

**WRITTEN TESTIMONY OF  
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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
U.S. DEPARTMENT OF COMMERCE**

**OVERSIGHT HEARING ON THE FUTURE OF NPOESS: RESULTS OF THE  
NUNN-McCURDY REVIEW OF NOAA'S WEATHER SATELLITE PROGRAM**

**BEFORE THE  
COMMITTEE ON SCIENCE  
U.S. HOUSE OF REPRESENTATIVES**

**JUNE 8, 2006**

**Introduction**

Chairman Boehlert, Ranking Member Gordon and Members of the Committee, I am Conrad C. Lautenbacher, Under Secretary for Oceans and Atmosphere at the Department of Commerce (DOC) and head of the National Oceanic and Atmospheric Administration (NOAA). I am here to discuss the recent decisions made by the Administration regarding the National Polar-orbiting Operational Environmental Satellite System (NPOESS) program.

**What is NPOESS?**

The U.S. has historically operated two operational polar satellite systems, one for military and one for civilian use. In 1994, it was decided to merge the two programs together. This new program, NPOESS, was originally designed to be a series of six satellites with a total 13 different sensors. The new sensors would provide higher quality data that would support more sophisticated environmental models for improved weather forecasting.

NPOESS is a unique program in the federal government. It is jointly managed by DOC, the Department of Defense (DOD) and NASA with direct funding provided by DOC and DOD. At the senior level, the program is overseen by an Executive Committee (EXCOM) and managed by an integrated program office (IPO).

NPOESS is the most complex environmental satellite system ever developed. The program has presented numerous technical, developmental, integration and management challenges. As the Committee is well aware, in March 2005, the contractor informed the government NPOESS would not meet cost and schedule, mostly because of technical challenges with one sensor known as the Visible Infrared Imager / Radiometer Suite (VIIRS). In November, after several independent reviews, the EXCOM decided on management structure changes and narrowed a list of options on how to change the program. However, in December, the IPO notified the Air Force projected cost overruns would exceed the 25 percent threshold triggering a breach of the Nunn-McCurdy statute.

**Nunn-McCurdy Process**

Although the Nunn-McCurdy process is a DOD endeavor, both NOAA and NASA have been fully engaged in the process. Our personnel were members of all working groups and the EXCOM met with DOD's Under Secretary Krieg and participated in the decision-making processes leading to the certification. I support the recertification decisions and the actions outlined in the June 5, 2006 NPOESS Acquisition Decision Memo (ADM), and I want to thank Under Secretary Krieg for the inclusive manner in which the process was conducted.

Fixing NPOESS has been and continues to be my number one priority. Since the start of the certification process in January 2006, I have personally participated in many Nunn-McCurdy meetings, developed NOAA's position on the issues that arose in the various working groups and received frequent progress updates. Additionally, I continually monitored and assessed the status of the ongoing NPOESS program. Brigadier General (Select) Sue Mashiko, acting Program Executive Officer (PEO), provided weekly program status updates and met with me on a regular basis. The program has met each milestone for this year's interim plan and is within cost and schedule for the Fiscal Year 2006 plan.

Throughout the Nunn-McCurdy process I have had three priorities: 1) ensure continuity of polar satellite data; 2) implement management changes at all levels to improve oversight of the program and prevent recurrence of past problems; and 3) ensure the certified program meets NOAA requirements for improved weather forecasting and provides for growth potential in the areas of climate and space weather observations.

I believe the certified program achieves these priorities. The revised program consists of four NPOESS satellites operating in two orbits and utilizes data from European weather satellites for the third orbit. The original NPOESS concept covered the same number of orbits. We have put into place a key decision point before procuring the final two satellites. We have concerns with the past performance of the prime contractor and are exploring options to procure these two production satellites using the government as the integrator. This decision does not have to be made until FY 2010, which gives us time to realistically assess the performance of the NPOESS Preparatory Program (NPP) satellite and the prime contractor. While the NPP mission is expected to be launched in 2009, the first NPOESS satellite is expected to be launched in early 2013 and the program is expected to last until 2026. The estimated total acquisition cost of the revised program is \$11.5 billion. The DOD cost estimators working closely with the program office have determined the FY 2006 and FY 2007 budgets are adequate to support the revised program.

