

# INSPECTOR GENERAL REPORT ON NOAA WEATHER SATELLITES

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## HEARING BEFORE THE COMMITTEE ON SCIENCE HOUSE OF REPRESENTATIVES ONE HUNDRED NINTH CONGRESS

SECOND SESSION

—————  
MAY 11, 2006  
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**Serial No. 109–49**  
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Printed for the use of the Committee on Science



Available via the World Wide Web: <http://www.house.gov/science>

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U.S. GOVERNMENT PRINTING OFFICE

27–470PS

WASHINGTON : 2006

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**INSPECTOR GENERAL REPORT ON NOAA  
WEATHER SATELLITES**

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**THURSDAY, MAY 11, 2006**

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON SCIENCE,  
*Washington, DC.*

The Committee met, pursuant to call, at 10:10 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Sherwood L. Boehlert [Chairman of the Committee] presiding.

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

***Inspector General Report on NOAA Weather Satellites***

Thursday, May 11, 2006

10:00 AM – 12:00 PM

2318 Rayburn House Office Building (WEBCAST)

**Witness List**

**Mr. Johnnie Frazier**  
Inspector General  
U.S. Department of Commerce

**Vice Admiral Conrad C. Lautenbacher, Jr. (Ret.)**  
Administrator  
National Oceanic and Atmospheric Administration

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HEARING CHARTER

**COMMITTEE ON SCIENCE  
U.S. HOUSE OF REPRESENTATIVES****Inspector General Report on  
NOAA Weather Satellites**THURSDAY, MAY 11, 2006  
10:00 A.M.—12:00 P.M.

2318 RAYBURN HOUSE OFFICE BUILDING

**Purpose:**

On May 11, 2006 at 10:00 a.m., the House Science Committee will hold a hearing about a report by the Department of Commerce Inspector General (IG), *Poor Management Oversight and Ineffective Incentives Leave NPOESS Program Well Over Budget and Behind Schedule.* The IG report will be officially released at the hearing, which will be the first public discussion of the report's conclusions. (An embargoed copy of the Executive Summary of the report is attached as Appendix I.)

The National Polar-orbiting Operational Environmental Satellite System (NPOESS) satellites are under development and are designed to become the Nation's key weather satellites, replacing the current generation of both civilian and military weather satellites as they reach the end of their useful lives. Yet the program is more than 25 percent or as much as \$3 billion over budget and anywhere from 17 months to three years behind schedule, creating a possible gap in weather satellite coverage (if current satellites fail before new ones can be launched).

The IG report examines how the NPOESS program got so off track and has two primary findings and related recommendations. The first finding is that the top officials at the agencies responsible for NPOESS did not exercise sufficient oversight and did not seek sufficient information from sources who were independent of the NPOESS program. The second is that the way the contract for NPOESS is written and the way it was implemented enabled the contractor to receive sizable award fees even when the program was not performing well.

The agencies in charge of NPOESS are the National Oceanic and Atmospheric Administration (NOAA), the Department of Defense (DOD), and the National Aeronautics and Space Administration (NASA). The IG report only examines actions by NOAA (which is the only NPOESS agency within the Commerce Department IG's jurisdiction) NOAA is responsible for overall program management of NPOESS and, during most of the period under review, a NOAA employee was the day-to-day official in charge of the NPOESS program.

The IG report includes comments from NOAA and the IG's responses to those comments. Under Department rules, NOAA also must, within 60 days, develop a plan to remedy the concerns raised by the IG. That period may be extended because the NPOESS program is already undergoing a top-to-bottom review required by law because of the cost overruns. This review, known as a "Nunn-McCurdy review," is described in greater detail below.

**Witnesses:**

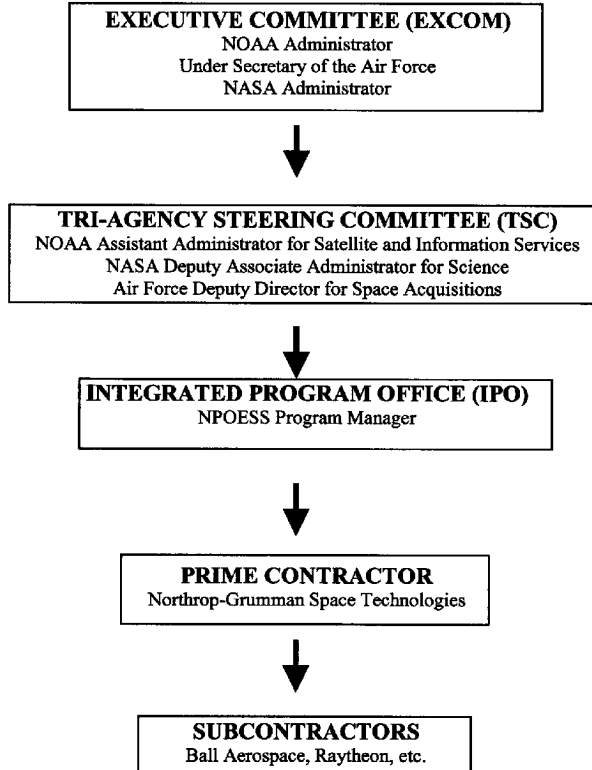
**Mr. Johnnie E. Frazier**, Inspector General, U.S. Department of Commerce

**Vice Admiral Conrad C. Lautenbacher (ret.)**, Administrator, National Oceanic and Atmospheric Administration

**Background on NPOESS:***What is NPOESS?*

The Federal Government has traditionally launched separate weather satellites to serve military and civilian needs. NPOESS, begun in 1994, is the first joint civilian/military weather satellite program. NOAA and DOD together share the cost of developing the NPOESS satellites. NASA also supports the program primarily by overseeing the development of a small satellite, known as the NPP (for NPOESS Preparatory Project), designed to test some of the advanced sensors the NPOESS satellites will later carry, reducing the risk that these sensors will not work as expected.

**Figure 1. NPOESS Program's Management Structure.**



The NPOESS satellites are designed to fly in an orbit around the Earth's poles. They complement other weather satellites that orbit the Earth at the equator (so-called geostationary satellites because they orbit at the same speed as the Earth rotates, and so appear to hover above a fixed position on the ground). As polar-orbiting satellites circle the Earth, they provide global coverage of weather and climate conditions.

NPOESS satellites are being built to carry instruments, or sensors, to measure a number of meteorological features important to developing three- to seven-day weather forecasts and for predicting severe weather, such as hurricanes. For example, some sensors are being developed to measure ocean winds to help predict El Niño and aid the military's operation of aircraft carriers. Others will measure soil moisture, which is important to military planning as well as agriculture and water resource managers. Aerosol detectors will help predict such aviation hazards as volcanic ash while helping the military predict whether it will be able to accurately spot its targets. Ocean-color sensors can track fish populations and ocean-borne pollution while helping the military sweep for mines. And as the events of the 2005 hurricane season showed, improved accurate forecasts can help better predict hurricane paths, allowing emergency managers to target their efforts and preventing unnecessary coastal evacuations that can cost up to \$1 million a mile.



### *Past Problems with NPOESS*

NPOESS has a history of budget and technical problems.<sup>1</sup> When first conceived in 1994, NPOESS was expected to cost \$6.5 billion, a savings of \$1.8 billion compared to the cost of separately developing new satellite systems for military and civilian use. The NPP test satellite was originally expected to be ready for launch in May 2006, while the first operational NPOESS, the C-1 satellite, was to be available for launch in June 2008.

The government and contractors drew up a new cost estimate and schedule for NPOESS (known as a “rebaselining”) early in 2004 to take into account funding cutbacks in FY 2003 (by Congress) and FY 2004 (by the Administration). Under the new baseline, the total expected cost of the program rose by \$900 million (to \$7.4 billion) and the schedule was delayed by several months: NPP was to be launched in October 2006 and NPOESS C-1 was to be launched in February 2009.

In November 2004, major technical and engineering problems emerged with one of the key sensors, known as VIIRS (pronounced like “veers,” the instrument is a type of infrared camera used to collect images of clouds and to probe sea surface temperature, an important aspect of hurricane prediction). In response to the problems with the sensor, Raytheon, the subcontractor building VIIRS, fired its entire technical team working on the instrument and put new staff on the task. By March 2005, the problems with VIIRS had become so severe that Northrop-Grumman Space Technologies, the prime contractor, notified the government it would not be able to deliver NPOESS on cost or schedule. That notification triggered a series of reviews by NPOESS officials.

At the Full Science Committee’s November 16, 2005 hearing, the Committee heard from the Air Force, NOAA, the prime contractor, and the Government Accountability Office (GAO) about the options under consideration to deal with the cost overruns and schedule delays. NOAA and the Air Force testified that the NPOESS program acquisition costs would increase by 15 percent over the program’s most recent cost estimate and would likely result in a delay of at least two years. Committee Members pressed repeatedly for NOAA and DOD to justify their decision not to seek additional funding in fiscal years 2006 and 2007, even though the prime contractor on the program testified that increased funds in those years would significantly reduce life cycle costs, help resolve looming technical problems sooner, decrease the risk of a gap in weather satellite coverage, and increase the chances that the NPOESS development program overall will be successful. NOAA and the Air Force told the Committee they believed that no new funds were needed, at least in the short run, because slowed work on some sensors would free up funds to continue work on other sensors.

About two months after the Committee’s hearing, cost estimates for the NPOESS program rose to more than 25 percent above the program baseline estimate, triggering a Nunn-McCurdy certification review described in the next section.

### *Nunn-McCurdy Review*

The NPOESS contract follows DOD acquisition procedures. As a result, it is subject to the Nunn-McCurdy provisions of the DOD acquisition law (10 U.S.C. 2433). Under the Nunn-McCurdy law, if a program’s costs increase by more than 25 percent, the Secretary of Defense (or the Secretary of the appropriate branch of the military) must certify the program in a period of time specified under the law or no additional funds can be obligated for the program. Certification requires a written justification that:

- (1) The program is essential to the national security;
- (2) There is no alternative that can provide equal capability at less cost;
- (3) New estimates of costs have been developed and are reasonable; and
- (4) Management structure is adequate to control costs.

On January 11, 2006, the Secretary of the Air Force notified Congress that the NPOESS program would exceed the 25 percent Nunn-McCurdy notification threshold (meaning that acquisition costs would increase by at least \$1.85 billion over the program’s most recent cost estimate of \$7.4 billion). This triggered a formal certification process that effectively superseded any previous independent reviews as well as pending program direction decisions about mitigating cost overruns and schedule delays. The decision on whether to certify the NPOESS program is due no later than June 5, 2006.

<sup>1</sup> See the hearing by the Science Committee’s Subcommittee on Environment, Technology, and Standards in July 2003, and by the Full Science Committee on November 16, 2005, both available at <http://www.house.gov/science/>.

If the Secretary decides the program does not meet any or all of the four certification criteria and or if the required certification is not provided to Congress by the due date, no more DOD funds can be obligated for a major contract under the program (essentially terminating the program). If the Secretary does decide to certify a program, that certification is generally contingent on changes made to technical requirements (e.g., sensor design), cost, schedule, and/or management structure to ensure that costs do not continue to rise as the program moves forward.

To address each of the four certification criteria for the NPOESS program, DOD established four Independent Program Teams, each assigned to look at one of the criteria. Each team consists of representatives of each of the three agencies responsible for NPOESS and other experts on both satellite acquisition and on the technical capabilities of satellites. The Nunn-McCurdy certification process for NPOESS represents the first time an interagency program has undergone a Nunn-McCurdy review so this review has raised some unique concerns (including interagency representation on the teams). In December 2005, key members of the House Science and Armed Services Committees sent a letter to the DOD and Air Force officials responsible for the Nunn-McCurdy process urging, among other things, full coordination of this process with NOAA and NASA. The Science Committee sent the letter, in part, because of concerns that a Nunn-McCurdy certification could recommend changes that would be detrimental to NOAA's satellite needs while still addressing DOD's needs.

For 2006, the NPOESS program office (known as the Integrated Program Office, or IPO) and Northrop Grumman (the prime contractor) put together an interim program plan to continue building key components of the program pending a Nunn-McCurdy decision. Thus far the program is operating within the cost estimates and schedule set for this year.

#### **Major Topics of Inspector General's Report:**

##### *1. Executive Committee (EXCOM) oversight of NPOESS*

*IG Finding:* Despite increasing evidence of cost and schedule problems with VIIRS (the key NPOESS sensor), the EXCOM did not challenge the IPO's optimistic assessments that development of VIIRS would not delay launch dates for NPOESS. Also, the EXCOM met infrequently—just twice in 18 months—during the critical period when VIIRS problems were worsening, resulting in lost opportunities to investigate program status and make necessary program management decisions.

*IG Recommendation:* The NOAA Administrator should ensure that the EXCOM receives regular, independent evaluations of NPOESS to enable ongoing, active oversight of the program.

*NOAA and IG Responses:* In its written response to the IG report, NOAA argued that it had exercised oversight of the program through private discussions as well as EXCOM meetings. It also said that it has already taken action to institute independent reviews. In the report, the IG countered that private meetings cannot substitute for formal oversight. The IG said the EXCOM needs to have a formal, documented means to oversee the NPOESS program, in part because that enables greater continuity when program officials change. Also, the IG argued that any private meetings or reviews apparently did not result in any concrete actions to keep the program on track. Finally, the IG argued that NOAA needs to establish a clear process to get regular, independent evaluations beyond the ad hoc independent reviews that have already been undertaken to determine the current status of the program.

*Current Status of IPO:* There have been significant management changes at the IPO and the prime contractor in the past few months, especially with regard to personnel. The NPOESS program director (that is, the head of the IPO) during most of the period covered by the IG report (a NOAA employee) has resigned, apparently under pressure, and the Northrop Grumman program director at the time many of the problems with VIIRS occurred no longer works on the program. In addition, the EXCOM has set up a new structure to centralize the responsibilities that reside below the EXCOM level. A single Program Executive Officer (PEO) has been inserted at a level between the EXCOM and the IPO, at least temporarily. The PEO structure is common in DOD acquisition programs. The current PEO is a Brigadier General in the Air Force with extensive experience in major procurements. The current IPO program director is an Air Force Colonel who is reporting to NOAA in his IPO role.

*Remaining Issues with IPO:* This new structure means there is a lot of Air Force influence at the top levels of the NPOESS program and raises concerns about whether NOAA and NASA priorities will still receive adequate attention. Also, NOAA has not yet formally agreed to adopt the new PEO structure for NPOESS program management, pending the outcome of the Nunn-McCurdy process. Finally,

NOAA has not said whether the EXCOM will meet more frequently or take a more hands-on approach to oversight.

*Remaining Issues with Independent Reviews:* It is not clear whether the kinds of reviews NOAA has now put in place are sufficiently independent to satisfy the IG. On the other hand, while independent reviews are valuable and can provide new insights (and might have provided a check on IPO optimism earlier in the program), they also require time and money. Some satellite industry officials think that annual independent reviews of the NPOESS program overall would be useful, while others think independent reviews just at certain milestone events (such as technical reviews during critical tests of important sensors) would be more effective. Others think that with the Nunn-McCurdy review NPOESS has received sufficient independent analysis and does not require more independent review in the future.

## 2. Contractor Award and Incentive Fee Structure and Management

*IG Finding:* Under the NPOESS contract, the prime contractor is eligible to receive award and incentive fees to reward performance. These fees are over and above reimbursement for the actual costs of carrying out contract tasks. Under the NPOESS contract, Northrop Grumman can earn award and incentive fees equal to 20 percent of the program's actual costs. The IG concluded that the 20 percent award and incentive fee level is higher than what is allowed on almost all other DOD contracts. Moreover, Northrop Grumman received most of the award and incentive fees for which it was eligible even though the program was behind schedule and over cost. The award and incentive fees were determined by the IPO director, and the fees were often in excess of what a fee advisory board had recommended. Specifically, Northrop Grumman has received 84 percent of the award and incentive fees it could have earned to date even though NPOESS is as much as \$3 billion over budget and 17 months behind schedule. Even during a period in which the IPO rated the contractor's performance as "unsatisfactory," Northrop Grumman earned almost half of the possible award and incentive fee. (An overview of DOD contract award fees is in Appendix II.)

*IG Recommendations:* The NOAA Administrator should ensure that the EXCOM revises the award and fee plan. The new fee plan should deny award and incentive fees when performance is not satisfactory. The IG also recommended reviewing the rollover provisions of the current fee structure. In the current fee structure, award and incentive fee determinations are made every six months, but award and incentive fees not earned in one six-month period are not always lost; instead, in some cases, those lost fees are simply added to (rolled over into) the amount of award fees available in the next six-month period. The IG also recommended that the IPO director not be the person who determines when the award and incentive fees are earned. DOD programs generally do not allow the program manager to determine the fees because the program manager has an inherent interest in claiming that progress is being made in the program and that progress is reflected in the award and incentive fees.

*NOAA and IG Responses:* NOAA argued in its written response that the IG report does not fully characterize the award and incentive fee structure, but NOAA did not elaborate. NOAA also argued that the contractor will lose all award and incentive fee payments if it does not deliver a working satellite. Finally, NOAA pointed out that NPOESS is operated under a DOD contract. In the report, the IG countered that NOAA's comments did not deal with the heart of the IG's concerns about excessive contract fees. The IG also pointed out that while NPOESS operates under a DOD contract, NOAA, through the EXCOM, has a role in developing and implementing the contract. Moreover, the IG pointed out that the person managing the contract and determining award and incentive fees (the IPO director) was a NOAA employee.

*Current Status:* The fee determining official for NPOESS is now the PEO rather than the IPO director, although it is not clear if this change will satisfy the IG. (The IG said in the report that the PEO would be a solution only if the PEO "is not directly responsible for managing the NPOESS program.") Related to the contract structure, in December 2005, GAO issued a report criticizing DOD award fee policies department-wide. Many of GAO's criticisms of DOD were similar to the issues raised by the IG with respect to NPOESS. In response to the GAO report, in March 2006, DOD instituted a new award fee policy that addresses GAO's concerns about providing an incentive for critical tasks, linking award fee more closely to contractor performance, and placing limitations on rollover. This new DOD policy does not automatically apply to the NPOESS contract but the Nunn-McCurdy process could ultimately result in changes to the award fee plan for NPOESS, some of which may address the issues raised by the IG.

*Remaining Issues:* If DOD certifies NPOESS, the contract will have to be renegotiated, providing an opportunity to restructure the award fee structure. It remains to be seen how much NOAA can influence a new award fee structure because the Air Force is the lead on the NPOESS contract and procurement issues. However, NOAA does have an equal voice on the EXCOM and the EXCOM must approve the final renegotiated contract.

**Other NOAA Satellite Programs:**

NPOESS is not the only major satellite system vital to NOAA's ability to forecast weather and climate conditions. NOAA also relies heavily on geostationary satellites, which observe a fixed position on the Earth and fly in a higher orbit than polar satellites. Geostationary satellites are important for assessing current weather conditions and providing forecasts out to two days. NOAA plans to let the prime contract for its next generation of geostationary satellites, known as GOES-R, in Fiscal Year 2007 and is already well into the planning for GOES-R. NOAA is the sole agency funding GOES-R. The IG has stated that it expects NOAA to take the recommendations from the NPOESS report into consideration for future satellite procurements such as GOES-R.

**Witness Questions:**

The witnesses were asked to address the following questions in their testimony.

*Mr. Johnnie E. Frazier, Inspector General, U.S. Department of Commerce*

1. Please outline the major findings and recommendations of your report, "Poor Management and Ineffective Incentives Leave NPOESS Program Well Over Budget and Behind Schedule."
2. What types of actions could NOAA take to satisfy the recommendations of your report? Please be as specific as possible.

*Vice Admiral Conrad C. Lautenbacher (ret.), Administrator, National Oceanic and Atmospheric Administration*

1. Do you agree with the following recommendations from the Department of Commerce Inspector General Report, "Poor Management and Ineffective Incentives Leave NPOESS Program Well Over Budget and Behind Schedule?"
  - 1a. Work to ensure that the EXCOM obtains regular, independent evaluations of the status of the NPOESS program (including progress on high-risk tasks and tasks on the program's critical path and impacts of any problems).
  - 1b. Work to ensure that the EXCOM reviews and considers changes to the structure of the Award Fee Plan for NPOESS, including (1) whether the Award Fee Plan adequately incentivizes high-risk tasks and/or tasks on the critical path; (2) whether the contractor should receive any award fee during a period for which their overall performance is unsatisfactory; (3) whether the award fee pool (up to 20 percent of the contract's total estimated costs) is excessive and (4) whether award fee "rollover" opportunities for NPOESS are appropriate.
  - 1c. Work to ensure that the responsibility for determining the award fee for NPOESS is assigned to an official who does not have responsibility for day-to-day program management.
2. What specific steps have you taken and will you take to address each of the IG's recommendations listed below? How will the IG's recommendations factor into the Nunn-McCurdy certification review?
  - 2a. Work to ensure that the EXCOM obtains regular, independent evaluations of the status of the NPOESS program (including progress on high-risk tasks and tasks on the program's critical path and impacts of any problems).
  - 2b. Work to ensure that the EXCOM reviews and considers changes to the structure of the Award Fee Plan for NPOESS, including (1) whether the Award Fee Plan adequately incentivizes high-risk tasks and/or tasks on the critical path; (2) whether the contractor should receive any award fee during a period for which their overall performance is unsatisfactory; (3) whether the award fee pool (up to 20 percent of the contract's total estimated costs) is excessive and (4) whether award fee "rollover" opportunities for NPOESS are appropriate.

