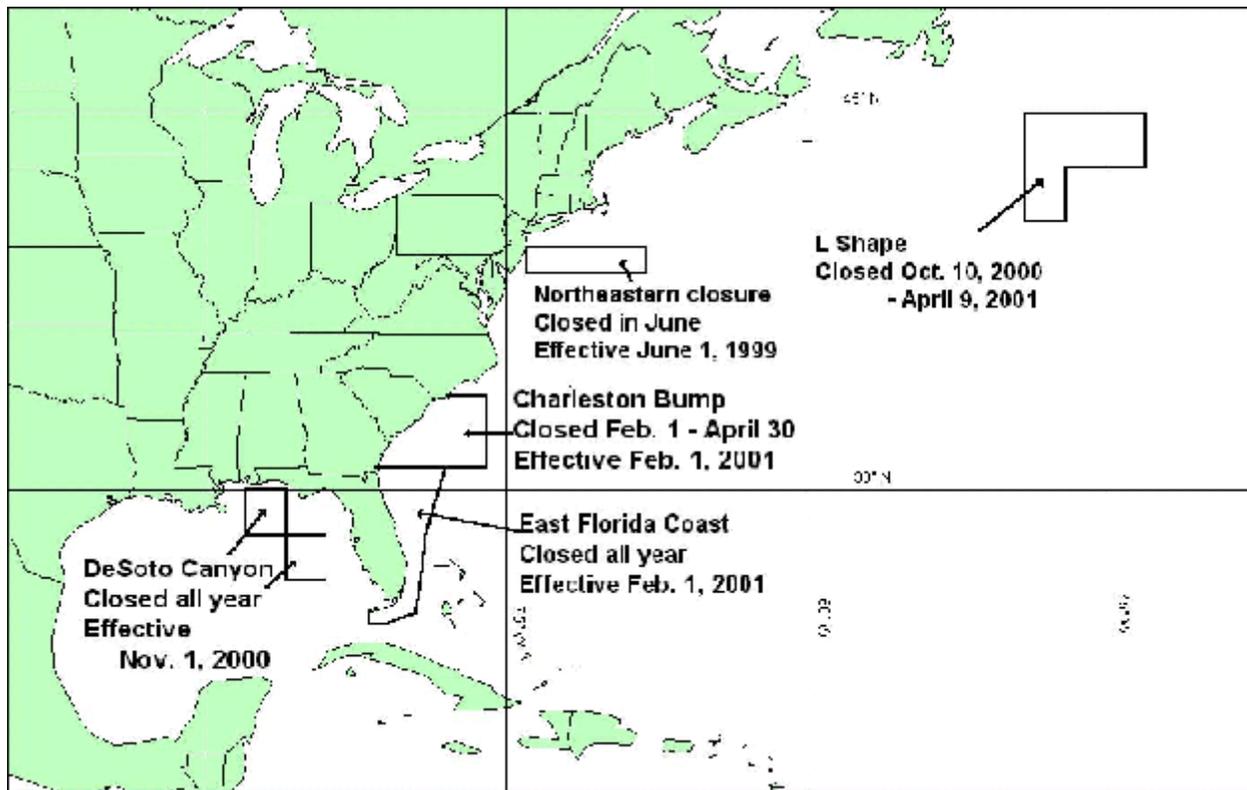


Figure 1 HMS Closed Areas, including Emergency L-Shape Closure in NED

Note: East Florida Coast and Charleston Bump Closures Delayed Until March 1, 2001 (see 66 FR 8903))

2.1.1.1 Regulatory Amendment to the HMS FMP

This amendment (August 1, 2000, Final Rule to Reduce Bycatch and Bycatch Mortality from the Atlantic Pelagic Longline Fishery) addresses bycatch and incidental catch of undersized swordfish, Atlantic billfish (marlins and sailfish), turtles, marine mammals, and other non-target species by pelagic longline gear. In 1997, NMFS began addressing this issue through the development of the draft HMS FMP and Amendment 1 to the Billfish FMP. The draft FMPs were completed in October 1998, with a proposed rule published on January 20, 1999 (63 FR 57093). On May 28, 1999, NMFS published a consolidated final rule (64 FR 29090) implementing the April 1999 Final HMS FMP, and Final Amendment 1 of the Atlantic Billfish FMP. The HMS FMP contained actions to reduce bycatch in Atlantic pelagic longline fisheries, including a limited access program for Atlantic sharks, swordfish, and tunas which reduced the number of vessels that were permitted to land Atlantic swordfish, sharks, and tunas with pelagic longline gear from over 2,000 to approximately 450 vessels. Management measures also included closure of a portion of the Mid-Atlantic Bight for the month of June to reduce bluefin tuna discards.

The bycatch reduction strategy outlined in the FMPs indicated that additional measures would subsequently be developed, including consideration of gear modifications and time/area closures. NMFS deferred implementation of the proposed Florida Straits time/area closure for protection of undersized swordfish and billfish until further analyses of the impacts of effort redistribution, and increased effectiveness with temporal and/or spatial expansion of the time/area management window. Further rationale for the delay included the potential magnitude of the economic and social impacts that would

likely result from a more extensive time/area closure. Several joint HMS and Atlantic Billfish Advisory Panel (AP) meetings have been held to discuss potential effectiveness of various bycatch reduction methods.

On December 15, 1999, NMFS published a proposed rule (64 FR 69982) to close an additional 196,000 square miles of the U.S. exclusive economic zone (EEZ) to pelagic longline fishing along the Gulf of Mexico and southeastern U.S. Atlantic coast. A Draft SEIS on the proposed rule was also prepared. A detailed discussion was provided describing a suite of management options considered, including: no action (*i.e.*, status quo on all regulations impacting the pelagic longline fishery); prohibition of pelagic longline gear; 4 time/area closure scenarios (4 areas in the Gulf of Mexico and 4 areas in the southeastern U.S. Atlantic coast were examined); prohibition of the use of live bait; several alternatives to reduce turtle interactions (related to depth of hooks, water temperature and time of day); requiring use of circle hooks; reduction of soak time; and limiting access by new entrants to the fishery to further reduce fishing effort in the Atlantic pelagic longline fishery. The objectives were to maximize the reduction of finfish bycatch, minimize the reduction in the target catch of swordfish and other species, and minimize the impact on the incidental catch of other species (*e.g.*, turtles and marine mammals).

The final rule was published on August 1, 2000 and became effective September 1, 2000. In the final rule, the proposed closure of the western Gulf of Mexico was changed to a Gulf-wide prohibition on the use of live bait with pelagic longline gear. Also, the year-round closure of the DeSoto Canyon area was added to further reduce dead discards of small swordfish. A year-round closure of the area south of 31°N latitude (the “Florida Atlantic closure area”) and a February 1 through April 30 closure of the area to the north of this (from 31°N - 34° N latitude; *i.e.*, the “Charleston Bump” closure area) yielded results similar to the proposed preferred alternative, and these areas combined were selected as the revised South Atlantic closure area in the final rule (See Figure 1).

2.1.1.2 Atlantic Large Whale Take Reduction Plan (ALWTRP)

The HMS FMP addresses the ALWTRP for the shark drift gillnet component of the HMS fisheries. Measures under the FMP to prevent potential interaction between right whales and this fishery include: closure of the Southeast U.S. right whale critical habitat and adjacent area (approximately Savannah, GA to Sebastian, FL) to all gillnet gear during the calving season (November 15 - March 31) when whale distribution may coincide with the fishery (with exemption for strike gillnet gear under certain specified conditions); a 100% observer requirement from November 15 to March 31 for anyone fishing outside (to the east or south) of the closed area (*i.e.*, between Savannah, GA and approximately West Palm Beach, FL) or fishing with strikenet gear inside the closed area; and gear marking requirements. These requirements were previously implemented under the Marine Mammal Protection Act (MMPA) regulations establishing the ALWTRP. The HMS FMP adopted these regulations under authority of the MSA, to ensure regulatory consistency.

2.1.1.3 Atlantic Offshore Cetacean Take Reduction Plan (AOCTRP)

The HMS FMP addresses the AOCTRP recommendations for the pelagic drift gillnet fishery and the pelagic longline fishery components of the HMS fishery. The May 1999 rule prohibits the use of this gear type in targeting tuna in pelagic waters. The proposed take reduction measures largely focused on the mid-Atlantic and Northeast coastal areas, where marine mammal bycatch was highest. For the pelagic longline fishery, these measures include reducing the length of the longline to 24 nm (as a means of effort reduction) in the mid-Atlantic, retrieving the gear in reverse of the order set to decrease soak time,

- moving fishing location after 1 marine mammal interaction (because of the contiguous distribution of protected species bycatch noted in the observer data base), limited entry, increasing observer coverage, education/outreach workshops to increase awareness of marine mammal bycatch problems with the fishery and encourage proper techniques for disentanglement/release, and enhancing communication between fishermen. The TRT also recommended research on acoustic deterrent devices and, to prevent future expansion of the fishery into presently unexploited areas, closure of right whale critical habitats during seasons when right whales would likely be present.

The May 28, 1999, final rule implementing the HMS FMP incorporates the AOCTRP's recommendations to: move after an interaction; limit the length of longlines in the Mid-Atlantic Bight to 24 nm for one year (to assess its utility at marine mammal bycatch reduction); and limited entry. With respect to conducting fisherman education/outreach, NMFS' Office of Protected Resources and Division of Highly Migratory Species Management jointly decided that the education/outreach component of the rule should be made voluntary on a two-year trial basis, in keeping with the recommendations of the AOCTRP. NMFS' Office of Sustainable Fisheries decided against the recommendation to retrieve gear in reverse order due to human safety concerns. However, this measure is allegedly practiced by several fishermen in the longline fishery currently; thus, it is unclear whether implementation of this strategy would have been effective in reducing levels of protected species bycatch. Therefore, it is unlikely that NMFS' decision not to implement this recommendation through the HMS FMP will greatly alter the overall effectiveness of the suite of take reduction strategies recommended by the AOCTRP.

NMFS' Office of Sustainable Fisheries, in consultation with the Office of Protected Resources, determined that the right whale critical habitat closure proposed under the AOCTRP would more appropriately be implemented under the MMPA. Provided the closure was implemented under the MMPA within a reasonable time-frame, NMFS' April 23, 1999, Opinion indicated that there would be no difference in terms of the level of protection afforded right whales. However, NMFS' Office of Protected Resources has not yet addressed this issue under the MMPA. Currently, this is not a great concern because longline fishing generally doesn't take place in right whale critical habitat areas; however, the AOCTRP recommends the closure to avoid potential future expansion of HMS fisheries into such habitat areas.

2.1.2 Gear types and management measures

Pelagic longlines are a dominant commercial fishing gear used by U.S. fishermen in the Atlantic Ocean to target highly migratory species. The following is a description of the gear types used in HMS fisheries, with emphasis on the pelagic longline.

2.1.2.1 Pelagic Longline Fisheries

The U.S. pelagic longline fishery for Atlantic HMS primarily targets swordfish, yellowfin tuna, or bigeye tuna in various areas and seasons. Secondary target species include dolphin (incidentally caught in the HMS fisheries), albacore tuna, pelagic sharks including mako, thresher, and porbeagle sharks, as well as several species of large coastal sharks. Although this gear can be modified (*e.g.* depth of set, hook type, *etc.*) to target either swordfish, tunas, or sharks, like other hook and line fisheries, it is a multi-species fishery. These fisheries are opportunistic, switching gear style and making subtle changes to target the best available economic opportunity of each individual trip. Longline gear sometimes attracts and hooks non-target finfish with no commercial value, as well as species, such as billfish, that cannot be retained by commercial fishermen under NMFS regulations.

2.1.2.1.1 Pelagic Longline Gear

When targeting swordfish, the lines generally are deployed at sunset and hauled in at sunrise to take advantage of swordfish nocturnal near-surface feeding habits. In general, longlines targeting tunas are set in the morning, deeper in the water column, and hauled in the evening. Except for vessels of the distant water fleet which undertake extended trips, fishing vessels preferentially target swordfish during periods when the moon is full to take advantage of increased densities of swordfish near the surface. Pelagic longline gear is composed of several parts, as shown in Figure 2.

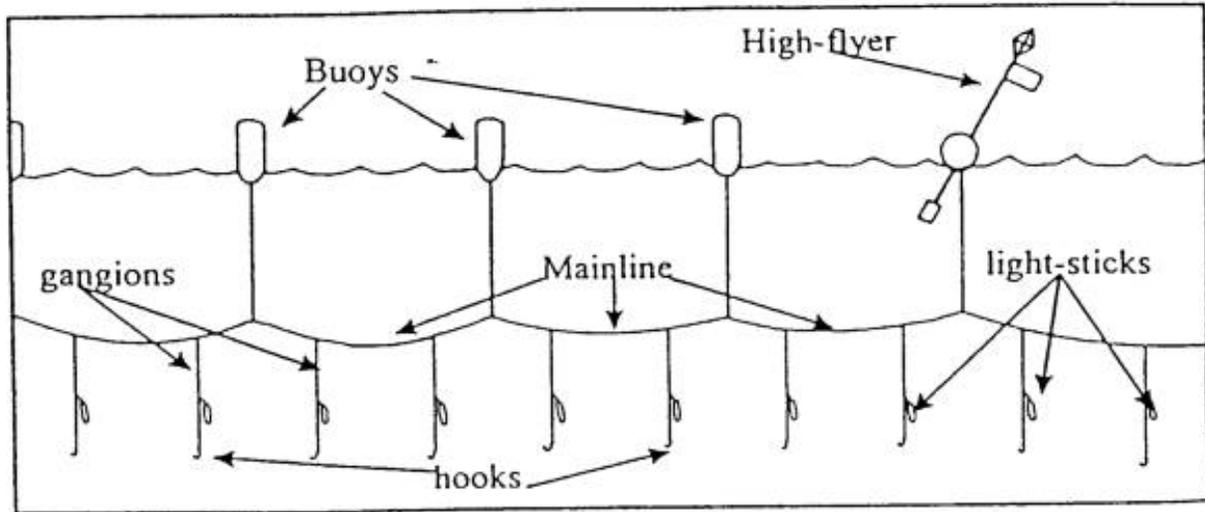


Figure 2. Typical U.S. pelagic longline gear. Source: Arocha 1996.

Figure 3, (NMFS 2001b), illustrates the difference between swordfish (shallow) and tuna (deep) longline sets.

Compared with vessels targeting swordfish or mixed species, vessels targeting tuna typically are smaller and fish different grounds. Swordfish sets are buoyed to the surface, have few hooks between floats, and are relatively shallow. This same type of gear arrangement is used for mixed target sets. Tuna sets use a different type of float placed much further apart. Compared with swordfish sets, there are more hooks per foot between the floats and the hooks are set much deeper in the water column (> 109 meters). The hooks are also different for each target type. Swordfish sets generally use “J” hooks and tuna sets use “tuna” hooks, which are more curved than “J” hooks. In addition, tuna sets use bait only while swordfish fishing uses a combination of bait and lightsticks. The number of hooks per set varies with line configuration and target catch (see Table 2).

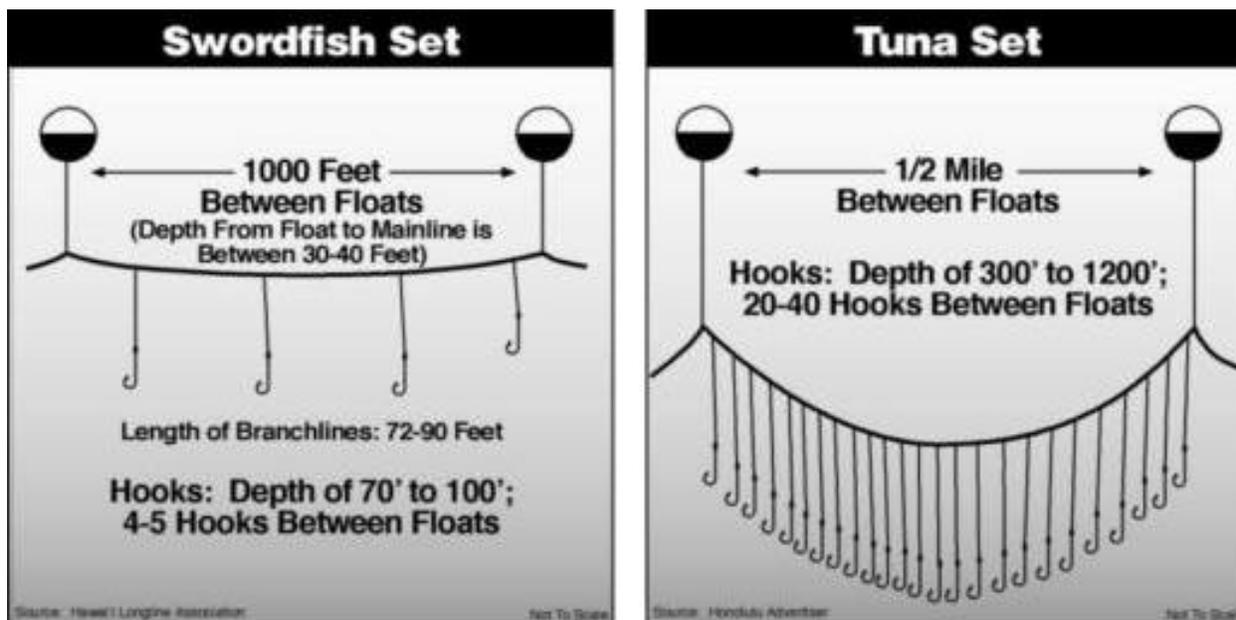


Figure 3. Gear Configuration for Pelagic Longline Sets Targeting Swordfish vs. Tuna

Table 2: Average Number of Hooks per set in the U.S. Pelagic Longline Fishery, 1995 through 1998.
(Source: B. Sutter, NMFS draft SAFE Report, pers. comm. 2001)

Target Species	1995	1996	1997	1998
Swordfish	500	497	500	485
Bigeye Tuna	831	804	725	732
Yellowfin Tuna	753	750	717	717
Shark	666	662	669	746
Mix	705	724	710	719

2.1.2.1.2 Pelagic Longline Catch and Discard Patterns

The pelagic longline fishery is comprised of five relatively distinct fisheries with different fishing practices and strategies, including the Gulf of Mexico yellowfin tuna fishery, the south Atlantic-Florida east coast to Cape Hatteras swordfish fishery, the mid-Atlantic and New England swordfish and bigeye tuna fishery, the U.S. distant water swordfish fishery, and the Caribbean Islands tuna and swordfish fishery. Each vessel type has different range capabilities due to fuel capacity, hold capacity, size, and construction. In addition to geographical area, segments differ by percentage of various target and non-target species, gear characteristics, bait, and deployment techniques. Some vessels fish in more than one fishery segment during the course of the year. Pelagic longline catch (including bycatch, and target catch) is largely related to these vessel and gear characteristics.

Table 3: Observer Coverage Achieved in the Atlantic Pelagic Longline Fishery, 1995 - 1999.

Year	Number of Sets Recorded	Percentage of Total Number of Sets
1995	696	5.2
1996	361	2.5
1997	448	3.1
1998	287	2.9
1999	430	4.0

2.1.2.1.3 Overview of History and Current Management of the Pelagic Longline Fishery

U.S. pelagic longline fishermen began targeting highly migratory species in the Atlantic Ocean in the early 1960s. However, U.S. landings of swordfish did not exceed 1,500 metric tons until the mid-1970s. Since that time, the gear deployed has evolved several times. The majority of fishermen use monofilament mainline that is rigged depending on whether the line is targeting tunas or swordfish. There are differences in the location, timing, and gear configuration that are specific to the tuna or swordfish target. For example, yellowfin tuna fishing tends to occur during the day while most swordfish fishing takes place at night. However, particularly during swordfish sets, longline gear hooks many different pelagic species incidentally. The incidental catch includes species which are discarded for economic and regulatory reasons. A complete discussion of the pelagic longline fishery can be found in Regulatory Amendment One to the HMS FMP (NMFS 2000a).

Pelagic longline fishermen are subject to minimum sizes for yellowfin, bigeye, and bluefin tuna, and swordfish to reduce the mortality of small fish. Pelagic longline fishermen are also subject to target catch limits in order to retain bluefin tuna. Regulatory discards compose a large portion of the bycatch in the fishery. In some areas and at certain times of the year, much of the bycatch in this fishery is released dead. Because it is difficult for pelagic longline fishermen to avoid undersized fish or bluefin tuna in some areas, NMFS has closed areas in the Gulf of Mexico and along the east coast. The intention of these

closures is to relocate some of the fishing effort into areas where bycatch is expected to be lower. In order to enforce time/area closures, NMFS is considering requiring VMS on all pelagic longline vessels.

In addition to regulations designed to reduce bycatch, pelagic longline fishermen are subject to quota management for swordfish, sharks and bluefin tuna. Quota monitoring requires seasonal regulations and closures. To document catch and effort, pelagic longline fishermen are subject to permitting and reporting requirements, including logbooks and observer coverage. In 1999, NMFS established a limited entry system for swordfish, shark, and tuna longline category permits. Pelagic longline fishermen who target swordfish or BAYS (Bigeye, Albacore, Yellowfin, Skipjack) tunas must have swordfish, shark, and tuna longline category permits. NMFS is re-evaluating the limited access program and may consider gear-specific permits in the future. Pelagic longlines are possibly the most regulated of all HMS gear types due to the nature of the gear and its catch/bycatch.

2.1.2.1.4 Fish Bycatch Issues and Data Associated with the Pelagic Longline Fishery

Fish are discarded from the pelagic longline fishery for a variety of reasons. As in other HMS fisheries, swordfish, yellowfin tuna, and bigeye tuna may be discarded because they are undersized or unmarketable (*e.g.*, shark-bitten). Blue sharks, as well as some other finfish species, are discarded as a result of a limited market (resulting in low prices) and perishability of the product. Large coastal sharks are discarded from this gear during times when the trip limit is exceeded or the shark season is closed. Bluefin tuna may be discarded because target catch requirements have not been met. All billfish and protected species including mammals, sea turtles, and birds are required to be discarded. In the past, swordfish have been discarded during times when the swordfish season is closed; however, the North Atlantic swordfish quota has not been met in recent years.

Mortality of marlins, swordfish, sharks, and bluefin tuna from all fishing nations may significantly reduce the ability of these populations to rebuild and remains an important management issue. Recently, to further minimize bycatch and bycatch mortality in the pelagic longline fishery, NMFS published regulations to close areas to longline fishing and banned the use of live bait by longline vessels in the Gulf of Mexico. NMFS is also concerned about serious injuries to turtles and marine mammals as a result of interactions with pelagic longline gear.

2.1.2.1.5 Observer Program for the Pelagic Longline Fishery

A total of 430 longline sets were observed and recorded by NMFS observers in 1999 (4% coverage of a total of 11,045 sets reported). Table 3 compares observer coverage in past years for this fleet. The HMS Opinion requires that a minimum of 5% of the pelagic longline trips be selected for observer coverage for trips taken during 1999. In addition, the U.S. has agreed to an international recommendation requiring 5% observer coverage for all trips targeting yellowfin tuna and/or bigeye tuna. Unfortunately, due to logistical problems, it was not possible to place observers on all selected trips. NMFS is working towards improving compliance with observer requirements and facilitating communication between vessel operators and observer program coordinators. In addition, fishermen will be reminded of safety requirements for placement of observers, including the need to have all safety equipment on board that is required by the U.S. Coast Guard.

2.1.2.2 Bottom Longline Fishery

The Atlantic bottom longline fishery targets large coastal sharks; landings are dominated by sandbar and blacktip sharks. Gear consists of a 10-mile long monofilament mainline, with lighter weight monofilament gangions, with about 750 hooks. Fishing is conducted overnight. Commercial shark fishing effort with bottom longline gear is concentrated in the southeastern United States and Gulf of Mexico. Between 1994 and 1997, the Gulf and South Atlantic Fisheries Development Foundation's Observer Program observed 5.5 million hook hours of effort that caught more than 26,000 sharks. Their observations indicated that average bottom longline sets lasted between 10 and 15 hours. Within the limited access system for the shark fishery using bottom longline gear, NMFS estimates that approximately 211 and 578 vessels are eligible for directed and incidental shark permits, respectively.

2.1.2.3 Atlantic Pelagic Driftnets

While considered under the HMS FMP, the use of pelagic driftnets has been prohibited in the tuna fishery and in the Atlantic swordfish fishery since January 1999. Therefore, it is not an issue for this consultation.

2.1.2.4 Atlantic Coastal Driftnets

The HMS FMP bans coastal driftnets for BAYS tuna but NMFS has issued exempted fishing permits under certain conditions. Bluefish, dogfish, and other species that are not covered under the HMS FMP are caught using coastal driftnets and will be considered under separate consultation and in the baseline for this Opinion.

2.1.2.5 Southeast Shark Drift Gillnets

Drift gillnets are typically 275 to 1,800 m long and 3.2 to 4.1 m deep, with stretched mesh from 12.7 to 29.9 cm. Approximately 12 to 15 vessels use gillnets. Fishing trips are usually less than 18 hours long and in nearshore areas within 30 nm from port. Recent legislation in South Carolina, Georgia, and Florida has prohibited the use of commercial gillnets in state waters, thereby forcing some of these vessels into deeper waters under federal jurisdiction, where gillnets are less effective. The HMS FMP requires 100% observer coverage in the shark drift gillnet fishery during the right whale calving season and 53% during the remainder of the year, and prohibits the use of gillnets to fish for sharks unless a NMFS-approved observer is aboard.

2.1.2.6 Purse Seines

A purse seine is a floated and weighted encircling net (mesh size from 3 to 4.3 inches) that is closed by means of a drawstring threaded through rings attached to the bottom of the net. The floatline can be between 950 to 1200 yards long and the purse line can be between 1000 and 2200 yards long. The leadline ranges from 950 to 1,415 yards. Purse seine gear is a pelagic gear used to target species such as herring, mackerel, and tuna. Similar to midwater trawl gear, purse seine gear has a negligible catch of multispecies, as the gear is designed to fish in the upper layers of the water column for fish schooling at or near the surface of the ocean. In addition, as opposed to trawl gear, purse seine gear is not towed through the water column, giving demersal species the opportunity to escape. Five boats in the HMS fishery are equipped with purse seines.

2.1.2.7 Handgear (Rod and Reel, Bandit Gear, Handline, and Harpoon)

The handgear fishery for HMS includes private vessels, charter vessels, and headboat vessels. Small bluefin tuna are typically caught by trolling with artificial lures, although chunking has become popular in some areas, using rod and reel. Giant bluefin tuna are harpooned (a commercial fishery), or are caught by trolling, or by chumming and drifting with several types of hook and line gear. Mackerel, whiting, mullet, ballyhoo, and squid are usual choices for bait.

Recreational fishing for medium and giant bluefin tuna with rod and reel generally takes place between December and February off North Carolina. Smaller bluefin tuna are generally targeted off Virginia, Delaware, and Maryland in early to mid-summer, with the center of activity moving northward into the New York Bight as the season progresses. Giant bluefin tuna are generally caught with handgear in Cape Cod Bay, the Gulf of Maine, and other New England waters during summer and early fall. Fishing usually takes place between eight and 200 km from shore.

As part of the limited access program implemented in the HMS FMP, NMFS issued handgear permits to fishermen who provide documentation of having been issued a swordfish permit for use with harpoon gear or who landed swordfish with handgear, as evidenced by logbook records, verifiable sales slips or receipts from registered dealers, or state landing records. NMFS issued handgear permits to those applicants who met the earned income requirement. There are approximately 20,000 vessels permitted to use rod and reel, either recreational or commercial, for Atlantic tuna.

2.2 Description of the Current HMS Fisheries

The fisheries for highly migratory species have been described extensively in the HMS FMP the Billfish FMP, and in previous consultations, as noted above; these descriptions are incorporated herein by reference. Definitions of the various gear-types used in HMS fisheries are provided in *2.1.2 Gear and Management Measures*, above. Recreational fisheries for all HMS managed species groups also exist. Collectively, these fisheries are prosecuted throughout the U.S. Atlantic EEZ and beyond. HMS fisheries include fisheries targeting swordfish, tuna, bluefin tuna, sharks, and billfish, as described below.

Total (preliminary) reported U.S. catch of tuna and tuna-like fishes (including swordfish, but excluding other billfishes) in 1998 was 26,631 metric tons (mt). This represents a decrease of 2,883 mt (10% decrease) from 1997. Estimated swordfish catch (including estimated dead discards) decreased 185 mt to 3,655 mt, and provisional landings from the U.S. fishery for yellowfin in the Gulf of Mexico decreased in 1998 to 2,006 from 2,634 in 1997. The estimated 1998 Gulf of Mexico landings of yellowfin accounted for 36% of the estimated total U.S. yellowfin landings in 1998. U.S. vessels fishing in the northwest Atlantic landed an estimated 1,234 mt of bluefin, a decrease of 99 mt compared to 1997. Provisional skipjack landings increased by 21 mt to 105 mt from 1997 to 1998, estimated bigeye landings decreased by 208 mt compared to 1997 to an estimated 928 mt in 1998, and estimated albacore landings increased from 1997 to 1998 by 249 mt to 830 mt.

For 1999, the provisional estimate of U.S. vessel landings and dead discards of swordfish was 3,585 mt (99 % of these are longline landings and discards). This estimate is somewhat lower than the estimate of 3,660 mt for 1998. Decline in U.S. landings of swordfish from the 1990 level was at least in part due to U.S. implementation of quotas. The 1999 stock assessment shows a potential reward for these fishermen who have been subject to increasingly restrictive management measures. With a rebuilding plan in place, it is hoped that the strong year classes of young swordfish will be protected throughout their lives and

stock size will begin to increase. Anecdotal evidence indicates more small swordfish are being encountered by pelagic longline fishermen throughout the Atlantic Ocean.

The U.S. longline fleet has historically accounted for a small percentage of total Atlantic landings of HMS (Table 4). Even including U.S. discards for bluefin tuna, swordfish, blue marlin, white marlin, and sailfish, the U.S. percentage still remains around 5 % of all longline landings reported to the International Commission for the Conservation of Atlantic Tunas (ICCAT).

Table 4: Estimated International Longline Landings of HMS, Other than Sharks, for All Countries in the Atlantic: 1995-1998 (mt ww)*. Source: SCRS, 2000.				
	1996	1997	1998	1999
Swordfish (N.Atl + S. Atl)	31438	30375	24203	25695
Yellowfin Tuna (W. Atl)**	8569	8505	8181	10943
Bigeye Tuna	74880	68198	70302	77356
Bluefin Tuna (W. Atl.)**	528	382	764	914
Albacore Tuna (N. Atl + S. Atl)	23044	22324	20936	24936
Skipjack Tuna***	26	60	89	13
Blue Marlin (N. Atl. + S. Atl.)****	3577	3626	2390	2522
White Marlin (N. Atl. + S. Atl.)****	1171	942	831	833
Sailfish (W. Atl.)****	341	209	830	405
Total	143,574	134,621	128,526	143,617
U.S. Longline Catch (from U.S. Natl. Report, 2000)#	5767.3	8931.7	7194.3	8362-8483
U.S. Longline Catch as Percentage of Longline Total in Atlantic	4.0	6.6	5.6	5.8-5.9
* landings include those classified by the SCRS as longline landings for all areas				
**Note that the U.S. has not reported participation in the E. Atlantic yellowfin tuna fishery since 1983 and has not participated in the E. Atl bluefin tuna fishery since 1982.				
***includes longline and trawl catches for all countries throughout the Atlantic Ocean				
****includes U.S. <i>dead discards</i>				
# includes swordfish longline discards and bluefin tuna discards				

2.2.1 Swordfish Fishery

Swordfish are primarily taken by pelagic longline, with minimal catches by harpoon, handline, and rod and reel. Under a limited access program effective July 1, 1999, 573 vessels were permitted to land swordfish as of March 23, 2000; 244 of these permits are for directed longline fishing for swordfish and 123 permits are for directed swordfish fishing with handgear. A few of these vessels fish in the South Atlantic Ocean (south of 5° N latitude). During 1993-1996, between 4,074 and 4,551 mt of swordfish were either landed or caught and discarded. In 1998 and 1999, the United States was limited to 29% of the North Atlantic total allowable catch (TAC), which is a base quota of 2,398.6 mt dw (dressed weight). The pelagic longline fishery operates year-round in all pelagic waters of the U.S. EEZ and beyond (see Figure 4), and currently accounts for approximately 98% of the U.S. domestic swordfish landings. About 16-31% of U.S. swordfish landings are harvested on the Grand Banks. NMFS believes that U.S. fishing effort on the Grand Banks is likely capped, due to limited access and upgrading restrictions, and has decreased. The NMFS Pelagic Logbook Newsletter reports that 22 U.S. boats fished on the Grand Banks in 1996

and 1997 (making 710 and 762 sets, respectively), 15 boats and 618 sets in 1998. Beideman (2001, pers. comm.) reported that in the 1990s there were more than 60 (longline) vessels fishing the Grand Banks, while only 10-12 vessels fished there in 2000. It appears, therefore, that pelagic longline effort in the Grand Banks has steadily decreased over the past few years.

Incidental catches by fishing gears other than pelagic longline and handgear are restricted to incidental commercial retention limits of 2 to 5 swordfish per trip depending on gear type, and are counted against

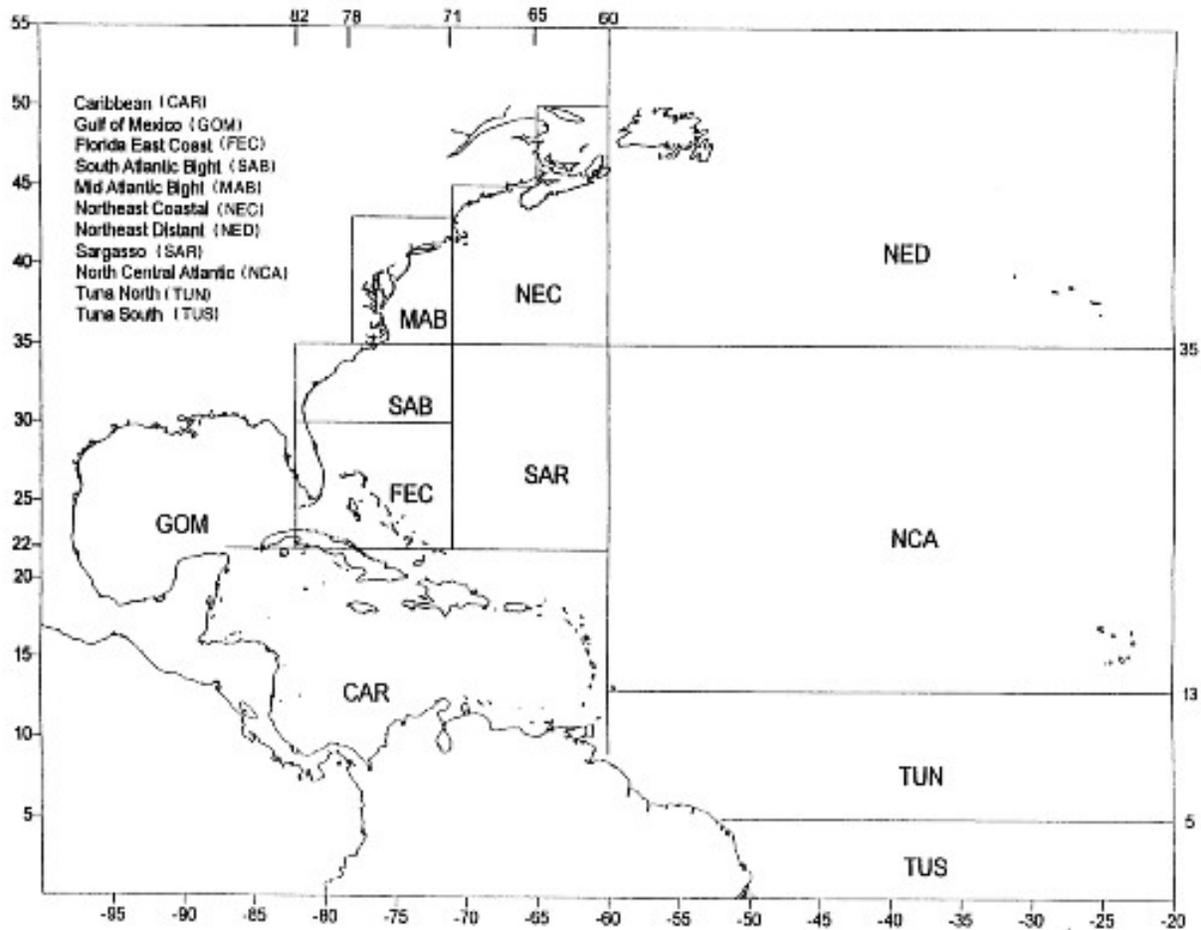


Figure 4 NMFS Statistical Areas for the Pelagic Longline Fishery for Swordfish, Tuna and Sharks. (Geographic areas used in summaries of pelagic logbook data from 1992 - 1998. Source: Cramer and Adams, 2000).

the incidental catch quota. Incidental landings are made by otter trawl vessels fishing for squid, mackerel, and butterfish (the primary prey species sought by swordfish).

2.2.2 Atlantic Tuna Fishery (other than bluefin)

Target species for the Atlantic tuna fishery include yellowfin, bigeye, north Atlantic albacore, and Atlantic skipjack. The directed fisheries for Atlantic tunas are limited by regulation to pelagic longline, rod and reel, handline, harpoon, bandit gear, and purse seine nets. The May 28, 1999, final rule implementing

the HMS FMP prohibited the use of pelagic driftnets for targeting tuna. In 1999, there were 22,967 vessels permitted to participate in Atlantic tuna fisheries, including 6,827 general category vessels, 13,147 angling category vessels, 2,457 charter/headboat category vessels, 450 pelagic longline vessels, 48 harpoon category vessels, and 5 purse seine vessels. Total landings in all regions by all gear types combined ranged from 5,199.3 to 8,131.3 mt between 1993 and 1996. Of the tuna landings reported in the FMP, yellowfin tuna was by far the dominant species landed, by weight. The pelagic longline fishery accounted for between 36% and 65% of the total U.S. Atlantic yellowfin tunas landed, by weight. The rod and reel fishery landed between 27% and 63%, with all other gear types combined accounting for between 1% and 8% over the 1993-1996 period.

2.2.3 Bluefin Tuna Fishery

The commercial fishery includes primarily handgear (rod and reel, harpoon, kepline, and handline) and purse seine vessels, and is primarily focused in the mid-Atlantic and New England. While targeting bluefin, purse seine vessels operate primarily out of New Bedford and Gloucester. These vessels typically operate in New England waters east and southeast of Massachusetts, from mid-August through September. U.S. vessels fishing in the northwest Atlantic (including the Gulf of Mexico) in 1998 landed an estimated 1,234 mt of bluefin tuna and discarded dead an estimated 67 mt (total 1,301 mt). About 20% (248 mt annual average) of this is landed by purse seine vessels. In 1998, 240 bluefin tuna were landed incidentally to other fishing operations, primarily in longline fisheries targeting yellowfin tuna and swordfish. Bluefin tuna landed in the incidental category averaged 439 lbs in 1998, down from 448 lbs in 1997, and 539 lbs in 1996. Bluefin tuna were landed by 100 incidental category permit holders in 1998. In 1998, only 8% of those vessels landing under the incidental category landed more than 5 fish. Target catch requirements on the incidental catch of bluefin tuna are intended to remove any incentive to target these bluefin tuna while minimizing dead discards. The annual U.S. allowance for dead discards is currently 68 mt. If there are dead discards in excess of this allowance, they must be counted against the following year's quota. If there are fewer dead discards, then half of the under-harvest may be added to the following year's quota while the other half is conserved.

2.2.4 Shark Fishery

The directed shark fishery consists of 5 species groups: large coastal sharks (12 species), small coastal sharks (4 species), pelagic sharks (5 species), prohibited sharks (19 species) and deepwater/other sharks (33 species). The directed fisheries for Atlantic sharks include bottom longline, shark gillnet, and rod and reel gear, and are located primarily in the southeastern United States and Gulf of Mexico. Sharks are also caught in pelagic longline gear but the majority of these are caught incidental to other fishing operations, although pelagic longlines are sometimes used to target porbeagle and mako sharks.

The HMS FMP described a limited access program for commercial shark and swordfish fishermen that was implemented on July 1, 1999. As of March 23, 2000, there were 280 directed shark commercial permits and 598 incidental shark commercial permits.

The HMS FMP states that nearly all Atlantic commercial shark fishermen operate in the multispecies longline fishery. In an effort to rebuild these overfished stocks, in 1997 NMFS reduced the overall commercial quota by 50% to 1,285 mt for the large coastal species (LCS) group, established a 1,760 mt quota for the small coastal species (SCS) group, and maintained the commercial quota for the pelagic species group at 550 mt.

The May 28, 1999, regulations implementing the HMS FMP would have further reduced commercial quotas for sharks; however, a court order resulting from a lawsuit challenging the reduced quotas prevented their implementation. While this case has been settled, the higher 1997 quotas are still in place per the settlement agreement, pending an independent review of the science underlying the quotas.

The 1999 Shark Evaluation Annual Report indicates that estimates of 1997 landings of large coastal, pelagic, and small coastal sharks (which were preliminary at the time the HMS FMP was prepared) have been finalized, and provides preliminary estimates of 1998 landings: 2,058 mt dw of large coastal sharks; 228 mt dw of pelagic sharks; and 287 mt dw of small coastal sharks. Notable revisions indicate that large coastal sharks landings in 1997 were approximately 400 mt dw higher than previously reported, and that landings in 1998 were approximately 249 mt dw higher than the final 1997 estimates. Additionally, these landings represent a 16 mt dw decrease of pelagic sharks, and a 33 mt dw decrease of small coastal sharks from 1997 final estimates. The 1999 *Shark Evaluation Annual Report* states that:

“Updated catches in numbers for 1997 are estimated to be higher than previously reported because complete landings statistics were not available at the time the original estimates were derived. Catches in numbers for 1998 are estimated to be about 14% higher than 1997 catches. Catch levels higher than the established quota in 1997 and 1998 are attributable to state landings after season closures, and Louisiana is the state with the highest landings.”

A drift gillnet fishery for sharks is prosecuted mainly off the southern tip of Georgia and down the Florida Atlantic coast to approximately the West Palm Beach area. The fishery operates year-round, but mostly between January and October, alternating between small and large coastals as seasonal distributions and quotas permit. Participants in this fishery also participate in the Spanish mackerel gillnet fishery, and generally fish for mackerel when possible, fishing for sharks only secondarily. According to Florida Department of Environmental Protection trip ticket data, landings in this fishery were 468.6 mt (large and small coastal sharks and pelagic species combined) in 1997 and 409.6 mt in 1998. These data include bycatch landings, primarily from the Spanish mackerel fishery. No shark gillnet landings data are available from Georgia, although this is believed to represent a small fraction of the effort that takes place off the Florida coast.

Carlson and Lee (1999) provided information on catch and bycatch in the shark drift gillnet fishery off east Florida during the 1998/1999 right whale calving season (November 15 - March 31) indicating that a total of 20 sets on 20 observed vessel trips caught an estimated 2,923 animals. The catch consisted of 12 species of sharks, 21 species of teleosts and rays, and one species of marine mammal. Two species of sharks, blacktip and finetooth, made up 90% by number and 73% by weight of the observed shark catch. Bycatch was dominated by crevalle jack, Spanish mackerel, tarpon, cobia, king mackerel, spotted eagle ray, and menhaden.

According to the Highly Migratory Species Division, a group of fishermen (n ≈6) in Alabama are operating a shark gillnet fishery off the coast of that state, using 8 to 12-in mesh and ≥ 2,000 yards of net. If this fishery does develop, there is little potential for interaction with listed whales, due to their rare occurrence in the Gulf (with the exception of sperm whales, which could be impacted if the fishery is prosecuted far enough offshore or the occasional whale strays into coastal waters – especially since the DeSoto Canyon area, as noted earlier, is a “hot spot” for this species). However, sea turtles would likely be impacted at some unquantifiable level. Thus far, the fishery is operating only in state waters and

therefore would fall under the purview of the HMS FMP only if the vessel owner has been issued a Limited Access Permit to participate in the shark fishery in federal waters.

2.3 FMP for the Atlantic Billfish Fishery

The fishery is recreational only with rod-and-reel gear. The fishing year is from June 1 to May 31. The FMP sets reporting and monitoring requirements, caps on annual landings, minimum size of catch, and other management measures. The fishery is concentrated from Massachusetts to North Carolina, southeast Florida, northern Gulf of Mexico, and the Caribbean. Billfish caught in commercial fisheries must be discarded. Since 1988, annual discards, on average, have been approximately 150 mt of Atlantic blue marlin and 80 mt of Atlantic white marlin. Annual recreational landings of Atlantic blue marlin have been reduced since 1988 by approximately 73% relative to pre-management levels (1980-1988); annual white marlin recreational landings have declined by approximately 90% over the same time.

Summary

The action considered in this consultation includes the following elements of the HMS fishery. Table 1 lists the general gear restrictions and fishing years established in the FMP. HMS FMP management measures specific to bycatch reduction include implementation of certain measures other than closures to reduce bycatch of marine mammals recommended by the ALWTRT and AOCTRP. The FMP also implements several closures to reduce bycatch: the final rule that closed the Florida Atlantic to longline fishing year-round and the “Charleston Bump” area from February 1 - April 30 and the DeSoto Canyon area of the Gulf of Mexico to longline fishing year-round (See Figure 1), and prohibits the use of live bait for pelagic longline fishermen in the Gulf of Mexico. In addition, a previous rule implemented the Northeast closure, effective June 1, 1999, and the October 13 emergency rule implemented the L-shape closure in the NED effective October 10, 2000 through April 9, 2001 are also part of the action (See Figure 1).

This Opinion will evaluate the continued implementation of the existing FMPs and the effects of existing rules on the fishery. The Opinion considers information regarding significant underestimates of previously determined incidental take levels, the updated status information on loggerheads and leatherbacks provided by the SEFSC, the most recent available analyses and studies of pelagic longline gear/sea turtle interactions, and information on hooked sea turtle mortality using satellite-transmitter equipped turtles, conducted before and since the June 30, 2000, Opinion was issued.

The addition of VMS as a tool to monitor the pelagic longline closure areas, though an integral part of the August 1, 2000, final rule, is not considered part of the proposed action because its implementation is currently delayed indefinitely by federal court order.

2.4 Action Area

Collectively, HMS fisheries are prosecuted throughout the U.S. EEZ in the Gulf of Mexico and Atlantic Ocean and in the high seas areas of the Atlantic. Figure 4 depicts NMFS' statistical sampling areas used for reporting of HMS catch to ICCAT. The area in Figure 4 encompasses the areas of the U.S. EEZ and the high seas where the U.S. fleet operates. Throughout their range of operation, HMS fisheries may affect listed species of sea turtles, therefore, the action area for this Opinion is the U.S. Atlantic, Gulf of Mexico and Caribbean EEZ and high seas areas depicted in the map in Figure 4.

3.0 STATUS OF AFFECTED SPECIES, CRITICAL HABITAT, AND ENVIRONMENTAL BASELINE

The following listed species under the jurisdiction of NMFS are known to occur in the pelagic waters of the North Atlantic Ocean and Gulf of Mexico:

Endangered

Blue whale	<i>Balaenoptera musculus</i>
Humpback whale	<i>Megaptera novaeangliae</i>
Fin whale	<i>Balaenoptera physalus</i>
Northern right whale	<i>Eubalaena glacialis</i>
Sei whale	<i>Balaenoptera borealis</i>
Sperm whale	<i>Physeter macrocephalus</i>
Leatherback sea turtle	<i>Dermochelys coriacea</i>
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>
Green turtle	<i>Chelonia mydas</i>
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>

Threatened

Loggerhead sea turtle	<i>Caretta caretta</i>
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Critical Habitat Designations

Right Whale [Western North Atlantic Stock]

(Note: Green turtles in U.S. waters are listed as threatened except for the Florida breeding population which is listed as endangered. Due to the inability to distinguish between these populations away from the nesting beach, green turtles are considered endangered wherever they occur in U.S. Atlantic and Gulf of Mexico waters.)

Since the action area for this consultation encompasses the U.S. EEZ in the Gulf of Mexico and the Atlantic Ocean and the high sea areas of the Atlantic (Figure 4), it occurs throughout the range of the species considered in this Opinion. All the listed species occurring in the action area are highly migratory, and the scope of the action area includes all pelagic areas where these species may be found within the U.S. EEZ. In addition, international activities occur in the action area. Information on the range-wide species status, normally included in a separate section of the Biological Opinion, in this case, is described by the baseline factors affecting these species within the action area. Sections on the status of listed species and the environmental baseline are combined in this Opinion.

The HMS pelagic fishery impacts sea turtles to a much larger extent than it does the large whales. When the drift gillnet portion of the fishery was still operating, interactions with large whales and the HMS fisheries would have been more likely. While whales could become entangled in longlines, it has not been recorded by federal observers in the Atlantic fishery. However, a humpback whale was observed entangled in the mainline of a Hawaii-based longline vessel (Dollar, 1991) and another was reported entangled in longline gear off Lanai (Nitta and Henderson, 1993). In May 1999, a sperm whale entanglement was recorded by a NMFS observer on a Hawaii-based swordfish longline vessel. The whale broke free of the gear and, presumably, did not suffer serious injury. Endangered whale information for species considered in this consultation is summarized annually in Stock Assessment Reports required by the MMPA. These assessments include baseline information on human and natural impacts on the stocks throughout their range and should be consulted for further information (Waring *et al.*, 2000).

Although blue whales and sei whales are found within the action area, there have been no observed interactions with fishing gear and only one report of a blue whale trailing line thought to be lobster gear (Waring *et al.* 1999). Therefore, the proposed action is not likely to adversely affect blue whales or sei whales; and they will not be considered further in this Opinion. Although the probability is low given lack of observed interactions, North Atlantic right whales, fin whales, humpback whales and sperm whales could interact with HMS gear and, consequently, are included in this Opinion.

The majority of potential impacts from the HMS pelagic fishery are on sea turtles. As part of the assessment phase of this consultation, NMFS SEFSC (2001) summarized sea turtle information concerning the observed, estimated, incidental, and stranding take levels, as well as sea turtle life stage impacted (NMFS SEFSC 2001) for U.S. federal and state activities, as well as foreign activities. These numbers must be viewed with caution even though they represent the best information currently available, because they are not directly comparable, *e.g.*, some numbers represent observed take, some represent extrapolated estimates, and some are stranded animals. Consequently, all these estimates, except the extrapolations based on known percent of observer coverage and fishing effort, are likely underestimates of true take. Incidental mortality estimates are even more uncertain.

3.1 Biology and Distribution

Background information on the range-wide status of these species and a description of critical habitat can be found in a number of published documents. General information on the potential for entanglement in the gear types used in HMS fisheries is likely to be similar to that summarized in previous consultations on the HMS fisheries as noted above, as well as consultations on the Multispecies FMP, including the June 12, 1986, November 30, 1993, February 18, 1996, and December 13, 1996 (NMFS 1996a) biological opinions and the December 21, 1998 monkfish biological opinion. Additional sources include recovery plans for sea turtles and sea turtle status documents (NMFS and USFWS 1991, 1992, 1992a, 1995), including the Marine Turtle Expert Working Group status reports on Kemp's ridley and loggerhead sea turtles (TEWG 1998, 2000), Stock Assessments of Loggerhead and Leatherback Sea Turtles and An Assessment of the Impact of the Pelagic Longline Fishery on the Loggerhead and Leatherback Sea turtles of the Western North Atlantic (NMFS SEFSC 2001), recovery plans for the humpback whale (NMFS 1991a) and right whale (NMFS 1991b), and the 1998 marine mammal stock assessment report (Waring *et al.* 1999). Summary information on the biology of these species is provided below. Additional background information on right and humpback whales was provided in the species accounts section of the May 29, 1997, Opinion and is incorporated herein by reference. The most recent and comprehensive update on the status of loggerhead and leatherback sea turtles, as well as an extensive summary of the effects of the pelagic longline fishery on these sea turtle species, is contained in NMFS SEFSC 2001.

3.2 Right whale

Right whales have occurred historically in all the world's oceans from temperate to subarctic latitudes. NMFS recognizes three major populations of right whales: North Pacific, North Atlantic, and Southern Hemisphere. NMFS further recognizes two extant subpopulations in the North Atlantic: eastern and western. A third subpopulation may have existed in the central Atlantic (migrating from east of Greenland to the Azores or Bermuda), but this stock appears to be extinct (Perry *et al.* 1999). Because of our limited understanding of the genetic structure of the entire species, the most conservative approach to this species would treat these right whale subpopulations as distinct populations whose survival and recovery is critical to the survival and recovery of the species. Consequently, this Opinion will focus on the western north Atlantic population of right whales, which occurs in the action area.

The scarcity of right whales is the result of an 800-year history of whaling that continued into the 1960s (Klumov 1962). Of all the large whales, the northern right whale has the highest risk of extinction in the near future. Recent data indicate that there are an estimated 300 individuals in the North Atlantic and a small, unknown number of individuals in the North Pacific. The southern right whale, in contrast, has shown signs of slow recovery over the past 20 years. Illegal takes by Soviet whaling fleets operating in the North Pacific and Southern Hemisphere are now known to have continued until as recently as 1980 (Zemsky *et al.* 1995). Northern right whales have been protected for more than 60 years from the pressures of whaling, yet most stocks show no evidence of recovery.

Right whales appear to prefer shallow coastal waters, but their distribution is also strongly correlated to the distribution of their prey (zooplankton). In both northern and southern hemispheres, right whales have been observed in the lower latitudes and more coastal waters during winter, where calving takes place, and in higher latitudes during the summer. In summer and fall in both hemispheres, the distribution of right whales appears linked to the distribution of their principal zooplankton prey (Winn *et al.* 1986). Right whales in the Gulf of Maine feed on zooplankton, primarily copepods, by skimming at or below the water's surface with open mouths (NMFS 1991b, Kenney *et al.* 1986, Murison and Gaskin 1989, Mayo and Marx 1990). The western north Atlantic stock of right whales generally occurs in Northwest Atlantic waters west of the Gulf Stream and is most commonly associated with cooler waters ($\leq 21^{\circ}\text{C}$). They are not found in the Caribbean and have been recorded only rarely in the Gulf of Mexico.

NMFS designated right whale critical habitat on June 3, 1994 (59 FR 28793). These waters, which lie within the action area, include the waters of Cape Cod Bay and the Great South Channel off the coast of Massachusetts, and off the coasts of southern Georgia and northern Florida, where the species is concentrated at different times of the year. Whales are most abundant in Cape Cod Bay between February and April (Hamilton and Mayo 1990; Schevill *et al.* 1986; Watkins and Schevill 1982), in the Great South Channel in May and June (Kenney *et al.* 1986, Payne *et al.* 1990), and off Georgia/Florida from mid-November through March (Slay *et al.* 1996). Right whales also frequent the Bay of Fundy, Browns and Baccaro Banks (in Canadian waters), Stellwagen Bank, and Jeffrey's Ledge in the spring and summer months, and use mid-Atlantic waters as a migratory pathway between the winter calving grounds and their spring and summer nursery/feeding areas in the Gulf of Maine. During the winters of 1999/2000 and 2000/2001, appreciable numbers of right whales were recorded in the Charleston, SC area. Because survey efforts in the mid-Atlantic have been limited, it is unknown whether this is typical or whether it represents a northern expansion of the normal winter range, perhaps due to unseasonably warm waters. However, historical sighting data uncorrected for effort do show a concentration of sightings in this area. In addition, recent satellite tracking efforts have identified individual animals embarking on far-ranging foraging episodes not previously known (Knowlton, pers. comm.).

Since NMFS issued the 1997 biological opinion on HMS fisheries, there has been significant discussion regarding attempts to determine the current status and trend of this very small population and to make valid recommendations on recovery requirements. As reported in the 1997 Opinion, Knowlton *et al.* (1994) concluded, based on data from 1987 through 1992, that the western North Atlantic right whale population was growing at a net annual rate of 2.5% (CV = 0.12). This rate was also used in NMFS' marine mammal Stock Assessment Reports, for example, Blaylock *et al.* 1995, Waring *et al.* 1997. Since then, the data used in Knowlton *et al.* (1994) have been re-evaluated, and new attempts to model the trends of the western North Atlantic right whale population have been published (*e.g.*, Kraus 1997; Caswell *et al.* 1999) and additional works are in progress (Caswell *et al.*, in prep.; Wade and Clapham, in prep).

Recognizing the precarious status of the right whale, the continued threats present in its coastal habitat throughout its range, and the uncertainty surrounding attempts to characterize population trends, the International Whaling Commission (IWC) held a special meeting of its Scientific Committee from March 19-25, 1998, in Cape Town, South Africa, to conduct a comprehensive assessment of right whales worldwide. The workshop's participants reviewed available information on the northern right whale, including Knowlton *et al.* (1994), Kraus (1997), and Caswell *et al.* (1999). After considering this information, the workshop attendees concluded that it is unclear whether the western North Atlantic subpopulation of the right whale is "declining, stationary, or increasing, and [that] the best estimate of current population size is only 300 animals." Maintaining a conservative stance due to these uncertainties, participants concluded that the growth rate of this population "is both low and substantially less than that of the southern right whale populations" (IWC 1999).

The IWC Workshop participants expressed "considerable concern" in general for the status of the Western North Atlantic population. Based on recent (1993-1995) observations of near-failure of calf production, the significantly high mortality rate, and an observed increase in the calving interval, it was suggested that the slow but steady recovery rate published in Knowlton *et al.* (1994) may not be continuing. Workshop participants urgently recommended increased efforts to determine the trajectory of this right whale population, and NMFS' Northeast Fisheries Science Center has initiated several efforts to implement that recommendation.

Caswell *et al.* (1999), using data on reproduction and survival through 1996, determined that the western North Atlantic right whale population was declining at a rate of 2.4% per year. One model they used suggested that the mortality rate of the right whale population has increased 5-fold in less than 1 generation. According to Caswell *et al.* (1999), if the mortality rate as of 1996 does not decrease and the population performance does not improve, extinction could occur within 100 years and would be certain within 400 years, with a mean time to extinction of 191 years. In the 3 calving seasons following Caswell *et al.*'s (1999) analysis (1998-2000), only 10 calves were known to have been born into the population. The 2001 calving season brought good news for those working hard for the protection of right whales. Survey crews working off Georgia and Florida observed a record total of 30 calves between December and March.

It should be noted that no information is currently available on the response of the right whale population to recent (1997-1999) efforts to mitigate the effects of entanglement and ship strikes. Therefore, it is not possible to determine whether the trend through 1996, as reported in Caswell *et al.* (1999), is continuing. Furthermore, results reported in Caswell *et al.* (1999) suggest that it is not possible to determine that anthropogenic mortalities alone are responsible for the decline in right whale survival. However, they conclude that reduction of anthropogenic mortalities would significantly improve the species' survival probability. Given the uncertainty regarding effects of natural phenomena such as demographic and environmental stochasticity, which can influence the northern right whale population -- and assuming that the right whale population, is in fact, declining -- it is impossible to determine whether the western North Atlantic right whale population has reached the point where it would continue to decline even if all human-induced mortalities ceased.

At the 1998 IWC workshop, an inter-sessional steering group was established to review Caswell *et al.* (1999) and several other ongoing assessment efforts to identify the best and most current available scientific information on population status and trends. The IWC Scientific Committee met in May 1999 and discussed the steering group's report. Committee members noted that there were several potential

negative biases in Caswell *et al.* (1999) but agreed that the results of the study should be considered in management actions.

For the purposes of this Opinion, until the new status and trend information has been thoroughly reviewed for assimilation into NMFS management programs, NMFS will continue to adopt the risk averse assumption that the northern right whale population is declining.

3.2.1 General human impacts and entanglement

The major known sources of anthropogenic mortality and injury of right whales include entanglement in commercial fishing gear and ship strikes. Right whales may also be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities including the operation of commercial fisheries.

Based on photographs of catalogued animals from 1959 - 1989, Kraus (1990) estimated that 57% of right whales exhibited scars from entanglement and 7% from ship strikes (propeller injuries). This work was updated by Hamilton *et al.* (1998) using data from 1935 through 1995. The new study estimated that 61.6% of right whales exhibit injuries caused by entanglement, and 6.4 % exhibit signs of injury from vessel strikes. Hamilton *et al.* (1998) also reported that the increase in entanglement scarring since 1989 is a significant trend which is not attributable to increases in sighting effort or population size. In addition, several animals have apparently been entangled on more than one occasion. Some right whales that have been entangled were subsequently involved in ship strikes. These scarring percentages are primarily based on sightings of free-swimming animals that initially survive the impact which resulted in the scar. Because some animals may drown or be killed immediately, the actual number of interactions may be higher, particularly for ship strikes, as these events are most often fatal.

Many of the reports of right whale mortality cannot be attributed to a particular source. The following deaths or injuries were reported between 1996 and January 2001. (These numbers should be viewed as absolute minimum numbers; the total number of deaths and injuries cannot be estimated):

- 1996: One right whale was killed by a ship strike off coastal Georgia; a second right whale was killed by a ship, stranding in the vicinity of Gloucester, MA, after having been entangled in 1995. In addition to these mortalities, there were two confirmed reports of right whales becoming entangled in fishing gear. One of these was deemed to be a “serious injury” (*i.e.*, one that was likely to contribute to subsequent mortality of the animal).
- 1997: Another right whale was killed by a ship strike in the Bay of Fundy, and there were 8 confirmed reports of whale entanglements. Six of the entanglements were reported in Canadian waters and 2 in U.S. waters; it should be noted that we only know where 2 of the 8 entanglements occurred (one in U.S. and one in Canadian waters), and one of the reports may represent a resighting of an earlier entanglement. Three of these entanglements were deemed “serious injuries”.
- 1998: Two adult female right whales were discovered in a weir off Grand Manan Island in the Bay of Fundy on July 12, 1998, and were released two days later; no residual injuries of concern were reported. On July 24, 1998, the disentanglement team removed line from around the tail stock of a right whale which was originally seen entangled in the Bay of Fundy on August 26, 1997. This same whale, apparently debilitated from the earlier entanglement, became entangled in lobster pot gear twice in one week in Cape Cod Bay in September 1998. The gear from the latter two

entanglements was completely removed, but line from the 1997 entanglement remained in the animal's mouth. On August 15, 1998, a right whale was observed entangled in the Gulf of St. Lawrence; the animal apparently freed itself of most of the gear, but some gear may remain.

- 1999: Two right whale mortalities were documented, including an adult female found floating near Truro, Massachusetts, that was towed to the beach for necropsy. Based on the necropsy, scientists concluded that the whale died from complications resulting from injuries caused by a ship strike. In the fall, a second adult female died of complications caused by entanglement. Four other right whale entanglements were confirmed in 1999. There were several attempts to disentangle two of the whales. A whale sighted in the Bay of Fundy in June was nearly completely disentangled; a small piece of line remained in the mouth.
- 2000: A right whale identified as #2701 was found floating dead 10 miles SE of Block Island, RI on January 19, 2000. Although entangling gear (line) was seen around the tail stock, cause of death is uncertain. NMFS was unable to retrieve the carcass for examination due to extreme winter storms. Several other right whale entanglements were reported in 2000 as well, but disentanglement personnel met with little success in relocating/disentangling these animals so it is unclear how many animals were involved.
- 2001: Three animals have been documented dead. A newborn right whale was spotted dead off the Florida coast in February and it may have been struck by a ship. The second was a calf sighted and photographed floating dead by a passenger on a sport fishing boat off the coast of South Carolina in mid-March. The carcass was not recovered. The carcass of a young male right whale (25 feet long) was found March 17 on an island beach off Virginia. A multi-agency team necropsied the calf and took biological samples. The calf had several deep cuts consistent with injuries from a boat propellor. The biological samples are being analyzed to determine whether the external wounds were the cause of death and whether there were other contributing factors. A final report will be issued with findings as to the cause of death. This is the third confirmed right whale mortality in 2001.

3.3 Humpback whale

Humpback whales feed in the northwestern Atlantic during the summer months and migrate to calving and mating areas in the Caribbean. Five separate feeding areas are utilized in northern waters after their return; one of which, the Gulf of Maine feeding population, lies within U.S. waters and is within the action area of this consultation. Most of the humpbacks that forage in the Gulf of Maine visit Stellwagen Bank and the waters of Massachusetts and Cape Cod bays. Sightings are most frequent from mid-March through November between 41°N and 43°N, from the Great South Channel north along the outside of Cape Cod to Stellwagen Bank and Jeffreys Ledge (CeTAP 1982), and peak in May and August. Small numbers of individuals may be present in this area year-round, including the waters of Stellwagen Bank.

Katona and Beard (1990) summarized information gathered from a catalogue of photographs of 643 individuals from the western North Atlantic population of humpback whales. These photographs indicated reproductively mature western North Atlantic humpbacks winter in tropical breeding grounds in the Antilles, primarily on Silver and Navidad Banks, north of the Dominican Republic. The primary winter range also includes the Virgin Islands and Puerto Rico (see NMFS 1991a). In general, it is believed that calving and copulation take place on the winter range. Calves are born from December through March and are about 4 meters at birth. Sexually mature females give birth approximately every 2 to 3 years.

Sexual maturity is reached between 4 and 6 years of age for females and between 7 and 15 years for males. Size at maturity is about 12 meters.

Swingle *et al.* (1993) identified a shift in distribution of juvenile humpback whales in the nearshore waters of Virginia, primarily in winter months. Those whales using this mid-Atlantic area that have been identified were found to be residents of the Gulf of Maine feeding group, suggesting a shift in distribution that may be related to winter prey availability. Studies conducted by the Virginia Marine Science Museum indicate that these whales are feeding on, among other things, bay anchovies and menhaden. Researchers theorize that juvenile humpback whales, which are unconstrained by breeding requirements that result in the migration of adults to relatively barren Caribbean waters, may be establishing a winter foraging area in the mid-Atlantic (Mayo pers. comm.). In concert with the increase in mid-Atlantic whale sightings, strandings of humpback whales have increased between New Jersey and Florida since 1985. Strandings were most frequent during September through April in North Carolina and Virginia waters, and were composed primarily of juvenile humpback whales of no more than 11 meters in length (Wiley *et al.* 1995). Six of 18 humpbacks (33 %) for which the cause of mortality was determined were killed by vessel strikes. An additional humpback had scars and bone fractures indicative of a previous vessel strike that may have contributed to the whale's mortality. Sixty percent of those mortalities that were closely investigated showed signs of entanglement or vessel collision (Wiley *et al.* 1995).

Since the 1997 Opinion on HMS, new information has become available on the status and trends of the humpback whale population, although there are still insufficient data to determine population trends for the Western North Atlantic stock (Waring *et al.* 1997). The current rate of increase of the North Atlantic humpback whale population has been estimated at 9.0% (CV=0.25) by Katona and Beard (1990) and at 6.5% by Barlow and Clapham (1997). Palsboll *et al.* (1997) studied humpback whales through genetic markers to identify individual humpback whales in the northern Atlantic Ocean. Using breeding ground samples from 1992–1993, Palsboll *et al.* (1997) estimated the North Atlantic humpback whale population at 4,894 (95% confidence interval 3,374 - 7,123) males and 2,804 females (95% confidence interval 1,776 - 4,463), for a total of 7,698 whales. However, since the sex ratio in this population is known to be 1:1 (Palsboll *et al.* 1997), the lower figure for females is presumed to be a result of sampling bias or some other cause for partitioning of the sampling. Photographic mark-recapture analyses from the YONAH (Years of the North Atlantic Humpback) project gave an ocean-basin-wide estimate of 10,600 (95% c.i. = 9,300 - 12,100) and an additional genotype-based analysis yielded a similar but less precise estimate of 10,400 (95% c.i. = 8,000 - 13,600) (Smith *et al.* 1999). The estimate of 10,600 is regarded as the best available estimate for this population. The minimum population estimate for the North Atlantic humpback whale population is 10,019 animals (CV=0.067) (Waring *et al.* 1999).

The Northeast Fisheries Science Center (NEFSC) recommended that NMFS identify the Gulf of Maine feeding stock as the management stock for this population in U.S. waters, although a population estimate for the Gulf of Maine portion of the population is not available at this time. Stock identity of the juveniles found in the Mid-Atlantic is also unknown at this time. The NEFSC is funding a study to determine stock identity of these individuals. The results from this work will assist NMFS in determining whether multiple management units are necessary for the U.S. East Coast.

3.3.1 General human impacts and entanglement

The major known sources of anthropogenic mortality and injury of humpback whales include entanglement in commercial fishing gear and ship strikes. Humpback whales may also be adversely

affected by habitat degradation, habitat exclusion, acoustic trauma, and harassment resulting from a variety of activities including the operation of commercial fisheries.

Based on photographs of the caudal peduncle of humpback whales, Robbins and Mattila (1999) estimated that at least 48% -- and possibly as many as 78% -- of animals in the Gulf of Maine exhibit scarring caused by entanglement. Several animals have apparently been entangled on more than one occasion. These estimates are based on sightings of free-swimming animals that initially survive the scarring encounter. Because some animals may drown immediately, the actual number of interactions may be slightly higher. Following is a summary of recent documented cases of human interaction.

Many of the reports of mortality cannot be attributed to a particular impact source. The following injury/mortality events are those reported from 1996 to the present for which impact source was determined. These numbers should be viewed as absolute minimum numbers; the total number of mortalities and injuries cannot be estimated but is believed to be higher.

- 1996 Three humpback whales were killed in collisions with vessels and at least 5 were seriously injured by entanglement in the same year.
- 1997 Three confirmed humpback whale entanglements were reported. Stranding records from January through December 1997 for the U.S. Atlantic coast include seven stranded/dead floating humpback whales. Two of these mortalities were attributed to ship strikes.
- 1998 Fourteen confirmed humpback whale entanglements resulting in injury (n=13) or mortality (n=1) were reported. One of the animals with entanglement injuries stranded dead, but the role of the entanglement in the whale's death has not been determined. Three of the injured animals were completely disentangled, one partially disentangled, one partially disentangled and later shed the remaining gear, and one shed the gear without assistance from the disentanglement team. One injury from a vessel interaction was reported in 1998; the whale was seen several times after the injury, which exhibited some healing. Three incidents of dead floating humpback whales were also reported in 1998; however, cause of death has not been determined for any of these animals.
- 1999 Nine humpback entanglements were reported to the Center for Coastal Studies whale disentanglement team in 1999, including one mortality. This does not include Canadian entanglements.
- 2000 Preliminary data indicate that there were 16 possible human interactions (15 fishery interactions + 1 ship strike) and 13 whales for which no signs of entanglement or injury were sighted or reported. Of the 15 possible recorded cases of fishery interactions, 14 were alive, of which 1 was successfully disentangled and another was seen at a later date apparently free of gear. These data have not yet been fully analyzed to determine causes of mortality (in cases which resulted in death).
- 2001 Up to February 12, 2001, of 4 humpback whale mortalities reported to the stranding network there were 2 human interactions – 1 fishery interaction which was released alive with no gear attached and 1 ship strike which resulted in a mortality. The third animal was a floater which was not recovered and the fourth had no signs of entanglement or injury sighted or reported.

3.4 Fin Whale

The fin whale is ubiquitous in the North Atlantic and occurs from the Gulf of Mexico and Mediterranean Sea northward to the edges of the arctic ice pack (Waring *et al.* 1999). The overall pattern of fin whale movement is complex, consisting of a less obvious north-south pattern of migration than that of right and humpback whales. Based on acoustic recordings from hydrophone arrays, however, Clark (1995) reported a general southward “flow pattern” of fin whales in the fall from the Labrador/Newfoundland region, south past Bermuda, and into the West Indies. The overall distribution may be based on prey availability. This species preys opportunistically on both invertebrates and fish (Watkins *et al.* 1984). As with humpback whales, they feed by filtering large volumes of water for the associated prey. Fin whales are larger and faster than humpback and right whales and are less concentrated in nearshore environments. Due to these traits, fin whales are less prone to entanglements than are right and humpback whales, but because they do occur in many of the same areas, the potential exists.

Hain *et al.* (1992) estimated that about 5,000 fin whales inhabit the northeastern United States continental shelf waters. Shipboard surveys of the northern Gulf of Maine and lower Bay of Fundy targeting harbor porpoise for abundance estimation provided an imprecise estimate of 2,700 (CV=0.59) fin whales (Waring *et al.* 1997).

3.4.1 General human impacts and entanglement

Of 18 fin whale mortality records collected between 1991 and 1995, 4 were associated with vessel interactions, although the proximal cause of mortality was not known.

1996 Three reports of ship strikes were received, although this was only confirmed as cause of death for 1 of the incidents. One entanglement report was received in 1996.

1997 At least five reports of entangled fin whales were received by NMFS. Four fin whales were reported as having stranded in the period from January 1, 1997, to January 1, 1998, in the Northeast Region; the cause of death was not determined for these animals.

1998 One ship strike mortality was documented in the Virginia-North Carolina border area. One entanglement mortality was reported in September 1998.

1999 Three entanglements were reported to the Center for Coastal Studies disentanglement team.

2000 Preliminary data indicate 2 finback whale mortalities; 1 was an apparent shipstrike (data have not yet been formally reviewed to determine cause of death and whether observed injuries were pre- or post-mortem, but the animal had broken ribs and vertebral processes). No signs of entanglement or injury were sighted or reported for the second animal.

2001 Through February 12, 2 dead finback whales were reported, both of which were possibly involved in ship strikes. (One had a broken jaw and the other displayed bruising and broken bones.)

3.5 Sperm whale

The sperm whale is the largest of the toothed whales, reaching a length of 18.3 m in males and 12.2 m in females (Odell 1992). Sperm whales are noted for their ability to make prolonged, deep dives. Large adult males have been observed diving over 3.3 km deep in dives lasting almost an hour and a half, with an average dive time of approximately 40 minutes (Watkins *et al.* 1993). Sperm whales feed primarily on

medium to large-sized mesopelagic squids, *Architeuthis* and *Moroteuthis*. Sperm whales, especially mature males in higher latitude waters, also take significant quantities of large demersal and mesopelagic sharks, skates, and bony fishes (Clarke 1962, 1980). They may catch their food by: lying suspended and relatively motionless near the ocean floor and ambushing prey; attracting squid and other prey with bioluminescent mouths; or stunning prey with ultrasonic sounds. Sperm whales occasionally suffocate after becoming entangled in deep-sea cables that wrap around their lower jaw, and odd objects (*e.g.*, stones, rubber boots, buckets, and boards) have been found in their stomachs, suggesting that animals may at times cruise the ocean floor with open mouths. Sperm whales may ingest food with a sucking motion of the tongue; stomach contents reveal little evidence that lower jaw and teeth are used to grasp or chew prey (Würsig *et al.* 2000).

Females and juveniles form pods that are restricted mainly to tropical and temperate latitudes (between 50°N and 50°S) while the solitary adult males can be found at higher latitudes (between 75°N and 75°S) (Reeves and Whitehead, 1997). In the western North Atlantic they range from Greenland to the Gulf of Mexico and the Caribbean.

For the purposes of management, the IWC defines four stocks: the North Pacific, the North Atlantic, the Northern Indian Ocean, and Southern Hemisphere. However, Dufault's (1999) review of the current knowledge of sperm whales indicates no clear picture of the worldwide stock structure of sperm whales. In general, females and immature sperm whales appear to be restricted in range, whereas males are found over a wider range and appear to make occasional movements across and between ocean basins (Dufault 1999). Sperm whales prefer waters along outer continental shelves with a water depth of 600 m or more. They are uncommon in waters less than 300 m deep (Rice 1989), however, they are occasionally found in depths less than 100 m (Winn 1982). The best estimate of sperm whales in the western North Atlantic is 4,597 (NMFS in press).

Sperm whales have been sighted in the Gulf of Mexico in every season, with sighting rates peaking in the fall (Mullin *et al.* 1994). There may be a distinct stock of sperm whales in the northern Gulf of Mexico (Schmidly 1981, Fritts 1983, Hansen *et al.* 1995 as cited in Perry *et al.* 1999). Abundance estimates place the average size of this stock at 530 individuals (Hansen *et al.* 1995). There is no trend in population size discernable from estimates of abundance over time (Waring *et al.* 1997 and references within). Sperm whale sightings recorded from the National Oceanic and Atmospheric Administration (NOAA) vessel Oregon II from 1991 - 1997 are concentrated just beyond the 100 m depth contour in the northern Gulf of Mexico, east of the Mississippi River Delta. Recent studies conducted jointly by researchers from NMFS and Texas A&M indicate that these offshore waters are an important area for Gulf sperm whales. In fact, researchers with Texas A & M believe that the area should be considered as critical habitat for sperm whales (R. Davis, pers. comm.), as it is the only known breeding and calving area in the Gulf, for what is believed to be an endemic population.

Sperm whale populations are often organized into 2 types of groupings: breeding schools and bachelor schools. Older males are often solitary (Best 1979). Breeding schools consist of females of all ages and juvenile males. The mature females ovulate April through August in the Northern Hemisphere. During this season one or more large mature bulls temporarily join each breeding school. A single calf is born at a length of about 4 meters after a 15 month gestation period. A mature female will produce a calf every 3-6 years. Females attain sexual maturity at the mean age of 9 years and a length of about 9 m. Males have a prolonged puberty and attain sexual maturity at about age 20 and a body length of 12 m. Bachelor schools consist of maturing males who leave the breeding school and aggregate in loose groups of about

40 animals. As the males grow older they separate from the bachelor schools and remain solitary most of the year (Best 1979).

3.5.1 General human impacts and entanglement

The sperm whale was listed as endangered under the ESA in 1973. The primary factor for the species decline that precipitated ESA listing was commercial whaling. Sperm whales were hunted in America from the 17th century through the early 1900s, but the exact number of whales harvested in the commercial fishery is not known (Townsend 1935). The IWC estimates that nearly a quarter-million sperm whales were killed worldwide in whaling activities between 1800 and 1900 (IWC 1969). With the advent of modern whaling the larger rorqual whales were targeted. However as their numbers decreased, greater attention was paid to smaller rorquals and sperm whales. From 1910 to 1982 there were nearly 700,000 sperm whales killed worldwide from whaling activities (IWC Committee for Whaling Statistics 1959-1983). Since the ban of nearly all hunting of sperm whales, there has been little evidence that human-induced mortality or injury is significantly affecting the recovery of sperm whale stocks (Perry *et al.* 1999; Waring *et al.* 1997; Blaylock *et al.* 1995).

Few instances of injury or mortality of sperm whales due to human impacts have been recorded in U.S. waters. Like sei whales, sperm whales typically inhabit waters further offshore than most U.S. commercial fisheries operate. Documented takes primarily involve offshore fisheries such as the offshore lobster pot fishery and pelagic driftnet and longline fisheries. Sperm whales have learned to depredate sablefish from longline gear in the Gulf of Alaska and toothfish from longline operations in the South Atlantic Ocean. No direct injury or mortality has been recorded during hauling operations, but lines have had to be cut when whales were caught on them (Ashford and Martin 1996). Sperm whales are also struck by ships; although no information is available on recent confirmed cases in U.S. waters. Due to the offshore distribution of this species, interactions that do occur are less likely to be reported than those involving right, humpback, and fin whales occurring in nearshore areas.

Because of their generally more offshore distribution and their benthic feeding habits, sperm whales are less subject to entanglement than are right or humpback whales. Sperm whales have been taken in the pelagic drift gillnet fishery for swordfish, and could likewise be taken in the shark drift gillnet fishery on occasions when they may occur more nearshore, although this likely does not occur often. Although no interaction between sperm whales and longlines have been recorded in the U.S. Atlantic, as noted above, interactions between sperm whales and longlines for sable fish have been noted in Alaska waters.

Preliminary data for 2000 indicate that of 10 sperm whales reported to the stranding network (9 dead and 1 injured) there was 1 possible fishery interaction, 1 ship strike (wounded with bleeding gash on side) and 8 animals for which no signs of entanglement or injury were sighted or reported. No sperm whales have stranded or been reported to the stranding network to date in 2001.

3.6 Loggerhead turtle

Loggerhead sea turtles occur throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans and are the most abundant species of sea turtle occurring in U.S. waters. Loggerhead sea turtles concentrate their nesting in the north and south temperate zones and subtropics, but generally avoid nesting in tropical areas of Central America, northern South America, and the Old World (Magnuson *et al.* 1990). The two largest known nesting aggregation of loggerhead sea turtles occur on Masirah and Kuria Muria Islands in Oman and along the southeast U.S. The loggerhead nesting aggregation on

Masirah Island is estimated at a minimum of 30,000 nesting females each year. This is the only large nesting colony of loggerheads in Oman and is the largest known aggregation of this species in the world (Ross and Barwani 1982).

In the western Atlantic, most loggerhead sea turtles nest from North Carolina to Florida and along the gulf coast of Florida. The Turtle Expert Working Group (1998, 2000) recognized at least four genetically distinct loggerhead nesting subpopulations in the western North Atlantic and southeastern U.S. and recommended that they be considered independent demographically, consistent with the definition of a distinct vertebrate population segment (59 FR 65884-65885, December 21, 1994; 61 FR 4722-4725 February 7, 1996) and of a management unit (NMFS SEFSC 2001). A fifth subpopulation was identified in NMFS SEFSC 2001. Although NMFS has not completed the administrative processes necessary to formally recognize populations or subpopulations of loggerhead sea turtles, these sea turtles are generally grouped by their nesting locations. This is also consistent with recovery criteria which are separated state by state. Based on the most recent reviews of the best scientific data on the population genetics of loggerhead sea turtles and analyses of their population trends (TEWG 1998, 2000; NMFS SEFSC 2001), NMFS treats these genetically distinct loggerhead turtle nesting aggregations as distinct subpopulations whose survival and recovery is critical to the survival and recovery of the species.

The subpopulations are divided geographically as follows: (1) a northern nesting subpopulation, occurring from North Carolina to northeast Florida at about 29° N (approximately 7,500 nests in 1998); (2) a south Florida nesting subpopulation, occurring from 29° N on the east coast to Sarasota on the west coast (approximately 83,400 nests in 1998); (3) a Florida panhandle nesting subpopulation, occurring at Eglin Air Force Base and the beaches near Panama City, Florida (approximately 1,200 nests in 1998); (4) a Yucatán nesting subpopulation, occurring on the eastern Yucatán Peninsula, Mexico (Márquez 1990) (approximately 1,000 nests in 1998) (TEWG 2000, Table 11); and (5) a Dry Tortugas nesting subpopulation, occurring in the islands of the Dry Tortugas, near Key West, Florida (approximately 200 nests per year) (NMFS SEFSC 2001).

The importance of maintaining these subpopulations in the wild is shown by the many examples of extirpated nesting assemblages in the world. Natal homing to the nesting beach provides the genetic barrier between these subpopulations, preventing recolonization by turtles from other nesting beaches. Recent fine-scale analysis of mtDNA work from Florida rookeries indicate that population separations begin to appear between nesting beaches separated by more than 100 km of coastline that does not host nesting (Francisco *et al.* 2000); and tagging studies are consistent with these findings (Richardson 1982, Ehrhart 1979, LeBuff 1990, CMTTP). Nest site relocations greater than 100 km occur, but generally are rare (Ehrhart 1979; LeBuff 1974, 1990; CMTTP; Bjorndal *et al.* 1983).

The loggerhead sea turtles in the action area represent differing proportions of these five Western North Atlantic subpopulations, as well as unidentified subpopulations from the eastern Atlantic. This Opinion considers these subpopulations for the analysis, with particular emphasis on the northern subpopulation of loggerhead sea turtles. The continental shelf areas of the U.S. Atlantic and Gulf of Mexico include foraging habitat for benthic animals. Although the northern subpopulation produces only about 9% of the loggerhead nests in the Western North Atlantic as a whole, a higher proportion of this subpopulation are found in foraging areas from the Scotian Shelf to Georgia compared to the south Florida animals. Between 24% and 46% of the loggerhead sea turtles in this area are from the northern subpopulation (NMFS SEFSC 2001; Bass *et al.* 1999, 1998; Norrgard, 1995; Rankin-Baransky, 1997; Sears 1994, Sears *et al.* 1995). In the Carolinas, the northern subpopulation is estimated to make up from 25% to 28% of the loggerheads (NMFS SEFSC 2001; Bass *et al.* 1999, 1998). About 10% of the loggerhead sea turtles

in foraging areas off the Atlantic coast of central Florida are from the northern subpopulation (Witzell *et al.* in review). In the Gulf of Mexico, most of the loggerhead sea turtles in foraging areas are from the South Florida subpopulation, although the northern subpopulation may represent about 10% of the loggerhead sea turtles in the western gulf (Bass *et al.* 1999).

Loggerheads reported captured in the pelagic longline fishery in the open ocean are mostly pelagic juveniles, although the size range does overlap pelagic stages with small benthic juveniles. (NMFS SEFSC 2001). Recent studies have suggested that not all loggerhead sea turtles follow the model of circumnavigating the North Atlantic Gyre as pelagic immatures, followed by permanent settlement into benthic environments. Some may not totally circumnavigate the north Atlantic. Some of these turtles may either remain in the pelagic habitat in the north Atlantic longer than hypothesized or they may move back and forth between pelagic and coastal habitats (Witzell in prep.). Laurent *et al.* (1998) proposed that between the strict oceanic pelagic stage and the benthic stages, immature turtles may live through an immature coastal stage in which they switch between pelagic and benthic foods and habitats. Also, some animals in the open ocean are probably adults, as they are known to make migrations between foraging grounds and nesting beaches across open ocean waters and benthic juveniles have been reported to migrate well offshore seasonally (Epperly *et al.* 1995, Shoop and Kenney 1992, Mullin and Hoggard 2000).

In the Mediterranean Sea, about 45 - 47% of the pelagic loggerheads are from the western Atlantic subpopulations, including 2% from the northern subpopulation, while the remainder originated from the Mediterranean nesting beaches (Laurent *et al.* 1998). In the vicinity of the Azores and Madeira Archipelagos, about 17-19% of the pelagic loggerheads are from the northern subpopulation, about 71-72% are from the South Florida subpopulation, and about 10-11% are from the Yucatán subpopulation (Bolten *et al.* 1998). The turtles from the Azores samples were dipnetted from the ocean's surface and represent a mixture of pelagic animals. The SEFSC report notes that these animals are smaller than those taken on pelagic longlines; although, if there is no sorting in the pelagic environment based on natal origin then these smaller animals still represent the same genetic mix that might be found in the larger animals. Consequently, these results can be applied to animals caught by the U.S. longline fleet in the North Atlantic, *i.e.*, 19% of the loggerhead turtles captured would be expected to be from the northern subpopulation.

Loggerhead sea turtles originating from the western Atlantic nesting aggregations are believed to lead a pelagic existence in the North Atlantic Gyre for as long as 7-12 years. However, as noted above, studies have suggested that some of these turtles may either remain in the pelagic habitat in the north Atlantic longer than hypothesized or they may move back and forth between pelagic and coastal habitats (Witzell in prep.). Turtles in this life history stage are called "pelagic immatures" and are best known from the eastern Atlantic near the Azores and Madeira and have been reported from the Mediterranean as well as the eastern Caribbean (Bjorndal *et al.* in press). Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length they recruit to coastal inshore and nearshore waters of the continental shelf throughout the U.S. Atlantic and Gulf of Mexico.

Benthic immature loggerheads, the life stage following the pelagic immature stage, have been found from the Scotian Shelf off Maine to southern Texas, and occasionally strand on beaches in northeastern Mexico (C. Ryder, NEFSC, pers. comm., R. Márquez-M., pers. comm.). Large benthic immature loggerheads (70-91 cm) represent a larger proportion of the strandings and in-water captures (Schroeder *et al.* 1998) along the south and western coasts of Florida as compared with the rest of the coast. Benthic immature loggerheads foraging in northeastern U.S. waters are known to migrate southward in the fall as

water temperatures cool (Epperly *et al.* 1995; Keinath 1993; Morreale and Standora 1999; Shoop and Kenney 1992), and migrate northward in spring. Past literature gave an estimated age at maturity of 21-35 years (Frazer and Ehrhart 1985; Frazer *et al.* 1994) and the benthic immature stage as lasting at least 10-25 years. However, NMFS SEFSC (2001) reviewed the literature and constructed growth curves from new data, estimating ages of maturity among the four models ranging from 20-38 years and benthic immature stage lengths from 14-32 years.

Adult loggerhead sea turtles have been reported throughout the range of this species in the U.S. and throughout the Caribbean Sea. As discussed in the beginning of this section, they nest primarily from North Carolina southward to Florida with additional nesting assemblages in the Florida Panhandle and on the Yucatán Peninsula. Non-nesting, adult female loggerheads are reported throughout the U.S. and Caribbean Sea; however, little is known about the distribution of adult males who are seasonally abundant near nesting beaches during the nesting season. Aerial surveys suggest that loggerheads (benthic immatures and adults) in U.S. waters are distributed in the following proportions: 54% in the southeast U.S. Atlantic, 29% in the northeast U.S. Atlantic, 12% in the eastern Gulf of Mexico, and 5% in the western Gulf of Mexico (TEWG 1998).

Based on the data available, it is difficult to estimate the size of the loggerhead sea turtle population in the U.S. or its territorial waters. There is, however, general agreement that the number of nesting females provides a useful index of the species' population size and stability at this life stage. Nesting data collected on index nesting beaches in the U.S. from 1989-1998 represent the best data set available to index the population size of loggerhead sea turtles. However, an important caveat for population trends analysis based on nesting beach data is that this may reflect trends in adult nesting females but not reflect overall population growth rates. Given this caveat, between 1989 and 1998, the total number of nests laid along the U.S. Atlantic and Gulf coasts ranged from 53,014 to 92,182 annually, with a mean of 73,751.

Based on an average of 4.1 nests per nesting female and an average remigration interval of 2.5 years; (Richardson *et al.*, 1978), Murphy and Hopkins (1984) have indirectly estimated the number of adult females in the entire population. The equation is $(\text{number of nests}/4.1 * 2.5)$ and the result is an adult female population of 44,970. On average, 90.7% of these nests were from the south Florida subpopulation, 8.5% were from the northern subpopulation, and 0.8% were from the Florida Panhandle nest sites. There is limited nesting throughout the Gulf of Mexico west of Florida, but it is not known to which subpopulation these nesting females belong. The number of nests in the northern subpopulation from 1989 to 1998 ranged from 4,370 to 7,887, with a 10-year mean of 6,247 nests. With each female producing an average of 4.1 nests in a nesting season, the average number of nesting females per year in the northern subpopulation was 1,524. Assuming an average remigration rate of 2.5 years, the total number of nesting and non-nesting adult females in the northern subpopulation is estimated as 3,810 adult females (TEWG, 1998, 2000).

The status of this northern population based on number of loggerhead nests has been classified as stable or declining (TEWG 2000). Another consideration adding to the vulnerability of the northern subpopulation is that NMFS scientists estimate, using genetics data from Texas, South Carolina, and North Carolina in combination with juvenile sex ratios from those states, that the northern subpopulation produces 65% males, while the south Florida subpopulation is estimated to produce 80% females (NMFS SEFSC 2001).

The NMFS SEFSC report (2001) summarizes trend analyses for number of nests sampled from beaches for the northern subpopulation and the south Florida subpopulation and concluded that from 1978-1990, the northern subpopulation has been stable at best and possibly declining (less than 5% per year). From 1990 to the present, the number of nests in the northern subpopulation has been increasing at 2.8-2.9% annually; however, there are confidence intervals about these estimates that include no growth (0%). Over the same time frame, the south Florida population has been increasing at 5.3-5.4% per year from 1978-1990, and increasing at 3.9-4.2% since 1990.

From a global perspective, the southeastern U.S. nesting aggregation is a critical component of this species. It is second in size only to the nesting aggregations in the Oman and represents about 35 and 40 % of the nesting of this species globally. The status of the Oman nesting beaches has not been evaluated recently, but they are located in a part of the world that has a history of periodic, disruptive, events (*e.g.*, political upheavals, wars, and catastrophic oil spills). The resulting risk facing this nesting aggregation and these nesting beaches is cause for considerable concern (Meylan *et al.* 1995).

3.6.1 Status and Trends

There is general agreement that the number of nesting females provides a useful index of the species' population size and stability at this life stage, even though there are uncertainties in estimating the overall population size. Nesting data collected on index nesting beaches in the U.S. from 1989-1998 represent the best data set available to index the population size of loggerhead sea turtles. However, an important caveat for population trends analysis based on nesting beach data is that this may reflect trends in adult nesting females but not overall population growth rates. Adult nesting females often account for less than 1% of total population numbers (NMFS SEFSC 2001). Interpretation of trend data from nesting beaches for marine turtles is complicated over the short-term, given the species long age to sexual maturity and non-annual reproduction. The difficulties in relying on short-term nesting data to discern population trends is well illustrated by examining 34 years of nesting survey data from Little Cumberland Island, Georgia (Figure 5, Dahlen *et al.* 2000). When the data are apportioned into approximate decade-long intervals, as shown, conclusions of a stable nesting population can be drawn for each segment. However, when viewed in the context of the complete 34 year period, the trend is clearly downward and particularly severe. The importance of long-term survey data cannot be overestimated and a precautionary approach must be employed when long-term data are lacking or incomplete.

The recovery plan for this species (NMFS and USFWS 1991) states that southeastern U.S. loggerheads can be considered for delisting if, over a period of 25 years, adult female populations in Florida are increasing and there is a return to pre-listing annual nest numbers of 800 in North Carolina, 10,000 in South Carolina, and 2,000 in Georgia. This equates to approximately 3,100 nesting females per year at 4.1 nests per female per season and a total population of about 7,800 adult females, with a 2.5 year remigration rate. Earlier, this Opinion provided estimates of the size of the adult female northern subpopulation of loggerheads (comprising females nesting from Amelia Island, Volusia County, Florida northward), based on nesting data from 1989-1998, at 3,810 adult females. In other words, at this gross level of analysis, levels of nesting and population sizes in the northern subpopulation may be slightly less than half of the recovery plan goals. Per its stated recovery goal, the nesting Florida subpopulation is increasing.

LOGGERHEAD TURTLES NESTING AT LITTLE CUMBERLAND ISLAND, GA (1964-1997)

Dahlen et al, 2000

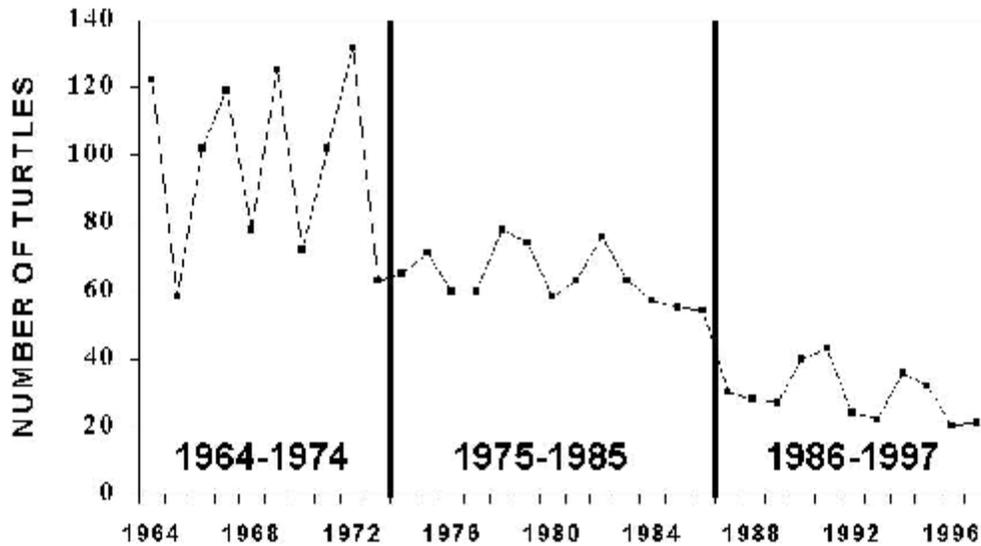


Figure 5: Long-term nesting data from Little Cumberland Island, Georgia, 1964-1997. Data source: Dahlen et al, 2000.

The TEWG (1998, 2000) concluded that the nesting trend for the northern subpopulation of loggerheads is stable or declining. The meta-analysis described in NMFS SEFSC 2001 report, however, suggests that, after 1989, the nesting activity for the northern subpopulation was increasing 2.8 to 2.9% per year but there are confidence intervals around these estimates that include no growth (The south Florida subpopulation is increasing 3.9 to 4.2% per year.) However, NMFS SEFSC (2001) cautions that “it is an unweighted analysis and does not consider the beaches’ relative contribution to the total nesting activity of the subpopulation and must be interpreted with some caution.” For example, South Carolina accounts for over half the total northern subpopulation nesting, and decreases in South Carolina nesting strongly affected the conclusions of TEWG (1998, 2000). In the meta-analysis, however, only a single South Carolina beach was used; and, although it has annual nestings of around 1,000, the proportional change in nesting at that beach was given equal weight to proportional changes at beaches with around 10 nests per year. Furthermore, although the analysis was limited to data from beaches where the effort was believed to have been relatively constant over time, this assumption of consistent effort may not always be true.

Several published reports have discussed the problems facing long-lived species that delay sexual maturity (Crowder *et al.* 1994). In general, these reports concluded that animals that delay sexual maturity and reproduction must have high, annual survival as juveniles through adults to ensure that enough juveniles survive to reproductive maturity and then reproduce enough times to maintain stable population sizes. This general concept can be applied to sea turtles, as shown in several studies (Crouse *et al.* 1987, Crowder *et al.* 1994, Crouse 1999). However, this would mean it would be equally long periods of time before benefits from protection would also be seen; the long benthic juvenile stages (24 and 33 years in

models) means a long time before these are translated into increasing numbers of nesting females on the beach. Heppell *et al.* (in prep.) specifically showed that the growth of the loggerhead sea turtle population was particularly sensitive to changes in the annual survival of both juvenile and adult sea turtles and that the adverse effects of the pelagic longline fishery on loggerheads from the pelagic immature phase appeared critical to the survival and recovery of the species. Crouse (1999) concluded that relatively small changes in annual survival rates of both juvenile and adult loggerhead sea turtles will adversely affect large segments of the total population. NMFS SEFSC (2001) concluded that juvenile stages have the highest elasticity and maintaining or decreasing current sources of mortality in those stages will have the greatest impact on maintaining or increasing population growth rates.

3.6.2 Threats from Natural Causes

Loggerhead sea turtles face numerous threats from natural causes. The 5 known subpopulations of loggerhead sea turtles in the northwest Atlantic and southeast U.S. are subject to fluctuations in the number of young produced annually because of natural phenomena, such as hurricanes, as well as human-related activities. There is a significant overlap between hurricane seasons in the Caribbean Sea and northwest Atlantic Ocean (June to November) and the loggerhead sea turtle nesting season (March to November). Hurricanes can have potentially negative effects on the survival of eggs in sea turtle nests. However, they are normally restricted to small coastal areas. In 1992, Hurricane Andrew affected turtle nests over a 90-mile length of coastal Florida. All of the eggs incubating at the time were destroyed by storm surges on beaches that were closest to the eye of this hurricane (Milton *et al.* 1994). On Fisher Island near Miami, Florida, 69 % of the eggs did not hatch after Hurricane Andrew, probably because they were inundated by the storm surge. A portion of the nests from the northern subpopulation were destroyed by hurricanes which made landfall in North Carolina in the mid to late 1990s. Sand accretion and rainfall that result from these storms can appreciably reduce hatchling success.

3.6.3 Threats from Human Activities

Some anthropogenic mortality that contributed to loggerhead declines, prior to listing under the ESA in 1978, has been mitigated over the years. These and other undocumented factors may be responsible for potentially increasing trends in nesting females seen since 1990 that appear in the NMFS SEFSC (2001) meta analysis for the northern subpopulation of loggerheads. For example, direct takes of eggs and nesting females were prohibited and actions were taken in state waters to close fisheries for various reasons (*e.g.*, sturgeon fisheries using large mesh gillnets in S. C., Florida prohibition on entangling nets). A summary of recent stranding trends provided in NMFS SEFSC (2001) notes that from 1998-2000, strandings decreased in traditionally high stranding zones on the Atlantic coast but doubled to historic levels along the southern Florida Gulf Coast and in the Florida keys, possibly due to a persistent red tide.

A number of anthropogenic impacts were identified by NRC (1990) and NMFS & USFWS (1991) for loggerhead sea turtles, but baseline analysis is complicated by the fact that these impacts (other than drowning in bottom trawls) are largely unquantified. The known sources of impact were included in NMFS SEFSC (2001) Appendix 2. These fall into several categories that impact sea turtles in the marine environment, both domestically and internationally: trawl fisheries, gillnet fisheries, hook and line fisheries, pelagic longline fisheries, pound nets, fish traps, lobster pots, whelk pots, long haul seines and channel nets, as well as non-fishery impacts such as power plants, marine pollution including marine debris, and direct harvest of eggs and adults in foreign countries, oil and gas exploration, development, and transportation, underwater explosions, dredging, offshore artificial lighting, marina and dock construction and operation; boat collisions, and poaching. On their nesting beaches in the U.S., loggerhead sea turtles

are threatened with beach erosion, armoring, and renourishment; artificial lighting; beach cleaning; increased human presence; recreational beach equipment; exotic dune and beach vegetation; predation by species such as fire ants, raccoons (*Procyon lotor*), armadillos (*Dasypus novemcinctus*), opossums (*Didelphus virginianus*); and poaching. Some of these threats are discussed in more detail below. A more thorough description of anthropogenic mortality sources is provided in the TEWG reports (1998, 2000) and in NMFS SEFSC (2001).

Although sea turtle nesting beaches are protected along large expanses of the northwest Atlantic coast (in areas like Cape Canaveral National Seashore and Merritt Island, Archie Carr, and Hobe Sound National Wildlife Refuges), other areas along these coasts have limited or no protection. Volusia County, Florida, for example, allows restricted beach driving on sea turtle nesting beaches and sea turtle nesting can be affected by beach armoring, beach renourishment, beach cleaning, artificial lighting, predation, and poaching on unprotected beaches.

The survival of juvenile loggerhead sea turtles is threatened by a completely different set of threats from human activity once they migrate to the ocean. A proportion of the pelagic immature loggerhead sea turtles from the western Atlantic circumnavigate the North Atlantic over several years (Carr 1987, Bjorndal 1994). During that period, they are exposed to a series of longline fisheries. The U.S. is only one of 23 countries fishing in the Atlantic Ocean and Mediterranean Sea with pelagic longlines from 1990-1997 (Carocci and Majowski 1998). Most of the foreign high seas fisheries in the Atlantic are similar to the U.S. in number of fishing days and miles of line per day, with some exceptions, such as the Mediterranean fleet which fishes smaller vessels, once per night and close to shore (NMFS SEFSC 2001).

Loggerheads are primarily exposed to these fleets in the pelagic juvenile stage. According to observer records, an estimated 7,891 loggerhead sea turtles were caught by the U.S. Atlantic tuna and swordfish longline fisheries between 1992-1999, of which 66 were released dead (NMFS SEFSC 2001). However, the U.S. fleet accounts for a small proportion (5-8%) of the total hooks fished in the Atlantic Ocean compared to other nations, including Taipei, Brazil, Trinidad, Morocco, Cyprus, Venezuela, Korea, Mexico, Cuba, U.K., Bermuda, People's Republic of China, Grenada, Canada, Belize, France, and Ireland (Carocci and Majowski 1998). Reports of incidental takes of turtles are incomplete for many of these nations (see NMFS SEFSC 2001 for a complete description of take records). For example, bottom set lines in the coastal waters of Madeira, Portugal, are reported to take an estimated 500 pelagic immature loggerheads each year (Dellinger and Encarnacao 2000). Based on their proportional distribution, the capture of immature loggerhead sea turtles in longline fleets in the Azores and Madeira Archipelagoes and the Mediterranean Sea will have a significant, adverse effect on the annual survival rates of juvenile loggerhead sea turtles from the western Atlantic subpopulations. Considerably more loggerheads than leatherbacks are taken in the Mediterranean Sea. Another example is the Mexican fishery in the Gulf of Mexico which incidentally captures 5 turtles per 100 trips with mortality estimated at 1.6 turtles per 100 trips. Adding up the under-represented observed takes per country per year of 23 actively fishing countries likely results in an estimate of thousands of animals annually over different life stages.

In waters off the coastal U.S., the survival of juvenile loggerhead sea turtles is affected by a suite of fisheries in federal and state waters (see *Effects of the Action*, Section 4). Loggerhead turtles are captured, injured, or killed in shrimp fisheries off the Atlantic coast; along the southeastern Atlantic coast, loggerhead turtle populations were declining in the presence of shrimp fishing off the nesting beaches, before the required use of TEDs (Magnuson *et al.* 1990). The management of shrimp harvest in the Gulf of Mexico demonstrates the correlation between shrimp trawling and impacts to sea turtles. Waters out

to 200 nm are closed to shrimp fishing off of Texas each year for approximately a 3-month period (mid-May through mid-July) to allow shrimp to migrate out of estuarine waters and sea turtle strandings decline substantially during this period (NMFS, STSSN *unpublished data*).

Loggerhead sea turtles are captured in fixed pound net gear in the Long Island Sound, in pound net gear and trawls for summer flounder and other finfish fisheries in the mid-Atlantic and Chesapeake Bay, in gillnet fisheries in the mid-Atlantic and elsewhere, in fisheries for monkfish and for spiny dogfish, and in northeast sink gillnet fisheries. Capture rates of sea turtles in the longline fishery are second only to those of the U.S. shrimp fishing fleet (Crouse 1999, Magnuson *et al.* 1990), although shrimping probably does not significantly impact immature, pelagic stage loggerheads.

Although loggerhead sea turtles are most vulnerable to pelagic longlines during their pelagic, immature life history stage, there is some evidence that benthic immatures may also be captured, injured, or killed by pelagic fisheries. Any loggerhead sea turtles that follow this developmental model of moving back and forth between pelagic and coastal habitats could be adversely affected by shark gillnets and shark bottom longlines set in coastal waters, in addition to pelagic longlines.

Virtually all of the pelagic immature loggerheads taken in the Portuguese longline fleet in the vicinity of the Azores and Madeira are from western North Atlantic nesting subpopulations (Bolten *et al.* 1994, 1998) and about half of those taken in both the eastern and western basins of the Mediterranean Sea are from the western North Atlantic subpopulations (Bowen *et al.* 1993; Laurent *et al.* 1998). Aguilar *et al.* (1995) estimated that the Spanish swordfish longline fleet, which is only one of the many fleets operating in the region, captures more than 20,000 juvenile loggerheads annually, killing an estimated 20-30%. Estimated bycatch of marine turtles by the U.S. Atlantic tuna and swordfish longline fisheries, based on observer data, was significantly greater than reported in logbooks through 1997 (Johnson *et al.* 1999; Witzell 1999), but was comparable by 1998 (Yeung 1999). Observer records indicate that an estimated 6,900 loggerheads were captured by the U.S. fleet between 1992-1998, of which an estimated 43 were dead (NMFS SEFSC 2001). Aguilar *et al.* (1995) reported that hooks were removed from only 171 of 1,098 loggerheads captured in the Spanish longline fishery, describing that removal was possible only when the hook was found in the mouth, the tongue or, in a few cases, externally (flippers, *etc.*); the presumption is that all others had ingested the hook.

From 1981-1990, 397 loggerhead sea turtles were incidentally captured in gill nets set by Italian fishermen in the central Mediterranean Sea; mortality was reported to be 73.6%. An additional study estimated 16,000 loggerheads per year are captured by net with 30% mortality. Observers of the Spanish driftnet fishery in the western Mediterranean documented the incidental capture of 30 loggerheads from 1993-1994, of which one was dead; 236 loggerheads were estimated to have been caught in 1994. Six-hundred loggerheads are estimated to have been caught annually by gillnets in Nicaragua. Gillnets set for finfish and sharks in Belize are also suspected of catching sea turtles (see NMFS SEFSC 2001).

Bottom set lines in the coastal waters of Madeira, Portugal, are reported to take an estimated 500 pelagic immature loggerheads each year. Adult female loggerheads are taken by hand by the indigenous people inhabiting Boavista Island, Cape Verde, Western Africa. In Cuba, loggerheads are commercially harvested (see NMFS SEFSC 2001).

An additional source of mortality is ingestion of marine debris. A summary of marine debris impacts can be found in the TEWG reports (1998, 2000) and NMFS SEFSC (2001).

3.7 Leatherback turtle

The Recovery Plan for Leatherback Turtles (*Dermochelys coriacea*) contains a description of the natural history and taxonomy of this species (USFWS and NMFS 1992). Leatherbacks are widely distributed throughout the oceans of the world, and are found in waters of the Atlantic, Pacific, Caribbean, and the Gulf of Mexico (Ernst and Barbour 1972). Adult leatherbacks forage in temperate and subpolar regions from 71°N to 47°S latitude in all oceans and undergo extensive migrations to and from tropical nesting beaches between 90°N and 20°S. In the Atlantic Ocean, leatherbacks have been recorded as far north as Newfoundland and Labrador, Canada and Norway, and as far south as Uruguay and Argentina and South Africa (see NMFS SEFSC 2001).

Female leatherbacks nest from southeastern United States to southern Brazil in the western Atlantic and from Mauritania to Angola in the eastern Atlantic. The most significant nesting beaches in the Atlantic, and perhaps in the world, are in French Guiana and Surinam (see NMFS SEFSC 2001). When they leave the nesting beaches, leatherbacks move offshore but eventually utilize both coastal and pelagic waters. Leatherbacks are deep divers, with recorded dives to depths in excess of 1000 m (Eckert *et al.* 1989), but they will come into shallow waters if there is an abundance of jellyfish nearshore. Leary (1957) reported a large group of up to 100 leatherbacks just offshore of Port Aransas, Texas associated with a dense aggregation of *Stomolophus*. They also occur in Buzzard's Bay and Nantucket and Vineyard Sounds during the summer and fall and in Cape Cod Bay and Narragansett Bay, particularly during the fall. Shoop and Kenney (1992) summarized 3 years of survey effort from the eastern Atlantic out to the 2000 m isobath and reported leatherback turtles throughout the study area, both inside and outside the 2000 m isobath. A summer seasonal peak in sea turtle density was noted throughout the study area (NMFS NEFSC, *unpublished data*).

The leatherback is the largest living turtle and it ranges farther than any other sea turtle species, exhibiting broad thermal tolerances (NMFS and USFWS 1995). Leatherback turtles feed primarily on cnidarians (medusae, siphonophores) and tunicates (salps, pyrosomas) and are often found in association with jellyfish.

Although leatherbacks are a long-lived species (> 30 years), they are somewhat faster to mature than loggerheads. Age to maturity estimates for females span from as little as 3-6 years (Rhodin 1985) to 13-14 years (Zug and Porham 1996). They nest frequently (up to 7 nests per year) during a nesting season and nest about every 2-3 years. During each nesting, they produce 100 eggs or more in each clutch and thus, can produce 700 eggs or more per nesting season (Schultz 1975).

3.7.1 Genetics

Genetic analyses of leatherbacks to date indicate that within the Atlantic basin significant genetic differences occur among St. Croix, U.S. Virgin Islands, and mainland Caribbean populations (Florida, Costa Rica, Suriname/French Guiana) and between Trinidad and the same mainland populations, (Dutton *et al.* 1999) leading to the conclusion that there are at least 3 separate subpopulations of leatherbacks in the Atlantic. Much of the genetic diversity is in the relatively small insular subpopulations.

Genetic analyses indicate that female leatherback turtles nesting in St.Croix/Puerto Rico and those nesting in Trinidad differ from each other and from turtles nesting in Florida, French Guiana/Surinam and along the South African Indian Ocean coast. Turtles nesting in Florida, French Guiana/Surinam and South Africa cannot be distinguished at this time with mtDNA. The largest known nesting aggregation of the

leatherback turtle in the western North Atlantic Ocean occurs in French Guiana. This may be the largest nesting aggregation of leatherback turtles in the world (see NMFS SEFSC 2001).

The analysis of mitochondrial DNA (mtDNA) indicate that the loss of the nesting populations from the St. Croix region and Trinidad would essentially eliminate most of the detected mtDNA variation throughout the Atlantic (Dutton *et al.* 1999). To date, no studies have been published on the genetic make-up of pelagic or benthic leatherbacks in the Atlantic. Compared to current knowledge regarding loggerhead populations, the genetic distinctness of leatherback populations is less clear and populations or subpopulations of leatherback sea turtles have not been formally recognized based on genetic studies. This Opinion, therefore, considers the status of the various nesting populations, as well as the Atlantic and worldwide populations.

The nesting aggregation in French Guiana has been declining at about 15% per year since 1987. From the period 1979-1986, the number of nests was increasing at about 15% annually. The number of nests in Florida and the U.S. Caribbean has been increasing at about 10.3% and 7.5%, respectively, per year since the early 1980's but the magnitude of nesting is much smaller than that along the French Guiana coast (see NMFS SEFSC 2001).

3.7.2 Status and Trends

Initial estimates of the worldwide leatherback population were between 29,000 and 40,000 breeding females (Pritchard 1971), later refined to approximately 115,000 adult females globally (Pritchard 1982). An estimate of 34,500 females (26,200 - 42,900) was made by Spotila *et al.* (1996), along with a claim that the species as a whole was declining and local populations were in danger of extinction (NMFS SEFSC 2001). They attribute this to fishery-related mortality but, at least historically, it was due primarily to intense exploitation of the eggs (Ross 1979). On some beaches in the Pacific, nearly 100% of the eggs laid have been harvested (Eckert 1996). Eckert (1996) and Spotila *et al.* (1996) record that adult mortality has also increased significantly, particularly as a result of driftnet and longline fisheries. The Pacific population is in a critical state of decline, now estimated to number less than 3,000 total adult and subadult animals (Spotila *et al.* 2000). The status of the Atlantic population is less clear. In 1996, it was reported to be stable, at best (Spotila *et al.* 1996), but numbers in the Western Atlantic at that writing were reported to be on the order of 18,800 nesting females. According to Spotila (pers. comm.), the Western Atlantic population currently numbers about 15,000 nesting females, whereas current estimates for the Caribbean (4,000) and the Eastern Atlantic (*i.e.*, off Africa, numbering ~ 4,700) have remained consistent with numbers reported by Spotila *et al.* in 1996. Spotila *et al.* (2000) indicates that between 1989 and 1995, marked leatherback returns to the nesting beach at St. Croix averaged only 48.5%, but that the overall nesting population grew. This is in contrast to a Pacific nesting beach at Playa Grande, Costa Rica, where only 11.9% of turtles tagged in 1993-94 and 19.0% of turtles tagged in 1994-95 returned to nest over the next 5 years. Characterizations of the Pacific population suggest that it has a very low likelihood of survival and recovery in the wild under current conditions. However, NMFS SEFSC (2001) note that while all these authors have noted dramatic declines in Pacific nesting beaches, they have suggested apparently stable or increasing nesting populations in the Atlantic.

Nest counts are the only reliable population information available for leatherback turtles. Recent declines have been seen in the number of leatherbacks nesting worldwide (NMFS and USFWS 1995). Natural fluctuations such as an annual cycle or the fact that females may shift their nesting efforts in places like Suriname due to erosion at French Guiana, for example, complicate analysis of trends based on that data. Another important factor is that nesting trends reflect trends in adult females, a small proportion of the

population, and may not be valid for the rest of the population (NMFS SEFSC 2001). The status of the leatherback population in the Atlantic is difficult to assess since major nesting beaches occur over broad areas within tropical waters outside the United States. Although leatherbacks occur in all U.S. Atlantic, Gulf, and Caribbean waters, it is estimated that about 250 females now visit nesting sites in the U.S. (*i.e.*, Florida, Puerto Rico and the U.S. Virgin Islands)(NMFS SEFSC 2001). The primary leatherback nesting beaches occur in French Guiana, Suriname, and Costa Rica in the western Atlantic, and in Mexico in the eastern Pacific. Although increased observer effort on some nesting beaches has resulted in increased reports of leatherback nesting, declines in nest abundance have been reported from the beaches of greatest nesting densities.

The major western Atlantic nesting area for leatherbacks is located in the Suriname-French Guiana trans-boundary region. Chevalier and Giron dot (1998) report that combined nesting in the two countries has been declining since 1992. Nesting also occurs on Florida's east coast. In 1998 the Florida Department of Environmental Protection reported 351 nests and 146 false crawls on the east coast of Florida. In the eastern Caribbean, nesting occurs primarily in the Dominican Republic, the Virgin Islands, and on islands near Puerto Rico. Sandy Point, on the western edge of St. Croix, Virgin Islands, has been designated by the U.S. Fish and Wildlife Service as critical habitat for nesting leatherback turtles.

The current status of nesting populations in French Guiana and Suriname is difficult to interpret because these beaches are so dynamic geologically. Schulze (1975) described a 10-year cycle of beach accretion and erosion in Guyana that could explain part of the cycle observed in nesting over the last 30 years. Chevalier *et al.* (in press) state that since the mid-1970s leatherback nesting has declined (1987-1992 mean = 40,950 nests and 1993-1998 mean = 18,100 nests). They state that there is very little shifting in nesting from French Guiana and Suriname to other Caribbean sites (there has only been 1 tag recapture elsewhere). Numbers are decreasing in Suriname, too. Chevalier *et al.* (in press) claim that there is no human-induced mortality on the beach in French Guiana, and natural mortality of adults should be low. There has been very low hatchling success on beaches used for the last 25 years.

Zug (1996) pointed out that the combination of the loss of long-lived adults in fishery related mortality, and the lack of recruitment stemming from elimination of annual influxes of hatchlings because of intense egg harvesting, has caused the sharp decline in leatherback populations. The author stated that "the relatively short maturation time of leatherbacks offers some hope for their survival if we can greatly reduce the harvest of their eggs and the accidental and intentional capture and killing of large juveniles and adults."

In summary, the conflicting information regarding the status of Atlantic leatherbacks makes it difficult to conclude whether or not the population is currently in decline. Numbers at some nesting sites are up, while at others they are down. Data collected in southeast Florida clearly indicate increasing numbers of nests for the past twenty years (9.1-11.5% increase), although it is critical to note that there was also an increase in the survey area in Florida over time (NMFS SEFSC 2001). At one site (St. Croix), population growth has been documented despite large apparent mortality of nesting females; in 1979 the number of nests is estimated to be increasing at 7.5% per year (NMFS SEFSC 2001). However, the largest leatherback rookery in the western North Atlantic remains along the northern coast of South America in French Guiana and Suriname. While Spotila *et al.* (1996) indicated that turtles may have been shifting their nesting from French Guiana to Suriname due to beach erosion, analyses show that the overall area trend in number of nests has been negative since 1987 at a rate of 15.0 - 17.3 % per year (NMFS SEFSC 2001, Appendix 1). If turtles are not nesting elsewhere, it appears that the Western Atlantic portion of the population is being subjected to mortality beyond sustainable levels, resulting in a continued decline in numbers of nesting females.

As noted above, there are many human-related sources of mortality for leatherbacks. Due to a combination of factors, including the continued harvest of eggs and adult turtles for meat, the effects of ocean pollution, it is clear that the endangered leatherback populations of the Atlantic require major conservation efforts to ensure their long-term survival and recovery in the wild.

The U.S. pelagic longline fishery, in combination with the foreign longline fleets and coastal fishery, could produce sufficient leatherback mortality to result in decreases evident on South American nesting beaches. On the other hand, large removals of eggs alone could produce the same result and would be evidenced on the nesting beach quickly. In order to determine the impact of longline fleets, there needs to be an apportionment of turtles by nesting beach origin and the mortality rate needs to be quantified which cannot be done at the current time (NMFS SEFSC 2001). Other clear concerns for South American nesting turtles are impacts on French Guiana and Suriname beaches. Even if the longline takes were eliminated, those declines would not likely reverse. On the other hand, if measures to reduce mortality occur in French Guiana and Suriname, that alone could be enough to reverse those declines.

3.7.3 Threats from human activities

Of the Atlantic turtle species, leatherback turtles seem to be the most susceptible to entanglement in fishing gear, such as lobster gear lines and longline gear, rather than swallowing hooks. This susceptibility may be the result of attraction to gelatinous organisms and algae that collect on buoys and buoy lines at or near the surface, and perhaps to the lightsticks used to attract target species in the longline fishery. They are also susceptible to trawl capture.

Chevalier *et al.* (in press) indicate that leatherback turtles in French Guiana are threatened by fishing (longlines, drift nets, and trawling), pollution (plastic bags and chemicals), and boat propellers. Around 90% of the nests are laid within 25 km of the Maroni (also “Marowijne” or “Marouini”) River estuary. Strandings in 1997, 1998, and 1999 in the estuary were 70, 60, and 100, which Chevalier *et al.* (in press) consider underestimates. Interviews with fishermen direct observation of a 1-km gillnet with 7 dead leatherbacks along with STSSN data, indicated that there are large numbers of leatherbacks captured incidentally in large mesh nets.

In French Guiana, protected areas are generally located in nearshore areas while driftnets are set offshore. There are no such protected areas off Suriname, and fishing there occurs at the beach. Offshore nets soak overnight in Suriname; many boats fish overnight. According to Chevalier *et al.* (in press), the French Guiana government is establishing a working group to deal with accidental capture and to enforce the legislation. They will work towards the management of the fishery activity, collaborate with Suriname, study the accidental capture by the fishermen, satellite track turtles, and study strandings. The main problem appears to be the close proximity of the driftnet fishery to the nesting areas and shrimp trawling without TEDs off nesting beaches. Tag return data emphasize the global nature of the leatherback and the link between these South American nesters and animals found in U.S. waters. For example, a nesting female tagged May 29, 1990, in French Guiana was later recovered and released alive from the York River, VA. Another nester tagged in French Guiana on June 21, 1990, was later found dead in Palm Beach, Florida (STSSN database, *unpublished data*).

Swinkels and van Tienen (in press) state that, from 1995-1999, there was a large increase in leatherback nesting in Suriname. There is a nature reserve in Suriname and one in adjacent French Guiana. There were increasing population trends observed on 3 beaches but poaching of the nests was 80%. Samsambo Beach in Suriname is a very dynamic beach, which has been newly created (by natural events) and now

is a nesting beach. In 1995, very few were poached but Swinkels and Tienen indicate that since that time poaching has increased. In 1999 there were > 4,000 nests, of which about 50% were poached. Because the beach had been renourished by natural processes over this period, Swinkels and Tienens hypothesized that there had been a shift in nesting activity (from other nesting areas). Their alternate hypothesis was that the new nesting represented recruitment to the population.

Leatherbacks are exposed to pelagic fisheries throughout their life cycle. According to observer records, an estimated 6,363 leatherback sea turtles were caught by the U.S. Atlantic tuna and swordfish longline fisheries between 1992-1999, of which 88 were released dead (NMFS SEFSC 2001). Leatherbacks make up a significant portion of takes in the Gulf of Mexico and South Atlantic areas, but are more often released alive. The U.S. fleet accounts for 5-8% of the hooks fished in the Atlantic Ocean. Other nations, including Taipei, Brazil, Trinidad, Morocco, Cyprus, Venezuela, Korea, Mexico, Cuba, U.K., Bermuda, People's Republic of China, Grenada, Canada, Belize, France, and Ireland also fish in these waters (Carocci and Majkowski 1998). Reports of incidental takes of turtles are incomplete for many of these nations (see NMFS SEFSC 2001, for a complete description of take records). Adding up the under-represented observed takes per country per year of 23 actively fishing countries would likely result in estimates of thousands of leatherback sea turtles annually over different life stages.

3.7.3.1 Ingestion of marine debris

Leatherback sea turtles may be more susceptible to marine debris ingestion than other species due to their pelagic existence and the tendency of floating debris to concentrate in convergence zones which adults and juveniles use for feeding areas and migratory routes (Lutcavage *et al.* 1997; Shoop and Kenney 1992). Investigations of the stomach contents of leatherback sea turtles revealed that a substantial percentage (44% of the 16 cases examined) contained plastic (Mrosovsky 1981). Along the coast of Peru, intestinal contents of 19 of 140 (13%) leatherback carcasses were found to contain plastic bags and film (Fritts 1982). The presence of plastic debris in the digestive tract suggests that leatherbacks might not be able to distinguish between prey items and plastic debris (Mrosovsky 1981). Balazs (1985) speculated that the object may resemble a food item by its shape, color, size or even movement as it drifts about, and induce a feeding response. Although necropsies conducted between 1980 and 1992 by the Sea Turtle Stranding and Salvage Network (STSSN) participants showed that leatherbacks were more likely to ingest marine debris in the southeastern U.S. than in the northeast, it was noted that leatherbacks also consume plastic bags in the northeastern U.S. (Witzell and Teas 1994). However, when data were included through 1999, the majority (72%) of leatherbacks that had ingested marine debris or fishing gear were found from Virginia through Maine. Of 33 leatherbacks that were necropsied in New York, plastic bags were found in 10 animals (Sadove and Morreale 1990 *in* NMFS SEFSC 2001).

3.7.3.2 Entanglements

Sea turtles entangled in fishing gear generally have a reduced ability to feed, dive, surface to breathe or perform any other behavior essential to survival (Balazs 1985). They may be more susceptible to boat strikes if forced to remain at the surface, and entangling lines can constrict blood flow resulting in necrosis. Leatherbacks seem more likely to become entangled in fishing gear than other species. Leatherback entanglement in longline fishing gear is discussed in NMFS SEFSC (2001). The fish trap fishery, operating in Rhode Island from March through December, is known to capture sea turtles. Leatherbacks have been captured alive in large fish traps set off Newport, Rhode Island, most are reported to be released alive (Anonymous 1995).

From 1990 - 2000, 92 leatherbacks from New York through Maine were reported entangled in lobster pot gear between the months of June and October (NEFSC, unpublished data). There have been two additional records of leatherbacks that stranded with lobster gear attached. The leatherbacks become entangled in the buoy line and/or ground line, possibly mistaking the buoys for cannonball jellyfish (Anonymous 1995). Massachusetts, Rhode Island, Connecticut, and New York all have active lobster pot fisheries which can entangle leatherbacks (Anonymous 1995). Entanglement in lobster pot lines was cited as the leading determinable cause of adult leatherback strandings in Cape Cod Bay, Massachusetts (Prescott 1988; R. Prescott pers. comm.). Many of the stranded leatherbacks for which a direct cause of death could not be documented showed evidence of rope scars or wounds and abraded carapaces, implicating entanglement.

In the Southeast U.S. mid-Atlantic waters, the blue crab fishery is another potential source of leatherback entanglement. In North Carolina, two leatherback sea turtles were reported entangled in a crab pot buoy inside Hatteras Inlet (D. Fletcher, pers. comm.). A third leatherback was reported entangled in a crab pot buoy in Pamlico Sound off of Ocracoke. This turtle was disentangled and released alive; however, lacerations on the front flippers from the lines were evident (D. Fletcher, pers. comm.). Leatherbacks become entangled in Florida's lobster pot and stone crab fisheries also, as documented on stranding forms.

Although not documented as the major cause of leatherback strandings in the U.S. Virgin Islands for the time period 1982 to 1997 (1 of 5 leatherbacks stranded due to entanglement) (Boulon 2000), leatherbacks have been observed with their flippers wrapped in the line of West Indian fish traps (R. Boulon, pers. comm.). STSSN leatherback strandings for 1980-1999 documented significantly more strandings as a result of entanglement in the northern states (Virginia to Maine; 62%) than southern (Florida's east coast to North Carolina; 18%) or Gulf states (Florida's west coast to Texas; 19%). The majority (67%) of these strandings were the result of being entangled in crab or lobster trap lines; additional sources of entanglement included entanglement in fishing line or nets or having a hook in the mouth or flipper. (*In* NMFS SEFSC 2001.)

Leatherback sea turtles also are vulnerable to capture in gillnets. Gillnet fisheries operating in the nearshore waters of the mid-Atlantic states are likely to take leatherbacks since these fisheries and leatherbacks may co-occur; however, there is very little quantitative data on capture rate and mortality. According to the NMFS NEFSC Fisheries Observer Program, in 1994, 2 live and 2 dead leatherback sea turtles were reported incidentally captured in drift gillnets set in offshore waters from Maine to Florida (with 56% observer coverage); in 1995, 15 live and 12 dead leatherback sea turtles were reported (70% coverage); in 1996, 1 live leatherback was reported (54% coverage); in 1998, 3 live and 2 dead leatherbacks were reported (92% coverage). The NMFS NEFSC Fisheries Observer Program also had observers on the bottom coastal gillnet fishery which operates in the Mid-Atlantic, but no takes of leatherback sea turtles were observed from 1994-1998. Observer coverage of this fishery, however, ranged from <1% to 5%. In North Carolina, a leatherback was reported captured in a gillnet set in Pamlico Sound at the north end of Hatteras Island in the spring of 1990 (D. Fletcher, pers. comm.). It was released alive by the fishermen after much effort.

Five other leatherbacks were released alive from nets set in North Carolina during the spring months: one was from a net (unknown gear) set in the nearshore waters near the North Carolina/Virginia border (1985); two others had been caught in gillnets set off of Beaufort Inlet (1990); a fourth was caught in a gillnet set off of Hatteras Island (1993); and a fifth was caught in a sink net set in New River Inlet (1993). In September of 1995, however, two dead leatherbacks were removed from a large (11-inch)

monofilament shark gillnet set in the nearshore waters off of Cape Hatteras, North Carolina. Gillnets set in northwest Atlantic coastal waters are reported to routinely capture leatherback sea turtles (Goff and Lien 1988; Goff *et al.* 1994; Anonymous 1996). Leatherbacks often drown in fish nets set in coastal waters of Sao Tome, West Africa (Castroviejo *et al.* 1994; Graff 1995). Gillnets are one of the suspected causes for the decline in the leatherback sea turtle population in French Guiana (Chevalier *et al.* 1999). In the waters of coastal Nicaragua, gillnets targeting green and hawksbill turtles also incidentally catch leatherback turtles (Lagueux *et al.* 1998). An estimated 1,000 mature female leatherback sea turtles are caught annually off of Trinidad and Tobago with mortality estimated to be between 50-95% (Eckert and Lien 1999). Many of the turtles do not die as a result of drowning, but rather because the fishermen butcher them in order to get them out of their nets (NMFS SEFSC 2001).

The National Research Council Committee on Sea Turtle Conservation identified incidental capture in shrimp trawls as the major anthropogenic cause of sea turtle mortality (National Research Council 1990). Although federal regulations requiring TEDs in trawls were fully implemented in May 1991 and U.S. sea turtle strandings have declined since then (Crouse, Crowder, and Heppell *unpublished data*, as cited by Crowder *et al.* 1995), trawls equipped with TEDs are still taking large immature and adult loggerhead and green sea turtles (Epperly and Teas 1999) and leatherbacks (Henwood and Stuntz 1987). As leatherbacks make their annual spring migration north, they are likely to encounter shrimp trawls working in the nearshore waters off the Atlantic coast. Although the Leatherback Contingency Plan was developed to protect migrating leatherbacks from being incidentally captured and killed in shrimp trawls, NMFS has also had to implement additional leatherback protections outside of the contingency plan, through emergency rules in response to high strandings of leatherbacks in Florida and Texas. Because of these high leatherback strandings occurring outside the leatherback conservation zone, the lack of aerial surveys conducted in the fall, the inability to conduct required replicate surveys due to weather, equipment or personnel constraints, and the possibility that a 2-week closure was insufficient to ensure that leatherbacks had vacated the area, NMFS published an Advanced Notice of Proposed Rulemaking in April 2000 (65 FR 17852-17854, April 5, 2000) indicating that NMFS was considering publishing a proposed rule to provide additional protection for leatherback turtles in the shrimp fishery. NMFS requested all shrimp trawlers to use TEDs modified to release leatherback sea turtles along the east coast of Florida to the Georgia/Florida border through the end of March 2000 (December 11, 2000 NR00-061). This request had the effect of protecting leatherbacks during the winter Florida shrimp season that tend to stay in this area until the start of the spring migration.

Turtle excluder devices are required in the mid-Atlantic winter trawl fishery for summer flounder in waters south of Cape Charles, Virginia; however, these small TEDs can not exclude leatherback sea turtles. Although not documented, it is suspected that this and other trawl fisheries may take turtles north of Cape Charles where TEDs are not required. In Rhode Island, leatherbacks are occasionally taken by trawlers targeting scup, fluke, and monkfish in state waters (Anonymous 1995). It is likely that leatherbacks may be taken by trawlers operating off other mid-Atlantic states. Observers onboard shrimp trawlers operating in the northeastern region of Venezuela documented the capture of 48 sea turtles, of which 6 were leatherbacks, from 13,600 trawls (Marcano and Alio 2000). They estimated annual capture of all sea turtle species to be 1,370 with an associated mortality of 260 turtles, or about 19%. (NMFS SEFSC 2001).

3.7.3.3 Poaching

NMFS SEFSC (2001) notes that poaching of juveniles and adults is still occurring in the U.S. Virgin Islands, both juveniles and adults. Four of the five strandings in ST. Croix were the result of poaching

(Boulon 2000). A few cases of fishermen poaching leatherbacks have been reported from Puerto Rico, but most of the poaching is on eggs. In Ghana, nearly two thirds of the leatherback sea turtles that come up to nest on the beach are killed by local fishermen

3.8 Green turtle

Green turtles are distributed circumglobally, mainly in waters between the northern and southern 20° C isotherms (Hirth 1971). Green turtles were traditionally highly prized for their flesh, fat, eggs, and shell, and fisheries in the United States and throughout the Caribbean are largely to blame for the historical decline of the species.

In the western Atlantic, several major nesting assemblages have been identified and studied (Peters 1954, Carr and Ogren 1960, Parsons 1962, Pritchard 1969, Carr *et al.* 1978). The largest, at Tortuguero, Costa Rica, has shown a long-term increasing trend since monitoring began in 1971. The increase is from an annual fitted-estimated number of emergences of under 20,000 in 1971 to over 40,000 in 1996. Over 100,000 emergences occurred in 1995 (Bjorndal *et al.* 1999b). In the continental United States, green turtle nesting occurs on the Atlantic coast of Florida (Ehrhart 1979). Occasional nesting has been documented along the Gulf coast of Florida, at southwest Florida beaches, as well as the beaches on the Florida Panhandle (Meylan *et al.* 1995). Most documented green turtle nesting activity occurs on Florida index beaches, which were established to standardize data collection methods and survey effort on key nesting beaches. The pattern of green turtle nesting shows biennial peaks in abundance, with a generally positive trend during the ten years of regular monitoring since establishment of the index beaches in 1989, perhaps due to increased protective legislation throughout the Caribbean (Meylan *et al.* 1995). A long-term in-water monitoring study in the Indian River Lagoon of Florida has tracked the populations of juvenile green turtles in a foraging environment and noted significant increases in catch-per-unit effort (more than doubling) between the years 1983-85 and 1988-90. An extreme, short-term increase in CPUE of ~300% was seen between 1995 and 1996 (Ehrhart *et al.* 1996).

Green turtles are herbivores, and feed primarily on sea grasses and macroalgae in shallow bays, lagoons, and reefs (Rebel 1974). Some of the principal feeding pastures in the Gulf of Mexico include inshore south Texas waters, the upper west coast of Florida, and the northwestern coast of the Yucatan Peninsula. Additional important foraging areas in the western Atlantic include Florida, Florida Bay, Florida Keys, the Culebra archipelago and other Puerto Rico coastal waters, the south coast of Cuba, the Miskito coast of Nicaragua, the Caribbean coast of Panama, and scattered areas along Colombia and Brazil (Hirth 1971). The preferred food sources in these areas are *Cymodocea*, *Thalassia*, *Zostera*, *Sagittaria*, and *Vallisneria* (Babcock 1937, Underwood 1951, Carr 1952, 1954).

Green turtles were once abundant enough in the shallow bays and lagoons of the Gulf of Mexico to support a commercial fishery, which landed over one million pounds of green turtles in 1890 (Doughty 1984). Doughty reported that the decline in the turtle fishery throughout the Gulf of Mexico occurred by 1902. Currently, green turtles are uncommon in offshore waters of the northern Gulf, but abundant in some inshore embayments. Shaver (1994) live-captured a number of green turtles in channels entering into Laguna Madre, in South Texas. She noted the abundance of green turtle strandings in Laguna Madre inshore waters and opined that the turtles may establish residency in the inshore foraging habitats as juveniles. Algae along the jetties at entrances to the inshore waters of South Texas was thought to be an important food source for green turtles tracked via radio-telemetry (Renaud *et al.* 1995). Transmitter-equipped turtles remained near jetties for most of the tracking period. This project was restricted to late

summer months, and therefore may reflect seasonal influences. Coyne (1994) observed increased movements of green turtles during warm water months.

3.9 Hawksbill sea turtle

The hawksbill sea turtle is relatively uncommon in the waters of the continental United States, preferring coral reefs, such as those found in the Caribbean and Central America. Hawksbills feed primarily on a wide variety of sponges but also consume bryozoans, coelenterates, and mollusks. Nesting areas in the western U.S. North Atlantic include Puerto Rico and the Virgin Islands. NMFS has designated the coastal waters surrounding Mona and Monito Islands, off the west coast of Puerto Rico, as critical habitat for hawksbills. Mona Island supports the largest population of nesting hawksbills in the U.S. Caribbean. In the northern Gulf of Mexico, a surprising number of small hawksbills are encountered off Texas. Most of the Texas records are probably in the 1-2 year class range. Many of the individuals captured or stranded are unhealthy or injured (Hildebrand 1983). The lack of sponge-covered reefs and the cold winters in the northern Gulf of Mexico probably prevent hawksbills from establishing a strong presence in that area. In the wider Caribbean, hawksbill populations are reported to be declining or depleted in 22 of the 26 geopolitical units for which some status and trend information is available. The only populations considered to be increasing in size are those of Mexico and Mona Island, Puerto Rico (Meylan 1999).

3.10 Kemp's ridley turtle

Of the seven extant species of sea turtles of the world, the Kemp's ridley sea turtle has declined to the lowest population level. The recovery plan for the Kemp's ridley sea turtle (USFWS and NMFS 1992b) contains a description of their natural history, taxonomy, and distribution. Kemp's ridleys nest in daytime aggregations known as arribadas, primarily at Rancho Nuevo, a stretch of beach in Mexico. Most of the population of adult females nest in this single locality (Pritchard 1969). When nesting aggregations at Rancho Nuevo were discovered in 1947, adult female populations were estimated to be in excess of 40,000 individuals (Hildebrand 1963). By the early 1970s, the world population estimate of mature female Kemp's ridleys had been reduced to 2,500-5,000 individuals. The population declined further through the mid-1980s. Recent observations of increased nesting suggest that the decline in the ridley population has stopped and there is cautious optimism that the population is now increasing.

The nearshore waters of the Gulf of Mexico provide important developmental habitat for juvenile Kemp's ridleys. Ogren (1988) suggests that the Gulf coast, from Port Aransas, Texas, through Cedar Key, Florida, represents the primary habitat for subadult ridleys in the northern Gulf of Mexico. Stomach contents of Kemp's ridleys along the lower Texas coast consisted of a predominance of nearshore crabs and mollusks, as well as fish, shrimp, and other foods considered to be shrimp fishery discards (Shaver 1991). Analyses of stomach contents from sea turtles stranded on upper Texas beaches suggest similar nearshore foraging behavior (Plotkin pers. comm.).

Research being conducted by Texas A&M University has resulted in the intentional live-capture of hundreds of Kemp's ridleys at Sabine Pass and the entrance to Galveston Bay. Between 1989 and 1993, 50 of the Kemp's ridleys captured were tracked (using satellite and radio telemetry) by biologists with the NMFS Galveston Laboratory. The tracking study was designed to characterize sea turtle habitat and to identify small and large scale migration patterns. Preliminary analysis of the data collected during these studies suggests that subadult Kemp's ridleys stay in shallow, warm, nearshore waters in the northern Gulf of Mexico until cooling waters force them offshore or south along the Florida coast (Renaud, NMFS Galveston Laboratory, pers. comm.).

In recent years, unprecedented numbers of Kemp's ridley carcasses have been reported from Texas and Louisiana beaches during periods of high levels of shrimping effort. NMFS established a team of population biologists, sea turtle scientists, and managers, known as the Turtle Expert Working Group (TEWG) to conduct a status assessment of sea turtle populations. Analyses conducted by the group have indicated that the Kemp's ridley population is in the early stages of recovery; however, strandings in some years have increased at rates higher than the rate of increase in the Kemp's population (TEWG 1998). While many of the stranded turtles observed in recent years in Texas and Louisiana are believed to have been incidentally taken in the shrimp fishery, other sources of mortality exist in these waters. These stranding events illustrate the vulnerability of Kemp's ridley and loggerhead turtles to the impacts of human activities in nearshore Gulf of Mexico waters.

The TEWG (1998) developed a population model to evaluate trends in the Kemp's ridley population through the application of empirical data and life history parameter estimates. Model results identified three trends in benthic immature Kemp's ridleys. Benthic immatures are those turtles that are not yet reproductively mature but have recruited to feed in the nearshore benthic environment, where they are available to nearshore mortality sources that often result in strandings. Benthic immature ridleys are estimated to be 2-9 years of age and 20-60 cm in length. Increased production of hatchlings from the nesting beach beginning in 1966 resulted in an increase in benthic ridleys that leveled off in the late 1970s. A second period of increase, followed by leveling, occurred between 1978 and 1989. Hatchling production was further enhanced by the cooperative program between the U.S. Fish and Wildlife Service and Mexico's Instituto Nacional de Pesca to increase nest protection. A third period of steady increase, which has not leveled off to date, has occurred since 1990 and appears to be due to the greatly increased hatchling production and an apparent increase in survival rates of immature turtles beginning in 1990 due, in part, to the introduction of TEDs. Adult female ridley numbers have now grown from a low of approximately 1,050 females producing 702 nests in 1985, to greater than 3,000 females producing 1,940 nests in 1995, to greater than 9,000 females producing about 5,800 nests in 2000.

The TEWG (1998) was unable to estimate the total population size and current mortality rates for the Kemp's ridley population; however, the TEWG listed a number of preliminary conclusions. The TEWG indicated that the Kemp's ridley population appears to be in the early stage of exponential expansion. Over the period 1987 to 1995, the rate of increase in the annual number of nests accelerated in a trend that would continue with enhanced hatchling production and the use of TEDs. Nesting data indicated that the number of adults declined from a population that produced 6,000 nests in 1966 to a population that produced 924 nests in 1978 and a low of 702 nests in 1985. Thus, the trajectory of adult abundance tracks trends in nest abundance from an estimate of 9,600 in 1966 to 1,050 in 1985. The TEWG estimated that in 1995 there were 3,000 adult ridleys. The increased recruitment of new adults is illustrated in the proportion of neophyte, or first time nesters, which has increased from 6% to 28% from 1981 to 1989 and from 23% to 41% from 1990 to 1994. The TEWG determined that the data reviewed suggested that adult Kemp's ridley turtles were restricted somewhat to the Gulf of Mexico in shallow near shore waters, and benthic immature turtles of 20-60 cm straight line carapace length are found in nearshore coastal waters including estuaries of the Gulf of Mexico and the Atlantic.

The TEWG (2000) identified an average Kemp's ridley population growth rate of 11.3% per year (95% C.I. slope = 0.096-0.130) since 1985. Increase in hatchling production from 1985-1998 was slightly less, 9.5% per year. The 1996 and 1997 nest numbers reflected a slower rate of growth, while the increase in the 1998 nesting level was much higher, then decreased in 1999, and increased again strongly in 2000. The population growth rate does not appear as steady as originally forecasted by the TEWG, but annual fluctuations, due in part to irregular remigration intervals, are normal for other sea turtle populations.

Given 2.5 nests per female, if the population continues to grow at 9.6-13% per year, it is projected to reach the target of 10,000 nesting females around 2014-2025 (TEWG 2000).

The area surveyed for ridley nests in Mexico was expanded in 1990 due to degradation of the primary nesting beach by Hurricane Gilbert. The TEWG (1998) assumed that the increased nesting observed particularly since 1990 was a true increase, rather than the result of expanded beach coverage. Because systematic surveys of the adjacent beaches were not conducted prior to 1990, there is no way to determine what proportion of the nesting increase documented since that time is due to the increased survey effort rather than an expanding ridley nesting range. The annual rate of increase of nests at Ranch Nuevo, only from 1985-1999, is 7.9% per year. It is uncertain whether the current rate of increase will continue. As noted by TEWG, trends in Kemp's ridley nesting even on the Rancho Nuevo beaches alone suggest that recovery of this population has begun but continued caution is necessary to ensure recovery and to meet the goals identified in the Kemp's Ridley Recovery Plan (TEWG 2000).

