

National Oceanic and Atmospheric Administration (NOAA)
Annual E-Government Act Report
FY 2009
December 10, 2009

- Describe major transparency initiatives undertaken in the past year (FY 2009) and major transparency initiatives planned for the coming year (FY 2010).

FY 2009 – Transparency Initiatives undertaken for:

1a.1. NOAA/NMFS

Restoration Atlas In February 2009, NOAA received \$167 million from the American Recovery and Reinvestment Act of 2009 to jumpstart the nation's economy by creating thousands of jobs through coastal habitat restoration. On June 30, NOAA announced that it had selected 50 high quality, high priority projects to support more than 5,000 jobs and restore U.S. coasts on a grand scale. These projects will restore wetlands, salt marsh, oyster and coral reefs, as well as remove fish passage barriers on coastal rivers and streams. In addition to improving the environment, these efforts will restore fisheries and support more resilient coasts in the face of climate change.

NMFS established the [Restoration Atlas](#), which provides a means for the public, as well as NOAA, to view the projects and track project progress, through an interactive Web-based map. Through the Atlas, users can find information about ecological impacts, jobs created, and partners, as well as photos and video.

1.a.2. NOAA/NOS

The **National Ocean Service (NOS) social media program** was developed and implemented to extend the reach of the [NOS Web site](#) and thus the NOS message.

The following tools have been implemented by NOS:

- ♦ RSS feeds for ocean facts, weekly news, and audio podcasts to deliver NOS news and information directly to subscribers; RSS feeds are the most frequently requested pages on the entire NOS site
- ♦ Two audio podcasts – *Making Waves* (weekly news program) and *Diving Deeper* (bi-weekly interview program) – to use a new tool to inform a broader audience about the work of NOS
- ♦ [NOS Twitter account](http://twitter.com/usoceangov) (<http://twitter.com/usoceangov>) to drive more visitors to the NOS Web site; currently over 5,500 followers; new content added daily
- ♦ [NOS YouTube channel](http://twitter.com/usoceangov) (<http://twitter.com/usoceangov>) to present videos from NOS; currently ~200 channel subscribers and over 6,000 channel views; new videos posted ~ every two weeks (or as available)
- ♦ [NOS Facebook page](http://www.facebook.com/usoceangov) (<http://www.facebook.com/usoceangov>) to reach an additional audience with NOS messages and provide a forum for this audience to voice their

opinions and interact with NOS; currently ~800 Facebook fans; fans regularly interacting by commenting on posts; posts made daily

- ♦ [NOS Flickr account](http://www.flickr.com/photos/usoceangov) (<http://www.flickr.com/photos/usoceangov>) to make NOS images available to a larger number of users and direct users to the NOS Web site; three to four new images added each weekly; images averaging 10-20 views per week

Visitors to NOS social media sites are provided with the opportunity to voice their opinions following a standard comment policy. Visitors also occasionally ask questions and interact with NOS staff to learn more about topics.

FY 2010 – Transparency Initiatives undertaken for:

1.b.1 NOAA/NOS

NOS will focus on creating more dynamic, interactive presentation styles and rewriting much of the existing content on the NOS corporate site to meet the needs of visitors. As an example, the NOS Topics pages will be redesigned with associated content rewrites to incorporate at least 10 new Flash, Javascript, and CSS-based unique and engaging presentations. The multimedia gallery will also be revamped, incorporating both Flash and Javascript-based elements to more dynamically deliver of this popular content. To make NOS corporate Web site content more easily accessible for mobile device users, NOS will be developing a mobile version of the site.

All of the updates to the NOS Web site present more information to the general public about the research, services, and activities of the National Ocean Service and present that information in a way that is interesting and accessible to the intended audience.