- 2c. Work to ensure that the responsibility for determining the award fee for NPOESS is assigned to an official who does not have responsibility for day-to-day program management.
3. What have you done and what will you do to address the issues listed below and other lessons learned from NPOESS in managing the acquisition of future satellites, including GOES-R?
  - 3a. Timely communication to NOAA management regarding risks and problems in the program;
  - 3b. Regular, independent evaluations of the status of the program (including technical, cost and schedule performance); and
  - 3c. Reasonable award fee structure and appropriate administration of award fee (e.g., an independent fee determining official).

Appendix I:

**DO NOT RELEASE PRIOR TO MAY 11, 2006**

***NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION***

***Poor Management Oversight and Ineffective  
Incentives Leave NPOESS Program Well  
Over Budget And Behind Schedule***

*Audit Report No. OIG-17794-6-0001/May 2006*

*Office of Inspector General*

**EXECUTIVE SUMMARY**

In 1994, by Presidential Decision Directive, the National Oceanic and Atmospheric Administration (NOAA) merged its Polar Operational Environmental Satellite (POES) with the Department of Defense's Defense Meteorological Satellite Program to produce the National Polar-orbiting Operational Environmental Satellite System (NPOESS). NPOESS was envisioned as a single state-of-the-art environmental and climate monitoring system that would reduce duplication and significantly cut the cost of satellite operations engaged in obtaining critical meteorological data. Early estimates for NPOESS put life-cycle costs at \$6.5 billion and set a deadline of March 2008 for the first satellite launch.

The merger assigned shared management to NOAA and Defense, along with NASA, whose experience with its own earth observing satellites is expected to improve NPOESS capabilities. The three agencies formed an Integrated Program Office (IPO) within NOAA to manage NPOESS and specified their individual responsibilities in a memorandum of agreement (MOA): NOAA is charged with overall management of the converged system and provided the system program director, who reports to the NOAA Administrator through the NOAA Assistant Administrator for the National Environmental Satellite, Data and Information Service (AA/NESDIS); DoD is the lead on acquisition matters; and NASA is the lead for promoting transition to new technologies. Because of the importance of NPOESS to national and global climate monitoring capabilities, overall program guidance was assigned to an executive committee (EXCOM) made up of top leadership from each agency: the Under Secretary of Commerce for Oceans and Atmosphere, the Under Secretary of Defense for Acquisition and Technology, and the NASA Deputy Administrator. Though not stipulated in the MOA, the agencies formed a steering committee to provide additional executive leadership: committee members include the assistant administrator for NESDIS and his counterparts at DoD and NASA, all of whom report to their agency's EXCOM member.

NPOESS acquisition plans call for, among other things, procurement of six satellites and development of seven instruments, including the Visible/Infrared Imager Radiometer Suite (VIIRS)<sup>1</sup>—one of four sensors considered critical to the program.

In August 2002, the IPO, using DoD's contracting authority, awarded a single satellite integration contract worth \$4.5 billion to a prime contractor, incorporating previously-awarded sensor contracts as subcontracts to the prime. The prime contract included an award fee incentive arrangement to encourage outstanding performance, making it possible for the contractor to earn up to 20 percent of total estimated costs. It set three fee types for the first phase of the contract:

- Base fees are a guaranteed 2 percent of estimated costs, paid to the contractor automatically each billing period. The total base fee pool is \$57,190,785.
- Award fees—capped at 13 percent of estimated contract cost or \$369,294,988—are tied to the government's assessment of the contractor's performance in three broad areas: management, technical, and cost.

<sup>1</sup> VIIRS collects visible/infrared imagery and radiometric data. Data types include atmospheric, clouds, earth radiation budget, clear-air land/water surfaces, sea surface temperature, ocean color, and low light visible imagery.

- Mission success fees—capped at 5 percent of estimated contract cost or \$136,817,498—are tied to the contractor's performance in meeting seven program milestones (called "events").

Criteria for the latter two fees are largely subjective. The plan also allows for unearned award and mission fees from one billing period to be transferred to subsequent periods, giving the contractor additional opportunities to earn them.

#### **NPOESS Cost Overruns Cause Nunn-McCurdy Breach**

The Nunn-McCurdy provision of the FY 1982 National Defense Authorization Act requires the Secretary of Defense to notify Congress when unit costs for a major acquisition program such as NPOESS grow by 15 percent<sup>2</sup> over original baseline estimates. Should costs grow by 25 percent, the act requires the Secretary of Defense to certify in writing that the program is essential to national security, more cost-effective alternatives do not exist, the new cost estimate is reasonable, and a management structure is in place to adequately manage and control unit costs. Failure to provide this certification would terminate DoD's involvement in the program. Such a termination would have a devastating impact given that DoD provides half the program's funding.

On September 28, 2005, program officials notified Congress that NPOESS costs had grown by at least 15 percent, largely because of problems with VIIRS. In November 2005, the Government Accountability Office (GAO) informed Congress that life-cycle cost estimates for NPOESS are likely to grow to \$9.7 billion, and the launch of the first NPOESS satellite is at least 17 months behind schedule.<sup>3</sup> That same month, an estimate prepared for NPOESS by DoD's Cost Analysis Improvement Group showed that cost growth had exceeded 25 percent, triggering the Nunn-McCurdy certification requirement.

At the time the Nunn-McCurdy breach was identified, NPOESS was more than \$3 billion over budget and well behind schedule, yet the contractor had received more than \$123 million—84 percent—of available incentive payments. Our review uncovered two overarching management and contract weaknesses that contributed to the unchecked cost and schedule overruns.

#### **EXCOM Did Not Effectively Challenge Optimistic Assessments of the Impact of VIIRS Problems on NPOESS**

The information that the problems with the VIIRS sensor would delay the NPOESS launch took observers of the program by surprise. We began our audit in part because of our own concerns and those expressed by members of Congress and OMB staff that the IPO either did not identify VIIRS problems or, if identified, did not bring them to the attention of EXCOM or other senior management. In fact, the opposite was true. Although we found that information sharing was not effective between the contractor, the VIIRS subcontractor, and the IPO at the outset of the

<sup>2</sup> 10 U.S.C. § 2433.

<sup>3</sup> U.S. Government Accountability Office, November 2005. *Polar-Orbiting Environmental Satellites—Technical Problems, Cost Increases, and Schedule Delays Trigger Need for Difficult Trade-off Decisions*, GAO-06-249T. Washington, D.C.: GAO.



program, as VIIRS problems persisted, the IPO and prime contractor took steps to improve communication, as well as increase their oversight of the VIIRS subcontractor. Beginning in December 2002, the IPO submitted monthly status reports to EXCOM that consistently described in explicit detail the growing costs and delays attributable to VIIRS development and delivery. Yet until March 2005 the program director maintained that these problems would be solved within available funding reserves and the overall NPOESS schedule. All the while, earned value measures—which reflect program cost and schedule status against goals—were deteriorating and funding reserves were being consumed at an unsustainable rate: by August 2004, 92 percent of the contractor's reserve (\$135 million out of \$147 million) had been spent or allocated.

Despite mounting evidence of the seriousness of the VIIRS problems, EXCOM did not effectively challenge the director's optimistic assessments, and from May 2003 through December 2004, convened only twice to consider the program's status. Finally, in 2005, after the IPO reported that VIIRS problems would indeed delay the first satellite launch, EXCOM began meeting more often to investigate problems and their impact. Unfortunately, by then it was too late to turn the program around: EXCOM's long-term inattention had, in effect, postponed critical evaluations and decisions needed to replan the program's faltering elements and contain cost and schedule overruns. (See page 8.)

After the Nunn-McCurdy review is complete and assuming the program is certified, EXCOM must provide vigilant oversight to ensure NPOESS stays on track. The Commerce Deputy Secretary should ensure that the Under Secretary for Oceans and Atmosphere in his role on the EXCOM works with the other members of the EXCOM to obtain regular, independent evaluations of the status of NPOESS, with a special focus on thoroughly assessing progress toward completing high-risk or otherwise critical tasks. (See page 12.)

#### **Contractor Received Excessive Award Fees for a Problem-Plagued Program.**

Award fees are supposed to motivate a contractor to strive for excellence in such performance areas as quality, timeliness, technical ingenuity, and cost-effective management. The NPOESS experience, however, clearly shows that this incentive structure does not always result in the intended caliber of performance. Despite ongoing, significant delays and cost overruns, the prime contractor received close to the maximum fee amounts for the first five billing periods—an average 90 percent of available incentive payments. At the end of period 4, for example, earned value measures showed the Space Segment of the program, which includes the critical VIIRS component, running 8 percent behind schedule and 16 percent over budget. VIIRS itself was 12 percent behind schedule and approximately 30 percent over budget. Nevertheless, the contractor received 92 percent of available award fees. By the end of period 5, the Space Segment was 9 percent behind schedule and 23 percent over budget, and the contractor even warned that it was unlikely to meet the dates for critical design review and first launch. Yet it received 82 percent of available award fees. It was only in period 6—which covered the 6 months prior to the Nunn-McCurdy breach—that the contractor's performance was rated "unsatisfactory." Even so, the prime received 48 percent of the potential fee amount—\$10.7 million. (See page 17.)

These payments appear excessive and reflect an award fee plan whose evaluation criteria do not sufficiently focus on the completion of the most critical or high-risk tasks. It allows incentive payments for poor performance and, by rolling over unearned fee amounts from one period to another, gives the contractor multiple opportunities to earn incentive dollars. In addition, the potential fee pool of 20 percent is atypical: less than 1 percent of DoD award fee contracts recently reviewed by GAO provided award fees in excess of 15 percent of estimated costs. Finally, the plan gives total authority for setting fee amounts to a "fee determining official" who in the case of NPOESS, is also the program director. This individual's objectivity in assessing the contractor may well be compromised by his responsibility as program director for NPOESS's day-to-day management and his stake in the program's success. The fee payments for periods two through five made by the fee determining official routinely exceeded the recommendations made by the NPOESS award fee review board. It should be noted that GAO's review of Defense contracts pointed out that DoD's fee determining officials typically oversee a portfolio of related programs but do not directly manage them. (See page 20.)

The Deputy Secretary should ensure that the Under Secretary for Oceans and Atmosphere in his role on the EXCOM works with the other members of the EXCOM to obtain and review regular, independent evaluations of the status of NPOESS. In particular, such evaluations should thoroughly assess the progress toward completing high-risk or otherwise critical tasks and the associated impact of any problems encountered. (See page 12.) Also, The Deputy Secretary should ensure that the Under Secretary for Oceans and Atmosphere in his role as a member of the EXCOM works with the other members of the EXCOM to (1) Critically review and revise the NPOESS award fee plan, and (2) Assign responsibility for determining fee awards to an official who does not directly manage the NPOESS program. (See page 24.)

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In his written response to the draft report, the Deputy Secretary noted how important both he and the Secretary of Commerce consider the NPOESS program to the Department's mission to the nation. He indicated that since becoming aware of the issues associated with NPOESS last year, he has received monthly updates from NOAA and has met with the chief executive officers and other senior executives of the prime contractor and the VIIRS subcontractor. He stated that he takes the report's findings and recommendations seriously, along with those he expects will result from the Nunn-McCurdy certification process. Once that process is complete, he indicated that he will work with the Under Secretary for Oceans and Atmosphere and the EXCOM partners at DoD and NASA to ensure that the intent of both our recommendations and those of the Nunn-McCurdy process are reflected in the management, oversight, and execution of the NPOESS program. The Deputy Secretary's response is included as an appendix to this report.

In his written response to our draft report, the Under Secretary for Oceans and Atmosphere generally agreed with the intent of our recommendations but also stated that the draft report does not (1) adequately acknowledge the complexity of the NPOESS program; (2) represent the ongoing level of direct involvement by the EXCOM in oversight of the IPO and NPOESS program, (3) fully characterize the award fee structure of the NPOESS contract, and (4) adequately recognize the DoD role in administration of the NPOESS contract.

**Summary of NOAA's Response****EXCOM Did Not Effectively Challenge Optimistic Assessments of the Impact of VIIRS Problems on NPOESS.**

NOAA emphasized that NPOESS is one of the most complex environmental satellite programs ever undertaken and noted that few programs have carried out a total system development of this nature. NOAA argued that throughout its existence, EXCOM has been concerned with the overall direction of NPOESS, given its technical complexity and aggressive schedule. NOAA stated that EXCOM continued to provide direction to the IPO concerning budget and schedule assumptions, as well as program progress, and EXCOM members held private discussions with senior NPOESS contractor executives regarding their concerns. NOAA described additional actions taken by EXCOM including tasking several independent reviews (five reviews since 2004 were cited in NOAA's response), and proposing an independent management structure called a Program Executive Office (PEO) to oversee the IPO. NOAA also noted that the program was funded and structured at a level expected to provide a 50 percent probability of success.

In response to our recommendation to obtain regular independent reviews of NPOESS, NOAA said that EXCOM has been actively and directly involved in the oversight and management of NPOESS, including proposing a PEO responsible for conducting ongoing independent analysis and reviews of the NPOESS program. NOAA also stated that the tri-agency partners are already conducting monthly reviews, and will conduct major independent reviews related to the major milestones of the program. Noting that the Num-McCurdy process will determine the future management structure, NOAA stated that it is committed to building on its already effective working relationship with the other EXCOM members to ensure effective management and oversight of NPOESS.

**OIG Comments**

NPOESS is clearly an extraordinarily complex program. NOAA, OIG, and all interested parties agree on this. But it is precisely because of this complexity that we would have expected much closer and documented oversight by EXCOM. Because NPOESS was budgeted for a 50 percent probability of success, the need for close and continuous oversight was all the more critical. While budgeting at this level suggests NPOESS had an equal chance of being either under or over budget, a May 2003 report by a joint task force of the Defense Science Board and Air Force Scientific Advisory Board points out that this budgeting philosophy is seriously flawed. According to this report, budgeting at a 50/50 probability level erroneously assumes that areas of increased risk and lower risk will balance each other out; in fact, particularly on space programs, risk and cost are significantly skewed upward because of the daunting engineering challenges of operating in the harsh environment of space. The report recommends budgeting for an 80 percent probability of success, a level the task force believes to be the most probable cost.

Although NOAA's response maintained that EXCOM was directly involved in NPOESS oversight and described various actions taken, including requesting independent studies, the

response identifies little in the way of decisions or impacts resulting from these actions. Moreover, EXCOM's request for two of the five studies identified in the response and its proposal to establish a PEO were not proactive measures taken to gain control of a deteriorating program; rather, they were steps taken in reaction to a crisis—learning that the first NPOESS launch would be delayed. The two independent reviews were requested in August 2005, well after the NPOESS launch delay had been identified. The first was an independent cost analysis to determine whether a Nunn-McCurdy breach had occurred, and the second was an independent program assessment largely to support the Nunn-McCurdy process. The PEO was not proposed until November 2005. Moreover, the results of another independent review conducted in 2004 and cited in NOAA's response—an independent cost analysis focusing on sensor integration—yielded schedule and cost estimates considerably higher than those of the IPO, yet there is no indication that EXCOM questioned whether the IPO's estimate should be used.

NOAA's response states that it agrees with the intent of our recommendation but suggests that it is already obtaining regular, independent reviews of the NPOESS program. It is important to highlight here that the intent of this recommendation is for a process to be established through which qualified individuals who are independent of the NPOESS program and not responsible for its management conduct regular reviews of NPOESS (e.g., on a quarterly or semiannual basis, as well as at major milestones) to determine the program's status and risks relative to the new budget, schedule, and technical requirements baseline established during Nunn-McCurdy certification. Collectively, these individuals should have extensive space program experience; expertise in management, acquisition, systems engineering, and verification and testing of large space systems; the requisite technical, cost, and programmatic expertise; and an understanding of the current thinking on best practices for acquisition of large space systems. Results and recommendations should be documented and provided both to EXCOM and the Deputy Secretary of Commerce.

#### **Summary of NOAA's Response**

##### **Contractor Received Excessive Award Fees for a Problem-Plagued Program.**

In its response, NOAA criticized the draft report's second finding (1) for failing to fully characterize the award fee structure of the NPOESS contract, (2) for not adequately recognizing that the NPOESS contract was a DoD contract and therefore subject to the rules, regulations and oversight of the Air Force, not the DOC, and (3) for failing to consider the March 29, 2006, DoD policy on the administration of award fees.

#### **OIG Comments**

With regard to NOAA's first concern, we believe the report carefully, accurately, and correctly describes the NPOESS fee structure. In its written response, NOAA provided some general information about the fee structure—all of which is already included in the report. It also noted its belief that the structure was commensurate with the program's complexity and the risk level inherent in the baseline program. While we agree that the NPOESS program is complex and have clearly noted the impact its high-risk nature could have on the fee amount in the report, we believe it is fair—if not essential—to at least question the decision to allow an award fee pool of

up to 20 percent, particularly in light of the fact that such an amount is unusual even at the Department of Defense, where high-risk, complex programs are not uncommon.

With regard to NOAA's second point, the report's first page clearly states that "[i]n August 2002, the IPO, using DoD's contracting authority, awarded a single satellite integration contract worth \$4.5 billion to a prime contractor..." Furthermore, our description of the IPO structure clearly indicates that DoD has lead responsibility for acquisition matters. We therefore made no changes to the draft text to address this concern. In addition, although the contract may have been awarded according to DoD rules and regulations, given that half of the program's funding comes from the Department of Commerce, we believe it is appropriate for us as well as for NOAA and the Department to examine the management of the contract's award fee.

Finally, we are pleased to acknowledge the new DoD policy on award fee contracts, which resulted from the December 2005 GAO review of award and incentive fees at DoD that we discuss in our audit. That policy addresses many of the issues we raised with regard to the NPOESS award fee structure and, if it is implemented in the NPOESS contract, should address our concerns about the need for adequate incentives for high-risk, critical tasks, with rolling over unearned fees to subsequent periods, and with paying fee for unsatisfactory performance. The policy does not address all of our concerns, however. Specifically, it is silent on the issue of whether interim fee should be paid when mission success milestones are missed and on whether the award fee amount for this contract is excessive. In addition, as our report notes, one of the reasons we raised all of the issues about the NPOESS award fee structure is so that NOAA could properly consider those issues when crafting award fee plans for future major acquisitions. Given the fact that NOAA is currently engaged in its first major satellite acquisition, we thought it critical to bring the problems we found with the NPOESS fee structure to its attention.

In its response to our first recommendation for this finding, NOAA indicated that, in light of the new DoD policy on award fee management, EXCOM will review the current award fee structure to determine the specific changes needed to ensure compliance with the DoD policy. As noted previously, that policy does not address all of the issues we raised with regard to the current award fee structure, NOAA's response therefore fails to address what changes the Under Secretary for Oceans and Atmosphere will recommend to EXCOM to address our concerns about whether interim fee should be paid when mission success milestones are missed and whether the award fee amount for this contract is excessive.

NOAA's response to our recommendation concerning the responsibility for determining fee awards indicated that EXCOM has already addressed this recommendation with the proposed establishment of the PEO. If this position is established and the PEO is not directly responsible for managing the NPOESS program, that action should meet the intent of our recommendation.

NOAA's response is included in its entirety as an appendix to this report.

**Appendix II:****NPOESS Award and Incentive Fee Plan**

The NPOESS award fee has three main parts:

*Base Fee*

A base fee of two percent of total estimated costs is provided to the contractor automatically each billing period. The total base fee is currently \$57 million over the lifetime of the NPOESS contract (10 years). Essentially, this is the contractor's minimum profit on the NPOESS program.

*Award Fee*

An award fee pool of 13 percent of total estimated cost is available. The total award fee pool is currently \$369 million over 10 years. Each award fee period (approximately every six months), an award fee determining board makes recommendations on what percentage of available award fee the contractor should receive. The recommendations are made based on the board's review of criteria for how well the contractor has met cost, schedule, and performance goals for that period. Then, the fee determining official weighs the board's recommendations and makes a final decision on how much fee the contractor receives for that period.