3.11 Critical Habitat (Northern Right Whale)

The nearshore waters of northeast Florida and southern Georgia were formally designated as critical habitat for right whales on June 3, 1994 (59 FR, 28793). These waters were first identified as a likely calving and nursery area for right whales in 1984. Since that time, Kraus *et al.* (1993) have documented in this area the occurrence of 74 % of all the known mature females from the North Atlantic population. While sightings off Georgia and Florida include primarily adult females and calves, juveniles and adult males have also been observed.

There are 5 well-known habitats used annually by right whales, including (1) coastal Florida and Georgia, (2) the Great South Channel, east of Cape Cod, (3) Cape Cod and Massachusetts bays, (4) the Bay of Fundy and, (5) Browns and Baccaro Banks, south of Nova Scotia. The first 3 areas occur in U.S. waters and have been designated by NMFS as critical habitat (59 FR, 28793). With the exception of the southeast U.S. shark gillnet fishery (which is now prohibited from operating within the southeastern critical habitat area during the season when right whales are in the area), HMS fisheries do not generally co-occur in time and space with these critical habitat areas. However, the AOCTRP recommends that NMFS implement regulations prohibiting pelagic longline gear from being deployed in right whale critical habitat areas. Although the current lack of such fisheries in these areas is due to the lack of concentrations of target HMS fish species, NMFS should strive to implement this recommendation in the near future to ensure against potential changes to the current situation.

3.12 Factors Affecting Sea Turtles and Large Whales in the Atlantic Ocean

The slow moving right whale appears to be more vulnerable to both vessel strikes and fishery interactions than other whale species. Other differences between species generally relate to distributional differences. For example, offshore species such as sperm, sei, and blue whales, or leatherback sea turtles, may encounter human activities less often than more coastally distributed species such as right and humpback whales. Some discrimination is evident between whale and sea turtle species. For example, they have different susceptibilities to ship strikes and entanglement in fishing gear. Other aspects such as marine pollution likely cross taxonomic boundaries between reptiles and mammals. The previous section detailed some of these differences and below is a description of fisheries and non-fisheries related threats to sea turtles and whales in the Atlantic Ocean. These are categorized into federally permitted activities (these would require section 7 consultations and include 14 federal fisheries, 1 Atlantic States Marine Fisheries Commission (SMFC) fishery, 4 power plants, numerous Section 10 permits for scientific

research and incidental take, FWS permitted activities on beaches (*e.g.*, beach nourishment, construction, sea turtle work), state permitted activities (includes Section 10 permits), non-permitted activities which include state fisheries, boat strikes, poaching, beach and coastal lighting, marine debris, and foreign activities (fishing with longline, gillnet, set net, hook and line, trawls, harpoon/spear, and beach seines). Information/data available on loggerhead and leatherback sea turtle interactions relative to these activities is available in Appendix II of the NMFS SEFSC (2001) report (attached).

3.12.1 Federal Actions

In recent years, NMFS has undertaken several ESA section 7 consultations to address the effects of vessel operations and gear associated with federally-permitted fisheries on threatened and endangered species in the action area. Each of those consultations sought to develop ways of reducing the probability of adverse effects of the action on large whales and sea turtles. Similarly, recovery actions NMFS has undertaken under both the MMPA and the ESA are addressing the problem of take of whales in the fishing and shipping industries. Estimates of incidental take of sea turtles for federal actions considered in previous Opinions are summarized briefly in the following pages and in NMFS (2001a). The following summary of anticipated incidental take of turtles includes only those federal actions which have undergone formal section 7 consultation.

3.12.1.1 Vessel Operations

Federal vessel operations in the action area which may interact with listed species include those associated with operations of the U.S. Navy (USN) and U.S. Coast Guard (USCG) - which maintain the largest federal vessel fleets, the Environmental Protection Agency (EPA), NOAA, and the U.S. Army Corps of Engineers (COE). NMFS has identified measures to minimize interactions with listed species during formal consultations with the USCG, USN, and COE, and is currently in early phases of consultation with the other federal agencies on their vessel operations. NMFS has also included restrictions on operations of contract or private vessels associated with COE dredging operations, which minimize and/or avoid interactions with listed whales and turtles.

With these measure in place, NMFS anticipated that no incidental take of listed whales, and only one or two sea turtles, would occur annually incidental to the USCG and USN vessel operations. Since the USN consultation only covered operations out of Mayport, Florida, and the USCG consultation did not cover operations in the Gulf of Mexico, NMFS has not yet been requested to consult on the effects of USN or USCG vessels interacting with large whales and sea turtles when they are operating in other areas within the action area of the HMS Pelagic Fishery. NMFS has not consulted on operations of vessels by other federal agencies within the action area (NOAA, EPA, COE) which are engaged in research and/or other activities, with the exception of Section 7 consultations completed for research permits.

Through the section 7 process, where applicable, NMFS has and will continue to recommend measures for all these agency vessel operations to avoid or minimize adverse effects to listed species. For the purposes of this consultation, NMFS anticipates that vessels operated by these federal agencies will continue to operate in the action area with potential for some level of interaction with listed species. Based on information provided concerning those activities which have undergone section 7 consultation, most of these interactions are not expected to result in injury or harm. Those vessels operating in compliance with NMFS' recommendations are assumed to significantly avoid and/or minimize the potential for interactions with listed species. Refer to the Opinions for the USCG (NMFS 1995, 1996b,

and 1998) and the USN (NMFS 1997a) for detail on the scope of vessel operations for these agencies and conservation measures being implemented as standard operating procedures.

Therefore, while this may have been more of a source of mortality in previous years, very little impact is expected on either sea turtles or whales from the activities already covered under Section 7 in the foreseeable future. Vessel operations outside federal consultation requirements are being addressed through other means that will be discussed later (*e.g.*, private vessel traffic and large whale implementation teams).

3.12.1.2 Military operations

Military operations include vessel operations and ordnance detonation, that may also adversely affect listed species of whales and sea turtles. NMFS' 1997 Opinion on USN aerial bombing training in the ocean off the southeast U.S. coast, involving live ordnance (500 and 1,000-lb bombs), anticipated that up to 84 loggerheads, 12 leatherbacks, and 12 greens or Kemp's ridley, in combination, may be injured or killed annually during testing activities (NMFS 1997a).

The USN has is conducting a one-time ship-shock test for the new SEA WOLF submarine off the Atlantic coast of Florida, using 5 submerged detonations of 10,000-lb explosive charges. The test is estimated to injure or kill 50 loggerheads, 6 leatherbacks, and 4 hawksbills, greens, or Kemp's ridleys, in combination (NMFS 1996b). The USN has also proposed to conduct a one-time ship-shock testing in summer 2001 on the DDG-81 WINSTON CHURCHILL, using 4 submerged detonations of 10,000-lb explosive charges. NMFS has anticipated that this testing may lethally take up to 8 sea turtles, and take up to 228 sea turtles by acoustic harassment (NMFS 2000b).

3.12.1.3 Dredging activities

Dredging associated with the construction and maintenance of federal navigation channels has also been identified as a source of mortality to sea turtles. Although listed whales may detect dredging activities, they are not likely to interact with the dredge operations. Hopper dredges, which are frequently used in ocean bar channels and sometimes in harbor channels and offshore borrow areas, move relatively rapidly (compared to sea turtle swimming speeds) and can entrain and kill sea turtles, presumably as the drag heads are lifted off the bottom with the dredge pumps still running which entrains turtles from the water column.

U.S. Navy northeast operations requiring dredging at the Dam Neck Naval Facility may take 10 loggerhead, 1 green and 1 Kemp's ridley. Along the Atlantic coast of the southeastern United States, NMFS estimates that annual, observed injury or mortality of sea turtles from hopper dredging associated with COE activities may reach 35 loggerheads, 7 greens, 7 Kemp's ridleys, and 2 hawksbills (NMFS 1997b).

Along the north and west coasts of the Gulf of Mexico, COE channel maintenance dredging using a hopper dredge may injure or kill 30 loggerhead, 8 green, 14 Kemp's ridley, and 2 hawksbill sea turtles annually (NMFS 1997c). For the eastern Gulf of Mexico, those numbers are 8 loggerhead, 5 leatherback, 5 green, 5 Kemp's and 5 hawksbill. In the Northeast Atlantic, COE dredging activities are expected to lethally take 29 loggerhead, 2 leatherback, 7 green, and 6 Kemp's ridley.

In most areas of the United States, annual dredging to accommodate commercial shipping occurs in the nearshore approaches to most of the major ports. Dredging may pose a threat to whales due to increased vessel traffic. Dredge vessels move back and forth between dredging and dumping sites; although, these vessels in general are relatively slow moving. Under ESA section 7 consultations conducted on various dredging activities, various measures to mitigate this concern have been implemented, including posting of dedicated whale observers in high whale-use areas and seasons. Additionally, dredging may result in increased vessel traffic as deepening and/or widening of ports or channels attracts more and larger vessels to use these areas. Dredging is responsible for injury and mortality of sea turtles and is also mitigated for in many ways under various Opinions conducted on these activities.

COE and Minerals Management Service (MMS) rig removal activities also adversely affect sea turtles. For the COE activities, an incidental take (by injury or mortality) of 1 documented Kemp's ridley, green, hawksbill, leatherback, or loggerhead turtle is anticipated under a rig removal consultation for the New Orleans District (NMFS 1998b). MMS activities are anticipated to result in annual incidental take (by injury or mortality) of 30 sea turtles, including no more than 5 Kemp's ridley, green, hawksbill, or leatherback turtles and no more than 10 loggerhead turtles, due to MMS' OCS oil and gas exploration, development, production, and abandonment activities.

3.12.1.4 Domestic Federal Fishery Operations

Fishing operations using a variety of gear are known to interact with threatened and endangered species in the action area. Efforts to reduce the adverse effects of commercial fisheries are addressed through both the MMPA take reduction planning process and the ESA section 7 process. Longline, gillnet, set net, hook and line, trawls, harpoon/spear, pot gear, pound nets, fish traps and beach seines have been documented interacting with either whales or sea turtles or both. Since the federal fisheries are managed by NMFS, NMFS' Office of Sustainable Fisheries is required to complete section 7 consultations on decision to approve FMPs which may affect listed species. Following completion of formal section 7 consultation, NMFS' Office of Protected Resources has issued biological opinions for the following fisheries: American Lobster, Monkfish, Dogfish, Northeast Multispecies, Tilefish, Bluefish, Squid/Mackerel/Butterfish, Surf Clam/Ocean Quahog, and Summer Flounder/Scup/ Black Sea Bass, Weakfish, Herring, and Sargassum fisheries in the action area. These consultations are summarized below; for more detailed information, refer to the respective Opinions.

The *Northeast Multispecies Sink Gillnet Fishery* is one of the other major fisheries in the action area of this consultation that is known to entangle whales and sea turtles. This fishery has historically occurred from the periphery of the Gulf of Maine to Rhode Island in water to 60 fathoms. In recent years, more of the effort in this fishery has occurred in offshore waters and into the Mid-Atlantic. Participation in this fishery declined from 399 to 341 permit holders in 1993, and is expected to continue to decline as further groundfish conservation measures are implemented. The fishery operates throughout the year with peaks in the spring and from October through February. Data indicate that gear used in this fishery has seriously injured right whales, humpback whales, fin whales, and loggerhead, leatherback and Kemp's ridley sea turtles. Waring *et al.* (1997) reports that 17 serious injuries or mortalities of humpback whales from 1991 to 1996 were fishery interactions (not necessarily multispecies gear). Most implicated some kind of monofilament similar to that used in the multispecies fishery. Incidental lethal take levels of turtles anticipated in this fishery are 10 loggerhead, 4 leatherback, 4 green, and 2 Kemp's ridley. It is often difficult to assess gear found on stranded animals or observed at sea and assign it to a specific fishery. Only a fraction of the takes are observed, and the catch rate represented by the majority of takes, which are reported opportunistically, *i.e.*, not as part of a random sampling program, is unknown. Consequently,

the total level of interaction cannot be determined through extrapolation. Based on new information regarding the status of right whales and sea turtle interactions, NMFS reinitiated consultation on the Multispecies FMP on May 4, 2000. The new Opinion will evaluate the effects of this fishery on listed species and provide new estimates of incidental take.

The *American Lobster Pot Fishery* is the largest fixed gear fishery in the action area. This fishery is known to take endangered whales and sea turtles. In 1998, NMFS reinitiated formal consultation on the federally regulated lobster fishery to consider potential effects of the transfer of management authority from the MSA to the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), the implementation of new lobster management actions under the ACFCMA, and recent takes of endangered whales in the fishery. The previous formal consultation on the fishery under the MSA (Opinion issued December 13, 1996) had reached a jeopardy conclusion for the northern right whale. As a result of the RPA included with the 1996 Opinion, an emergency regulation under the MMPA (Emergency Interim Final Rule, 62 FR 16108) was published implementing restrictions on the use of lobster pot gear in the federal portion of the Cape Cod Bay right whale critical habitat and in the Great South Channel right whale critical habitat during periods of expected peak right whale abundance.

The proposed ACFCMA plan contains measures to limit the number of lobster traps that can be deployed during the first two years of the plan, and further trap reduction measures may be chosen as default effort reduction measures during subsequent plan years. The reduction in the number of traps fished is expected to result in a reduction of entanglement risk. The interaction between the lobster trap fishery and endangered whales is addressed in the ALWTRP implemented via an interim final rule November 15, 1997, followed by a final rule issued February 16, 1999. The ALWTRP incorporated the RPA issued with the 1996 Opinion and implemented additional restrictions. Because of the greater protection provided by the ALWTRP, NMFS substituted the ALWTRP for the RPA issued with the 1996 Opinion and has concluded that the lobster fishery in the context of the ALWTRP is likely to adversely affect but is not likely to jeopardize the northern right whale. As with the multispecies Opinion noted above, the level of incidental take anticipated for this fishery was incorporated within the July 5, 1989, Opinion on the Issuing of Exemptions for Commercial Fishing Operations under Section 114 of the MMPA, as detailed above (NMFS 1989). Due to new information on the status of right whales and sea turtle interactions, NMFS reinitiated consultation on this fishery on June 22, 2000. The new Opinion will evaluate the effects of this fishery on listed species and provide new estimates of incidental take. The existing opinion anticipates lethal take of 10 loggerhead and 4 leatherback sea turtles.

The *Monkfish Fishery Management Plan* was prepared by the New England and Mid-Atlantic Fishery Management Councils. This fishery uses several gear types which may entangle protected species, and takes of shortnose sturgeon and sea turtles have been recorded from monkfish trips. The monkfish gillnet sector is included in either the northeast sink gillnet or mid-Atlantic coastal gillnet fisheries and is therefore regulated by the ALWTRP and the Harbor Porpoise Take Reduction Plan. NMFS completed a formal consultation on the Monkfish FMP on December 21, 1998, which concluded that the fishery, with modification under the take reduction plans, is not likely to jeopardize listed species or adversely modify critical habitat. The incidental take statement (ITS) provided under this Opinion anticipates up to 6 incidental takes of loggerhead turtles (no more than 3 lethal), 1 lethal or non-lethal take of a green sea turtle, 1 lethal or non-lethal take of a Kemp's ridley, and 1 lethal or non-lethal take of a leatherback. However, based on the potential involvement of this fishery in the recent pulse of sea turtle strandings in North Carolina, noted elsewhere in this Opinion, as well as new information on the status of right whales and sea turtle interactions, NMFS reinitiated consultation on the Monkfish FMP on May 4, 2000. The

new Opinion will evaluate the effects of this fishery on listed species and provide new estimates of incidental take.

The *Spiny Dogfish Fishery* is similar to the monkfish fishery, but uses somewhat smaller mesh gear. The most recent Opinion prepared for the FMP for this fishery anticipated 6 takes (no more than 3 lethal) of loggerheads, and 1 take (lethal or non-lethal) each for Kemp's ridley, leatherbacks and green sea turtles. Due to new information on the status of right whales and sea turtle interactions, NMFS also reinitiated consultation on the Spiny Dogfish FMP on May 4, 2000. The new Opinion will evaluate the effects of this fishery on listed species and provide new estimates of incidental take.

NMFS recently completed consultation on a new FMP for the *Tilefish fishery* on March 13, 2001. Tilefish are primarily taken by bottom longline gear; although, bottom trawl gear is also utilized. Although sperm whales have been documented in bottom longline gear in fishing areas outside of the action area, NMFS does not anticipate any listed whales will be taken in this fishery. Based on information from fisheries using similar gears in the action area, NMFS anticipated that up to 6 loggerheads and 1 leatherback sea turtle may be incidentally captured in bottom longline or trawl gears associated with the tilefish fishery on an annual basis.

The *Bluefish Fishery* operates in the action area using a combination of gillnets (48%), otter trawls (19%), fish pound nets (7%), hand and troll lines (6%), and haul seines (3%). Based on observations of incidental take of listed species in other fisheries using similar gear types, NMFS anticipated in its July 2, 1999, Opinion that up to 6 loggerhead and 6 Kemp's ridley sea turtles may be taken on an annual basis in the bluefish fishery.

The *Squid/Mackerel/Butterfish Fishery* uses primarily midwater and bottom trawl gear, although pelagic drift gillnet, pelagic longline/hook-and-line/hand line, purse seine, pot, trap, dredge, pound nets, and bandit gears are all approved for use under the FMP. NMFS' April 28, 1999, Opinion anticipated that up to 6 loggerhead, 2 green or Kemp's ridley, and 1 leatherback sea turtle could be incidentally captured in the squid/mackerel/butterfish fishery.

The *Summer Flounder, Scup and Black Sea Bass Fisheries* are known to interact with sea turtles. While not documented, the gear-types used in this fishery could also entangle endangered whales, particularly humpback whales. Significant measures have been developed to reduce the take of sea turtles in summer flounder trawls, and trawls that meet the definition of a summer flounder trawl (which would include fisheries for other species such as scup and black sea bass), by requiring TEDs in nets in the area of greatest bycatch off the North Carolina and southern Virginia coast. NMFS is considering a more geographically inclusive regulation to require TEDs in trawl fisheries that overlap with sea turtle distribution to reduce the impact from this fishery. Developmental work is also ongoing for a TED that will work in the flynets used in the weakfish fishery. These fisheries are subject to the requirements of the ALWTRP for gillnets and lobster pots in the Mid-Atlantic. The anticipated observed annual take rates for turtles in this multispecies fishery is 15 loggerheads and 3 leatherbacks, hawksbills, greens, or Kemp's ridley, in combination annually (NMFS 1997a).

The *Southeast U.S. Shrimp Fishery* is known to incidentally take high numbers of sea turtles. Henwood and Stuntz (1987) reported that the mortality rate for trawl-caught turtles ranged between 21% and 38%, although Magnuson *et al.* (1990) suggested Henwood and Stuntz's estimates were very conservative and likely an underestimate of the true mortality rate. Since 1990, shrimp trawlers in the southeastern U.S. are required to use TEDs, which optimally reduce a trawler's capture rate by 97%. Even so, NMFS

estimated that 4,100 turtles may be taken lethally or non-lethally annually by shrimp trawlers operating legally under the sea turtle conservation measures, including 650 leatherbacks too big to be released through TEDs, 1,700 turtles taken in try nets, and 1,750 turtles (representing a 3% capture rate) that fail to escape through the TED (NMFS, 1998d), including large loggerheads. A detailed summary of the U.S. shrimp trawl fishery and the Mid-Atlantic winter trawl fishery impacts can be found in the TEWG reports (1998, 2000).

A large proportion of stranded loggerheads and a small proportion of stranded green turtles appear too large to fit through the required minimum-sized TED openings in the shrimp trawl fishery and thus it is likely that current TEDs have not achieved 97% reduction in capture of large loggerheads and greens, and most leatherbacks. The relatively large proportion of stranded loggerhead turtles with dimensions greater than the required minimum TED height opening is cause for concern in light of the need to reduce mortality on the northern subpopulation of loggerheads (TEWG 1998). Strandings of loggerhead turtles with body depths greater than the currently required minimum TED height opening has ranged between 33% and 47% of the total measured strandings since 1986. In the 3 years preceding September 1999, nearly 1,300 stranded loggerhead turtles were deeper bodied than the currently required TED height opening. The problem is acute off the nesting beaches of the eastern Gulf of Mexico and the Atlantic seaboard (Epperly and Teas 1999). It is also noteworthy that, on average, the number of turtle carcasses stranded on ocean-facing beaches may represent, at best, based on evidence obtained via a 3-dimensional oceanographic model (Werner *et al.* 1999), approximately 20% of the total number of available carcasses at sea (*i.e.*, of turtles dying at sea). Only those turtles killed very close to the shore may be most likely to strand (*in* NMFS SEFSC 2001). NMFS has recently reinitiated consultation on the *Southeast U.S. Shrimp Fishery* to consider a new TED regulation proposed April 5, 2000, to increase the size of openings and reduce mortalities of captured sea turtles.

The *Atlantic Herring Fishery* operating in the northeastern U.S. was issued a biological opinion that anticipates 6 loggerhead takes of which no more than 3 would be lethal, and 6 lethal takes of Kemp's ridleys.

An Opinion on the *NMFS/ASMFC Interjurisdictional FMP for Weakfish* was conducted in June 1997. Weakfish are caught in the summer flounder fishery and are also fished with flynets. Analyses of the NMFS' observer data showed 36 incidental captures of sea turtles for trawl and gillnet vessels operating south of Cape May, New Jersey from April 1994 through December 1996. Of those turtles taken, 28 loggerheads were taken in trawls that also caught weakfish, and resulted in 2 deaths. Most of the sea turtle takes occurred in late fall. In all cases, weakfish landings were second in poundage behind Atlantic croaker and summer flounder (NEFSC, unpub. data). The Opinion on the federal portion of the fishery anticipates 20 lethal takes of loggerheads and 2 lethal takes of Kemp's ridleys.

In the *Sargassum Fishery*, NMFS has also anticipated that juvenile sea turtles will be taken. In its June 21, 1999, Opinion, NMFS anticipated that up to 30 neonate/immature loggerhead and no more than 1 neonate/pelagic immature leatherback, hawksbill, green, and Kemp's ridley sea turtles will be taken on an annual basis during the harvest of *Sargassum*.

3.12.1.5 Other Federal Actions

Power Plants impact sea turtles entering coastal or inshore areas by entrainment in the cooling-water systems. At the St. Lucie nuclear power plant at Hutchinson Island, Florida, large numbers of green and loggerhead turtles have been captured in the seawater intake canal in the past several years. Annual

capture levels from 1994-1997 have ranged from almost 200 to almost 700 green turtles and from about 150 to over 350 loggerheads. Almost all of the turtles are caught and released alive; NMFS estimates the survival rate at 98.5% or greater (see NMFS 1997e).

An Opinion completed in January 2000 estimates that the operations at the Brunswick Steam Electric Plant in Brunswick, North Carolina, may take 50 sea turtles in any combination annually, that are released alive. NMFS also estimated the total lethal take of turtles at this plant may reach 6 loggerhead, 2 Kemp's ridley, or 3 green turtles annually.

An Opinion completed in June 1999 on the operations at the Crystal River Energy Complex in Crystal River, Florida, estimated the level of take of sea turtles in the plant's intake canal may reach 55 sea turtles with an estimated 50 being released alive biennially. Opinions were also issued for the Oyster Creek and Salem and Hope Nuclear generating stations that anticipated 40 loggerhead takes (8 lethal), 7 Kemp's ridleys (3 lethal) and 8 greens (2 lethal).

It is important to note that the large majority of captures in power plant facilities on the U.S. east coast do not result in serious injury or mortality since most of the plants have implemented procedures specifically to release turtles unharmed.

Other federally permitted activities affecting loggerhead and leatherback sea turtles are detailed in NMFS SEFSC, 2001, Appendix II and include a number of research activities, the large majority of which are not lethal. Very little data was available from US FWS on various activities they permit based on their sea turtle jurisdiction on beaches. However, as they are also monitoring activities such as beach renourishment through Section 7 consultation, it would be expected that the impacts of such activities would be minimal.

3.12.2 State or Private Actions

3.12.2.1 Private and Commercial Vessels

Private and commercial vessels operate in the action area of this consultation and also have the potential to interact with whales and sea turtles. For example, shipping traffic in Massachusetts Bay is estimated at 1,200 ship crossings per year with an average of 3 per day. More than 280 commercial fishing vessels fish on Stellwagen Bank in the Gulf of Maine, and sportfishing contributes more than 20 vessels per day from May to September. In Massachusetts Bay alone, about 20 whale watch companies representing 40-50 boats conduct several thousand trips from April to September, with the majority of effort in the summer season. More than 280 commercial vessels fish on Stellwagen Bank. Sportfishing contributes more than 20 vessels per day from May to September. In addition, an unknown number of private recreational boaters frequent Massachusetts and Cape Cod Bays. Similar traffic and more exists for many other ports, some larger, within the scope of this consultation which overlap with whale high-use areas. The invention and popularization of new technology resulting in high speed catamarans for ferry services and whale watch vessels operating in congested coastal areas contribute to the potential for impacts from privately-operated vessels.

Various initiatives have been planned or undertaken to expand or establish high-speed watercraft service in the northwest Atlantic, including 1 service between Bar Harbor, Maine, and Nova Scotia with a vessel operating at higher speeds than established watercraft service. The Bar Harbor–Nova Scotia high speed ferry conducted its first season of operations in 1998. The operations of these vessels and other high-

speed craft may adversely affect threatened and endangered whales and sea turtles, as discussed previously with private and commercial vessel traffic in the Action Area. NMFS and other member agencies of the Northeast Implementation Team for the Recovery of the Northern Right Whale will continue to monitor the development of the high speed vessel industry and its potential threats to listed species and critical habitat. Recent whale strikes resulting from interaction with whale watch boats and recreational vessels have also been recorded.

Wiley *et al.* (1995) showed that in the mid-Atlantic area (between Chesapeake Bay, Virginia, and Cape Hatteras, North Carolina), of the stranded humpback whales for which the cause of death was determinable, 30% of the mortalities were attributed to vessel strikes and 25% had injuries consistent with entanglement in fishing gear. This indicates that vessel interactions are having an impact upon whale populations along this portion of the coast, as well as in right whale concentration areas. Because most of the whales involved in these interactions are juveniles, areas of concentration for young or newborn animals are particularly important to protect. This also raises concerns that, with such mortality focused on one age class of the population, that future recruitment to the breeding population may be affected.

The ports of Jacksonville and Port Everglades, Florida; Baltimore, Maryland; Wilmington, Delaware; Philadelphia, Pennsylvania; New York, New York; and Boston, Massachusetts support some of the country's strongest maritime economies. Commercial shipping traffic in Massachusetts Bay is estimated at 1,200 ship crossings per year with an average of 3 per day. About 17 million tons of waterborne cargo pass through the Port of Jacksonville, Florida which receives about 1,600 vessels each year moving between the U.S. and South America, Europe, and the Caribbean. About 4.8 million tons (short tons) pass through the Port of Wilmington, Delaware which receives about 400 vessels each year. About 56 million tons of waterborne cargo passed through the Port of New York in 1998. About 1.3 million tons of general cargo, 1.5 million tons of bulk cargo, and 12.8 million tons of bulk fuel cargo pass through the Port of Boston, Massachusetts, which receives more than 62 ship calls, 350 container vessels, and 1,700 bulk cargo vessels each year. In addition, about 60 cruise vessels sail from the Port of Boston each year. (Note: data derived from the internet websites of each of the named ports)

In southeastern waters, shipping channels associated with Jacksonville and Port Canaveral, Florida, bisect the area that contains the most concentrated whale sightings within right whale critical habitat. These channels and their approaches serve commercial shipping ports and two military bases. All of these channels require periodic maintenance dredging by the COE (and at times, more extensive dredging is conducted to support port expansion or to allow for larger military vessels). These commercial ports are growing, with the port of Jacksonville, one of the busiest ports on the east coast, undergoing major expansion along with several other east coast ports vying for designation as "megaports" to attract Panamanian ex-vessel traffic. Expansion of these ports requires section 7 consultations.

In addition to commercial traffic and recreational pursuits, private vessels participate in high-speed marine events concentrated in the southeastern United States that are a particular threat to sea turtles, and occasionally to marine mammals as well. The magnitude of these marine events is not currently known. NMFS and the USCG are in early consultation on these events, but a thorough analysis has not been completed. The Sea Turtle Stranding and Salvage Network (STSSN) also reports many records of vessel interaction (propeller injury) with sea turtles off coastal states such as New Jersey and Florida, where there are high levels of vessel traffic.

Ship strikes have been identified as a significant source of mortality to the Western Atlantic stock of right whales (Kraus 1990) and are also known to impact all other endangered whales. Specifically, commercial

and private vessels may affect humpback, fin, sperm, and right whales. Small vessel traffic also kills or injures threatened and endangered sea turtles in the action area. NMFS expects this commercial traffic into and out of these ports to continue into the foreseeable future. The best scientific and commercial data available provide no specific information on what risk this level of commercial traffic poses to endangered whales in the action area, but NMFS would expect this level of commercial traffic to pose a risk of ship strikes that would continue to kill or seriously injure whales in numbers similar to those observed between 1994 and 1999 (1 dead blue whale, 1 dead sei whale, 2 dead fin whales, and at least 6 dead right whales).

3.12.2.2 State Fishery Operations

Several coastal state fisheries are known to incidentally take listed species, but information on these fisheries is sparse (NMFS 2001a). Although few of these state regulated fisheries are currently authorized to incidentally take listed species, several state agencies have approached NMFS to discuss applications for a section 10(a)(1)(B) incidental take permit. Since NMFS' issuance of a section 10(a)(1)(B) permit will require formal consultation under section 7 of the ESA, the effects of these activities will be considered in future section 7 consultation. Although the past and current effects of these fisheries on listed species is currently not determinable, NMFS believes that ongoing state fishing activities may be responsible for seasonally high levels of observed strandings of sea turtles on both the Atlantic and Gulf coasts. Most of the state data is based on extremely low observer coverage or sea turtles were not part of data collection; thus, this data provides insight into gear interactions that could occur but is not indicative of the magnitude of the overall problem. The following state by state summary is based on research that is summarized in NMFS SEFSC (2001) and only records sea turtles.

It is important to recognize that these estimates are based on varied levels of observer effort (some extremely low), differences in observer program priorities, varying levels of information provided to NMFS by the states, and varying levels of sophistication in data collection and database management techniques. Therefore, these values do not provide a reliable estimate of the magnitude of take and are considered significant underestimates of actual take.

Massachusetts fisheries include: bottom trawl fishery (1 loggerhead was observed taken), lobster pot fishery (85 stranded leatherbacks linked to this fishery), pound net (weir) fishery (no data), pound net (1 leatherback was observed taken), gill net (1 loggerhead was observed taken), non-shrimp trawl (1 green was observed taken), fish trap (1 loggerhead and 1 leatherback were observed taken), hook and line (1 loggerhead was observed taken).

Rhode Island fisheries include: bottom trawl ("occasional" loggerhead), gill nets (no data), large fish traps (11 leatherbacks and 1 Kemp's ridley were reported taken), lobster pots (7 leatherback were reported taken), pound nets (2 observed leatherbacks), non-shrimp trawl (1 leatherback were observed taken).

Connecticut fisheries: no data on listed species bycatch available, but bottom trawl, gill net, and lobster pot fisheries operate in state waters.

New York: fisheries consist of bottom trawl, pound nets, gillnets, fish trap, non-shrimp trawl, lobster pot and set nets. Of these, the pound net fishery has taken 144 loggerheads, 43 Kemp's ridleys and 52 green turtles, all unharmed. There have been 12 reports of leatherback entanglements with lobster in New

York. The rest of the fisheries combined only show observed interactions of 1-2 turtles each from any number of species.

New Jersey: has a list of fisheries similar to NY, no data was available for the bottom trawl or gill net fisheries, pound net captures were observed for 16 loggerheads.

Delaware: no data were available on the horseshoe crab fishery, gillnet fishery or fish traps for sea turtle take, but 9 loggerheads and 3 greens were observed in non-shrimp trawls, 12 loggerheads in hook and line fisheries in Delaware Bay, and 2 in driftnets.

Maryland: no data were available for bottom trawl, gillnet, or hook and line fisheries operating in the state, but 4 green and 3 Kemp's ridley turtles were reportedly taken in pound net fisheries and 1 loggerhead was taken in (non-shrimp) trawl fisheries.

Virginia: the pound net fishery has 82 observed loggerhead takes (1 dead) and 6 green (0 dead), hook and line, non-shrimp trawl and gill net fisheries records show 1-2 observations of loggerhead takes. According to NMFS records for the Marine Mammal Exemption Program, which governed marine mammal/fishery interactions prior to the 1994 amendments to the MMPA, interactions between humpback whales and menhaden purse seines have occurred in the past. It is not known whether injury or mortality resulted nor where the interactions occurred.

North Carolina: the pound net fishery has been observed for years and has probably some of the most complete data; a total of 2898 loggerheads were estimated to have been caught (156 observed), 0 were dead, 531 estimated ridleys, and 221 estimated greens. Hook and line fishery observed takes are 70 loggerheads, 1 leatherback, 3 Kemp's ridley, 22 green, 0 dead; seine and long haul seine net observations included 15 loggerheads, 1 Kemp's ridley; the next highest fisheries are the shrimp trawl (22 loggerheads, 2 dead; 2 Kemp's ridley and 5 green); and non-shrimp trawls which also had observations of loggerheads (53, 6 dead). No data on sea turtles takes were available on beach seine fisheries, stop net fishery, purse seine fishery, fish traps, eel pots, shrimp pots; although, observed takes of humpback whales have been recorded by NEFSC in the beach seine fishery. Crab pot fisheries and pelagic longline had a few observations of sea turtle takes. Gillnet fisheries in North Carolina are diverse and extensive, and include a large recreational component in addition to the commercial component. One humpback whale mortality was documented in a sink gillnet targeting spot and croaker.

South Carolina has relatively few fisheries: gillnet, whelk trawling, hook and line and shrimp trawl. Few data are available regarding interactions between listed species and these fisheries. The gillnet fishery includes a small shad fishery which is phasing out, and a recreational component. A few loggerheads were observed taken in both the gillnet and trawl fisheries.

Georgia also has relatively few fisheries: shrimp bait fishery, whelk fishery, blue crab fishery, shrimp trawl, hook and line, with a few loggerhead and green turtle reported as have been taken.

Florida has a long list of state fisheries including: hook and line, fish trap, try net, shrimp trawl, non-shrimp trawl, longline, cast net, and set net. These fisheries have observations of relatively few turtles, the majority loggerheads, with the exception of the hook and line fisheries which have 7 loggerhead (1 dead), 30 green and 4 Kemp's ridley in the Atlantic and 1 green, and 7 loggerhead (1 dead), 1 green and 20 Kemp's ridley in the Gulf. The set net fishery had the next largest number of observations, 12 green turtles, recorded as alive.

Alabama has shrimp trawl incidental captures, but relatively little data are available. *Mississippi* and *Louisiana* have shrimp and non shrimp trawl fisheries, and gillnets; most recorded takes are of Kemp's ridleys (12) in shrimp trawls in Louisiana.

Texas supports hook and line, gillnetcast net, seine net, set net, trotline, shrimp trawl, non-shrimp trawl, and try net fisheries. The hook and line fisheries took 387 Kemp's ridley turtles, killing 91 of them.

The most obvious conclusion from the above list of sea turtle and whale interaction reports is the paucity of data available on interactions and also the significant potential for impacts on listed species from state fisheries. This is particularly true for whales, which may carry gear long distances before they are documented as entangled, making it difficult to determine where the interaction occurred. To address these data gaps, several state agencies have initiated observer programs to collect information on interactions between listed species and certain gear types. Other states have closed nearshore waters to gear-types known to have high encounter rates with listed species. Depending on the fishery in question, many state permit holders also hold federal permits; therefore, existing section 7 consultations on federal fisheries may address some of the state fishery impacts. Impacts of state fisheries on endangered whales are being addressed, as appropriate, through the MMPA take reduction development process. For example, the ALWTRP addresses the mid-Atlantic coastal gillnet fishery, which is largely prosecuted in state waters. NMFS is also actively participating in a cooperative effort with ASMFC to standardize and/or implement programs to collect information on level of effort and bycatch in state fisheries. When this information becomes available, it can be used to refine take reduction plan measures in state waters. With regard to whale entanglements, vessel identification is occasionally recovered from gear removed from entangled animals. With this information, it is possible to determine whether the gear was deployed by a federal or state permit holder and whether the vessel was fishing in federal or state waters.

In addition to the lack of data, other trends emerge from these summaries; certain gear types may have high levels of sea turtle takes, but very low rates of serious injury or mortality. For example, the hook and line takes rarely result in death, but trawls and gillnets frequently do. Leatherbacks seem to be susceptible to a more restricted list of fisheries, while the hard shelled turtles, particularly loggerheads, seem to appear in data on almost all of the state fisheries.

In 1998, East Coast states from Maine through North Carolina began implementing regulations pursuant to the Year 1 requirements of *Amendment 3 to the Atlantic States Marine Fisheries Commission's Coastal Fishery Management Plan for American Lobster* (ASMFC 1997). The proposed federal ACFCMA plan is designed to be complementary to the ASMFC plan, and the two plans are similar in structure. Regulations will be geared toward reducing lobster fishing effort by 2005 to reverse the overfished status of the resource. States in the 6 coastal areas must implement regulations according to a compliance schedule established in Amendment 3. Effort reduction measures will be similar to those proposed in the federal ACFCMA plan. Several states have implemented trap caps for 1998. Further trap limits, which the compliance schedule requires for Area 1 and the Outer Cape Lobster Management Area in 1999, will generate some localized risk reduction for protected species in those areas. If all states elect to implement a significant trap reduction program, the overall entanglement risk would be substantially reduced. Vessels fishing in state waters will be required to comply with MMPA take reduction plan regulations designed to reduce entanglement risk to whales.

Early in 1997, the *Commonwealth of Massachusetts* implemented restrictions on lobster pot gear in the state water portion of the Cape Cod Bay critical habitat during the January 1 - May 15 period to reduce the impact of the fishery on right whales. The regulations were revised prior to the 1998 season. State

regulations impact state permit holders who also hold federal permits, although effects would be similar to those resulting from federal regulations during the January 1 - May 15 period. Massachusetts has also implemented winter/spring gillnet restrictions similar to those in the ALWTRP and the MSA for the purpose of right whale and/or harbor porpoise conservation. Lobster pots are fished in areas outside of Massachusetts where sea turtles and the depleted stock of bottlenose dolphin are present. Entanglement has been documented for both species.

The North Carolina Observer program documented 33 flynet trips from November through April of 1991-1994 and recorded no turtles caught in 218 hours of trawl effort. However, a NMFS- observed vessel fished for summer flounder for 27 tows with an otter trawl equipped with a TED and then fished for weakfish and Atlantic croaker with a flynet that was not equipped with a TED. They caught 1 loggerhead in 27 TED-equipped tows and 7 loggerheads in 9 flynet tows without TEDs. In addition, the same vessel using the flynet on a previous trip took 12 loggerheads in 11 out of 13 observed tows targeting Atlantic croaker. A slight potential exists for interaction between this fishery and humpback whales, particularly in the mid-Atlantic, but no documentation of such interactions is available.

Other bottom trawl fisheries that are suspect for the incidental capture of sea turtles are the horseshoe crab fishery in Delaware (Spotila *et al.* 1998) and the whelk trawl fishery in South Carolina (S. Murphy, pers. comm. to J. Braun-McNeill, November 27, 2000) and Georgia (M. Dodd, pers. comm. to J. Braun-McNeill, December 21, 2000). In South Carolina, the whelk trawling season opens in late winter and early spring when offshore bottom waters are > 55°F. One criterion for closure of this fishery is water temperature: whelk trawling closes for the season and does not reopen throughout the state until 6 days after water temperatures first reach 64°F in the Fort Johnson boat slip. Based on the South Carolina Department of Natural Resources Office of Fisheries Management data, approximately 6 days will usually lapse before water temperatures reach 68°F, the temperature at which sea turtles move into state waters (D. Cupka, pers. comm.). From 1996-1997, observers onboard whelk trawlers in Georgia reported a total of 3 Kemp's ridley, 2 green and 2 loggerhead sea turtles captured in 28 tows for a CPUE of 0.3097 turtles/100ft net hour. As of December 2000, TEDS are required in Georgia state waters when trawling for whelk. A loggerhead was reported captured in a Florida try net (W. Teas, pers. comm.).

A detailed summary of the gillnet fisheries currently operating along the mid- and southeast U.S. Atlantic coastline, that are known to incidentally capture loggerheads, can be found in the TEWG reports (1998, 2000). Although all or most nearshore gillnetting is prohibited by state regulations in state waters of South Carolina, Georgia, Florida, Louisiana, and Texas, gillnetting in other states' waters and in federal waters does occur. Of particular concern are the nearshore and inshore gillnet fisheries of the mid-Atlantic operating in Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina state waters and/or federal waters. Incidental captures in these gillnet fisheries (both lethal and non-lethal) of loggerhead, leatherback, green and Kemp's ridley sea turtles have been reported (W. Teas, pers. comm., J. Braun-McNeill pers. comm.). In addition, illegal gillnet incidental captures have been reported in South Carolina, Florida, Louisiana and Texas (NMFS 2001a).

Georgia and South Carolina prohibit gillnets for all but the shad fishery. This fishery was observed in South Carolina for one season by the NMFS SEFSC (McFee *et al.* 1996). No takes of protected species were observed. Florida banned all but very small nets in state waters, as has the state of Texas. Louisiana, Mississippi and Alabama have also placed restrictions on gillnet fisheries within state waters such that very little commercial gillnetting takes place in southeast waters, with the exception of North Carolina.

Gillnetting activities in North Carolina associated with the southern flounder fishery have recently been implicated in large numbers of sea turtle mortalities. NMFS closed part of Pamlico Sound to the setting of gillnets targeting southern flounder in fall 1999 after the stranding of relatively large numbers of loggerhead and Kemp's ridley sea turtles on inshore beaches. NMFS also closed the waters north of Cape Hatteras to 38° N., including the mouth of the Chesapeake Bay, to large (> 6 inch stretched) mesh gillnets for 30 days in mid-May 2000 due to the large numbers of loggerhead strandings in North Carolina, and will continue to implement such proactive measures as necessary. A large proportion of these stranded loggerheads was assumed to be from the northern subpopulation. This assumption is partly supported by analyses conducted by Bass *et al.* (1999) on genetic samples collected from sea turtles stranding on U.S. Atlantic and Gulf of Mexico shores. The northern subpopulation accounted for 25-28% of the animals that stranded off the Carolinas, and 46% of the animals sampled that stranded in the northernmost area sampled, Virginia (TEWG 2000). Most recently, on October 27, 2000, the North Carolina Division of Marine Fisheries (NCDMF) closed waters in the southeastern portion of the Pamlico Sound as a result of elevated takes by the commercial large-mesh flounder gillnet fishery. The NCDMF and NMFS had just agreed on details of a section 10 permit of the ESA for the flounder fishery just prior to the closure. The fishery was closed when anticipated incidental take levels were met for green sea turtles. The NCDMF estimated that there were 50 loggerheads captured at the time of closure and that 44 of those had been drowned (NMFS 2001a).

Pulses of elevated sea turtle strandings occur with regularity in the Mid-Atlantic area, particularly along North Carolina through southern Virginia in the late fall/early spring, coincident with sea turtle migrations. For example, in the end of April through early May, 2000, approximately 300 turtles, mostly loggerheads, stranded north of Oregon Inlet, North Carolina. Gillnets were found with four of the carcasses. These strandings are likely caused by state fisheries as well as federal fisheries, although not any one fishery has been identified as the major cause. Fishing effort data indicate that fisheries targeting monkfish, dogfish, and bluefish were operating in the area of the strandings. Strandings in this area represent at best, 7-13% of the actual nearshore mortality (Epperly *et al.* 1996). Studies by Bass *et al.* (1998), Norrgard (1995) and Rankin-Baransky (1997) indicate that the percentage of northern loggerheads in this area is highly over-represented in the strandings when compared to the ~ 9% representation from this subpopulation in the overall U.S. sea turtle nesting populations. Specifically, the genetic composition of sea turtles in this area is 25-54% from the northern subpopulation, 46 - 64% from the South Florida subpopulation, and 3-16% from the Yucatan subpopulation. The cumulative removal of these turtles on an annual basis would severely impact the recovery of this species.

The Sea Turtle Stranding and Salvage Network has documented record-setting levels of sea turtle strandings in North Carolina and Florida in recent years. For example, the total number of strandings in North Carolina for 1999 was 2.3 times the average annual strandings from 1980 to 1999. The total number of Kemp's ridley strandings in 1999 was 7 times the average annual for the same time period. The number of strandings in 2000 is greater than 1999 with a preliminary total of 766, including 78 Kemp's ridleys and 17 leatherbacks. During the spring of 2000, there were two stranding events involving unprecedented numbers of turtles, along the Outer Banks in Dare and Hyde counties.

During the first stranding event, a total of 71 turtles (69 loggerheads and 2 Kemp's ridleys) washed ashore on the ocean-facing beaches between Rodanthe and Ocracoke from April 14-17, 2000. There were no externally obvious signs of death on the turtles. Necropsies on 12 loggerheads and 2 Kemp's ridleys revealed that the turtles had excellent fat stores and were probably in good health prior to their deaths. A few of the turtles had been feeding on nearshore, benthic species, but most had empty guts, suggesting that they were in a migratory, rather than foraging, mode. The uniform state of decomposition

of the turtles indicated that they had likely all died suddenly within a short period of time, probably no more than a few days before stranding on the beach. Large amounts of sargassum weed blew ashore, coincident with the turtle strandings, and considered indicative of the movement of warm Gulf Stream waters close to shore.

A second stranding event began on May 3. From May 3-8, approximately 209 additional sea turtles (3 Kemp's ridleys, the rest loggerheads) were found dead on ocean beaches between Oregon Inlet and Hatteras Inlet. Virtually all were severely decomposed, suggesting that they had been dead at sea for at least several days before stranding. Four of the carcasses were entangled in fishing gear: Three loggerheads carried pieces of gillnet with a mesh size of 12 inches (30.48 cm) stretched, and one loggerhead was carrying gillnet with a mesh size of 10 inches (25.4 cm) stretched. The stranding events along the Atlantic coast represent only a fraction of the actual at-sea mortality. The causes are multiple, including state and federal fisheries, disease and cold stunning.

Pound nets are a passive, stationary gear that are known to incidentally capture loggerhead sea turtles in Massachusetts (R. Prescott pers. comm.), Rhode Island, New Jersey, Maryland (W. Teas pers. comm.), New York (Morreale and Standora 1998), Virginia (Bellmund *et al.* 1987) and North Carolina (Epperly *et al.* 2000). Although pound nets are not a significant source of mortality for loggerheads in New York (Morreale and Standora 1998) and North Carolina (Epperly *et al.* 2000), they have been implicated in the stranding deaths of loggerheads in the Chesapeake Bay from mid-May through early June (Bellmund *et al.* 1987). The turtles were reported entangled in the large mesh (>8 inches) pound net leads (NMFS 2001a).

Incidental captures of loggerheads in fish traps set in Massachusetts, Rhode Island, New York, and Florida have been reported (W. Teas, pers. comm.). Although no incidental captures have been documented from fish traps set in North Carolina and Delaware (Anon 1995), they are another potential anthropogenic impact to loggerheads and other sea turtles. Lobster pot fisheries are prosecuted in Massachusetts (Prescott 1988), Rhode Island (Anon 1995), Connecticut (Anon 1995) and New York (S. Sadove, pers. comm.). Although they are more likely to entangle leatherback sea turtles, lobster pots set in New York are also known to entangle loggerhead sea turtles. No incidental capture data exist for the other states. Long haul seines and channel nets in North Carolina are known to incidentally capture loggerhead and other sea turtles in the sounds and other inshore waters (J. Braun-McNeill, pers. comm.). No lethal takes have been reported (NMFS 2001a).

Observations of state recreational fisheries have shown that loggerhead, leatherback, and green sea turtles are known to bite baited hooks, and loggerheads frequently ingest the hooks. Hooked turtles have been reported by the public fishing from boats, piers, and beach, banks, and jetties and from commercial fishermen fishing for reef fish and for sharks with both single rigs and bottom longlines (NMFS 2001). A detailed summary of the known impacts of hook and line incidental captures to loggerhead sea turtles can be found in the TEWG reports (1998, 2000).

3.12.3 *International Factors*

3.12.3.1 *International Fisheries*

Humpback whales are found internationally in feeding areas in the Gulf of St Lawrence, Newfoundland & Labrador and western Greenland, as well as Iceland and northern Norway, including off Bear Island

and Jan Mayen (Waring *et al.* 2000). On their winter migration, humpbacks from the Gulf of Maine Stock are found throughout the Antillean arc, from Puerto Rico to the coast of Venezuela. Therefore, some impacts on the population could come from international sources, including shipping, fisheries, and marine pollution. Humpback whale entanglements occur in relatively high numbers in Canadian waters. Reports of collisions with fixed fishing gear set for groundfish around Newfoundland averaged 365 annually from 1979 to 1987 (range 174-813). An average of 50 humpback whale entanglements (range 26-66) were reported annually between 1979 and 1988 and 12 of 66 humpback whales that were entangled in 1988 died (Lien *et al.* 1988).

Although more coastally oriented compared to some of the large whale species, *right whales* have been reported as far north as the Scotian shelf and several long distance movements have been recorded for individuals identified off Iceland, arctic Norway, Newfoundland, the Labrador Basin, and southeast of Greenland (Waring *et al.* 2000). Consequently, as with humpbacks, some impacts on the population could come from international sources, including shipping, fisheries, and marine pollution. Right whale entanglements are known to occur in Canadian waters, although not as frequently as for humpback whales. Ship strike records in Canadian waters have occurred at 0.4 per year (based on 1994-1998 data) and for fisheries interactions 1.0 per year (Waring *et al.*, 2000). Many entanglements observed in U.S. waters may have originated in Canadian waters. Unless gear is specifically marked and such marks are documented, it is often impossible to determine the origin of the gear.

Less is known about *fin whales* and *sperm whales* than humpbacks and right whales. Waring *et al.* (2000) report that there is likely a deep ocean component to fin whale distribution, and those occurring in the U.S. Atlantic EEZ undergo migrations into Canadian waters, open ocean areas, and perhaps even subtropical or tropical regions. The sperm whales occupying the eastern U.S. Atlantic EEZ likely represents only a fraction of the total stock and their offshore distribution is thought to be commonly associated with the Gulf Stream edge and other features. Impacts in international waters in the north are probably affecting different social groupings than seen off the northeast U.S. and include more social groups of females and calves/juveniles. Whaling records include catches near West Greenland, the Azores, Madeira, Spain, Spanish, Morocco, Norway, the British Isles, and the Faroes. Because of their offshore distribution, sperm whales are less likely to be impacted overall by human activities (Waring *et al.* 2000). However, longline gear was found on a dead sperm whale, wound tightly about its jaw; its country of origin is not known.

Whale populations/stocks protected under the ESA are impacted by fisheries and ship traffic in international waters, but the magnitude is currently unquantifiable. For right, humpback and fin whales, the contribution of international impacts to the baseline are likely not as important as the coastal impacts that occur in U.S. waters (with the exception of Canada) because of the amount of time they spend in coastal U.S. and Canadian waters. Information is so sparse on sperm whales that it is difficult to speculate, but given their distribution, impacts from international sources are likely similar to U.S. impacts.

For sea turtle species in the Atlantic, international activities, particularly fisheries, are significant factors impacting populations. The U.S. and 26 other nations participate in longline fishing throughout the western North Atlantic Ocean and the relative proportion of total hooks fished by the U.S. fleet is small compared to the cumulative total hooks fished by foreign fleets. As with U.S. fleets, sea turtles are incidentally captured in foreign fleets (NMFS SEFSC 2001). Takes of pelagic juvenile loggerheads in U.S. and international longline fisheries as a whole are large and, although the mortality rate cannot be quantified, NMFS SEFSC (2001) concludes that it could alter population trends. Some information is available on international gillnet fisheries. Incidental capture in gillnets in the central Mediterranean Sea (set by Italian

fishermen) took 397 loggerheads between 1981-1990, with a maximum of 73.6% mortality rate. Another study estimated 16,000 loggerheads per year with a 30% mortality. The Spanish driftnet fishery in the western Mediterranean documented 236 loggerheads between 1993-1994, one dead. There is a directed fishery for green and hawksbill turtles in Nicaragua, but an estimated 600 loggerheads are also caught each year. Leatherbacks, are also taken in Nicaragua and an estimated 1000 mature female leatherbacks are incidentally captured annually off Trinidad and Tobago with a 50 - 95 % mortality rate. Gillnets set for finfish and sharks in Belize catch sea turtles, and of 500-800 turtles sold annually in Belize, 30% may be loggerheads. Additional information on the impacts of international fisheries is found in NMFS SEFSC (2001). NMFS estimates that thousands of sea turtles of all species are incidentally caught and a proportion of them killed incidentally or intentionally annually by international activities. The impact of international fisheries is a significant factor in the baseline inhibiting sea turtle recovery.

3.12.3.2 Other International factors

Significant anthropogenic impacts threaten nesting populations of all species in areas outside of the U.S. This impacts include poaching of eggs, immatures and adults as well as beach development problems. There are other more indirect factors, for a complete list refer to NMFS SEFSC (2001).

3.12.4 Other factors influencing the Environmental Baseline

3.12.4.1 Marine Pollution

A number of activities that may indirectly affect listed species in the action area of this consultation include discharges from wastewater systems, dredging, ocean dumping and disposal, aquaculture, recreational fishing, and anthropogenic marine debris. The impacts from these activities are difficult to measure. Where possible, however, conservation actions are being implemented to monitor or study impacts from these sources. For example, extensive monitoring is being required for a major discharge in Massachusetts Bay (Massachusetts Water Resources Authority) in order to detect any changes in habitat parameters associated with this discharge. Close coordination is occurring through the section 7 process on both dredging and disposal sites to develop monitoring programs and ensure that vessel operators do not contribute to vessel-related impacts.

Sources of pollutants in Atlantic and Gulf coastal regions include atmospheric loading of pollutants such as PCBs, storm water runoff from coastal towns, cities and villages, runoff into rivers emptying into the bays, groundwater and other discharges, and river input and runoff. Nutrient loading from land based sources such as coastal community discharges is known to stimulate plankton blooms in closed or semi-closed estuarine systems. The effects on larger embayments is unknown. Although pathological effects of oil spills have been documented in laboratory studies of marine mammals and sea turtles (Vargo *et al.* 1986), the impacts of many other anthropogenic toxins have not been investigated.

Coastal runoff and river discharges carry large volumes of petrochemical and other contaminants from agricultural activities, cities and industries into the Gulf of Mexico. The coastal waters of the Gulf of Mexico have more sites with high contaminant concentrations than other areas of the coastal United States, due to the large number of waste discharge point sources. Although these contaminant concentrations do not likely affect the more pelagic waters of the action area, the species of turtles analyzed in this Opinion travel between nearshore and offshore habitats and may be exposed to and accumulate these contaminants during their life cycles.

An extensive review of environmental contaminants in turtles has been conducted by Meyers-Schöne and Walton (1994); however, most information relates to freshwater species. High concentrations of chlorobiphenyls and organochlorine pesticides in the eggs of the freshwater snapping turtle, *Chelydra serpentina*, have been correlated with population effects such as decreased hatching success, increased hatchling deformities and disorientation (Bishop *et al.* 1991, 1994).

Very little is known about baseline levels and physiological effects of environmental contaminants on marine turtle populations (Witkowski and Frazier 1982, Bishop *et al.* 1991). There are a few isolated studies on organic contaminants and trace metal accumulation in green and leatherback sea turtles (Davenport and Wrench 1990, Aguirre *et al.* 1994). McKenzie *et al.* (1999) measured concentrations of chlorobiphenyls and organochlorine pesticides in marine turtles tissues collected from the Mediterranean (Cyprus, Greece) and European Atlantic waters (Scotland) between 1994 and 1996. Omnivorous loggerhead turtles had the highest organochlorine contaminant concentrations in all the tissues sampled, including those from green and leatherback turtles. It is thought that dietary preferences were likely to be the main differentiating factor among species. Decreasing lipid contaminant burdens with turtle size were observed in green turtles, most likely attributable to a change in diet with age. Sakai *et al.* (1995) found the presence of metal residues occurring in loggerhead turtle organs and eggs. More recently, Storelli *et al.* (1998) analyzed tissues from 12 loggerhead sea turtles stranded along the Adriatic Sea (Italy) and found that characteristically, mercury accumulates in sea turtle livers while cadmium accumulates in their kidneys, as has been reported for other marine organisms like dolphins, seals and porpoises by Law *et al.* (1991). Research is needed on the short- and long-term health and fecundity effects of chlorobiphenyl, organochlorine, and heavy metal accumulation in sea turtles.

Generally, right whales and humpback whales do not use southeastern waters for feeding. Therefore, most of the effects from pollution would be expected in the northern summer feeding areas for these species. However, sea turtles nest primarily in the southeastern United States, and early life stages and breeding individuals of these species are likely to be impacted by pollution in these areas, as well as in the Northeast. Necropsies of hatchlings and juveniles show that young turtles commonly consume plastics and tar balls (STSSN stranding data base).

Oil spills from tankers transporting foreign oil, as well as the illegal discharge of oil and tar from vessels discharging bilge water will continue to affect water quality in the Gulf of Mexico. Cumulatively, these sources and natural oil seepage contribute most of the oil discharged into the Gulf of Mexico. Studies of floating tar sampled during the 1970s, when bilge discharge was still legal, concluded that up to 60% of the pelagic tars sampled did not originate from the northern Gulf of Mexico coast.

An additional source of mortality that has not been adequately assessed is the ingestion and long-term effects of *anthropogenic marine debris* by pelagic turtles. Preliminary indications are that approximately 15% of pelagic post-hatchling loggerheads from Florida beaches have ingested plastics and approximately 46% have ingested tar within the first few weeks of pelagic foraging (n=168) (Witherington, in review). Plastic and rubber latex debris is regularly found in the stomachs of necropsied stranded sea turtles. Of 1,710 turtles necropsied between 1980 and 1992, 11.5% had ingested debris, including plastic pieces and balloons: a greater proportion of loggerheads were affected than were Kemp's ridleys, and in both species the percentage impacted by digested debris was highest in the Gulf of Mexico (Witzell and Teas 1994).

Marine debris will likely persist in the action area despite of MARPOL prohibitions. In Texas and Florida, approximately half of the stranded turtles examined, in two studies limited to pelagic animals, have

ingested marine debris (Plotkin and Amos 1990; Bolten and Bjorndal 1991). Of 43 dead stranded green turtles examined by Bjorndal *et al.* (1994), 24 had ingested some sort of debris. Although fewer individuals are affected, entanglement in marine debris may contribute more frequently to the death of sea turtles. A summary of marine debris impacts can be found in the TEWG reports (1998, 2000).

3.12.4.2 *Natural biotoxins*

Geraci *et al.* (1989) identified bioaccumulation of the neurotoxin responsible for paralytic shellfish poisoning (saxitoxin) in mackerel consumed by humpback whales as the possible cause of mortality of 14 humpbacks which stranded between November of 1987 and January of 1988. No saxitoxin was identified in plankton or shellfish sampled in Massachusetts waters at the time of the mortality. The authors suggest the neurotoxin could have been transported by mackerel obtaining the toxin from planktonic sources in the Gulf of St. Lawrence, the spawning ground for mackerel. While a similar multiple mortality of large whales has not been observed, the authors suggest individual mortalities caused by the biotoxin would go unnoticed. The reason for the multiple mortalities in the winter of 1987 and 1988 has not been explained, although they may have been related to a shift in the normal diet of humpbacks due to the lack of sand lance in the bays the previous summer.

3.12.4.3 *Disease*

An unknown *disease* is posing a new threat to loggerhead sea turtles. Between the period of September 2000 to January 2001, 45 debilitated and 95 dead loggerhead turtles have been found in south Florida between Indian River and Charlotte Counties, elevating stranding data for this period to more than 3 times the previous 10-year average (Foley, pers. comm., 2000). These numbers may represent only 10 to 20 % of the turtles that have been affected by this disease because many dead or dying turtles likely never wash ashore. If the agent responsible for debilitating these turtles remains in Florida, the scope of this die off may increase substantially. In addition, if the agent is infectious, nesting females could spread the disease throughout the range of the adult loggerhead population. Symptoms of the unknown disease include extreme lethargy and pneumonia. Of those found alive, even with extensive care, many of them have died and none have fully recovered. The cause of the disease has yet to be determined but potential causes include bacteria, virus, or exposure to some toxin.

3.12.4.4 *Research and Enhancement*

Both FWS and NMFS have issued several section 10(a)(1)(A) permits authorizing the take of listed whales and turtles in the action area for research and enhancement purposes (see Appendix II, NMFS SEFSC 2001). For turtles, these permits include activities such as capture, tagging, relocation, collection of blood samples, movement and treatment of injured turtles, behavioral studies, transport and possession of live turtles, and captive display. Although the conduct of these activities will disturb or harass several sea turtles, the effects of these activities on sea turtles are anticipated to be largely beneficial and no serious injury or mortalities are anticipated. Permits for research and enhancement of whales include activities such as photo-identification, tagging, biopsy, behavioral studies, and studies of blubber thickness. As with sea turtles, research and enhancement activities may disturb or harass whales, but no serious or long-term impacts are anticipated.

3.12.4.5 *Nesting Beach Impacts*

Beachfront development, lighting and beach erosion control all are ongoing activities along the Gulf and Atlantic coasts. These activities potentially reduce or degrade sea turtle nesting habitats or interfere with hatchling movement to sea. Nocturnal human activities along nesting beaches may also discourage sea turtles from nesting sites. The extent to which these activities reduce sea turtle nesting and hatchling production is unknown. However, more and more coastal counties are adopting stringent protective measures to protect hatchling sea turtles from the disorienting effects of beach lighting.

3.12.5 Conservation and Recovery Activities

A number of activities are in progress that ameliorate some of the potential threat (impact) from the aforementioned activities. Education and outreach are considered one of the primary tools to reduce the threat of impact from private and commercial vessels. The USCG has provided education to mariners on whale protection measures and uses their programs such as radio broadcasts and notice to mariner publications to alert the public to potential whale concentration areas. The USCG is also participating in international activities (discussed below) to decrease the potential for commercial ships to strike a whale. In addition, outreach efforts for fishermen under the ALWTRP are increasing awareness and fostering a conservation ethic among fishermen that is expected, in the long term, to help reduce overall probability of adverse impacts in the environmental baseline from these commercial fishing activities.

Numerous recovery activities are being implemented to decrease the level of impacts from private and commercial vessels in the action area. These include the early warning system (EWS), other activities recommended by the Northeast Recovery Plan Implementation Team for the Right and Humpback Whale Recovery Plans and Southeast Recovery Plan Implementation Team for the Right Whale Recovery Plan, and NMFS regulations.

3.12.5.1 The Northeast and Southeast Early Warning Systems

Due to concern over potential collisions between right whales and hopper dredges operating in designated critical habitat for right whales in southeast waters, monitoring requirements were placed on the COE and resulted, in the 1980s, in the first regular aerial survey flights for right whales in waters off the Southeast United States. These surveys evolved over the years and, since late 1993/early 1994, have been officially sponsored by NMFS, the USCG, USN, and COE, and became known as early warning systems (EWS). The surveys were designed as daily reconnaissance flights to detect the presence of whales in and around a number of busy southeast shipping ports, USN vessel and submarine bases, and COE dredging sites, in order to alert vessels of the whales' presence and prevent potential whale/vessel collisions. The EWS, with the assistance of the USN and USCG, has evolved a sophisticated communication network which alerts not only dredges and military vessels in the area, but provides broadcasts to mariners via NAVTEX, NOAA Weather Radio, and other means, and even contacts vessels directly via radio when urgently necessary to prevent imminent collision.

Using the SEUS aircraft survey program as a model, efforts were initiated in 1996 to develop a similar program in the Cape Cod Bay and the Great South Channel in late winter and early spring. The program is a cooperative effort by NMFS, the USCG, Massachusetts Division of Fisheries, the Massachusetts Environmental Trust, the Center for Coastal Studies, the USN and MASSPORT (the Boston port authority). As a result of recommendations by the ALWTRT, a similar EWS, known as the "Sighting Advisory System," was established in the Northeast in late 1996. NMFS has the ability under the ESA to impose emergency regulations which may be used to protect unusual congregations of right whales. Through a fax-on-demand system, fishermen can obtain sighting reports and, in some cases, can make

necessary adjustments in fishing practices to decrease the potential for entanglements. The Commonwealth of Massachusetts was a key collaborator in the 1996-1997 effort and expanded the effort during the 1997-1998 season. The USCG has played a key role in this effort, providing both air and sea support. The State of Maine and the Canada Department of Fisheries and Oceans have expressed interest in conducting this type of EWS along their coastal waters. It is expected that other potential sources of sightings such as the USN may contribute to this effort. The NMFS Maine ALWTRP Coordinator is also working with local aquaria to collect whale sightings from fishing vessels in the Gulf of Maine. All this cooperation will increase the chance of success of this program in diverting potential impacts in the environmental baseline.

3.12.5.2 *The Northeast and Southeast Whale Recovery Implementation Teams*

In order to address the known impacts to right and humpback whales described in the Recovery Plan, NMFS established the Northeast and Southeast Recovery Plan Implementation Teams (NEIT and SEIT). The Recovery Plans describe steps to reduce human impacts to levels that will allow the two species to recover and rank the various recovery actions in order of importance. The Implementation Teams provide advice to the various federal and state agencies or private entities on achieving these national goals within their respective regions. The teams both agreed to focus primarily on habitat and vessel related issues and rely on the take reduction plan process under the MMPA for reducing takes in commercial fisheries.

As part of NEIT activities, a Ship Strike Workshop was held in December 1996 to inform the shipping community of their need to participate in efforts to reduce the impacts of commercial vessel traffic on right whales. The workshop summarized current research efforts using new shipboard and moored technologies as deterrents, and a report was given on ship design studies currently being conducted by the New England Aquarium and Massachusetts Institute of Technology. This workshop increased awareness among the shipping community and has further contributed to reducing the threat of ship strikes of right whales. In addition, a Cape Cod Canal Tide Chart that included information on critical habitat areas and the need for close watch during peak right whale activity was distributed widely to professional mariners and ships passing through the canal. A radio warning was transmitted by Canal traffic managers to vessels transiting the Canal during peak Northern right whale activity periods. Follow-up meetings were held with New England Port Authority and pilots to notify commercial ship traffic to keep a close watch during peak right whale movement periods. At the request of the SEIT, the NEIT ship strike subcommittee expanded to include the Southeast. Additional ship strike meetings have been held with industry in the Southeast, mid-Atlantic, and Northeast and progress is being made to develop a vessel management strategy to greatly reduce potential whale/vessel interactions. In addition to its ship strike prevention activities, the SEIT established a GIS subcommittee and is progressing with work to analyze right whale sightings, vessel traffic information, and pertinent environmental data in order to better understand right whale distribution patterns in southeast waters and ultimately prevent human interactions with these whales.

3.12.5.3 *The Whale Disentanglement Network*

The Center for Coastal studies (CCS), under NMFS authorization, has responded to numerous calls to disentangle various whales entrapped in gear since 1984, and has developed considerable expertise in whale disentanglement. NMFS has supported this effort financially since 1995. The ALWTRP identifies whale disentanglement as an important component of the take reduction plan. As a result, NMFS greatly increased funding for this network, purchasing equipment caches to be located at strategic spots along the

Atlantic coastline, supporting training for fishermen and biologists, purchasing telemetry equipment, *etc.* This has resulted in a greatly expanded capacity for disentanglement along the entire Atlantic seaboard, including offshore areas. Memoranda of Understanding (MOUs) developed with the U.S. Coast Guard ensure their participation and assistance in the disentanglement effort. As a result, NMFS believes that many whales which may otherwise have succumbed to complications from entangling gear, are being set free to survive the ordeal.

3.12.5.4 *Reducing Potential for Vessel Related Impacts*

As part of recovery actions aimed at reducing vessel related impacts, NMFS published a proposed rule in August 1996 restricting vessel approach to right whales (61 FR 41116) to distances outside of 500 yards in order to minimize human-induced disturbance. The Recovery Plan for the Northern Right Whale identified disturbance as one of the principal human-related factors impeding right whale recovery (NMFS 1991b). Following public comment, NMFS published an interim final rule in February 1997 codifying the regulations. With certain exceptions, the rules prohibit both boats and aircraft from approaching any right whale closer than 500 yards. The regulations are consistent with the Commonwealth of Massachusetts' approach to regulations for right whales. These are expected to reduce the potential for vessel collisions inherent in the environmental baseline.

In April 1998, the USCG submitted, on behalf of the United States, a proposal to the International Maritime Organization (IMO) requesting approval of a mandatory ship reporting system in two areas off the east coast of the United States. The USCG worked closely with NMFS and other agencies on technical aspects of the proposal. The proposal was submitted to the IMO's Subcommittee on Safety and Navigation for consideration and submission to the Marine Safety Committee at IMO and approved in December 1998. The system will require all vessels over 300 tons to report to a shore-based station, thereby prompting a return message which provides precautionary measures to be taken to reduce the likelihood of a ship strike and locations of recent right whale sightings. The reporting system was initially implemented on July 1, 1999. The USCG and NOAA are playing important roles in helping to implement the system.

3.12.5.5 *Measures to Reduce Impacts from Sound Sources*

NMFS and the U.S. Navy have been working cooperatively to establish a policy for monitoring and managing *Acoustic Impacts from Anthropogenic Sound Sources* in the marine environment. Acoustic impacts can include temporary or permanent injury, habitat exclusion, habituation, and disruption of other normal behavior patterns. It is expected that the policy on managing anthropogenic sound in the oceans will provide guidance for programs such as the use of acoustic deterrent devices in reducing marine mammal-fishery interactions and review of federal activities and permits for research involving acoustic activities. The Office of Naval Research hosted a meeting in March 1997 to develop scientific and technical background for use in policy formulation. NMFS hosted a workshop in September 1998 to gather technical information which will support development of new acoustic criteria.

3.12.5.6 *Measures to Reduce the Impacts of Aquaculture and Recreational Fishing*

Aquaculture is currently not concentrated in whale high-use areas, but some projects have begun in Cape Cod Bay Critical Habitat and in other inshore areas off the Massachusetts and New Hampshire coast. Acknowledging that the potential for impacts is currently unknown, NMFS is coordinating research to measure habitat related changes in Cape Cod Bay and is ensuring through the section 7 process that these

facilities do not contribute to the entanglement potential in the baseline. Many applicants have agreed to alter the design of their facilities to minimize or eliminate the use of lines to the surface that may entangle whales and/or sea turtles.

Recreational fishery interactions: Loggerheads, greens, and Kemp's ridleys are known to bite a baited hook, frequently ingesting the hook. Hooked turtles have been reported by the public fishing from boats, piers, and beach, banks, and jetties. Necropsies have revealed hooks internally which often were the cause of death. An investigation of injuries and mortalities related to fish hook ingestion is underway at the NMFS Laboratory, Galveston, Texas, and NMFS currently is exploring adding questions about encounters with sea turtles to intercept interviews of recreational fishermen conducted by the Texas Parks and Wildlife Department and under the auspices of the Marine Recreational Fishery Statistics Surveys conducted throughout the Gulf of Mexico and along the Atlantic Coast. NMFS is also considering questioning recreational fishermen aboard headboats throughout the southeast U.S. Atlantic and the Gulf of Mexico to quantify their encounters with sea turtles (TEWG 2000). A detailed summary of the impact of hook and line incidental captures on loggerhead sea turtles can be found in the TEWG reports (1998, 2000).

3.12.5.7 *Measures to Reduce Incidental Takes of Sea Turtles in Commercial Fisheries*

NMFS implemented a series of regulations aimed at reducing potential for incidental mortality of sea turtles in commercial fisheries. In particular, NMFS has required the use of TEDs in southeast U.S. shrimp trawls since 1989 and in summer flounder trawls in the mid-Atlantic area (south of Cape Charles, Virginia) since 1992. It has been estimated that TEDs exclude 97% of the turtles caught in such trawls. Regulations have been refined over the years to ensure that TED effectiveness is maximized through proper placement and installation, configuration (*e.g.*, width of bar spacing), floatation, and more widespread use. Analyses by Epperly and Teas (1999) indicate that the minimum requirements for the escape opening dimensions are too small, and that as much as 47% of the loggerheads stranding annually along the Atlantic seaboard and Gulf of Mexico were too large to fit through existing openings. On April 5, 2000, NMFS published an Advance Notice of Proposed Rulemaking to require larger escape openings (65 FR 17852). It is expected that the new TED requirements incorporating larger escape openings, when implemented, presumably no later than the fall of 2001, will have a significant effect on reducing shrimp trawl mortality of large, sexually mature loggerhead sea turtles and will contribute to the eventual recovery of the collective southeastern U.S. loggerhead population.

In 1993 (with a final rule implemented 1995), NMFS established a Leatherback Conservation Zone to restrict shrimp trawl activities off the coast of Cape Canaveral, Florida, to the North Carolina/Virginia border. This provides for short-term closures when high concentrations of normally pelagically distributed leatherbacks are recorded in more coastal waters where the shrimp fleet operates. This measure is necessary because, due to their size, adult leatherbacks are larger than the escape openings of most NMFS-approved TEDs. This rule was originally established because of coastal concentrations of leatherbacks which sometimes appear during their spring northward migration, but the rule was also recently implemented in the fall of 1999 off the coast of northern Florida due to unseasonable concentrations there. Leatherback TEDs were also required off the coast of Texas in the spring of 2000 due to unusual numbers of leatherback strandings.

NMFS is also working to develop a TED which can be effectively used in a type of trawl known as a flynet, which is sometimes used in the mid-Atlantic and northeast fisheries to target sciaenids and bluefish.

Limited observer data indicate that takes can be quite high in this fishery. A prototype design has been developed, but testing under commercial conditions has not yet been achieved.

The *Massachusetts Environmental Trust and Massachusetts Division of Marine Fisheries* have funded several projects to investigate fixed fishing gear and potential modifications to reduce the risk of entanglement to whales. These projects are an important complement to the NMFS research effort and have yielded valuable information on the entanglement problem. The Trust has also funded research on right whales in the Cape Cod Bay critical habitat area.

NMFS closed part of Pamlico Sound to the setting of gillnets targeting southern flounder in fall 1999 after the strandings of relatively large numbers of loggerhead and Kemp's ridley sea turtles on inshore beaches. This is a state-regulated fishery. NMFS also closed the waters north of Cape Hatteras to 38° N., including the mouth of the Chesapeake Bay, to large (> 6 inch stretched) mesh gillnets for 30 days in mid-May 2000 due to the large numbers of loggerhead strandings in North Carolina, and will continue to implement such proactive measures as necessary. A large proportion of these stranded loggerheads was assumed to be from the northern subpopulation. This assumption is partly supported by analyses conducted by Bass *et al.* (1999) on genetic samples collected from sea turtles stranding on U.S. Atlantic and Gulf of Mexico shores. The northern subpopulation accounted for 25-28% of the animals that stranded off the Carolinas, and 46% of the animals sampled that stranded in the northernmost area sampled, Virginia (TEWG 2000). Most recently, on October 27, 2000, the North Carolina Division of Marine Fisheries (NCDMF) closed waters in the southeastern portion of the Pamlico Sound as a result of elevated takes by the commercial large-mesh flounder gillnet fishery. The NCDMF and NMFS had agreed on details of a section 10 permit of the ESA for the flounder fishery just prior to the closure. The fishery was closed when anticipated incidental take levels were met for green turtles. The NCDMF estimated that there were 50 loggerheads captured at the time of closure and that 44 of those had been drowned (NMFS SEFSC 2001, Part 1).

In addition, NMFS has been active in public outreach efforts to educate fishermen regarding sea turtle handling and resuscitation techniques. In addition to making this information widely available to all fishermen, in July and August 2001 NMFS conducted a series of workshops with longline fishermen to discuss bycatch issues, including protected species, and to educate them regarding handling and release guidelines. Meetings were conducted in Silver Spring, MD; Fairhaven, MA; Gloucester, MA; Islandia, NY; Barnegat Light, NJ; Manteo, NC; and Cape Canaveral, FL. NMFS intends to continue these outreach efforts and hopes to reach all fishermen participating in the pelagic longline fishery over the next 1 to 2 years.

3.12.5.8 *Sea Turtle Stranding and Salvage Network Activities*

There is an extensive network of sea turtle stranding and salvage network (STSSN) participants along the Atlantic and Gulf of Mexico that not only collects data on dead sea turtles, but also rescues and rehabilitates any live stranded turtles. In most states, the STSSN is coordinated by state wildlife agency staff, although some state stranding coordinators are associated with academic institutions. Data collected by the STSSN are used to monitor stranding levels and compare them with fishing activity in order to determine whether additional restrictions on fishing activities are needed. These data are also used to monitor incidence of disease, study toxicology and contaminants, and conduct genetic studies to determine population structure. All of the states that participate in the STSSN are collecting tissue for and/or conducting genetic and ageing studies to better understand the population dynamics of the small subpopulation of northern nesting loggerheads. These states also tag turtles when live ones are

encountered (either via the stranding network through incidental takes or in-water studies). Tagging studies help provide an understanding of sea turtle movements, longevity, reproductive patterns, *etc.*

Synthesis of the Environmental Baseline

To evaluate effects of the proposed action (see *Effects of the Action*, Section 4), the environmental baseline must involve more than a list of impacts. Some general conclusions need to be drawn about species trends and potential for progress towards recovery beyond the conditions that led to species listing under the ESA.

The combination of federal, state and private actions, plus international activities, as well as natural factors, may cause effects to protected species that could prevent or slow a species' recovery, depending on its current trends and whether the baseline is improving. Designation of critical habitat, proactive approaches by other federal agencies (*i.e.*, COE has limited dredging in southeastern channels to periods when turtles are not concentrated in the channels; USCG has implemented marine mammal procedures as normal operating instructions for vessel operators), participation by state, federal agencies, and the private sector in recovery plan implementation activities, the section 7 process, individual state action, are all contributing to mitigating potential cumulative effects on listed species.

Although most of the individual and synergistic effects of these existing factors in the environmental baseline on sea turtle and marine mammal populations cannot be quantified, the magnitude and duration of any these effects on individual species has varied greatly. Any combination of factors, discussed above, which have resulted in multiple mortalities have reduced each species' reproduction by reducing the number of adults that reproduce in a population, reducing the number of young an adult will produce in a time interval or a lifetime, increasing the time it takes for an adult to reproduce, increasing the number of years that pass before adult females return to breed, reducing the survival of young, or decreasing the number of young that recruit into the adult population. These effects are more obvious for species such as the right whale, whose population numbers are so small that very few mortalities can have significant impacts on survival and recovery. But effects are not as obvious for less known species such as fin whales, or for species that are not recovered to the criteria set forth in recovery plans but have an increasing population trend (*e.g.*, humpback whales for at least some populations).

The latest trend identified from the best scientific information available for right whales is that the population is in a decline. In addition, as noted earlier, the extremely small population size makes it very susceptible to the slightest perturbation in numbers. Fishery and ship-related mortality must continue to be reduced to meet survival and recovery goals. Humpback whales present a brighter picture. Current trend data suggest that the Gulf of Maine stock is steadily increasing, consistent with the trend in the North Atlantic population overall. Insufficient data are available to estimate population trends for fin whales and sperm whales. Until more information is available, threats to total recovery are still present from fishing and ship strikes and must continue to be minimized until recovery goals are met. While conservation activities also continue under the MMPA, many fisheries are still listed as having more than a negligible impact on these large whales stocks.

These individual and synergistic effects would be even greater in whales that bear only one young at a time and mature late. Their ability to replace themselves evolved in an environment with little natural adult mortality. Human impacts, as discussed herein, occur at a much higher rate than natural adult mortality. Coupled with the devastating reductions in initial population sizes by commercial whaling, these factors have made for a slow recovery.

Significant improvements in the environmental baseline are necessary for all of the species considered in this Opinion to ensure their survival and recovery in the wild. As discussed earlier, the potential for a turtle egg to develop into a hatchling, into a juvenile, and finally into a sexually mature adult will vary among species, and populations, and will be affected by the threats faced during each life stage. Females killed prior to their first successful nesting will have contributed nothing to the overall maintenance or improvement of the species' status. Anthropogenic mortality to females (or males) prior to the end of their reproductive life results in a serious loss of reproductive potential to the population.

Increased mortality of leatherback turtles at the egg and early life history stages due to habitat degradation on nesting beaches has likely impacted the leatherback's ability to maintain or increase its numbers by limiting the number of individuals that survive to sexual maturity. Likewise, mortalities of adult female loggerheads captured in commercial fishing gear have resulted in long-term reductions in the future reproductive output of loggerhead turtles. The age at sexual maturity of loggerheads may be as high as 35 years, while green turtles may not reach maturity until 30-60 years (*in* Crouse, 1999). Upon reaching maturity, female sea turtles generally lay between 100-130 eggs per clutch, minimally 2-3 clutches per year, every 2-4 years. Thus, in general, a female sea turtle will lay between 200-390 eggs per season every 2-4 years. Loss of individual subadult female turtles due to any one of the factors discussed above, therefore, will have long-term effects on that species reproduction. The loss of individual female turtles would magnify these effects.

To better characterize cumulative impacts, NMFS recently modeled population trends and impacts for mortalities of loggerhead and leatherback sea turtles in the action area (NMFS SEFSC 2001). The population trends were calculated using nesting females; and, therefore, estimates of individual contribution of various mortality factors do not directly enter the calculation. As discussed earlier, this analysis concluded that the best available scientific information indicates that the northern subpopulation has been stable at best, possibly declining (*i.e.*, 0 to -5% rate), based on nesting beach data for 1978-1990. Data from 1990 to the present indicate that nests have been increasing annually (2.8 to 2.9%). However, caution must be used when reviewing any one time segment, rather than a long time series as discussed and graphically illustrate in Section 3.6.1. This is why the recovery plans require a 25-year trend.

Therefore, based on ESA guidance and the NMFS SEFSC (2001) review, for the purpose of this consultation, the northern subpopulation would be assumed to be at best stable, possibly declining. The Florida numbers have been increasing steadily over the longer time period (1978-1990) and have leveled off to 3.9 to 4.2% since 1990. Some scientists are currently speculating that while dramatic declines have been seen in nesting Pacific leatherbacks, the populations in the western Atlantic are apparently stable or increasing. However, after reviewing the leatherback population trends in the Atlantic from best available information, NMFS SEFSC (2001) concluded that conflicting information regarding their status makes it difficult to conclude whether or not the population is in decline. Nesting at some beaches is up, down at others. Again, it is important to remember the importance of long-term consistent data to verifying trends as noted above.

While not considered in the latest stock assessment (NMFS SEFSC 2001) because this analysis was specifically conducted for species most prevalent in longline bycatch, information on green, hawksbill, and Kemp's ridley turtles was summarized earlier. Green turtles are showing increasing trends at most sites; most hawksbill populations are suspected or known to be in decline, while Kemp's ridley data are suggesting that the decline has stopped and there is cautious optimism that the population is increasing.

NMFS SEFSC (2001) summarized the best available scientific information on what is known about the effects of human activities on the loggerhead and leatherback populations (many would also affect green, Kemp's ridley, and hawksbill sea turtles in areas in which they co-occur with the activity), but even with the best available information, was unable to quantify all of it. Even for those activities where quantitative values were available, they are not directly comparable (some represent estimates, some are observed, observations are at different levels of effort, *etc.*). Therefore, it is not possible to simply sum these values to arrive at some total estimate of numbers of turtles, even a minimum one. Instead, NMFS SEFSC (2001) looked at the impact of various mortality levels on sea turtle life stages to evaluate the pelagic longline activity in terms of the life stage it impacts the most. For example, to address the combined mortalities of pelagic loggerheads only, NMFS SEFSC (2001) estimated that an increase in pelagic juvenile loggerhead survival of 10% within the north Atlantic basin annually would be necessary to move the population trajectories from stable to increasing or from declining to slightly increasing. This is discussed in more detail in Sec 8.1.2 and the technical document should be consulted in its entirety for the complete explanation. The models considered both the more conservative view that populations are stable/declining to the optimistic view that the northern subpopulation is increasing. However, even without such a quantifiable estimate of each individual mortality factor, it is obvious that thousands of sea turtles of all species are being taken annually from various activities, with varying levels of associated mortality. This means that many of the factors contributing to their original listing have not yet been alleviated, particularly fishing-related mortality, a priority recovery activity. Therefore, minimizing takes of sea turtles in all fishery-related activities, based on their contribution to the baseline, is still imperative, including federal and state fisheries. As noted in the recovery plan, efforts need to continue until 25 years of trend data show an increase.

Given the current status of threatened and endangered species in the action area, and the magnitude of known and suspected mortalities affecting these species, it is reasonable to assume that the combined effects of factors existing in the environmental baseline have hindered the recovery of all of the species considered in this Opinion.

4.0 Effects of the Proposed Action

Pursuant to Section 7(a)(2) of the ESA, federal agencies are directed to ensure that their activities are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. In the *Description of the Action* section of this Opinion, NMFS provides an overview of the fisheries, particularly the distribution and timing of fisheries that use gear that impacts threatened and endangered species. In the *Status of the Species* section of this Opinion, NMFS provides an overview of the threatened and endangered species that are likely to be adversely affected by fisheries authorized under the HMS FMP. In this section of the Opinion, NMFS assesses the probable direct and indirect effects of a proposal to continue authorizing the existing HMS fisheries on threatened and endangered species and designated critical habitat. The fisheries authorized under the HMS FMP are likely to adversely affect listed species through gear interactions, primarily entanglement and hooking, which may injure or kill individual animals.

In this section of biological opinions, NMFS assesses the probable direct and indirect effects of the fisheries authorized under the HMS FMP on threatened and endangered species and designated critical habitat. The purpose of this assessment is to determine if it is reasonable to expect that the fisheries can be expected to have direct or indirect effects on threatened and endangered species that appreciably reduce their likelihood of surviving and recovering in the wild or appreciably diminish the value of designated critical habitat for both the survival and recovery of threatened and endangered species in the

wild. This section begins with a discussion of approaches to jeopardy assessments, the evidence available for our assessment, and the assumptions NMFS made to overcome limits in the information available for the consultation.

4.1. Approach to the Assessment

Regulations implementing section 7(a)(2) of the ESA require biological opinions to evaluate the direct and indirect effects of federal actions to determine if it would be reasonable to expect them to appreciably reduce listed species' likelihood of surviving and recovering in the wild by reducing their reproduction, numbers, or distribution (16 U.S.C. ' 1536; 50 CFR 402.02). Section 7 of the ESA and its implementing regulations also require biological opinions to determine if federal actions would appreciably diminish the value of critical habitat for the survival and recovery of listed species (16 U.S.C. ' 1536; 50 CFR 402.02).

NMFS generally approaches jeopardy analyses in three steps. The first step identifies the probable direct and indirect effects of an action on the physical, chemical, and biotic environment of the action area. The second step determines the reasonableness of expecting threatened or endangered species to experience reductions in reproduction, numbers, or distribution in response to these effects. The third step determines if any reductions in a species' reproduction, numbers, or distribution (identified in the second step of our analysis) can be expected to appreciably reduce a listed species' likelihood of surviving and recovering in the wild. Jeopardy analyses compare reductions in a species' likelihood of surviving and recovering in the wild associated with a *specific* action with the species' likelihood of surviving and recovering in the wild that was established in the *Status of the Species* section of an Opinion. Jeopardy analyses also consider the importance of the action area to a listed species and the effects of other human actions and natural phenomena (that were summarized in the *Environmental Baseline*) on a species' likelihood of surviving and recovering in the wild. As a result, jeopardy analyses in biological opinion distinguish between the effects of a specific action on a species' likelihood of surviving and recovering in the wild and a species' background likelihood of surviving and recovering given the full set of human actions and natural phenomena that threaten a species.

An extensive number of published studies relate the effects of human activities to a species' reproduction, numbers, and distribution and relate those changes to a species likelihood of surviving and recovering in the wild. Generally, human activities can reduce a species' reproduction by reducing the number of adults that reproduce in a population, reducing the number of young an adult will produce in a time interval or a lifetime, increasing the time it takes for an adult to reproduce, increasing the number of years that pass before an adult females returns to breed, reducing the survival of young, or decreasing the number of young that recruit into the adult population (Andrewartha and Birch 1954, Caughley and Gunn 2000, Ebert 1999). Human activities can reduce a species' numbers by killing individual members of the species (immediately or over time), reducing the numbers of individuals born into a population, reducing the number of individuals that immigrate into a population, or increasing the number of individuals that emigrate from a population (Burgman *et al.* 1993, Caughley and Gunn 2000). Human activities can reduce a species' distribution by reducing its population size or density in ways that cause the species to abandon parts of its range (Fowler and Baker 1991).

The third step in jeopardy analyses — relating reductions in a species' reproduction, numbers, or distribution (described in the first two steps) to reductions in the species' likelihood of surviving and recovering in the wild — is the most difficult step because (a) the relationship is not linear; (b) to persist over geologic time, most species have evolved to withstand some level of variation in their birth and death rates without a corresponding change in their likelihood of surviving and recovering in the wild; (c) our

knowledge of the population dynamics of other species and their response to human perturbation is usually too limited to support anything more than rough estimates. Nevertheless, jeopardy analyses must distinguish between anthropogenic reductions in a species' reproduction, numbers, and distribution that can reasonably be expected to affect the species' likelihood of survival and recovery in the wild from other (natural) declines.

Analyses to determine if an action is likely to destroy or adversely modify critical habitat that has been designated for listed species follow a similar pattern. The first step identifies the probable direct and indirect effects of an action on the physical, chemical, and biotic environment of the action area. The final step of adverse modification analyses determines the reasonableness of expecting these effects to appreciably reduce the value of critical habitat for the species likelihood of surviving and recovering in the wild (when compared with the baseline).

PROVIDING SPECIES THE BENEFIT OF THE DOUBT

Statistics provides two points of reference for analyzing data, information, or other evidence to test hypotheses: (1) analyzing data to minimize the chance of concluding that there was an effect from an activity or treatment that is being analyzed when, in fact, there was no effect or (2) analyzing data to minimize the chance of concluding that there was no effect when, in fact, there was an effect. These two points of reference are called "errors": the difference between them is that the first minimizes what is called Type I error while the second minimizes what is called Type II error (see Cohen 1987). Unfortunately, for most analyses, minimizing one type of error increases the risk of committing the other type of error. The concept of error is important for jeopardy analyses because Type II error places listed species at greater risk of extinction.

Analyses contained in biological opinions can minimize the likelihood of concluding that an action reduced a listed species' likelihood of surviving or recovering in the wild (or no effect on the value of critical habitat that has been designated for a listed species) when, in fact, no reduction occurred (Type I error) or the analyses can minimize the likelihood of concluding that an action did not reduce a listed species likelihood of surviving and recovering in the wild when, in fact, a reduction occurred (Type II error). To comply with direction from the U.S. Congress to provide the "benefit of the doubt" to threatened and endangered species [House of Representatives Conference Report No. 697, 96th Congress, Second Session, 12 (1979)], jeopardy analyses are designed to avoid concluding that actions had no effect on listed species or critical habitat when, in fact, there was an effect (Type II error). This approach to error may decrease risks to listed species and designated critical habitat, but increases the risk of concluding that there was an effect when, in fact, no effect occurred.

4.2 Scope of the Analyses

This biological opinion treats sea turtle and whale populations in the Atlantic Ocean as distinct from the Pacific Ocean populations for the purposes of this consultation. This approach is supported by interagency policy on the recognition of distinct vertebrate populations (Federal Register 61: 4722-4725). To address specific criteria outlined in that policy, sea turtle populations in the Atlantic basin are geographically discrete from populations in the Pacific basin, with limited genetic exchange (see NMFS and USFWS 1998a). This approach is also consistent with traditional jeopardy analyses: the loss of sea turtle populations in the Atlantic basin would result in a significant gap in the distribution of each turtle species, which makes these populations biologically significant. Finally, the loss of these sea turtle populations in the Atlantic basin would dramatically reduce the distribution and abundance of these

species and would, by itself, appreciably reduce the entire species' likelihood of surviving and recovering in the wild.

These analyses in this Opinion are based on an implicit understanding that the sea turtles and whales considered in this Opinion are threatened with global extinction by a wide array of human activities and natural phenomena; we have outlined many of those activities in the *Status of the Species* section of this Opinion. NMFS also recognizes that some of these other human activities and natural phenomena pose a much larger and more serious threat to the survival and recovery of sea turtles and whales (and other flora and fauna) than the HMS fisheries. Further, NMFS recognizes that sea turtles will not recover without addressing the full range of human activities and natural phenomena — for turtles, patterns of beach erosion, predation on turtle eggs, and turtle captures, injuries, and deaths in international fisheries and other State, federal, and private activities, for whales, other commercial fisheries and shipping — that could cause these animals to become extinct in the foreseeable future (USFWS and NMFS 1997).

Nevertheless, this Opinion focuses solely on whether the direct and indirect effects of the HMS fisheries managed under the HMS FMP can be expected to appreciably reduce the listed sea turtles' and whales likelihood of surviving and recovering in the wild by reducing their reproduction, numbers, or distribution. NMFS will consider the effects of other actions on threatened and endangered turtles as a separate issue. As stated previously, jeopardy analyses in biological opinion distinguish between the effects of a specific action on a species' likelihood of surviving and recovering in the wild and a species' background likelihood of surviving and recovering given the full set of human actions and natural phenomena that threaten a species.

4.3. Information Available for the Assessment

Detailed background information on the status of these species and critical habitat has been published in a number of documents including recent status reviews of sea turtles (NMFS and USFWS 1995, USFWS 1997); recovery plans for the eastern Pacific green turtle (NMFS and USFWS 1998a), U.S. Pacific populations of hawksbill sea turtles (NMFS and USFWS 1998b), loggerhead sea turtle (NMFS and USFWS, 1991), leatherback sea turtle (NMFS and USFWS 1992), and U.S. Pacific populations of olive-ridley sea turtles (NMFS and USFWS 1998c); and reports on interactions between sea turtles and gear used in pelagic fisheries (Bolten *et al.* 1996). In addition, Crouse *et al.* (1987), Crowder *et al.* (1994), Heppell (1998), Heppell *et al.* (1996, 1999, and 2000) published results from population models, sensitivity analyses, and elasticity analyses for various species of marine turtles, although most models are based on data on loggerhead sea turtles in the Atlantic Ocean.

Recently, NMFS' Southeast Fisheries Science Center (SEFSC) issued a stock assessment of loggerhead and leatherback sea turtles that included population assessments for these turtles in the Atlantic (NMFS SEFSC 2001). These analyses included estimates of the nesting abundance and trends, estimation of vital rates, population modeling and projections of population status under various scenarios, evaluation of genetic relationships between populations, assessment of the impact of the pelagic longline fishery on leatherbacks and loggerheads and evaluation of available data on other anthropogenic effects on these populations. Additionally, the document reviews the scientific literature on previous evaluations of status, trends and biological parameters of Atlantic loggerheads and leatherbacks. The NMFS' SEFSC (2001) assessment was reviewed by three independent experts [Center for Independent Experts (CIE) 2001]. As a result, the SEFSC' stock assessment report, the reviews of it and the body of scientific literature upon which these documents were derived form the primary basis for the jeopardy determinations in this opinion.

In addition to these published sources of information, the results of several workshops provided additional information to support this consultation. From August 31- September 1, 1999, NMFS held a workshop in Miami to discuss ways of monitoring the number of turtles taken and killed in the pelagic longline fisheries in the two ocean basins and to discuss steps that could be taken to reduce the takes. The resulting report (Kleiber and Boggs 2000) lists recommendations for collecting these data. Other workshops and expert working group meetings have been held since that workshop. The Working Group on reducing turtle bycatch in the Hawaii longline fishery held its first meeting in Los Angeles in September 2000 and its second meeting in San Diego, California. A NMFS-pelagic longline fishery workshop to discuss methods of reducing bycatch of sea turtles was held in Silver Spring, Maryland in January 2001. These workshops were used to obtain information and data directly from fishermen in order to collect “first-hand” information useful in developing research plans for mitigation procedures.

Despite this published and unpublished information, there are many gaps in scientific knowledge of the biology and ecology of sea turtles, including aspects of their life history, population dynamics, and their response to environmental and other variables. The National Research Council (1990) identified some of these limits and recommended research on a wide array of variables, including age at reproductive maturity, age-specific rates of survivorship and fecundity, distribution, and migration. Wetherall (1996, *in* Bolten *et al.* 1996) further described limitations in the current understanding of sea turtle ecology and concluded that population models have limited predictive capacity and would have to rely on untested critical assumptions. Bolten *et al.* (1996) concluded that it will take many years to develop quantitative models that can provide precise guidance for management decisions. Pritchard (1996) concluded that humans do not currently have enough life history data on sea turtles to construct models that can be used for predictive purposes. As a result of these limits, quantitative models of the effects of changes in abundance, reproductive success, and other vital rates on a sea turtle’s likelihood of surviving and recovering in the wild must be interpreted with care. For example, because of sample sizes and the statistical design of previous studies, quantitative estimates of the effects of human activities on loggerhead turtles throughout the entire Atlantic Basin are more reliable than trying to estimate the effects of a single human activity.

Determining the scope and magnitude of impacts of any fishery on sea turtle populations is complicated by the fact that all sea turtles lead an oceanic existence during most of their life history. There are broad gaps in human knowledge of sea turtles in the marine environment due to the difficulties in studying them away from their nesting beaches. Recent technological developments in satellite telemetry and genetic analyses are rapidly expanding our knowledge on the movements and habits of sea turtles in the marine environment, but much remains unknown. In contrast, at certain nesting beaches, reasonably good ecological data exist for the breeding stages of sea turtles when adult females, eggs, and hatchlings are accessible. Leatherback and olive ridley turtles are the most pelagic turtle species, often inhabiting waters well offshore. Other turtle species, such as green and loggerhead turtles, primarily inhabit coastal waters as adults, but spend varying stages of their immature lives in the open ocean. Adults of these species regularly undertake breeding migrations over deep water.

TURTLE MORTALITY ESTIMATES

Earlier assessments of the effects of longline fisheries on sea turtles have demonstrated that turtles are captured, injured, and killed from interactions with fishing gear. However, NMFS has no precise estimates of the percentage of sea turtles that are injured, seriously injured, or die from these interactions. These estimates are central to this analysis, but the scientific community, fishing industry, and conservation community have not agreed on a common approach to these estimates.

In its June 30, 2000, Opinion on the Atlantic HMS Fisheries, NMFS used mortality estimates that were derived primarily from Aguilar et al. (1995). After the release of NMFS' June 2000 Opinion on the HMS fisheries, Musick (2001) analyzed data collected by NMFS observers and summarized by Hoey (2000), observer reports from 2000, and data from other longline fisheries around the world. Based on his analyses, he challenged NMFS' conclusions and concluded that "it appears that hooking mortality rates of loggerheads may be within the range of 3.3 to 8.6%, and hooking mortality of leatherbacks in this fishery may be nil."

In response to questions that had been raised about the mortality estimates NMFS used in its June 2000 Opinion (for example, questions raised by Musick and others), NMFS tasked its Southeast Fisheries Science Center to conduct a more detailed analysis of the information available on sea turtles injuries and mortalities resulting from interactions with longline gear (including all of the information contained in Musick 2001). This analysis was peer reviewed and published as a SEFSC technical document. Concurrently, the NMFS Assistant Administrator requested that the Office of Protected Resources evaluate available information on sea turtle injury and provide advice on criteria. On January 4, 2001, NMFS' Office of Protected Resources issued a memorandum that revised the criteria for determining injury to sea turtles as a result of interactions with longline gear (NMFS 2001b). That memorandum concluded that, other than Dr. Musick's review, all studies of sea turtle mortalities in longline fisheries in the western Pacific Ocean, eastern Atlantic Ocean, and the Mediterranean Sea produced mortality estimates that ranged between 34 and 42%. The memorandum noted that all of the sea turtles that were represented in mortality studies had received treatments that would increase their probable survival (for example, hooks were often removed, turtles were disentangled, and animals were allowed to recuperate on deck); animals that did not receive those treatments would be expected to have higher mortality rates. As a result of these analyses, NMFS' Office of Protected Resources recommended classifying 50% of longline interactions with all species of sea turtles as lethal and classifying 50% as non-lethal (see NMFS' January 04, 2001, memorandum and Appendix 4 of NMFS SEFSC 2001 for a complete review and analysis of relevant research and recommendations).

Since this issue was crucial to evaluating the impacts of longline fishing sea turtles, and in order to further refine the broad categories summarized in the January 4, 2001 memorandum, the Assistant Administrator asked for further discussion. On February 16, 2001, the directors of NMFS' Offices of Science and Technology, Protected Resources, and Sustainable Fisheries reviewed the recommendations contained in the January 4, 2001, memorandum and the data supporting those recommendations. Based on that review, these senior science and policy experts concluded that these classifications could be further refined based on the best information available in the scientific and commercial literature and supported the following recommendations on sea turtle mortalities: (1) sea turtles that are entangled in gear, but not hooked, and that are released with no trailing line and visible injuries would not be expected to suffer any mortalities; (2) sea turtles that are externally hooked, including mouth hooks that do not penetrate mouth tissues, would be expected to have a 27% mortality rate; (3) sea turtles that were hooked in mouth tissues or that ingest hooks would have a 42% mortality rate. This Opinion adopts the mortality estimates from the February 16, 2001, memorandum.

4.4. Effects of the Proposed Fisheries

4.4.1. U.S. Pelagic Longline Fishery

As discussed in the *Description of the Proposed Action* section of this Opinion, the U.S. pelagic longline fishery for Atlantic highly migratory species primarily targets swordfish, yellowfin tuna, or bigeye tuna in

various areas of the North Atlantic Ocean in different seasons. Other target species include dolphin (which are caught incidental to the HMS fisheries), albacore tuna, pelagic sharks including mako, thresher, and porbeagle sharks, as well as several species of large coastal sharks. Although this gear can be modified (*i.e.*, depth of set, hook type, *etc.*) to target either swordfish, tunas, or sharks, like other hook and line fisheries, it is a multi-species fishery.

The lines used to target swordfish are generally deployed at sunset and hauled in at sunrise to take advantage of swordfish nocturnal, near-surface feeding habits. The lines used to target tuna are generally set in the morning, deeper in the water column, and hauled in the evening. Except for vessels of the distant water fleet which undertake extended trips, fishing vessels preferentially target swordfish during periods when the moon is full to take advantage of increased densities of swordfish near the surface. Pelagic longline gear is composed of several parts, as shown in Figures 2 and 3 of this Opinion.

Swordfish sets and mixed target sets are buoyed to the surface with floats, have few hooks between floats, and are relatively shallow. Tuna sets use a different type of float placed much further apart when compared to lines targeting swordfish. Compared with swordfish sets, tuna sets have more hooks per foot between the floats and the hooks are set much deeper in the water column (> 109 meters). The hooks are also different for each type of fish targeted by longline gear. Swordfish sets generally use “J” hooks and tuna sets use “tuna” hooks, which are more curved than “J” hooks. In addition, tuna sets use only bait while swordfish fishing uses a combination of bait and lightsticks.

Longline fisheries generally affect sea turtles by entangling or hooking the turtles in fishing gear. Turtles that become entangled in longline gear may drown when they are forcibly submerged or they may be injured by the entangling lines. Turtles that are hooked by longline gear can be injured or killed, depending on whether they are hooked internally or externally and whether the hook sets deep in their tissue. In addition to these immediate effects, longline gear can have long-term effects on a turtle’s ability to swim, forage, migrate, and breed, although these long-term effects are difficult to monitor or measure. The following discussions summarize the direct and indirect effects of longline gear on sea turtles and will be followed by a discussion of the probable responses of turtle populations to those effects.

4.4.1.1. *Estimated Number of Turtles Taken in the Fisheries*

Sea turtle bycatch estimates from observations of bycatch in the pelagic longline component of the swordfish/tuna/shark fishery number in the thousands. Estimates of the number of turtles taken incidental to the fisheries in the April 23, 1999 Opinion on the HMS fisheries (Scott and Brown 1997) were revised and updated by estimates provided in Johnson *et al.* (1999) and Yeung (1999) for NMFS’ June 30, 2000, Opinion on the HMS Fisheries. The most recent estimates of number of turtles incidentally taken in the HMS fisheries were estimated using a delta lognormal method of preferred pooling order (quarter, year, area). Total estimated take reported for loggerheads, over the period 1992 - 1999, was 7,891, with a lower confidence interval of 3,835 and an upper confidence interval of 18,805 for the 8-year period (See NMFS SEFSC 2001; for full discussion of the method). Totals for the most recent year available (1999) yield an estimate of 991 loggerheads taken (95% CI = 510 - 2,089).

For leatherbacks, an estimated total of 6,363 turtles were taken incidental to the fisheries between 1992-1999, with lower and upper confidence limits of 2,491 and 17,614, respectively. For 1999, an estimated 1,012 leatherbacks were taken (95% confidence interval = 410 - 2,786). Of the 7,891 loggerhead and 6,363 leatherback turtles estimated from observer records to have been captured by the U.S. Atlantic and

tuna longline fisheries from 1992-1999, 66 loggerhead and 88 leatherbacks were estimated to have been released dead (NMFS 2001; see Table 5 on the following page).

As discussed in the *Turtle Mortality Estimates* discussion in the introduction to this section of the Opinion, NMFS assumes that (1) sea turtles that are entangled in gear, but not hooked, and are released with no trailing line and visible injuries would not be expected to suffer any mortalities; (2) sea turtles that are externally hooked, including mouth hooks that do not penetrate mouth tissues, would be expected to have a 27% mortality rate; (3) sea turtles that are hooked in mouth tissues or that ingest hooks would have a 42% mortality rate.

4.4.1.2. Geographic Distribution of Interactions Between Longline Fisheries and Turtles

Most interactions between the U.S. longline fleet and loggerhead and leatherback turtles occur from the Mid-Atlantic Bight northward (Witzell 1999). Observer data, however, revealed greater loggerhead interactions in the Caribbean in 1992 and equally numerous leatherback interactions in the Caribbean and the Gulf of Mexico in some years (Yeung *et al.* 2000).

Pelagic longline gear most commonly catches loggerhead and leatherback turtles (See Table 5). Witzell (1999) summarized turtle catch from logbook data (1992 - 1995) for U.S. Atlantic sets targeting swordfish and tuna, or both. The Northeast Distant Area (NED) accounted for 70% of the loggerhead and 47% of the leatherback captures that were reported north of the Mid-Atlantic Bight. June through November were the peak months for reported captures. A review of observer reports for sets targeting all species between 1990 - 1996, yielded similar results (Hoey 1998). The NED accounted for 75% of the loggerhead and 40% of the leatherback captures for all sampling areas. The NED also was the only area where interactions of 4 or more turtles occurred on a single set (Hoey and Moore 1999). July through November were the predominant months for turtle captures (Hoey 1998).

Analyses of the latest bycatch data show that the Northeast Distant (NED) captures the greatest numbers of loggerhead and leatherback turtles, with the highest numbers of captures occurring in the 3rd quarter of the year at the height of fishing effort. Given the relatively low levels of effort in the NED when compared with the NEC, longline fisheries in the NED capture high numbers of sea turtles. Analyses of the observed data suggest that the timing and spatial distribution of the fishery have a greater

Table 5. Annual summed observed and delta-lognormal estimates of total marine turtle bycatch and the subset that were dead when released in the U.S. pelagic longline fishery (CL= confidence limit; CV =coefficient of variation)

species	year	observe	estimate				estimate			
		d catch	d catch	upper 95% CL	lower 95% CL	CV	d dead	upper 95% CL	lower 95% CL	CV
loggerhead	92	6	293	1149	78	0.79	0			
loggerhead	93	23	417	1414	142	0.69	9	46	2	1
loggerhead	94	88	1344	2392	859	0.3	31	158	6	1
loggerhead	95	129	2439	4542	1405	0.33	0			
loggerhead	96	13	917	2713	322	0.6	2	10	0	0.98
loggerhead	97	17	384	1281	124	0.68	0			
loggerhead	98	15	1106	3225	395	0.59	1	5	0	0.98
loggerhead	99	64	991	2089	510	0.39	23	117	5	1
leatherback	92	28	914	2716	353	0.6	88	449	17	1
leatherback	93	66	1054	2603	463	0.49	0			
leatherback	94	42	837	2433	328	0.59	0			
leatherback	95	61	934	2093	520	0.43	0			
leatherback	96	10	904	2074	231	0.44	0			
leatherback	97	7	308	1498	66	0.96	0			
leatherback	98	4	400	1411	120	0.72	0			
leatherback	99	45	1012	2786	410	0.55	0			
green	92	10	87	266	29	0.62	30	154	6	1
green	93	2	31	158	6	1	0			
green	94	2	33	169	6	1	0			
green	95	1	40	205	8	1	0			
green	96	0	16	60	4	0.76	2	10	0	0.98
green	98	0	14	52	4	0.75	1	5	0	0.98
hawksbill	92	1	20	102	4	1	0			
hawksbill	97	1	16	82	3	1	0			
hawksbill	98	1	17	87	3	1	0			
Kemp's Ridley	92	0	1	5	0	0.98	0			
Kemp's Ridley	94	1	26	133	5	1	0			
Kemp's Ridley	97	1	22	112	4	1	0			
unidentified	92	1	26	133	5	1	0			
unidentified	93	2	31	158	6	1	0			
unidentified	94	2	34	173	7	1	0			
unidentified	95	4	171	58785	50	0.7	0			

influence on bycatch than effort or gear (NMFS SEFSC 2001)

Analyses of recent NMFS unpublished observer data for 2000 reveals that 87 sea turtles (34 leatherbacks, 48 loggerheads, and 5 unidentified turtles) were observed taken by the pelagic longline fleet in 2000, resulting in zero observed mortalities, with approximately 4% observer coverage overall. Seventy percent (61) of the interactions occurred in the 3rd and 4th quarters. Twenty-eight of the interactions occurred in the NED (Northeast Distant), 14 occurred in the Gulf of Mexico, 10 occurred in the Northeast Coastal, 10 occurred in the Mid-Atlantic Bight, 8 each in South Atlantic Bight and Florida East Coast, and 5 occurred in the North Central Atlantic.

4.4.1.3. General effects of longline fishing on sea turtles

Longline gear has two general effects on sea turtles: sea turtles become entangled in longline gear or they can become hooked. The sections that follow discuss the characteristics of longline gear that affect sea turtles and the nature of those effects.

4.4.1.3.1. Effects of forced submergence

Sea turtles can be forcibly submerged by longline gear, through a hooking or entanglement event, and the turtle maybe unable to reach the surface to breathe. This can occur at any time during the set, including the setting and hauling of the gear, and generally occurs when the sea turtle encounters a line that is too short to reach the surface or is too heavy to be brought up to the surface by a swimming sea turtle. For example, a sea turtle that is hooked on a 3-meter branchline attached to a mainline set at depth by a 6-meter floatline will generally not be able to swim to the surface unless it has the strength to drag the mainline approximately 3 more meters (discussed further below).

Turtles hooked by longline gear will sometimes drag the clip, attached to the branchline, along the mainline. If this happens, the potential exists for a turtle to become entangled in an adjacent branchline which may have another species hooked such as a shark, swordfish, or tuna. According to observer reports, most of the sharks and some of the larger tuna such as bigeye are still alive when they are retrieved aboard the vessel, whereas most of the swordfish are dead. If a turtle were to drag the branchline up against a branchline with a live shark or bigeye tuna attached, the likelihood of the turtle becoming entangled in the branchline is greater. If the turtle becomes entangled in the gear, then the turtle may be prevented from reaching the surface. Also, if a turtle drags the dropperline next to a floatline, the turtle may wrap itself around the floatline and become entangled.

Sea turtles that are forcibly submerged by longline gear undergo respiratory and metabolic stress that can lead to severe disturbance of acid-base balance. Most voluntary dives by sea turtles appear to be aerobic, showing little if any increases in blood lactate and only minor changes in acid-base status (pH level of the blood). Sea turtles that are stressed as a result of being forcibly submerged through hooking or entanglement in a line rapidly consume oxygen stores. This triggers an activation of anaerobic glycolysis and subsequently disturbs the acid-base balance, sometimes to lethal levels. It is likely that the rapidity and extent of the physiological changes that occur during forced submergence are functions of the intensity of struggling as well as the length of submergence (Lutcavage and Lutz 1997). In a field study examining the effects of shrimp trawl tow times and sea turtle deaths, there was a strong positive correlation between the length of time of the tow and sea turtle deaths (Henwood and Stuntz 1987).

Sea turtles forcibly submerged for extended periods of time show marked, even severe, metabolic acidosis as a result of high blood lactate levels. With such increased lactate levels, lactate recovery times are long (even as much as 20 hours). This indicates that turtles are probably more susceptible to lethal metabolic acidosis if they experience multiple captures, because they would not have had time to process lactic acid loads (*in* Lutcavage and Lutz 1997). Presumably, however, a sea turtle recovering from a forced submergence would most likely remain resting on the surface (given that it had the energy stores to do so), which would reduce the likelihood of being recaptured by a submerged longline. Recapture would also depend on the condition of the turtle and the intensity of fishing pressure in the area. NMFS has no information on the likelihood of recapture of sea turtles by the U.S. Atlantic longline fishery, Hawaii-based longline fishery, or other fisheries. However, in the Atlantic Ocean, turtles have been reported as captured more than once by longline vessels (on subsequent days), as observers reported clean hooks already in the jaw of captured turtles. Such multiple captures were thought to be most likely on 3 or 4 trips that had the highest number of interactions (Hoey 1998). In areas of turtle concentrations (*e.g.*, Mediterranean Sea, Grand Banks) turtles have been reported to have been hooked from 2 to 8 times (Panou *et al.* 1991, Gramentz 1989, Argano *et al.* 1992, Witzell 1999, Hoey and Moore 1999; *in* NMFS SEFSC 2001, Part 3, Chap.5). This not only compounds mortality estimates, it complicates efforts to estimate the number of turtles captured in the fishery. Current bycatch estimates do not take into consideration that an animal may be captured multiple times, which could lead to an unquantifiable, though probably small, amount of overestimation of sea turtle take.

Respiratory and metabolic stress due to forcible submergence is also correlated with additional factors such as size and activity of the sea turtle (including dive limits), water temperature, and biological and behavioral differences between species, and will therefore also affect the survivability on a longline. For example, larger sea turtles are capable of longer voluntary dives than small turtles, so juveniles may be more vulnerable to the stress of forced submergence than adults. During the warmer months, sea turtles' routine metabolic rates are higher, which may magnify the effects of stress associated with entanglement or hooking on the turtles. In addition, disease factors and hormonal status may also play a role in anoxic survival during forced submergence. Any disease that causes a reduction in the blood oxygen transport capacity could severely reduce a sea turtle's endurance on a longline, and since thyroid hormones appear to have a role in setting metabolic rate, they may also play a role in increasing or reducing the survival rate of an entangled sea turtle (*in* Lutz and Lutcavage 1997). Turtles necropsied following capture (and subsequent death) by longline vessels in the Pacific fishery were found to have pathologic lesions. Two of seven turtles examined (both leatherbacks) had lesions severe enough to cause probable organ dysfunction, although whether or not the lesions predisposed these turtles to being hooked could not be determined (Work 2000). As discussed further in the leatherback and loggerhead subsections below, some sea turtle species are better equipped to deal with forced submergence.

Although a low percentage (typically < 1%) of turtles that are captured by longliners actually are reported dead, sea turtles can drown from being forcibly submerged. Such drowning may be either "wet" or "dry." In the case of dry drowning, a reflex spasm seals the lungs from both air and water. With wet drowning, water enters the lungs, causing damage to the organs and/or causing asphyxiation, leading to death. Before death due to drowning occurs, sea turtles may become comatose or unconscious. Studies have shown that sea turtles that are allowed time to stabilize after being forcibly submerged have a higher survival rate. This of course depends on the physiological condition of the turtle (*e.g.*, overall health, age, size), time of last breath, time of submergence, and environmental conditions (*e.g.*, sea surface temperature, wave action, *etc.*) at the time of submergence (NRC 1990). Turtles which survive initial forced submergence and are released from longline gear may not recover and could die shortly thereafter.

Reports of sea turtles being drowned during interactions with longline gear are rare (Budi, Shawhan, pers. comm. 2000; Hoey 1998; Yeung 2000). Between 1992-1999, 4,032 longline sets were observed, of which 429 (~11%) caught turtles. Most of the turtles caught in longline gear were either loggerheads or leatherbacks. Table 6 shows numbers and species of marine turtles caught in longline sets observed between 1992-1999 (NMFS 2001). The number of dead turtles is a subset of the total number caught. If these data are corrected for percent observer coverage (see NMFS SEFSC 2001 for computations), an average of 986 loggerhead and 795 leatherback turtles were captured in the fishery each year from 1992 to 1999, of which 8 and 11, respectively, were dead.

Table 6. Total observed turtles caught and number recovered dead in the pelagic longline fishery for swordfish and tunas, 1992-1999

Species	Caught	Dead	Sets
Loggerhead turtle	355	4	198
Leatherback turtle	263	1	201
Green turtle	15	2	11
Hawksbill turtle	3	0	3
Kemp's ridley turtle	2	0	2
Unidentified	14	0	14

The green, hawksbill, and Kemp's ridley turtles reportedly captured in the longline fishery were probably misidentified (NMFS SEFSC 2001). They were probably loggerhead turtles, which are the most common hard-shelled turtles taken in the fishery (Hoey 1998; Witzell 1999: *in* NMFS 2001). Information from these data for 1999 indicates that, of 45 leatherback, 64 loggerhead, and 3 unidentified turtles observed taken by the U.S. swordfish fleet; 1 loggerhead turtle was dead when it was brought aboard (NMFS SEFSC 2001).

Aguilar (1995) reports only 4 turtles were dead (of a total of 1,098 loggerheads hooked) when hauled onboard during longline sets by Spanish fishermen in the Mediterranean during July-September 1990 and June-August 1991. Spanish longline hooks are typically fished at about 25 m depth, compared to U.S. Atlantic longline depths of approximately 75-100 m. The low mortality estimates of sea turtles that have been reported to have been killed (through drowning) during interactions with the U.S. and Spanish fleets does not consider post-interaction effects on individuals that are injured during those interactions or the effect of those injuries on their longevity or reproductive success.

4.4.1.3.2. Effects of entanglement

Sea turtles are particularly prone to entanglement as a result of their body configuration and behavior. Records of stranded or entangled sea turtles reveal that fishing debris can wrap around the neck or flipper, or body of a sea turtle and severely restrict swimming or feeding. Over time, if the sea turtle is entangled when young, the fishing line will become tighter and more constricting as the sea turtle grows, cutting off blood flow, causing deep gashes, some severe enough to remove an appendage. Sea turtles have also been found trailing gear that has been snagged on the bottom, or has the potential to snag, thus anchoring them in place (Balazs 1985; Hickerson, pers. comm. 2001).

Sea turtles have been found entangled in branchlines (gangions), mainlines and floatlines. Longline gear is fluid and can move according to oceanographic conditions determined by wind and waves, surface and subsurface currents, *etc.*; therefore, depending on both sea turtle behavior, environmental conditions, and location of the set, turtles can become entangled in longline gear. If sea turtles become entangled in monofilament line (mainline, gangion or float line) the gear can inflict serious wounds, including cuts, constriction, or bleeding anywhere on a turtle's body. In addition, entangling gear can interfere with a turtle's ability to swim or impair its feeding, breeding, or migration. Sea turtles that are entangled in the longline fishery are most often entangled around the neck and foreflippers, and, in the case of leatherback turtles, are often found snarled in mainlines, floatlines, and branchlines (*e.g.*, Hoey 2000).

4.4.1.3.3. Effects of hooking

In addition to being entangled in a longline, sea turtles are also injured and killed by being hooked. Hooking can occur as a result of a variety of scenarios, some of which will depend on foraging strategies and diving and swimming behavior of the various species of sea turtles. For example, olive ridley turtles have been found with bait in their stomachs after being hooked, suggesting that they were attracted to bait and attacked the hook.

Leatherback, loggerhead, and olive ridley turtles forage on tunicates, particularly pyrosomas — the so-called “fiery bodies,” which radiate light at night. If lightsticks are used on longline gear set at night to attract species like swordfish, sea turtles could mistake the lightsticks for their preferred prey and get hooked externally or internally. Witzell (1999) suggested that leatherbacks are attracted to the lightsticks used by vessels targeting swordfish, perhaps mistaking the light sticks for bioluminescent gelatinous prey and then becoming entangled in the line. However, analyses using observer data indicated that sea turtle (both loggerhead and leatherback) interactions were not positively correlated with the use of lightsticks (Hoey 1998 ; Kleiber 2000).

Sea turtles are either hooked externally — generally in the flippers, head or beak — or internally, where the animal has attempted to forage on the bait, and the hook is ingested into the gastro-intestinal tract, often a major site of hooking (E. Jacobson *in* Balazs *et al.* 1995). Table 7 (below) summarizes recent data on the location and number of sea turtles that were hooked in the Atlantic pelagic longline fishery in 1999 and 2000. Table 7 was used to get an estimate of how many turtle would be expected to be lightly hooked, deeply hooked, or entangled which has implications for the level of injury and mortality of turtles interacting with the fishery, which ultimately is important for assessing the effects of the action. The number of turtles in each category was divided by the total number of turtles (n) for that species for the two years of data. For hooked turtles the “not hooked” column was simply subtracted from the total. In both years, the percentage of loggerhead turtles hooked in longline gear (61.2 and 58.1% of all turtles hooked in 1999 and 2000, respectively) was larger than the percentage of leatherback turtles (35.9 and 36.1% of all turtles hooked, respectively). In both years, of the two turtle species, a greater percentage of loggerhead turtles were hooked in their beak or mouth (72.7 and 82.1% of all turtles observed hooked in their beak or mouth in 1999 and 2000, respectively) or had ingested the hook (100 and 93.8%, respectively)¹. The “hooked in beak or mouth” values were calculated without including the “head or

¹ The observer data presented in Table 7, the best available, does not distinguish between turtles hooked in the hard parts of their beaks and mouths from those that were hooked in soft tissue, which made it difficult to fully apply the post-hooking mortality estimates recommended in NMFS January 14, 2001, memorandum. Turtles hooked in beak and

beak” column in the last column of Table 7 (A separate code in observer data). If you add these values to the total, only the 2000 figure changes (83.9); if you add the “unknown other” to this as well, you get 78.9 and 81.2, respectively. The most accurate value adds the head and beak category because review of observer comments for those animals reveals that they are comparable to “beak and mouth” records. In contrast, a greater percentage of leatherback turtles were hooked in the flippers (84.2 and 81.3% of all turtles observed hooked in their flippers in 1999 and 2000, respectively). NMFS would expect this general pattern to continue in future interactions between the longline fishery and sea turtles.

Table 7: The location of hooks observed on leatherback and loggerhead turtles in the longline fishery (from Appendix 3, NMFS 2001)

1999		Hook Location								
Species	beak or mouth	flipper	head or neck (external)	throat or esophagus (ingested)	not hooked	unknown beak or mouth	carapace or plastron	unknown other	head or beak	n
Leatherback	1	16	1	0	8	9	0	10	0	45
Loggerhead	8	3	2	10	1	37	0	3	0	64
Unknown	2	0	0	0	0	0	0	1	0	3
Total	11	19	3	10	9	46	0	14	0	112
Percentages	0.0982	0.1696	0.0268	0.0893	0.0804	0.4107	0.0000	0.1250	0.0000	

2000		Hook Location								
Species	beak or mouth	flipper	head or neck (external)	throat or esophagus (ingested)	not hooked	unknown beak or mouth	carapace or plastron	unknown other	head or beak	n
Leatherback	4	13	3	0	1	0	5	6	0	32
Loggerhead	23	3	0	15	0	0	0	6	3	50
Unknown	1	0	0	1	0	1	0	2	0	5
Total	28	16	3	16	1	1	5	14	3	87
Percentage s	0.3218	0.1839	0.0345	0.1839	0.0115	0.0115	0.0575	0.1609	0.0345	

The greatest concern is for turtles that have ingested hooks. Like most vertebrates, the digestive tract of the sea turtle begins in the mouth, through the esophagus, and then dilates into the stomach. The esophagus is lined by strong conical papillae, which are directed caudally towards the stomach (White 1994). The presence of these papillae, coupled with the fact that the esophagus snakes into an S-shaped bend distal to the esophagus, make it difficult to see hooks, especially if they have been deeply ingested. Because of a turtle’s digestive structure, deeply-ingested hooks are also very difficult to remove from a turtle’s mouth without seriously injuring the turtle. A turtle’s esophagus is attached firmly to underlying tissue; therefore, if a turtle swallows a hook and tries to free itself or is hauled by a vessel, the hook can pierce the turtle’s esophagus or stomach and can pull organs from their connective tissue. These injuries can cause the turtle to bleed internally or can result in infections, both of which can kill the turtle.

mouth were assumed to fall into the 27% mortality category.

If a hook does not lodge into or pierce a turtle's digestive organs, it can pass through to the turtle's colon or it can pass through the turtle entirely (E. Jacobson *in* Balazs *et al.* 1995; Aguilar *et al.* 1995). In such cases, sea turtles are able to pass hooks through the digestive tract with little damage (Work 2000). Of 38 loggerheads deeply hooked by the Spanish Mediterranean longline fleet and subsequently held in captivity, six loggerheads expelled hooks after 53 to 285 days (average 118 days) (Aguilar *et al.* 1995). If a hook passes through a turtle's digestive tract without getting lodged, the hook probably has not harmed the turtle. Tissue necrosis that may have developed around the hook may also get passed along through the turtle as a foreign body (E. Jacobson *in* Balazs *et al.* 1995).

As discussed in the introduction to this section of this Opinion, NMFS has reviewed the scientific and commercial information available on sea turtle mortalities associated with interactions with longline gear in the western Pacific Ocean, eastern Atlantic Ocean, and the Mediterranean Sea. Assuming the mortality rates in the memorandum, 27% of the loggerhead turtles hooked in their beak or mouth and 27% of the leatherback turtles that were hooked in their flippers coded in table 7 would be expected to die. Based on that policy, 42% of the loggerhead turtles that ingested hooks would be expected to die. Again, NMFS would expect this pattern to continue in future interactions between the longline fishery and sea turtles -- the percentage of type of interaction identified in table 7 and the mortality rates identified in the February 2001 memorandum will be used to analyze the effects of this action on loggerhead sea turtles in Section 6.1 and leatherback sea turtles in section 6.2.

4.4.1.4. Factors contributing to the likelihood of an interaction with the longline fishery

The following subsections describe aspects of longline fishing, including gear characteristics as well as environmental conditions, that may contribute to the likelihood of sea turtle interactions with this fishery.

4.4.1.4.1. Gear

Floats: Sea turtles may be attracted to the floats used on longline gear. Sea turtles have been observed associating with manmade structures significantly more frequently than with natural objects, perhaps related to turtles' affinity for 3-dimensional objects. Turtles also show a preference for objects floating horizontally and nearly submerged and are strongly attracted to brightly colored objects (Arenas and Hall 1992). Floats typically used during swordfish-style sets are bright orange, bullet-shaped, and slightly submerged. Tuna-style sets generally use larger cylindrical inflatable buoys and floats, and these also are typically orange in color (L. Enriquez, pers. comm., January 2001). An analysis of observer data from the Hawaii-based pelagic longline fleet found that the proximity of the gangion to a floatline had a strong, significant effect on turtle catch rates. For hauls that captured loggerhead turtles, 45% of the loggerhead turtles that were caught were on the hooks nearest a floatline, even though those hooks only represented 20% of the hooks set. The remaining 80% of the gangions set farther from the floatlines accounted for 55% of the loggerhead captures. The results are similar for leatherbacks: 49% of leatherbacks that were caught were on the hooks nearest the floatline, which composed only 17% of the hooks set (NMFS SWFSC, unpubl. data). This effect may be explained by turtles being attracted to the buoys and the marine life that assembles under them. The hooks closest to the floatlines would also be shallower than the hooks farther away, so it is also possible that these results reflect a depth effect, or an interaction of shallow depth and proximity to a surface attractor.

Bait: Sea turtles may also be attracted to the bait used on a longline. Four olive ridleys necropsied after being taken dead by Hawaii-based longliners were found with bait in their stomachs (Work 2000).

Loggerheads are routinely taken by U.S. and Spanish longline fishermen using various baits. In addition, a leatherback was documented ingesting squid bait on swordfish longline gear.

Lightsticks: Lightsticks are often used by longliners targeting swordfish in order to attract the swordfish to the bait. Skillman and Balazs (1992) speculate that the lightsticks may initially attract leatherbacks as was seen in the Spanish longline fleet example (above) by simulating natural prey. Preliminary findings by Lohmann (2000) indicate that glowing lightsticks are attractive to young, pelagic stage loggerhead turtles, whereas unbaited hooks are not. Whether lightsticks attract swordfish directly or whether they attract baitfish, which in turn attract the swordfish, is not entirely clear; however, fishermen report higher takes of swordfish when they use lightsticks. Lightsticks are generally attached to every other branchline, approximately a meter above the hook. Sea turtles foraging at night may be attracted to the lightsticks, confusing them for prey. Researchers studying the prey and foraging habits of sea turtles have reported the ingestion of pyrosomas, the so-called “fiery bodies,” by leatherbacks, loggerheads, and olive ridleys; however, there is little information on the actual ingestion of lightsticks by sea turtles. Several authors have suggested that the use of lightsticks contributes to the incidental take of sea turtles in pelagic longline fisheries (Witzell and Cramer 1995; Price 1995). Examination of logbook data indicated that catch per unit effort for leatherbacks and loggerheads doubled with the use of lightsticks (Witzell and Cramer, 1995). However, Hoey’s 1998 analysis of Atlantic pelagic longline observer data from 1990 - 1996 indicated that lightstick use had little bearing on levels of sea turtle bycatch. Statisticians have not been able to find any correlation between sea turtle take and the proximity of a lightstick to the hook or branchline that the turtle was hooked on or entangled in. For the Hawaii longline fishery, Skillman and Kleiber (1998) and Kleiber (2000, draft) were unable to predict turtle capture based on lightstick use. The use of lightsticks was associated with a number of other more significant predictor variables, *e.g.*, latitude and fishing for swordfish (Skillman and Kleiber 1998). Preliminary results of a study on the response of post-hatchling loggerheads to light sticks indicate that the turtles were strongly attracted to glowing green lightsticks and were weakly attracted to glowing yellow Coghlan lightsticks (Lohmann 2000). Methodology developed for testing these animals needs to be applied to older animals.

4.4.1.4.2. Effects of hook styles on hook ingestion

A variety of fishhook styles are used in the pelagic longline fisheries (D. Lee, pers. comm. 2000 *in* NMFS SEFSC 2001). Boats may fish several styles of hooks at any one time depending on target species and hook availability. The swordfish fishery uses traditional “J” style hooks while the tuna fishery uses circle hooks. From July to December, 2000, researchers experimented with different styles of hooks in the commercial, Azores longline fishery in the Azores Islands to determine their effect on sea turtles incidentally captured in the fishery.

The experiment consisted of 93 longline sets, each set consisting of 1,500 hooks baited with squid. The target species were swordfish and blue sharks. Three hook types were tested: straight “J”(Mustad #76800 D 9/0), reversed/offset “J” (30/0-32/0) (Mustad #76801 D 9/0), and circle (Mustad #39960 ST 16/0). The hooks were alternated along the set and because there were 8 hooks between buoys, the relationship between hook type and hook position on the gear varied. The order of gear set was: large buoy with radar reflector, 4 small buoys, large buoy, four small buoys, large buoy with reflector, *etc.*(A. Bolten, pers. comm.). The branchline (gangion) length, including leader, was 14 m and they were spaced 45 m apart along the mainline. Buoy lines were 5.4-14.4 m long: line length on the large buoy with radar reflector was 14.4 m, large buoy line length was 10.8 m, and the line length on the small buoys was 5.4 or 10.8 m, depending on fishing conditions, and was determined by the captain. A single 25.4-m vessel was used throughout the experiment.

The experimental fishery caught 232 loggerhead, 4 leatherback, and 1 green turtle. The CPUE for all species combined was estimated at 1.7 turtles/1,000 hooks. There was no significant difference in the total numbers of turtles caught by each hook type (Chi-square test, $p=0.136$). However, there was a significant difference among the 3 hook types in the percentage of turtles hooked in their throats (Chi-square test, $p<0.001$):

Percent Hooked in the Throat: Standard “J” Hook	57%
Offset “J” Hook	46%
Circle Hook	11%

During the experiment, more turtles tended to be caught on hooks closest to buoys, but there was no significant effect of hook position along the mainline on turtle bycatch (Chi-square test, $p = 0.515$).

Based on this experiment, there is a clear relationship between the type of hook and sea turtle injuries. The experiment also suggests that the location of hooking can be changed by changing the type of hook. The relationship between circle hooks and lower levels of seriously injured sea turtles was an encouraging result of the experiment. Assuming that turtles that swallow hooks are less likely to survive an interaction than turtles that are hooked in their mouths, circle hooks would reduce the number of turtles ingesting hooks (although they would not reduce the number of turtles hooked) and would reduce the number of turtles that die from injuries caused by ingesting hooks. Additionally, the position of the hook in the mouth differed with hook type. The “J” style hook, when embedded in the mouth, was more likely to be in the upper jaw, possibly damaging the soft palate just beneath the brain case. The circle hook, on the other hand, was more likely to be embedded in the hard, lower jaw, where injury likely would be less. Thus, positioning of the hook in the turtle’s mouth has survival implications (A. Bolten, pers. comm.).

Although the results of these initial experiments with circle hooks were promising, their use is being debated for a variety of reasons. Changing from “J” to circle hooks may adversely affect the catching success for target species, particularly for the swordfish fleet. In the Azores experiment, there was a significant difference among the hook types in the numbers of swordfish caught (Chi-square test, $p < 0.001$). The circle hook caught 262 swordfish and the “J” hook caught 381 swordfish (a 31.1% reduction). In addition, several fishermen have commented that it is much more difficult to remove a circle hook from a turtle’s mouth than the commonly used “J” hook, because circle hooks are easier to swallow, and fishermen could unintentionally aggravate hooking injuries while attempting to remove circle hooks (Beideman, Budi, pers. comms. 2001). Furthermore, preliminary results with deeply hooked and lightly hooked (on “J” hooks) satellite tagged sea turtles in Hawaii and the Azores seem to indicate no significant difference in post-release tracks of the differently hooked turtles.

4.4.1.4.3. Effects of trailing gear

Trailing line (*i.e.*, line that is left on a turtle after it has been captured and released), particularly line trailing from an ingested hook, poses a serious risk to sea turtles. Line trailing from an ingested hook is likely to be swallowed, which may occlude the gastrointestinal tract, preventing or hampering foraging, leading to eventual death. Sea turtles that swallow the monofilament that is still attached to an embedded hook may suffer from the “accordion effect” described by Mediterranean sea turtle researchers, usually fatal, whereby the intestine, perhaps by its peristaltic action in attempting to pass the unmoving monofilament line through the alimentary canal, coils and wraps upon itself (Pont, pers. comm. 2001). Trailing line may also become snagged on a floating or fixed object, further entangling a turtle and

potentially slicing its appendages which may affect its ability to swim, feed, avoid predators, or reproduce.

Observers on longline vessels that have captured (hooked) a turtle are directed to clip the line as close to the hook as possible in order to minimize the amount of trailing gear. This is difficult with larger turtles, such as the leatherback, which often cannot practicably be brought on board the vessel. This is also difficult in inclement weather, when such action might place the observer or the vessel and its crew at risk. Because less than 5% of trips carry observers in the U.S. Atlantic-based pelagic longline fishery, there may be many sea turtles released with trailing gear; although, U.S. fishermen indicated that they make every effort to safely remove as much trailing gear as possible (Beideman, Budi; pers. comms. 2001).

Analyses of fishery observer logs for the 4th quarter of 2000 for the U.S. Atlantic pelagic longline fishery shows that of 21 turtles hooked, hooks were removed from 5 turtles (24%), line was clipped from the hooks of 4 turtles (19%), and the remaining 12 turtles (57%) were released with varying lengths of 400-lb test monofilament, ranging from 1 to 6 feet, still trailing from the hook (mean = 3.25 ft) (NMFS SERO unpubl. data).

4.4.1.4.4. Environmental conditions

Environmental conditions may also play a large part in whether or not a sea turtle interacts with longline gear. Sea turtles in the open ocean are often found associated with oceanographic features such as fronts and driftlines, areas often indicating high productivity. In addition, sea turtles also appear to associate with particular sea surface temperatures. As mentioned in more detail later, species such as loggerheads have been tracked moving along convergent ocean fronts, in waters with sea surface temperatures of 17° C and 20° C (Polovina *et al.* 2000). Swordfish are caught by longliners in association with frontal zones where ocean currents or water masses meet to create turbulence and sharp gradients of temperature and salinity. Swordfish also make vertical migrations through the water column, rising near the surface at night from deep waters. Thus, while searching for concentrations of swordfish, longline vessels set their gear across these temperature gradients ("breaks") indicative of intersecting water masses, and when sea turtles are associated with these fronts, interactions are more likely.

4.4.2. Bottom Longline Fishery for Sharks in Southeastern U.S.

Bycatch data for the bottom longline fishery predominantly targeting sharks in the southeastern U.S. were previously unavailable. However, an observer program conducted by the Gulf and South Atlantic Fisheries Development Foundation recorded incidental takes of sea turtles in this fishery (Branstetter and Burgess 1997). Between 1994 and 1996, a total of 408 sets were observed, comprising 4.1 million hook hours. The total effort in this fishery is unknown; however, the sharks landed via observed vessels represented between 2% and 5% of all sharks landed. According to Branstetter (NMFS, St. Petersburg, FL, pers. comm.), about 50 vessels land the majority of the quota and the fishery generally operates in 10 - 20 fathoms. About 50 – 55% of the total landings are recorded in Florida, followed by North Carolina and Louisiana at 20% each, Texas at about 1 - 2%, and most of the remainder is from the mid-Atlantic. In the 408 sets observed, 25 loggerheads were taken and released live and another 6 were recorded dead (implying a mortality rate of 19%). Eleven of these turtles were taken between South Carolina and Northeast Florida (South Atlantic Bight), 16 in the Florida Gulf and 4 in North Carolina. Additionally, 2 leatherbacks were entangled and released alive, 1 in the South Atlantic Bight area and 1 off North Carolina. Preliminary data from this observer program in 1998 indicate that out of 106 sets observed, 2

loggerheads and 1 unidentified turtle were taken and released alive in that year (Branstetter, NMFS, St. Petersburg, FL, pers. comm.).

Between August 1995 and December 2000, scientists from the NMFS Laboratory in Pascagoula, Mississippi, aboard NOAA fishery research vessels operating in the Gulf of Mexico, Atlantic, and Caribbean, conducted 1,424 bottom longline sets for sharks, setting approximately 1,424 miles of longline gear and 14,240 hooks. One loggerhead was captured and had drowned.

Observed sets in this fishery are presumed to represent between 2 and 5% of total shark landings. Correcting for observer coverage suggests that between 620 - 1,550 loggerheads could be taken in this fishery over 3 years, or 207 - 517 annually (19% of which would be 40 - 99 turtles). This approach may over-estimate the interaction, because these estimates are based on total shark landings, which make it difficult to reach definitive conclusions.

According to the HMS FMP, the rebuilding plan for the shark fishery which reduces quotas and limits access, among other measures, can be expected to reduce the level of effort in this fishery. If the rebuilding plan reduces the effort, the numbers of turtles captured and killed in this fishery should decrease as well.

4.4.3. Pelagic Drift Gillnet Fishery

The pelagic drift gillnet portion of the Atlantic swordfish fishery was prohibited during an emergency closure that began in December 1996, extended through May 31, 1997, and subsequently extended through July 31, 1998. An extensive environmental assessment was prepared to evaluate this fishery from both fisheries and protected species perspectives, to identify measures to be implemented for the longline and drift gillnet fisheries. The Northeast swordfish drift gillnet segment was reopened on August 1, 1998, and a total of 10 trips were reported. An additional two drift gillnet trips targeting tuna took place in September using a net with smaller mesh.

The final rule to close the entire swordfish drift gillnet fishery was published on January 27, 1999 (64 FR 4055), and a Notice of Availability for the draft comprehensive FMP for the whole pelagic fishery was published on October 26, 1998 (63 FR 57093). Under the HMS FMP, this gear-type was prohibited for the harvest of tuna to prevent expanding the use of this gear in other fisheries. The number of turtles and marine mammals captured in this fishery was high and included a number of large whales. Prohibiting this gear has significantly reduced the potential for jeopardy to right whales, and eliminated one source of injury and mortality of humpback whales, sperm whales and sea turtles.

4.4.4. Southeast Shark Drift Gillnet Fishery

For the Southeast shark drift gillnet fishery, unpublished data from the Florida Fish and Wildlife Conservation Commission for shark gillnet landings from the coast of Florida from Nassau County to Broward County indicate that in 1998, of vessels targeting sharks (defined as those reporting landings of >500 lbs), a total of 706,510 lbs of shark were landed in 278 trips along the Florida east coast. In 1999, a total of 706,510 lbs of shark were landed in 265 trips.

In southeast waters where right whales may occur, the ALWTRP prohibits most drift gillnet activity for sharks. Provided that a vessel carries an observer, gillnetting is allowed in a small area off the east coast of Florida (from the City of Sebastian south) where right whales are not likely to occur in federal waters

because of the proximity of the warm waters of the Gulf Stream. An exemption is also granted for strike netting for sharks under these rules, provided the captain/vessel uses a spotter pilot, fishes only during the daytime, does not set gear within 3 nm of a right whale sighting, and carries an observer. Seventeen strike net trips have been observed to date (1999-2001), with no reports of interactions with threatened or endangered species.

Prior to implementing the ALWTRP, 121,559 lbs of shark were landed in 194 gillnet trips which took place between November 15, 1996, and March 31, 1997. Ninety percent of these landings were caught by 13 fishermen landing 500 lbs or more of shark/trip, in 48 trips, indicating that these data represent shark as the target species (rather than bycatch landings). Implementation of the ALWTRP in July, 1997, subsequently closed the area from Savannah, Georgia, to Sebastian, Florida, to shark gillnetting from November 15, 1997, to March 31, 1998.

Landings data for this period indicate that six gillnet fishermen landed shark, but only one of these fishermen arranged for an observer despite a 100% observer coverage requirement. Data through January 1999 from Florida indicate that 88 gillnet trips landed sharks and that 13 different fishermen landed sharks during the 1998 portion of the right whale calving season when restrictions on shark gillnet fishing are in place (November 15 - December 31). None of these fishermen called to arrange for an observer during that time period, although 4 of them called and took observers beginning January 1999. Florida data indicate only one fisherman may have actually targeted sharks between November 15, 1998, and January 31, 1999, suggesting that efforts to educate fishermen about the call-in requirement may have been effective. The 1999-2000 season went smoothly, with fishermen regularly reporting their intentions to fish, even after observers were no longer available.

Nine sets were observed outside of the right whale season in 1998, but no sea turtle takes were observed. Fifty-three sets were observed in 1999; 70 sets in 2000. Since 1993, 5 loggerhead turtles have been captured in the fishery (1 was killed), 14 leatherback turtles have been captured (2 were killed and the condition of 2 others is unknown), and 1 hawksbill turtles was captured and released; the animal was comatose and is considered dead (Carlson 2001, unpub. data). All reports of leatherback turtles being captured in the fishery since 1993 (14 were captured, 2 were killed) occurred since January 18, 2001. At the same time that leatherback were reported as having been captured in the shark gillnet fishery, 3 leatherback stranded in the area of the shark drift gillnet fishery. One of these stranded animals was an adult male with abrasions around his shoulders, which are consistent with entanglement in gillnet gear. A necropsy concluded that the abrasions occurred prior to his death.

It is difficult to determine the frequency of interactions between the gillnet fishery and leatherback turtles. Leatherbacks begin nesting as early as February along the Florida east coast. In 2001, the first nest was documented on March 3 at Melbourne Beach. Considering the rarity of leatherbacks on fishing grounds for this fishery – an average of only 45-50 females nest in Florida each year – the documented take in the shark drift gillnet fishery, especially during a time when reproductive females are present, could have serious effects of this breeding population's likelihood of surviving and recovering.

Nevertheless, this fishery does not seem likely to interact with leatherback turtles every year, or the interaction will probably reflect surface temperature patterns and prey conditions or a change in fishing practices that could increase the number of interactions. Pelagic coelenterates (Scyphozoa and Siphonophora) are a major component in the diet of leatherback turtles (Den Hartog 1980, Den Hartog and Van Nierop 1984) and the occurrence of turtles often corresponds to concentrations of jellyfish (Leary 1957, Fritts *et al.* 1983, Collard 1990, Grant *et al.* 1996, James 2000: *in* NMFS SEFSC 2001).