1.b.2. NOAA/ OAR

Project: Climate Portal

Date Available: Beta site available now

Audience: Public

Website: <http://www.climate.gov>

As the public's primary online point of entry into NOAA Climate Services, the Portal will be a central component in the agency's climate communications, education, extension, outreach, and professional development strategy. The Portal will have audience-focused sections designed to serve four key segments of society: (1) decision makers and policy leaders; (2) scientists and applications-oriented data users; (3) educators; and (4) business users and the public. The Climate Portal will provide easily accessible, user-friendly climate data and information in forms and formats targeted to meet the needs of key stakeholder communities. Recent developments in web-based technologies make it possible for NOAA to present both existing data and new products in formats that are readily usable by decision-makers in government agencies and businesses (e.g., geospatial tools that enable resource managers to place information on

impacts and affected resources in a place-based context relevant to planning or permitting).

In Phase 1 (concluding at the end of FY10), the Portal will contain (1) a main home page as primary point of entry; (2) the climate science magazine for outreach to the public; and (3) an initial "Data & Services" section for data users with a subset of NOAA's catalog of climate data and services. The Portal is not seen as an end but a means for engaging our audiences. Guided by users' requests and audience engagements, we will use new Web technologies to serve climate data and products in formats that are readily usable by public users and decision makers. Thus, our plan is to grow and evolve its scope, product content, and functionality based upon user engagement. User feedback on products and services available through the Portal will also provide important insights into user applications and climate information needs that can help guide the future evolution of NOAA climate services.

Phases 2 and 3 (FY11 and beyond) will expand the Portal's scope to work much more extensively with NOAA's external partners' (government, private, and non-profit) to help host and serve their Web-based data, information and services in support of a government-wide national climate service enterprise with participation of numerous Federal agencies as well as partners in the academic community and private sector.

Project: Historical Climate Reanalysis Project

Date Available: FY2010 3rd Quarter

What's New: Re-launching and expanding access to data sets describing past weather

Audience: Public, but mainly climatologists

Website: http://www.esrl.noaa.gov/psd/data/20thC_Rean/

The 20th Century Reanalysis project is using a 3-D globally-complete climate model as well as available weather observations to produce output fields of weather variables four times daily, ranging from 1871 and to the present. Using what has been sparse data sets of observations, the project is able to "reconstruct" past weather and fill in missing data values over the globe. This data will be available via Web-based, interactive plotting pages as well as downloadable files. In addition to generating plots, users will be able to conduct basic data analysis, download data subsets, and obtain the data in Google Earth format, allowing easy visualization using the Google Earth application. Currently, the data are available at NOAA's Earth Systems Research Laboratory/Physical Sciences Division, but only in 'grib' format -- a format that is extremely hard to read and it is not available for online plotting and analysis. The complete dataset itself is well over 4 Terabytes -- examining even parts of it can use enormous space and computing resources. By enabling the public to work with the data and data products online, NOAA will enable users to examine past weather and climate events in detail in a way that has never before been possible. Version 1 of the project is available today at www.esrl.noaa.gov/psd/data/20thC_Rean/. However, it is limited to the years 1908-1958 and does not include the interactive plotting tools described above. Version 2 is currently

under development. NOAA expects that data and online plotting tools for 1891 to the present to be available online in FY2010 Q3.

- If your operating unit has an innovation it would like to share with the public and the federal workforce on the [Innovations Gallery](#), please provide it.

Project: Cloud Computing:

Date Available: Pilot Testing:

Audience: NOAA

The Challenge: NOAA employees collaborate on projects which often include team members from multiple locations, across the country, and from multiple line offices. NOAA employees also sometimes collaborate with outside universities, private industry, or other federal and state government agencies. We need a secure IT infrastructure that offers easy to use abilities to share ideas and information.

The Solution: An office environment that uses cloud computing allows NOAA users to work with their team - from any location, any computer using any operating system. Using a web browser with internet access, employees have a virtual office environment. NOAA conducted a pilot project with 400 employees to test the usability and security of cloud computing.