*Mission Success Fee (Incentive Fee)*

A mission success fee pool of five percent of total estimated costs is available. The total mission success fee pool is currently \$137 million over 10 years. The mission success fee is tied to successful completion of seven critical events (critical design review of the program, NPP sensors complete and delivered, NPP ground readiness, processing of NPP data, NPOESS ground readiness, processing NPOESS data, interim operational capability). To date, none of the critical events has occurred.

*Fees are At-Risk*

Finally, if the NPOESS satellites fail to operate properly once they are in orbit, the contractor must pay back to the government all of the award and mission success fee it received.

GAO's December 19, 2005 report "*Defense Acquisitions: DOD has Paid Billions in Award and Incentive Fees Regardless of Acquisition Outcomes*" (GAO-06-66), provides helpful background about DOD contracts. The relevant portion of the GAO Report is attached:

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paid for excellent performance and that it would reinforce existing policies in its March memorandum. We continue to believe that award fees should be primarily reserved for above satisfactory performance, which as pointed out in this report is not the current practice for most contracts. On the remaining three recommendations, DOD indicated that it would conduct a study to determine the appropriate actions to address these recommendations. DOD plans to complete the study by June 1, 2006. While this study may provide additional insights, we encourage DOD to use it as a mechanism for identifying the specific steps the department will take to fully address our recommendations, not to determine whether the department will take action. Between fiscal years 1999 through 2003, the department obligated \$157 billion through award- and incentive-fee contracts and used these contracts on some of its largest weapons programs. Given the dollars involved, DOD needs to collect data and develop performance measures on the use of award and incentive fees to help it effectively manage these contracts and assure its resources are well-spent. DOD's comments are reprinted in their entirety in appendix II of this report.

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## Background

Federal agencies, including DOD, can choose among numerous contract types to acquire products and services. One of the characteristics that varies across contract types is the amount and nature of the fee that agencies offer to the contractor for achieving or exceeding specified objectives or goals. Of all the contract types available, only award- and incentive-fee contracts allow an agency to adjust the amount of fee paid to contractors based on the contractor's performance.<sup>2</sup> Typically, award-fee contracts emphasize multiple aspects of contractor performance in a wide variety of areas, such as quality, timeliness, technical ingenuity, and cost-effective management. Incentive-fee contracts usually focus on cost control, although they can also be used to motivate contractors to achieve specific delivery targets or performance goals in areas such as missile range, aircraft speed, engine thrust, or vehicle maneuverability.

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<sup>2</sup> Other contract types do not provide this same level of control over fees and profits. The two most prevalent DOD contract types (based on the number of contract actions) are firm-fixed-price and cost-plus-fixed-fee. Under firm-fixed-price contracts, DOD and the contractor agree on a price and the contractor assumes full responsibility for all costs and the resulting profit or loss. Under cost-plus-fixed-fee contracts, the contractor receives a fee that was negotiated and fixed at the inception of the contract.

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Regardless of differences between award- and incentive-fee contracts, federal acquisition regulations state that these contracts should be used to achieve specific acquisition objectives, such as delivering products and services on time or within cost goals and with the promised capabilities. For award-fee contracts, the assumption underlying the regulation is that the likelihood of meeting these acquisition objectives will be enhanced by using a contract that effectively motivates the contractor toward exceptional performance. The reason or basis for selecting an award- or incentive-fee contract can vary, depending on the type of work a contractor is expected to perform. The acquisition environment, including the knowledge DOD has prior to starting an acquisition program, the adequacy of resources, and the soundness of acquisition practices, can also be a critical factor that affects how well contractor performance translates into acquisition outcomes.

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#### Award-Fee Contracts

The development and administration of award-fee contracts involve substantially more effort over the life of a contract than incentive-fee contracts.<sup>3</sup> For award-fee contracts, DOD personnel (usually members of an award-fee evaluation board<sup>4</sup>) conduct periodic—typically semiannual—evaluations of the contractor's performance against specified criteria in an award-fee plan and recommend the amount of fee to be paid.<sup>5</sup> Because award fees are intended to motivate contractor performance in areas that are susceptible to judgmental and qualitative measurement and evaluation (e.g., technical, logistics support, cost, and schedule), these criteria and evaluations tend to be subjective.<sup>6</sup> After receiving the recommendation of

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<sup>3</sup> The Federal Acquisition Regulation (FAR) requires that the expected benefits of using an award-fee contract must exceed the additional administrative effort and cost involved (FAR Part 16.404(b)(1) and 16.405-2(b)(1)(iii)).

<sup>4</sup> Award-fee evaluation board members may include personnel from key organizations knowledgeable about the award-fee evaluation areas, such as engineering, logistics, program management, contracting, quality assurance, legal, and financial management; personnel from user organizations and cognizant contract administration offices; and the local small business office in cases where subcontracting goals are important. On major weapons programs, the boards are generally made up of personnel from the program office.

<sup>5</sup> Award-fee contracts are intended to be flexible, so award-fee plans allow contracting and program officials to change fee criteria and the weight given to each criterion from evaluation period to evaluation period.

<sup>6</sup> The Navy Award Fee Guide suggests that objective measures also be utilized, to the maximum extent possible, to support the subjective evaluation of the contractor's performance.



the award-fee evaluation board, a fee-determining official<sup>7</sup> makes the final decision about the amount of fee the contractor will receive. The fee-determining official can also decide to move unearned award fee from one evaluation period to a subsequent evaluation period or periods, thus providing the contractor an additional opportunity to earn previously unearned fee—a practice called rollover. Table 1 provides a general look at the process for evaluating and determining award fee amounts.

**Table 1: General Process for Determining Award-Fee Amounts**

1	DOD officials provide input on the contractor's performance for an evaluation period that just ended.
2	Program officials compile data and prepare a briefing or summary for the award-fee evaluation board.
3	Award-fee evaluation board convenes meeting; contractor has the option to submit a self-assessment and brief the board.
4	Award-fee evaluation board considers all the input and recommends a fee rating for the contractor.
5	Fee-determining official (usually outside the program) makes an initial fee determination and notifies the contracting officer.
6	Contracting officer notifies contractor of initial determination; contractor has the option to appeal the decision to the fee-determining official.
7	Fee-determining official makes a final determination, including whether to rollover unearned fee, and notifies contracting officer.
8	Contracting officer issues final determination to contractor and processes a contract modification authorizing payment.

Sources: Air Force Award Fee Guide, Army Contracting Agency Award Fee Handbook, Navy/Marine Corp Award Fee Guide (data), GAO analysis.

**Incentive-Fee Contracts**

Incentive-fee contracts use what is considered to be an objective evaluation of the contractor's performance to adjust the fee paid. DOD's evaluation usually involves the application of a fee-determination formula that is specified in the contract. Evaluations occur at the end of the contract or, in the case of a performance or delivery incentive, at program milestones. The evaluations do not require an extensive evaluation

<sup>7</sup> The fee-determining official is generally at a higher level organizationally than those directly involved in the evaluation of the contractor (e.g., award-fee board members). For instance, this official can be the program executive officer for a weapons system acquisition contract or a garrison commander on a base support services contract.

process or the participation of a large number of contracting or program personnel. Table 2 provides a general look at the process for evaluating and determining the amount of incentive fee paid for a contract with a cost incentive.

**Table 2: General Process for Determining Incentive-Fee Amounts**

1	At the conclusion of the contract, DOD contracting officer compares the contractor's actual cost to complete the contract with the target cost specified in the contract.
2	<p>a. If contractor's actual cost matches the target cost, DOD awards the contractor an amount called the target fee or target profit.<sup>4</sup></p> <p>b. If contractor's actual cost falls below the target cost, the contracting officer applies a formula with a share ratio that specifies how much the contractor's target fee or profit is increased for every dollar the actual cost is below the target cost.</p> <p>c. If contractor's actual cost exceeds the target cost, the contracting officer applies a formula with a share ratio that specifies how much the contractor's target fee or profit is reduced for every dollar the actual cost is above the target cost.</p>
3	Contracting officer processes a contract modification authorizing payment.

Sources: Federal Acquisition Regulation, DOD Contract Pricing Guide (data); GAO (analysis).

<sup>4</sup>In federal contracting, the terms "profit" and "fee" refer to the amount of money paid to the contractor above and beyond either a fixed price or a contractor's reimbursable costs. The term "profit" is associated with fixed-price contracts, and the term "fee" is associated with cost-reimbursable contracts.

### Contracts Discussed in This Report

For this report, we examined fixed-price and cost-reimbursable award- and incentive-fee contracts, as well as contracts that combined aspects of both of these contract types. (See app. III for an explanation of various contract types.) Our probability sample of 93 contracts was drawn from a total of 597 DOD award- and incentive-fee contracts that were active from fiscal years 1999 through 2003 and had at least one contract action coded as cost-plus-award-fee, cost-plus-incentive-fee, fixed-price award-fee, or fixed-price-incentive valued at \$10 million or more during that time. Among the sample, 52 contracts contained only award-fee provisions, 27 contracts contained only incentive-fee provisions, and 14 contracts included both. (App. I contains additional information on our scope and methodology.)

Chairman BOEHLERT. The Committee will come to order.

And just a little housekeeping, for the first order of business. It will take just seconds.

The Chair recognizes Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman.

By direction of the Democratic Caucus of the Science Committee, I ask unanimous consent to ratify the election of Representative Doris Matsui of California to the Subcommittee of Research, thereby filling one of the existing Democratic vacancies.

Chairman BOEHLERT. Well, thank you very much. And Ms. Matsui, welcome. We look forward to your usual eloquence and your passion for the subject at hand, and we are proud to have you as a Member of the Committee.

Mr. GORDON. Mr. Chairman, if I could just add. Personally, I am delighted that Doris is going to join us on the Committee. I know that, particularly the research area, is very important to her. She is one of those Californians that get into all of this, and she is going to be a very valuable Member, and I am delighted that she is here.

Chairman BOEHLERT. Thank you very much.

Let us go to—all right, we have a couple of very distinguished witnesses. Before we do that, we will have opening statements, and then we will go from there. And I will open up with my statement.

I want to welcome everyone this morning to this important hearing. We had a hearing on the NPOESS program back in November, and we will be holding another one in June, after the results of the Nunn-McCurdy certification process are released. NPOESS is a crucial national undertaking, and this committee will exercise continuing oversight of it.

No doubt we will have some disputes at today's hearing, but I think that there are two points with which everyone on this dais and both of our witnesses can agree. The first point is that it is absolutely vital that the NPOESS program succeed. NPOESS will provide our "eyes in the sky" for both civilian and military weather forecasting, and we cannot afford to be stumbling around blind.

A degraded satellite system will cost lives, whether those lives are the lives of civilians who do not get the best information about approaching storms, or military personnel who lack information on weather patterns that could affect the success of their operations.

And the second point is that the NPOESS program is not succeeding right now. It is not achieving its technical goals. It is at least 17 months behind schedule, raising the specter of a gap in satellite coverage. And it is as much as \$3 billion over budget. Three billion dollars. The entire budget of NOAA, by way of comparison, is under \$4 billion. The NPOESS program is, to be colloquial, totally out of whack.

So clearly, changes are desperately needed for NPOESS to succeed, and succeed it must. Our main purpose in holding this hearing is to ensure that the needed changes are made to the NPOESS program to get it back on track. And we also want to ensure that the mistakes of NPOESS are not repeated in NOAA's next big satellite program, GOES-R.

Now I know that we will not be able to discuss all of the changes needed in NPOESS in detail today, because they are still being

considered as part of the Nunn-McCurdy review. But that should not prevent us from hearing clearly whether NOAA itself agrees with the Inspector General's analysis of what went wrong and his suggestions for what needs to happen now to fix the program.

Unfortunately, I find a certain defensiveness and a lack of clarity in parts of Admiral Lautenbacher's written testimony, as I did in NOAA's written response to the IG report. I hope we can get direct answers in our proceedings today.

What I want to hear, what I hope to hear, clearly, is an admission that NOAA, and that means NOAA's leadership right up to the top, made some mistakes and can identify those mistakes and has plans to take corrective action. Otherwise, it is harder to place credence in general promises that the Nunn-McCurdy process will take care of everything.

I am made uneasy by statements like the one on page three of Admiral Lautenbacher's testimony that "EXCOM has been actively and directly involved in the oversight and management of NPOESS" when the information provided by the IG and the actual performance of the program indicate otherwise. NOAA argued, for example, in my readings, that oversight of the programs continued through private conversations. And the IG says private meetings or conversations cannot substitute for formal oversight. And I am made uneasy when the NOAA testimony never takes a position on the IG's conclusion that both the potential and earned contract award fees were excessive. For example, our analysis leads us to conclude that the IG concluded that a 20 percent award and incentive fee level is higher than most of the awards and incentive fees for which it was eligible even though the program was behind schedule and over cost. How do you get a reward for being behind schedule and over cost, and an award that is excessive to what is the norm within DOD?

So these are troubling aspects of the whole exercise. We need to have a very frank and open discussion if this program is to get back on track. And Admiral, I have great respect for you, and I enjoy our working relationship. And I want us to work together, and I want us to start this thing out and go forward in a way that will best serve our national interests.

I am not suggesting that anyone was not trying to do their best in running the NPOESS program, but I am suggesting that previous management procedures clearly did not do the job. And I am not suggesting that I don't see progress in the way that NOAA is approaching NPOESS. But I am suggesting that with a program this essential and this plagued by problems, we need to be sure that NOAA's leadership is fully committed to making every change necessary to ensure programmatic success.

We understand that NPOESS is an extraordinarily complex program technically and organizationally, probably too complex, as we look back. But as the IG points out, that is only a reason to redouble efforts to manage it closely.

I look forward to an open discussion today that will help inform this committee as we continue to oversee this complex program. We want to do our part to ensure that, at some point in the future, this committee's NPOESS hearings can be about the remarkably useful

data our nation is receiving from an orbiting and functioning NPOESS satellite system.

Thank you very much.

Mr. Gordon.

[The prepared statement of Chairman Boehlert follows:]

PREPARED STATEMENT OF CHAIRMAN SHERWOOD L. BOEHLERT

I want to welcome everyone here this morning to this important hearing. We had a hearing on the NPOESS program back in November, and we will be holding another one in June, after the results of the Nunn-McCurdy certification process are released. NPOESS is a crucial national undertaking and this committee will exercise continuing oversight of it.

No doubt we will have some disputes at today's hearing, but I think there are two points with which everyone on this dais and both of our witnesses can agree. The first point is that it is absolutely vital that the NPOESS program succeed. NPOESS will provide our "eyes in the sky" for both civilian and military weather forecasting, and we cannot afford to be stumbling around blind.

A degraded satellite system will cost lives, whether those are the lives of civilians who do not get the best information about approaching storms, or military personnel who lack information on weather patterns that could affect the success of an attack.

And the second point is that the NPOESS program is not succeeding right now. It is not achieving its technical goals. It is at least 17 months behind schedule, raising the specter of a gap in satellite coverage. And it is as much as \$3 billion over budget—\$3 billion; the entire budget of NOAA, by way of comparison, is under \$4 billion. The NPOESS program is, to be colloquial, totally out of whack.

So clearly, changes are desperately needed for NPOESS to succeed, and succeed it must. Our main purpose in holding this hearing is to ensure that the needed changes are made to the NPOESS program to get it back on track. And we also want to ensure that the mistakes of NPOESS are not repeated in NOAA's next big satellite procurement, GOES-R.

Now I know that we will not be able to discuss all the changes needed in NPOESS in detail today because they are still being considered as part of the Nunn-McCurdy review. But that should not prevent us from hearing clearly whether NOAA itself agrees with the Inspector General's (IG) analysis of what went wrong and his suggestions for what needs to happen now to fix the program.

Unfortunately, I find a certain defensiveness and lack of clarity in parts of Admiral Lautenbacher's written testimony, as I did in NOAA's written response to the IG report. I hope we can get direct answers in our proceedings today.

What I want to hear clearly is an admission that NOAA—and that means NOAA's leadership right up to the top—made mistakes, can identify those mistakes, and has plans to fix those mistakes. Otherwise, it's harder to place credence in general promises that the Nunn-McCurdy process will take care of everything.

I am made uneasy by statements like the one on page 3 of Admiral Lautenbacher's testimony that "EXCOM has been actively and directly involved in the oversight and management of NPOESS" when the information provided by the IG and the actual performance of the program indicate otherwise. I am made uneasy when the NOAA testimony never takes a position on the IG's conclusion that both the potential and earned contract award fees were excessive.

We need to have a very frank and open discussion if this program is to get back on track.

I am not suggesting that anyone was not trying to do their best in running the NPOESS program. But I am suggesting that previous management procedures clearly were not successful. And I am not suggesting that I don't see progress in the way that NOAA is approaching NPOESS. But I am suggesting that with a program this essential and this plagued by problems, we need to be sure that NOAA's leadership is fully committed to making every change necessary to ensure programmatic success.

We understand that NPOESS is an extraordinarily complex program technically and organizationally—probably too complex, in retrospect. But as the IG points out, that's only a reason to redouble efforts to manage it closely.

I look forward to an open discussion today that will help inform this committee as we continue to oversee this complex program. We want to our part to ensure that, at some point in the future, this committee's NPOESS hearings can be about the remarkably useful data our nation is receiving from orbiting NPOESS satellites.

Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman.

In your statement, you mentioned there might be disputes today. Well, there are not going to be disputes between Democrats and Republicans on this committee about the importance of this function and about the dire, dire circumstances that we are in.

I would, though, point out, you mentioned a \$3-billion-overrun. My information is the DOD is now saying it may be \$7 billion, which is a very serious matter, and hopefully we can discuss it more.

We are holding this hearing because this Committee understands the importance of these weather satellites to the Nation. Despite repeated assurances from Admiral Lautenbacher and other NOAA officials that problems in this program were being addressed, this program is still in complete disarray. The cost overruns are enormous, and it is far behind schedule. We are facing the very real possibility that NOAA will not fulfill its mandate to maintain continuity of weather data from our polar satellites.

What does this really mean for the Nation? Well, the industries that have come to rely upon reliable three- to five-day forecasts could find that they are experiencing more delays in delivering goods and services.

Energy companies use these long-range forecasts to prepare for weather-driven spikes in demand for air conditioning and heating. So, we may be looking at more brown-outs and black-outs in our power supplies.

Citizens will have less reliable information on the lead time for severe storms, and therefore, less time to prepare to get out of harm's way and to secure their property from damage.

Farmers use forecasts to determine optimal planting dates and times for application of fertilizers and pesticides. So their yields may suffer, and they may waste time and energy replanting or re-fertilizing their fields.

This isn't just about the inconvenience of getting a little wet because you didn't take your raincoat. As the long-range forecasts have become more reliable, individual citizens, emergency managers, and our commercial enterprises have come to depend upon this information to make decisions that involve public safety and commerce. We simply cannot afford a failure in this program.

We will not know the outcome of the DOD's review now underway as the result of the Nunn-McCurdy law until early next month. I hope DOD will not decide to withdraw from the program. The budget implications of that decision for NOAA would be extremely serious.

I simply do not see how NOAA could develop its own polar satellite series without major increases in its budget, this year and beyond. I am writing today to the President calling on his involvement in securing a Nunn-McCurdy decision that gives this program the hope of success.

And Admiral, I just don't know what to say. The Members of this Committee have tried for several years to cooperate with you and your agency to identify and address problems in this program.

You and your staff denied the seriousness of these problems repeatedly when the Committee questioned the rate of program expenditures and the technical risk of the sensors identified by the

GAO team working with us. Obviously, you did not take adequate steps to address the recurring problems presented to you in the monthly reports of the Integrated Program Office Manager.

I think the Inspector General's report, very clearly, confirms this assessment. And Admiral, things have got to change. This program is too important to NOAA and our country for you not to be directly involved and invested in getting this program back on track.

You may not be responsible for the technical challenges or inadequate budget assessment, but as the head of this agency and its representative to EXCOM, you are responsible for acknowledging problems and initiating steps to address them in a timely fashion. In this role, and I think we have to say, it has been a failure. While you now point to the whirlwind of activity that you have engaged in since last March when the lead contractor reported they could not deliver NPOESS to the baseline schedule and budget, that has been too little, too late. The time to have done your job was in the many months prior to that unwanted report.

I think it is clear that no one above the IPO office was actually paying attention to the warning pulsing through the system. This doesn't look like particularly rigorous management and oversight to me, that you claim to have applied to this program in your testimony.

Mr. Frazier, thank you for your report. I look forward to your testimony and exploring your recommendations for moving this program forward.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Gordon follows:]

PREPARED STATEMENT OF REPRESENTATIVE BART GORDON

We are here this morning to hear about the Inspector General's report on the management of the National Polar-orbiting Operational Environmental Satellite System—NPOESS—the joint environmental satellite program for NOAA and DOD.