Therefore, high abundances of the jellyfish (*Aurelia*) in the fishing area may attract the turtles and increase the likelihood of interactions between the turtles and the fishery.

The HMS FMP prohibits shark drift gillnet fishing without an observer onboard; which is believed to strengthen the provisions of the ALWTRP. Since issuance of the June 30, 2000, Opinion, 100% observer coverage of the shark gillnet fishery has been maintained during right whale calving season, as required in lieu of a vessel monitoring system (VMS).

NMFS believes that measures discussed above will reduce the chances of a right whale becoming entangled in gear associated with the HMS fisheries; if a whale is entangled, the presence of observers increases the likelihood that the disentanglement network would be notified in time to release and disentangle the whale before it is seriously injured. NMFS believes that a monitoring system such as VMS could also ensure compliance with the closure, leaving only a remote possibility of even encountering a right whale, much less entangling one, outside the closed area. A review of the observer data for the 1999/2000 right whale calving season indicates that all observed vessels complied with the closure. Implementing a shark drift gillnet VMS would eliminate the requirement for 100% coverage in this fishery.

4.4.5. Bluefin Tuna Purse Seine Fishery

The bluefin tuna purse seine fishery is currently listed as a category III fishery under the MMPA. Purse seines are set when a school of fish is located, then the vessel pays out the net in a circle around the school. This affords considerable control over what is encircled by the net and the net does not remain set in the water for an appreciable amount of time. This fishery was observed in 1996, with close to 100% coverage. Six pilot whales, one humpback whale and one minke whale were observed as encircled by the nets during the fishery. All were released alive or dove under the net and escaped before it was pursed. Additionally, unpublished data from NMFS Northeast Region's entanglement data base indicate that 3 humpback whale entanglements were attributed to this fishery in 1985. All were considered injured (undefined), but all were released and resighted.

4.4.6. Harpoon/Handline/Rod-and-reel Gear Fisheries

The harpoon/handline/rod-and-reel gear fisheries are listed as category III fisheries under the MMPA because of their low likelihood of interacting with marine mammals. Although NMFS has received a few reports of whales becoming entangled in handline and harpoon gear, further investigation into the incidents suggests that the whales were not injured during the entanglement or were able to easily disentangle themselves.

Turtles have also been known to be captured in rod-and-reel fisheries at relatively low rates. Recreational hook-and-line fisheries have been known to capture and kill sea turtles, including Kemp's ridley turtles. Between 1993 and 1995, 170 Kemp's ridley turtles interacted with recreational hook-and-line gear; resulting in 18 dead, stranded turtles, 51 rehabilitated turtles (5 of which died during rehabilitation), and 96 turtles that were released by fishermen (Cannon and Flanagan 1996).

Similarly, NMFS public sighting database for North Carolina reports interactions between hook-and-line gear and sea turtles from 1988-1996 (NMFS, unpub. data). These data include records of 98 turtles hooked, including 65 loggerhead, 3 green, 12 Kemp's ridley, 3 leatherback, and 15 unidentified turtles. All

turtles were released alive but the condition and status of these turtles after their release remains unknown.

4.4.7. AOCTRP and Pelagic Longline Fishery Overlap With Whale Distribution

The regulations implementing the HMS FMP include measures implementing provisions of the Atlantic Offshore Cetacean Take Reduction Plan (AOCTRP), *i.e.*, a requirement that fishermen move after an interaction, a 1-year limit on the length of gear set in the mid-Atlantic statistical area, limited entry, and education/outreach. Currently, the pelagic longline fishery does not generally overlap in time or space with right whale distribution. Additionally, NMFS has no records of observed large whale entanglements in pelagic longline gear; although, due to low levels of observer coverage, it is possible that interactions go unrecorded. NMFS' entanglement database from its northeast region includes records of 5 accounts of humpback whales having been entangled in longline gear of various types (some were released alive by fishermen).

Requiring fishermen to move after an interaction with a sea turtle as well as with a marine mammal (movement for both species is now required by regulations implementing the HMS FMP), is intended to mitigate for the contiguous distribution of marine mammal and sea turtle takes noted in the observer data set. If fishermen comply with this provision, according to industry representatives familiar with the observer data set, there could be up to a 40% reduction in levels of serious injury and mortality of strategic stocks of marine mammals. Hoey (1998) noted that for the NED fishing area, 68.1% of all loggerheads observed entangled in pelagic longline gear were caught on sets with other loggerheads. For leatherbacks, 31.7% were caught on sets with other leatherbacks. Thus, HMS' adoption of this measure as a requirement could substantially decrease incidental take levels with both marine mammals and sea turtles. However, as NMFS noted in the HMS FMP, requiring fishermen to move will be extremely difficult to enforce. NMFS is hopeful that some fishermen may comply voluntarily, and that with the continued promotion of protected species conservation through the educational outreach/workshop efforts discussed below, an increased level of compliance with this requirement may be achieved. However, without an observer onboard there is no way to ensure that fishermen will comply with this provision. It is also unclear what the extent of movement should be – a move in the wrong direction (likely towards warmer water) could lead to even higher probability of interacting with protected species.

Fisherman education and other outreach efforts should help fishermen to become more aware of, and sympathetic to, conservation matters relating to their fishery and to gain a deeper understanding of how their fishing activities affect the marine environment. Also, through a better understanding of protected species biology and habits, dehooking, disentanglement, and resuscitation techniques, *etc.*, fishermen can learn how to decrease their level of impact on protected species. The Captain's Report (Hoey and Moore 1999) outlines several measures that should be quite effective at not only reducing sea turtle take rates, but also should improve the fish catch composition with respect to target species vs. bycatch species and undersized swordfish. Developing fisherman support and understanding of these concepts could lead to actions on the captains' parts which should substantially minimize the incidental take levels for sea turtles. Although it is impossible at this point to estimate how much these outreach efforts may impact incidental take levels, it is hoped that a measurable difference will be achieved. Certainly, the recent NMFS-sponsored sea turtle-longline industry gear workshops and working group meetings have served to underscore the importance of significantly reducing sea turtle interactions in order for the fishery to continue. NMFS believes that, at a minimum, such outreach efforts will foster better communications and understanding and cooperation between the fishermen and NMFS protected species management personnel, which may result in meaningful levels of decrease in protected species bycatch.

Another provision of the AOCTRP is a 1-year limit on the length of gear set in the Mid-Atlantic Bight (to 24 nm from Aug 1 – Nov 30). This provision is also difficult to analyze in terms of potential levels of bycatch reduction. As the HMS FMP notes, of those vessels observed in 1996 and 1997, the average length of mainline fished by pelagic longline fishermen was 20.3 miles and 21.7 miles, respectively. Additionally, the HMS FMP states that some fishermen have indicated they would offset any losses due to this requirement by re-rigging their gear to maintain the same number of hooks per set but on shorter line. If this measure results in effort reduction, as previously believed by AOCTRT members, then lower bycatch numbers may result. However, if this restriction on length of gear does not change the total level of effort in the fishery, then little to no change in take rates for sea turtles would be expected. Although the 1-year effective date for this requirement has passed, the resulting data have not yet been examined to assess its effectiveness.

4.4.8. Effects of the Live Bait Prohibition and Area Closures

There is no information available to determine the possible effects of the prohibition on live bait that were adopted as a measure to protect billfish and swordfish. However, the practice and prohibition extend only to the Gulf of Mexico, where turtle bycatch rates are generally lower than in the NED, NEC, and MAB sampling areas; therefore this provision is not likely to have much effect, if any, on sea turtle bycatch. If visual cues predominate in attracting a sea turtle to gear (*e.g.*, lightstick attraction), this prohibition may help decrease sea turtle bycatch levels.

The results of analyses of the effects of the Charleston Bump, East Florida Coast, and DeSoto Canyon closures, which were implemented in the HMS FMP to reduce bycatch in the pelagic longline fisheries, under an assumption of no redistribution of effort and an assumption of random redistribution of effort (NMFS 2000a). The first analyses, that assumed that effort would not redistribute after a closure, suggest that the number of turtles captured in the fishery would decline by about 1.89%; the latter analyses that assumed that effort would redistribute randomly suggests that turtle bycatch would increase by a maximum of 7.13%.

In addition, the DeSoto Canyon, Florida East Coast, and Charleston Bump closures can be expected to increase the number of leatherback turtles captured and injured in this fishery as fishing effort redistributes away from the closed areas. The combined redistribution of effort model for the combined Gulf of Mexico and southeast U.S. Atlantic coast areas, predicts not more than a 7% increase in turtle takes could result, although NMFS considers even this amount of change is unlikely (NMFS 2000a). However, to err on behalf of the species, NMFS uses this estimate in this analysis. The increase in turtle interactions predicted by the effort redistribution model would increase the number of leatherback and loggerhead turtles released unharmed by 190, with the remainder of the impact resulting in an increase of 4 turtles injured and only 1 turtle killed, both based on fishermen logbook reports (NMFS 2000a).

Based on these analyses, the Gulf of Mexico (DeSoto Canyon) closure would have little effect on the number of sea turtle captured in these fisheries. Most or all of the change will result from the combined Atlantic closures. In particular, it appears that the number of turtles injured or killed (as opposed to the number captured) may be elevated by the proposed Atlantic closures.

4.4.9. Mid-Atlantic Bight (MAB) Closed Area

In June 1999, the HMS FMP closed a 1° X 6° block within the MAB area to the pelagic longline fishery to minimize discards of bluefin tuna in the fishery. The closure was analyzed by NMFS with respect to

possible effects on sea turtles. The analysis was performed on a 4° X 4° block at 36° - 40° N and 70° - 74° W, which was the original proposal. A displacement model analysis showed that the change in the number of sea turtles caught in the fishery, due to associated shifts in effort in the longline fishery, depended on the year the data had been collected.

Shifts in effort and estimates of sea turtle take levels were examined for 3 different data sets: 1992-1995 (collectively), 1996, and 1997. The resulting sea turtle take estimates increased 9% (over expected bycatch levels without redistribution) due to the projected redistribution in effort using the 1997 data set, decreased 7% using the 1996 data set, and increased 8% using the combined data set for 1992- 1995. Without controlling for effort between years but simply taking a mean change in take per year and assuming an 8% increase per year in each of the years from 1992-1995 (which may not be valid assumptions, particularly if turtle interactions are highly dependent on the environmental conditions, as potentially indicated by comparing 1996 vs. 1997 data sets), a gross estimate of the mean annual change in sea turtle bycatch resulting from the MAB closure, based on the HMS modeling results, would be a 6% increase in overall levels of turtle caught in the fishery. These data were not reported for specific turtle species, so the effect of shifting effort on particular turtle species is unknown.

The closure that was implemented shifts the area slightly (2°) westward of the area analyzed, but restricts it to a 1° latitudinal band. This lateral compression of the closed area is likely to prevent much of the predicted effort shift into the Grand Banks area, and therefore may reduce subsequent increases in sea turtle takes in this high bycatch area. The final FMP did not become effective until just before this seasonal fishery was to open, so it is doubtful that it had any effect in 1999.

4.4.10. The Proposed Requirement to Use VMS in the Pelagic Longline Fishery

The requirement to use VMS in pelagic longline fisheries is on hold and being reevaluated as a result of the September 25, 2000, ruling by the Court of the District of Columbia. If this requirement is implemented, it should facilitate monitoring of the proposed management measures, encourage greater compliance, and may even provide valuable data on entanglements. These measures, therefore, may slightly reduce sea turtle bycatch, and provide information which could be used in preventing or reducing effects of entanglements in the future (*e.g.*, through gear development strategies or other measures). Extension of the VMS requirement into the shark drift gillnet component of the HMS fisheries is also currently under study and, if implemented, could further enhance overall bycatch reduction efforts.

4.4.11. The Proposed Shark Drift Gillnet Fishery Off Alabama

A proposed shark drift gillnet fishery which would use 8 to 12-in mesh, \geq 2,000 yard nets and operate off the coast of Alabama, if prosecuted, would add to an unknown degree to the current take levels analyzed. It is possible that fishermen prohibited from longlining would continue to fish in the closure area, using gillnets to target sharks. If this occurs, elevated incidental take levels for protected species, including proportionately more lethal takes of sea turtles, could result. However, this fishery would be state-regulated and would not fall under the jurisdiction of the HMS FMP unless fishermen were also permitted to fish for sharks in federal waters.

5. Cumulative Effects

Cumulative effects include the effects of future state, tribal, local, or private actions that are reasonably expected to occur in the action area. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA.

Cumulative effects from unrelated, non-federal actions occurring in the northwest Atlantic may affect sea turtles, marine mammals, and their habitats. Stranding data indicate marine mammals and sea turtles in Atlantic waters die of various natural causes, including cold stunning (in the case of sea turtles), as well as human activities, such as incidental capture in state fisheries, ingestion of or entanglement in debris, ship strikes, and degradation of nesting habitat. The cause of death of most marine mammals and turtles recovered by the stranding network is unknown.

Numerous fisheries in State waters along the Atlantic coast have been known to adversely affect threatened and endangered sea turtles and marine mammals. The past and present impacts of these fisheries have been discussed in the Environmental Baseline section of this biological opinion. Most of these fisheries will be prosecuted concurrent with the fisheries prosecuted under the Atlantic Highly Migratory Species Fishery Management Plan and can be expected to continue into the future. The future effects of these fisheries will be discussed in this section of this Opinion.

5.1. Trawls

Numerous trawl fisheries in State waters along the Atlantic coast have adversely affected threatened and endangered sea turtles in the past and can be expected to adversely affect sea turtles in the future. A detailed summary of the impacts of the U.S. shrimp trawl fishery and the Mid-Atlantic winter trawl fishery can be found in TEWG (1998, 2000) and NMFS SEFSC (2001). Other bottom trawl fisheries that may impact sea turtles are the horseshoe crab fishery in Delaware (Spotila *et al.* 1998) and the whelk trawl fishery in South Carolina (S. Murphy, pers. comm. to J. Braun-McNeill, November 27, 2000) and Georgia (M. Dodd, pers. comm. to J. Braun-McNeill, December 21, 2000). In South Carolina, the whelk trawling season opens in late winter and early spring when offshore bottom waters are > 55°F. One criterion for closure of this fishery is water temperature: whelk trawling closes for the season and does not reopen throughout the state until 6 days after water temperatures first reach 64°F in the Fort Johnson boat slip. Based on the South Carolina Department of Natural Resources Office of Fisheries Management data, approximately 6 days will usually lapse before water temperatures reach 68°F, the temperature at which sea turtles move into state waters (D. Cupka, pers. comm.). From 1996-1997, observers onboard whelk trawlers in Georgia reported a total of 3 Kemp's ridley, 2 green and 2 loggerhead sea turtles captured in 28 tows for a CPUE of 0.3097 turtles/100ft net hour. As of December 2000, TEDS are required in Georgia state waters when trawling for whelk (*Ibid.*).

The North Carolina Observer program documented 33 flynet trips from November through April of 1991-1994 and recorded no turtles caught in 218 hours of trawl effort. However, a NMFS- observed vessel fished for summer flounder for 27 tows with an otter trawl equipped with a TED and then fished for weakfish and Atlantic croaker with a flynet that was not equipped with a TED. They caught 1 loggerhead in 27 TED-equipped tows and 7 loggerheads in 9 flynet tows without TEDs. In addition, the same vessel using the flynet on a previous trip took 12 loggerheads in 11 out of 13 observed tows targeting Atlantic croaker. A slight potential exists for interaction between this fishery and humpback whales, particularly in the mid-Atlantic, but no documentation of such interactions is available for this consultation.

In the future, we would expect these fisheries to continue at current levels of effort, and would expect the fisheries to capture, injure, or kill similar numbers of loggerhead turtles.

5.2. Hook and Line

In addition to trawl fisheries managed by States along the Atlantic coast, numerous hook and line fisheries have also adversely affected threatened and endangered sea turtles in the past and can be expected to adversely affect sea turtles in the future. Loggerheads are known to bite a baited hook, frequently ingesting the hook. Leatherbacks and greens also bite baited hooks. Hooked turtles have been reported by the public fishing from boats, piers, and beach, banks, and jetties and from commercial fishermen fishing for reef fish and for sharks with both single rigs and bottom longlines. A detailed summary of the impact of hook and line incidental captures to loggerhead sea turtles can be found in the TEWG reports (1998, 2000) and NMFS SEFSC (2001).

In the future, we would expect recreational hook and line fisheries to continue at current levels of effort, and would expect the fisheries to capture, injured, or kill similar numbers of loggerhead, leatherback, and green turtles.

5.3. Pound Nets

Pound nets are a passive, stationary gear that are known to incidentally capture loggerhead sea turtles in Massachusetts (R. Prescott pers. comm.), Rhode Island, New Jersey, Maryland (W. Teas pers. comm.), New York (Morreale and Standora 1998), Virginia (Bellmund *et al.* 1987) and North Carolina (Epperly *et al.* 2000). Although pound nets are not a significant source of mortality for loggerheads in New York (Morreale and Standora 1998) and North Carolina (Epperly *et al.* 2000), they have been implicated in the stranding deaths of loggerheads in the Chesapeake Bay from mid-May through early June (Bellmund *et al.* 1987). The turtles were reported entangled in the large mesh (>8 inches) pound net leads. (see NMFS 2001).

In the future, we would expect State-managed pound net fisheries to continue at current levels of effort, and would expect the fisheries to capture, injured, or kill similar numbers of loggerhead turtles.

5.4. Gillnets

A detailed summary of the gillnet fisheries currently operating along the mid- and southeast U.S. Atlantic coastline that are known to incidentally capture loggerheads can be found in the TEWG reports (1998, 2000) and NMFS SEFSC (2001). Although all or most nearshore gillnetting in state waters of South Carolina, Georgia, Florida, Louisiana, and Texas is prohibited by state regulations, gillnetting in other states' waters and in federal waters does occur. Of particular concern are the nearshore and inshore gillnet fisheries of the mid-Atlantic that operate in state and federal waters off Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina. Incidental captures in these gillnet fisheries (both lethal and non-lethal) of whales and loggerhead, leatherback, green and Kemp's ridley sea turtles have been reported (W. Teas, pers. comm.; J. Braun-McNeill pers. comm.). In addition, illegal gillnet incidental captures have been reported in South Carolina, Florida, Louisiana and Texas.

In the future, we would expect gillnet fisheries in mid-Atlantic coastal States to continue at current levels of effort, and would expect the fisheries to capture, injured, or kill similar numbers of loggerhead,

leatherback, green, and Kemp's ridley turtles. With the information available during the writing of this opinion, it is impossible to quantify the effects of these fisheries on sea turtles.

5.5. Other U.S. Fisheries

Incidental captures of loggerheads in fish traps set in Massachusetts, Rhode Island, New York, and Florida have been reported (W. Teas, pers. comm.). Although no incidental captures have been documented from fish traps set in North Carolina and Delaware (Anon 1995), they are another potential anthropogenic impact to loggerheads and other sea turtles. Lobster pot fisheries are prosecuted in Massachusetts (Prescott 1988), Rhode Island (Anon 1995), Connecticut (Anon 1995) and New York (S. Sadove, pers. comm.). Although they are more likely to entangle leatherback sea turtles, lobster pots set in New York are also known to entangle loggerhead sea turtles (*Ibid.*). We have no data on the number of turtles incidentally captured in these fisheries in other states. Long haul seines and channel nets in North Carolina are known to incidentally capture loggerhead and other sea turtles in the sounds and other inshore waters (J. Braun-McNeill, pers. comm.). We have no reports of turtle mortalities associated with this fishery (NMFS SEFSC 2001).

Humpback whale entanglements occur in relatively high numbers in Canadian waters. Reports of collisions with fixed fishing gear set for groundfish around Newfoundland averaged 365 annually from 1979 to 1987 (range 174-813). An average of 50 humpback whale entanglements (range 26-66) were reported annually between 1979 and 1988 and 12 of 66 humpback whales that were entangled in 1988 died (Lien *et al.* 1988). Right whale entanglements also occur in Canadian waters, although not as frequently as for humpback whales. Many entanglements observed in U.S. waters may have originated in Canadian waters. Unless gear is specifically marked and such marks are documented, it is often impossible to determine the origin of the gear.

5.6 Vessel Interactions

Wiley *et al.* (1995) showed that in the mid-Atlantic area (between Chesapeake Bay, Virginia, and Cape Hatteras, North Carolina), of the stranded humpback whales for which the cause of death was determinable, 30% were attributed to ship strikes and 25% to injuries consistent with entanglement in fishing gear. This indicates that vessel interactions are having an impact upon whale populations along this portion of the coast, as well as in right whale concentration areas. Because most of the whales involved in these interactions are juveniles, areas of concentration for young or newborn animals are particularly important. This also raises concerns that, with such mortality focused on one age-class of the population, future recruitment to the breeding population may be affected.

Ship strikes have been identified as a significant source of mortality to the Western Atlantic stock of right whales (Kraus 1990) and are also known to impact all other endangered whales. Specifically, commercial and private vessels may affect humpback, fin, sperm, and right whales. Small vessel traffic also kills or injures threatened and endangered sea turtles in the action area.

The ports of Jacksonville and Port Everglades, Florida; Baltimore, Maryland; Wilmington, Delaware; Philadelphia, Pennsylvania; New York, New York; and Boston, Massachusetts support some of the country's strongest maritime economies. Commercial shipping traffic in Massachusetts Bay is estimated at 1,200 ship crossings per year with an average of 3 per day. About 17 million tons of waterborne cargo pass through the Port of Jacksonville, Florida which receives about 1,600 vessels each year moving between the U.S. and South America, Europe, and the Caribbean. About 4.8 million tons (short tons)

pass through the Port of Wilmington, Delaware which receives about 400 vessels each year. About 56 million tons of waterborne cargo passed through the Port of New York in 1998. About 1.3 million tons of general cargo, 1.5 million tons of bulk cargo, and 12.8 million tons of bulk fuel cargo pass through the Port of Boston, Massachusetts, which receives more than 62 ship calls, 350 container vessels, and 1,700 bulk cargo vessels each year. In addition, about 60 cruise vessels sail from the Port of Boston each year. (See internet websites for each named port.)

In southeastern waters, shipping channels associated with Jacksonville and Port Canaveral, Florida, bisect the area that contains the most concentrated whale sightings within right whale critical habitat. These channels and their approaches serve commercial shipping ports and two military bases. All of these channels require periodic maintenance dredging by the Corps of Engineers and, at times, more extensive dredging is conducted to support port expansion or to allow for larger military vessels. These commercial ports are growing, with the port of Jacksonville, one of the busiest ports on the east coast, undergoing major expansion along with several other east coast ports vying for designation as “megaports” to attract Panamanian ex-vessel traffic. Expansion of these ports requires section 7 consultations.

In Massachusetts Bay alone, about 20 whale watch companies comprising 40-50 boats conduct several thousand trips from April to September, with the majority of effort in the summer season. More than 280 commercial vessels fish on Stellwagen Bank. Sportfishing contributes more than 20 vessels per day from May to September. In addition, an unknown number of private recreational boaters frequent Massachusetts and Cape Cod Bays.

It is possible that the combination of these activities may cause sublethal effects to protected species that could prevent or slow a species' recovery; such effects are currently unknown. Various initiatives have been planned or undertaken to expand or establish high-speed watercraft service in the northwest Atlantic, including one service between Bar Harbor, Maine, and Nova Scotia with a vessel operating at higher speeds than established watercraft service. The Bar Harbor–Nova Scotia high speed ferry conducted its first season of operations in 1998. The operations of these vessels and other high-speed craft may adversely affect threatened and endangered whales and sea turtles. NMFS and other member agencies of the Northeast Implementation Team for the Recovery of the Northern Right Whale will continue to monitor the development of the high-speed vessel industry and its potential threats to listed species and critical habitat. Recent whale strikes resulting from interaction with whale watch boats and recreational vessels have also been recorded.

NMFS expects commercial traffic into and out of these ports to continue into the foreseeable future. The best scientific and commercial data available provide no specific information on the degree of risk this level of commercial traffic poses to endangered whales in the action area, but this level of commercial traffic is expected to pose a risk of ship strikes that would continue to kill or seriously injure whales in numbers similar to those observed between 1994 and 1999: 1 dead blue whale, 1 dead sei whale, 2 dead fin whales, and at least 6 dead right whales.

5.7 Dredging

In most areas of the U.S., annual dredging to accommodate commercial shipping occurs in the nearshore approaches to most of the major ports. Dredging may pose a threat to whales due to increased vessel traffic. This entails dredge vessel movement back and forth between dredging and dumping sites. However, these vessels in general are relatively slow moving and, under ESA section 7 consultations conducted on various dredging activities, various measures to mitigate this concern have been

implemented, including posting of dedicated whale observers in high whale-use areas and seasons. Additionally, dredging may result in increased vessel traffic as deepening and/or widening of ports or channels attracts more and larger vessels to use these areas. Dredging is responsible for injury and mortality of sea turtles and is the subject of a number of mitigation measures contained in various Opinions conducted on these activities.

5.8 Pollutants, Oil, and Marine Debris

These factors are described in the environmental baseline and are very difficult to assess and quantify, but all would be expected to continue into the foreseeable future. They would be expected to continue to contribute to the habitat and physiological stresses on these populations (see NMFS SEFSC, 2001 and environmental baseline for more detail). This category of potential effects includes atmospheric loading of pollutants such as PCBs, storm water runoff from coastal towns, groundwater discharges, and river input and runoff, nutrient loading from land-based sources such as coastal community discharges, bioaccumulation of the neurotoxins, oil spills from tankers, illegal discharge of oil and tar from vessels discharging bilge water and marine debris that will persist in the action area despite MARPOL prohibitions.

6.0 Integration and Synthesis of Effects

In the *Approach to the Assessment* section of this Opinion, it was noted that the jeopardy analysis proceeds in three steps: (1) identification of the probable direct and indirect effects of an action on the physical, chemical, and biotic environment of the action area; (2) determination of whether there is reasonable expectation that threatened or endangered species will experience reductions in reproduction, numbers, or distribution in response to these effects; and (3) determination of whether any reductions in a species' reproduction, numbers, or distribution (identified in the second step) can be expected to appreciably reduce a listed species' likelihood of surviving and recovering in the wild.

The *Status of Affected Species, Critical Habitat, and Environmental Baseline* section of this Opinion discusses the natural and human-related phenomena that caused populations of listed species to become threatened or endangered and may continue to place their populations at high risk of extinction.

The present section of this Opinion examines the physical, chemical, and biotic effects of the fisheries associated with the Atlantic HMS FMP to determine (a) if those effects can be expected to reduce the reproduction, numbers, or distribution of threatened or endangered species in the action area, (b) determine if any reductions in reproduction, numbers, or distribution would be expected to reduce the species' likelihood of surviving and recovering in the wild, and (c) if a reduction in a species' likelihood of surviving and recovering in the wild would be appreciable.

6.1. Integration and Synthesis of Effects on Loggerhead Turtles

The proposed U.S. HMS fisheries can be expected to capture, injure, or kill loggerhead sea turtles. Most of the loggerhead turtles that would be harmed incidental to the prosecution of fisheries under the HMS FMP would be affected by longline fisheries. Most interactions between the U.S. longline fleet and loggerhead and leatherback turtles would continue to occur from the Mid-Atlantic Bight northward (NMFS SEFSC 2001), particularly the Northeast Distant statistical area. The highest number of interactions would be expected to occur in the 3rd quarter of the year.

Based on previous patterns of interactions between the fishery and sea turtles, the U.S. pelagic longline fishery would be expected to capture, on average, about 986 loggerhead turtles annually² in the Gulf of Mexico, Caribbean, and Atlantic Ocean. Most of these turtles would be in the pelagic, immature stage of their lives. Genetics analyses of 16 loggerhead turtles caught on the Grand Banks indicated that the animals shared haplotypes with animals nesting in the southeastern U.S., as well as in Mexico and Greece (Encalada *et al.* 1998 in NMFS SEFSC 2001). Unfortunately, the small sample size makes it difficult to determine the proportional contribution of the different nesting aggregations to the loggerhead turtles caught in the HMS fisheries. However, if loggerhead turtles caught in the HMS fisheries are captured in proportion to their distribution on foraging grounds in the north Atlantic Ocean, then about 71-72% of the turtles caught in the longline fishery would be from the South Florida nesting aggregation, 17-19% would be from the northern nesting aggregation, and 10-11% would be from the Quintana Roo, Mexico nesting aggregation (see *Status of the Species* section for relative distribution of loggerhead turtles).

Loggerhead turtles would be expected to be captured through several interactions with longline gear. Table 8 below summarizes these based on type of interaction and expected mortality. In Section 4.4.1.3.1, data from 1992-1999 were averaged, resulting in an annual average estimate of 986 loggerhead incidentally taken in the longline fishery. Table 7 and accompanying text in section 4.4.1.3.3 explained the percentages expected to be hooked or captured in various ways based on 1999 and 2000 data. Combining this information in a calculation with expected percent for mortality based on the interaction type from the February 16, 2001 policy memo, provides an estimate of the number of turtles expected to be killed or injured annually. The average number of loggerhead turtles that have been estimated as taken incidental to the fisheries between 1992 and 1999 (986 loggerheads) is first multiplied by a percent derived from the numbers in Table 7 and the result is then multiplied by the percent mortality expected for that category.

Table 8. Estimates of loggerheads by interaction type.

Avg. 986 loggerheads taken annually	Observed loggerheads 1999	Observed loggerheads 2000	'99 Annual estimate for this category (#turtles)	'00 Annual estimate for this category (#turtles)	'99 Annual mortality estimate for category (#turtles)	'00 Annual mortality estimate for category (#turtles)
ingested (42% mort.)	10/64(16%)	15/50 (30%)	158	296	66	124
beak/mouth (27% mort.)	44/64 (69%) *	26/50 (52%) #	680	513	184	138
beak/mouth (42% mort)	44/64 (69%) *	26/50 (52%) #	680	513	286	215

* “beak or mouth” category plus 36 from unknown beak or mouth”-these were added in because observer comments list 35 of these hook in mouth, 1 hooked in beak. One turtle spit hook which was not included in estimate.

²This estimate was derived by dividing the total number of loggerhead turtles that have been estimated as taken incidental to the fisheries between 1992 and 1999 by 8 (the number of years used to derive the estimate). See discussion of estimated incidental capture rates in section 4.4.1.1.

#“beak or mouth” category plus 3 from “head or beak” as observer comments show these as hooked in beak.

Two scenarios are given for “beak/ mouth” because data is not exact enough to determine if hooking was in the internal soft tissue of mouth –the distinction in the policy memo between 27 and 42%.

In addition, the DeSoto Canyon, Florida East Coast, and Charleston Bump closures can be expected to increase the number of turtles captured and injured in this fishery as fishing effort redistributes away from the closed areas. The combined redistribution of effort model for the combined Gulf of Mexico and southeast U.S. Atlantic coast areas, not more than a 7% increase in turtle takes could result from a redistribution in fishing effort, although NMFS considers even this amount of change is unlikely (NMFS 2000a). However, to err on behalf of the species, NMFS uses this estimate in this analysis. The increase in turtle interactions predicted by the effort redistribution model shows an increase in the number of loggerhead turtles taken by 69, resulting in 10 mortalities, based on logbook reports and estimates provided in the FSEIS (NMFS 2000a).

The bottom longline fishery for sharks could capture as many as 207 to 517 turtles each year (Section 4.4.2), killing as many as 40 to 99 turtles. The U.S. shark drift gillnet fishery, which has had inconsistent observer coverage, can be expected to capture small numbers of loggerhead turtles. Harpoon, handline, and rod-and-reel fisheries, which have had no observer coverage, can be expected to capture small numbers of loggerhead turtles over a 5- or 10-year period, although some years may pass with no interactions at all. A small fraction of the loggerhead turtles captured in these fisheries will be injured, seriously injured, or killed.

Summary of Effects on Loggerhead Turtles.

It is reasonable to expect that the proposed Atlantic HMS fisheries (longline, shark drift gillnet, and redistribution from closures) could capture as many as 1417 pelagic, immature loggerhead turtles in a year (based on the average of 1999, 2000 data and an average of high and low mortality rates based on type of hooking interaction) and could kill as many as 381 of them (this is an average estimate based on only two years data, NMFS would expect the actual number of loggerhead turtles killed in a particular year to be less than or greater than this estimate). Assuming that some of these turtles would be female, NMFS would also conclude that these deaths would reduce the species’ reproduction in addition to reducing their numbers.

Trend information on loggerhead sea turtles indicates that the Florida subpopulation had increased at about 5% per year from 1978-1990, but this growth rate appears to have slowed to about 4% per year since 1990 (NMFS SEFSC 2001). Conversely, the northern population of loggerhead turtles is relatively small and is either stable or declining (TEWG 1998, 2000; NMFS SEFSC 2001). The number of nests in the northern subpopulation from 1989 to 1998 ranged from 4,370 to 7,887 with a 10-year mean of 6,247 nests. With each female producing an average of 4.1 nests in a nesting season, the average number of nesters per year in the northern subpopulation was 1,524 (range 1066-1924). The total nesting and non-nesting female population may be estimated by factoring in an average re-migration rate of 2.5 years for an average estimate of 3,810 adult females in the northern subpopulation (range 2,665 - 4,810) (TEWG 1998, 2000).

Over the long term (for example, the amount of time it would take for a hatchling born this year to recruit into the adult population) capturing and killing this many loggerheads given those nester numbers would be expected to appreciably reduce the loggerhead sea turtles’ likelihood of surviving and recovering in the

wild, particularly given the status and trend of loggerhead turtle populations in the Atlantic basin. When added to the number of sea turtles that are injured or killed through other human activities, including other federal and state fisheries, these injuries and mortalities would be expected to have population-level effects. When considered cumulatively, the annual death or injury of these numbers of turtles would be even more significant: in the time it would take for a hatchling to recruit into the adult population (about 25 years), the fisheries would be expected to injure more than 21,000 loggerhead turtles, killing more than 9,000 of them.

Removing these numbers of pelagic, immature loggerhead turtles from nesting populations would be expected to appreciably reduce the population's growth rate. This would be particularly true for the northern nesting subpopulation. NMFS' SEFSC (2001) modeled the effects of changes in the survival rates of pelagic juvenile loggerhead turtles on population trajectories. Based on these models, decreases in pelagic juvenile survival reduce or negate the benefits of increased survival of small, benthic loggerhead turtles (which is being achieved using turtle exclusion devices); if the survival rates of a population's pelagic, immature loggerheads decreased by 10%, the population would decline (NMFS SEFSC 2001). This would appreciably diminish this population's likelihood of surviving in the wild, although it is impossible to quantify the magnitude of this effect. Given the size of loggerhead turtle populations in the western Atlantic Ocean, particularly the northern subpopulation, and the effects of other fisheries and sources of mortalities on the various nesting aggregations, this would appreciably reduce the population's size and reproductive capacity in a way that would be expected to appreciably decrease this population's likelihood of surviving and recovering in the wild.

6.2. Integration and Synthesis of Effects on Leatherback Turtles

Based on past patterns, the proposed U.S. HMS fisheries can be expected to capture, injure, or kill leatherback sea turtles. Most of the leatherback turtles that would be harmed incidental to the prosecution of fisheries under the HMS FMP would be affected by longline fisheries. The highest numbers of leatherbacks taken in HMS fisheries would occur in the fall in the pelagic longline component in the Northeast Distant, although substantial numbers of leatherback turtles are captured in the Mid-Atlantic Bight, Northeast Coastal, and the Gulf of Mexico statistical areas.

Based on data from previous interactions between the U.S. pelagic longline fishery and sea turtles, the fishery would be expected to capture an average of 796 leatherback turtles annually³. Leatherback turtles captured or killed in the longline fishery off the northeastern U.S. would probably have carapace lengths less than 100 cm, while those captured or killed off the southeast U.S., the Gulf of Mexico, and the Caribbean could be any length.

The greatest percentage of these leatherback turtles would be hooked in their flippers, head, neck, carapace, or plastron (38%) with smaller percentages hooked in beak or mouth (20%) (See Table 9). In addition, the DeSoto Canyon, Florida East Coast and Charleston Bump closures can be expected to increase the number of turtles captured and injured in this fishery if fishing effort redistributes away from

³ This estimate was derived by dividing the total number of leatherback turtles that have been estimated as taken incidental to the fisheries between 1992 and 1999 and dividing that value by 8 (the number of years used to derive the estimate). See section 4.4.1.1 for estimated incidental capture rates.

the closed areas. Under the combined redistribution of effort model, a 7% increase in leatherback turtle takes could occur. That increase could be as high as 56 turtles annually with 4 mortalities.

The bottom longline fishery for sharks could capture about 13 to 34 leatherback turtles each year. No leatherback turtle takes have been recorded in the tuna purse seine fishery, the harpoon fishery, or other hand gear fisheries. Rod-and-reel fisheries, in general, rarely interact with leatherbacks, and no such interactions have specifically been documented in HMS fisheries.

It is reasonable to expect that HMS Fisheries combined could capture as many as 875 leatherback turtles annually, killing as many as 183 of them (based on the average of 1999, 2000 data and an average of high and low mortality rates based on type of hooking interaction--these are average estimates--NMFS would expect the actual number of leatherback turtles killed in a particular year to be less than or greater than this estimate). Assuming that some of these turtles would be female, NMFS would also conclude that these deaths would reduce the species' reproduction in addition to reducing their numbers.

The largest known nesting aggregation of the leatherback turtles in the western North Atlantic Ocean occurs in French Guiana (NMFS SEFSC 2001). This may be the largest nesting aggregation of leatherback turtles in the world and has been declining at about 15% per year since 1987. From 1979 to 1986, the number of nests in this aggregation increased at about 15% annually. The number of nests in Florida and the U.S. Caribbean has been increasing at about 10.3% and 7.5%, respectively, per year since the early 1980s but the magnitude of nesting is much smaller than that along the French Guiana coast. Given that Atlantic Ocean subpopulations exhibit the same life history characteristics and that longline fisheries are not likely to discriminate between subpopulations, then it is expected that if longline fishing were causing the declines in French Guiana, declines would be measured in other nesting subpopulations. While the longline fishery, both U.S. and foreign, and the U.S. shrimp trawl fishery may not be the immediate cause in declines in nesting in French Guiana, the number of leatherback turtles captured and killed in these fisheries would be expected to contribute to these declines.

In addition, the mortality rate of adult, female leatherback turtles has increased over the past ten years, decreasing the number of nesting females. Any mortalities in the U.S. longline fishing would be expected to have the same effects on all leatherback turtle nesting aggregations in the western North Atlantic Ocean, regardless of the beach or origin (NMFS SEFSC 2001).

Table 9. Estimates of leatherbacks by interaction type.

Avg. 796 leatherbacks taken annually	Observed leatherbacks 1999	Observed leatherbacks 2000	'99 Annual estimate for this category (#turtles)	'00 Annual estimate for this category (#turtles)	'99 Annual mortality estimate for category (#turtles)	'00 Annual mortality estimate for category (#turtles)
external * (27% mort.)	17/45 (38%)	21/32 (66%)	302	525	82	142
beak/mouth (27% mort.)	9/45(20%) #	4/32 (12%)	159	96	43	26
beak/mouth (42% mort)	9/45 (20%) #	4/32(12%)	159	96	67	40

* includes flipper, head or neck (ext) carapace or plastron

includes 1 from beak or mouth plus 8 from "unknown beak or mouth" as observer form comments showed one spit hook.

Therefore, killing as many as 183 of leatherback sea turtles in HMS fisheries could be contributing to declines in leatherback turtle populations in the western Atlantic Ocean. The cumulative, long-term effects of these losses over the time it would take the survivors of the current (2001) cohort of eggs to recruit into the adult, breeding population (approximately 9 years) would mean that up to 1647 leatherback turtles could be killed in interactions with the HMS fisheries during this period. Additionally, absolute populations are relatively small. Spotila *et al.* (1996) have estimated the French Guiana/Suriname nesting female population at 5,100- 9,500 per year; and Caribbean populations at 1,400 to 1,800 nesters per year.

Over the long term (for example, the amount of time it would take for a hatchling born this year to recruit into the adult population) these injuries and mortalities would be expected to appreciably reduce the leatherback sea turtles' likelihood of surviving and recovering in the wild, particularly given the status and trend of leatherback turtle populations in the Atlantic basin. In the time it would take for a hatchling to recruit into the adult population (about 9 years), the fisheries would be expected to injure more than 4,437 leatherback turtles, killing more than 1,600 of them. Removing these numbers of leatherback turtles from declining populations would be expected to appreciably reduce the population's growth rate, which would, in turn, reduce the population's ability to recover from decline. This would appreciably diminish this population's likelihood of surviving in the wild, although it is impossible to quantify the magnitude of this effect. Given the trend of leatherback turtle populations in the western Atlantic Ocean and the effects of other fisheries and sources of mortalities on the various nesting aggregations, this would appreciably reduce the population's size and reproductive capacity in a way that would be expected to appreciably increase this population's risk of extinction.

6.3. Integration and Synthesis of Effects on Other Sea Turtles

Most reports of green, Kemp's ridley, or hawksbill turtles being captured or killed in the pelagic longline fishery are probably misidentifications (Witzell 1999), so it is difficult to assess the effects of this fishery on these turtle species. While some of these species may be captured or killed in the pelagic longline fisheries, their numbers appear to be very small. We would not expect more than 35 individuals of these species to be captured in the proposed HMS fisheries in a given year.

NMFS has no reports of Kemp's ridley or green turtles being captured in any other Atlantic HMS fisheries; although, one hawksbill turtle was captured in the shark drift gillnet fishery in March 2001. These species have been captured in rod-and-reel fisheries, but not those associated with species covered by the HMS FMP. Because so few of these species are captured in the HMS fisheries, we do not believe the fisheries would be expected to reduce their reproduction, numbers, or distribution. Therefore, the HMS fisheries would not be expected to appreciably reduce their likelihood of surviving and recovering in the wild.

6.4 Integration and Synthesis of Effects on Whales

The information available at this time indicates that pelagic longline interactions with large whales are rare and, to date, no serious injuries or mortalities of large whales have been recorded. Areas of large whale concentration do not generally coincide with HMS fishing areas, particularly the more coastally-distributed right and humpback whales. Fin and sperm whales are rarely involved in entanglements. If HMS closures redistributed fishing effort into areas that are not currently fished, this could be a cause for concern. However, this is not likely to occur, especially in the case of right whales, because to differing

habitat preferences between these whales and the fish species targeted by HMS fisheries. The shark gillnet fishery does have potential for interaction, but NMFS believes that the existing provisions of the ALWTRP minimize this potential to the point of only a very remote possibility.

Because interactions between vessels and gear involved in HMS fisheries and threatened and endangered whales are rare, NMFS does not expect the proposed fisheries would reduce the reproduction, numbers, or distribution of threatened or endangered whale species in the action area. Because the proposed HMS fisheries would not be expected to reduce the reproduction, numbers, or distribution of listed whales, the fisheries would not be expected to reduce the whales' likelihood of surviving or recovering in the wild.

6.5. Right Whale Critical Habitat

Actions that may adversely affect the value of designated critical habitat for the northern right whale are evaluated separately in biological opinions, regardless of whether right whales are present within the critical habitat when the adverse effects occur. The proposed HMS fisheries may diminish the value of the critical habitat that has been designated for the northern right whale in two ways: (a) the distribution and relative abundance of gear associated with the proposed fisheries may diminish the value of critical habitat by increasing the risk of entanglements and mortalities and (b) the fishery may diminish the value of designated critical habitat by reducing the availability of right whale prey within critical habitat. However, as right whales feed primarily on copepods, the latter is highly unlikely.

The areas designated as critical habitat for right whales in the Northeast (including portions of Cape Cod Bay, Stellwagen Bank, and the Great South Channel) are not currently frequented by participants in HMS fisheries. As discussed above, the Atlantic Offshore Take Reduction Team recommended closure of right whale critical habitat areas to pelagic driftnet and longline gear, to prevent future expansion of effort into these currently unfished areas. NMFS has partially addressed this recommendation by prohibiting pelagic driftnet as an allowable gear-type in swordfish and tuna fisheries. Because there is currently little or no overlap between right whales and HMS fisheries in these northeast critical habitat areas, no effect is expected.

The area designated as critical habitat for right whales in the Southeast overlaps with the area in which the Southeast U.S. shark drift gillnet fishery is prosecuted. Concern regarding increased risk of entanglement and mortality was addressed in the HMS FMP, minimizing the likelihood that the fishery will appreciably diminish the value of designated critical habitat for both the survival and recovery of the northern right whale, by implementing the shark fishery time-area closure and the 100% observer requirement of the May 27, 1997, Opinion (or VMS alternative provided under the June 30, 2000, Opinion). This assumes that the risk of the fishery co-occurring with right whales is greatly diminished, and that the presence of observers (when and where the fishery is allowed to operate) will both help to avoid an entanglement, as well as ensure that disentanglement experts are contacted immediately in the unlikely event that any right whales are entangled. Because this 100% observer requirement was not fully implemented in 1999, combining a lower level of observer coverage with VMS monitoring would ensure compliance with the closed areas when observers are unavailable, as well as provide insurance that all shark gillnet effort in the area is monitored. Monitoring compliance with the closure provision via VMS and, other than lower-level observer coverage for monitoring purposes, requiring observers only on those vessels electing to fish with strike nets in the closure area would still ensure that the primary calving area is free of shark gillnet gear except when used in strike fashion using spotter planes and in the presence of observers who would still be able to ensure disentanglement experts would be contacted in

the unlikely event of an entanglement. No fishermen so far have elected to fish in the closed area with the strike (*i.e.*, run-around gillnet) method.

The Florida East Coast and Charleston Bump longline closures off the southeastern U.S. encompass the southeastern right whale critical habitat and surrounding areas where right whales have been sighted during the winter calving season; therefore, this action will further lessen the potential for entanglement risk of longline gear to right whales or overwintering humpbacks.

The availability of right whale prey (copepods) is not a concern in the Southeast and copepod abundance would not be expected to be affected by the HMS fisheries. Also, right whales do not feed extensively while on the southern end of their migratory cycle. Thus, the HMS fisheries are not expected to appreciably diminish the value of designated critical habitat by reducing the availability of right whale prey within critical habitat.

7.0 Conclusion

After reviewing the current status of the northern right whale, the humpback, fin and sperm whales, and leatherback, loggerhead, green, hawksbill, and Kemp's ridley sea turtles, the environmental baseline for the action area, the effects of the continued operation of the fisheries managed under the Atlantic HMS FMP, the record of compliance with requirements of previous Opinions on HMS fisheries, and probable cumulative effects, it is NMFS' biological opinion that:

- (1) continued operation of the **Atlantic pelagic longline fishery is likely to jeopardize the continued existence of the leatherback sea turtle and the loggerhead sea turtle**; and
- (2) continued operation of the Atlantic pelagic longline fishery may affect, but is not likely to jeopardize the continued existence of the right whale, humpback whale, fin whale, sperm whale, or Kemp's ridley, green, or hawksbill sea turtle; and
- (3) continued operation of the Southeast drift gillnet fishery for sharks, the bottom longline fishery, the purse seine fishery, and the harpoon, hand gear, rod and reel, *etc.* fisheries in the Atlantic may adversely affect but are not likely to jeopardize the continued existence of the right whale, humpback, fin, or sperm whales, or Kemp's ridley, green, loggerhead, hawksbill or leatherback sea turtles; and
- (4) components of the Atlantic HMS fisheries are not likely to destroy or adversely modify critical habitat designated for the right whale.

8.0 Reasonable and Prudent Alternative

This Opinion has concluded that the Atlantic Pelagic Longline Fisheries for Swordfish, Tuna, and Shark, in the U.S. Atlantic, as proposed, are likely to jeopardize the continued existence of loggerhead and leatherback sea turtles. The clause "jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50 CFR §402.02).

Regulations implementing section 7 of the ESA (50 CFR §402.02) define reasonable and prudent alternatives (RPAs) as alternative actions, identified during formal consultation, that: (1) can be implemented in a manner consistent with the intended purpose of the action; (2) can be implemented consistent with the scope of the action agency's legal authority and jurisdiction; (3) are economically and

technologically feasible; and (4) would, NMFS believes, avoid the likelihood of jeopardizing the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

This biological opinion concluded that fisheries prosecuted under the HMS FMP, particularly the pelagic longline fishery, are likely to jeopardize loggerhead and leatherback sea turtles. To address the adverse effects to loggerhead and leatherback populations, NMFS must undertake management measures and other conservation measures, as necessary, to reduce both the number of loggerhead and leatherbacks that are incidentally captured, injured or killed in pelagic longline fisheries and the expected impacts from such fisheries to an extent that the likelihood of jeopardy is avoided and authorization of longline fishing activities prosecuted under the HMS Atlantic FMP can continue. The following describes the context and considerations upon which NMFS developed an RPA to avoid jeopardy for loggerhead and leatherback turtles as a result of the continued operation of the HMS Atlantic longline fishery.

Throughout this Opinion, NMFS has recognized that threatened and endangered sea turtles face a risk of global extinction because of a wide array of human activities and natural phenomena. NMFS also recognizes that other human activities and natural phenomena, such as the number of turtles killed by foreign fleets, pose a much larger and more serious threat to the survival and recovery of sea turtles than U.S. HMS fisheries in the Atlantic Ocean. Further, this Opinion recognizes that sea turtles will not recover without addressing the full range of human activities and natural phenomena that could cause these animals to become extinct in the foreseeable future.

The best method of reducing the numbers of sea turtles captured, injured, or killed in the U.S. HMS fisheries may be area closures where interaction rates are highest. In their review of existing data, NMFS' Southeast Fisheries Science Center analyzed the effectiveness of targeted, small area closures for reducing the number of sea turtle captured by the U.S. fleet concluded that only comprehensive, large area closures would be effective (NMFS SEFSC 2001). However, implementing area closures could increase the number of turtles captured and killed in longline fisheries in the north Atlantic Ocean. The majority of turtles captures by the U.S. fleet occur in high sea areas that can also be fished by foreign vessels. Other fishing nations are not likely to adopt area closures imposed by NMFS and NMFS has no legal authority and limited leverage to compel other nations to implement closures. As a result, the tuna and swordfish quota that is not caught by U.S. vessels might be reassigned to another ICCAT country, which would increase the effort of foreign vessels in areas closed to the American fleet which could increase the number of turtles captured and killed in the fishery. Nonetheless, closure of a large area to HMS fisheries immediately eliminates the bycatch attributable to those vessels, and allows those individual turtles the chance to survive to adulthood and reproduce.

To prevent these potential negative effects of management measures that only affect U.S. longline vessels, NMFS must develop and implement additional measures that can be also implemented by the large, foreign fleets that fish the North Atlantic Ocean. Fishing tactics and modified gear configurations – technical solutions – that allow longline vessels from all fleets to continue to catch target species effectively are likely to be "exportable" solutions. The situation with TEDs in shrimp fisheries is an excellent model for the development and export of technical bycatch reduction measures. Since the development of TEDs and their required use in domestic shrimp fisheries, NMFS has transferred TED technology to other shrimping nations in the Atlantic and around the world.

8.1. Reductions in the Mortality of Pelagic Juvenile Turtles in the Atlantic Basin that are Required to Recover the Species

Analyses of sea turtle populations in the Atlantic Ocean, NMFS' SEFSC concluded that an increase in pelagic juvenile survival of 10%, throughout the Atlantic Basin, would be necessary to move population trajectories from approximately stable to increasing or from declining to approximately stable. To achieve a 10% increase in annual survival, these analyses concluded that annual mortalities must be decreased correspondingly (for more detailed information on derivation of this value refer to the bar graphs in the NMFS SEFSC (2001) document in Part III, Chapter 6, Figures 4 and 16, that graphically illustrate the modeling results). Under the most optimistic scenario (that does not consider future effects of TED reg changes), the population is projected to decline or remain stable when the juvenile survival is not increased above the base case that assumes a stable population distribution.

Annual mortality, however, can be considered to have two components: natural mortality, which cannot be changed, and anthropogenic mortality, which can be affected by management actions. The SEFSC models can be used to determine the total pelagic juvenile annual mortality rates, but the proportion of natural vs. anthropogenic mortality in the pelagic stage has not been studied. In the coastal environment, however, the SEFSC report has estimated the total annual mortality affecting benthic stage loggerheads is reduced 30% by the use of TEDs in the shrimp fishery. Since shrimping is the single largest source of anthropogenic mortality in the coastal environment, it appears that a reasonable estimate of the proportion of natural to anthropogenic mortality for benthic stage turtles would be 70:30.

As far as the level of impact of longline fishing, Atlantic ocean-basin wide, on pelagic loggerheads, it is similar to the shrimp scenario in that longline fishing is probably the single largest source of mortality impacting this life stage. Because it is on a similar order of magnitude with the level of impact of coastal shrimp trawling on benthic stages, based on the qualitative comparison that each is the largest industrial fishery in terms of effort in the turtles' pelagic and benthic habitats, respectively, and each is the largest source of anthropogenic turtle captures in the pelagic and benthic environments, 30% is a reasonable estimate in both cases. Using this estimate, the levels of decrease in anthropogenic, pelagic mortality that must be achieved to increase total pelagic survival by 10% were calculated for various model scenarios and are displayed in Table 10.

The data in Table 10 are based on growth models 3 and 4 as models 1 and 2 were not considered appropriate. Growth models 3 and 4 are based on a new growth curve for benthic loggerheads that better represents the overall loggerhead growth rates for the southeast U.S. (a combination of both the southern and northern nesting populations) than the growth curves used in other models. Model 3 assumes that animals in the model recruit to the next growth stage at the minimum-size-to-stage (more rapid growth). Model 4 assumes that animals in the model recruit to the next growth stage at the average-size-to-stage (less rapid growth). Both models incorporate the best new information. Model 4 may be more representative of the northern nesting population which likely has slower individual growth rates than the southern population. Within these models, pelagic juvenile survival was calculated, assuming a stable population distribution as the base case.

Models 1 and 2 used the annual stage survival rates from Frazer (1987) with assumptions of minimum size to stage and average size to stage, respectively. When the pelagic immature survival rate was solved for in Model 2, it produced an impossible result. NMFS SEFSC (2001) did not carry forward any further analysis of Model 2 in its assessment of the impact of pelagic longline fishery on loggerhead sea turtles. For model 1, the growth curve on which it is based had a relatively poor fit with the observed size structure of stranded sea turtles and also did not match well with other published growth curves for loggerheads. Therefore, models 3 and 4 are the best choice for consideration of magnitude of basinwide change in anthropogenic mortality needed to effect an overall change in population trajectory.

Table 10: Change in Anthropogenic Mortality of Pelagic Juvenile Loggerheads Required to Increase their Survival by 10%

	Pelagic Survival Increase from 0% to +10%	Pelagic Survival Increase from -10% to 0%
Model 3, lambda = 0.97*	-52%	-45%
Model 4, lambda = 0.97	-68%	-56%

* Survival rates for the various model scenarios extracted from Snover (pers. comm.). Lambda is the population growth rate per unit of time; when a population's lambda is 0.97, it is declining by about 3.0% per unit of time.

The main point of this discussion is that while the 10% reduction is a basin wide target, the models illustrate that a reduction in mortality of the life stage most affected by the U.S. longline fishery, the pelagic juvenile stage, must be achieved to reach recovery goals. The selection of an appropriate target specific to the longline fishery in isolation could not be quantified by the NMFS SEFSC (2001). The selection of management actions based on this target and ESA guidance is described in the next section

8.1.2. Selection of Management Targets for the RPA to Reduce the Bycatch of Sea Turtles

NMFS has analyzed observer data associated with the pelagic longline fisheries prosecuted under the HMS FMP to identify patterns that could be changed to avoid the adverse effects that are likely to jeopardize the continued existence of loggerhead and leatherback turtles through the continued operation of the pelagic longline fishery. Management actions should first try to eliminate or reduce the likelihood of interactions between the fishery and sea turtles. For those interactions that cannot be avoided, management actions should reduce the likelihood of sea turtles being injured or killed during or as a result of the interaction. These reductions must be made so that this fishery is no longer appreciably reducing the likelihood of survival and recovery of loggerhead and leatherback sea turtles. The best available scientific information shows that a 55% reduction in anthropogenic mortality of pelagic juvenile loggerheads is necessary to remove the appreciable effect of this fishery on sustainability and recovery of Atlantic loggerheads, taking into account reductions already being made on the other major source of mortality to loggerheads that impacts benthic life stages, the shrimp fishery. The reduction in anthropogenic mortality needed for leatherbacks could not be quantified.

8.2 Specific Elements of the Reasonable and Prudent Alternative

To comply with its obligation to remove jeopardy, NMFS must take action to reduce the impacts of the U.S. Atlantic pelagic longline fishery on loggerhead and leatherback turtles. As previously discussed, the ESA requires that any RPA must remove the jeopardy posed to leatherback and loggerhead sea turtles by the operation of the U.S. Atlantic pelagic longline fleet. Alternatives that ensure that the proposed pelagic longline fisheries prosecuted under the Atlantic HMS FMP are not likely to jeopardize the continued existence of listed species might not ensure that these species will recover in the wild and may not prevent other human activities from causing their ultimate extinction. The RPA is designed to reduce the effects of the pelagic longline fisheries, associated with the HMS FMP only, to such a degree that the effects are not likely to appreciably reduce these turtles' likelihood of surviving and recovering in the wild. What follows is a single RPA, consisting of several sub-elements, that must be implemented in its entirety to avoid jeopardizing listed species.

8.2.1. Closure of the NED Area to U.S. Pelagic Longline Fishing

NMFS must commence rulemaking immediately upon issuance of this opinion to promulgate regulations that close the entire NED area to fishing with pelagic longline gear for U.S. vessels. These regulations must become effective no later than July 15, 2001.

The largest number of interactions between the fishery and sea turtles occur in the Northeast Distant and Northeast Coastal geographical areas. This first element of the alternative eliminates potential interactions between the fishery and sea turtles by closing the area with the greatest impacts, the Northeast Distant geographical area to vessels using pelagic longline gear. Based on estimates from 1999 observer data, this closure would reduce the number of loggerhead and leatherback turtles captured in the fishery by 51 % and 49%, respectively, each year (NMFS SEFSC, 2001; Yeung *et al.*, 2000). Based on logbook data from 1997-1999, this closure would reduce the number of loggerhead and leatherback turtles captured in this fishery by 76% and 65%, respectively, assuming no redistribution of the fishing effort displaced out of the NED. If that fishing effort redistributes randomly across the remaining open areas, the number of loggerhead turtles captured by the fishery would be reduced by 75%; the number of leatherback turtles captured by the fishery would be reduced by 63% based on logbook data. Even assuming that all of the fishing effort that occurred in the NED area shifts into the area with one of the third highest bycatch rates, the Northeast Coastal area, the number of takes per year would still be reduced by 67 % for loggerheads and 58% for leatherbacks, based on the logbook data (K. Brewster-Geisz, pers. comm.). The reduction in takes in the NED, in conjunction with the expected reduction in takes resulting from the RPAs addressing gear modifications, approaches the estimated levels of reduction needed throughout the basin, and thus work even when applied to the HMS fisheries alone. This approaches the levels needed throughout the basin and, therefore, would be expected to work when applied to the HMS fisheries alone. In other words, if you use Table 10 as the basis for change in anthropogenic mortality of pelagic juvenile loggerheads required to increase their survival by 10%, the level identified by the NMFS SEFSC (2001) analysis as needed to change the population trajectory, the average of the 2 models is 55%. However, as noted above, the relationship is not a linear one. Therefore, as the jeopardy conclusion was made on continued operation of this fishery over 25 years, decreasing mortality in this fishery annually by that amount would mean that there was no longer an appreciable reduction in survival and recovery of loggerhead sea turtles from this action in the long term. Smaller time area closures are not sufficient in the long term because of annual variation in distribution of both turtles and fishing operations. As gear developments or dynamic management alternatives become available, the necessity for a large closure could change.

Subsequent elements of the following reasonable and prudent alternative supplement this closure by reducing the catch rate and the number of sea turtles that are injured or killed during or as a result of interactions with the proposed HMS fisheries. In combination, this reasonable and prudent alternative should reduce the number of loggerhead and leatherback turtles captured and killed in this fishery to levels that would decrease the contribution of these fisheries to reductions in the likelihood that these sea turtles will survive and recover in the wild

8.2.2. Gear Modifications outside the NED Area

8.2.2.1. Restrictions on hook attachment relative to floatlines on pelagic longline gear

NMFS must commence rulemaking immediately upon issuance of this opinion to promulgate final regulations in the Atlantic pelagic longline fleet that prohibit the setting of gangions adjacent to floatlines. These regulations must be published no later than July 15, 2001, with a delayed effective date of August 1, 2001. Specifically, gangions may not be attached next to floatlines nor to the mainline except at a distance from the attachment point of the floatline to the mainline, along the mainline, of twice the length of the average gangion length in the set. The primary purpose of this measure is to decrease the potential for turtles to become hooked.

Hooks that are beneath or adjacent to floatlines have a much higher sea turtle catch rate than hooks one or more positions away from the floatline (Kleiber 2001, NMFS SWFSC, unpubl. report). In observer data from the Hawaii fleet, hooks nearest the floatline caught 45% of all loggerheads, but only represented 19% of the hooks fished on sets that caught loggerheads. Hooks nearest the floatline caught 49% of all leatherbacks, but only represented 17% of the hooks fished on sets that caught leatherbacks. Eliminating hooks in this position could, theoretically, reduce takes of leatherbacks and loggerheads by as much as 49% and 45%, respectively. Such a result is unlikely, however, as turtles might still be caught on the hooks set farther from the floatline. The hook nearest the floatline is 2 to 2.4 times more likely to catch sea turtles than the hook one position from the floatline. That hook, in turn, is 5.7 to 7 times more likely to catch sea turtles than the hooks two or more positions from the floatline. If we assume that fishermen keep the number of hooks in a set constant after removing the hook adjacent to the floatline (*i.e.* effort remains constant) and if the gear is configured so that the shift in effort is into more hooks one position from the floatline, which have a higher turtle catch rate, the catch efficiency of those hooks is still half or less of the hooks adjacent to the floatline. Therefore, NMFS believes it is reasonable to expect that the effect of prohibiting gangions adjacent to floatlines would be a reduction in turtle captures by around 20%. The 45% of loggerheads and 49% of leatherbacks that were formerly captured on the hook adjacent to the floatline may still be available for capture on nearby hooks, but those hooks are less than half as efficient, so half of those turtles would still be reasonably expected to escape, yielding a mathematical capture reduction of 22% for loggerheads and 24% for leatherbacks.

8.2.2.2. Restriction on gangion length in shallow pelagic longline sets

NMFS must commence rulemaking immediately upon issuance of this opinion to promulgate final regulations in the Atlantic pelagic longline fleet that require that, in shallow longline sets, the length of the gangion be greater than the length of the floatline. This must be published no later than July 15, 2001, with a delayed effective date of August 1, 2001. The intent of this requirement is to ensure that hooked turtles have sufficient slack line to be able to reach the surface and avoid drowning. Specifically, for longline sets in which the combined length of the floatline plus the gangion is 100 meters or less, the length of the gangion must be at least 110% the length of the floatline. The purpose of this measure is to prevent injury and mortality to turtles that become hooked. No quantitative estimate of this measure can be made at this time.

8.2.2.3. Requirement to use corrodible hooks and crimps

By August 1, 2001, NMFS must identify criteria for, and assess the commercial availability of, corrodible hooks and crimps that are the most effective at reducing post-hooking injury. NMFS believes it is likely that some currently commercially-available gear will have desirable corrosion characteristics for both effective fishing and eventual dissolution and expulsion by hooked turtles. By December 31, 2001, NMFS must promulgate final regulations that require participants in pelagic longline fisheries in the Atlantic to use only corrodible hooks and crimps determined to be effective at reducing impacts to turtles. If no

commercial hooks or crimps are identified that meet the criteria, then NMFS must begin development of such hooks and crimps and implement regulations to require their use no later than March 1, 2002. This measure should substantially improve the survival of loggerhead and leatherback sea turtles that are hooked, when external hooks cannot be removed or when hooks are deeply taken and no attempts to remove the hook can be made.

8.2.3. Implementation of Additional Gear Modifications or Fishing Practices and Re-opening of the NED Area

Recognizing that the U.S. domestic longline fisheries are a small segment of the total amount of longline fishing that occurs in the Atlantic Ocean, NMFS believes that research to develop or modify gear technologies and fishing strategies to reduce capture rates of sea turtles throughout the Atlantic Ocean would improve the status of sea turtles. Developing gear technologies or fishing strategies that are capable of significantly reducing the likelihood of capturing turtles or dramatically reducing the immediate or delayed mortality rates of captured turtles are needed to minimize the effects of domestic and international longline fishing vessels. In order to increase the likelihood of survival and recovery of sea turtle populations in the Atlantic Ocean, NMFS shall work with federal and non-federal researchers to develop innovative strategies and measures to diminish the adverse effects of commercial fishing operations on sea turtle species. By developing new technologies, NMFS will be in a better position to develop and cultivate open and collaborative dialogue and action within the international fishing community to improve the status of listed sea turtles throughout the Atlantic Ocean. Improving the status of listed sea turtles in the Atlantic Ocean would reduce the effect of the U.S. HMS fisheries on these species.

In order to achieve this goal, NMFS shall conduct experiments as necessary and appropriate to modify existing gear to (1) reduce the likelihood of interactions between fishing gear and sea turtles and (2) dramatically reduce immediate and delayed mortality rates of turtles captured in the fisheries (e.g., visual or acoustic cues, dyed bait, hook type). Research funded or implemented by NMFS must receive a research and enhancement permit pursuant to section 10(a)(1)(a) of the ESA. NMFS shall conduct section 7 analyses on the issuance of any such permits. The goal of any research shall be to use robust experimental assessments to develop technologies or methods that would achieve the goals outlined in the preceding paragraph and remain economically and technically feasible for fishermen to implement.

Upon completion of the aforementioned research and its final analysis, NMFS Highly Migratory Species Division must promptly conduct a rulemaking to require the adoption of complementary bycatch reduction measures that, in concert with the bycatch reduction measures required by this Opinion and the June 30, 2000, Opinion, have been shown to achieve overall sea turtle mortality reductions of at least 55%. This rulemaking must be completed before pelagic longline vessels are allowed to fish within the NED area, other than as participants in permitted scientific research.

9.0 Incidental Take Statement

Section 9 of the ESA and protective regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under

the ESA provided that such taking is in compliance with the reasonable and prudent measures and terms and conditions of the Incidental Take Statement.

Section 7(b)(4)(c) of the ESA specifies that in order to provide an incidental take statement for an endangered or threatened species of marine mammal, the taking must be authorized under section 101(a)(5) of the MMPA. Since no incidental take of listed marine mammals is expected or has been authorized under section 101(a)(5) of the MMPA, no statement on incidental take of endangered whales is provided and no take is authorized. Nevertheless, NMFS Office of Sustainable Fisheries (F/SF) must immediately (within 24 hours, if communication is possible) notify the NMFS Office of Protected Resources (F/PR) should a take of an endangered whale occur.

9.1 Amount or extent of take

NMFS believes that the following levels of incidental take may be expected to occur as a result of the proposed action and the implementation of the RPA. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. F/SF must immediately provide an explanation of the causes of the taking and review with F/PR the need for possible modification of the reasonable and prudent measures.

As noted previously, the number of green and Kemp's ridley that Scott and Brown (1997) and Johnson *et al.* (1999) estimated to have been taken in the fishery probably resulted from misidentifications (Hoey 1998, Witzell 1999). It also is likely that the hawksbill reported in Yeung (1999) was misidentified (Witzell, pers. comm.). In subsequent years, sampling must confirm which species are caught by the fishery (see Terms and Conditions 4(a)) and be addressed in the analysis.

9.1.1. Pelagic Longline Fishery for Swordfish, Tuna, and Shark

Sea turtles that may be taken as the result of the experimental fishery or supplemental research activities to develop bycatch reduction techniques in U.S. waters or aboard U.S. fishing vessels are not considered in this incidental take statement. For sea turtle research under U.S. jurisdiction (and including the high seas) that would require an ESA Section 10(a)(1)(a) permit, a separate incidental take statement specifically developed for that permit would govern. For overseas activities in waters of foreign nations, the requirements of the ESA would not apply.

The implementation of the closed areas at DeSoto Canyon, Florida East Coast, and the Charleston Bump were previously estimated, based on logbook data, to increase sea turtle takes by about 7% because of effort redistribution. Under the RPA, however, effort redistribution into the NED Area, with its high bycatch rates, is prevented by the closure in the RPA. If the effort that is displaced out of the HMS closed areas randomly redistributes across all other available fishing areas, the increase in sea turtle bycatch is reduced to 5% (Sutter, pers. comm., 2001). The estimates of Yeung *et al.* (2000) for 1999, increased by 5%, would translate to 503 loggerheads and 546 leatherbacks captured outside the NED Area. The RPA also contains an element that is expected to reduce sea turtle bycatch by around 20% (see RPA 3 for further discussion). The specified annual anticipated take is based upon these closures as well as the anticipated reduction from the RPA gear modifications. In this Opinion, the impacts from post hooking mortality were assessed as a proportion of the total estimated take ranging from 27 - 42%,

depending on the location of the hook. Pelagic longline vessels will be monitored through observers at coverage levels that should produce relatively robust sea turtle bycatch estimates. The anticipated incidental take levels for the pelagic longline fishery are:

Leatherback sea turtles –	438 turtles <i>estimated</i> captured per calendar year,
Loggerhead sea turtles –	402 turtles <i>estimated</i> captured per calendar year
Green, Hawksbill, and	
Kemp's ridley turtles (combined) –	35 turtles <i>estimated</i> captured per calendar year

9.1.2 Remaining HMS Fisheries

The recent HMS management measures and the RPA affect only the pelagic longline portion of the HMS fisheries, so the levels of incidental take that were anticipated in previous Opinions on HMS fisheries are not expected to change as the result of management measures. Therefore, anticipated levels of incidental take for other HMS fisheries generally remain unaltered (as listed below). New information from the shark drift gillnet observer program in 2001 has been incorporated in establishing the incidental take levels for that fishery. In addition, according to the most recent information available, a shark gillnet fishery may be forming off Alabama. Levels of incidental take for shark gillnet gear anticipated under this Opinion were formed without consideration of this additional effort. If additional effort takes place in this fishery under the purview of NMFS (*i.e.*, fishermen who hold a limited access permit for sharks), it must be monitored, and appropriate incidental take levels incorporated into a reinitiated opinion.

9.1.2.1. Southeast U.S. Shark Drift Gillnet Fishery

Based on limited observer data available, NMFS anticipates that continued operation of this fishery will result in the capture of twenty (20) loggerhead sea turtles, four (4) leatherbacks, of which no more than two (2) are lethal, two (2) Kemp's ridley sea turtles, two (2) green sea turtles, and two (2) hawksbill sea turtles annually. These limits represent the number of total estimated takes (that is, after extrapolating across total effort levels) anticipated for this fishery.

9.1.2.2. Bottom Longline Fishery for Sharks

Based on the limited observer data available, NMFS anticipates that continued operation of this fishery will result in the capture of twelve (12) loggerhead sea turtles, two (2) leatherback, two (2) Kemp's ridley, two (2) green, and two (2) hawksbill sea turtles annually. Because total effort levels in this fishery are unavailable, these limits represent the number of total observed takes anticipated (*i.e.*, no extrapolation across total effort levels). If total effort levels are made available such that total estimates of take are possible, this level of incidental take will be revised accordingly.

9.1.2.3. Other HMS Fisheries

Since potential for take in other HMS fisheries is low, NMFS anticipates that continued operation of additional HMS fisheries (*i.e.*, tuna purse seine, harpoon/hand gear fisheries, hook-and-line, *etc.*) will result in documented takes of no more than three (3) sea turtles, of any species, in combination, per calendar year.

9.2 Reasonable and Prudent Measures

Section 7(b)(4) of the ESA requires that when an agency action is found to comply with section 7(a)(2) of the ESA and the proposed action may incidentally take individuals of listed species, NMFS will issue a statement specifying the impact of any incidental taking. It also states that reasonable and prudent measures necessary to minimize impacts, and terms and conditions to implement those measures be provided and must be followed to minimize those impacts. Only incidental taking by the federal agency or applicant that complies with the specified terms and conditions is authorized.

The reasonable and prudent measures and terms and conditions are specified as required by 50CFR § 402.14 (i)(1)(ii) and (iv) to document the incidental take by HMS fisheries and to minimize the impact of that take on sea turtles. These measures and terms and conditions are non-discretionary, and must be implemented by NMFS in order for the protection of section 7(o)(2) to apply. NMFS has a continuing duty to regulate the activity covered by this incidental take statement. If NMFS fails to adhere to the terms and conditions of the incidental take statement through enforceable terms, and/or fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of the incidental take, the F/SF must report the progress of the action and its impact on the species to NMFS as specified in the incidental take statement [50 CFR 402.14(i)(3)].

NMFS believes the following reasonable and prudent measures are necessary and appropriate to monitor and minimize take of listed species considered in this Opinion:

- (a) NMFS must implement educational programs for fishers which are aimed at reducing the potential for serious injury or mortality of hooked turtles.
2. NMFS must ensure that monitoring of HMS fisheries will (1) detect adverse effects resulting from HMS fisheries, (2) assess the actual level of incidental take in comparison with the anticipated incidental take documented in this opinion, (3) detect when the level of anticipated incidental take is exceeded, (4) collect improved data from each protected species encountered, and (5) determine the effectiveness of reasonable and prudent measures and their implementing terms and conditions.

9.3 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, NMFS must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

9.3.1. Terms and Conditions for the Pelagic Longline Fishery

- (a) *Observer coverage.* As in previous consultations, 5% coverage in the pelagic longline fishery is still required. The observer coverage must be distributed according to a stratified random sampling scheme that will adequately sample the fishery to determine levels of protected species takes. At a minimum, the regime must ensure that sampling occurs annually at a statistically reliable level of coverage within all statistical areas fished. If necessary to comply with agreements with ICCAT or to achieve adequate sampling for either HMS or protected species, this scheme may be separate from or supplemental to the HMS sampling program.
- (b) *Reporting Lethal Take.* NMFS' HMS Management Division must require vessel captains to report any turtles that are dead when they are captured or that die during capture to SEFSC Observer program within 48 hours, of returning to port.
- (c) *Mid-Atlantic Bight Analysis.* In the draft FMP, NMFS committed to analyzing the effects (on marine mammal bycatch only), of limiting the length of pelagic longline gear in the Mid-Atlantic Bight area to 24 nm. NMFS must also analyze effects of this restriction on resulting bycatch of sea turtles. This analysis must be completed by December 31, 2001.
- (d) *Sea Turtle Injury Workshop.* NMFS must conduct a workshop to address the issue of sea turtle injury and post-hooking mortality which result from interactions with longline gear.

9.3.2. Terms and Conditions for the SE Shark Drift Gillnet Fishery

- (a) *VMS vs. Observer Coverage.* VMS may be used as an alternative to the previous 100% observer coverage requirement; however, VMS cannot be used to replace observer monitoring for any strike-netting effort which may take place within the Southeast right whale calving ground closure area; and observer coverage necessary to monitor incidental take levels for sea turtles must be maintained year-round. NMFS F/SF should investigate new VMS technologies and incorporate advances, such as video technology, if practicable. Eventually, good video technology could possibly eliminate or at least greatly reduce the need for observers.
- (b) *Actions upon Sighting of a Whale.* With respect to the Southeast shark gillnet/strikenet fishery, the April 23, 1997, Opinion required that regulations be promulgated to prohibit setting gear in this fishery within 3 nm of a listed whale sighting and, if a whale is sighted within that range, require nets or lines to be hauled back immediately. Both the observer and the vessel operator will be responsible for sightings of whales. If any listed whale is taken in gear, the vessel operator must cease all fishing activities immediately and contact NMFS (Southeast Regional Office). This requirement was partially fulfilled via the May 1999 rule implementing the HMS FMP. However, current ALWTRP and HMS regulations do not specify the party responsible for sighting whales, nor do they clearly indicate that the vessel operator must contact NMFS and cease fishing in the event of any take of listed whales. NMFS F/PR must ensure that the ALWTRP is amended accordingly, and F/SF must adopt this provision as a requirement under the FMP, the next time these rules are revised.
- (c) *Fisherman Education.* NMFS must ensure the outreach coordinators described in 9.3.4(c) work to ensure all shark gillnet fishermen are educated on gear handling techniques and protocols to deal with entanglements and protected species in general, to reduce the potential for serious injury

or mortality should an entanglement occur. Recommendations from the ALWTRP should be followed in the development of these programs. Full implementation of this alternative will help avoid jeopardy because, although it may not prevent an entanglement, the potential for serious injury or mortality would be significantly reduced.

- (d) *Accurate Effort Reporting.* NMFS must provide F/PR, Northeast and Southeast Regions with accurate effort data for all gillnet effort (regardless of type) directed at sharks. This is necessary to better determine actual effort levels in the gillnet components (*e.g.*, strike and driftnet) of the fishery in order to better understand how much gillnet effort occurs in this area, in general (for improved sea turtle take estimates), to better understand what effort levels may still be occurring in the area during right whale season, and to facilitate monitoring of compliance with requirements under the ALWTRP and the FMP regarding mandatory 100% observer coverage of the fishery (or the VMS alternative outlined above) during right whale season. This must be provided annually.
- (e) *Observer Coverage.* Observer coverage is required and shall be sufficient to produce statistically reliable results to evaluate the impact of the fishery on sea turtles, including appropriate seasonal coverage. Observers will collect information to: (i) facilitate the understanding of the dynamics of the interaction with sea turtles; (ii) evaluate possible relationships between gear type/fishing strategies and turtle interactions; and (iii) better understand the population structure, status, and life history of turtles incidentally taken by the fishery. Quarterly and annual reports summarizing protected species bycatch data collected for this fishery shall be prepared and disseminated in a timely fashion to the Northeast and Southeast Regions and F/PR. Annual reports shall include extrapolations of total take for each species across the entire fishery (see 4 (g) below for details).
- (f) *Jellyfish Reporting.* Observers must report any turtle take and/or high densities of jellyfish within 24 hours to the SEFSC Observer Program Coordinator, who in turn must provide this information to the Southeast Region, F/PR and F/SF.
- (g) *Net Checking.* It is customary in the shark fishery for fishermen to check the length of the net every 0.5 -2 hrs with a spotlight to check the net and catch. Fishermen must be instructed to look for sea turtles and marine mammals during those checks and remove any protected species from the net immediately. Continuing education of fishermen to ensure implementation of this condition will be accomplished by the outreach coordinators identified in term and condition 4(c) below.

9.3.3. *Terms and Conditions for the Bottom Longline Fishery for Sharks*

- (a) *Observer Coverage.* NMFS must continue to implement an observer program, or ensure that financial support is provided to fund an external program such as the previous MARFIN-funded study, to monitor incidental takes of listed species in the bottom longline fishery for sharks.
- (b) *Accurate Effort Estimates.* Within 12 months of the signature date of this biological opinion, NMFS must implement a mechanism for estimating total effort levels in this fishery in order to provide accurate estimates of sea turtle bycatch. Quarterly and annual reports summarizing protected species bycatch data collected for this fishery shall be prepared and disseminated in a timely fashion to the Northeast and Southeast Regions and F/PR. Annual reports shall include estimates of total take for each species across the entire fishery (see 4 (f) below for details).

9.3.4. Terms and Conditions Applicable to All HMS Fisheries

- (a) *Observer data collection.* NMFS observers must record information on the condition of sea turtles and marine mammals when released as well as describe in detail the interaction with the gear (e.g., for longline interactions: entangled (where, and to what extent), ingested hook, internal or external hook). Photographs must be taken to confirm species identity and release condition. Collection of these data are critical to accurately monitor incidental take levels and assess mortality levels of sea turtles in this fishery. NMFS must ensure that when protected species are taken, dealing with each animal (e.g., resuscitating, tagging/scanning for tags, collecting a full suite of samples [per instruction of the SEFSC sea turtle coordinator], and releasing, etc.) must be the observer's sole priority.
- (b) *Observer collection of tissues for genetic sampling.* Within 3 months from the signature date of this Opinion, NMFS must ensure that observers associated with the HMS fisheries collect tissue samples from sea turtles caught in the fisheries and ensure that these tissue samples are analyzed to determine the genetic identity of individual turtles caught in the fishery. To fulfill this requirement, NMFS must ensure that observers associated with the HMS fisheries are equipped with the tools, supplies, training, and instructions to collect and store tissue samples and that the NEFSC and SEFSC are funded to analyze those samples.
- (c) *Fisherman Outreach.* The April 1997, May 1999, and June 2000 Opinions required outreach via fisherman workshops. A number of such workshops were held, but attendance was low and they did not seem to be an effective outreach tool for this particular fishery. Therefore, in lieu of these fisherman workshops, NMFS must finance, and work with the Northeast and Southeast Regions and F/PR in developing and supporting, an outreach program to be implemented by a Protected Species Outreach Coordinator. Outreach efforts must include dockside fisher education patterned after the Northeast Region's ALWTRP outreach program, including production and distribution of outreach materials, staff assistance/expertise as needed in development of outreach materials, and education and encouragement of fishermen to use the suite of take reducing parameters outlined in the reasonable and prudent alternatives above, as well as any new ideas/developments which appear worthy of implementation. Development of an approach must be conducted, in consultation with F/PR and the Northeast and Southeast Regions, by December 31, 2001.
- (d) *Fisherman collection of tissues for genetic sampling.* To supplement the effectiveness of the observer tissue collection effort, NMFS must create a training mechanism whereby vessel captains in HMS fisheries may be trained and receive authorization to collect tissue samples from incidentally captured sea turtles for use in genetic analyses. Within 3 months from the signature date of this Opinion, NMFS must develop a training program and publish a notice in the *Federal Register*, advising fishermen of the requirements of the training program and how to receive training. Vessel captains who successfully complete the training program will be provided with the necessary tools and supplies to collect samples and will receive a written authorization to collect samples, along with such other restrictions and requirements as may be deemed necessary. Tissue collection under the conditions of the written authorization (i.e., NMFS certification of completion of the training program) are authorized takes, as part of the incidental take statement of this Opinion.

- (e) *Sea Turtle Resuscitation.* NMFS must continue to distribute appropriate sea turtle resuscitation and handling techniques found in 50 CFR part 223.206(d)(1), as follows:

“Resuscitation must be attempted on sea turtles that are comatose or inactive but not dead by placing the turtle on its breastplate (plastron) and elevating its hindquarters several inches for a period of 1 hour up to 24 hours. The amount of the elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Sea turtles being resuscitated must be shaded and kept wet or moist. Those that revive and become active must be released over the stern of the boat only when trawls are not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.”

By September 15, 2001, NMFS must issue a regulation requiring that all vessels permitted for HMS fisheries post the sea turtle guidelines for safe handling in longline interactions inside the wheelhouse (to ensure that the owner passes it on to the captains and that it can be referred to as needed). Continuing education of fishermen to ensure full implementation of this condition will be accomplished by the outreach coordinators identified in term and condition 4(c) above.

- (f) *Reporting.* A report must be submitted on a calendar quarter basis to PR, the Southeast Region, and SF. The report must provide the following information on each sea turtle take: species, date and location of interaction, target catch, tag identification (if appropriate) whether photographs or genetic samples were taken. NMFS must also provide an annual report of sea turtle take estimates based on observed takes. The report must provide species specific take estimates as well as an overall estimate of total sea turtle take. This report must also include data on the condition of each individual sea turtle, in order to obtain better data on the level of impact that this fishery may be having with respect to post-release survival. These data should include information on where the animal was hooked or otherwise entangled, depths of imbedded hooks, and actual written comments by the observers. In this regard, observer data coordinators must consult with F/PR and the Northeast and Southeast Regions to ensure data collected is sufficient in detail to accomplish this goal. The report must be forwarded to the Chief of the Endangered Species Division, Office of Protected Resources, Silver Spring, Maryland, and copied to the Chiefs of the Northeast and Southeast Region Protected Resources Divisions.

10.0 Conservation Recommendations

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- (1) *In-water Abundance Studies.* In order to better understand sea turtle populations and the impacts of incidental take in HMS fisheries, NMFS should support in-water abundance estimates of sea turtles to achieve more accurate status assessments for these species and improve our ability to monitor them.
- (2) *Population Viability Analyses.* Once reasonable in-water estimates are obtained, NMFS should also support population viability analyses or other risk analyses of the sea turtle populations

affected by HMS fisheries. This will help improve the accuracy of future assessments of the effects of different levels of take on sea turtle populations.

- (3) *International Fisherman Education.* NMFS should ensure that the *Sea Turtle Handling Guidelines* are translated into several languages (*e.g.*, Portuguese, Spanish, Italian, Greek), printed, and distributed throughout the longline fisheries operating in the North Atlantic and Mediterranean in order to enhance survival of all turtles/subpopulations hooked, even those taken by foreign countries (as these fisheries all impact U.S. nesting populations).
- (4) *International Negotiations.* NMFS should focus efforts on the broader impacts that occur to loggerhead and leatherback populations throughout the Atlantic by using its available legal authorities (*e.g.*, Sec. 202(h) of the MSFCMA and Sec. 609(a) of Public Law 101-162) to pursue bilateral or multilateral agreements for the protection and conservation of sea turtles with other nations whose commercial longline fleets may affect sea turtles. NMFS, in partnership with the U.S. Department of State, should make every effort to use existing bilateral and multilateral mechanisms, to which the U.S. is a party, to focus the actions of those mechanisms on the problem of sea turtle-longline bycatch. Such existing multi-lateral mechanisms may include ICCAT, the U.N. Food and Agriculture Organization Committee on Fisheries (FAO/COFI), the nascent Inter-American Convention for the Protection and Conservation of Sea Turtles, the Asia Pacific Fisheries Commission, and the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific. Potential additional mechanisms include the Indian Ocean Regional MOU for the Conservation and Management of Sea Turtles. NMFS has already requested (in September 2000) and conducted (in February 2001) consultations with the Department of State under section 202(h) of the MSA to develop an international sea turtle-longline bycatch reduction strategy. In addition, NMFS should pursue similar avenues to promote international sea turtle conservation in general, but with particular emphasis on protecting leatherback sea turtles in the Guianas on their nesting beaches and from incidental capture in coastal gillnet and trawl fisheries.

NMFS should support a workshop to bring together international longline fishery experts (industry or governmental), from those nations with major longline fishing effort. The goal of such a workshop would be to assemble information on international rates of sea turtle interactions, exchange ideas on bycatch reduction measures, stimulate international research on sea turtle-longline interactions, and promote the development of binding international mechanisms to address sea turtle-longline interactions. NMFS and its governmental partners should subsequently make every effort to place the issue of sea turtle-longline interactions on the agenda of, and hold negotiations/discussions at, a major international body such as FAO/COFI or ICCAT. As the experimental fisheries yield results on the effectiveness of various bycatch reduction techniques, NMFS must share those results with other longline fishing nations and encourage the adoption of those measures that prove effective. If adoption of measures by foreign fleets to a degree that would assure the survival of loggerhead and leatherback turtles in the North Atlantic is deemed to be unlikely with existing international mechanisms, NMFS should seek additional legislative authority to address the threat of international longline fisheries to sea turtles, similar to section 609(b) of Public Law 101-162.

- (5) *Scientific Experiments.* NMFS should undertake, in consultation and cooperation with the domestic pelagic longline fleet, a cooperative research program to develop and evaluate the efficacy of new technologies and changes in fishing practices. This program should commence by August 1, 2001 and should be completed within three fishing seasons (*i.e.*, by January 2004).

Fishing Vessel-Based Research in the NED Area

The primary aspect of the scientific experiment should be the utilization of domestic fishing vessels as cooperative research platforms in the NED statistical sampling area. Participating U.S. longline vessels that fish in the NED must carry observers, and they must fish their gear in a specified, pre-determined manner designed to test one or more variables affecting sea turtle bycatch. Vessels that refuse to carry observers, that are not equipped to safely carry observers, or that refuse to fish their gear according to the experiment, should not be allowed to participate in the scientific experiment. The NED Area is the only area used by the U.S. fleet that is likely to yield the high level of turtle interactions required to test the effectiveness of bycatch reduction measures.

Research Plan for the NED Scientific experiment

Prior to July 1, 2001, NMFS should develop a research plan for the NED scientific experiment. The research plan for the fishery should comply with the following four conditions: (1) the target mortality reduction rate for a measure, or measures taken in combination, is 55% (the mean value for reduction of anthropogenic mortality from Table 10), compared to current standard fishing practices, for loggerheads and leatherbacks; (2) the duration of the experiment is no more than 3 years; (3) all measures tested must be “exportable.” That is, they must be easily described (such as in a regulation), they must be enforceable, they should preserve target species catch to the greatest extent possible, and they must be broadly applicable to fishing in different environments; and (4) the 55% reduction target in sea turtle mortality rates for the North Atlantic Ocean may be achieved by reducing the catch rates of turtles or by improving their post-hooking survival. Bycatch reduction, though, should be the primary emphasis of the experiment. As stated before, successfully quantifying post-hooking survival and changes in it brought about by different treatments is very difficult and expensive. In addition, experimentation with treatable factors that affect mortality may raise ethical problems. For example, withholding an effective treatment (*e.g.*, leaving a turtle entangled when the line could be easily removed) in order to assess the associated mortality would not be acceptable, whereas trying to distinguish the differential survival between animals that are already injured (*e.g.*, deeply hooked vs. lightly hooked) may be acceptable.

Experimental Design and Management

A mechanism should be developed to include the fishing industry in developing the experimental design and in the management and oversight of the experiment. Analyses have been conducted and give guidance on the amount of sampling in the NED that is likely to be necessary to test bycatch reduction measures of varying effectiveness. These analyses, along with the number of participating vessels, will determine the number of parameters that can be tested and should be considered in selecting and prioritizing the measures to be tested.

Interim Analyses

Within 3 months of the completion of each fishing season (*i.e.*, before April 2002, April 2003, and April 2004), NMFS should analyze the results of the previous years' scientific experiment for the effects of all the tested parameters on sea turtle and target species catch rates. It is expected that the research plan would be flexible and may be changed as results come in during the course of the experiment.

Completion of the NED Scientific experiment

If management measures are developed that achieve or exceed the target of 55% bycatch reduction before the end of the 3-year period, the scientific experiment should not be discontinued prematurely. The scientific experiment should be used to continue to develop additional measures that may allow greater sea turtle take reductions, greater flexibility in selecting among take reduction options, and greater preservation or enhancement of target species catch rates.

Supplementary Research

To supplement the NED scientific experiment and maximize its chances for success, NMFS should conduct additional research directed at understanding and reducing sea turtle-longline interactions. NMFS should consider the possibility of using turtles in captivity to conduct preliminary investigations that may focus field research. Captive turtles may be used, for example, to investigate chemical or visual repellents, bait preferences, feeding behaviors, and attraction or aversion to different color light sticks. At-sea research, aboard research vessels or contracted fishing vessels, may be appropriate for conducting research projects focused at sea turtle behavior questions or for preliminary feasibility trials of gear modifications. Finally, NMFS should consider sponsoring or conducting experimental work in foreign longline fishing fleets. This work may also establish the basis for future collaboration on international approaches to reduce sea turtle-longline interactions.

- (7) *Effectiveness of MARPOL.* NOAA/NMFS should meet with representatives of the U.S. Coast Guard to determine what benefits, if quantifiable, have accrued since the signing of the MARPOL agreement limiting pollution and dumping at sea; and explore ways with the Coast Guard to make this agreement more effective and to improve compliance through enforcement and outreach.

11. Reinitiation of Consultation

This concludes formal consultation on the continued operation of the Atlantic HMS fisheries, as regulated by the HMS FMP and the Billfish FMP, as amended. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of taking specified in the incidental take statement is exceeded, (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered (*i.e.*, proposed quota reduction and limited access rules are changed), (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the Opinion, or (4) a new species is listed or critical habitat designated that may be affected by the identified action. If the amount or extent of incidental take is exceeded, NMFS F/SF must immediately request reinitiation of formal consultation.

-CITE-

16 USC Sec. 971

01/03/2007

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971. Definitions

-STATUTE-

For the purpose of this chapter -

(1) The term "Convention" means the International Convention for the Conservation of Atlantic Tunas, signed at Rio de Janeiro May 14, 1966, including any amendments or protocols which are or become effective for the United States.

(2) The term "Commission" means the International Commission for the Conservation of Atlantic Tunas provided for in article III of the Convention.

(3) The term "conservation recommendation" means any recommendation of the Commission made pursuant to Article VIII of the Convention and acted upon favorably by the Secretary of State under section 971c(a) of this title.

(4) The term "Council" means the Council established within the International Commission for the Conservation of Atlantic Tunas pursuant to article V of the Convention.

(5) The term "exclusive economic zone" means an exclusive economic zone as defined in section 1802 of this title.

(6) The term "fishing" means the catching, taking, or fishing for or the attempted catching, taking, or fishing for any species of fish covered by the Convention, or any activities in support thereof.

(7) The term "fishing vessel" means any vessel engaged in catching fish or processing or transporting fish loaded on the high seas, or any vessel outfitted for such activities.

(8) The term "Panel" means any panel established by the Commission pursuant to article VI of the Convention.

(9) The term "person" means every individual, partnership, corporation, and association subject to the jurisdiction of the United States.

(10) The term "Secretary" means the Secretary of Commerce.

(11) The term "State" includes each of the States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, and the territories and possessions of the United States.

-SOURCE-

(Pub. L. 94-70, Sec. 2, Aug. 5, 1975, 89 Stat. 385; Pub. L. 94-265, title IV, Sec. 405(a), Apr. 13, 1976, 90 Stat. 361; Pub. L. 95-33, Sec. 2, May 26, 1977, 91 Stat. 173; Pub. L. 104-43, title III, Sec. 303(1), (2), Nov. 3, 1995, 109 Stat. 384; Pub. L. 105-384, title II, Sec. 202(b)(1)(A), (F), Nov. 13, 1998, 112 Stat. 3452, 3453.)

-MISCL-

AMENDMENTS

1998 - Pars. (4), (5). Pub. L. 105-384 renumbered par. (4) defining "exclusive economic zone" as par. (5) and made technical amendment to reference in original act which appears in text as reference to section 1802 of this title.

1995 - Par. (3). Pub. L. 104-43, Sec. 303(1), added par. (3). Former par. (3) redesignated (4). Par. (4). Pub. L. 104-43, Sec. 303(2), added par. (4) defining "exclusive economic zone". Former par. (4) redesignated (5). Pub. L. 104-43, Sec. 303(1), redesignated par. (3) defining "Council" as (4). Par. (5). Pub. L. 104-43, Sec. 303(2), struck out par. (5) which read as follows: "The term 'fisheries zone' means the waters included within a zone contiguous to the territorial sea of the United States, of which the inner boundary is a line coterminous with the seaward boundary of each coastal State, and the outer boundary is a line drawn in such a manner that each point on it is two hundred nautical miles from the baseline from which the territorial sea is measured; or similar zones established by other parties to the Convention to the extent that such zones are recognized by the United States." Pub. L. 104-43, Sec. 303(1), redesignated par. (4) as (5). Former par. (5) redesignated (6). Pars. (6) to (11). Pub. L. 104-43, Sec. 03(1), redesignated pars. (5) to (10) as (6) to (11), respectively.

1977 - Par. (4). Pub. L. 95-33 struck out the comma between "zone" and "contiguous", substituted "two hundred" for "200", and substituted a semicolon for a comma after "is measured".

1976 - Par. (4). Pub. L. 94-265, which directed the substitution of "the waters included within a zone, contiguous to the territorial sea of the United States, of which the inner boundary is a line coterminous with the seaward boundary of each coastal state, and the outer boundary is a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured," for "the fisheries zone established pursuant to the Act of October 14, 1966 (80 Stat. 908; 16 U.S.C. 1091-1094)", was executed by making the substitution for "the entire zone established by the United States under the Act of October 14, 1966 (80 Stat. 908; 16 U.S.C. 1091-1094)", to reflect the probable intent of Congress.

EFFECTIVE DATE OF 1976 AMENDMENT

Section 405(b) of Pub. L. 94-265 provided that the amendment made by section 405(a) of Pub. L. 94-265 to this section was to take effect Mar. 1, 1977, prior to the general amendment of title IV of Pub. L. 94-265 by Pub. L. 104-297.

SHORT TITLE OF 1995 AMENDMENT

Section 301 of title III of Pub. L. 104-43 provided that: "This title [enacting sections 971j and 971k of this title, amending this section and sections 971b, 971c to 971e, 971h, and 971i of this title, and enacting

provisions set out as a note under section 971c

of this title] may be cited as the 'Atlantic Tunas Convention Authorization Act of 1995'."

SHORT TITLE

Section 1 of Pub. L. 94-70 provided: "That this Act [enacting this chapter and provisions set out below] may be cited as the Atlantic Tunas Convention Act of 1975'."

SEPARABILITY

Pub. L. 94-70, Sec. 13, formerly Sec. 11, Aug. 5, 1975, 89 Stat. 394; renumbered Sec. 13, Pub. L. 105-384, title II, Sec. 202(b)(1)(D), Nov. 13, 1998, 112 Stat. 3452, provided that: "If any provision of this Act [this chapter] or the application of such provision to any circumstance or persons shall be held invalid, the validity of the remainder of the Act and the applicability of such provision to other circumstances or persons shall not be affected thereby."

-End-

-CITE-

16 USC Sec. 971a

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971a. Commissioners

-STATUTE-

(a) Appointment and number; selection of Chairman; rules of procedure; term

(1) The United States shall be represented by not more than three Commissioners who shall serve as delegates of the United States on the Commission, and who may serve on the Council and Panels of the Commission as provided for in the Convention. Such Commissioners shall be appointed by and serve at the pleasure of the President. Not more than one such Commissioner shall be a salaried employee of any State or political subdivision thereof, or the Federal Government. Individuals serving as such Commissioners shall not be considered to be Federal employees while performing such service, except for purposes of injury compensation or tort claims liability as provided in chapter 81 of title 5 and chapter 171 of title 28. The Commissioners shall be entitled to select a Chairman and to adopt such rules of procedure as they find necessary.

(2) Of the Commissioners appointed under paragraph (1) who are not governmental employees -

(A) one shall be appointed from among individuals with knowledge and experience regarding commercial fishing in the Atlantic Ocean, Gulf of Mexico, or Caribbean Sea; and

(B) one shall be appointed from among individuals with knowledge and experience regarding recreational fishing in the Atlantic Ocean, Gulf of Mexico, or Caribbean Sea.

(3)(A) The term of a Commissioner shall be three years.

(B) An individual appointed in accordance with paragraph (2) shall not be eligible to serve more than two consecutive terms as a Commissioner.

(b) Alternate Commissioners

The Secretary of State, in consultation with the Secretary, may designate from time to time and for periods of time deemed appropriate Alternate United States Commissioners to the Commission. Any Alternate United States Commissioner may exercise at any meeting of the Commission, Council, any Panel, or the advisory committee established pursuant to section 971b of this title, all powers and duties of a United States Commissioner in the absence of any Commissioner appointed pursuant to subsection (a) of this section for whatever reason. The number of such Alternate United States Commissioners that may be designated for any such meeting shall be limited to the number of United States Commissioners appointed pursuant to subsection (a) of this section who will not be present at such meeting.

(c) Compensation

The United States Commissioners or Alternate Commissioners, although officers of the United States while so serving, shall receive no compensation for their services as such Commissioners or Alternate Commissioners.

(d) Travel expenses

(1) The Secretary of State shall pay the necessary travel expenses of United States Commissioners, Alternate United States Commissioners, and authorized advisors in accordance with the Federal Travel Regulations and sections 5701, 5702, 5704 through 5708, and 5731 of title 5.

(2) The Secretary may reimburse the Secretary of State for amounts expended by the Secretary of State under this subsection.

(e) Sense of Congress regarding fish habitat. It is the sense of the Congress that the United States Commissioners should seek to include ecosystem considerations in fisheries management, including the conservation of fish habitat.

-SOURCE-

(Pub. L. 94-70, Sec. 3, Aug. 5, 1975, 89 Stat. 385; Pub. L. 101-627, title II, Secs. 201(a), 203, Nov. 28, 1990, 104 Stat. 4459, 4460; Pub. L. 106-562, title III, Sec. 303, Dec. 23, 2000, 114 Stat. 2806; Pub. L. 109-479, title IV, Sec. 405(c), Jan. 12, 2007, 120 Stat. 3633.)

-MISCI-

AMENDMENTS

2007 - Subsec. (e). Pub. L. 109-479 added subsec. (e).

2000 - Subsec. (a)(1). Pub. L. 106-562 inserted before last sentence "Individuals serving as such

Commissioners shall not be considered to be Federal employees while performing such service, except for purposes of injury compensation or tort claims liability as provided in chapter 81 of title 5 and chapter 171 of title 28."

1990 - Subsec. (a). Pub. L. 101-627, Sec. 201(a), designated existing provisions as par. (1) and added pars. (2) and (3). Subsec. (d). Pub. L. 101-627, Sec. 203, added subsec. (d).

LIMITATIONS ON APPOINTMENTS OF COMMISSIONERS; APPLICATION TO CURRENT COMMISSIONERS

Section 201(b) of title II of Pub. L. 101-627 provided that:

"(1) Paragraph (2) of section 3(a) of the Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971a(a)), as added by this section, shall not apply to reappointment of an individual as a United States Commissioner of the International Commission for the Conservation of Atlantic Tunas (hereinafter in this title [enacting section 971b-1 of this title, amending this section and sections 971b, 971d, and 971h of this title, and enacting provisions set out as a note below] referred to as a 'Commissioner') if that individual is serving in that position on the date of enactment of this Act [Nov. 28, 1990].

"(2) An individual serving a term as a Commissioner on the date of enactment of this Act shall not, by reason of that term of service, be ineligible under paragraph (3)(B) of section 3(a) of the Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971a(a)), as added by this section, for reappointment as a Commissioner."

TERMINATION OF CURRENT TERMS AND COMPLETION OF PENDING APPOINTMENTS

Section 202 of Pub. L. 101-627 provided that: "The term as Commissioner of each individual serving in that position on the date of enactment of this Act [Nov. 28, 1990] shall terminate March 1, 1991. Not later than that date, the President shall complete appointment (or reappointment) of individuals to serve as Commissioners on and after that date."

-End-

-CITE-

16 USC Sec. 971b

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971b. Advisory committee

-STATUTE-

(a) There is established an advisory committee which shall be composed of -

(1) not less than five nor more than twenty individuals appointed by the United States Commissioners who shall select such individuals from the various groups concerned with the fisheries covered by the Convention; and

(2) the chairmen (or their designees) of the New England, Mid-Atlantic, South Atlantic, Caribbean, and Gulf Fishery Management Councils established under section 302(a) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1852(a)). Each member of the advisory committee appointed under paragraph (1) shall serve for a term of two years and shall be eligible for reappointment. Members of the advisory committee may attend all public meetings of the Commission, Council, or any Panel and any other meetings to which they are invited by the Commission, Council, or any Panel. The advisory committee shall be invited to attend all nonexecutive meetings of the United States Commissioners and at such meetings shall be given opportunity to examine and to be heard on all proposed programs of investigation, reports, recommendations, and regulations of the Commission. Members of the advisory committee shall receive no compensation for their services as such members. The Secretary and the Secretary of State may pay the necessary travel expenses of members of the advisory committee in accordance with the Federal Travel Regulations and sections 5701, 5702, 5704 through 5708, and 5731 of title 5.

(b)(1) A majority of the members of the advisory committee shall constitute a quorum, but one or more such members designated by the advisory committee may hold meetings to provide for public participation and to discuss measures relating to the United States implementation of Commission recommendations.

(2) The advisory committee shall elect a Chairman for a 2-year term from among its members.

(3) The advisory committee shall meet at appropriate times and places at least twice a year, at the call of the Chairman or upon the request of the majority of its voting members, the United States Commissioners, the Secretary, or the Secretary of State. Meetings of the advisory committee, except when in executive session, shall be open to the public, and prior notice of meetings shall be made public in a timely fashion.

(4)(A) The Secretary shall provide to the advisory committee in a timely manner such administrative and technical support services as are necessary for the effective functioning of the committee.

(B) The Secretary and the Secretary of State shall furnish the advisory committee with relevant information concerning fisheries and international fishery agreements.

(5) The advisory committee shall determine its organization, and prescribe its practices and procedures for carrying out its functions under this chapter, the Magnuson-Stevens Fishery

Conservation and Management Act (16 U.S.C. 1801 et seq.), and the Convention. The advisory committee shall publish and make available to the public a statement of its organization, practices, and procedures.

(6) The advisory committee shall, to the maximum extent practicable, consist of an equitable balance among the various groups concerned with the fisheries covered by the Convention and shall not be subject to the Federal Advisory Committee Act (5 U.S.C. App.).

-SOURCE-

(Pub. L. 94-70, Sec. 4, Aug. 5, 1975, 89 Stat. 386; Pub. L. 96-339, Sec. 1(1), Sept. 4, 1980, 94 Stat. 1069; Pub. L. 96-561, title II, Sec. 238(b), Dec. 22, 1980, 94 Stat. 3300; Pub. L. 101-627, title II, Sec. 204, Nov. 28, 1990, 104 Stat. 4460; Pub. L. 104-43, title III, Sec. 304, Nov. 3, 1995, 109 Stat. 384; Pub. L. 105-384, title II, Sec. 202(b)(1)(F), Nov. 13, 1998, 112 Stat. 3453.)

-REFTEXT-

REFERENCES IN TEXT

The Magnuson-Stevens Fishery Conservation and Management Act, referred to in subsec. (b)(5), is Pub. L. 94-265, Apr. 13, 1976, 90 Stat. 331, as amended, which is classified principally to chapter 38 (Sec. 1801 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 1801 of this title and Tables.

The Federal Advisory Committee Act, referred to in subsec. (b)(6), is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in the Appendix to Title 5, Government Organization and Employees.

-MISC1-

AMENDMENTS

1998 - Subsecs. (a)(2), (b)(5). Pub. L. 105-384 substituted "Magnuson-Stevens Fishery" for "Magnuson Fishery".

1995 - Pub. L. 104-43 designated existing provisions as subsec. (a) and added subsec. (b).

1990 - Pub. L. 101-627 amended last sentence generally. Prior to amendment, last sentence read as follows: "On approval by the United States Commissioners -

"(A) if not more than three members of the advisory committee are designated by the committee to attend any meeting of the Commission, Council, or advisory committee, or of any Panel, each of such members shall be paid for his actual transportation expenses and per diem incident to his attendance; and

"(B) in any case in which more than three members are designated by the advisory committee to attend any such meeting, each such member to whom subparagraph (A) does not apply may be paid for his actual transportation expenses and per diem incident to his attendance."

1980 - Pub. L. 96-339 incorporated existing provision in par. designated (1), added par. (2), redesignated as subpars. (A) and (B) former pars. (1) and (2), substituted in subpar. (B) reference to "subparagraph (A)" for "paragraph (1)", and made specific reference to appointment of committee member under paragraph (1). Par. (2). Pub. L. 96-561 substituted "Magnuson Fishery Conservation and Management Act" for "Fishery Conservation and Management Act of 1976".

EFFECTIVE DATE OF 1980 AMENDMENT

Section 238(b) of Pub. L. 96-561 provided that the amendment made by that section is effective 15 days after Dec. 22, 1980.

-End-

-CITE-

16 USC Sec. 971b-1

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971b-1. Species working groups

-STATUTE-

The United States Commissioners may establish species working groups for the purpose of providing advice and recommendations to the Commissioners and the advisory committee on matters relating to the conservation and management of any highly migratory species covered by the Convention. Any species working group shall consist of no more than seven members of the advisory committee and no more than four scientific or technical personnel, as considered necessary by the Commissioner.

-SOURCE-

(Pub. L. 94-70, Sec. 4A, as added Pub. L. 101-627, title II, Sec. 205, Nov. 28, 1990, 104 Stat. 4460.)

-End-

-CITE-

16 USC Sec. 971c

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971c. Authority of Secretary of State; cooperative enforcement agreements

-STATUTE-

(a) Recommendations from Commission

The Secretary of State is authorized to receive on behalf of the United States, reports, requests, and other communications of the Commission, and to act thereon directly or by reference to the appropriate authorities. The Secretary of State, with the concurrence of the Secretary and, for matters relating to enforcement, the Secretary of the department in which the Coast Guard is operating, is authorized to take appropriate action on behalf of the United States with regard to recommendations received from the Commission pursuant to article VIII of the Convention. The Secretary and, when appropriate, the Secretary of the

department in which the Coast Guard is operating, shall inform the Secretary of State as to what action he considers appropriate within five months of the date of the notification of the recommendation from the Commission, and again within forty-five days of the additional sixty-day period provided by the Convention if any objection is presented by another contracting party to the Convention, or within thirty days of the date of the notification of an objection made within the additional sixty-day period, whichever date shall be the later. After any notification from the Commission that an objection of the United States is to be considered as having no effect, the Secretary shall inform the Secretary of State as to what action he considers appropriate within forty-five days of the sixty-day period provided by the Convention for reaffirming objections. The Secretary of State shall take steps under the Convention to insure that a recommendation pursuant to article VIII of the Convention does not become effective for the United States prior to its becoming effective for all contracting parties conducting fisheries affected by such commendation on a meaningful scale in terms of their effect upon the success of the conservation program, unless he determines, with the concurrence of the Secretary, and, for matters relating to enforcement, the Secretary of the department in which the Coast Guard is operating, that the purposes of the Convention would be served by allowing a recommendation to take effect for the United States at some earlier time.

(b) Enforcement agreements

The Secretary of State, in consultation with the Secretary and the Secretary of the department in which the Coast Guard is operating, is authorized to enter into agreements with any contracting party, pursuant to paragraph 3 of article IX of the Convention, relating to cooperative enforcement of the provisions of the Convention, recommendations in force for the United States and such party or parties under the Convention, and regulations adopted by the United States and such contracting party or parties pursuant to recommendations of the Commission. Such agreements may authorize personnel of the United States to enforce measures under the Convention and under regulations of another party with respect to persons under that party's jurisdiction, and may authorize personnel of another party to enforce measures under the Convention and under United States regulations with respect to persons subject to the jurisdiction of the United States. Enforcement under such an agreement may not take place within the territorial seas or exclusive economic zone of the United States. Such agreements shall not subject persons or vessels under the jurisdiction of the United States to prosecution or assessment of penalties by any court or tribunal of a foreign country.

-SOURCE-

(Pub. L. 94-70, Sec. 5, Aug. 5, 1975, 89 Stat. 386; Pub. L. 104-43, title III, Sec. 303(3), Nov. 3, 1995, 109 Stat. 384; Pub. L. 105-384, title II, Sec. 202(b)(1)(B), Nov. 13, 1998, 112 Stat. 3452.)

-MISC1-

AMENDMENTS

1998 - Subsec. (b). Pub. L. 105-384 directed amendment identical to amendment by Pub. L. 104-43. See 1995 Amendment note below.

1995 - Subsec. (b). Pub. L. 104-43 substituted "exclusive economic zone" for "fisheries zone" after "territorial seas or" in third sentence.

-TRANS-

TRANSFER OF FUNCTIONS

For transfer of authorities, functions, personnel, and assets of the Coast Guard, including the authorities and functions of the Secretary of Transportation relating thereto, to the Department of Homeland Security, and for treatment of related references, see sections 468(b), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

-MISC2-

MANAGEMENT OF ATLANTIC YELLOWFIN TUNA

Section 309(b) of Pub. L. 104-43, as amended by Pub. L. 104-297, title IV, Sec. 406, Oct. 11, 1996, 110 Stat. 3621, provided that: "Not later than July 1, 1997, the Secretary of Commerce shall implement the recommendations of the International Commission for the Conservation of Atlantic Tunas regarding yellowfin tuna made pursuant to Article VIII of the International Convention for the Conservation of Atlantic Tunas and acted upon favorably by the Secretary of State under section 5(a) of the Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971c(a))."

-End-

-CITE-

16 USC Sec. 971d

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971d. Administration

-STATUTE-

(a) Regulations; cooperation with other parties to Convention; utilization of personnel, services, and facilities for enforcement. The Secretary is authorized and directed to administer and enforce all of the provisions of the Convention, this chapter, and regulations issued pursuant thereto, except to the extent otherwise provided for in this chapter. In carrying out such functions the Secretary is authorized and directed to adopt such regulations as may be necessary to carry out the purposes and objectives of the Convention and this chapter, and with the concurrence of the Secretary of State, he may cooperate with the duly authorized officials of the government of any party to the Convention. In addition, the Secretary may utilize, with the concurrence of the Secretary of the department in which the Coast Guard is operating insofar as such utilization involves enforcement at sea, with or without reimbursement and by agreement with any other Federal department or agency, or with any agency of any State, the personnel, services, and facilities of that agency for enforcement purposes with respect to any vessel in the exclusive economic zone, or wherever found, with

respect to any vessel documented under the laws of the United States, and any vessel numbered or otherwise licensed under the laws of any State. When so utilized, such personnel of the States of the United States are authorized to function as Federal law enforcement agents for these purposes, but they shall not be held and considered as employees of the United States for the purposes of any laws administered by the Director of the Office of Personnel Management.

(b) Primary enforcement responsibility Enforcement activities at sea under the provisions of this chapter for fishing vessels subject to the jurisdiction of the United States shall be primarily the responsibility of the Secretary of the department in which the Coast Guard is operating, in cooperation with the Secretary and the United States Customs Service. The Secretary after consultation with the Secretary of the department in which the Coast Guard is operating, shall adopt such regulations as may be necessary to provide for procedures and methods of enforcement pursuant to article IX of the Convention.

(c) Regulations and other measures to carry out Commission recommendations

(1)(A) Upon favorable action by the Secretary of State under section 971c(a) of this title on any recommendation of the Commission made pursuant to article VIII of the Convention, the Secretary shall promulgate, pursuant to this subsection, such regulations as may be necessary and appropriate to carry out such recommendation.

(B) Not later than June 30, 1991, the Secretary shall promulgate any additional regulations necessary to ensure that the United States is in full compliance with all recommendations made by the Commission that have been accepted by the United States and with other agreements under the Convention between the United States and any nation which is a party to the Convention.

(C) Regulations promulgated under this paragraph shall, to the extent practicable, be consistent with fishery management plans prepared and implemented under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).

(2) To promulgate regulations referred to in paragraph (1) of this subsection, the Secretary shall publish in the Federal Register a general notice of proposed rulemaking and shall afford interested persons an opportunity to participate in the rulemaking through (A) submission of written data, views, or arguments, and

(B) oral presentation at a public hearing. Such regulations shall be published in the Federal Register and shall be accompanied by a statement of the considerations involved in the issuance of the regulations, and by a statement, based on inquiries and investigations, assessing the nature and effectiveness of the measures for the implementation of the Commission's recommendations which are being or will be carried out by countries whose vessels engage in fishing the species subject to such recommendations within the waters to which the Convention applies. After publication in the Federal Register, such regulations shall be applicable to all vessels and persons subject to the jurisdiction of the United States on such date as the Secretary shall prescribe. The Secretary shall suspend at any time the application of any such regulation when, after consultation with the Secretary of State and the United States Commissioners, he determines that fishing operations in the Convention area of a contracting party for whom the regulations are effective are such as to constitute a serious threat to the achievement of the Commission's recommendations.

(3) The regulations required to be promulgated under paragraph

(1) of this subsection may -

(A) select for regulation one or more of the species covered by the Convention;

(B) divide the Convention waters into areas;

(C) establish one or more open or closed seasons as to each such area;

(D) limit the size of the fish and quantity of the catch which may be taken from each area within any season during which fishing is allowed;

(E) limit or prohibit the incidental catch of a regulated species which may be retained, taken, possessed, or landed by vessels or persons fishing for other species of fish;

(F) require records of operations to be kept by any master or other person in charge of any fishing vessel;

(G) require such clearance certificates for vessels as may be necessary to carry out the purposes of the Convention and this chapter;

(H) require proof satisfactory to the Secretary that any fish subject to regulation pursuant to a recommendation of the Commission offered for entry into the United States has not been taken or retained contrary to the recommendations of the Commission made pursuant to article VIII of the Convention which have been adopted as regulations pursuant to this section;

(I) require any commercial or recreational fisherman to obtain a permit from the Secretary and report the quantity of the catch of a regulated species;

(J) require that observers be carried aboard fishing vessels for the purpose of providing statistically reliable scientific data; and

(K) impose such other requirements and provide for such other measures as the Secretary may determine necessary to implement any recommendation of the Convention or to obtain scientific data necessary to accomplish the purpose of the Convention; except that no regulation promulgated under this section may have the effect of increasing or decreasing any allocation or quota of fish or fishing mortality level to the United States agreed to pursuant to a recommendation of the Commission.

(4) Upon the promulgation of regulations provided for in paragraph (3) of this subsection, the Secretary shall promulgate, with the concurrence of the Secretary of State and pursuant to the procedures prescribed in paragraph (2) of this subsection, additional regulations which shall become effective simultaneously with the application of the regulations provided for in paragraph

(3) of this subsection, which prohibit -

(A) the entry into the United States of fish in any form of those species which are subject to regulation pursuant to a recommendation of the Commission and which were taken from the Convention area in such manner or in such circumstances as would tend to diminish the effectiveness of the conservation recommendations of the Commission; and

(B) the entry into the United States, from any country when the vessels of such country are being used in the conduct of fishing operations in the Convention area in such manner or in such circumstances as would tend to diminish the effectiveness of the conservation recommendations of the Commission, of fish in any form of those species which are subject to regulation pursuant to a recommendation of the Commission and which were taken from the Convention area.

(5) In the case of repeated and flagrant fishing operations in the Convention area by the vessels of any country which seriously threaten the achievement of the objectives of the Commission's recommendations, the Secretary with the concurrence of the Secretary of State, may by regulations promulgated pursuant to paragraph (2) of this subsection prohibit the entry in any form from such country of other species covered by the Convention as may be under investigation by the Commission and which were taken in the Convention area. Any such prohibition shall continue until the Secretary is satisfied that the condition warranting the prohibition no longer exists, except that all fish in any form of the species under regulation which were previously prohibited from entry shall continue to be prohibited from entry.

(6) Identification and notification. -

(A) Not later than July 1, 1996, and annually thereafter, the Secretary, in consultation with the Secretary of State, the Commissioners, and the advisory committee, shall -

(i) identify those nations whose fishing vessels are fishing, or have fished during the preceding calendar year, within the convention area in a manner or under circumstances that diminish the effectiveness of a conservation recommendation;

(ii) notify the President and the nation so identified, including an explanation of the reasons therefor; and

(iii) publish a list of those Nations identified under clause i).

(B) In identifying those Nations, the Secretary shall consider, based on the best available information, whether those Nations have measures in place for reporting, monitoring, and enforcement, and whether those measures diminish the effectiveness of any conservation recommendation.

(7) Consultation. - Not later than 30 days after a Nation is notified under paragraph (6), the President may enter into consultations with the Government of that Nation for the purpose of obtaining an agreement that will -

(A) effect the immediate termination and prevent the resumption of any fishing operation by vessels of that Nation within the Convention area which is conducted in a manner or under circumstances that diminish the effectiveness of the conservation recommendation;

(B) when practicable, require actions by that Nation, or vessels of that Nation, to mitigate the negative impacts of fishing operations on the effectiveness of the conservation recommendation involved, including but not limited to, the imposition of subsequent-year deductions for quota overages; and

(C) result in the establishment, if necessary, by such Nation of reporting, monitoring, and enforcement measures that are adequate to ensure the effectiveness of conservation recommendations.

(d) Recommended Commission actions regarding large-scale driftnet fishing and conservation of Atlantic swordfish

(1) It is the sense of the Congress that the Secretary, in consultation with the Secretary of State, should seek support for a recommendation by the Commission to ban large-scale driftnet fishing (as that term is defined in section 3(16) (!) of the Magnuson-Stevens Fishery Conservation and Management Act [16 U.S.C. 1802(16)]) in the Convention area.

(2) The Secretary, in consultation with the Secretary of State, shall request the Commission to adopt recommendations necessary for the conservation and management of Atlantic swordfish. In making the request, the Secretary shall seek the establishment of an international minimum harvest size and a reduction in harvest levels to the extent necessary to conserve the stock. Until the Commission adopts all the conservation and management measures requested by the Secretary, the Secretary, within 3 months after each annual meeting of the Commission, shall notify Congress as to the nature and results of his request. These notifications shall identify those nations not acting to conserve and manage Atlantic swordfish, and recommend measures which could be taken to achieve effective international conservation and management of the stock.

-SOURCE-

(Pub. L. 94-70, Sec. 6, Aug. 5, 1975, 89 Stat. 387; 1978 Reorg. Plan No. 2, Sec. 102, eff. Jan. 1, 1979, 43 F.R. 36037, 92 Stat. 3784; Pub. L. 101-627, title II, Secs. 206, 207, Nov. 28, 1990, 104 Stat. 4461; Pub. L. 104-43, title III, Secs. 303(3), 305, Nov. 3, 1995, 109 Stat. 384, 385; Pub. L. 105-384, title II, Sec. 202(b)(1)(C), (F), Nov. 13, 1998, 112 Stat. 3452, 3453.)

-REFTEXT-

REFERENCES IN TEXT

The Magnuson-Stevens Fishery Conservation and Management Act, referred to in subsec. (c)(1)(C), is Pub. L. 94-265, Apr. 13, 1976, 90 Stat. 331, as amended, which is classified principally to chapter 38 (Sec. 1801 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 1801 of this title and Tables.

Section 3 of the Magnuson-Stevens Fishery Conservation and Management Act, referred to in subsec. (d)(1), was subsequently amended, and section 3(16) no longer defines the term "large-scale driftnet fishing". However, such term is defined elsewhere in that section.

-MISC1-

AMENDMENTS

1998 - Subsec. (c)(1)(C). Pub. L. 105-384, Sec. 202(b)(1)(F), substituted "Magnuson-Stevens Fishery" for "Magnuson Fishery". Subsecs. (c)(6)(A)(iii), (B). Pub. L. 105-384, Sec. 02(b)(1)(C), substituted "clause (i)" for "subparagraph (A)" in cl. (iii), and redesignated last sentence of subpar. (A) as subpar. (B) and realigned margin. Subsec. (d)(1). Pub. L. 105-384, Sec. 202(b)(1)(F), substituted "Magnuson-Stevens Fishery" for "Magnuson Fishery".

1995 - Subsec. (a). Pub. L. 104-43, Sec. 303(3), substituted "exclusive economic zone" for "fisheries zone" after "any vessel in the" in third sentence. Subsec. (c). Pub. L. 104-43, Sec. 305(1), inserted "and other measures" after "Regulations" in heading. Subsec. (c)(3). Pub. L. 104-43, Sec. 305(2), inserted "or

fishing mortality level" after "quota of fish" in concluding provisions. Subsec. (c)(6), (7). Pub. L. 104-43, Sec. 305(3), added pars. (6) and (7).

1990 - Subsec. (c)(1). Pub. L. 101-627, Sec. 206(a), designated existing provisions as subpar. (A) and added subpars. (B) and (C). Subsec. (c)(3). Pub. L. 101-627, Sec. 206(b), added subpars. (I) to (K) and concluding provisions and struck out former subpar. (I) which read as follows: "impose such other requirements and provide for such other measures as the Secretary may deem necessary to implement any recommendation of the Commission." Subsec. (d). Pub. L. 101-627, Sec. 207, amended subsec. (d) generally, substituting provisions relating to recommended Commission actions regarding large-scale driftnet fishing and conservation of Atlantic swordfish for provisions relating to commission recommendations concerning bluefin tuna and issuance of regulations.

-TRANS-

TRANSFER OF FUNCTIONS

For transfer of authorities, functions, personnel, and assets of the Coast Guard, including the authorities and functions of the Secretary of Transportation relating thereto, to the Department of Homeland Security, and for treatment of related references, see sections 468(b), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6. For transfer of functions, personnel, assets, and liabilities of the United States Customs Service of the Department of the Treasury, including functions of the Secretary of the Treasury relating thereto, to the Secretary of Homeland Security, and for treatment of related references, see sections 203(1), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6. "Director of the Office of Personnel Management" substituted for "Civil Service Commission" in subsec. (a) pursuant to Reorg. Plan No. 2 of 1978, Sec. 102, 43 F.R. 36037, 92 Stat. 3783, set out under section 1101 of Title 5, Government Organization and Employees, which transferred functions vested by statute in the Civil Service Commission to Director of Office of Personnel Management (except as otherwise specified), effective Jan. 1, 1979, as provided by section 1-102 of Ex. Ord. No. 12107, Dec. 28, 1978, 44 F.R. 1055, set out under section 1101 of Title 5.

-MISC2-

USE OF AIRCRAFT IN ATLANTIC BLUEFIN TUNA FISHING

Pub. L. 106-553, Sec. 1(a)(2) [title VI, Sec. 634], Dec. 21, 2000, 114 Stat. 2762, 2762A-114, provided that none of the funds of the Department of Commerce would be available to issue or renew, for any fishing vessel, any general or harpoon category fishing permit for Atlantic bluefin tuna that would allow the vessel to use an aircraft to locate, or otherwise assist in fishing for, catching, or possessing Atlantic bluefin tuna, or to fish for, catch, or possess Atlantic bluefin tuna located by the use of an aircraft.

-FOOTNOTE-

(!1) See References in Text note below.

-End-

-CITE-

16 USC Sec. 971e

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971e. Violations

-STATUTE-

(a) In general

It shall be unlawful -

(1) for any person in charge of a fishing vessel or any fishing vessel subject to the jurisdiction of the United States to engage in fishing in violation of any regulation adopted pursuant to section 971d of this title; or

(2) for any person subject to the jurisdiction of the United States to ship, transport, purchase, sell, offer for sale, import, export, or have in custody, possession, or control any fish which he knows, or should have known, were taken or retained contrary to the recommendations of the Commission made pursuant to article VIII of the Convention and adopted as regulations pursuant to section 971d of this title, without regard to the citizenship of the person or vessel which took the fish.

(b) Failure to furnish returns, records, or reports It shall be unlawful for the master or any person in charge of any fishing vessel subject to the jurisdiction of the United States

to fail to make, keep, or furnish any catch returns, statistical records, or other reports as are required by regulations adopted pursuant to this chapter to be made, kept, or furnished by such master or person.

(c) Refusal of request to board and inspect vessel It shall be unlawful for the master or any person in charge of any fishing vessel subject to the jurisdiction of the United States to refuse to permit any person authorized to enforce the provisions of this chapter and any regulations adopted pursuant thereto, to board such vessel and inspect its catch, equipment, books, documents, records, or other articles or question the persons onboard in accordance with the provisions of this chapter, or the Convention, as the case may be, or to obstruct such officials in the execution of such duties.

(d) Importation of ineligible species or species under investigation It shall be unlawful for any person to import, in violation of any regulation adopted pursuant to section 971d(c) or (d) (!1) of this title, from any country, any fish in any form of those species subject to regulation pursuant to a recommendation of the Commission, or any fish in any form not under regulation but under investigation by the Commission, during the period such fish have been denied entry in accordance with the provisions of section 971d(c) or (d) (!1) of this title. In the case of any fish as described in this subsection offered for entry in the United States, the

Secretary shall require proof satisfactory to him that such fish is not ineligible for such entry under the terms of section 971d(c) or (d) (!1) of this title.

(e) Sanctions

The civil penalty and permit sanctions of section 1858 of this title are hereby made applicable to violations of this section as if they were violations of section 1857 of this title.

(f) Forfeiture

All fish taken or retained in violation of subsection (a) of this section, or the monetary value thereof, may be forfeited.

(g) Applicability of other laws

All provisions of law relating to the seizure, judicial forfeiture, and condemnation of a cargo for violation of the customs laws, the disposition of such cargo or the proceeds from the sale thereof, and the remission or mitigation of such forfeitures shall apply to seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this chapter, insofar as such provisions of law are applicable and not inconsistent with the provisions of this chapter.

-SOURCE-

(Pub. L. 94-70, Sec. 7, Aug. 5, 1975, 89 Stat. 390; Pub. L. 104-43, title III, Sec. 306, Nov. 3, 1995, 109 Stat. 385; Pub. L. 105-384, title II, Sec. 202(b)(1)(F), Nov. 13, 1998, 112 Stat. 3453.)

-REFTEXT-

REFERENCES IN TEXT

Section 971d(d) of this title, referred to in subsec. (d), was amended generally by Pub. L. 101-627, title II, Sec. 207, Nov. 28, 1990, 104 Stat. 4461. Prior to amendment, subsec. (d) related to Commission recommendations concerning bluefin tuna and issuance of regulations in that regard.

-MISC1-

AMENDMENTS

1998 - Subsec. (e). Pub. L. 105-384 made technical amendment to reference in original act which appears in text as reference to section 1858 of this title.

1995 - Subsec. (e). Pub. L. 104-43 amended subsec. (e) generally, substituting present provisions for provisions establishing civil penalties for violations of this section, providing for authority of Secretary to assess, remit, or mitigate any civil penalty, providing for notice and hearing prior to assessment, and providing for civil action upon failure to pay penalty.

-FOOTNOTE-

(!1) See References in Text note below.

-End-

-CITE-

16 USC Sec. 971f

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971f. Enforcement

-STATUTE-

(a) Particular powers

Any person authorized in accordance with the provisions of this chapter to enforce the provisions of this chapter and the regulations issued thereunder may -

(1) with or without a warrant, board any vessel subject to the jurisdiction of the United States and inspect such vessel and its catch and, if as a result of such inspection, he has reasonable cause to believe that such vessel or any person on board is engaging in operations in violation of this chapter or any regulations issued thereunder, he may, with or without a warrant or other process, arrest such person;

(2) arrest, with or without a warrant, any person who violates the provisions of this chapter or any regulation issued thereunder in his presence or view;

(3) execute any warrant or other process issued by an officer or court of competent jurisdiction; and

(4) seize, whenever and wherever lawfully found, all fish taken or retained by a vessel subject to the jurisdiction of the United States in violation of the provisions of this chapter or any regulations issued pursuant thereto. Any fish so seized may be disposed of pursuant to an order of a court of competent jurisdiction, or, if perishable, in a manner prescribed by regulation of the Secretary.

(b) International enforcement

To the extent authorized under the convention or by agreements between the United States and any contracting party concluded pursuant to section 971c(b) of this title for international enforcement, the duly authorized officials of such party shall have the authority to carry out the enforcement activities specified in subsection (a) of this section with respect to persons or vessels subject to the jurisdiction of the United States, and the officials of the United States authorized pursuant to this section shall have the authority to carry out the enforcement activities specified in subsection (a) of this section with respect to persons or vessels subject to the jurisdiction of such party, except that where any agreement provides for arrest or seizure of persons or vessels under United States jurisdiction it shall also provide that the person or vessel arrested or seized shall be promptly handed over to a United States enforcement officer or another authorized

United States official.

(c) Bonds or stipulations

Notwithstanding the provisions of section 2464 of title 28, when a warrant of arrest or other process in rem is issued in any cause under this section, the marshal or other officer shall stay the execution of such process, or discharge any fish seized if the process has been levied, on receiving from the claimant of the fish a bond or stipulation for the value of the property with sufficient surety to be approved by a judge of the district court having jurisdiction of the offense, conditioned to deliver the fish seized, if condemned, without impairment in value or, in the discretion of the court, to pay its equivalent value in money or otherwise to answer the decree of the court in such cause. Such bond or stipulation shall be returned to the court and judgment thereon against both the principal and sureties may be recovered in event of any breach of the conditions thereof as determined by the court. In the discretion of the accused, and subject to the direction of the court, the fish may be sold for not less than its reasonable market value at the time of seizure and the proceeds of such sale placed in the registry of the court pending judgment in the case.

-SOURCE-

(Pub. L. 94-70, Sec. 8, Aug. 5, 1975, 89 Stat. 391.)

-End-

-CITE-

16 USC Sec. 971g

-EXPCITE-

TITLE 16 - CONSERVATION

CHAPTER 16A - ATLANTIC TUNAS CONVENTION

-HEAD-

Sec. 971g. Cooperation in carrying out Convention

-STATUTE-

(a) Federal and State agencies; private institutions and organizations

The United States Commissioners, through the Secretary of State and with the concurrence of the agency, institution, or organization concerned, may arrange for the cooperation of agencies of the United States Government, and of State and private institutions and organizations in carrying out the provisions of article IV of the Convention.

(b) Scientific and other programs; facilities and personnel

All agencies of the Federal Government are authorized, upon the request of the Commission, to cooperate in the conduct of scientific and other programs, and to furnish facilities and personnel for the purpose of assisting the Commission in carrying out its duties under the Convention.

(c) Fishing operations and biological experiments

None of the prohibitions deriving from this chapter, or contained in the laws or regulations of any State, shall prevent the Commission from conducting or authorizing the conduct of fishing operations and biological experiments at any time for purposes of scientific investigation, or shall prevent the Commission from discharging any other duties prescribed by the Convention.

(d) State jurisdiction; preemption by Federal regulations

(1) Except as provided in paragraph (2) of this subsection, nothing in this chapter shall be construed so as to diminish or to increase the jurisdiction of any State in the territorial sea of the United States.

(2) In the event a State does not request a formal hearing and after notice by the Secretary, the regulations promulgated pursuant to this chapter to implement recommendations of the Commission shall apply within the boundaries of any State bordering on any Convention area if the Secretary determines that any such State -

(A) has not, within a reasonable period of time after the promulgation of regulations pursuant to this chapter, enacted laws or promulgated regulations which implement any such recommendation of the Commission within the boundaries of such State; or

(B) has enacted laws or promulgated regulations which (i) are less restrictive than the regulations promulgated pursuant to this chapter, or (ii) are not effectively enforced.

If a State requests the opportunity for an agency hearing on the record, the Secretary shall not apply regulations promulgated pursuant to this chapter within that State's boundaries unless the hearing record supports a determination under paragraph (A) or (B). Such regulations shall apply until the Secretary determines that the State is effectively enforcing within its boundaries measures which are not less restrictive than such regulations.

(e) Continuing review of State laws and regulations

To insure that the purposes of subsection (d) of this section are carried out, the Secretary shall undertake a continuing review of the laws and regulations of all States to which subsection (d) of this section applies or may apply and the extent to which such laws and regulations are enforced.

-SOURCE-

(Pub. L. 94-70, Sec. 9, Aug. 5, 1975, 89 Stat. 392.)

§ 1801. Findings, Purposes And Policy

(a) Findings

The Congress finds and declares the following:

- (1) The fish off the coasts of the United States, the highly migratory species of the high seas, the species which dwell on or in the Continental Shelf appertaining to the United States, and the anadromous species which spawn in United States rivers or estuaries, constitute valuable and renewable natural resources. These fishery resources contribute to the food supply, economy, and health of the Nation and provide recreational opportunities.
- (2) Certain stocks of fish have declined to the point where their survival is threatened, and other stocks of fish have been so substantially reduced in number that they could become similarly threatened as a consequence of
 - (A) increased fishing pressure,
 - (B) the inadequacy of fishery resource conservation and management practices and controls, or
 - (C) direct and indirect habitat losses which have resulted in a diminished capacity to support existing fishing levels.
- (3) Commercial and recreational fishing constitutes a major source of employment and contributes significantly to the economy of the Nation. Many coastal areas are dependent upon fishing and related activities, and their economies have been badly damaged by the overfishing of fishery resources at an ever-increasing rate over the past decade. The activities of massive foreign fishing fleets in waters adjacent to such coastal areas have contributed to such damage, interfered with domestic fishing efforts, and caused destruction of the fishing gear of United States fishermen.
- (4) International fishery agreements have not been effective in preventing or terminating the overfishing of these valuable fishery resources. There is danger that irreversible effects from overfishing will take place before an effective international agreement on fishery management jurisdiction can be negotiated, signed, ratified, and implemented.
- (5) Fishery resources are finite but renewable. If placed under sound management before overfishing has caused irreversible effects, the fisheries can be conserved and maintained so as to provide optimum yields on a continuing basis.
- (6) A national program for the conservation and management of the fishery resources of the United States is necessary to prevent overfishing, to rebuild overfished stocks, to insure conservation, to facilitate long-term protection of essential fish habitats, and to realize the full potential of the Nation's fishery resources.
- (7) A national program for the development of fisheries which are underutilized or not utilized by the United States fishing industry, including bottom fish off Alaska, is necessary to assure that our citizens benefit from the employment, food supply, and revenue which could be generated thereby.
- (8) The collection of reliable data is essential to the effective conservation, management, and scientific understanding of the fishery resources of the United States.
- (9) One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.
- (10) Pacific Insular Areas contain unique historical, cultural, legal, political, and geographical circumstances which make fisheries resources important in sustaining their economic growth.
- (11) A number of the Fishery Management Councils have demonstrated significant progress in integrating ecosystem considerations in fisheries management using the existing authorities provided under this chapter.
- (12) International cooperation is necessary to address illegal, unreported, and unregulated fishing and other fishing practices which may harm the sustainability of living marine resources and disadvantage the United States fishing industry.

(b) Purposes

It is therefore declared to be the purposes of the Congress in this chapter—

- (1) to take immediate action to conserve and manage the fishery resources found off the coasts of the United States, and the anadromous species and Continental Shelf fishery resources of the United States, by exercising
 - (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish, within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and
 - (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species and Continental Shelf fishery resources;
- (2) to support and encourage the implementation and enforcement of international fishery agreements for the conservation and management of highly migratory species, and to encourage the negotiation and implementation of additional such agreements as necessary;
- (3) to promote domestic commercial and recreational fishing under sound conservation and management principles, including the promotion of catch and release programs in recreational fishing;
- (4) to provide for the preparation and implementation, in accordance with national standards, of fishery management plans which will achieve and maintain, on a continuing basis, the optimum yield from each fishery;
- (5) to establish Regional Fishery Management Councils to exercise sound judgment in the stewardship of fishery resources through the preparation, monitoring, and revision of such plans under circumstances
 - (A) which will enable the States, the fishing industry, consumer and environmental organizations, and other interested persons to participate in, and advise on, the establishment and administration of such plans, and
 - (B) which take into account the social and economic needs of the States;
- (6) to encourage the development by the United States fishing industry of fisheries which are currently underutilized or not utilized by United States fishermen, including bottom fish off Alaska, and to that end, to ensure that optimum yield determinations promote such development in a non-wasteful manner; and
- (7) to promote the protection of essential fish habitat in the review of projects conducted under Federal permits, licenses, or other authorities that affect or have the potential to affect such habitat.

(c) Policy

It is further declared to be the policy of the Congress in this chapter—

- (1) to maintain without change the existing territorial or other ocean jurisdiction of the United States for all purposes other than the conservation and management of fishery resources, as provided for in this chapter;
- (2) to authorize no impediment to, or interference with, recognized legitimate uses of the high seas, except as necessary for the conservation and management of fishery resources, as provided for in this chapter;
- (3) to assure that the national fishery conservation and management program utilizes, and is based upon, the best scientific information available; involves, and is responsive to the needs of, interested and affected States and citizens; considers efficiency; draws upon Federal, State, and academic capabilities in carrying out research, administration, management, and enforcement; considers the effects of fishing on immature fish and encourages development of practical measures that minimize bycatch and avoid unnecessary waste of fish; and is workable and effective;
- (4) to permit foreign fishing consistent with the provisions of this chapter;
- (5) to support and encourage active United States efforts to obtain internationally acceptable agreements which provide for effective conservation and management of fishery resources, and to secure agreements to regulate fishing by vessels or persons beyond the exclusive economic zones of any nation;
- (6) to foster and maintain the diversity of fisheries in the United States; and
- (7) to ensure that the fishery resources adjacent to a Pacific Insular Area, including resident or migratory stocks within the exclusive economic zone adjacent to such areas, be explored, developed, conserved, and managed for the benefit of the people of such area and of the United States.

16 U.S.C. 1853a note, 1854
MSA §§ 303A note, 304

P.L. 109-479, sec. 106(e), MSA § 303A note

16 U.S.C. 1853a note

APPLICATION WITH AMERICAN FISHERIES ACT.—Nothing in section 303A of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.), as added by subsection (a) [P.L. 109-479], shall be construed to modify or supersede any provision of the American Fisheries Act (46 U.S.C. 12102 note; 16 U.S.C. 1851 note; et alia).

P.L. 104-297, sec. 108(i), MSA § 303 note

EXISTING QUOTA PLANS.—Nothing in this Act [P.L.104-297] or the amendments made by this Act shall be construed to require a reallocation of individual fishing quotas under any individual fishing quota program approved by the Secretary before January 4, 1995.

SEC. 304. ACTION BY THE SECRETARY

16 U.S.C. 1854

104-297

(a) REVIEW OF PLANS.—

(1) Upon transmittal by the Council to the Secretary of a fishery management plan or plan amendment, the Secretary shall—

(A) immediately commence a review of the plan or amendment to determine whether it is consistent with the national standards, the other provisions of this Act, and any other applicable law; and

(B) immediately publish in the Federal Register a notice stating that the plan or amendment is available and that written information, views, or comments of interested persons on the plan or amendment may be submitted to the Secretary during the 60-day period beginning on the date the notice is published.

(2) In undertaking the review required under paragraph (1), the Secretary shall—

(A) take into account the information, views, and comments received from interested persons;

(B) consult with the Secretary of State with respect to foreign fishing; and

(C) consult with the Secretary of the department in which the Coast Guard is operating with respect to enforcement at sea and to fishery access adjustments referred to in section 303(a)(6).

(3) The Secretary shall approve, disapprove, or partially approve a plan or amendment within 30 days of the end of the comment period under paragraph (1) by written notice to the Council. A notice of disapproval or partial approval shall specify—

(A) the applicable law with which the plan or amendment is inconsistent;

(B) the nature of such inconsistencies; and

(C) recommendations concerning the actions that could be taken by the Council to conform such plan or amendment to the requirements of applicable law.

If the Secretary does not notify a Council within 30 days of the end of the comment period of the approval, disapproval, or partial approval of a plan or amendment, then such plan or amendment shall take effect as if approved.

(4) If the Secretary disapproves or partially approves a plan or amendment, the Council may submit a revised plan or amendment to the Secretary for review under this subsection.

(5) For purposes of this subsection and subsection (b), the term “immediately” means on or before the 5th day after the day on which a Council transmits to the Secretary a fishery management plan, plan amendment, or proposed regulation that the Council characterizes as final.

104-297

(b) REVIEW OF REGULATIONS.—

(1) Upon transmittal by the Council to the Secretary of proposed regulations prepared under section 303(c), the Secretary shall immediately initiate an evaluation of the proposed regulations to determine whether they are consistent with the fishery management plan, plan amendment, this Act and other applicable law. Within 15 days of initiating such evaluation the Secretary shall make a determination and—

(A) if that determination is affirmative, the Secretary shall publish such regulations in the Federal Register, with such technical changes as may be necessary for clarity and an explanation of those changes, for a public comment period of 15 to 60 days; or

(B) if that determination is negative, the Secretary shall notify the Council in writing of the inconsistencies and provide recommendations on revisions that would make the proposed regulations consistent with the fishery management plan, plan amendment, this Act, and other applicable law.

(2) Upon receiving a notification under paragraph (1)(B), the Council may revise the proposed regulations and submit them to the Secretary for reevaluation under paragraph (1).

(3) The Secretary shall promulgate final regulations within 30 days after the end of the comment period under paragraph (1)(A). The Secretary shall consult with the Council before making any revisions to the proposed regulations, and must publish in the Federal Register an explanation of any differences between the proposed and final regulations.

97-453, 99-659, 104-297

(c) PREPARATION AND REVIEW OF SECRETARIAL PLANS.—

(1) The Secretary may prepare a fishery management plan, with respect to any fishery, or any amendment to any such plan, in accordance with the national standards, the other provisions of this Act, and any other applicable law, if—

(A) the appropriate Council fails to develop and submit to the Secretary, after a reasonable period of time, a fishery management plan for such fishery, or any necessary amendment to such a plan, if such fishery requires conservation and management;

(B) the Secretary disapproves or partially disapproves any such plan or amendment, or disapproves a revised plan or amendment, and the Council involved fails to submit a revised or further revised plan or amendment; or

(C) the Secretary is given authority to prepare such plan or amendment under this section.

16 U.S.C. 1854
MSA § 304

In preparing any such plan or amendment, the Secretary shall consult with the Secretary of State with respect to foreign fishing and with the Secretary of the department in which the Coast Guard is operating with respect to enforcement at sea. The Secretary shall also prepare such proposed regulations as he deems necessary or appropriate to carry out each plan or amendment prepared by him under this paragraph.

- (2) In preparing any plan or amendment under this subsection, the Secretary shall—
- (A) conduct public hearings, at appropriate times and locations in the geographical areas concerned, so as to allow interested persons an opportunity to be heard in the preparation and amendment of the plan and any regulations implementing the plan; and
 - (B) consult with the Secretary of State with respect to foreign fishing and with the Secretary of the department in which the Coast Guard is operating with respect to enforcement at sea.