- Some of the teams participating in the pilot are working on: Climate program newsletters; software license management; weather website redesign; IT governance; emerging technologies; educational outreach; workforce management; training for weather meteorologists; strategic planning; and inter-Regional coordination across NOAA.

- Teams and individuals have the option to use any or all of the integrated services provided, which include: email, chat, and video messaging; individual and shared calendars; document editing (document, spreadsheet, presentation), shared documents; and collaborative web site tools.

- A pilot test of Google Apps for 400 employees has provided a stable and reliable environment for the pilot, from June through December 2009).

- In order to ensure cloud computing at NOAA meets federal IT Security standards, NOAA is working with Google and other government agencies (GSA) on the process for a Federal Information Security Management Act (FISMA) Certification and Accreditation (C&A). Estimated completion for the C&A is January 2010.

The Benefit: By providing a web collaboration environment for employees, we open up great potential for increasing employee productivity through teamwork, as well as for new innovations, and cost savings or cost avoidance.

Project: Modernizing the NOAA Climate Data Base

Date Available: Currently available. Additional data published as it becomes available.

What's New: Digitizing data from weather stations collected in the 18th and 19th centuries.

Audience: Public, but most importantly climatologists studying climate change.

The Climate Data Modernization Program (CDMP) supports the NOAA mission to collect, integrate, assimilate and effectively manage Earth observations on a global scale, ranging from atmospheric, weather, and climate observations to oceanic, coastal, and marine life observations. Much of this data was originally recorded on paper, film, and other fragile media. Prior to CDMP, not only were these valuable data sources mostly unavailable to the scientific community, but storage technology for the archive was obsolete. Today, CDMP has greatly improved the preservation and access to NOAA's holdings by migrating many of these resources to new digital media. CDMP has placed online over 53 million weather and environmental images that are now available to researchers around the world via the Internet. The amount of data online has grown from 1.75 TBs in 2001 to over 11 TBs in 2009. Hourly weather records keyed through CDMP continue to be integrated into NOAA's digital data base holdings, extending the period of record for many stations back into the 1890's. Additional daily data records keyed through the CDMP will extend this data period back to the 18th century for several weather stations.¹

Over the last decade, CDMP has also supported international programs in data modernization. During the last 7 years, CDMP digitized 150,000 African upper air wind observations from the 1940's to 2003 obtained from seven different countries. Monthly, daily, and hourly surface observations (temperature, rainfall, pressure, etc.) collected in Africa during the 18th and 19th centuries will be rescued in 2010-2012 and added to the Global Historical Climatology Network (GHCN) and other NOAA global baseline databases for GCOS. As these observations (and U.S historical weather observations) are digitized and quality controlled, they are made available to the public through the National Climatic Data Center: www.ncdc.noaa.gov .

DIGITAL COAST

The **Digital Coast** (<http://www.csc.noaa.gov/digitalcoast/>) is a partnership and community resource initiated by NOS' NOAA Coastal Services Center for use by organizations who manage the nation's coastal resources. It was developed to provide a simple and effective way to access user-specified data, and the tools and methods to turn that data into information that is used.

- A website is the primary mode of communication for Digital Coast. This enabling platform provides access to priority geospatial data needed by coastal

¹ CDMP also supports keying of other important NOAA environmental data, ranging from ocean cores below the seabed floor to the top of the ionosphere. For example, NOAA Fisheries scientists gather information on zooplankton, which serve as the biomass to feed fish and sea mammals worldwide. This is an ongoing digitization program, which provides data to the public showing the changes in biomass over time. As these observations are digitized and quality-controlled, they are made available through the COPEPOD global plankton database: www.st.nmfs.gov/plankton

management organizations along with the tools, training and case studies needed to address coastal issues.

- A Partnership Group, which is comprised of representatives from the target audience, is used to determine the focus of the content, form and function of the Digital Coast initiative. These user groups also use the Digital Coast initiative as a forum from which they can create new partnerships to address coastal management issues.