To minimize any potential gaps in coverage, we are rescheduling launches of the remaining NOAA and DOD satellites as well as the NPP satellite, which will carry four of the core NPOESS sensors on a NASA platform. We do not believe there will be a gap in data used for weather forecasting under this plan. However, should the remaining NOAA POES satellite fail on launch or in orbit, we would have to rely solely on DOD, European and NASA satellites and there would be some degradation to NOAA's weather forecasting ability until NPP or an NPOESS satellite could be launched.

I insisted that management processes must be made more transparent and auditable and strengthened at all levels. We cannot accept what occurred in the past or fall guilty to the mistaken belief that cost and schedule overruns are the norm for satellite programs. We are putting into place additional checks and balances at all levels and actions are underway to implement each of the Department of Commerce Inspector General's (DOC IG) recommendations. At my request, the

EXCOM will meet quarterly and we will invite senior leadership from the prime contractor. We are implementing a new oversight level with the establishment of a Program Executive Office, which reports to the EXCOM. This office will be led by a senior experienced acquisition executive who will provide oversight of the government and prime and subcontractor performance. We have directed the PEO to obtain regular independent reviews of the program by outside experts and the PEO will be the fee determining official instead of the program director. The NPOESS contract will be renegotiated and a top priority will be to lower the award fee percentage, while also implementing the recommendations of the DOC IG and the changes outlined in the recent DOD acquisition memo on award fee distribution.

We have directed the NPOESS program office to change the way it monitors earned value data, key milestones, dollars spent and contractor personnel. They will now track these metrics on a more regular basis, which will provide real-time insight into the health and status of the program. These changes should provide the PEO and the EXCOM with more meaningful data to understand the actual progress of the program as well as the potential problems so corrective actions can be taken sooner. In addition, the program office has been reorganized and new personnel are being added to increase expertise in budget analysis, systems engineering, and program control.

As part of the Nunn-McCurdy process, we reevaluated all the key performance parameters and worked with the user community to prioritize the 13 NPOESS sensors. The certified program will procure and integrate the key sensors which will provide all of the capabilities NOAA requires to improve our weather forecasting mission. These sensors include VIIRS, the Cross-track Infrared Sounder, the Advanced Technology Microwave Sounder, and the majority of the Ozone Mapping and Profiler Suite capabilities. The only exception is the Conical Microwave Imager Sounder (CMIS). This project has too many technical challenges and risks and will be terminated. However, a smaller and less complex replacement sensor will be competitively procured and integrated onto the satellite. We believe the new sensor, along with the use of European satellites, will meet all NOAA requirements, including ocean wind speed and all-weather imagery with less risk and at a lower cost. To further reduce risk to the program, we are also developing an alternative imaging sensor which could be available for launch of the first satellite in case VIIRS cannot overcome its technical challenges.

Although the primary mission for NPOESS is to provide data for weather forecasting, many of the core sensors mentioned above and some of the secondary sensors would provide some additional climate and space weather observations. Unfortunately, difficult choices and trade-offs had to be made and the cost to procure these sensors is not included in the certified program, however the program will plan for and fund the integration of these sensors on the spacecraft. Some of these sensors provide continuity to certain long-term climate records while other sensors would provide new data. NOAA, NASA and DOD will be assessing the impacts of these trade-offs, and will work in conjunction with our international partners to identify what mitigation strategies may be available. We specifically decided that the NPOESS spacecraft will be built with the capability to house all of the sensors and the program budget will include the dollars to integrate them on the spacecraft. This decision was made because the EXCOM agreed any additional funding gained through contract renegotiation or in unutilized management reserve would be used to procure these secondary sensors.

To summarize, the certified NPOESS program will have fewer satellites, less sensors, while costing more money. But we will provide continuity of all current polar satellite data critical for our weather forecasting models while satisfying our requirements for future forecasting improvements. We have also significantly reduced the overall risk in the program (and increased our confidence of success) by providing appropriate management reserves and schedule margins into the cost estimates; through management changes at all levels; and by ensuring we can meet our performance requirements by substituting a smaller sensor for CMIS and having a backup plan for VIIRS.

I believe this is a well-constructed, achievable plan and will address all known deficiencies with the program. I am fully committed to making this program a success. I appreciate the Committee's ongoing oversight of this critical weather satellite program, and I am ready to respond to your questions.