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(3) Notwithstanding paragraph (1) for a fishery under the authority of a Council, the Secretary may not include in any fishery management plan, or any amendment to any such plan, prepared by him, a provision establishing a limited access system, including any limited access privilege program unless such system is first approved by a majority of the voting members, present and voting, of each appropriate Council.

- (4) Whenever the Secretary prepares a fishery management plan or plan amendment under this section, the Secretary shall immediately—
- (A) for a plan or amendment for a fishery under the authority of a Council, submit such plan or amendment to the appropriate Council for consideration and comment; and
 - (B) publish in the Federal Register a notice stating that the plan or amendment is available and that written information, views, or comments of interested persons on the plan or amendment may be submitted to the Secretary during the 60-day period beginning on the date the notice is published.

(5) Whenever a plan or amendment is submitted under paragraph (4)(A), the appropriate Council must submit its comments and recommendations, if any, regarding the plan or amendment to the Secretary before the close of the 60-day period referred to in paragraph (4)(B). After the close of such 60-day period, the Secretary, after taking into account any such comments and recommendations, as well as any views, information, or comments submitted under paragraph (4)(B), may adopt such plan or amendment.

(6) The Secretary may propose regulations in the Federal Register to implement any plan or amendment prepared by the Secretary. In the case of a plan or amendment to which paragraph (4)(A) applies, such regulations shall be submitted to the Council with such plan or amendment. The comment period on proposed regulations shall be 60 days, except that the Secretary may shorten the comment period on minor revisions to existing regulations.

(7) The Secretary shall promulgate final regulations within 30 days after the end of the comment period under paragraph (6). The Secretary must publish in the Federal Register an explanation of any substantive differences between the proposed and final rules. All final regulations must be consistent with the fishery management plan, with the national standards and other provisions of this Act, and with any other applicable law.

97-453, 104-297

(d) ESTABLISHMENT OF FEES.—

(1) The Secretary shall by regulation establish the level of any fees which are authorized to be charged pursuant to section 303(b)(1). The Secretary may enter into a cooperative agreement with the States concerned under which the States administer the permit system and the agreement may provide that all or part of the fees collected under the system shall accrue to the States. The level of fees charged under this subsection shall not exceed the administrative costs incurred in issuing the permits.

109-479

(2)(A) Notwithstanding paragraph (1), the Secretary is authorized and shall collect a fee to recover the actual costs directly related to the management, data collection, and enforcement of any—

- (i) limited access privilege program; and
- (ii) community development quota program that allocates a percentage of the total allowable catch of a fishery to such program.

(B) Such fee shall not exceed 3 percent of the ex-vessel value of fish harvested under any such program, and shall be collected at either the time of the landing, filing of a landing report, or sale of such fish during a fishing season or in the last quarter of the calendar year in which the fish is harvested.

(C)(i) Fees collected under this paragraph shall be in addition to any other fees charged under this Act and shall be deposited in the Limited Access System Administration Fund established under section 305(h)(5)(B).

(ii) Upon application by a State, the Secretary shall transfer to such State up to 33 percent of any fee collected pursuant to subparagraph (A) under a community development quota program and deposited in the Limited Access System Administration Fund in order to reimburse such State for actual costs directly incurred in the management and enforcement of such program.

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(e) REBUILDING OVERFISHED FISHERIES.—

(1) The Secretary shall report annually to the Congress and the Councils on the status of fisheries within each Council's geographical area of authority and identify those fisheries that are overfished or are approaching a condition of being overfished. For those fisheries managed under a fishery management plan or international agreement, the status shall be determined using the criteria for overfishing specified in such plan or agreement. A fishery shall be classified as approaching a condition of being overfished if, based on trends in fishing effort, fishery resource size, and other appropriate factors, the Secretary estimates that the fishery will become overfished within two years.

(2) If the Secretary determines at any time that a fishery is overfished, the Secretary shall immediately notify the appropriate Council and request that action be taken to end overfishing in the fishery and to implement conservation and management measures to rebuild affected stocks of fish. The Secretary shall publish each notice under this paragraph in the Federal Register.

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(3) Within 2 years after an identification under paragraph (1) or notification under paragraphs (2) or (7), the appropriate Council (or the Secretary, for fisheries under section 302(a)(3)) shall prepare and implement a fishery management plan, plan amendment, or proposed regulations for the fishery to which the identification or notice applies—

(A) to end overfishing immediately in the fishery and to rebuild affected stocks of fish; or

(B) to prevent overfishing from occurring in the fishery whenever such fishery is identified as approaching an overfished condition.

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(4) For a fishery that is overfished, any fishery management plan, amendment, or proposed regulations prepared pursuant to paragraph (3) or paragraph (5) for such fishery shall—

(A) specify a time period for rebuilding the fishery that shall—

(i) be as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock of fish within the marine ecosystem; and

(ii) not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under an international agreement in which the United States participates dictate otherwise;

(B) allocate both overfishing restrictions and recovery benefits fairly and equitably among sectors of the fishery; and

(C) for fisheries managed under an international agreement, reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.

(5) If, within the 2-year period beginning on the date of identification or notification that a fishery is overfished, the Council does not submit to the Secretary a fishery management plan, plan amendment, or proposed regulations required by paragraph (3)(A), the Secretary shall prepare a fishery management plan or plan amendment and any accompanying regulations to stop overfishing and rebuild affected stocks of fish within 9 months under subsection (c).

(6) During the development of a fishery management plan, a plan amendment, or proposed regulations required by this subsection, the Council may request the Secretary to implement interim measures to reduce overfishing under section 305(c) until such measures can be replaced by such plan, amendment, or regulations. Such measures, if otherwise in compliance with the provisions of this Act, may be implemented even though they are not sufficient by themselves to stop overfishing of a fishery.

(7) The Secretary shall review any fishery management plan, plan amendment, or regulations required by this subsection at routine intervals that may not exceed two years. If the Secretary finds as a result of the review that such plan, amendment, or regulations have not resulted in adequate progress toward ending overfishing and rebuilding affected fish stocks, the Secretary shall—

(A) in the case of a fishery to which section 302(a)(3) applies, immediately make revisions necessary to achieve adequate progress; or

(B) for all other fisheries, immediately notify the appropriate Council. Such notification shall recommend further conservation and management measures which the Council should consider under paragraph (3) to achieve adequate progress.

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(f) FISHERIES UNDER AUTHORITY OF MORE THAN ONE COUNCIL.—

(1) Except as provided in paragraph (3)¹⁸, if any fishery extends beyond the geographical area of authority of any one Council, the Secretary may—

(A) designate which Council shall prepare the fishery management plan for such fishery and any amendment to such plan; or

(B) may require that the plan and amendment be prepared jointly by the Councils concerned.

No jointly prepared plan or amendment may be submitted to the Secretary unless it is approved by a majority of the voting members, present and voting, of each Council concerned.

(2) The Secretary shall establish the boundaries between the geographical areas of authority of adjacent Councils.

¹⁸ Former paragraph (3) now appears at section 302(a)(3) and section 304(g).

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(g) ATLANTIC HIGHLY MIGRATORY SPECIES.—

(1) PREPARATION AND IMPLEMENTATION OF PLAN OR PLAN AMENDMENT.—The Secretary shall prepare a fishery management plan or plan amendment under subsection (c) with respect to any highly migratory species fishery to which section 302(a)(3) applies. In preparing and implementing any such plan or amendment, the Secretary shall—

(A) consult with and consider the comments and views of affected Councils, commissioners and advisory groups appointed under Acts implementing relevant international fishery agreements pertaining to highly migratory species, and the advisory panel established under section 302(g);

(B) establish an advisory panel under section 302(g) for each fishery management plan to be prepared under this paragraph;

(C) evaluate the likely effects, if any, of conservation and management measures on participants in the affected fisheries and minimize, to the extent practicable, any disadvantage to United States fishermen in relation to foreign competitors;

(D) with respect to a highly migratory species for which the United States is authorized to harvest an allocation, quota, or at a fishing mortality level under a relevant international fishery agreement, provide fishing vessels of the United States with a reasonable opportunity to harvest such allocation, quota, or at such fishing mortality level;

(E) review, on a continuing basis (and promptly whenever a recommendation pertaining to fishing for highly migratory species has been made under a relevant international fishery agreement), and revise as appropriate, the conservation and management measures included in the plan;

(F) diligently pursue, through international entities (such as the International Commission for the Conservation of Atlantic Tunas), comparable international fishery management measures with respect to fishing for highly migratory species; and

(G) ensure that conservation and management measures under this subsection--

(i) promote international conservation of the affected fishery;

(ii) take into consideration traditional fishing patterns of fishing vessels of the United States and the operating requirements of the fisheries;

(iii) are fair and equitable in allocating fishing privileges among United States fishermen and do not have economic allocation as the sole purpose; and

(iv) promote, to the extent practicable, implementation of scientific research programs that include the tagging and release of Atlantic highly migratory species.

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(2) CERTAIN FISH EXCLUDED FROM “BYCATCH” DEFINITION.—

Notwithstanding section 3(2), fish harvested in a commercial fishery managed by the Secretary under this subsection or the Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971d), or highly migratory species harvested in a commercial fishery managed by a Council under this Act or the Western and Central Pacific Fisheries Convention Implementation Act, that are not regulatory discards and that are tagged and released alive under a scientific tagging and release program established by the Secretary shall not be considered bycatch for purposes of this Act.

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(h) REPEAL OR REVOCATION OF A FISHERY MANAGEMENT PLAN.—The Secretary may repeal or revoke a fishery management plan for a fishery under the authority of a Council only if the Council approves the repeal or revocation by a three-quarters majority of the voting members of the Council.

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(i)[sic]¹⁹ ENVIRONMENTAL REVIEW PROCESS.—

(1) PROCEDURES.—The Secretary shall, in consultation with the Councils and the Council on Environmental Quality, revise and update agency procedures for compliance with the National Environmental Policy Act (42 U.S.C. 4231 et seq.). The procedures shall—

(A) conform to the time lines for review and approval of fishery management plans and plan amendments under this section; and

(B) integrate applicable environmental analytical procedures, including the time frames for public input, with the procedure for the preparation and dissemination of fishery management plans, plan amendments, and other actions taken or approved pursuant to this Act in order to provide for timely, clear and concise analysis that is useful to decision makers and the public, reduce extraneous paperwork, and effectively involve the public.

(2) USAGE.—The updated agency procedures promulgated in accordance with this section used by the Councils or the Secretary shall be the sole environmental impact assessment procedure for fishery management plans, amendments, regulations, or other actions taken or approved pursuant to this Act.

(3) SCHEDULE FOR PROMULGATION OF FINAL PROCEDURES.—The Secretary shall—

(A) propose revised procedures within 6 months after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006;

(B) provide 90 days for public review and comments; and

(C) promulgate final procedures no later than 12 months after the date of enactment of that Act.

(4) PUBLIC PARTICIPATION.—The Secretary is authorized and directed, in cooperation with the Council on Environmental Quality and the Councils, to involve the affected public in the development of revised procedures, including workshops or other appropriate means of public involvement.

¹⁹ So in original. P.L. 109-479 added two subsections as 304(i).

16 U.S.C. 1854, 1854 note
MSA §§ 304, 304 note

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(i) [sic]²⁰ **INTERNATIONAL OVERFISHING.**—The provisions of this subsection shall apply in lieu of subsection (e) to a fishery that the Secretary determines is overfished or approaching a condition of being overfished due to excessive international fishing pressure, and for which there are no management measures to end overfishing under an international agreement to which the United States is a party. For such fisheries—

(1) the Secretary, in cooperation with the Secretary of State, [sic]^{20a} immediately take appropriate action at the international level to end the overfishing; and

(2) within 1 year after the Secretary's determination, the appropriate Council, or Secretary, for fisheries under section 302(a)(3) shall—

(A) develop recommendations for domestic regulations to address the relative impact of fishing vessels of the United States on the stock and, if developed by a Council, the Council shall submit such recommendations to the Secretary; and

(B) develop and submit recommendations to the Secretary of State, and to the Congress, for international actions that will end overfishing in the fishery and rebuild the affected stocks, taking into account the relative impact of vessels of other nations and vessels of the United States on the relevant stock.

P.L. 109-479, sec. 104(d), MSA § 304 note

16 U.S.C. 1854 note

EFFECTIVE DATE FOR SUBSECTION (c).—The amendments made by subsection (c)²¹ shall take effect 30 months after the date of enactment of this Act.

P.L. 101-627, sec. 108(k), MSA § 304 note

16 U.S.C. 1854 note

INTERIM MANAGEMENT OF HIGHLY MIGRATORY SPECIES FISHERIES.—

Notwithstanding the amendments made by subsections (a) and (g) [of section 108 of Pub. L. 101-627], any fishery management plan or amendment which—

(1) addresses a highly migratory species fishery to which section 304(f)(3) of the Magnuson Fishery Conservation and Management Act (as amended by this Act [101-627]) applies,

(2) was prepared by one or more Regional Fishery Management Councils, and

(3) was in force and effect on January 1, 1990,

shall remain in force and effect until superseded by a fishery management plan prepared by the Secretary, and regulations implementing that plan.

²⁰ So in original. P.L. 109-479 added two subsections as 304(i).

^{20a} So in original.

²¹ Section 104(c) of P.L. 109-479 amended section 304(e)(3)-(5).

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SEC. 402. INFORMATION COLLECTION

16 U.S.C. 1881a

109-479

(a) COLLECTION PROGRAMS.—

(1) COUNCIL REQUESTS.—If a Council determines that additional information would be beneficial for developing, implementing, or revising a fishery management plan or for determining whether a fishery is in need of management, the Council may request that the Secretary implement an information collection program for the fishery which would provide the types of information specified by the Council. The Secretary shall undertake such an information collection program if he determines that the need is justified, and shall promulgate regulations to implement the program within 60 days after such determination is made. If the Secretary determines that the need for an information collection program is not justified, the Secretary shall inform the Council of the reasons for such determination in writing. The determinations of the Secretary under this paragraph regarding a Council request shall be made within a reasonable period of time after receipt of that request.

(2) SECRETARIAL INITIATION.—If the Secretary determines that additional information is necessary for developing, implementing, revising, or monitoring a fishery management plan, or for determining whether a fishery is in need of management, the Secretary may, by regulation, implement an information collection or observer program requiring submission of such additional information for the fishery.

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(b) CONFIDENTIALITY OF INFORMATION.—

(1) Any information submitted to the Secretary, a State fishery management agency, or a marine fisheries commission by any person in compliance with the requirements of this Act shall be confidential and shall not be disclosed except—

(A) to Federal employees and Council employees who are responsible for fishery management plan development, monitoring, or enforcement;

(B) to State or Marine Fisheries Commission employees as necessary to further the Department's mission, subject to a confidentiality agreement that prohibits public disclosure of the identity of business of any person;

(C) to State employees who are responsible for fishery management plan enforcement, if the States employing those employees have entered into a fishery enforcement agreement with the Secretary and the agreement is in effect;

(D) when required by court order;

(E) when such information is used by State, Council, or Marine Fisheries Commission employees to verify catch under a limited access program, but only to the extent that such use is consistent with subparagraph (B);

(F) when the Secretary has obtained written authorization from the person submitting such information to release such information to persons for reasons not otherwise provided for in this subsection, and such release does not violate other requirements of this Act;

(G) when such information is required to be submitted to the Secretary for any determination under a limited access program; or

(H) in support of homeland and national security activities, including the Coast Guard's homeland security missions as defined in section 888(a)(2) of the Homeland Security Act of 2002 (6 U.S.C. 468(a)(2)).

(2) Any observer information shall be confidential and shall not be disclosed, except in accordance with the requirements of subparagraphs (A) through (H) of paragraph (1), or—

(A) as authorized by a fishery management plan or regulations under the authority of the North Pacific Council to allow disclosure to the public of weekly summary bycatch information identified by vessel or for haul-specific bycatch information without vessel identification;

(B) when such information is necessary in proceedings to adjudicate observer certifications; or

(C) as authorized by any regulations issued under paragraph (3) allowing the collection of observer information, pursuant to a confidentiality agreement between the observers, observer employers, and the Secretary prohibiting disclosure of the information by the observers or observer employers, in order—

(i) to allow the sharing of observer information among observers and between observers and observer employers as necessary to train and prepare observers for deployments on specific vessels; or

(ii) to validate the accuracy of the observer information collected.

(3) The Secretary shall, by regulation, prescribe such procedures as may be necessary to preserve the confidentiality of information submitted in compliance with any requirement or regulation under this Act, except that the Secretary may release or make public any such information in any aggregate or summary form which does not directly or indirectly disclose the identity or business of any person who submits such information. Nothing in this subsection shall be interpreted or construed to prevent the use for conservation and management purposes by the Secretary, or with the approval of the Secretary, the Council, of any information submitted in compliance with any requirement or regulation under this Act or the use, release, or publication of bycatch information pursuant to paragraph (2)(A).

(c) RESTRICTION ON USE OF CERTAIN INFORMATION.—

(1) The Secretary shall promulgate regulations to restrict the use, in civil enforcement or criminal proceedings under this Act, the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.), and the Endangered Species Act (16 U.S.C. 1531 et seq.), of information collected by voluntary fishery data collectors, including sea samplers, while aboard any vessel for conservation and management purposes if the presence of such a fishery data collector aboard is not required by any of such Acts or regulations thereunder.

(2) The Secretary may not require the submission of a Federal or State income tax return or statement as a prerequisite for issuance of a permit until such time as the Secretary has promulgated regulations to ensure the confidentiality of information contained in such return or statement, to limit the information submitted to that necessary to achieve a demonstrated conservation and management purpose, and to provide appropriate penalties for violation of such regulations.

Authority: 5 U.S.C. 561 and 16 U.S.C. 1801 *et seq.*

Source: 61 FR 32540, June 24, 1996, unless otherwise noted.

Subpart A—General

§ 600.5 Purpose and scope.

(a) This part contains general provisions governing the operation of the eight Regional Fishery Management Councils established by the Magnuson-Stevens Act and describes the Secretary's role and responsibilities under the Act. The Councils are institutions created by Federal law and must conform to the uniform standards established by the Secretary in this part.

(b) This part also governs all foreign fishing under the Magnuson-Stevens Act, prescribes procedures for the conduct of preemption hearings under section 306(b) of the Magnuson-Stevens Act, and collects the general provisions common to all domestic fisheries governed by this chapter.

(c) This part also governs fishing capacity reduction programs under the Magnuson-Stevens Act.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 65 FR 31443, May 18, 2000]

§ 600.10 Definitions.

Unless defined otherwise in other parts of Chapter VI, the terms in this chapter have the following meanings:

Administrator means the Administrator of NOAA (Under Secretary of Commerce for Oceans and Atmosphere) or a designee.

Advisory group means a Scientific and Statistical Committee (SSC), Fishing Industry Advisory Committee (FIAC), or Advisory Panel (AP) established by a Council under the Magnuson-Stevens Act.

Agent, for the purpose of foreign fishing (subpart F), means a person appointed and maintained within the United States who is authorized to receive and respond to any legal process issued in the United States to an owner and/or operator of a vessel operating under a permit and of any other vessel of that Nation fishing subject to the jurisdiction of the United States. Any diplomatic official accepting such an appointment as designated agent waives diplomatic or other immunity in connection with such process.

Aggregate or summary form means confidential data structured in such a way that the identity of the submitter cannot be determined either from the present release of the data or in combination with other releases.

Albacore means the species *Thunnus alalunga*, or a part thereof.

Allocated species means any species or species group allocated to a foreign nation under §600.517 for catching by vessels of that Nation.

Allocation means direct and deliberate distribution of the opportunity to participate in a fishery among identifiable, discrete user groups or individuals.

Allowable chemical means a substance, generally used to immobilize marine life so it can be captured alive, that, when introduced into the water, does not take Gulf and South Atlantic prohibited coral (as defined at 50 CFR 622.2) and is allowed by Florida or Hawaii or the U.S. Pacific Insular Area for the harvest of tropical fish.

Anadromous species means species of fish that spawn in fresh or estuarine waters of the United States and that migrate to ocean waters.

Angling means fishing for, attempting to fish for, catching or attempting to catch fish by any person (angler) with a hook attached to a line that is hand-held or by rod and reel made for this purpose.

Area of custody means any vessel, building, vehicle, live car, pound, pier or dock facility where fish might be found.

Assistant Administrator means the Assistant Administrator for Fisheries, NOAA, or a designee.

Atlantic tunas means bluefin, albacore, bigeye, skipjack, and yellowfin tunas found in the Atlantic Ocean.

Atlantic Tunas Convention Act means the Atlantic Tunas Convention Act of 1975, 16 U.S.C. 971–971h.

Authorized officer means:

- (1) Any commissioned, warrant, or petty officer of the USCG;
- (2) Any special agent or fishery enforcement officer of NMFS;
- (3) Any officer designated by the head of any Federal or state agency that has entered into an agreement with the Secretary and the Commandant of the USCG to enforce the provisions of the Magnuson-Stevens Act or any other statute administered by NOAA; or
- (4) Any USCG personnel accompanying and acting under the direction of any person described in paragraph (1) of this definition.

Authorized species means any species or species group that a foreign vessel is authorized to retain in a joint venture by a permit issued under Activity Code 4 as described by §600.501(c).

Automatic reel means a reel that remains attached to a vessel when in use from which a line and attached hook(s) are deployed. The line is payed out from and retrieved on the reel electrically or hydraulically.

Bandit gear means vertical hook and line gear with rods that are attached to the vessel when in use. Lines are retrieved by manual, electric, or hydraulic reels.

Barrier net means a small-mesh net used to capture coral reef or coastal pelagic fishes.

Bigeye tuna means the species *Thunnus obesus*, or a part thereof.

Billfish means blue marlin, longbill spearfish, sailfish, or white marlin.

Bluefin tuna means the species *Thunnus thynnus*, or a part thereof.

Blue marlin means the species *Makaira nigricans*, or a part thereof.

Bully net means a circular frame attached at right angles to a pole and supporting a conical bag of webbing.

Buoy gear means fishing gear consisting of a float and one or more lines suspended therefrom. A hook or hooks are on the lines at or near the end. The float and line(s) drift freely and are retrieved periodically to remove catch and rebait hooks.

Carcass means a fish in whole condition or that portion of a fish that has been gilled and/or gutted and the head and some or all fins have been removed, but that is otherwise in whole condition.

Cast net means a circular net with weights attached to the perimeter.

Catch limit means the total allowable harvest or take from a single fishing trip or day, as defined in this section.

Catch, take, or harvest includes, but is not limited to, any activity that results in killing any fish or bringing any live fish on board a vessel.

Center means one of the five NMFS Fisheries Science Centers.

Charter boat means a vessel less than 100 gross tons (90.8 mt) that meets the requirements of the U.S. Coast Guard to carry six or fewer passengers for hire.

Coast Guard Commander means one of the commanding officers of the Coast Guard units specified in Table 1 of §600.502, or a designee.

Codend means the terminal, closed end of a trawl net.

Confidential statistics are those submitted as a requirement of an FMP and that reveal the business or identity of the submitter.

Continental shelf fishery resources means the species listed under section 3(7) of the Magnuson-Stevens Act.

Council means one of the eight Regional Fishery Management Councils established by the Magnuson-Stevens Act.

Data, statistics, and information are used interchangeably.

Dealer means the person who first receives fish by way of purchase, barter, or trade.

Designated representative means the person appointed by a foreign nation and maintained within the United States who is responsible for transmitting information to and submitting reports from vessels of that Nation and establishing observer transfer arrangements for vessels in both directed and joint venture activities.

Dip net means a small mesh bag, sometimes attached to a handle, shaped and framed in various ways. It is operated by hand or partially by mechanical power to capture the fish.

Directed fishing, for the purpose of foreign fishing (subpart F), means any fishing by the vessels of a foreign nation for allocations of fish granted that Nation under §600.517.

Director means the Director of the Office of Sustainable Fisheries, 1315 East-West Highway, Silver Spring, MD 20910.

Discard means to release or return fish to the sea, whether or not such fish are brought fully on board a fishing vessel.

Dredge means a gear consisting of a mouth frame attached to a holding bag constructed of metal rings or mesh.

Drop net means a small, usually circular net with weight around the perimeter and a float in the center.

Essential fish habitat (EFH) means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. For the purpose of interpreting the definition of essential fish habitat: "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle.

Exclusive economic zone (EEZ) means the zone established by Presidential Proclamation 5030, 3 CFR part 22, dated March 10, 1983, and is that area adjacent to the United States which, except where modified to accommodate international boundaries, encompasses all waters from the seaward boundary of each of the coastal states to a line on which each point is 200 nautical miles (370.40 km) from the baseline from which the territorial sea of the United States is measured.

Exempted educational activity means an activity, conducted by an educational institution accredited by a recognized national or international accreditation body, of limited scope and duration, that is otherwise prohibited by part 635 or chapter VI of this title, but that is authorized by the appropriate Director or Regional Administrator for educational purposes.

Exempted or experimental fishing means fishing from a vessel of the United States that involves activities otherwise prohibited by part 635 or chapter VI of this title, but that are authorized under an exempted fishing permit (EFP). These regulations refer exclusively to exempted fishing. References in part 635 of this title and elsewhere in this chapter to experimental fishing mean exempted fishing under this part.

Fillet means to remove slices of fish flesh from the carcass by cuts made parallel to the backbone.

Fish means:

- (1) When used as a noun, means any finfish, mollusk, crustacean, or parts thereof, and all other forms of marine animal and plant life other than marine mammals and birds.
- (2) When used as a verb, means to engage in "fishing," as defined below.

Fishery means:

- (1) One or more stocks of fish that can be treated as a unit for purposes of conservation and management and that are identified on the basis of geographic, scientific, technical, recreational, or economic characteristics, or method of catch; or
- (2) Any fishing for such stocks.

Fishery management unit (FMU) means a fishery or that portion of a fishery identified in an FMP relevant to the FMP's management objectives. The choice of an FMU depends on the focus of the FMP's objectives, and may be organized around biological, geographic, economic, technical, social, or ecological perspectives.

Fishery resource means any fish, any stock of fish, any species of fish, and any habitat of fish.

Fishing, or to fish means any activity, other than scientific research conducted by a scientific research vessel, that involves:

- (1) The catching, taking, or harvesting of fish;
- (2) The attempted catching, taking, or harvesting of fish;
- (3) Any other activity that can reasonably be expected to result in the catching, taking, or harvesting of fish; or
- (4) Any operations at sea in support of, or in preparation for, any activity described in paragraphs (1), (2), or (3) of this definition.

Fishing vessel means any vessel, boat, ship, or other craft that is used for, equipped to be used for, or of a type that is normally used for:

- (1) Fishing; or
- (2) Aiding or assisting one or more vessels at sea in the performance of any activity relating to fishing, including, but not limited to, preparation, supply, storage, refrigeration, transportation, or processing.

Fish weir means a large catching arrangement with a collecting chamber that is made of non-textile material (wood, wicker) instead of netting as in a pound net.

Foreign fishing means fishing by a foreign fishing vessel.

Foreign fishing vessel (FFV) means any fishing vessel other than a vessel of the United States, except those foreign vessels engaged in recreational fishing, as defined in this section.

Gear conflict means any incident at sea involving one or more fishing vessels:

- (1) In which one fishing vessel or its gear comes into contact with another vessel or the gear of another vessel; and
- (2) That results in the loss of, or damage to, a fishing vessel, fishing gear, or catch.

Gillnet means a panel of netting, suspended vertically in the water by floats along the top and weights along the bottom, to entangle fish that attempt to pass through it.

Governing International Fishery Agreement (GIFA) means an agreement between the United States and a foreign nation or Nations under section 201(c) of the Magnuson-Stevens Act.

Grants Officer means the NOAA official authorized to sign, on behalf of the Government, the cooperative agreement providing funds to support the Council's operations and functions.

Greenwich mean time (GMT) means the local mean time at Greenwich, England. All times in this part are GMT unless otherwise specified.

Handgear means handline, harpoon, or rod and reel.

Hand harvest means harvesting by hand.

Handline means fishing gear that is set and pulled by hand and consists of one vertical line to which may be attached leader lines with hooks.

Harass means to unreasonably interfere with an individual's work performance, or to engage in conduct that creates an intimidating, hostile, or offensive environment.

Harpoon or harpoon gear means fishing gear consisting of a pointed dart or iron attached to the end of a line several hundred feet in length, the other end of which is attached to a floatation device. Harpoon gear is attached to a pole or stick that is propelled only by hand, and not by mechanical means.

Headboat means a vessel that holds a valid Certificate of Inspection issued by the U.S. Coast Guard to carry passengers for hire.

Hook and line means one or more hooks attached to one or more lines (can include a troll).

Hoop net means a cone-shaped or flat net which may or may not have throats and flues stretched over a series of rings or hoops for support.

Industry means both recreational and commercial fishing, and includes the harvesting, processing, and marketing sectors.

International radio call sign (IRCS) means the unique radio identifier assigned a vessel by the appropriate authority of the flag state.

Joint venture means any operation by a foreign vessel assisting fishing by U.S. fishing vessels, including catching, scouting, processing and/or support. (A joint venture generally entails a foreign vessel processing fish received from U.S. fishing vessels and conducting associated support activities.)

Lampara net means a surround net with the sections of netting made and joined to create bagging. It is hauled with purse rings and is generally much smaller in size than a purse seine net.

Land means to begin offloading fish, to offload fish, or to arrive in port or at a dock, berth, beach, seawall, or ramp.

Longbill spearfish means the species *Tetrapturus pfluegeri*, or a part thereof.

Longline means a line that is deployed horizontally and to which gangions and hooks or pots are attached. Longlines can be stationary, anchored, or buoyed lines that may be hauled manually, electrically, or hydraulically.

Magnuson-Stevens Act means the Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 U.S.C. 1801 *et seq.*), formerly known as the Magnuson Act.

Metric ton (mt) means 1,000 kg (2,204.6 lb).

nm means nautical mile (6,076 ft (1,852 m)).

Official number means the documentation number issued by the USCG or the certificate number issued by a state or by the USCG for an undocumented vessel.

Operator, with respect to any vessel, means the master or other individual aboard and in charge of that vessel.

Optimum yield (OY) means the amount of fish that:

(1) Will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;

(2) Is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factor; and

(3) In the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.

Owner, with respect to any vessel, means:

(1) Any person who owns that vessel in whole or in part;

(2) Any charterer of the vessel, whether bareboat, time, or voyage;

(3) Any person who acts in the capacity of a charterer, including, but not limited to, parties to a management agreement, operating agreement, or any similar agreement that bestows control over the destination, function, or operation of the vessel; or

(4) Any agent designated as such by a person described in paragraph (1), (2), or (3) of this definition.

Pelagic longline means a longline that is suspended by floats in the water column and that is not fixed to or in contact with the ocean bottom.

Plan Team means a Council working group selected from agencies, institutions, and organizations having a role in the research and/or management of fisheries, whose primary purpose is to assist the Council in the preparation and/or review of FMPs, amendments, and supporting documents for the Council, and/or SSC and AP.

Postmark means independently verifiable evidence of the date of mailing, such as a U.S. Postal Service postmark, or other private carrier postmark, certified mail receipt, overnight mail receipt, or a receipt issued upon hand delivery to a representative of NMFS authorized to collect fishery statistics.

Pot means trap.

Powerhead means any device with an explosive charge, usually attached to a spear gun, spear, pole, or stick, that may or may not fire a projectile upon contact.

Predominately means, with respect to fishing in a fishery, that more fishing on a stock or stocks of fish covered by the FMP occurs, or would occur in the absence of regulations, within or beyond the EEZ than occurs in the aggregate within the boundaries of all states off the coasts of which the fishery is conducted.

Processing, for the purpose of foreign fishing (subpart F), means any operation by an FFV to receive fish from foreign or U.S. fishing vessels and/or the preparation of fish, including, but not limited to, cleaning, cooking, canning, smoking, salting, drying, or freezing, either on the FFV's behalf or to assist other foreign or U.S. fishing vessels.

Product recovery rate (PRR) means a ratio expressed as a percentage of the weight of processed product divided by the round weight of fish used to produce that amount of product.

Prohibited species, with respect to a foreign vessel, means any species of fish that that vessel is not specifically allocated or authorized to retain, including fish caught or received in excess of any allocation or authorization.

Purchase means the act or activity of buying, trading, or bartering, or attempting to buy, trade, or barter.

Purse seine means a floated and weighted encircling net that is closed by means of a drawstring threaded through rings attached to the bottom of the net.

Recreational fishing, with respect to a foreign vessel, means any fishing from a foreign vessel not operated for profit and not operated for the purpose of scientific research. It may not involve the sale, barter, or trade of part or all of the catch (see §600.513).

Retain on board means to fail to return fish to the sea after a reasonable opportunity to sort the catch.

Region mean one of five NMFS Regional Offices responsible for administering the management and development of marine resources in the United States in their respective geographical regions.

Regional Administrator means the Administrator of one of the five NMFS Regions described in Table 1 of §600.502, or a designee. Formerly known as Regional Director.

Regional Program Officer means the NMFS official designated in the terms and conditions of the grant award responsible for monitoring, recommending, and reviewing any technical aspects of the application for Federal assistance and the award.

Rod and reel means a hand-held (including rod holder) fishing rod with a manually or electrically operated reel attached.

Round means a whole fish—one that has not been gilled, gutted, beheaded, or defined.

Round weight means the weight of the whole fish before processing or removal of any part.

Sailfish means the species *Istiophorus platypterus*, or a part thereof.

Sale or sell means the act or activity of transferring property for money or credit, trading, or bartering, or attempting to so transfer, trade, or barter.

Science and Research Director means the Director of one of the five NMFS Fisheries Science Centers described in Table 1 of §600.502 of this part, or a designee, also known as Center Director.

Scientific cruise means the period of time during which a scientific research vessel is operated in furtherance of a scientific research project, beginning when the vessel leaves port to undertake the project and ending when the vessel completes the project as provided for in the applicable scientific research plan.

Scientific research activity is, for the purposes of this part, an activity in furtherance of a scientific fishery investigation or study that would meet the definition of fishing under the Magnuson-Stevens Act, but for the exemption applicable to scientific research activity conducted from a scientific research vessel. Scientific research activity includes, but is not limited to, sampling, collecting, observing, or surveying the fish or fishery resources within the EEZ, at sea, on board scientific research vessels, to increase scientific knowledge of the fishery resources or their environment, or to test a hypothesis as part of a planned, directed investigation or study conducted according to methodologies generally accepted as appropriate for scientific research. At-sea scientific fishery investigations address one or more issues involving taxonomy, biology, physiology, behavior, disease, aging, growth, mortality, migration, recruitment, distribution, abundance, ecology, stock structure, bycatch, and catch estimation of finfish and shellfish (invertebrate) species considered to be a component of the fishery resources within the EEZ. Scientific research activity does not include the collection and retention of fish outside the scope of the applicable research plan, or the testing of fishing gear. Data collection designed to capture and land quantities of fish or invertebrates for product development, market research, and/or public display are not scientific research activities and must be permitted under exempted fishing procedures. For foreign vessels, such data collection activities are considered scientific research if they are carried out in full cooperation with the United States.

Scientific research plan means a detailed, written formulation, prepared in advance of the research, for the accomplishment of a scientific research project. At a minimum, a sound scientific research plan should include:

- (1) A description of the nature and objectives of the project, including the hypothesis or hypotheses to be tested.
- (2) The experimental design of the project, including a description of the methods to be used, the type and class of any vessel(s) to be used, and a description of sampling equipment.
- (3) The geographical area(s) in which the project is to be conducted.
- (4) The expected date of first appearance and final departure of the research vessel(s) to be employed, and deployment and removal of equipment, as appropriate.
- (5) The expected quantity and species of fish to be taken and their intended disposition, and, if significant amounts of a managed species or species otherwise restricted by size or sex are needed, an explanation of such need.
- (6) The name, address, and telephone/telex/fax number of the sponsoring organization and its director.
- (7) The name, address, and telephone/telex/fax number, and curriculum vitae of the person in charge of the project and, where different, the person in charge of the research project on board the vessel.
- (8) The identity of any vessel(s) to be used including, but not limited to, the vessel's name, official documentation number and IRCS, home port, and name, address, and telephone number of the owner and master.

Scientific research vessel means a vessel owned or chartered by, and controlled by, a foreign government agency, U.S. Government agency (including NOAA or institutions designated as federally funded research and development centers), U.S. state or territorial agency, university (or other educational institution accredited by a recognized national or international accreditation body), international treaty organization, or scientific institution. In order for a vessel that is owned or chartered and controlled by a foreign government to meet this definition, the vessel must have scientific research as its exclusive mission during the scientific cruise in question and the vessel operations must be conducted in accordance with a scientific research plan.

Scouting means any operation by a vessel exploring (on the behalf of an FFV or U.S. fishing vessel) for the presence of fish by visual, acoustic, or other means that do not involve the catching of fish.

Secretary means the Secretary of Commerce or a designee.

Seine means a net with long narrow wings, that is rigged with floats and weights.

Skipjack tuna means the species *Katsuwonus pelamis*, or a part thereof.

Slurp gun means a tube-shaped suction device that operates somewhat like a syringe by sucking up the fish.

Snare means a device consisting of a pole to which is attached a line forming at its end a loop with a running knot that tightens around the fish when the line is pulled.

Spear means a sharp, pointed, or barbed instrument on a shaft. Spears can be operated manually or shot from a gun or sling.

State means each of the several states, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the Virgin Islands, Guam, the Northern Mariana Islands, and any other Commonwealth, territory, or possession of the United States.

State employee means any employee of the state agency responsible for developing and monitoring the state's program for marine and/or anadromous fisheries.

Statement of Organization, Practices, and Procedures (SOPP) means a statement by each Council describing its organization, practices, and procedures as required under section 302(f)(6) of the Magnuson-Stevens Act.

Stock assessment means the process of collecting and analyzing biological and statistical information to determine the changes in the abundance of fishery stocks in response to fishing, and, to the extent possible, to predict future trends of stock abundance. Stock assessments are based on resource surveys; knowledge of the habitat requirements, life history, and behavior of the species; the use of environmental indices to determine impacts on stocks; and catch statistics. Stock assessments are used as a basis to "assess and specify the present and probable future condition of a fishery" (as is required by the Magnuson-Stevens Act), and are summarized in the Stock Assessment and Fishery Evaluation or similar document.

Stock Assessment and Fishery Evaluation (SAFE) means a document or set of documents that provides Councils with a summary of the most recent biological condition of species in an FMU, and the social and economic condition of the recreational and commercial fishing industries and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks and fisheries being managed under Federal regulation.

Submersible means a manned or unmanned device that functions or operates primarily underwater and is used to harvest fish, i.e., precious corals, with mechanical arms.

Substantially (affects) means, for the purpose of subpart G, with respect to whether a state's action or omission will substantially affect the carrying out of an FMP for a fishery, that those effects are important or material, or considerable in degree. The effects of a state's action or omission for purposes of this definition include effects upon:

- (1) The achievement of the FMP's goals or objectives for the fishery;
- (2) The achievement of OY from the fishery on a continuing basis;
- (3) The attainment of the national standards for fishery conservation and management (as set forth in section 301(a) of the Magnuson-Stevens Act) and compliance with other applicable law; or
- (4) The enforcement of regulations implementing the FMP.

Support means any operation by a vessel assisting fishing by foreign or U.S. vessels, including supplying water, fuel, provisions, fish processing equipment, or other supplies to a fishing vessel.

Swordfish means the species *Xiphias gladius*, or a part thereof.

Tangle net dredge means dredge gear consisting of weights and flimsy netting that hangs loosely in order to immediately entangle fish.

Total length (TL) means the straight-line distance from the tip of the snout to the tip of the tail (caudal fin) while the fish is lying on its side, normally extended.

Trammel net means a net consisting of two or more panels of netting, suspended vertically in the water column by a common float line and a common weight line. One panel of netting has a larger mesh size than the other(s) in order to entrap fish in a pocket.

Transship means offloading and onloading or otherwise transferring fish or fish products and/or transporting fish or products made from fish.

Trap means a portable, enclosed device with one or more gates or entrances and one or more lines attached to surface floats. Also called a pot.

Trawl means a cone or funnel-shaped net that is towed through the water, and can include a pair trawl that is towed simultaneously by two boats.

Trip means the time period that begins when a fishing vessel departs from a dock, berth, beach, seawall, ramp, or port to carry out fishing operations and that terminates with a return to a dock, berth, beach, seawall, ramp, or port.

U.S. observer or observer means any person serving in the capacity of an observer employed by NMFS, either directly or under contract, or certified as a supplementary observer by NMFS.

Vessel of the United States or U.S. vessel means:

- (1) Any vessel documented under chapter 121 of title 46, United States Code;
- (2) Any vessel numbered under chapter 123 of title 46, United States Code, and measuring less than 5 net tons;
- (3) Any vessel numbered under chapter 123 of title 46, United States Code, and used exclusively for pleasure; or
- (4) Any vessel not equipped with propulsion machinery of any kind and used exclusively for pleasure.

White marlin means the species *Tetrapturus albidus*, or a part thereof.

Yellowfin tuna means the species *Thunnus albacares*, or a part thereof.

§ 600.15 Other acronyms.

- (a) *Fishery management terms.* (1) ABC—acceptable biological catch
- (2) ATCA—Atlantic Tunas Convention Act
- (3) BFT (Atlantic bluefin tuna) means the subspecies of bluefin tuna, *Thunnus thynnus thynnus*, or a part thereof, that occurs in the Atlantic Ocean.
- (4) BSD means the ICCAT bluefin tuna statistical document.
- (5) DAH—estimated domestic annual harvest
- (6) DAP—estimated domestic annual processing
- (7) EIS—environmental impact statement
- (8) EY—equilibrium yield
- (9) FMP—fishery management plan
- (10) ICCAT means the International Commission for the Conservation of Atlantic Tunas.
- (11) JVP—joint venture processing
- (12) MSY—maximum sustainable yield
- (13) PMP—preliminary FMP
- (14) TAC—total allowable catch
- (15) TALFF—total allowable level of foreign fishing
- (b) *Legislation.* (1) APA—Administrative Procedure Act
- (2) CZMA—Coastal Zone Management Act
- (3) ESA—Endangered Species Act
- (4) FACA—Federal Advisory Committee Act
- (5) FOIA—Freedom of Information Act
- (6) FLSA—Fair Labor Standards Act
- (7) MMPA—Marine Mammal Protection Act
- (8) MPRSA—Marine Protection, Research, and Sanctuaries Act
- (9) NEPA—National Environmental Policy Act
- (10) PA—Privacy Act
- (11) PRA—Paperwork Reduction Act
- (12) RFA—Regulatory Flexibility Act
- (c) *Federal agencies.* (1) CEQ—Council on Environmental Quality
- (2) DOC—Department of Commerce
- (3) DOI—Department of the Interior
- (4) DOS—Department of State
- (5) EPA—Environmental Protection Agency
- (6) FWS—Fish and Wildlife Service
- (7) GSA—General Services Administration
- (8) NMFS—National Marine Fisheries Service
- (9) NOAA—National Oceanic and Atmospheric Administration
- (10) OMB—Office of Management and Budget
- (11) OPM—Office of Personnel Management
- (12) SBA—Small Business Administration
- (13) USCG—United States Coast Guard

[61 FR 32540, June 24, 1996, as amended at 63 FR 7073, Feb. 12, 1998; 64 FR 29134, May 28, 1999]

Subpart B—Regional Fishery Management Councils

§ 600.105 Intercouncil boundaries.

- (a) *New England and Mid-Atlantic Councils.* The boundary begins at the intersection point of Connecticut, Rhode Island, and New York at 41°18'16.249" N. lat. and 71°54'28.477" W. long. and proceeds south 37°22'32.75" East to the point of intersection with the outward boundary of the EEZ as specified in the Magnuson-Stevens Act.
- (b) *Mid-Atlantic and South Atlantic Councils.* The boundary begins at the seaward boundary between the States of Virginia and North Carolina (36°31'00.8" N. lat.), and proceeds due east to the point of intersection with the outward boundary of the EEZ as specified in the Magnuson-Stevens Act.
- (c) *South Atlantic and Gulf of Mexico Councils.* The boundary coincides with the line of demarcation between the Atlantic Ocean and the Gulf of Mexico, which begins at the intersection of the outer boundary of the EEZ, as specified in the Magnuson-Stevens Act, and 83°00' W. long., proceeds northward along that meridian to 24°35' N. lat., (near the Dry Tortugas Islands), thence eastward along that parallel, through Rebecca Shoal and the Quicksand Shoal, to the Marquesas Keys, and then through the Florida Keys to the mainland at the eastern end of Florida Bay, the line so running that the narrow waters within the Dry Tortugas Islands, the Marquesas Keys and the Florida Keys, and between the Florida Keys and the mainland, are within the Gulf of Mexico.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.110 Intercouncil fisheries.

If any fishery extends beyond the geographical area of authority of any one Council, the Secretary may—

- (a) Designate a single Council to prepare the FMP for such fishery and any amendments to such FMP, in consultation with the other Councils concerned; or

(b) Require that the FMP and any amendments be prepared jointly by all the Councils concerned.

(1) A jointly prepared FMP or amendment must be adopted by a majority of the voting members, present and voting, of each participating Council. Different conservation and management measures may be developed for specific geographic areas, but the FMP should address the entire geographic range of the stock(s).

(2) In the case of joint FMP or amendment preparation, one Council will be designated as the "administrative lead." The "administrative lead" Council is responsible for the preparation of the FMP or any amendments and other required documents for submission to the Secretary.

(3) None of the Councils involved in joint preparation may withdraw without Secretarial approval. If Councils cannot agree on approach or management measures within a reasonable period of time, the Secretary may designate a single Council to prepare the FMP or may issue the FMP under Secretarial authority.

§ 600.115 Statement of organization, practices, and procedures (SOPP).

(a) Councils are required to publish and make available to the public a SOPP in accordance with such uniform standards as are prescribed by the Secretary (section 302(f)(6)) of the Magnuson-Stevens Act. The purpose of the SOPP is to inform the public how the Council operates within the framework of the Secretary's uniform standards.

(b) Amendments to current SOPPs must be consistent with the guidelines in this section and the terms and conditions of the cooperative agreement, the statutory requirements of the Magnuson-Stevens Act and other applicable law. Upon approval of a Council's SOPP amendment by the Secretary, a Notice of Availability will be published in the Federal Register, including an address where the public may write to request copies.

(c) Councils may deviate, where lawful, from the guidelines with appropriate supporting rationale, and Secretarial approval of each amendment to a SOPP would constitute approval of any such deviations for that particular Council.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.120 Employment practices.

(a) Council staff positions must be filled solely on the basis of merit, fitness for duty, competence, and qualifications. Employment actions must be free from discrimination based on race, religion, color, national origin, sex, age, disability, reprisal, sexual orientation, status as a parent, or on any additional bases protected by applicable Federal, state, or local law.

(b) The annual pay rates for Council staff positions shall be consistent with the pay rates established for General Schedule Federal employees as set forth in 5 U.S.C. 5332, and the Alternative Personnel Management System for the U.S. Department of Commerce (62 FR 67434). The Councils have the discretion to adjust pay rates and pay increases based on cost of living (COLA) differentials in their geographic locations. COLA adjustments in pay rates and pay increases may be provided for staff members whose post of duty is located in Alaska, Hawaii, Guam, the U.S. Virgin Islands, the Northern Mariana Islands, and Puerto Rico.

(1) No pay adjustment based on geographic location shall exceed the COLA and locality pay adjustments available to Federal employees in the same geographic area.

(2) [Reserved]

(c) Salary increases funded in lieu of life and medical/dental policies are not permitted.

(d) Unused sick leave may be accumulated without limit, or up to a maximum number of days and contribution per day, as specified by the Council in its SOPP. Distributions of accumulated funds for unused sick leave may be made to the employee upon his or her retirement, or to his or her estate upon his or her death, as established by the Council in its SOPP.

(e) Each Council may pay for unused annual leave upon separation, retirement, or death of an employee.

(f) One or more accounts shall be maintained to pay for unused sick or annual leave as authorized under paragraphs (d) and (e) of this section, and will be funded from the Council's annual operating allowances. Councils have the option to deposit funds into these account(s) at the end of the budget period if unobligated balances remain. Interest earned on these account(s) will be maintained in the account(s), along with the principal, for the purpose of payment of unused annual and sick leave only. These account(s), including interest, may be carried over from year to year. Budgeting for accrued leave will be identified in the "Other" object class categories section of the SF-424A.

(g) A Council must notify the NOAA Office of General Counsel before seeking outside legal advice, which may be for technical assistance not available from NOAA. If the Council is seeking legal services in connection with an employment practices question, the Council must first notify the Department of Commerce's Office of the Assistant General Counsel for Administration, Employment and Labor Law Division. A Council may not contract for the provision of legal services on a continuing basis.

[66 FR 57886, Nov. 19, 2001]

§ 600.125 Budgeting, funding, and accounting.

(a) Each Council's grant activities are governed by OMB Circular A-110 (Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations), OMB Circular A-122 (Cost Principles for Non-Profit Organizations), 15 CFR Part 29b (Audit Requirements for Institutions of Higher Education and other Nonprofit Organizations), and the terms and conditions of the cooperative agreement. (See 5 CFR 1310.3 for availability of OMB Circulars.)

(b) Councils may not independently enter into agreements, including grants, contracts, or cooperative agreements, whereby they will receive funds for services rendered. All such agreements must be approved and entered into by NOAA on behalf of the Councils.

(c) Councils are not authorized to accept gifts or contributions directly. All such donations must be directed to the NMFS Regional Administrator in accordance with applicable Department of Commerce regulations.

[66 FR 57887, Nov. 19, 2001]

§ 600.130 Protection of confidentiality of statistics.

Each Council must establish appropriate procedures for ensuring the confidentiality of the statistics that may be submitted to it by Federal or state authorities and may be voluntarily submitted to it by private persons, including, but not limited to (also see §600.405):

(a) Procedures for the restriction of Council member, employee, or advisory group access and the prevention of conflicts of interest, except that such procedures must be consistent with procedures of the Secretary.

(b) In the case of statistics submitted to the Council by a state, the confidentiality laws and regulations of that state.

§ 600.135 Meeting procedures.

(a) Public notice of regular meetings of the Council, scientific statistical committee or advisory panels, including the agenda, must be published in the Federal Register on a timely basis, and appropriate news media notice must be given. The published agenda of any regular meeting may not be modified to include additional matters for Council action without public notice, or such notice must be given at least 14 days prior to the meeting date, unless such modification is to address an emergency under section 305 (c) of the Magnuson-Stevens Act, in which case public notice shall be given immediately. Drafts of all regular public meeting notices must be transmitted to the NMFS Headquarters Office at least 23 calendar days before the first day of the regular meeting. Councils must ensure that all public meetings are accessible to persons with disabilities, and that the public can make timely requests for language interpreters or other auxiliary aids at public meetings.

(b) Drafts of emergency public notices must be transmitted to the NMFS Washington Office; recommended at least 5 working days prior to the first day of the emergency meeting. Although notices of, and agendas for, emergency meetings are not required to be published in the Federal Register, notices of emergency meetings must be promptly announced through the appropriate news media.

(c) After notifying local newspapers in the major fishing ports within its region, having included in the notification the time and place of the meeting and the reason for closing any meeting or portion thereof:

(1) A Council, SSC, AP, or FIAC shall close any meeting, or portion thereof, that concerns information bearing on a national security classification.

(2) A Council, SSC, AP, or FIAC may close any meeting, or portion thereof, that concerns matters or information pertaining to national security, employment matters, or briefings on litigation in which the Council is interested.

(3) A Council, SSC, AP, or FIAC may close any meeting, or portion thereof, that concerns internal administrative matters other than employment. Examples of other internal administrative matters include candidates for appointment to AP, SSC, and other subsidiary bodies and public decorum or medical conditions of members of a Council or its subsidiary bodies. In deciding whether to close a portion of a meeting to discuss internal administrative matters, a Council or subsidiary body should consider not only the privacy interests of individuals whose conduct or qualifications may be discussed, but also the interest of the public in being informed of Council operations and actions.

(d) Without the notice required by paragraph (c) of this section, a Council, SSC, AP, or FIAC may briefly close a portion of a meeting to discuss employment or other internal administrative matters. The closed portion of a meeting that is closed without notice may not exceed 2 hours.

(e) Before closing a meeting or portion thereof, a Council or subsidiary body should consult with the NOAA General Counsel Office to ensure that the matters to be discussed fall within the exceptions to the requirement to hold public meetings described in paragraph (c) of this section.

(f) Actions that affect the public, although based on discussions in closed meetings, must be taken in public. For example, appointments to an AP must be made in the public part of the meeting; however, a decision to take disciplinary action against a Council employee need not be announced to the public.

(g) A majority of the voting members of any Council constitute a quorum for Council meetings, but one or more such members designated by the Council may hold hearings.

(h) Decisions of any Council are by majority vote of the voting members present and voting (except for a vote to propose removal of a Council member, see 50 CFR 600.230). Voting by proxy is permitted only pursuant to 50 CFR 600.205 (b). An abstention does not affect the unanimity of a vote.

(i) Voting members of the Council who disagree with the majority on any issue to be submitted to the Secretary, including principal state officials raising federalism issues, may submit a written statement of their reasons for dissent. If any Council member elects to file such a statement, it should be submitted to the Secretary at the same time the majority report is submitted.

[66 FR 57887, Nov. 19, 2001]

§ 600.150 Disposition of records.

(a) Council records must be handled in accordance with NOAA records management office procedures. All records and documents created or received by Council employees while in active duty status belong to the Federal Government. When employees leave the Council, they may not take the original or file copies of records with them.

(b) [Reserved]

[66 FR 57887, Nov. 19, 2001]

§ 600.155 Freedom of Information Act (FOIA) requests.

(a) FOIA requests received by a Council should be coordinated promptly with the appropriate NMFS Regional Office. The Region will forward the request to the NMFS FOIA Official to secure a FOIA number and log into the FOIA system. The Region will also obtain clearance from the NOAA General Counsel's Office concerning initial determination for denial of requested information.

(b) FOIA requests will be controlled and documented in the Region. The requests should be forwarded to the NMFS FOIA Officer who will prepare the Form CD-244, "FOIA Request and Action Record", with the official FOIA number and due date. In the event the Region determines that the requested information is exempt from disclosure, in full or in part, under the FOIA, the denial letter prepared for the Assistant Administrator's signature, along with the "Foreseeable Harm" Memo and list of documents to be withheld, must be cleared through the NMFS FOIA Officer. Upon completion, a copy of the signed CD-244 and cover letter transmitting the information should be provided to the NMFS FOIA Officer and the NOAA FOIA Officer.

[66 FR 57887, Nov. 19, 2001]

Subpart C—Council Membership

§ 600.205 Principal state officials and their designees.

(a) Only a full-time state employee of the state agency responsible for marine and/or anadromous fisheries shall be appointed by a constituent state Governor as the principal state official for purposes of section 302(b) of the Magnuson-Stevens Act.

(b) A principal state official may name his/her designee(s) to act on his/her behalf at Council meetings. Individuals designated to serve as designees of a principal state official on a Council, pursuant to section 302(b)(1)(A) of the Magnuson-Stevens Act, must be a resident of the state and be knowledgeable and experienced, by reason of his or her occupational or other experience, scientific expertise, or training, in the fishery resources of the geographic area of concern to the Council.

(c) New or revised appointments by state Governors of principal state officials and new or revised designations by principal state officials of their designees(s) must be delivered in writing to the appropriate NMFS Regional Administrator and the Council chair at least 48 hours before the individual may vote on any issue before the Council. A designee may not name another designee. Written appointment of the principal state official must indicate his or her employment status, how the official is employed by the state fisheries agency, and whether the official's full salary is paid by the state. Written designation(s) by the principal state official must indicate how the designee is knowledgeable and experienced in fishery resources of the geographic area of concern to the Council, the County in which the designee resides, and whether the designee's salary is paid by the state.

[66 FR 57888, Nov. 19, 2001]

§ 600.210 Terms of Council members.

(a) Voting members (other than principal state officials, the Regional Administrators, or their designees) are appointed for a term of 3 years and, except as discussed in paragraphs (b) and (c) of this section, may be reappointed. A voting member's Council service of 18 months or more during a term of office will be counted as service for the entire 3-year term.

(b) The anniversary date for measuring terms of membership is August 11. The Secretary may designate a term of appointment shorter than 3 years, if necessary, to provide for balanced expiration of terms of office. Members may not serve more than three consecutive terms.

(c) A member appointed after January 1, 1986, who has completed three consecutive terms will be eligible for appointment to another term one full year after completion of the third consecutive term.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7073, Feb. 12, 1998]

§ 600.215 Council nomination and appointment procedures.

(a) *General.* (1) Each year, the 3-year terms for approximately one-third of the appointed members of the Councils expire. The Secretary of Commerce (Secretary) will appoint or new members or will reappoint seated members to another term to fill the seats being vacated.

(2) There are two categories of seats to which voting members are appointed: "Obligatory" and "At-large."

(i) Obligatory seats are state specific. Each constituent state is entitled to one seat on the Council on which it is a member, except that the State of Alaska is entitled to five seats and the State of Washington is entitled to two seats on the North Pacific Fishery Management Council. When the term of a state's obligatory member is expiring or when that seat becomes vacant before the expiration of its term, the governor of that state must submit the names of at least three qualified individuals to fill that Council seat.

(ii) The Magnuson-Stevens Act also provides for appointment, by the Secretary, of one treaty Indian tribal representative to the Pacific Fishery Management Council (Pacific Council). To fill that seat, the Secretary solicits written nominations from the heads of governments of those Indian Tribes with federally recognized fishing rights from the States of California, Oregon, Washington, or Idaho. The list of nominees must contain a total of at least three individuals who are knowledgeable and experienced regarding the fishery resources under the authority of the Pacific Council. The Secretary will appoint one tribal Indian representative from this list to the Pacific Council for a term of 3 years and rotate the appointment among the tribes.

(iii) At-large seats are regional. When the term of an at-large member is expiring or when that seat becomes vacant before the expiration of a term, the governors of all constituent states of that Council must each submit the names of at least three qualified individuals to fill the seat.

(b) *Responsibilities of State Governors.* (1) Council members are selected by the Secretary from lists of nominees submitted by Governors of the constituent states, pursuant to section 302(b)(2)(C) of the Magnuson-Stevens Act. For each applicable vacancy, a Governor must submit the names of at least three nominees who meet the qualification requirements of the Magnuson-Stevens Act. A Governor must provide a statement explaining how each of his/her nominees meet the qualification requirements, and must also provide appropriate documentation to the Secretary that each nomination was made in consultation with commercial and recreational fishing interests of that state and that each nominee is knowledgeable and experienced by reason of his or her occupational or other experience, scientific expertise, or training in one or more of the following ways related to the fishery resources of the geographical area of concern to the Council:

(i) Commercial fishing or the processing or marketing of fish, fish products, or fishing equipment;

(ii) Fishing for pleasure, relaxation, or consumption, or experience in any business supporting fishing;

(iii) Leadership in a state, regional, or national organization whose members participate in a fishery in the Council's area of authority;

(iv) The management and conservation of natural resources, including related interactions with industry, government bodies, academic institutions, and public agencies. This includes experience serving as a member of a Council, Advisory Panel, Scientific and Statistical Committee, or Fishing Industry Advisory Committee;

(v) Representing consumers of fish or fish products through participation in local, state, or national organizations, or performing other activities specifically related to the education or protection of consumers of marine resources; or

(vi) Teaching, journalism, writing, consulting, practicing law, or researching matters related to fisheries, fishery management, and marine resource conservation.

(2) To assist in identifying qualifications, each nominee must furnish to the appropriate governor's office a current resume, or equivalent, describing career history—with particular attention to experience related to the criteria in paragraph (b)(1) of this section. Nominees may provide such information in any format they wish.

(3) A constituent State Governor must determine the state of residency of each of his/her nominees. A Governor may not nominate a non-resident of that state for appointment to a Council seat obligated to that state. A Governor may nominate residents of another constituent state of a Council for appointment to an at large seat on that Council.

(4) If, at any time during a term, a member changes residency to another state that is not a constituent state of that Council, or a member appointed to an obligatory seat changes residency to any other state, the member may no longer vote and must resign from the Council. For purposes of this paragraph, a state resident is an individual who maintains his/her principal residence within that constituent state and who, if applicable, pays income taxes to that state and/or to another appropriate jurisdiction within that state.

(5) When the terms of both an obligatory member and an at-large member expire concurrently, the Governor of the state holding the expiring obligatory seat may indicate that the nominees who were not selected for appointment to the obligatory seat may be considered for appointment to an at-large seat, provided that the resulting total number of nominees submitted by that governor for the expiring at-large seat is no fewer than three different nominees. When obligatory and at-large seats do not expire concurrently, the Secretary may select from any of the nominees for such obligatory seat and from the nominees for any at-large seat submitted by the Governor of that state, provided that the resulting total number of nominees submitted by that Governor for the expiring seats is no fewer than six. If a total of fewer than six nominees is submitted by the Governor, each of the six will be considered for the expiring obligatory seat, but not for the expiring at-large seat.

(c) *Responsibilities of eligible tribal Indian governments.* The tribal Indian representative on the Pacific Council will be selected by the Secretary from a list of no fewer than three individuals submitted by the tribal Indian governments with federally recognized fishing rights from California, Oregon, Washington, and Idaho, pursuant to section 302(b)(5) of the Magnuson-Stevens Act. To assist in assessing the qualifications of each nominee, each head of an appropriate tribal Indian government must furnish to the Assistant Administrator a current resume, or equivalent, describing the nominee's qualifications, with emphasis on knowledge and experience related to the fishery resources affected by recommendations of the Pacific Council. Prior service on the Pacific Council in a different capacity will not disqualify nominees proposed by tribal Indian governments.

(d) *Nomination deadlines.* Nomination letters and completed kits must be forwarded by express mail under a single mailing to the address specified by the Assistant Administrator by March 15. For appointments outside the normal cycle, a different deadline for receipt of nominations will be announced.

(1) *Obligatory seats.* (i) The governor of the state for which the term of an obligatory seat is expiring must submit the names of at least three qualified individuals to fill that seat by the March 15 deadline. The Secretary will appoint to the Pacific Council a representative of an Indian tribe from a list of no fewer than three individuals submitted by the tribal Indian governments.

(ii) If the nominator fails to provide a nomination letter and at least three complete nomination kits by March 15, the obligatory seat will remain vacant until all required information has been received and processed and the Secretary has made the appointment.

(2) *At-large seats.* (i) If a Governor chooses to submit nominations for an at-large seat, he/she must submit lists that contain at least three different qualified nominees for each vacant seat. A nomination letter and at least three complete nomination kits must be forwarded by express mail under a single mailing to the address specified by the Assistant Administrator by March 15.

(ii) Nomination packages that are incomplete after March 15 will be returned to the nominating Governor and will be processed no further. At-large members will be appointed from among the nominations submitted by the governors who complied with the nomination requirements and the March 15 deadline.

(e) *Responsibilities of the Secretary.* (1) The Secretary must, to the extent practicable, ensure a fair and balanced apportionment, on a rotating or other basis, of the active participants (or their representatives) in the commercial and recreational fisheries in the Council's area of authority. Further, the Secretary must take action to ensure, to the extent practicable, that those persons dependent for their livelihood upon the fisheries in the Council's area of authority are fairly represented as voting members on the Councils.

(2) The Secretary will review each list submitted by a governor or the tribal Indian governments to ascertain whether the individuals on the list are qualified for the vacancy. If the Secretary determines that a nominee is not qualified, the Secretary will notify the appropriate Governor or tribal Indian government of that determination. The Governor or tribal Indian government shall then submit a revised list of nominees or resubmit the original list with an additional explanation of the qualifications of the nominee in question. The Secretary reserves the right to determine whether nominees are qualified.

(3) The Secretary will select the appointees from lists of qualified nominees provided by the Governors of the constituent Council states or of the tribal Indian governments that are eligible to nominate candidates for that vacancy.

(i) For Governor-nominated seats, the Secretary will select an appointee for an obligatory seat from the list of qualified nominees submitted by the governor of the state. In filling expiring at-large seats, the Secretary will select an appointee(s) for an at-large seat(s) from the list of all qualified candidates submitted. The Secretary will consider only complete slates of nominees submitted by the governors of the Council's constituent states. When an appointed member vacates his/her seat prior to the expiration of his/her term, the Secretary will fill the vacancy for the remainder of the term by selecting from complete nomination letters and kits that are timely and contain the required number of candidates.

(ii) For the tribal Indian seat, the Secretary will solicit nominations of individuals for the list referred to in paragraph (c) of this section only from those Indian tribes with federally recognized fishing rights from California, Oregon, Washington, or Idaho. The Secretary will consult with the Bureau of Indian Affairs, Department of the Interior, to determine which Indian tribes may submit nominations. Any vacancy occurring prior to the expiration of any term shall be filled in the same manner as described in paragraphs (d)(1) and (2) of this section, except that the Secretary may use the list referred to in paragraph (b)(1) of this section from which the vacating member was chosen. The Secretary shall rotate the appointment among the tribes, taking into consideration:

(A) The qualifications of the individuals on the list referred to in paragraph (c) of this section.

(B) The various rights of the Indian tribes involved, and judicial cases that set out the manner in which these rights are to be exercised.

(C) The geographic area in which the tribe of the representative is located.

(D) The limitation that no tribal Indian representative shall serve more than three consecutive terms in the Indian tribal seat.

[64 FR 4600, Jan. 29, 1999]

§ 600.220 Oath of office.

Each member appointed to a Council must take an oath of office.

§ 600.225 Rules of conduct.

(a) Council members, as Federal office holders, and Council employees are subject to most Federal criminal statutes covering bribery, conflict-of-interest, disclosure of confidential information, and lobbying with appropriated funds.

(b) The Councils are responsible for maintaining high standards of ethical conduct among themselves, their staffs, and their advisory groups. In addition to abiding by the applicable Federal conflict of interest statutes, both members and employees of the Councils must comply with the following standards of conduct:

(1) No employee of a Council may use his or her official authority or influence derived from his or her position with the Council for the purpose of interfering with or affecting the result of an election to or a nomination for any national, state, county, or municipal elective office.

(2) No employee of a Council may be deprived of employment, position, work, compensation, or benefit provided for or made possible by the Magnuson-Stevens Act on account of any political activity or lack of such activity in support of or in opposition to any candidate or any political party in any national, state, county, or municipal election, or on account of his or her political affiliation.

(3) No Council member or employee may pay, offer, promise, solicit, or receive from any person, firm, or corporation a contribution of money or anything of value in consideration of either support or the use of influence or the promise of support or influence in obtaining for any person any appointive office, place, or employment under the Council.

(4) No employee of a Council may have a direct or indirect financial interest that conflicts with the fair and impartial conduct of his or her Council duties.

(5) No Council member, employee of a Council, or member of a Council advisory group may use or allow the use, for other than official purposes, of information obtained through or in connection with his or her Council employment that has not been made available to the general public.

(6) No Council member or employee of the Council may engage in criminal, infamous, dishonest, notoriously immoral, or disgraceful conduct.

(7) No Council member or employee of the Council may use Council property on other than official business. Such property must be protected and preserved from improper or deleterious operation or use.

(8)(i) Except as provided in §600.235(h) or in 18 U.S.C. 208, no Council member may participate personally and substantially as a member through decision, approval, disapproval, recommendation, the rendering of advice, investigation, or otherwise, in a particular matter in which the member, the member's spouse, minor child, general partner, organization in which the member is serving as officer, director, trustee, general partner, or employee, or any person or organization with whom the member is negotiating or has any arrangement concerning prospective employment, has a financial interest. (Note that this financial interest is broader than the one defined in §600.235(a).)

(ii) No Council member may participate personally and substantially as a member through decision, approval, disapproval, recommendation, the rendering of advice, investigation, or

otherwise, in a particular matter primarily of individual concern, such as a contract, in which he or she has a financial interest, even if the interest has been disclosed in accordance with §600.235.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 63 FR 64185, Nov. 19, 1998]

§ 600.230 Removal.

The Secretary may remove for cause any Secretarially appointed member of a Council in accordance with section 302(b)(6) of the Magnuson-Stevens Act, wherein the Council concerned first recommends removal of that member by not less than two-thirds of the voting members. A recommendation of a Council to remove a member must be made in writing to the Secretary and accompanied by a statement of the reasons upon which the recommendation is based.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7073, Feb. 12, 1998]

§ 600.235 Financial disclosure.

(a) *Definitions.* For purposes of §600.235:

Affected individual means an individual who is—

(1) Nominated by the Governor of a state or appointed by the Secretary of Commerce to serve as a voting member of a Council in accordance with section 302(b)(2) of the Magnuson-Stevens Act; or

(2) A representative of an Indian tribe appointed to the Pacific Council by the Secretary of Commerce under section 302(b)(5) of the Magnuson-Stevens Act who is not subject to disclosure and recusal requirements under the laws of an Indian tribal government.

Council decision means approval of a fishery management plan (FMP) or FMP amendment (including any proposed regulations); request for amendment to regulations implementing an FMP; finding that an emergency exists involving any fishery (including recommendations for responding to the emergency); and comments to the Secretary on FMPs or amendments developed by the Secretary. It does not include a vote by a committee of a Council.

Designated official means an attorney designated by the NOAA General Counsel.

Financial interest in harvesting, processing, or marketing (1) includes:

(i) Stock, equity, or other ownership interests in, or employment with, any company, business, fishing vessel, or other entity engaging in any harvesting, processing, or marketing activity in any fishery under the jurisdiction of the Council concerned;

(ii) Stock, equity, or other ownership interests in, or employment with, any company or other entity that provides equipment or other services essential to harvesting, processing, or marketing activities in any fishery under the jurisdiction of the Council concerned, such as a chandler or a dock operation.

(iii) Employment with, or service as an officer, director, or trustee of, an association whose members include companies, vessels, or other entities engaged in harvesting, processing, or marketing activities, or companies or other entities providing services essential to harvesting, processing, or marketing activities in any fishery under the jurisdiction of the Council concerned; and

(iv) Employment with an entity providing consulting, legal, or representational services to any entity engaging in, or providing equipment or services essential to, harvesting, processing, or marketing activities in any fishery under the jurisdiction of the Council concerned, or to any association whose members include entities engaged in the activities described in paragraphs (1) (i) and (ii) of this definition;

(2) Does not include stock, equity, or other ownership interests in, or employment with, an entity engaging in advocacy on environmental issues or in scientific fisheries research in any fishery under the jurisdiction of the Council concerned, unless it is covered under paragraph (1) of this definition. A financial interest in such entities is covered by 18 U.S.C. 208, the Federal conflict-of-interest statute.

(b) *Reporting.* (1) The Magnuson-Stevens Act requires the disclosure by each affected individual of any financial interest in harvesting, processing, or marketing activity, and of any such financial interest of the affected individual's spouse, minor child, partner, or any organization (other than the Council) in which that individual is serving as an officer, director, trustee, partner, or employee. The information required to be reported must be disclosed on NOAA Form 88-195, "Statement of Financial Interests for Use by Voting Members and Nominees of Regional Fishery Management Councils" (Financial Interest Form), or such other form as the Secretary may prescribe.

(2) The Financial Interest Form must be filed by each nominee for Secretarial appointment with the Assistant Administrator by April 15 or, if nominated after March 15, 1 month after nomination by the Governor. A seated voting member appointed by the Secretary must file a Financial Interest Form with the Executive Director of the appropriate Council within 45 days of taking office; must file an update of his or her statement with the Executive Director of the appropriate Council within 30 days of the time any such financial interest is acquired or substantially changed by the affected individual or the affected individual's spouse, minor child, partner, or any organization (other than the Council) in which that individual is serving as an officer, director, trustee, partner, or employee; and must update his or her form annually and file that update with the Executive Director of the appropriate Council by February 1 of each year.

(3) The Executive Director must, in a timely manner, provide copies of the financial disclosure forms and all updates to the NMFS Regional Administrator for the geographic area concerned, the Regional Attorney who advises the Council, the Department of Commerce Assistant General Counsel for Administration, and the NMFS Office of Sustainable Fisheries. The completed financial interest forms will be kept on file in the office of the NMFS Regional Administrator for the geographic area concerned and at the Council offices, and will be made available for public inspection at such offices during normal office hours. In addition, the forms will be made available at each Council meeting or hearing.

(4) Councils must retain the disclosure form for each affected individual for at least 5 years after the expiration of that individual's last term.

(c) *Restrictions on voting.* (1) No affected individual may vote on any Council decision that would have a significant and predictable effect on a financial interest disclosed in his/her report filed under paragraph (b) of this section.

(2) As used in this section, a Council decision will be considered to have a "significant and predictable effect on a financial interest" if there is a close causal link between the decision and an expected and substantially disproportionate benefit to the financial interest in harvesting, processing, or marketing of any affected individual or the affected individual's spouse, minor child, partner, or any organization (other than the Council) in which that individual is serving as an officer, director, trustee, partner, or employee, relative to the financial interests of other participants in the same gear type or sector of the fishery. The relative financial interests of the affected individual and other participants will be determined with reference to the most recent fishing year for which information is available. However, for fisheries in which IFQs are assigned, the percentage of IFQs assigned to the affected individual will be dispositive.

(3) "Expected and substantially disproportionate benefit" means a quantifiable positive or negative impact with regard to a matter likely to affect a fishery or sector of the fishery in which the affected individual has a significant interest, as indicated by:

(i) A greater than 10-percent interest in the total harvest of the fishery or sector of the fishery in question;

(ii) A greater than 10-percent interest in the marketing or processing of the total harvest of the fishery or sector of the fishery in question; or

(iii) Full or partial ownership of more than 10 percent of the vessels using the same gear type within the fishery or sector of the fishery in question.

(d) *Voluntary recusal.* An affected individual who believes that a Council decision would have a significant and predictable effect on that individual's financial interest disclosed under paragraph (b) of this section may, at any time before a vote is taken, announce to the Council an intent not to vote on the decision.

(e) *Participation in deliberations.* Notwithstanding paragraph (c) of this section, an affected individual who is recused from voting under this section may participate in Council and committee deliberations relating to the decision, after notifying the Council of the voting recusal and identifying the financial interest that would be affected.

(f) *Requests for determination.* (1) At the request of an affected individual, the designated official shall determine for the record whether a Council decision would have a significant and predictable effect on that individual's financial interest. The determination will be based upon a review of the information contained in the individual's financial disclosure form and any other reliable and probative information provided in writing. All information considered will be made part of the public record for the decision. The affected individual may request a determination by notifying the designated official—

(i) Within a reasonable time before the Council meeting at which the Council decision will be made; or

(ii) During a Council meeting before a Council vote on the decision.

(2) The designated official may initiate a determination on the basis of—

(i) His or her knowledge of the fishery and the financial interests disclosed by an affected individual; or

(ii) Written and signed information received within a reasonable time before a Council meeting or, if the issue could not have been anticipated before the meeting, during a Council meeting before a Council vote on the decision.

- (3) At the beginning of each Council meeting, or during a Council meeting at any time reliable and probative information is received, the designated official shall announce the receipt of information relevant to a determination concerning recusal, the nature of that information, and the identity of the submitter of such information.
- (4) If the designated official determines that the affected individual may not vote, the individual may state for the record how he or she would have voted. A Council Chair may not allow such an individual to cast a vote.
- (5) A reversal of a determination under paragraph (g) of this section may not be treated as cause for invalidation or reconsideration by the Secretary of a Council's decision.
- (g) *Review of determinations.* (1) Any Council member may file a written request to the NOAA General Counsel for review of the designated official's determination. A request for review must be received within 10 days of the determination.
- (2) A request must include a full statement in support of the review, including a concise statement as to why the Council's decision did or did not have a significantly disproportionate benefit to the financial interest of the affected individual relative to the financial interests of other participants in the same gear type or sector of the fishery, and why the designated official's determination should be reversed.
- (3) If the request for review is from a Council member other than the affected individual whose vote is at issue, the requester must provide a copy of the request to the affected individual at the same time it is submitted to the NOAA General Counsel. The affected individual may submit a response to the NOAA General Counsel within 10 days from the date of his/her receipt of the request for review.
- (4) The NOAA General Counsel must complete the review and issue a decision within 30 days from the date of receipt of the request for review. The NOAA General Counsel will limit the review to the record before the designated official at the time of the determination, the request, and any response.
- (h) *Exemption from other statutes.* The provisions of 18 U.S.C. 208 regarding conflicts of interest do not apply to an affected individual who is in compliance with the requirements of this section for filing a financial disclosure report.
- (i) *Violations and penalties.* It is unlawful for an affected individual to knowingly and willfully fail to disclose, or to falsely disclose, any financial interest as required by this section, or to knowingly vote on a Council decision in violation of this section. In addition to the penalties applicable under §600.735, a violation of this provision may result in removal of the affected individual from Council membership.

[63 FR 64185, Nov. 19, 1998]

§ 600.240 Security assurances.

- (a) DOC/OS will issue security assurances to Council nominees and members following completion of background checks. Security assurances will be valid for 5 years from the date of issuance. A security assurance will not entitle the member to access classified data. In instances in which Council members may need to discuss, at closed meetings, materials classified for national security purposes, the agency or individual (e.g., DOS, USCG) providing such classified information will be responsible for ensuring that Council members and other attendees have the appropriate security clearances.
- (b) Each nominee to a Council is required to complete a Certification of Status form ("form"). All nominees must certify, pursuant to the Foreign Agents Registration Act of 1938, whether they serve as an agent of a foreign principal. Each nominee must certify, date, sign, and return the form with his or her completed nomination kit. Nominees will not be considered for appointment to a Council if they have not filed this form. Any nominee who currently is an agent of a foreign principal will not be eligible for appointment to a Council, and therefore should not be nominated by a Governor for appointment.

§ 600.245 Council member compensation.

- (a) All voting Council members whose eligibility for compensation has been established in accordance with NOAA guidelines will be paid through the cooperative agreement as a direct line item on a contractual basis without deductions being made for Social Security or Federal and state income taxes. A report of compensation will be furnished each year by the member's Council to the proper Regional Program Officer, as required by the Internal Revenue Service. Such compensation may be paid on a full day's basis, whether in excess of 8 hours a day or less than 8 hours a day. The time is compensable where the individual member is required to expend a significant private effort that substantially disrupts the daily routine to the extent that a work day is lost to the member. "Homework" time in preparation for formal Council meetings is not compensable.
- (b) Non-government Council members receive compensation for:
- (1) Days spent in actual attendance at a meeting of the Council or jointly with another Council.
 - (2) Travel on the day preceding or following a scheduled meeting that precluded the member from conducting his normal business on the day in question.
 - (3) Meetings of standing committees of the Council if approved in advance by the Chair.
 - (4) Individual member meeting with scientific and technical advisors, when approved in advance by the Chair and a substantial portion of any day is spent at the meeting.
 - (5) Conducting or attending hearings, when authorized in advance by the Chair.
 - (6) Other meetings involving Council business when approved in advance by the Chair.
- (c) The Executive Director of each Council must submit to the appropriate Regional Office annually a report, approved by the Council Chair, of Council member compensation authorized. This report shall identify, for each member, amount paid, dates, and location and purpose of meetings attended.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 66 FR 57888, Nov. 19, 2001]

Subpart D—National Standards

§ 600.305 General.

- (a) *Purpose.* (1) This subpart establishes guidelines, based on the national standards, to assist in the development and review of FMPs, amendments, and regulations prepared by the Councils and the Secretary.
- (2) In developing FMPs, the Councils have the initial authority to ascertain factual circumstances, to establish management objectives, and to propose management measures that will achieve the objectives. The Secretary will determine whether the proposed management objectives and measures are consistent with the national standards, other provisions of the Magnuson-Stevens Act, and other applicable law. The Secretary has an obligation under section 301(b) of the Magnuson-Stevens Act to inform the Councils of the Secretary's interpretation of the national standards so that they will have an understanding of the basis on which FMPs will be reviewed.
- (3) The national standards are statutory principles that must be followed in any FMP. The guidelines summarize Secretarial interpretations that have been, and will be, applied under these principles. The guidelines are intended as aids to decisionmaking; FMPs formulated according to the guidelines will have a better chance for expeditious Secretarial review, approval, and implementation. FMPs that are in substantial compliance with the guidelines, the Magnuson-Stevens Act, and other applicable law must be approved.
- (b) *Fishery management objectives.* (1) Each FMP, whether prepared by a Council or by the Secretary, should identify what the FMP is designed to accomplish (i.e., the management objectives to be attained in regulating the fishery under consideration). In establishing objectives, Councils balance biological constraints with human needs, reconcile present and future costs and benefits, and integrate the diversity of public and private interests. If objectives are in conflict, priorities should be established among them.
- (2) How objectives are defined is important to the management process. Objectives should address the problems of a particular fishery. The objectives should be clearly stated, practicably attainable, framed in terms of definable events and measurable benefits, and based upon a comprehensive rather than a fragmentary approach to the problems addressed. An FMP should make a clear distinction between objectives and the management measures chosen to achieve them. The objectives of each FMP provide the context within which the Secretary will judge the consistency of an FMP's conservation and management measures with the national standards.
- (c) *Word usage.* The word usage refers to all regulations in this subpart.
- (1) *Must* is used, instead of "shall", to denote an obligation to act; it is used primarily when referring to requirements of the Magnuson-Stevens Act, the logical extension thereof, or of other applicable law.
 - (2) *Shall* is used only when quoting statutory language directly, to avoid confusion with the future tense.
 - (3) *Should* is used to indicate that an action or consideration is strongly recommended to fulfill the Secretary's interpretation of the Magnuson-Stevens Act, and is a factor reviewers will look for in evaluating a SOPP or FMP.
 - (4) *May* is used in a permissive sense.
 - (5) *May not* is proscriptive; it has the same force as "must not."

- (6) *Will* is used descriptively, as distinguished from denoting an obligation to act or the future tense.
- (7) *Could* is used when giving examples, in a hypothetical, permissive sense.
- (8) *Can* is used to mean "is able to," as distinguished from "may."
- (9) *Examples* are given by way of illustration and further explanation. They are not inclusive lists; they do not limit options.
- (10) *Analysis*, as a paragraph heading, signals more detailed guidance as to the type of discussion and examination an FMP should contain to demonstrate compliance with the standard in question.
- (11) *Council* includes the Secretary, as applicable, when preparing FMPs or amendments under section 304(c) and (g) of the Magnuson-Stevens Act.
- (12) *Stock or stock complex* is used as a synonym for "fishery" in the sense of the Magnuson-Stevens Act's first definition of the term; that is, as "one or more stocks of fish that can be treated as a unit for purposes of conservation and management and that are identified on the basis of geographic, scientific, technical, recreational, or economic characteristics," as distinguished from the Magnuson-Stevens Act's second definition of fishery as "any fishing for such stocks."

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 63 FR 24229, May 1, 1998]

§ 600.310 National Standard 1—Optimum Yield.

- (a) *Standard 1.* Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the OY from each fishery for the U.S. fishing industry.
- (b) *General.* The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act's multiple purposes and policies, implementing an FMP's objectives, and balancing the various interests that comprise the national welfare. OY is based on MSY, or on MSY as it may be reduced under paragraph (f)(3) of this section. The most important limitation on the specification of OY is that the choice of OY and the conservation and management measures proposed to achieve it must prevent overfishing.
- (c) *MSY.* Each FMP should include an estimate of MSY as explained in this section.
- (1) *Definitions.* (i) "MSY" is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.
- (ii) "MSY control rule" means a harvest strategy which, if implemented, would be expected to result in a long-term average catch approximating MSY.
- (iii) "MSY stock size" means the long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate units, that would be achieved under an MSY control rule in which the fishing mortality rate is constant.
- (2) *Options in specifying MSY.* (i) Because MSY is a theoretical concept, its estimation in practice is conditional on the choice of an MSY control rule. In choosing an MSY control rule, Councils should be guided by the characteristics of the fishery, the FMP's objectives, and the best scientific information available. The simplest MSY control rule is to remove a constant catch in each year that the estimated stock size exceeds an appropriate lower bound, where this catch is chosen so as to maximize the resulting long-term average yield. Other examples include the following: Remove a constant fraction of the biomass in each year, where this fraction is chosen so as to maximize the resulting long-term average yield; allow a constant level of escapement in each year, where this level is chosen so as to maximize the resulting long-term average yield; vary the fishing mortality rate as a continuous function of stock size, where the parameters of this function are constant and chosen so as to maximize the resulting long-term average yield. In any MSY control rule, a given stock size is associated with a given level of fishing mortality and a given level of potential harvest, where the long-term average of these potential harvests provides an estimate of MSY.
- (ii) Any MSY values used in determining OY will necessarily be estimates, and these will typically be associated with some level of uncertainty. Such estimates must be based on the best scientific information available (see §600.315) and must incorporate appropriate consideration of risk (see §600.335). Beyond these requirements, however, Councils have a reasonable degree of latitude in determining which estimates to use and how these estimates are to be expressed. For example, a point estimate of MSY may be expressed by itself or together with a confidence interval around that estimate.
- (iii) In the case of a mixed-stock fishery, MSY should be specified on a stock-by-stock basis. However, where MSY cannot be specified for each stock, then MSY may be specified on the basis of one or more species as an indicator for the mixed stock as a whole or for the fishery as a whole.
- (iv) Because MSY is a long-term average, it need not be estimated annually, but it must be based on the best scientific information available, and should be re-estimated as required by changes in environmental or ecological conditions or new scientific information.
- (3) *Alternatives to specifying MSY.* When data are insufficient to estimate MSY directly, Councils should adopt other measures of productive capacity that can serve as reasonable proxies for MSY, to the extent possible. Examples include various reference points defined in terms of relative spawning per recruit. For instance, the fishing mortality rate that reduces the long-term average level of spawning per recruit to 30–40 percent of the long-term average that would be expected in the absence of fishing may be a reasonable proxy for the MSY fishing mortality rate. The long-term average stock size obtained by fishing year after year at this rate under average recruitment may be a reasonable proxy for the MSY stock size, and the long-term average catch so obtained may be a reasonable proxy for MSY. The natural mortality rate may also be a reasonable proxy for the MSY fishing mortality rate. If a reliable estimate of pristine stock size (i.e., the long-term average stock size that would be expected in the absence of fishing) is available, a stock size approximately 40 percent of this value may be a reasonable proxy for the MSY stock size, and the product of this stock size and the natural mortality rate may be a reasonable proxy for MSY.
- (d) *Overfishing—(1) Definitions.* (i) "To overfish" means to fish at a rate or level that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.
- (ii) "Overfishing" occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.
- (iii) In the Magnuson-Stevens Act, the term "overfished" is used in two senses: First, to describe any stock or stock complex that is subjected to a rate or level of fishing mortality meeting the criterion in paragraph (d)(1)(i) of this section, and second, to describe any stock or stock complex whose size is sufficiently small that a change in management practices is required in order to achieve an appropriate level and rate of rebuilding. To avoid confusion, this section uses "overfished" in the second sense only.
- (2) *Specification of status determination criteria.* Each FMP must specify, to the extent possible, objective and measurable status determination criteria for each stock or stock complex covered by that FMP and provide an analysis of how the status determination criteria were chosen and how they relate to reproductive potential. Status determination criteria must be expressed in a way that enables the Council and the Secretary to monitor the stock or stock complex and determine annually whether overfishing is occurring and whether the stock or stock complex is overfished. In all cases, status determination criteria must specify both of the following:
- (i) *A maximum fishing mortality threshold or reasonable proxy thereof.* The fishing mortality threshold may be expressed either as a single number or as a function of spawning biomass or other measure of productive capacity. The fishing mortality threshold must not exceed the fishing mortality rate or level associated with the relevant MSY control rule. Exceeding the fishing mortality threshold for a period of 1 year or more constitutes overfishing.
- (ii) *A minimum stock size threshold or reasonable proxy thereof.* The stock size threshold should be expressed in terms of spawning biomass or other measure of productive capacity. To the extent possible, the stock size threshold should equal whichever of the following is greater: One-half the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock or stock complex were exploited at the maximum fishing mortality threshold specified under paragraph (d)(2)(i) of this section. Should the actual size of the stock or stock complex in a given year fall below this threshold, the stock or stock complex is considered overfished.
- (3) *Relationship of status determination criteria to other national standards—(i) National standard 2.* Status determination criteria must be based on the best scientific information available (see §600.315). When data are insufficient to estimate MSY, Councils should base status determination criteria on reasonable proxies thereof to the extent possible (also see paragraph (c)(3) of this section). In cases where scientific data are severely limited, effort should also be directed to identifying and gathering the needed data.
- (ii) *National standard 3.* The requirement to manage interrelated stocks of fish as a unit or in close coordination notwithstanding (see §600.320), status determination criteria should generally be specified in terms of the level of stock aggregation for which the best scientific information is available (also see paragraph (c)(2)(iii) of this section).
- (iii) *National standard 6.* Councils must build into the status determination criteria appropriate consideration of risk, taking into account uncertainties in estimating harvest, stock conditions, life history parameters, or the effects of environmental factors (see §600.335).
- (4) *Relationship of status determination criteria to environmental change.* Some short-term environmental changes can alter the current size of a stock or stock complex without affecting the long-term productive capacity of the stock or stock complex. Other environmental changes affect both the current size of the stock or stock complex and the long-term productive capacity of the stock or stock complex.
- (i) If environmental changes cause a stock or stock complex to fall below the minimum stock size threshold without affecting the long-term productive capacity of the stock or stock complex, fishing mortality must be constrained sufficiently to allow rebuilding within an acceptable time frame (also see paragraph (e)(4)(ii) of this section). Status determination criteria need not be respecified.
- (ii) If environmental changes affect the long-term productive capacity of the stock or stock complex, one or more components of the status determination criteria must be respecified. Once status determination criteria have been respecified, fishing mortality may or may not have to be reduced, depending on the status of the stock or stock complex with respect to the new criteria.
- (iii) If manmade environmental changes are partially responsible for a stock or stock complex being in an overfished condition, in addition to controlling effort, Councils should recommend

restoration of habitat and other ameliorative programs, to the extent possible (see also the guidelines issued pursuant to section 305(b) of the Magnuson-Stevens Act for Council actions concerning essential fish habitat).

(5) *Secretarial approval of status determination criteria.* Secretarial approval or disapproval of proposed status determination criteria will be based on consideration of whether the proposal:

- (i) Has sufficient scientific merit.
- (ii) Contains the elements described in paragraph (d)(2) of this section.
- (iii) Provides a basis for objective measurement of the status of the stock or stock complex against the criteria.
- (iv) Is operationally feasible.

(6) *Exceptions.* There are certain limited exceptions to the requirement to prevent overfishing. Harvesting one species of a mixed-stock complex at its optimum level may result in the overfishing of another stock component in the complex. A Council may decide to permit this type of overfishing only if all of the following conditions are satisfied:

- (i) It is demonstrated by analysis (paragraph (f)(6) of this section) that such action will result in long-term net benefits to the Nation.
 - (ii) It is demonstrated by analysis that mitigating measures have been considered and that a similar level of long-term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur.
 - (iii) The resulting rate or level of fishing mortality will not cause any species or evolutionarily significant unit thereof to require protection under the ESA.
- (e) *Ending overfishing and rebuilding overfished stocks*—(1) *Definition.* A threshold, either maximum fishing mortality or minimum stock size, is being "approached" whenever it is projected that the threshold will be breached within 2 years, based on trends in fishing effort, fishery resource size, and other appropriate factors.

(2) *Notification.* The Secretary will immediately notify a Council and request that remedial action be taken whenever the Secretary determines that:

- (i) Overfishing is occurring;
- (ii) A stock or stock complex is overfished;
- (iii) The rate or level of fishing mortality for a stock or stock complex is approaching the maximum fishing mortality threshold;
- (iv) A stock or stock complex is approaching its minimum stock size threshold; or
- (v) Existing remedial action taken for the purpose of ending previously identified overfishing or rebuilding a previously identified overfished stock or stock complex has not resulted in adequate progress.

(3) *Council action.* Within 1 year of such time as the Secretary may identify that overfishing is occurring, that a stock or stock complex is overfished, or that a threshold is being approached, or such time as a Council may be notified of the same under paragraph (e)(2) of this section, the Council must take remedial action by preparing an FMP, FMP amendment, or proposed regulations. This remedial action must be designed to accomplish all of the following purposes that apply:

- (i) If overfishing is occurring, the purpose of the action is to end overfishing.
- (ii) If the stock or stock complex is overfished, the purpose of the action is to rebuild the stock or stock complex to the MSY level within an appropriate time frame.
- (iii) If the rate or level of fishing mortality is approaching the maximum fishing mortality threshold (from below), the purpose of the action is to prevent this threshold from being reached.
- (iv) If the stock or stock complex is approaching the minimum stock size threshold (from above), the purpose of the action is to prevent this threshold from being reached.

(4) *Constraints on Council action.* (i) In cases where overfishing is occurring, Council action must be sufficient to end overfishing.

(ii) In cases where a stock or stock complex is overfished, Council action must specify a time period for rebuilding the stock or stock complex that satisfies the requirements of section 304(e)(4)(A) of the Magnuson-Stevens Act.

(A) A number of factors enter into the specification of the time period for rebuilding:

- (1) The status and biology of the stock or stock complex;
- (2) Interactions between the stock or stock complex and other components of the marine ecosystem (also referred to as "other environmental conditions");
- (3) The needs of fishing communities;
- (4) Recommendations by international organizations in which the United States participates; and
- (5) Management measures under an international agreement in which the United States participates.

(B) These factors enter into the specification of the time period for rebuilding as follows:

- (1) The lower limit of the specified time period for rebuilding is determined by the status and biology of the stock or stock complex and its interactions with other components of the marine ecosystem, and is defined as the amount of time that would be required for rebuilding if fishing mortality were eliminated entirely.
- (2) If the lower limit is less than 10 years, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can result in the specified time period exceeding 10 years, unless management measures under an international agreement in which the United States participates dictate otherwise.
- (3) If the lower limit is 10 years or greater, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can exceed the rebuilding period calculated in the absence of fishing mortality, plus one mean generation time or equivalent period based on the species' life-history characteristics. For example, suppose a stock could be rebuilt within 12 years in the absence of any fishing mortality, and has a mean generation time of 8 years. The rebuilding period, in this case, could be as long as 20 years.

(C) A rebuilding program undertaken after May 1, 1998 commences as soon as the first measures to rebuild the stock or stock complex are implemented.

(D) In the case of rebuilding plans that were already in place as of May 1, 1998, such rebuilding plans must be reviewed to determine whether they are in compliance with all requirements of the Magnuson-Stevens Act, as amended by the Sustainable Fisheries Act.

(iii) For fisheries managed under an international agreement, Council action must reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.

(5) *Interim measures.* The Secretary, on his/her own initiative or in response to a Council request, may implement interim measures to reduce overfishing under section 305(c) of the Magnuson-Stevens Act, until such measures can be replaced by an FMP, FMP amendment, or regulations taking remedial action.

(i) These measures may remain in effect for no more than 180 days, but may be extended for an additional 180 days if the public has had an opportunity to comment on the measures and, in the case of Council-recommended measures, the Council is actively preparing an FMP, FMP amendment, or proposed regulations to address overfishing on a permanent basis. Such measures, if otherwise in compliance with the provisions of the Magnuson-Stevens Act, may be implemented even though they are not sufficient by themselves to stop overfishing of a fishery.

(ii) If interim measures are made effective without prior notice and opportunity for comment, they should be reserved for exceptional situations, because they affect fishermen without providing the usual procedural safeguards. A Council recommendation for interim measures without notice-and-comment rulemaking will be considered favorably if the short-term benefits of the measures in reducing overfishing outweigh the value of advance notice, public comment, and deliberative consideration of the impacts on participants in the fishery.

(f) *OY*—(1) *Definitions.* (i) The term "optimum," with respect to the yield from a fishery, means the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems; that is prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factor; and, in the case of an overfished fishery, that provides for rebuilding to a level consistent with producing the MSY in such fishery.

(ii) In national standard 1, use of the phrase "achieving, on a continuing basis, the OY from each fishery" means producing, from each fishery, a long-term series of catches such that the average catch is equal to the average OY and such that status determination criteria are met.

(2) *Values in determination.* In determining the greatest benefit to the Nation, these values that should be weighed are food production, recreational opportunities, and protection afforded to marine ecosystems. They should receive serious attention when considering the economic, social, or ecological factors used in reducing MSY to obtain OY.

- (i) The benefits of food production are derived from providing seafood to consumers, maintaining an economically viable fishery together with its attendant contributions to the national, regional, and local economies, and utilizing the capacity of the Nation's fishery resources to meet nutritional needs.
- (ii) The benefits of recreational opportunities reflect the quality of both the recreational fishing experience and non-consumptive fishery uses such as ecotourism, fish watching, and recreational diving, and the contribution of recreational fishing to the national, regional, and local economies and food supplies.
- (iii) The benefits of protection afforded to marine ecosystems are those resulting from maintaining viable populations (including those of unexploited species), maintaining evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles), maintaining the evolutionary potential of species and ecosystems, and accommodating human use.
- (3) *Factors relevant to OY.* Because fisheries have finite capacities, any attempt to maximize the measures of benefit described in paragraph (f)(2) of this section will inevitably encounter practical constraints. One of these is MSY. Moreover, various factors can constrain the optimum level of catch to a value less than MSY. The Magnuson-Stevens Act's definition of OY identifies three categories of such factors: Social, economic, and ecological. Not every factor will be relevant in every fishery. For some fisheries, insufficient information may be available with respect to some factors to provide a basis for corresponding reductions in MSY.
- (i) *Social factors.* Examples are enjoyment gained from recreational fishing, avoidance of gear conflicts and resulting disputes, preservation of a way of life for fishermen and their families, and dependence of local communities on a fishery. Other factors that may be considered include the cultural place of subsistence fishing, obligations under Indian treaties, and worldwide nutritional needs.
- (ii) *Economic factors.* Examples are prudent consideration of the risk of overharvesting when a stock's size or productive capacity is uncertain, satisfaction of consumer and recreational needs, and encouragement of domestic and export markets for U.S.-harvested fish. Other factors that may be considered include the value of fisheries, the level of capitalization, the decrease in cost per unit of catch afforded by an increase in stock size, and the attendant increase in catch per unit of effort, alternate employment opportunities, and economies of coastal areas.
- (iii) *Ecological factors.* Examples are stock size and age composition, the vulnerability of incidental or unregulated stocks in a mixed-stock fishery, predator-prey or competitive interactions, and dependence of marine mammals and birds or endangered species on a stock of fish. Also important are ecological or environmental conditions that stress marine organisms, such as natural and manmade changes in wetlands or nursery grounds, and effects of pollutants on habitat and stocks.
- (4) *Specification.* (i) The amount of fish that constitutes the OY should be expressed in terms of numbers or weight of fish. However, OY may be expressed as a formula that converts periodic stock assessments into target harvest levels; in terms of an annual harvest of fish or shellfish having a minimum weight, length, or other measurement; or as an amount of fish taken only in certain areas, in certain seasons, with particular gear, or by a specified amount of fishing effort.
- (ii) Either a range or a single value may be specified for OY. Specification of a numerical, fixed-value OY does not preclude use of annual target harvest levels that vary with stock size. Such target harvest levels may be prescribed on the basis of an OY control rule similar to the MSY control rule described in paragraph (c)(1)(ii) of this section, but designed to achieve OY on average, rather than MSY. The annual harvest level obtained under an OY control rule must always be less than or equal to the harvest level that would be obtained under the MSY control rule.
- (iii) All fishing mortality must be counted against OY, including that resulting from bycatch, scientific research, and any other fishing activities.
- (iv) The OY specification should be translatable into an annual numerical estimate for the purposes of establishing any TALFF and analyzing impacts of the management regime. There should be a mechanism in the FMP for periodic reassessment of the OY specification, so that it is responsive to changing circumstances in the fishery.
- (v) The determination of OY requires a specification of MSY, which may not always be possible or meaningful. However, even where sufficient scientific data as to the biological characteristics of the stock do not exist, or where the period of exploitation or investigation has not been long enough for adequate understanding of stock dynamics, or where frequent large-scale fluctuations in stock size diminish the meaningfulness of the MSY concept, the OY must still be based on the best scientific information available. When data are insufficient to estimate MSY directly, Councils should adopt other measures of productive capacity that can serve as reasonable proxies for MSY to the extent possible (also see paragraph (c)(3) of this section).
- (vi) In a mixed-stock fishery, specification of a fishery-wide OY may be accompanied by management measures establishing separate annual target harvest levels for the individual stocks. In such cases, the sum of the individual target levels should not exceed OY.
- (5) *OY and the precautionary approach.* In general, Councils should adopt a precautionary approach to specification of OY. A precautionary approach is characterized by three features:
- (i) Target reference points, such as OY, should be set safely below limit reference points, such as the catch level associated with the fishing mortality rate or level defined by the status determination criteria. Because it is a target reference point, OY does not constitute an absolute ceiling, but rather a desired result. An FMP must contain conservation and management measures to achieve OY, and provisions for information collection that are designed to determine the degree to which OY is achieved on a continuing basis—that is, to result in a long-term average catch equal to the long-term average OY, while meeting the status determination criteria. These measures should allow for practical and effective implementation and enforcement of the management regime, so that the harvest is allowed to reach OY, but not to exceed OY by a substantial amount. The Secretary has an obligation to implement and enforce the FMP so that OY is achieved. If management measures prove unenforceable—or too restrictive, or not rigorous enough to realize OY—they should be modified; an alternative is to reexamine the adequacy of the OY specification. Exceeding OY does not necessarily constitute overfishing. However, even if no overfishing resulted from exceeding OY, continual harvest at a level above OY would violate national standard 1, because OY was not achieved on a continuing basis.
- (ii) A stock or stock complex that is below the size that would produce MSY should be harvested at a lower rate or level of fishing mortality than if the stock or stock complex were above the size that would produce MSY.
- (iii) Criteria used to set target catch levels should be explicitly risk averse, so that greater uncertainty regarding the status or productive capacity of a stock or stock complex corresponds to greater caution in setting target catch levels. Part of the OY may be held as a reserve to allow for factors such as uncertainties in estimates of stock size and DAH. If an OY reserve is established, an adequate mechanism should be included in the FMP to permit timely release of the reserve to domestic or foreign fishermen, if necessary.
- (6) *Analysis.* An FMP must contain an assessment of how its OY specification was determined (section 303(a)(3) of the Magnuson-Stevens Act). It should relate the explanation of overfishing in paragraph (d) of this section to conditions in the particular fishery and explain how its choice of OY and conservation and management measures will prevent overfishing in that fishery. A Council must identify those economic, social, and ecological factors relevant to management of a particular fishery, then evaluate them to determine the amount, if any, by which MSY exceeds OY. The choice of a particular OY must be carefully defined and documented to show that the OY selected will produce the greatest benefit to the Nation. If overfishing is permitted under paragraph (d)(6) of this section, the assessment must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any species or ecologically significant unit thereof reaching a threatened or endangered status, as well as the risk of any stock or stock complex falling below its minimum stock size threshold.
- (7) *OY and foreign fishing.* Section 201(d) of the Magnuson-Stevens Act provides that fishing by foreign nations is limited to that portion of the OY that will not be harvested by vessels of the United States.
- (i) *DAH.* Councils must consider the capacity of, and the extent to which, U.S. vessels will harvest the OY on an annual basis. Estimating the amount that U.S. fishing vessels will actually harvest is required to determine the surplus.
- (ii) *DAP.* Each FMP must assess the capacity of U.S. processors. It must also assess the amount of DAP, which is the sum of two estimates: The estimated amount of U.S. harvest that domestic processors will process, which may be based on historical performance or on surveys of the expressed intention of manufacturers to process, supported by evidence of contracts, plant expansion, or other relevant information; and the estimated amount of fish that will be harvested by domestic vessels, but not processed (e.g., marketed as fresh whole fish, used for private consumption, or used for bait).
- (iii) *JVP.* When DAH exceeds DAP, the surplus is available for JVP. JVP is derived from DAH.

[63 FR 24229, May 1, 1998]

§ 600.315 National Standard 2—Scientific Information.

- (a) *Standard 2.* Conservation and management measures shall be based upon the best scientific information available.
- (b) *FMP development.* The fact that scientific information concerning a fishery is incomplete does not prevent the preparation and implementation of an FMP (see related §§600.320(d)(2) and 600.340(b)).
- (1) Scientific information includes, but is not limited to, information of a biological, ecological, economic, or social nature. Successful fishery management depends, in part, on the timely availability, quality, and quantity of scientific information, as well as on the thorough analysis of this information, and the extent to which the information is applied. If there are conflicting facts or opinions relevant to a particular point, a Council may choose among them, but should justify the choice.
- (2) FMPs must take into account the best scientific information available at the time of preparation. Between the initial drafting of an FMP and its submission for final review, new information often becomes available. This new information should be incorporated into the final FMP where practicable; but it is unnecessary to start the FMP process over again, unless the information indicates that drastic changes have occurred in the fishery that might require revision of the management objectives or measures.
- (c) *FMP implementation.* (1) An FMP must specify whatever information fishermen and processors will be required or requested to submit to the Secretary. Information about harvest within state boundaries, as well as in the EEZ, may be collected if it is needed for proper implementation of the FMP and cannot be obtained otherwise. The FMP should explain the practical utility of the information specified in monitoring the fishery, in facilitating inseason management decisions, and in judging the performance of the management regime; it should also consider the

effort, cost, or social impact of obtaining it.

- (2) An FMP should identify scientific information needed from other sources to improve understanding and management of the resource, marine ecosystem, and the fishery (including fishing communities).
- (3) The information submitted by various data suppliers should be comparable and compatible, to the maximum extent possible.
- (d) *FMP amendment.* FMPs should be amended on a timely basis, as new information indicates the necessity for change in objectives or management measures.
- (e) *SAFE Report.* (1) The SAFE report is a document or set of documents that provides Councils with a summary of information concerning the most recent biological condition of stocks and the marine ecosystems in the FMU and the social and economic condition of the recreational and commercial fishing interests, fishing communities, and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks, marine ecosystems, and fisheries being managed under Federal regulation.
 - (i) The Secretary has the responsibility to assure that a SAFE report or similar document is prepared, reviewed annually, and changed as necessary for each FMP. The Secretary or Councils may utilize any combination of talent from Council, state, Federal, university, or other sources to acquire and analyze data and produce the SAFE report.
 - (ii) The SAFE report provides information to the Councils for determining annual harvest levels from each stock, documenting significant trends or changes in the resource, marine ecosystems, and fishery over time, and assessing the relative success of existing state and Federal fishery management programs. Information on bycatch and safety for each fishery should also be summarized. In addition, the SAFE report may be used to update or expand previous environmental and regulatory impact documents, and ecosystem and habitat descriptions.
 - (iii) Each SAFE report must be scientifically based, and cite data sources and interpretations.
- (2) Each SAFE report should contain information on which to base harvest specifications.
- (3) Each SAFE report should contain a description of the maximum fishing mortality threshold and the minimum stock size threshold for each stock or stock complex, along with information by which the Council may determine:
 - (i) Whether overfishing is occurring with respect to any stock or stock complex, whether any stock or stock complex is overfished, whether the rate or level of fishing mortality applied to any stock or stock complex is approaching the maximum fishing mortality threshold, and whether the size of any stock or stock complex is approaching the minimum stock size threshold.
 - (ii) Any management measures necessary to provide for rebuilding an overfished stock or stock complex (if any) to a level consistent with producing the MSY in such fishery.
- (4) Each SAFE report may contain additional economic, social, community, essential fish habitat, and ecological information pertinent to the success of management or the achievement of objectives of each FMP.
- (5) Each SAFE report may contain additional economic, social, and ecological information pertinent to the success of management or the achievement of objectives of each FMP.

[61 FR 32540, June 24, 1996, as amended at 63 FR 24233, May 1, 1998]

§ 600.320 National Standard 3—Management Units.

- (a) *Standard 3.* To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.
- (b) *General.* The purpose of this standard is to induce a comprehensive approach to fishery management. The geographic scope of the fishery, for planning purposes, should cover the entire range of the stocks(s) of fish, and not be overly constrained by political boundaries. Wherever practicable, an FMP should seek to manage interrelated stocks of fish.
- (c) *Unity of management.* Cooperation and understanding among entities concerned with the fishery (e.g., Councils, states, Federal Government, international commissions, foreign nations) are vital to effective management. Where management of a fishery involves multiple jurisdictions, coordination among the several entities should be sought in the development of an FMP. Where a range overlaps Council areas, one FMP to cover the entire range is preferred. The Secretary designates which Council(s) will prepare the FMP, under section 304(f) of the Magnuson-Stevens Act.
- (d) *Management unit.* The term "management unit" means a fishery or that portion of a fishery identified in an FMP as relevant to the FMP's management objectives.
 - (1) *Basis.* The choice of a management unit depends on the focus of the FMP's objectives, and may be organized around biological, geographic, economic, technical, social, or ecological perspectives. For example:
 - (i) *Biological*—could be based on a stock(s) throughout its range.
 - (ii) *Geographic*—could be an area.
 - (iii) *Economic*—could be based on a fishery supplying specific product forms.
 - (iv) *Technical*—could be based on a fishery utilizing a specific gear type or similar fishing practices.
 - (v) *Social*—could be based on fishermen as the unifying element, such as when the fishermen pursue different species in a regular pattern throughout the year.
 - (vi) *Ecological*—could be based on species that are associated in the ecosystem or are dependent on a particular habitat.
 - (2) *Conservation and management measures.* FMPs should include conservation and management measures for that part of the management unit within U.S. waters, although the Secretary can ordinarily implement them only within the EEZ. The measures need not be identical for each geographic area within the management unit, if the FMP justifies the differences. A management unit may contain, in addition to regulated species, stocks of fish for which there is not enough information available to specify MSY and OY or to establish management measures, so that data on these species may be collected under the FMP.
 - (e) *Analysis.* To document that an FMP is as comprehensive as practicable, it should include discussions of the following:
 - (1) The range and distribution of the stocks, as well as the patterns of fishing effort and harvest.
 - (2) Alternative management units and reasons for selecting a particular one. A less-than-comprehensive management unit may be justified if, for example, complementary management exists or is planned for a separate geographic area or for a distinct use of the stocks, or if the unmanaged portion of the resource is immaterial to proper management.
 - (3) Management activities and habitat programs of adjacent states and their effects on the FMP's objectives and management measures. Where state action is necessary to implement measures within state waters to achieve FMP objectives, the FMP should identify what state action is necessary, discuss the consequences of state inaction or contrary action, and make appropriate recommendations. The FMP should also discuss the impact that Federal regulations will have on state management activities.
 - (4) Management activities of other countries having an impact on the fishery, and how the FMP's management measures are designed to take into account these impacts. International boundaries may be dealt with in several ways. For example:
 - (i) By limiting the management unit's scope to that portion of the stock found in U.S. waters;
 - (ii) By estimating MSY for the entire stock and then basing the determination of OY for the U.S. fishery on the portion of the stock within U.S. waters; or
 - (iii) By referring to treaties or cooperative agreements.

[61 FR 32540, June 24, 1996, as amended at 63 FR 24234, May 1, 1998]

§ 600.325 National Standard 4—Allocations.

- (a) *Standard 4.* Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be:
 - (1) Fair and equitable to all such fishermen.
 - (2) Reasonably calculated to promote conservation.
 - (3) Carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.
- (b) *Discrimination among residents of different states.* An FMP may not differentiate among U.S. citizens, nationals, resident aliens, or corporations on the basis of their state of residence. An FMP may not incorporate or rely on a state statute or regulation that discriminates against residents of another state. Conservation and management measures that have different effects

on persons in various geographic locations are permissible if they satisfy the other guidelines under Standard 4. Examples of these precepts are:

- (1) An FMP that restricted fishing in the EEZ to those holding a permit from state X would violate Standard 4 if state X issued permits only to its own citizens.
- (2) An FMP that closed a spawning ground might disadvantage fishermen living in the state closest to it, because they would have to travel farther to an open area, but the closure could be justified under Standard 4 as a conservation measure with no discriminatory intent.
- (c) *Allocation of fishing privileges.* An FMP may contain management measures that allocate fishing privileges if such measures are necessary or helpful in furthering legitimate objectives or in achieving the OY, and if the measures conform with paragraphs (c)(3)(i) through (c)(3)(iii) of this section.
 - (1) *Definition.* An "allocation" or "assignment" of fishing privileges is a direct and deliberate distribution of the opportunity to participate in a fishery among identifiable, discrete user groups or individuals. Any management measure (or lack of management) has incidental allocative effects, but only those measures that result in direct distributions of fishing privileges will be judged against the allocation requirements of Standard 4. Adoption of an FMP that merely perpetuates existing fishing practices may result in an allocation, if those practices directly distribute the opportunity to participate in the fishery. Allocations of fishing privileges include, for example, per-vessel catch limits, quotas by vessel class and gear type, different quotas or fishing seasons for recreational and commercial fishermen, assignment of ocean areas to different gear users, and limitation of permits to a certain number of vessels or fishermen.
 - (2) *Analysis of allocations.* Each FMP should contain a description and analysis of the allocations existing in the fishery and of those made in the FMP. The effects of eliminating an existing allocation system should be examined. Allocation schemes considered, but rejected by the Council, should be included in the discussion. The analysis should relate the recommended allocations to the FMP's objectives and OY specification, and discuss the factors listed in paragraph (c)(3) of this section.
 - (3) *Factors in making allocations.* An allocation of fishing privileges must be fair and equitable, must be reasonably calculated to promote conservation, and must avoid excessive shares. These tests are explained in paragraphs (c)(3)(i) through (c)(3)(iii) of this section:
 - (i) *Fairness and equity.* (A) An allocation of fishing privileges should be rationally connected to the achievement of OY or with the furtherance of a legitimate FMP objective. Inherent in an allocation is the advantaging of one group to the detriment of another. The motive for making a particular allocation should be justified in terms of the objectives of the FMP; otherwise, the disadvantaged user groups or individuals would suffer without cause. For instance, an FMP objective to preserve the economic status quo cannot be achieved by excluding a group of long-time participants in the fishery. On the other hand, there is a rational connection between an objective of harvesting shrimp at their maximum size and closing a nursery area to trawling.
 - (B) An allocation of fishing privileges may impose a hardship on one group if it is outweighed by the total benefits received by another group or groups. An allocation need not preserve the status quo in the fishery to qualify as "fair and equitable," if a restructuring of fishing privileges would maximize overall benefits. The Council should make an initial estimate of the relative benefits and hardships imposed by the allocation, and compare its consequences with those of alternative allocation schemes, including the status quo. Where relevant, judicial guidance and government policy concerning the rights of treaty Indians and aboriginal Americans must be considered in determining whether an allocation is fair and equitable.
 - (ii) *Promotion of conservation.* Numerous methods of allocating fishing privileges are considered "conservation and management" measures under section 303 of the Magnuson-Stevens Act. An allocation scheme may promote conservation by encouraging a rational, more easily managed use of the resource. Or, it may promote conservation (in the sense of wise use) by optimizing the yield in terms of size, value, market mix, price, or economic or social benefit of the product. To the extent that rebuilding plans or other conservation and management measures that reduce the overall harvest in a fishery are necessary, any harvest restrictions or recovery benefits must be allocated fairly and equitably among the commercial, recreational, and charter fishing sectors of the fishery.
 - (iii) *Avoidance of excessive shares.* An allocation scheme must be designed to deter any person or other entity from acquiring an excessive share of fishing privileges, and to avoid creating conditions fostering inordinate control, by buyers or sellers, that would not otherwise exist.
 - (iv) *Other factors.* In designing an allocation scheme, a Council should consider other factors relevant to the FMP's objectives. Examples are economic and social consequences of the scheme, food production, consumer interest, dependence on the fishery by present participants and coastal communities, efficiency of various types of gear used in the fishery, transferability of effort to and impact on other fisheries, opportunity for new participants to enter the fishery, and enhancement of opportunities for recreational fishing.

[61 FR 32540, June 24, 1996, as amended at 63 FR 24234, May 1, 1998]

§ 600.330 National Standard 5—Efficiency.

- (a) *Standard 5.* Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.
- (b) *Efficiency in the utilization of resources* —(1) *General.* The term "utilization" encompasses harvesting, processing, marketing, and non-consumptive uses of the resource, since management decisions affect all sectors of the industry. In considering efficient utilization of fishery resources, this standard highlights one way that a fishery can contribute to the Nation's benefit with the least cost to society: Given a set of objectives for the fishery, an FMP should contain management measures that result in as efficient a fishery as is practicable or desirable.
 - (2) *Efficiency.* In theory, an efficient fishery would harvest the OY with the minimum use of economic inputs such as labor, capital, interest, and fuel. Efficiency in terms of aggregate costs then becomes a conservation objective, where "conservation" constitutes wise use of all resources involved in the fishery, not just fish stocks.
 - (i) In an FMP, management measures may be proposed that allocate fish among different groups of individuals or establish a system of property rights. Alternative measures examined in searching for an efficient outcome will result in different distributions of gains and burdens among identifiable user groups. An FMP should demonstrate that management measures aimed at efficiency do not simply redistribute gains and burdens without an increase in efficiency.
 - (ii) Management regimes that allow a fishery to operate at the lowest possible cost (e.g., fishing effort, administration, and enforcement) for a particular level of catch and initial stock size are considered efficient. Restrictive measures that unnecessarily raise any of those costs move the regime toward inefficiency. Unless the use of inefficient techniques or the creation of redundant fishing capacity contributes to the attainment of other social or biological objectives, an FMP may not contain management measures that impede the use of cost-effective techniques of harvesting, processing, or marketing, and should avoid creating strong incentives for excessive investment in private sector fishing capital and labor.
 - (c) *Limited access.* A "system for limiting access," which is an optional measure under section 303(b) of the Magnuson-Stevens Act, is a type of allocation of fishing privileges that may be considered to contribute to economic efficiency or conservation. For example, limited access may be used to combat overfishing, overcrowding, or overcapitalization in a fishery to achieve OY. In an unutilized or underutilized fishery, it may be used to reduce the chance that these conditions will adversely affect the fishery in the future, or to provide adequate economic return to pioneers in a new fishery. In some cases, limited entry is a useful ingredient of a conservation scheme, because it facilitates application and enforcement of other management measures.
 - (1) *Definition.* Limited access (or limited entry) is a management technique that attempts to limit units of effort in a fishery, usually for the purpose of reducing economic waste, improving net economic return to the fishermen, or capturing economic rent for the benefit of the taxpayer or the consumer. Common forms of limited access are licensing of vessels, gear, or fishermen to reduce the number of units of effort, and dividing the total allowable catch into fishermen's quotas (a stock-certificate system). Two forms (i.e., Federal fees for licenses or permits in excess of administrative costs, and taxation) are not permitted under the Magnuson-Stevens Act, except for fees allowed under section 304(d)(2).
 - (2) *Factors to consider.* The Magnuson-Stevens Act ties the use of limited access to the achievement of OY. An FMP that proposes a limited access system must consider the factors listed in section 303(b)(6) of the Magnuson-Stevens Act and in §600.325(c)(3). In addition, it should consider the criteria for qualifying for a permit, the nature of the interest created, whether to make the permit transferable, and the Magnuson-Stevens Act's limitations on returning economic rent to the public under section 304(d). The FMP should also discuss the costs of achieving an appropriate distribution of fishing privileges.
 - (d) *Analysis.* An FMP should discuss the extent to which overcapitalization, congestion, economic waste, and inefficient techniques in the fishery reduce the net benefits derived from the management unit and prevent the attainment and appropriate allocation of OY. It should also explain, in terms of the FMP's objectives, any restriction placed on the use of efficient techniques of harvesting, processing, or marketing. If, during FMP development, the Council considered imposing a limited-entry system, the FMP should analyze the Council's decision to recommend or reject limited access as a technique to achieve efficient utilization of the resources of the fishing industry.
 - (e) *Economic allocation.* This standard prohibits only those measures that distribute fishery resources among fishermen on the basis of economic factors alone, and that have economic allocation as their only purpose. Where conservation and management measures are recommended that would change the economic structure of the industry or the economic conditions under which the industry operates, the need for such measures must be justified in light of the biological, ecological, and social objectives of the FMP, as well as the economic objectives.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 63 FR 24234, May 1, 1998]

§ 600.335 National Standard 6—Variations and Contingencies.

- (a) *Standard 6.* Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.
 - (b) *Conservation and management.* Each fishery exhibits unique uncertainties. The phrase "conservation and management" implies the wise use of fishery resources through a management regime that includes some protection against these uncertainties. The particular regime chosen must be flexible enough to allow timely response to resource, industry, and other national and regional needs. Continual data acquisition and analysis will help the development of management measures to compensate for variations and to reduce the need for substantial buffers. Flexibility in the management regime and the regulatory process will aid in responding to contingencies.
 - (c) *Variations.* (1) In fishery management terms, variations arise from biological, social, and economic occurrences, as well as from fishing practices. Biological uncertainties and lack of knowledge can hamper attempts to estimate stock size and strength, stock location in time and space, environmental/habitat changes, and ecological interactions. Economic uncertainty may involve changes in foreign or domestic market conditions, changes in operating costs, drifts toward overcapitalization, and economic perturbations caused by changed fishing patterns. Changes in fishing practices, such as the introduction of new gear, rapid increases or decreases in harvest effort, new fishing strategies, and the effects of new management techniques,

may also create uncertainties. Social changes could involve increases or decreases in recreational fishing, or the movement of people into or out of fishing activities due to such factors as age or educational opportunities.

(2) Every effort should be made to develop FMPs that discuss and take into account these vicissitudes. To the extent practicable, FMPs should provide a suitable buffer in favor of conservation. Allowances for uncertainties should be factored into the various elements of an FMP. Examples are:

- (i) *Reduce OY.* Lack of scientific knowledge about the condition of a stock(s) could be reason to reduce OY.
 - (ii) *Establish a reserve.* Creation of a reserve may compensate for uncertainties in estimating domestic harvest, stock conditions, or environmental factors.
 - (iii) *Adjust management techniques.* In the absence of adequate data to predict the effect of a new regime, and to avoid creating unwanted variations, a Council could guard against producing drastic changes in fishing patterns, allocations, or practices.
 - (iv) *Highlight habitat conditions.* FMPs may address the impact of pollution and the effects of wetland and estuarine degradation on the stocks of fish; identify causes of pollution and habitat degradation and the authorities having jurisdiction to regulate or influence such activities; propose recommendations that the Secretary will convey to those authorities to alleviate such problems; and state the views of the Council on unresolved or anticipated issues.
 - (d) *Contingencies.* Unpredictable events—such as unexpected resource surges or failures, fishing effort greater than anticipated, disruptive gear conflicts, climatic conditions, or environmental catastrophes—are best handled by establishing a flexible management regime that contains a range of management options through which it is possible to act quickly without amending the FMP or even its regulations.
- (1) The FMP should describe the management options and their consequences in the necessary detail to guide the Secretary in responding to changed circumstances, so that the Council preserves its role as policy-setter for the fishery. The description should enable the public to understand what may happen under the flexible regime, and to comment on the options.
- (2) FMPs should include criteria for the selection of management measures, directions for their application, and mechanisms for timely adjustment of management measures comprising the regime. For example, an FMP could include criteria that allow the Secretary to open and close seasons, close fishing grounds, or make other adjustments in management measures.
- (3) Amendment of a flexible FMP would be necessary when circumstances in the fishery change substantially, or when a Council adopts a different management philosophy and objectives.

§ 600.340 National Standard 7—Costs and Benefits.

- (a) *Standard 7.* Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.
- (b) *Necessity of Federal management* —(1) *General.* The principle that not every fishery needs regulation is implicit in this standard. The Magnuson-Stevens Act requires Councils to prepare FMPs only for overfished fisheries and for other fisheries where regulation would serve some useful purpose and where the present or future benefits of regulation would justify the costs. For example, the need to collect data about a fishery is not, by itself, adequate justification for preparation of an FMP, since there are less costly ways to gather the data (see §600.320(d)(2)). In some cases, the FMP preparation process itself, even if it does not culminate in a document approved by the Secretary, can be useful in supplying a basis for management by one or more coastal states.
- (2) *Criteria.* In deciding whether a fishery needs management through regulations implementing an FMP, the following general factors should be considered, among others:
- (i) The importance of the fishery to the Nation and to the regional economy.
 - (ii) The condition of the stock or stocks of fish and whether an FMP can improve or maintain that condition.
 - (iii) The extent to which the fishery could be or is already adequately managed by states, by state/Federal programs, by Federal regulations pursuant to FMPs or international commissions, or by industry self-regulation, consistent with the policies and standards of the Magnuson-Stevens Act.
 - (iv) The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.
 - (v) The economic condition of a fishery and whether an FMP can produce more efficient utilization.
 - (vi) The needs of a developing fishery, and whether an FMP can foster orderly growth.
 - (vii) The costs associated with an FMP, balanced against the benefits (see paragraph (d) of this section as a guide).
- (c) *Alternative management measures.* Management measures should not impose unnecessary burdens on the economy, on individuals, on private or public organizations, or on Federal, state, or local governments. Factors such as fuel costs, enforcement costs, or the burdens of collecting data may well suggest a preferred alternative.
- (d) *Analysis.* The supporting analyses for FMPs should demonstrate that the benefits of fishery regulation are real and substantial relative to the added research, administrative, and enforcement costs, as well as costs to the industry of compliance. In determining the benefits and costs of management measures, each management strategy considered and its impacts on different user groups in the fishery should be evaluated. This requirement need not produce an elaborate, formalistic cost/benefit analysis. Rather, an evaluation of effects and costs, especially of differences among workable alternatives, including the status quo, is adequate. If quantitative estimates are not possible, qualitative estimates will suffice.
- (1) *Burdens.* Management measures should be designed to give fishermen the greatest possible freedom of action in conducting business and pursuing recreational opportunities that are consistent with ensuring wise use of the resources and reducing conflict in the fishery. The type and level of burden placed on user groups by the regulations need to be identified. Such an examination should include, for example: Capital outlays; operating and maintenance costs; reporting costs; administrative, enforcement, and information costs; and prices to consumers. Management measures may shift costs from one level of government to another, from one part of the private sector to another, or from the government to the private sector. Redistribution of costs through regulations is likely to generate controversy. A discussion of these and any other burdens placed on the public through FMP regulations should be a part of the FMP's supporting analyses.
- (2) *Gains.* The relative distribution of gains may change as a result of instituting different sets of alternatives, as may the specific type of gain. The analysis of benefits should focus on the specific gains produced by each alternative set of management measures, including the status quo. The benefits to society that result from the alternative management measures should be identified, and the level of gain assessed.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 63 FR 24234, May 1, 1998]

§ 600.345 National Standard 8—Communities.

- (a) *Standard 8.* Conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to:
- (1) Provide for the sustained participation of such communities; and
 - (2) To the extent practicable, minimize adverse economic impacts on such communities.
- (b) *General.* (1) This standard requires that an FMP take into account the importance of fishery resources to fishing communities. This consideration, however, is within the context of the conservation requirements of the Magnuson-Stevens Act. Deliberations regarding the importance of fishery resources to affected fishing communities, therefore, must not compromise the achievement of conservation requirements and goals of the FMP. Where the preferred alternative negatively affects the sustained participation of fishing communities, the FMP should discuss the rationale for selecting this alternative over another with a lesser impact on fishing communities. All other things being equal, where two alternatives achieve similar conservation goals, the alternative that provides the greater potential for sustained participation of such communities and minimizes the adverse economic impacts on such communities would be the preferred alternative.
- (2) This standard does not constitute a basis for allocating resources to a specific fishing community nor for providing preferential treatment based on residence in a fishing community.
- (3) The term "fishing community" means a community that is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew, and fish processors that are based in such communities. A fishing community is a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops).
- (4) The term "sustained participation" means continued access to the fishery within the constraints of the condition of the resource.
- (c) *Analysis.* (1) FMPs must examine the social and economic importance of fisheries to communities potentially affected by management measures. For example, severe reductions of harvests for conservation purposes may decrease employment opportunities for fishermen and processing plant workers, thereby adversely affecting their families and communities. Similarly, a management measure that results in the allocation of fishery resources among competing sectors of a fishery may benefit some communities at the expense of others.
- (2) An appropriate vehicle for the analyses under this standard is the fishery impact statement required by section 303(a)(9) of the Magnuson-Stevens Act. Qualitative and quantitative data may be used, including information provided by fishermen, dealers, processors, and fisheries organizations and associations. In cases where data are severely limited, effort should be directed to identifying and gathering needed data.

(3) To address the sustained participation of fishing communities that will be affected by management measures, the analysis should first identify affected fishing communities and then assess their differing levels of dependence on and engagement in the fishery being regulated. The analysis should also specify how that assessment was made. The best available data on the history, extent, and type of participation of these fishing communities in the fishery should be incorporated into the social and economic information presented in the FMP. The analysis does not have to contain an exhaustive listing of all communities that might fit the definition; a judgment can be made as to which are primarily affected. The analysis should discuss each alternative's likely effect on the sustained participation of these fishing communities in the fishery.

(4) The analysis should assess the likely positive and negative social and economic impacts of the alternative management measures, over both the short and the long term, on fishing communities. Any particular management measure may economically benefit some communities while adversely affecting others. Economic impacts should be considered both for individual communities and for the group of all affected communities identified in the FMP. Impacts of both consumptive and non-consumptive uses of fishery resources should be considered.

(5) A discussion of social and economic impacts should identify those alternatives that would minimize adverse impacts on these fishing communities within the constraints of conservation and management goals of the FMP, other national standards, and other applicable law.

[63 FR 24234, May 1, 1998]

§ 600.350 National Standard 9—Bycatch.

(a) *Standard 9.* Conservation and management measures shall, to the extent practicable:

(1) Minimize bycatch; and

(2) To the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

(b) *General.* This national standard requires Councils to consider the bycatch effects of existing and planned conservation and management measures. Bycatch can, in two ways, impede efforts to protect marine ecosystems and achieve sustainable fisheries and the full benefits they can provide to the Nation. First, bycatch can increase substantially the uncertainty concerning total fishing-related mortality, which makes it more difficult to assess the status of stocks, to set the appropriate OY and define overfishing levels, and to ensure that OYs are attained and overfishing levels are not exceeded. Second, bycatch may also preclude other more productive uses of fishery resources.

(c) *Definition — Bycatch.* The term "bycatch" means fish that are harvested in a fishery, but that are not sold or kept for personal use. Bycatch includes the discard of whole fish at sea or elsewhere, including economic discards and regulatory discards, and fishing mortality due to an encounter with fishing gear that does not result in capture of fish (i.e., unobserved fishing mortality). Bycatch does not include any fish that legally are retained in a fishery and kept for personal, tribal, or cultural use, or that enter commerce through sale, barter, or trade. Bycatch does not include fish released alive under a recreational catch-and-release fishery management program. A catch-and-release fishery management program is one in which the retention of a particular species is prohibited. In such a program, those fish released alive would not be considered bycatch. Bycatch also does not include Atlantic highly migratory species harvested in a commercial fishery that are not regulatory discards and that are tagged and released alive under a scientific tag-and-release program established by the Secretary.

(d) *Minimizing bycatch and bycatch mortality.* The priority under this standard is first to avoid catching bycatch species where practicable. Fish that are bycatch and cannot be avoided must, to the extent practicable, be returned to the sea alive. Any proposed conservation and management measure that does not give priority to avoiding the capture of bycatch species must be supported by appropriate analyses. In their evaluation, the Councils must consider the net benefits to the Nation, which include, but are not limited to: Negative impacts on affected stocks; incomes accruing to participants in directed fisheries in both the short and long term; incomes accruing to participants in fisheries that target the bycatch species; environmental consequences; non-market values of bycatch species, which include non-consumptive uses of bycatch species and existence values, as well as recreational values; and impacts on other marine organisms. To evaluate conservation and management measures relative to this and other national standards, as well as to evaluate total fishing mortality, Councils must—

(1) *Promote development of a database on bycatch and bycatch mortality in the fishery to the extent practicable.* A review and, where necessary, improvement of data collection methods, data sources, and applications of data must be initiated for each fishery to determine the amount, type, disposition, and other characteristics of bycatch and bycatch mortality in each fishery for purposes of this standard and of section 303(a)(11) and (12) of the Magnuson-Stevens Act. Bycatch should be categorized to focus on management responses necessary to minimize bycatch and bycatch mortality to the extent practicable. When appropriate, management measures, such as at-sea monitoring programs, should be developed to meet these information needs.

(2) *For each management measure, assess the effects on the amount and type of bycatch and bycatch mortality in the fishery.* Most conservation and management measures can affect the amounts of bycatch or bycatch mortality in a fishery, as well as the extent to which further reductions in bycatch are practicable. In analyzing measures, including the status quo, Councils should assess the impacts of minimizing bycatch and bycatch mortality, as well as consistency of the selected measure with other national standards and applicable laws. The benefits of minimizing bycatch to the extent practicable should be identified and an assessment of the impact of the selected measure on bycatch and bycatch mortality provided. Due to limitations on the information available, fishery managers may not be able to generate precise estimates of bycatch and bycatch mortality or other effects for each alternative. In the absence of quantitative estimates of the impacts of each alternative, Councils may use qualitative measures. Information on the amount and type of bycatch should be summarized in the SAFE reports.

(3) *Select measures that, to the extent practicable, will minimize bycatch and bycatch mortality.* (i) A determination of whether a conservation and management measure minimizes bycatch or bycatch mortality to the extent practicable, consistent with other national standards and maximization of net benefits to the Nation, should consider the following factors:

(A) Population effects for the bycatch species.

(B) Ecological effects due to changes in the bycatch of that species (effects on other species in the ecosystem).

(C) Changes in the bycatch of other species of fish and the resulting population and ecosystem effects.

(D) Effects on marine mammals and birds.

(E) Changes in fishing, processing, disposal, and marketing costs.

(F) Changes in fishing practices and behavior of fishermen.

(G) Changes in research, administration, and enforcement costs and management effectiveness.

(H) Changes in the economic, social, or cultural value of fishing activities and nonconsumptive uses of fishery resources.

(I) Changes in the distribution of benefits and costs.

(J) Social effects.

(ii) The Councils should adhere to the precautionary approach found in the Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for Responsible Fisheries (Article 6.5), which is available from the Director, Publications Division, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy, when faced with uncertainty concerning any of the factors listed in this paragraph (d)(3).

(4) *Monitor selected management measures.* Effects of implemented measures should be evaluated routinely. Monitoring systems should be established prior to fishing under the selected management measures. Where applicable, plans should be developed and coordinated with industry and other concerned organizations to identify opportunities for cooperative data collection, coordination of data management for cost efficiency, and avoidance of duplicative effort.

(e) *Other considerations.* Other applicable laws, such as the MMPA, the ESA, and the Migratory Bird Treaty Act, require that Councils consider the impact of conservation and management measures on living marine resources other than fish; i.e., marine mammals and birds.

[63 FR 24235, May 1, 1998]

§ 600.355 National Standard 10—Safety of Life at Sea.

(a) *Standard 10.* Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

(b) *General.* (1) Fishing is an inherently dangerous occupation where not all hazardous situations can be foreseen or avoided. The standard directs Councils to reduce that risk in crafting their management measures, so long as they can meet the other national standards and the legal and practical requirements of conservation and management. This standard is not meant to give preference to one method of managing a fishery over another.

(2) The qualifying phrase "to the extent practicable" recognizes that regulation necessarily puts constraints on fishing that would not otherwise exist. These constraints may create pressures on fishermen to fish under conditions that they would otherwise avoid. This standard instructs the Councils to identify and avoid those situations, if they can do so consistent with the legal and practical requirements of conservation and management of the resource.

(3) For the purposes of this national standard, the safety of the fishing vessel and the protection from injury of persons aboard the vessel are considered the same as "safety of human life at sea." The safety of a vessel and the people aboard is ultimately the responsibility of the master of that vessel. Each master makes many decisions about vessel maintenance and loading and about the capabilities of the vessel and crew to operate safely in a variety of weather and sea conditions. This national standard does not replace the judgment or relieve the responsibility of the vessel master related to vessel safety. The Councils, the USCG, and NMFS, through the consultation process of paragraph (d) of this section, will review all FMPs, amendments, and regulations during their development to ensure they recognize any impact on the safety of human life at sea and minimize or mitigate that impact where practicable.

(c) *Safety considerations.* The following is a non-inclusive list of safety considerations that should be considered in evaluating management measures under national standard 10.

(1) *Operating environment.* Where and when a fishing vessel operates is partly a function of the general climate and weather patterns of an area. Typically, larger vessels can fish farther offshore and in more adverse weather conditions than smaller vessels. An FMP should try to avoid creating situations that result in vessels going out farther, fishing longer, or fishing in weather worse than they generally would have in the absence of management measures. Where these conditions are unavoidable, management measures should mitigate these effects, consistent with the overall management goals of the fishery.

(2) *Gear and vessel loading requirements.* A fishing vessel operates in a very dynamic environment that can be an extremely dangerous place to work. Moving heavy gear in a seaway creates a dangerous situation on a vessel. Carrying extra gear can also significantly reduce the stability of a fishing vessel, making it prone to capsizing. An FMP should consider the safety and stability of fishing vessels when requiring specific gear or requiring the removal of gear from the water. Management measures should reflect a sensitivity to these issues and provide methods of mitigation of these situations wherever possible.

(3) *Limited season and area fisheries.* Fisheries where time constraints for harvesting are a significant factor and with no flexibility for weather, often called "derby" fisheries, can create serious safety problems. To participate fully in such a fishery, fishermen may fish in bad weather and overload their vessel with catch and/or gear. Where these conditions exist, FMPs should attempt to mitigate these effects and avoid them in new management regimes, as discussed in paragraph (e) of this section.

(d) *Consultation.* During preparation of any FMP, FMP amendment, or regulation that might affect safety of human life at sea, the Council should consult with the USCG and the fishing industry as to the nature and extent of any adverse impacts. This consultation may be done through a Council advisory panel, committee, or other review of the FMP, FMP amendment, or regulations. Mitigation, to the extent practicable, and other safety considerations identified in paragraph (c) of this section should be included in the FMP.

(e) *Mitigation measures.* There are many ways in which an FMP may avoid or provide alternative measures to reduce potential impacts on safety of human life at sea. The following is a list of some factors that could be considered when management measures are developed:

- (1) Setting seasons to avoid hazardous weather.
- (2) Providing for seasonal or trip flexibility to account for bad weather (weather days).
- (3) Allowing for pre- and post-season "soak time" to deploy and pick up fixed gear, so as to avoid overloading vessels with fixed gear.
- (4) Tailoring gear requirements to provide for smaller or lighter gear for smaller vessels.
- (5) Avoiding management measures that require hazardous at-sea inspections or enforcement if other comparable enforcement could be accomplished as effectively.
- (6) Limiting the number of participants in the fishery.
- (7) Spreading effort over time and area to avoid potential gear and/or vessel conflicts.
- (8) Implementing management measures that reduce the race for fish and the resulting incentives for fishermen to take additional risks with respect to vessel safety.

[63 FR 24236, May 1, 1998]

Subpart E—Confidentiality of Statistics

§ 600.405 Types of statistics covered.

NOAA is authorized under the Magnuson-Stevens Act and other statutes to collect proprietary or confidential commercial or financial information. This part applies to all pertinent data required to be submitted to the Secretary with respect to any FMP including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing occurred, time of fishing, number of hauls, and the estimated processing capacity of, and the actual processing capacity utilized by, U.S. fish processors.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.410 Collection and maintenance of statistics.

- (a) *General.* (1) All statistics required to be submitted to the Secretary are provided to the Assistant Administrator.
- (2) After receipt, the Assistant Administrator will remove all identifying particulars from the statistics if doing so is consistent with the needs of NMFS and good scientific practice.
- (3) Appropriate safeguards as specified by NOAA Directives, or other NOAA or NMFS internal procedures, apply to the collection and maintenance of all statistics, whether separated from identifying particulars or not, so as to ensure their confidentiality.
- (b) *Collection agreements with states.* (1) The Assistant Administrator may enter into an agreement with a state authorizing the state to collect statistics on behalf of the Secretary.
- (2) NMFS will not enter into a cooperative collection agreement with a state unless the state has authority to protect the statistics from disclosure in a manner at least as protective as these regulations.

§ 600.415 Access to statistics.

- (a) *General.* In determining whether to grant a request for access to confidential data, the following information will be taken into consideration (also see §600.130):
 - (1) The specific types of data required.
 - (2) The relevance of the data to conservation and management issues.
 - (3) The duration of time access will be required: continuous, infrequent, or one-time.
 - (4) An explanation of why the availability of aggregate or non-confidential summaries of data from other sources would not satisfy the requested needs.
- (b) *Federal employees.* Statistics submitted as a requirement of an FMP and that reveal the identity of the submitter will only be accessible to the following:
 - (1) Personnel within NMFS responsible for the collection, processing, and storage of the statistics.
 - (2) Federal employees who are responsible for FMP development, monitoring, and enforcement.
 - (3) Personnel within NMFS performing research that requires confidential statistics.
 - (4) Other NOAA personnel on a demonstrable need-to-know basis.
 - (5) NOAA/NMFS contractors or grantees who require access to confidential statistics to perform functions authorized by a Federal contract or grant.
- (c) *State personnel.* Upon written request, confidential statistics will only be accessible if:
 - (1) State employees demonstrate a need for confidential statistics for use in fishery conservation and management.
 - (2) The state has entered into a written agreement between the Assistant Administrator and the head of the state's agency that manages marine and/or anadromous fisheries. The agreement shall contain a finding by the Assistant Administrator that the state has confidentiality protection authority comparable to the Magnuson-Stevens Act and that the state will exercise this authority to limit subsequent access and use of the data to fishery management and monitoring purposes.
- (d) *Councils.* Upon written request by the Council Executive Director, access to confidential data will be granted to:
 - (1) Council employees who are responsible for FMP development and monitoring.
 - (2) A Council for use by the Council for conservation and management purposes, with the approval of the Assistant Administrator. In addition to the information described in paragraph (a) of this section, the Assistant Administrator will consider the following in deciding whether to grant access:
 - (i) The possibility that Council members might gain personal or competitive advantage from access to the data.
 - (ii) The possibility that the suppliers of the data would be placed at a competitive disadvantage by public disclosure of the data at Council meetings or hearings.
 - (3) A contractor of the Council for use in such analysis or studies necessary for conservation and management purposes, with approval of the Assistant Administrator and execution of an

agreement with NMFS as described by NOAA Administrative Order (NAO) 216–100.

(e) *Prohibitions.* Persons having access to these data are prohibited from unauthorized use or disclosure and are subject to the provisions of 18 U.S.C. 1905, 16 U.S.C. 1857, and NOAA/NMFS internal procedures, including NAO 216–100.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.420 Control system.

(a) The Assistant Administrator maintains a control system to protect the identity of submitters of statistics required by an FMP. The control system:

(1) Identifies those persons who have access to the statistics.

(2) Contains procedures to limit access to confidential data to authorized users.

(3) Provides for safeguarding the data.

(b) This system requires that all persons who have authorized access to the data be informed of the confidentiality of the data. These persons are required to sign a statement that they:

(1) Have been informed that the data are confidential.

(2) Have reviewed and are familiar with the procedures to protect confidential statistics.

§ 600.425 Release of statistics.

(a) The Assistant Administrator will not release to the public any statistics required to be submitted under an FMP in a form that would identify the submitter, except as required by law.

(b) All requests from the public for statistics submitted in response to a requirement of an FMP will be processed consistent with the NOAA FOIA regulations (15 CFR part 903), NAO 205–14, Department of Commerce Administrative Orders 205–12 and 205–14 and 15 CFR part 4.

(c) NOAA does not release or allow access to confidential information in its possession to members of Council advisory groups, except as provided by law.

Subpart F—Foreign Fishing

§ 600.501 Vessel permits

(a) *General.* (1) Each FFV fishing under the Magnuson-Stevens Act must have on board a permit issued under this section, unless it is engaged only in recreational fishing.

(2) Permits issued under this section do not authorize FFV's or persons to harass, capture, or kill marine mammals. No marine mammals may be taken in the course of fishing unless that vessel has on board a currently valid Authorization Certificate under the MMPA. Regulations governing the taking of marine mammals incidental to commercial fishing operations are contained in 50 CFR part 229 of this title.

(b) *Responsibility of owners and operators.* The owners and operators of each FFV are jointly and severally responsible for compliance with the Magnuson-Stevens Act, the applicable GIFA, this subpart, and any permit issued under the Magnuson-Stevens Act and this subpart. The owners and operators of each FFV bear civil responsibility for the acts of their employees and agents constituting violations, regardless of whether the specific acts were authorized or even forbidden by the employer or principal, and regardless of knowledge concerning the occurrence.

