

**National Oceanic and Atmospheric Administration
National Weather Service
Advanced Weather Interactive Processing System (AWIPS)
UPI Code 006-48-01-12-01-3101-00
Operational Analysis
First Quarter Update for Fiscal Year 2008**

Executive Summary

This quarterly Operational Analysis (OA) report is a status review of the Advanced Weather Interactive Processing System (AWIPS) program in terms of financial performance, system performance, and customer results. AWIPS is the primary operational IT system for the operational National Weather Service (NWS), and it is critical to the NWS mission of providing climate, water, and weather forecasts and warnings for the protection of life and property and enhancement the national economy. The program continues to meet established cost, schedule and performance parameters and directly facilitates NOAA’s strategic goals. This operational analysis (OA) is a quarterly update to the, in-depth annual OA review of the program’s performance based on: Customer Results, Strategic and Business Results, Financial Performance, and Innovation.

1.0 Customer Results

Customer Satisfaction for FY 2007, as measured by our annual independent customer satisfaction survey was 86% for the year, exceeding the threshold of 85. This survey will be redone during the second quarter of FY2008. Workstation Performance Rating (WPR) benchmark as slipped slightly from 23.2 sec. in FY07 to 26.7 sec. in 1Q08, but the metric is still well below the threshold of 104.7 seconds. Table 1 below summarizes the customer results performance measures for the first quarter of Fiscal Year 2008.

Table 1: Customer Results Performance Measure

Measurement Area	Indicator	FY-08 Baseline	1Q08 Actual Result	Comments
Customer Requirements	Customer Satisfaction Survey	85%	86%	Above threshold but down from the FY07 level
	Workstation Performance Rating (WPR)	104.7 sec.	26.7 Sec.	User perceived system performance

2.0 Strategic and Business Results

The AWIPS program continues to meet its own goals and objectives as well as those of the agency. Program management and controls are in place to ensure the program continues to meet its objectives and to monitor how well the AWIPS program performs. The Strategic and Business Results performance metrics for the first quarter of Fiscal Year 2008 are shown in Table 2 below.

Table 2: Business Results Performance Measures

Measurement Area	Indicator	FY-08 Baseline	1Q08 Actual Result	Comments
Strategic and Business Results	WPR System Performance Benchmark	104.7 sec.	26.7 sec.	As of Operation Build 8.2 (OB8.2) b.1
	Message Latency	60 sec.	13.33 sec.	Average for 1Q08, improved from 4Q08
	Satellite Broadcast Network (SBN) Availability	99.5 %	99.83%	Average for 1Q08, down slightly from 4Q08
	Terrestrial WAN (Frame Relay) Availability	TBD	99.9832%	New Metric. Baseline is being established. Average for 1Q08.

3.0 Financial Performance

As of the end of the first quarter FY08, AWIPS actual costs are on target with the planned expenditures as per the FY08 AWIPS spend plan, as shown in Figure 2 below.

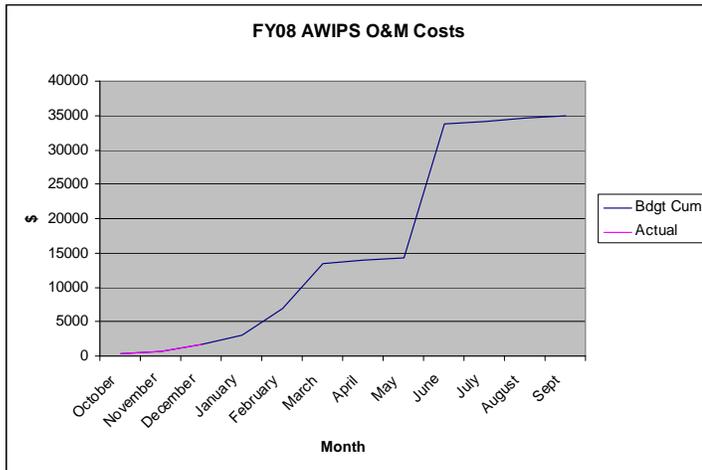


Figure 2: Budget vs. Actual Costs

4.0 Innovation to Meet Future Customer Needs

The AWIPS computer performance, capacity, and communications capabilities can not effectively accommodate our future demands for new science because significant parts of the software architecture are based on 1990s technology. The current software architecture cannot easily accommodate future requirements for data and science enhancements. Anticipated growth in satellite and numerical model data volume and requirements for digital services will exacerbate AWIPS capacity gaps. NWS must take proactive measures to evolve the AWIPS hardware, software, and telecommunications architecture and system capabilities to sustain critical warning and forecast operations and meet strategic goals.

The approach to addressing this AWIPS software architecture issue is to migrate the entire 4.5 Million Source Lines of Code (MSLOC) to a Service Oriented Architecture (SOA). End state vision is a modern, responsive, flexible, extensible, powerful, secure and cost effective IT system necessary for NOAA and NWS to perform their mission and meet strategic goals. The SOA enabled AWIPS software suite will be known as AWIPS-II and will be fielded by late 2010. The AWIPS-II initiative is a part of AWIPS Product Improvement (API) which is a DME project, so it will not be described in detail in this (Steady State) Operational Analysis document. The AWIPS-II project has been funded through cost avoidance in AWIPS Operations and Maintenance made possible through competition. AWIPS is a mixed lifecycle investment.