During its first year, 19,000 users downloaded data from the Digital Coast and 8,000 users downloaded tools.

Collaborations with other federal efforts are critical to ensuring the success of the Digital Coast. This includes close working relationships with the federal Integrated Ocean and Coastal Mapping (IOCM) effort and the National Map. Coordination with the private sector, which develops a variety of coastal data and tools, is equally as important enabling the government to efficiently develop needed data and tools quickly.

NOAA Coastal Services Center

DIGITAL COAST

Home Data Tools Training In Action

DIGITAL COAST

About the Digital Coast

"More than just data," the Digital Coast is a network of diverse partners working together to address coastal issues. Website content is growing with contributions and guidance from the partner network and the user community.

- [Digital Coast Details](#)
- [About the Partners](#)
- [How to Use this Site](#)
- [Submitting Content](#)

Data

Learn more about the kinds of data available and download data.

Tools

Use these tools to turn data into useful information your organization needs.

Training

Update your skills by participating in one of these training programs.

Digital Coast In Action

See how data and tools are used to address coastal management issues.

Digital Coast Website

This website provides data required by coastal resource management professionals, as well as the tools, training, and information needed to turn these data into useful information.

NEW RESOURCE

Coastal Inundation Toolkit

Helping communities identify and lessen flood-related risks.

FEATURED TOOL

Multipurpose Marine Cadastre

Providing a framework for marine spatial planning efforts.

NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service

[Contact Us](#) [Privacy Policy](#) [Link Disclaimer](#) [USA.gov](#)

Figure 1: Digital Coast home page

FY 2010

Project: Severe Weather Data Inventory (SWDI)

Date Available: October 20, 2009

What's New: Simplified access to current and past information on severe weather incidents

Audience: Public, but most importantly climatologists and meteorologists

The Severe Weather Data Inventory (SWDI) at NOAA's National Climatic Data Center (NCDC) provides users access to archives of several datasets critical to the detection and evaluation of severe weather. These datasets include:

- NEXRAD Level-III point features describing general storm structure, hail, mesocyclone and tornado signatures
- National Weather Service Local Storm Reports collected from storm spotters
- National Weather Service Warnings
- Lightning strikes from Vaisala's National Lightning Detection Network (NLDN)

SWDI archives these datasets in a spatial database that allows for convenient searching. These data are accessible via the NCDC web site, FTP or automated web services. The results of interactive Google Maps based web page queries may be saved in a variety of formats, including plain text, XML, Google Earth's KMZ and Shapefile. Summary statistics, such as daily counts, allow efficient discovery of severe weather events. For more information, please refer to <http://www.ncdc.noaa.gov/swdi>.

Project: Ocean Surface Current Simulator

Date Available: FY2010 1st Quarter

What's New: Upgrading the ability to visualize changes in ocean surface currents

Audience: Public, but most importantly climatologists and marine biologists

The Ocean Surface Current Simulator (OSCURS) numerical model is a research tool that allows oceanographers and fisheries scientists to perform retrospective analyses of daily ocean surface currents anywhere in a 90-km ocean-wide grid from Baja California to China and from 10N to the Bering Strait. The model is used to measure the movement of surface currents over time, as well as the movement of what is in or on the water. Ocean surface currents affect organisms suspended in the water column such as fish eggs, small larvae, and plankton, and may affect their survival by determining their location after a few months of drift. Even swimming or migrating fish or mammals may have their destinations significantly offset by currents or annual variability of currents. OSCURS has gained visibility as an accidental debris tracker to analyze accidental but fortuitous at-sea events beyond the scale of normal oceanographic science. Investigation of events such as spills of cargo containers loaded with plastic bathtub toys has been used to fine-tune the OSCURS model.