(c) *Activity codes.* Permits to fish under this subpart may be issued by the Assistant Administrator for the activities described in this paragraph, but the permits may be modified by regulations of this subpart and by the conditions and restrictions attached to the permit (see paragraphs (e)(1)(v) and (l) of this section). The Assistant Administrator may issue a permit, as appropriate, for one or more of the activity codes listed. Only vessels of nations having a GIFA with the United States may be issued permits for activity codes 1 through 9. A GIFA is not required for a vessel to be issued a permit for activity code 10. The activity codes are described as follows:

(1) *Activity Code 1.* Catching, scouting, processing, transshipping, and supporting foreign vessels. Activity is limited to fish harvested or to be harvested by foreign vessels in the EEZ.

(2) *Activity Code 2.* Processing, scouting, transshipping, and supporting foreign vessels. Activity is limited to fish harvested or to be harvested by foreign vessels in the EEZ.

(3) *Activity Code 3.* Transshipping, scouting, and supporting foreign vessels. Activity is limited to fish harvested or to be harvested by foreign vessels in the EEZ.

(4) *Activity Code 4.* Processing, scouting, transshipping, and supporting U.S. vessels delivering fish to foreign vessels. Activity is limited to the receipt of unprocessed fish harvested or to be harvested by U.S. vessels.

(5) *Activity Code 5.* Transshipping, scouting, and supporting foreign vessels. Transshipment limited to fish received or to be received from foreign vessels processing fish from U.S. harvesting vessels.

(6) *Activity Code 6.* Transshipping, scouting, and supporting U.S. vessels. Transshipment limited to U.S.-harvested fish processed on board U.S. vessels.

(7) *Activity Code 7.* Processing, transshipping, and supporting foreign vessels. Activity limited to fish harvested or to be harvested by foreign vessels seaward of the EEZ.

(8) *Activity Code 8.* Transshipping and supporting foreign vessels. Activity is limited to fish harvested or to be harvested seaward of the EEZ by foreign vessels or fish duly authorized for processing in the internal waters of one of the states.

(9) *Activity Code 9.* Supporting U.S. fishing vessels and U.S. fish processing vessels and any foreign fishing vessels authorized under any activity code under paragraph (c) of this subpart.

(10) *Activity Code 10.* Transshipping at sea for the purpose of transporting fish or fish products from a point within the EEZ or, with the concurrence of a state, within the boundaries of that state, to a point outside the United States.

(d) *Application.* (1) Applications for FFV permits authorizing activity codes 1 through 9 must be submitted by an official representative of a foreign nation to the DOS. Applications for permits authorizing activity codes 1 through 9 are available from, and should be submitted to, DOS, OES/OMC, Washington, DC 20520. Applications for FFV permits authorizing activity code 10 may be submitted by any person to the Assistant Administrator. Applications for permits authorizing activity code 10 are available from NMFS, Attn: International Fisheries Division, 1315 East West Highway, Silver Spring, Maryland 20910. All applicants should allow 90 days for review and comment by the public, involved governmental agencies, and appropriate Councils and for processing before the anticipated date to begin fishing. The permit application fee must be paid at the time of application according to §600.518.

(2) Applicants must provide complete and accurate information requested on the permit application form.

(3) Applicants for FFV's that will support U.S. vessels in joint ventures (Activity Code 4) must provide the additional information specified by the permit application form.

(4) Each applicant may request to substitute one FFV for another of the same flag by submitting a new application form and a short explanation of the reason for the substitution to the appropriate address listed at paragraph (d)(1) of this section. Each substitution is considered a new application, and a new application fee must be paid. NMFS will promptly process an application for a vessel replacing a permitted FFV that is disabled or decommissioned, once the appropriate Council(s) and governmental agencies have been notified of the substituted application.

(e) *Issuance.* (1) Permits may be issued to an FFV by the Assistant Administrator after—

(i) The Assistant Administrator determines that the fishing described in the application will meet the requirements of the Magnuson-Stevens Act and approves the permit application.

(ii) The applicant has paid the fees and provided any assurances required by the Secretary in accordance with the provisions of §600.518.

(iii) The applicant has appointed an agent.

(iv) The applicant has identified a designated representative.

(v) The applicant has accepted the general "conditions and restrictions" of receiving permits, as required by section 204(b)(7) of the Magnuson-Stevens Act, and any "additional restrictions" attached to the permit for the conservation and management of fishery resources or for the prevention of significant impairment of the national defense or security interests.

(2) The DOS will provide permits for activity codes 1 through 9 to the official representative of the applicant foreign nation. The Assistant Administrator will provide permits for activity code 10 directly to the applicant.

(3) An approved permit will contain—

(i) The name and IRCS of the FFV and its permit number.

- (ii) The permitted fisheries and/or activity codes.
 - (iii) The date of issuance and expiration date, if other than December 31.
 - (iv) All conditions and restrictions, and any additional restrictions and technical modifications appended to the permit.
- (4) Permits are not issued for boats that are launched from larger vessels. Any enforcement action that results from the activities of a launched boat will be taken against the permitted vessel.
- (f) *Duration.* A permit is valid from its date of issuance to its date of expiration, unless it is revoked or suspended or the nation issuing the FFV's documents does not accept amendments to the permit made by the Assistant Administrator in accordance with the procedures of paragraph (l) of this section. The permit will be valid for no longer than the calendar year in which it was issued.
- (g) *Transfer.* Permits are not transferable or assignable. A permit is valid only for the FFV to which it is issued.
- (h) *Display.* Each FFV operator must have a properly completed permit form available on board the FFV when engaged in fishing activities and must produce it at the request of an authorized officer or observer.
- (i) *Suspension and revocation.* NMFS may apply sanctions to an FFV's permit by revoking, suspending, or imposing additional permit restrictions on the permit under 15 CFR part 904, if the vessel is involved in the commission of any violation of the Magnuson-Stevens Act, the GIFA, or this subpart; if an agent and a designated representative are not maintained in the United States; if a civil penalty or criminal fine imposed under the Magnuson-Stevens Act has become overdue; or as otherwise specified in the Magnuson-Stevens Act.
- (j) *Fees.* Permit application fees are described in §600.518.
- (k) *Change in application information.* The applicant must report, in writing, any change in the information supplied under paragraph (d) of this section to the Assistant Administrator within 15 calendar days after the date of the change. Failure to report a change in the ownership from that described in the current application within the specified time frame voids the permit, and all penalties involved will accrue to the previous owner.
- (l) *Permit amendments.* (1) The Assistant Administrator may amend a permit by adding "additional restrictions" for the conservation and management of fishery resources covered by the permit, or for the national defense or security if the Assistant Administrator determines that such interests would be significantly impaired without such restrictions. Compliance with the added additional restrictions is a condition of the permit. Violations of added additional restrictions will be treated as violations of this subpart.
- (2) The Assistant Administrator may make proposed additional restrictions effective immediately, if necessary, to prevent substantial harm to a fishery resource of the United States, to allow for the continuation of ongoing fishing operations, or to allow for fishing to begin at the normal time for opening of the fishery.
- (3) The Assistant Administrator will send proposed additional restrictions to each Nation whose vessels are affected (via the Secretary of State), to the appropriate Councils, and to the Commandant of the Coast Guard. NMFS will, at the same time, publish a document of any significant proposed additional restrictions in the Federal Register. The document will include a summary of the reasons underlying the proposal, and the reasons that any proposed additional restrictions are made effective immediately.
- (4) The Nation whose vessels are involved, the owners of the affected vessels, their representatives, the agencies specified in paragraph (l)(3) of this section, and the public may submit written comments on the proposed additional restrictions within 30 days after publication in the Federal Register.
- (5) The Assistant Administrator will make a final decision regarding the proposed additional restrictions as soon as practicable after the end of the comment period. The Assistant Administrator will provide the final additional restrictions to the Nation whose vessels are affected (via the Secretary of State) according to the procedures of paragraph (e) of this section. The Assistant Administrator will include with the final additional restrictions to the Nation, a response to comments submitted.
- (6) Additional restrictions may be modified by following the procedures of paragraphs (l)(2) through (l)(5) of this section.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 64 FR 39019, July 21, 1999]

§ 600.502 Vessel reports.

- (a) The operator of each FFV must report the FFV's activities to the USCG and NMFS as specified in this section.
- (b) All reports required by this section must be in English and in the formats specified in the permit additions and restrictions. Reports must be delivered via private or commercial communications facilities, facsimile, or other electronic means acceptable to NMFS and the USCG, directly to the appropriate NMFS Region or Center and USCG commander. Weekly reports must also be delivered directly to the appropriate NMFS Region or Center (see tables 1 and 2 of this section). (The required reports may be delivered to the closest USCG communication station as indicated in table 3 of this section or other USCG communication station only if adequate private or commercial communications facilities have not been successfully contacted.) Radio reports must be made via radiotelegraphy, Telex, or facsimile where available. For the purposes of this section, a message is considered "transmitted" when its receipt is acknowledged by a communications facility and considered "delivered" upon its receipt by the offices of the appropriate USCG commander, NMFS Regional Office, or NMFS Center identified in table 2 of this section. Reports required by this section may be submitted by the vessel's designated representative; however, the operator of the FFV is responsible for the correct and timely filing of all required reports.
- (c) *Activity reports.* The operator of each FFV must report the FFV's movements and activities before or upon the event, as specified in this paragraph (c). Appropriate forms, instructions, codes, and examples are contained in the conditions and restrictions of the FFV's permit. Each FFV report must contain the following information: The message identifier "VESREP" to indicate it is a vessel activity report, FFV name, international radio call sign IRCS, date (month and day based on GMT), time (hour and minute GMT), position (latitude and longitude to the nearest degree and minute) where required, area (by fishing area code) where required, the appropriate action code, confirmation codes where required, and the other information specified in paragraphs (c)(1) through (c)(11) of this section.
- (1) *"BEGIN".* Each operator must specify the date, time, position, and area the FFV will actually "BEGIN" fishing in the EEZ and the species (by species code), product (by product code), and quantity of all fish and fish products (by product weight to the nearest hundredth of a metric ton) on board when entering the EEZ (action code "BEGIN"). The message must be delivered at least 24 hours before the vessel begins to fish.
- (2) *"DEPART".* Each operator must specify the date, time, position, and area the FFV will "DEPART" the EEZ to embark or disembark an observer, to visit a U.S. port, to conduct a joint venture in internal waters, or to otherwise temporarily leave an authorized fishing area, but not depart the seaward limit of the EEZ (action code "DEPART"). The message must be transmitted before the FFV departs the present fishing area and delivered within 24 hours of its transmittal.
- (3) *"RETURN".* Each operator must specify the date, time, position, and area the FFV will "RETURN" to the EEZ following a temporary departure, and the species (by species code), product (by product code), and quantity of all fish and fish products (by product weight to the nearest hundredth of a metric ton) on board that were received in a joint venture in internal waters (action code "RETURN"). The message must be transmitted before returning to the EEZ and delivered within 24 hours of its transmittal.
- (4) *"SHIFT".* Each operator must report each SHIFT in fishing area (as described for each fishery) by specifying the date, time, and position the FFV will start fishing, and the new area (action code "SHIFT"). The message must be transmitted before leaving the original area and delivered within 24 hours of its transmittal. If a foreign vessel operates within 20 nautical miles (37.04 km) of a fishing area boundary, its operator may submit in one message the shift reports for all fishing area shifts occurring during 1 fishing day (0001–2400 GMT). This message must be transmitted prior to the last shift expected to be made in the day and delivered within 24 hours of its transmittal.
- (5) *"JV OPS".* Each operator must specify the date, time, position, and area at which the FFV will "START" joint venture operations (action code "START JV OPS") or "END" joint venture operations (action code "END JV OPS"). These reports must be made in addition to other activity reports made under this section. Each message must be transmitted before the event and delivered within 24 hours of its transmittal.
- (6) *"TRANSFER".* The operator of each FFV that anticipates a transshipping operation in which the FFV will receive fish or fisheries products must specify the date, time, position and area the FFV will conduct the "TRANSFER" and the name and IRCS of the other FFV or U.S. vessel involved (action code "TRANSFER"). The report must include the permit activity code under which the transfer will be made. The message must be transmitted prior to the transfer and delivered within 24 hours of its transmittal. The movement of raw fish from a permitted foreign catching vessel or, under an Activity Code 4, from a U.S. fishing vessel to the reporting processing vessel and the return of nets or codends is not considered a transfer.
- (7) *"OFFLOADED".* Each operator must specify the date, time, position, and area the FFV "OFFLOADED" fish or fisheries products TO another FFV or a U.S. vessel in a transfer, the other FFV's or U.S. vessel's name, IRCS, Permit Activity Code under which the transfer was made, species (by species code) and quantity of fish and fisheries products (by product code and by product weight, to the nearest hundredth of a metric ton) offloaded (action code "OFFLOADED TO"). The message must be transmitted within 12 hours after the transfer is completed and delivered within 24 hours of its transmittal and before the FFV ceases fishing in the EEZ.
- (8) *"RECEIVED".* Each operator must specify the date, time, position and area the vessel "RECEIVED" fish or fisheries products FROM another FFV in a transfer, the other FFV's or U.S. vessel's name, IRCS, Permit Activity Code under which the receipt was made, species (by species code) and quantity of fish and fisheries products (by product code and by product weight, to the nearest hundredth of a metric ton) received (action code "RECEIVED FROM"). The message must be transmitted within 12 hours after the transfer is completed and delivered within 24 hours of its transmittal and before the vessel ceases fishing in the EEZ.
- (9) *"CEASE".* Each operator must specify the date, time, position, and area the FFV will "CEASE" fishing in order to leave the EEZ (action code "CEASE"). The message must be delivered at least 24 hours before the FFV's departure.

(10) "CHANGE". Each operator must report any "CHANGE" TO the FFV's operations if the position or time of an event specified in an activity report will vary more than 5 nautical miles (9.26 km) or 4 hours from that previously reported, by sending a revised message inserting the word "CHANGE" in front of the previous report, repeating the name, IRCS, date, and time of the previous report, adding the word "TO" and the complete revised text of the new report (action code "CHANGE TO"). Changes to reports specifying an early beginning of fishing by an FFV or other changes to reports contained in paragraphs (c)(1) through (c)(9) of this section must be transmitted and delivered as if the "CHANGE" report were the original message.

(11) "CANCEL". Each operator wanting to "CANCEL" a previous report may do so by sending a revised message, and inserting the word "CANCEL" in front of the previous report's vessel name, IRCS, date, time and action code canceled (action code "CANCEL"). The message must be transmitted and delivered prior to the date and time of the event in the original message.

(d) The operator of an FFV will be in violation of paragraphs (c)(1) through (c)(9) of this section if the FFV does not pass within 5 nautical miles (9.26 km) of the position given in the report within 4 hours of the time given in the report.

(e) The notices required by this section may be provided for individual or groups of FFV's (on a vessel-by-vessel basis) by authorized persons. An FFV operator may retransmit reports on the behalf of another FFV, if authorized by that FFV's operator. This does not relieve the individual vessel operator of the responsibility of filing required reports. In these cases, the message format should be modified so that each line of text under "VESREP" is a separate vessel report.

(f) *Weekly reports.* (1) The operator of each FFV in the EEZ must submit appropriate weekly reports through the Nation's designated representative. The report must arrive at the address and time specified in paragraph (g) of this section. The reports may be sent by facsimile or Telex, but a completed copy of the report form must be mailed or hand delivered to confirm the Telex. Appropriate forms, instructions, codes, and examples are contained in the conditions and restrictions of the FFV's permit. Designated representatives may include more than one vessel report in a facsimile or Telex message, if the information is submitted on a vessel-by-vessel basis. Requests for corrections to previous reports must be submitted through the Nation's designated representative and mailed or hand-delivered, together with a written explanation of the reasons for the errors. The appropriate Regional Administrator or Science and Research Director may accept or reject any correction and initiate any appropriate civil penalty actions.

(2) *Weekly catch report (CATREP).* The operator of each FFV must submit a weekly catch report stating any catch (Activity Code 1) in round weight of each species or species group allocated to that Nation by area and days fished in each area for the weekly period Sunday through Saturday, GMT, as modified by the fishery in which the FFV is engaged. Foreign vessels delivered unsorted, unprocessed fish to a processing vessel are not required to submit CATREP's, if that processing vessel (Activity Code 2) submits consolidated CATREP's for all fish received during each weekly period. No report is required for FFV's that do not catch or receive foreign-caught fish during the reporting period.

(3) *Weekly receipts report (RECREP).* The operator of each FFV must submit a weekly report stating any receipts of U.S.-harvested fish in a joint venture (Activity Code 4) for the weekly period Sunday through Saturday, GMT, as modified by the fishery in which the FFV is engaged, for each fishing area, by authorized or prohibited species or species group; days fish received; round weight retained or returned to the U.S. fishing vessel; number of codends received; and number of vessels transferring codends. The report must also include the names of U.S. fishing vessels transferring codends during the week. No report is required for FFV's that do not receive any U.S.-harvested fish during the reporting period.

(4) *Marine mammal report (MAMREP).* The operator of each FFV must submit a weekly report stating any incidental catch or receipt of marine mammals (Activity Codes 1 or 2 and/or 4), the geographical position caught, the condition of the animal, number caught (if more than one of the same species and condition), and nationality of the catching vessel for the period Sunday through Saturday, GMT, as modified by the fishery in which the vessel is engaged. Foreign catching vessels delivering unsorted, unprocessed fish to processing vessel are not required to submit MAMREP's, provided that the processing or factory vessel (Activity Code 2) submits consolidated MAMREP's for all fish received during each weekly period. FFV's receiving U.S.-harvested fish in a joint venture (Activity Code 4) must submit consolidated reports for U.S. vessels operating in the joint venture. No report is required for FFV's that do not catch or receive marine mammals during the reporting period.

(g) *Submission instructions for weekly reports.* The designated representative for each FFV must submit weekly reports in the prescribed format to the appropriate Regional Administrator or Science and Research Director of NMFS by 1900 GMT on the Wednesday following the end of the reporting period. However, by agreement with the appropriate Regional Administrator or Science and Research Director, the designated representative may submit weekly reports to some other facility of NMFS.

(h) *Alternative reporting procedures.* As an alternative to the use of the specific procedures provided, an applicant may submit proposed reporting procedures for a general type of fishery operation (i.e., transshipments under Activity Code 10) to the appropriate Regional Administrator and the USCG commander (see tables 1 and 2 to §600.502 of this chapter). With the agreement of the USCG commander, the Regional Administrator may authorize the use of alternative reporting procedures.

Table 1 to §600.502—Addresses

NMFS regional administrators	NMFS science and research directors	U.S. Coast Guard commanders
Administrator, Northeast Region, National Marine Fisheries Service, NOAA, One Blackburn Drive, Gloucester, MA 01930-2298	Director, Northeast Fisheries Science Center, National Marine Fisheries Service, NOAA, 166 Water St., Woods Hole, MA 02543-1097	Commander, Atlantic Area, U.S. Coast Guard, 431 Crawford St., Portsmouth, VA 23704.
Administrator, Southeast Region, National Marine Fisheries Service, 9721 Exec. Center Drive N., St. Petersburg, FL 33702	Director, Southeast Fisheries Science Center, National Marine Fisheries Service, NOAA, 75 Virginia Beach Drive, Miami, FL 33149-1003	Commander, Atlantic Area, U.S. Coast Guard, Governor's Island, New York 10004.
Administrator, Northwest Region, National Marine Fisheries Service, NOAA, 7600 Sand Point Way, NE, BIN C15700, Bldg. 1, Seattle, WA 98115	Director, Northwest Fisheries Science Center, National Marine Fisheries Service, NOAA, 2725 Montlake Blvd. East, Seattle, WA 98112-2097	Commander, Pacific Area, U.S. Coast Guard, Government Island, Alameda, CA 94501.
Administrator, Alaska Region, National Marine Fisheries Service, NOAA, P.O. Box 21668, Juneau, AK 99802-1668	Director, Alaska Fisheries Science Center, National Marine Fisheries Service, NOAA, 7600 Sand Point Way, NE, BIN C15700, Bldg. 4, Seattle, WA 98115-0070	Commander, Seventeenth Coast Guard District, P.O. Box 25517, Juneau, AK 99802.
Administrator, Southwest Region, National Marine Fisheries Service, NOAA, 501 West Ocean Blvd., Suite 4200, Long Beach, CA 90802-4213	Director, Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA, P.O. Box 271, La Jolla, CA 92038-0271	Commander, Fourteenth Coast Guard District, 300 Ala Moana Blvd., Honolulu, HI 96850.
Administrator, Pacific Islands Region, National Marine Fisheries Service, NOAA, 1601 Kapiolani Blvd., Suite 1110, Honolulu, HI 96814	Director, Pacific Islands Fisheries Science Center, National Marine Fisheries Service, NOAA, 2570 Dole Street, Honolulu, HI 96822	Commander, Fourteenth Coast Guard District, 300 Ala Moana Blvd., Honolulu, HI 96850.

Table 2 to §600.502—Areas of Responsibility of NMFS and U.S. Coast Guard Offices

Area of responsibility/fishery	National Marine Fisheries Service	U.S. Coast Guard
Atlantic Ocean North of Cape Hatteras	Director, Northeast Science Center, Attn: Observer Program	Commander, Atlantic Area.
Atlantic Ocean South of Cape Hatteras	Director, Northeast Science Center, Attn: Observer Program	Commander, Atlantic Area.
Atlantic Tunas, Swordfish, Billfish and Sharks	Director, Office of Sustainable Fisheries	Commander, Atlantic Area.
Gulf of Mexico and Caribbean Sea	Administrator, Southeast Region	Commander, Atlantic Area.
Pacific Ocean off the States of California, Oregon, and Washington	Administrator, Northwest Region	Commander, Pacific Area.
North Pacific Ocean and Bering Sea off Alaska	Administrator, Alaska Region	Commander, Seventeenth Coast Guard District.
Pacific Ocean off Hawaii, American Samoa, Guam, Commonwealth of the Northern Mariana Islands, and U.S. Insular Possessions in the Central and Western Pacific	Administrator, Pacific Islands Region	Commander, Fourteenth Coast Guard District.

Table 3 to §600.502—U.S. Coast Guard Communications Stations and Frequencies

U.S. Coast Guard communications station	Radiotelephone		
	IRCS	Channel ¹	GMT time
Boston	NMF	A-E	2330–1100.
		B,C	All.
		D	1100–2330.
		E	(On request).
CAMSLANT Chesapeake (Portsmouth, VA)	NMN	A	2330–1100.
		B,C	All.
		D	1100–2330.
		E	(On request).
New Orleans	NMG	A	2330–1100.
		B,C	All.
		D	1100–2330.
		E	(On request).
CAMSPAC Point Reyes (San Francisco, CA)	NMC	A-D	All.
		E	(On request).
Honolulu	NMO	A-D	All.
		E	(On request).
Kodiak	NOJ	A-D	All.
		E	(On request).

¹Carrier frequencies of duplex, high-frequency single-sideband channels are:

Letter	Shore transmit	Ship transmit
A	4426.0	4134.0
B	6501.0	6200.0
C	8764.0	8240.0
D	13089.0	12242.0
E	17314.0	16432.0

[61 FR 32540, June 24, 1996, as amended at 63 FR 7073, Feb. 12, 1998; 64 FR 39020, July 21, 1999; 69 FR 8341, Feb. 24, 2004]

§ 600.503 Vessel and gear identification.

(a) *Vessel identification.* (1) The operator of each FFV assigned an IRCS must display that call sign amidships on both the port and starboard sides of the deckhouse or hull, so that it is visible from an enforcement vessel, and on an appropriate weather deck so it is visible from the air.

(2) The operator of each FFV not assigned an IRCS, such as a small trawler associated with a mothership or one of a pair of trawlers, must display the IRCS of the associated vessel, followed by a numerical suffix. (For example, JCZM-1, JCZM-2, etc., would be displayed on small trawlers not assigned an IRCS operating with a mothership whose IRCS is JCZM; JANP-1 would be displayed by a pair trawler not assigned an IRCS operating with a trawler whose IRCS is JANP.)

(3) The vessel identification must be in a color in contrast to the background and must be permanently affixed to the FFV in block Roman alphabet letters and Arabic numerals at least 1 m in height for FFV's over 20 m in length, and at least 0.5 m in height for all other FFV's.

(b) *Navigational lights and shapes.* Each FFV must display the lights and shapes prescribed by the International Regulations for Preventing Collisions at Sea, 1972 (TIAS 8587, and 1981 amendment TIAS 10672), for the activity in which the FFV is engaged (as described at 33 CFR part 81).

(c) *Gear identification.* (1) The operator of each FFV must ensure that all deployed fishing gear that is not physically and continuously attached to an FFV:

- (i) Is clearly marked at the surface with a buoy displaying the vessel identification of the FFV (see paragraph (a) of this section) to which the gear belongs.
- (ii) Has attached a light visible for 2 nautical miles (3.70 km) at night in good visibility.
- (iii) Has a radio buoy.

Trawl codends passed from one vessel to another are considered continuously attached gear and are not required to be marked.

(2) The operator of each FFV must ensure that deployed longlines, strings of traps or pots, and gillnets are marked at the surface at each terminal end with: (see paragraphs (c)(1)(i) through (c)(1)(iii) of this section).

(3) Additional requirements may be specified for the fishery in which the vessel is engaged.

(4) Unmarked or incorrectly identified fishing gear may be considered abandoned and may be disposed of in accordance with applicable Federal regulations by any authorized officer.

(d) *Maintenance.* The operator of each FFV must—

- (1) Keep the vessel and gear identification clearly legible and in good repair.
- (2) Ensure that nothing on the FFV obstructs the view of the markings from an enforcement vessel or aircraft.
- (3) Ensure that the proper navigational lights and shapes are displayed for the FFV's activity and are properly functioning.

§ 600.504 Facilitation of enforcement.

(a) *General.* (1) The owner, operator, or any person aboard any FFV subject to this subpart must immediately comply with instructions and signals issued by an authorized officer to stop the FFV; to move the FFV to a specified location; and to facilitate safe boarding and inspection of the vessel, its gear, equipment, records, and fish and fish products on board for purposes of enforcing the Magnuson-Stevens Act and this subpart.

(2) The operator of each FFV must provide vessel position or other information when requested by an authorized officer within the time specified in the request.

(b) *Communications equipment.* (1) Each FFV must be equipped with a VHF-FM radiotelephone station located so that it may be operated from the wheelhouse. Each operator must maintain a continuous listening watch on channel 16 (156.8 MHz).

(2) Each FFV must be equipped with a radiotelephone station capable of communicating via 2182 kHz (SSB) radiotelephony and at least one set of working frequencies identified in table 3 to §600.502 appropriate to the fishery in which the FFV is operating. Each operator must monitor and be ready to communicate via 2182 kHz (SSB) radiotelephone each day from 0800 GMT to 0830 GMT and 2000 to 2030 GMT, and in preparation for boarding.

(3) FFV's that are not equipped with processing facilities and that deliver all catches to a foreign processing vessel are exempt from the requirements of paragraph (b)(2) of this section.

(4) FFV's with no IRCS that do not catch fish and are used as auxiliary vessels to handle codends, nets, equipment, or passengers for a processing vessel are exempt from the requirements of paragraphs (b)(1) and (b)(2) of this section.

(5) The appropriate Regional Administrator, with the agreement of the appropriate USCG commander, may, upon request by a foreign nation, accept alternatives to the radio requirements of this section to certain FFV's or types of FFV's operating in a fishery, provided they are adequate for the communications needs of the fishery.

(c) *Communications procedures.* (1) Upon being approached by a USCG vessel or aircraft, or other vessel or aircraft with an authorized officer aboard, the operator of any FFV subject to this subpart must be alert for communications conveying enforcement instructions. The enforcement unit may communicate by channel 16 VHF-FM radiotelephone, 2182 kHz (SSB) radiotelephone, message block from an aircraft, flashing light or flag signals from the International Code of Signals, hand signal, placard, loudhailer, or other appropriate means. The following signals, extracted from the International Code of Signals, are among those that may be used.

(i) "AA, AA, AA, etc.", which is the call for an unknown station. The signaled vessel should respond by identifying itself or by illuminating the vessel identification required by §600.505.

(ii) "RY-CY", meaning "You should proceed at slow speed, a boat is coming to you".

(iii) "SQ3", meaning "You should stop or heave to; I am going to board you".

(iv) "L", meaning "You should stop your vessel instantly."

(2) Failure of an FFV's operator to stop the vessel when directed to do so by an authorized officer using VHF-FM radiotelephone (channel 16), 2182 kHz (SSB) radiotelephone (where required), message block from an aircraft, flashing light signal, flaghoist, or loudhailer constitutes a violation of this subpart.

(3) The operator of or any person aboard an FFV who does not understand a signal from an enforcement unit and who is unable to obtain clarification by radiotelephone or other means must consider the signal to be a command to stop the FFV instantly.

(d) *Boarding.* The operator of an FFV signaled for boarding must—

(1) Monitor 2182 kHz (SSB) radiotelephone and channel 16 (156.8 MHz) VHF-FM radiotelephone.

(2) Stop immediately and lay to or maneuver in such a way as to maintain the safety of the FFV and facilitate boarding by the authorized officer and the boarding party or an observer.

(3) Provide the authorized officer, boarding party, or observer a safe pilot ladder. The operator must ensure the pilot ladder is securely attached to the FFV and meets the construction requirements of Regulation 17, Chapter V of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (TIAS 9700 and 1978 Protocol, TIAS 10009), or a substantially equivalent national standard approved by letter from the Assistant Administrator, with agreement with the USCG. Safe pilot ladder standards are summarized below:

(i) The ladder must be of a single length of not more than 9 m (30 ft), capable of reaching the water from the point of access to the FFV, accounting for all conditions of loading and trim of the FFV and for an adverse list of 15°. Whenever the distance from sea level to the point of access to the ship is more than 9 m (30 ft), access must be by means of an accommodation ladder or other safe and convenient means.

(ii) The steps of the pilot ladder must be—

(A) Of hardwood, or other material of equivalent properties, made in one piece free of knots, having an efficient non-slip surface; the four lowest steps may be made of rubber of sufficient strength and stiffness or of other suitable material of equivalent characteristics.

(B) Not less than 480 mm (19 inches) long, 115 mm (4.5 inches) wide, and 25 mm (1 inch) in depth, excluding any non-slip device.

(C) Equally spaced not less than 300 millimeters (12 inches) nor more than 380 mm (15 inches) apart and secured in such a manner that they will remain horizontal.

(iii) No pilot ladder may have more than two replacement steps that are secured in position by a method different from that used in the original construction of the ladder.

(iv) The side ropes of the ladder must consist of two uncovered manila ropes not less than 60 mm (2.25 inches) in circumference on each side (or synthetic ropes of equivalent size and equivalent or greater strength). Each rope must be continuous, with no joints below the top step.

(v) Battens made of hardwood, or other material of equivalent properties, in one piece and not less than 1.80 m (5 ft 10 inches) long must be provided at such intervals as will prevent the pilot ladder from twisting. The lowest batten must be on the fifth step from the bottom of the ladder and the interval between any batten and the next must not exceed nine steps.

(vi) Where passage onto or off the ship is by means of a bulwark ladder, two handhold stanchions must be fitted at the point of boarding or leaving the FFV not less than 0.70 m (2 ft 3 inches) nor more than 0.80 m (2 ft 7 inches) apart, not less than 40 mm (2.5 inches) in diameter, and must extend not less than 1.20 m (3 ft 11 inches) above the top of the bulwark.

(4) When necessary to facilitate the boarding or when requested by an authorized officer or observer, provide a manrope, safety line, and illumination for the ladder; and

(5) Take such other actions as necessary to ensure the safety of the authorized officer and the boarding party and to facilitate the boarding and inspection.

(e) *Access and records.* (1) The owner and operator of each FFV must provide authorized officers access to all spaces where work is conducted or business papers and records are prepared or stored, including but not limited to, personal quarters and areas within personal quarters.

(2) The owner and operator of each FFV must provide to authorized officers all records and documents pertaining to the fishing activities of the vessel, including but not limited to, production records, fishing logs, navigation logs, transfer records, product receipts, cargo stowage plans or records, draft or displacement calculations, customs documents or records, and an accurate hold plan reflecting the current structure of the vessel's storage and factory spaces.

(f) *Product storage.* The operator of each permitted FFV storing fish or fish products in a storage space must ensure that all non-fish product items are neither stowed beneath nor covered by fish products, unless required to maintain the stability and safety of the vessel. These items include, but are not limited to, portable conveyors, exhaust fans, ladders, nets, fuel bladders, extra bin boards, or other movable non-product items. These items may be in the space when necessary for safety of the vessel or crew or for storage of the product. Lumber, bin boards, or other dunnage may be used for shoring or bracing of product to ensure safety of crew and to prevent shifting of cargo within the space.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.505 Prohibitions.

(a) It is unlawful for any person to do any of the following:

(1) Ship, transport, offer for sale, sell, purchase, import, export, or have custody, control, or possession of any fish taken or retained in violation of the Magnuson-Stevens Act, the applicable GIFA, this subpart, or any permit issued under this subpart;

(2) Refuse to allow an authorized officer to board an FFV for purposes of conducting any search or inspection in connection with the enforcement of the Magnuson-Stevens Act, the applicable GIFA, this subpart, or any other permit issued under this subpart;

(3) Assault, resist, oppose, impede, intimidate, or interfere with any authorized officer in the conduct of any inspection or search described in paragraph (a)(2) of this section;

(4) Resist a lawful arrest for any act prohibited by the Magnuson-Stevens Act, the applicable GIFA, this subpart, or any permit issued under this subpart;

(5) Interfere with, delay, or prevent by any means the apprehension or arrest of another person with the knowledge that such other person has committed any act prohibited by the Magnuson-Stevens Act, the applicable GIFA, this subpart, or any permit issued under this subpart;

(6) Interfere with, obstruct, delay, oppose, impede, intimidate, or prevent by any means any boarding, investigation or search, wherever conducted, in the process of enforcing the

Magnuson-Stevens Act, the applicable GIFA, this subpart, or any permit issued under this subpart;

- (7) Engage in any fishing activity for which the FFV does not have a permit as required under §600.501;
- (8) Engage in any fishing activity within the EEZ without a U.S. observer aboard the FFV, unless the requirement has been waived by the Assistant Administrator or appropriate Regional Administrator;
- (9) Retain or attempt to retain, directly or indirectly, any U.S. harvested fish, unless the FFV has a permit for Activity Codes 4, 6, or 10;
- (10) Use any fishing vessel to engage in fishing after the revocation, or during the period of suspension, of an applicable permit issued under this subpart;
- (11) Violate any provision of the applicable GIFA;
- (12) Falsely or incorrectly complete (including by omission) a permit application or permit form as specified in §600.501 (d) and (k);
- (13) Fail to report to the Assistant Administrator within 15 days any change in the information contained in the permit application for a FFV, as specified in §600.501(k);
- (14) Assault, resist, oppose, impede, intimidate, or interfere with an observer placed aboard an FFV under this subpart;
- (15) Interfere with or bias the sampling procedure employed by an observer, including sorting or discarding any catch prior to sampling, unless the observer has stated that sampling will not occur; or tamper with, destroy, or discard an observer's collected samples, equipment, records, photographic film, papers, or effects without the express consent of the observer;
- (16) Prohibit or bar by command, impediment, threat, coercion, or refusal of reasonable assistance, an observer from collecting samples, conducting product recovery rate determinations, making observations, or otherwise performing the observer's duties;
- (17) Harass or sexually harass an authorized officer or observer;
- (18) Fail to provide the required assistance to an observer as described at §600.506 (c) and (e);
- (19) Fail to identify, falsely identify, fail to properly maintain, or obscure the identification of the FFV or its gear as required by this subpart;
- (20) Falsify or fail to make, keep, maintain, or submit any record or report required by this subpart;
- (21) Fail to return to the sea or fail to otherwise treat prohibited species as required by this subpart;
- (22) Fail to report or falsely report any gear conflict;
- (23) Fail to report or falsely report any loss, jettisoning, or abandonment of fishing gear or other article into the EEZ that might interfere with fishing, obstruct fishing gear or vessels, or cause damage to any fishery resource or marine mammals;
- (24) Continue Activity Codes 1 through 4 after those activity codes have been canceled under §600.511;
- (25) Fail to maintain health and safety standards set forth in §600.506(d);
- (26) Violate any provisions of regulations for specific fisheries of this subpart;
- (27) On a scientific research vessel, engage in fishing other than recreational fishing authorized by applicable state, territorial, or Federal regulations;
- (28) Violate any provision of this subpart, the Magnuson-Stevens Act, the applicable GIFA, any notice issued under this subpart or any permit issued under this subpart; or
- (29) Attempt to do any of the foregoing.

(b) It is unlawful for any FFV, and for the owner or operator of any FFV except an FFV engaged only in recreational fishing, to fish—

(1) Within the boundaries of any state, unless:

(i) The fishing is authorized by the Governor of that state as permitted by section 306(c) of the Magnuson-Stevens Act to engage in a joint venture for processing and support with U.S. fishing vessels in the internal waters of that state; or

(ii) The fishing is authorized by, and conducted in accordance with, a valid permit issued under §600.501, and the Governor of that state has indicated concurrence to allow fishing consisting solely of transporting fish or fish products from a point within the boundaries of that state to a point outside the United States; or

(2) Within the EEZ, or for any anadromous species or continental shelf fishery resources beyond the EEZ, unless the fishing is authorized by, and conducted in accordance with, a valid permit issued under §600.501.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 64 FR 39020, July 21, 1999]

§ 600.506 Observers.

(a) *General.* To carry out such scientific, compliance monitoring, and other functions as may be necessary or appropriate to carry out the purposes of the Magnuson-Stevens Act, the appropriate Regional Administrator or Science and Research Director (see table 2 to §600.502) may assign U.S. observers to FFV's. Except as provided for in section 201(h)(2) of the Magnuson-Stevens Act, no FFV may conduct fishing operations within the EEZ unless a U.S. observer is aboard.

(b) *Effort plan.* To ensure the availability of an observer as required by this section, the owners and operators of FFV's wanting to fish within the EEZ will submit to the appropriate Regional Administrator or Science and Research Director and also to the Chief, Financial Services Division, NMFS, 1315 East West Highway, Silver Spring, MD 20910 a schedule of fishing effort 30 days prior to the beginning of each quarter. A quarter is a time period of 3 consecutive months beginning January 1, April 1, July 1, and October 1 of each year. The schedule will contain the name and IRCS of each FFV intending to fish within the EEZ during the upcoming quarter, and each FFV's expected date of arrival and expected date of departure.

(1) The appropriate Regional Administrator or Science and Research Director must be notified immediately of any substitution of vessels or any cancellation of plans to fish in the EEZ for FFV's listed in the effort plan required by this section.

(2) If an arrival date of an FFV will vary more than 5 days from the date listed in the quarterly schedule, the appropriate Regional Administrator or Science and Research Director must be notified at least 10 days in advance of the rescheduled date of arrival. If the notice required by this paragraph (b)(2) is not given, the FFV may not engage in fishing until an observer is available and has been placed aboard the vessel or the requirement has been waived by the appropriate Regional Administrator or Science and Research Director.

(c) *Assistance to observers.* To assist the observer in the accomplishment of his or her assigned duties, the owner and operator of an FFV to which an observer is assigned must—

(1) Provide, at no cost to the observer or the United States, accommodations for the observer aboard the FFV that are equivalent to those provided to the officers of that vessel.

(2) Cause the FFV to proceed to such places and at such times as may be designated by the appropriate Regional Administrator or Science and Research Director for the purpose of embarking and debarking the observer.

(3) Allow the observer to use the FFV's communications equipment and personnel upon demand for the transmission and receipt of messages.

(4) Allow the observer access to and use of the FFV's navigation equipment and personnel upon demand to determine the vessel's position.

(5) Allow the observer free and unobstructed access to the FFV's bridge, trawl, or working decks, holding bins, processing areas, freezer spaces, weight scales, cargo holds and any other space that may be used to hold, process, weigh, or store fish or fish products at any time.

(6) Allow the observer to inspect and copy the FFV's daily log, communications log, transfer log, and any other log, document, notice, or record required by these regulations.

(7) Provide the observer copies of any records required by these regulations upon demand.

(8) Notify the observer at least 15 minutes before fish are brought on board or fish or fish products are transferred from the FFV to allow sampling the catch or observing the transfer, unless the observer specifically requests not to be notified.

(9) Provide all other reasonable assistance to enable the observer to carry out his or her duties.

(d) *Health and safety standards.* All foreign fishing vessels to which an observer is deployed must maintain, at all times that the vessel is in the EEZ, the following:

- (1) At least one working radar.
 - (2) Functioning navigation lights as required by international law.
 - (3) A watch on the bridge by appropriately trained and experienced personnel while the vessel is underway.
 - (4) Lifeboats and/or inflatable life rafts with a total carrying capacity equal to or greater than the number of people aboard the vessel. Lifeboats and inflatable life rafts must be maintained in good working order and be readily available.
 - (5) Life jackets equal or greater in number to the total number of persons aboard the vessel. Life jackets must be stowed in readily accessible and plainly marked positions throughout the vessel, and maintained in a state of good repair.
 - (6) At least one ring life buoy for each 25 ft (7.6 m) of vessel length, equipped with automatic water lights. Ring life buoys must have an outside diameter of not more than 32 inches (81.3 cm) nor less than 30 inches (76.2 cm), and must be maintained in a state of good repair. Ring life buoys must be readily available, but not positioned so they pose a threat of entanglement in work areas. They must be secured in such a way that they can be easily cast loose in the event of an emergency.
 - (7) At least one VHF-FM radio with a functioning channel 16 (156.8 MHz), International Distress, Safety and Calling Frequency, and one functioning AM radio (SSB-Single Side Band) capable of operating at 2182 kHz (SSB). Radios will be maintained in a radio room, chartroom, or other suitable location.
 - (8) At least one Emergency Position Indicating Radio Beacon (EPIRB), approved by the USCG for offshore commercial use, stowed in a location so as to make it readily available in the event of an emergency.
 - (9) At least six hand-held, rocket-propelled, parachute, red-flare distress signals, and three orange-smoke distress signals stowed in the pilothouse or navigation bridge in portable watertight containers.
 - (10) All lights, shapes, whistles, foghorns, fog bells and gongs required by and maintained in accordance with the International Regulations for Preventing Collisions at Sea.
 - (11) Clean and sanitary conditions in all living spaces, food service and preparation areas and work spaces aboard the vessel.
- (e) *Observer transfers.* (1) The operator of the FFV must ensure that transfers of observers at sea via small boat or raft are carried out during daylight hours as weather and sea conditions allow, and with the agreement of the observer involved. The FFV operator must provide the observer 3 hours advance notice of at-sea transfers, so that the observer may collect personal belongings, equipment, and scientific samples.
- (2) The FFV's involved must provide a safe pilot ladder and conduct the transfer according to the procedures of §600.504(d) to ensure the safety of the during the transfer.
 - (3) An experienced crew member must assist the observer in the small boat or raft in which the transfer is made.
- (f) *Supplementary observers.* In the event funds are not available from Congressional appropriations of fees collected to assign an observer to a foreign fishing vessel, the appropriate Regional Administrator or Science and Research Director will assign a supplementary observer to that vessel. The costs of supplementary observers will be paid for by the owners and operators of foreign fishing vessels as provided for in paragraph (h) of this section.
- (g) *Supplementary observer authority and duties.* (1) A supplementary observer aboard a foreign fishing vessel has the same authority and must be treated in all respects as an observer who is employed by NMFS, either directly or under contract.
- (2) The duties of supplementary observers and their deployment and work schedules will be specified by the appropriate Regional Administrator or Science and Research Director.
 - (3) All data collected by supplementary observers will be under the exclusive control of the Assistant Administrator.
- (h) *Supplementary observer payment*—(1) *Method of payment.* The owners and operators of foreign fishing vessels must pay directly to the contractor the costs of supplementary observer coverage. Payment must be made to the contractor supplying supplementary observer coverage either by letter of credit or certified check drawn on a federally chartered bank in U.S. dollars, or other financial institution acceptable to the contractor. The letter of credit used to pay supplementary observer fees to contractors must be separate and distinct from the letter of credit required by §600.518(b)(2). Billing schedules will be specified by the terms of the contract between NOAA and the contractors. Billings for supplementary observer coverage will be approved by the appropriate Regional Administrator or Science and Research Director and then transmitted to the owners and operators of foreign fishing vessels by the appropriate designated representative. Each country will have only one designated representative to receive observer bills for all vessels of that country, except as provided for by the Assistant Administrator. All bills must be paid within 10 working days of the billing date. Failure to pay an observer bill will constitute grounds to revoke fishing permits. All fees collected under this section will be considered interim in nature and subject to reconciliation at the end of the fiscal year in accordance with paragraph (h)(4) of this section and §600.518(d).
- (2) *Contractor costs.* The costs charged for supplementary observer coverage to the owners and operators of foreign fishing vessels may not exceed the costs charged to NMFS for the same or similar services, except that contractors may charge to the owners and operators of foreign fishing vessels an additional fee to cover the administrative costs of the program not ordinarily part of contract costs charged to NMFS. The costs charged foreign fishermen for supplementary observers may include, but are not limited to the following:
- (i) Salary and benefits, including overtime, for supplementary observers.
 - (ii) The costs of post-certification training required by paragraph (j)(2) of this section.
 - (iii) The costs of travel, transportation, and per diem associated with deploying supplementary observers to foreign fishing vessels including the cost of travel, transportation, and per diem from the supplementary observer's post of duty to the point of embarkation to the foreign fishing vessel, and then from the point of disembarkation to the post of duty from where the trip began. For the purposes of these regulations, the appropriate Regional Administrator or Science and Research Director will designate posts of duty for supplementary observers.
 - (iv) The costs of travel, transportation, and per diem associated with the debriefing following deployment of a supplementary observer by NMFS officials.
 - (v) The administrative and overhead costs incurred by the contractor and, if appropriate, a reasonable profit.
- (3) *NMFS costs.* The owners and operators of foreign fishing vessels must also pay to NMFS as part of the surcharge required by section 201(i)(4) of the Magnuson-Stevens Act, the following costs:
- (i) The costs of certifying applicants for the position of supplementary observer.
 - (ii) The costs of any equipment, including safety equipment, sampling equipment, operations manuals, or other texts necessary to perform the duties of a supplementary observer. The equipment will be specified by the appropriate Regional Administrator or Science and Research Director according to the requirements of the fishery to which the supplementary observer will be deployed.
 - (iii) The costs associated with communications with supplementary observers for transmission of data and routine messages.
 - (iv) For the purposes of monitoring the supplementary observer program, the costs for the management and analysis of data.
 - (v) The costs for data editing and entry.
 - (vi) Any costs incurred by NMFS to train, deploy or debrief a supplementary observer.
 - (vii) The cost for U.S. Customs inspection for supplementary observers disembarking after deployment.
- (4) *Reconciliation.* Fees collected by the contractor in excess of the actual costs of supplementary observer coverage will be refunded to the owners and operators of foreign fishing vessels, or kept on deposit to defray the costs of future supplementary observer coverage. Refunds will be made within 60 days after final costs are determined and approved by NMFS.
- (i) *Supplementary observer contractors*—(1) *Contractor eligibility.* Supplementary observers will be obtained by NMFS from persons or firms having established contracts to provide NMFS with observers. In the event no such contract is in place, NMFS will use established, competitive contracting procedures to select persons or firms to provide supplementary observers. The services supplied by the supplementary observer contractors will be as described within the contract and as specified below.
- (2) Supplementary observer contractors must submit for the approval of the Assistant Administrator the following:
 - (i) A copy of any contract, including all attachments, amendments, and enclosures thereto, between the contractor and the owners and operators of foreign fishing vessels for whom the contractor will provide supplementary observer services.
 - (ii) All application information for persons whom the contractor desires to employ as certified supplementary observers.
 - (iii) Billing schedules and billings to the owners and operators of foreign fishing vessels for further transmission to the designated representative of the appropriate foreign nation.
 - (iv) All data on costs.

(j) *Supplementary observers—certification, training*—(1) *Certification*. The appropriate Regional Administrator or Science and Research Director will certify persons as qualified for the position of supplementary observer once the following conditions are met:

(i) The candidate is a citizen or national of the United States.

(ii) The candidate has education or experience equivalent to the education or experience required of persons used as observers by NMFS as either Federal personnel or contract employees. The education and experience required for certification may vary according to the requirements of managing the foreign fishery in which the supplementary observer is to be deployed. Documentation of U.S. citizenship or nationality, and education or experience will be provided from personal qualification statements on file with NMFS contractors who provide supplementary observer services, and will not require the submission of additional information to NMFS.

(2) *Training*. Prior to deployment to foreign fishing vessels, certified supplementary observers must also meet the following conditions:

(i) Each certified supplementary observer must satisfactorily complete a course of training approved by the appropriate Regional Administrator or Science and Research Director as equivalent to that received by persons used as observers by NMFS as either Federal personnel or contract employees. The course of training may vary according to the foreign fishery in which the supplementary observer is to be deployed.

(ii) Each certified supplementary observer must agree in writing to abide by standards of conduct as set forth in Department of Commerce Administrative Order 202–735 (as provided by the contractor).

(k) *Supplementary observer certification suspension or revocation*. (1) Certification of a supplementary observer may be suspended or revoked by the Assistant Administrator under the following conditions:

(i) A supplementary observer fails to perform the duties specified in paragraph (g)(2) of this section.

(ii) A supplementary observer fails to abide by the standards of conduct described by Department of Commerce Administrative Order 202–735.

(2) The suspension or revocation of the certification of a supplementary observer by the Assistant Administrator may be based on the following:

(i) Boarding inspection reports by authorized officers of the USCG or NMFS, or other credible information, that indicate a supplementary observer has failed to abide by the established standards of conduct; or

(ii) An analysis by NMFS of the data collected by a supplementary observer indicating improper or incorrect data collection or recording. The failure to properly collect or record data is sufficient to justify decertification of supplementary observers; no intent to defraud need be demonstrated.

(3) The Assistant Administrator will notify the supplementary observer, in writing, of the Assistant Administrator's intent to suspend or revoke certification, and the reasons therefor, and provide the supplementary observer a reasonable opportunity to respond. If the Assistant Administrator determines that there are disputed questions of material fact, then the Assistant Administrator may in this respect appoint an examiner to make an informal fact-finding inquiry and prepare a report and recommendations.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7074, 7075, Feb. 12, 1998; 64 FR 39020, July 21, 1999]

§ 600.507 Recordkeeping.

(a) *General*. The owner and operator of each FFV must maintain timely and accurate records required by this section as modified by the regulations for the fishery in which the FFV is engaged.

(1) The owner and operator of each FFV must maintain all required records in English, based on Greenwich mean time (GMT) unless otherwise specified in the regulation, and make them immediately available for inspection upon the request of an authorized officer or observer.

(2) The owner and operator of each FFV must retain all required records on board the FFV whenever it is in the EEZ, for 3 years after the end of the permit period.

(3) The owner and operator of each FFV must retain the required records and make them available for inspection upon the request of an authorized officer at any time during the 3 years after the end of the permit period, whether or not such records are on board the vessel.

(4) The owner and operator of each FFV must provide to the Assistant Administrator, in the form and at the times prescribed, any other information requested that the Assistant Administrator determines is necessary to fulfill the fishery conservation, management and enforcement purposes of the Magnuson-Stevens Act.

(b) *Communications log*. The owner and operator of each FFV must record in a separate communications log, at the time of transmittal, the time and content of each notification made under §600.504.

(c) *Transfer log*. Except for the transfer of unsorted, unprocessed fish via codend from a catching vessel to a processing vessel (Activity Code 2 or 4), the owner and operator of each FFV must record, in a separate transfer log, each transfer or receipt of any fish or fishery product, including quantities transferred or offloaded outside the EEZ. The operator must record in the log within 12 hours of the completion of the transfer:

(1) The time and date (GMT) and location (in geographic coordinates) the transfer began and was completed.

(2) The product weight, by species and product (use species and product codes), of all fish transferred, to the nearest 0.01 mt.

(3) The name, IRCS, and permit number of both the FFV offloading the fish and the FFV receiving the fish.

(d) *Daily fishing log*. (1) The owner or operator of each FFV authorized to catch fish (Activity Code 1) must maintain a daily fishing log of the effort, catch and production of the FFV, as modified by paragraph (d)(2) of this section and the regulations for the fishery in which the FFV is engaged. The operator must maintain on a daily and cumulative basis for the permit period a separate log for each fishery (see table 2 to §600.502) in which the FFV is engaged according to this section and in the format specified in the instructions provided with the permit or other format authorized under paragraph (i) of this section. Daily effort entries are required for each day the vessel conducts fishing operations within the EEZ. Daily entries are not required whenever the FFV is in port or engaged in a joint venture in the internal waters of a state. Each page of log may contain entries pertaining to only one day's fishing operations or one gear set, whichever is longer.

(2) The owner or operator of each FFV authorized to catch fish (Activity Code 1) and that delivers all catches to a processing vessel, must maintain only "SECTION ONE-EFFORT", of the daily fishing log, provided the processing vessel maintains a daily consolidated fishing log as described in paragraphs (f) and (g) of this section.

(e) *Daily fishing log—contents*. The daily fishing log must contain the following information, as modified by paragraph (d)(2) of this section and the regulations for the fishery in which the FFV is engaged, and be completed according to the format and instructions provided with the permit or other format authorized under paragraph (i) of this section.

(1) "SECTION ONE-EFFORT" must contain on a daily basis—

(i) A consecutive page number, beginning with the first day the vessel started fishing operations within the EEZ and continuing throughout the log.

(ii) The date (based on GMT).

(iii) The FFV's name.

(iv) The FFV's IRCS.

(v) The FFV's U.S. permit number.

(vi) The FFV's noon (1200 GMT) position in geographic coordinates.

(vii) The master or operator's signature or title.

(2) "SECTION ONE-EFFORT" must contain, for each trawl or set, as appropriate to the gear type employed—

(i) The consecutive trawl or set number, beginning with the first set of the calendar year.

(ii) The fishing area in which the trawl or set was completed.

(iii) The gear type.

(iv) The time the gear was set.

(v) The position of the set.

- (vi) The course of the set.
- (vii) The sea depth.
- (viii) The depth of the set.
- (ix) The duration of the set.
- (x) The hauling time.
- (xi) The position of the haul.
- (xii) The number of pots or longline units (where applicable).
- (xiii) The average number of hooks per longline unit (where applicable).
- (xiv) The trawl speed (where applicable).
- (xv) The mesh size of the trawl's codend (where applicable).
- (xvi) The estimated total weight of the catch for the trawl of set, to at least the nearest metric ton round weight.
- (3) "SECTION TWO-CATCH" must contain, for each trawl or set—
 - (i) The consecutive set or trawl number from "SECTION ONE".
 - (ii) The catch of each allocated species or species group to at least the nearest 0.1 mt round weight.
 - (iii) The prohibited species catch to at least the nearest 0.1 mt round weight or by number, as required by the regulations for the fishery in which the FFV is engaged.
 - (iv) The species code of each marine mammal caught and its condition when released.
- (4) "SECTION TWO-CATCH" must contain, on a daily basis—
 - (i) The species codes for all allocated or prohibited species or species groups caught.
 - (ii) For each allocated species—the amount, to at least the nearest 0.1 mt, and the daily disposition, either processed for human consumption, used for fishmeal, or discarded; the daily catch by fishing area; the daily catch for all fishing areas; and the cumulative total catch.
 - (iii) For the total catch of allocated species—the amount to at least the nearest 0.1 mt and the daily disposition, daily total catch by fishing area, daily total catch for all fishing areas, and cumulative total catch.
 - (iv) The catch by fishing area, daily total, and cumulative total of each prohibited species.
- (5) "SECTION THREE—PRODUCTION" must contain, on a daily basis, for each allocated species caught and product produced—
 - (i) The product by species code and product type.
 - (ii) The daily product recovery rate of each species and product.
 - (iii) The daily total product produced by species to at least the nearest 0.01 mt.
 - (iv) The cumulative total of each product to at least the nearest 0.01 mt.
 - (v) The cumulative amount of product transferred.
 - (vi) The balance of product remaining aboard the FFV.
 - (vii) The total daily amount, cumulative amount, transferred product and balance of frozen product aboard the FFV to the nearest 0.01 mt.
 - (viii) Transferred amount and balance of fishmeal and fish oil aboard to at least the nearest 0.01 mt.
- (f) *Daily consolidated fishing or joint venture log.* The operator of each FFV that receives unsorted, unprocessed fish from foreign catching vessels (Activity Code 2) for processing or receives U.S.-harvested fish from U.S. fishing vessels in a joint venture (Activity Code 4) must maintain a daily joint venture log of the effort, catch and production of its associated U.S. or foreign fishing vessels and the processing vessel as modified by the regulations for the fishery in which the FFV is engaged. This log is separate and in addition to the log required by paragraph (d) of this section. The operator must maintain a separate log for each fishery in which the FFV is engaged, on a daily and cumulative basis, according to this section and in the format specified in the instructions provided with the permit or other format authorized under paragraph (i) of this section. Receipts of fish caught outside the EEZ must be included. Each page of the log may contain entries pertaining to only one day's fishing operations.
- (g) *Daily joint venture log—contents.* Daily joint venture logs must contain the following information, as modified by the fishery in which the vessel is engaged, and be completed according to the format and instructions provided with the permit or other format authorized under paragraph (i) of this section.
 - (1) "SECTION ONE-EFFORT" must contain, on a daily basis, that information required in paragraph (e)(1) of this section.
 - (2) "SECTION ONE-EFFORT" must contain for each receipt of a codend—
 - (i) The consecutive codend number, beginning with the first codend received for the calendar year.
 - (ii) The name of the U.S. fishing vessel or the name and IRCS of the foreign fishing vessel the codend was received from.
 - (iii) The fishing area where the codend was received.
 - (iv) The time the codend was received.
 - (v) The position the codend was received.
 - (vi) The estimated weight of the codend to at least the nearest metric ton round weight.
 - (3) "SECTION TWO-CATCH" must contain, for each codend received—
 - (i) The consecutive codend number from "SECTION ONE".
 - (ii) The receipts of each authorized species or species group and its disposition, either processed for human consumption, used for fishmeal, discarded, or returned to the U.S. fishing vessel, to at least the nearest 0.1 mt round weight.
 - (iii) The estimated receipts of each prohibited species or species group and its disposition, either discarded or returned to the U.S. fishing vessel if authorized in the fishery in which the U.S. vessel is engaged, to at least the nearest 0.1 mt round weight.
 - (iv) The species code of each marine mammal received and its condition when released.
 - (4) "SECTION TWO-CATCH" must contain on a daily basis—
 - (i) The species codes of all authorized or prohibited species or species groups received.
 - (ii) The daily disposition, as described in paragraph (g)(3)(ii) of this section, daily total, and cumulative total receipts of each authorized species or species groups.
 - (iii) The daily disposition, daily total and cumulative total receipts of all authorized species or species groups.
 - (iv) The daily and cumulative total receipts of prohibited species groups and their disposition as described in paragraph (g)(3)(iii) of this section.
- (5) "SECTION THREE—PRODUCTION" must contain, on a daily basis, for each authorized species or species group received and product produced, that information required in paragraph

(e)(5) of this section.

(h) *Daily log maintenance.* The logs required by paragraphs (e) through (g) of this section must be maintained separately for each fishery (see table 2 to §600.502).

(1) The effort section (all of "SECTION ONE") of the daily logs must be updated within 2 hours of the hauling or receipt time. The catch or receipt by trawl or set ("SECTION TWO") must be entered within 12 hours of the hauling or receipt time. The daily and cumulative total catch or receipts ("SECTION TWO") and the production portion ("SECTION THREE") of the log must be updated within 12 hours of the end of the day on which the catch was taken. The date of catch is the day and time (GMT) the gear is hauled.

(2) Entries for total daily and cumulative catch or receipt weights (disposition "C" or "M") must be based on the most accurate method available to the vessel, either scale round weights or factory weights converted to round weights. Entries for daily and cumulative weights of discarded or returned fish (disposition "D" or "R") must be based on the most accurate method available to the vessel, either actual count, scale round weight, or estimated deck weights. Entries for product weights must be based on the number of production units (pans, boxes, blocks, trays, cans, or bags) and the average weight of the production unit, with reasonable allowances for water added. Allowances for water added cannot exceed 5 percent of the unit weight. Product weights cannot be based on the commercial or arbitrary wholesale weight of the product, but must be based on the total actual weight of the product as determined by representative samples.

(3) The owner or operator must make all entries in indelible ink, with corrections to be accomplished by lining out and rewriting, rather than erasure.

(i) Alternative log formats. As an alternative to the use of the specific formats provided, a Nation may submit a proposed log format for FFV's of that Nation for a general type of fishery operation in a fishery (i.e., joint venture operations) to the appropriate Regional Administrator and the USCG commander (see tables 1 and 2 to §600.502). With the agreement of the USCG commander, the Regional Administrator may authorize the use of that log format for vessels of the requesting Nation.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.508 Fishing operations.

(a) *Catching.* Each FFV authorized for activity code 1 may catch fish. An FFV may retain its catch of any species or species group for which there is an unfilled national allocation. All fish caught will be counted against the national allocation, even if the fish are discarded, unless exempted by the regulations of the fishery in which the FFV is engaged. Catching operations may be conducted as specified by the regulations of the fishery in which the FFV is engaged and as modified by the FFV's permit.

(b) *Scouting.* Each FFV authorized for Activity Codes 1 through 6 may scout for fish. Scouting may be conducted only in the fisheries area authorized by the scouting vessel's permit and under such other circumstances as may be designated in this subpart or the permit.

(c) *Processing.* Each FFV with Activity Code 1 or 2 may process fish. Processing may only be conducted whenever and wherever catching operations for FFV's of that Nation are permitted, whenever and wherever joint venture operations are authorized by an FFV's permit under Activity Code 4, and under such other circumstances as may be designated in this subpart or the permit.

(d) *Support.* Each FFV with Activity Codes 1, 2, 3, 5, or 8 may support other permitted FFV's. Each FFV with Activity Codes 4 or 6 may support U.S. vessels. Support operations may be conducted only in the fisheries areas authorized by the supporting vessel's permit, and under such other circumstances as may be designated in this subpart or the permit.

(e) *Joint ventures.* Each FFV with Activity Code 4 in addition to Activity Codes 1 or 2 may also conduct operations with U.S. fishing vessels. These joint venture operations with U.S. fishing vessels may be conducted throughout the EEZ, and under such other circumstances as may be designated in these regulations or the permit. FFV's with activity code 4 may continue operations assisting U.S. fishing vessels, despite closures under §600.511(a).

(f) *Internal waters.* For FFV's authorized under section 306(c) of the Magnuson-Stevens Act:

(1) Each FFV may engage in fish processing and support of U.S. fishing vessels within the internal waters of that state in compliance with terms and conditions set by the authorizing Governor.

(2) The owner or operator of each FFV must submit weekly reports on the amount of fish received from vessels of the United States and the location(s) where such fish were harvested.

(i) Reports must include:

(A) Vessel identification information for the FFV.

(B) Date of each receipt of fish.

(C) Amount of fish received, by species.

(D) Location(s) from which the fish received were harvested and the name and official number of the vessel of the United States that harvested the fish.

(ii) Owners or operators of FFV's processing fish in internal waters under the provisions of this paragraph (f) must request, from the Regional Administrator, the requirements regarding timing and submission of the reports, at least 15 days prior to the first receipt of fish from a vessel of the United States. The Regional Administrator shall stipulate the timing and submission requirements in writing.

(g) *Transshipping.* Each FFV with Activity Code 1, 2, 3, 4, 5, 6, 7, 8, or 10 may transship in accordance with this subpart and the vessel's permit.

[61 FR 32540, June 24, 1996, as amended at 62 FR 27183, May 19, 1997; 62 FR 34397, June 26, 1997; 64 FR 39020, July 21, 1999]

§ 600.509 Prohibited species.

(a) The owner or operator of each FFV must minimize its catch or receipt of prohibited species.

(b) After allowing for sampling by an observer (if any), the owner or operator of each FFV must sort its catch of fish received as soon as possible and return all prohibited species and species parts to the sea immediately with a minimum of injury, regardless of condition, unless a different procedure is specified by the regulations for the fishery in which the FFV is engaged. All prohibited species must be recorded in the daily fishing log and other fishing logs as specified by the regulations for the fishery in which the FFV is engaged.

(c) All species of fish that an FFV has not been specifically allocated or authorized under this subpart to retain, including fish caught or received in excess of any allocation or authorization, are prohibited species.

(d) It is a rebuttable presumption that any prohibited species or species part found on board an FFV was caught and retained in violation of this section.

§ 600.510 Gear avoidance and disposal.

(a) *Vessel and gear avoidance.* (1) FFV's arriving on fishing grounds where fishing vessels are already fishing or have set their gear for that purpose must ascertain the position and extent of gear already placed in the sea and must not place themselves or their fishing gear so as to interfere with or obstruct fishing operations already in progress. Vessels using mobile gear must avoid fixed fishing gear.

(2) The operator of each FFV must maintain on its bridge a current plot of broadcast fixed-gear locations for the area in which it is fishing, as required by the regulations for the fishery in which the FFV is engaged.

(b) *Gear conflicts.* The operator of each FFV that is involved in a conflict or that retrieves the gear of another vessel must immediately notify the appropriate USCG commander identified in tables 1 and 2 to §600.502 and request disposal instructions. Each report must include:

(1) The name of the reporting vessel.

(2) A description of the incident and articles retrieved, including the amount, type of gear, condition, and identification markings.

(3) The location of the incident.

(4) The date and time of the incident.

(c) *Disposal of fishing gear and other articles.* (1) The operator of an FFV in the EEZ may not dump overboard, jettison or otherwise discard any article or substance that may interfere with other fishing vessels or gear, or that may catch fish or cause damage to any marine resource, including marine mammals and birds, except in cases of emergency involving the safety of the ship or crew, or as specifically authorized by communication from the appropriate USCG commander or other authorized officer. These articles and substances include, but are not limited to, fishing gear, net scraps, bale straps, plastic bags, oil drums, petroleum containers, oil, toxic chemicals or any manmade items retrieved in an FFV's gear.

(2) The operator of an FFV may not abandon fishing gear in the EEZ.

(3) If these articles or substances are encountered, or in the event of accidental or emergency placement into the EEZ, the vessel operator must immediately report the incident to the

appropriate USCG Commander indicated in tables 1 and 2 to §600.502, and give the information required in paragraph (b) of this section.

§ 600.511 Fishery closure procedures.

(a) Activity Codes 1 and 2 for a fishery are automatically canceled in the following cases, unless otherwise specified by regulations specific to a fishery, when—

- (1) The OY for any allocated species or species group has been reached in that fishery;
- (2) The TALFF or catch allowance for any allocated species or species group has been reached in that fishery;
- (3) The foreign nation's allocation for any allocated species or species group has been reached; or
- (4) The letter of credit required in §600.518(b)(2) is not established and maintained.

(b) Activity Code 4 is automatically canceled when—

- (1) The OY for a species with a JVP amount is reached;
- (2) The JVP amount for a species or species group is reached; or
- (3) The letter of credit required in §600.518(b)(2) is not established and maintained.

(c) *Notification.* (1) The Regional Administrator is authorized to close a fishery on behalf of NMFS. The Regional Administrator will notify each FFV's designated representative of closures.

(2) If possible, notice will be given 48 hours before the closure. However, each Nation and the owners and operators of all FFV's of that Nation are responsible for ending fishing operations when an allocation is reached.

(d) *Catch reconciliation.* Vessel activity reports, U.S. surveillance observations, observer reports, and foreign catch and effort reports will be used to make the determination listed in paragraphs (a) and (b) of this section. If NMFS estimates of catch or other values made during the season differ from those reported by the foreign fleets, efforts may be initiated by the designated representative of each Nation to resolve such differences with NMFS. If, however, differences still persist after such efforts have been made, NMFS estimates will be the basis for decisions and will prevail.

(e) *Duration.* Any closure under this section will remain in effect until an applicable new or increased allocation or JVP becomes available or the letter of credit required by §600.518(b)(2) is reestablished.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.512 Scientific research.

(a) *Scientific research activity.* Persons planning to conduct scientific research activities in the EEZ that may be confused with fishing are encouraged to submit to the appropriate Regional Administrator, Director, or designee, 60 days or as soon as practicable prior to its start, a scientific research plan for each scientific cruise. The Regional Administrator, Director, or designee will acknowledge notification of scientific research activity by issuing to the operator or master of that vessel, or to the sponsoring institution, a letter of acknowledgment. This letter of acknowledgment is separate and distinct from any permit required under any other applicable law. If the Regional Administrator, Director, or designee, after review of a research plan, determines that it does not constitute scientific research activity, but rather fishing, the Regional Administrator, Director, or designee will inform the applicant as soon as practicable and in writing. The Regional Administrator, Director, or designee may also make recommendations to revise the research plan to make the cruise acceptable as scientific research activity. In order to facilitate identification of activity as scientific research, persons conducting scientific research activities are advised to carry a copy of the scientific research plan and the letter of acknowledgment on board the scientific research vessel. Activities conducted in accordance with a scientific research plan acknowledged by such a letter are presumed to be scientific research activities. The presumption may be overcome by showing that an activity does not fit the definition of scientific research activity or is outside the scope of the scientific research plan.

(b) *Reports.* Persons conducting scientific research are requested to submit a copy of any cruise report or other publication created as a result of the cruise, including the amount, composition, and disposition of their catch, to the appropriate Science and Research Director.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.513 Recreational fishing.

(a) Foreign vessels conducting recreational fishing must comply only with this section, and §§600.10, 600.504(a)(1), and 600.505 (as applicable). Such vessels may conduct recreational fishing within the EEZ and within the boundaries of a state. Any fish caught may not be sold, bartered, or traded.

(b) The owners or operator and any other person aboard any foreign vessel conducting recreational fishing must comply with any Federal laws or regulations applicable to the domestic fishery while in the EEZ, and any state laws or regulations applicable while in state waters.

§ 600.514 Relation to other laws.

(a) Persons affected by these regulations should be aware that other Federal and state statutes may apply to their activities.

(b) Fishing vessel operators must exercise due care in the conduct of fishing activities near submarine cables. Damage to submarine cables resulting from intentional acts or from the failure to exercise due care in the conduct of fishing operations subjects the fishing vessel operator to enforcement action under the International Convention for the Protection of Submarine Cables, and to the criminal penalties prescribed by the Submarine Cable Act (47 U.S.C. 21) and other laws that implement that Convention. Fishing vessel operators also should be aware that the Submarine Cable Act prohibits fishing operations at a distance of less than 1 nautical mile (1.85 km) from a vessel engaged in laying or repairing a submarine cable; or at a distance of less than 0.25 nautical mile (0.46 km) from a buoy or buoys intended to mark the position of a cable when being laid, or when out of order, or broken.

§ 600.515 Interpretation of 16 U.S.C. 1857(4).

Section 307(4) of the Magnuson-Stevens Act prohibits any fishing vessel other than a vessel of the United States (foreign fishing vessel) from operating in the EEZ if all of the fishing gear on board the vessel is not stowed in compliance with that section "unless such vessel is authorized to engage in fishing in the area in which the vessel is operating." If such a vessel has a permit authorization that is limited to fishing activities other than catching, taking or harvesting (such as support, scouting or processing activities), it must have all of its fishing gear stowed at all times while it is in the EEZ. If such a vessel has a permit authorization to engage in catching, taking or harvesting activities, but such authorization is limited to a specific area within the EEZ, and/or to a specific period of time, the vessel must have all of its fishing gear stowed while it is in the EEZ, except when it is in the specific area authorized, and/or during the specific period of time authorized.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.516 Total allowable level of foreign fishing (TALFF).

(a) The TALFF, if any, with respect to any fishery subject to the exclusive fishery management authority of the United States, is that portion of the OY of such fishery that will not be caught by vessels of the United States.

(b) Each specification of OY and each assessment of the anticipated U.S. harvest will be reviewed during each fishing season. Adjustments to TALFF's will be made based on updated information relating to status of stocks, estimated and actual performance of domestic and foreign fleets, and other relevant factors.

(c) Specifications of OY and the initial estimates of U.S. harvests and TALFF's at the beginning of the relevant fishing year will be published in the Federal Register. Adjustments to those numbers will be published in the Federal Register upon occasion or as directed by regulations implementing FMPs. For current apportionments, contact the appropriate Regional Administrator or the Director.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.517 Allocations.

The Secretary of State, in cooperation with the Secretary, determines the allocation among foreign nations of fish species and species groups. The Secretary of State officially notifies each foreign nation of its allocation. The burden of ascertaining and accurately transmitting current allocations and status of harvest of an applicable allocation to fishing vessels is upon the foreign nation and the owner or operator of the FFV.

§ 600.518 Fee schedule for foreign fishing.

(a) *Permit application fees.* Each vessel permit application submitted under §600.501 must be accompanied by a fee. The amount of the fee will be determined in accordance with the procedures for determining administrative costs of each special product or service contained in the NOAA Finance Handbook, which is available upon request from the International Fisheries Division (see address at §600.501(d)(1)). The fee is specified with the application form. At the time the application is submitted, a check for the fees, drawn on a U.S. bank, payable

to the order of "Department of Commerce, NOAA," must be sent to the Assistant Administrator. The permit fee payment must be accompanied by a list of the vessels for which the payment is made. In the case of applications for permits authorizing activity code 10, the permit application fee will be waived if the applicant provides satisfactory documentary proof to the Assistant Administrator that the foreign nation under which the vessel is registered does not collect a fee from a vessel of the United States engaged in similar activities in the waters of such foreign nation. The documentation presented (e.g., copy of foreign fishing regulations applicable to vessels of the United States) must clearly exempt vessels of the United States from such a fee.

(b) *Poundage fees* —(1) *Rates*. If a Nation chooses to accept an allocation, poundage fees must be paid at the rate specified in the following table.

Table—Species and Poundage Fees

[Dollars per metric ton]

Species	Poundage fees
Northwest Atlantic Ocean fisheries:	
1. Butterfish	277.96
2. Herring, Atlantic	25.75
3. Herring, River	49.59
4. Mackerel, Atlantic	64.76
5. Other finfish	45.48
6. Squid, <i>Illex</i>	97.56
7. Squid, <i>Loligo</i>	321.68

(2) *Method of payment of poundage fees and observer fees*. (i) If a Nation chooses to accept an allocation, a revolving letter of credit (L/C) must be established and maintained to cover the poundage fees for at least 25 percent of the previous year's total allocation at the rate in paragraph (b)(1) of this section, or as determined by the Assistant Administrator, plus the observer fees required by paragraph (c) of this section. The L/C must—

(A) Be irrevocable.

(B) Be with a bank subscribing to ICC Pub. 290.

(C) Designate "Department of Commerce, NOAA" as beneficiary;

(D) Allow partial withdrawals.

(E) Be confirmed by a U.S. bank.

(ii) The customer must pay all commissions, transmission, and service charges. No fishing will be allowed until the L/C is established, and authorized written notice of its issuance is provided to the Assistant Administrator.

(3) *Assessment of poundage fees*. Poundage fees will be assessed quarterly for the actual catch during January through March, April through June, July through September, and October through December. The appropriate Regional Administrator will reconcile catch figures with each country following the procedures of §600.511(d). When the catch figures are agreed upon, NOAA will present a bill for collection as the documentary demand for payment to the confirming bank. If, after 45 days from the end of the quarter, catches have not been reconciled, the estimate of the Regional Administrator will stand and a bill will be issued for that amount. If necessary, the catch figures may be refined by the Regional Administrator during the next 60 days, and any modifications will be reflected in the next quarter's bill.

(c) *Observer fees*. The Assistant Administrator will notify the owners or operators of FFV's of the estimated annual costs of placing observers aboard their vessels. The owners or operators of any such vessel must provide for repayment of those costs by including one-fourth of the estimated annual observer fee as determined by the Assistant Administrator in a L/C as prescribed in §600.518(b)(2). During the fiscal year, payment will be withdrawn from the L/C as required to cover anticipated observer coverage for the upcoming fishery. The Assistant Administrator will reconcile any differences between the estimated cost and actual costs of observer coverage within 90 days after the end of the fiscal year.

(d) *Financial assurances*. (1) A foreign nation, or the owners and operators of certain vessels of that foreign nation, may be required by the Assistant Administrator to provide financial assurances. Such assurances may be required if—

(i) Civil and criminal penalties assessed against fishing vessels of the Nation have not effectively deterred violations;

(ii) Vessels of that Nation have engaged in fishing in the EEZ without proper authorization to conduct such activities;

(iii) The Nation's vessel owners have refused to answer administrative charges or summons to appear in court; or

(iv) Enforcement of Magnuson-Stevens Act civil or criminal judgments in the courts of a foreign nation is unattainable.

(2) The level of financial assurances will be guided by the level of penalties assessed and costs to the U.S. Government.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 64 FR 39020, July 21, 1999; 66 FR 28132, May 22, 2001]

§ 600.520 Northwest Atlantic Ocean fishery.

(a) *Purpose*. Sections 600.520 and 600.525 regulate all foreign fishing conducted under a GIFA within the EEZ in the Atlantic Ocean north of 35°00' N. lat.

(b) *Authorized fishery*—(1) *Allocations*. Foreign vessels may engage in fishing only in accordance with applicable national allocations.

(2) *Time and area restrictions*. (i) Fishing, including processing, scouting, and support of foreign or U.S. vessels, is prohibited south of 35°00' N. lat., and north and east of a line beginning at the shore at 44°22' N. lat., 67°52' W. long. and intersecting the boundary of the EEZ at 44°11'12" N. lat., 67°16'46" W. long.

(ii) The Regional Administrator will consult with the Council prior to giving notice of any area or time restriction. NMFS will also consult with the USCG if the restriction is proposed to reduce gear conflicts. If NMFS determines after such consultation that the restriction appears to be appropriate, NMFS will publish the proposed restriction in the Federal Register, together with a summary of the information on which the restriction is based. Following a 30-day comment period, NMFS will publish a final action.

(iii) The Regional Administrator may rescind any restriction if he/she determines that the basis for the restriction no longer exists.

(iv) Any notice of restriction shall operate as a condition imposed on the permit issued to the foreign vessels involved in the fishery.

(3) *TALFF*. The TALFFs for the fisheries of the Northwest Atlantic Ocean are published in the Federal Register. Current TALFFs are also available from the Regional Administrator.

(4) *Species definitions*. The category "other finfish" used in TALFFs and in allocations includes all species except:

(i) The other allocated species, namely: Short-finned squid, long-finned squid, Atlantic herring, Atlantic mackerel, river herring (includes alewife, blueback herring, and hickory shad), and butterfish.

(ii) The prohibited species, namely: American plaice, American shad, Atlantic cod, Atlantic menhaden, Atlantic redfish, Atlantic salmon, all marlin, all spearfish, sailfish, swordfish, black sea bass, bluefish, croaker, haddock, ocean pout, pollock, red hake, scup, sea turtles, sharks (except dogfish), silver hake, spot, striped bass, summer flounder, tilefish, yellowtail flounder, weakfish, white hake, windowpane flounder, winter flounder, witch flounder, Continental Shelf fishery resources, and other invertebrates (except nonallocated squids).

(5) *Closures*. The taking of any species for which a Nation has an allocation is permitted, provided that:

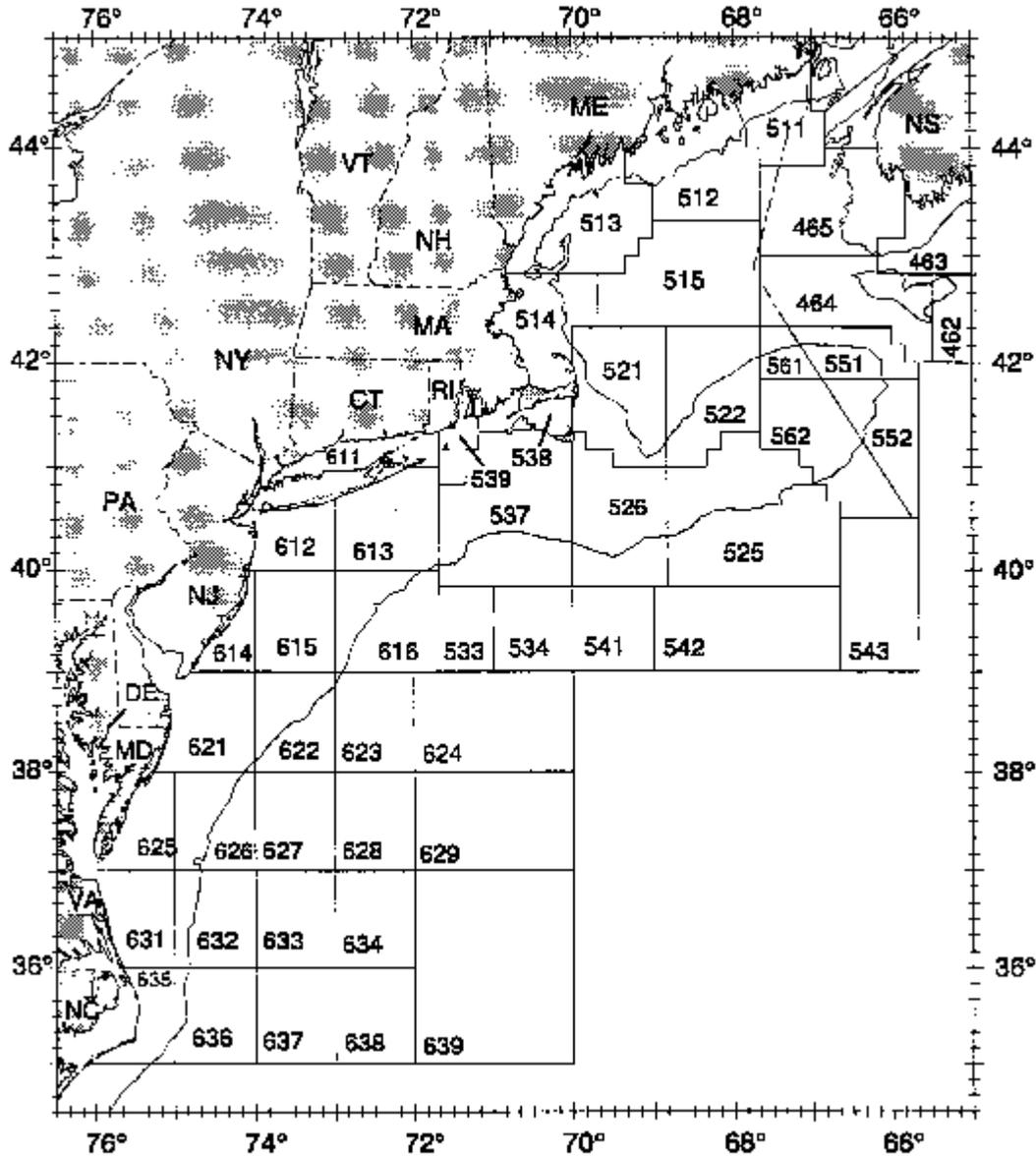
(i) The vessels of the foreign nation have not caught the allocation of that Nation for any species or species group (e.g., "other finfish"). When vessels of a foreign nation have caught an applicable allocation of any species, all further fishing other than scouting, processing, or support by vessels of that Nation must cease, even if other allocations have not been reached. Therefore, it is essential that foreign nations plan their fishing strategy to ensure that the reaching of an allocation for one species does not result in the premature closing of a Nation's fishery for other allocated species.

(ii) The fishery has not been closed for other reasons under §600.511.

(6) *Allocation utilization.* Foreign fishing vessels may elect to retain or discard allocated species; however, the computation of allocation utilization and fee refunds will be based on the total quantity of that species that was caught. Prohibited species must always be returned to the sea as required under §600.509.

(c) *Fishing areas.* For the purposes of the Northwest Atlantic Ocean fishery, fishing areas are that portion of the EEZ shown inside the boundaries of the “three digit statistical areas” described in Figure 1 to this section.

Figure 1 to § 600.520--Fishing Areas of the Northwest Atlantic Ocean Fisheries



[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.525 Applicability of Subpart F to Canadian Albacore Fishing Vessels off the West Coast.

Fishing by vessels of Canada under the 1981 Treaty Between the Government of the United States of America and the Government of Canada on Pacific Coast Albacore Tuna Vessels and Port Privileges is regulated only under this section and §600.530 of this subpart F, and is exempt from any other requirements of this subpart F. Regulations governing fishing by U.S. vessels in waters under the fisheries jurisdiction of the United States more than 12 nautical miles from the baseline from which the territorial sea is measured are found at §§300.170–300.176 of chapter II of this title.

[69 FR 31535, June 4, 2004]

§ 600.530 Pacific albacore fishery.

(a) *Purpose and scope.* This section regulates fishing by Canadian vessels under the 1981 Treaty Between the Government of the United States of America and the Government of Canada on Pacific Coast Albacore Tuna Vessels and Port Privileges as amended in 2002. Notwithstanding any other provision of this subpart F, fishing vessels of Canada may be authorized to fish in waters under the fisheries jurisdiction of the United States more than 12 nautical miles from the baseline from which the territorial sea is measured in accordance with the Treaty and this section, pursuant to Public Law 108–219 (118 Stat. 616; 16 U.S.C. 1821 note).

(b) *Definitions.* In addition to the definitions in the Magnuson-Stevens Fishery Conservation and Management Act and §600.10, the terms used in this subpart have the following meanings:

Fishing under the Treaty as amended in 2002 means to engage in fishing for albacore tuna in waters under the fisheries jurisdiction of the United States seaward of 12 nautical miles from the baseline from which the territorial sea is measured.

Regional Administrator means the Regional Administrator, Southwest Region, NMFS, 501 W. Ocean Boulevard, Suite 4200, Long Beach, CA 90802–4213, or a designee.

Reporting Office means the office designated by the Regional Administrator to take hail-in and hail-out reports from U.S. and Canadian vessel operators.

Treaty means the 1981 Treaty Between the Government of the United States of America and the Government of Canada on Pacific Coast Albacore Tuna Vessels and Port Privileges as amended in 2002.

(c) *Vessel list.* A Canadian vessel is not eligible to fish for albacore in U.S. waters under the Treaty as amended in 2002 unless the vessel is on the list provided to NMFS by the Government of Canada of vessels authorized by Canada to fish under the Treaty as amended in 2002.

(d) *Vessel identification.* A Canadian vessel fishing under the Treaty as amended in 2002 must clearly display its Canadian vessel registration number followed by the letter C in the same height and size as the numerals, consistent with Canadian vessel marking requirements.

(e) *Hail-in reports.* The operator of a Canadian Vessel eligible to fish for albacore in U.S. waters under the Treaty as amended in 2002 must file a hail-in report with the Reporting Office at least 24 hours prior to beginning any such fishing.

(f) *Hail-out Reports.* The operator of a Canadian vessel that has been fishing in U.S. waters under the Treaty as amended in 2002 must file a hail-out report with the Reporting Office at least 24 hours prior to exiting from U.S. waters.

(g) *Prohibitions.* It is prohibited for the operator of a Canadian vessel to engage in fishing in U.S. waters if the vessel:

- (1) Is not on the vessel list in paragraph (c) of this section;
- (2) Has not filed a hail-in report to advise of an intent to fish under the Treaty as amended in 2002 prior to engaging in such fishing; or
- (3) Is not clearly marked in accordance with paragraph (d) of this section.

[69 FR 31535, June 4, 2004]

Subpart G—Preemption of State Authority Under Section 306(b)

§ 600.605 General policy.

It is the policy of the Secretary that preemption proceedings will be conducted expeditiously. The administrative law judge and counsel or other representative for each party are encouraged to make every effort at each stage of the proceedings to avoid delay.

§ 600.610 Factual findings for Federal preemption.

(a) The two factual findings for Federal preemption of state management authority over a fishery are:

- (1) The fishing in a fishery that is covered by an FMP implemented under the Magnuson-Stevens Act is engaged in predominately within the EEZ and beyond such zone.
- (2) A state has taken any action, or omitted to take any action, the results of which will substantially and adversely affect the carrying out of such FMP.

(b) Whether fishing is engaged in "predominately" within or beyond the EEZ will be determined after consideration of relevant factors, including but not limited to, the catch (based on numbers, value, or weight of fish caught, or other relevant factors) or fishing effort during the appropriate period, and in light of historical patterns of the distribution of catch or fishing effort for such stock or stocks of fish.

(c) Whether relevant effects are substantial will be determined after consideration of the magnitude of such actual or potential effects. Relevant to this determination are various factors, including but not limited to, the proportion of the fishery (stock or stocks of fish and fishing for such stocks) that is subject to the effects of a particular state's action or omission, the characteristics and status (including migratory patterns and biological condition) of the stock or stocks of fish in the fishery, and the similarity or dissimilarity between the goals, objectives, or policies of the state's action or omission and the management goals or objectives specified in the FMP for the fishery or between the state and Federal conservation and management measures of the fishery.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.615 Commencement of proceedings.

(a) *Notice of proposed preemption.* (1) If a proceeding under this part is deemed necessary, the Administrator must issue a notice of proposed preemption to the Attorney General of the State or States concerned. The notice will contain:

- (i) A recital of the legal authority and jurisdiction for instituting the proceeding.
- (ii) A concise statement of the §600.610 factual findings for Federal preemption upon which the notice is based.
- (iii) The time, place, and date of the hearing.

(2) The notice of proposed preemption will also be published in the Federal Register. This notification may be combined with any notice of proposed rulemaking published under paragraph (d)(1) of this section.

(b) *Response.* The state will have the opportunity to respond in writing to the notice of proposed preemption.

(c) *Amendment.* The Administrator may, at any time prior to the Secretary's decision, withdraw the notice of proposed preemption. Upon motion of either party before the record is closed, the administrative law judge may amend the notice of proposed preemption.

(d) *Proposed regulations* —(1) *In general.* If additional regulations are required to govern fishing within the boundaries of a state, the Administrator may publish proposed regulations in the Federal Register concurrently with issuing the notification indicated in paragraph (a) of this section.

(2) *Emergency actions.* Nothing in this section will prevent the Secretary from taking emergency action under section 305(c) of the Magnuson-Stevens Act.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.620 Rules pertaining to the hearing.

(a) The civil procedure rules of the NOAA currently set forth in 15 CFR part 904, subpart C (or as subsequently amended), apply to the proceeding after its commencement by service of notice (pursuant to §600.615) and prior to the Secretary's decision (§600.625), except that the following sections will not apply:

- (1) 15 CFR 904.201 (Definitions);
- (2) 15 CFR 904.206(a)(1) (Duties and powers of Judge); and
- (3) 15 CFR 904.272 (Administrative review of decision).

(b) *Additional duties and powers of judge* —(1) *Time periods.* The administrative law judge is authorized to modify all time periods pertaining to the course of the hearing (under §§600.615 and 600.620) to expedite the proceedings, upon application and appropriate showing of need or emergency circumstances by a party.

(2) *Intervention.* Intervention by persons not parties is not allowed.

§ 600.625 Secretary's decision.

(a) The Secretary will, on the basis of the hearing, record the administrative law judge's recommended decision:

(1) Accept or reject any of the findings or conclusions of the administrative law judge and decide whether the factual findings exist for Federal preemption of a state's authority within its boundaries (other than in its internal waters) with respect to the fishery in question;

(2) Reserve decision on the merits or withdraw the notice of proposed preemption; or

(3) Remand the case to the administrative law judge for further proceedings as may be appropriate, along with a statement of reasons for the remand.

(b) *Notification.* (1) If the factual findings for Federal preemption are determined to exist, the Secretary will notify in writing the Attorney General of that state and the appropriate Council(s) of the preemption of that state's authority. The Secretary will also direct the Administrator to promulgate appropriate regulations proposed under §600.615(d) and otherwise to begin regulating the fishery within the state's boundaries (other than in its internal waters).

(2) If the factual findings for Federal preemption are determined not to exist, the Secretary will notify, in writing, the Attorney General of the state and the appropriate Council(s) of that determination. The Secretary will also direct the Administrator to issue a notice withdrawing any regulations proposed under §600.615(d).

§ 600.630 Application for reinstatement of state authority.

(a) *Application or notice.* (1) At any time after the promulgation of regulations under §600.625(b)(1) to regulate a fishery within a state's boundaries, the affected state may apply to the Secretary for reinstatement of state authority. The Secretary may also serve upon such state a notice of intent to terminate such Federal regulation. A state's application must include a clear and concise statement of:

- (i) The action taken by the State to correct the action or omission found to have substantially and adversely affected the carrying out of the FMP; or
- (ii) Any changed circumstances that affect the relationship of the state's action or omission to take action to the carrying out of the FMP (including any amendment to such plan); and
- (iii) Any laws, regulations, or other materials that the state believes support the application.

(2) Any such application received by the Secretary or notice issued to the State will be published in the Federal Register.

(b) *Informal response.* The Secretary has sole discretion to accept or reject the application or response. If the Secretary accepts the application or rejects any responses and finds that the reasons for regulation of the fishery within the boundaries of the state no longer prevail, the Secretary will promptly terminate such regulation and publish in the Federal Register any regulatory amendments necessary to accomplish that end.

(c) *Hearing.* The Secretary has sole discretion to direct the Administrator to schedule hearings for the receipt of evidence by an administrative law judge. Hearings before the administrative law judge to receive such evidence will be conducted in accordance with §600.620. Upon conclusion of such hearings, the administrative law judge will certify the record and a recommended decision to the Secretary. If the Secretary, upon consideration of the state's application or any response to the notice published under §600.630(a)(2), the hearing record, the recommended decision, and any other relevant materials finds that the reasons for regulation of the fishery within the boundaries of the state no longer prevail, the Secretary will promptly terminate such regulation and publish in the Federal Register any regulatory amendments necessary to accomplish that end.

Subpart H—General Provisions for Domestic Fisheries

§ 600.705 Relation to other laws.

(a) *General.* Persons affected by these regulations should be aware that other Federal and state statutes and regulations may apply to their activities. Vessel operators may wish to refer to USCG regulations found in the Code of Federal Regulations title 33—Navigation and Navigable Waters and 46—Shipping; 15 CFR part 904, subpart D—Permit Sanctions and Denials; and title 43—Public Lands (in regard to marine sanctuaries).

(b) *State responsibilities.* Certain responsibilities relating to data collection and enforcement may be performed by authorized state personnel under a state/Federal agreement for data collection and a tripartite agreement among the state, the USCG, and the Secretary for enforcement.

(c) *Submarine cables.* Fishing vessel operators must exercise due care in the conduct of fishing activities near submarine cables. Damage to the submarine cables resulting from intentional acts or from the failure to exercise due care in the conduct of fishing operations subjects the fishing vessel operator to the criminal penalties prescribed by the Submarine Cable Act (47 U.S.C. 21) which implements the International Convention for the Protection of Submarine Cables. Fishing vessel operators also should be aware that the Submarine Cable Act prohibits fishing operations at a distance of less than 1 nautical mile (1.85 km) from a vessel engaged in laying or repairing a submarine cable; or at a distance of less than 0.25 nautical mile (0.46 km) from a buoy or buoys intended to mark the position of a cable when being laid or when out of order or broken.

(d) *Marine mammals.* Regulations governing exemption permits and the recordkeeping and reporting of the incidental take of marine mammals are set forth in part 229 of this title.

(e) *Halibut fishing.* Fishing for halibut is governed by regulations of the International Pacific Halibut Commission set forth at part 300 of this title.

(f) *Marine sanctuaries.* All fishing activity, regardless of species sought, is prohibited under 15 CFR part 924 in the U.S.S. Monitor Marine Sanctuary, which is located approximately 15 miles southwest of Cape Hatteras off the coast of North Carolina.

§ 600.710 Permits.

Regulations pertaining to permits required for certain fisheries are set forth in the parts of this chapter governing those fisheries.

§ 600.715 Recordkeeping and reporting.

Regulations pertaining to records and reports required for certain fisheries are set forth in the parts of this chapter governing those fisheries.

§ 600.720 Vessel and gear identification.

Regulations pertaining to special vessel and gear markings required for certain fisheries are set forth in the parts of this chapter governing those fisheries.

§ 600.725 General prohibitions.

It is unlawful for any person to do any of the following:

- (a) Possess, have custody or control of, ship, transport, offer for sale, sell, purchase, land, import, or export, any fish or parts thereof taken or retained in violation of the Magnuson-Stevens Act or any other statute administered by NOAA and/or any regulation or permit issued under the Magnuson-Stevens Act.
- (b) Transfer or attempt to transfer, directly or indirectly, any U.S.-harvested fish to any foreign fishing vessel, while such vessel is in the EEZ, unless the foreign fishing vessel has been issued a permit under section 204 of the Magnuson-Stevens Act, which authorizes the receipt by such vessel of U.S.-harvested fish.
- (c) Fail to comply immediately with enforcement and boarding procedures specified in §600.730.
- (d) Refuse to allow an authorized officer to board a fishing vessel or to enter areas of custody for purposes of conducting any search, inspection, or seizure in connection with the enforcement of the Magnuson-Stevens Act or any other statute administered by NOAA.
- (e) Dispose of fish or parts thereof or other matter in any manner, after any communication or signal from an authorized officer, or after the approach by an authorized officer or an enforcement vessel or aircraft.
- (f) Assault, resist, oppose, impede, intimidate, threaten, or interfere with any authorized officer in the conduct of any search, inspection, or seizure in connection with enforcement of the Magnuson-Stevens Act or any other statute administered by NOAA.
- (g) Interfere with, delay, or prevent by any means, the apprehension of another person, knowing that such person has committed any act prohibited by the Magnuson-Stevens Act or any other statute administered by NOAA.
- (h) Resist a lawful arrest for any act prohibited under the Magnuson-Stevens Act or any other statute administered by NOAA.
- (i) Make any false statement, oral or written, to an authorized officer concerning the taking, catching, harvesting, landing, purchase, sale, offer of sale, possession, transport, import, export, or transfer of any fish, or attempts to do any of the above.
- (j) Interfere with, obstruct, delay, or prevent by any means an investigation, search, seizure, or disposition of seized property in connection with enforcement of the Magnuson-Stevens Act or any other statute administered by NOAA.
- (k) Fish in violation of the terms or conditions of any permit or authorization issued under the Magnuson-Stevens Act or any other statute administered by NOAA.
- (l) Fail to report catches as required while fishing pursuant to an exempted fishing permit.
- (m) On a scientific research vessel, engage in fishing other than recreational fishing authorized by applicable state or Federal regulations.
- (n) Trade, barter, or sell; or attempt to trade, barter, or sell fish possessed or retained while fishing pursuant to an authorization for an exempted educational activity.
- (o) Harass or sexually harass an authorized officer or an observer.
- (p) Fail to show proof of passing the USCG Commercial Fishing Vessel Safety Examination or the alternate NMFS safety equipment examination, or fail to maintain the vessel safety conditions necessary to pass the examination, when required by NMFS pursuant to §600.746.
- (q) Fail to display a Commercial Fishing Vessel Safety Examination decal or a valid certificate of compliance or inspection pursuant to §600.746.
- (r) Fail to provide to an observer, a NMFS employee, or a designated observer provider information that has been requested pursuant to §600.746, or fail to allow an observer, a NMFS employee, or a designated observer provider to inspect any item described at §600.746.
- (s) Fish without an observer when the vessel is required to carry an observer.

(t) Assault, oppose, impede, intimidate, or interfere with a NMFS-approved observer.

(u)(1) Prohibit or bar by command, impediment, threat, coercion, interference, or refusal of reasonable assistance, an observer from conducting his or her duties as an observer; or

(2) Tamper with or destroy samples or equipment.

(v) The use of any gear or participation in a fishery not on the following list of authorized fisheries and gear is prohibited after December 1, 1999. A fish, regardless whether targeted, may be retained only if it is taken within a listed fishery, is taken with a gear authorized for that fishery, and is taken in conformance with all other applicable regulations. Listed gear can only be used in a manner that is consistent with existing laws and regulations. The list of fisheries and authorized gear does not, in any way, alter or supersede any definitions or regulations contained elsewhere in this chapter. A person or vessel is prohibited from engaging in fishing or employing fishing gear when such fishing gear is prohibited or restricted by regulation under an FMP or other applicable law. However, after December 1, 1999, an individual fisherman may notify the appropriate Council, or the Director, in the case of Atlantic highly migratory species, of the intent to use a gear or participate in a fishery not already on the list. Ninety days after such notification, the individual may use the gear or participate in that fishery unless regulatory action is taken to prohibit the use of the gear or participate in the fishery (e.g., through emergency or interim regulations). The list of authorized fisheries and gear is as follows:

Fishery	Authorized gear types
I. New England Fishery Management Council (NEFMC)	
1. Atlantic Sea Scallop Fishery (FMP):	
A. Dredge fishery	A. Dredge.
B. Trawl fishery	B. Trawl.
C. Hand harvest fishery	C. Hand harvest.
D. Recreational fishery	D. Hand harvest.
2. Iceland Scallop Fishery (Non-FMP):	
A. Dredge fishery	A. Dredge.
B. Trawl fishery	B. Trawl.
3. Atlantic Salmon Fishery (FMP)	
No harvest or possession in the EEZ.	
4. Striped Bass Fishery (Non-FMP)	
No harvest or possession in the EEZ.	
5. Northeast (NE) Multispecies Fishery (FMP):	
A. NE multispecies sink gillnet fishery	A. Gillnet.
B. North Atlantic bottom trawl fishery	B. Trawl.
C. Groundfish hook and line fishery	C. Longline, handline, rod and reel.
D. Mixed species trap and pot fishery	D. Trap, pot.
E. Dredge fishery	E. Dredge.
F. Seine fishery	F. Seine.
G. Recreational fishery	G. Rod and reel, handline, spear.
6. American Lobster Fishery (FMP):	
A. Lobster pot and trap fishery	A. Pot, trap.
B. North Atlantic bottom trawl fishery	B. Trawl.
C. Dredge fishery	C. Dredge.
D. Hand harvest fishery	D. Hand harvest.
E. Gillnet fishery	E. Gillnet.
F. Recreational fishery	F. Pot, trap, hand harvest.
7. Atlantic Herring Fishery (FMP):	
A. Trawl fishery	A. Trawl.
B. Purse seine fishery	B. Purse seine.
C. Gillnet fishery	C. Gillnet.
D. Herring pair trawl fishery	D. Pair trawl.
E. Dredge fishery	E. Dredge.
F. Recreational fishery	F. Hook and line, gillnet.
8. Spiny Dogfish Fishery (FMP jointly managed by MAFMC and NEFMC):	
A. Gillnet fishery	A. Gillnet.
B. Trawl fishery	B. Trawl.
C. Hook and line fishery	C. Hook and line, rod and reel, spear.
D. Dredge fishery	D. Dredge.

E. Longline fishery	E. Longline.
F. Recreational fishery	F. Hook and line, rod and reel, spear.
9. Atlantic Bluefish Fishery (FMP managed by MAFMC):	
A. Pelagic longline and hook and line fishery	A. Longline, handline.
B. Seine fishery	B. Purse seine, seine.
C. Mixed species pot and trap fishery	C. Pot, trap.
D. Bluefish, croaker, flounder trawl fishery	D. Trawl.
E. Gillnet fishery	E. Gillnet.
F. Dredge fishery	F. Dredge.
G. Recreational fishery	G. Rod and reel, handline, trap, pot, spear.
10. Atlantic Mackerel, Squid and Butterfish Fishery (FMP managed by the MAFMC):	
A. Mackerel, squid, and butterfish trawl fishery	A. Trawl.
B. Gillnet fishery	B. Gillnet.
C. Longline and hook-and-line fishery	C. Longline, handline, rod and reel.
D. Purse seine fishery	D. Purse seine.
E. Mixed species pot and trap fishery	E. Pot, trap.
F. Dredge fishery	F. Dredge.
G. Dip net fishery	G. Dip net.
H. Bandit gear fishery	H. Bandit gear.
I. Recreational fishery	I. Rod and reel, handline, pot, spear.
11. Surf Clam and Ocean Quahog Fishery (FMP managed by the MAFMC):	
A. Commercial fishery	A. Dredge, hand harvest.
B. Recreational fishery	B. Hand harvest.
12. Atlantic Menhaden Fishery (Non-FMP):	
A. Purse seine fishery	A. Purse seine.
B. Trawl fishery	B. Trawl.
C. Gillnet fishery	C. Gillnet.
D. Commercial hook-and-line fishery	D. Hook and line.
E. Recreational fishery	E. Hook and line, snagging, cast nets.
13. Weakfish Fishery (Non-FMP):	
A. Commercial fishery	A. Trawl, gillnet, hook and line.
B. Recreational fishery	B. Hook and line, spear.
14. Atlantic Mussel and Sea Urchin Fishery (Non-FMP):	
A. Dredge fishery	A. Dredge.
B. Hand harvest fishery	B. Hand harvest.
C. Recreational fishery	C. Hand harvest.
15. Atlantic Skate Fishery (Non-FMP):	
A. Trawl fishery	A. Trawl.
B. Gillnet fishery	B. Gillnet.
C. Hook-and-line fishery	C. Longline and handline.
D. Dredge fishery	D. Dredge.
E. Recreational fishery	E. Rod and reel.
16. Crab Fishery (Non-FMP):	
A. Dredge fishery	A. Dredge.
B. Trawl fishery	B. Trawl.

C. Trap and pot fishery	C. Trap, pot.
17. Northern Shrimp Fishery (Non-FMP):	
A. Shrimp trawl fishery	A. Trawl.
B. Shrimp pot fishery	B. Pot.
18. Monkfish Fishery (FMP jointly managed by NEFMC and MAFMC):	
A. Trawl fishery	A. Trawl.
B. Gillnet fishery	B. Gillnet.
C. Longline fishery	C. Longline.
D. Dredge fishery	D. Dredge.
E. Trap and pot fishery	E. Trap, pot.
F. Recreational fishery	F. Rod and reel, spear.
19. Summer Flounder, Scup, Black Sea Bass Fishery (FMP managed by MAFMC):	
A. Trawl fishery	A. Trawl.
B. Longline and hook and line fishery	B. Longline, handline.
C. Mixed species pot and trap fishery	C. Pot, trap.
D. Gillnet fishery	D. Gillnet.
E. Dredge fishery	E. Dredge.
F. Recreational fishery	F. Rod and reel, handline, pot, trap, spear.
20. Hagfish Fishery (Non-FMP)	Trap, pot.
21. Tautog Fishery (Non-FMP):	
A. Gillnet fishery	A. Gillnet.
B. Pot and trap fishery	B. Pot, trap.
C. Rod and reel, hook and line fishery	C. Rod and reel, handline, hook and line.
D. Trawl fishery	D. Trawl.
E. Spear fishery	E. Spear.
F. Fyke net fishery	F. Fyke net.
G. Recreational fishery	G. Rod and reel, hook and line, handline, spear.
22. Recreational Fishery (Non-FMP)	Rod and reel, handline, spear, hook and line, hand harvest, bandit gear, powerhead, gillnet, cast net, pot, trap, dip net, bully net, snare.
23. Commercial Fishery (Non-FMP)	Trawl, pot, trap, gillnet, pound net, dredge, seine, handline, longline, hook and line, rod and reel, hand harvest, purse seine, spear, bandit gear, powerhead, dip net, bully net, snare, cast net, barrier net, slurp gun, allowable chemicals.
24. Dolphin/wahoo fishery (FMP managed by SAFMC)	Automatic reel, bandit gear, handline, pelagic longline, rod and reel, spear (including powerheads).
II. Mid-Atlantic Fishery Management Council (MAFMC)	
1. Summer Flounder, Scup, Black Sea Bass Fishery (FMP):	
A. Trawl fishery	A. Trawl.
B. Pelagic longline and hook and line fishery	B. Longline, handline, rod and reel.
C. Mixed species pot and trap fishery	C. Pot, trap.
D. Gillnet fishery	D. Gillnet.
E. Dredge fishery	E. Dredge.
F. Recreational fishery	F. Rod and reel, handline, pot, trap, spear.
2. Atlantic Bluefish Fishery (FMP):	
A. Bluefish, croaker, and flounder trawl fishery	A. Trawl.
B. Pelagic longline and hook and line fishery	B. Longline, handline, bandit gear, rod and reel.
C. Mixed species pot and trap fishery	C. Pot, trap.
D. Gillnet fishery	D. Gillnet.
E. Seine fishery	E. Purse seine, seine.

F. Dredge fishery	F. Dredge.
G. Recreational fishery	G. Rod and reel, handline, trap, pot, spear.
3. Atlantic Mackerel, Squid, and Butterfish Fishery (FMP):	
A. Mackerel, squid, and butterfish trawl fishery	A. Trawl.
B. Gillnet fishery	B. Gillnet.
C. Longline and hook-and-line fishery	C. Longline, handline, rod and reel.
D. Purse seine fishery	D. Purse seine.
E. Mixed species pot and trap fishery	E. Pot, trap.
F. Dredge fishery	F. Dredge.
G. Dip net fishery	G. Dip net.
H. Bandit gear fishery	H. Bandit gear.
I. Recreational fishery	I. Rod and reel, handline, pot, spear.
4. Surf Clam and Ocean Quahog Fishery (FMP):	
A. Commercial fishery	A. Dredge, hand harvest.
B. Recreational fishery	B. Hand harvest.
5. Atlantic Sea Scallop Fishery (FMP managed by NEFMC):	
A. Dredge fishery	A. Dredge.
B. Trawl fishery	B. Trawl.
C. Hand harvest fishery	C. Hand harvest.
D. Recreational fishery	D. Hand harvest.
6. Atlantic Menhaden Fishery (Non-FMP):	
A. Purse seine fishery	A. Purse seine.
B. Trawl fishery	B. Trawl.
C. Gillnet fishery	C. Gillnet.
D. Commercial hook-and-line fishery	D. Hook and line.
E. Recreational fishery	E. Hook and line, snagging, cast nets.
7. Striped Bass Fishery (Non-FMP)	No harvest or possession in the EEZ.
8. Northern Shrimp Trawl Fishery (Non-FMP)	Trawl.
9. American Lobster Fishery (FMP managed by NEFMC):	
A. Pot and trap fishery	A. Pot, trap.
B. Hand harvest fishery	B. Hand harvest.
C. Trawl fishery	C. Trawl.
D. Dredge fishery	D. Dredge.
E. Gillnet fishery	E. Gillnet.
F. Recreational fishery	F. Pot, trap, hand harvest.
10. Weakfish Fishery (Non-FMP):	
A. Commercial fishery	A. Trawl, gillnet, hook and line, rod and reel.
B. Recreational fishery	B. Hook and line, spear.
11. Whelk Fishery (Non-FMP):	
A. Trawl fishery	A. Trawl.
B. Pot and trap fishery	B. Pot, trap.
C. Dredge	C. Dredge.
D. Pound net, gillnet, seine	D. Pound net, gillnet, seine.
E. Recreational fishery	E. Hand harvest.
12. Monkfish Fishery (FMP jointly managed by NEFMC and MAFMC):	

A. Trawl fishery	A. Trawl.
B. Longline fishery	B. Longline, rod and reel.
C. Gillnet fishery	C. Gillnet.
D. Dredge fishery	D. Dredge.
E. Trap and pot fishery	E. Trap and pot.
F. Recreational fishery	F. Rod and reel, spear.
13. Tilefish Fishery (Non-FMP):	
A. Groundfish hook-and-line fishery	A. Longline, handline, rod and fishery reel.
B. Trawl fishery	B. Trawl.
C. Recreational fishery	C. Rod and reel, spear.
14. Spiny Dogfish Fishery (FMP jointly managed by MAFMC and NEFMC):	
A. Gillnet fishery	A. Gillnet.
B. Trawl fishery	B. Trawl.
C. Hook and line fishery	C. Hook and line, rod and reel, spear.
D. Dredge fishery	D. Dredge.
E. Longline fishery	E. Longline.
F. Recreational fishery	F. Hook and line, rod and reel, spear.
15. Tautog Fishery (Non-FMP):	
A. Gillnet fishery	A. Gillnet.
B. Pot and trap fishery	B. Pot, trap.
C. Rod and reel, hook and line handline fishery	C. Rod and reel, hook and line, handline.
D. Trawl fishery	D. Trawl.
E. Spear fishery	E. Spear.
F. Fyke net fishery	F. Fyke net.
G. Recreational fishery	G. Rod and reel, handline, hook and line, spear.
16. Coastal Gillnet Fishery (Non-FMP)	Gillnet
17. Recreational Fishery (Non-FMP)	Rod and reel, handline, spear, hook and line, hand harvest, bandit gear, powerhead, gillnet, cast net.
18. NE Multispecies Fishery (FMP managed by NEFMC):	
A. NE multispecies sink gillnet fishery	A. Gillnet.
B. North Atlantic bottom trawl fishery	B. Trawl.
C. Groundfish hook and line	C. Longline, handline, rod and fishery reel.
D. Mixed species trap and pot fishery	D. Trap, pot.
E. Dredge fishery	E. Dredge.
F. Seine fishery	F. Seine.
G. Recreational fishery	G. Rod and reel, handline, spear.
19. Atlantic Skate Fishery (Non-FMP):	
A. Trawl fishery	A. Trawl.
B. Gillnet fishery	B. Gillnet.
C. Hook-and-line fishery	C. Longline and handline.
D. Dredge fishery	D. Dredge.
E. Recreational fishery	E. Rod and reel.
20. Crab Fishery (Non-FMP):	
A. Dredge fishery	A. Dredge.
B. Trawl fishery	B. Trawl.
C. Trap and pot fishery	C. Trap, pot.

21. Atlantic Herring Fishery (FMP managed by the NEFMC):	
A. Trawl fishery	A. Trawl.
B. Purse seine fishery	B. Purse seine.
C. Gillnet fishery	C. Gillnet.
D. Herring pair trawl fishery	D. Pair trawl.
E. Dredge fishery	E. Dredge.
F. Recreational fishery	F. Hook and line, gillnet.
22. South Atlantic Snapper-Grouper Fishery (FMP managed by the SAFMC):	
A. Commercial fishery	A. Longline, rod and reel, bandit gear, handline, spear, powerhead.
B. Black sea bass trap and pot fishery	B. Pot, trap.
C. Wreckfish fishery	C. Rod and reel, bandit gear, handline.
D. Recreational fishery	D. Handline, rod and reel, bandit gear, spear, powerhead.
23. South Atlantic Coastal Migratory Pelagics Fishery (FMP managed by the SAFMC):	
A. Commercial Spanish mackerel fishery	A. Handline, rod and reel, bandit gear, gillnet, cast net.
B. Commercial king mackerel fishery	B. Handline, rod and reel, bandit gear.
C. Other commercial coastal migratory pelagics fishery	C. Longline, handline, rod and reel, bandit gear.
D. Recreational fishery	D. Bandit gear, rod and reel, handline, spear.
24. Calico Scallops Fishery (Non-FMP):	
A. Trawl fishery	A. Trawl.
B. Dredge fishery	B. Dredge.
C. Recreational fishery	C. Hand harvest.
25. Sargassum Fishery (Non-FMP)	Trawl.
26. South Atlantic Shrimp Fishery (FMP)	Trawl.
27. Commercial Fishery (Non-FMP)	Trawl, pot, trap, gillnet, pound net, dredge, seine, handline, longline, hook and line, rod and reel, spear.
28. Dolphin/wahoo fishery (FMP managed by SAFMC)	Automatic reel, bandit gear, handline, pelagic longline, rod and reel, spear (including powerheads).
III. South Atlantic Fishery Management Council	
1. Golden Crab Fishery (FMP)	Trap.
2. Crab Fishery (Non-FMP):	
A. Dredge fishery	A. Dredge.
B. Trawl fishery	B. Trawl.
C. Trap and pot fishery	C. Trap, pot.
3. Atlantic Red Drum Fishery (FMP)	No harvest or possession in the EEZ.
4. Coral and Coral Reef Fishery (FMP):	
A. Octocoral commercial fishery	Hand harvest.
B. Live rock aquaculture fishery	Hand harvest.
5. South Atlantic Shrimp Fishery (FMP)	Trawl.
6. South Atlantic Snapper-Grouper Fishery (FMP):	
A. Commercial fishery	A. Longline, rod and reel, bandit gear, handline, spear, powerhead.
B. Black sea bass pot fishery	B. Pot.
C. Wreckfish fishery	C. Rod and reel, bandit gear, handline.
D. Recreational fishery	D. Handline, rod and reel, bandit gear, spear, powerhead.
7. South Atlantic Spiny Lobster Fishery (FMP):	
A. Commercial fishery	A. Trap, pot, dip net, bully net, snare, hand harvest.
B. Recreational fishery	B. Trap, pot, dip net, bully net, snare, hand harvest.
8. South Atlantic Coastal Migratory Pelagics Fishery (FMP):	

A. Commercial Spanish mackerel fishery	A. Handline, rod and reel, bandit gear, gillnet, cast net.
B. Commercial king mackerel fishery	B. Handline, rod and reel, bandit gear.
C. Other commercial coastal migratory pelagics fishery	C. Longline, handline, rod and reel, bandit gear.
D. Recreational fishery	D. Bandit gear, rod and reel, handline, spear.
9. Spiny Dogfish Fishery (FMP jointly managed by NEFMC and SAFMC):	
A. Gillnet fishery	A. Gillnet.
B. Trawl fishery	B. Trawl.
C. Hook and line fishery	C. Hook and line, rod and reel, spear, bandit gear.
D. Dredge fishery	D. Dredge.
E. Longline fishery	E. Longline.
F. Recreational fishery	F. Hook and line, rod and reel, spear.
10. Smooth Dogfish Fishery (Non-FMP):	
A. Gillnet fishery	A. Gillnet.
B. Trawl fishery	B. Trawl.
C. Hook and line fishery	C. Hook and line, rod and reel, spear, bandit gear.
D. Dredge fishery	D. Dredge.
E. Longline fishery	E. Longline.
F. Recreational fishery	F. Hook and line, rod and reel, spear.
11. Atlantic Menhaden Fishery (Non-FMP):	
A. Purse seine fishery	A. Purse seine.
B. Trawl fishery	B. Trawl.
C. Gillnet fishery	C. Gillnet.
D. Commercial hook-and-line	D. Hook and line fishery.
E. Recreational fishery	E. Hook and line, snagging, cast nets.
12. Atlantic Mackerel, Squid, and Butterfish Trawl Fishery (Non-FMP)	
	Trawl.
13. Bait Fisheries (Non-FMP)	
	Purse seine.
14. Weakfish Fishery (Non-FMP):	
A. Commercial fishery	A. Trawl, gillnet, hook and line.
B. Recreational fishery	B. Hook and line, spear.
15. Whelk Fishery (Non-FMP):	
A. Trawl fishery	A. Trawl.
B. Pot and trap fishery	B. Pot, trap.
C. Dredge fishery	C. Dredge.
D. Recreational fishery	D. Hand harvest.
16. Marine Life Aquarium Fishery (Non-FMP)	
	Dip net, slurp gun, barrier net, drop net, allowable chemical, trap, pot, trawl.
17. Calico Scallop Fishery (Non-FMP):	
A. Dredge fishery	A. Dredge.
B. Trawl fishery	B. Trawl.
C. Recreational fishery	C. Hand harvest.
18. Summer Flounder Fishery (FMP managed by MAFMC):	
A. Commercial fishery	A. Trawl, longline, handline, rod and reel, pot, trap, gillnet, dredge.
B. Recreational fishery	B. Rod and reel, handline, pot, trap, spear.
19. Bluefish, Croaker, and Flounder Trawl and Gillnet Fishery (Bluefish FMP managed by MAFMC)	
	Trawl, gillnet.
20. Commercial Fishery (Non-FMP)	
	Trawl, gillnet, longline, handline, hook and line, rod and reel, bandit gear, cast net, pot, trap, lampara net, spear.
21. Recreational Fishery (Non-FMP)	
	Rod and reel, handline, spear, hook and line, hand harvest, bandit gear, powerhead, gillnet, cast net.

22. Sargassum Fishery (Non-FMP)	Trawl.
23. Octopus Fishery (Non-FMP)	Trap, pot.
24. Dolphin/wahoo fishery (FMP)	Automatic reel, bandit gear, handline, pelagic longline, rod and reel, spear (including powerheads).
IV. Gulf of Mexico Fishery Management Council	
1. Gulf of Mexico Red Drum Fishery (FMP)	No harvest or possession in the EEZ.
2. Coral Reef Fishery (FMP):	
A. Commercial fishery	A. Hand harvest.
B. Recreational fishery	B. Hand harvest.
3. Gulf of Mexico Reef Fish Fishery (FMP):	
A. Snapper-Grouper reef fish longline and hook and line fishery	A. Longline, handline, bandit gear, rod and reel, buoy gear.
B. Other commercial fishery	B. Spear, powerhead, cast net, trawl.
C. Recreational fishery	C. Spear, powerhead, bandit gear, handline, rod reel, cast net.
4. Gulf of Mexico Shrimp Fishery (FMP):	
A. Gulf of Mexico commercial fishery	A. Trawl butterfly net, skimmer, cast net.
B. Recreational fishery	B. Trawl.
5. Gulf of Mexico Coastal Migratory Pelagics Fishery (FMP):	
A. Large pelagics longline fishery	A. Longline.
B. King/Spanish mackerel gillnet fishery	B. Gillnet.
C. Pelagic hook and line fishery	C. Bandit gear, handline, rod and reel.
D. Pelagic species purse seine fishery	D. Purse seine.
E. Recreational fishery	E. Bandit gear, handline, rod and reel, spear.
Gulf of Mexico Spiny Lobster Fishery (FMP):	
A. Commercial fishery	A. Trap, pot, dip net, bully net, hoop net, trawl, snare, hand harvest.
C. Recreational fishery	C. Dip net, bully net, pot, trap, snare, hand harvest.
6. Stone Crab Fishery (FMP):	
A. Trap and pot fishery	A. Trap, pot
B. Recreational fishery	B. Trap, pot, hand harvest.
7. Blue Crab Fishery (Non-FMP)	Trap, pot.
8. Golden Crab Fishery (Non-FMP)	Trap.
9. Mullet Fishery (Non-FMP):	
A. Trawl fishery	A. Trawl.
B. Gillnet fishery	B. Gillnet.
C. Pair trawl fishery	C. Pair trawl.
D. Cast net fishery	D. Cast net.
E. Recreational fishery	E. Bandit gear, handline, rod and reel, spear, cast net.
10. Inshore Coastal Gillnet Fishery (Non-FMP)	Gillnet.
11. Octopus Fishery (Non-FMP)	Trap, pot.
12. Marine Life Aquarium Fishery (Non-FMP)	Dip net, slurp gun, barrier net, drop net, allowable chemical, trap, pot, trawl.
13. Coastal Herring Trawl Fishery (Non-FMP)	Trawl.
14. Butterfish Trawl Fishery (Non-FMP)	Trawl.
15. Gulf of Mexico Groundfish (Non-FMP):	
A. Commercial fishery	A. Trawl, purse seine, gillnet.
B. Recreational fishery	B. Hook and line, rod and reel, spear.
16. Gulf of Mexico Menhaden Purse Seine Fishery (Non-FMP)	Purse seine.
17. Sardine Purse Seine Fishery (Non-FMP)	Purse seine.

18. Oyster Fishery (Non-FMP)	Dredge, tongs.
19. Commercial Fishery (Non-FMP)	Trawl, gillnet, hook and line, longline, handline, rod and reel, bandit gear, cast net, lampara net, spear.
20. Recreational Fishery (Non-FMP)	Bandit gear, handline, rod and reel, spear, bully net, gillnet, dip net, longline, powerhead, seine, slurp gun, trap, trawl, harpoon, cast net, hoop net, hook and line, hand harvest.
V. Caribbean Fishery Management Council	
1. Caribbean Spiny Lobster Fishery (FMP):	
A. Trap/pot fishery	A. Trap/pot.
B. Dip net fishery	B. Dip net.
C. Hand harvest fishery	C. Hand harvest, snare.
D. Recreational fishery	D. Dip net, trap, pot.
2. Caribbean Shallow Water Reef Fish Fishery (FMP):	
A. Longline/hook and line fishery	A. Longline, hook and line.
B. Trap/pot fishery	B. Trap, pot.
C. Recreational fishery	C. Dip net, handline, rod and reel, slurp gun, spear.
3. Coral and Reef Resources Fishery (FMP):	
A. Commercial fishery	A. Dip net, slurp gun.
B. Recreational fishery	B. Dip net, slurp gun, hand harvest.
4. Queen Conch Fishery (FMP):	
A. Commercial fishery	A. Hand harvest.
B. Recreational fishery	B. Hand harvest.
5. Caribbean Pelagics Fishery (Non-FMP):	
A. Pelagics drift gillnet fishery	A. Gillnet.
B. Pelagics longline/hook and line fishery	B. Longline/hook and line.
C. Recreational fishery	C. Spear, handline, longline, rod and reel.
6. Commercial Fishery (Non-FMP)	Trawl, gillnet, hook and line, longline, handline, rod and reel, bandit gear, cast net, spear.
7. Recreational Fishery (Non-FMP)	Rod and reel, hook and line, spear, powerhead, handline, hand harvest, cast net.
VI. Pacific Fishery Management Council	
1. Washington, Oregon, and California Salmon Fisheries (FMP):	
A. Salmon set gillnet fishery	A. Gillnet.
B. Salmon hook and line fishery	B. Hook and line.
C. Trawl fishery	C. Trawl.
D. Recreational fishery	D. Rod and reel.
2. West Coast Groundfish Fisheries (FMP):	
A. Pacific groundfish trawl fishery	A. Trawl.
B. Set gillnet fishery	B. Gillnet.
C. Groundfish longline and setline fishery	C. Longline.
D. Groundfish handline and hook and line fishery	D. Handline, hook and line.
E. Groundfish pot and trap fishery	E. Pot, trap.
F. Recreational fishery	F. Rod and reel, handline, spear, hook and line.
3. Northern Anchovy Fishery (FMP)	Purse seine, lampara net.
4. Angel Shark, White Croaker, California Halibut, White Sea Bass, Pacific Mackerel Large-Mesh Set Net Fishery (Non-FMP)	Gillnet.
5. Thresher Shark and Swordfish Drift Gillnet Fishery (Non-FMP)	Gillnet.
6. Pacific Shrimp and Prawn Fishery (Non-FMP):	
A. Pot and trap fishery	A. Pot, trap.
B. Trawl fishery	B. Trawl.

7. Lobster and Rock Crab Pot and Trap Fishery (Non-FMP)	Pot, trap.
8. Pacific Halibut Fishery (Non-FMP):	
A. Longline and setline fishery	A. Longline.
B. Hook-and-line fishery	B. Hook and line.
9. California Halibut Trawl and Trammel Net Fishery	Trawl, trammel net.
10. Shark and Bonito Longline and Setline Fishery (Non-FMP)	Longline.
11. Dungeness Crab Pot and Trap Fishery (Non-FMP)	Pot, trap.
12. Hagfish Pot and Trap Fishery (Non-FMP)	Pot, trap.
13. Pacific Albacore and Other Tuna Hook-and-line Fishery (Non-FMP)	Hook and line.
14. Pacific Swordfish Harpoon Fishery (Non-FMP)	Harpoon.
15. Pacific Scallop Dredge Fishery (Non-FMP)	Dredge.
16. Pacific Yellowfin, Skipjack Tuna, Purse Seine Fishery, (Non-FMP)	Purse seine.
17. Market Squid Fishery (Non-FMP)	Purse seine, dip net.
18. Pacific Sardine, Pacific Mackerel, Pacific Saury, Pacific Bonito, and Jack Mackerel Purse Seine Fishery (Non-FMP)	Purse seine.
19. Finfish and Shellfish Live Trap, Hook-and-line, and Handline Fishery (Non-FMP)	Trap, handline, hook and line.
20. Recreational Fishery (Non-FMP)	Spear, trap, handline, pot, hook and line, rod and reel, hand harvest.
21. Commercial Fishery (Non-FMP)	Trawl, gillnet, hook and line, longline, handline, rod and reel, bandit gear, cast net, spear.
VII. North Pacific Fishery Management Council	
1. Alaska Scallop Fishery (FMP)	Dredge.
2. Bering Sea (BS) and Aleutian Islands (AI) King and Tanner Crab Fishery (FMP):	
Pot fishery	Pot.
3. Bering Sea (BS) and Aleutian Islands (AI) King and Tanner Crab Fishery (FMP):	
Recreational fishery	Pot.
4. BS and AI Groundfish Fishery (FMP):	
A. Groundfish trawl fishery	A. Trawl.
B. Bottomfish hook-and-line, and handline fishery	B. Hook and line, handline.
C. Longline fishery	C. Longline.
D. BS and AI pot and trap fishery	D. Pot, trap.
5. BS and AI Groundfish Recreational Fishery (Non-FMP)	Handline, rod and reel, hook and line, pot, trap.
6. Gulf of Alaska (GOA) Groundfish Fishery (FMP):	
A. Groundfish trawl fishery	A. Trawl.
B. Bottomfish hook-and-line and handline fishery	B. Hook and line, handline.
C. Longline fishery	C. Longline.
D. GOA pot and trap fishery	D. Pot, trap.
E. Recreational fishery	E. Handline, rod and reel, hook and line, pot, trap.
7. Pacific Halibut Fishery (Non-FMP):	
A. Commercial (IFQ and CDQ)	A. Hook and line.
B. Recreational	B. Single line with no more than 2 hooks attached or spear.
C. Subsistence	C. Setline gear and hand held gear of not more than 30 hooks, including longline, handline, rod and reel, spear, jig, and hand-troll gear.
8. Alaska High Seas Salmon Hook and Line Fishery:	
(FMP)	Hook and line.
9. Alaska Salmon Fishery (Non-FMP):	
A. Hook-and-line fishery	A. Hook and line.

B. Gillnet fishery	B. Gillnet.
C. Purse seine fishery.	C. Purse seine.
D. Recreational fishery	D. Handline, rod and reel, hook and line.
10. Finfish Purse Seine Fishery (Non-FMP)	Purse seine.
11. Octopus/Squid Longline Fishery (Non-FMP)	Longline.
12. Finfish Handline and Hook-and-line Fishery (Non-FMP)	Handline, hook and line.
13. Recreational Fishery (Non-FMP)	Handline, rod and reel, hook line.
14. Commercial Fishery (Non-FMP)	Trawl, gillnet, hook and line, longline, handline, rod and reel, bandit gear, cast net, spear.
VIII. Western Pacific Fishery Management Council	
1. Western Pacific Crustacean Fishery (FMP)	Trap, hand harvest, hoop net.
2. Western Pacific Crustacean Fishery (Non-FMP):	
A. Commercial fishery	A. Gillnet, hand harvest, hoop net, spear, snare, trap, trawl.
B. Recreational fishery	B. Gillnet, hand harvest, hoop net, spear, snare, trap.
C. Charter fishery	C. Hand harvest, spear.
3. Western Pacific Precious Corals Fishery (FMP):	
A. Tangle net dredge fishery	A. Tangle net dredge.
B. Submersible fishery	B. Submersible.
C. Dive fishery	C. Hand harvest.
D. Recreational fishery	D. Hand harvest.
4. Western Pacific Precious Corals Fishery (Non-FMP)	Hand harvest, submersible, tangle net dredge.
5. Western Pacific Bottomfish and Seamount Groundfish Fishery (FMP):	
A. Bottomfish hook-and-line fishery	A. Bandit gear, buoy gear, handline, hook and line, rod and reel, hand harvest.
B. Seamount groundfish fishery	B. Longline, trawl.
C. Bottom longline fishery	C. Longline, hook and line.
D. Trap fishery	D. Trap.
E. Spear fishery	E. Spear, powerhead.
6. Western Pacific Bottomfish and Seamount Groundfish Fishery (Non-FMP):	
A. Commercial fishery	A. Bandit gear, buoy gear, gillnet, handline, hook-and-line, longline, rod and reel, spear, trap.
B. Recreational fishery	B. Bandit gear, buoy gear, Gillnet, handline, hook and line, longline, rod and reel, spear, trap, slurp gun, hand harvest.
C. Charter fishery	C. Bandit gear, buoy gear, handline, hook-and-line, rod and reel, spear.
7. Western Pacific Pelagics Fishery (FMP):	
A. Longline Fisher	A. Longline.
B. Hook and line fishery	B. Bandit gear, buoy gear, handline, hook and line, rod and reel.
C. Purse seine fishery	C. Lampara net, purse seine.
D. Spear fishery	D. Spear, powerhead.
8. Western Pacific Pelagics Fishery (Non-FMP):	
A. Recreational fishery	A. Bandit gear, buoy gear, dip net, handline, hook and line, hoop net, powerhead, rod and reel, spear.
B. Commercial fishery	B. Bandit gear, buoy gear, dip net, handline, hook and line, hoop net, powerhead, rod and reel, spear.
C. Charter fishery	C. Bandit gear, buoy gear, dip net, handline, hook and line, hoop net, powerhead, rod and reel, spear.
9. Western Pacific Coastal Pelagics Fishery (Non-FMP)	Bandit gear, buoy gear, dip net, gillnet, handline, hook and line, hoop net, lampara net, purse seine, rod and reel, spear.
10. Western Pacific Squid and Octopus Fishery (Non-FMP)	Bandit gear, hand harvest, hook and line, rod and reel, spear, trap.
11. Western Pacific Coral Reef Fishery (Non-FMP)	Allowable chemical, barrier net, dip net, gillnet, hand harvest, seine, slurp gun, trap, spear, rod and reel, hook and line.
12. Recreational Fishery (Non-FMP)	Rod and reel, hook and line, handline, hand harvest, spear.
13. Commercial Fishery (Non-FMP)	Trawl, gillnet, hook and line, longline, handline, rod and reel, bandit gear, cast net, spear.
IX. Secretary of Commerce	

1. Atlantic Highly Migratory Species Fisheries (FMP):	
A. Swordfish handgear fishery	A. Rod and reel, harpoon, handline, bandit gear, buoy gear.
B. Swordfish recreational fishery	B. Rod and reel, handline.
C. Pelagic longline fishery	C. Longline.
D. Shark gillnet fishery	D. Gillnet
E. Shark bottom longline fishery	E. Longline.
F. Shark handgear fishery	F. Rod and reel, handline, bandit gear.
G. Shark recreational fishery	G. Rod and reel, handline.
H. Tuna purse seine fishery	H. Purse seine.
I. Tuna recreational fishery	I. Speargun gear (for bigeye, albacore, yellowfin, and skipjack tunas only); Rod and reel, handline (all tunas).
J. Tuna handgear fishery	J. Rod and reel, harpoon, handline, bandit gear.
K. Tuna harpoon fishery	K. Harpoon.
L. Atlantic billfish recreational fishery	L. Rod and reel.
2. Commercial Fisheries (Non-FMP)	Rod and reel, handline, longline, gillnet, harpoon, bandit gear, purse seine.

(w) Fail to maintain safe conditions for the protection of observers including compliance with all U.S. Coast Guard and other applicable rules, regulations, or statutes applicable to the vessel and which pertain to safe operation of the vessel.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 63 FR 27217; May 18, 1998; 64 FR 4037, Jan. 27, 1999; 64 FR 29134, May 28, 1999; 64 FR 67516, Dec. 2, 1999; 68 FR 18161, Apr. 15, 2003; 68 FR 26230, May 15, 2003; 68 FR 74784, Dec. 24, 2003; 69 FR 30240, May 27, 2004; 70 FR 62080, Oct. 28, 2005; 71 FR 58163, Oct. 2, 2006; 72 FR 61818, Nov. 1, 2007; 73 FR 409, Jan. 3, 2008]

§ 600.730 Facilitation of enforcement.

(a) *General.* The operator of, or any other person aboard, any fishing vessel subject to parts 622 through 699 of this chapter must immediately comply with instructions and signals issued by an authorized officer to stop the vessel and with instructions to facilitate safe boarding and inspection of the vessel, its gear, equipment, fishing record (where applicable), and catch for purposes of enforcing the Magnuson-Stevens Act or any other statute administered by NOAA and this chapter.

(b) *Communications.* (1) Upon being approached by a USCG vessel or aircraft, or other vessel or aircraft with an authorized officer aboard, the operator of a fishing vessel must be alert for communications conveying enforcement instructions.

(2) VHF-FM radiotelephone is the preferred method for communicating between vessels. If the size of the vessel and the wind, sea, and visibility conditions allow, a loudhailer may be used instead of the radio. Hand signals, placards, high frequency radiotelephone, or voice may be employed by an authorized officer, and message blocks may be dropped from an aircraft.

(3) If other communications are not practicable, visual signals may be transmitted by flashing light directed at the vessel signaled. USCG units will normally use the flashing light signal "L" as the signal to stop. In the International Code of Signals, "L" (-.-) means "you should stop your vessel instantly." (Period (.) means a short flash of light; dash (-) means a long flash of light.)

(4) Failure of a vessel's operator promptly to stop the vessel when directed to do so by an authorized officer using loudhailer, radiotelephone, flashing light signal, or other means constitutes prima facie evidence of the offense of refusal to permit an authorized officer to board.

(5) The operator of a vessel who does not understand a signal from an enforcement unit and who is unable to obtain clarification by loudhailer or radiotelephone must consider the signal to be a command to stop the vessel instantly.

(c) *Boarding.* The operator of a vessel directed to stop must:

(1) Guard Channel 16, VHF-FM, if so equipped.

(2) Stop immediately and lay to or maneuver in such a way as to allow the authorized officer and his/her party to come aboard.

(3) Except for those vessels with a freeboard of 4 ft (1.2 m) or less, provide a safe ladder, if needed, for the authorized officer and his/her party to come aboard.

(4) When necessary to facilitate the boarding or when requested by an authorized officer or observer, provide a manrope or safety line, and illumination for the ladder.

(5) Take such other actions as necessary to facilitate boarding and to ensure the safety of the authorized officer and the boarding party.

(d) *Signals.* The following signals, extracted from the International Code of Signals, may be sent by flashing light by an enforcement unit when conditions do not allow communications by loudhailer or radiotelephone. Knowledge of these signals by vessel operators is not required. However, knowledge of these signals and appropriate action by a vessel operator may preclude the necessity of sending the signal "L" and the necessity for the vessel to stop instantly. (Period (.) means a short flash of light; dash (-) means a long flash of light.)

(1) "AA" repeated (-.-) is the call to an unknown station. The operator of the signaled vessel should respond by identifying the vessel by radiotelephone or by illuminating the vessel's identification.

(2) "RY-CY" (-.- -.- -.-) means "you should proceed at slow speed, a boat is coming to you." This signal is normally employed when conditions allow an enforcement boarding without the necessity of the vessel being boarded coming to a complete stop, or, in some cases, without retrieval of fishing gear which may be in the water.

(3) "SQ3" (... -.- -.-) means "you should stop or heave to; I am going to board you."

[61 FR 32540, June 24, 1996, as amended at 61 FR 37225, July 17, 1996; 63 FR 7075, Feb. 12, 1998]

§ 600.735 Penalties.

Any person committing, or fishing vessel used in the commission of a violation of the Magnuson-Stevens Act or any other statute administered by NOAA and/or any regulation issued under the Magnuson-Stevens Act, is subject to the civil and criminal penalty provisions and civil forfeiture provisions of the Magnuson-Stevens Act, to this section, to 15 CFR part 904 (Civil Procedures), and to other applicable law.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.740 Enforcement policy.

(a) The Magnuson-Stevens Act provides four basic enforcement remedies for violations, in ascending order of severity, as follows:

(1) Issuance of a citation (a type of warning), usually at the scene of the offense (see 15 CFR part 904, subpart E).

(2) Assessment by the Administrator of a civil money penalty.

(3) For certain violations, judicial forfeiture action against the vessel and its catch.

(4) Criminal prosecution of the owner or operator for some offenses. It shall be the policy of NMFS to enforce vigorously and equitably the provisions of the Magnuson-Stevens Act by utilizing that form or combination of authorized remedies best suited in a particular case to this end.

(b) Processing a case under one remedial form usually means that other remedies are inappropriate in that case. However, further investigation or later review may indicate the case to be

either more or less serious than initially considered, or may otherwise reveal that the penalty first pursued is inadequate to serve the purposes of the Magnuson-Stevens Act. Under such circumstances, the Agency may pursue other remedies either in lieu of or in addition to the action originally taken. Forfeiture of the illegal catch does not fall within this general rule and is considered in most cases as only the initial step in remedying a violation by removing the ill-gotten gains of the offense.

(c) If a fishing vessel for which a permit has been issued under the Magnuson-Stevens Act is used in the commission of an offense prohibited by section 307 of the Magnuson-Stevens Act, NOAA may impose permit sanctions, whether or not civil or criminal action has been undertaken against the vessel or its owner or operator. In some cases, the Magnuson-Stevens Act requires permit sanctions following the assessment of a civil penalty or the imposition of a criminal fine. In sum, the Magnuson-Stevens Act treats sanctions against the fishing vessel permit to be the carrying out of a purpose separate from that accomplished by civil and criminal penalties against the vessel or its owner or operator.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.745 Scientific research activity, exempted fishing, and exempted educational activity.

(a) *Scientific research activity.* Nothing in this section is intended to inhibit or prevent any scientific research activity conducted by a scientific research vessel. Persons planning to conduct scientific research activities in the EEZ are encouraged to submit to the appropriate Regional Administrator, Director, or designee, 60 days or as soon as practicable prior to its start, a scientific research plan for each scientific cruise. The Regional Administrator, Director, or designee will acknowledge notification of scientific research activity by issuing to the operator or master of that vessel, or to the sponsoring institution, a letter of acknowledgment. This letter of acknowledgment is separate and distinct from any permit required by any other applicable law. If the Regional Administrator, Director, or designee, after review of a research plan, determines that it does not constitute scientific research but rather fishing, the Regional Administrator, Director, or designee will inform the applicant as soon as practicable and in writing. The Regional Administrator, Director, or designee may also make recommendations to revise the research plan to make the cruise acceptable as scientific research activity or recommend the applicant request an EFP. In order to facilitate identification of activity as scientific research, persons conducting scientific research activities are advised to carry a copy of the scientific research plan and the letter of acknowledgment on board the scientific research vessel. Activities conducted in accordance with a scientific research plan acknowledged by such a letter are presumed to be scientific research activity. The presumption may be overcome by showing that an activity does not fit the definition of scientific research activity or is outside the scope of the scientific research plan.

(b) *Exempted fishing—(1) General.* A NMFS Regional Administrator or Director may authorize, for limited testing, public display, data collection, exploratory, health and safety, environmental cleanup, and/or hazard removal purposes, the target or incidental harvest of species managed under an FMP or fishery regulations that would otherwise be prohibited. Exempted fishing may not be conducted unless authorized by an EFP issued by a Regional Administrator or Director in accordance with the criteria and procedures specified in this section. The Regional Administrator or Director may charge a fee to recover the administrative expenses of issuing an EFP. The amount of the fee will be calculated, at least annually, in accordance with procedures of the NOAA Handbook for determining administrative costs of each special product or service; the fee may not exceed such costs. Persons may contact the appropriate Regional Administrator or Director to find out the applicable fee.

(2) *Application.* An applicant for an EFP shall submit a completed application package to the appropriate Regional Administrator or Director, as soon as practicable and at least 60 days before the desired effective date of the EFP. Submission of an EFP application less than 60 days before the desired effective date of the EFP may result in a delayed effective date because of review requirements. The application package must include payment of any required fee as specified by paragraph (b)(1) of this section, and a written application that includes, but is not limited to, the following information:

(i) The date of the application.

(ii) The applicant's name, mailing address, and telephone number.

(iii) A statement of the purposes and goals of the exempted fishery for which an EFP is needed, including justification for issuance of the EFP.

(iv) For each vessel to be covered by the EFP, as soon as the information is available and before operations begin under the EFP:

(A) A copy of the USCG documentation, state license, or registration of each vessel, or the information contained on the appropriate document.

(B) The current name, address, and telephone number of the owner and master, if not included on the document provided for the vessel.

(v) The species (target and incidental) expected to be harvested under the EFP, the amount(s) of such harvest necessary to conduct the exempted fishing, the arrangements for disposition of all regulated species harvested under the EFP, and any anticipated impacts on marine mammals or endangered species.

(vi) For each vessel covered by the EFP, the approximate time(s) and place(s) fishing will take place, and the type, size, and amount of gear to be used.

(vii) The signature of the applicant.

(viii) The Regional Administrator or Director, as appropriate, may request from an applicant additional information necessary to make the determinations required under this section. An incomplete application or an application for which the appropriate fee has not been paid will not be considered until corrected in writing and the fee paid. An applicant for an EFP need not be the owner or operator of the vessel(s) for which the EFP is requested.