But we are holding this hearing—the fourth during your tenure as Chairman—because this committee understands the importance of these weather satellites to the Nation.

Despite repeated assurances from Admiral Lautenbacher and other NOAA officials that problems in this program were being addressed, this program is in complete disarray. The cost overruns are enormous and it is far behind schedule. We are facing the very real possibility that NOAA will not fulfill its mandate to maintain continuity of weather data from our polar satellites.

What does this really mean for the Nation? Well, the industries that have come to rely upon reliable three to five-day forecasts could find they are experiencing more delays in delivery of goods and services.

Energy companies use these long-range forecasts to prepare for weather-driven spikes in demand for air conditioning and heating. So, we may be looking at more brown-outs and black outs in our power supplies.

Citizens will have less reliable information on the lead time for severe storms and therefore less time to prepare to get out of harm's way and to secure their property from damage.

Farmers use the long-range forecast to determine optimal planting dates and times for application of fertilizers and pesticides. So their yields may suffer and they may waste time and energy re-planting or re-fertilizing their fields.

This isn't just about the inconvenience of getting a little wet because you didn't take your raincoat. As the long-range forecasts have become more reliable, individual citizens, emergency managers, and our commercial enterprises have come to depend upon this information to make decisions that involve public safety and commerce. We simply cannot afford a failure of this program.

We will not know the outcome of the DOD's review now underway as a result of the Nunn-McCurdy law until early next month. I hope DOD will not decide to with-

draw from the program. The budget implications of that decision for NOAA would be extremely serious.

I simply do not see how NOAA could develop its own polar satellite series without major increases in its budget, this year and beyond. I am writing today to the President calling on his involvement in securing a Nunn-McCurdy decision that gives this program the hope of success.

Admiral, I simply don't know what to say. The Members of this committee have tried for several years to cooperate with you and your agency to identify and address the problems with this program.

You and your staff denied the seriousness of these problems repeatedly when the Committee questioned the rate of program expenditures and the technical risks of the sensors identified by the GAO team working with us. Obviously, you did not take adequate steps to address the recurring problems presented to you in the monthly reports of the Integrated Program Office manager. I think the Inspector General's report very clearly confirms this assessment.

Admiral, things have got to change. This program is too important to NOAA for you not to be directly involved and invested in getting this program back on track. You may not be responsible for the technical challenges or inadequate budget assessments, but as the head of this agency and its representative to the EXCOM, you are responsible for acknowledging problems and initiating steps to address them in a timely fashion. In this role, you have shown nothing but failure.

While you now point to the whirlwind of activity you have engaged in since last March, when the lead contractor reported they could not deliver NPOESS to the baseline schedule and budget, that has been too little too late.

The time to have done your job was in the many months prior to that unwanted report. I think it is clear that no one above the IPO office was actually paying attention to the warnings pulsing through the system. This doesn't look like "particularly rigorous management and oversight" to me that you claim to have applied to this program in your testimony.

Mr. Frazier, thank you for this report. I look forward to your testimony and exploring your recommendations for moving this program forward.

Chairman BOEHLERT. Thank you.

The Chair now recognizes Chairman Ehlers.

Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman. And thank you for holding this hearing, once again.

Actually, I am disappointed that we need to have the hearing, because the last time we had this hearing, we thought things would be on track and we wouldn't have to do this. Instead, things continue to be off track.

And this is a very important issue. The tragic scale of last year's hurricane season dramatically brought to light our nation's vulnerability to natural disasters. Nobody will disagree that the devastation would have been even more extensive, and the recovery even more heart wrenching if coastal communities had not had warning of what was coming and been able to determine—and been able to evacuate many people from the hurricanes' paths, a warning that was made possible by NOAA's polar-orbiting weather satellites. In fact, my understanding is the world didn't even know how serious it was until the clouds cleared and the weather satellites were able to send pictures of the extent of the damage and the water inundation.

These satellites provide data that are critical to NOAA's ability to provide accurate three- to seven-day forecasts of severe weather, including hurricanes. We desperately need the new satellites of the NPOESS program in order to allow even more accurate and more timely forecasts in the future, forecasts that will save lives and livelihoods.

Unfortunately, the NPOESS program is deeply troubled and appears to be in real danger. Even after re-baselining the program in



2003, at the cost of an additional \$900 million and 10 months delay, the program continued to run off-course and over budget. Two years ago, at the Environment, Technology, and Standards Subcommittee meeting, which I held on this subject, I was assured that the problems were being worked out. Seven months ago, we found out the problems had worsened and had not been worked out. And here we are again, now billions over budget, with delays long enough that we face large potential gaps in life-saving satellite data. This cannot continue. We must make sure that we have the satellites we need, when we need them, and effective management of the procurement and acquisition process is essential to meeting this goal.

The Department of Commerce Inspector General took a long, detailed look into the NPOESS program to help us better understand what went wrong and how to make sure that mistakes won't be repeated. I am anxious to hear how NOAA is incorporating the report's recommendations into its satellite program management process. The NPOESS program is incredibly complex with undeniable management challenges. I hope to learn today what concrete steps NOAA has taken to assure that its experience, its bad experience, I might add, with the NPOESS program, and recommendations from the IG report, will inform its actions as the Nunn-McCurdy process moves into the next phase. It is equally important that NOAA apply the lessons learned from the NPOESS program to their other major satellite acquisition program, GOES-R, which is entering a critical stage this year.

I look forward to a lively, informative discussion today. I want to thank our witnesses for being here, and I certainly hope that we can learn from the bad experiences here, but projects can go wrong to the tune of almost bankrupting a federal agency. I hope, based on what we learn we can make sure it doesn't happen again.

I yield back the balance of my time.

[The prepared statement of Mr. Ehlers follows:]

PREPARED STATEMENT OF REPRESENTATIVE VERNON J. EHLERS

Thank you Chairman Boehlert. I am pleased the Committee is holding this hearing today to examine such a critical issue.

The tragic scale of last year's hurricane season dramatically brought to light our nation's vulnerability to natural disasters. Nobody will disagree that the devastation would have been even more extensive, and the recovery even more heart wrenching, if coastal communities had not had warning of what was coming and been able to evacuate many people from the hurricanes' paths—a warning that was made possible by NOAA's polar orbiting weather satellites. These satellites provide data that are critical to NOAA's ability to provide accurate three- to seven-day forecasts of severe weather, including hurricanes. We desperately need the new satellites of the NPOESS program in order to allow even more accurate and more timely forecasts in the future—forecasts that will save lives and livelihoods.

Unfortunately, the NPOESS program is deeply troubled and appears to be in real danger. Even after re-baselining the program in 2003, at a cost of an additional \$900 million and 10 months delay, the program continued to run off-course and over budget. Two years ago at the Environment, Technology, and Standards Subcommittee hearing I held on this subject I was assured that the problems were being worked out. Seven months ago we found the problems had worsened, and had *not* been worked out. And here we are again, now billions over budget, with delays long enough that we are facing large potential gaps in life-saving satellite data. This cannot continue. We must make sure that we have the satellites we need when we need them, and effective management of the procurement and acquisition process is essential to meeting this goal.

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I look forward to a lively, informative discussion today. I want to thank our witnesses for being here, and I yield back the balance of my time.

Chairman BOEHLERT. Thank you very much, Dr. Ehlers.

Mr. Wu.

Mr. WU. Thank you very much, Mr. Chairman, for calling this very, very important hearing.

It is hard to know what to say about this program, because every time we meet to talk about it, it seems that the news gets a little bit worse.

Last summer, in July, the Vice Admiral and I and Mr. Boehlert, Mr. Gordon, and Mr. Ehlers discussed some of the problems that we were looking at and looked at significant cost overruns. At that time, I believe that the Vice Admiral was dismissive of GAO's concerns that there may be hundreds of millions of dollars of cost overruns. By the end of August last summer, the internal cost overruns at NOAA were showing that the overruns would exceed a billion dollars and that the program manager had resigned. By the time the Vice Admiral met with the Committee in November, the internal numbers, according to DOD's selected acquisition reports on Nunn-McCurdy watch programs, the price tag was \$1.4 billion over the baseline.

Within weeks of our November hearing, the costs had grown again, and the Nunn-McCurdy 25 percent cost growth level was breached. Under the law, the future of this program is now in the hands of the Department of Defense with the program's fate to be determined in just a few weeks time. As for the cost growth, we do not know what a robust number would be. DOD's own most recent selected acquisition report reports a cost overrun exceeding \$7 billion as of December 31, 2005.

I would like to think that this is a typographical error. I would certainly like to get to a clearer understanding about these numbers than we had last summer.

The testimony submitted to the Committee today is somewhat perplexing. Basically, we have conflicting stories. The Inspector General's story is that management was not sufficiently engaged to see the storm coming and that it was building, with respect to this program. The solution is to create new accountability mechanisms to make sure that the Vice Admiral and General Kelly can do their jobs adequately. The Admiral's response to these findings is to deny that they were not involved, and yet he failed to meet with the Inspector General during the work on this report and to make that case to the Inspector General.

The Vice Admiral elaborates on his story in the testimony submitted to this Committee. His version is that he and the Executive Committee have been aggressively managing this program, the big-

gest acquisition at his agency on his watch since day one. If that is true, I am left to wonder why this program is at least \$2 billion over budget, years behind schedule, and tied-up in a Nunn-McCurdy review that could result in its termination. I believe the Admiral's claim, looking at the fact set—I have to wonder if top management at NOAA is just incompetent, that no system can make them do better at their jobs or this set—or that this may be as good as it gets at this particular item.

And I look forward to the testimony to sort out the contradicting claims before this Committee.

I yield back the balance of my time.

Chairman BOEHLERT. Thank you, Mr. Wu.

You have probably noted, the bells have rung, which is a call to the House for a vote. We have been rudely interrupted. The Speaker doesn't check with the Science Committee. I will have to talk to him about that.

Now we will take a break right now. It looks like just one vote. We don't have any other opening statements. The tradition of the Committee is to go to the Chairman and Ranking Member, the Chairman of the Subcommittee and Ranking Member. What we are trying to do is get right to the witnesses so—thank you very much.

Without objection, everyone's opening statement will appear in the record at this juncture. We will now pause for a wee bit as we go over and vote. We will dash right back. It will give you two a chance to get to know each other a little bit better.

[The prepared statement of Mr. Costello follows:]

PREPARED STATEMENT OF REPRESENTATIVE JERRY F. COSTELLO

Good morning. I want to thank the witnesses for appearing before the Committee to discuss a report by the Department of Commerce Inspector General (IG) that will be revealed at today's hearing.

The National Polar-orbiting Operational Environmental Satellite System (NPOESS) satellites are under development and are designed to become the Nation's key weather satellites. The agencies in charge of NPOESS are the National Oceanic and Atmospheric Administration (NOAA), the Department of Defense (DOD), and the National Aeronautics and Space Administration (NASA).

The DOD is required by law to report to Congress any program they expect to have a 15 percent cost overrun. The NPOESS program breached this limit several months ago, with DOD providing notice to Congress on September 28, 2005. While I knew the NPOESS program would be at least 15 percent above the estimate of \$6.8 billion, I was shocked to learn after a Full Science Committee hearing on November 16, 2005, that the NPOESS program was projecting cost overruns exceeding 25 percent. A program with a numerical value higher than 15 percent triggers an additional requirement under the Nunn-McCurdy law. Specifically, the DOD Under Secretary must review the program and certify that it satisfies four criteria before the project can proceed.

Because the Nunn-McCurdy process is closed to outside review, we are uncertain if the DOD will decide to go forward with the program. Further, it is unclear where additional funds would come from to complete the development of the NPOESS series or to develop and launch another polar satellite series. It is my understanding that the outcome of the Nunn-McCurdy review will not be known until the first week of June.

The timing of the IG report is unfortunate. It is too late to prevent the cost and schedule overruns that have led to the Nunn-McCurdy process. Further, the recommendations for improving this program do not solve the problem. Rather, the report merely establishes more program review procedures and allocates award fees. I am interested to hear from both the IG and NOAA witnesses because I believe the process was not the central problem. Instead, from reading the IG report, it seems procedures were not followed and NOAA management did not act on the information they received indicating serious problems with this program.

I welcome the panel of witnesses and look forward to their testimony.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF REPRESENTATIVE EDDIE BERNICE JOHNSON

Thank you, Mr. Chairman and Ranking Member.

The United States depends on an effective system of weather satellites for critical climate change and weather prediction capabilities.

In Texas, severe drought followed by crippling fires have wreaked havoc on our agricultural industry. Hurricane Katrina evacuees who would have benefited from better advance notice have migrated to Texas by the thousands.

Weather satellites are key to providing information about incoming storms as well as climate changes over time.

Mr. Chairman, I am concerned that mismanagement of the National Polar-orbiting Operational Environmental Satellite System—called NPOESS—could threaten America's ability to monitor the climate and weather.

Welcome to our witnesses today. The Committee is interested in hearing how we can all move forward to ensure there are no gaps in our national climate and weather capabilities.

Thank you, Mr. Chairman. I yield back the balance of my time.

[The prepared statement of Ms. Jackson Lee follows:]

PREPARED STATEMENT OF REPRESENTATIVE SHEILA JACKSON LEE

Thank you Mr. Chairman and Members of the Committee. I thank the witnesses for testifying today. I speak on the challenges with the polar satellite program which NOAA funds and manages with DOD and NASA—National Polar-orbiting Operational Environmental Satellite System (NPOESS). The polar satellites are crucial in providing weather and climate data at regular intervals during the day. The polar satellites collect information around the Earth and provide information about weather and climate conditions around the world that will eventually affect weather and climate in the United States. Particularly in the aftermath of Hurricanes Katrina and Rita, we know the damage that even expected natural disasters can wreak on our nation. The ramifications of the weather can be extreme, and I support pursuing any method we can to prepare us and inform us in advance of oncoming weather.

For NOAA and NASA, a possible DOD withdrawal due to serious costs and schedule overruns would mean lack of funds to support this program. Without additional funds due to DOD possible withdrawal, this will create a major loss in a very vital program. In addition, NOAA now has only the N-Prime spacecraft remaining in its current generation of polar satellites and the production line does not exist to rapidly obtain others.

It seems procedures were not followed and NOAA management did not act on the information they received indicating serious problems with this program.

I would like to learn why more attention was not paid to indications of overspending and schedule overruns. I want to know why NOAA's leadership ignored the series of monthly reports showing ongoing cost and schedule problems with this program. Furthermore, I am very interested in learning what recommendations the IG proposes for improving procedures and cost management of this program.

I am looking forward to your testimonies being presented today. Thank you Mr. Chairman.

[Recess.]

Chairman BOEHLERT. We will resume.

The Democracy will be happy to learn that we voted not to adjourn. The House is still in session.

We have two witnesses on our panel today, and only one panel. Mr. Johnnie Frazier, Inspector General of the U.S. Department of Commerce. Mr. Frazier, welcome. Vice Admiral Conrad C. Lautenbacher, Jr., Administrator, National Oceanic and Atmospheric Administration.

It is good to have you both here. This is a very important subject matter under discussion. And we want to be facilitators for getting the program back on track. I know that is our common desire.

And with that, we will hear first from the Inspector General, Mr. Frazier.

**STATEMENT OF MR. JOHNNIE E. FRAZIER, INSPECTOR  
GENERAL, U.S. DEPARTMENT OF COMMERCE**

Mr. FRAZIER. Thank you, Mr. Chairman.

Mr. Chairman and members of the Committee, I appreciate the opportunity to discuss my office's work on NOAA's management and oversight of the NPOESS program, which, as you know, is now undergoing a Nunn-McCurdy review, as costs have grown by more than 25 percent.

The report we are releasing today describes problems that have contributed to this vital program reportedly being more than \$3 billion over initial cost estimates and significantly behind schedule while the contractor received \$123 million, roughly 84 percent of available incentive payments. Clearly, NPOESS is an extraordinarily complex and technically challenging program that is vital to America's ability to monitor national and global weather and climate conditions. A program of such importance requires extremely close management oversight to ensure that challenges and problems that are dealt with promptly and effectively and that opportunities for success are maximized.

Unfortunately, the record does not show this level of stringent oversight in the case of NPOESS. For example, the Executive Committee, known as EXCOM, in charge with overall program responsibility failed to take effective action even as monthly status reports consistently described the deteriorating program that was plagued by cost overruns and missed milestones. Although these reports repeatedly confirmed the development of a critical sensor, VIIRS, was falling behind schedule, the EXCOM convened only twice during a crucial 20-month period from May 2003 through December 2004, when some of the most serious program issues were unfolding.

By the time the EXCOM began meeting more frequently to examine problems and their impact, it was essentially too late to turn NPOESS around. Management's inattention had, in effect, postponed the critical evaluations and decisions that were needed to revamp the program's faltering elements, contain budget overruns, and put NPOESS back on track.

Our audit uncovered two overarching management and contract weaknesses that contributed to the program's cost growth and schedule delays while adding insult to injury by allowing the contractor to receive more than 80 percent of available incentive payments during these periods.

First, the EXCOM did not effectively challenge the program director's optimistic assessments of the impact of VIIRS problems on NPOESS despite a clear, unequivocal picture of a program in trouble that was portrayed in the monthly status report. One report, for example, dubbed VIIRS "our problem child." Another stated, "Our biggest challenge remains VIIRS." Still another said that "VIIRS fiscal year 2004 budget is very tight because of money that was spent to solve technical problems."

Although the EXCOM requested several independent studies of the program's status, we found little in the way of action by NOAA

in response to these reviews. In fact, two of the studies were only initiated after the EXCOM learned that the first NPOESS launch would be delayed.

The second major weakness we identified is a seriously-flawed incentive fee plan that even rewards unsatisfactory contractor performance. The program director, understandably an advocate for NPOESS since his personal successes link to the program's success, is also the official who has the final decision on how much award fee the contractor receives.

Moreover, the fee pool itself is excessive, allowing the contractor to earn up to 20 percent of the estimated contract amount. In light of the GAO review of the Defense Department award fee contracts, which found that less than one percent of these types of contracts provided award fees in excess of 15 percent, we believe the fee amount available to the NPOESS contractor surely require careful reconsideration.

Further, the evaluation criteria for determining fee amounts does not focus on the most high risk or critical tasks. The rollover feature in the award fee plan, which makes it possible to move unearned fees into subsequent performance periods, gives the contractor multiple, perhaps too many, opportunities to receive additional incentive dollars.

But the most egregious deficiency of the plan is that it has clearly failed in its most fundamental objective: to encourage excellent performance. To emphasize the need for stringent, high-level oversight of NPOESS, we recommend that the Deputy Secretary ensure that NOAA works with other EXCOM members to obtain and review regular, independent, and I underscore independent, evaluations on the status of NPOESS.

It is important to note here that the intent of this recommendation is to have qualified individuals who are independent of the NPOESS program and its management regularly review and determine the program status and risks relevant to the new budget, schedule, and technical baseline established during the Nunn-McCurdy certification. These reviews should occur at regular intervals, perhaps quarterly, and certainly at major milestone points.

The independent reviewers should have extensive space program experience and expertise in management systems and engineering verification. They should also have an understanding of the current thinking on best practices for acquisition and testing of a large space system. The results and the recommendations of these reviews should be provided to both the EXCOM and the Deputy Secretary.

And finally, the NPOESS award fee plan should be thoroughly reassessed, and as appropriate, revised.

Thank you, and I will be happy to answer any questions.

[The prepared statement of Mr. Frazier follows:]

PREPARED STATEMENT OF JOHNNIE E. FRAZIER

Chairman Boehlert and Members of the Committee, I appreciate the opportunity to discuss my office's work on the National Polar-orbiting Operational Environmental Satellite System (NPOESS). The report we are releasing today, "Poor Management Oversight and Ineffective Incentives Leave NPOESS Program Well Over Budget and Behind Schedule," describes problems that have contributed to this vital program being more than \$3 billion over initial life cycle cost estimates and 17

months behind schedule, according to the Government Accountability Office. Despite these problems, the contractor has received \$123 million in incentive payments—84 percent of the amount available under the NPOESS award fee contract for the first six award periods.

I am pleased to note that in his response to our report, Deputy Secretary Sampson stated that both he and Secretary Gutierrez are fully committed to providing strong oversight and management of NPOESS. My testimony will outline specific actions for NOAA to implement our recommendations, and we look forward to Secretarial direction and oversight in ensuring our recommendations are implemented.

### Background

In 1994, by Presidential Decision Directive, the National Oceanic and Atmospheric Administration (NOAA) merged its Polar Operational Environmental Satellite (POES) Program with the Department of Defense's Defense (DOD) Meteorological Satellite Program to produce the National Polar-orbiting Operational Environmental Satellite System (NPOESS). NPOESS was envisioned as a single state-of-the-art environmental and climate monitoring system that would reduce duplication and significantly cut the cost of satellite operations engaged in obtaining critical meteorological data. Early estimates for NPOESS put life cycle costs at \$6.5 billion and set a deadline of March 2008 for the first satellite launch.