The model has been served for many years by a Live Access Server (LAS) at NOAA and has been used heavily, however the old LAS requires an outdated browser (Netscape) and only allows the user to visualize and download one OSCURS run at a time. Data serving

technology has greatly improved, and we are developing a new interface to serve the OSCURS model (<http://las.pfeg.noaa.gov/oscurs>) that uses Google Maps as the visualization tool and the latest in AJAX technology to substantially improve the user experience. Users will be able to visualize many runs at a time and possibly view other relevant environmental data using the same interface. This project should be ready for the public by the end of the calendar year.

Project: San Francisco Exploratorium

Date Available: FY2010 1st Quarter

What's New: Near real-time ability to visualize weather and water conditions in San Francisco Bay

Audience: San Francisco users of Bay waters

NOAA Fisheries is developing a new way to visualize regional data in the San Francisco Bay (<http://las.pfeg.noaa.gov/SFBay>). Data are available from shore stations, buoys, high-frequency radar, and satellites, but are scattered among many web pages and stored in many formats. It is difficult for regional and public interests in the San Francisco Bay area to visualize and use for assessment of real-time conditions. As a demonstration tool to support NOAA's new partnership with the renowned science museum, the Exploratorium, and in collaboration with CeNCOOS and other regional data providers, NOAA is developing a Web page to make it easy to visualize near-real time data in San Francisco Bay. The interface will use Google Maps and the latest AJAX technology to combine and compare data from diverse sources. Users will be able to visualize water temperature, salinity, and other station-based measurements along with overlays of satellite measurements of SST and radar measurements of currents. Users will also be able to compare time series of measurements from various stations and sources. In addition, model data and animations will be added as they become available. The development of this project will be on-going, as new data will continue to be added as it becomes available, but a public version will be ready by the end of the year.

Project: U.S. Drought Portal -- addition of soil moisture observation data

Date Available: December 31, 2009

What's New: Making public **for the first time** soil moisture observation data

Audience: Public, but mainly climatologists and agronomists

Recognition of drought risks in a timely manner is dependent on our ability to monitor and forecast the diverse physical indicators of climatological drought, as well as relevant economic, social, and environmental impacts. A 2004 report from the Western Governors' Association made it clear that recent and ongoing droughts expose the critical need for a coordinated, integrated drought monitoring, forecasting, and early warning information system. To fill this need, Congress passed the National Integrated Drought Information System Act of 2006 (Public Law 109-430) (NIDIS). The first component of NIDIS is the Drought Portal (www.drought.gov). It is part of the interactive system to:

- Provide early warning about emerging and anticipated droughts
- Assimilate and quality control data about droughts and models
- Provide information about risk and impact of droughts to different agencies and stakeholders
- Provide information about past droughts for comparison and to understand current conditions
- Explain how to plan for and manage the impacts of droughts
- Provide a forum for different stakeholders to discuss drought-related issues

The next major addition to the drought portal will be soil moisture observation data from the U.S. Climate Reference Network, not currently available to the public. The U.S. Drought Portal will add soil moisture data operationally by December 31, 2009.

- What tools is your operating unit using to advance citizen participation and engagement? Cite examples of how your operating unit has used citizen feedback. Include use of social media and Web 2.0 technologies.

NOAA's NWS use of social media and Web 2.0 involves:

- eSpotter, Twitter Storm reports (proposed activity) , aggregating local Twitter reports
- Facebook page being developed to primarily cover news stories; new multimedia offerings; weather facts; post-severe weather, water, and climate updates; and posts featuring NWS employees and the work they do.
- Supporting the Community Collaborative Rain, Hail and Snow (CoCoRaHS) network. CoCoRaHS is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, snow and hail).
<http://www.srh.noaa.gov/gis/kml/cocorahs/cocorahsLink.kml>

NOAA's NESDIS Data Centers sent out a customer satisfaction survey to their users. The survey asked users to rate their satisfaction on issues such as the quality of provided products and services, accessibility of data, and timeliness of response. The survey also asked users to identify the type of data received, the primary use of the product, as well as the benefit of the data to the user or user's organization. Space was provided at the end of the survey for the user to include written comments. Results of this survey were compared to the results from a similar 2003 survey to determine if user satisfaction had changed.