(3) *Issuance.* (i) The Regional Administrator or Director, as appropriate, will review each application and will make a preliminary determination whether the application contains all of the required information and constitutes an activity appropriate for further consideration. If the Regional Administrator or Director finds that any application does not warrant further consideration, both the applicant and the affected Council(s) will be notified in writing of the reasons for the decision. If the Regional Administrator or Director determines that any application warrants further consideration, notification of receipt of the application will be published in the Federal Register with a brief description of the proposal, and the intent of NMFS to issue an EFP. Interested persons will be given a 15- to 45-day opportunity to comment and/or comments will be requested during public testimony at a Council meeting. The notification may establish a cut-off date for receipt of additional applications to participate in the same, or a similar, exempted fishing activity. The Regional Administrator or Director also will forward copies of the application to the Council(s), the USCG, and the appropriate fishery management agencies of affected states, accompanied by the following information:

(A) The effect of the proposed EFP on the target and incidental species, including the effect on any TAC.

(B) A citation of the regulation or regulations that, without the EFP, would prohibit the proposed activity.

(C) Biological information relevant to the proposal, including appropriate statements of environmental impacts, including impacts on marine mammals and threatened or endangered species.

(ii) If the application is complete and warrants additional consultation, the Regional Administrator or Director may consult with the appropriate Council(s) concerning the permit application during the period in which comments have been requested. The Council(s) or the Administrator or Regional Administrator shall notify the applicant in advance of any meeting at which the application will be considered, and offer the applicant the opportunity to appear in support of the application.

(iii) As soon as practicable after receiving responses from the agencies identified in paragraph (b)(3)(i) of this section, and/or after the consultation, if any, described in paragraph (b)(3)(ii) of this section, the Regional Administrator or Director shall notify the applicant in writing of the decision to grant or deny the EFP, and, if denied, the reasons for the denial. Grounds for denial of an EFP include, but are not limited to, the following:

(A) The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with his or her application; or

(B) According to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect the well-being of the stock of any regulated species of fish, marine mammal, or threatened or endangered species in a significant way; or

(C) Issuance of the EFP would have economic allocation as its sole purpose; or

(D) Activities to be conducted under the EFP would be inconsistent with the intent of this section, the management objectives of the FMP, or other applicable law; or

(E) The applicant has failed to demonstrate a valid justification for the permit; or

(F) The activity proposed under the EFP could create a significant enforcement problem.

(iv) The decision of a Regional Administrator or Director to grant or deny an EFP is the final action of NMFS. If the permit, as granted, is significantly different from the original application, or is denied, NMFS may publish notification in the Federal Register describing the exempted fishing to be conducted under the EFP or the reasons for denial.

(v) The Regional Administrator or Director may attach terms and conditions to the EFP consistent with the purpose of the exempted fishing, including, but not limited to:

(A) The maximum amount of each regulated species that can be harvested and landed during the term of the EFP, including trip limitations, where appropriate.

(B) The number, size(s), name(s), and identification number(s) of the vessel(s) authorized to conduct fishing activities under the EFP.

(C) The time(s) and place(s) where exempted fishing may be conducted.

(D) The type, size, and amount of gear that may be used by each vessel operated under the EFP.

(E) The condition that observers, a vessel monitoring system, or other electronic equipment be carried on board vessels operated under an EFP, and any necessary conditions, such as predeployment notification requirements.

(F) Reasonable data reporting requirements.

(G) Other conditions as may be necessary to assure compliance with the purposes of the EFP, consistent with the objectives of the FMP and other applicable law.

(H) Provisions for public release of data obtained under the EFP that are consistent with NOAA confidentiality of statistics procedures at set out in subpart E. An applicant may be required to waive the right to confidentiality of information gathered while conducting exempted fishing as a condition of an EFP.

(4) *Duration.* Unless otherwise specified in the EFP or a superseding notice or regulation, an EFP is effective for no longer than 1 year, unless revoked, suspended, or modified. EFPs may be renewed following the application procedures in this section.

(5) *Alteration.* Any permit that has been altered, erased, or mutilated is invalid.

(6) *Transfer.* EFPs issued under this section are not transferable or assignable. An EFP is valid only for the vessel(s) for which it is issued.

(7) *Inspection.* Any EFP issued under this section must be carried on board the vessel(s) for which it was issued. The EFP must be presented for inspection upon request of any authorized officer.

(8) *Sanctions.* Failure of a permittee to comply with the terms and conditions of an EFP may be grounds for revocation, suspension, or modification of the EFP with respect to all persons and vessels conducting activities under the EFP. Any action taken to revoke, suspend, or modify an EFP for enforcement purposes will be governed by 15 CFR part 904, subpart D.

(c) *Reports.* (1) Persons conducting scientific research activity are requested to submit a copy of any cruise report or other publication created as a result of the cruise, including the amount, composition, and disposition of their catch, to the appropriate Science and Research Director.

(2) Persons fishing under an EFP are required to report their catches to the appropriate Regional Administrator or Director, as specified in the EFP.

(d) *Exempted educational activities* —(1) *General.* A NMFS Regional Administrator or Director may authorize, for educational purposes, the target or incidental harvest of species managed under an FMP or fishery regulations that would otherwise be prohibited. The decision of a Regional Administrator or Director to grant or deny an exempted educational activity authorization is the final action of NMFS. Exempted educational activities may not be conducted unless authorized in writing by a Regional Administrator or Director in accordance with the criteria and procedures specified in this section. Such authorization will be issued without charge.

(2) *Application.* An applicant for an exempted educational activity authorization shall submit to the appropriate Regional Administrator or Director, at least 15 days before the desired effective date of the authorization, a written application that includes, but is not limited to, the following information:

(i) The date of the application.

(ii) The applicant's name, mailing address, and telephone number.

(iii) A brief statement of the purposes and goals of the exempted educational activity for which authorization is requested, including a general description of the arrangements for disposition of all species collected.

(iv) Evidence that the sponsoring institution is a valid educational institution, such as accreditation by a recognized national or international accreditation body.

(v) The scope and duration of the activity.

(vi) For each vessel to be covered by the authorization:

(A) A copy of the U.S. Coast Guard documentation, state license, or registration of the vessel, or the information contained on the appropriate document.

(B) The current name, address, and telephone number of the owner and master, if not included on the document provided for the vessel.

(vii) The species and amounts expected to be caught during the exempted educational activity.

(viii) For each vessel covered by the authorization, the approximate time(s) and place(s) fishing will take place, and the type, size, and amount of gear to be used.

(ix) The signature of the applicant.

(x) The Regional Administrator or Director may request from an applicant additional information necessary to make the determinations required under this section. An incomplete application will not be considered until corrected in writing.

(3) *Issuance.* (i) The Regional Administrator or Director, as appropriate, will review each application and will make a determination whether the application contains all of the required information, is consistent with the goals, objectives, and requirements of the FMP or regulations and other applicable law, and constitutes a valid exempted educational activity. The applicant will be notified in writing of the decision within 5 working days of receipt of the application.

(ii) The Regional Administrator or Director may attach terms and conditions to the authorization, consistent with the purpose of the exempted educational activity, including, but not limited to:

(A) The maximum amount of each regulated species that may be harvested.

(B) The time(s) and place(s) where the exempted educational activity may be conducted.

(C) The type, size, and amount of gear that may be used by each vessel operated under the authorization.

(D) Reasonable data reporting requirements.

(E) Such other conditions as may be necessary to assure compliance with the purposes of the authorization, consistent with the objectives of the FMP or regulations.

(F) Provisions for public release of data obtained under the authorization, consistent with NOAA confidentiality of statistics procedures in subpart E. An applicant may be required to waive the right to confidentiality of information gathered while conducting exempted educational activities as a condition of the authorization.

(iii) The authorization will specify the scope of the authorized activity and will include, at a minimum, the duration, vessel(s), species and gear involved in the activity, as well as any additional terms and conditions specified under paragraph (d)(3)(ii) of this section.

(4) *Duration.* Unless otherwise specified, authorization for an exempted educational activity is effective for no longer than 1 year, unless revoked, suspended, or modified. Authorizations may be renewed following the application procedures in this section.

(5) *Alteration.* Any authorization that has been altered, erased, or mutilated is invalid.

(6) *Transfer.* Authorizations issued under this paragraph (d) are not transferable or assignable.

(7) *Inspection.* Any authorization issued under this paragraph (d) must be carried on board the vessel(s) for which it was issued or be in possession of the applicant to which it was issued while the exempted educational activity is being conducted. The authorization must be presented for inspection upon request of any authorized officer. Activities that meet the definition of fishing, despite an educational purpose, are fishing. An authorization may allow covered fishing activities; however, fishing activities conducted outside the scope of an authorization for exempted educational activities are illegal.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.746 Observers.

(a) *Applicability.* This section applies to any fishing vessel required to carry an observer as part of a mandatory observer program or carrying an observer as part of a voluntary observer program under the Magnuson-Stevens Act, MMPA (16 U.S.C. 1361 *et seq.*), the ATCA (16 U.S.C. 971 *et seq.*), the South Pacific Tuna Act of 1988 (16 U.S.C. 973 *et seq.*), or any other U.S. law.

(b) *Observer safety.* An observer will not be deployed on, or stay aboard, a vessel that is inadequate for observer deployment as described in paragraph (c) of this section.

(c) *Vessel inadequate for observer deployment.* A vessel is inadequate for observer deployment if it:

(1) Does not comply with the applicable regulations regarding observer accommodations (see 50 CFR parts 229, 285, 300, 600, 622, 635, 648, 660, and 679), or

(2) Has not passed a USCG Commercial Fishing Vessel Safety Examination, or for vessels less than 26 ft (8 m) in length, has not passed an alternate safety equipment examination, as described in paragraph (g) of this section.

(d) *Display or show proof* . A vessel that has passed a USCG Commercial Fishing Vessel Safety Examination must display or show proof of a valid USCG Commercial Fishing Vessel Safety Examination decal that certifies compliance with regulations found in 33 CFR Chapter 1 and 46 CFR Chapter 1, and which was issued within the last 2 years or at a time interval consistent with current USCG regulations or policy.

(1) In situations of mitigating circumstances, which may prevent a vessel from displaying a valid safety decal (broken window, etc.), NMFS, the observer, or NMFS' designated observer provider may accept the following associated documentation as proof of the missing safety decal described in paragraph (d) of this section:

(i) A certificate of compliance issued pursuant to 46 CFR 28.710;

(ii) A certificate of inspection pursuant to 46 U.S.C. 3311; or

(iii) For vessels not required to obtain the documents identified in (d)(1)(i) and (d)(1)(ii) of this section, a dockside examination report form indicating the decal number and date and place of issue.

(e) *Visual inspection* . Upon request by an observer, a NMFS employee, or a designated observer provider, a vessel owner or operator must provide correct information concerning any item relating to any safety or accommodation requirement prescribed by law or regulation, in a manner and according to a timeframe as directed by NMFS. A vessel owner or operator must also allow an observer, a NMFS employee, or a designated observer provider to visually examine any such item.

(f) *Vessel safety check* . Prior to the initial deployment, the vessel owner or operator or the owner or operator's designee must accompany the observer in a walk through the vessel's major spaces to ensure that no obviously hazardous conditions exist. This action may be a part of the vessel safety orientation to be provided by the vessel to the observer as required by 46 CFR 28.270. The vessel owner or operator or the owner or operator's designee must also accompany the observer in checking the following major items as required by applicable USCG regulations:

(1) Personal flotation devices/ immersion suits;

(2) Ring buoys;

(3) Distress signals;

(4) Fire extinguishing equipment;

(5) Emergency position indicating radio beacon (EPIRB), when required, shall be registered to the vessel at its documented homeport;

(6) Survival craft, when required, with sufficient capacity to accommodate the total number of persons, including the observer(s), that will embark on the voyage; and

(7) Other fishery-area and vessel specific items required by the USCG.

(g) *Alternate safety equipment examination* . If a vessel is under 26 ft (8 m) in length, and in a remote location, and NMFS has determined that the USCG cannot provide a USCG Commercial Fishing Vessel Safety Examination due to unavailability of inspectors or to unavailability of transportation to or from an inspection station, the vessel will be adequate for observer deployment if it passes an alternate safety equipment examination conducted by a NMFS certified observer, observer provider, or a NMFS observer program employee, using a checklist of USCG safety requirements for commercial fishing vessels under 26 ft (8 m) in length. Passage of the alternative examination will only be effective for the single trip selected for observer coverage.

(h) *Duration* . The vessel owner or operator is required to comply with the requirements of this section when the vessel owner or operator is notified orally or in writing by an observer, a NMFS employee, or a designated observer provider, that his or her vessel has been selected to carry an observer. The requirements of this section continue to apply through the time of the observer's boarding, at all times the observer is aboard, and at the time the observer disembarks from the vessel at the end of the observed trip.

(i) *Effect of inadequate status* . A vessel that would otherwise be required to carry an observer, but is inadequate for the purposes of carrying an observer, as described in paragraph (c) of this section, and for allowing operation of normal observer functions, is prohibited from fishing without observer coverage.

[63 FR 27217, May 18, 1998, as amended at 67 FR 64312, Oct. 18, 2002; 72 FR 61818, Nov. 1, 2007]

§ 600.747 Guidelines and procedures for determining new fisheries and gear.

(a) *General*. Section 305(a) of the Magnuson-Stevens Act requires the Secretary to prepare a list of all fisheries under the authority of each Council, or the Director in the case of Atlantic highly migratory species, and all gear used in such fisheries. This section contains guidelines in paragraph (b) for determining when fishing gear or a fishery is sufficiently different from those listed in §600.725(v) as to require notification of a Council or the Director in order to use the gear or participate in the unlisted fishery. This section also contains procedures in paragraph (c) for notification of a Council or the Director of potentially new fisheries or gear, and for amending the list of fisheries and gear.

(b) *Guidelines*. The following guidance establishes the basis for determining when fishing gear or a fishery is sufficiently different from those listed to require notification of the appropriate Council or the Director.

(1) The initial step in the determination of whether a fishing gear or fishery is sufficiently different to require notification is to compare the gear or fishery in question to the list of authorized fisheries and gear in §600.725(v) and to the existing gear definitions in §600.10.

(2) If the gear in question falls within the bounds of a definition in §600.10 for an allowable gear type within that fishery, as listed under §600.725(v), then the gear is not considered different, is considered allowable gear, and does not require notification of the Council or Secretary 90 days before it can be used in that fishery.

(3) If, for any reason, the gear is not consistent with a gear definition for a listed fishery as described in paragraph (b)(2) of this section, the gear is considered different and requires Council or Secretarial notification as described in paragraph (c) of this section 90 days before it can be used in that fishery.

(4) If a fishery falls within the bounds of the list of authorized fisheries and gear in §600.725(v) under the Council's or Secretary's authority, then the fishery is not considered different, is considered an allowable fishery and does not require notification of the Council or Director before that fishery can occur.

(5) If a fishery is not already listed in the list of authorized fisheries and gear in §600.725(v), then the fishery is considered different and requires notification as described in paragraph (c) of this section 90 days before it can occur.

(c) *Procedures*. If a gear or fishery does not appear on the list in §600.725(v), or if the gear is different from that defined in §600.10, the process for notification, and consideration by a Council or the Director, is as follows:

(1) *Notification*. After July 26, 1999, no person or vessel may employ fishing gear or engage in a fishery not included on the list of approved gear types in §600.725(v) without notifying the appropriate Council or the Director at least 90 days before the intended use of that gear.

(2) *Notification procedures*. (i) A signed return receipt for the notice serves as adequate evidence of the date that the notification was received by the appropriate Council or the Director, in the case of Atlantic highly migratory species, and establishes the beginning of the 90-day notification period, unless required information in the notification is incomplete.

(ii) The notification must include:

(A) Name, address, and telephone number of the person submitting the notification.

(B) Description of the gear.

(C) The fishery or fisheries in which the gear is or will be used.

(D) A diagram and/or photograph of the gear, as well as any specifications and dimensions necessary to define the gear.

(E) The season(s) in which the gear will be fished.

(F) The area(s) in which the gear will be fished.

(G) The anticipated bycatch species associated with the gear, including protected species, such as marine mammals, sea turtles, sea birds, or species listed as endangered or threatened under the ESA.

(H) How the gear will be deployed and fished, including the portions of the marine environment where the gear will be deployed (surface, midwater, and bottom).

(iii) Failure to submit complete and accurate information will result in a delay in beginning the 90-day notification period. The 90-day notification period will not begin until the information received is determined to be accurate and complete.

(3) *Action upon receipt of notification*. (i) *Species other than Atlantic Highly Migratory Species*. (A) Upon signing a return receipt of the notification by certified mail regarding an unlisted

fishery or gear, a Council must immediately begin consideration of the notification and send a copy of the notification to the appropriate Regional Administrator.

(B) If the Council finds that the use of an unlisted gear or participation in a new fishery would not compromise the effectiveness of conservation and management efforts, it shall:

- (1) Recommend to the RA that the list be amended;
- (2) Provide rationale and supporting analysis, as necessary, for proper consideration of the proposed amendment; and
- (3) Provide a draft proposed rule for notifying the public of the proposed addition, with a request for comment.

(C) If the Council finds that the proposed gear or fishery will be detrimental to conservation and management efforts, it will recommend to the RA that the authorized list of fisheries and gear not be amended, that a proposed rule not be published, give reasons for its recommendation of a disapproval, and may request NMFS to publish emergency or interim regulations, and begin preparation of an FMP or amendment to an FMP, if appropriate.

(D) After considering information in the notification and Council's recommendation, NMFS will decide whether to publish a proposed rule. If information on the new gear or fishery being considered indicates it is likely that it will compromise conservation and management efforts under the Magnuson-Stevens Act, and no additional new information is likely to be gained from a public comment period, then a proposed rule will not be published and NMFS will notify the appropriate Council. In such an instance, NMFS will publish emergency or interim regulations to prohibit or restrict use of the gear or participation in the fishery. If NMFS determines that the proposed amendment is not likely to compromise conservation and management efforts under the Magnuson-Stevens Act, NMFS will publish a proposed rule in the Federal Register with a request for public comment.

(ii) *Atlantic Highly Migratory Species.* (A) Upon signing a return receipt of the notification by certified mail regarding an unlisted fishery or gear for Atlantic highly migratory species (HMS), NMFS will immediately begin consideration of the notification.

(B) Based on information in the notification and submitted by the Council, NMFS will make a determination whether the use of an unlisted gear or participation in an unlisted HMS fishery will compromise the effectiveness of conservation and management efforts under the Magnuson-Stevens Act. If it is determined that the proposed amendment will not compromise conservation and management efforts, NMFS will publish a proposed rule.

(C) If NMFS finds that the proposed gear or fishery will be detrimental to conservation and management efforts in this initial stage of review, it will not publish a proposed rule and notify the applicant of the negative determination with the reasons therefor.

(4) *Final determination and publication of a final rule.* Following public comment, NMFS will approve or disapprove the amendment to the list of gear and fisheries.

(i) If approved, NMFS will publish a final rule in the Federal Register and notify the applicant and the Council, if appropriate, of the final approval.

(ii) If disapproved, NMFS will withdraw the proposed rule, notify the applicant and the Council, if appropriate, of the disapproval; publish emergency or interim regulations, if necessary, to prohibit or restrict the use of gear or the participation in a fishery; and either notify the Council of the need to amend an FMP or prepare an amendment to an FMP in the case of Atlantic highly migratory species.

[64 FR 4043, Jan. 27, 1999]

Subpart I—Fishery Negotiation Panels

Source: 62 FR 23669, May 1, 1997, unless otherwise noted.

§ 600.750 Definitions.

Consensus means unanimous concurrence among the members on a Fishery Negotiation Panel established under this rule, unless such Panel:

- (1) Agrees to define such term to mean a general but not unanimous concurrence; or
- (2) agrees upon another specified definition.

Fishery negotiation panel (FNP) means an advisory committee established by one or more Councils or the Secretary in accordance with these regulations to assist in the development of fishery conservation and management measures.

Interest means, with respect to an issue or matter, multiple parties that have a similar point of view or that are likely to be affected in a similar manner.

Report means a document submitted by an FNP in accordance with the Magnuson-Stevens Act.

[62 FR 23669, May 1, 1997, as amended at 63 FR 7075, Feb. 12, 1998]

§ 600.751 Determination of need for a fishery negotiation panel.

A Council or NMFS may establish an FNP to assist in the development of specific fishery conservation and management measures. In determining whether to establish an FNP, NMFS or the Council, as appropriate, shall consider whether:

- (a) There is a need for specific fishery conservation and management measures.
- (b) There are a limited number of identifiable interests that will be significantly affected by the conservation and management measure.
- (c) There is a reasonable likelihood that an FNP can be convened with a balanced representation of persons who:
 - (1) Can adequately represent the interests identified under paragraph (b) of this section.
 - (2) Are willing to negotiate in good faith to reach a consensus on a report regarding the issues presented.
- (d) There is a reasonable likelihood that an FNP will reach a consensus on a report regarding the issues presented within 1 year from date of establishment of the FNP.
- (e) The use of an FNP will not unreasonably delay Council or NMFS fishery management plan development or rulemaking procedures.
- (f) The costs of establishment and operation of an FNP are reasonable when compared to fishery management plan development or rulemaking procedures that do not use FNP procedures.
- (g) The Council or NMFS has adequate resources and is willing to commit such resources, including technical assistance, to an FNP.
- (h) The use of an FNP is in the public interest.

§ 600.752 Use of conveners and facilitators.

- (a) *Purposes of conveners.* A Council or NMFS may use the services of a trained convener to assist the Council or NMFS in: (1) Conducting discussions to identify the issues of concern, and to ascertain whether the establishment of an FNP regarding such matter is feasible and appropriate.
- (2) Identifying persons who will be significantly affected by the issues presented in paragraph (a)(1) of this section.
- (b) *Duties of conveners.* The convener shall report findings under paragraph (a)(2) of this section and shall make recommendations to the Council or NMFS. Upon request of the Council or NMFS, the convener shall ascertain the names of persons who are willing and qualified to represent interests that will be significantly affected by the potential conservation and management measures relevant to the issues to be negotiated. The report and any recommendations of the convener shall be made available to the public upon request.
- (c) *Selection of facilitator.* Notwithstanding section 10(e) of the Federal Advisory Committee Act (FACA), a Council or NMFS may nominate a person trained in facilitation either from the Federal Government or from outside the Federal Government to serve as an impartial, neutral facilitator for the negotiations of the FNP, subject to the approval of the FNP, by consensus. The facilitator may be the same person as the convener used under paragraph (a) of this section. If the FNP does not approve the nominee of the Council or NMFS for facilitator, the FNP shall submit a substitute nomination. If an FNP does not approve any nominee of the Council or NMFS for facilitator, the FNP shall select, by consensus, a person to serve as facilitator. A person designated to represent the Council or NMFS in substantive issues may not serve as facilitator or otherwise chair the FNP.
- (d) *Roles and duties of facilitator.* A facilitator shall:
 - (1) Chair the meetings of the FNP in an impartial manner.
 - (2) Impartially assist the members of the FNP in conducting discussions and negotiations.

(3) Manage the keeping of minutes and records as required under section 10(b) and (c) of FACA.

§ 600.753 Notice of intent to establish a fishery negotiation panel.

(a) *Publication of notice.* If, after considering the report of a convener or conducting its own assessment, a Council or NMFS decides to establish an FNP, NMFS shall publish in the Federal Register and, as appropriate, in trade or other specialized publications, a document that shall include:

- (1) An announcement that the Council or NMFS intends to establish an FNP to negotiate and develop a report concerning specific conservation and management measures.
- (2) A description of the subject and scope of the conservation and management measure, and the issues to be considered.
- (3) A list of the interests that are likely to be significantly affected by the conservation and management measure.
- (4) A list of the persons proposed to represent such interests and the person or persons proposed to represent the Council or NMFS.
- (5) A proposed agenda and schedule for completing the work of the FNP.
- (6) A description of administrative support for the FNP to be provided by the Council or NMFS, including technical assistance.
- (7) A solicitation for comments on the proposal to establish the FNP, and the proposed membership of the FNP.
- (8) An explanation of how a person may apply or nominate another person for membership on the FNP, as provided under paragraph (b) of this section.

(b) *Nomination of members and public comment.* Persons who may be significantly affected by the development of conservation and management measure and who believe that their interests will not be adequately represented by any person specified in a document under paragraph (a)(4) of this section may apply for, or nominate another person for, membership on the FNP to represent such interests. Each application or nomination shall include:

- (1) The name of the applicant or nominee and a description of the interests such person shall represent.
- (2) Evidence that the applicant or nominee is authorized to represent parties related to the interests the person proposes to represent.
- (3) A written commitment that the applicant or nominee shall actively participate in good faith in the development of the conservation and management measure under consideration.
- (4) The reasons that the persons specified in the document under paragraph (a)(4) of this section do not adequately represent the interests of the person submitting the application or nomination.

(c) *Public comment.* The Council or NMFS shall provide at least 30 calendar days for the submission of comments and applications under this section.

§ 600.754 Decision to establish a fishery negotiation panel.

(a) *Determination to establish an FNP.* If, after considering comments and applications submitted under §600.753, the Council or NMFS determines that an FNP can adequately represent the interests that will be significantly affected and that it is feasible and appropriate in the particular case, the Council or NMFS may establish an FNP.

(b) *Determination not to establish FNP.* If, after considering such comments and applications, the Council or NMFS decides not to establish an FNP, the Council or NMFS shall promptly publish notification of such decision and the reasons therefor in the Federal Register and, as appropriate, in trade or other specialized publications, a copy of which shall be sent to any person who applied for, or nominated another person for membership on the FNP to represent such interests with respect to the issues of concern.

§ 600.755 Establishment of a fishery negotiation panel.

(a) *General authority.* (1) A Council may establish an FNP to assist in the development of specific conservation and management measures for a fishery under its authority.

(2) NMFS may establish an FNP to assist in the development of specific conservation and management measures required for:

- (i) A fishery for which the Secretary has authority under section 304(e)(5) of the Magnuson-Stevens Act, regarding rebuilding of overfished fisheries;
- (ii) A fishery for which the Secretary has authority under 16 U.S.C. section 304(g), regarding highly migratory species; or
- (iii) Any fishery with the approval of the appropriate Council.

(b) *Federal Advisory Committee Act (FACA)* In establishing and administering such an FNP, the Council or NMFS shall comply with the FACA with respect to such FNP.

(c) *Balance.* Each potentially affected organization or individual does not necessarily have to have its own representative, but each interest must be adequately represented. The intent is to have a group that as a whole reflects a proper balance and mix of interests. Representatives must agree, in writing, to negotiate in good faith.

(d) *Membership.* The Council or NMFS shall limit membership on an FNP to no more than 25 members, unless the Council or NMFS determines that a greater number of members is necessary for the functioning of the FNP or to achieve balanced membership. Each FNP shall include at least one person representing the Council in addition to at least one person representing NMFS.

§ 600.756 Conduct and operation of a fishery negotiation panel.

(a) *Roles and duties of an FNP.* Each FNP shall consider the issue proposed by the Council or NMFS for consideration and shall attempt to reach a consensus concerning a report to assist in the development of a conservation and management measure with respect to such matter and any other matter the FNP determines is relevant to the development of a conservation and management measure. An FNP may adopt procedures for the operation of the FNP.

(b) *Roles and duties of representative of the council or NMFS.* The person or persons representing the Council or NMFS on an FNP shall participate in the deliberations and activities of the FNP with the same rights and responsibilities as other members of the FNP, and shall be authorized to fully represent the Council or NMFS in the discussions and negotiations of the FNP.

§ 600.757 Operational protocols.

(a) *Services of conveners and facilitators.* A Council or NMFS may employ or enter into contracts for the services of an individual or organization to serve as a convener or facilitator for an FNP established under §600.755, or may use the services of a government employee to act as a convener or a facilitator for such an FNP.

(b) *Councils.* For an FNP proposed and established by one or more Councils approved expenses shall be paid out of the Council's operating budget.

(c) *Expenses of FNP members.* Members of an FNP shall be responsible for their own expenses of participation in such an FNP, except that NMFS or the Council may, in accordance with section 7(d) of FACA, pay for a member's reasonable travel and per diem expenses, and a reasonable rate of compensation, if:

- (1) Such member certifies a lack of adequate financial resources to participate in the FNP.
 - (2) The Council or NMFS determines that such member's participation in the FNP is necessary to assure an adequate representation of the member's interest.
- (d) *Administrative support.* The Council or NMFS shall provide appropriate administrative support to an FNP including technical assistance.

§ 600.758 Preparation of report.

(a) At the conclusion of the negotiations, an FNP may submit a report. Such report shall specify:

- (1) All the areas where consensus was reached by the FNP, including, if appropriate, proposed conservation and management measures.
- (2) Any other information submitted by members of the FNP.

(b) Upon receipt of the report, the Council or NMFS shall publish such report in the Federal Register for public comment.

§ 600.759 Use of report.

A Council or NMFS may, at its discretion, use all or a part of a report prepared in accordance with §600.758 in the development of conservation and management measures. Neither a Council nor NMFS, whichever is appropriate, is required to use such report.

§ 600.760 Fishery Negotiation Panel lifetime.

(a) An FNP shall terminate upon either:

(1) Submission of a report prepared in accordance with §600.758; or

(2) Submission of a written statement from the FNP to the Council or NMFS that no consensus can be reached.

(b) In no event shall an FNP exist for longer than 1 year from the date of establishment unless granted an extension. Upon written request by the FNP to the Council or NMFS, and written authorization from the Council or NMFS (whichever is appropriate), the Secretary may authorize an extension for a period not to exceed 6 months. No more than one extension may be granted per FNP.

Subpart J—Essential Fish Habitat (EFH)

Source: 67 FR 2376, Jan. 17, 2002, unless otherwise noted.

§ 600.805 Purpose and scope.

(a) *Purpose.* This subpart provides guidelines for Councils and the Secretary to use in adding the required EFH provisions to an FMP, i.e., description and identification of EFH, adverse effects on EFH (including minimizing, to the extent practicable, adverse effects from fishing), and actions to conserve and enhance EFH.

(b) *Scope*—(1) *Species covered.* An EFH provision in an FMP must include all fish species in the fishery management unit (FMU). An FMP may describe, identify, and protect the habitat of species not in an FMU; however, such habitat may not be considered EFH for the purposes of sections 303(a)(7) and 305(b) of the Magnuson-Stevens Act.

(2) *Geographic.* EFH may be described and identified in waters of the United States, as defined in 33 CFR 328.3, and in the exclusive economic zone, as defined in §600.10. Councils may describe, identify, and protect habitats of managed species beyond the exclusive economic zone; however, such habitat may not be considered EFH for the purposes of sections 303(a)(7) and 305(b) of the Magnuson-Stevens Act. Activities that may adversely affect such habitat can be addressed through any process conducted in accordance with international agreements between the United States and the foreign nation(s) undertaking or authorizing the action.

§ 600.810 Definitions and word usage.

(a) *Definitions.* In addition to the definitions in the Magnuson-Stevens Act and §600.10, the terms in this subpart have the following meanings:

Adverse effect means any impact that reduces quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

Council includes the Secretary, as applicable, when preparing FMPs or amendments under sections 304(c) and (g) of the Magnuson-Stevens Act.

Ecosystem means communities of organisms interacting with one another and with the chemical and physical factors making up their environment.

Habitat areas of particular concern means those areas of EFH identified pursuant to §600.815(a)(8).

Healthy ecosystem means an ecosystem where ecological productive capacity is maintained, diversity of the flora and fauna is preserved, and the ecosystem retains the ability to regulate itself. Such an ecosystem should be similar to comparable, undisturbed ecosystems with regard to standing crop, productivity, nutrient dynamics, trophic structure, species richness, stability, resilience, contamination levels, and the frequency of diseased organisms.

Overfished means any stock or stock complex, the status of which is reported as overfished by the Secretary pursuant to section 304(e)(1) of the Magnuson-Stevens Act.

(b) *Word usage.* The terms “must”, “shall”, “should”, “may”, “may not”, “will”, “could”, and “can” are used in the same manner as in §600.305(c).

§ 600.815 Contents of Fishery Management Plans.

(a) *Mandatory contents*—(1) *Description and identification of EFH*—(i) *Overview.* FMPs must describe and identify EFH in text that clearly states the habitats or habitat types determined to be EFH for each life stage of the managed species. FMPs should explain the physical, biological, and chemical characteristics of EFH and, if known, how these characteristics influence the use of EFH by the species/life stage. FMPs must identify the specific geographic location or extent of habitats described as EFH. FMPs must include maps of the geographic locations of EFH or the geographic boundaries within which EFH for each species and life stage is found.

(ii) *Habitat information by life stage.* (A) Councils need basic information to understand the usage of various habitats by each managed species. Pertinent information includes the geographic range and habitat requirements by life stage, the distribution and characteristics of those habitats, and current and historic stock size as it affects occurrence in available habitats. FMPs should summarize the life history information necessary to understand each species' relationship to, or dependence on, its various habitats, using text, tables, and figures, as appropriate. FMPs should document patterns of temporal and spatial variation in the distribution of each major life stage (defined by developmental and functional shifts) to aid in understanding habitat needs. FMPs should summarize (e.g., in tables) all available information on environmental and habitat variables that control or limit distribution, abundance, reproduction, growth, survival, and productivity of the managed species. The information should be supported with citations.

(B) Councils should obtain information to describe and identify EFH from the best available sources, including peer-reviewed literature, unpublished scientific reports, data files of government resource agencies, fisheries landing reports, and other sources of information. Councils should consider different types of information according to its scientific rigor. FMPs should identify species-specific habitat data gaps and deficits in data quality (including considerations of scale and resolution; relevance; and potential biases in collection and interpretation). FMPs must demonstrate that the best scientific information available was used in the description and identification of EFH, consistent with national standard 2.

(iii) *Analysis of habitat information.* (A) The following approach should be used to organize the information necessary to describe and identify EFH.

(1) *Level 1: Distribution data are available for some or all portions of the geographic range of the species.* At this level, only distribution data are available to describe the geographic range of a species (or life stage). Distribution data may be derived from systematic presence/absence sampling and/or may include information on species and life stages collected opportunistically. In the event that distribution data are available only for portions of the geographic area occupied by a particular life stage of a species, habitat use can be inferred on the basis of distributions among habitats where the species has been found and on information about its habitat requirements and behavior. Habitat use may also be inferred, if appropriate, based on information on a similar species or another life stage.

(2) *Level 2: Habitat-related densities of the species are available.* At this level, quantitative data (i.e., density or relative abundance) are available for the habitats occupied by a species or life stage. Because the efficiency of sampling methods is often affected by habitat characteristics, strict quality assurance criteria should be used to ensure that density estimates are comparable among methods and habitats. Density data should reflect habitat utilization, and the degree that a habitat is utilized is assumed to be indicative of habitat value. When assessing habitat value on the basis of fish densities in this manner, temporal changes in habitat availability and utilization should be considered.

(3) *Level 3: Growth, reproduction, or survival rates within habitats are available.* At this level, data are available on habitat-related growth, reproduction, and/or survival by life stage. The habitats contributing the most to productivity should be those that support the highest growth, reproduction, and survival of the species (or life stage).

(4) *Level 4: Production rates by habitat are available.* At this level, data are available that directly relate the production rates of a species or life stage to habitat type, quantity, quality, and location. Essential habitats are those necessary to maintain fish production consistent with a sustainable fishery and the managed species' contribution to a healthy ecosystem.

(B) Councils should strive to describe habitat based on the highest level of detail (i.e., Level 4). If there is no information on a given species or life stage, and habitat usage cannot be inferred from other means, such as information on a similar species or another life stage, EFH should not be designated.

(iv) *EFH determination.* (A) Councils should analyze available ecological, environmental, and fisheries information and data relevant to the managed species, the habitat requirements by life stage, and the species' distribution and habitat usage to describe and identify EFH. The information described in paragraphs (a)(1)(ii) and (iii) of this section will allow Councils to assess the relative value of habitats. Councils should interpret this information in a risk-averse fashion to ensure adequate areas are identified as EFH for managed species. Level 1 information, if available, should be used to identify the geographic range of the species at each life stage. If only Level 1 information is available, distribution data should be evaluated (e.g., using a frequency of occurrence or other appropriate analysis) to identify EFH as those habitat areas most commonly used by the species. Level 2 through 4 information, if available, should be used to identify EFH as the habitats supporting the highest relative abundance; growth, reproduction, or survival rates; and/or production rates within the geographic range of a species. FMPs should explain the analyses conducted to distinguish EFH from all habitats potentially used by a species.

(B) FMPs must describe EFH in text, including reference to the geographic location or extent of EFH using boundaries such as longitude and latitude, isotherms, isobaths, political boundaries, and major landmarks. If there are differences between the descriptions of EFH in text, maps, and tables, the textual description is ultimately determinative of the limits of EFH. Text and tables should explain pertinent physical, chemical, and biological characteristics of EFH for the managed species and explain any variability in habitat usage patterns, but the boundaries of EFH should be static.

(C) If a species is overfished and habitat loss or degradation may be contributing to the species being identified as overfished, all habitats currently used by the species may be considered essential in addition to certain historic habitats that are necessary to support rebuilding the fishery and for which restoration is technologically and economically feasible. Once the fishery is no longer considered overfished, the EFH identification should be reviewed and amended, if appropriate.

(D) Areas described as EFH will normally be greater than or equal to aquatic areas that have been identified as “critical habitat” for any managed species listed as threatened or endangered under the Endangered Species Act.

(E) Ecological relationships among species and between the species and their habitat require, where possible, that an ecosystem approach be used in determining the EFH of a managed species. EFH must be designated for each managed species, but, where appropriate, may be designated for assemblages of species or life stages that have similar habitat needs and requirements. If grouping species or using species assemblages for the purpose of designating EFH, FMPs must include a justification and scientific rationale. The extent of the EFH should be based on the judgment of the Secretary and the appropriate Council(s) regarding the quantity and quality of habitat that are necessary to maintain a sustainable fishery and the managed species' contribution to a healthy ecosystem.

(F) If degraded or inaccessible aquatic habitat has contributed to reduced yields of a species or assemblage and if, in the judgment of the Secretary and the appropriate Council(s), the degraded conditions can be reversed through such actions as improved fish passage techniques (for stream or river blockages), improved water quality measures (removal of contaminants or increasing flows), and similar measures that are technologically and economically feasible, EFH should include those habitats that would be necessary to the species to obtain increased yields.

(v) *EFH mapping requirements.* (A) FMPs must include maps that display, within the constraints of available information, the geographic locations of EFH or the geographic boundaries within which EFH for each species and life stage is found. Maps should identify the different types of habitat designated as EFH to the extent possible. Maps should explicitly distinguish EFH from non-EFH areas. Councils should confer with NMFS regarding mapping standards to ensure that maps from different Councils can be combined and shared efficiently and effectively. Ultimately, data used for mapping should be incorporated into a geographic information system (GIS) to facilitate analysis and presentation.

(B) Where the present distribution or stock size of a species or life stage is different from the historical distribution or stock size, then maps of historical habitat boundaries should be included in the FMP, if known.

(C) FMPs should include maps of any habitat areas of particular concern identified under paragraph (a)(8) of this section.

(2) *Fishing activities that may adversely affect EFH*—(i) *Evaluation.* Each FMP must contain an evaluation of the potential adverse effects of fishing on EFH designated under the FMP, including effects of each fishing activity regulated under the FMP or other Federal FMPs. This evaluation should consider the effects of each fishing activity on each type of habitat found within EFH. FMPs must describe each fishing activity, review and discuss all available relevant information (such as information regarding the intensity, extent, and frequency of any adverse effect on EFH; the type of habitat within EFH that may be affected adversely; and the habitat functions that may be disturbed), and provide conclusions regarding whether and how each fishing activity adversely affects EFH. The evaluation should also consider the cumulative effects of multiple fishing activities on EFH. The evaluation should list any past management actions that minimize potential adverse effects on EFH and describe the benefits of those actions to EFH. The evaluation should give special attention to adverse effects on habitat areas of particular concern and should identify for possible designation as habitat areas of particular concern any EFH that is particularly vulnerable to fishing activities. Additionally, the evaluation should consider the establishment of research closure areas or other measures to evaluate the impacts of fishing activities on EFH. In completing this evaluation, Councils should use the best scientific information available, as well as other appropriate information sources. Councils should consider different types of information according to its scientific rigor.

(ii) *Minimizing adverse effects.* Each FMP must minimize to the extent practicable adverse effects from fishing on EFH, including EFH designated under other Federal FMPs. Councils must act to prevent, mitigate, or minimize any adverse effects from fishing, to the extent practicable, if there is evidence that a fishing activity adversely affects EFH in a manner that is more than minimal and not temporary in nature, based on the evaluation conducted pursuant to paragraph (a)(2)(i) of this section and/or the cumulative impacts analysis conducted pursuant to paragraph (a)(5) of this section. In such cases, FMPs should identify a range of potential new actions that could be taken to address adverse effects on EFH, include an analysis of the practicability of potential new actions, and adopt any new measures that are necessary and practicable. Amendments to the FMP or to its implementing regulations must ensure that the FMP continues to minimize to the extent practicable adverse effects on EFH caused by fishing. FMPs must explain the reasons for the Council's conclusions regarding the past and/or new actions that minimize to the extent practicable the adverse effects of fishing on EFH.

(iii) *Practicability.* In determining whether it is practicable to minimize an adverse effect from fishing, Councils should consider the nature and extent of the adverse effect on EFH and the long and short-term costs and benefits of potential management measures to EFH, associated fisheries, and the nation, consistent with national standard 7. In determining whether management measures are practicable, Councils are not required to perform a formal cost/benefit analysis.

(iv) Options for managing adverse effects from fishing. Fishery management options may include, but are not limited to:

(A) *Fishing equipment restrictions.* These options may include, but are not limited to: seasonal and areal restrictions on the use of specified equipment, equipment modifications to allow escapement of particular species or particular life stages (e.g., juveniles), prohibitions on the use of explosives and chemicals, prohibitions on anchoring or setting equipment in sensitive areas, and prohibitions on fishing activities that cause significant damage to EFH.

(B) *Time/area closures.* These actions may include, but are not limited to: closing areas to all fishing or specific equipment types during spawning, migration, foraging, and nursery activities and designating zones for use as marine protected areas to limit adverse effects of fishing practices on certain vulnerable or rare areas/species/life stages, such as those areas designated as habitat areas of particular concern.

(C) *Harvest limits.* These actions may include, but are not limited to, limits on the take of species that provide structural habitat for other species assemblages or communities and limits on the take of prey species.

(3) *Non-Magnuson-Stevens Act fishing activities that may adversely affect EFH.* FMPs must identify any fishing activities that are not managed under the Magnuson-Stevens Act that may adversely affect EFH. Such activities may include fishing managed by state agencies or other authorities.

(4) *Non-fishing related activities that may adversely affect EFH.* FMPs must identify activities other than fishing that may adversely affect EFH. Broad categories of such activities include, but are not limited to: dredging, filling, excavation, mining, impoundment, discharge, water diversions, thermal additions, actions that contribute to non-point source pollution and sedimentation, introduction of potentially hazardous materials, introduction of exotic species, and the conversion of aquatic habitat that may eliminate, diminish, or disrupt the functions of EFH. For each activity, the FMP should describe known and potential adverse effects to EFH.

(5) *Cumulative impacts analysis.* Cumulative impacts are impacts on the environment that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes such actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. To the extent feasible and practicable, FMPs should analyze how the cumulative impacts of fishing and non-fishing activities influence the function of EFH on an ecosystem or watershed scale. An assessment of the cumulative and synergistic effects of multiple threats, including the effects of natural stresses (such as storm damage or climate-based environmental shifts) and an assessment of the ecological risks resulting from the impact of those threats on EFH, also should be included.

(6) *Conservation and enhancement.* FMPs must identify actions to encourage the conservation and enhancement of EFH, including recommended options to avoid, minimize, or compensate for the adverse effects identified pursuant to paragraphs (a)(3) through (5) of this section, especially in habitat areas of particular concern.

(7) *Prey species.* Loss of prey may be an adverse effect on EFH and managed species because the presence of prey makes waters and substrate function as feeding habitat, and the definition of EFH includes waters and substrate necessary to fish for feeding. Therefore, actions that reduce the availability of a major prey species, either through direct harm or capture, or through adverse impacts to the prey species' habitat that are known to cause a reduction in the population of the prey species, may be considered adverse effects on EFH if such actions reduce the quality of EFH. FMPs should list the major prey species for the species in the fishery management unit and discuss the location of prey species' habitat. Adverse effects on prey species and their habitats may result from fishing and non-fishing activities.

(8) *Identification of habitat areas of particular concern.* FMPs should identify specific types or areas of habitat within EFH as habitat areas of particular concern based on one or more of the following considerations:

(i) The importance of the ecological function provided by the habitat.

(ii) The extent to which the habitat is sensitive to human-induced environmental degradation.

(iii) Whether, and to what extent, development activities are, or will be, stressing the habitat type.

(iv) The rarity of the habitat type.

(9) *Research and information needs.* Each FMP should contain recommendations, preferably in priority order, for research efforts that the Councils and NMFS view as necessary to improve upon the description and identification of EFH, the identification of threats to EFH from fishing and other activities, and the development of conservation and enhancement measures for EFH.

(10) *Review and revision of EFH components of FMPs.* Councils and NMFS should periodically review the EFH provisions of FMPs and revise or amend EFH provisions as warranted based on available information. FMPs should outline the procedures the Council will follow to review and update EFH information. The review of information should include, but not be limited to, evaluating published scientific literature and unpublished scientific reports; soliciting information from interested parties; and searching for previously unavailable or inaccessible data. Councils should report on their review of EFH information as part of the annual Stock Assessment and Fishery Evaluation (SAFE) report prepared pursuant to §600.315(e). A complete review of all EFH information should be conducted as recommended by the Secretary, but at least once every 5 years.

(b) *Development of EFH recommendations for Councils.* After reviewing the best available scientific information, as well as other appropriate information, and in consultation with the Councils, participants in the fishery, interstate commissions, Federal agencies, state agencies, and other interested parties, NMFS will develop written recommendations to assist each Council in the identification of EFH, adverse impacts to EFH, and actions that should be considered to ensure the conservation and enhancement of EFH for each FMP. NMFS will provide such recommendations for the initial incorporation of EFH information into an FMP and for any subsequent modification of the EFH components of an FMP. The NMFS EFH recommendations may be provided either before the Council's development of a draft EFH document or later as a review of a draft EFH document developed by a Council, as appropriate.

(c) *Relationship to other fishery management authorities.* Councils are encouraged to coordinate with state and interstate fishery management agencies where Federal fisheries affect state and interstate managed fisheries or where state or interstate fishery regulations affect the management of Federal fisheries. Where a state or interstate fishing activity adversely affects EFH,

NMFS will consider that action to be an adverse effect on EFH pursuant to paragraph (a)(3) of this section and will provide EFH Conservation Recommendations to the appropriate state or interstate fishery management agency on that activity.

Subpart K—EFH Coordination, Consultation, and Recommendations

Source: 67 FR 2376, Jan. 17, 2002, unless otherwise noted.

§ 600.905 Purpose, scope, and NMFS/Council cooperation.

(a) *Purpose.* These procedures address the coordination, consultation, and recommendation requirements of sections 305(b)(1)(D) and 305(b)(2–4) of the Magnuson-Stevens Act. The purpose of these procedures is to promote the protection of EFH in the review of Federal and state actions that may adversely affect EFH.

(b) *Scope.* Section 305(b)(1)(D) of the Magnuson-Stevens Act requires the Secretary to coordinate with, and provide information to, other Federal agencies regarding the conservation and enhancement of EFH. Section 305(b)(2) requires all Federal agencies to consult with the Secretary on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect EFH. Sections 305(b)(3) and (4) direct the Secretary and the Councils to provide comments and EFH Conservation Recommendations to Federal or state agencies on actions that affect EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH resulting from actions or proposed actions authorized, funded, or undertaken by that agency. Section 305(b)(4)(B) requires Federal agencies to respond in writing to such comments. The following procedures for coordination, consultation, and recommendations allow all parties involved to understand and implement the requirements of the Magnuson-Stevens Act.

(c) *Cooperation between Councils and NMFS.* The Councils and NMFS should cooperate closely to identify actions that may adversely affect EFH, to develop comments and EFH Conservation Recommendations to Federal and state agencies, and to provide EFH information to Federal and state agencies. NMFS will work with each Council to share information and to coordinate Council and NMFS comments and recommendations on actions that may adversely affect EFH. However, NMFS and the Councils also have the authority to act independently.

§ 600.910 Definitions and word usage.

(a) *Definitions.* In addition to the definitions in the Magnuson-Stevens Act and §600.10, the terms in this subpart have the following meanings:

Adverse effect means any impact that reduces quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH. Adverse effects to EFH may result from hazardous material occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

Anadromous fishery resource under Council authority means an anadromous species managed under an FMP.

Federal action means any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken by a Federal agency.

Habitat areas of particular concern means those areas of EFH identified pursuant to §600.815(a)(8).

State action means any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken by a state agency.

(b) *Word usage.* The terms “must”, “shall”, “should”, “may”, “may not”, “will”, “could”, and “can” are used in the same manner as in §600.305(c).

§ 600.915 Coordination for the conservation and enhancement of EFH.

To further the conservation and enhancement of EFH in accordance with section 305(b)(1)(D) of the Magnuson-Stevens Act, NMFS will compile and make available to other Federal and state agencies, and the general public, information on the locations of EFH, including maps and/or narrative descriptions. NMFS will also provide information on ways to improve ongoing Federal operations to promote the conservation and enhancement of EFH. Federal and state agencies empowered to authorize, fund, or undertake actions that may adversely affect EFH are encouraged to contact NMFS and the Councils to become familiar with areas designated as EFH, potential threats to EFH, and opportunities to promote the conservation and enhancement of EFH.

§ 600.920 Federal agency consultation with the Secretary.

(a) *Consultation generally—(1) Actions requiring consultation.* Pursuant to section 305(b)(2) of the Magnuson-Stevens Act, Federal agencies must consult with NMFS regarding any of their actions authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect EFH. EFH consultation is not required for actions that were completed prior to the approval of EFH designations by the Secretary, e.g., issued permits. Consultation is required for renewals, reviews, or substantial revisions of actions if the renewal, review, or revision may adversely affect EFH. Consultation on Federal programs delegated to non-Federal entities is required at the time of delegation, review, and renewal of the delegation. EFH consultation is required for any Federal funding of actions that may adversely affect EFH. NMFS and Federal agencies responsible for funding actions that may adversely affect EFH should consult on a programmatic level under paragraph (j) of this section, if appropriate, with respect to these actions. Consultation is required for emergency Federal actions that may adversely affect EFH, such as hazardous material clean-up, response to natural disasters, or actions to protect public safety. Federal agencies should contact NMFS early in emergency response planning, but may consult after-the-fact if consultation on an expedited basis is not practicable before taking the action.

(2) *Approaches for conducting consultation.* Federal agencies may use one of the five approaches described in paragraphs (f) through (j) of this section to fulfill the EFH consultation requirements. The selection of a particular approach for handling EFH consultation depends on the nature and scope of the actions that may adversely affect EFH. Federal agencies should use the most efficient approach for EFH consultation that is appropriate for a given action or actions. The five approaches are: use of existing environmental review procedures, General Concurrence, abbreviated consultation, expanded consultation, and programmatic consultation.

(3) *Early notification and coordination.* The Federal agency should notify NMFS in writing as early as practicable regarding actions that may adversely affect EFH. Notification will facilitate discussion of measures to conserve EFH. Such early coordination should occur during pre-application planning for projects subject to a Federal permit or license and during preliminary planning for projects to be funded or undertaken directly by a Federal agency.

(b) *Designation of lead agency.* If more than one Federal agency is responsible for a Federal action, the consultation requirements of sections 305(b)(2) through (4) of the Magnuson-Stevens Act may be fulfilled through a lead agency. The lead agency should notify NMFS in writing that it is representing one or more additional agencies. Alternatively, if one Federal agency has completed an EFH consultation for an action and another Federal agency acts separately to authorize, fund, or undertake the same activity (such as issuing a permit for an activity that was funded via a separate Federal action), the completed EFH consultation may suffice for both Federal actions if it adequately addresses the adverse effects of the actions on EFH. Federal agencies may need to consult with NMFS separately if, for example, only one of the agencies has the authority to implement measures necessary to minimize adverse effects on EFH and that agency does not act as the lead agency.

(c) *Designation of non-Federal representative.* A Federal agency may designate a non-Federal representative to conduct an EFH consultation by giving written notice of such designation to NMFS. If a non-Federal representative is used, the Federal action agency remains ultimately responsible for compliance with sections 305(b)(2) and 305(b)(4)(B) of the Magnuson-Stevens Act.

(d) *Best available information.* The Federal agency and NMFS must use the best scientific information available regarding the effects of the action on EFH and the measures that can be taken to avoid, minimize, or offset such effects. Other appropriate sources of information may also be considered.

(e) *EFH Assessments—(1) Preparation requirement.* For any Federal action that may adversely affect EFH, Federal agencies must provide NMFS with a written assessment of the effects of that action on EFH. For actions covered by a General Concurrence under paragraph (g) of this section, an EFH Assessment should be completed during the development of the General Concurrence and is not required for the individual actions. For actions addressed by a programmatic consultation under paragraph (j) of this section, an EFH Assessment should be completed during the programmatic consultation and is not required for individual actions implemented under the program, except in those instances identified by NMFS in the programmatic consultation as requiring separate EFH consultation. Federal agencies are not required to provide NMFS with assessments regarding actions that they have determined would not adversely affect EFH. Federal agencies may incorporate an EFH Assessment into documents prepared for other purposes such as Endangered Species Act (ESA) Biological Assessments pursuant to 50 CFR part 402 or National Environmental Policy Act (NEPA) documents and public notices pursuant to 40 CFR part 1500. If an EFH Assessment is contained in another document, it must include all of the information required in paragraph (e)(3) of this section and be clearly identified as an EFH Assessment. The procedure for combining an EFH consultation with other environmental reviews is set forth in paragraph (f) of this section.

(2) *Level of detail.* The level of detail in an EFH Assessment should be commensurate with the complexity and magnitude of the potential adverse effects of the action. For example, for relatively simple actions involving minor adverse effects on EFH, the assessment may be very brief. Actions that may pose a more serious threat to EFH warrant a correspondingly more detailed EFH Assessment.

(3) *Mandatory contents.* The assessment must contain:

(i) A description of the action.

(ii) An analysis of the potential adverse effects of the action on EFH and the managed species.

(iii) The Federal agency's conclusions regarding the effects of the action on EFH.

(iv) Proposed mitigation, if applicable.

(4) *Additional information.* If appropriate, the assessment should also include:

- (i) The results of an on-site inspection to evaluate the habitat and the site-specific effects of the project.
- (ii) The views of recognized experts on the habitat or species that may be affected.
- (iii) A review of pertinent literature and related information.
- (iv) An analysis of alternatives to the action. Such analysis should include alternatives that could avoid or minimize adverse effects on EFH.
- (v) Other relevant information.

(5) *Incorporation by reference.* The assessment may incorporate by reference a completed EFH Assessment prepared for a similar action, supplemented with any relevant new project specific information, provided the proposed action involves similar impacts to EFH in the same geographic area or a similar ecological setting. It may also incorporate by reference other relevant environmental assessment documents. These documents must be provided to NMFS with the EFH Assessment.

(f) *Use of existing environmental review procedures —(1) Purpose and criteria.* Consultation and commenting under sections 305(b)(2) and 305(b)(4) of the Magnuson-Stevens Act should be consolidated, where appropriate, with interagency consultation, coordination, and environmental review procedures required by other statutes, such as NEPA, the Fish and Wildlife Coordination Act, Clean Water Act, ESA, and Federal Power Act. The requirements of sections 305(b)(2) and 305(b)(4) of the Magnuson-Stevens Act, including consultations that would be considered to be abbreviated or expanded consultations under paragraphs (h) and (i) of this section, can be combined with existing procedures required by other statutes if such processes meet, or are modified to meet, the following criteria:

(i) The existing process must provide NMFS with timely notification of actions that may adversely affect EFH. The Federal agency should notify NMFS according to the same timeframes for notification (or for public comment) as in the existing process. Whenever possible, NMFS should have at least 60 days notice prior to a final decision on an action, or at least 90 days if the action would result in substantial adverse impacts. NMFS and the action agency may agree to use shorter timeframes provided that they allow sufficient time for NMFS to develop EFH Conservation Recommendations.

(ii) Notification must include an assessment of the impacts of the action on EFH that meets the requirements for EFH Assessments contained in paragraph (e) of this section. If the EFH Assessment is contained in another document, the Federal agency must identify that section of the document as the EFH Assessment.

(iii) NMFS must have made a finding pursuant to paragraph (f)(3) of this section that the existing process can be used to satisfy the requirements of sections 305(b)(2) and 305(b)(4) of the Magnuson-Stevens Act.

(2) *NMFS response to Federal agency.* If an existing environmental review process is used to fulfill the EFH consultation requirements, the comment deadline for that process should apply to the submittal of NMFS EFH Conservation Recommendations under section 305(b)(4)(A) of the Magnuson-Stevens Act, unless NMFS and the Federal agency agree to a different deadline. If NMFS EFH Conservation Recommendations are combined with other NMFS or NOAA comments on a Federal action, such as NOAA comments on a draft Environmental Impact Statement, the EFH Conservation Recommendations will be clearly identified as such (e.g., a section in the comment letter entitled "EFH Conservation Recommendations") and a Federal agency response pursuant to section 305(b)(4)(B) of the Magnuson-Stevens Act is required for only the identified portion of the comments.

(3) *NMFS finding.* A Federal agency with an existing environmental review process should contact NMFS at the appropriate level (regional offices for regional processes, headquarters office for national processes) to discuss how to combine the EFH consultation requirements with the existing process, with or without modifications. If, at the conclusion of these discussions, NMFS determines that the existing or modified process meets the criteria of paragraph (f)(1) of this section, NMFS will make a finding that the process can be used to satisfy the EFH consultation requirements of the Magnuson-Stevens Act. If NMFS does not make such a finding, or if there are no existing consultation processes relevant to the Federal agency's actions, the agency and NMFS should follow one of the approaches for consultation discussed in the following sections.

(g) *General Concurrence —(1) Purpose.* A General Concurrence identifies specific types of Federal actions that may adversely affect EFH, but for which no further consultation is generally required because NMFS has determined, through an analysis of that type of action, that it will likely result in no more than minimal adverse effects individually and cumulatively. General Concurrences may be national or regional in scope.

(2) *Criteria.* (i) For Federal actions to qualify for General Concurrence, NMFS must determine that the actions meet all of the following criteria:

- (A) The actions must be similar in nature and similar in their impact on EFH.
- (B) The actions must not cause greater than minimal adverse effects on EFH when implemented individually.
- (C) The actions must not cause greater than minimal cumulative adverse effects on EFH.

(ii) Actions qualifying for General Concurrence must be tracked to ensure that their cumulative effects are no more than minimal. In most cases, tracking actions covered by a General Concurrence will be the responsibility of the Federal agency. However, NMFS may agree to track such actions. Tracking should include numbers of actions and the amount and type of habitat adversely affected, and should specify the baseline against which the actions will be tracked. The agency responsible for tracking such actions should make the information available to NMFS, the applicable Council(s), and to the public on an annual basis.

(iii) Categories of Federal actions may also qualify for General Concurrence if they are modified by appropriate conditions that ensure the actions will meet the criteria in paragraph (g)(2)(i) of this section. For example, NMFS may provide General Concurrence for additional actions contingent upon project size limitations, seasonal restrictions, or other conditions.

(iv) If a General Concurrence is proposed for actions that may adversely affect habitat areas of particular concern, the General Concurrence should be subject to a higher level of scrutiny than a General Concurrence not involving a habitat area of particular concern.

(3) *General Concurrence development.* A Federal agency may request a General Concurrence for a category of its actions by providing NMFS with an EFH Assessment containing a description of the nature and approximate number of the actions, an analysis of the effects of the actions on EFH, including cumulative effects, and the Federal agency's conclusions regarding the magnitude of such effects. If NMFS agrees that the actions fit the criteria in paragraph (g)(2)(i) of this section, NMFS will provide the Federal agency with a written statement of General Concurrence that further consultation is not required. If NMFS does not agree that the actions fit the criteria in paragraph (g)(2)(i) of this section, NMFS will notify the Federal agency that a General Concurrence will not be issued and that another type of consultation will be required. If NMFS identifies specific types of Federal actions that may meet the requirements for a General Concurrence, NMFS may initiate and complete a General Concurrence.

(4) *Further consultation.* NMFS may request notification for actions covered under a General Concurrence if NMFS concludes there are circumstances under which such actions could result in more than a minimal impact on EFH, or if it determines that there is no process in place to adequately assess the cumulative impacts of actions covered under the General Concurrence. NMFS may request further consultation for these actions on a case-by-case basis. Each General Concurrence should establish specific procedures for further consultation, if appropriate.

(5) *Notification.* After completing a General Concurrence, NMFS will provide a copy to the appropriate Council(s) and will make the General Concurrence available to the public by posting the document on the internet or through other appropriate means.

(6) *Revisions.* NMFS will periodically review and revise its General Concurrences, as appropriate.

(h) *Abbreviated consultation procedures —(1) Purpose and criteria.* Abbreviated consultation allows NMFS to determine quickly whether, and to what degree, a Federal action may adversely affect EFH. Federal actions that may adversely affect EFH should be addressed through the abbreviated consultation procedures when those actions do not qualify for a General Concurrence, but do not have the potential to cause substantial adverse effects on EFH. For example, the abbreviated consultation procedures should be used when the adverse effect(s) of an action could be alleviated through minor modifications.

(2) *Notification by agency and submittal of EFH Assessment.* Abbreviated consultation begins when NMFS receives from the Federal agency an EFH Assessment in accordance with paragraph (e) of this section and a written request for consultation.

(3) *NMFS response to Federal agency.* If NMFS determines, contrary to the Federal agency's assessment, that an action would not adversely affect EFH, or if NMFS determines that no EFH Conservation Recommendations are needed, NMFS will notify the Federal agency either informally or in writing of its determination. If NMFS believes that the action may result in substantial adverse effects on EFH, or that additional analysis is needed to assess the effects of the action, NMFS will request in writing that the Federal agency initiate expanded consultation. Such request will explain why NMFS believes expanded consultation is needed and will specify any new information needed. If expanded consultation is not necessary, NMFS will provide EFH Conservation Recommendations, if appropriate, pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act.

(4) *Timing.* The Federal agency must submit its EFH Assessment to NMFS as soon as practicable, but at least 60 days prior to a final decision on the action. NMFS must respond in writing within 30 days. NMFS and the Federal agency may agree to use a compressed schedule in cases where regulatory approvals or emergency situations cannot accommodate 30 days for consultation, or to conduct consultation earlier in the planning cycle for actions with lengthy approval processes.

(i) *Expanded consultation procedures —(1) Purpose and criteria.* Expanded consultation allows maximum opportunity for NMFS and the Federal agency to work together to review the action's impacts on EFH and to develop EFH Conservation Recommendations. Expanded consultation procedures must be used for Federal actions that would result in substantial adverse effects to EFH. Federal agencies are encouraged to contact NMFS at the earliest opportunity to discuss whether the adverse effects of an action make expanded consultation appropriate.

(2) *Notification by agency and submittal of EFH Assessment.* Expanded consultation begins when NMFS receives from the Federal agency an EFH Assessment in accordance with paragraph (e) of this section and a written request for expanded consultation. Federal agencies are encouraged to provide in the EFH Assessment the additional information identified under

paragraph (e)(4) of this section to facilitate review of the effects of the action on EFH.

(3) *NMFS response to Federal agency.* NMFS will:

(i) Review the EFH Assessment, any additional information furnished by the Federal agency, and other relevant information.

(ii) Conduct a site visit, if appropriate, to assess the quality of the habitat and to clarify the impacts of the Federal agency action. Such a site visit should be coordinated with the Federal agency and appropriate Council(s), if feasible.

(iii) Coordinate its review of the action with the appropriate Council(s).

(iv) Discuss EFH Conservation Recommendations with the Federal agency and provide such recommendations to the Federal agency, pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act.

(4) *Timing.* The Federal agency must submit its EFH Assessment to NMFS as soon as practicable, but at least 90 days prior to a final decision on the action. NMFS must respond within 60 days of submittal of a complete EFH Assessment unless consultation is extended by agreement between NMFS and the Federal agency. NMFS and Federal agencies may agree to use a compressed schedule in cases where regulatory approvals or emergency situations cannot accommodate 60 days for consultation, or to conduct consultation earlier in the planning cycle for actions with lengthy approval processes.

(5) *Extension of consultation.* If NMFS determines that additional data or analysis would provide better information for development of EFH Conservation Recommendations, NMFS may request additional time for expanded consultation. If NMFS and the Federal agency agree to an extension, the Federal agency should provide the additional information to NMFS, to the extent practicable. If NMFS and the Federal agency do not agree to extend consultation, NMFS must provide EFH Conservation Recommendations to the Federal agency using the best scientific information available to NMFS.

(j) *Programmatic consultation*—(1) *Purpose.* Programmatic consultation provides a means for NMFS and a Federal agency to consult regarding a potentially large number of individual actions that may adversely affect EFH. Programmatic consultation will generally be the most appropriate option to address funding programs, large-scale planning efforts, and other instances where sufficient information is available to address all reasonably foreseeable adverse effects on EFH of an entire program, parts of a program, or a number of similar individual actions occurring within a given geographic area.

(2) *Process.* A Federal agency may request programmatic consultation by providing NMFS with an EFH Assessment in accordance with paragraph (e) of this section. The description of the proposed action in the EFH Assessment should describe the program and the nature and approximate number (annually or by some other appropriate time frame) of the actions. NMFS may also initiate programmatic consultation by requesting pertinent information from a Federal agency.

(3) *NMFS response to Federal agency.* NMFS will respond to the Federal agency with programmatic EFH Conservation Recommendations and, if applicable, will identify any potential adverse effects that could not be addressed programmatically and require project-specific consultation. NMFS may also determine that programmatic consultation is not appropriate, in which case all EFH Conservation Recommendations will be deferred to project-specific consultations. If appropriate, NMFS' response may include a General Concurrence for activities that qualify under paragraph (g) of this section.

(k) *Responsibilities of Federal agency following receipt of EFH Conservation Recommendations*—(1) *Federal agency response.* As required by section 305(b)(4)(B) of the Magnuson-Stevens Act, the Federal agency must provide a detailed response in writing to NMFS and to any Council commenting on the action under section 305(b)(3) of the Magnuson-Stevens Act within 30 days after receiving an EFH Conservation Recommendation from NMFS. Such a response must be provided at least 10 days prior to final approval of the action if the response is inconsistent with any of NMFS' EFH Conservation Recommendations, unless NMFS and the Federal agency have agreed to use alternative time frames for the Federal agency response. The response must include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with NMFS Conservation Recommendations, the Federal agency must explain its reasons for not following the recommendations, including the scientific justification for any disagreements with NMFS over the anticipated effects of the action and the measures needed to avoid, minimize, mitigate, or offset such effects.

(2) *Further review of decisions inconsistent with NMFS or Council recommendations.* If a Federal agency decision is inconsistent with a NMFS EFH Conservation Recommendation, the Assistant Administrator for Fisheries may request a meeting with the head of the Federal agency, as well as with any other agencies involved, to discuss the action and opportunities for resolving any disagreements. If a Federal agency decision is also inconsistent with a Council recommendation made pursuant to section 305(b)(3) of the Magnuson-Stevens Act, the Council may request that the Assistant Administrator initiate further review of the Federal agency's decision and involve the Council in any interagency discussion to resolve disagreements with the Federal agency. The Assistant Administrator will make every effort to accommodate such a request. NMFS may develop written procedures to further define such review processes.

(l) *Supplemental consultation.* A Federal agency must reinstate consultation with NMFS if the agency substantially revises its plans for an action in a manner that may adversely affect EFH or if new information becomes available that affects the basis for NMFS EFH Conservation Recommendations.

§ 600.925 NMFS EFH Conservation Recommendations to Federal and state agencies.

(a) *General.* Under section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH Conservation Recommendations to Federal and state agencies for actions that would adversely affect EFH. NMFS will not recommend that state or Federal agencies take actions beyond their statutory authority.

(b) *Recommendations to Federal agencies.* For Federal actions, EFH Conservation Recommendations will be provided to Federal agencies as part of EFH consultations conducted pursuant to §600.920. If NMFS becomes aware of a Federal action that would adversely affect EFH, but for which a Federal agency has not initiated an EFH consultation, NMFS may request that the Federal agency initiate EFH consultation, or NMFS will provide EFH Conservation Recommendations based on the information available.

(c) *Recommendations to state agencies*—(1) *Establishment of procedures.* The Magnuson-Stevens Act does not require state agencies to consult with the Secretary regarding EFH. NMFS will use existing coordination procedures or establish new procedures to identify state actions that may adversely affect EFH, and to determine the most appropriate method for providing EFH Conservation Recommendations to state agencies.

(2) *Coordination with states on recommendations to Federal agencies.* When an action that would adversely affect EFH is authorized, funded, or undertaken by both Federal and state agencies, NMFS will provide the appropriate state agencies with copies of EFH Conservation Recommendations developed as part of the Federal consultation procedures in §600.920. NMFS will also seek agreements on sharing information and copies of recommendations with Federal or state agencies conducting similar consultation and recommendation processes to ensure coordination of such efforts.

(d) *Coordination with Councils.* NMFS will coordinate with each Council to identify the types of actions on which Councils intend to comment pursuant to section 305(b)(3) of the Magnuson-Stevens Act. For such actions NMFS will share pertinent information with the Council, including copies of NMFS' EFH Conservation Recommendations.

§ 600.930 Council comments and recommendations to Federal and state agencies.

Under section 305(b)(3) of the Magnuson-Stevens Act, Councils may comment on and make recommendations to the Secretary and any Federal or state agency concerning any activity or proposed activity authorized, funded, or undertaken by the agency that, in the view of the Council, may affect the habitat, including EFH, of a fishery resource under its authority. Councils must provide such comments and recommendations concerning any activity that, in the view of the Council, is likely to substantially affect the habitat, including EFH, of an anadromous fishery resource under Council authority.

(a) *Establishment of procedures.* Each Council should establish procedures for reviewing Federal or state actions that may adversely affect the habitat, including EFH, of a species under its authority. Each Council may receive information on actions of concern by methods such as directing Council staff to track proposed actions, recommending that the Council's habitat committee identify actions of concern, or entering into an agreement with NMFS to have the appropriate Regional Administrator notify the Council of actions of concern that would adversely affect EFH. Federal and state actions often follow specific timetables which may not coincide with Council meetings. Therefore, Councils should consider establishing abbreviated procedures for the development of Council recommendations.

(b) *Early involvement.* Councils should provide comments and recommendations on proposed state and Federal actions of concern as early as practicable in project planning to ensure thorough consideration of Council concerns by the action agency. Each Council should provide NMFS with copies of its comments and recommendations to state and Federal agencies.

Subpart L—Fishing Capacity Reduction Framework

Authority: 16 U.S.C. 1861a(b)–(e).

Source: 65 FR 31443, May 18, 2000, unless otherwise noted.

§ 600.1000 Definitions.

In addition to the definitions in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and in §600.10 of this title, the terms used in this subpart have the following meanings:

Address of Record means the business address of a person, partnership, or corporation. Addresses listed on permits or other NMFS records are presumed to be business addresses, unless clearly indicated otherwise.

Bid means the price a vessel owner or reduction fishery permit holder requests for reduction of his/her fishing capacity. It is an irrevocable offer in response to the invitation to bid in §600.1009.

Borrower means, individually and collectively, each post-reduction fishing permit holder and/or fishing vessel owner fishing in the reduction fishery.

Business plan means the document containing the information specified in §600.1003(n) and required to be submitted with a request for a financed program.

Business week means a 7-day period, Saturday through Friday.

Controlling fishery management plan or program (CFMP) means either any fishery management plan or any state fishery management plan or program, including amendments to the plan or program, pursuant to which a fishery is managed.

Delivery value means:

- (1) For unprocessed fish, all compensation that a fish buyer pays to a fish seller in exchange for fee fish; and
- (2) For processed fish, all compensation that a fish buyer would have paid to a fish seller in exchange for fee fish if the fee fish had been unprocessed fish instead of processed fish.

Delivery value encompasses fair market value, as defined herein, and includes the value of all in-kind compensation or all other goods or services exchanged in lieu of cash. It is synonymous with the statutory term "ex-vessel value" as used in section 312 of the Magnuson Act.

Deposit principal means all collected fee revenue that a fish buyer deposits in a segregated account maintained at a federally insured financial institution for the sole purpose of aggregating collected fee revenue before sending the fee revenue to NMFS for repaying a reduction loan.

Fair market value means the amount that a buyer pays a seller in an arm's length transaction or, alternatively, would pay a seller if the transaction were at arm's length.

Fee means the amount that fish buyers deduct from the delivery value under a financed reduction program. The fee is the delivery value times the reduction fishery's applicable fee rate under section 600.1013.

Fee fish means all fish harvested from a reduction fishery involving a financed program during the period in which any amount of the reduction loan remains unpaid. The term fee fish excludes fish harvested incidentally while fishing for fish not included in the reduction fishery.

Final development plan means the document NMFS prepares, under §600.1006(b) and based on the preliminary development plan the requester submits, for a subsidized program.

Financed means funded, in any part, by a reduction loan.

Fish buyer means the first ex-vessel party who:

- (1) in an arm's—length transaction, purchases fee fish from a fish seller;
- (2) takes fish on consignment from a fish seller; or
- (3) otherwise receives fish from a fish seller in a non arm's-length transaction.

Fish delivery means the point at which a fish buyer first purchases fee fish or takes possession of fee fish from a fish seller.

Fishing capacity reduction specifications means the minimum amount of fishing capacity reduction and the maximum amount of reduction loan principal specified in a business plan.

Fish seller means the party who harvests and first sells or otherwise delivers fee fish to a fish buyer.

Fishery Management Plan (FMP) means any Federal fishery management plan, including amendments to the plan, that the Secretary of Commerce approves or adopts pursuant to section 303 of the Magnuson-Stevens Act.

Fund means the Fishing Capacity Reduction Fund, and each subaccount for each program, established in the U.S. Treasury for the deposit into, and disbursement from, all funds, including all reduction loan capital and all fee revenue, involving each program.

Implementation plan means the plan in §600.1008 for carrying out each program.

Implementation regulations mean the regulations in §600.1008 for carrying out each program.

Net delivery value means the delivery value minus the fee.

Post-bidding referendum means a referendum that follows bidding under §600.1009.

Post-reduction means after a program reduces fishing capacity in a reduction fishery.

Pre-bidding referendum means a referendum that occurs at any time after a request for a financed program but before a proposal under §600.1008 of an implementation plan and implementation regulations.

Preliminary development plan means the document specified in §600.1005(g) and required to be submitted with a request for a subsidized program.

Processed fish means fish in any form different from the form in which the fish existed at the time the fish was first harvested, unless any such difference in form represents, in the reduction fishery involved, the standard ex-vessel form upon which fish sellers and fish buyers characteristically base the delivery value of unprocessed fish.

Program means each instance of reduction under this subpart, in each reduction fishery—starting with a request and ending, for a financed program, with full reduction loan repayment.

Reduction means the act of reducing fishing capacity under any program.

Reduction amendment means any amendment, or, where appropriate, framework adjustment, to a CFMP that may be necessary for a program to meet the requirements of this subpart.

Reduction amendment specifications mean the reduction amendment to a CFMP specified in a business plan.

Reduction contract means the invitation to bid under §600.1009, together with each bidder's irrevocable offer and NMFS' conditional or non-conditional acceptance of each such bid under §600.1009.

Reduction cost means the total dollar amount of all reduction payments to fishing permit owners, fishing vessel owners, or both, in a reduction fishery.

Reduction fishery means the fishery or portion of a fishery to which a program applies. The reduction fishery must specify each included species, as well as any limitations by gear type, fishing vessel size, geographic area, and any other relevant factor(s).

Reduction loan means a loan, under section 1111 and section 1112 of Title XI of the Merchant Marine Act, 1936, as amended (46 U.S.C. 1279f and g App.), for financing any portion, or all, of a financed program's reduction cost and repayable by a fee under, and in accordance with, §600.1012, §600.1013, and §600.1014.

Reduction payment means the Federal Government's fishing capacity reduction payment to a fishing permit owner, fishing vessel owner, or both, under a reduction contract. Additionally, it is payment for reduction to each bidder whose bid NMFS accepts under §600.1009. In a financed program each reduction payment constitutes a disbursement of a reduction loan's proceeds and is for either revoking a fishing permit or both revoking a fishing permit and withdrawing a vessel from fishing either by scrapping or title restriction.

Reduction permit means any fishing permit revoked in a program in exchange for a reduction payment under a reduction contract.

Reduction vessel means any fishing vessel withdrawn from fishing either by scrapping or title restriction in exchange for a reduction payment under a reduction contract.

Referendum means the voting process under §600.1010 for approving the fee system for repaying a reduction loan.

Request means a request, under §600.1001, for a program.

Requester means a Council for a fishery identified in §600.1001(c), a state governor for a fishery identified in §600.1001(d), or the Secretary for a fishery identified in §600.1001(e).

Scrap means to completely and permanently reduce a fishing vessel's hull, superstructures, and other fixed structural components to fragments having value, if any, only as raw materials for reprocessing or for other non-fisheries use.

Subsidized means wholly funded by anything other than a reduction loan.

Treasury percentage means the annual percentage rate at which NMFS must pay interest to the U.S. Treasury on any principal amount that NMFS borrows from the U.S. Treasury in order to generate the funds with which to later disburse a reduction loan's principal amount.

Unprocessed fish means fish in the same form as the fish existed at the time the fish was harvested, unless any difference in form represents, in the reduction fishery involved, the standard ex-vessel form upon which fish sellers and fish buyers characteristically base the delivery value of unprocessed fish.

Vote means a vote in a referendum.

§ 600.1001 Requests.

(a) A Council or the Governor of a State under whose authority a proposed reduction fishery is subject may request that NMFS conduct a program in that fishery. Each request shall be in writing and shall be submitted to the Director, Office of Sustainable Fisheries, NMFS. Each request shall satisfy the requirements of §600.1003 or §600.1005, as applicable, and enable NMFS to make the determinations required by §600.1004 or §600.1006, as applicable.

(b) NMFS cannot conduct a program in any fishery subject to the jurisdiction of a Council or a state unless NMFS first receives a request from the Council or the governor to whose jurisdiction the fishery is subject.

(c) For a fishery subject to the jurisdiction of a Council, only that Council can or must make the request. If the fishery is subject to the jurisdiction of two or more Councils, those Councils must make a joint request. No Council may make a request, or join in making a request, until after the Council conducts a public hearing about the request.

(d) For a fishery subject to the jurisdiction of a State, only the Governor of that State can make the request. If the fishery is subject to the jurisdiction of two or more states, the Governors of those States shall make a joint request. No Governor of a State may make a request, or join in making a request, until the State conducts a public hearing about the request.

(e) For a fishery under the direct management authority of the Secretary, NMFS may conduct a program on NMFS' own motion by fulfilling the requirements of this subpart that reasonably apply to a program not initiated by a request.

(f) Where necessary to accommodate special circumstances in a particular fishery, NMFS may waive, as NMFS deems necessary and appropriate, compliance with any specific requirements under this subpart not required by statute.

§ 600.1002 General requirements.

(a) Each program must be: (1) Necessary to prevent or end overfishing, rebuild stocks of fish, or achieve measurable and significant improvements in the conservation and management of the reduction fishery;

(2) Accompanied by the appropriate environmental, economic and/or socioeconomic analyses, in accordance with applicable statutes, regulations, or other authorities; and

(3) Consistent with the CFMP, including any reduction amendment, for the reduction fishery.

(b) Each CFMP for a reduction fishery must: (1) Prevent the replacement of fishing capacity removed by the program through a moratorium on new entrants, restrictions on vessel upgrades, and other effort control measures, taking into account the full potential fishing capacity of the fleet;

(2) Establish a specified or target total allowable catch or other measures that trigger closure of the fishery or adjustments to reduce catch; and

(3) Include, for a financed program in a reduction fishery involving only a portion of a fishery, appropriate provisions for the post-reduction allocation of fish between the reduction fishery and the rest of the fishery that both protect the borrower's reduction investment in the program and support the borrower's ability to repay the reduction loan.

§ 600.1003 Content of a request for a financed program.

A request for a financed program shall:

(a) Specify the reduction fishery.

(b) Project the amount of the reduction and specify what a reduction of that amount achieves in the reduction fishery.

(c) Specify whether the program is to be wholly or partially financed and, if the latter, specify the amount and describe the availability of all funding from sources other than a reduction loan.

(d) Project the availability of all Federal appropriation authority or other funding, if any, that the financed program requires, including the time at which funding from each source will be available and how that relates to the time at which elements of the reduction process are projected to occur.

(e) Demonstrate how the program meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(a).

(f) Demonstrate how the CFMP meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(b).

(g) If a reduction amendment is necessary, include an actual reduction amendment or the requester's endorsement in principle of the reduction amendment specifications in the business plan. Endorsement in principle is non-binding.

(h) Request that NMFS conduct, at the appropriate time, a referendum under §600.1010 of this subpart.

(i) List the names and addresses of record of all fishing permit or fishing vessel owners who are currently authorized to harvest fish from the reduction fishery, excluding those whose authority is limited to incidentally harvesting fish from the reduction fishery during directed fishing for fish not in the reduction fishery. The list shall be based on the best information available to the requester. The list shall take into account any limitation by type of fishing gear operated, size of fishing vessel operated, geographic area of operation, or other factor that the proposed program involves. The list may include any relevant information that NMFS may supply to the requester.

(j) Specify the aggregate total allowable catch in the reduction fishery during each of the preceding 5 years and the aggregate portion of such catch harvested by the parties listed under paragraph (i) of this section.

(k) Specify the criteria for determining the types and number of fishing permits or fishing permits and fishing vessels that are eligible for reduction under the program. The criteria shall take into account:

(1) The characteristics of the fishery;

(2) Whether the program is limited to a particular gear type within the reduction fishery or is otherwise limited by size of fishing vessel operated, geographic area of operation, or other factor;

(3) Whether the program is limited to fishing permits or involves both fishing permits and fishing vessels;

(4) The reduction amendment required;

(5) The needs of fishing communities;

(6) Minimizing the program's reduction cost; and

(7) All other relevant factors.

(l) Include the requester's assessment of the program's potential impact on fisheries other than the reduction fishery, including an evaluation of the likely increase in participation or effort in such other fisheries, the general economic impact on such other fisheries, and recommendations that could mitigate, or enable such other fisheries to mitigate, any undesirable impacts.

(m) Include any other information or guidance that would assist NMFS in developing an implementation plan and implementation regulations.

(n) Include a business plan, prepared by, or on behalf of, knowledgeable and concerned harvesters in the reduction fishery, that:

(1) Specifies a detailed reduction methodology that accomplishes the maximum sustained reduction in the reduction fishery's fishing capacity at the least reduction cost and in the minimum period of time, and otherwise achieves the program result that the requester specifies under paragraph (b) of this section. The methodology shall:

(i) Establish the appropriate point for NMFS to conduct a pre-bidding referendum and be sufficiently detailed to enable NMFS to readily:

(A) Design, propose, and adopt a timely and reliable implementation plan,

(B) Propose and issue timely and reliable implementation regulations,

(C) Invite bids,

(D) Accept or reject bids, and

(E) Complete a program in accordance with this subpart, and

(ii) Address, consistently with this subpart:

(A) The contents and terms of invitations to bid,

(B) Bidder eligibility,

(C) The type of information that bidders shall supply,

(D) The criteria for accepting or rejecting bids,

(E) The terms of bid acceptances,

(F) Any referendum procedures in addition to, but consistent with, those in §600.1010, and

(G) All other technical matters necessary to conduct a program;

(2) Projects and supports the reduction fishery's annual delivery value during the reduction loan's repayment period based on documented analysis of actual representative experience for a reasonable number of past years in the reduction fishery;

(3) Includes the fishing capacity reduction specifications upon which both the pre-bidding referendum and the bidding under §600.1009 will be based. The reduction loan's maximum principal amount cannot, at the interest rate projected to prevail at the time of reduction, exceed the principal amount that can be amortized in 20 years by 5 percent of the projected delivery value;

(4) States the reduction loan's repayment term and the fee rate, or range of fee rates, prospectively necessary to amortize the reduction loan over its repayment term;

(5) Analyzes and demonstrates the ability to repay the reduction loan at the minimum reduction level and at various reduction-level increments reasonably greater than the minimum one, based on the:

(i) Best and most representative historical fishing revenue and expense data and any other relevant productivity measures available in the reduction fishery, and

(ii) Projected effect of the program on the post-reduction operating economics of typical harvesters in the reduction fishery, with particular emphasis on the extent to which the reduction increases the ratio of delivery value to fixed cost and improves harvesting's other relevant productivity measures;

(6) Demonstrates how the business plan's proposed program meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(a);

(7) Demonstrates how the CFMP meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(b);

(8) Includes, if a reduction amendment is necessary, the reduction amendment specifications upon which the pre-bidding referendum will be based;

(9) Includes an assessment of the program's potential impact on fisheries other than the reduction fishery, including an evaluation of the likely increase in participation or effort in such other fisheries, the general economic impact on such other fisheries, and recommendations that could mitigate, or enable such other fisheries to mitigate, any undesirable impacts;

(10) Specifies the names and addresses of record of all fish buyers who can, after reduction, reasonably be expected to receive deliveries of fee fish. This shall be based on the best information available, including any information that NMFS may be able to supply to the business planners;

(11) Specifies, after full consultation with fish buyers, any special circumstances in the reduction fishery that may require the implementing regulations to contain provisions in addition to, or different from, those contained in §600.1013 and/or §600.1014 in order to accommodate the circumstances of, and practices in, the reduction fishery while still fulfilling the intent and purpose of §600.1013 and/or §600.1014—including, but not limited to:

(i) In the case of reduction fisheries in which state data confidentiality laws or other impediments may negatively affect the efficient and effective conduct of the same, specification of who needs to take what action to resolve any such impediments, and

(ii) In the case of reduction fisheries in which some fish sellers sell unprocessed, and other fish sellers sell processed fish to fish buyers, specification of an accurate and efficient method of establishing the delivery value of processed fish; and

(12) Demonstrates by a survey of potential voters, or by any other convincing means, a substantial degree of potential voter support for the business plan and confidence in its feasibility.

(o) Include the requester's statement of belief that the business plan, the CFMP, the reduction amendment specifications, and all other request aspects constitute a complete, realistic, and practical prospect for successfully completing a program in accordance with this subpart.

§ 600.1004 Accepting a request for, and determinations about initiating, a financed program.

(a) *Accepting a request.* Once it receives a request, NMFS will review any request for a financed program to determine whether the request conforms with the requirements of §600.1003. If the request does not conform, NMFS will return the request with guidance on how to make the request conform. If the request conforms, NMFS shall accept it and publish a notice in the Federal Register requesting public comments on the request. Such notice shall state the name and address of record of each eligible voter, as well as the basis for having determined the eligibility of those voters. This shall constitute notice and opportunity to respond about adding eligible voters, deleting ineligible voters, and/or correcting any voter's name and address of record. If, in NMFS' discretion, the comments received in response to such notice warrants it, or other good cause warrants it, NMFS may modify such list by publishing another notice in the Federal Register.

(b) *Determination about initiating a financed program.* After receipt of a conforming request for a financed program, NMFS will, after reviewing and responding to any public comments received in response to the notice published in the Federal Register under paragraph (a) of this section, initiate the program if NMFS determines that:

(1) The program meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(a);

(2) The CFMP meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(b);

(3) The program, if successfully implemented, is cost effective;

(4) The reduction requested constitutes a realistic and practical prospect for successfully completing a program in accordance with this subpart and the borrower is capable of repaying the reduction loan. This includes enabling NMFS to readily design, propose, and adopt a timely and reliable implementation plan as well as propose and issue timely and reliable implementation regulations and otherwise complete the program in accordance with this subpart; and

(5) The program accords with all other applicable law.

§ 600.1005 Content of a request for a subsidized program.

A request for a subsidized program shall:

(a) Specify the reduction fishery.

(b) Project the amount of the reduction and specify what a reduction of that amount achieves in the reduction fishery.

(c) Project the reduction cost, the amount of reduction cost to be funded by Federal appropriations, and the amount, if any, to be funded by other sources.

(d) Project the availability of Federal appropriations or other funding, if any, that completion of the program requires, including the time at which funding from each source will be available and how that relates to the time at which elements of the reduction process are projected to occur.

(e) List the names and addresses of record of all fishing permit or fishing vessel owners who are currently authorized to harvest fish from the reduction fishery, excluding those whose authority is limited to incidentally harvesting fish from the reduction fishery during directed fishing for fish not in the reduction fishery. The list shall be based on the best information available to the requester, including any information that NMFS may supply to the requester, and take into account any limitation by type of fishing gear operated, size of fishing vessel operated, geographic area of operation, or other factor that the proposed program involves.

(f) Specify the aggregate total allowable catch in the reduction fishery during each of the preceding 5 years and the aggregate portion of such catch harvested by the parties listed under paragraph (e) of this section.

(g) Include a preliminary development plan that: (1) Specifies a detailed reduction methodology that accomplishes the maximum sustained reduction in the reduction fishery's fishing capacity at the least cost and in a minimum period of time, and otherwise achieves the program result that the requester specifies under paragraph (b) of this section. The methodology shall:

(i) Be sufficiently detailed to enable NMFS to prepare a final development plan to serve as the basis for NMFS to readily design, propose, and adopt a timely and reliable implementation plan

and propose and issue timely and reliable implementation regulations, and

(ii) Include:

- (A) The contents and terms of invitations to bid,
- (B) Eligible bidders,
- (C) The type of information that bidders shall supply,
- (D) The criteria for accepting or rejecting bids, and
- (E) The terms of bid acceptances;

(2) Specifies the criteria for determining the types and numbers of fishing permits or fishing permits and fishing vessels that are eligible for reduction under the program. The criteria shall take into account:

- (i) The characteristics of the fishery,
 - (ii) Whether the program is limited to a particular gear type within the reduction fishery, or is otherwise limited by size of fishing vessel operated, geographic area of operation, or other factor,
 - (iii) Whether the program is limited to fishing permits or involves both fishing permits and fishing vessels,
 - (iv) The reduction amendment required,
 - (v) The needs of fishing communities, and
 - (vi) The need to minimize the program's reduction cost; and
- (3) Demonstrates the program's cost effectiveness.
- (h) Demonstrate how the program meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(a).
- (i) Demonstrate how the CFMP meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(b)(1) and (2).
- (j) Specify any other information or guidance that assists NMFS in preparing a final development plan and a proposed implementation plan and proposed implementation regulations.
- (k) Include the requester's statement of belief that the program constitutes a reasonably realistic and practical prospect for successfully completing a program in accordance with this subpart.

§ 600.1006 Accepting a request for, and determinations about conducting, a subsidized program.

(a) *Accepting a request.* NMFS will review any request for a subsidized program submitted to NMFS to determine whether the request conforms with the requirements of §600.1005. If the request does not conform, NMFS will return it with guidance on how to make the request conform. If the request conforms, NMFS shall accept it and publish a notice in the Federal Register requesting public comments about the request.

(b) *Final development plan.* After receipt of a conforming request, NMFS will prepare a final development plan if NMFS determines that the reduction requested constitutes a realistic and practical prospect for successfully completing a program in accordance with this subpart. This includes enabling NMFS to readily design, propose, and adopt a timely and reliable implementation plan as well as propose and issue timely and reliable implementation regulations and otherwise complete the program in accordance with this subpart. NMFS will, as far as possible, base the final development plan on the requester's preliminary development plan. Before completing the final development plan, NMFS will consult, as NMFS deems necessary, with the requester, Federal agencies, state and regional authorities, affected fishing communities, participants in the reduction fishery, conservation organizations, and other interested parties in preparing the final development plan.

(c) *Reaffirmation of the request.* After completing the final development plan, NMFS will submit the plan to the requester for the requester's reaffirmation of the request. Based on the final development plan, the reaffirmation shall: (1) Certify that the final development plan meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(a);

(2) Certify that the CFMP meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(b)(1) and (2); and

(3) Project the date on which the requester will forward any necessary reduction amendment and, if the requester is a Council, proposed regulations to implement the reduction amendment. The requester shall base any necessary reduction amendment on the final development plan.

(d) *Determinations about conducting a subsidized program.* After NMFS' receipt of the requester's reaffirmation, any required reduction amendment, and any proposed regulations required to implement the amendment, NMFS will initiate the program if NMFS determines that:

- (1) The program meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(a);
- (2) The CFMP meets, or will meet after an appropriate reduction amendment, the requirements in §600.1002(b)(1) and (2); and
- (3) The program is reasonably capable of being successfully implemented;
- (4) The program, if successfully implemented, will be cost effective; and
- (5) The program is in accord with all other applicable provisions of the Magnuson-Stevens Act and this subpart.

§ 600.1007 Reduction amendments.

(a) Each reduction amendment may contain provisions that are either dependent upon or independent of a program. Each provision of a reduction amendment is a dependent provision unless the amendment expressly designates the provision as independent.

(b) Independent provisions are effective without regard to any subsequent program actions.

(c) Dependent provisions are initially effective for the sole limited purpose of enabling initiation and completion of the pre-reduction processing stage of a program.

(d) All dependent provisions of a reduction amendment for a financed program are fully in force and effect for all other purposes only when NMFS either:

(1) For bidding results that conform to the fishing capacity reduction specifications and are not subject to any other condition, notifies bidders, under §600.1009(e)(3), that reduction contracts then exist between the bidders and the United States; or

(2) For bidding results that do not conform to the fishing capacity reduction specifications or are subject to any other condition, notifies bidders whose bids NMFS had conditionally accepted, under §600.1010 (d)(8)(iii), that the condition pertaining to the reduction contracts between them and the United States is fulfilled.

(e) If NMFS does not, in accordance with this subpart and any special provisions in the implementation regulations, subsequently make all reduction payments that circumstances, in NMFS' judgment, reasonably permit NMFS to make and, thus, complete a program, no dependent provisions shall then have any further force or effect for any purpose and all final regulations involving such dependent provisions shall then be repealed.

§ 600.1008 Implementation plan and implementation regulations.

(a) As soon as practicable after deciding to initiate a program, NMFS will prepare and publish, for a 60-day public comment period, a proposed implementation plan and implementation regulations. During the public comment period, NMFS will conduct a public hearing of the proposed implementation plan and implementation regulations in each state that the program affects.

(b) To the greatest extent practicable, NMFS will base the implementation plan and implementation regulations for a financed program on the business plan. The implementation plan for a financed program will describe in detail all relevant aspects of implementing the program, including:

- (1) The reduction fishery;
- (2) The reduction methodology;
- (3) The maximum reduction cost;
- (4) The maximum reduction loan amount, if different from the maximum reduction cost;

- (5) The reduction cost funding, if any, other than a reduction loan;
- (6) The minimum acceptable reduction level;
- (7) The potential amount of the fee;
- (8) The criteria for determining the types and number of fishing permits or fishing permits and fishing vessels eligible to participate in the program;
- (9) The invitation to bid and bidding procedures;
- (10) The criteria for determining bid acceptance;
- (11) The referendum procedures; and
- (12) Any relevant post-referendum reduction procedures other than those in the implementation regulations or this subpart.

(c) NMFS will base each implementation plan and implementation regulations for a subsidized program on the final development plan. The implementation plan will describe in detail all relevant aspects of implementing the program, including:

- (1) The reduction fishery;
- (2) The reduction methodology;
- (3) The maximum reduction cost;
- (4) The reduction-cost funding, if any, other than Federal appropriations;
- (5) The criteria for determining the types and number of fishing permits or fishing permits and fishing vessels eligible to participate in the program;
- (6) The invitation to bid and bidding procedures;
- (7) The criteria for determining bid acceptance; and
- (8) Any relevant post-bidding program procedures other than those in the implementation regulations or this subpart.

(d) The implementation regulations will:

- (1) Specify, for invitations to bid, bids, and reduction contracts under §600.1009:
 - (i) Bidder eligibility,
 - (ii) Bid submission requirements and procedures,
 - (iii) A bid opening date, before which a bidder may not bid, and a bid closing date, after which a bidder may not bid,
 - (iv) A bid expiration date after which the irrevocable offer contained in each bid expires unless NMFS, before that date, accepts the bid by mailing a written acceptance notice to the bidder at the bidder's address of record,
 - (v) The manner of bid submission and the information each bidder shall supply for NMFS to deem a bid responsive,
 - (vi) The conditions under which NMFS will accept or reject a bid,
 - (vii) The manner in which NMFS will accept or reject a bid, and
 - (viii) The manner in which NMFS will notify each bidder of bid acceptance or rejection;
- (2) Specify any other special referendum procedures or criteria; and
- (3) Specify such other provisions, in addition to and consistent with those in this subpart, necessary to regulate the individual terms and conditions of each program and reduction loan. This includes, but is not limited to:
 - (i) Provisions for the payment of costs and penalties for non-payment, non-collection, non-deposit, and/or non-disbursement of the fee in accordance with §600.1013 and §600.1014,
 - (ii) Prospective fee rate determinations, and
 - (iii) Any other aspect of fee payment, collection, deposit, disbursement, accounting, record keeping, and/or reporting.
- (e) NMFS will issue final implementation regulations and adopt a final implementation plan within 45 days of the close of the public-comment period.
- (f) NMFS may repeal the final implementation regulations for any program if:
 - (1) For a financed program, the bidding results do not conform to the fishing capacity reduction specifications or a post-bidding referendum does not subsequently approve an industry fee system based on the bidding results;
 - (2) For a subsidized program, NMFS does not accept bids; and
 - (3) For either a financed program or a subsidized program, if NMFS is unable to make all reduction payments due to a material adverse change.

§ 600.1009 Bids.

(a) Each invitation to bid, bid, bid acceptance, reduction contract, and bidder—or any other party in any way affected by any of the foregoing—under this subpart is subject to the terms and conditions in this section:

- (1) Each invitation to bid constitutes the entire terms and conditions of a reduction contract under which:
 - (i) Each bidder makes an irrevocable offer to the United States of fishing capacity for reduction, and
 - (ii) NMFS accepts or rejects, on behalf of the United States, each bidder's offer;
- (2) NMFS may, at any time before the bid expiration date, accept or reject any or all bids;
- (3) For a financed program in which bidding results do not conform to the fishing capacity reduction specifications, NMFS' acceptance of any bid is subject to the condition that the industry fee system necessary to repay the reduction loan is subsequently approved by a successful post-bidding referendum conducted under §600.1010. Approval or disapproval of the industry fee system by post-bidding referendum is an event that neither the United States nor the bidders can control. Disapproval of the industry fee system by an unsuccessful post-bidding referendum fully excuses both parties from any performance and fully discharges all duties under any reduction contract;
- (4) For a financed program in one reduction fishery that is being conducted under appropriate implementation regulations simultaneously with another financed program in another reduction fishery, where the acceptance of bids for each financed program is conditional upon successful post-bidding referenda approving industry fee systems for both financed programs, NMFS' acceptance of all bids is, in addition to any condition under paragraph (a)(3) of this section, also subject to the additional conditions that both referenda approve the industry fee systems required for both financed programs—all as otherwise provided in paragraph (a)(3) of this section;
- (5) Upon NMFS' acceptance of the bid and tender of a reduction payment, the bidder consents to:
 - (i) The revocation, by NMFS, of any reduction permit, and
 - (ii) Where the program also involves the withdrawal of reduction vessels from fishing:
- (A) Title restrictions imposed by the U.S. Coast Guard on any reduction vessel that is federally documented to forever prohibit and effectively prevent any future use of the reduction vessel for fishing in any area subject to the jurisdiction of the United States or any state, territory, commonwealth, or possession of the United States, or
- (B) Where reduction vessel scrapping is involved and the reduction vessel's owner does not comply with the owner's obligation under the reduction contract to scrap the reduction vessel,

take such measures as necessary to cause the reduction vessel's prompt scrapping. The scrapping will be at the reduction vessel owner's risk and expense. Upon completion of scrapping, NMFS will take such action as may be necessary to recover from the reduction vessel owner any cost or expense NMFS incurred in causing the reduction vessel to be scrapped and any other damages NMFS may have incurred and such owner shall be liable to the United States for such cost, expenses, and damages;

(6) Money damages not being an adequate remedy for a bidder's breach of a reduction contract, the United States is, in all particulars, entitled to specific performance of each reduction contract. This includes, but is not limited to, the scrapping of a reduction vessel;

(7) Any reduction payment is available, upon timely and adequately documented notice to NMFS, to satisfy liens, as allowed by law, against any reduction permit/and or reduction vessel; provided, however, that:

(i) No reduction payment to any bidder either relieves the bidder of responsibility to discharge the obligation which gives rise to any lien or relieves any lien holder of responsibility to protect the lien holder's interest,

(ii) No reduction payment in any way gives rise to any

liability of the United States for the obligation underlying any lien,

(iii) No lien holder has any right or standing, not otherwise provided by law, against the United States in connection with the revocation of any reduction permit or the title restriction or scrapping of any reduction vessel under this subpart, and

(iv) This subpart does not provide any lien holder with any right or standing to seek to set aside any revocation of any reduction permit or the title restriction or scrapping of any reduction vessel for which the United States made, or has agreed to make, any reduction payment. A lien holder is limited to recovery against the holder of the reduction permit or the owner of the reduction vessel as otherwise provided by law; and

(8) Each invitation to bid may specify such other terms and conditions as NMFS believes necessary to enforce specific performance of each reduction contract or otherwise to ensure completing each program. This includes, but is not limited to, each bidder's certification, subject to the penalties in §600.1017, of the bidder's full authority to submit each bid and to dispose of the property involved in the bid in the manner contemplated by each invitation to bid.

(b) NMFS will not invite bids for any program until NMFS determines that:

(1) Any necessary reduction amendment is fully and finally approved and all provisions except those dependent on the completion of reduction are implemented;

(2) The final implementation plan is adopted and the final implementation regulations are issued;

(3) All required program funding is approved and in place, including all Federal appropriation and apportionment authority;

(4) Any reduction loan involved is fully approved;

(5) Any non-Federal funding involved is fully available at the required time for NMFS disbursement as reduction payments; and

(6) All other actions necessary to disburse reduction payments, except for matters involving bidding and post-bidding referenda, are completed.

(c) After making the affirmative determinations required under paragraph (b) of this section, NMFS will publish a Federal Register notice inviting eligible bidders to offer to the United States, under this subpart, fishing capacity for reduction.

(d) NMFS may extend a bid closing date and/or a bid expiration date for a reasonable period. NMFS may also issue serial invitations to bid if the result of previous bidding, in NMFS' judgment, warrant this.

(e) After the bid expiration date, NMFS will:

(1) Analyze responsive bids;

(2) Determine which bids, if any, NMFS accepts; and

(3) Notify, by U.S. mail at each bidder's address of

record, those bidders whose bids NMFS accepts that a reduction contract now exists between them and the United States—subject, where appropriate, to the conditions provided for elsewhere in this subpart.

(f) NMFS will keep confidential the identity of all bidders whose bids NMFS does not accept. In financed programs where bidding results do not conform to the fishing capacity reduction specifications, NMFS also will keep confidential the identity of all bidders whose bids NMFS does accept until after completing a successful post-bidding referendum under §600.1010.

§ 600.1010 Referenda.

(a) *Referendum success.* A referendum is successful if at least two-thirds of the ballots that qualify to be counted as referendum votes under subparagraph (d)(6) of this section are cast in favor of an industry fee system.

(b) *Pre-bidding referendum*—(1) *Initial referendum.* An initial pre-bidding referendum shall be conducted for each financed program. The business plan shall, subject to this subpart, determine the chronological relationship of the initial pre-bidding referendum to other pre-bidding aspects of the reduction process sequence. The initial pre-bidding referendum shall be based on the fishing capacity reduction specifications. If the initial pre-bidding referendum precedes the adoption of any necessary reduction amendment, the initial pre-bidding referendum shall also be based on the reduction amendment specifications. If the initial pre-bidding referendum follows the adoption of any necessary reduction amendment, the initial pre-bidding referendum shall also be based on the adopted reduction amendment;

(2) *Successful initial pre-bidding referendum.* If the initial pre-bidding referendum is successful, the reduction process will proceed as follows:

(i) If the initial pre-bidding referendum follows reduction amendment adoption, no second pre-bidding referendum shall be conducted,

(ii) If the initial pre-bidding referendum precedes reduction amendment adoption, a second pre-bidding referendum shall be conducted if, in NMFS' judgment, the reduction amendment subsequently adopted differs, in any respect materially affecting the borrower's reduction investment in the program and the borrower's ability to repay the reduction loan, from the reduction amendment specifications upon which the initial pre-bidding referendum successfully occurred. The sole purpose of any second pre-bidding referendum shall be to determine whether the voters authorize an industry fee system despite any such difference between the reduction amendment specifications and a subsequently adopted reduction amendment.

(3) *Unsuccessful initial pre-bidding referendum.* If the initial pre-bidding referendum is unsuccessful, the reduction process will either cease or NMFS may suspend the process pending an appropriate amendment of the business plan and the request.

(c) *Post-bidding referendum.* A post-bidding referendum shall occur only if, in NMFS' judgment, the result of bidding under §600.1009 does not conform, in any material respect, to the fishing capacity reduction specifications and such result justifies, in NMFS' judgment, conducting a post-bidding referendum. Bidding that results in reducing fishing capacity in any amount not less than the minimum fishing capacity reduction amount for any reduction loan amount not more than the maximum reduction loan amount, and otherwise achieves all material requirements of the fishing capacity reduction specifications, shall conform to the fishing capacity reduction specifications. The sole purpose of any post-bidding referendum shall be to determine whether voters authorize an industry fee system for bidding that results in reducing fishing capacity in any amount materially less than the minimum amount in the fishing capacity reduction specifications.

(d) NMFS will conduct referenda in accordance with the following: (1) *Eligible voters.* The parties eligible to vote in each referendum are the parties whose names are listed as being eligible to vote in the notice published in the Federal Register under §600.1004(a);

(2) *Ballot issuance.* NMFS will mail, by U.S. certified mail, return receipt requested, a ballot to each eligible voter. Each ballot will bear a randomly derived, 5-digit number assigned to each eligible voter. Each ballot will contain a place for the voter to vote for or against the proposed industry fee system and a place, adjacent to the 5-digit number, for the signature of the fishing permit or fishing vessel owner to whom the ballot is addressed or, if the fishing permit or fishing vessel owner is an organization, the person having authority to vote and cast the ballot on the organization's behalf. Each ballot will contain a place for the person signing the ballot to print his or her name. NMFS will enclose with each ballot a specially-marked, postage-paid, pre-addressed envelope that each voter shall use to return the ballot to NMFS;

(3) *Voter certification.* Each ballot will contain a certification, subject to the penalties set forth in §600.1017, that the person signing the ballot is the fishing permit or fishing vessel owner to whom the ballot is addressed or, if the fishing permit or fishing vessel owner is an organization, the person having authority to vote and cast the ballot on the organization's behalf;

(4) *Information included on a ballot.* Each ballot mailing will:

(i) Summarize the referendum's nature and purpose,

(ii) Specify the date by which NMFS must receive a ballot in order for the ballot to be counted as a qualified vote,

(iii) Identify the place on the ballot for the voter to vote for or against the proposed industry fee system, the place on the ballot where the voter shall sign the ballot, and the purpose of the return envelope,

(iv) For each pre-bidding referendum, state:

(A) The fishing capacity reduction specifications,

(B) The reduction loan's repayment term, and

(C) The fee rate, or range of fee rates, prospectively necessary to amortize the reduction loan over the loan's term,

(v) For each initial pre-bidding referendum that precedes reduction amendment adoption, state the reduction amendment specifications,

(vi) For each initial pre-bidding referendum that follows reduction amendment adoption, summarize the material aspects of the reduction amendment adopted,

(vii) For each second pre-bidding referendum, summarize how the adopted reduction amendment materially differs from the reduction amendment specifications upon which a successful initial pre-bidding referendum occurred and how this material difference affects the borrower's reduction investment in the program and the borrower's ability to repay the reduction loan,

(viii) For each post-bidding referendum, specify the actual bidding results that do not conform to the fishing capacity reduction specifications, and

(ix) State or include whatever else NMFS deems appropriate;

(5) *Enclosures to accompany a ballot.* Each ballot mailing will include:

(i) A specially-marked, postage-paid, and pre-addressed envelope that a voter must use to return the original of a ballot to NMFS by whatever means of delivery the voter chooses, and

(ii) Such other materials as NMFS deems appropriate;

(6) *Vote qualification.* A completed ballot qualifies to be counted as a vote if the ballot:

(i) Is physically received by NMFS on or before the last day NMFS specifies for receipt of the ballot,

(ii) Is cast for or against the proposed industry fee system,

(iii) Is signed by the voter,

(iv) Is the original ballot NMFS sent to the voter bearing the same 5-digit number that NMFS assigned to the voter, and

(v) Was returned to NMFS in the specially-marked envelope that NMFS provided for the ballot's return;

(6) *Vote tally and notification.* NMFS will:

(i) Tally all ballots qualified to be counted as referendum votes,

(ii) Notify, by U.S. mail at the address of record, all eligible voters who received ballots of:

(A) The number of potential voters,

(B) The number of actual voters who returned a ballot,

(C) The number of returned ballots that qualified to be counted as referendum votes,

(D) The number of votes for and the number of votes against the industry fee system, and

(E) Whether the referendum was successful and approved the industry fee system or unsuccessful and disapproved the industry fee system, and

(iii) If a successful referendum is a post-bidding referendum, NMFS will, at the same time and in the same manner, also notify the bidders whose bids were conditionally accepted that the condition pertaining to the reduction contracts between them and the United States is fulfilled;

(7) *Conclusiveness of referendum determinations.* NMFS' determinations about ballot qualifications and about all other referendum matters, including, but not limited to, eligible voters and their addresses of record, are conclusive and final as of the date NMFS makes such determinations. No matter respecting such determinations shall impair, invalidate, avoid, or otherwise render unenforceable any referendum, reduction contract, reduction loan, or fee payment and collection obligation under §600.1013 and §600.1014 necessary to repay any reduction loan;

(8) *Ballot confidentiality.* NMFS will not voluntarily release the name of any party who voted. NMFS will restrict the availability of all voter information to the maximum extent allowed by law; and

(9) *Conclusive authorization of industry fee system.* Each successful referendum conclusively authorizes NMFS' imposition of an industry fee system—including the fee payment, collection, and other provisions regarding fee payment and collection under §600.1013 and §600.1014—to repay the reduction loan for each financed program that NMFS conducts under this subpart.

§ 600.1011 Reduction methods and other conditions.

(a) *Reduction permits or reduction permits and reduction vessels.* Each program may involve either the surrender and revocation of reduction permits or both the surrender and revocation of reduction permits and the withdrawal from fishing either by title restriction or by scrapping of reduction vessels. No financed program may, however, require such title restriction or scrapping of reduction vessels unless the business plan voluntarily includes the same.

(b) *Reduction permit revocation and surrender.* Each reduction permit is, upon NMFS' tender of the reduction payment for the reduction permit, forever revoked. Each reduction permit holder shall, upon NMFS' tender of the reduction payment, surrender the original reduction permit to NMFS. The reduction permit holder, upon NMFS' tender of the reduction payment, forever relinquishes any claim associated with the reduction permit and with the fishing vessel that was used to harvest fishery resources under the reduction permit that could qualify the reduction permit holder or the fishing vessel owner for any present or future limited access system fishing permit in the reduction fishery.

(c) *Reduction vessel title restriction or scrapping.* For each program that involves reduction vessel title restriction or scrapping:

(1) Each reduction vessel that is subject to title restriction only and is thus not required to be scrapped, is, upon NMFS' tender of the reduction payment, forever prohibited from any future use for fishing in any area subject to the jurisdiction of the United States or any State, territory, possession, or commonwealth of the United States. NMFS will request that the U.S. Coast Guard permanently restrict each such reduction vessel's title to exclude the reduction vessel's future use for fishing in any such area;

(2) Each reduction vessel owner whose reduction vessel is required to be scrapped shall, upon NMFS' tender of the reduction payment, immediately cease all further use of the reduction vessel and arrange, without delay and at the reduction vessel owner's expense, to scrap the reduction vessel to NMFS' satisfaction, including adequate provision for NMFS to document the physical act of scrapping; and

(3) Each reduction vessel owner, upon NMFS' tender of the reduction payment, forever relinquishes any claim associated with the reduction vessel and with the reduction permit that could qualify the reduction vessel owner or the reduction permit holder for any present or future limited access system fishing permit in the reduction fishery.

(d) *Fishing permits in a non-reduction fishery.* A financed program that does not involve the withdrawal from fishing or scrapping of reduction vessels may not require any holder of a reduction permit in a reduction fishery to surrender any fishing permit in any non-reduction fishery or restrict or revoke any fishing permit other than a reduction permit in the reduction fishery, except those fishing permits authorizing the incidental harvesting of species in any non-reduction fishery during, and as a consequence of, directed fishing for species in the reduction fishery.

(e) *Reduction vessels disposition.* Where a business plan requires the withdrawal from fishing of reduction vessels as well as the revocation of reduction permits: (1) Each reduction vessel that is not documented under Federal law must in every case always be scrapped, without regard to whether a program is a financed program or a subsidized program;

(2) No financed program may require any disposition of a reduction vessel documented under Federal law other than the title restriction in paragraph (b) of this section unless the business plan volunteers to do otherwise; and

(3) Any subsidized program may require the scrapping of reduction vessels documented under Federal law.

(f) *Reduction payments.* NMFS will disburse all reduction payments in the amount and in the manner prescribed in reduction contracts, except reduction payments that a bidder's reduction-contract nonperformance prevents NMFS from disbursing. In financed programs, the reduction loan's principal amount is the total amount of all reduction payments that NMFS disburses from the proceeds of a reduction loan. Any reduction payment that NMFS, because of a bidder's reduction-contract nonperformance, disburses but subsequently recovers, shall reduce the principal amount of the reduction loan accordingly.

(g) *Effect of reduction-contract nonperformance.* No referendum, no reduction contract, no reduction loan, and no fee payment and collection obligation under §600.1013 and §600.1014 necessary to repay any reduction loan, shall be impaired, invalidated, avoided, or otherwise rendered unenforceable by virtue of any reduction contract's nonperformance. This is without regard to the cause of, or reason for, nonperformance. NMFS shall endeavor to enforce the specific performance of all reduction contracts, but NMFS' inability, for any reason, to enforce specific performance for any portion of such reduction contracts shall not relieve fish sellers of their obligation to pay, and fish buyers of their obligation to collect, the fee necessary to fully repay the full reduction loan balance that results from all reduction payments that NMFS actually makes and does not recover.

(h) *Program completion.* Other than the payment and collection of the fee that repays a reduction loan and any other residual matters regarding reduction payments and the disposition of reduction permits and reduction vessels, a program shall be completed when NMFS tenders or makes all reduction payments under all reduction contracts that circumstances, in NMFS' judgment, reasonably permit NMFS to make.

§ 600.1012 Reduction loan.

(a) *Obligation.* The borrower shall be obligated to repay a reduction loan. The borrower's obligation to repay a reduction loan shall be discharged by fish sellers paying a fee in accordance with §600.1013. Fish buyers shall be obligated to collect the fee in accordance with §600.1013 and to deposit and disburse the fee revenue in accordance with §600.1014.

(b) *Principal amount, interest rate, repayment term, and penalties for non-payment or non-collection.* The reduction loan shall be:

(1) In a principal amount that shall be determined by subsequent program events under this subpart, but which shall not exceed the maximum principal amount in the fishing capacity reduction specifications;

(2) At an annual rate, that shall be determined by subsequent events, of simple interest on the reduction loan's principal balance that shall equal 2 percent plus the Treasury percentage;

(3) Repayable over the repayment term specified in the business plan or otherwise determined by subsequent events; and

(4) Subject to such provisions as implementation regulations shall specify for the payment of costs and penalties for non-payment, non-collection, non-deposit, and/or non-disbursement in accordance with §600.1013 and §600.1014.

(c) *Effect of prospective interest rate.* Any difference between a prospective interest rate projected, for the purpose of any aspect of reduction planning or processing under this subpart, before the U.S. Treasury determines the Treasury percentage and an interest rate first known after the U.S. Treasury determines the Treasury percentage shall not void, invalidate, or otherwise impair any reduction contract, any reduction loan repayment obligation, or any other aspect of the reduction process under this subpart. Should any such difference result in a reduction loan that cannot, at the maximum fee rate allowed by law, be repaid, as previously projected, within the maximum maturity, any amount of the reduction loan remaining unpaid at maturity shall be repaid after maturity by continuing fee payment and collection under this subpart at such maximum fee rate until the reduction loan's unpaid principal balance and accrued interest is fully repaid. The above notwithstanding, at the discretion of the Secretary, the reduction contract can be voided if a material adverse change affects the reduction contract, reduction loan obligation, or any other aspect of the reduction process under this subpart.

§ 600.1013 Fee payment and collection.

(a) *Amount.* The fee amount is the delivery value times the fee rate.

(b) *Rate.* NMFS will establish the fee rate. The fee rate may not exceed 5 percent of the delivery value. NMFS will establish the initial fee rate by calculating the fee revenue annually required to amortize a reduction loan over the reduction loan's term, projecting the annual delivery value, and expressing such fee revenue as a percentage of such delivery value. Before each anniversary of the initial fee rate determination, NMFS will recalculate the fee rate reasonably required to ensure reduction loan repayment. This will include any changed delivery value projections and any adjustment required to correct for previous delivery values higher or lower than projected.

(c) *Payment and collection.* (1) The full fee is due and payable at the time of fish delivery. Each fish buyer shall collect the fee at the time of fish delivery by deducting the fee from the delivery value before paying, or promising to pay, the net delivery value. Each fish seller shall pay the fee at the time of fish delivery by receiving from the fish buyer the net delivery value, or the fish buyer's promise to pay the net delivery value, rather than the delivery value. Regardless of when the fish buyer pays the net delivery value, the fish buyer shall collect the fee at the time of fish delivery;

(2) In the event of any post-delivery payment for fee fish—including, but not limited to bonuses—whose amount depends on conditions that cannot be known until after fish delivery, that either first determines the delivery value or later increases the previous delivery value, the fish seller shall pay, and the fish buyer shall collect, at the time the amount of such post-delivery payment first becomes known, the fee that would otherwise have been due and payable as if the amount of the post-delivery payment had been known, and as if the post-delivery payment had consequently occurred, at the time of initial fish delivery;

(3)(i) Each fish seller shall be deemed to be, for the purpose of the fee collection, deposit, disbursement, and accounting requirements of this subpart, both the fish seller and the fish buyer, and shall be responsible for all requirements and liable for any penalties under this subpart applicable to fish sellers and/or fish buyers, each time that a fish seller sells fee fish to:

(A) Any party whose place of business is not located in the United States, who does not take delivery or possession of the fee fish in the United States, who is not otherwise subject to this subpart, or to whom or against whom NMFS cannot otherwise apply or enforce this subpart,

(B) Any party who is a general food-service wholesaler or supplier, a restaurant, a retailer, a consumer, some other type of end-user, or some other party not engaged in the business of buying fish from fish sellers for the purpose of reselling the fish, either with or without processing the fish, or

(C) Any other party who the fish seller has good reason to believe is a party not subject to this subpart or to whom or against whom NMFS cannot otherwise apply or enforce this subpart,

(ii) In each such case the fish seller shall, with respect to the fee fish involved in each such case, discharge, in addition to the fee payment requirements of this subpart, all the fee collection, deposit, disbursement, accounting, record keeping, and reporting requirements that this subpart otherwise imposes on the fish buyer, and the fish seller shall be subject to all the penalties this subpart provides for a fish buyer's failure to discharge such requirements;

(4) Fee payment begins on the date NMFS specifies under the notification procedures of paragraph (d) of this section and continues without interruption at the fee rates NMFS specifies in accordance with this subpart until NMFS determines that the reduction loan is fully repaid. If a reduction loan is, for any reason, not fully repaid at the maturity of the reduction loan's original amortization period, fee payment and collection shall continue until the reduction loan is fully repaid, notwithstanding that the time required to fully repay the reduction loan exceeds the reduction loan's initially permissible maturity.

(d) *Notification.* (1) At least 30 days before the effective date of any fee or of any fee rate change, NMFS will publish a Federal Register notice establishing the date from and after which the fee or fee rate change is effective. NMFS will then also send, by U.S. mail, an appropriate notification to each affected fish seller and fish buyer of whom NMFS has notice;

(2) When NMFS determines that a reduction loan is fully repaid, NMFS will publish a Federal Register notice that the fee is no longer in effect and should no longer be either paid or collected. NMFS will then also send, by U.S. mail, notification to each affected fish seller and fish buyer of whom NMFS has knowledge;

(3) If NMFS fails to notify a fish seller or a fish buyer by U.S. mail, or if the fish seller or fish buyer otherwise does not receive the notice, of the date fee payments start or of the fee rate in effect, each fish seller is, nevertheless, obligated to pay the fee at the fee rate in effect and each fish buyer is, nevertheless, obligated to collect the fee at the fee rate in effect.

(e) *Failure to pay or collect.* (1) If a fish buyer refuses to collect the fee in the amount and manner that this subpart requires, the fish seller shall then advise the fish buyer of the fish seller's fee payment obligation and of the fish buyer's fee collection obligation. If the fish buyer still refuses to properly collect the fee, the fish seller, within the next 7 calendar days, shall forward the fee to NMFS. The fish seller at the same time shall also advise NMFS in writing of the full particulars, including:

(i) The fish buyer's and fish seller's name, address, and telephone number,

(ii) The name of the fishing vessel from which the fish seller made fish delivery and the date of doing so,

(iii) The quantity and delivery value of each species of fee fish that the fish seller delivered, and

(iv) The fish buyer's reason, if known, for refusing to collect the fee in accordance with this subpart;

(2) If a fish seller refuses to pay the fee in the amount and manner that this subpart requires, the fish buyer shall then advise the fish seller of the fish buyer's collection obligation and of the fish seller's payment obligation. If the fish seller still refuses to pay the fee, the fish buyer shall then either deduct the fee from the delivery value over the fish seller's protest or refuse to buy the fee fish. The fish buyer shall also, within the next 7 calendar days, advise NMFS in writing of the full particulars, including:

(i) The fish buyer's and fish seller's name, address, and telephone number,

(ii) The name of the fishing vessel from which the fish seller made or attempted to make fish delivery and the date of doing so,

(iii) The quantity and delivery value of each species of fee fish the fish seller delivered or attempted to deliver,

(iv) Whether the fish buyer deducted the fee over the fish seller's protest or refused to buy the fee fish, and

(v) The fish seller's reason, if known, for refusing to pay the fee in accordance with this subpart.

(f) *Implementation regulations at variance with this section.* If any special circumstances in a reduction fishery require, in NMFS's judgment, fee payment and/or collection provisions in addition to, or different from, those in this section in order to accommodate the circumstances of, and practices in, a reduction fishery while still fulfilling the intent and purpose of this section, NMFS may, notwithstanding this section, include such provisions in the implementation regulations for such reduction fishery.

§ 600.1014 Fee collection deposits, disbursements, records, and reports.

(a) *Deposit accounts.* Each fish buyer that this subpart requires to collect a fee shall maintain a segregated account at a federally insured financial institution for the sole purpose of depositing collected fee revenue and disbursing the fee revenue directly to NMFS in accordance with paragraph (c) of this section.

(b) *Fee collection deposits.* Each fish buyer, no less frequently than at the end of each business week, shall deposit, in the deposit account established under paragraph (a) of this section, all fee revenue, not previously deposited, that the fish buyer collects through a date not more than two calendar days before the date of deposit. Neither the deposit account nor the principal amount of deposits in the account may be pledged, assigned, or used for any purpose other than aggregating collected fee revenue for disbursement to the Fund in accordance with paragraph (c) of this section. The fish buyer is entitled, at any time, to withdraw deposit interest, if any, but never deposit principal, from the deposit account for the fish buyer's own use and purposes.

(c) *Deposit principal disbursement.* On the last business day of each month, or more frequently if the amount in the account exceeds the account limit for insurance purposes, the fish buyer shall disburse to NMFS the full amount of deposit principal then in the deposit account. The fish buyer shall do this by check made payable to the Fund subaccount to which the deposit principal relates. The fish buyer shall mail each such check to the Fund subaccount lockbox that NMFS establishes for the receipt of the disbursements for each program. Each disbursement shall be accompanied by the fish buyer's settlement sheet completed in the manner and form that NMFS specifies. NMFS will specify the Fund subaccount lockbox and the manner and form of settlement sheet by means of the notification in §600.1013(d).

(d) *Records maintenance.* Each fish buyer shall maintain, in a secure and orderly manner for a period of at least 3 years from the date of each transaction involved, at least the following information:

(1) For all deliveries of fee fish that the fish buyer buys from each fish seller:

- (i) The date of delivery,
- (ii) The seller's identity,
- (iii) The weight, number, or volume of each species of fee fish delivered,
- (iv) The identity of the fishing vessel that delivered the fee fish,
- (v) The delivery value of each species of fee fish,
- (vi) The net delivery value,
- (vii) The identity of the party to whom the net delivery value is paid, if other than the fish seller,
- (viii) The date the net delivery value was paid, and
- (ix) The total fee amount collected;

(2) For all fee collection deposits to and disbursements from the deposit account:

- (i) The dates and amounts of deposits,
- (ii) The dates and amounts of disbursements to the Fund's lockbox account, and
- (iii) The dates and amounts of disbursements to the fish buyer or other parties of interest earned on deposits.

(e) *Annual report.* In each year, on the date to be specified in each implementation regulation, succeeding the year during which NMFS first implemented a fee, each fish buyer shall submit to NMFS a report, on or in the form NMFS specifies, containing the following information for the preceding year, or whatever longer period may be involved in the first annual report, for all fee fish each fish buyer purchases from fish sellers: (1) Total weight, number, or volume bought;

(2) Total delivery value paid;

(3) Total fee amounts collected;

(4) Total fee collection amounts deposited by month;

(5) Dates and amounts of monthly disbursements to each Fund lockbox account;

(6) Total amount of interest earned on deposits; and

(7) Depository account balance at year-end.

(f) *State records.* If landing records that a state requires from fish sellers contain some or all of the data that this section requires and state confidentiality laws or regulations do not prevent NMFS' access to the records maintained for the state, then fish buyers can use such records to meet appropriate portions of this section's recordkeeping requirements. If, however, state confidentiality laws or regulations make such records unavailable to NMFS, then fish buyers shall maintain separate records for NMFS that meet the requirements of this section. If any state law or regulation prohibits fish buyers, or fish sellers where appropriate, from keeping, for the purpose of complying with any requirement of this section, separate records that involve some or all of the same data elements as the landing records that the fish buyers also keep, for state purposes and under state law or regulation, then a financed reduction program will not be possible.

(g) *Audits.* NMFS or its agents may audit, in whatever manner NMFS believes reasonably necessary for the duly diligent administration of reduction loans, the financial records of fish buyers and fish sellers in each reduction fishery in order to ensure proper fee payment, collection, deposit, disbursement, accounting, record keeping, and reporting. Fish buyers and fish sellers shall make all records of all program transactions involving post-reduction fish harvests, fish deliveries, and fee payments, collections, deposits, disbursements, accounting, record keeping, and reporting available to NMFS or NMFS' agents at reasonable times and places and promptly provide all requested information reasonably related to these records that such fish sellers and fish buyers may otherwise lawfully provide. Trip tickets (or similar accounting records establishing the pounds of fee fish that each fish buyer buys from each fish seller each time that each fish buyer does so and each price that each fish buyer then pays to each fish seller for the fee fish) are essential audit documentation.

(h) *Confidentiality of records.* NMFS and NMFS' auditing agents shall maintain the confidentiality of all data to which NMFS has access under this section and shall neither release the data nor allow the data's use for any purpose other than the purpose of this subpart; provided, however, that NMFS may aggregate such data so as to preclude their identification with any fish buyer or any fish seller and use them in the aggregate for other purposes).

(i) *Refunds.* When NMFS determines that a reduction loan is fully repaid, NMFS will refund any excess fee receipts, on a last-in/first-out basis, to the fish buyers. Fish buyers shall return the refunds, on a last-in/first-out basis, to the fish sellers who paid the amounts refunded.

(j) *Implementation regulations at variance with this section.* If any special circumstances in a reduction fishery require, in NMFS's judgment, fee collection deposit, disbursement, or records provisions in addition to, or different from, those in this section in order to accommodate the circumstances of, and practices in, a reduction fishery while still fulfilling the intent and purpose of this section, NMFS may, notwithstanding this section, include such provisions in the implementation regulations for such reduction fishery.

§ 600.1015 Late charges.

The late charge to fish buyers for fee payment, collection, deposit, and/or disbursement shall be one and one-half (1.5) percent per month, or the maximum rate permitted by state law, for the total amount of the fee not paid, collected, deposited, and/or disbursed when due to be paid, collected, deposited, and/or disbursed. The full late charge shall apply to the fee for each month or portion of a month that the fee remains unpaid, uncollected, undeposited, and/or undischursed.

§ 600.1016 Enforcement.

In accordance with applicable law or other authority, NMFS may take appropriate action against each fish seller and/or fish buyer responsible for non-payment, non-collection, non-deposit, and/or non-disbursement of the fee in accordance with this subpart to enforce the collection from such fish seller and/or fish buyer of any fee (including penalties and all costs of collection) due and owing the United States on account of the loan that such fish seller and/or fish buyer should have, but did not, pay, collect, deposit, and/or disburse in accordance with this subpart. All such loan recoveries shall be applied to reduce the unpaid balance of the loan.

§ 600.1017 Prohibitions and penalties.

(a) The following activities are prohibited, and it is unlawful for any party to:

- (1) Vote in any referendum under this subpart if the party is ineligible to do so;
 - (2) Vote more than once in any referendum under this subpart;
 - (3) Sign or otherwise cast a ballot on behalf of a voter in any referendum under this subpart unless the voter has fully authorized the party to do so and doing so otherwise comports with this subpart;
 - (4) Interfere with or attempt to hinder, delay, buy, or otherwise unduly or unlawfully influence any eligible voter's vote in any referendum under this subpart;
 - (5) Submit a fraudulent, unauthorized, incomplete, misleading, unenforceable by specific performance, or inaccurate bid in response to an invitation to bid under this subpart or, in any other way, interfere with or attempt to interfere with, hinder, or delay, any invitation to bid, any bid submitted under any invitation to bid, any reduction contract, or any other reduction process in connection with any invitation to bid;
 - (6) Revoke or attempt to revoke any bid under this subpart;
 - (7) Fail to comply with the terms and conditions of any invitation to bid, bid, or reduction contract under this subpart, including NMFS' right under such reduction contracts to specific performance;
 - (8) Fail to fully and properly pay and collect any fee due payable, and collectible under this subpart or otherwise avoid, decrease, interfere with, hinder, or delay any such payment and collection;
 - (9) Convert, or otherwise use for any purpose other than the purpose this subpart intends, any paid or collected fee;
 - (10) Fail to fully and properly deposit on time the full amount of all fee revenue collected under this subpart into a deposit account and disburse the full amount of all deposit principal to the Fund's lockbox account—all as this subpart requires;
 - (11) Fail to maintain full, timely, and proper fee payment, collection, deposit, and/or disbursement records or make full, timely, and proper reports of such information to NMFS—all as this subpart requires;
 - (12) Fail to advise NMFS of any fish seller's refusal to pay, or of any fish buyer's refusal to collect, any fee due and payable under this subpart;
 - (13) Refuse to allow NMFS or agents that NMFS designates to review and audit at reasonable times all books and records reasonably pertinent to fee payment, collection, deposit, disbursement, and accounting under this subpart or otherwise interfere with, hinder, or delay NMFS or its agents in the course of their activities under this subpart;
 - (14) Make false statements to NMFS, any of the NMFS' employees, or any of NMFS' agents about any of the matters in this subpart;
 - (15) Obstruct, prevent, or unreasonably delay or attempt to obstruct, prevent, or unreasonably delay any audit or investigation NMFS or its agents conduct, or attempt to conduct, in connection with any of the matters in this subpart; and/or
 - (16) Otherwise materially interfere with the efficient and effective conduct of reduction and the repayment of reduction loans under this subpart.
- (b) Any party who violates one or more of the prohibitions of paragraph (a) of this section is subject to the full range of penalties the Magnuson-Stevens Act and 15 CFR part 904 provide—including, but not limited to: civil penalties, sanctions, forfeitures, and punishment for criminal offenses—and to the full penalties and punishments otherwise provided by any other applicable law of the United States.
- (c) Additionally, NMFS may take any and all appropriate actions, including the communication of action at law, against each party responsible for the non-payment, non-collection, non-deposit, and/or non-disbursement in accordance with §600.1013 and/or §600.1014 to enforce the United States' receipt from such party of any fee—including penalties and all costs of collection—due and owing the United States on account of the reduction loan that such party should have, but did not, pay, collect, deposit, and/or disburse in accordance with §600.1013 and/or §600.1014. All such reduction loan recoveries shall be applied to reduce the unpaid balances of reduction loans.

Subpart M—Specific Fishery or Program Fishing Capacity Reduction Regulations

Authority: 5 U.S.C. 561, 16 U.S.C. 1801 *et seq.*, 16 U.S.C. 1861a(b) through (e), 46 App. U.S.C. 1279f and 1279g, section 144(d) of Division B of Pub. L. 106–554, section 2201 of Pub. L. 107–20, and section 205 of Pub. L. 107–117, Pub. L. 107–206, Pub. L. 108–7, Pub. L. 108–199, and Pub. L. 108–447.

Source: 69 FR 53361, Sept. 1, 2004, unless otherwise noted.

§ 600.1100 [Reserved]

§ 600.1101 Inshore fee system for repayment of the loan to harvesters of Pollock from the directed fishing allowance allocated to the inshore component under section 206(b)(1) of the AFA.

(a) *Definition.* In addition to the definitions in the Magnuson-Stevens Act and in §679.2 of this title, the terms used in this subpart have the following meanings:

American Fisheries Act (AFA) means Title II of Pub.L. 105–277.

Borrower means (individually and collectively) all persons who, after January 1, 2000, harvest fee fish from the IC directed fishing allowance.

Business week means a 7-day period, Saturday through Friday.

Delivery value means the gross ex-vessel value of all fee fish at fish delivery.

Deposit principal means all collected fee revenue that a fish buyer deposits in a segregated deposit account maintained in a federally chartered national bank for the sole purpose of aggregating collected fee revenue before sending the fee revenue to NMFS for repaying the loan.

Fee means the six-tenths (0.6) of one cent that fish buyers deduct at fish delivery from the delivery value of each pound of round weight fee fish.

Fee fish means all pollock harvested from the IC directed fishing allowance beginning on February 10, 2000 and ending at such time as the loan's principal and interest are fully repaid.

Fish buyer means the first ex-vessel fish buyer who purchases fee fish from a fish seller.

Fish delivery means the point at which a fish buyer first takes delivery or possession of fee fish from a fish seller.

Fish seller means the harvester who catches and first sells fee fish to a fish buyer.

IC directed fishing allowance means the directed fishing allowance allocated to the inshore component under section 206(b)(1) of the AFA.

Loan means the loan authorized by section 207(a) of the AFA.

Net delivery value means the delivery value minus the fee.

Subaccount means the Inshore Component Pollock Subaccount of the Fishing Capacity Reduction Fund in the U.S. Treasury for the deposit of all funds involving the loan.

(b) *Loan* —(1) *Principal amount.* The loan's principal amount is \$75,000,000 (seventy five million dollars).

(2) *Interest.* Interest shall, from December 30, 1998, when NMFS disbursed the loan, until the date the borrower fully repays the loan, accrue at a fixed rate of 7.09 percent. Interest shall be simple interest and shall accrue on the basis of a 365-day year.

(3) *Repayment.* The fee shall be the exclusive source of loan repayment. The fee shall be paid on all fee fish.

(4) *Application of fee receipts.* NMFS shall apply all fee receipts it receives, first, to payment of the loan's accrued interest and, second, to reduction of the loan's principal balance.

(5) *Obligation.* The borrower shall repay the loan in accordance with the AFA and this subpart.

(c) *Fee payment and collection* —(1) *Payment and collection.* (i) The fee is due and payable at the time of fish delivery. Each fish buyer shall collect the fee at the time of fish delivery by deducting the fee from the delivery value before paying or promising later to pay the net delivery value. Each fish seller shall pay the fee at the time of fish delivery by receiving from the fish buyer the net delivery value or the fish buyer's promise later to pay the net delivery value rather than the delivery value. Regardless of when the fish buyer pays the net delivery value, the fish buyer shall collect the fee at the time of fish delivery;

(ii)(A) Each fish seller shall be deemed, for the purpose of the fee collection, deposit, disbursement, and accounting requirements of this subpart, to be both the fish seller and the fish

buyer—and all requirements and penalties under this subpart applicable to both a fish seller and a fish buyer shall equally apply to the fish seller—each time that the fish seller sells fee fish to:

(1) Any fish buyer whose place of business is not located in the United States, who does not take delivery or possession of the fee fish in the United States, who is not otherwise subject to this subpart, or to whom or against whom NMFS cannot otherwise apply or enforce this subpart,

(2) Any fish buyer who is a general food-service wholesaler or supplier, a restaurant, a retailer, a consumer, some other type of end-user, or some other fish buyer not engaged in the business of buying fish from fish sellers for the purpose of reselling the fish, or

(3) Any other fish buyer who the fish seller has good reason to believe is a fish buyer not subject to this subpart or to whom or against whom NMFS cannot otherwise apply or enforce this subpart,

(B) In each such case the fish seller shall, with respect to the fee fish involved in each such case, discharge, in addition to the fee payment requirements of this subpart, all the fee collection, deposit, disbursement, accounting, recordkeeping, and reporting requirements that this subpart otherwise imposes on the fish buyer, and the fish seller shall be subject to all the penalties this subpart provides for a fish buyer's failure to discharge such requirements;

(2) *Notification.* (i) NMFS will send an appropriate fee payment and collection commencement notification to each affected fish seller and fish buyer of whom NMFS has knowledge.

(ii) When NMFS determines that the loan is fully repaid, NMFS will publish a Federal Register notification that the fee is no longer in effect and should no longer be either paid or collected. NMFS will then also send an appropriate fee termination notification to each affected fish seller and fish buyer of whom NMFS has knowledge;

(3) *Failure to pay or collect.* (i) If a fish buyer refuses to collect the fee in the amount and manner that this subpart requires, the fish seller shall then advise the fish buyer of the fish seller's fee payment obligation and of the fish buyer's fee collection obligation. If the fish buyer still refuses to properly collect the fee, the fish seller, within the next 7 calendar days, shall forward the fee to NMFS. The fish seller at the same time shall also advise NMFS in writing of the full particulars, including:

(A) The fish buyer's and fish seller's name, address, and telephone number,

(B) The name of the fishing vessel from which the fish seller made fish delivery and the date of doing so,

(C) The quantity and delivery value of fee fish that the fish seller delivered, and

(D) The fish buyer's reason (if known) for refusing to collect the fee in accordance with this subpart;

(ii) If a fish seller refuses to pay the fee in the amount and manner that this subpart requires, the fish buyer shall then advise the fish seller of the fish buyer's collection obligation and of the fish seller's payment obligation. If the fish seller still refuses to pay the fee, the fish buyer shall then either deduct the fee from the delivery value over the fish seller's protest or refuse to buy the fee fish. The fish buyer shall also, within the next 7 calendar days, advise NMFS in writing of the full particulars, including:

(A) The fish buyer's and fish seller's name, address, and telephone number,

(B) The name of the fishing vessel from which the fish seller made or attempted to make fish delivery and the date of doing so,

(C) The quantity and delivery value of fee fish the fish seller delivered or attempted to deliver,

(D) Whether the fish buyer deducted the fee over the fish seller's protest or refused to buy the fee fish, and

(E) The fish seller's reason (if known) for refusing to pay the fee in accordance with this subpart.

(d) *Fee collection deposits, disbursements, records, and reports*—(1) *Deposit accounts.* Each fish buyer that this subpart requires to collect a fee shall maintain a segregated account at a federally insured financial institution for the sole purpose of depositing collected fee revenue and disbursing the fee revenue directly to NMFS in accordance with paragraph (c) of this section.

(2) *Fee collection deposits.* Each fish buyer, no less frequently than at the end of each business week, shall deposit, in the deposit account established under paragraph (a) of this section, all fee revenue, not previously deposited, that the fish buyer has collected through a date not more than 2 calendar days before the date of deposit. Neither the deposit account nor the principal amount of deposits in the account may be pledged, assigned, or used for any purpose other than aggregating collected fee revenue for disbursement to the subaccount in accordance with paragraph (c) of this section. The fish buyer is entitled, at any time, to withdraw deposit interest, if any, but never deposit principal, from the deposit account for the fish buyer's own use and purposes.

(3) *Deposit principal disbursement.* On the last business day of each month, or more frequently if the amount in the account exceeds the account limit for insurance purposes, the fish buyer shall disburse to NMFS the full amount of deposit principal then in the deposit account. The fish buyer shall do this by check made payable to "NOAA Inshore Component Pollock Loan Subaccount." The fish buyer shall mail each such check to the subaccount lockbox account that NMFS establishes for the receipt of the disbursements of deposit principal. Each disbursement shall be accompanied by the fish buyer's settlement sheet completed in the manner and form that NMFS specifies. NMFS will specify the subaccount's lockbox and the manner and form of settlement sheet by means of the notification in §600.1101(c).

(4) *Records maintenance.* Each fish buyer shall maintain, in a secure and orderly manner for a period of at least 3 years from the date of each transaction involved, at least the following information:

(i) For all deliveries of fee fish that the fish buyer buys from each fish seller:

(A) The date of delivery,

(B) The fish seller's identity,

(C) The round weight of fee fish delivered,

(D) The identity of the fishing vessel that delivered the fee fish,

(E) The delivery value,

(F) The net delivery value,

(G) The identity of the party to whom the net delivery value is paid, if other than the fish seller,

(H) The date the net delivery value was paid, and

(I) The total fee amount collected;

(ii) For all fee collection deposits to and disbursements from the deposit account:

(A) The dates and amounts of deposits,

(B) The dates and amounts of disbursements to the subaccount's lockbox account, and

(C) The dates and amounts of disbursements to the fish buyer or other parties of interest earned on deposits.

(5) *Annual report.* By January 15, 2001, and by each January 15 thereafter until the loan is fully repaid, each fish buyer shall submit to NMFS a report, on or in the form NMFS specifies, containing the following information for the preceding year for all fee fish each fish buyer purchases from fish sellers:

(i) Total round weight bought;

(ii) Total delivery value paid;

(iii) Total fee amount collected;

(iv) Total fee collection amounts deposited by month;

(v) Dates and amounts of monthly disbursements to the subaccount lockbox;

(vi) Total amount of interest earned on deposits; and

(vii) Depository account balance at year-end.

(6) *State records.* If landing records that a state requires from fish sellers contain some or all of the data that this section requires and state confidentiality laws or regulations do not prevent NMFS' access to the records maintained for the state, then fish buyers can use such records to meet appropriate portions of this section's recordkeeping requirements. If, however, state confidentiality laws or regulations make such records unavailable to NMFS, then fish buyers shall maintain separate records for NMFS that meet the requirements of this section.

(7) *Audits.* NMFS or its agents may audit, in whatever manner NMFS believes reasonably necessary for the duly diligent administration of the loan, the financial records of the fish buyers and the fish sellers in order to ensure proper fee payment, collection, deposit, disbursement, accounting, recordkeeping, and reporting. Fish buyers and fish sellers shall make all records of all transactions involving fee fish catches, fish deliveries, and fee payments, collections, deposits, disbursements, accounting, recordkeeping, and reporting available to NMFS or its agents at reasonable times and places and promptly provide all requested information reasonably related to these records that such fish sellers and fish buyers may otherwise lawfully provide. Trip tickets (or similar accounting records establishing the round weight pounds of fee fish that each fish buyer buys from each fish seller each time that each fish buyer does so) are essential audit documentation.

(8) *Confidentiality of records.* NMFS and its auditing agents shall maintain the confidentiality of all data to which NMFS has access under this section and shall neither release the data nor allow the data's use for any purpose other than the purpose of this subpart, unless otherwise required by law; provided, however, that NMFS may aggregate such data so as to preclude their identification with any fish buyer or any fish seller and use them in the aggregate for other purposes.

(9) *Refunds.* When NMFS determines that the loan is fully repaid, NMFS will refund any excess fee receipts, on a last-in/first-out basis, to the fish buyers. Fish buyers shall return the refunds, on a last-in/first-out basis, to the fish sellers who paid the amounts refunded.

(e) *Late charges.* The late charge to fish buyers for fee payment, collection, deposit, and/or disbursement shall be one and one-half (1.5) percent per month, or the maximum rate permitted by state law, for the total amount of the fee not paid, collected, deposited, and/or disbursed when due to be paid, collected, deposited, and/or disbursed within 5 days of the date due. The full late charge shall apply to the fee for each month or portion of a month that the fee remains unpaid, uncollected, undeposited, and/or undischursed.