The merger assigned shared management to NOAA and DOD, along with the National Aeronautics and Space Administration (NASA), whose experience with its own Earth observing satellites is expected to improve NPOESS capabilities. The three agencies formed an Integrated Program Office (IPO) within NOAA to manage NPOESS and specified their individual responsibilities in a memorandum of agreement (MOA). According to that document, NOAA is charged with overall management of the converged system and provides the system program director, who reports to the NOAA Administrator through the NOAA Assistant Administrator for the National Environmental Satellite, Data and Information Service (AA/NESDIS); DOD is the lead on acquisition matters; and NASA is the lead for promoting transition to new technologies. Because of the importance of NPOESS to national and global climate monitoring capabilities, overall program guidance was assigned to an executive committee (EXCOM) made up of top leadership from each agency: the Under Secretary of Commerce for Oceans and Atmosphere, the Under Secretary of Defense for Acquisition and Technology, and the NASA Deputy Administrator. Though not stipulated in the MOA, the agencies formed a steering committee to provide additional executive leadership: committee members include the assistant administrator for NESDIS and his counterparts at DOD and NASA, each of whom reports to the EXCOM member for their agency.

NPOESS acquisition plans call for, among other things, procurement of six satellites and development of seven instruments, including the Visible/Infrared Imager Radiometer Suite (VIIRS)<sup>1</sup>—one of four sensors considered critical to the program. To reduce risk associated with the NPOESS program, NASA is conducting the NPOESS Preparatory Project (NPP)—which entails launching a demonstration satellite equipped with VIIRS and two other critical sensors to test their capabilities prior to the launch of the first NPOESS satellite.

In August 2002, the IPO, using DOD's contracting authority, awarded a single, satellite integration contract worth \$4.5 billion to a prime contractor, incorporating previously awarded sensor contracts as subcontracts to the prime. The prime contract included an award fee arrangement to encourage outstanding performance, making it possible for the contractor to earn up to 20 percent of total estimated costs in three types of fees:

- Base fees are a guaranteed two percent of estimated costs, paid to the contractor automatically each billing period. The total base fee pool is \$57,190,785.
- Award fees—capped at 13 percent of estimated contract cost or \$369,294,988—are tied to the government's assessment of the contractor's performance in three broad areas: management, technical, and cost.
- Mission success fees—capped at five percent of estimated contract cost or \$136,817,498—are tied to the contractor's performance in meeting seven program milestones (called "events").

<sup>1</sup>VIIRS collects visible/infrared imagery and radiometric data. Data types include atmospheric, clouds, Earth radiation budget, clear-air land/water surfaces, sea surface temperature, ocean color, and low light visible imagery.

Criteria for the latter two fees are largely subjective. The plan also allows for unearned award and mission success fees from one billing period to be rolled over to subsequent periods, giving the contractor additional opportunities to earn them.

#### **Audit Objectives**

The objectives of our audit were to determine (1) how problems with the NPOESS program are identified and communicated by the contractor to the IPO, and by the IPO to NOAA management, and (2) whether award fees to the contractor are being administered effectively. Because of the criticality of the VIIRS sensor and the problems experienced with its development, our audit focused on VIIRS issues as they affect NPOESS. Our review evaluated communication between the contractor and the IPO, and the IPO and EXCOM but did not assess the performance of the prime contractor or any of the subcontractors. We coordinated with the General Accountability Office to ensure that our work did not overlap their ongoing efforts in this area.

#### **Overview of OIG Findings**

Our review uncovered two overarching management and contract weaknesses that contributed to the unchecked cost and schedule overruns in the NPOESS program. First, EXCOM—the committee comprised of top NOAA, DOD, and NASA officials and charged with providing overall policy and guidance—did not effectively challenge optimistic assessments of the impact of VIIRS problems on NPOESS. Second, the contractor received excessive award fees for a problem-plagued program.

#### **Finding 1: EXCOM Did Not Effectively Challenge Optimistic Assessments of the Impact of VIIRS Problems on NPOESS**

Despite mounting evidence of serious problems as VIIRS development proceeded, EXCOM did not effectively challenge the IPO's optimistic assessments that the problems would not delay the first NPOESS launch or exceed the program's management reserve. Inadequate management oversight, in effect, postponed critical evaluations and decisions needed to replan the program's faltering elements and contain cost and schedule overruns. Time and money were thus wasted as NPOESS problems continued unchecked. And VIIRS is not the only high-risk element of NPOESS—another key sensor, CMIS poses significant risk.

Our report discusses the communication between the contractor and the Integrated Program Office and between that office and the EXCOM, and focuses on the monthly status reports presented by the IPO to EXCOM that detail critical cost, schedule, and technical progress data on NPOESS and that contain a wealth of information about the problems with VIIRS.

According to program officials, EXCOM was heavily involved early in the program, but its involvement dwindled over time. It met only sporadically throughout the period in which the VIIRS problems were occurring. In the 32-month period from May 2003 through December 2005, EXCOM met formally six times and did not meet at all from May to December 2003, even as monthly reports showed VIIRS subcontract-induced delays and dubbed the sensor "our problem child." The 2004 monthly reports repeatedly advised of overruns on VIIRS as well; however, in that year EXCOM met only in June and July 2004. Although the monthly reports continued to warn of VIIRS schedule erosion and cost overruns, EXCOM did not meet again until late January 2005—one month after the report stating that VIIRS would *not* meet its deadline for delivery to NPP and the NPP launch would be delayed. At that meeting, the program director briefed EXCOM on the VIIRS problems, stating that NPOESS should not be affected. However, on March 31, 2005, the contractor advised the program director that VIIRS problems would delay the first NPOESS launch.

#### **NOAA's Response to Finding on EXCOM**

NOAA emphasized that NPOESS is one of the most complex environmental satellite programs ever undertaken. NOAA also maintained that EXCOM was directly involved in program oversight and described various actions taken, including requesting various independent studies.

NOAA, OIG, and all interested parties agree that NPOESS is an extraordinarily complex program. But it is precisely because of this complexity that we would have expected much closer and documented oversight by EXCOM. Although NOAA maintained that EXCOM was directly involved in program oversight, it identified little in the way of material decisions or impacts resulting from these actions. Moreover, EXCOM's request for two of the five studies referred to in its response to our draft report, were not proactive measures taken to gain control of a deteriorating program; rather, they were steps taken in reaction to a crisis—learning that the first NPOESS launch would be delayed. EXCOM requested two independent reviews in



August 2005, well after the NPOESS launch delay had been identified. A third example cited by NOAA provides a stark reminder of the optimism characterizing the IPO's assessments. Although the results of that independent review yielded schedule and cost estimates considerably higher than those offered by the IPO, there is no indication that EXCOM questioned whether the IPO's estimate should be used.

**Finding 2: Contractor Received Excessive Award Fees for a Problem-Plagued Program**

Award fees are intended to motivate a contractor to strive for excellence in such performance areas as quality, timeliness, technical ingenuity, and cost-effective management. The NPOESS program currently is in Nunn-McCurdy breach, more than \$3 billion over budget and at least 17 months behind schedule—hardly a model of cost-effectiveness or timeliness. Yet the prime contractor received more than \$123 million in award fees—84 percent of the available fee pool for the first six award periods. For the first five periods, the contractor averaged 90 percent of available fees. In light of the severe problems the NPOESS program is experiencing, the current award fee system is clearly not promoting excellent contractor performance.

To determine how and why the contractor was paid so great a portion of the fees when the program was so troubled, we examined the award fee plan and identified several flaws in its structure. The plan's evaluation criteria are not sufficiently focused on the critical, high-risk tasks. Also, the amount of fee the contractor can earn (up to 20 percent of the contract's total estimated costs) appears excessive in comparison with other government award fee contracts. Finally, we question the practices of (1) paying award fees for performance rated "unsatisfactory" and (2) allowing the contractor multiple opportunities to "rollover" unearned fee.

Although the award fee payments appear excessive, they were deemed appropriate by the fee determining official—the government official designated to set award and mission success fee amounts earned by the contractor. In the case of NPOESS, the fee determining official also serves as the program director, and, as such, is responsible for day-to-day management of the program. The intimate connection between the director's professional reputation and the success of both the program and the contractor could affect his objectivity as fee determining official in setting award amounts.

**NOAA's Response to OIG Finding on Award Fees**

NOAA stated that our report did not fully characterize the contract's award fee structure, but failed to note any relevant details not already included in our report. It also criticized the report for failing to recognize that the NPOESS contract was a DOD contract, although the report clearly states that the contract was awarded by the IPO using DOD's contracting authority. Finally, NOAA stated that our report did not consider the very recent March 29, 2006, DOD policy memo on the administration of award fees. We are pleased to acknowledge this new policy on award fee contracts, which resulted from a December 2005 General Accountability Office review of award and incentive fees at DOD. That policy addresses many of the issues we raised with regard to the NPOESS award fee structure, and if it is implemented in the NPOESS contract, should address our concerns about (1) the need for providing adequate incentives for high-risk, critical tasks, (2) rolling over unearned fees to subsequent periods, and (3) paying fees for unsatisfactory performance.

The new DOD policy does not address all of our concerns, however. Specifically, it is silent on the issue of whether interim fee should be paid when mission success milestones are missed and on whether the award fee pool for this contract is excessive. In addition, as our report noted, one of the reasons we raised all of the issues about the NPOESS award fee structure is so that NOAA could consider those issues when crafting award fee plans for future major acquisitions. It is particularly critical that NOAA considers the problems we found with the NPOESS fee management and structure to NOAA's attention particularly given the fact that NOAA is currently engaged in its first major solo satellite acquisition.

**OIG Recommendations**

We recommended that the Deputy Secretary ensure that the Under Secretary for Oceans and Atmosphere—in his role on EXCOM—works with the other EXCOM members to obtain and review regular, independent evaluations of the status of NPOESS. In particular, such evaluations should thoroughly assess progress toward completing high-risk or otherwise critical tasks and the associated impact of any problems encountered. NOAA, in its response to our report, agreed with the intent of our recommendation but suggests that is already obtaining regular, independent reviews of the NPOESS program.

To ensure that there is no confusion on this point, it is important to highlight that the intent of this recommendation is for qualified individuals who are independent of the NPOESS program and not responsible for its management to conduct regular reviews of NPOESS (e.g., on a quarterly or semi-annual basis, as well as at major milestones) to determine the program's status and risks relative to the new budget, schedule, and technical requirements baseline established during Nunn-McCurdy certification. Collectively, these individuals should have extensive space program experience; expertise in management, acquisition, systems engineering, and verification and testing of large space systems; the requisite technical, cost, and programmatic expertise; and an understanding of the current thinking on best practices for acquisition of large space systems. Results and recommendations should be reported both to EXCOM and the Deputy Secretary of Commerce.

Our second recommendation was that the Deputy Secretary should ensure that the Under Secretary for Oceans and Atmosphere—in his role as an EXCOM member of the NPOESS EXCOM—works with the other members of the EXCOM to critically review and revise the NPOESS award fee plan. Specifically, that review should take into consideration whether:

- interim fees should be paid when mission success milestones are being missed,
- the plan provides adequate incentives for tasks that are critical to the program's success and/or are high risk,
- fee amounts (i.e., up to 20 percent of the contract's total estimated costs) are excessive,
- the contractor should receive fees for unsatisfactory performance, and
- rolling over fees to subsequent award periods is appropriate.

As noted previously, the new DOD policy on award fee contracts, if implemented in the NPOESS contract, should address *some*, but not all, of the issues we raised.

Further, we recommended that the Deputy Secretary should ensure that NOAA assign responsibility for determining fee awards to an official who does not directly manage the NPOESS program. NOAA's response indicated that the EXCOM has already addressed this recommendation with the proposed establishment of a Principal Executive Officer (PEO) over the program. If this position is established and the PEO is not directly responsible for managing the NPOESS program, that action should meet the intent of our recommendation.

We purposely directed our recommendations to the Deputy Secretary to better ensure that the Department—for its part—provides NPOESS with the close and sustained management attention and oversight warranted by such a vital, complex, and troubled program.

Our report is available on our web site at [http://www.oig.doc.gov/oig/reports/audit\\_inspection\\_and\\_evaluation\\_reports/index.html](http://www.oig.doc.gov/oig/reports/audit_inspection_and_evaluation_reports/index.html).

#### BIOGRAPHY FOR JOHNNIE E. FRAZIER

On July 20, 1999, Johnnie E. Frazier was sworn in as the fourth Inspector General of the U.S. Department of Commerce, and thus assumed responsibility for monitoring the operations of one of the largest and most diverse government agencies: the Department of Commerce and its 13 bureaus administer a vast array of business, scientific, economic, and environmental programs that in one way or another touch the lives of every American everyday. These programs range in focus from domestic enterprise and international trade matters to economic and demographic data gathering to weather forecasting and marine research.

As Inspector General, Mr. Frazier is charged with (1) promoting economy and efficiency and (2) detecting and preventing fraud, waste, and abuse in these diverse programs and operations. He is one of the statutory federal IGs who, under the Inspector General Act of 1978, oversee independent units (Offices of Inspector General) within their respective agencies that investigate and evaluate agency programs and activities.

Mr. Frazier's presidential appointment as Inspector General caps his more than three decades of distinguished public service, during which time he has helped shape the full range of OIG activities and operations—performance and financial audits, inspections, program and systems evaluations, and administrative and management functions. Under his supervision, the Commerce OIG has conducted a broad range of high-profile reviews of key domestic, international, scientific, and economic programs that have streamlined government processes, significantly improved program management, and saved millions of federal dollars. Mr. Frazier has received numerous awards for superior leadership and extraordinary contributions

to the work of the Department, including Commerce's two top honors—the Gold and Silver medals.

Mr. Frazier chairs the Inspection and Evaluation Committee of the President's Council on Integrity and Efficiency (PCIE)—a federal organization that promotes interagency IG collaboration to address and improve government-wide management deficiencies. As Committee Chair and PCIE member, he is recognized as an innovator and creative force within the IG community. Mr. Frazier is on the Board of Directors of the Association of Inspectors General—a national organization of federal, State, and local IGs—and member of the Association of Government Accountants. He is a highly sought-after speaker and frequently addresses various organizations and groups dedicated to improving government.

Mr. Frazier holds a Bachelor's degree in business administration from Howard University, a Master's degree in public administration from George Washington University, and he has completed extensive course work at Harvard's John F. Kennedy School of Government.

Chairman BOEHLERT. Thank you very much, Mr. Frazier.  
Admiral Lautenbacher.

**STATEMENT OF VICE ADMIRAL CONRAD C. LAUTENBACHER,  
JR. (RET.), ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**

Vice Admiral LAUTENBACHER. Thank you, Mr. Chairman.

Chairman Boehlert, Representative Gordon, distinguished Committee Members and staff, I appreciate the opportunity to come before you this morning and discuss the recent report by the DOC Inspector General regarding the National Polar-orbiting Operational Environmental Satellite System, known as NPOESS.

Let me briefly answer the question “What is NPOESS?” to start the conversation.

The United States has historically operated two polar satellite systems, one for the military and one for civilian use. In 1994, a Presidential Decision Directive merged the two systems. The new program, known as NPOESS, was originally designed to be a series of six satellites and a total of 13 different sensors. The new sensors will provide higher quality data leading to more sophisticated environmental models for weather, climate, and the oceans.

NPOESS is a unique program in the Federal Government. It is jointly managed by the Department of Commerce, the Department of Defense, and the National Aeronautic and Space Administration, NASA, with funding equally provided by DOC and DOD. At the senior level, or agency head level, the program is overseen by the Executive Committee, which are the heads of the agencies, and the day-to-day operations are managed by the Integrated Program Office, or IPO, utilizing DOD acquisition policies and procedures.

NPOESS is the most complex environmental satellite system ever developed, and the program has presented numerous technical, developmental, integration, and management challenges, as we have heard. As the Committee is well aware, serious design and manufacturing problems with one of the main sensors, called VIIRS, the Visible Infrared Imager Radiometer Suite, were identified in late 2004. On March 31, 2005, the contractor informed the government the NPOESS program would not meet cost and schedule, mostly as a result of problems with VIIRS. In November, after several EXCOM-directed independent reviews, the EXCOM decided on major management changes and narrowed a list of options on how to proceed with the program.

In December, the IPO notified the Air Force of projected cost overruns for the NPOESS program in excess of the 25 percent threshold, triggering a breach of the Nunn-McCurdy statute. For the program to continue, the Secretary of Defense must certify the program as essential to national security, there are no alternatives which provide equal or greater military capability at less cost, the new cost estimates are reasonable, and a management structure is in place to adequately manage and control costs.

Although the Nunn-McCurdy process is run by the Office of the Secretary of Defense, given the unique nature of the tri-agency management of the program, both NOAA and NASA are full participants in the process. And I want to assure the Committee that NOAA personnel and Commerce personnel, essentially, are in each of the review teams. Senior NOAA executives are part of a principals group, and I am part of the final decision at the Defense Acquisition Executive level.

This whole process includes more than 150 people, experts from the three agencies, meeting around the clock since January studying every aspect of this program to find the best way forward. The EXCOM members have met several times this year as part of the Nunn-McCurdy process and continue to meet. The program must be certified by early June or the Department of Defense can no longer spend money on NPOESS.

Throughout the Nunn-McCurdy process, work on NPOESS has continued, especially on the VIIRS sensor. The IPO and the contractor developed a specific work plan, which includes funding, milestones, and activities for fiscal year 2006. To date, the program has followed the interim plan without budget or schedule problems. VIIRS will go through several critical tests this year. It should be noted that VIIRS is not the only high-risk element of NPOESS. Another sensor, the Conical Microwave Imager Sounder, CMIS, may also pose significant risk, and its capabilities and functions are part of the Nunn-McCurdy review.

In regards to the NOAA response to the IG report, I appreciate very much the efforts by the Office of the Inspector General to review the NPOESS program and agree with the thrust of the recommendations. I certainly agree that NPOESS has significant problems. It has had significant problems. I take responsibility as the agency head for the problems and for fixing these problems. I am committed to working through the Nunn-McCurdy process and Executive Committee to fix the problems to get the program back on track and to keep it on track.

The EXCOM has identified similar problems and is taking actions, even right now, to improve program management consistent with the recommendations of the OIG report. We have already shared the findings and recommendations with our interagency partners, and the recommendations are being considered and addressed as part of the management structure review taking place in the Nunn-McCurdy process. NOAA's official comments about the report have been provided to the OIG.

The Inspector General report basically includes three main recommendations: one, the EXCOM should obtain and review regular independent evaluations of the status of NPOESS; number two, the EXCOM should critically review and revise the award fee strategy,

the overall amount of the fee and how it is distributed; and number three, the NPOESS award fee determining official should not be the program manager.

In regard to the first recommendation, I strongly concur with the OIG recommendation about the importance of independent reviews, given past experiences and the complexity of the program. This is an important management tool as we move forward with the program. Prior to entering the Nunn-McCurdy process, the EXCOM was actively reviewing program options and program management changes.

We briefed this committee several times on actions taken by the EXCOM and options under evaluation. For example, in November 2005, the EXCOM proposed establishing a new oversight function called a Program Executive Office, or PEO, responsible for conducting ongoing independent management analysis and reviews of the NPOESS program and reporting to the EXCOM. The PEO as proposed will have the mission and funding specifically to conduct these regular independent reviews for the use of independent experts.

While the PEO structure has not been finalized due to the Nunn-McCurdy review, the EXCOM has already made several internal changes in oversight, reviews, and communications at the IPO. Daily reporting and weekly and monthly reviews now measure specific milestones so actions to correct any problems can happen much sooner. The EXCOM members have been provided monthly updates and status reports. These actions have already proven useful in keeping track of the 2006 milestones.

In regard to the second recommendation about the award fee strategy, I agree with the recommendation, and we are considering all of the issues raised by the OIG report. For NPOESS Presidential Decision Directive, all acquisition matters are governed by DOD rules and regulations. Subsequently, the DOD, in a March 29, 2006 memorandum, revised DOD policy on award fee management. Several of the DOD policy changes are consistent with the OIG report. These include providing adequate incentives for tasks that are critical to the program's success, less than satisfactory performance is not entitled to an award fee, and the appropriate use of "roll-over" fees. If the Nunn-McCurdy process certifies the NPOESS program, these DOD changes will be applied to a new or restructured contract. In addition, discussions have already begun about the payment of interim fees and the overall award fee percentage and changes will be part of any new or restructured NPOESS contract. These actions are all consistent with the OIG recommendation.