NOAA's NESDIS National Climatic Data Center (NCDC) recently expanded their customer service activities to include sectoral user engagement. As a starting point, NCDC has identified 12 user sectors which represent a majority of the users requesting climate data and information from NCDC. These sectors include 1) Agriculture, 2) Civil Infrastructure, 3) Coastal Hazards, 4) Energy, 5) Health, 6) Insurance, 7) Litigation, 8) Marine and Coastal Ecosystems, 9) National Security, 10) Transportation, 11) Tourism,

and 12) Water Resources. Each sector has a team dedicated to learning more about and servicing the needs of its users. Activities within each sector included attending and /or presenting at sectoral conferences, organizing user workshops, and representing NCDC at sectoral trade shows, just to name a few. More information can be found on the User Engagement website at:

<http://www.ncdc.noaa.gov/oa/userengagement/userengagement.html>.

Currently NOAA's OAR Office of Ocean Exploration and Research participates in several 3rd party social media and Web 2.0 sites to aid citizen engagement and participation from their Ocean Explorer. They are actively using the following solutions to compliment their outreach and communication activities on the web:

- YouTube (<http://www.youtube.com/oceanexplorergov>),
- Flickr (<http://www.flickr.com/photos/oceanexplorergov>)
- Twitter (<http://twitter.com/oceanexplorer>)

NOAA's NOS put a **ForeSee Customer Satisfaction Survey** on its corporate Web site in December 2008 to obtain feedback from citizens visiting the NOS site and guide modifications to improve the overall customer satisfaction of the site.

Initial results from the survey showed a total satisfaction score of 78; since August 2009, the score has risen to 80. Sites scoring over 80 are considered to be "top performers" and the average score for a government site is 74.

Modifications to the site that led to the increased score included:

- ◆ Redesigning the site home page to look more "modern" and be more regularly updated, incorporating a rotating image that highlights news and stories about activities within the Ocean Service
- ◆ Adding new site features, including:
 - "What's New" section with "news" stories from around NOS
 - "Feature" section with feature stories highlighting ongoing projects/programs around NOS
 - "People of NOS" section that highlights staff working in different facets of NOS, to give visitors an idea of what it is like to work at NOS
 - "Ocean Facts" to answer commonly asked questions about the ocean (e.g., why is the ocean blue)
 - "Multimedia" section that includes audio podcasts; a video gallery; an image gallery; and a "for fun" area with games, desktop wallpaper, etc.

Based on citizen input through the ForeSee survey, NOS will be updating the navigation on the NOS corporate Web site to make it more detailed so that users can find information they are seeking more quickly.

Additional tools that implemented by NOS are described under 1.a.2 above .

- Review and provide updates for the [Web Publication Schedule](#) for your operating unit entries. Include your operating unit's information dissemination product catalogs, directories, inventories, and any other management tools used to improve the dissemination of and access to your operating unit's information by the public.

NOAA's update is to add to the website:

Line Office	Title of the Information (Data Type)	Frequency of the Release	URL
NOAA/NCDC	Climate Data and Services	Updated daily	http://www.ncdc.noaa.gov/
NOAA/NWS	Community Collaborative Rain, Hail and Snow (CoCoRaHS) network.	Updated daily	http://www.srh.noaa.gov/gis/kml/cocorahs/cocorahsLink.kml

- Review and provide updates for the [Commerce Research and Development \(R&D\) Web sites](#) for your operating unit's public Web sites that disseminate R&D information to the public, and indicate whether or not each Web site provides the public information about federally funded R&D activities and/or provides the results of federal research.