(f) *Enforcement.* In accordance with applicable law or other authority, NMFS may take appropriate action against each fish seller and/or fish buyer responsible for non-payment, non-collection, non-deposit, and/or non-disbursement of the fee in accordance with this subpart to enforce the collection from such fish seller and/or fish buyer of any fee (including penalties and all costs of collection) due and owing the United States on account of the loan that such fish seller and/or fish buyer should have, but did not, pay, collect, deposit, and/or disburse in accordance with this subpart. All such loan recoveries shall be applied to reduce the unpaid balance of the loan.

(g) *Prohibitions and penalties.* (1) The following activities are prohibited, and it is unlawful for anyone to:

(i) Avoid, decrease, interfere with, hinder, or delay payment or collection of, or otherwise fail to fully and properly pay or collect, any fee due and payable under this subpart or convert, or otherwise use for any purpose other than the purpose this subpart intends, any paid or collected fee;

(ii) Fail to fully and properly deposit on time the full amount of all fee revenue collected under this subpart into a deposit account and disburse the full amount of all deposit principal to the subaccount's lockbox account—all as this subpart requires;

(iii) Fail to maintain full, timely, and proper fee payment, collection, deposit, and/or disbursement records or make full, timely, and proper reports of such information to NMFS—all as this subpart requires;

(iv) Fail to advise NMFS of any fish seller's refusal to pay, or of any fish buyer's refusal to collect, any fee due and payable under this subpart;

(v) Refuse to allow NMFS or agents that NMFS designates to review and audit at reasonable times all books and records reasonably pertinent to fee payment, collection, deposit, disbursement, and accounting under this subpart or otherwise interfere with, hinder, or delay NMFS or its agents in the course of their activities under this subpart;

(vi) Make false statements to NMFS, any of the NMFS' employees, or any of NMFS' agents about any of the matters in this subpart;

(vii) Obstruct, prevent, or unreasonably delay or attempt to obstruct, prevent, or unreasonably delay any audit or investigation NMFS or its agents conduct, or attempt to conduct, in connection with any of the matters in this subpart; and/or

(viii) Otherwise materially interfere with the efficient and effective repayment of the loan.

(2) Anyone who violates one or more of the prohibitions of paragraph (a) of this section is subject to the full range of penalties the Magnuson-Stevens Act and 15 CFR part 904 provide (including, but not limited to: civil penalties, sanctions, forfeitures, and punishment for criminal offenses) and to the full penalties and punishments otherwise provided by any other applicable law of the United States.

§ 600.1102 Pacific Coast groundfish fee.

(a) *Purpose.* This section implements the fee for repaying the reduction loan financing the Pacific Coast Groundfish Program authorized by section 212 of Division B, Title II, of Public Law 108-7 and implemented by a final notification in the Federal Register (July 18, 2003; 68 FR 42613).

(b) *Definitions.* Unless otherwise defined in this section, the terms defined in §600.1000 of subpart L expressly apply to this section. The following terms have the following meanings for the purpose of this section:

Borrower means, individually and collectively, each post-reduction fishing permit holder and/or fishing vessel owner fishing in the reduction fishery, in any or all of the fee-share fisheries, or in both the reduction fishery and any or all of the fee-share fisheries.

Deposit principal means all collected fee revenue that a fish buyer deposits in an account maintained at a federally insured financial institution for the purpose of aggregating collected fee revenue before sending the fee revenue to NMFS for repaying the reduction loan.

Fee fish means all fish harvested from the reduction fishery during the period in which any portion of the reduction fishery's subamount is outstanding and all fish harvested from each of the fee-share fisheries during the period in which any portion of each fee-share fishery's subamount is outstanding.

Fee-share fishery means each of the fisheries for coastal Dungeness crab and pink shrimp in each of the States of California and Oregon and the fishery for coastal Dungeness crab and ocean pink shrimp in the State of Washington.

Fee-share fishery subaccount means each of the six subaccounts established in the groundfish program's fund subaccount in which each of the six fee-share fishery subamounts are deposited.

Reduction fishery means all species in, and that portion of, the limited entry trawl fishery under the Federal Pacific Coast Groundfish Fishery Management Plan that is conducted under permits, excluding those registered to whiting catcher-processors, which are endorsed for trawl gear operation.

Reduction fishery subaccount means the subaccount established in the groundfish program's fund subaccount in which the reduction fishery subamount is deposited.

Subamount means each portion of the reduction loan's original principal amount which is allocated either to the reduction fishery or to any one of the fee-share fisheries.

(c) *Reduction loan amount.* The reduction loan's original principal amount is \$35,662,471.

(d) *Subamounts.* The subamounts of the reduction loan amount are:

(1) Reduction fishery, \$28,428,719; and

(2) Fee-share fisheries:

(i) California coastal Dungeness crab fee-share fishery, \$2,334,334,

(ii) California pink shrimp fee-share fishery, \$674,202,

(iii) Oregon coastal Dungeness crab fee-share fishery, \$1,367,545,

(iv) Oregon pink shrimp fee-share fishery, \$2,228,845,

(v) Washington coastal Dungeness crab fee-share fishery, \$369,426, and

(vi) Washington ocean pink shrimp fee-share fishery, \$259,400.

(e) *Interest accrual inception.* Interest began accruing on each portion of the reduction loan amount on and from the date each such portion was disbursed.

(f) *Interest rate.* The reduction loan's interest rate is 6.97 percent. This is a fixed rate of interest for the full term of the reduction loan's life.

(g) *Repayment term.* For the purpose of determining fee rates, the reduction loan's repayment term shall be 30 years from March 1, 2004, but each fee shall continue for as long as

necessary to fully repay each subamount.

(h) *Reduction loan.* The reduction loan shall be subject to the provisions of §600.1012 of subpart L, except that:

- (1) The borrower's obligation to repay the reduction loan shall be discharged by fish sellers in the reduction fishery and in each of the fee-share fisheries paying the fee applicable to each such fishery's subamount in accordance with §600.1013 of subpart L, and
- (2) Fish buyers in the reduction fishery and in each of the fee-share fisheries shall be obligated to collect the fee applicable to each such fishery's subamount in accordance with §600.1013 of this subpart.

(i) *Fee collection, deposits, disbursements, records, and reports.* Fish buyers in the reduction fishery and in each of the fee share fisheries shall deposit and disburse, as well as keep records for and submit reports about, the fees applicable to each such fishery in accordance with §600.1014 of this subpart, except that:

(1) *Deposit accounts.* Each fish buyer that this section requires to collect a fee shall maintain an account at a federally insured financial institution for the purpose of depositing collected fee revenue and disbursing the deposit principal directly to NMFS in accordance with paragraph (i)(3) of this section. The fish buyer may use this account for other operational purposes as well, but the fish buyer shall ensure that the account separately accounts for all deposit principal collected from the reduction fishery and from each of the six fee-share fisheries. The fish buyer shall separately account for all fee collections as follows:

- (i) All fee collections from the reduction fishery shall be accounted for in a reduction fishery subaccount,
- (ii) All fee collections from the California pink shrimp fee-share fishery shall be accounted for in a California shrimp fee-share fishery subaccount,
- (iii) All fee collections from the California coastal Dungeness crab fishery shall be accounted for in a California crab fee-share fishery subaccount,
- (iv) All fee collections from the Oregon pink shrimp fee-share fishery shall be accounted for in an Oregon shrimp fee-share fishery subaccount,
- (v) All fee collections from the Oregon coastal Dungeness crab fee-share fishery shall be accounted for in an Oregon crab fee-share fishery subaccount,
- (vi) All fee collections from the Washington ocean pink shrimp fee-share fishery shall be accounted for in a Washington ocean shrimp fee-share fishery subaccount, and
- (vii) All fee collections from the Washington coastal Dungeness crab fishery shall be accounted for in a Washington crab fee-share fishery subaccount;

(2) *Fee collection deposits.* Each fish buyer, no less frequently than at the end of each month, shall deposit, in the deposit account established under paragraph (i)(1) of this section, all collected fee revenue not previously deposited that the fish buyer collects through a date not more than two calendar days before the date of deposit. The deposit principal may not be pledged, assigned, or used for any purpose other than aggregating collected fee revenue for disbursement to the fund in accordance with paragraph (i)(3) of this section. The fish buyer is entitled, at any time, to withdraw interest (if any) on the deposit principal, but never the deposit fee principal itself, for the fish buyer's own use and purposes;

(3) *Deposit principal disbursement.* Not later than the 14th calendar day after the last calendar day of each month, or more frequently if the amount in the account exceeds the account limit for insurance purposes, the fish buyer shall disburse to NMFS the full deposit principal then in the deposit account, provided that the deposit principal then totals \$100 or more. If the deposit principal then totals less than \$100, the fish buyer need not disburse the deposit principal until either the next month during which the deposit principal then totals \$100 or more, or not later than the 14th calendar day after the last calendar day of any year in which the deposit principal has not since the last required disbursement totaled \$100 or more, whichever comes first. The fish buyer shall disburse deposit principal by check made payable to the groundfish program's fund subaccount. The fish buyer shall mail each such check to the groundfish program's fund subaccount lockbox that NMFS establishes for the receipt of groundfish program disbursements. Each disbursement shall be accompanied by the fish buyer's fee collection report completed in the manner and form which NMFS specifies. NMFS will, before fee payment and collection begins, specify the groundfish program's fund subaccount lockbox and the manner and form of fee collection report. NMFS will do this by means of the notification in §600.1013(d) of subpart L. NMFS' fee collection report instructions will include provisions for the fish buyer to specify the amount of each disbursement which was disbursed from the reduction fishery subaccount and/or from each of the six fee-share fishery subaccounts;

(4) *Records maintenance.* Each fish buyer shall maintain, in a secure and orderly manner for a period of at least 3 years from the date of each transaction involved, at least the following information:

(i) For all deliveries of fee fish that the fish buyer buys from each fish seller:

- (A) The date of delivery,
- (B) The fish seller's identity,
- (C) The weight, number, or volume of each species of fee fish delivered,
- (D) Information sufficient to specifically identify the fishing vessel which delivered the fee fish,
- (E) The delivery value of each species of fee fish,
- (F) The net delivery value of each species of fee fish,
- (G) The identity of the payor to whom the net delivery value is paid, if different than the fish seller,
- (H) The date the net delivery value was paid,
- (I) The total fee amount collected as a result of all fee fish, and
- (J) The total fee amount collected as a result of all fee fish from the reduction fishery and/or all fee fish from each of the six fee-share fisheries; and

(ii) For all collected fee deposits to, and disbursements of deposit principal from, the deposit account include:

- (A) The date of each deposit,
- (B) The total amount deposited,
- (C) The total amount deposited in the reduction fishery subaccount and/or in each of the six fee-share fishery subaccounts,
- (D) The date of each disbursement to the Fund's lockbox,
- (E) The total amount disbursed,
- (F) The total amount disbursed from the reduction fishery subaccount and/or from each of the six fee-share fishery subaccounts, and
- (G) The dates and amounts of disbursements to the fish buyer, or other parties, of interest earned on deposits; and

(5) *Annual report.* No fish buyer needs to submit an annual report about fee fish collection activities unless, during the course of an audit under §600.1014(g), NMFS requires a fish buyer to submit such a report or reports.

(j) Other provisions. The reduction loan is, in all other respects, subject to the provisions of §600.1012 through applicable portions of §600.1017, except §600.1014(e).

[70 FR 40229, July 13, 2005, as amended at 71 FR 28, Jan. 3, 2006]

§ 600.1103 Bering Sea and Aleutian Islands (BSAI) Crab species program.

(a) *Purpose.* This section's purpose is to implement the program that Section 144(d) of Division B of Pub. L. 106-554, as amended by section 2201 of Pub. L. 107-20 and section 205 of Pub. L. 107-117, enacted for BSAI crab species.

(b) *Terms.* Unless otherwise defined in this section, the terms defined in §600.1000 expressly apply to the program for BSAI crab. Likewise, the terms defined in §679.2 of this chapter also apply to terms not otherwise defined in either §600.1000 or this section. The following terms used in this section have the following meanings for the purpose of this section:

Acceptance means NMFS' acceptance, on behalf of the United States, of a bid.

Bid means a bidder's irrevocable offer, in response to an invitation to bid under this section, to surrender, to have revoked, to have restricted, to relinquish, to have withdrawn, or to have extinguished by other means, in the manner this section requires, the bidder's reduction fishing interest.

Bid amount means the dollar amount of each bid.

Bidder means either a qualifying bidder bidding alone or a qualifying bidder and a co-bidder bidding together who at the time of bidding holds the reduction fishing interests specified at §600.1018(e).

Bid crab means the crab that NMFS determines each bidder's reduction/history vessel (see definition) harvested, according to the State of Alaska's records of the documented harvest of crab, from each reduction endorsement fishery and from the Norton Sound fishery during the most recent 5 calendar years in which each reduction endorsement fishery was for any length of time open for directed crab fishing during a 10-calendar-year period beginning on January 1, 1990, and ending on December 31, 1999.

Bid score means the criterion by which NMFS decides in what order to accept bids in the reverse auction this section specifies.

Co-bidder means a person who is not a qualifying bidder, but who at the time of bidding owns the reduction/privilege vessel this section requires to be included in a bid and is bidding together with a qualifying bidder.

Crab means the crab species covered by the Fishery Management Plan for the Bering Sea/Aleutian Islands King and Tanner Crabs pursuant to §679.2 of this chapter.

Crab license means a License Limitation Program license for crab issued pursuant to §679.4(k)(5) of this chapter.

Crab reduction permit means a non-interim crab license endorsed for one or more reduction endorsement fisheries, regardless of whether it is also endorsed for the Norton Sound fishery.

FSD means NMFS' Financial Services Division, located in NMFS' Silver Spring, MD, headquarters office.

Non-crab reduction permit means a fishing license, including all of its predecessor history, for which a bidder is the holder of record on December 12, 2003 and which was issued based on the fishing history of the bidder's -reduction/history vessel.

Norton Sound fishery means the non-reduction fishery defined in §679.2 of this chapter as the area/species endorsement for Norton Sound red king and Norton Sound blue king crab.

NVDC means the U.S. Coast Guard's National Vessel Documentation Center located in Falling Waters, WV.

Qualifying bidder means a person who at the time of bidding is the license holder of record of a crab reduction permit.

Qualifying voter means a person who at the time of voting in a referendum is the license holder of record either of an interim or a non-interim crab license, except a crab license whose sole area/species endorsement is for the Norton Sound fishery.

RAM Program means NMFS' Restricted Access Management Program located in NMFS' Juneau, AK, regional office.

Reduction endorsement fishery means any of the seven fisheries that §679.2 of this chapter defines as area/species endorsements except the area/species endorsement for the Norton Sound fishery.

Reduction fishery means the fishery for all crab covered by the Bering Sea/Aleutian Islands King and Tanner Crabs Fishery Management Plan under all area/species endorsements that section 679.2 of the chapter defines, except the area/species endorsement for the Norton Sound fishery.

Reduction fishing history means, for each bid, the complete documented harvest of the bidder's reduction/history vessel, upon any part of which such harvest NMFS based issuance of the crab license included in the bid as a crab reduction permit, plus such fishing history, after the issuance of such crab license, of any other vessel upon which the bidder used such crab license.

Reduction fishing interest means, for each bid, the bidder's:

- (1) Reduction fishing privilege (see definition);
- (2) Crab reduction permit;
- (3) Non-crab reduction permit;
- (4) Reduction fishing history (see definition); and
- (5) Any other claim that could in any way qualify the owner, holder, or retainer of any of the reduction components, or any person claiming under such owner, holder, or retainer, for any present or future limited access system fishing license or permit in any United States fishery (including, but not limited to, any harvesting privilege or quota allocation under any present or future individual fishing quota system).

Reduction fishing privilege means the worldwide fishing privileges of a bid's reduction/privilege vessel (see definition).

Reduction/history vessel means the vessel or vessels which generated the reduction fishing history.

Reduction loan sub-amount means the portion of the original principal amount of reduction loan this section specifies each reduction endorsement fishery must repay with interest.

Reduction/privilege vessel means the vessel designated on a crab license on December 12, 2003.

Referendum means a referendum under this section to determine whether voters approve the fee required to repay this program's reduction loan.

Replacement vessel means a reduction/history vessel which replaced the lost or destroyed one whose reduction fishing history qualified during the general qualification period and the endorsement qualification period and, which under the exceptions in Amendment 10, qualified during the recent participation period.

(c) *Relationship to this subpart*—(1) *Provisions that apply*. The provisions of §600.1000 through §600.1017 of this subpart apply to this program except as paragraph (c)(2) of this section provides; and

(2) *Provisions that do not apply*. The following sections, or portions of them, of this subpart do not apply to this program:

(i) All of:

- (A) Section 600.1001,
- (B) Section 600.1002,
- (C) Section 600.1003,
- (D) Section 600.1004,
- (E) Section 600.1005,
- (F) Section 600.1006, and
- (G) Section 600.1007,

(ii) The portions of §600.1008:

- (A) Pertaining to an implementation plan,
- (B) Pertaining to a 60-day comment period for a proposed implementation regulation,
- (C) Pertaining to public hearings in each State that the this program affects,
- (D) Pertaining to basing the implementation regulation on a business plan,
- (E) Within paragraphs (d)(1)(ii) through (viii),
- (F) Within paragraph (d)(2)(ii),
- (G) Within paragraph (e), and
- (H) Within paragraph (f) and pertaining to fishing capacity reduction specifications and a subsidized program,

(iii) The portions of §600.1009:

- (A) Pertaining to fishing capacity reduction specifications,
 - (B) Within paragraph (a)(4),
 - (C) Pertaining to a reduction amendment,
 - (D) Within paragraph (a)(5)(ii), to the extent that the paragraph is inconsistent with the requirements of this section,
 - (E) Within paragraph (b)(i), and
 - (F) Pertaining to an implementation plan,
- (iv) The portions of §600.1010:
- (A) Within paragraph (b),
 - (B) Pertaining to fishing capacity reduction specifications,
 - (C) Within paragraph (d)(1), and
 - (D) Within paragraphs (d)(4)(iv) through (vii),
- (v) The portions of §600.1011:
- (A) That comprise the last sentence of paragraph (a),
 - (B) Within paragraph (d), and
 - (C) Within paragraph (e)(2),
- (vi) The portions of §600.1012:
- (A) Within paragraph (b)(3) following the word "subpart", and
 - (B) Within paragraph (b)(3), and
- (vii) The last sentence of §600.1014(f).
- (d) *Reduction cost financing.* NMFS will use the proceeds of a reduction loan, authorized for this purpose, to finance 100 percent of the reduction cost. The original principal amount of the reduction loan will be the total of all reduction payments that NMFS makes under reduction contracts. This amount shall not exceed \$100 million.
- (e) *Who constitutes a bidder.* A bidder is a person or persons who is the:
- (1) Holder of record and person otherwise fully and legally entitled to offer, in the manner this section requires, the bid's crab reduction permit and the bid's non-crab reduction permit;
 - (2) Reduction/privilege vessel owner, title holder of record, and person otherwise fully and legally entitled to offer, in the manner this section requires, the bid's reduction fishing privilege; and
 - (3) Retainer and person otherwise fully and legally entitled to offer, in the manner this section requires, the bid's reduction fishing history.
- (f) *How crab licenses determine qualifying bidders and qualifying voters*—(1) *Non-interim crab licenses.* Each person who is the record holder of a non-interim crab license endorsed for one or more reduction endorsement fisheries is both a qualifying bidder and a qualifying voter and can both bid and vote;
- (2) *Interim crab licenses.* Each person who is the record holder of an interim crab license endorsed for one or more reduction endorsement fisheries is a qualifying voter but not a qualifying bidder and can vote but not bid;
- (3) *Crab licenses endorsed solely for the Norton Sound Fishery.* Each person who is the record holder of any crab license endorsed solely for the Norton Sound fishery is neither a qualifying bidder nor a qualifying voter and can neither bid nor vote; and
- (4) *Time at which qualifying bidders and voters must hold required crab licenses.* A qualifying bidder must be the record holder of the required crab license at the time the qualifying bidder submits its bid. A qualifying voter must be the record holder of the required crab license at the time the qualifying voter submits its referendum ballot.
- (g) *Qualifying bidders and co-bidders*—(1) *Qualifying bidders bidding alone.* There is no co-bidder when a qualifying bidder owns, holds, or retains all the required components of the reduction fishing interest;
- (2) *Qualifying bidders bidding together with co-bidders.* When a qualifying bidder does not own the reduction/privilege vessel, the person who does may be the qualifying bidder's co-bidder; and
- (3) *Minimum reduction components that qualifying bidders must hold or retain when bidding with co-bidders.* At a minimum, a qualifying bidder must hold the crab reduction permit and the non-crab reduction permit and retain the reduction fishing history. The reduction/privilege vessel may, however, be owned by another person who is a co-bidder.
- (h) *Reduction fishing interest*—(1) *General requirements.* Each bidder must:
- (i) In its bid, offer to surrender, to have revoked, to have restricted, to relinquish, to have withdrawn, or to have extinguished by other means, in the manner that this section requires, the reduction fishing interest,
 - (ii) At the time of bidding, hold, own, or retain the reduction fishing interest and be fully and legally entitled to offer, in the manner that this section requires, the reduction fishing interest, and
 - (iii) Continuously thereafter hold, own, or retain the reduction fishing interest and remain fully and legally entitled to offer, in the manner that this section requires, the reduction fishing interest until:
 - (A) The bid expires without NMFS first having accepted the bid,
 - (B) NMFS notifies the bidder that NMFS rejects the bid,
 - (C) NMFS notifies the bidder that a reduction contract between the bidder and the United States no longer exists, or
 - (D) NMFS tenders reduction payment to the bidder;
- (2) *Reduction/privilege vessel requirements.* The reduction/privilege vessel in each bid must be:
- (i) The vessel designated, at the time this final rule is published in the Federal Register, on a crab license which becomes a bid's crab reduction permit, and
 - (ii) Be neither lost nor destroyed at the time of bidding;
- (3) *Reduction fishing privilege requirements.* The reduction fishing privilege in each bid must be the reduction/privilege vessel's:
- (i) Fisheries trade endorsement under the Merchant Marine Act, 1936 (46 U.S.C.A. 12108),
 - (ii) Qualification for any present or future U.S. Government approval under section (9)(c)(2) of the Shipping Act, 1916 (46 U.S.C. App. 808(c)(2)) for placement under foreign registry or operation under the authority of a foreign country, and
 - (iii) Any other privilege to ever fish anywhere in the world;
- (4) *Crab reduction permit requirements.* (i) Except as otherwise provided in paragraph (i) of this section, the crab reduction permit must in each bid:
- (A) Be the crab license that NMFS issued on the basis of the bidder's reduction fishing history,
 - (B) Be non-interim at the time each bidder submits its bid, and
 - (C) Include an area/species endorsement for any one or more reduction endorsement fisheries,

- (ii) Although the Norton Sound fishery is not a reduction endorsement fishery, an area/species endorsement for the Norton Sound fishery occurring on a crab reduction permit must be surrendered and revoked (and all fishing history involving it relinquished) in the same manner as all other reduction endorsement fisheries occurring on the crab reduction permit;
- (5) *Non-crab reduction permit requirements.* The non-crab reduction permit must in each bid be every license, permit, or other harvesting privilege that:
- (i) NMFS issued on the basis of the fishing history of the bidder's reduction/history vessel, and
- (ii) For which the bidder was the license holder of record on the effective date of this section; and
- (6) *Reduction fishing history requirements.* Except as otherwise provided in paragraph (i) of this section, the reduction fishing history in each bid must that of a single reduction/history vessel.
- (i) *Exceptions to the reduction fishing interest requirements —(1) Lost or destroyed vessel salvaged.* When a bidder has salvaged a lost or destroyed vessel and has made from the salvaged vessel the documented harvest of crab §679.4(k)(5)(iii)(B)(3) of this chapter requires, the crab portion of the reduction fishing history is the salvaged vessel's documented harvest of crab; and
- (2) *Lost or destroyed vessel not salvaged.* When a bidder has not salvaged the lost or destroyed vessel but has made from a replacement vessel the documented harvest of crab §679.4(k)(5)(iii)(B)(3) of this chapter requires:
- (i) The crab portion of the reduction fishing history is the total of the lost or destroyed vessel's documented harvest of crab through the date of such vessel's loss or destruction plus the replacement vessel's documented harvest of crab after such date, and
- (ii) For the purposes of this program, the lost or destroyed vessel's documented harvest of crab merges with, and becomes a part of, the replacement vessel's documented harvest of crab; and
- (3) *Acquired crab fishing history.* When a bidder, in the manner §679.4(k)(5)(iv) of this chapter requires, has made a documented harvest of crab from one vessel and has acquired a replacement vessel's documented harvest of crab:
- (i) The crab portion of the reduction fishing history is the total of the acquired documented harvest of crab through December 31, 1994, plus the documented harvest of crab after December 31, 1994, of the vessel from which the bidder made the documented crab harvest §679.4(k)(5)(iv) of this chapter requires, and
- (ii) [Reserved]
- (iii) For the purposes of this program, the acquired documented harvest of crab merges with, and becomes a part of, the non-acquired documented harvest of crab.
- (j) *Determining value of reduction/history vessels' bid crab —(1) In each fishery.* NMFS will determine the dollar value of each reduction/history vessel's bid crab in each reduction endorsement fishery and in the Norton Sound Fishery by multiplying each reduction/history vessel's number of pounds of each species of bid crab by the average ex-vessel price per pound that the State of Alaska annually publishes for each crab species in the bid crab; and
- (2) *In all fisheries.* NMFS will determine the dollar value of each reduction/history vessel's bid crab in all reduction endorsement fisheries and in the Norton Sound fishery by adding each of the products of the multiplications in paragraph (j)(1) of this section; and
- (3) *Crab excluded from bid crab.* A reduction/history vessel's bid crab may not include, to the extent that NMFS has knowledge:
- (i) Triangle tanner crab, grooved tanner crab, and any other crab not involved in the various area/species endorsements,
- (ii) Discarded crab,
- (iii) Crab caught for personal use,
- (iv) Unspecified crab, and
- (v) Any other crab for which the dollar value, crab fishery, landing date, or harvesting vessel NMFS cannot, for whatever reason, determine.
- (k) *Determining bid score.* NMFS will determine each bid score by dividing each bid amount by the sum in paragraph (j)(2) of this section.
- (l) *Determining reduction loan sub-amount —(1) Value of all bid crab in each fishery.* NMFS will add the dollar value of bid crab of all accepted bidders' reduction/history vessels in each reduction endorsement fishery;
- (2) *Value of all bid crab in all fisheries.* NMFS will add the dollar value of bid crab of all accepted bidders' reduction/history vessels in all reduction endorsement fisheries plus the Norton Sound fishery;
- (3) *Each fishery as a percentage of all fisheries.* NMFS will divide each of the sums in paragraph (l)(1) of this section by the sum in paragraph (l)(2) of this section. The result of this calculation will be the dollar value of all bid crab in each reduction endorsement fishery as a percentage of the dollar value of all bid crab in all reduction endorsement fisheries plus the Norton Sound fishery;
- (4) *Applying percentages to loan amount.* NMFS will multiply the reduction loan's full original principal amount by each of the yields in paragraph (l)(3) of this section; and
- (5) *Loan sub-amount.* Each of the amounts resulting from the calculation in paragraph (l)(4) of this section will be the reduction loan subamount that a reduction endorsement fishery must repay.
- (m) *Prospectively qualifying bidder and voter notification —(1) General.* At the appropriate point before issuing an invitation to bid, NMFS will publish a notification in the Federal Register listing all persons who at the time of publishing the notification prospectively are qualifying bidders and qualifying voters;
- (2) *Qualifying bidder list.* The prospectively qualifying bidder list will include the names and addresses of record of each license holder of record for all non-interim crab licenses except only crab licenses whose sole area/species endorsement is for the Norton Sound fishery;
- (3) *Qualifying voter list.* The prospectively qualifying voter list will include the names and addresses of record of each license holder of record for all non-interim and interim crab licenses except only crab licenses whose sole area/species endorsement is for the Norton Sound fishery;
- (4) *Basis of lists.* NMFS will base both the lists on the RAM Program's license holder records for crab licenses meeting the requirements of §679.4(k)(5) of this chapter as well as the requirements of this section;
- (5) *Purpose.* The purpose of the notification is to provide the public notice of:
- (i) The prospectively qualifying bidders, and
- (ii) The prospectively qualifying voters; and
- (6) *Public comment.* Any person who wants to comment about the notification has 30 days from the notification's publication date to do so. Persons should send their comments to both FSD and the RAM Program (at addresses that the notification will specify). Comments may address:
- (i) Persons who appear on one or more lists but should not,
- (ii) Persons who do not appear on one or more lists but should, and
- (iii) Persons who believe their names and/or business mailing addresses appearing on one or more lists are incorrect.
- (n) *Invitation to bid —(1) Notification.* At the appropriate point after issuing the notification in paragraph (m) of this section, NMFS will publish the invitation to bid in the Federal Register notification further specified in §600.1009(c) of this subpart, along with a bidding form and terms of capacity reduction agreement. No person may, however, bid at this stage;
- (2) *Notification contents.* The invitation to bid notification will state all applicable bid submission requirements and procedures (including, but not limited to, those included in this section). In particular, the invitation to bid notification will:
- (i) State the date on which NMFS will invite bids by mailing an invitation to bid to each person on the prospectively qualifying bidder list,
- (ii) State a bid opening date, before which a bidder may not bid, and a bid closing date, after which a bidder may not bid,
- (iii) State a bid expiration date after which each bid expires unless, prior to that date, NMFS accepts the bid by mailing a written acceptance notice to the bidder at the bidder's address of record,

- (iv) State the manner of bid submission and the information each bidder must submit for NMFS to deem a bid responsive,
- (v) State any other information required for bid submission, and
- (vi) Include a facsimile of the invitation to bid, along with a bidding form and terms of capacity reduction agreement comprising the entire terms and conditions of the reduction contract under which each bidder must bid and under which NMFS must accept a bid; and
- (3) *Mailing.* On the date specified in this notification, NMFS will invite bids by mailing the invitation to bid and a bidding package, including a bidding form terms of capacity reduction agreement, to each person then on the prospectively qualifying bidder list. NMFS will not mail the invitation to bid to any potential co-bidder because NMFS will not then know which bids may include a co-bidder. Each qualifying bidder is solely responsible to have any required co-bidder properly complete the bid. No person may bid before receiving the invitation to bid and the bidding package that NMFS mailed to that person.
- (o) *Bids*—(1) *Content.* Each invitation to bid that NMFS mails to a qualifying bidder will have a bid form requiring each bid to:
- (i) Identify, by name, regular mail address, telephone number, and (if available) electronic mail address, the qualifying bidder and each co-bidder,
- (ii) State the bid amount in U.S. dollars,
- (iii) Identify, by crab license number, the qualifying bidder's crab reduction permit and include an exact copy of this crab license (which the RAM Program issued),
- (iv) Identify, by vessel name and official number, the bidder's reduction/privilege vessel, and include an exact copy of this vessel's official document (which NVDC issued),
- (v) Identify, by license or permit number, each of the bidder's non-crab reduction permits; and include an exact copy of each of these licenses or permits (which the RAM Program issued for licenses or permits involving species under the jurisdiction of NMFS' Alaska Region and which other NMFS offices issued for licenses or permits involving species under those offices' jurisdiction),
- (vi) Identify, separately for crab and for each other species:
- (A) The qualifying bidder's reduction fishing history, and
- (B) The dates that each portion of the reduction fishing history encompasses; the name and official number of the reduction/history vessel or vessels which gave rise to it; and the dates during which the qualifying bidder owned such vessels or, if the qualifying bidder acquired any reduction fishing history from another person, the name of the person from which the qualifying bidder acquired such reduction fishing history and the manner in which and the date on which the qualifying bidder did so,
- (vii) State, declare, and affirm that the qualifying bidder holds the crab reduction permit and retains the complete reduction fishing history, and is fully and legally entitled to offer both in the manner this section requires,
- (viii) State, declare, and affirm that either the qualifying bidder or the co-bidder owns the reduction/privilege vessel and holds the non-crab reduction permit and is fully and legally entitled to offer both in the manner that this section requires, and
- (ix) Provide any other information or materials that NMFS believes is necessary and appropriate; and
- (2) *Rejection.* NMFS, regardless of bid scores, will reject any bid that NMFS believes is unresponsive to the invitation to bid. All bid rejections will constitute final agency action as of the date of rejection. Before rejection, NMFS may, however, contact any bidder to attempt to correct a bid deficiency if NMFS, in its discretion, believes the attempt warranted.
- (p) *Acceptance*—(1) *Reverse auction.* NMFS will determine which responsive bids NMFS accepts by using a reverse auction in which NMFS first accepts the responsive bid with the lowest bid score and successively accepts each additional responsive bid with the next lowest bid score until either there are no more responsive bids to accept or acceptance of the last responsive bid with the next lowest bid score would cause the reduction cost to exceed \$100 million. If two or more responsive bid scores are exactly the same, NMFS will first accept the bid that NMFS first received;
- (2) *Notification.* NMFS will, after the conclusion of a successful referendum, notify accepted bidders that NMFS had, before the referendum, accepted their bids; and
- (3) *Post-acceptance reduction permit transfer.* After NMFS has accepted bids, neither the RAM Program (nor any other NMFS office) will transfer to other persons any reduction permits that accepted bidders included in the bids unless and until FSD advises the RAM Program (or some other NMFS office) that the resulting reduction contracts are no longer in effect because a referendum failed to approve the fee that this section requires to repay this program's reduction loan.
- (q) *Reduction contracts subject to successful post-bidding referendum condition.* Although this program involves no fishing capacity reduction specifications under this subpart, each bid, each acceptance, and each reduction contract is nevertheless subject to the successful post-bidding referendum condition that §600.1009(a)(3) of this subpart specifies for bidding results that do not conform to the fishing capacity reduction specifications.
- (r) *Post-bidding referendum*—(1) *Purpose.* NMFS will conduct a post-bidding referendum whose sole purpose is to determine whether, based on the bidding results, qualifying voters who cast referendum ballots in the manner that this section requires authorize the fee required to repay this program's reduction loan;
- (2) *Manner of conducting.* NMFS will mail a referendum ballot to each person then on the prospectively qualifying voter list for each crab license that the person holds and otherwise conduct the referendum as specified in §600.1010 of this subpart;
- (3) *One vote per crab license.* Each qualifying voter may cast only one vote for each crab license that each qualifying voter holds;
- (4) *Crab license numbers on ballots.* Each referendum ballot that NMFS mails will contain the license number of the prospectively qualifying voter's crab license to which the ballot relates;
- (5) *Potential reduction results stated.* Each referendum ballot that NMFS mails will state the aggregate potential reduction results of all the bids that NMFS accepted, including:
- (i) The amount of reduction that all accepted bids potentially effect, including:
- (A) The number of crab reduction permits, together with each area/species endorsement for which each of these licenses is endorsed,
- (B) The number of reduction/privilege vessels and reduction/history vessels, and
- (C) The aggregate and average dollar value of bid crab (together with the number of pounds of bid crab upon which NMFS based the dollar value), in each reduction endorsement fishery and in the reduction fishery, for all reduction/history vessels during the period for which NMFS calculates the dollar value of bid crab,
- (ii) The reduction loan sub-amount that each reduction endorsement fishery must repay if a referendum approves the fee, and
- (iii) Any other useful information NMFS may then have about the potential sub-fee rate initially necessary in each reduction endorsement fishery to repay each reduction loan sub-amount; and
- (6) *Notice that condition fulfilled.* If the referendum is successful, NMFS will notify accepted bidders, in the manner that §600.1010(d)(6)(iii) of this subpart specifies, that a successful referendum has fulfilled the reduction contracts' successful post-bidding referendum condition specified in paragraph (q) of this section.
- (s) *Reduction method.* In return for each reduction payment, NMFS will permanently:
- (1) Revoke each crab reduction permit;
- (2) Revoke each non-crab reduction permit;
- (3) Revoke each reduction fishing privilege (which revocation will run with the reduction/privilege vessel's title in the manner §600.1009(a)(5)(ii)(A) of this subpart requires and in accordance with 46 U.S.C. 12108(d));
- (4) Effect relinquishment of each reduction fishing history for the purposes specified in this section by noting in the RAM Program records (or such other records as may be appropriate for reduction permits issued elsewhere) that the reduction fishing history has been relinquished under this section and will never again be available to anyone for any fisheries purpose; and
- (5) Otherwise restrict in accordance with this subpart each reduction/privilege vessel and fully effect the surrender, revocation, restriction, relinquishment, withdrawal, or extinguishment by other means of all components of each reduction fishing interest.
- (t) *Reduction payment tender and disbursement*—(1) *Fishing continues until tender.* Each accepted bidder may continue fishing as it otherwise would have absent the program until NMFS, after a successful referendum, tenders reduction payment to the accepted bidder;
- (2) *Notification to the public.* After a successful referendum but before tendering reduction payment, NMFS will publish a notification in the Federal Register listing all proposed reduction payments and putting the public on notice:

- (i) Of the crab reduction permits, the reduction/privilege vessels, the reduction fishing histories, and the non-crab reduction permits upon whose holding, owning, retaining, or other legal authority representations accepted bidders based their bids and NMFS based its acceptances, and
- (ii) That NMFS intends, in accordance with the reduction contracts, to tender reduction payments in return for the actions specified in paragraph (s) of this section;
- (3) *Public response.* The public has 30 days after the date on which NMFS publishes the reduction payment tender notification to advise NMFS in writing of any holding, owning, or retaining claims that conflict with the representations upon which the accepted bidders based their bids and on which NMFS based its acceptances;
- (4) *Tender and disbursement parties.* NMFS will tender reduction payments only to accepted bidders, unless otherwise provided contrary written instructions by accepted bidders. Creditors or other parties with secured or other interests in reduction/privilege vessels or reduction permits are responsible to make their own arrangements with accepted bidders;
- (5) *Time of tender.* At the end of the reduction payment tender notification period, NMFS will tender reduction payments to accepted bidders, unless NMFS then knows of a material dispute about an accepted bidder's authority to enter into the reduction contract with respect to any one or more components of the reduction fishing interest that warrants, in NMFS' discretion, an alternative course of action;
- (6) *Method of tender and disbursement.* NMFS will tender reduction payment by requesting from each accepted bidder specific, written instructions for paying the reduction payments. Upon receipt of these payment instructions, NMFS will immediately disburse reduction payments in accordance with the payment instructions; and
- (7) *Effect of tender.* Concurrently with NMFS' tender of reduction payment to each accepted bidder:
- (i) All fishing activity for any species anywhere in the world in any way associated with each accepted bidder's reduction fishing interest must cease,
- (ii) Each accepted bidder must retrieve all fixed fishing gear for whose deployment the accepted bidder's reduction/privilege vessel was responsible, and
- (iii) NMFS will fully exercise its reduction contract rights with respect to the reduction fishing interest by taking the actions specified in paragraph (s) of this section.
- (u) *Fee payment and collection* —(1) *Fish sellers who pay the fee.* Any person who harvests any crab, but whom ADF&G's fisheries reporting requirements do not require to record and submit an ADF&G fish ticket for that crab, is a fish seller for the purpose of paying any fee on that crab and otherwise complying with the requirements of §600.1013 of this subpart;
- (2) *Fish buyers who collect the fee.* Any person whom ADF&G's fisheries reporting requirements require to record and submit an ADF&G fish ticket for any crab that another person harvested is a fish buyer for the purpose of collecting the fee on that crab and otherwise complying with the requirements of §600.1013 of this subpart; and
- (3) *Persons who are both fish sellers and fish buyers and both pay and collect the fee.* Any person who harvests any crab, and whom ADF&G's fisheries reporting requirements require to record and submit an ADF&G fish ticket for that crab, is both a fish seller and a fish buyer for the purpose of paying and collecting the fee on that crab and otherwise complying with the requirements of §600.1013 of this subpart.
- (v) *Fishing prohibition and penalties* —(1) *General.* Fishing, for the purpose of this section, includes the full range of activities defined in the term "fishing" in the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801),
- (2) *Prohibitions.* Concurrently with NMFS' tender of each reduction payment, and with the sole exception in paragraph (t)(7)(i) of this section, no person whatsoever may, and it is unlawful for any person to:
- (i) Fish with or attempt to fish with, or allow others to fish with or attempt to fish with, the reduction/privilege vessel anywhere in the world for any species under any conditions and regardless of the reduction/privilege vessel's ownership or registry for so long as the reduction/privilege vessel exists. This prohibition includes, but is not limited to, fishing on the high seas or in the jurisdiction of any foreign country (to the extent prohibited by law) while operating under U.S. flag,
- (ii) Place or attempt to place, or allow others to place or attempt to place, the reduction/privilege vessel under foreign flag or registry,
- (iii) Operate or attempt to operate, or allow others to operate or attempt to operate, the reduction/privilege vessel under the authority of a foreign country to the extent prohibited by law,
- (iv) Otherwise avoid or attempt to avoid, or allow others to avoid or attempt to avoid, the revocation of the reduction fishing privilege with respect to any reduction/privilege vessel, and
- (v) Make any claim or attempt to make any claim, or allow others to claim or attempt to make any claim, for any present or future limited access fishing license or permit in any U.S. fishery (including, but not limited to, any quota allocation under any present or future individual quota allocation system) based in any way on any portion of a reduction fishing interest surrendered, revoked, restricted, relinquished, withdrawn, or extinguished by other means under this section; and
- (3) *Penalties.* The activities that this paragraph prohibits are subject to the full penalties provided in §600.1017 of this subpart, and immediate cause for NMFS to take action to, among other things:
- (i) At the reduction/privilege vessel owner's expense, seize and scrap the reduction/privilege vessel, and
- (ii) Pursue such other remedies and enforce such other penalties as may be applicable.
- (w) *Program administration* —(1) *FSD responsibilities.* FSD is responsible for implementing and administering this program. FSD will:
- (i) Issue all notifications and mailings that this section requires,
- (ii) Prepare and issue the invitation to bid,
- (iii) Receive bids,
- (iv) Reject bids,
- (v) Score bids,
- (vi) Make acceptances,
- (vii) Prepare and issue referendum ballots,
- (viii) Receive referendum ballots,
- (ix) Tally referendum ballots,
- (x) Determine referendum success or failure,
- (xi) Tender and disburse reduction payments,
- (xii) Administer reduction contracts,
- (xiii) Administer fees and reduction loan repayment, and
- (xiv) Discharge all other management and administration functions that this section requires;
- (2) *RAM Program responsibilities.* Upon FSD's advice, the RAM Program (for fishing licenses under the jurisdiction of NMFS's Alaska Region) and any other appropriate NMFS authority (for fishing licenses under the jurisdiction of any other NMFS office) will revoke reduction permits and effect the surrender of fishing histories in accordance with this section; and
- (3) *NVDC and MARAD responsibilities.* FSD will advise NVDC, MARAD, such other agency or agencies as may be involved, or all of them to revoke reduction/privilege vessels' fisheries trade endorsements and otherwise restrict reduction/privilege vessels in accordance with this section.
- (x) *Reduction loan and reduction loan sub-amounts.* [Reserved]

[68 FR 69337, Dec. 12, 2003. Redesignated at 69 FR 53362, Sept. 1, 2004]

§ 600.1104 Bering Sea and Aleutian Islands (BSAI) crab species fee payment and collection system.

(a) *Purpose.* As authorized by Public Law 106-554, this section's purpose is to:

- (1) In accordance with §600.1012 of subpart L, establish:
- (i) The borrower's obligation to repay a reduction loan, and

(ii) The loan's principal amount, interest rate, and repayment term; and

(2) In accordance with §600.1013 through §600.1016 of subpart L, implement an industry fee system for the reduction fishery.

(b) *Definitions.* Unless otherwise defined in this section, the terms defined in §600.1000 of subpart L and §600.1103 of this subpart expressly apply to this section. The following terms have the following meanings for the purpose of this section:

Crab rationalization crab means the same as in §680.2 of this chapter.

Crab rationalization fisheries means the same as in §680.2 of this chapter.

Reduction endorsement fishery means any of the seven fisheries that §679.2 of this chapter formerly (before adoption of part 680 of this chapter) defined as crab area/species endorsements, except the area/species endorsement for Norton Sound red king. More specifically, the reduction endorsement fisheries, and the crab rationalization fisheries which (after adoption of part 680 of this chapter) correspond to the reduction endorsement fisheries, are:

(1) Bristol Bay red king (the corresponding crab rationalization fishery is Bristol Bay red king crab),

(2) Bering Sea and Aleutian Islands Area *C. opilio* and *C. bairdi* (the corresponding crab rationalization fisheries are two separate fisheries, one for Bering Sea snow crab and another for Bering Sea Tanner crab),

(3) Aleutian Islands brown king (the corresponding crab rationalization fisheries are the two separate fisheries, one for Eastern Aleutian Islands golden king crab and another for Western Aleutian Islands golden king crab),

(4) Aleutian Islands red king (the corresponding crab rationalization fishery is Western Aleutian Islands red king crab),

(5) Pribilof red king and Pribilof blue king (the corresponding crab rationalization fishery is Pribilof red king and blue king crab), and

(6) St. Matthew blue king (the corresponding crab rationalization fishery is also St. Matthew blue king crab).

Reduction fishery means the fishery for all crab rationalization crab, excluding CDQ allocations, in all crab rationalization fisheries.

Sub-amount means the portion of the reduction loan amount for whose repayment the borrower in each reduction endorsement fishery is obligated.

(c) *Reduction loan amount.* The reduction loan's original principal amount is \$97,399,357.11.

(d) *Sub-amounts.* The sub-amounts are:

(1) For Bristol Bay red king, \$17,129,957.23;

(2) For Bering Sea and Aleutian Islands Area *C. opilio* and *C. bairdi*, \$66,410,767.20;

(3) For Aleutian Islands brown king, \$6,380,837.19;

(4) For Aleutian Islands red king, \$237,588.04;

(5) For Pribilof red king and Pribilof blue king, \$1,571,216.35; and

(6) For St. Matthew blue king, \$5,668,991.10.

(e) *Interest accrual from inception.* Interest began accruing on each portion of the reduction loan amount on and from the date on which NMFS disbursed each such portion.

(f) *Interest rate.* The reduction loan's interest rate shall be the applicable rate which the U.S. Treasury determines at the end of fiscal year 2005 plus 2 percent.

(g) *Repayment term.* For the purpose of determining fee rates, the reduction loan's repayment term is 30 years from January 19, 2005, but each fee shall continue indefinitely for as long as necessary to fully repay each subamount.

(h) *Reduction loan repayment.* (1) The borrower shall, in accordance with §600.1012, repay the reduction loan;

(2) Fish sellers in each reduction endorsement fishery shall, in accordance with §600.1013, pay the fee at the rate applicable to each such fishery's subamount;

(3) Fish buyers in each reduction endorsement fishery shall, in accordance with §600.1013, collect the fee at the rate applicable to each such fishery;

(4) Fish buyers in each reduction endorsement fishery shall in accordance with §600.1014, deposit and disburse, as well as keep records for and submit reports about, the fees applicable to each such fishery; except the requirements specified under paragraph (c) of this section concerning the deposit principal disbursement shall be made to NMFS not later than the 7th calendar day of each month; and the requirements specified under paragraph (e) of this section concerning annual reports which shall be submitted to NMFS by July 1 of each calendar year; and,

(5) The reduction loan is, in all other respects, subject to the provisions of §600.1012 through §600.1017.

[70 FR 54656, Sept. 16, 2005, as amended at 71 FR 27210, May 10, 2006]

§ 600.1105 Longline catcher processor subsector of the Bering Sea and Aleutian Islands (BSAI) non-pollock groundfish fishery program.

(a) *Purpose.* This section implements the capacity reduction program that Title II, Section 219(e) of Public Law 108-447 enacted for the longline catcher processor subsector of the Bering Sea and Aleutian Islands (BSAI) non-pollock groundfish fishery.

(b) *Definitions.* Unless otherwise defined in this section, the terms defined in §600.1000 of subpart L of this part expressly apply to this section. The following terms have the following meanings for the purpose of this section:

Act means Title II, Section 219 of Public Law 108-447.

AI means the Aleutian Islands.

Application Form means the form published on the FLCC's website that sets forth whether the qualifying LLP License is a Latent License and identifies the individual(s) authorized to execute and deliver Offers and Offer Ranking Ballots on behalf of the Subsector Member.

Auditor means Jack V. Tagart, Ph.D., d.b.a. Tagart Consulting.

Authorized Party means the individuals authorized by Subsector Members on the application form to execute and submit Offers, Rankings, protests and other documents and/or notices on behalf of Subsector Member.

Ballot means the form found on the auditor's website used to cast a vote in favor of, or in opposition to, the currently Selected Offers.

BS means the Bering Sea.

BSAI means the Bering Sea and the Aleutian Islands.

BSAI Pacific Cod ITAC means the Total Allowable Catch for Pacific cod after the subtraction of the 7.5 percent Community Development Program reserve.

Capacity Reduction Agreement or Reduction Agreement means an agreement entered into by the Subsector Members and the FLCC under which the FLCC is permitted to develop and submit a Capacity Reduction Plan to the Secretary.

Certificate of Documentation (COD) means a document issued by the U.S. Coast Guard's National Documentation Center that registers the vessel with the United States Government.

Closing Vote means a vote held pursuant to paragraph (d)(7) of this section, after two-thirds (2/3) or more of the Nonoffering Subsector Members submit Ranking Forms electing to accept the Selected Offerors and close the Selection Process, and there are no unresolved Protests or Arbitrations.

Current Offer means an Offer submitted by a Subsector Member to the Auditor during any Submission Period and, with regard to such Offer, Offeror has not become a Rejected Offeror. The term "Current Offer" includes Selected Offerors.

Current Offeror means an Offering Subsector Member that has submitted an Offer to the Auditor during any Submission Period and, with regard to such Offer, Offeror has not become a Rejected Offeror. The term "Current Offeror" includes Selected Offerors.

Database means the online LLP License database maintained by NMFS as downloaded by the Auditor pursuant to paragraph (c)(1) of this section.

Effective Date means the date the Capacity Reduction Agreement becomes effective pursuant to section 4.e of the Capacity Reduction Agreement.

Fishing Capacity Reduction Contract or Reduction Contract means the contract that any Current Offeror must sign and agree to abide by if NMFS accepts the offer by signing the Reduction Contract.

FLCC Counsel means Bauer Moynihan & Johnson LLP or other counsel representing the FLCC in any review or arbitration under the Capacity Reduction Agreement.

Latent License means an LLP License on which a vessel was not designated at the time an Offer is submitted.

LLP License means a Federal License Limitation Program groundfish license issued pursuant to §679.4(k) of this chapter or successor regulation that is noninterim and transferable, or that is interim and subsequently becomes noninterim and transferable, and that is endorsed for BS or AI catcher processor fishing activity, C/P, Pacific cod and hook and line gear.

Longline Subsector means the longline catcher processor subsector of the BSAI non-pollock groundfish fishery as defined in the Act.

Longline Subsector ITAC means the longline catcher processor subsector remainder of the Total Allowable Catch after the subtraction of the 7.5 percent Community Development Program reserve.

Nonoffering Subsector Member shall have the meaning ascribed thereto in paragraph (d)(5)(i) of this section.

Offer Content means all information included in Offers submitted to the Auditor pursuant to paragraph (d)(2)(ii) of this section.

Offer Form means the form found on the Auditor's website used to make an offer.

Offer(s) means a binding offer(s) from a Subsector Member to sell its LLP, right to participate in the fisheries, the fishing history associated with such LLP, and any vessel set forth on the Offer Form submitted by Offeror pursuant to the terms of this Capacity Reduction Agreement.

Opening Date means the first Monday following the Effective Date set forth in paragraph (c)(3) of this section.

Person includes any natural person(s) and any corporation, partnership, limited partnership, limited liability company, association or any other entity whatsoever, organized under the laws of the United States or of a state.

Prequalification Offer shall have the meaning ascribed thereto in paragraph (d)(2)(iii) of this section.

Ranking Form means the form posted by the Auditor pursuant to paragraph (d)(5)(iii) of this section.

Ranking Period shall have the meaning ascribed thereto in paragraph (d)(5)(ii) of this section.

Reduction Fishery means the BSAI non-pollock groundfish fishery.

Reduction Fishing Interests shall have the meaning ascribed thereto in the Fishing Capacity Reduction Contract.

Reduction Plan means a business plan prepared by the Subsector Members in accordance with Section 1 of the Capacity Reduction Agreement and forwarded to the Secretary for approval.

Reduction Privilege Vessel means the vessel listed on the Offeror's License Limitation Program license.

Rejected Offer means an Offer that has been through one or more Rankings and is not a Selected Offer following the latest Ranking Period, with respect to which the Offering Subsector Member's obligations have terminated pursuant to paragraphs (d)(2)(i) and (d)(6)(v) of this section.

Rejected Offeror means a Subsector Member that has submitted an Offer which has been ranked and was not posted as a Selected Offer pursuant to paragraph (d)(6)(ii) of this section.

Restricted Access Management (RAM) means the Restricted Access Management Program in the Alaska Region, NMFS, located in Juneau, Alaska.

Secretary means the Secretary of Commerce or a designee.

Selected Offer shall have the meaning ascribed thereto in paragraph (d)(6)(iv) of this section.

Selected Offeror means a Subsector Member that has submitted an Offer which has been ranked and is posted as a Selected Offer pursuant to paragraph (d)(6)(ii) of this section.

Selection Process means the process set forth in paragraph (d) of this section for selecting the fishing capacity to be removed by the Reduction Plan.

Submission Period(s) or Submitting Period(s) shall have the meaning ascribed thereto in paragraph (d)(3)(ii) of this section.

Subsector Member(s) means a member(s) of the Longline Subsector.

Web site means the internet Web site developed and maintained on behalf of the FLCC for implementation of the Selection Process described herein with a URL address of <http://www.freezerlonglinecoop.org>.

(c) *Qualification and enrollment of subsector members*—(1) *Distribution*. A copy of the Reduction Agreement, Application Form, and Reduction Contract shall be mailed to each holder of record of an LLP License endorsed for BS or AI catcher processor activity, C/P, Pacific cod and hook and line gear, as the Auditor determines from the Database downloaded by the Auditor as of January 30, 2006, regardless of whether the LLP License is indicated in the Database as noninterim and transferable or otherwise.

(2) *Application*. Any person, regardless of whether having received the mailing described in paragraph (c)(1) of this section, may as a Subsector Member apply to enroll with the FLCC to participate in the Reduction Program, by submitting all of the following documents:

(i) Fully executed Reduction Agreement;

(ii) Photocopy of the LLP License(s) evidencing Subsector Member's qualification as a member of the Longline Subsector;

(iii) Unless applying as the holder of a Latent License, a photocopy of Federal Fisheries Permit for the vessel(s) designated on the LLP License(s) on the date the Reduction Agreement is signed by the Subsector Member;

(iv) Unless applying as the holder of a Latent License, a photocopy of the Certificate of Documentation (COD) for the vessel(s) designated on the LLP License(s) on the date the Reduction Agreement is signed by the Subsector Member; and

(v) An executed Application Form which sets forth whether the qualifying LLP License is a Latent License and identifies the individual(s) authorized to execute and deliver Offers and Offer Ranking Ballots on behalf of the Subsector Member.

(3) *Examination by Auditor*—(i) *In general*. Each application must be submitted to the Auditor who will examine applications for completeness and inconsistencies, whether on the face of the documents or with the Database. Any application which is incomplete or which contains inconsistencies shall be invalid. The Auditor shall notify by e-mail or mail an applicant of the basis for the Auditor's finding an application invalid. An applicant may resubmit a revised application. If the application meets all requirements, the Auditor may accept the application as valid and enroll the applicant.

(ii) *Interim LLP Licenses*. If an LLP License is interim and/or nontransferable, the applicant's enrollment shall be accepted as a Subsector Member and may fully participate in the Selection Process. However, any posting of an Offer submitted with respect to such LLP License shall note the status of such LLP License until that Subsector Member submits to the Auditor a letter from the RAM confirming that it is within the Subsector Member's control to cause the qualifying LLP License to be issued as noninterim and transferable upon withdrawal of all applicable appeals.

(4) *Enrollment period*. Applications that meet all requirements will be accepted until the Selection Process is completed.

(5) *Effective date*. The Effective Date of any Reduction Agreement shall be ten (10) calendar days after written notice is sent by the Auditor to each holder of record of an LLP License endorsed for BS or AI catcher processor activity, C/P, Pacific cod and hook and line gear (as determined by the Auditor from the Auditor's examination of the Database) advising that the number of Subsector Members that have delivered to the Auditor a complete Application, including a fully executed Reduction Agreement, exceeds seventy percent (70 percent) of the members of the Longline Subsector (as determined by the Auditor from the Auditor's examination of the Database).

(6) *Notice*. All notices related to the effective date of the Reduction Agreement shall be sent by the Auditor via registered mail.

(7) *Withdrawal*. A Subsector Member, unless such Subsector Member is a Current Offeror or Selected Offeror, may terminate the Reduction Agreement at any time with respect to that Subsector Member by giving ten (10) calendar days written notice to the Auditor preferably via e-mail. Withdrawal of a Subsector Member shall not affect the validity of the Reduction

Agreement with respect to any other Subsector Members. Once effective, the Reduction Agreement shall continue in full force and effect regardless of whether subsequent withdrawals reduce the number of Subsector Members below that level required to effectuate the Reduction Agreement. Attempted withdrawal by a Current Offeror or Selected Offeror shall be invalid, and such Offer shall remain a binding, irrevocable Offer, unaffected by the attempted withdrawal.

(d) *Selection of fishing capacity to be removed by Reduction Plan.* The fishing capacity removed by the Reduction Plan will be the Reduction Fishing Interests voluntarily offered through the Reduction Plan by offering Subsector Members and as selected by the Nonoffering Subsector Members, up to an aggregate amount of thirty six million dollars (\$36,000,000) as set forth in this paragraph (d).

(1) *Overview.* The Selection Process will begin upon the Effective Date of the Reduction Agreement. The Selection Process will alternate on a weekly basis between:

(i) *Submitting Periods*, during which individual Subsector Members may submit Offers of fishing capacity they wish to include in the Reduction Plan; and

(ii) *Ranking Periods*, during which Nonoffering Subsector Members will rank the submitted Offers.

(2) *Offers*—(i) *Binding agreement.* An Offer from a Subsector Member shall be a binding, irrevocable offer from a Subsector Member to relinquish to NMFS the Reduction Fishing Interests for the price set forth on the Offer contingent on such Offer being a Selected Offer at the closing of the Selection Process. Once submitted, an Offer may not be revoked or withdrawn while that Offer is a Current Offer or Selected Offer. An Offer that is submitted by a Subsector Member, but is not a Selected Offer during the subsequent Ranking Period, shall be deemed to be terminated and the Subsector Member shall have no further obligation with respect to performance of that Offer.

(ii) *Offer content.* All Offers submitted to the Auditor shall include the following information: LLP License number; LLP License number(s) of any linked crab LLP Licenses; license MLOA (MLOA—maximum length overall of a vessel is defined at §679.2 of this chapter); the license area, gear and species endorsements; a summary of the Pacific cod catch history for the calendar years 1995–2004; and the offered price. The Offer shall also state whether a vessel is currently designated on the LLP License and as such will be withdrawn from all fisheries if the Offer is selected for reduction in the Reduction Plan. If so, the Offer shall identify such vessel by name, official number, and current owner. In addition, the Offer shall provide a summary of the Pacific cod catch history for the calendar years 1995–2004 of the vessel to be retired from the fisheries. All summary catch histories included in Offers shall be calculated utilizing both the weekly production report and best blend methodology and shall separately state for each methodology the Pacific cod catch in metric tons and as a percentage of the overall catch for the longline catcher processor subsector on an annual basis for each of the required years. If the vessel stated to be withdrawn from the fisheries is not owned by the LLP License owner of record, the Offer shall be countersigned by the owner of record of the vessel. An Offer offering a Latent License shall state on the Offer Form that the offered LLP License is a Latent License. The Offer Form shall also include a comment section for any additional information that Offerors wish to provide to the Subsector Members concerning the Offer.

(iii) *Prequalification of Offers.* A Subsector Member may submit a Prequalification Offer to the Auditor at any time prior to the Opening Date. A Prequalification Offer shall contain all elements of an Offer, except that a price need not be provided. The Auditor shall notify the Subsector Member submitting a Prequalification Offer as to any deficiencies as soon as practicable. All details of a Prequalification Offer shall be kept confidential by the Auditor.

(3) *Submitting an Offer*—(i) *Offer submission.* Commencing on the first Tuesday following the Opening Date and during all Submission Periods until the Selection Process is closed, any Subsector Member may submit an Offer. All Offers are to be on the applicable form provided on the FLCC website, executed by an Authorized Party and submitted to the Auditor by facsimile. Any Subsector Member may submit an Offer during any Submission Period, even if that Subsector Member has not submitted an Offer in any previous Submission Period. If a Subsector Member holds more than one LLP License, such Subsector Member may, but is not required to, submit an Offer for each LLP License held during a Submission Period.

(ii) *Submission Periods.* The initial Submission Period shall commence at 9 a.m. (Pacific time) on the Tuesday following the Opening Date and end at 5 p.m. (Pacific time) on the Friday of that week. Subsequent Submission Periods shall commence at 9 a.m. (Pacific time) on the first Tuesday following the preceding Ranking Period and end at 5 p.m. (Pacific time) on the Friday of that week. All times set forth in the Reduction Agreement and used in the Offer process shall be the time kept in the Pacific time zone as calculated by the National Institute of Standards and Technology.

(iii) *Validity of Offer.* The Auditor shall examine each Offer for consistency with the Database and information contained in the enrollment documents. If there is an inconsistency in the information contained in the Offer, any of the elements required of an Offer pursuant to paragraph (d)(2)(ii) of this section are missing, or the Auditor does not receive the original Offer Form before the Offers are to be posted pursuant to paragraph (d)(4) of this section, the Auditor shall notify the offering Subsector Member by e-mail or mail that the Offer is nonconforming as soon as practicable after discovering the basis of invalidity. The Subsector Member may submit a revised, conforming Offer prior to the close of that Submission Period or, in any subsequent Submission Period. Only one Offer may be submitted with respect to an LLP License during a Submission Period. In the event a Subsector Member submits more than one Offer with respect to an LLP License during a Submission Period, the first conforming Offer received by the Auditor shall be binding and irrevocable and any subsequent Offers shall be deemed invalid.

(iv) *Warranty.* By submitting an Offer, the Offering Subsector Member, warrants and represents that the Offering Subsector Member has read and understands the terms of the Reduction Agreement, the Offer, and the Reduction Contract and has had the opportunity to seek independent legal counsel regarding such documents and/or agreements and the consequences of submitting an Offer.

(4) *Posting Offers*—(i) *Current offers.* For each Offer received during a Submission Period, the Auditor shall post on the Website no later than 5 p.m. (Pacific time) on the following Tuesday all of the details of such Offer as set forth on the Offer Form. In addition, the Auditor shall post, as available to Auditor, a summary by year of up to ten (10) years catch history during the period 1995–2004 in total round weight equivalents and percentage of Longline Subsector ITAC harvested for any vessel that is included in the Offer. Subsector Member (or vessel owner, if other than the Subsector Member) expressly authorizes Auditor to release the catch history summary information previously prepared for that Subsector Member or vessel owner by the Auditor as part of the analysis of FLCC's membership's catch history previously conducted by the Auditor on behalf of the FLCC.

(ii) *Posting order.* Offers shall be posted on the Website by the Auditor in alphabetical order of the Offering Subsector Member's name.

(iii) *Questions as to Offer.* The Auditor shall respond to no questions from Subsector Member regarding Offers except to confirm that the posting accurately reflects the details of the Offer. If an Offering Subsector Member notices an error in an Offer posting on the Website, such Subsector Member shall notify the Auditor as soon as practicable. The Auditor shall review such notice, the posting and the original Offer. If an error was made in posting the Auditor shall correct the posting as soon as practicable and notify the Subsector Members via e-mail or mail of the correction. In the event such an error is not discovered prior to Ranking, an Offering Subsector Member shall be bound to the terms of the submitted Offer, not the terms of the posted Offer.

(iv) *Archive.* The Auditor shall maintain on the Website an archive of prior Offers posted, which shall be available for review by all Subsector Members.

(5) *Ranking*—(i) *Eligibility.* Each Subsector Member that has not submitted an Offer during the preceding Submission Period, or whose vessel is not included as a withdrawing vessel in an Offer during the preceding Submission Period (i.e., a Nonoffering Subsector Member), may submit to the Auditor a Ranking Form during a Ranking Period. With respect to Ranking, a Subsector Member that holds more than one LLP License may participate in the Ranking process for each LLP License not included in an Offer.

(ii) *Ranking Period.* The initial Ranking Period shall commence immediately after the Offers from the preceding Submission Period have been posted and end at 5 p.m. (Pacific time) on the Friday of that week. Subsequent Ranking Periods shall commence immediately after the Offers from the preceding Submission Period have been posted and end at 5 p.m. (Pacific time) on the Friday of that week.

(iii) *Ranking Form.* Prior to each Ranking Period, the Auditor will post a Ranking Form on the Website in "pdf" file format. Each eligible Subsector Member wishing to rank the current Offers shall rank the Offers on the Ranking Form numerically in the Subsector Member's preferred order of purchase. The Offer that Subsector Member would most like to have accepted should be ranked number one (1), and subsequent Offers ranked sequentially until the Offer that the Subsector Member would least like to see accepted is ranked with the highest numerical score. A Subsector Member wishing to call for a Closing Vote shall, in lieu of ranking the Current Offers, mark the Ranking Form to accept the Selected Offers selected during the prior Ranking Period and close the Selection Process. To be valid, the Ranking Form must rank each Current Offer listed on the Ranking Form or, if applicable, be marked to call for a Closing Vote. Ranking Forms shall be submitted by sending a completed Ranking Form, signed by an Authorized Party, to the Auditor by facsimile or mail prior to the end of the Ranking Period. A Subsector Member is not required to rank the Offers during a Ranking Period or call for a Closing Vote.

(iv) *Validity of Subsector Member Ranking.* The Auditor shall examine each Ranking Form for completeness, whether the form either ranks the Offers or calls for a Closing Vote (but not both), and authorized signature. Any incomplete or otherwise noncompliant Ranking Form(s) shall be invalid, and shall not be included in the Rankings of the Current Offers. The Auditor shall notify the Subsector Member of the reason for declaring any Ranking Form invalid as soon as practicable. A Subsector Member may cure the submission of an invalid Ranking Form by submitting a complying Ranking Form if accomplished before the end of the applicable Ranking Period.

(6) *Ranking results*—(i) *Compiling the rankings.* Unless two-thirds (2/3) of the Nonoffering Subsector Members have called for a Closing Vote, the Auditor shall compile the results of the Ranking Forms by assigning one point for each position on a Ranking Form. That is, the Offer ranked number one (1) on a Ranking Form shall be awarded one (1) point, the Offer ranked two (2) shall receive two (2) points, and continuing on in this manner until all Offers have been assigned points correlating to its ranking on each valid Ranking Form. The Offer with the least number of total points assigned shall be the highest ranked Offer, and the Offer with the greatest total points assigned shall be the lowest ranked Offer.

(ii) *Posting rankings.* The Auditor shall post the results of the compilation of the Ranking Forms on the Website in alphabetical order based on the Offering Subsector Member's name no later than 5 p.m. (Pacific time) on the Monday following the Ranking Period. The Auditor shall post the highest consecutive ranking Offers that total thirty six million dollars (\$36,000,000) or less. Those Offering Subsector Members whose Offers are posted shall be deemed Selected Offerors and their Offers shall be deemed Selected Offers. Those Offering Subsector Members whose Offers are not posted shall be deemed Rejected Offerors.

(iii) *Selected Offer information or confidentiality.* The Auditor shall post the name of the Offering Subsector Member, the amount of the Offer, and a summary of the total number of Ranking Forms received and the number of such forms on which the Members called for a Closing Vote. Other than the foregoing, the Auditor shall not post any details of the compilation of the Ranking Forms.

(iv) *Selected Offerors.* Selected Offerors may not withdraw their Offers unless in subsequent rankings their Offers no longer are within the highest ranking Offers and they become Rejected

Offerors. A Selected Offeror may, however, modify a Selected Offer solely to the extent such modification consists of a reduction in the Offer price. A Selected Offeror may submit a modified Offer to the Auditor during the next Offering Period as set forth in paragraph (d)(3) of this section. Unless a Selected Offeror becomes a Rejected Offeror in a subsequent Ranking, a Selected Offeror shall be bound by the terms of the lowest Selected Offer submitted as if such modified Offer had been the original Selected Offer. In the event a Selected Offeror submits a modified Offer and such Offer is not ranked because sufficient votes are received to call for a Closing Vote, the previously Selected Offer shall remain the Selected Offer.

(v) *Rejected Offerors.* The Offer of a Rejected Offeror is terminated and the Rejected Offeror is no longer bound by the terms of its Offer. A Rejected Offeror may, at its sole discretion, resubmit the same Offer, submit a revised Offer, or elect not to submit an Offer during any subsequent Submission Period until the Selection Process is closed.

(vi) *Ties.* In the event there is a tie with respect to Offers which results in the tied Offers exceeding thirty-six million dollars (\$36,000,000), the tied Offers and all Offers ranked lower than the tied Offers shall be deemed to be rejected and the Rejected Offerors may, at their option, submit an Offer in a subsequent Submission Period.

(vii) *Archive.* Auditor shall maintain on the Website an archive of prior Offer Rankings as posted over the course of the Selection Process, which shall be available for Subsector Member review.

(7) *Closing.* The Selection Process will close when two-thirds (2/3) or more of the Nonoffering Subsector Members of the Longline Subsector, as determined by the Auditor, affirmatively vote to accept the Selected Offerors selected during the prior Ranking Period as part of the Reduction Plan to be submitted to the Secretary.

(i) *Call for Vote.* A Closing Vote will be held when: at least two-thirds (2/3) of the Nonoffering Subsector Members submit Ranking Forms electing to accept the Selected Offerors and close the Selection Process in lieu of Ranking the current Offers; and there are no unresolved Protests or Arbitrations. The Auditor shall notify all Subsector Members by e-mail or mail and posting a notice on the Website as soon as practicable that a Closing Vote is to be held. Such notice shall state the starting and ending dates and times of the voting period, which shall be not less than three (3) nor more than seven (7) calendar days from the date of such notice. A voting period shall commence at 9 a.m. (Pacific time) on Monday and end at 5 p.m. on the Friday of that week.

(ii) *Voting.* No less than three (3) calendar days prior to the voting period, the Auditor will post a Closing Ballot on the Website in "pdf" file format. Each eligible Nonoffering Subsector Member wishing to vote shall print out the Closing Ballot, and, with respect to each of the currently Selected Offers on the Closing Ballot, vote either in favor of or opposed to accepting that Selected Offer and submit a completed and signed Closing Ballot to the Auditor preferably by facsimile prior to the end of the Voting Period.

(iii) *Ballot verification.* The Auditor shall examine each submitted Closing Ballot for completeness and authorized signature. Any incomplete Closing Ballot shall be void, and shall not be included in the voting results. The Auditor shall not notify the Subsector Member of an invalid Closing Ballot.

(iv) *Voting results.* The Auditor shall post the results of the Vote as soon as practicable after voting closes. Each Offer on the Closing Ballot that receives votes approving acceptance of such Offer from two-thirds (2/3) or more of the total number of Nonoffering Subsector Members shall be a Selected Offeror and shall be the basis for the Reduction Plan submitted to NMFS. Any Offer on the Closing Ballot that does not receive such two-thirds (2/3) approval shall be rejected and shall not be included among the Offers included among the Reduction Plan submitted to NMFS.

(v) *Notification to NMFS.* Upon closing of the Selection Process, FLCC shall notify NMFS in writing of the identities of the Selected Offerors and provide to NMFS a completed and fully executed original Reduction Agreement from each of the Selected Offerors and a certified copy of the fully executed Reduction Agreement and Reduction Contract.

(e) *Submission of Reduction Plan, including repayment.* Upon completion of the offering process, the FLCC on behalf of the Subsector Members shall submit to NMFS the Reduction Plan which shall include the provisions set forth in this paragraph (e).

(1) *Capacity reduction.* The Reduction Plan shall identify as the proposed capacity reduction, without auction process, the LLP Licenses as well as the vessels and the catch histories related to the LLP Licenses, linked crab LLP Licenses, and any other fishing rights or other interests associated with the LLP Licenses and vessels included in the Selected Offers. The aggregate of all Reduction Agreements and Reduction Contracts signed by Subsector Members whose offers to participate in this buyback were accepted by votes of the Subsector Members, will together with the FLCC's supporting documents and rationale for recognizing that these offers represent the expenditure of the least money for the greatest capacity reduction, constitute the Reduction Plan to be submitted to NMFS for approval on behalf of the Secretary of Commerce.

(2) *Loan repayment* —(i) *Term.* As authorized by Section 219(B)(2) of the Act, the capacity reduction loan (the "Reduction Loan") shall be amortized over a thirty (30) year term. The Reduction Loan's original principal amount may not exceed thirty-six million dollars (\$36,000,000), but may be less if the reduction cost is less. Subsector Members acknowledge that in the event payments made under the Reduction Plan are insufficient to repay the actual loan, the term of repayment shall be extended by NMFS until the loan is paid in full.

(ii) *Interest.* The Reduction Loan's interest rate will be the U.S. Treasury's cost of borrowing equivalent maturity funds plus 2 percent. NMFS will determine the Reduction Loan's initial interest rate when NMFS borrows from the U.S. Treasury the funds with which to disburse reduction payments. The initial interest rate will change to a final interest rate at the end of the Federal fiscal year in which NMFS borrows the funds from the U.S. Treasury. The final interest rate will be 2 percent plus a weighted average, throughout that fiscal year, of the U.S. Treasury's cost of borrowing equivalent maturity funds. The final interest rate will be fixed, and will not vary over the remainder of the reduction loan's 30-year term. The Reduction loan will be subject to a level debt amortization. There is no prepayment penalty.

(iii) *Fees.* The Reduction Loan shall be repaid by fees collected from the Longline Subsector. The fee amount will be based upon: The principal and interest due over the next twelve months divided by the product of the Hook & Line, Catcher Processor (Longline Subsector; sometimes referred to as the "H&LCP Subsector") portion of the BSAI Pacific cod ITAC (in metric tons) set by the North Pacific Fishery Management Council (NPFMC) in December of each year multiplied by 2,205 (i.e., the number of pounds in a metric ton). In the event that the Longline Subsector portion for the ensuing year is not available, the Longline Subsector portion forecast from the preceding year will be used to calculate the fee.

(A) The fee will be expressed in cents per pound rounded up to the next one-tenth of a cent. For example: If the principal and interest due equal \$2,900,000 and the Longline Subsector portion equals 100,000 metric tons, then the fee per round weight pound of Pacific cod will equal 1.4 cents per pound. $[2,900,000 / (100,000 \times 2,205) = .01315]$. The fee will be accessed and collected on Pacific cod to the extent possible and if not, will be accessed and collected as provided for in this paragraph (e).

(B) Fees must be accessed and collected on Pacific cod used for bait or discarded. Although the fee could be up to 5 percent of the ex-vessel production value of all post-reduction Longline Subsector landings, the fee will be less than 5 percent if NMFS projects that a lesser rate can amortize the fishery's reduction loan over the reduction loan's 30-year term. In the event that the total principal and interest due exceeds 5 percent of the ex-vessel Pacific cod revenues, a penny per pound round weight fee will be calculated based on the latest available revenue records and NMFS conversion factors for pollock, arrowtooth flounder, Greenland turbot, skate, yellowfin sole and rock sole.

(C) The additional fee will be limited to the amount necessary to amortize the remaining twelve months principal and interest in addition to the 5 percent fee accessed against Pacific cod. The additional fee will be a minimum of one cent per pound. In the event that collections exceed the total principal and interest needed to amortize the payment due, the principal balance of the loan will be reduced. To verify that the fees collected do not exceed 5 percent of the fishery revenues, the annual total of principal and interest due will be compared to the latest available annual Longline Subsector revenues to ensure it is equal to or less than 5 percent of the total ex-vessel production revenues. In the event that any of the components necessary to calculate the next year's fee are not available, or for any other reason NMFS believes the calculation must be postponed, the fee will remain at the previous year's amount until such a time that new calculations are made and communicated to the post reduction fishery participants.

(D) It is possible that the fishery may not open during some years and no Longline Subsector portion of the ITAC is granted. Consequently, the fishery will not produce fee revenue with which to service the reduction loan during those years. However, interest will continue to accrue on the principal balance. When this happens, if the fee rate is not already at the maximum 5 percent, NMFS will increase the fisheries' fee rate to the maximum 5 percent of the revenues for Pacific cod and the species mentioned in paragraph (e)(2)(iii)(B), apply all subsequent fee revenue first to the payment of accrued interest, and continue the maximum fee rates until all principal and interest payments become current. Once all principal and interest payments are current, NMFS will make a determination about adjusting the fee rate.

(iv) *Reduction loan.* NMFS has promulgated framework regulations generally applicable to all fishing capacity reduction programs (§600.1000 *et seq.*). The reduction loan shall be subject to the provisions of §600.1012, except that: the borrower's obligation to repay the reduction loan shall be discharged by the owner of the Longline Subsector license regardless of which vessel catches fish under this license and regardless of who processes the fish in the reduction fishery in accordance with §600.1013. Longline Subsector license owners in the reduction fishery shall be obligated to collect the fee in accordance with §600.1013.

(v) *Collection.* The LLP License holder of the vessel harvesting in the post-capacity reduction plan Longline Subsector shall be responsible for self-collecting the repayment fees owed by that LLP License holder. Fees shall be submitted to NMFS monthly and shall be due no later than fifteen (15) calendar days following the end of each calendar month.

(vi) *Record keeping and Reporting.* The holder of the LLP License on which a vessel harvesting in the post-capacity reduction plan Longline Subsector is designated shall be responsible for compliance with the applicable record keeping and reporting requirements.

(3) *Agreement with Secretary.* Each Selected Offeror, and vessel owner if not the Subsector Member, that has submitted a Selected Offer shall complete and deliver to the FLCC for inclusion in the Reduction Plan submitted to NMFS, designee for the Secretary, a completed and fully executed Reduction Contract. Any and all LLP License(s) and or vessels set forth on a Selected Offer shall be included as Reduction Fishing Interests in such Reduction Contract.

(f) *Decisions of the Auditor and the FLCC.* Time is of the essence in developing and implementing a Reduction Plan and, accordingly, the Offerors shall be limited to, and bound by, the decisions of the Auditor and the FLCC.

(1) The Auditor's examination of submitted applications, Offers, Prequalification Offers and Rankings shall be solely ministerial in nature. That is, the Auditor will verify whether the documents submitted by Subsector Members are, on their face, consistent with each other and the Database, in compliance with the requirements set forth in the Reduction Agreement, and, signed by an Authorized Party. The Auditor may presume the validity of all signatures on documents submitted. The Auditor shall not make substantive decisions as to compliance (e.g., whether an interim LLP License satisfies the requirements of the Act, or whether a discrepancy in the name appearing on LLP Licenses and other documents is material).

(2) [Reserved]

(g) *Enforcement/specific performance.* The parties to the Reduction Agreement have agreed that the opportunity to develop and submit a capacity reduction program for the Longline Subsector under the terms of the Act is both unique and finite and that failure of a Selected Offeror, and vessel owner, if not a Subsector Member, to perform the obligations provided by the Reduction Agreement will result in irreparable damage to the FLCC, the Subsector Members and other Selected Offerors. Accordingly, the parties to the Reduction Agreement expressly acknowledge that money damages are an inadequate means of redress and agree that upon the failure of the Selected Offeror, and vessel owner if not a Subsector Member, to fulfill its obligations under the Reduction Agreement that specific performance of those obligations may be obtained by suit in equity brought by the FLCC in any court of competent jurisdiction without obligation to arbitrate such action.

(h) *Miscellaneous*—(1) *Time/Holidays.* All times related to the Selection Process shall be the time kept in the Pacific time zone as calculated by the National Institute of Standards and Technology. In the event that any date occurring within the Selection Process is a Federal holiday, the date shall roll over to the next occurring business day.

(2) *Termination.* The Reduction Agreement shall automatically terminate if no vote of acceptance is completed by December 31, 2007. The Reduction Agreement may be terminated at any time prior to approval of the Reduction Plan by NMFS, on behalf of the Secretary, by written notice from 50 percent of Subsector Members.

(3) *Choice of law/venue.* The Reduction Agreement shall be construed and enforced in accordance with the laws of the State of Washington without regard to its choice of law provisions. The parties submit to the exclusive personal jurisdiction of the United States District Court located in Seattle, Washington, with respect to any litigation arising out of or relating to the Reduction Agreement or out of the performance of services hereunder.

(4) *Incorporation.* All executed counterparts of the Reduction Agreement, Application Forms and Offers constitute the agreement between the parties with respect to the subject matter of the Reduction Agreement and are incorporated into the Reduction Agreement as if fully written.

(5) *Counterparts.* The Reduction Agreement may be executed in multiple counterparts and will be effective as to signatories on the Effective Date. The Reduction Agreement may be executed in duplicate originals, each of which shall be deemed to be an original instrument. All such counterparts and duplicate originals together shall constitute the same agreement, whether or not all parties execute each counterpart.

(i) The facsimile signature of any party to the Reduction Agreement shall constitute the duly authorized, irrevocable execution and delivery of the Reduction Agreement as fully as if the Reduction Agreement contained the original ink signatures of the party or parties supplying a facsimile signature.

(ii) [Reserved]

(i) *Amendment.* Subsector Member acknowledges that the Reduction Agreement, the Reduction Contract, and the Reduction Plan may be subject to amendment to conform to the requirements for approval of the Reduction Plan by NMFS on behalf of the Secretary. The Auditor shall distribute to each Subsector Member in electronic format the amended form of the Reduction Agreement, the Reduction Contract, and the Reduction Plan, which amended documents in the form distributed by the Auditor and identified by the Auditor by date and version, the version of each such document then in effect at the time of any dispute arising or action taken shall be deemed binding upon the parties with respect to such dispute and/or action.

(j) *Warranties.* Subsector Member must expressly warrant and represent in the Reduction Agreement that:

(1) Subsector Member has had an opportunity to consult with Subsector Member's attorney or other advisors of Subsector Member with respect to the Reduction Agreement, the Reduction Contract, and the Act and the ramifications of the ratification of the Reduction Plan contemplated therein;

(2) Subsector Member has full understanding and appreciation of the ramifications of executing and delivering the Reduction Agreement and, free from coercion of any kind by the FLCC or any of its members, officers, agents and/or employees, executes and delivers the Reduction Agreement as the free and voluntary act of Subsector Member;

(3) The execution and delivery of the Reduction Agreement, does not and will not conflict with any provisions of the governing documents of Subsector Member;

(4) The person executing the Reduction Agreement has been duly authorized by Subsector Member to execute and deliver the Reduction Agreement and to undertake and perform the actions contemplated herein; and

(5) Subsector Member has taken all actions necessary for the Reduction Agreement to constitute the valid and binding obligation of Subsector Member, enforceable in accordance with its terms.

(k) *Approval of the Reduction Plan.* Acceptance of the Offers are at the sole discretion of NMFS on behalf of the Secretary of Commerce. To be approved by NMFS, on behalf of the Secretary, any Reduction Plan developed and submitted in accordance with this section and Subpart M to this part must be found by the Assistant Administrator of NMFS, to:

(1) Be consistent with the requirements of Section 219(e) of the FY 2005 Appropriations Act (Public Law 108-447);

(2) Be consistent with the requirements of Section 312(b) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1861(a)) except for the requirement that a Council or Governor of a State request such a program (as set out in section 312(b)(1)) and for the requirements of section 312(b)(4);

(3) Contain provisions for a fee system that provides for full and timely repayment of the capacity reduction loan by the Longline Subsector and that it provide for the assessment of such fees;

(4) Not require a bidding or auction process;

(5) Result in the maximum sustained reduction in fishing capacity at the least cost and in the minimum amount of time; and

(6) Permit vessels in the Longline Subsector to be upgraded to achieve efficiencies in fishing operations provided that such upgrades do not result in the vessel exceeding the applicable length, tonnage, or horsepower limitations set out in Federal law or regulation.

(l) *Referenda.* The provisions of §600.1010 (including §§600.1004(a), 600.1008, 600.1009, 600.1013, 600.1014, and 600.1017(a)(5), (6) and (7)) shall apply to the Reduction Plan of this section to the extent that they do not conflict with this section or with subpart M of this part.

Appendix to §600.1105—Fishing Capacity Reduction Contract: Bering Sea and Aleutian Islands Longline Catcher Processor Subsector

Fishing Capacity Reduction Contract: Bering Sea and Aleutian Islands Longline Catcher Processor Subsector

This agreement, (the "Reduction Contract") is entered into by and between the party or parties named in section 46 of this contract entitled, "Fishing Capacity Reduction Offer Submission Form and Reduction Fishing Interests Identification," as the qualifying Offeror and as the co-Offeror (if there is a co-Offeror) (collectively the "Offeror") and the United States of America, acting by and through the Secretary of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Financial Services Division ("NMFS"). The Reduction Contract is effective when NMFS signs the Reduction Contract and, thereby, accepts the Offeror's offer, subject to the condition subsequent of NMFS' formal notification of a successful referendum.

Witnesseth

Whereas, Section 219, Title II, Division B of the Consolidated Appropriations Act, 2005, as enacted on December 8, 2004, (the "Act") authorizes a fishing capacity reduction program implementing capacity reduction plans submitted to NMFS by catcher processor subsectors of the Bering Sea and Aleutian Islands ("BSAI") non-pollock groundfish fishery as set forth in the Act;

Whereas, the longline catcher processor subsector (the "Longline Subsector") is among the catcher processor subsectors eligible to submit to NMFS a capacity reduction plan under the terms of the Act;

Whereas, the Freezer Longline Conservation Cooperative (the "FLCC") has developed and is submitting to NMFS concurrently with this Reduction Contract a capacity reduction plan for the Longline Subsector (the "Reduction Plan");

Whereas, the selection process will be pursuant to the fishing capacity Reduction Contract and the Reduction Plan;

Whereas, the term "Reduction Fishery" is defined by the Reduction Plan as the longline catcher processor subsector of the BSAI non-pollock groundfish fishery;

Whereas, the Reduction Plan's express objective is to permanently reduce harvesting capacity in the Reduction Fishery; Whereas, NMFS implements the Reduction Plan pursuant to Section 219 of the Act as well as the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1861a(b)-(e))(as excepted by the Act, including inter alia, any requirement that the Reduction Plan include a bidding or auction process) and other applicable law;

Whereas, NMFS has promulgated framework regulations generally applicable to all fishing capacity reduction programs, portions of which are applicable to the Reduction Plan, (50 CFR 600.1000 et seq.);

Whereas, NMFS can implement the Reduction Plan only after giving notice to all members of the Longline Subsector of the Reduction Plan pursuant to Section 219(3)(b) of the Act and approval of the Reduction Plan by referendum of the Longline Subsector; and

Whereas, this Reduction Contract is submitted by Offeror and the FLCC as an integral element of the Reduction Plan and is expressly subject to the terms and conditions set forth herein, the framework regulations, the final rule (as used in this contract "final rule" means the final rule promulgated by NMFS which sets forth the regulations implementing the Reduction Plan for

the Longline Subsector) and applicable law.

Now therefore, for good and valuable consideration and the premises and covenants hereinafter set forth the receipt and sufficiency of which the parties to the Reduction Contract hereby acknowledge, and intending to be legally bound hereby, the parties hereto agree as follows:

1. *Incorporation of Recitals.* The foregoing recitals are true and correct and are expressly incorporated herein by this reference.
2. *Further Incorporation.* The Act, framework regulations, final rule and any other rule promulgated pursuant to the Act are expressly incorporated herein by this reference. In the event of conflicting language, the framework regulations, the final rule and any other rule promulgated pursuant to the Act, take precedence over the Reduction Contract.
3. *Contract Form.* By completing and submitting the Reduction Contract to NMFS the Offeror hereby irrevocably offers to relinquish its Reduction Fishing Interests. If NMFS discovers any deficiencies in the Offeror's submission to NMFS, NMFS may, at its sole discretion, contact the Offeror in an attempt to correct such offer deficiency. "Reduction Fishing Interests" means all of Offeror(s) rights, title and interest to the Groundfish Reduction Permit, Reduction Permit(s), Reduction Fishing Privilege and Reduction Fishing History as defined in this Reduction Contract.
4. *Groundfish Reduction Permit.* Offeror expressly acknowledges that it hereby offers to permanently surrender, relinquish, and have NMFS permanently revoke the valid non-interim Federal License Limitation Program groundfish license issued pursuant to 50 CFR 679.4(k) (or successor regulation) endorsed for Bering Sea or Aleutian Islands catcher processor fishing activity, C/P, Pacific cod, and hook and line gear identified in section 46 of this contract as well as any present or future claims of eligibility for any fishery privilege based upon such permit, including any Latent License and any offered and accepted interim permit that Offeror causes to become a non-interim permit, (the "Groundfish Reduction Permit").
5. *Reduction Permit(s).* Offeror hereby acknowledges that it offers to permanently surrender, relinquish, and have NMFS permanently revoke any and all Federal fishery licenses, fishery permits, and area and species endorsements issued for any vessel named on the Groundfish Reduction Permit as well as any present or future claims of eligibility for any fishery privilege based upon such permit, including any Latent License, (the "Reduction Permits").
6. *Reduction Privilege Vessel.* The Reduction Privilege Vessel is the vessel listed on the Offeror's License Limitation Program license.
7. *Reduction Fishing Privilege.* If a vessel is specified in section 46 of this contract (the "Reduction Privilege Vessel"), Offeror hereby acknowledges that Offeror offers to relinquish and surrender the Reduction Privilege Vessel's fishing privilege and consents to the imposition of Federal vessel documentation restrictions that have the effect of permanently revoking the Reduction Privilege Vessel's legal ability to fish anywhere in the world as well as its legal ability to operate under foreign registry or control—including the Reduction Privilege Vessel's: fisheries trade endorsement under the Commercial Fishing Industry Vessel Anti-Reflagging Act (46 U.S.C. 12108); eligibility for the approval required under section 9(c)(2) of the Shipping Act, 1916 (46 U.S.C. App. 808(c)(2)), for the placement of a vessel under foreign flag or registry, as well as its operation under the authority of a foreign country; and the privilege otherwise to ever fish again anywhere in the world (the "Reduction Fishing Privilege"). Offeror agrees to instruct the United States Coast Guard's Vessel Documentation Center to remove the fishery endorsement from the Reduction Privilege Vessel. If the Reduction Privilege Vessel is not a federally documented vessel, the Offeror offers to promptly scrap the vessel and allow NMFS whatever access to the scrapping NMFS deems reasonably necessary to document and confirm the scrapping.
8. *Reduction Fishing History.* Offeror surrenders, relinquishes, and consents to NMFS' permanent revocation of the following Reduction Fishing History (the "Reduction Fishing History"):
 - a. The Reduction Privilege Vessel's full and complete documented harvest of groundfish;
 - b. For any documented harvest of the Reduction Privilege Vessel whatsoever, including that specified in section 8 of this contract, any right or privilege to make any claim in any way related to any fishery privilege derived in whole or in part from any such other and documented harvest which could ever qualify any party for any future limited access system fishing license, permit, and other harvest authorization of any kind; including without limitation crab LLP licenses linked to License Limitation Program ("LLP") licenses, state fishing rights appurtenant to Reduction Fishing Vessels, and all fishing history associated therewith, but without prejudice to any party who before submission of this offer may have for value independently acquired the fishing history involving any such documented harvest;
 - c. Any documented harvest on any other vessel (Reduction Fishing Vessel) that gave rise to the Groundfish Reduction Permit; and
 - d. All fishing history associated with the latent LLP license identified on the Selected Offer and any fishing history associated with the fishing vessel that gave rise to the latent LLP license that remains in the Offeror's possession as of August 11, 2006 (i.e., date of publication of the proposed rule in the Federal Register).
9. *Halibut, Sablefish and Crab IFQs Excluded.* Notwithstanding any other provision of this Reduction Contract, no right, title and/or interest to harvest, process or otherwise utilize individual fishing quota ("IFQ") quota share in the halibut, sablefish and crab fisheries pursuant to 50 CFR parts 679 and 680, nor crab LLP license history to the extent necessary for the issuance of crab IFQ pursuant to 50 CFR part 680 as in effect as of the date of this Contract, shall be included among Offeror's Reduction Fishing Interests.
10. *Representations and Warranties.* Offeror represents and warrants that, as of the date of submission of this Reduction Contract, Offeror is:
 - a. The holder of record, according to NMFS' official fishing license records, at the time of offer, of the Groundfish Reduction Permit and the Reduction Permit(s).
 - b. The Reduction Privilege Vessel's owner of record, according to the National Vessel Documentation Center's official vessel documentation records, at the time of offer, and that the Reduction Privilege Vessel is neither lost nor destroyed at the time of offer.
 - c. In retention of and fully and legally entitled to offer and dispose of hereunder, full and complete rights to the Reduction Privilege Vessel's full and complete Reduction Fishing History necessary to fully and completely comply with the requirements of section 8 of this contract.
11. *Offer Amount.* NMFS' payment to Offeror in the exact amount of the amount set forth by Offeror in section 46 of this contract is full and complete consideration for the Offeror's offer.
12. *Additional Offer Elements.* Offeror shall include with its offer an exact photocopy of the Reduction Privilege Vessel's official vessel documentation or registration (i.e., the certificate of documentation the U.S. Coast Guard's National Vessel Documentation Center issued for federally documented vessels or the registration a State issues for State registered vessels) and an exact photocopy of the Groundfish Reduction Permit and all Reduction Permit(s). The Offeror shall also include with the offer all other information required in this Reduction Contract and otherwise comply with Reduction Contract requirements.
13. *Use of Official Fishing License or Permit Databases.* Offeror expressly acknowledges that NMFS shall use the appropriate official governmental fishing license or permit database to:

Determine the Offeror's address of record; verify the Offeror's qualification to offer; determine the holder of record of the Groundfish Reduction Permit and Reduction Permit(s); and verify the Offeror's inclusion in the offer of all permits and licenses required to be offered in the Offer.
14. *Use of National Vessel Documentation Center Database.* Offeror expressly acknowledges that NMFS shall use the records of the National Vessel Documentation Center to determine the owner of record for a federally documented Reduction Privilege Vessel and the appropriate State records to determine the owner of record of a non-federally documented Reduction Privilege Vessel.
15. *Offeror to Ensure Accurate Records.* Offeror shall, to the best of its ability, ensure that the records of the databases relevant to sections 13 and 14 of this contract are true, accurate, and complete.
16. *Submissions are Irrevocable.* The parties hereto expressly acknowledge as the essence hereof that the Offeror voluntarily submits to NMFS this firm and irrevocable offer. The Offeror expressly acknowledges that it hereby waives any privilege or right to withdraw, change, modify, alter, rescind, or cancel any portion of the Reduction Contract and that the receipt date and time which NMFS marks on the Reduction Contract constitutes the date and time of the offer's submission.
17. *Offer Rejection.* NMFS shall reject an offer that NMFS deems is in any way unresponsive or not in conformance with the Reduction Contract, and the applicable law or regulations unless the Offeror corrects the defect and NMFS, in its sole discretion, accepts the correction.
18. *Notarized Offeror Signature(s) Required.* NMFS shall deem as non-responsive and reject an offer whose Offer Submission Form does not contain the notarized signatures of all persons required to sign the form on behalf of the Offeror.
19. *Offer Rejections Constitute Final Agency Action.* NMFS's offer rejections are conclusive and constitute final agency action as of the rejection date.
20. *Effect of Offer Submission.* Submitting an irrevocable offer conforming to the requirements stated herein entitles the Offeror to have NMFS accept the offer if NMFS, in its sole discretion, deems that the offer is fully responsive and complies with the Act, the final rule and any other rule promulgated pursuant to the Act.
21. *Offeror Retains Use.* After submitting an offer, the Offeror shall continue to hold, own, or retain unimpaired every aspect of any and all LLP License(s) and or vessels set forth on an Offer included as Reduction Fishing Interests, until such time as: NMFS notifies the Offeror that the Reduction Plan is not in compliance with the Act or other applicable law and will not be approved by NMFS; notifies the Offeror that the referendum was unsuccessful; NMFS tenders the reduction payment and the Offeror complies with its obligations under the Reduction Contract; or NMFS otherwise excuses the Offeror's performance.
22. *Acceptance by Referendum.* NMFS shall formally notify the Offeror in writing whether the referendum is successful, which written notice shall inform Offeror that the condition subsequent has been satisfied. Therefore, Offeror expressly acknowledges that all parties must perform under the Reduction Contract and the Reduction Contract is enforceable against, and binding on, the Reduction Contract parties in accordance with the terms and conditions herein.
23. *Reduction Contract Subject to Federal Law.* The Reduction Contract is subject to Federal law.

24. *Notice to Creditors.* Upon NMFS' offer acceptance notice to the Offeror, Offeror agrees to notify all parties with secured interests in the Reduction Fishing Interests that the Offeror has entered into the Reduction Contract.

25. *Referendum.* Offeror acknowledges that the outcome of the referendum of the Reduction Plan is an occurrence over which NMFS has no control.

26. *Unsuccessful Referendum Excuses Performance.* An unsuccessful referendum excuses all parties hereto from every obligation to perform under the Reduction Contract. In such event, NMFS need not tender reduction payment and the Offeror need not surrender and relinquish or allow the revocation or restriction of any element of the Reduction Fishing Interest specified in the Reduction Contract. An unsuccessful referendum shall cause the Reduction Contract to have no further force or effect.

27. *Offeror Responsibilities upon Successful Referendum.* Upon NMFS' formal notification to the Offeror that the referendum was successful and that NMFS had accepted the Reduction Contract, Offeror shall immediately become ready to surrender and relinquish and allow the revocation or restriction of (as NMFS deems appropriate) the Reduction Fishing Interests.

28. *Written Payment Instructions.* After a successful referendum, NMFS shall tender reduction payment by requesting the Offeror to provide to NMFS, and the Offeror shall subsequently so provide, written payment instructions for NMFS' disbursement of the reduction payment to the Offeror or to the Offeror's order.

29. *Request for Written Payment Instructions Constitutes Tender.* NMFS' request to the Offeror for written payment instructions constitutes reduction payment tender, as specified in 50 CFR 600.1011.

30. *Offeror Responsibilities upon Tender.* Upon NMFS' reduction payment tender to the Offeror, the Offeror shall immediately surrender and relinquish and allow the revocation or restriction of (as NMFS deems appropriate) the Reduction Fishing Interests. The Offeror must then return the original of its Groundfish Reduction Permit and Reduction Permit(s) to NMFS. Concurrently with NMFS' reduction payment tender, the Offeror shall forever cease all fishing for any species with the Reduction Privilege Vessel and immediately retrieve all fishing gear, irrespective of ownership, previously deployed from the Reduction Privilege Vessel. Offeror agrees to authorize the United States Coast Guard to cancel the fishery endorsement in the Reduction Privilege Vessel.

31. *Reduction Privilege Vessel Lacking Federal Documentation.* Upon NMFS' reduction payment tender to the Offeror, the Offeror shall immediately scrap any vessel which the Offeror specified as a Reduction Privilege Vessel and which is documented solely under state law or otherwise lacks documentation under Federal law. The Offeror shall scrap such vessel at the Offeror's expense. The Offeror shall allow NMFS, its agents, or its appointees reasonable opportunity to observe and confirm such scrapping. The Offeror shall conclude such scrapping within a reasonable time.

32. *Future Harvest Privilege and Reduction Fishing History Extinguished.* Upon NMFS' reduction payment tender to the Offeror, the Offeror shall surrender and relinquish and consent to the revocation, restriction, withdrawal, invalidation, or extinguishment by other means (as NMFS deems appropriate), of any claim in any way related to any fishing privilege derived, in whole or in part, from the use or holdship of the Groundfish Reduction Permits and the Reduction Permit(s), from the use or ownership of the Reduction Privilege Vessel (subject to and in accordance with the provisions of section 8 of this contract), and from any documented harvest fishing history arising under or associated with the same which could ever qualify the Offeror for any future limited access fishing license, fishing permit, and other harvest authorization of any kind.

33. *Post Tender Use of Federally Documented Reduction Privilege Vessel.* After NMFS' reduction payment tender to the Offeror, the Offeror may continue to use a federally documented Reduction Privilege Vessel for any lawful purpose except "fishing" as defined under the Magnuson-Stevens Act and may transfer—subject to all restrictions in the Reduction Contract, other applicable regulations, and the applicable law—the vessel to a new owner. The Offeror or any subsequent owner shall only operate the Reduction Privilege Vessel under the United States flag and shall not operate such vessel under the authority of a foreign country. In the event the Offeror fails to abide by such restrictions, the Offeror expressly acknowledges and hereby agrees to allow NMFS to pursue any and all remedies available to it, including, but not limited to, recovering the reduction payment and seizing the Reduction Privilege Vessel and scrapping it at the Offeror's expense.

34. *NMFS' Actions upon Tender.* Contemporaneously with NMFS' reduction payment tender to the Offeror, and without regard to the Offeror's refusal or failure to perform any of its Reduction Contract duties and obligations, NMFS shall: Permanently revoke the Offeror's Groundfish Reduction Permit and Reduction Permit(s); notify the National Vessel Documentation Center to permanently revoke the Reduction Privilege Vessel's fishery trade endorsement; notify the U.S. Maritime Administration to make the Reduction Privilege Vessel permanently ineligible for the approval of requests to place the vessel under foreign registry or operate the vessel under a foreign country's authority; record in the appropriate NMFS records that the Reduction Fishing History represented by any documented harvest fishing history accrued on, under, or as a result of the operation of the Reduction Privilege Vessel and/or Reduction Fishing Vessel (subject to and in accordance with the provisions of section 8 of this contract), the Groundfish Reduction Permit, and the Reduction Permit(s) which could ever qualify the Offeror for any future limited access fishing license, fishing permit, or other harvesting privilege of any kind shall never again be available to anyone for any fisheries purpose; and implement any other restrictions the applicable law or regulations impose.

35. *Material Disputes to be Identified.* Members of the public shall, up until NMFS receives the Offeror's written payment instructions, be able to advise NMFS in writing of any material dispute with regard to any aspect of any accepted Reduction Contract. Such a material dispute shall neither relieve the Offeror of any Reduction Contract duties or obligations nor affect NMFS' right to enforce performance of the Reduction Contract terms and conditions.

36. *Reduction Payment Disbursement.* Once NMFS receives the Offeror's written payment instructions and certification of compliance with the Reduction Contract, NMFS shall as soon as practicable disburse the reduction payment to the Offeror. Reduction payment disbursement shall be in strict accordance with the Offeror's written payment instructions. Unless the Offeror's written payment instructions direct NMFS to the contrary, NMFS shall disburse the whole of the reduction payment to the Offeror. If the qualifying Offeror offers with a co-Offeror, both the qualifying Offeror and the co-Offeror must approve and sign the written payment instructions.

37. *Reduction Payment Withheld for Scrapping or for Other Reasons.* In the event that a Reduction Privilege Vessel which is not under Federal documentation must be scrapped, NMFS shall withhold from reduction payment disbursement an amount sufficient to scrap such vessel. NMFS shall withhold such sum until the vessel is completely scrapped before disbursing any amount withheld. NMFS may confirm, if NMFS so chooses, that the vessel has been scrapped before disbursing any amount withheld. If NMFS has reason to believe the Offeror has failed to comply with any of the Reduction Contract terms and conditions, NMFS shall also withhold reduction payment disbursement until such time as the Offeror performs in accordance with the Reduction Contract terms and conditions.

38. *Offeror Assistance with Restriction.* The Offeror shall, upon NMFS' request, furnish such additional documents, undertakings, assurances, or take such other actions as may be reasonably required to enable NMFS' revocation, restriction, invalidation, withdrawal, or extinguishment by other means (as NMFS deems appropriate) of all components of the Reduction Contract's Reduction Fishing Interest in accordance with the requirements of the Reduction Contract terms and conditions, applicable regulations and the applicable law.

39. *Recordation of Restrictions.* Upon the Reduction Fishing Privilege's revocation, the Offeror shall do everything reasonably necessary to ensure that such revocation is recorded on the Reduction Privilege Vessel's Federal documentation (which the National Vessel Documentation Center maintains in accordance with Federal maritime law and regulations) in such manner as is acceptable to NMFS and as shall prevent the Reduction Privilege Vessel, regardless of its subsequent ownership, from ever again being eligible for a fishery trade endorsement or ever again fishing. The term "fishing" includes the full range of activities defined in the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1802).

40. *Reduction Element Omission.* In the event NMFS accepts the offer and the Offeror has failed, for any reason, to specify in the Reduction Contract any Groundfish Reduction Permit, non-Groundfish Reduction Permit(s), Reduction Privilege Vessel, Reduction Fishing Vessel, Reduction Fishing History, or any other element of the Reduction Fishing Interest which the Offeror should under Reduction Contract, applicable regulations and the applicable law have specified in Reduction Contract, such omitted element shall nevertheless be deemed to be included in the Reduction Contract and to be subject to the Reduction Contract's terms and conditions; and all Reduction Contract terms and conditions which should have applied to such omitted element had it not be omitted shall apply as if such element had not been omitted. Upon the Offeror discovering any such omission, the Offeror shall immediately and fully advise NMFS of such omission. Upon either NMFS or the Offeror discovering any such omission, the Offeror shall act in accordance with the Reduction Contract, applicable regulations and the applicable law.

41. *Remedy for Breach.* Because money damages are not a sufficient remedy for the Offeror breaching any one or more of the Reduction Contract terms and conditions, the Offeror explicitly agrees to and hereby authorizes specific performance of the Reduction Contract, in addition to any money damages, as a remedy for such breach. In the event of such breach, NMFS shall take any reasonable action, including requiring and enforcing specific performance of the Reduction Contract, NMFS deems necessary to carry out the Reduction Contract, applicable regulations and the applicable law.

42. *Waiver of Data Confidentiality.* The Offeror consents to the public release of any information provided in connection with the Reduction Contract or pursuant to Reduction Plan requirements, including any information provided in the Reduction Contract or by any other means associated with, or necessary for evaluation of, the Offeror's Reduction Contract if NMFS finds that the release of such information is necessary to achieve the Reduction Plan's authorized purpose. The Offeror hereby explicitly waives any claim of confidentiality otherwise afforded to catch, or harvest data and fishing histories otherwise protected from release under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1881 a(b)) or any other law. In the event of such information release, the Offeror hereby forever fully and unconditionally releases and holds harmless the United States and its officers, agents, employees, representatives, of and from any and all claims, demands, debts, damages, duties, causes of action, actions and suits whatsoever, in law or equity, on account of any act, failure to act or event arising from, out of, or in any way related to, the release of any information associated with the Reduction Program.

43. *Oral Agreement Invalid.* The Reduction Contract, any addendums to section 46 of this contract, and enclosures of photocopies of licenses and permits required under section 46 of this contract, contain the final terms and conditions of the agreement between the Offeror and NMFS and represent the entire and exclusive agreement between them. NMFS and the Offeror forever waive all right to sue, or otherwise counterclaim against each other, based on any claim of past, present, or future oral agreement between them.

44. *Severable Provisions.* The Reduction Contract provisions are severable; and, in the event that any portion of the Reduction Contract is held to be void, invalid, non-binding, or otherwise unenforceable, the remaining portion thereof shall remain fully valid, binding, and enforceable against the Offeror and NMFS.

45. *Disputes.* Any and all disputes involving the Reduction Contract, and any other Reduction Plan aspect affecting them shall in all respects be governed by the Federal laws of the United States; and the Offeror and all other parties claiming under the Offeror irrevocably submit themselves to the jurisdiction of the Federal courts of the United States and/or to any other Federal administrative body which the applicable law authorizes to adjudicate such disputes.

46. Fishing Capacity Reduction Offer Submission Form and Reduction Fishing Interests Identification.

a. *Completion and Submission.* The Offeror must fully, faithfully, and accurately complete this section 46 of this contract and thereafter submit the full and complete Reduction Contract to NMFS in accordance with the Reduction Contract. If completing this section requires inserting more information than the places provided for the insertion of such information allows, the Offeror should attach an addendum to the Reduction Contract that: Includes and identifies the additional information, states that the addendum is a part of the Reduction Fishing Interests Identification portion of the Reduction Contract, states (as a means of identifying the Reduction Contract to which the addendum relates) the NMFS license number designated on the Reduction Contract's Groundfish Reduction Permit, and is signed by all persons who signed the Reduction Contract as the Offeror.

b. *Offeror Information.*

(1) *Offeror name(s).* Insert in the table provided under this section 46.b(1) of this contract the name(s) of the qualifying Offeror and of the co-Offeror (if there is a co-Offeror), and check the appropriate box for each name listed.

Each name the Offeror inserts must be the full and exact legal name of record of each person, partnership, corporation or other business entity identified on the offer. If any Reduction Fishing Interest element is co-owned by more than one person, partnership, corporation or other business entity, the Offeror must insert each co-owner's name.

In each case, the Offeror is the holder of record, at the time of Offeror's execution of this Reduction Contract, of the Groundfish Reduction Permit and the Reduction Permit(s). A co-Offeror is not allowed for either the Groundfish Reduction Permit or the Reduction Permit(s). If the Offeror is also the owner of record, at the time of offering, of the Reduction Privilege Vessel, the qualifying Offeror is the sole Offeror. If, however, the owner of record, at the time of execution of this Reduction Contract, of the Reduction Privilege Vessel is not exactly the same as the Offeror, then the owner of record is the co-Offeror; and the Offeror and the co-Offeror jointly offer together as the Offeror.

OFFEROR NAME(S) If Offeror or co-Offeror consists of more than one owner, use one row of this column to name each co-Offeror. If not, use only one row for Offeror and one row for any co-Offeror	Check appropriate box for each name listed in the adjacent column	
	Offeror	Co-Offeror (if any)
(1)		
(2)		
(3)		
(4)		
(5)		

(2) *Offeror address(s) of record.* Insert in the table provided under this section 46.b(2) of this contract the Offeror's and the co-Offeror's (if there is a co-Offeror) full and exact address(s) of record, and check the appropriate box for each address listed.

OFFEROR ADDRESS(S) If Offeror or co-Offeror consists of more than one owner, use one row of this column for address of each co-owner. If not, use only one row for Offeror and one row for any co-Offeror. Always use the same row order as is Offeror Name(s) table in section 46.b(1), i.e., address (1) is for name (1), address (2) is for name (2), address (3) is for name (3), etc.	Check appropriate box for each address listed in the adjacent column	
	Offeror	Co-Offeror (if any)
(1)		
(2)		
(3)		
(4)		
(5)		

(3) *Offeror business telephone number(s).* Insert in the table provided under this section 46.b(3) the Offeror's and the co-Offeror's (if there is a co-Offeror) full and exact business telephone number(s), and check the appropriate box for each number listed.

OFFEROR BUSINESS TELEPHONE NUMBER(S) If Offeror or co-Offeror consists of more than one owner, use one row of this column for the telephone number of each co-owner. If not, use only one row for Offeror and one row for any co-Offeror. Always use the same row order as is Offeror Name(s) table in section 46.b(1), i.e., telephone number (1) is for name (1), telephone number (2) is for name (2), telephone number (3) is for name (3), etc.	Check appropriate box for each telephone number listed in the adjacent column	
	Offeror	Co-Offeror (if any)
(1)		
(2)		
(3)		
(4)		
(5)		

(4) *Offeror electronic mail address(s) (if available).* Insert in the table printed under this section 46.b(4) the Offeror's and the co-Offeror's (if there is a co-Offeror) full and exact electronic mail (e-mail) address(s), and check the appropriate box for each address.

OFFEROR E-MAIL ADDRESS(S) If Offeror or co-Offeror consists of more than one owner, use one row of this column for the e-mail address of each co-owner. If not, use only one row for Offeror and one row for any co-Offeror. Always use the same row order as is Offeror Name in section 46.b(1) of this contract, i.e., e-mail (1) is for name (1), e-mail (2) is for name (2), e-mail (3) is for name (3), etc	Check appropriate box for each e-mail address listed in the adjacent column	
	Offeror	Co-Offeror (if any)
(1)		
(2)		
(3)		
(4)		
(5)		

c. *LLP license number for Groundfish Reduction Permit.* Insert in the place this section 46.c provides the full and exact license number which NMFS designated on the LLP license which the Offeror specifies as the Groundfish Reduction Permit. Attach with the Reduction Contract an exact photocopy of such license.

LLP LICENSE NUMBER(S) AND FISHERY(S) OF OF LLP LICENSE(S) SPECIFIED AS GROUND FISH REDUCTION PERMIT(S)	
License number(s)	Fishery(s)
(1)	
(2)	
(3)	
(4)	
(5)	

d. *License number(s) for Reduction Permit(s).* Insert in the place this section 46.d provides the fishery(s) involved in, and the full and exact license number(s) with NMFS designated on the license(s) which the Offeror specifies in the Reduction Contract as the Reduction Permit(s). Enclose with the Reduction Contract an exact photocopy of each such license.

LLP LICENSE NUMBER(S) AND FISHERY OF LICENSE(S) SPECIFIED AS REDUCTION PERMITS	
License number(s)	Fishery(s)
(1)	
(2)	
(3)	
(4)	
(5)	

e. *Reduction Fishing History.* For all Reduction Fishing History insert in the place provided in the table under this section 46.e the chronological and other information with each column heading therein requires. The information required does not include any actual landing data. Any Offeror whose Groundfish Reduction Permit whose issuance NMFS based on the fishing history of a lost or destroyed vessel plus a replacement vessel must insert information for both vessels and meet the requirements of the framework regulations, final rule and any other regulations promulgated pursuant to the Act. Any Offeror whose Groundfish Reduction Permit whose issuance NMFS in any part based on acquisition of fishing history from another party must insert information regarding such catch history.

NAMES(S) AND OFFICIAL NUMBER OF REDUCTION PRIVILEGE VESSEL AND NAME(S) AND OFFICIAL NUMBER(S) OF ANY VESSEL FROM WHICH FISHING HISTORY WAS ACQUIRED	FOR EACH REDUCTION PRIVILEGE VESSEL IN 1ST COLUMN PROVIDE FROM TO DATE OF EACH FISHING HISTORY OFFEROR POSSESSES	FOR EACH FISHING HISTORY IN 2ND COLUMN	
		License No. of each Groundfish Reduction Permit and Reduction Permit(s) associated with each vessel involved	If Reduction Privilege Vessel acquired fishing history from another party, provide name of party, manner in which acquired, and date acquired
(1)			
(2)			
(3)			
(4)			
(5)			

f. *Reduction Privilege Vessel.* Insert the full and exact name and official number which the National Vessel Documentation Center designated for the Reduction Privilege Vessel which the Offeror or the co-Offeror (if there is a co-Offeror) specifies in the Reduction Contract, and check the box appropriate for the vessel's ownership of record.

Enclose with the Reduction Contract an exact photocopy of such vessel's official certificate of documentation.

REDUCTION PRIVILEGE VESSEL		Check appropriate ownership box below	
Official name	Official No.	Offeror	Co-Offeror (if any)

g. *Offer Amount.* Insert in the place this section 46.g provides the Offeror's full and exact offer amount, both in words and in numbers.

OFFER AMOUNT [U.S. DOLLARS]	
In words	In numbers

h. *Reduction Contract Signature.* In compliance with the Reduction Contract, applicable regulations and the applicable law, the Offeror submits the Reduction Contract as the Offeror's irrevocable offer to NMFS for the permanent surrender and relinquishment and revocation, restriction, withdrawal, invalidation, or extinguishment by other means (as NMFS deems appropriate) of the Groundfish Reduction Permit, any Reduction Permit(s), the Reduction Fishing Privilege, and the Reduction Fishing History—all as identified in the Reduction Contract or as required under applicable regulations, or the applicable law.

The Offeror expressly acknowledges that NMFS' acceptance of the Offeror's offer hereunder and NMFS' tender, following a successful referendum, of a reduction payment in the same amount specified in section 46.g of this contract (less any sum withheld for scrapping any Reduction Privilege Vessel lacking Federal documentation or for any other purpose) to the Offeror shall, among other things, render the Reduction Privilege Vessel permanently ineligible or any fishing worldwide, including, but not limited to, fishing on the high seas or in the jurisdiction of any foreign country while operating under United States flag, and shall impose or create other legal and contractual restrictions, impediments, limitations, obligations, or other provisions which restrict, revoke, withdraw, invalidate, or extinguish by other means (as NMFS deems appropriate) the complete Reduction Fishing Interest and any other fishery privileges or claims associated with the Groundfish Reduction Permit, any Reduction Permit(s), the Reduction Privilege Vessel, and the Reduction Fishing History—all as more fully set forth in the Reduction Contract, applicable regulations, and the applicable law.

By completing and signing the Reduction Contract, the Offeror expressly acknowledges that the Offeror has fully and completely read the entire Reduction Contract. The Offeror expressly states, declares, affirms, attests, warrants, and represents to NMFS that the Offeror is fully able to enter into the Reduction Contract and that the Offeror legally holds, owns, or retains, and is fully able under the Reduction Contract provisions to offer and dispose of, the full Reduction Fishing Interest which the Reduction Contract specifies and the applicable regulations, and the

applicable law requires that any person or entity completing the Reduction Contract and/or signing the Reduction Contract on behalf of another person or entity, expressly attests, warrants, and represents to NMFS that such completing and/or signing person or entity has the express and written permission or other grant of authority to bind such other person or entity to the Reduction Contract's terms and conditions. The Offeror expressly attests, warrants, and represents to NMFS that every co-owner of the Offeror necessary to constitute the Offeror's full and complete execution of the Reduction Contract has signed the Reduction Contract. The Offeror expressly attests, warrants, and represents to NMFS that the Offeror: Fully understands the consequences of submitting the completed Reduction Contract of which it is a party to NMFS; pledges to abide by the terms and conditions of the Reduction Contract; and is aware of, understands, and consents to, any and all remedies available to NMFS for the Offeror's breach of the Reduction Contract or submission of an offer which fails to conform with the Reduction Contract, final rule, applicable regulations and the applicable law. The Offeror expressly attests, warrants, and represents to NMFS that all information which the Offeror inserted in the Reduction Contract is true, accurate, complete, and fully in accordance with the Reduction Contract, final rule, other applicable regulations and the applicable law.

In witness whereof, the Offeror has, in the place provided below, executed the Reduction Contract either as an Offeror offering alone or as an Offeror and co-Offeror (if there is a co-Offeror) jointly offering together, in accordance with the requirements specified above, and on the date written below. The Reduction Contract is effective as of the date NMFS accepts the Offeror's offer by signing the Reduction Contract.

The Offeror and co-Offeror (if there is a co-Offeror) must each sign the Reduction Contract exactly as instructed herein. Each co-owner (if there is a co-owner) of each Offeror and co-Offeror (if there is a co-Offeror) must also sign the Reduction Contract exactly as instructed herein. A notary public must, for each person or entity signing on behalf of the Offeror, complete and sign the acknowledgment and certification provision associated with each such person or entity's signature.

I. Offeror and co-Offeror's (if there is a co-Offeror) signature(s) and notary's acknowledgment(s) and certification(s) .

OFFEROR'S SIGNATURE AND NOTARY'S ACKNOWLEDGMENT AND CERTIFICATION			
If Offeror or co-Offeror consists of more than one owner, use one row of column 1 for each co-owner's signature. If not, use only one row for Offeror and one row for co-Offeror (if any). Always use same Offeror row order as in Offeror Name in the table under section 46.b(1) of this contract (i.e., signature (1) is for name (1), signature (2) is for name (2) signature (3) is for name (3), etc.)			
OFFEROR SIGNATURE (1) Sign. (2) Print: the following: (a) signer's name, (b) signer's title (if signing for corporation or other business entity), and (c) signing date	Check appropriate column for each signature in 1st column		NOTARY SIGNATURE (1) Sign. (2) Print: the following: (a) name, (b) signing date, (3) date commission expires, and (4) State and county. Each notary signature attests to the following: "I certify that I know or have satisfactory evidence that the person who signed in the 1st column of this same row is the person who appeared before me and: (1) acknowledged his/her signature; (2) on oath, stated that he/she was authorized to sign; and (3) acknowledged that he/she did so freely and voluntarily."
	Qualifying Offeror	Co-Offeror (if any)	
(1)			
(2)			
(3)			

II. *United States of America's signature.* United States of America, Acting by and through the Secretary of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Financial Services Division.

Dated: _____
By: _____
Leo C. Erwin, Chief,

Financial Services Division, National Marine Fisheries Service.

[71 FR 57701, Sept. 29, 2006]

§ 600.1106 Longline catcher processor subsector Bering Sea and Aleutian Islands (BSAI) non-pollock groundfish species fee payment and collection system.

(a) *Purpose.* As authorized by Public Law 108 447, this section's purpose is to:

- (1) In accordance with §600.1012, establish:
 - (i) The borrower's obligation to repay a reduction loan, and
 - (ii) The loan's principal amount, interest rate, and repayment term; and
- (2) In accordance with §§600.1013 through 600.1016, implement an industry fee system for the reduction fishery.

(b) *Definitions.* Unless otherwise defined in this section, the terms defined in §600.1000 and §600.1105 expressly apply to this section. In addition, the following definition applies to this section:

Reduction fishery means the longline catcher processor subsector of the BSAI non-pollock groundfish fishery that §679.2 of this chapter defined as groundfish area/species endorsements.

- (c) *Reduction loan amount.* The reduction loan's original principal amount is \$35,000,000.
- (d) *Interest accrual from inception.* Interest began accruing on the reduction loan from May 29, 2007, the date on which NMFS disbursed such loan.
- (e) *Interest rate.* The reduction loan's interest rate shall be the applicable rate which the U.S. Treasury determines at the end of fiscal year 2007 plus 2 percent.
- (f) *Repayment term.* For the purpose of determining fee rates, the reduction loan's repayment term is 30 years from May 29, 2007, but fees shall continue indefinitely for as long as necessary to fully repay the loan.
- (g) *Reduction loan repayment.* (1) The borrower shall, in accordance with §600.1012, repay the reduction loan;
- (2) For the purpose of the fee collection, deposit, disbursement, and accounting requirements of this subpart, subsector members are deemed to be both the fish buyer and fish seller. In this case, all requirements and penalties of §600.1013 that are applicable to both a fish seller and a fish buyer shall equally apply to parties performing both functions;
- (3) Subsector members in the reduction fishery shall pay and collect the fee amount in accordance with §600.1105;
- (4) Subsector members in the reduction fishery shall, in accordance with §600.1014, deposit and disburse, as well as keep records for and submit reports about, the fees applicable to such fishery; except the requirements specified under paragraph (c) of this section concerning the deposit principal disbursement shall be made to NMFS no later than fifteen (15) calendar days following the end of each calendar month; and the requirements specified under paragraph (e) of this section concerning annual reports which shall be submitted to NMFS by February 1 of each calendar year; and
- (5) The reduction loan is, in all other respects, subject to the provisions of §§600.1012 through 600.1017.

[72 FR 54222, Sept. 24, 2007]

Subpart N—Shark Finning

Source: 67 FR 6200, Feb. 11, 2002, unless otherwise noted. Redesignated at 69 FR 53361, Sept. 1, 2004.

§ 600.1200 Purpose and scope.

The regulations in this subpart govern "shark finning" (the removal of shark fins and discarding of the carcass), the possession of shark fins, and the landing into U.S. ports of shark fins without corresponding carcasses under the authority of the Magnuson-Stevens Act. They implement the Shark Finning Prohibition Act of 2000.

§ 600.1201 Relation to other laws.

- (a) The relation of this subpart to other laws is set forth in §§600.514 and 600.705 and in paragraphs (b) and (c) of this section.

(b) Regulations pertaining to shark conservation and management for certain shark fisheries are also set forth in this subpart and in parts 635 (for Federal Atlantic Ocean, Gulf of Mexico, and Caribbean shark fisheries), 648 (for spiny dogfish fisheries), and 660 (for fisheries off West Coast states and in the western Pacific) of this chapter governing those fisheries.

(c) Nothing in this regulation supercedes more restrictive state laws or regulations regarding shark finning in state waters.

(d) A person who owns or operates a vessel that has been issued an Atlantic Federal commercial shark limited access permit or a spiny dogfish permit is subject to the reporting and recordkeeping requirements found at parts 635 and 648 of this chapter, respectively.

§ 600.1202 Definitions.

(a) In addition to the definitions in the Magnuson-Stevens Act and in §600.10, the terms used in this subpart have the following meanings:

Land or landing means offloading fish, or causing fish to be offloaded, from a fishing vessel, either to another vessel or to a shoreside location or facility, or arriving in port, or at a dock, berth, beach, seawall, or ramp to begin offloading fish.

Shark finning means taking a shark, removing a fin or fins (whether or not including the tail), and returning the remainder of the shark to the sea.

(b) If there is any difference between a definition in this section and in §600.10, the definition in this section is the operative definition for the purposes of this subpart.

§ 600.1203 Prohibitions.

(a) In addition to the prohibitions in §§600.505 and 600.725, it is unlawful for any person to do, or attempt to do, any of the following:

(1) Engage in shark finning, as provided in §600.1204(a) and (i).

(2) Possess shark fins without the corresponding carcasses while on board a U.S. fishing vessel, as provided in §600.1204(b) and (j).

(3) Land shark fins without the corresponding carcasses, as provided in §600.1204(c) and (k).

(4) Fail to have all shark fins and carcasses from a U.S. or foreign fishing vessel landed at one time and weighed at the time of the landing, as provided in §600.1204(d).

(5) Possess, purchase, offer to sell, or sell shark fins taken, landed, or possessed in violation of this section, as provided in §600.1204(e) and (l).

(6) When requested, fail to allow an authorized officer or any employee of NMFS designated by a Regional Administrator access to and/or inspection or copying of any records pertaining to the landing, sale, purchase, or other disposition of shark fins and/or shark carcasses, as provided in §600.1204(f).

(7) Fail to have shark fins and carcasses recorded as specified in §635.30(c)(3) of this chapter.

(8) Fail to have all shark carcasses and fins landed and weighed at the same time if landed in an Atlantic coastal port, and to have all weights recorded on the weighout slips specified in §635.5(a)(2) of this chapter.

(9) Fail to maintain a shark in the form specified in §§600.1204(h) and 635.30(c) of this chapter.

(b)(1) For purposes of this section, it is a rebuttable presumption that shark fins landed by a U.S. or foreign fishing vessel were taken, held, or landed in violation of this section if the total weight of the shark fins landed exceeds 5 percent of the total dressed weight of shark carcasses on board or landed from the fishing vessel.

(2) For purposes of this section, it is a rebuttable presumption that shark fins possessed by a U.S. fishing vessel were taken and held in violation of this section if the total weight of the shark fins on board, or landed, exceeds 5 percent of the total dressed weight of shark carcasses on board or landed from the fishing vessel.

[67 FR 6200, Feb. 11, 2002. Redesignated at 69 FR 53361, Sept. 1, 2004, as amended at 73 FR 40707, July 15, 2008]

§ 600.1204 Shark finning; possession at sea and landing of shark fins.

(a)(1) No person aboard a U.S. fishing vessel shall engage in shark finning in waters seaward of the inner boundary of the U.S. EEZ.

(2) No person aboard a foreign fishing vessel shall engage in shark finning in waters shoreward of the outer boundary of the U.S. EEZ.

(b) No person aboard a U.S. fishing vessel shall possess on board shark fins harvested seaward of the inner boundary of the U.S. EEZ without the corresponding carcass(es), as may be determined by the weight of the shark fins in accordance with §600.1203(b)(2), except that sharks may be dressed at sea.

(c) No person aboard a U.S. or foreign fishing vessel (including any cargo vessel that received shark fins from a fishing vessel at sea) shall land shark fins harvested in waters seaward of the inner boundary of the U.S. EEZ without corresponding shark carcasses, as may be determined by the weight of the shark fins in accordance with §600.1203(b)(1).

(d) Except as provided in paragraphs (g) and (h) of this section, a person who operates a U.S. or foreign fishing vessel and who lands shark fins harvested in waters seaward of the inner boundary of the U.S. EEZ shall land all fins and corresponding carcasses from the vessel at the same point of landing and shall have all fins and carcasses weighed at that time.

(e) A person may not purchase, offer to sell, or sell shark fins taken, landed, or possessed in violation of this section.

(f) Upon request, a person who owns or operates a vessel or a dealer shall allow an authorized officer or any employee of NMFS designated by a Regional Administrator access to, and/or inspection or copying of, any records pertaining to the landing, sale, purchase, or other disposition of shark fins and/or shark carcasses.

(g) A person who owns or operates a vessel that has been issued a Federal Atlantic commercial shark limited access permit and who lands shark in an Atlantic coastal port must have all fins weighed in conjunction with the weighing of the carcasses at the vessel's first point of landing. Such weights must be recorded on the "weighout slips" specified in §635.5(a)(2) of this chapter.

(h) A person who owns or operates a vessel that has been issued a Federal Atlantic commercial shark limited access permit and who lands shark in or from the U.S. EEZ in an Atlantic coastal port must comply with regulations found at §635.30(c) of this chapter.

(i) No person aboard a vessel that has been issued a Federal Atlantic commercial shark limited access permit shall engage in shark finning.

(j) No person aboard a vessel that has been issued a Federal Atlantic commercial shark limited access permit shall possess on board shark fins without the fins being naturally attached to the corresponding carcass(es), although sharks may be dressed at sea.

(k) No person aboard a vessel that has been issued a Federal Atlantic commercial shark limited access permit shall land shark fins without the corresponding carcass(es).

(l) A dealer may not purchase from an owner or operator of a fishing vessel issued a Federal Atlantic commercial shark limited access permit who lands shark in an Atlantic coastal port fins whose wet weight exceeds 5 percent of the dressed weight of the carcasses.

[67 FR 6200, Feb. 11, 2002. Redesignated at 69 FR 53361, Sept. 1, 2004, as amended at 73 FR 40707, July 15, 2008]

Fishery Conservation and Management

§ 635.8

a longline or gillnet used by the vessel. The vessel's name or number must be at least 1 inch (2.5 cm) in height in block letters or arabic numerals in a color that contrasts with the background color of the float or high-flyer.

(2) An unmarked handline, buoy gear, harpoon, longline, or gillnet, is illegal and may be disposed of in an appropriate manner by NMFS or an authorized officer.

[64 FR 29135, May 28, 1999, as amended at 66 FR 42804, Aug. 15, 2001; 67 FR 77437, Dec. 18, 2002; 71 FR 58166, Oct. 2, 2006]

§ 635.7 At-sea observer coverage.

(a) *Applicability.* NMFS may select for at-sea observer coverage any vessel that has an Atlantic HMS, tunas, shark or swordfish permit issued under § 635.4 or § 635.32. Vessels permitted in the HMS Charter/Headboat and Angling categories will be requested to take observers on a voluntary basis. When selected, vessels issued any other permit under § 635.4 or § 635.32 are required to take observers on a mandatory basis.

(b) *Selection of vessels.* NMFS will notify a vessel owner, in writing, when his or her vessel is selected for observer coverage. Vessels will be selected to provide information on catch, bycatch and other fishery data according to the need for representative samples.

(c) *Notification of trips.* The owner or operator of a vessel that is selected under paragraph (b) of this section must notify NMFS, at an address designated by NMFS, before commencing any fishing trip that may result in the incidental catch or harvest of Atlantic HMS. Notification procedures and information requirements such as expected gear deployment, trip duration and fishing area will be specified in a selection letter sent by NMFS.

(d) *Assignment of observers.* Once notified of a trip, NMFS will assign an observer for that trip based on current information needs relative to the expected catch and bycatch likely to be associated with the indicated gear deployment, trip duration and fishing area. If an observer is not assigned for a fishing trip, NMFS will issue a waiver for that trip to the owner or operator of the selected vessel, so long as the waiver is consistent with other applicable laws. If an observer is assigned

for a trip, the operator of the selected vessel must arrange to embark the observer and shall not fish for or retain any Atlantic HMS unless the NMFS-assigned observer is aboard.

(e) *Requirements.* The owner or operator of a vessel on which a NMFS-approved observer is embarked, regardless of whether required to carry the observer, must comply with §§ 600.725 and 600.746 of this chapter and—

(1) Provide accommodations and food that are equivalent to those provided to the crew.

(2) Allow the observer access to and use of the vessel's communications equipment and personnel upon request for the transmission and receipt of messages related to the observer's duties.

(3) Allow the observer access to and use of the vessel's navigation equipment and personnel upon request to determine the vessel's position.

(4) Allow the observer free and unobstructed access to the vessel's bridge, working decks, holding bins, weight scales, holds, and any other space used to hold, process, weigh, or store fish.

(5) Allow the observer to inspect and copy the vessel's log, communications logs, and any records associated with the catch and distribution of fish for that trip.

[64 FR 29135, May 28, 1999, as amended at 64 FR 37704, July 13, 1999; 66 FR 17372, Mar. 30, 2001; 68 FR 63741, Nov. 10, 2003]

§ 635.8 Workshops.

(a) *Protected species release, disentanglement, and identification workshops.* (1) Both the owner and operator of a vessel that fishes with longline or gillnet gear must be certified by NMFS, or its designee, as having completed a workshop on the safe handling, release, and identification of protected species before a shark or swordfish limited access vessel permit, pursuant to § 635.4(e) and (f), is renewed in 2007. For the purposes of this section, it is a rebuttable presumption that a vessel fishes with longline or gillnet gear if: longline or gillnet gear is onboard the vessel; logbook reports indicate that longline or gillnet gear was used on at least one trip in the preceding year; or, in the case of a permit transfer to new owners that occurred less than a year

Public Law 104-297 104th Congress
An Act

To amend the Magnuson Fishery Conservation and Management Act to authorize appropriations, to provide for sustainable fisheries, and for other purposes.
Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Oct. 11, 1996
[S. 39]

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the “Sustainable Fisheries Act”.

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sustainable
Fisheries Act,
16 USC 1801
note.

Sec. 1. Short title; table of contents.

Sec. 2. Amendment of Magnuson Fishery Conservation and Management Act.

TITLE I—CONSERVATION AND MANAGEMENT

Sec. 101. Findings; purposes; policy.

Sec. 102. Definitions.

Sec. 103. Authorization of appropriations.

Sec. 104. Highly migratory species.

Sec. 105. Foreign fishing and international fishery agreements.

Sec. 106. National standards.

Sec. 107. Regional fishery management councils.

Sec. 108. Fishery management plans.

Sec. 109. Action by the Secretary.

Sec. 110. Other requirements and authority.

Sec. 111. Pacific community fisheries.

Sec. 112. State jurisdiction.

Sec. 113. Prohibited acts.

Sec. 114. Civil penalties and permit sanctions; rebuttable presumptions.

Sec. 115. Enforcement.

Sec. 116. Transition to sustainable fisheries.

Sec. 117. North Pacific and northwest Atlantic Ocean fisheries.

TITLE II—FISHERY MONITORING AND RESEARCH

Sec. 201. Change of title.

Sec. 202. Registration and information management.

Sec. 203. Information collection.

Sec. 204. Observers.

Sec. 205. Fisheries research.

Sec. 206. Incidental harvest research.

Sec. 207. Miscellaneous research.

Sec. 208. Study of contribution of bycatch to charitable organizations.

Sec. 209. Study of identification methods for harvest stocks.

Sec. 210. Review of Northeast fishery stock assessments.

Sec. 211. Clerical amendments.

TITLE III—FISHERIES FINANCING

Sec. 301. Short title.

Sec. 302. Individual fishing quota loans.

Sec. 303. Fisheries financing and capacity reduction.

TITLE IV—MARINE FISHERY STATUTE REAUTHORIZATIONS

Sec. 401. Marine fish program authorization of appropriations.

Sec. 402. Interjurisdictional Fisheries Act amendments.

Sec. 403. Anadromous fisheries amendments.

Sec. 404. Atlantic coastal fisheries amendments.

Sec. 405. Technical amendments to maritime boundary agreement.

Sec. 406. Amendments to the Fisheries Act.

SEC. 2. AMENDMENT OF MAGNUSON FISHERY CONSERVATION AND MANAGEMENT ACT.

Except as otherwise expressly provided, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).

TITLE I—CONSERVATION AND MANAGEMENT

SEC. 101. FINDINGS; PURPOSES; POLICY.

Section 2 (16 U.S.C. 1801) is amended—

(1) by striking subsection (a)(2) and inserting the following:

“(2) Certain stocks of fish have declined to the point where their survival is threatened, and other stocks of fish have been so substantially reduced in number that they could become similarly threatened as a consequence of (A) increased fishing pressure, (B) the inadequacy of fishery resource conservation and management practices and controls, or (C) direct and indirect habitat losses which have resulted in a diminished capacity to support existing fishing levels.”;

(2) by inserting “to facilitate long-term protection of essential fish habitats,” in subsection (a)(6) after “conservation,”;

(3) by adding at the end of subsection (a) the following:

“(9) One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.

“(10) Pacific Insular Areas contain unique historical, cultural, legal, political, and geographical circumstances which make fisheries resources important in sustaining their economic growth.”;

(4) by striking “principles;” in subsection (b)(3) and inserting “principles, including the promotion of catch and release programs in recreational fishing;”;

(5) by striking “and” after the semicolon at the end of subsection (b)(5);

(6) by striking “development.” in subsection (b)(6) and inserting “development in a non-wasteful manner; and”;

(7) by adding at the end of subsection (b) the following:

“(7) to promote the protection of essential fish habitat in the review of projects conducted under Federal permits, licenses, or other authorities that affect or have the potential to affect such habitat.”;

(8) in subsection (c)(3)—

(A) by striking “promotes” and inserting “considers”; and

(B) by inserting “minimize bycatch and” after “practical measures that”;

(9) striking “and” at the end of paragraph (c)(5);

(10) striking the period at the end of paragraph (c)(6) and inserting “; and”; and

(11) adding at the end of subsection (c) a new paragraph as follows:

“(7) to ensure that the fishery resources adjacent to a Pacific Insular Area, including resident or migratory stocks within the exclusive economic zone adjacent to such areas, be explored, developed, conserved, and managed for the benefit of the people of such area and of the United States.”.

SEC. 102. DEFINITIONS.

Section 3 (16 U.S.C. 1802) is amended—

(1) by redesignating paragraphs (2) through (32) as paragraphs (5) through (35) respectively, and inserting after paragraph (1) the following:

“(2) The term ‘bycatch’ means fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch and release fishery management program.

“(3) The term ‘charter fishing’ means fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of title 46, United States Code) who is engaged in recreational fishing.

“(4) The term ‘commercial fishing’ means fishing in which the fish harvested, either in whole or in part, are intended to enter commerce or enter commerce through sale, barter or trade.”;

(2) in paragraph (7) (as redesignated)—

(A) by striking “COELENTERATA” from the heading of the list of corals and inserting “CNIDARIA”; and

(B) in the list appearing under the heading “CRUSTACEA”, by striking “Deep-sea Red Crab—Geryon quinquedens” and inserting “Deep-sea Red Crab—Chaceon quinquedens”;

(3) by redesignating paragraphs (9) through (35) (as redesignated) as paragraphs (11) through (37), respectively, and inserting after paragraph (8) (as redesignated) the following:

“(9) The term ‘economic discards’ means fish which are the target of a fishery, but which are not retained because they are of an undesirable size, sex, or quality, or for other economic reasons.

“(10) The term ‘essential fish habitat’ means those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.”;

(4) by redesignating paragraphs (16) through (37) (as redesignated) as paragraphs (17) through (38), respectively, and inserting after paragraph (15) (as redesignated) the following:

“(16) The term ‘fishing community’ means a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.”;

(5) by redesignating paragraphs (21) through (38) (as redesignated) as paragraphs (22) through (39), respectively, and inserting after paragraph (20) (as redesignated) the following:

“(21) The term ‘individual fishing quota’ means a Federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person. Such term does not include community development quotas as described in section 305(i).”;

(6) by striking “of one and one-half miles” in paragraph (23) (as redesignated) and inserting “of two and one-half kilometers”;

(7) by striking paragraph (28) (as redesignated), and inserting the following:

“(28) The term ‘optimum’, with respect to the yield from a fishery, means the amount of fish which—

“(A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;

“(B) is prescribed on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant social, economic, or ecological factor; and

“(C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.”;

(8) by redesignating paragraphs (29) through (39) (as redesignated) as paragraphs (31) through (41), respectively, and inserting after paragraph (28) (as redesignated) the following:

“(29) The terms ‘overfishing’ and ‘overfished’ mean a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.

“(30) The term ‘Pacific Insular Area’ means American Samoa, Guam, the Northern Mariana Islands, Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Island, Wake Island, or Palmyra Atoll, as applicable, and includes all islands and reefs appurtenant to such island, reef, or atoll.”;

(9) by redesignating paragraphs (32) through (41) (as redesignated) as paragraphs (34) through (43), respectively, and inserting after paragraph (31) (as redesignated) the following:

“(32) The term ‘recreational fishing’ means fishing for sport or pleasure.

“(33) The term ‘regulatory discards’ means fish harvested in a fishery which fishermen are required by regulation to

discard whenever caught, or are required by regulation to retain but not sell.”;

(10) by redesignating paragraphs (36) through (43) (as redesignated) as paragraphs (37) through (44), respectively, and inserting after paragraph (35) (as redesignated) the following:

“(36) The term ‘special areas’ means the areas referred to as eastern special areas in Article 3(1) of the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990. In particular, the term refers to those areas east of the maritime boundary, as defined in that Agreement, that lie within 200 nautical miles of the baselines from which the breadth of the territorial sea of Russia is measured but beyond 200 nautical miles of the baselines from which the breadth of the territorial sea of the United States is measured.”;

(11) by striking “for which a fishery management plan prepared under title III or a preliminary fishery management plan prepared under section 201(g) has been implemented” in paragraph (42) (as redesignated) and inserting “regulated under this Act”;

(12) by redesignating paragraph (44) (as redesignated) as paragraph (45), and inserting after paragraph (43) the following: “(44) The term ‘vessel subject to the jurisdiction of the United States’ has the same meaning such term has in section 3(c) of the Maritime Drug Law Enforcement Act (46 U.S.C. App. 1903(c)).”.

SEC. 103. AUTHORIZATION OF APPROPRIATIONS.

The Act is amended by inserting after section 3 (16 U.S.C. 1802) the following:

“SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

“There are authorized to be appropriated to the Secretary for the purposes of carrying out the provisions of this Act, not to exceed the following sums:

“(1) \$147,000,000 for fiscal year 1996;

“(2) \$151,000,000 for fiscal year 1997;

“(3) \$155,000,000 for fiscal year 1998; and

“(4) \$159,000,000 for fiscal year 1999.”.

SEC. 104. HIGHLY MIGRATORY SPECIES.

Section 102 (16 U.S.C. 1812) is amended by striking “promoting the objective of optimum utilization” and inserting “shall promote the achievement of optimum yield”.

SEC. 105. FOREIGN FISHING AND INTERNATIONAL FISHERY AGREEMENTS.

(a) AUTHORITY TO OPERATE UNDER TRANSSHIPMENT PERMITS.—

Section 201 (16 U.S.C. 1821) is amended—

(1) by striking paragraphs (1) and (2) of subsection (a) and inserting the following:

“(1) is authorized under subsections (b) or (c) or section 204(e), or under a permit issued under section 204(d);

“(2) is not prohibited under subsection (f); and”;

(2) by striking “(i)” in subsection (c)(2)(D) and inserting “(h)”;

(3) by striking subsection (f);

(4) by redesignating subsections (g) through (j) as subsections (f) through (i), respectively;

(5) in paragraph (2) of subsection (h) (as redesignated), redesignate subparagraphs (B) and (C) as subparagraphs (C) and (D), respectively, and insert after subparagraph (A) the following:

“(B) in a situation where the foreign fishing vessel is operating under a Pacific Insular Area fishing agreement, the Governor of the applicable Pacific Insular Area, in consultation with the Western Pacific Council, has established an observer coverage program that is at least equal in effectiveness to the program established by the Secretary;”;

(6) in subsection (i) (as redesignated) by striking “305” and inserting “304”.

(b) INTERNATIONAL FISHERY AGREEMENTS.—Section 202 (16

U.S.C. 1822) is amended—

(1) by adding before the period at the end of subsection

(c) “or section 204(e)”;

(2) by adding at the end the following:

“(h) BYCATCH REDUCTION AGREEMENTS.—

“(1) The Secretary of State, in cooperation with the Secretary, shall seek to secure an international agreement to establish standards and measures for bycatch reduction that are comparable to the standards and measures applicable to United States fishermen for such purposes in any fishery regulated pursuant to this Act for which the Secretary, in consultation with the Secretary of State, determines that such an international agreement is necessary and appropriate.