With regard to the third recommendation about the award fee determining official, I again strongly concur. The EXCOM directed a review of this issue in August 2005. As a result of the review, in November 2005, the EXCOM proposed an action to remove responsibility for determining award fees from the NPOESS program manager. Currently, Brigadier General (Select) Sue Mashiko is the award fee determining official while Colonel Dan Stockton is the NPOESS program manager.

Again, final decisions on any changes of NPOESS management will be conducted within the Nunn-McCurdy process, and there is a specific Nunn-McCurdy review team for management issues. It is

one of the four IPTs. NOAA personnel, including me, are ensuring that DOC OIG recommendations are being considered in the Nunn-McCurdy certification process.

More importantly, NOAA is incorporating the findings and recommendations of the OIG report and other NPOESS lessons into future acquisitions. To facilitate this, I have formed a Program Management Council to provide regular review and assessment of selected NOAA programs and projects. NOAA's next generation Geostationary Operational Environmental Satellite, GOES-R series, is the first program being reviewed and monitored by the Program Management Council. Consistent with the OIG's recommendation, we intend to establish a Fee Determining Official separate from the System Program Director for GOES-R. In addition, I am working with the NOAA and DOD contracting officials to structure the award fee strategy using guidance from the OIG and GAO reports and the DOD award fee policy memorandum. Finally, I have established a GOES-R Independent Review Team, which will meet periodically over the life of GOES-R to review the program baseline, the risk, the cost, the schedule, and performance. As a matter of fact, the review team met this week.

In closing, Mr. Chairman, I appreciate the sustained efforts and direct involvement by the Committee on this important issue. I also welcome the DOC OIG's review of the program and its recommendations, and I agree with everything the Committee said on the fact that NPOESS is a critical program to our Nation's ability to forecast the weather, to predict climate, and that we all must work together. While the Nunn-McCurdy process will determine the ultimate fate of the program, I can assure the Committee the OIG's recommendations are a major component of the review and will be reflected in any new or revised contract for the program. I am committed to working with the Department on a specific action plan to address the findings and recommendations of the OIG report with regard to NPOESS and other satellite acquisition programs.

As I have said many times, and you can look at my record, I am a big proponent of learning from past errors, and I am working very hard to ensure NPOESS gets back on track and stays on track.

I thank you for the opportunity to speak with you today and for your continued interest and support in this program.

[The prepared statement of Vice Admiral Lautenbacher follows:]

PREPARED STATEMENT OF VICE ADMIRAL CONRAD C. LAUTENBACHER, JR.

### **Introduction**

Chairman Boehlert, Representative Gordon, and Committee Members, I appreciate the opportunity to discuss with you the recent report by the DOC Inspector General (IG) regarding the National Polar-orbiting Operational Environmental Satellite System (NPOESS). I am Conrad C. Lautenbacher, Jr., Under Secretary for Oceans and Atmosphere and Administrator of the National Oceanic and Atmospheric Administration (NOAA) in the Department of Commerce (DOC).

### **What is NPOESS?**

Let me just briefly remind the Committee about NPOESS and update the status of the program. The United States has historically operated two polar satellite systems, one for the military and one for civilian use. In 1994, a Presidential Decision Directive merged the civilian and military U.S. polar-orbiting operational environmental satellites systems. This new program, known as NPOESS, was originally de-

signed to be a series of six satellites and a total of 13 different sensors. The new sensors will provide higher quality data leading to more sophisticated environmental models for weather, climate, and the oceans.

NPOESS is a unique program in the Federal Government. It is jointly managed by DOC, the Department of Defense (DOD), and the National Aeronautics and Space Administration (NASA) with direct funding provided by DOC and DOD. At the senior level, the program is overseen by an Executive Committee (EXCOM) and the day to day operations are managed by an Integrated Program Office (IPO) utilizing DOD acquisition policies and procedures.

I want to stress, NPOESS is one of the most complex environmental satellite systems ever developed, and we recognize it therefore requires particularly rigorous management and oversight. The program has presented numerous technical, developmental, integration, and management challenges. As the Committee is well aware, serious design and manufacturing problems with one of the main sensors for NPOESS, called VIIRS (Visible Infrared Imager Radiometer Suite), were identified in late 2004. By March 2005, the contractor informed the government the NPOESS program would not meet cost and schedule, mostly as a result of problems with VIIRS. In November, after several EXCOM-directed independent reviews, the EXCOM decided on major management changes and narrowed a list of options on how to proceed with the program.

In December, the IPO notified the Air Force of projected cost overruns for the NPOESS program in excess of the 25 percent threshold, triggering a breach of the Nunn-McCurdy statute. For the program to continue the Secretary of Defense must certify the program is essential to national security, there are no alternatives which will provide equal or greater military capability at less cost, the new cost estimates are reasonable and a management structure is in place to adequately manage and control costs.

Although the Nunn-McCurdy process is run by the Office of the Secretary of Defense, given the unique nature of the Tri-Agency management of the program, both NOAA and NASA have had full participation in the process. This includes NOAA personnel on each of the review teams, involvement by senior NOAA executives as part of a principals group, and with me as part of the final decision at the Defense Acquisition Executive level. This process has been ongoing since January 2006 and the program must be certified or have spending terminated by early June.

Throughout the Nunn-McCurdy process, work on NPOESS has continued, especially on the VIIRS sensor. The IPO and the contractor developed a specific work plan which includes: funding, milestones and activities for fiscal year 2006. To date, the program has followed the interim plan without budget or schedule problems. VIIRS will go through several critical tests this year. It should be noted that VIIRS is not the only high-risk element of NPOESS, another sensor, the Conical Microwave Imager Sounder (CMIS) also poses significant risk and its capabilities and functions are part of the Nunn-McCurdy review.

#### **NOAA Response to IG Report**

This leads us to the recent report by the Department of Commerce's Office of Inspector General. I appreciate the efforts by the Office of Inspector General (OIG) to review the NPOESS program and agree with the thrust of the recommendations. I believe the EXCOM has identified similar problems and has taken actions to improve program management that are consistent with the recommendations of the OIG report. We have shared the report with our interagency partners and the recommendations are being considered and addressed as part of the management structure review taking place in the Nunn-McCurdy process.

NOAA's official comments about the report have been provided to the OIG.

The OIG report includes the following recommendations:

1. "The Deputy Secretary should ensure that the Under Secretary for Oceans and Atmosphere in his role on the EXCOM works with the other members of the EXCOM to obtain and review regular, independent evaluations of the status of NPOESS. In particular, such evaluations should thoroughly assess the progress toward completing high-risk or otherwise critical tasks and the associated impact of any problems encountered."
2. "The Deputy Secretary should ensure that the Under Secretary for Oceans and Atmosphere in his role as a member of the NPOESS EXCOM works with the other members of the EXCOM to:
  - 1) Critically review and revise the NPOESS award fee plan, taking into consideration whether:
    - i. interim fees should be paid when mission success milestones are being missed,

- ii. the plan provides adequate incentives for tasks that are critical to the program's success and/or are high risk,
- iii. fee amounts (i.e., up to 20 percent of the contract's total estimated costs) are excessive,
- iv. the contractor should receive fees for unsatisfactory performance, and
- v. rolling over fees to subsequent award periods is appropriate.

2) Assign responsibility for determining fee awards to an official who does not directly manage the NPOESS program.”

In regard to the first recommendation, while we are working to improve all aspects of the management of the program, I believe the EXCOM has been actively and directly involved in the oversight and management of NPOESS and its members, including me, have been deeply involved in the on-going Nunn-McCurdy process. But, I concur with the OIG recommendation about the importance of independent reviews given the complexity of this program. Prior to entering the Nunn-McCurdy process, the EXCOM was actively reviewing program options and program management changes. We briefed this committee several times on actions taken by the EXCOM and options under evaluation. For example, the EXCOM proposed establishing a new oversight function, called a Program Executive Office (PEO), responsible for conducting ongoing independent management analysis and reviews of the NPOESS program and reporting to the EXCOM. The PEO as proposed will have the mission and funding specifically to conduct these independent reviews.

While the PEO structure has not been finalized due to the Nunn-McCurdy review, the EXCOM has directed several internal changes in oversight, reviews, and communications at the IPO. Daily reporting and weekly and monthly reviews now measure specific milestones so actions to correct any problems can happen much sooner. The EXCOM members have been provided monthly updates and status reports.

In regard to the second recommendation, per the NPOESS Presidential Decision Directive, all acquisition matters are governed by DOD rules and regulations. Subsequently, in response to a Governmental Accountability Office (GAO) report of December 2005, the DOD in a March 29, 2006, memorandum revised DOD policy on award fee management. Several of the DOD policy changes are consistent with the OIG report. These include: providing adequate incentives for tasks that are critical to the program's success and/or are high risk; less than satisfactory performance is not entitled to an award fee; and the appropriate use of the “rollover” provision. If the Nunn-McCurdy process certifies the NPOESS program, these DOD changes will be applied to a new or restructured contract. In addition, discussions have already begun about the payment of interim fees and the overall award fee percentage and changes will be part of any new or restructured NPOESS contract.

With regard to the award fee determining official, the EXCOM directed a review of this issue in August 2005. As a result of the review, in November 2005 the EXCOM proposed an action to remove responsibility for determining award fees from the NPOESS program manager. Currently, Brigadier General (Select) Sue Mashiko is the award fee determining official, while Colonel Dan Stockton is the NPOESS program manager.

Again, final decisions on any changes of NPOESS management will be conducted within the Nunn-McCurdy process. However, I want to remind the Committee there is a specific Nunn-McCurdy review team for management issues. Let me be clear, because I know it is of interest to the Committee, NOAA personnel, including me, are ensuring that DOC OIG recommendations are being considered in the Nunn-McCurdy certification process.

#### **NPOESS Lessons Learned Applied to NOAA Acquisitions**

NOAA is incorporating NPOESS lessons learned into future acquisitions. To facilitate this, I formed a Program Management Council to provide regular review and assessment of selected NOAA programs and projects. NOAA's next Geostationary Operational Environmental Satellite (GOES-R series) is the first program being reviewed and monitored by the Program Management Council. Consistent with the OIG's recommendation, we intend to establish a Fee Determining Official (FDO) separate from the System Program Director (SPD) for GOES-R. In addition, I am working with NOAA and DOC contracting officials to structure the Award Fee strategy using guidance from the OIG and GAO reports and the DOD award fee policy memorandum. Finally, I have established a GOES-R Independent Review Team, which will meet periodically over the lifetime of GOES-R, to review the program



baseline, cost, schedule, and performance. I am also prepared to incorporate any other lessons learned from the Nunn-McCurdy process.

### Summary

In closing, Mr. Chairman, I appreciate the efforts by the Committee to stay engaged in this important issue. NPOESS is a critical program to our nation's ability to forecast the weather and predict climate. I also welcome the DOC OIG's review of the program and its recommendations. While the Nunn-McCurdy process will determine the ultimate fate of the program, I can assure the Committee the OIG recommendations are a major component of the review and will be reflected in any new or revised contract for the program. Thank you for the opportunity to speak with you today and I am prepared to answer any questions.

### BIOGRAPHY FOR VICE ADMIRAL CONRAD C. LAUTENBACHER

A native of Philadelphia, Pa., retired Navy Vice Admiral Conrad C. Lautenbacher, Ph.D., is serving as the Under Secretary of Commerce for Oceans and Atmosphere. He was appointed Dec. 19, 2001. Along with this title comes the added distinction of serving as the eighth Administrator of the National Oceanic and Atmospheric Administration. He holds an M.S. and Ph.D. from Harvard University in applied mathematics.

Lautenbacher oversees the day-to-day functions of NOAA, as well as laying out its strategic and operational future. The agency manages an annual budget of \$4 billion. The agency includes, and is comprised of, the National Environmental Satellite, Data and Information Services; National Marine Fisheries Service; National Ocean Service; National Weather Service; Oceanic and Atmospheric Research; Marine and Aviation Operations; and the NOAA Corps, the Nation's seventh uniformed service. He directed an extensive review and reorganization of the NOAA corporate structure to meet the environmental challenges of the 21st century.

As the NOAA administrator, Lautenbacher spearheaded the first-ever Earth Observation Summit, which hosted ministerial-level representation from several dozen of the world's nations in Washington July 2003. Through subsequent international summits and working groups, he worked to encourage world scientific and policy leaders to work toward a common goal of building a sustained Global Earth Observation System of Systems (GEOSS) that would collect and disseminate data, information and models to stakeholders and decision-makers for the benefit of all nations individually and the world community collectively. The effort culminated in an agreement for a 10-year implementation plan for GEOSS reached by the 55 member countries of the Group on Earth Observations at the Third Observation Summit held in Brussels February 2005.

He also has headed numerous delegations at international governmental summits and conferences around the world, including the U.S. delegation to 2002 Asia-Pacific Economic Cooperation Ocean Ministerial Meeting in Korea, and 2002 and 2003 meetings of the World Meteorological Organization and Intergovernmental Oceanographic Commission in Switzerland and France, as well as leading the Commerce delegation to the 2002 World Summit on Sustainable Development in South Africa.

Before joining NOAA, Lautenbacher formed his own management consultant business, and worked principally for Technology, Strategies & Alliances Inc. He was President and CEO of the Consortium for Oceanographic Research and Education (CORE). This not-for-profit organization has a membership of 76 institutions of higher learning and a mission to increase basic knowledge and public support across the spectrum of ocean sciences.

Lautenbacher is a graduate of the U.S. Naval Academy (Class of 1964), and has won accolades for his performance in a broad range of operational, command and staff positions both ashore and afloat. He retired after 40 years of service in the Navy. His military career was marked by skilled fiscal management and significant improvements in operations through performance-based evaluations of processes.

During his time in the Navy, he was selected as a Federal Executive Fellow and served at the Brookings Institution. He served as a guest lecturer on numerous occasions at the Naval War College, the Army War College, the Air War College, The Fletcher School of Diplomacy, and the components of the National Defense University.

His Navy experience includes tours as Commanding Officer of USS HEWITT (DD-966), Commander Naval Station Norfolk; Commander of Cruiser-Destroyer Group Five with additional duties as Commander U.S. Naval Forces Central Command Riyadh during Operations Desert Shield and Desert Storm, where he was in charge of Navy planning and participation in the air campaign. As Commander U.S.

Third Fleet, he introduced joint training to the Pacific with the initiation of the first West Coast Joint Task Force Training Exercises (JTFEXs).

A leader in the introduction of cutting-edge information technology, he pioneered the use of information technology to mount large-scale operations using sea-based command and control. As Assistant for Strategy with the Chief of Naval Operations Executive Panel, and Program Planning Branch Head in the Navy Program Planning Directorate, he continued to hone his analytic skills resulting in designation as a specialist both in Operations Analysis and Financial Management. During his final tour of duty, he served as Deputy Chief of Naval Operations (Resources, Warfare Requirements and Assessments) in charge of Navy programs and budget.

Lautenbacher lives in Northern Virginia with his wife Susan who is a life-long high school and middle school science teacher.

## DISCUSSION

### NOAA'S RESPONSE TO IG RECOMMENDATIONS

Chairman BOEHLERT. We will let the bells ring.

Well, we have got 15 minutes to go vote, so we will go for about 10 minutes.

You know, if there were a how not to manage government list of best sellers, the IG's report would vie for first position on that list. I would hope, Admiral, that you would distribute copies of your oral testimony, because they deviated somewhat from the written submission, and I am much happier with your oral presentation, because the first problem you have to address is acknowledging that the problem exists. Not only do you acknowledge it, you are talking about corrective action that is being taken. But there needs to be a lot more. You didn't come right out and say you agree, specifically, with the IG's report, but you say you agree with the thrust of their recommendations. Do you agree with the finding of the IG that the EXCOM needs to meet more often and take a more hands-on role in the management of NPOESS? I mean, two meetings from May of 2003 to December of 2004 on a program of this magnitude, a program that is deeply troubled. Do you think that the recommendations are worthy of being implemented?

Vice Admiral LAUTENBACHER. Yes, I do. I think that we should have more auditable meetings. We are talking about having a record that shows the involvement, and I think that is important for the future.

Chairman BOEHLERT. Well, that is good. That is constructive. Do you agree with the finding of the IG that the program needs more independent evaluation, that is, evaluation from outside the program office and perhaps from outside the entire NPOESS structure? And if so, who do you think is the best placed entity or individual to conduct such a review? And how often should that be conducted?

Vice Admiral LAUTENBACHER. I believe in independent reviews completely. And the EXCOM has directed a number of independent audits and reviews over the period that I have been involved with, which is about four years, and there have been a number of reviews, not just the ones that we did recently. There were ones in the beginning of my tenure in this job in 2002. So I do believe in independent cost reviews, and I think they should come from outside the program structure, outside of—

Chairman BOEHLERT. Is there a recommendation on who would best be able to—

Vice Admiral LAUTENBACHER. Well, we have a number of independent groups, like Aerospace Corporation. We have a number of federally—what we call federally-funded research institutes that have experts. We also have a number of companies that are outside the scope of the people who are interested parties in the—

Chairman BOEHLERT. All right. We have got you on a roll now. Do you agree with the finding that the award and incentive fees, included in the NPOESS contracts are excessive? I mean, I find it mind-boggling, incomprehensible, that a program billions of dollars over budget, years behind schedule has 84 percent of the potentially-available incentive payments awarded for a cost of \$124 million. I just can't comprehend that. Do you think that the award and incentive fees included in the contract are excessive? And what is the justification for the 20 percent level? That is far above most DOD contracts.

Vice Admiral LAUTENBACHER. I completely agree with it. I have suggested that we restructure the award fee process. I don't know what the right number is. I can't sit here and tell you it is not 20 percent; it is 13 percent, it is 14 percent.

Chairman BOEHLERT. Well, then, let me ask you—

Vice Admiral LAUTENBACHER. We rely on experts to come up and tell us—

Chairman BOEHLERT. All right. So what management models are you looking to to prevent something like this from happening in the future? Are you looking to some models to change it? I mean—

Vice Admiral LAUTENBACHER. Absolutely. We are going to have an independent fee structure official to deal with it. It has been taken away from the program office at this point. You know, there are two questions. I mean, why did it end up the way it is? It ended up the way it is because of the prevailing acquisition philosophy in management techniques at the time it was put into place, which was four years ago.

Chairman BOEHLERT. Well, then why do we—

Vice Admiral LAUTENBACHER. But we have proven that it doesn't work. I don't want to argue about the fact that—

Chairman BOEHLERT. Okay. But with all due respect—

Vice Admiral LAUTENBACHER.—it doesn't work.

Chairman BOEHLERT.—I think the program, in general, ended up the way it is, in the situation we now find ourselves in, because not enough people at the top were paying enough attention to it, quite honestly. That is my analysis. And the good news today is we have acknowledged that problem. We have acknowledged that there is merit to the IG recommendations. And we have an express determination from the very top within NOAA to do something about it, to act constructively on these recommendations. And for that, I am thankful. But we have got to go forward together, because this is a troubled program. And when we talk about, as Mr. Gordon has introduced into today's discussions, the possibility of having \$7 billion in overruns, that is almost double your total budget for the whole agency. There is something wrong in Muddsville.

We have—I will recognize Mr. Gordon. We have 10 minutes before the next vote. He will complete his questioning. We will adjourn and go over and vote, recess, and then we will come right back.

Mr. GORDON. Mr. Frazier, thank you for your work here. The IG office is a very important part of our government.

And I don't—so let me say, I don't mean to demean the work you did, but to say that we need outside reviews, that we need—that they need to meet more often, that this award system was out of control is not brain surgery.

Mr. FRAZIER. Right.

Mr. GORDON. I mean—

Mr. FRAZIER. Very definitely.

Mr. GORDON.—you know.

Mr. FRAZIER. What I have described it is not rocket science.

Mr. GORDON. Yeah.

Mr. FRAZIER. And it is clearly rocket science in terms of the technical parts of the NPOESS, but the—

Mr. GORDON. Right.

Mr. FRAZIER.—management issues here are not rocket science.

Mr. GORDON. Right. And so, my question is, have any of the NOAA staff working on the Steering Committee or the Executive Committee, I mean EXCOM, changed? Have they changed?

Mr. FRAZIER. Yes, sir. Well, obviously, the program director left. He has left the program. And at the same time, in NOAA, basically it is the same people on the EXCOM.

Mr. GORDON. And so if these folks couldn't figure out that you are supposed to meet, you know, reasonably often, that you should have some outside review. This, to me, is not a matter of a systems breakdown. It is a people breakdown. It is a personnel breakdown. You know, so again, I thank you for your work, and it is important, but if you have the same folks trying to do these very elementary changes that you made, I don't see how we are going to have, you know, much change.