Operating Unit	Application Name	URL
NOAA/OAR	Air Resources Laboratory (ARL) Conducts research and development in the fields of air quality, atmospheric dispersion, and climate. Key activities include the development, evaluation, and application of air quality models; improvement of approaches for predicting atmospheric dispersion of hazardous materials; and the generation of new insights into air-surface exchange and climate variability and trends.	http://www.arl.noaa.gov
NOAA/OAR	Atlantic Oceanographic and Meteorological Laboratory (AOML) Conduct basic and applied research in oceanography, tropical meteorology, atmospheric and oceanic chemistry, and acoustics. The research seeks to understand the physical characteristics and processes of the ocean and the atmosphere, both separately and as a coupled system.	http://www.aoml.noaa.gov

Operating Unit	Application Name	URL
NOAA/OAR	<p>El Nino Theme Web Site</p> <p>Provides the public with access to information about El Nino.</p>	<p>http://www.pmel.noaa.gov/tao/el_nino/nino-home.html</p>
NOAA/OAR	<p>Earth System Research Laboratory</p> <p>To observe, understand and predict the Earth system through research that advances NOAA's environmental information and service from minutes to millennia on global-to-local scales.</p>	<p>http://www.esrl.noaa.gov</p>
NOAA/OAR	<p>Earth System Research Laboratory - Chemical Sciences Division (CSD)</p> <p>Conducts scientific research aimed at discovering, understanding, and quantifying the processes that govern the chemical reactions of Earth's atmosphere that are needed to improve the capability to predict its behavior</p>	<p>http://www.esrl.noaa.gov/csd</p>
NOAA/OAR	<p>Earth System Research Laboratory – Global Monitoring Division (GMD)</p> <p>Conducts sustained observations and research related to source and sink strengths, trends and global distributions of atmospheric constituents that are capable of forcing change in the climate of Earth through modification of the atmospheric radiative environment, those that may cause depletion of the global ozone layer, and those that affect baseline air quality.</p>	<p>http://www.esrl.noaa.gov/gmd</p>
NOAA/OAR	<p>Earth Systems Research Laboratory – Global Systems Division (GSD)</p> <p>Conducts research and development to provide NOAA and the nation with systems that deliver global environmental information and forecast products ranging from short-term weather predictions to longer-term climate forecasts.</p>	<p>http://www.esrl.noaa.gov/gsd</p>
NOAA/OAR	<p>Earth System Research Laboratory – Physical Sciences Division (PSD)</p> <p>To provide the observation, analysis, and diagnosis of weather and climate physical processes necessary to increase understanding of Earth's physical environment, including the atmosphere, ocean, cryosphere, and land, and to enable improved weather and climate predictions on global-to-local scales.</p>	<p>http://www.esrl.noaa.gov/psd</p>
NOAA/OAR	<p>Geophysical Fluid Dynamics Laboratory (GFDL)</p> <p>Conducts research to expand the scientific understanding of the physical processes that govern the behavior of the atmosphere and the oceans as complex fluid systems.</p>	<p>http://www.gfdl.noaa.gov</p>