“(2) An international agreement negotiated under this subsection shall be—

“(A) consistent with the policies and purposes of this Act; and

“(B) subject to approval by Congress under section 203.

“(3) Not later than January 1, 1997, and annually thereafter, the Secretary, in consultation with the Secretary of State, shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Resources of the House of Representatives a report describing actions taken under this subsection.”.

(c) PERIOD FOR CONGRESSIONAL REVIEW OF INTERNATIONAL FISHERY AGREEMENTS.—Section 203 (16 U.S.C. 1823) is amended—

(1) by striking “GOVERNING” in the section heading;

(2) by striking “agreement” each place it appears in subsection (a) and inserting “agreement, bycatch reduction agreement, or Pacific Insular Area fishery agreement”;

(3) by striking “60 calendar days of continuous session of the Congress” in subsection (a) and inserting “120 days (excluding any days in a period for which the Congress is adjourned sine die)”;

(4) by striking subsection (c);

(5) by redesignating subsection (d) as subsection (c); and

(6) by striking “agreement” in subsection (c)(2)(A), as redesignated, and inserting “agreement, bycatch reduction agreement, or Pacific Insular Area fishery agreement”.

(d) TRANSSHIPMENT PERMITS AND PACIFIC INSULAR AREA FISH-

ING.—Section 204 (16 U.S.C. 1824) is amended—

(1) by inserting “or subsection (d)” in the first sentence of subsection (b)(7) after “under paragraph (6)”;

(2) by striking “the regulations promulgated to implement any such plan” in subsection (b)(7)(A) and inserting “any applicable Federal or State fishing regulations”;

(3) by inserting “or subsection (d)” in subsection (b)(7)(D) after “paragraph (6)(B)”;

(4) by adding at the end the following:

“(d) TRANSSHIPMENT PERMITS.—

“(1) AUTHORITY TO ISSUE PERMITS.—The Secretary may issue a transshipment permit under this subsection which authorizes a vessel other than a vessel of the United States to engage in fishing consisting solely of transporting fish or fish products at sea from a point within the exclusive economic zone or, with the concurrence of a State, within the boundaries of that State, to a point outside the United States to any person who—

“(A) submits an application which is approved by the Secretary under paragraph (3); and

“(B) pays a fee imposed under paragraph (7).

“(2) TRANSMITTAL.—Upon receipt of an application for a permit under this subsection, the Secretary shall promptly transmit copies of the application to the Secretary of State, Secretary of the department in which the Coast Guard is operating, any appropriate Council, and any affected State.

“(3) APPROVAL OF APPLICATION.—The Secretary may approve, in consultation with the appropriate Council or Marine Fisheries Commission, an application for a permit under this section if the Secretary determines that—

“(A) the transportation of fish or fish products to be conducted under the permit, as described in the application, will be in the interest of the United States and will meet the applicable requirements of this Act;

“(B) the applicant will comply with the requirements described in section 201(c)(2) with respect to activities authorized by any permit issued pursuant to the application;

“(C) the applicant has established any bonds or financial assurances that may be required by the Secretary; and

“(D) no owner or operator of a vessel of the United States which has adequate capacity to perform the transportation for which the application is submitted has indicated to the Secretary an interest in performing the transportation at fair and reasonable rates.

“(4) WHOLE OR PARTIAL APPROVAL.—The Secretary may approve all or any portion of an application under paragraph (3).

“(5) FAILURE TO APPROVE APPLICATION.—If the Secretary does not approve any portion of an application submitted under paragraph (1), the Secretary shall promptly inform the applicant and specify the reasons therefor.

“(6) CONDITIONS AND RESTRICTIONS.—The Secretary shall establish and include in each permit under this subsection conditions and restrictions, including those conditions and restrictions set forth in subsection (b)(7), which shall be complied with by the owner and operator of the vessel for which the permit is issued.

“(7) FEES.—The Secretary shall collect a fee for each permit issued under this subsection, in an amount adequate to recover the costs incurred by the United States in issuing the permit, except that the Secretary shall waive the fee for the permit if the foreign nation under which the vessel is registered does not collect a fee from a vessel of the United States engaged in similar activities in the waters of such foreign nation.

“(e) PACIFIC INSULAR AREAS.—

“(1) NEGOTIATION OF PACIFIC INSULAR AREA FISHERY AGREEMENTS.—The Secretary of State, with the concurrence of the Secretary and in consultation with any appropriate Council, may negotiate and enter into a Pacific Insular Area fishery agreement to authorize foreign fishing within the exclusive economic zone adjacent to a Pacific Insular Area—

“(A) in the case of American Samoa, Guam, or the Northern Mariana Islands, at the request and with the concurrence of, and in consultation with, the Governor of the Pacific Insular Area to which such agreement applies; and

“(B) in the case of a Pacific Insular Area other than American Samoa, Guam, or the Northern Mariana Islands, at the request of the Western Pacific Council.

“(2) AGREEMENT TERMS AND CONDITIONS.—A Pacific Insular Area fishery agreement—

“(A) shall not be considered to supersede any governing international fishery agreement currently in effect under this Act, but shall provide an alternative basis for the conduct of foreign fishing within the exclusive economic zone adjacent to Pacific Insular Areas;

“(B) shall be negotiated and implemented consistent only with the governing international fishery agreement provisions of this title specifically made applicable in this subsection;

“(C) may not be negotiated with a nation that is in violation of a governing international fishery agreement in effect under this Act;

“(D) shall not be entered into if it is determined by the Governor of the applicable Pacific Insular Area with respect to agreements initiated under paragraph (1)(A), or the Western Pacific Council with respect to agreements initiated under paragraph (1)(B), that such an agreement will adversely affect the fishing activities of the indigenous people of such Pacific Insular Area;

“(E) shall be valid for a period not to exceed three years and shall only become effective according to the procedures in section 203; and

“(F) shall require the foreign nation and its fishing vessels to comply with the requirements of paragraphs (1), (2), (3) and (4)(A) of section 201(c), section 201(d), and section 201(h).

“(3) PERMITS FOR FOREIGN FISHING.—

“(A) Application for permits for foreign fishing authorized under a Pacific Insular Areas fishing agreement shall be made, considered and approved or disapproved in accordance with paragraphs (3), (4), (5), (6), (7) (A) and (B), (8), and (9) of subsection (b), and shall include any conditions and restrictions established by the Secretary in consultation with the Secretary of State, the Secretary of the department in which the Coast Guard is operating, the Governor of the applicable Pacific Insular Area, and the appropriate Council.

“(B) If a foreign nation notifies the Secretary of State of its acceptance of the requirements of this paragraph, paragraph (2)(F), and paragraph (5), including any conditions and restrictions established under subparagraph (A), the Secretary of State shall promptly transmit such notification to the Secretary. Upon receipt of any payment required under a Pacific Insular Area fishing agreement, the Secretary shall thereupon issue to such foreign nation, through the Secretary of State, permits for the appropriate fishing vessels of that nation. Each permit shall contain a statement of all of the requirements, conditions, and restrictions established under this subsection which apply to the fishing vessel for which the permit is issued.

“(4) MARINE CONSERVATION PLANS.—

“(A) Prior to entering into a Pacific Insular Area fishery agreement, the Western Pacific Council and the appropriate Governor shall develop a 3-year marine conservation plan detailing uses for funds to be collected by the Secretary pursuant to such agreement. Such plan shall be consistent with any applicable fishery management plan, identify conservation and management objectives (including criteria for determining when such objectives have been met), and prioritize planned marine conservation projects. Conservation and management objectives shall include, but not be limited to—

“(i) establishment of Pacific Insular Area observer programs, approved by the Secretary in consultation with the Western Pacific Council, that provide observer coverage for foreign fishing under Pacific Insular Area fishery agreements that is at least equal in effectiveness to the program established by the Secretary under section 201(h);

“(ii) conduct of marine and fisheries research, including development of systems for information collection, analysis, evaluation, and reporting;

“(iii) conservation, education, and enforcement activities related to marine and coastal management, such as living marine resource assessments, habitat monitoring and coastal studies;

“(iv) grants to the University of Hawaii for technical assistance projects by the Pacific Island Network, such as education and training in the development and implementation of sustainable marine resources development projects, scientific research, and conservation strategies; and

“(v) western Pacific community-based demonstration projects under section 112(b) of the Sustainable Fisheries Act and other coastal improvement projects to foster and promote the management, conservation, and economic enhancement of the Pacific Insular Areas.

“(B) In the case of American Samoa, Guam, and the Northern Mariana Islands, the appropriate Governor, with the concurrence of the Western Pacific Council, shall develop the marine conservation plan described in subparagraph (A) and submit such plan to the Secretary for approval. In the case of other Pacific Insular Areas, the Western Pacific Council shall develop and submit the marine conservation plan described in subparagraph (A) to the Secretary for

approval.

“(C) If a Governor or the Western Pacific Council intends to request that the Secretary of State renew a Pacific Insular Area fishery agreement, a subsequent 3-year plan shall be submitted to the Secretary for approval by the end of the second year of the existing 3-year plan.

“(5) RECIPROCAL CONDITIONS.—Except as expressly provided otherwise in this subsection, a Pacific Insular Area fishing agreement may include terms similar to the terms applicable to United States fishing vessels for access to similar fisheries in waters subject to the fisheries jurisdiction of another nation.

“(6) USE OF PAYMENTS BY AMERICAN SAMOA, GUAM, NORTHERN MARIANA ISLANDS.—Any payments received by the Secretary under a Pacific Insular Area fishery agreement for American Samoa, Guam, or the Northern Mariana Islands shall be deposited into the United States Treasury and then covered over to the Treasury of the Pacific Insular Area for which those funds were collected. Amounts deposited in the Treasury of a Pacific Insular Area shall be available, without appropriation or fiscal year limitation, to the Governor of the Pacific Insular Area—

“(A) to carry out the purposes of this subsection;

“(B) to compensate (i) the Western Pacific Council for mutually agreed upon administrative costs incurred relating to any Pacific Insular Area fishery agreement for such Pacific Insular Area, and (ii) the Secretary of State for mutually agreed upon travel expenses for no more than 2 Federal representatives incurred as a direct result of complying with paragraph (1)(A); and

“(C) to implement a marine conservation plan developed and approved under paragraph (4).

“(7) WESTERN PACIFIC SUSTAINABLE FISHERIES FUND.—

There is established in the United States Treasury a Western Pacific Sustainable Fisheries Fund into which any payments received by the Secretary under a Pacific Insular Area fishery agreement for any Pacific Insular Area other than American Samoa, Guam, or the Northern Mariana Islands shall be deposited. The Western Pacific Sustainable Fisheries Fund shall be made available, without appropriation or fiscal year limitation, to the Secretary, who shall provide such funds only to—

“(A) the Western Pacific Council for the purpose of carrying out the provisions of this subsection, including implementation of a marine conservation plan approved under paragraph (4);

“(B) the Secretary of State for mutually agreed upon travel expenses for no more than 2 Federal representatives incurred as a direct result of complying with paragraph (1)(B); and

“(C) the Western Pacific Council to meet conservation and management objectives in the State of Hawaii if monies remain in the Western Pacific Sustainable Fisheries Fund after the funding requirements of subparagraphs (A) and (B) have been satisfied.

Amounts deposited in such fund shall not diminish funding received by the Western Pacific Council for the purpose of carrying out other responsibilities under this Act.

“(8) USE OF FINES AND PENALTIES.—In the case of violations occurring within the exclusive economic zone off American Samoa, Guam, or the Northern Mariana Islands, amounts received by the Secretary which are attributable to fines or penalties imposed under this Act, including such sums collected from the forfeiture and disposition or sale of property seized subject to this authority, after payment of direct costs of the enforcement action to all entities involved in such action, shall be deposited into the Treasury of the Pacific Insular Area adjacent to the exclusive economic zone in which the violation occurred, to be used for fisheries enforcement and for implementation of a marine conservation plan under paragraph (4).”

(e) ATLANTIC HERRING TRANSSHIPMENT.—Within 30 days of receiving an application, the Secretary shall, under section 204(d) of the Magnuson Fishery Conservation and Management Act, as amended by this Act, issue permits to up to fourteen Canadian transport vessels that are not equipped for fish harvesting or processing, for the transshipment, within the boundaries of the State of Maine or within the portion of the exclusive economic zone east of the line 69 degrees 30 minutes west and within 12 nautical miles from the seaward boundary of that State, of Atlantic herring harvested by United States fishermen within the area described and used solely in sardine processing. In issuing a permit pursuant to this subsection, the Secretary shall provide a waiver under section 201(h)(2)(C) of the Magnuson Fishery Conservation and Management Act, as amended by this Act: *Provided*, That such vessels comply with Federal or State monitoring and reporting requirements for the Atlantic herring fishery, including the stationing of United States observers aboard such vessels, if necessary.

(f) LARGE SCALE DRIFTNET FISHING.—Section 206 (16 U.S.C.

1826) is amended—

(1) in subsection (e), by striking paragraphs (3) and (4), and redesignating paragraphs (5) and (6) as (3) and (4), respectively; and

(2) in subsection (f), by striking “(e)(6),” and inserting “(e)(4),”.

(g) RUSSIAN FISHING IN THE BERING SEA.—No later than Reports.

September 30, 1997, the North Pacific Fishery Management Council, in consultation with the North Pacific and Bering Sea Advisory Body, shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Resources of the House of Representatives a report describing the institutional structures in Russia pertaining to stock assessment, management, and enforcement for fishery harvests in the Bering Sea, and recommendations for improving coordination between the United States and Russia for managing and conserving Bering Sea fishery resources of mutual concern.

SEC. 106. NATIONAL STANDARDS.

(a) Section 301(a)(5) (16 U.S.C. 1851(a)(5)) is amended by striking “promote” and inserting “consider”.

(b) Section 301(a) (16 U.S.C. 1851(a)) is amended by adding at the end thereof the following:

“(8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

“(9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

“(10) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.”

SEC. 107. REGIONAL FISHERY MANAGEMENT COUNCILS.

(a) Section 302(a) (16 U.S.C. 1852(a)) is amended—

(1) by inserting “(1)” after the subsection heading;

(2) by redesignating paragraphs (1) through (8) as subparagraphs (A) through (H), respectively;

(3) by striking “section 304(f)(3)” wherever it appears and inserting “paragraph (3)”;

(4) in paragraph (1)(B), as amended—

(A) by striking “and Virginia” and inserting “Virginia, and North Carolina”;

(B) by inserting “North Carolina, and” after “except”;

(C) by striking “19” and inserting “21”; and

(D) by striking “12” and inserting “13”;

(5) by striking paragraph (1)(F), as redesignated, and inserting the following:

“(F) PACIFIC COUNCIL.—The Pacific Fishery Management Council shall consist of the States of California,

Oregon, Washington, and Idaho and shall have authority over the fisheries in the Pacific Ocean seaward of such States. The Pacific Council shall have 14 voting members, including 8 appointed by the Secretary in accordance with subsection (b)(2) (at least one of whom shall be appointed from each such State), and including one appointed from an Indian tribe with Federally recognized fishing rights from California, Oregon, Washington, or Idaho in accordance with subsection (b)(5)."; (6) by indenting the sentence at the end thereof and inserting "(2)" before "Each Council"; and (7) by adding at the end the following:

"(3) The Secretary shall have authority over any highly migratory species fishery that is within the geographical area of authority of more than one of the following Councils: New England Council, Mid-Atlantic Council, South Atlantic Council, Gulf Council, and Caribbean Council."

(b) Section 302(b) (16 U.S.C. 1852(b)) is amended—

(1) by striking "subsection (b)(2)" in paragraphs (1)(C) and (3), and inserting in both places "paragraphs (2) and (5)";

(2) by striking the last sentence in paragraph (3) and inserting the following: "Any term in which an individual was appointed to replace a member who left office during the term shall not be counted in determining the number of consecutive terms served by that Council member."; and

(3) by striking paragraph (5) and inserting after paragraph

(4) the following:

"(5)(A) The Secretary shall appoint to the Pacific Council one representative of an Indian tribe with Federally recognized fishing rights from California, Oregon, Washington, or Idaho from a list of not less than 3 individuals submitted by the tribal governments. The Secretary, in consultation with the Secretary of the Interior and tribal governments, shall establish by regulation the procedure for submitting a list under this subparagraph.

"(B) Representation shall be rotated among the tribes taking into consideration—

"(i) the qualifications of the individuals on the list referred to in subparagraph (A),

"(ii) the various rights of the Indian tribes involved and judicial cases that set forth how those rights are to be exercised, and

"(iii) the geographic area in which the tribe of the representative is located.

"(C) A vacancy occurring prior to the expiration of any term shall be filled in the same manner as set out in subparagraphs (A) and (B), except that the Secretary may use the list from which the vacating representative was chosen.

"(6) The Secretary may remove for cause any member of a Council required to be appointed by the Secretary in accordance with paragraphs (2) or (5) if—

"(A) the Council concerned first recommends removal by not less than two-thirds of the members who are voting members and submits such removal recommendation to the Secretary in writing together with a statement of the basis for the recommendation; or

"(B) the member is found by the Secretary, after notice and an opportunity for a hearing in accordance with section 554 of title 5, United States Code, to have committed an act prohibited by section 307(1)(O)."

(c) Section 302(d) (16 U.S.C. 1852(d)) is amended in the first sentence—

(1) by striking "each Council," and inserting "each Council who are required to be appointed by the Secretary and"; and

(2) by striking "shall, until January 1, 1992," and all that follows through "GS-16" and inserting "shall receive compensation at the daily rate for GS-15, step 7".

(d) Section 302(e) (16 U.S.C. 1852(e)) is amended by adding at the end the following:

"(5) At the request of any voting member of a Council, the Council shall hold a roll call vote on any matter before the Council. The official minutes and other appropriate records of any Council meeting shall identify all roll call votes held, the name of each voting member present during each roll call vote, and how each member voted on each roll call vote."

(e) Section 302(g) (16 U.S.C. 1852(g)) is amended by redesignating paragraph (4) as paragraph (5), and by inserting after paragraph (3) the following:

"(4) The Secretary shall establish advisory panels to assist in the collection and evaluation of information relevant to the development of any fishery management plan or plan amendment for a fishery to which subsection (a)(3) applies. Each advisory panel shall participate in all aspects of the development of the plan or amendment; be balanced in its representation of commercial, recreational, and other interests; and consist of not less than 7 individuals who are knowledgeable about the fishery for which the plan or amendment is developed, selected from among—

"(A) members of advisory committees and species working groups appointed under Acts implementing relevant international fishery agreements pertaining to highly migratory species; and

"(B) other interested persons."

(f) Section 302(h) (16 U.S.C. 1852(h)) is amended—

(1) by striking paragraph (1) and inserting the following:

"(1) for each fishery under its authority that requires conservation and management, prepare and submit to the Secretary (A) a fishery management plan, and (B) amendments to each such plan that are necessary from time to time (and promptly whenever changes in conservation and management measures in another fishery substantially affect the fishery for which such plan was developed);";

(2) in paragraph (2)—

(A) by striking "section 204(b)(4)(C)," in paragraph (2) and inserting "section 204(b)(4)(C) or section 204(d).";

(B) by striking "304(c)(2)" and inserting "304(c)(4)"; and

(3) by striking "304(f)(3)" in paragraph (5) and inserting "subsection (a)(3)".

(g) Section 302 is amended further by striking subsection (i), and by redesignating subsections (j) and (k) as subsections (i) and (j), respectively.

(h) Section 302(i), as redesignated, is amended—

(1) by striking "of the Councils" in paragraph (1) and inserting "established under subsection (g)";

(2) by striking "of a Council:" in paragraph (2) and inserting "established under subsection (g).";

(3) by striking "Council's" in paragraph (2)(C);

(4) by adding the following at the end of paragraph (2)(C): "The published agenda of the meeting may not be modified to include additional matters for Council action without public notice or within 14 days prior to the meeting date, unless such modification is to address an emergency action under section 305(c), in which case public notice shall be given immediately.";

(5) by adding the following at the end of paragraph (2)(D): "All written information submitted to a Council by an interested person shall include a statement of the source and date of such information. Any oral or written statement shall include a brief description of the background and interests of the person in the subject of the oral or written statement.";

(6) by striking paragraph (2)(E) and inserting:

"(E) Detailed minutes of each meeting of the Council, Records, except for any closed session, shall be kept and shall contain a record of the persons present, a complete and accurate description of matters discussed and conclusions reached, and copies of all statements filed. The Chairman Certification.

shall certify the accuracy of the minutes of each such meeting and submit a copy thereof to the Secretary. The minutes shall be made available to any court of competent jurisdiction."

(7) by striking "by the Council" the first place it appears in paragraph (2)(F);

(8) by inserting "or the Secretary, as appropriate" in paragraph (2)(F) after "of the Council";

(9) by striking "303(d)" each place it appears in paragraph (2)(F) and inserting "402(b)"; and

(10) by striking "303(d)" in paragraph (4) and inserting "402(b)".

(i) Section 302(j), as redesignated, is amended—

- (1) by inserting “and Recusal” after “Interest” in the subsection heading;
- (2) by striking paragraph (1) and inserting the following: “(1) For the purposes of this subsection—
 - “(A) the term ‘affected individual’ means an individual who—
 - “(i) is nominated by the Governor of a State for appointment as a voting member of a Council in accordance with subsection (b)(2); or
 - “(ii) is a voting member of a Council appointed—
 - “(I) under subsection (b)(2); or
 - “(II) under subsection (b)(5) who is not subject to disclosure and recusal requirements under the laws of an Indian tribal government; and
 - “(B) the term ‘designated official’ means a person with expertise in Federal conflict-of-interest requirements who is designated by the Secretary, in consultation with the Council, to attend Council meetings and make determinations under paragraph (7)(B).”;
- (3) by striking “(1)(A)” in paragraph (3)(A) and inserting “(1)(A)(i)”;
- (4) by striking “(1)(B) or (C)” in paragraph (3)(B) and inserting “(1)(A)(ii)”;
- (5) by striking “(1)(B) or (C)” in paragraph (4) and inserting “(1)(A)(ii)”;
- (6)(A) by striking “and” at the end of paragraph (5)(A);
- (B) by striking the period at the end of paragraph (5)(B) and inserting a semicolon and the word “and”; and
- (C) by adding at the end of paragraph (5) the following:
 - “(C) be kept on file by the Secretary for use in reviewing determinations under paragraph (7)(B) and made available for public inspection at reasonable hours.”;
- (7) by striking “(1)(B) or (C)” in paragraph (6) and inserting “(1)(A)(ii)”;
- (8) by redesignating paragraph (7) as paragraph (8) and inserting after paragraph (6) the following:
 - “(7)(A) After the effective date of regulations promulgated under subparagraph (F) of this paragraph, an affected individual required to disclose a financial interest under paragraph (2) shall not vote on a Council decision which would have a significant and predictable effect on such financial interest. A Council decision shall be considered to have a significant and predictable effect on a financial interest if there is a close causal link between the Council decision and an expected and substantially disproportionate benefit to the financial interest of the affected individual relative to the financial interests of other participants in the same gear type or sector of the fishery. An affected individual who may not vote may participate in Council deliberations relating to the decision after notifying the Council of the voting recusal and identifying the financial interest that would be affected.
 - “(B) At the request of an affected individual, or upon the initiative of the appropriate designated official, the designated official shall make a determination for the record whether a Council decision would have a significant and predictable effect on a financial interest.
 - “(C) Any Council member may submit a written request to the Secretary to review any determination by the designated official under subparagraph (B) within 10 days of such determination. Such review shall be completed within 30 days of receipt of the request.
 - “(D) Any affected individual who does not vote in a Council decision in accordance with this subsection may state for the record how he or she would have voted on such decision if he or she had voted.
 - “(E) If the Council makes a decision before the Secretary has reviewed a determination under subparagraph (C), the eventual ruling may not be treated as cause for the invalidation or reconsideration by the Secretary of such decision.
 - “(F) The Secretary, in consultation with the Councils and by not later than one year from the date of enactment of the Sustainable Fisheries Act, shall promulgate regulations which prohibit an affected individual from voting in accordance with subparagraph (A), and which allow for the making of determinations under subparagraphs (B) and (C).”;
- (9) by striking “(1)(B) or (C)” in paragraph (8), as redesignated, and inserting “(1)(A)(ii)”.

SEC. 108. FISHERY MANAGEMENT PLANS.

- (a) **REQUIRED PROVISIONS.**—Section 303(a) (16 U.S.C. 1853(a)) is amended—
 - (1) in paragraph (1)(A) by inserting “and rebuild overfished stocks” after “overfishing”;
 - (2) by inserting “commercial, recreational, and charter fishing in” in paragraph (5) after “with respect to”;
 - (3) by striking paragraph (7) and inserting the following:
 - “(7) describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305(b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;”;
 - (4) by striking “and” at the end of paragraph (8);
 - (5) by inserting “and fishing communities” after “fisheries” in paragraph (9)(A);
 - (6) by striking the period at the end of paragraph (9) and inserting a semicolon; and
 - (7) by adding at the end the following:
 - “(10) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;
 - “(11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority—
 - “(A) minimize bycatch; and
 - “(B) minimize the mortality of bycatch which cannot be avoided;
 - “(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;
 - “(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors; and
 - “(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery.”;
 - (b) **IMPLEMENTATION.**—Not later than 24 months after the date 16 USC 1853 of enactment of this Act, each Regional Fishery Management Council shall submit to the Secretary of Commerce amendments to each fishery management plan under its authority to comply with the amendments made in subsection (a) of this section.
 - (c) **DISCRETIONARY PROVISIONS.**—Section 303(b) (16 U.S.C. 1853(b)) is amended—
 - (1) by striking paragraph (3) and inserting the following:
 - “(3) establish specified limitations which are necessary and appropriate for the conservation and management of the fishery on the—
 - “(A) catch of fish (based on area, species, size, number, weight, sex, bycatch, total biomass, or other factors);
 - “(B) sale of fish caught during commercial, recreational, or charter fishing, consistent with any applicable Federal and State safety and quality requirements; and
 - “(C) transshipment or transportation of fish or fish products under permits issued pursuant to section 204;”;
 - (2) by striking “system for limiting access to” in paragraph (6) and inserting “limited access system for”;

- (3) by striking “fishery” in subparagraph (E) of paragraph (6) and inserting “fishery and any affected fishing communities”;
- (4) by inserting “one or more” in paragraph (8) after “require that”;
- (5) by striking “and” at the end of paragraph (9);
- (6) by redesignating paragraph (10) as paragraph (12); and
- (7) by inserting after paragraph (9) the following:
 - “(10) include, consistent with the other provisions of this Act, conservation and management measures that provide harvest incentives for participants within each gear group to employ fishing practices that result in lower levels of bycatch or in lower levels of the mortality of bycatch;
 - “(11) reserve a portion of the allowable biological catch of the fishery for use in scientific research; and”.
- (d) REGULATIONS.—Section 303 (16 U.S.C. 1853) is amended by striking subsection (c) and inserting the following:
 - “(c) PROPOSED REGULATIONS.—Proposed regulations which the Council deems necessary or appropriate for the purposes of—
 - “(1) implementing a fishery management plan or plan amendment shall be submitted to the Secretary simultaneously with the plan or amendment under section 304; and
 - “(2) making modifications to regulations implementing a fishery management plan or plan amendment may be submitted to the Secretary at any time after the plan or amendment is approved under section 304.”.
 - (e) INDIVIDUAL FISHING QUOTAS.—Subsection 303 (16 U.S.C. 1853) is amended further by striking subsections (d), (e), and (f), and inserting the following:
 - “(d) INDIVIDUAL FISHING QUOTAS.—
 - “(1)(A) A Council may not submit and the Secretary may not approve or implement before October 1, 2000, any fishery management plan, plan amendment, or regulation under this Act which creates a new individual fishing quota program.
 - “(B) Any fishery management plan, plan amendment, or regulation approved by the Secretary on or after January 4, 1995, which creates any new individual fishing quota program shall be repealed and immediately returned by the Secretary to the appropriate Council and shall not be resubmitted, preapproved, or implemented during the moratorium set forth in subparagraph (A).
 - “(2)(A) No provision of law shall be construed to limit the authority of a Council to submit and the Secretary to approve the termination or limitation, without compensation to holders of any limited access system permits, of a fishery management plan, plan amendment, or regulation that provides for a limited access system, including an individual fishing quota program.
 - “(B) This subsection shall not be construed to prohibit a Council from submitting, or the Secretary from approving and implementing, amendments to the North Pacific halibut and sablefish, South Atlantic wreckfish, or Mid-Atlantic surf clam and ocean (including mahogany) quahog individual fishing quota programs.
 - “(3) An individual fishing quota or other limited access system authorization—
 - “(A) shall be considered a permit for the purposes of sections 307, 308, and 309;
 - “(B) may be revoked or limited at any time in accordance with this Act;
 - “(C) shall not confer any right of compensation to the holder of such individual fishing quota or other such limited access system authorization if it is revoked or limited; and
 - “(D) shall not create, or be construed to create, any right, title, or interest in or to any fish before the fish is harvested.
 - “(4)(A) A Council may submit, and the Secretary may approve and implement, a program which reserves up to 25 percent of any fees collected from a fishery under section 304(d)(2) to be used, pursuant to section 1104A(a)(7) of the Merchant Marine Act, 1936 (46 U.S.C. App. 1274(a)(7)), to issue obligations that aid in financing the—
 - “(i) purchase of individual fishing quotas in that fishery by fishermen who fish from small vessels; and
 - “(ii) first-time purchase of individual fishing quotas in that fishery by entry level fishermen.
 - “(B) A Council making a submission under subparagraph (A) shall recommend criteria, consistent with the provisions of this Act, that a fisherman must meet to qualify for guarantees under clauses (i) and (ii) of subparagraph (A) and the portion of funds to be allocated for guarantees under each clause.
 - “(5) In submitting and approving any new individual fishing quota program on or after October 1, 2000, the Councils and the Secretary shall consider the report of the National Academy of Sciences required under section 108(f) of the Sustainable Fisheries Act, and any recommendations contained in such report, and shall ensure that any such program—
 - “(A) establishes procedures and requirements for the review and revision of the terms of any such program (including any revisions that may be necessary once a national policy with respect to individual fishing quota programs is implemented), and, if appropriate, for the renewal, reallocation, or reissuance of individual fishing quotas;
 - “(B) provides for the effective enforcement and management of any such program, including adequate observer coverage, and for fees under section 304(d)(2) to recover actual costs directly related to such enforcement and management; and
 - “(C) provides for a fair and equitable initial allocation of individual fishing quotas, prevents any person from acquiring an excessive share of the individual fishing quotas issued, and considers the allocation of a portion of the annual harvest in the fishery for entry-level fishermen, small vessel owners, and crew members who do not hold or qualify for individual fishing quotas.”.
- (f) INDIVIDUAL FISHING QUOTA REPORT.—(1) Not later than 16 USC 1853 October 1, 1998, the National Academy of Sciences, in consultation with the Secretary of Commerce and the Regional Fishery Management Councils, shall submit to the Congress a comprehensive final report on individual fishing quotas, which shall include recommendations to implement a national policy with respect to individual fishing quotas. The report shall address all aspects of such quotas, including an analysis of—
 - (A) the effects of limiting or prohibiting the transferability of such quotas;
 - (B) mechanisms to prevent foreign control of the harvest of United States fisheries under individual fishing quota programs, including mechanisms to prohibit persons who are not eligible to be deemed a citizen of the United States for the purpose of operating a vessel in the coastwise trade under section 2(a) and section 2(c) of the Shipping Act, 1916 (46 U.S.C. 802 (a) and (c)) from holding individual fishing quotas;
 - (C) the impact of limiting the duration of individual fishing quota programs;
 - (D) the impact of authorizing Federal permits to process a quantity of fish that correspond to individual fishing quotas, and of the value created for recipients of any such permits, including a comparison of such value to the value of the corresponding individual fishing quotas;
 - (E) mechanisms to provide for diversity and to minimize adverse social and economic impacts on fishing communities, other fisheries affected by the displacement of vessels, and any impacts associated with the shifting of capital value from fishing vessels to individual fishing quotas, as well as the use of capital construction funds to purchase individual fishing quotas;
 - (F) mechanisms to provide for effective monitoring and enforcement, including the inspection of fish harvested and incentives to reduce bycatch, and in particular economic discards;
 - (G) threshold criteria for determining whether a fishery may be considered for individual fishing quota management, including criteria related to the geographical range, population dynamics and condition of a fish stock, the socioeconomic characteristics of a fishery (including participants’ involvement in multiple fisheries in the region), and participation by commercial, charter, and recreational fishing sectors in the fishery;
 - (H) mechanisms to ensure that vessel owners, vessel masters, crew members, and United States fish processors are treated fairly and equitably in initial allocations, to require persons holding individual fishing quotas to be on board the vessel using such quotas, and to facilitate new entry under individual fishing quota programs;
 - (I) potential social and economic costs and benefits to the nation, individual fishing quota recipients, and any

recipients of Federal permits described in subparagraph (D) under individual fishing quota programs, including from capital gains revenue, the allocation of such quotas or permits through Federal auctions, annual fees and transfer fees at various levels, or other measures;

(J) the value created for recipients of individual fishing quotas, including a comparison of such value to the value of the fish harvested under such quotas and to the value of permits created by other types of limited access systems, and the effects of creating such value on fishery management and conservation; and

(K) such other matters as the National Academy of Sciences deems appropriate.

(2) The report shall include a detailed analysis of individual fishing quota programs already implemented in the United States, including the impacts: of any limits on transferability, on past and present participants, on fishing communities, on the rate and total amount of bycatch (including economic and regulatory discards) in the fishery, on the safety of life and vessels in the fishery, on any excess harvesting or processing capacity in the fishery, on any gear conflicts in the fishery, on product quality from the fishery, on the effectiveness of enforcement in the fishery, on the size and composition of fishing vessel fleets, on the economic value created by individual fishing quotas for initial recipients and non-recipients, on conservation of the fishery resource, on fishermen who rely on participation in several fisheries, on the success in meeting any fishery management plan goals, and the fairness and effectiveness of the methods used for allocating quotas and controlling transferability. The report shall also include any information about individual fishing quota programs in other countries that may be useful.

(3) The report shall identify and analyze alternative conservation and management measures, including other limited access systems such as individual transferable effort systems, that could accomplish the same objectives as individual fishing quota programs, as well as characteristics that are unique to individual fishing quota programs.

(4) The Secretary of Commerce shall, in consultation with Establishment, the National Academy of Sciences, the Councils, the fishing industry, affected States, conservation organizations and other interested persons, establish two individual fishing quota review groups to assist in the preparation of the report, which shall represent: (A) Alaska, Hawaii, and the other Pacific coastal States; and (B) Atlantic coastal States and the Gulf of Mexico coastal States. The Secretary shall, to the extent practicable, achieve a balanced representation of viewpoints among the individuals on each review group. The review groups shall be deemed to be advisory panels under section 302(g) of the Magnuson Fishery Conservation and Management Act, as amended by this Act.

(5) The Secretary of Commerce, in consultation with the National Academy of Sciences and the Councils, shall conduct public hearings in each Council region to obtain comments on individual fishing quotas for use by the National Academy of Sciences in preparing the report required by this subsection. The National Academy of Sciences shall submit a draft report Reports. to the Secretary of Commerce by January 1, 1998. The Secretary of Commerce shall publish in the Federal Register a publication, notice and opportunity for public comment on the draft of the report, or any revision thereof. A detailed summary of comments received and views presented at the hearings, including any dissenting views, shall be included by the National Academy of Sciences in the final report.

(6) Section 210 of Public Law 104-134 is hereby repealed. 16 USC 1851

(g) NORTH PACIFIC LOAN PROGRAM.—(1) By not later than October 1, 1997 the North Pacific Fishery Management Council shall recommend to the Secretary of Commerce a program which uses the full amount of fees authorized to be used under section 303(d)(4) of the Magnuson Fishery Conservation and Management Act, as amended by this Act, in the halibut and sablefish fisheries off Alaska to guarantee obligations in accordance with such section.

(2)(A) For the purposes of this subsection, the phrase “fishermen who fish from small vessels” in section 303(d)(4)(A)(i) of such Act shall mean fishermen wishing to purchase individual fishing quotas for use from Category B, Category C, or Category D vessels, as defined in part 676.20(c) of title 50, Code of Federal Regulations (as revised as of October 1, 1995), whose aggregate ownership of individual fishing quotas will not exceed the equivalent of a total of 50,000 pounds of halibut and sablefish harvested in the fishing year in which a guarantee application is made if the guarantee is approved, who will participate aboard the fishing vessel in the harvest of fish caught under such quotas, who have at least 150 days of experience working as part of the harvesting crew in any United States commercial fishery, and who do not own in whole or in part any Category A or Category B vessel, as defined in such part and title of the Code of Federal Regulations.

(B) For the purposes of this subsection, the phrase “entry level fishermen” in section 303(d)(4)(A)(ii) of such Act shall mean fishermen who do not own any individual fishing quotas, who wish to obtain the equivalent of not more than a total of 8,000 pounds of halibut and sablefish harvested in the fishing year in which a guarantee application is made, and who will participate aboard the fishing vessel in the harvest of fish caught under such quotas.

(h) COMMUNITY DEVELOPMENT QUOTA REPORT.—Not later than October 1, 1998, the National Academy of Sciences, in consultation with the Secretary, the North Pacific and Western Pacific Councils, communities and organizations participating in the program, participants in affected fisheries, and the affected States, shall submit to the Secretary of Commerce and Congress a comprehensive report on the performance and effectiveness of the community development quota programs under the authority of the North Pacific and Western Pacific Councils. The report shall—

(1) evaluate the extent to which such programs have met the objective of providing communities with the means to develop ongoing commercial fishing activities;

(2) evaluate the manner and extent to which such programs have resulted in the communities and residents—

(A) receiving employment opportunities in commercial fishing and processing; and

(B) obtaining the capital necessary to invest in commercial fishing, fish processing, and commercial fishing support projects (including infrastructure to support commercial fishing);

(3) evaluate the social and economic conditions in the participating communities and the extent to which alternative private sector employment opportunities exist;

(4) evaluate the economic impacts on participants in the affected fisheries, taking into account the condition of the fishery resource, the market, and other relevant factors;

(5) recommend a proposed schedule for accomplishing the developmental purposes of community development quotas; and

(6) address such other matters as the National Academy of Sciences deems appropriate.

(i) EXISTING QUOTA PLANS.—Nothing in this Act or the amendments made by this Act shall be construed to require a reallocation note. of individual fishing quotas under any individual fishing quota program approved by the Secretary before January 4, 1995.

SEC. 109. ACTION BY THE SECRETARY.

(a) SECRETARIAL REVIEW OF PLANS AND REGULATIONS.—

Section 304 (16 U.S.C. 1854) is amended by striking subsections (a) and (b) and inserting the following:

“(a) REVIEW OF PLANS.—

“(1) Upon transmittal by the Council to the Secretary of a fishery management plan or plan amendment, the Secretary shall—

“(A) immediately commence a review of the plan or amendment to determine whether it is consistent with the national standards, the other provisions of this Act, and any other applicable law; and

“(B) immediately publish in the Federal Register a Federal Register, notice stating that the plan or amendment is available publication, and that written information, views, or comments of interested persons on the plan or amendment may be submitted to the Secretary during the 60-day period beginning on the date the notice is published.

“(2) In undertaking the review required under paragraph (1), the Secretary shall—

“(A) take into account the information, views, and comments received from interested persons;

“(B) consult with the Secretary of State with respect to foreign fishing; and

“(C) consult with the Secretary of the department in which the Coast Guard is operating with respect to enforcement at sea and to fishery access adjustments referred to in section 303(a)(6).

“(3) The Secretary shall approve, disapprove, or partially approve a plan or amendment within 30 days of the end of the comment period under paragraph (1) by written notice to the Council. A notice of disapproval or partial approval shall specify—

“(A) the applicable law with which the plan or amendment is inconsistent;

“(B) the nature of such inconsistencies; and

“(C) recommendations concerning the actions that could be taken by the Council to conform such plan or amendment to the requirements of applicable law.

If the Secretary does not notify a Council within 30 days of the end of the comment period of the approval, disapproval, or partial approval of a plan or amendment, then such plan or amendment shall take effect as if approved.

“(4) If the Secretary disapproves or partially approves a plan or amendment, the Council may submit a revised plan or amendment to the Secretary for review under this subsection.

“(5) For purposes of this subsection and subsection (b), the term ‘immediately’ means on or before the 5th day after the day on which a Council transmits to the Secretary a fishery management plan, plan amendment, or proposed regulation that the Council characterizes as final.

“(b) REVIEW OF REGULATIONS.—

“(1) Upon transmittal by the Council to the Secretary of proposed regulations prepared under section 303(c), the Secretary shall immediately initiate an evaluation of the proposed regulations to determine whether they are consistent with the fishery management plan, plan amendment, this Act and other applicable law. Within 15 days of initiating such evaluation the Secretary shall make a determination and—

“(A) if that determination is affirmative, the Secretary shall publish such regulations in the Federal Register, with such technical changes as may be necessary for clarity and an explanation of those changes, for a public comment period of 15 to 60 days; or

“(B) if that determination is negative, the Secretary shall notify the Council in writing of the inconsistencies and provide recommendations on revisions that would make the proposed regulations consistent with the fishery management plan, plan amendment, this Act, and other applicable law.

“(2) Upon receiving a notification under paragraph (1)(B), the Council may revise the proposed regulations and submit them to the Secretary for reevaluation under paragraph (1).

“(3) The Secretary shall promulgate final regulations within 30 days after the end of the comment period under paragraph

(1)(A). The Secretary shall consult with the Council before making any revisions to the proposed regulations, and must publish in the Federal Register an explanation of any differences between the proposed and final regulations.”.

(b) PREPARATION BY THE SECRETARY.—Section 304(c) (16 U.S.C.

1854(c)) is amended—

(1) by striking the subsection heading and inserting “PREPARATION AND REVIEW OF SECRETARIAL PLANS”;

(2) by striking “or” at the end of paragraph (1)(A);

(3) by striking all that follows “further revised plan” in paragraph (1) and inserting “or amendment; or”;

(4) by inserting after subparagraph (1)(B), as amended, the following new subparagraph:

“(C) the Secretary is given authority to prepare such plan or amendment under this section.”;

(5) by striking paragraph (2) and inserting:

“(2) In preparing any plan or amendment under this subsection, the Secretary shall—

“(A) conduct public hearings, at appropriate times and locations in the geographical areas concerned, so as to allow interested persons an opportunity to be heard in the preparation and amendment of the plan and any regulations implementing the plan; and

“(B) consult with the Secretary of State with respect to foreign fishing and with the Secretary of the department in which the Coast Guard is operating with respect to enforcement at sea.”;

(6) by inserting “for a fishery under the authority of a Council” after “paragraph (1)” in paragraph (3);

(7) by striking “system described in section 303(b)(6)” in paragraph (3) and inserting “system, including any individual fishing quota program”; and

(8) by inserting after paragraph (3) the following new paragraphs:

“(4) Whenever the Secretary prepares a fishery management plan or plan amendment under this section, the Secretary shall immediately—

“(A) for a plan or amendment for a fishery under the authority of a Council, submit such plan or amendment to the appropriate Council for consideration and comment; and

“(B) publish in the Federal Register a notice stating Federal Register, that the plan or amendment is available and that written publication, information, views, or comments of interested persons on the plan or amendment may be submitted to the Secretary during the 60-day period beginning on the date the notice is published.

“(5) Whenever a plan or amendment is submitted under paragraph (4)(A), the appropriate Council must submit its comments and recommendations, if any, regarding the plan or amendment to the Secretary before the close of the 60-day period referred to in paragraph (4)(B). After the close of such 60-day period, the Secretary, after taking into account any such comments and recommendations, as well as any views, information, or comments submitted under paragraph (4)(B), may adopt such plan or amendment.

“(6) The Secretary may propose regulations in the Federal Register to implement any plan or amendment prepared by the Secretary. In the case of a plan or amendment to which paragraph (4)(A) applies, such regulations shall be submitted to the Council with such plan or amendment. The comment period on proposed regulations shall be 60 days, except that the Secretary may shorten the comment period on minor revisions to existing regulations.

“(7) The Secretary shall promulgate final regulations within Regulations. 30 days after the end of the comment period under paragraph

(6). The Secretary must publish in the Federal Register an explanation of any substantive differences between the proposed publication, and final rules. All final regulations must be consistent with the fishery management plan, with the national standards and other provisions of this Act, and with any other applicable law.”.

(c) INDIVIDUAL FISHING QUOTA AND COMMUNITY DEVELOPMENT QUOTA FEES.—Section 304(d) (16 U.S.C.

1854(d)) is amended—

(1) by inserting “(1)” immediately before the first sentence; and

(2) by inserting at the end the following:

“(2)(A) Notwithstanding paragraph (1), the Secretary is authorized and shall collect a fee to recover the actual costs directly related to the management and enforcement of any—

“(i) individual fishing quota program; and

“(ii) community development quota program that allocates a percentage of the total allowable catch of a fishery to such program.

“(B) Such fee shall not exceed 3 percent of the ex-vessel value of fish harvested under any such program, and shall be collected at either the time of the landing, filing of a landing report, or sale of such fish during a fishing season or in the last quarter of the calendar year in which the fish is harvested.

“(C)(i) Fees collected under this paragraph shall be in addition to any other fees charged under this Act and shall be deposited in the Limited Access System Administration Fund established under section 305(h)(5)(B), except that the portion of any such fees reserved under section 303(d)(4)(A) shall be deposited in the Treasury and available, subject to annual appropriations, to cover the costs of new direct loan obligations and new loan guarantee commitments as required by section 504(b)(1) of the Federal Credit Reform Act (2 U.S.C. 661c(b)(1)).

“(ii) Upon application by a State, the Secretary shall transfer to such State up to 33 percent of any fee collected pursuant to subparagraph (A) under a community development quota program and deposited in the Limited Access System Administration Fund in order to reimburse such State for actual costs directly incurred in the management and enforcement of such program.”.

(d) DELAY OF FEES.—Notwithstanding any other provision of note, law, the Secretary shall not begin the collection of fees under section 304(d)(2) of the Magnuson Fishery Conservation and Management Act, as amended by this Act, in the surf clam and ocean (including mahogany) quahog fishery or in the wreckfish fishery until after January 1, 2000.

(e) OVERFISHING.—Section 304(e) (16 U.S.C. 1854(e)) is amended to read as follows:

“(e) REBUILDING OVERFISHED FISHERIES.—

“(1) The Secretary shall report annually to the Congress and the Councils on the status of fisheries within each Council’s geographical area of authority and identify those fisheries that are overfished or are approaching a condition of being overfished. For those fisheries managed under a fishery management plan or international agreement, the status shall be determined using the criteria for overfishing specified in such plan or agreement. A fishery shall be classified as approaching a condition of being overfished if, based on trends in fishing effort, fishery resource size, and other appropriate factors, the Secretary estimates that the fishery will become overfished within two years.

“(2) If the Secretary determines at any time that a fishery is overfished, the Secretary shall immediately notify the appropriate Council and request that action be taken to end overfishing in the fishery and to implement conservation and management measures to rebuild affected stocks of fish. The Secretary shall publish each notice under this paragraph in the Federal Register.

“(3) Within one year of an identification under paragraph (1) or notification under paragraphs (2) or (7), the appropriate Council (or the Secretary, for fisheries under section 302(a)(3)) shall prepare a fishery management plan, plan amendment, or proposed regulations for the fishery to which the identification or notice applies—

“(A) to end overfishing in the fishery and to rebuild affected stocks of fish; or

“(B) to prevent overfishing from occurring in the fishery whenever such fishery is identified as approaching an overfished condition.

“(4) For a fishery that is overfished, any fishery management plan, amendment, or proposed regulations prepared pursuant to paragraph (3) or paragraph (5) for such fishery shall—

“(A) specify a time period for ending overfishing and rebuilding the fishery that shall—

“(i) be as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock of fish within the marine ecosystem; and

“(ii) not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under an international agreement in which the United States participates dictate otherwise;

“(B) allocate both overfishing restrictions and recovery benefits fairly and equitably among sectors of the fishery; and

“(C) for fisheries managed under an international agreement, reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.

“(5) If, within the one-year period beginning on the date of identification or notification that a fishery is overfished, the Council does not submit to the Secretary a fishery management plan, plan amendment, or proposed regulations required by paragraph (3)(A), the Secretary shall prepare a fishery management plan or plan amendment and any accompanying regulations to stop overfishing and rebuild affected stocks of fish within 9 months under subsection (c).

“(6) During the development of a fishery management plan, a plan amendment, or proposed regulations required by this subsection, the Council may request the Secretary to implement interim measures to reduce overfishing under section 305(c) until such measures can be replaced by such plan, amendment, or regulations. Such measures, if otherwise in compliance with the provisions of this Act, may be implemented even though they are not sufficient by themselves to stop overfishing of a fishery.

“(7) The Secretary shall review any fishery management plan, plan amendment, or regulations required by this subsection at routine intervals that may not exceed two years. If the Secretary finds as a result of the review that such plan, amendment, or regulations have not resulted in adequate progress toward ending overfishing and rebuilding affected fish stocks, the Secretary shall—

“(A) in the case of a fishery to which section 302(a)(3) applies, immediately make revisions necessary to achieve adequate progress; or

“(B) for all other fisheries, immediately notify the appropriate Council. Such notification shall recommend further conservation and management measures which the Council should consider under paragraph (3) to achieve adequate progress.”.

(f) FISHERIES UNDER AUTHORITY OF MORE THAN ONE COUNCIL.—Section 304(f) is amended by striking paragraph (3).

(g) ATLANTIC HIGHLY MIGRATORY SPECIES.—Section 304 (16 U.S.C. 1854) is amended further by striking subsection (g) and inserting the following:

“(g) ATLANTIC HIGHLY MIGRATORY SPECIES.—(1) PREPARATION AND IMPLEMENTATION OF PLAN OR PLAN AMENDMENT.—The Secretary shall prepare a fishery management plan or plan amendment under subsection (c) with respect to any highly migratory species fishery to which section 302(a)(3) applies. In preparing and implementing any such plan or amendment, the Secretary shall—

“(A) consult with and consider the comments and views of affected Councils, commissioners and advisory groups appointed under Acts implementing relevant international fishery agreements pertaining to highly migratory species, and the advisory panel established under section 302(g);

“(B) establish an advisory panel under section 302(g) for each fishery management plan to be prepared under this paragraph;

“(C) evaluate the likely effects, if any, of conservation and management measures on participants in the affected fisheries and minimize, to the extent practicable, any disadvantage to United States fishermen in relation to foreign competitors;

“(D) with respect to a highly migratory species for which the United States is authorized to harvest an allocation, quota, or at a fishing mortality level under a relevant international fishery agreement, provide fishing vessels of the United States with a reasonable opportunity to harvest such allocation, quota, or at such fishing mortality level;

“(E) review, on a continuing basis (and promptly whenever a recommendation pertaining to fishing for highly migratory species has been made under a relevant international fishery agreement), and revise as appropriate, the conservation and management measures included in the plan;

“(F) diligently pursue, through international entities (such as the International Commission for the Conservation of Atlantic Tunas), comparable international fishery management measures with respect to fishing for highly migratory species; and

“(G) ensure that conservation and management measures under this subsection—

“(i) promote international conservation of the affected fishery;

“(ii) take into consideration traditional fishing patterns of fishing vessels of the United States and the operating requirements of the fisheries;

“(iii) are fair and equitable in allocating fishing privileges among United States fishermen and do not have economic allocation as the sole purpose; and

“(iv) promote, to the extent practicable, implementation of scientific research programs that include the tagging and release of Atlantic highly migratory species.

“(2) CERTAIN FISH EXCLUDED FROM ‘BYCATCH’ DEFINITION.—Notwithstanding section 3(2), fish harvested in a commercial fishery managed by the Secretary under this subsection or the Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971d) that are not regulatory discards and that are tagged and released alive under a scientific tagging and release program established by the Secretary shall not be considered bycatch for purposes of this Act.”.

(h) COMPREHENSIVE MANAGEMENT SYSTEM FOR ATLANTIC PELAGIC LONGLINE FISHERY.—

(1) The Secretary of Commerce shall—

(A) establish an advisory panel under section 302(g)(4) of the Magnuson Fishery Conservation and Management Act, as amended by this Act, for pelagic longline fishing vessels that participate in fisheries for Atlantic highly migratory species;

(B) conduct surveys and workshops with affected fishery participants to provide information and identify options for future management programs;

(C) to the extent practicable and necessary for the evaluation of options for a comprehensive management system, recover vessel production records; and

(D) complete by January 1, 1998, a comprehensive study on the feasibility of implementing a comprehensive management system for pelagic longline fishing vessels that participate in fisheries for Atlantic highly migratory species, including, but not limited to, individual fishing quota programs and other limited access systems.

(2) Based on the study under paragraph (1)(D) and consistent with the requirements of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.), in cooperation with affected participants in the fishery, the United States Commissioners on the International Commission for the Conservation of Atlantic Tunas, and the advisory panel established under paragraph (1)(A), the Secretary of Commerce may, after October 1, 1998, implement a comprehensive management system pursuant to section 304 of such Act (16 U.S.C. 1854) for pelagic longline fishing vessels that participate in fisheries for Atlantic highly migratory species. Such a system may not implement an individual fishing quota program until after October 1, 2000.

(i) REPEAL OR REVOCATION OF A FISHERY MANAGEMENT PLAN.—

Section 304, as amended, is further amended by adding at the end the following:

(h) REPEAL OR REVOCATION OF A FISHERY MANAGEMENT PLAN.—The Secretary may repeal or revoke a fishery management plan for a fishery under the authority of a Council only if the Council approves the repeal or revocation by a three-quarters majority of the voting members of the Council.”.

(j) AMERICAN LOBSTER FISHERY.—Section 304(h) of the Magnuson Fishery Conservation and Management Act, as amended by note. this Act, shall not apply to the American Lobster Fishery Management Plan.

SEC. 110. OTHER REQUIREMENTS AND AUTHORITY.

(a) Section 305 (18 U.S.C. 1855) is amended—

(1) by striking the title and subsection (a);

(2) by redesignating subsection (b) as subsection (f); and

(3) by inserting the following before subsection (c):

“SEC. 305. OTHER REQUIREMENTS AND AUTHORITY.

“(a) GEAR EVALUATION AND NOTIFICATION OF ENTRY.—

“(1) Not later than 18 months after the date of enactment Federal Register, of the Sustainable Fisheries Act, the Secretary shall publish publication in the Federal Register, after notice and an opportunity for public comment, a list of all fisheries—

“(A) under the authority of each Council and all fishing gear used in such fisheries, based on information submitted by the Councils under section 303(a); and

“(B) to which section 302(a)(3) applies and all fishing gear used in such fisheries.

“(2) The Secretary shall include with such list guidelines for determining when fishing gear or a fishery is sufficiently different from those listed as to require notification under paragraph (3).

“(3) Effective 180 days after the publication of such list, no person or vessel may employ fishing gear or engage in a fishery not included on such list without giving 90 days advance written notice to the appropriate Council, or the Secretary with respect to a fishery to which section 302(a)(3) applies. A signed return receipt shall serve as adequate evidence of such notice and as the date upon which the 90-day period begins.

“(4) A Council may submit to the Secretary any proposed changes to such list or such guidelines the Council deems Publication appropriate. The Secretary shall publish a revised list, after notice and an opportunity for public comment, upon receiving any such proposed changes from a Council.

“(5) A Council may request the Secretary to promulgate emergency regulations under subsection (c) to prohibit any persons or vessels from using an unlisted fishing gear or engaging in an unlisted fishery if the appropriate Council, or the Secretary for fisheries to which section 302(a)(3) applies, determines that such unlisted gear or unlisted fishery would compromise the effectiveness of conservation and management efforts under this Act.

“(6) Nothing in this subsection shall be construed to permit a person or vessel to engage in fishing or employ fishing gear when such fishing or gear is prohibited or restricted by regulation under a fishery management plan or plan amendment, or under other applicable law.

“(b) FISH HABITAT.—(1)(A) The Secretary shall, within 6 months of the date of enactment of the Sustainable Fisheries Act, establish by regulation guidelines to assist the Councils in the description and identification of essential fish habitat in fishery management plans (including adverse impacts on such habitat) and in the consideration of actions to ensure the conservation and enhancement of such habitat. The Secretary shall set forth a schedule for the amendment of fishery management plans to include the identification of essential fish habitat and for the review and updating of such identifications based on new scientific evidence or other relevant information.

“(B) The Secretary, in consultation with participants in the fishery, shall provide each Council with recommendations and information regarding each fishery under that Council’s authority to assist it in the identification of essential fish habitat, the adverse impacts on that habitat, and the actions that should be considered to ensure the conservation and enhancement of that habitat.

“(C) The Secretary shall review programs administered by the Department of Commerce and ensure that any relevant programs further the conservation and enhancement of essential fish habitat.

“(D) The Secretary shall coordinate with and provide information to other Federal agencies to further the conservation and enhancement of essential fish habitat.

“(2) Each Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by such agency that may adversely affect any essential fish habitat identified under this Act.

“(3) Each Council—

“(A) may comment on and make recommendations to the Secretary and any Federal or State agency concerning any activity authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by any Federal or State agency that, in the view of the Council, may affect the habitat, including essential fish habitat, of a fishery resource under its authority; and

“(B) shall comment on and make recommendations to the Secretary and any Federal or State agency concerning any such activity that, in the view of the Council, is likely to substantially affect the habitat, including essential fish habitat, of an anadromous fishery resource under its authority.

“(4)(A) If the Secretary receives information from a Council or Federal or State agency or determines from other sources that an action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by any State or Federal agency would adversely affect any essential fish habitat identified under this Act, the Secretary shall recommend

to such agency measures that can be taken by such agency to conserve such habitat.

“(B) Within 30 days after receiving a recommendation under subparagraph (A), a Federal agency shall provide a detailed response in writing to any Council commenting under paragraph (3) and the Secretary regarding the matter. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on such habitat. In the case of a response that is inconsistent with the recommendations of the Secretary, the Federal agency shall explain its reasons for not following the recommendations.”.

(b) Section 305(c) (16 U.S.C. 1855(c)) is amended—

(1) in the heading by striking “ACTIONS” and inserting “ACTIONS AND INTERIM MEASURES”;

(2) in paragraphs (1) and (2)—

(A) by striking “involving” and inserting “or that interim measures are needed to reduce overfishing for”; and

(B) by inserting “or interim measures” after “emergency regulations”; and

(C) by inserting “or overfishing” after “emergency”; and

(3) in paragraph (3)—

(A) by inserting “or interim measure” after “emergency regulation” each place such term appears;

(B) by striking subparagraph (B);

(C) by redesignating subparagraph (C) as subparagraph (D); and

(D) by inserting after subparagraph (A) the following:

“(B) shall, except as provided in subparagraph (C), remain in effect for not more than 180 days after the date of publication, and may be extended by publication in the Federal Register for one additional period of not more than 180 days, provided the public has had an opportunity to comment on the emergency regulation or interim measure, and, in the case of a Council recommendation for emergency regulations or interim measures, the Council is actively preparing a fishery management plan, plan amendment, or proposed regulations to address the emergency or overfishing on a permanent basis;

“(C) that responds to a public health emergency or an oil spill may remain in effect until the circumstances that created the emergency no longer exist, *Provided*, That the public has an opportunity to comment after the regulation is published, and, in the case of a public health emergency, the Secretary of Health and Human Services concurs with the Secretary’s action; and”.

(c) Section 305(e) is amended—

(1) by striking “12291, dated February 17, 1981,” and inserting “12866, dated September 30, 1993,”; and

(2) by striking “subsection (c) or section 304(a) and (b)” and inserting “subsections (a), (b), and (c) of section 304”.

(d) Section 305, as amended, is further amended by adding at the end the following:

“(g) NEGOTIATED CONSERVATION AND MANAGEMENT MEASURES.—

“(1)(A) In accordance with regulations promulgated by the Secretary pursuant to this paragraph, a Council may establish a fishery negotiation panel to assist in the development of specific conservation and management measures for a fishery under its authority. The Secretary may establish a fishery negotiation panel to assist in the development of specific conservation and management measures required for a fishery under section 304(e)(5), for a fishery for which the Secretary has authority under section 304(g), or for any other fishery with the approval of the appropriate Council.

“(B) No later than 180 days after the date of enactment of the Sustainable Fisheries Act, the Secretary shall promulgate regulations establishing procedures, developed in cooperation with the Administrative Conference of the United States, for the establishment and operation of fishery negotiation panels. Such procedures shall be comparable to the procedures for negotiated rulemaking established by subchapter III of chapter 5 of title 5, United States Code.

“(2) If a negotiation panel submits a report, such report shall specify all the areas where consensus was reached by the panel, including, if appropriate, proposed conservation and management measures, as well as any other information Federal Register, submitted by members of the negotiation panel. Upon receipt, the Secretary shall publish such report in the Federal Register for public comment.

“(3) Nothing in this subsection shall be construed to require either a Council or the Secretary, whichever is appropriate, to use all or any portion of a report from a negotiation panel established under this subsection in the development of specific conservation and management measures for the fishery for which the panel was established.

“(h) CENTRAL REGISTRY SYSTEM FOR LIMITED ACCESS SYSTEM PERMITS.—

“(1) Within 6 months after the date of enactment of the Sustainable Fisheries Act, the Secretary shall establish an exclusive central registry system (which may be administered on a regional basis) for limited access system permits established under section 303(b)(6) or other Federal law, including individual fishing quotas, which shall provide for the registration of title to, and interests in, such permits, as well as for procedures for changes in the registration of title to such permits upon the occurrence of involuntary transfers, judicial or nonjudicial foreclosure of interests, enforcement of judgments thereon, and related matters deemed appropriate by the Secretary. Such registry system shall—

“(A) provide a mechanism for filing notice of a nonjudicial foreclosure or enforcement of a judgment by which the holder of a senior security interest acquires or conveys ownership of a permit, and in the event of a nonjudicial foreclosure, by which the interests of the holders of junior security interests are released when the permit is transferred;

“(B) provide for public access to the information filed Public under such system, notwithstanding section 402(b); and information.

“(C) provide such notice and other requirements of applicable law that the Secretary deems necessary for an effective registry system.

“(2) The Secretary shall promulgate such regulations as Regulations may be necessary to carry out this subsection, after consulting with the Councils and providing an opportunity for public comment. The Secretary is authorized to contract with non-Federal entities to administer the central registry system.

“(3) To be effective and perfected against any person except the transferor, its heirs and devisees, and persons having actual notice thereof, all security interests, and all sales and other transfers of permits described in paragraph (1), shall be registered in compliance with the regulations promulgated under paragraph (2). Such registration shall constitute the exclusive means of perfection of title to, and security interests in, such permits, except for Federal tax liens thereon, which shall be perfected exclusively in accordance with the Internal Revenue Code of 1986 (26 U.S.C. 1 et seq.). The Secretary shall notify Notification. both the buyer and seller of a permit if a lien has been filed by the Secretary of the Treasury against the permit before collecting any transfer fee under paragraph (5) of this subsection.

“(4) The priority of security interests shall be determined in order of filing, the first filed having the highest priority. A validly-filed security interest shall remain valid and perfected notwithstanding a change in residence or place of business of the owner of record. For the purposes of this subsection, ‘security interest’ shall include security interests, assignments, liens and other encumbrances of whatever kind.

“(5)(A) Notwithstanding section 304(d)(1), the Secretary shall collect a reasonable fee of not more than one-half of one percent of the value of a limited access system permit upon registration of the title to such permit with the central registry system and upon the transfer of such registered title. Any such fee collected shall be deposited in the Limited Access System Administration Fund established under subparagraph (B).

“(B) There is established in the Treasury a Limited Access System Administration Fund. The Fund shall be available, without appropriation or fiscal year limitation, only to the Secretary for the purposes of—

“(i) administering the central registry system; and

“(ii) administering and implementing this Act in the fishery in which the fees were collected. Sums in the Fund that are not currently needed for these purposes shall be kept on deposit or invested in obligations of, or guaranteed by, the United States.”.

(e) REGISTRY TRANSITION.—Security interests on permits note, described under section 305(h)(1) of the Magnuson Fishery Conservation and Management Act, as amended by this Act, that are effective and perfected by otherwise applicable law on the date of the final regulations implementing section 305(h) shall remain effective and perfected if, within 120 days after such date, the secured party submits evidence satisfactory to the Secretary of Commerce and in compliance with such regulations of the perfection of such security.

SEC. 111. PACIFIC COMMUNITY FISHERIES.

(a) HAROLD SPARCK MEMORIAL COMMUNITY DEVELOPMENT

QUOTA PROGRAM.—Section 305, as amended, is amended further by adding at the end:

“(i) ALASKA AND WESTERN PACIFIC COMMUNITY DEVELOPMENT PROGRAMS.—

“(1)(A) The North Pacific Council and the Secretary shall establish a western Alaska community development quota program under which a percentage of the total allowable catch of any Bering Sea fishery is allocated to the program.

“(B) To be eligible to participate in the western Alaska community development quota program under subparagraph (A) a community shall—

“(i) be located within 50 nautical miles from the baseline from which the breadth of the territorial sea is measured along the Bering Sea coast from the Bering Strait to the western most of the Aleutian Islands, or on an island within the Bering Sea;

“(ii) not be located on the Gulf of Alaska coast of the north Pacific Ocean;

“(iii) meet criteria developed by the Governor of Alaska, approved by the Secretary, and published in the Federal Register;

“(iv) be certified by the Secretary of the Interior pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.) to be a Native village;

“(v) consist of residents who conduct more than one half of their current commercial or subsistence fishing effort in the waters of the Bering Sea or waters surrounding the Aleutian Islands; and

“(vi) not have previously developed harvesting or processing capability sufficient to support substantial participation in the groundfish fisheries in the Bering Sea, unless the community can show that the benefits from an approved Community Development Plan would be the only way for the community to realize a return from previous investments.

“(C)(i) Prior to October 1, 2001, the North Pacific Council may not submit to the Secretary any fishery management plan, plan amendment, or regulation that allocates to the western Alaska community development quota program a percentage of the total allowable catch of any Bering Sea fishery for which, prior to October 1, 1995, the Council had not approved a percentage of the total allowable catch for allocation to such community development quota program. The expiration of any plan, amendment, or regulation that meets the requirements of clause (ii) prior to October 1, 2001, shall not be construed to prohibit the Council from submitting a revision or extension of such plan, amendment, or regulation to the Secretary if such revision or extension complies with the other requirements of this paragraph.

“(ii) With respect to a fishery management plan, plan amendment, or regulation for a Bering Sea fishery that—

“(I) allocates to the western Alaska community development quota program a percentage of the total allowable catch of such fishery; and

“(II) was approved by the North Pacific Council prior to October 1, 1995; the Secretary shall, except as provided in clause (iii) and after approval of such plan, amendment, or regulation under section 304, allocate to the program the percentage of the total allowable catch described in such plan, amendment, or regulation. Prior to October 1, 2001, the percentage submitted by the Council and approved by the Secretary for any such plan, amendment, or regulation shall be no greater than the percentage approved by the Council for such fishery prior to October 1, 1995.

“(iii) The Secretary shall phase in the percentage for community development quotas approved in 1995 by the North Pacific Council for the Bering Sea crab fisheries as follows:

“(I) 3.5 percent of the total allowable catch of each such fishery for 1998 shall be allocated to the western Alaska community development quota program;

“(II) 5 percent of the total allowable catch of each such fishery for 1999 shall be allocated to the western Alaska community development quota program; and

“(III) 7.5 percent of the total allowable catch of each such fishery for 2000 and thereafter shall be allocated to the western Alaska community development quota program, unless the North Pacific Council submits and the Secretary approves a percentage that is no greater than 7.5 percent of the total allowable catch of each such fishery for 2001 or the North Pacific Council submits and the Secretary approves any other percentage on or after October 1, 2001.

“(D) This paragraph shall not be construed to require the North Pacific Council to resubmit, or the Secretary to reapprove, any fishery management plan or plan amendment approved by the North Pacific Council prior to October 1, 1995, that includes a community development quota program, or any regulations to implement such plan or amendment.

“(2)(A) The Western Pacific Council and the Secretary may establish a western Pacific community development program for any fishery under the authority of such Council in order to provide access to such fishery for western Pacific communities that participate in the program.

“(B) To be eligible to participate in the western Pacific community development program, a community shall—

“(i) be located within the Western Pacific Regional Fishery Management Area;

“(ii) meet criteria developed by the Western Pacific Council, approved by the Secretary and published in the Federal Register;

“(iii) consist of community residents who are descended from the aboriginal people indigenous to the area who conducted commercial or subsistence fishing using traditional fishing practices in the waters of the Western Pacific region;

“(iv) not have previously developed harvesting or processing capability sufficient to support substantial participation in fisheries in the Western Pacific Regional Fishery Management Area; and

“(v) develop and submit a Community Development Plan to the Western Pacific Council and the Secretary.

“(C) In developing the criteria for eligible communities under subparagraph (B)(ii), the Western Pacific Council shall base such criteria on traditional fishing practices in or dependence on the fishery, the cultural and social framework relevant to the fishery, and economic barriers to access to the fishery.

“(D) For the purposes of this subsection ‘Western Pacific Regional Fishery Management Area’ means the area under the jurisdiction of the Western Pacific Council, or an island within such area.

“(E) Notwithstanding any other provision of this Act, the Western Pacific Council shall take into account traditional indigenous fishing practices in preparing any fishery management plan.

“(3) The Secretary shall deduct from any fees collected from a community development quota program under section 304(d)(2) the costs incurred by participants in the program for observer and reporting requirements which are in addition to observer and reporting requirements of other participants in the fishery in which the allocation to such program has been made.

“(4) After the date of enactment of the Sustainable Fisheries Act, the North Pacific Council and Western Pacific Council may not submit to the Secretary a community development quota program that is not in compliance with this subsection.”

(b) WESTERN PACIFIC DEMONSTRATION PROJECTS.—(1) The Secretary of Commerce and the Secretary of the Interior are authorized to make direct grants to eligible western Pacific communities, as recommended by the Western Pacific Fishery Management Council, for the purpose of establishing not less than three and not more than five fishery demonstration projects to foster and promote traditional indigenous fishing practices. The total amount of grants awarded under this subsection shall not exceed \$500,000 in each fiscal year.

(2) Demonstration projects funded pursuant to this subsection shall foster and promote the involvement of western Pacific communities in western Pacific fisheries and may—

(A) identify and apply traditional indigenous fishing practices;

- (B) develop or enhance western Pacific community-based fishing opportunities; and
 - (C) involve research, community education, or the acquisition of materials and equipment necessary to carry out any such demonstration project.
- (3)(A) The Western Pacific Fishery Management Council, in consultation with the Secretary of Commerce, shall establish an advisory panel under section 302(g) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1852(g)) to evaluate, determine the relative merits of, and annually rank applications for such grants. The panel shall consist of not more than 8 individuals who are knowledgeable or experienced in traditional indigenous fishery practices of western Pacific communities and who are not members or employees of the Western Pacific Fishery Management Council.
- (B) If the Secretary of Commerce or the Secretary of the Interior awards a grant for a demonstration project not in accordance with the rank given to such project by the advisory panel, the Secretary shall provide a detailed written explanation of the reasons therefor.
- (4) The Western Pacific Fishery Management Council shall, Reports. with the assistance of such advisory panel, submit an annual report to the Congress assessing the status and progress of demonstration projects carried out under this subsection.
- (5) Appropriate Federal agencies may provide technical assistance to western Pacific community-based entities to assist in carrying out demonstration projects under this subsection.
- (6) For the purposes of this subsection, 'western Pacific community' shall mean a community eligible to participate under section 305(i)(2)(B) of the Magnuson Fishery Conservation and Management Act, as amended by this Act.

SEC. 112. STATE JURISDICTION.

(a) Paragraph (3) of section 306(a) (16 U.S.C. 1856(a)) is amended to read as follows:

“(3) A State may regulate a fishing vessel outside the boundaries of the State in the following circumstances:

“(A) The fishing vessel is registered under the law of that State, and (i) there is no fishery management plan or other applicable Federal fishing regulations for the fishery in which the vessel is operating; or (ii) the State’s laws and regulations are consistent with the fishery management plan and applicable Federal fishing regulations for the fishery in which the vessel is operating.

“(B) The fishery management plan for the fishery in which the fishing vessel is operating delegates management of the fishery to a State and the State’s laws and regulations are consistent with such fishery management plan. If at any time the Secretary determines that a State law Notification. or regulation applicable to a fishing vessel under this circumstance is not consistent with the fishery management plan, the Secretary shall promptly notify the State and the appropriate Council of such determination and provide an opportunity for the State to correct any inconsistencies identified in the notification. If, after notice and opportunity for corrective action, the State does not correct the inconsistencies identified by the Secretary, the authority granted to the State under this subparagraph shall not apply until the Secretary and the appropriate Council find that the State has corrected the inconsistencies. For a fishery for which there was a fishery management plan in place on August 1, 1996 that did not delegate management of the fishery to a State as of that date, the authority provided by this subparagraph applies only if the Council approves the delegation of management of the fishery to the State by a three-quarters majority vote of the voting members of the Council.

“(C) The fishing vessel is not registered under the law of the State of Alaska and is operating in a fishery in the exclusive economic zone off Alaska for which there was no fishery management plan in place on August 1, 1996, and the Secretary and the North Pacific Council find that there is a legitimate interest of the State of Alaska in the conservation and management of such fishery. The authority provided under this subparagraph shall terminate when a fishery management plan under this Act is approved and implemented for such fishery.”.

(b) Section 306(b) (16 U.S.C. 1856(b)) is amended by adding at the end the following:

“(3) If the State involved requests that a hearing be held pursuant to paragraph (1), the Secretary shall conduct such hearing prior to taking any action under paragraph (1).”.

(c) Section 306(c)(1) (16 U.S.C. 1856(c)(1)) is amended—

(1) by striking “(4)(C); and” in subparagraph (A) and inserting “(4)(C) or has received a permit under section 204(d);”;

(2) by striking the period at the end of subparagraph (B) and inserting a semicolon and the word “and”; and

(3) by inserting after subparagraph (B) the following:

“(C) the owner or operator of the vessel submits reports Regulations. on the tonnage of fish received from vessels of the United States and the locations from which such fish were harvested, in accordance with such procedures as the Secretary by regulation shall prescribe.”.

(d) INTERIM AUTHORITY FOR DUNGENESS CRAB.—(1) Subject note. to the provisions of this subsection and notwithstanding section 306(a) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1856(a)), the States of Washington, Oregon, and California may each enforce State laws and regulations governing fish harvesting and processing against any vessel operating in the exclusive economic zone off each respective State in a fishery for Dungeness crab (Cancer magister) for which there is no fishery management plan implemented under the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).

Applicability. (2) Any law or regulation promulgated under this subsection shall apply equally to vessels operating in the exclusive economic zone and adjacent State waters and shall be limited to—

(A) establishment of season opening and closing dates, including presoak dates for crab pots;

(B) setting of minimum sizes and crab meat recovery rates;

(C) restrictions on the retention of crab of a certain sex; and

(D) closure of areas or pot limitations to meet the harvest requirements arising under the jurisdiction of United States v. Washington, subproceeding 89-3.

(3) With respect to the States of Washington, Oregon, and California—

(A) any State law limiting entry to a fishery subject to regulation under this subsection may not be enforced against a vessel that is operating in the exclusive economic zone off that State and is not registered under the law of that State, if the vessel is otherwise legally fishing in the exclusive economic zone, except that State laws regulating landings may be enforced; and

(B) no vessel may harvest or process fish which is subject to regulation under this subsection unless under an appropriate State permit or pursuant to a Federal court order.

(4) The authority provided under this subsection to regulate Termination the Dungeness crab fishery shall terminate on October 1, 1999, date. or when a fishery management plan is implemented under the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.) for such fishery, whichever date is earlier.

(5) Nothing in this subsection shall reduce the authority of any State, as such authority existed on July 1, 1996, to regulate fishing, fish processing, or landing of fish.

(6)(A) It is the sense of Congress that the Pacific Fishery Management Council, at the earliest practicable date, should develop and submit to the Secretary fishery management plans for shellfish fisheries conducted in the geographic area of authority of the Council, especially Dungeness crab, which are not subject to a fishery management plan on the date of enactment of this Act.

(B) Not later than December 1, 1997, the Pacific Fishery Reports. Management Council shall provide a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Resources of the House of Representatives describing the progress in developing the fishery management plans referred to in subparagraph (A) and any impediments to such progress.

SEC. 113. PROHIBITED ACTS.

(a) Section 307(1)(J)(i) (16 U.S.C. 1857(1)(J)(i)) is amended—

(1) by striking “plan,” and inserting “plan”; and

(2) by inserting before the semicolon the following: “, or in the absence of any such plan, is smaller than the minimum possession size in effect at the time under a coastal fishery management plan for American lobster adopted by the Atlantic States Marine Fisheries Commission under the Atlantic Coastal Fisheries Cooperative Management Act (16 U.S.C. 5101 et seq.)”.

(b) Section 307(1)(K) (16 U.S.C. 1857(1)(K)) is amended—

(1) by striking “knowingly steal or without authorization, to” and inserting “to steal or attempt to steal or to negligently and without authorization”; and

(2) by striking “gear, or attempt to do so;” and insert “gear;”.

(c) Section 307(1)(L) (16 U.S.C. 1857(1)(L)) is amended to read as follows:

“(L) to forcibly assault, resist, oppose, impede, intimidate, sexually harass, bribe, or interfere with any observer on a vessel under this Act, or any data collector employed by the National Marine Fisheries Service or under contract to any person to carry out responsibilities under this Act;”.

(d) Section 307(1) (16 U.S.C. 1857(1)) is amended—

(1) by striking “or” at the end of subparagraph (M);

(2) by striking “pollock.” in subparagraph (N) and inserting “pollock; or”; and

(3) by adding at the end the following:

“(O) to knowingly and willfully fail to disclose, or to falsely disclose, any financial interest as required under section 302(j), or to knowingly vote on a Council decision in violation of section 302(j)(7)(A).”.

(e) Section 307(2)(A) (16 U.S.C. 1857(2)(A)) is amended to read as follows:

“(A) in fishing within the boundaries of any State, except—

“(i) recreational fishing permitted under section 201(i);

“(ii) fish processing permitted under section 306(c); or

“(iii) transshipment at sea of fish or fish products within the boundaries of any State in accordance with a permit approved under section 204(d);”.

(f) Section 307(2)(B) (16 U.S.C. 1857(2)(B)) is amended—

(1) by striking “(j)” and inserting “(i)”; and

(2) by striking “204(b) or (c)” and inserting “204(b), (c), or (d)”.

(g) Section 307(3) (16 U.S.C. 1857(3)) is amended to read as follows:

“(3) for any vessel of the United States, and for the owner or operator of any vessel of the United States, to transfer at sea directly or indirectly, or attempt to so transfer at sea, any United States harvested fish to any foreign fishing vessel, while such foreign vessel is within the exclusive economic zone or within the boundaries of any State except to the extent that the foreign fishing vessel has been permitted under section 204(d) or section 306(c) to receive such fish;”.

(h) Section 307(4) (16 U.S.C. 1857(4)) is amended by inserting “or within the boundaries of any State” after “zone”.

SEC. 114. CIVIL PENALTIES AND PERMIT SANCTIONS; REBUTTABLE PRESUMPTIONS.

(a) Section 308(a) (16 U.S.C. 1858(a)) is amended by striking “ability to pay,” and adding at the end the following new sentence: “In assessing such penalty the Secretary may also consider any information provided by the violator relating to the ability of the violator to pay, *Provided*, That the information is served on the Secretary at least 30 days prior to an administrative hearing.”.

(b) The first sentence of section 308(b) (16 U.S.C. 1858(b)) is amended to read as follows: “Any person against whom a civil penalty is assessed under subsection (a) or against whom a permit sanction is imposed under subsection (g) (other than a permit suspension for nonpayment of penalty or fine) may obtain review thereof in the United States district court for the appropriate district by filing a complaint against the Secretary in such court within 30 days from the date of such order.”.

(c) Section 308(g)(1)(C) (16 U.S.C. 1858(g)(1)(C)) is amended by striking the matter from “or (C) any” through “overdue,” and inserting the following: “(C) any amount in settlement of a civil forfeiture imposed on a vessel or other property, or any civil penalty or criminal fine imposed on a vessel or owner or operator of a vessel or any other person who has been issued or has applied for a permit under any marine resource law enforced by the Secretary has not been paid and is overdue, or (D) any payment required for observer services provided to or contracted by an owner or operator who has been issued a permit or applied for a permit under any marine resource law administered by the Secretary has not been paid and is overdue.”.

(d) Section 310(e) (16 U.S.C. 1860(e)) is amended by adding at the end the following new paragraph:

“(3) For purposes of this Act, it shall be a rebuttable presumption that any vessel that is shoreward of the outer boundary of the exclusive economic zone of the United States or beyond the exclusive economic zone of any nation, and that has gear on board that is capable of use for large-scale driftnet fishing, is engaged in such fishing.”.

SEC. 115. ENFORCEMENT.

(a) The second sentence of section 311(d) (16 U.S.C. 1861(d)) is amended—

(1) by striking “Guam, any Commonwealth, territory, or” and inserting “Guam or any”; and

(2) by inserting a comma before the period and the following: “and except that in the case of the Northern Mariana Islands, the appropriate court is the United States District Court for the District of the Northern Mariana Islands”.

(b) Section 311(e)(1) (16 U.S.C. 1861(e)(1)) is amended—

(1) by striking “fishery” each place it appears and inserting “marine”; and

(2) by inserting “of not less than 20 percent of the penalty collected or \$20,000, whichever is the lesser amount,” after “reward” in subparagraph (B), and

(3) by striking subparagraph (E) and inserting the following:

“(E) claims of parties in interest to property disposed of under section 612(b) of the Tariff Act of 1930 (19 U.S.C. 1612(b)), as made applicable by section 310(c) of this Act or by any other marine resource law enforced by the Secretary, to seizures made by the Secretary, in amounts determined by the Secretary to be applicable to such claims at the time of seizure; and”.

(c) Section 311(e)(2) (16 U.S.C. 1861(e)(2)) is amended to read as follows:

“(2) Any person found in an administrative or judicial proceeding to have violated this Act or any other marine resource law enforced by the Secretary shall be liable for the cost incurred in the sale, storage, care, and maintenance of any fish or other property lawfully seized in connection with the violation.”.

(d) Section 311 (16 U.S.C. 1861) is amended by redesignating subsection (g) as subsection (h), and by inserting the following after subsection (f):

“(g) ENFORCEMENT IN THE PACIFIC INSULAR AREAS.—The Secretary, in consultation with the Governors of the

Pacific Insular Areas and the Western Pacific Council, shall to the extent practicable support cooperative enforcement agreements between Federal and Pacific Insular Area authorities.’’.

(e) Section 311 (16 U.S.C. 1861), as amended by subsection (d), is amended by striking ‘‘201(b), (c),’’ in subsection (i)(1), as redesignated, and inserting ‘‘201(b) or (c), or section 204(d),’’.

SEC. 116. TRANSITION TO SUSTAINABLE FISHERIES.

(a) Section 312 is amended to read as follows:

‘‘SEC. 312. TRANSITION TO SUSTAINABLE FISHERIES.

‘‘(a) FISHERIES DISASTER RELIEF.—(1) At the discretion of the Secretary or at the request of the Governor of an affected State or a fishing community, the Secretary shall determine whether there is a commercial fishery failure due to a fishery resource disaster as a result of—

‘‘(A) natural causes;

‘‘(B) man-made causes beyond the control of fishery managers to mitigate through conservation and management measures; or

‘‘(C) undetermined causes.

‘‘(2) Upon the determination under paragraph (1) that there is a commercial fishery failure, the Secretary is authorized to make sums available to be used by the affected State, fishing community, or by the Secretary in cooperation with the affected State or fishing community for assessing the economic and social effects of the commercial fishery failure, or any activity that the Secretary determines is appropriate to restore the fishery or prevent a similar failure in the future and to assist a fishing community affected by such failure. Before making funds available for an activity authorized under this section, the Secretary shall make a determination that such activity will not expand the size or scope of the commercial fishery failure in that fishery or into other fisheries or other geographic regions.

‘‘(3) The Federal share of the cost of any activity carried out under the authority of this subsection shall not exceed 75 percent of the cost of that activity.

‘‘(4) There are authorized to be appropriated to the Secretary such sums as are necessary for each of the fiscal years 1996, 1997, 1998, and 1999.

‘‘(b) FISHING CAPACITY REDUCTION PROGRAM.—(1) The Secretary, at the request of the appropriate Council for fisheries under the authority of such Council, or the Governor of a State for fisheries under State authority, may conduct a fishing capacity reduction program (referred to in this section as the ‘program’) in a fishery if the Secretary determines that the program—

‘‘(A) is necessary to prevent or end overfishing, rebuild stocks of fish, or achieve measurable and significant improvements in the conservation and management of the fishery;

‘‘(B) is consistent with the Federal or State fishery management plan or program in effect for such fishery, as appropriate, and that the fishery management plan—

‘‘(i) will prevent the replacement of fishing capacity removed by the program through a moratorium on new entrants, restrictions on vessel upgrades, and other effort control measures, taking into account the full potential fishing capacity of the fleet; and

‘‘(ii) establishes a specified or target total allowable catch or other measures that trigger closure of the fishery or adjustments to reduce catch; and

‘‘(C) is cost-effective and capable of repaying any debt obligation incurred under section 1111 of title XI of the Merchant Marine Act, 1936.

‘‘(2) The objective of the program shall be to obtain the maximum sustained reduction in fishing capacity at the least cost and in a minimum period of time. To achieve that objective, the Secretary is authorized to pay—

‘‘(A) the owner of a fishing vessel, if such vessel is (i) scrapped, or (ii) through the Secretary of the department in which the Coast Guard is operating, subjected to title restrictions that permanently prohibit and effectively prevent its use in fishing, and if the permit authorizing the participation of the vessel in the fishery is surrendered for permanent revocation and the owner relinquishes any claim associated with the vessel and permit that could qualify such owner for any present or future limited access system permit in the fishery for which the program is established; or

‘‘(B) the holder of a permit authorizing participation in the fishery, if such permit is surrendered for permanent revocation, and such holder relinquishes any claim associated with the permit and vessel used to harvest fishery resources under the permit that could qualify such holder for any present or future limited access system permit in the fishery for which the program was established.

‘‘(3) Participation in the program shall be voluntary, but the Secretary shall ensure compliance by all who do participate.

‘‘(4) The Secretary shall consult, as appropriate, with Councils, Federal agencies, State and regional authorities, affected fishing communities, participants in the fishery, conservation organizations, and other interested parties throughout the development and implementation of any program under this section.

‘‘(c) PROGRAM FUNDING.—(1) The program may be funded by any combination of amounts—

‘‘(A) available under clause (iv) of section 2(b)(1)(A) of the Act of August 11, 1939 (15 U.S.C. 713c-3(b)(1)(A); the Saltonstall-Kennedy Act);

‘‘(B) appropriated for the purposes of this section;

‘‘(C) provided by an industry fee system established under subsection (d) and in accordance with section 1111 of title XI of the Merchant Marine Act, 1936; or

‘‘(D) provided from any State or other public sources or private or non-profit organizations.

‘‘(2) All funds for the program, including any fees established under subsection (d), shall be paid into the fishing capacity reduction fund established under section 1111 of title XI of the Merchant Marine Act, 1936.

‘‘(d) INDUSTRY FEE SYSTEM.—(1)(A) If an industry fee system is necessary to fund the program, the Secretary, at the request of the appropriate Council, may conduct a referendum on such system. Prior to the referendum, the Secretary, in consultation with the Council, shall— Notification.

‘‘(i) identify, to the extent practicable, and notify all permit or vessel owners who would be affected by the program; and

‘‘(ii) make available to such owners information about the industry fee system describing the schedule, procedures, and eligibility requirements for the referendum, the proposed program, and the amount and duration and any other terms and conditions of the proposed fee system.

‘‘(B) The industry fee system shall be considered approved if the referendum votes which are cast in favor of the proposed system constitute a two-thirds majority of the participants voting.

‘‘(2) Notwithstanding section 304(d) and consistent with an approved industry fee system, the Secretary is authorized to establish such a system to fund the program and repay debt obligations incurred pursuant to section 1111 of title XI of the Merchant Marine Act, 1936. The fees for a program established under this section shall—

‘‘(A) be determined by the Secretary and adjusted from time to time as the Secretary considers necessary to ensure the availability of sufficient funds to repay such debt obligations;

‘‘(B) not exceed 5 percent of the ex-vessel value of all fish harvested from the fishery for which the program is established;

‘‘(C) be deducted by the first ex-vessel fish purchaser from the proceeds otherwise payable to the seller and accounted for and forwarded by such fish purchasers to the Secretary in such manner as the Secretary may establish; and

‘‘(D) be in effect only until such time as the debt obligation has been fully paid.

“(e) IMPLEMENTATION PLAN.—(1) The Secretary, in consultation with the appropriate Council or State and other interested parties, shall prepare and publish in the Federal Register for a 60-day public comment period an implementation plan, including proposed regulations, for each program. The implementation plan shall—

“(A) define criteria for determining types and numbers of vessels which are eligible for participation in the program taking into account characteristics of the fishery, the requirements of applicable fishery management plans, the needs of fishing communities, and the need to minimize program costs; and

“(B) establish procedures for program participation (such as submission of owner bid under an auction system or fair market-value assessment) including any terms and conditions for participation which the Secretary deems to be reasonably necessary to meet the goals of the program.

“(2) During the 60-day public comment period—

Public“(A) the Secretary shall conduct a public hearing in each State affected by the program; and

“(B) the appropriate Council or State shall submit its comments and recommendations, if any, regarding the plan and

“(3) Within 45 days after the close of the public comment publication period, the Secretary, in consultation with the appropriate Council or State, shall analyze the public comment received and publish in the Federal Register a final implementation plan for the program and regulations for its implementation. The Secretary may not adopt a final implementation plan involving industry fees or debt obligation unless an industry fee system has been approved by a referendum under this section.”.

(b) STUDY OF FEDERAL INVESTMENT.—The Secretary of Commerce shall establish a task force comprised of interested to study and report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Resources of the House of Representatives within 2 years of the date of enactment of this Act on the role of the Federal Government in—

(1) subsidizing the expansion and contraction of fishing capacity in fishing fleets managed under the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.); and

(2) otherwise influencing the aggregate capital investments in fisheries.

(c) Section 2(b)(1)(A) of the Act of August 11, 1939 (15 U.S.C. 15 USC 713c-3. 713c3(b)(1)(A)) is amended—

(1) by striking “and” at the end of clause (ii);

(2) by striking the period at the end of clause (iii) and inserting a semicolon and the word “and”; and

(3) by adding at the end the following new clause:

“(iv) to fund the Federal share of a fishing capacity reduction program established under section 312 of the Magnuson Fishery Conservation and Management Act; and”.

SEC. 117. NORTH PACIFIC AND NORTHWEST ATLANTIC OCEAN FISHERIES.

(a) NORTH PACIFIC FISHERIES CONSERVATION.—Section 313 (16 U.S.C. 1862) is amended—

- (1) by striking “RESEARCH PLAN” in the section heading and inserting “CONSERVATION”;
- (2) in subsection (a) by striking “North Pacific Fishery Management Council” and inserting “North Pacific Council”; and
- (3) by adding at the end the following:

“(f) BYCATCH REDUCTION.—In implementing section 303(a)(11) and this section, the North Pacific Council shall submit conservation and management measures to lower, on an annual basis for a period of not less than four years, the total amount of economic discards occurring in the fisheries under its jurisdiction.

“(g) BYCATCH REDUCTION INCENTIVES.—

“(h) (1) Notwithstanding section 304(d), the North Pacific Council may submit, and the Secretary may approve, consistent with the provisions of this Act, a system of fines in a fishery to provide incentives to reduce bycatch and bycatch rates; except that such fines shall not exceed \$25,000 per vessel per season. Any fines collected shall be deposited in the North Pacific Fishery Observer Fund, and may be made available by the Secretary to offset costs related to the reduction of bycatch in the fishery from which such fines were derived, including conservation and management measures and research, and to the State of Alaska to offset costs incurred by the State in the fishery from which such penalties were derived or in fisheries in which the State is directly involved in management or enforcement and which are directly affected by the fishery from which such penalties were derived.

“(2) (A) Notwithstanding section 303(d), and in addition to the authority provided in section 303(b)(10), the North Pacific Council may submit, and the Secretary may approve, conservation and management measures which provide allocations of regulatory discards to individual fishing vessels as an incentive to reduce per vessel bycatch and bycatch rates in a fishery, *Provided*, That—

- “(i) such allocations may not be transferred for monetary consideration and are made only on an annual basis; and
- “(ii) any such conservation and management measures will meet the requirements of subsection (h) and will result in an actual reduction in regulatory discards in the fishery.

“(B) The North Pacific Council may submit restrictions in addition to the restriction imposed by clause (i) of subparagraph (A) on the transferability of any such allocations, and the Secretary may approve such recommendation.

“(h) CATCH MEASUREMENT.—(1) By June 1, 1997 the North Pacific Council shall submit, and the Secretary may approve, consistent with the other provisions of this Act, conservation and management measures to ensure total catch measurement in each fishery under the jurisdiction of such Council. Such measures shall ensure the accurate enumeration, at a minimum, of target species, economic discards, and regulatory discards.

“(2) To the extent the measures submitted under paragraph (1) do not require United States fish processors and fish processing vessels (as defined in chapter 21 of title 46, United States Code) to weigh fish, the North Pacific Council and the Secretary shall submit a plan to the Congress by January 1, 1998, to allow for weighing, including recommendations to assist such processors and processing vessels in acquiring necessary equipment, unless the Council determines that such weighing is not necessary to meet the requirements of this subsection.

“(i) FULL RETENTION AND UTILIZATION.—(1) The North Pacific Council shall submit to the Secretary by October 1, 1998 a report on the advisability of requiring the full retention by fishing vessels and full utilization by United States fish processors of economic discards in fisheries under its jurisdiction if such economic discards, or the mortality of such economic discards, cannot be avoided. The report shall address the projected impacts of such requirements on participants in the fishery and describe any full retention and full utilization requirements that have been implemented.

“(2) The report shall address the advisability of measures to minimize processing waste, including standards setting minimum percentages which must be processed for human consumption. For the purpose of the report, “processing waste” means that portion of any fish which is processed and which could be used for human consumption or other commercial use, but which is not so used.”.

(b) NORTHWEST ATLANTIC OCEAN FISHERIES.—Section 314 (16 U.S.C. 1863) is amended by striking “1997” in subsection (a)(4) and inserting “1999”.

TITLE II—FISHERY MONITORING AND RESEARCH

SEC. 201. CHANGE OF TITLE.

The heading of title IV (16 U.S.C. 1881 et seq.) is amended to read as follows:

TITLE IV—FISHERY MONITORING AND RESEARCH

SEC. 202. REGISTRATION AND INFORMATION MANAGEMENT.

Title IV (16 U.S.C. 1881 et seq.) is amended by inserting after the title heading the following:

“SEC. 401. REGISTRATION AND INFORMATION MANAGEMENT.

“(a) STANDARDIZED FISHING VESSEL REGISTRATION AND INFORMATION MANAGEMENT SYSTEM.—

The Secretary shall, in cooperation with the Secretary of the department in which the Coast Guard is operating, the States, the Councils, and Marine Fisheries Commissions, develop recommendations for implementation of a standardized fishing vessel registration and information management system on a regional basis. The recommendations shall be developed after consultation with interested governmental and nongovernmental parties and shall—

“(1) be designed to standardize the requirements of vessel registration and information collection systems required by this Act, the Marine Mammal Protection Act (16 U.S.C. 1361 et seq.), and any other marine resource law implemented by the Secretary, and, with the permission of a State, any marine resource law implemented by such State;

“(2) integrate information collection programs under existing fishery management plans into a non-duplicative information collection and management system;

“(3) avoid duplication of existing State, tribal, or Federal systems and shall utilize, to the maximum extent practicable, information collected from existing systems;

“(4) provide for implementation of the system through cooperative agreements with appropriate State, regional, or tribal entities and Marine Fisheries Commissions;

“(5) provide for funding (subject to appropriations) to assist appropriate State, regional, or tribal entities and Marine Fisheries Commissions in implementation;

“(6) establish standardized units of measurement, nomenclature, and formats for the collection and submission of information;

“(7) minimize the paperwork required for vessels registered under the system;

“(8) include all species of fish within the geographic areas of authority of the Councils and all fishing vessels including charter fishing vessels, but excluding recreational fishing vessels;

“(9) require United States fish processors, and fish dealers and other first ex-vessel purchasers of fish that are subject to the proposed system, to submit information (other than economic information) which may be necessary to meet the goals of the proposed system; and

“(10) include procedures necessary to ensure—

“(A) the confidentiality of information collected under this section in accordance with section 402(b); and

“(B) the timely release or availability to the public of information collected under this section consistent with section 402(b).

“(b) FISHING VESSEL REGISTRATION.—The proposed registration

system should, at a minimum, obtain the following information for each fishing vessel—

“(1) the name and official number or other identification, together with the name and address of the owner or operator or both;

“(2) gross tonnage, vessel capacity, type and quantity of fishing gear, mode of operation (catcher, catcher processor, or other), and such other pertinent information with respect to vessel characteristics as the Secretary may require; and

“(3) identification (by species, gear type, geographic area of operations, and season) of the fisheries in which the fishing vessel participates.

“(c) FISHERY INFORMATION.—The proposed information management system should, at a minimum, provide basic fisheries performance information for each fishery, including—

“(1) the number of vessels participating in the fishery including charter fishing vessels;

“(2) the time period in which the fishery occurs;

“(3) the approximate geographic location or official reporting area where the fishery occurs;

“(4) a description of fishing gear used in the fishery, including the amount and type of such gear and the appropriate unit of fishing effort; and

“(5) other information required under subsection 303(a)(5) or requested by the Council under section 402.

“(d) USE OF REGISTRATION.—Any registration recommended under this section shall not be considered a permit for the purposes of this Act, and the Secretary may not propose to revoke, suspend, deny, or impose any other conditions or restrictions on any such registration or the use of such registration under this Act.

“(e) PUBLIC COMMENT.—Within one year after the date of enactment of the Sustainable Fisheries Act, the Secretary shall publish in the Federal Register for a 60-day public comment period a proposal that would provide for implementation of a standardized fishing vessel registration and information collection system that meets the requirements of subsections (a) through (c). The proposal shall include—

“(1) a description of the arrangements of the Secretary for consultation and cooperation with the department in which the Coast Guard is operating, the States, the Councils, Marine Fisheries Commissions, the fishing industry and other interested parties; and

“(2) any proposed regulations or legislation necessary to implement the proposal.

“(f) CONGRESSIONAL TRANSMITTAL.—Within 60 days after the end of the comment period and after consideration of comments received under subsection (e), the Secretary shall transmit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Resources of the House of Representatives a recommended proposal for implementation of a national fishing vessel registration system that includes—

“(1) any modifications made after comment and consultation;

“(2) a proposed implementation schedule, including a schedule for the proposed cooperative agreements required under subsection (a)(4); and

“(3) recommendations for any such additional legislation as the Secretary considers necessary or desirable to implement the proposed system.

“(g) REPORT TO CONGRESS.—Within 15 months after the date of enactment of the Sustainable Fisheries Act, the Secretary shall report to Congress on the need to include recreational fishing vessels into a national fishing vessel registration and information collection system. In preparing its report, the Secretary shall cooperate with the Secretary of the department in which the Coast Guard is operating, the States, the Councils, and Marine Fisheries Commissions, and consult with governmental and nongovernmental parties.”

SEC. 203. INFORMATION COLLECTION.

Section 402 is amended to read as follows:

“SEC. 402. INFORMATION COLLECTION.

“(a) COUNCIL REQUESTS.—If a Council determines that additional information (other than information that would disclose proprietary or confidential commercial or financial information regarding fishing operations or fish processing operations) would be beneficial for developing, implementing, or revising a fishery management plan or for determining whether a fishery is in need of management, the Council may request that the Secretary implement an information collection program for the fishery which would provide the types of information (other than information that would disclose proprietary or confidential commercial or financial information regarding fishing operations or fish processing

operations) specified by the Council. The Secretary shall undertake such information collection program if he determines that the need is justified, and shall promulgate regulations to implement the program within 60 days after such determination is made. If the Secretary determines that the need for an information collection program is not justified, the Secretary shall inform the Council of the reasons for such determination in writing. The determinations of the Secretary under this subsection regarding a Council request shall be made within a reasonable period of time after receipt of that request.

“(b) CONFIDENTIALITY OF INFORMATION.—(1) Any information submitted to the Secretary by any person in compliance with any requirement under this Act shall be confidential and shall not be disclosed, except—

“(A) to Federal employees and Council employees who are responsible for fishery management plan development and monitoring;

“(B) to State or Marine Fisheries Commission employees pursuant to an agreement with the Secretary that prevents public disclosure of the identity or business of any person;

“(C) when required by court order;

“(D) when such information is used to verify catch under an individual fishing quota program;

“(E) that observer information collected in fisheries under the authority of the North Pacific Council may be released to the public as specified in a fishery management plan or regulation for weekly summary bycatch information identified by vessel, and for haul-specific bycatch information without vessel identification; or

“(F) when the Secretary has obtained written authorization from the person submitting such information to release such information to persons for reasons not otherwise provided for in this subsection, and such release does not violate other requirements of this Act.

“(2) The Secretary shall, by regulation, prescribe such procedures as may be necessary to preserve the confidentiality of information submitted in compliance with any requirement or regulation under this Act, except that the Secretary may release or make public any such information in any aggregate or summary form which does not directly or indirectly disclose the identity or business of any person who submits such information. Nothing in this subsection shall be interpreted or construed to prevent the use for conservation and management purposes by the Secretary, or with the approval of the Secretary, the Council, of any information submitted in compliance with any requirement or regulation under this Act or the use, release, or publication of bycatch information pursuant to paragraph (1)(E).

“(c) RESTRICTION ON USE OF CERTAIN INFORMATION.—

(1) The Secretary shall promulgate regulations to restrict the use, in civil enforcement or criminal proceedings under this Act, the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.), and the Endangered Species Act (16 U.S.C. 1531 et seq.), of information collected by voluntary fishery data collectors, including sea samplers, while aboard any vessel for conservation and management purposes if the presence of such a fishery data collector aboard is not required by any of such Acts or regulations thereunder.

“(2) The Secretary may not require the submission of a Federal or State income tax return or statement as a prerequisite for issuance of a permit until such time as the Secretary has promulgated regulations to ensure the confidentiality of information contained in such return or statement, to limit the information submitted to that necessary to achieve a demonstrated conservation and management purpose, and to provide appropriate penalties for violation of such regulations.

“(d) CONTRACTING AUTHORITY.—Notwithstanding any other provision of law, the Secretary may provide a grant, contract, or other financial assistance on a sole-source basis to a State, Council, or Marine Fisheries Commission for the purpose of carrying out information collection or other programs if—

“(1) the recipient of such a grant, contract, or other financial assistance is specified by statute to be, or has customarily been, such State, Council, or Marine Fisheries Commission; or

“(2) the Secretary has entered into a cooperative agreement with such State, Council, or Marine Fisheries Commission.

“(e) RESOURCE ASSESSMENTS.—(1) The Secretary may use the private sector to provide vessels, equipment, and services necessary to survey the fishery resources of the United States when the arrangement will yield statistically reliable results.

“(2) The Secretary, in consultation with the appropriate Council and the fishing industry—

“(A) may structure competitive solicitations under paragraph (1) so as to compensate a contractor for a fishery resources survey by allowing the contractor to retain for sale fish harvested during the survey voyage;

“(B) in the case of a survey during which the quantity or quality of fish harvested is not expected to be adequately compensatory, may structure those solicitations so as to provide that compensation by permitting the contractor to harvest on a subsequent voyage and retain for sale a portion of the allowable catch of the surveyed fishery; and

“(C) may permit fish harvested during such survey to count toward a vessel’s catch history under a fishery management plan if such survey was conducted in a manner that precluded a vessel’s participation in a fishery that counted under the plan for purposes of determining catch history.

“(3) The Secretary shall undertake efforts to expand annual fishery resource assessments in all regions of the Nation.”.

SEC. 204. OBSERVERS.

Section 403 is amended to read as follows:

“SEC. 403. OBSERVERS.

“(a) GUIDELINES FOR CARRYING OBSERVERS.—Within one year after the date of enactment of the Sustainable Fisheries Act, the Secretary shall promulgate regulations, after notice and opportunity for public comment, for fishing vessels that carry observers. The regulations shall include guidelines for determining—

“(1) when a vessel is not required to carry an observer on board because the facilities of such vessel for the quartering of an observer, or for carrying out observer functions, are so inadequate or unsafe that the health or safety of the observer or the safe operation of the vessel would be jeopardized; and

“(2) actions which vessel owners or operators may reasonably be required to take to render such facilities adequate and safe.

“(b) TRAINING.—The Secretary, in cooperation with the appropriate States and the National Sea Grant College Program, shall—

“(1) establish programs to ensure that each observer receives adequate training in collecting and analyzing the information necessary for the conservation and management purposes of the fishery to which such observer is assigned;

“(2) require that an observer demonstrate competence in fisheries science and statistical analysis at a level sufficient to enable such person to fulfill the responsibilities of the position;

“(3) ensure that an observer has received adequate training in basic vessel safety; and

“(4) make use of university and any appropriate private nonprofit organization training facilities and resources, where possible, in carrying out this subsection.

“(c) OBSERVER STATUS.—An observer on a vessel and under contract to carry out responsibilities under this Act or the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.) shall be deemed to be a Federal employee for the purpose of compensation under the Federal Employee Compensation Act (5 U.S.C. 8101 et seq.).”.

SEC. 205. FISHERIES RESEARCH.

Section 404 is amended to read as follows:

“SEC. 404. FISHERIES RESEARCH.

“(a) IN GENERAL.—The Secretary shall initiate and maintain, in cooperation with the Councils, a comprehensive program of fishery research to carry out and further the purposes, policy, and provisions of this Act. Such program shall be designed to acquire knowledge and information, including statistics, on fishery conservation and management and on the economics and social characteristics of the fisheries.

“(b) STRATEGIC PLAN.—Within one year after the date of enactment of the Sustainable Fisheries Act, and at least every 3 years thereafter, the Secretary shall develop and publish in the Federal Register a strategic plan for fisheries research for the 5 years immediately following such publication. The plan shall—

“(1) identify and describe a comprehensive program with a limited number of priority objectives for research in each of the areas specified in subsection (c);

“(2) indicate goals and timetables for the program described in paragraph (1);

“(3) provide a role for commercial fishermen in such research, including involvement in field testing;

“(4) provide for collection and dissemination, in a timely manner, of complete and accurate information concerning fishing activities, catch, effort, stock assessments, and other research conducted under this section; and

“(5) be developed in cooperation with the Councils and affected States, and provide for coordination with the Councils, affected States, and other research entities.

“(c) AREAS OF RESEARCH.—Areas of research are as follows:

“(1) Research to support fishery conservation and management, including but not limited to, biological research concerning the abundance and life history parameters of stocks of fish, the interdependence of fisheries or stocks of fish, the identification of essential fish habitat, the impact of pollution on fish populations, the impact of wetland and estuarine degradation, and other factors affecting the abundance and availability of fish.

“(2) Conservation engineering research, including the study of fish behavior and the development and testing of new gear technology and fishing techniques to minimize bycatch and any adverse effects on essential fish habitat and promote efficient harvest of target species.

“(3) Research on the fisheries, including the social, cultural, and economic relationships among fishing vessel owners, crew, United States fish processors, associated shoreside labor, seafood markets and fishing communities.

“(4) Information management research, including the development of a fishery information base and an information management system under section 401 that will permit the full use of information in the support of effective fishery conservation and management.

“(d) PUBLIC NOTICE.—In developing the plan required under publication subsection (a), the Secretary shall consult with relevant Federal, State, and international agencies, scientific and technical experts, and other interested persons, public and private, and shall publish a proposed plan in the Federal Register for the purpose of receiving public comment on the plan. The Secretary shall ensure that affected commercial fishermen are actively involved in the development of the portion of the plan pertaining to conservation engineering research. Upon final publication in the Federal Register, the plan shall be submitted by the Secretary to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Resources of the House of Representatives.”.

SEC. 206. INCIDENTAL HARVEST RESEARCH.

Section 405 is amended to read as follows:

“SEC. 405. INCIDENTAL HARVEST RESEARCH.

“(a) COLLECTION OF INFORMATION.—Within nine months after the date of enactment of the Sustainable Fisheries Act, the Secretary shall, after consultation with the Gulf Council and South Atlantic Council, conclude the collection of information in the program to assess the impact on fishery resources of incidental harvest by the shrimp trawl fishery within the authority of such Councils. Within the same time period, the Secretary shall make available Public to the public aggregated summaries of information collected prior information, to June 30, 1994 under such program.

“(b) IDENTIFICATION OF STOCK.—The program concluded pursuant to subsection (a) shall provide for the identification of stocks of fish which are subject to significant incidental harvest in the course of normal shrimp trawl fishing activity.

“(c) COLLECTION AND ASSESSMENT OF SPECIFIC STOCK INFORMATION.—For stocks of fish identified pursuant to subsection (b), with priority given to stocks which (based upon the best available scientific information) are considered to be overfished, the Secretary shall conduct—

“(1) a program to collect and evaluate information on the nature and extent (including the spatial and temporal distribution) of incidental mortality of such stocks as a direct result of shrimp trawl fishing activities;

“(2) an assessment of the status and condition of such stocks, including collection of information which would allow the estimation of life history parameters with sufficient accuracy and precision to support sound scientific evaluation of the effects of various management alternatives on the status of such stocks; and

“(3) a program of information collection and evaluation for such stocks on the magnitude and distribution of fishing mortality and fishing effort by sources of fishing mortality other than shrimp trawl fishing activity.

“(d) BYCATCH REDUCTION PROGRAM.—Not later than 12 months after the enactment of the Sustainable Fisheries Act, the Secretary shall, in cooperation with affected interests, and based upon the best scientific information available, complete a program to—

“(1) develop technological devices and other changes in fishing operations necessary and appropriate to minimize the incidental mortality of bycatch in the course of shrimp trawl activity to the extent practicable, taking into account the level of bycatch mortality in the fishery on November 28, 1990;

“(2) evaluate the ecological impacts and the benefits and costs of such devices and changes in fishing operations; and

“(3) assess whether it is practicable to utilize bycatch which is not avoidable.

“(e) REPORT TO CONGRESS.—The Secretary shall, within one year of completing the programs required by this section, submit a detailed report on the results of such programs to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Resources of the House of Representatives.

“(f) IMPLEMENTATION CRITERIA.—To the extent practicable, any conservation and management measure implemented under this Act to reduce the incidental mortality of bycatch in the course of shrimp trawl fishing shall be consistent with—

“(1) measures applicable to fishing throughout the range in United States waters of the bycatch species concerned; and

“(2) the need to avoid any serious adverse environmental impacts on such bycatch species or the ecology of the affected area.”.

SEC. 207. MISCELLANEOUS RESEARCH.

(a) FISHERIES SYSTEMS RESEARCH.—Section 406 (16 U.S.C. 1882) is amended to read as follows:

“SEC. 406. FISHERIES SYSTEMS RESEARCH.

“(a) ESTABLISHMENT OF PANEL.—Not later than 180 days after the date of enactment of the Sustainable Fisheries Act, the Secretary shall establish an advisory panel under this Act to develop recommendations to expand the application of ecosystem principles in fishery conservation and management activities.

“(b) PANEL MEMBERSHIP.—The advisory panel shall consist of not more than 20 individuals and include—

“(1) individuals with expertise in the structures, functions, and physical and biological characteristics of ecosystems; and

“(2) representatives from the Councils, States, fishing industry, conservation organizations, or others with expertise in the management of marine resources.

“(c) RECOMMENDATIONS.—Prior to selecting advisory panel members, the Secretary shall, with respect to panel members described in subsection (b)(1), solicit recommendations from the National Academy of Sciences.

“(d) REPORT.—Within 2 years after the date of enactment of this Act, the Secretary shall submit to the Congress a completed report of the panel established under this section, which shall include—

“(1) an analysis of the extent to which ecosystem principles are being applied in fishery conservation and management activities, including research activities;

“(2) proposed actions by the Secretary and by the Congress that should be undertaken to expand the application of ecosystem principles in fishery conservation and management; and

“(3) such other information as may be appropriate.

“(e) PROCEDURAL MATTER.—The advisory panel established under this section shall be deemed an advisory panel under section 302(g).”.

(b) GULF OF MEXICO RED SNAPPER RESEARCH.—Title IV of the Act (16 U.S.C. 1882) is amended by adding the following new section:

“SEC. 407. GULF OF MEXICO RED SNAPPER RESEARCH.

“(a) INDEPENDENT PEER REVIEW.—(1) Within 30 days of the date of enactment of the Sustainable Fisheries Act, the Secretary shall initiate an independent peer review to evaluate—

“(A) the accuracy and adequacy of fishery statistics used by the Secretary for the red snapper fishery in the Gulf of Mexico to account for all commercial, recreational, and charter fishing harvests and fishing effort on the stock;

“(B) the appropriateness of the scientific methods, information, and models used by the Secretary to assess the status and trends of the Gulf of Mexico red snapper stock and as the basis for the fishery management plan for the Gulf of Mexico red snapper fishery;

“(C) the appropriateness and adequacy of the management measures in the fishery management plan for red snapper in the Gulf of Mexico for conserving and managing the red snapper fishery under this Act; and

“(D) the costs and benefits of all reasonable alternatives to an individual fishing quota program for the red snapper fishery in the Gulf of Mexico.

“(2) The Secretary shall ensure that commercial, recreational, and charter fishermen in the red snapper fishery in the Gulf of Mexico are provided an opportunity to—

“(A) participate in the peer review under this subsection; and

“(B) provide information to the Secretary concerning the review of fishery statistics under this subsection without being subject to penalty under this Act or other applicable law for any past violation of a requirement to report such information to the Secretary.

“(3) The Secretary shall submit a detailed written report on Reports. the findings of the peer review conducted under this subsection to the Gulf Council no later than one year after the date of enactment of the Sustainable Fisheries Act.

“(b) PROHIBITION.—In addition to the restrictions under section 303(d)(1)(A), the Gulf Council may not, prior to October 1, 2000, undertake or continue the preparation of any fishery management plan, plan amendment or regulation under this Act for the Gulf of Mexico commercial red snapper fishery that creates an individual fishing quota program or that authorizes the consolidation of licenses, permits, or endorsements that result in different trip limits for vessels in the same class.

“(c) REFERENDUM. —

“(1) On or after October 1, 2000, the Gulf Council may prepare and submit a fishery management plan, plan amendment, or regulation for the Gulf of Mexico commercial red snapper fishery that creates an individual fishing quota program or that authorizes the consolidation of licenses, permits, or endorsements that result in different trip limits for vessels in the same class, only if the preparation of such plan, amendment, or regulation is approved in a referendum conducted under paragraph (2) and only if the submission to the Secretary of such plan, amendment, or regulation is approved in a subsequent referendum conducted under paragraph (2).

“(2) The Secretary, at the request of the Gulf Council, shall conduct referendums under this subsection. Only a person who held an annual vessel permit with a red snapper endorsement for such permit on September 1, 1996 (or any person to whom such permit with such endorsement was transferred after such date) and vessel captains who harvested red snapper in a commercial fishery using such endorsement in each red snapper fishing season occurring between January 1, 1993, and such date may vote in a referendum under this subsection. The referendum shall be decided by a majority of the votes cast. The Secretary shall develop a formula to weigh votes based on the proportional harvest under each such permit and endorsement and by each such captain in the fishery between January 1, 1993, and September 1, 1996. Prior to each referendum, the Secretary, in consultation with the Council, shall—

“(A) identify and notify all such persons holding permits with red snapper endorsements and all such vessel captains; and

“(B) make available to all such persons and vessel captains information about the schedule, procedures, and eligibility requirements for the referendum and the proposed individual fishing quota program.

“(d) CATCH LIMITS.—Any fishery management plan, plan amendment, or regulation submitted by the Gulf Council for the red snapper fishery after the date of enactment of the Sustainable Fisheries Act shall contain conservation and management measures that—

“(1) establish separate quotas for recreational fishing (which, for the purposes of this subsection shall include charter fishing) and commercial fishing that, when reached, result in a prohibition on the retention of fish caught during recreational fishing and commercial fishing, respectively, for the remainder of the fishing year; and

“(2) ensure that such quotas reflect allocations among such sectors and do not reflect any harvests in excess of such allocations.”.

SEC. 208. STUDY OF CONTRIBUTION OF BYCATCH TO CHARITABLE ORGANIZATIONS.

(a) STUDY.—The Secretary of Commerce shall conduct a study of the contribution of bycatch to charitable organizations by commercial fishermen. The study shall include determinations of—

(1) the amount of bycatch that is contributed each year to charitable organizations by commercial fishermen;

(2) the economic benefits to commercial fishermen from those contributions; and

(3) the impact on fisheries of the availability of those benefits.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary of Commerce shall submit to the Congress a report containing determinations made in the study under subsection (a).

(c) BYCATCH DEFINED.—In this section the term “bycatch” has the meaning given that term in section 3 of the Magnuson Fishery Conservation and Management Act, as amended by section 102 of this Act.

SEC. 209. STUDY OF IDENTIFICATION METHODS FOR HARVEST STOCKS.

(a) IN GENERAL.—The Secretary of Commerce shall conduct a study to determine the best possible method of identifying various Atlantic and Pacific salmon and steelhead stocks in the ocean at time of harvest. The study shall include an assessment of—

(1) coded wire tags;

(2) fin clipping; and

(3) other identification methods.

(b) REPORT.—The Secretary shall report the results of the study, together with any recommendations for legislation deemed necessary based on the study, within 6 months after the date of enactment of this Act to the Committee on Resources of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

SEC. 210. REVIEW OF NORTHEAST FISHERY STOCK ASSESSMENTS.

The National Academy of Sciences, in consultation with regionally recognized fishery experts, shall conduct a peer review of Canadian and United States stock assessments, information collection methodologies, biological assumptions and projections, and other relevant scientific information used as the basis for conservation and management in the Northeast multispecies fishery. The National Academy of Sciences shall submit the results of such review to the Congress and the Secretary of Commerce no later than March 1, 1997.

SEC. 211. CLERICAL AMENDMENTS.

The table of contents is amended by striking the matter relating to title IV and inserting the following:
“Sec. 312. Transition to sustainable fisheries. “Sec. 313. North Pacific fisheries conservation.”
“Sec. 314. Northwest Atlantic Ocean fisheries reinvestment program.”

TITLE IV—FISHERY MONITORING AND RESEARCH

“Sec. 401. Registration and information management. “
“Sec. 402. Information collection.”
“Sec. 403. Observers.”
“Sec. 404. Fisheries research.”
“Sec. 405. Incidental harvest research.”
“Sec. 406. Fisheries systems research.”
“Sec. 407. Gulf of Mexico red snapper research.”.

TITLE III—FISHERIES FINANCING

SEC. 301. SHORT TITLE.

This title may be cited as the “Fisheries Financing Act”.

SEC. 302. INDIVIDUAL FISHING QUOTA LOANS.

(a) AMENDMENT OF MERCHANT MARINE ACT, 1936 — 1104A of the Merchant Marine Act, 1936 (46 ended—
(1) by striking “or” at the end of subsection (a)(5);
(2) by striking the period at the end of subsection (a)(6) and inserting a semicolon
(3) by adding at the end of subsection (a) the following:
“(7) financing or refinancing, including, but not limited to, the reimbursement of obligors for expenditures previously made, for the purchase of individual fishing quotas in accordance with section 303(d)(4) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1853(d)(4)).”; and
(4) by striking “paragraph (6)” in the last sentence of subsection (a) and inserting “paragraphs (6) and (7)”; and
(5) by striking “equal to” in the third proviso of subsection (b)(2) and inserting “not to exceed”.
(b) PROHIBITION.—Until October 1, 2001, no new loans may 46 USC app. be guaranteed by the Federal Government for the construction 1274 of new fishing vessels if the construction will result in an increased harvesting capacity within the United States exclusive economic zone.

SEC. 303. FISHERIES FINANCING AND CAPACITY REDUCTION.

(a) CAPACITY REDUCTION AND FINANCING AUTHORITY.—Title XI of the Merchant Marine Act, 1936 (46 U.S.C. App. 1271 et seq.), is amended by adding at the end the following new sections:
“SEC. 1111. (a) The Secretary is authorized to guarantee the 1279f. repayment of debt obligations issued by entities under this section. Debt obligations to be guaranteed may be issued by any entity that has been approved by the Secretary and has agreed with the Secretary to such conditions as the Secretary deems necessary for this section to achieve the objective of the program and to protect the interest of the United States.
“(b) Any debt obligation guaranteed under this section shall—
“(1) be treated in the same manner and to the same extent as other obligations guaranteed under this title, except with respect to provisions of this title that by their nature cannot be applied to obligations guaranteed under this section;
“(2) have the fishing fees established under the program paid into a separate subaccount of the fishing capacity reduction fund established under this section;
“(3) not exceed \$100,000,000 in an unpaid principal amount outstanding at any one time for a program;
“(4) have such maturity (not to exceed 20 years), take such form, and contain such conditions as the Secretary determines necessary for the program to which they relate;
“(5) have as the exclusive source of repayment (subject to the proviso in subsection (c)(2)) and as the exclusive payment security, the fishing fees established under the program; and
“(6) at the discretion of the Secretary be issued in the public market or sold to the Federal Financing Bank.
“(c)(1) There is established in the Treasury of the United States a separate account which shall be known as the fishing capacity reduction fund (referred to in this section as the ‘fund’). Within the fund, at least one subaccount shall be established for each program into which shall be paid all fishing fees established under the program and other amounts authorized for the program.
“(2) Amounts in the fund shall be available, without appropriation or fiscal year limitation, to the Secretary to pay the cost of the program, including payments to financial institutions to pay debt obligations incurred by entities under this section: *Provided*, That funds available for this purpose from other amounts available for the program may also be used to pay such debt obligations.
“(3) Sums in the fund that are not currently needed for the purpose of this section shall be kept on deposit or invested in obligations of the United States.
“(d) The Secretary is authorized and directed to issue such regulations as the Secretary deems necessary to carry out this section.
“(e) For the purposes of this section, the term ‘program’ means a fishing capacity reduction program established under section 312 of the Magnuson Fishery Conservation and Management Act.
“SEC. 1112. (a) Notwithstanding any other provision of this 1279g. title, all obligations involving any fishing vessel, fishery facility, aquaculture facility, individual fishing quota, or fishing capacity reduction program issued under this title after the date of enactment of the Sustainable Fisheries Act shall be direct loan obligations, for which the Secretary shall be the obligee, rather than obligations issued to obligees other than the Secretary and guaranteed by the Secretary. All direct loan obligations under this section shall be treated in the same manner and to the same extent as obligations guaranteed under this title except with respect to provisions of this title which by their nature can only be applied to obligations guaranteed under this title.
“(b) Notwithstanding any other provisions of this title, the annual rate of interest which obligors shall pay on direct

loan obligations under this section shall be fixed at two percent of the principal amount of such obligations outstanding plus such additional percent as the Secretary shall be obligated to pay as the interest cost of borrowing from the United States Treasury the funds with which to make such direct loans.”.

TITLE IV—MARINE FISHERY STATUTE REAUTHORIZATIONS

SEC. 401. MARINE FISH PROGRAM AUTHORIZATION OF APPROPRIATIONS.

(a) FISHERIES INFORMATION COLLECTION AND ANALYSIS.—There are authorized to be appropriated to the Secretary of Commerce, to enable the National Oceanic and Atmospheric Administration to carry out fisheries information and analysis activities under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a et seq.) and any other law involving those activities, \$51,800,000 for fiscal year 1997, and \$52,345,000 for each of the fiscal years 1998, 1999, and 2000. Such activities may include, but are not limited to, the collection, analysis, and dissemination of scientific information necessary for the management of living marine resources and associated marine habitat.

(b) FISHERIES CONSERVATION AND MANAGEMENT OPERATIONS.—

There are authorized to be appropriated to the Secretary of Commerce, to enable the National Oceanic and Atmospheric Administration to carry out activities relating to fisheries conservation and management operations under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a et seq.) and any other law involving those activities, \$29,028,000 for fiscal year 1997, and \$29,899,000 for each of the fiscal years 1998, 1999, and 2000. Such activities may include, but are not limited to, development, implementation, and enforcement of conservation and management measures to achieve continued optimum use of living marine resources, hatchery operations, habitat conservation, and protected species management.

(c) FISHERIES STATE AND INDUSTRY COOPERATIVE PROGRAMS.—

There are authorized to be appropriated to the Secretary of Commerce, to enable the National Oceanic and Atmospheric Administration to carry out State and industry cooperative programs under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a et seq.) and any other law involving those activities, \$27,932,000 for fiscal year 1997, and \$28,226,000 for each of the fiscal years 1998, 1999, and 2000. These activities include, but are not limited to, ensuring the quality and safety of seafood products and providing grants to States for improving the management of interstate fisheries.

(d) AUTHORIZATION OF APPROPRIATIONS FOR CHESAPEAKE BAY

OFFICE.—Section 2(e) of the National Oceanic and Atmospheric Administration Marine Fisheries Program Authorization Act (Public Law 98-210; 97 Stat. 1409) is amended—

- (1) by striking “1992 and 1993” and inserting “1997 and 1998”;
- (2) by striking “establish” and inserting “operate”;
- (3) by striking “306” and inserting “307”;
- (4) by striking “1991” and inserting “1992”.

(e) RELATION TO OTHER LAWS.—Authorizations under this section shall be in addition to monies authorized under the Magnuson Fishery Conservation and Management Act of 1976 (16 U.S.C. 1801 et seq.), the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 3301 et seq.), the Anadromous Fish Conservation Act (16 U.S.C. 757 et seq.), and the Interjurisdictional Fisheries Act (16 U.S.C. 4107 et seq.).

(f) NEW ENGLAND HEALTH PLAN.—The Secretary of Commerce

is authorized to provide up to \$2,000,000 from previously appropriated funds to Caritas Christi for the implementation of a health care plan for fishermen in New England if Caritas Christi submits such plan to the Secretary no later than January 1, 1997, and the Secretary, in consultation with the Secretary of Health and Human Services, approves such plan.

SEC. 402. INTERJURISDICTIONAL FISHERIES ACT AMENDMENTS.

(a) REAUTHORIZATION.—Section 308 of the Interjurisdictional Fisheries Act of 1986 (16 U.S.C. 4107) is amended—

(1) by amending subsection (a) to read as follows:

“(a) GENERAL APPROPRIATIONS.—There are authorized to be appropriated to the Department of Commerce for apportionment to carry out the purposes of this title—

- “(1) \$3,400,000 for fiscal year 1996;
- “(2) \$3,900,000 for fiscal year 1997;
- “(3) \$4,400,000 for each of the fiscal years 1998, 1999, and 2000.”;

(2) by striking “\$350,000 for each of the fiscal years 1989, 1990, 1991, 1992, and 1993, and \$600,000 for each of the fiscal years 1994 and 1995,” in subsection (c) and inserting “\$700,000 for fiscal year 1997, and \$750,000 for each of the fiscal years 1998, 1999, and 2000.”.

(b) NEW ENGLAND REPORT.—Section 308(d) of the Interjurisdictional Fisheries Act of 1986 (16 U.S.C. 4107(d)) is amended by adding at the end the following new paragraph:

“(7) With respect to funds available for the New England region, the Secretary shall submit to the Congress by January 1, 1997, with annual updates thereafter as appropriate, a report on the New England fishing capacity reduction initiative which provides—

“(A) the total number of Northeast multispecies permits in each permit category and calculates the maximum potential fishing capacity of vessels holding such permits based on the principal gear, gross registered tonnage, engine horsepower, length, age, and other relevant characteristics;

“(B) the total number of days at sea available to the permitted Northeast multispecies fishing fleet and the total days at sea weighted by the maximum potential fishing capacity of the fleet;

“(C) an analysis of the extent to which the weighted days at sea are used by the active participants in the fishery and of the reduction in such days as a result of the fishing capacity reduction program; and

“(D) an estimate of conservation benefits (such as reduction in fishing mortality) directly attributable to the fishing capacity reduction program.”.

SEC. 403. ANADROMOUS FISHERIES AMENDMENTS.

Section 4 of the Anadromous Fish Conservation Act (16 U.S.C. 757d) is amended to read as follows:

“SEC. 4. (a)(1) There are authorized to be appropriated to carry Appropriation out the purposes of this Act not to exceed the following sums: authorization.

“(A) \$4,000,000 for fiscal year 1997; and

“(B) \$4,250,000 for each of fiscal years 1998, 1999, and 2000.

“(2) Sums appropriated under this subsection are authorized to remain available until expended.

“(b) Not more than \$625,000 of the funds appropriated under this section in any one fiscal year shall be obligated in any one State.”.

SEC. 404. ATLANTIC COASTAL FISHERIES AMENDMENTS.

(a) DEFINITION.—Paragraph (1) of section 803 of the Atlantic Coastal Fisheries Cooperative Management Act (16 U.S.C. 5102) is amended—

- (1) by inserting “and” after the semicolon in subparagraph (A);
- (2) by striking “States; and” in subparagraph (B) and inserting “States.”; and
- (3) by striking subparagraph (C).

(b) IMPLEMENTATION STANDARD FOR FEDERAL REGULATION.—

Subparagraph (A) of section 804(b)(1) of such Act (16 U.S.C. 5103(b)(1)) is amended by striking “necessary to support” and inserting “compatible with”.

(c) AMERICAN LOBSTER MANAGEMENT.—Section 809 (16 U.S.C.

5108) and section 810 of such Act are redesignated as sections 16 USC 1851 811 and 812, respectively, and the following new sections are note.inserted at the end of section 808:

“SEC. 809. STATE PERMITS VALID IN CERTAIN WATERS.

16 USC 5107a.

“(a) PERMITS.—Notwithstanding any provision of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.), the Atlantic Coastal Fisheries Cooperative Management Act (16 U.S.C. 5101 et seq.), or any requirement of a fishery management plan or coastal fishery management plan to the contrary, a person holding a valid license issued by the State of Maine which lawfully permits that person to engage in commercial fishing for American lobster may, with the approval of the State of Maine, engage in commercial fishing for American lobster in the following areas designated as Federal waters, if such fishing is conducted in such waters in accordance with all other applicable Federal and State regulations:

“(1) west of Monhegan Island in the area located north of the line 4 3 4 2 0 8 N, 6 9 3 4 1 8 W and 4 3 4 2 1 5 N, 6 9 1 9 1 8 W;

“(2) east of Monhegan Island in the area located west of the line 4 3 4 4 0 0 N, 6 9 1 5 0 5 W and 4 3 4 8 1 0 N, 6 9 0 8 0 1 W;

“(3) south of Vinalhaven in the area located west of the line 4 3 5 2 2 1 N, 6 8 3 9 5 4 W and 4 3 4 8 1 0 N, 6 9 0 8 0 1 W; and

“(4) south of Bois Bubert Island in the area located north of the line 4 4 1 9 1 5 N, 6 7 4 9 3 0 W and 4 4 2 3 4 5 N, 6 7 4 0 3 3 W.

“(b) ENFORCEMENT.—The exemption from Federal fishery permitting requirements granted by subsection (a) may be revoked or suspended by the Secretary in accordance with section 308(g) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1858(g)) for violations of such Act or this Act.

16 USC 5107b. **“SEC. 810. TRANSITION TO MANAGEMENT OF AMERICAN LOBSTER FISHERY BY COMMISSION.**

“(a) TEMPORARY LIMITS.—Notwithstanding any other provision

of this Act or of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.), if no regulations have been issued under section 804(b) of this Act by December 31, 1997, to implement a coastal fishery management plan for American lobster, then the Secretary shall issue interim regulations before March 1, 1998, that will prohibit any vessel that takes lobsters in the exclusive economic zone by a method other than pots or traps from landing lobsters (or any parts thereof) at any location within the United States in excess of—

“(1) 100 lobsters (or parts thereof) for each fishing trip of 24 hours or less duration (up to a maximum of 500 lobsters, or parts thereof, during any 5-day period); or

“(2) 500 lobsters (or parts thereof) for a fishing trip of 5 days or longer.

“(b) SECRETARY TO MONITOR LANDINGS.—Before January 1,

1998, the Secretary shall monitor, on a timely basis, landings of American lobster, and, if the Secretary determines that catches from vessels that take lobsters in the exclusive economic zone by a method other than pots or traps have increased significantly, then the Secretary may, consistent with the national standards in section 301 of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801), and after opportunity for public comment and consultation with the Atlantic States Marine Fisheries Commission, implement regulations under section 804(b) of this Act that are necessary for the conservation of American lobster.

“(c) REGULATIONS TO REMAIN IN EFFECT UNTIL PLAN IMPLEMENTED.—Regulations issued under subsection (a) or (b) shall remain in effect until the Secretary implements regulations under section 804(b) of this Act to implement a coastal fishery management plan for American lobster.”.

(d) AUTHORIZATION OF APPROPRIATIONS.—Section 810 of such

16 USC 5108. Act, as amended by this Act, is amended further by striking “1996.” and inserting “1996, and \$7,000,000 for each of the fiscal years 1997, 1998, 1999, and 2000.”.

SEC. 405. TECHNICAL AMENDMENTS TO MARITIME BOUNDARY AGREEMENT.

(a) EXECUTION OF PRIOR AMENDMENTS TO DEFINITIONS.—Notwithstanding section 308 of the Act entitled “An Act to provide for the designation of the Flower Garden Banks National Marine Sanctuary”, approved March 9, 1992 (Public Law 102-251; 106 Stat. 66) hereinafter referred to as the “FGB Act”, section 301(b) of that Act (adding a definition of the term “special areas”) shall take effect on the date of enactment of this Act.

(b) CONFORMING AMENDMENTS.—

(1) Section 301(h)(2)(A) of the FGB Act is repealed.

(2) Section 304 of the FGB Act is repealed.

(3) Section 3(15) of the Marine Mammal Protection Act of 1972 (16 U.S.C. 1362(15)) is amended to read as follows:

“(15) The term ‘waters under the jurisdiction of the United States’ means—

“(A) the territorial sea of the United States;

“(B) the waters included within a zone, contiguous to the territorial sea of the United States, of which the inner boundary is a line coterminous with the seaward boundary of each coastal State, and the other boundary is a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured; and

“(C) the areas referred to as eastern special areas in Article 3(1) of the Agreement between the United States of America

and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990; in particular, those areas east of the maritime boundary, as defined in that Agreement, that lie within 200 nautical miles of the baselines from which the breadth of the territorial sea of Russia is measured but beyond 200 nautical miles of the baselines from which the breadth of the territorial sea of the United States is measured, except that this subparagraph shall not apply before the date on which the Agreement between the United States and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990, enters into force for the United States.’’.

SEC. 406. AMENDMENTS TO THE FISHERIES ACT.

Section 309(b) of the Fisheries Act of 1995 (Public Law 104-43) is amended by striking ‘‘July 1, 1996’’ and inserting ‘‘July 16 USC 971c 1, 1997’’.

Approved October 11, 1996.

LEGISLATIVE HISTORY—S. 39 (H.R. 39):

HOUSE REPORTS: No. 104-171 accompanying H.R. 39 (Comm. on Resources). SENATE REPORTS: No. 104-276 (Comm. on Commerce, Science, and Transportation).

CONGRESSIONAL RECORD, Vol. 142 (1996):

Sept. 18, 19, considered and passed Senate.

Sept. 27, considered and passed House.

WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 32 (1996): Oct. 11, Presidential statement.

Estimated Time Per Response: 18 minutes for Catcher Vessel trawl gear daily fishing logbook (DFL); 28 minutes for Catcher Vessel longline and pot gear DFL; 30 minutes for Catcher/processor trawl gear daily cumulative production logbook (DCPL); 41 minutes for Catcher/processor longline and pot gear DCPL; 31 minutes for Shoreside processor DCPL; 31 minutes for Mothership DCPL; 8 minutes for Shoreside Processor Check-in/Check-out Report; 7 minutes for Mothership or Catcher/processor Check-in/Check-out Report; 11 minutes for Product transfer report; 17 minutes for Weekly Production Report; 11 minutes for Daily Production Report; 5 minutes to electronically submit the Weekly Production Report; 5 minutes to electronically submit the Check-in/Check-out Report; 35 minutes for Weekly Cumulative Mothership ADF&G Fish Tickets; 14 minutes for U.S. Vessel Activity Report; and 23 minutes for buying station report.

Estimated Total Annual Burden Hours: 35,504.

Estimated Total Annual Cost to Public: \$187,000.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: April 1, 2008.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. E8-7110 Filed 4-4-08; 8:45 am]

BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

Proposed Information Collection; Comment Request; Atlantic Highly Migratory Species Observer Notification Requirements

AGENCY: National Oceanic and Atmospheric Administration (NOAA).

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and the respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

DATES: Written comments must be submitted on or before June 6, 2008.

ADDRESSES: Direct all written comments to Diana Hynek, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6625, 14th and Constitution Avenue NW., Washington DC 20230 (or via Internet at dHynek@doc.gov).

FOR FURTHER INFORMATION CONTACT:

Requests for additional information or copies of the information collection instruments and instructions should be directed to Craig Cockrell, (301) 713-2347 or craig.cockrell@noaa.gov.

SUPPLEMENTARY INFORMATION:

I. Abstract

Under current regulations, the National Marine Fisheries Service (NMFS) may select for observer coverage any fishing trip by a vessel that has a permit for Atlantic Highly Migratory Species (HMS), notifies vessel owners, in writing, when their vessels have been selected. The owners of those vessels are then required to notify NMFS before commencing any fishing trip for Atlantic HMS. The notification allows NMFS to arrange for observer placements and assignments.

The vessels are selected randomly from a list of active vessels that have reported landings of targeted species during the previous year. Observers are placed aboard vessels to collect, among other things, information on species caught, catch disposition, gear, effort, and bycatch. The information is used in stock assessments to estimate rates of bycatch of non-targeted and protected species such as sea turtles, and to improve overall management of the fishery.

A Biological Opinion (BiOp) issued on June 1, 2004, under the Endangered

Species Act, requires a minimum of eight percent observer coverage in the pelagic longline fishery. In order to better monitor incidental landings of bluefin tuna in the Gulf of Mexico during bluefin tuna spawning season, pelagic longline vessels fishing in the gulf will be subject to 100 percent observer coverage from March 9–June 9 (41 vessels).

The shark bottom longline observer program has set a target of five percent observer coverage in the shark bottom longline fishery. A BiOp issued in October 2003 requires NMFS to maintain or increase this level of observer coverage. Additionally, upcoming management measures will establish a shark research fishery including approximately 10 vessels with 100 percent coverage throughout the year. Observer coverage for the shark gillnet fishery fluctuates from approximately 50 percent to 100 percent, depending on the time of year. Although technically not required, vessels operating in other HMS fisheries may be selected for observer coverage depending on factors including limited funding. The burden estimates include a ten percent adjustment upward from current levels to account for future expansion of observer coverage other fisheries.

II. Method of Collection

The notification may be made by phone, fax, or in writing prior to each trip for which a vessel is selected. A form is provided by NMFS for written responses.

III. Data

OMB Number: 0648-0374.

Form Number: None.

Type of Review: Regular submission.

Affected Public: Business or other for-profit organizations.

Estimated Number of Respondents: 241.

Estimated Time Per Response: 2 minutes.

Estimated Total Annual Burden Hours: 166 hours.

Estimated Total Annual Cost to Public: \$2,488.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be

collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: April 1, 2008.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. E8-7111 Filed 4-4-08; 8:45 am]

BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XG63

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Snapper-Grouper Fishery off the Southern Atlantic States; Amendment 18

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of intent (NOI) to prepare a draft environmental impact statement (DEIS); notice of scoping meetings; request for comments.

SUMMARY: The South Atlantic Fishery Management Council (Council) intends to prepare a DEIS to assess the impacts on the natural and human environment of the management measures proposed in its revised draft Amendment 18 to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region (FMP).

DATES: Written comments on the scope of issues to be addressed in the DEIS must be received by 5 p.m., eastern time, on May 16, 2008.

ADDRESSES: You may submit comments by any of the following methods:

- E-mail: 0648-XG63@noaa.gov.
- Fax: 727-824-5308, Attn: Kate Michie.
- Mail: Kate Michie, Southeast Regional Office, NMFS, 263 13th Avenue South, St. Petersburg, FL 33701. Scoping documents are available at the Council's Web site at www.safmc.net.

FOR FURTHER INFORMATION CONTACT: Kim Iverson, Public Information Officer, South Atlantic Fisheries Management Council, 4055 Faber Place Drive, Suite

201, North Charleston, SC 29405; phone: 843-571-4366, toll free 1-866-SAFMC-10; fax: 843-769-4520; e-mail: Kim.Iverson@safmc.net.

SUPPLEMENTARY INFORMATION: The snapper-grouper fishery off the South Atlantic states in the exclusive economic zone is managed under the FMP. Following Council preparation, the FMP was approved and implemented by NMFS under that authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) in March of 1983.

An NOI for Amendment 18 was published January 22, 2008 (73 FR 3701); however, the plan amendment contained in that notice considered the implementation of a limited access privilege (LAP) program for the commercial snapper-grouper fishery in the South Atlantic. The Council has postponed consideration of a LAP program to a future amendment, and different actions are now being considered in Amendment 18. This NOI seeks public comment on the new Amendment 18 and associated DEIS.

The reauthorized Magnuson-Stevens Act of 2006 requires regional fishery management councils to establish annual catch limits (ACLs) for each stock/stock complex and accountability measures to ensure these ACLs are not exceeded. Among other things, Amendment 18 addresses these requirements for South Atlantic red snapper.

A stock assessment has been completed for red snapper through the Southeast Data, Assessment, and Review (SEDAR) process, which indicates the stock is undergoing overfishing and is overfished. The stock assessment will be reviewed by the Council's Scientific and Statistical Committee (SSC) at its June 8 10, 2008, meeting. If the SSC agrees with the SEDAR determination, the Council will continue development of Amendment 18.

To prevent overfishing, the Council intends to set biological parameters in Amendment 18 for red snapper, consistent with the national standards of the Magnuson-Stevens Act. These parameters include maximum sustainable yield, optimum yield (OY), minimum stock size threshold, and maximum fishing mortality rate threshold, which are used to help rebuild overfished stocks.

The Council is required by the Magnuson-Stevens Act to implement rebuilding plans for overfished species. Amendment 18, and the associated DEIS, would also specify a rebuilding

plan for the red snapper stock and consider various management measures to end overfishing. Some of the possible management measures the Council could consider include: quotas, seasonal closures (for both commercial and recreational fisheries), area closures, size limit modifications, and bag limit adjustments. These measures would help to increase the biomass of overfished red snapper and at the same time help to achieve OY for the fishery.

The Council will review public comments and the SSC's determinations at its June 9 13, 2008, meeting and decide whether or not to continue preparation of the DEIS. If the Council does prepare a DEIS, a comment period is planned, which will include public hearings to receive comments. A **Federal Register** notice will announce the availability of the DEIS associated with this amendment, as well as a 45-day public comment period, pursuant to regulations issued by the Council on Environmental Quality for implementing the National Environmental Policy Act and to NOAA's Administrative Order 216-6. The Council will consider public comments received on the DEIS in developing the final environmental impact statement (FEIS), and before voting to submit the final amendment to NMFS for Secretarial review, approval, and implementation. NMFS will announce in the **Federal Register** the availability of the final amendment and FEIS for public review during the Secretarial review period, and will consider all public comments prior to final agency action to approve, disapprove, or partially approve the final amendment.

Scoping Meetings, Times, and Locations

All scoping meetings will begin at 3 p.m. The meetings will be physically accessible to people with disabilities. Requests for information packets or for sign language interpretation or other auxiliary aids should be directed to the Council (see **FOR FURTHER INFORMATION CONTACT**).

Wednesday, May 7, 2008—Key Largo Grande, 97000 South Overseas Highway, Key Largo, FL 33037; phone: 866-597-5397.

Friday, May 9, 2008—Radisson Resort at the Port, 8701 Astronaut Boulevard, Cape Canaveral, FL 32920; phone: 321-784-0000.

Monday, May 12, 2008—Mighty Eighth Air Force Museum, 175 Bourne Avenue, Pooler, GA 31322; phone: 912-748-8888.

Tuesday, May 13, 2008—Town and Country Inn, 2008 Savannah Highway,