But let me ask you, Admiral, the last time you were here, you said that you “eat, sleep, breathe, and live” NOAA. “I wake up in the middle of the night worrying about these issues.” So if you are so engaged in this, why did you not meet with the IG or any of his expert staff? I mean, if I was in charge of a program that was out of control, I would be looking for whatever help—you know, advice I could get. But is it true that you never even met with them?

Vice Admiral LAUTENBACHER. We did not have a chance to meet before this report came out. That is absolutely true.

Mr. GORDON. And so how long, Mr. Frazier, did you try to get that meeting set up?

Mr. FRAZIER. We tried. We have a process to set up that—we always invite the Under Secretary to the entrance conference. We invited him to the entrance conference. He did not attend. We sent e-mails to try and set up meetings for the auditors and the evaluators who were working on this job. There is an audit trail that suggests that we made valiant efforts to try and do, because we thought it was very critical. And especially as we interviewed other members who were involved in NPOESS who said, “Well, you can't expect that the people on the EXCOM will be as knowledgeable and as involved as we are,” well, we took exception to that. And again, we made valiant efforts to try and make sure that we would meet with the Admiral here. And again, when we had the exit con-

ference, we had senior NOAA officials there, but the Admiral was not at those conferences.

Mr. GORDON. I guess I have concern that you say you are listening and you are going to act, but if you wouldn't even meet with these people, you know, it just gives me a great bit of concern. You know, you are an Admiral. You know, I mean, that is a—you know. So this is just embarrassing. I just simply can't understand. I would be embarrassed to be in your situation and not try to do more, and not to even meet to get more information. It just gives me great concern.

#### COST ESTIMATES

Let me raise another issue, and maybe you all can talk about it a little bit and we will when we come back. Trying to get a dollar figure here. In the defense acquisition management information retrieval report of December the 31st, it says that your baseline is approximately \$6.8 billion and that the estimated cost is going to be \$13.8 billion. Is that accurate? And if not, can you tell me—explain, so I can get a better idea of what really our figure is that we are looking at?

Vice Admiral LAUTENBACHER. This is the DOD report and the selected acquisition reports, which they turn in every 6 months. That is the current CAIG estimate for a program that started with the definition that I indicated in the beginning of my testimony. So it—

Mr. GORDON. Well, that is a \$7 billion deficit there.

Vice Admiral LAUTENBACHER. It is really about a \$5 billion change from a comparative number of \$8.4 billion. But the point—

Mr. GORDON. So the good news is—

Vice Admiral LAUTENBACHER. The point is that that is still a large number, and I am not going to sit here and argue that that is not—

Mr. GORDON. So the good news is we have got a \$5 billion deficit rather than a \$7 billion.

Vice Admiral LAUTENBACHER. That is not good news. That is—

Mr. GORDON. Okay.

Vice Admiral LAUTENBACHER. That is a cost estimate from the CAIG. It is a cost estimate on a program that is not executable at this point. And it is a program that we are working on in Nunn-McCurdy to change to something that can be executed. So it is a number that doesn't have a great deal of credibility in the sense that we can't buy that program. We have to build—we have to restructure the program.

Mr. GORDON. So is there any reason to think this number is going to go down rather than up?

Vice Admiral LAUTENBACHER. We are working very hard to make this number go down.

Mr. GORDON. Well, can you give me some comfort? I mean, because you all are going to do a better job, is that the reason it is going to go down? Or why should it go down?

Vice Admiral LAUTENBACHER. We are looking at options to provide the kind of coverage we need. Continuity is very important. That is the number-one critical issue.

Mr. GORDON. Well, we are going to have to go vote. But I think this is a pretty important issue. You all can—I don't—I am not trying to spring this on you. You know, this is a—this thing is six months old or whatever. So you all might talk a little bit about it, and then, when we get back, you might better give us a little idea of why—again, why \$7 billion is really \$5 billion but why it is going to get better.

Thank you.

Chairman BOEHLERT. With that, we will have to run. We have three minutes to go. As soon as we get voters back, we will resume this, because your time is valuable. They have questions. This is a very important hearing. I was hoping that they could get back in time so we don't have to pause, but we will pause for just a few moments. If you would like a cup of coffee or—oh, here we are.

Dr. Ehlers will assume the Chair, but if you would like a coffee, the offer is still there.

Mr. EHLERS. [Presiding.] Well, welcome to the Capitol Science Committee shuttle service. Okay. We will try to keep this going as fast as we can. And it happens to be my turn to ask questions. So let me just get at a few here.

#### RECENT PROGRAM CHANGES

Admiral Lautenbacher, in your testimony, you indicated that NOAA has and is taking actions to respond to program problems in the NPOESS program and also taking actions to improve program management. What differences or improvements are you seeing personally? Are you briefed regularly on program status and concerns? Are you now more confident that you are receiving accurate assessments of program status and problems, particularly with respect to high-risk, critical-path tasks? Is the nature of the quality of the information you are receiving different? And so on down the line. I would appreciate your analysis and comments.

Vice Admiral LAUTENBACHER. The changes that have been made recently in the last six to eight months have improved the speed of the reporting process and improved the transparency of the process and have put a more independent layer of review of the issues that are coming up. So there are more people in the management process looking at this, and I feel more confident that there is a stream of responsible management, you know, accountable personnel dealing with the issues that have been coming up in the program. So I think these changes have made a big difference. To say we are schedule again with the revised 2006 program and no one is over-expending the budget. So we are keeping to our budget, and we are making progress.

Mr. EHLERS. How often are you briefed on the status and the concerns?

Vice Admiral LAUTENBACHER. I receive monthly reports, and I am briefed more frequently on—than that by my chain of command, by my Deputy and by the program manager at times and by my chief of satellite services.

Mr. EHLERS. And are you more confident now that the reports you are receiving, the assessments you are receiving, are accurate and give you the information you need to tackle the problems that arise?

Vice Admiral LAUTENBACHER. The premise of the question is that I wasn't receiving information before, and that is not true. I don't want to—

Mr. EHLERS. I asked about accurate assessments.

Vice Admiral LAUTENBACHER. Yes, I believe the accuracy of the assessments has improved and the accuracy of the information is fundamentally better. The timeliness of the information is fundamentally better.

Mr. EHLERS. What about the problems that occurred with VIIRS? Have all of those been addressed? Are we going to be able to complete VIIRS and fly it?

Vice Admiral LAUTENBACHER. VIIRS is—

Mr. EHLERS. Will it be ready?

Vice Admiral LAUTENBACHER. VIIRS is basically through the tunnel. It is in testing right now, and I don't want to jinx it, because I am not going to sit here and make prognosis as to whether it will pass all of the tests or whether it doesn't have some issues that need to be—basically, VIIRS is at the end of its development cycle. It has caused a problem, we are through that tunnel and providing fixes, design changes, manufacturing, all of the technical difficulties that slowed that program down have been mostly overcome at this point. We are within a few percent of finishing that development.

Mr. EHLERS. When is the testing supposed to begin?

Vice Admiral LAUTENBACHER. The testing is being done now. Some tests have been passed already, and there are tests ongoing now, which we will be finished by the beginning of June, roughly.

Mr. EHLERS. Okay. So if it passes the tests, VIIRS will be ready by the 1st of June?

Vice Admiral LAUTENBACHER. Again, I don't want to jinx it, because we have had many issues, as you know, so I—

Mr. EHLERS. Right. Right.

Vice Admiral LAUTENBACHER.—try to give the progress without being either overly optimistic or overly pessimistic. I am giving you what I believe—

Mr. EHLERS. Okay.

Vice Admiral LAUTENBACHER.—the information that we have.

#### AWARD FEE

Mr. EHLERS. Mr. Frazier, your report states that the 20 percent fee for NPOESS is unusually large. Given that NPOESS is vital to our national security and protecting our citizens from natural disasters, it is critical that the satellite operate properly and smoothly once it is in orbit. Shouldn't we ensure the contractors perform well? If 20 percent is too high, do you have a recommendation for an appropriate level for such a high-risk critical satellite program?

Mr. FRAZIER. We would expect that the experts would look at what that fee should, in fact, be. In fact, we didn't come up with a specific amount. What we did was we looked at the information that GAO had put together in terms of the numbers of Defense contracts that were similar to this, and on average, it is like 85 percent of them have less than 15 percent, you know. So even 15 percent of a fee, incentive fee. So the 20 percent, by itself, is a very high amount. But I think the most important point here is not just

so much the amount of the fee. It is about the oversight in the management of the fee. You know, the contractor, you can make it 50 percent. If they don't earn it, they don't get it. You manage it. You monitor it. You make certain that whatever it is that you have decided that they should get is something that they are entitled to. That is where our real concern comes in. We have, in fact, said that you need to go back—that NOAA and the EXCOM need to go back and reassess it in conjunction with Nunn-McCurdy. But I think that the most important message that has to be received here is how important it is that the management will stay on top of the progress that is made so to make certain that that fee is not given out any quicker than it should be. That fee is intended to produce excellence. It is intended to encourage performance. If I give you 84 percent of the fee when you have a horrible track record, what incentive do you have to try and do better? I think almost none. So I think that the message is not so much the importance of the exact amount, and hopefully the experts will look at that and come up with something that is reasonable and that can be justified. But the important message here is the one that says that the overseers of that contract should manage it, monitor it, and make certain that the contractors don't get one penny more than they should. And I hasten to add, if they are entitled to it, then you give them every dime that they deserve.

Mr. EHLERS. All right. The other programs that you have examined, similar to this one, what was the normal procedure, in terms of the amount of the award to be given?

Mr. FRAZIER. We didn't examine any other programs, per se. What we did was—

Mr. EHLERS. You have—you personally have not?

Mr. FRAZIER. No, we personally have not.

Mr. EHLERS. Okay.

Mr. FRAZIER. The GAO has just released a marvelous report where they spend a great deal of time examining many of these types of contracts at the Defense Department. We have met with the GAO officials and discussed it at length with them. You know. But their report, I think, speaks volumes about the potential problem. So I think that that becomes just the standard against which people should be looking in terms of making the decisions.

Mr. EHLERS. Thank you.

I am now pleased—my time has expired.

I am pleased to recognize Mr. Wu.

#### FUTURE OF NPOESS

Mr. WU. Thank you very much, Mr. Chairman.

Vice Admiral Lautenbacher, we have at least some general agreement that we are significantly over budget on this satellite program. No matter what that overrun is, what is your plan for getting us back on track? Are we going to be sacrificing particular sensors, particular developmental sensors, sensor arrays, a number of satellites? What is your plan for getting us back on the financial track?

Vice Admiral LAUTENBACHER. The plan right now is wrapped up in these Nunn-McCurdy deliberations that are going on. There are four integrated product teams, or IPTs, that have NOAA personnel,



have DOD personnel, and have NASA personnel on them. They are experts. They are everyone we could find that has any proficiency, background experts working on options, looking, first of all, to find the best option, the lowest-cost option to meet the requirements and then providing assurance that the management scheme that is in place at the end of this will be the right one. That work will be completed in about three weeks. And it is hard for me to say. I cannot tell you what that program will look like until the final recommendations come to the EXCOM members and we have a chance to—

Mr. WU. You don't have an answer today?

Vice Admiral LAUTENBACHER. I do not have an answer today. I wish I did. I am mad—I don't like the time it takes to work through bureaucratic processes, either, but this is a big program and deserves to have every possible review and level of expertise brought to it to make sure we take the best possible path.

Mr. WU. Well, I am somewhat concerned about this, because during our meeting last summer, one of the assurances that you gave me is that there are benchmarks to be met, and when we slide certain benchmarks, we can make it up by doing things and hitting the later benchmarks and ultimately coming out to where we want to be. This is a different situation here. You either sacrifice numbers of satellites, you sacrifice sensors, or the development of new sensors, and you are going to give up some future capability, are you not?

Vice Admiral LAUTENBACHER. This program will be a different program than the one in the record that you see today that I have described, and that is exactly as a result of what we have told you. When you miss certain benchmarks and you miss certain schedule milestones, you have to then do something to accommodate. So—

Mr. WU. And when—

Vice Admiral LAUTENBACHER.—this program will not be the same.

Mr. WU. And when you drop certain capabilities, you will be losing capability from the satellite, and will that not entail costs to the agency of the Federal Government?

Vice Admiral LAUTENBACHER. I am not sure I follow. If we drop the capability, we should be paying less—

Mr. WU. Then there are certain—

Vice Admiral LAUTENBACHER.—for the satellites.

Mr. WU.—things that you can't do, that the satellite can't do.

Vice Admiral LAUTENBACHER. There are things we will not be able to do immediately, but the idea is to reach the capability to provide the options that allow us to get to the levels of achievement that we think are important for national security, severe weather and climate and that the types of things—

Mr. WU. I am sorry. Are you saying that ultimately all of the capabilities will be there?

Vice Admiral LAUTENBACHER. I can't say that, because I can't make that decision myself. It is a three-agency decision that has to be agreed to over the next three to four weeks, and it would be unfair of me to sit here and prognosticate on something that I can't commit to, because—

Mr. WU. Okay.

Vice Admiral LAUTENBACHER.—I don't know how that will come out.

Mr. WU. How close are you to this analytical process about what capabilities to drop? Because I am deeply concerned that you didn't find time to meet with the IG. And are you staying in close touch with this decision-making process?

Vice Admiral LAUTENBACHER. Well, I spend a great deal of every day involved in this program. I have been intimately involved with it for the four years that I have been the temporary custodian of this agency over the course of the program. I am not unaware of what goes on. I understand the principles, and I have worked hard in my management structure with the people that work for me to do everything that I could do to keep this thing on track. I have not been disengaged from the process. Now you can look at it and make the judgment, "Well, nothing happened so you weren't effective," and that is a call you can certainly all make. But the point is, I have been engaged, and I will continue to be engaged on it. I have looked at the options. I have looked at many of the options. They require the same kinds of things we have talked about before. They require changing orbits. They require moving satellites. They require using the satellites that we have today. Remember, we have some left in the domestic side and the military side to cover orbits. And they also look at ways to spread out the development of the instruments so that we can afford them. Remember, I said we are not overspending our budget today. We are on track with the budget that you have approved, and we are going to stay to that. I have tried to be very prudent in the fiscal management that we have. So you may get the capabilities later, but I can't sit here and commit to that. But I can commit to the fact that we are looking at all of the possibilities of getting to the final requirements, I guess is the word that we want, that have been laid out for the program.

Mr. WU. Well, Mr. Chairman, the frustration is with the failure to deliver on commitments made last summer, and my confidence is somewhat shaken about any reassurances that we receive today. And if I have any further comments, I will make them later.

Thank you, Vice Admiral.

Vice Admiral LAUTENBACHER. Thank you.

Mr. EHLERS. The gentleman's time has expired.

The Chair recognizes the gentleman from California, Mr. Rohrabacher.

#### MANAGEMENT STRUCTURE

Mr. ROHRBACHER. Thank you very much, Mr. Chairman.

I think it is a bit ironic that we are looking at a program, which was originally sold to Congress as something that would be a cost-effective way of meeting the goals that we had set, the various sensor and space-related goals that we had set. And instead of getting a cost-effective way of doing this, what we have ended up with is a catastrophe. And when you have \$3 billion that are no longer available to health, education, to other science programs, to—I mean, I had a person in there talking today about a couple hundred million dollars for juvenile diabetes and what it would mean to young people around this country. And mismanagement, it ap-

pears, has eaten up \$3 billion, which is now not available to little children who need it for diabetes research or education or even bullet-proof vests for our men who are in action right now. This is not just mismanagement. This is a catastrophe: \$3 billion that no longer exist that can be traced back to decisions, or lack of decisions, by people in management positions.

Mr. Frazier, I want to congratulate you for your testimony, and I look forward to hearing more reports from you in the future, as well, on how we can improve the way we run different programs to make sure that we don't duplicate this disaster.

Mark Twain once said that, you know, "Put all your eggs in one basket, but watch that basket." And you know what? That is what this was all about. We are going to put all of these sensors and all of these capabilities in one satellite, but Mark Twain was wrong, and my mother was right, which she talked about, you know, basically don't put all your eggs in one basket. And my mother also said something about too many cooks spoil the soup. I look at the program structure, and I see NOAA, NASA, the Air Force, the Executive Committee, the tri-agency Steering Committee, and Integrated Program Office, all of whom have some sort of decision-making process in the—and oversight of this. Mr. Frazier, is this a situation where we had so many people responsible that nobody was responsible?

Mr. FRAZIER. That could be part of the problem. It is important that all of the players, surely, are on the same page, that they are all talking to one another. You know. I think that accountability is always important. You know, we need to know that, at the end of the day, who we are going to be able to hold accountable for what goes right and what goes wrong. I am a big believer, personally, in having processes in place, having mechanisms and systems that will provide checks and balances. And I think that the concept, or the intent is, when it was initially structured, was to provide that. Unfortunately, it doesn't seem like that is what, in fact, happened, because I think that the intent clearly was to put in place the checks and balances. So if I am sending the reports and the reports are going to all of the interested parties, one would think that if party A doesn't deal with it, then party B surely will raise that question. And so I am surprised that with the number—

Mr. ROHRABACHER. Yeah.

Mr. FRAZIER.—of players—

Mr. ROHRABACHER. One person would need to be able to oversee that. One person would be able to have to say, "Is this happening?" Who is that one person?

Mr. FRAZIER. I can't answer that question. I don't know. You said who should it be?

Mr. ROHRABACHER. Well, who was it—

Mr. FRAZIER. No, I—

Mr. ROHRABACHER. Who was it in this program?

Mr. FRAZIER. I can't answer that question, because clearly—

Mr. ROHRABACHER. Okay. So we have got all of these—

Mr. FRAZIER.—it is a—

Mr. ROHRABACHER. As you described, you need checks and balances.

Mr. FRAZIER. Yes.

Mr. ROHRABACHER. You need these people working together, but there isn't one person to oversee to make sure—

Mr. FRAZIER. No, you have—

Mr. ROHRABACHER.—that the checks and balances are working.

Mr. FRAZIER. You have the EXCOM that is there, in theory, but that is—those are three key individuals of equal ranking there.

Mr. ROHRABACHER. Okay. Mr. Frazier, was anyone fired over this incompetence?

Mr. FRAZIER. Not to my knowledge.

Mr. ROHRABACHER. Admiral, was anyone fired? Can you name us a few people who were fired?

Vice Admiral LAUTENBACHER. A program manager was changed both inside the government and in the contractor, and there were numbers of people that were removed—

Mr. ROHRABACHER. Okay.

Vice Admiral LAUTENBACHER.—and replaced.

Mr. ROHRABACHER. So there were?

Vice Admiral LAUTENBACHER. Yes, sir.

Mr. ROHRABACHER. All right. We had people fired.

Vice Admiral LAUTENBACHER. There were changes made.

Mr. ROHRABACHER. Admiral, one of the changes that you have included in your statement here that have been made was that now the—in—consistent with the OIG report, you are no longer giving less than—you are never—no longer giving award fees to the less-than-satisfactory performance, which Mr. Frazier said was so important. Why did it take a report from the IG's office to quit rewarding people who were not meeting their goals with awards for superior performance?

Vice Admiral LAUTENBACHER. I—we had discussed this before the IG's report and agreed that this was not working. The philosophy at the time that this system was installed was designed to incentivize the contractor. It was designed to allow the program manager to be able to have some control over incentivizing the contractor. It turns out that that is not a good idea, because there are not enough checks and balances.

Mr. ROHRABACHER. Well, let me tell you something. The first award that went to someone who was behind schedule and over budget, the first performance award that went should have been a tip-off to somebody. And I am trying to figure out who that somebody is who should have said, "This is wrong, and we shouldn't be doing this." But what we see, again, is there are so many crooks, nobody really knows who is responsible for the soup.

One last note, Mr. Chairman. My reading of this program is some of the things that were added on to this program, which was first conceived of in 1994, were aimed at, again, global climate change, which I guess will—and from this Congressman's perspective, is yet another wasteful expenditure to again prove global warming.

And so, with that said, I am sorry that whatever that \$3 billion that we have that is not coming to fruition now on this project that dealt with that issue, I am sorry that we had to couple that with needed scientific information about weather and actual weather

conditions that will meet our military, et cetera, and our private sector.

So with that, thank you very much, Mr. Chairman.

And I would ask the Chairman that we have another one of these hearings as soon as Nunn-McCurdy issues their report. And I would hope that, at the very least, Congressional oversight is beefed up and that we do our job, on this end of it, as well as demanding that you folks do your job.

Thank you very much, Mr. Chairman.

Chairman BOEHLERT. Thank you very much, Mr. Rohrabacher. You will notice that when you mention global climate change, people came out of the woodwork, including me.

It is for real. I wish to assure you of that. It is not a figment of our imagination.

The gentlelady from California, Ms. Matsui, is recognized.

Ms. MATSUI. Thank you, Mr. Chairman.