Operating Unit	Application Name	URL
NOAA/OAR	<p>National Severe Storms Laboratory (NSSL)</p> <p>Conducts research which focuses on understanding severe weather processes, developing weather observation technology, and improving forecast tools, with emphasis on Weather Radar, Hydrometeorology, and Forecast & Warning Improvements.</p>	http://www.nssl.noaa.gov
NOAA/OAR	<p>Ocean Explorer Provides a comprehensive overview of NOAA's 200-year history of ocean exploration.</p> <p>Office of Ocean Exploration Describes the activities and functions of NOAA's Office of Ocean Exploration and hosts its programs and Initiatives.</p> <p>National Undersea Research Program (NURP) Provides undersea scientists with the tools and expertise they need to work in the undersea environment.</p> <p>Vents Conducts research on the impacts and consequences of submarine volcanoes and hydrothermal venting on the global ocean</p>	<p>http://oceanexplorer.noaa.gov</p> <p>http://explore.noaa.gov</p> <p>http://www.oar.noaa.gov/oceans/ocean_nurp.html</p> <p>http://www.pmel.noaa.gov/vents</p>
NOAA/OAR	<p>Pacific Marine Environmental Laboratory (PMEL)</p> <p>Carries out interdisciplinary scientific investigations in oceanography and atmospheric science. It focuses on open ocean observations in support of long-term monitoring and prediction of the ocean environment on time scales from minutes to decades.</p>	http://www.pmel.noaa.gov
NOAA/OAR	<p>Tropical Atmosphere Ocean Project (TAO)</p> <p>Provides real-time data from moored ocean buoys for improved detection, understanding, and prediction of El Nino and La Nina.</p>	http://www.pmel.noaa.gov/tao
Multi-agency NOAA/OAR NOAA/NES DIS NOAA/NOS	<p>Coral Reef Conservation Program</p> <p>The CRCP is a partnership between the NOAA Line Offices working on coral reef issues, including the National Ocean Service (NOS), the National Marine Fisheries Service (NMFS), the Office of Oceanic and Atmospheric Research (OAR) and the National Environmental Satellites, Data and Information Service (NESDIS). Links to NOAA offices that are part of the CRCP can be found in the CoRIS library.</p>	http://www.coralreef.noaa.gov

Note: On the current DOC R&D Websites, NOAA lists the U.S. Government Science Portal (<http://www.science.gov>) as an application, however, NOAA is no longer an Alliance partner on the project, NIST and NTIS are listed as part of the alliance. The table above reflects this change.

- Review and provide updates for the [Commerce Data Dissemination Agreements](#) (e.g., contracts, memoranda of understanding, and partnerships) with external entities (e.g., partnerships with state and local governments, public libraries, industry, and commercial search engines) that complement your operating unit's information dissemination program. Provide a brief explanation of how each agreement improves the access to and dissemination of federal information to the public.

Agreement Partner: Education and Research Consortium of Western Carolinas

Type of Agreement: MOA

Purpose: Establish data publication and sharing services between academic research community and NCDC.

POC: David Urbanski

Status Update -- Provide broadband telecommunications service and connectivity to the National Climatic Data Center (NCDC). Access to the nation's broadband communications backbone to support government activities, public and private business, and educational institutions is facilitated through this agreement. Examples of educational opportunities resulting from expanded access include, but are not limited to, data processing related to climatological and atmospheric topics, access to Library of Congress digitized publications (as part of climate data modernization), and access and use of archived climatological data, including surface and upper air observations, satellite and radar, output from environmental simulation models, including but not limited to those of meteorology, climatology, oceanography, and air quality.

Agreement Partner: Consortium of Universities for Advancement of Hydrological Science, Inc.

Type of Agreement: MOA

Purpose: Establish data publication and sharing services between academic research community and NCDC.

POC: Rich Baldwin

Status Update - NCDC Web Services for usage by CUAHSI are now operational and routinely being used by CUAHSI and its customers. The system allows multiples parameters of hydrological data from NCDC and from non-NOAA agencies/partners to be accessed via the CUAHSI system.

- Describe the telework program at your operating unit, including your plans to increase your employees' ability to use Web 2.0 tools to work-at-a-distance.

NOAA has established a baseline level of telework capability available to all staff assigned a NOAA.GOV e-mail address and who have access to the internet. Approximately 9,000 employees currently have the capability to participate in its telework program and supervisors are being encouraged to allow telework for up to 2-3 days, depending on the individual program and its needs.

NOAA's teleworkers access their email either directly or via webmail, and their intranets via a virtual private network (VPN) to their desktops. Employees are able to collaborate with co-workers and external parties via conferencing applications such as WebEx Meeting Center and Juniper Secure Meeting. There is also use of Instant Messenger (IM) for real time collaboration and coordination. In addition, the Google Apps Pilot described under Innovations is an ideal tool for collaboration by teleworkers.