And I want to thank both Chairman Boehlert and Ranking Member Gordon for welcoming me here today for my first meeting. And I am honored to be on the Science Committee, because I feel this work is so central to the challenges that we are facing today.

And as we are looking at this issue today, NPOESS, which is—I am learning a whole new vocabulary here, it is particularly critical, at this point in time, as you well know, because of what happened on the Gulf Coast with Katrina. And if we did not have some advanced weather forecasting, things would have been worse, as was stated before.

I am particularly concerned about this because of the fact that I—my home district is Sacramento, and we are next to the Gulf Coast, probably the most at-risk region, because we have two rivers. And we are vitally, vitally interested in what this means for us as far as advanced weather forecasting. Our flood control management is really dependent upon these weather forecasts. And in fact, we have had a particularly wet winter and wet spring this year. And we were very challenged. But because we had very good weather forecasting, we were able to retain more water in the reservoirs and determine how much water needed to be released. Of course, you know, some of this weather forecasting is still on the edges a little bit, at this point in time, but without it, we would not have known how to manage some of the flows. So for me, in particular, and my constituents, this is critically important that we move ahead.

And I am very, very concerned about the cost overruns and the fact that we are at this juncture today. And my concern is that, Mr. Frazier, on—I think on page 13 of your report, you note that NOAA disputes your characterization of EXCOM's involvement with this program. And as I listened to the Admiral's testimony, I don't believe it has still been resolved yet, do you believe that EXCOM acted expeditiously to intervene in this program when problems first occurred?

Mr. FRAZIER. No.

Ms. MATSUI. Do you have any suggestions as how it have—how could we have—how could this have been better, you know—apparently, problems were—we were aware of these problems.

Mr. FRAZIER. Right.

Ms. MATSUI. But the communication was not efficient.

Mr. FRAZIER. In fact, one of the things that I think that was a surprise to us when we initially started this particular review was we went in almost expecting to find that there was a shortage of information that was flowing. Because sometimes you will find that there is just not the information there. In this case, there was a very comprehensive, elaborate paper trail with monthly reports and other work that had been done that was highlighting the nature of the problems and the severity of the problems. And that information was reportedly being sent to the EXCOM. One of the things that was happening was that the program manager, in all fairness, was often putting his spin on things. In other words, he knew that there were problems, but you know, "I will be able to solve these problems down the road. I have got a reserve here, and I will be able to take care of it with this reserve." But here is where I expect that the EXCOM, and others, will come in and challenge that individual. You know, his job was to come in and to try and give you the facts. But at the same time, he was an advocate for the program. That is not being negative. That is not a negative statement. But you have to challenge people who have this much control, who have a vested interest. He was the person who was rewarding, if you will, the contractor for this performance. And when you saw those kinds of things happening, at that point, I would expect that everybody above him would be playing devil's advocate. They had a responsibility to call him to task on what he was saying, you know. And if it is so optimistic, if you believe that you can do this, you ought to be able to document this, you know. And I think that that is where I think that, more than any place else, they fell down on their job. We have a responsibility, those of us in oversight roles to challenge what is told to us, to look for the facts, you know, to get behind it. You know, if we don't do that, I think that we are equally guilty.

#### LESSONS LEARNED

Ms. MATSUI. Okay. Admiral Lautenbacher, you state that NOAA is incorporating NPOESS lessons learned in future acquisitions. What lessons have you learned?

Vice Admiral LAUTENBACHER. I have agreed that we have learned the lessons that Johnnie has talked about. This is a difficult program to manage, because it has three agencies, and it has complexities involved technically, which are very, very challenging. So the issue here is to have more—and remember, I am the head of an agency. So I have got lots of people and lots of problems and lots of programs that all need help. This is the top priority, and I spend a lot of time on this one, but there is only so much that I can absorb and understand continuously. So we need the independent reviews. We need the pieces in the chain of responsibility and oversight to ensure that all of these things are happening as they ought to, they are being challenged at the right time, and that the process, the management processes put into place will hopefully correct some of these issues that we have had about—as Johnnie said, maybe the program manager was over optimistic. But remember, the program manager is working his tail off on my direction to make this work. He had a specific budget. He had

agreed to the schedule. I had hundreds of technical experts that came in and say, "You can do this." The contractor bid on it and said he could do it. There were incentives in the program that the acquisition experts in the Department of Defense said would work. You line up these people, and you ask them, and you grill them, and you challenge them, which is what I did and have been doing. And that is not auditable, and I feel that is a failing. As I have mentioned, we should have auditable meetings that are then on the public record, on the record to come in and talk to you about. But the fact is that there were not enough independent reviews and there were not enough auditable processes in place to allow this to be managed at a, what I would call, finer grain level than what was put into the original structure. I think we have learned those lessons over the last several years.

Chairman BOEHLERT. The gentlelady's time has expired.

I would take it, from what you have just said, that it is a mea culpa of sorts. It is not good enough to say a lot of people working for you, hundreds of people working for you, a lot of complex problems. Quite frankly, that is why you got the title, and that is why you have got the level of compensation you have. And we don't get paid for the easy ones. We get paid to deal with the difficult ones. You say that you can assure that the IG recommendations are being considered in the Nunn-McCurdy review process, but are you advocating specifically for any of the changes recommended by the IG?

Vice Admiral LAUTENBACHER. I will advocate for all of the changes that are recommended in there. Absolutely.

Chairman BOEHLERT. Okay.

Vice Admiral LAUTENBACHER. I just can't commit to what the other two people are going to say until the Nunn-McCurdy report is done.

Chairman BOEHLERT. But you are an important—you are the leader of the troika, and so you are an important ingredient in this whole formula.

But let me ask you this. You are going to try to apply the lessons of NPOESS. How about GOES-R? I need more information on this than you provide in your testimony. Who is on the Program Management Council, and what authority will the Council have?

Vice Admiral LAUTENBACHER. The Program Management Council will be headed by the COO of NOAA, General Kelly.

Chairman BOEHLERT. All right.

Vice Admiral LAUTENBACHER. It will include all of the contract people, our acquisition people, and our leaders of the organizations that have authority over acquisition—

Chairman BOEHLERT. And what are—

Vice Admiral LAUTENBACHER.—satellites, weather—

Chairman BOEHLERT. All right.

Vice Admiral LAUTENBACHER. So it will include—it is basically akin to, if you are familiar with the Department of Defense Oversight Council. They have changed. It used to be called the D-SARF. There is a council that is set up that is chaired by the Deputy Secretary of Defense.

Chairman BOEHLERT. What is going to be your personal involvement at GOES-R?

Vice Admiral LAUTENBACHER. I will be involved in it like I am everything else that we do. I am the agency head and responsible for it. They will report to me. I meet with Jack Kelly daily on all of the issues that NOAA has across all of our programs, acquisitional and operational.

Chairman BOEHLERT. Well, we just don't want to have a repeat of the mistakes made in NPOESS when we go to GOES-R, so we have learned some valuable lessons from this process, and I hope those valuable lessons are going to be implemented, what you have learned from that.

Beyond looking at the IG and GAO reports, what are you reviewing to determine the appropriate contract structure? And are you consulting with experts outside of government? We are on GOES-R now.

Vice Admiral LAUTENBACHER. Yeah, on GOES-R, we are working internally with Department of Commerce. The object here is the unity of command sort of thing. The Department of Commerce will run this one, not going to turn it over to anybody. It will be unity of command and responsibility.

Chairman BOEHLERT. Are you consulting with outside—

Vice Admiral LAUTENBACHER. Yes, we will consult—we are in the process of doing that. We have not completed the deliberations for setting the fee for the next contract. We are, right now, in the risk-reduction phase of the contracts. There are three contractor consortiums working on advanced design and risk reduction at this point.

Chairman BOEHLERT. And who will be on the GOES-R independent review team?

Vice Admiral LAUTENBACHER. We have a list of 20 outside experts at this point who are not employed by NOAA or not employed by the contractors, who are well recognized. And they will operate under principles of openness.

Chairman BOEHLERT. And how often will they submit reports and report to the review team?

Vice Admiral LAUTENBACHER. They will report to the Program Management Council, and we will have independent reviews of the program as it goes on, beyond the chain that involves the program manager.

Chairman BOEHLERT. And how often would you anticipate those reviews with—

Vice Admiral LAUTENBACHER. That has not been decided yet, but that will be part of the deliberation, whether they are monthly or whether they are based on milestones, or whether they are based on situational issues. The normal review process is structured to support the various milestones and review processes, as it was in NPOESS. That is why there is a flurry of activity around the contract award and a flurry of activity when the contractor and the program manager reported the issues that they were having in solving the problems. So a normal method is to do it situationally. It can be done on a monthly, bi-monthly—you can pick a time basis, too. You can say no less than six months. You could do it situationally. That is to be decided.

Chairman BOEHLERT. Well, this is an expensive lesson learned, but you are going to apply lessons learned from NPOESS to GOES-R?



Vice Admiral LAUTENBACHER. It is an expensive lesson learned, and it will cost us money. I mean, all of this—all of the extra management attention that we are putting on NPOESS has cost more money.

Chairman BOEHLERT. Well, I would suggest—

Vice Admiral LAUTENBACHER. It takes money to do that.

Chairman BOEHLERT.—that if more management attention was paid earlier, it wouldn't have cost as much. That is fair, I think. It is not a low blow. I am not dealing from the bottom of the deck. I am dealing from the top of the deck.

But—all right. My time has expired.

We will go to Mr. Gordon.

#### MANAGEMENT STRUCTURE (CONT.)

Mr. GORDON. Admiral, other than the project director, have there been any kind of NOAA staff changes on the Steering Committee or at the EXCOM level?

Vice Admiral LAUTENBACHER. The EXCOM are the agency heads. There have been several agency head changes. Remember that Mike Griffin has taken over NASA.

Mr. GORDON. Right. I said the NOAA staff changes.

Vice Admiral LAUTENBACHER. In the NOAA staff?

Mr. GORDON. Yeah, that are working on the Steering Committee or in EXCOM.

Vice Admiral LAUTENBACHER. The Steering Committee, remember, it is Jack Kelly—it is three people.

Mr. GORDON. Okay. Well, then—

Vice Admiral LAUTENBACHER. It is thin organization, so it is—

Mr. GORDON. Okay. Well, let me—

Vice Admiral LAUTENBACHER. It is the deputies.

Mr. GORDON. Okay.

Vice Admiral LAUTENBACHER. There have been changes in the program office. Remember—

Mr. GORDON. Are you expecting—

Vice Admiral LAUTENBACHER.—that the program manager—

Mr. GORDON. Okay. Okay. That is fine. Let me—

Vice Admiral LAUTENBACHER.—is gone.

Mr. GORDON. Let me try a different way.

Are you expecting to make any personnel changes?

Vice Admiral LAUTENBACHER. I am not expecting in the near-term to make any—

Mr. GORDON. Yeah.

Vice Admiral LAUTENBACHER.—personnel changes.

Mr. GORDON. Okay. This whole thing is bizarre. I mean, we are talking about more money that you are over budget than is in your budget for a year. You know, Mr. Frazier, when you had this conversation with Ms. Matsui, again, it was just bizarre. What you were doing, you know—your suggestions are they need to work a little harder, they need to, you know, have more outside reviews, but you didn't in your discussion with her, you said they had warning after warning after warning after warning. And so if they have had warning after warning after warning, then so what if some outside folks come in and give them more warning. I mean, what

is going to change if you have the same people doing the same thing? I mean this is a big deal. This thing is out of control.

Mr. FRAZIER. One of the big changes, if—and when you read our report, that report is unique in several ways. That report is addressed to the Deputy Secretary. If you go back, you will never see a report addressed to NOAA and to the Deputy Secretary. It is the first one. Because what we believed is that the Deputy Secretary—

Mr. GORDON. But somebody has to—

Mr. FRAZIER.—has to step in and—

Mr. GORDON. Okay.

Mr. FRAZIER.—to make certain that there is an additional level of oversight. I think that it is about management attention to it. The Deputy Secretary has quarterly reviews, that I am aware of. And as a part of those reviews, I am sure that now we have met with the Deputy Secretary.

Mr. GORDON. Are you sure that there are adults somewhere in this chain of command that are going to step forward and make some changes and take control of this? I mean, let me—your report was entitled “Poor Management Oversight and Ineffective Incentives Leaves NPOESS’ Program Well Over Budget and Behind Schedule.” You know, that rings some bells. And then, when you look through the report, you see many pages that were redacted. And would you like to explain why that was done?

Mr. FRAZIER. Yeah. In fact, we made available to the Committee an unredacted version to make sure that the Committee—one of the reasons that the public version is redacted is that there is potentially proprietary information because of the contractor, and we are not certain what is going to come out of the Nunn-McCurdy review. If the contract, for example, had to be renegotiated, we think that that information could potentially be proprietary information.

Mr. GORDON. But reading this over, again it is just what you talked about: warning after warning after warning.

Mr. FRAZIER. Yeah.

Mr. GORDON. I mean, I don’t really see anything here that is that proprietary. It is just warning after warning after warning that was ignored and ignored.

Mr. FRAZIER. We sent it to our lawyers, and we asked them. They know that we don’t redact any more than we feel that is absolutely necessary. And that is what was recommended to be pulled out for the public release. But we thought it was important for the decision-makers, those of you here on the Committee, as well as all of what NOAA has, what the Secretary’s office has, and any of the other key players has, even all the other members of the EXCOM, they will have the full version of the report. Also, if you look, I think it is, I want to say, page 19 of the report where we have the summaries of what that information was redacted. So I think that hopefully that there is nothing that is lost in even the redacted version. The message still comes through in terms of what should have happened that did not happen.

Mr. GORDON. And so what is your level of confidence if you have the same people doing the same thing here? I mean, what is going to change? Apparently, they can’t be embarrassed, and so you know, the whole thing just gives me the willies.

Mr. FRAZIER. Well, there are two things that I would add at this point. One, I think all of us are waiting to see what comes out of the Nunn-McCurdy review. But I think even more to the point, we were very much interested in, in going—when we go forward in terms of the GOES-R, we already have additional people starting in our office to look at that process, who are monitoring what is happening there, because you do want to see new signs. Again, we know that the program director is gone. But one of the other things, Congressman, that we do in the IG's office is that we try not to serve, in this case, as the judge and the jury. We are the detectives here. We give you the information, and we bring that to the decision-makers, the policy-makers. And with the exception of criminal cases where we may then work with the Assistant U.S. Attorney or someone, we don't usually say, "You need to move person A or person B." What we do is charge the responsible officials with looking at the circumstances, getting behind it, looking at the facts, and then taking appropriate action to make certain that the changes that we want to see. And then as part of that process until the intent of every recommendation in our report is dealt with, those recommendations remain open. We are there. This is not something that we issue a report and are going to walk away from.

Mr. GORDON. Well, please don't. I mean, we want Groundhog Day to stop. And again, we thank you for what you have done. You will continue to do a service to your country if you do stay after this, and keep reminding us.

Chairman BOEHLERT. Thank you.

Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman.

Just a short question for each of you.

First, Admiral Lautenbacher, in your testimony, you indicate that NOAA officials, including you, have been full participants in the Nunn-McCurdy review process. Do you have any concerns about the extent to which NOAA's priorities and/or the recommendations of the IG are or are not being addressed as part of this process, the Nunn-McCurdy process?

Vice Admiral LAUTENBACHER. It is premature to say until the process comes to an end, but I don't have any concerns now that they are listening to our priorities, our requirements for the domestic side and are aware of and involved in dealing with the issues that Johnnie has brought up to us today. That is primary material that is given to all of the IPTs, and they have it, and we are working on it. And we will continue to work. I might add that I have a very strong internal process that goes over every IG recommendation. Remember, we are 65 percent of the Department of Commerce, so this is not the only business that we have with the IG. We have a system that looks at every one of those open recommendations. We will take strong action, as we will in this case, to go through and manage the expectations and to Johnnie's expectations that we have incorporated those changes in our processes in our management programs, and that goes for this as well as all of the others that we do regularly. I have been in IG, and I understand the value of this.

Mr. EHLERS. Thank you.

Mr. Frazier, given what you learned during the preparation of the IG report and what you have heard at today's hearing, do you believe NOAA is on the right track to address the findings and recommendations in your report?

Mr. FRAZIER. I would like to say that the proof will be in what happens. I think that there were processes. I think that there were procedures. It is all about how it gets implemented. I think that very few of us can take issue with what has been said. The proof will be in what happens after we go forward from here today. The proof will be in following through on the promises that are made, and implementing the recommendations. It is fairly easy for us to make the recommendations that we did. I mean, there is a directorate that laid it out, and as someone has said on the Committee, it wasn't rocket science for us to reach those conclusions. And the challenge is to make sure that they are implemented and to keep the pressure on it, to keep the attention on the issue. I cannot believe that when the Nunn-McCurdy review is completed that you will not see a great deal of additional attention. I cannot believe that you will not see it at the Secretary's level. I would surely hope that it will surely be at the top of NOAA's agenda. And as I listen today, I can surely hear that it is going to be on the Committee's agenda. And I would hope that those levels of pressure will see some progress.

Mr. EHLERS. Thank you very much, Mr. Chairman.

I yield back the balance of my time.

Chairman BOEHLERT. Thank you.

Mr. Wu.

Mr. WU. Thank you, Mr. Chairman.

When I was asking Vice Admiral Lautenbacher earlier about what sensors, sensor suites, or satellites had to be sacrificed in order to meet the current—or try to get back within our cost timeframes, I believe the Admiral's answer was, basically, the process is going on, and he didn't have an answer for me right now. Well, that I understand. But Admiral, you went on to say that things could be added back later on when I asked about the costs of not having certain capabilities in the satellite or in the set of satellites. Admiral, what I am concerned about is in your statement that capabilities could be added back later on, isn't that true only if we fund this at higher levels later on? I mean, in essence, you are talking about pushing costs out of this current timeframe and into a further-out timeframe in order to get that capability back?

Vice Admiral LAUTENBACHER. That is a logical conclusion. If you are going to add more, it will cost more. So I am not and I can't—

Mr. WU. So what you are—

Vice Admiral LAUTENBACHER. I can't deliver you—

Mr. WU. So what you are—

Vice Admiral LAUTENBACHER.—a profile—

Mr. WU. So what you are saying now is it is a sure thing that we are going to lose capability?

Vice Admiral LAUTENBACHER. I didn't say that. I did not say that. You asked me if we were looking at all possible options, and I am trying to tell you that we are looking at all possible options—

Mr. WU. But—

Vice Admiral LAUTENBACHER.—even changing—

Mr. WU.—under the current cost constraints, it is a sure thing that we are going to lose capability?

Vice Admiral LAUTENBACHER. I don't want to make that statement clear-cut. I mean, I don't have an answer from the Nunn-McCurdy review process, because you hold me to everything I say five months later. For me to say that, at this point, and then come back and have something different, I think, would be unfair of me, particularly to the other folks that are not here that are involved with this process. We are trying hard, but remember, you have asked me that—would I look at additional funding to maintain the capabilities that we need. And I responded: yes, I would. And I am looking at all of the options.

Mr. WU. Well, Admiral, it seems to me that if all of the options that you are looking at involve giving something up, and what you have said is that some of those things could be added back later on, doesn't it make sense to you that for the current cost constraints, you are inevitably giving something up, and in order to add that capability back later on, you are pushing those costs into the outyears?

Vice Admiral LAUTENBACHER. I can't disagree with that. That is an option, but you have asked me to look at all options. In the last hearing, you asked me to look at all options. And I said that I am looking at all options. I am not trying to create an artificial cost cap and say, "That is the only thing we are looking at." I am trying to look at the requirements that the country has in all respects, and I am sure that my other members in this deliberative committee are—

Mr. WU. The artificial—

Vice Admiral LAUTENBACHER.—doing the same.

Mr. WU.—cost cap you are referring to is what this program was supposed to come in or the overrun that was built into it?

Vice Admiral LAUTENBACHER. It was artificial cost cap. Pick a cost cap, pick a number. Are we going to use cost as an independent variable, which is a discussion we have a great deal of, you know—it is a wonderful discussion at the happy hours in the evening. Is cost an independent variable? Or do we have requirements that this country has to have for its security? And I am talking about environmental security, economic security, and national security. And do we try to look at the balance, the priorities of what those requirements are versus the costs? I have said that I am trying to look at the holistic view of the program: what are the requirements and what are the costs.

Mr. WU. And what you are saying right now, what I am hearing is if we need to meet those other requirements, yes, it will cost more. Is that what you are telling us right now?

Vice Admiral LAUTENBACHER. I am not going to commit to telling you anything, at this point, because I don't know what the answer is. If you are talking about a hypothetical program off in the—

Mr. WU. It is not a hypothetical program—

Vice Admiral LAUTENBACHER. Then I don't want to—

Mr. WU. It is this—

Vice Admiral LAUTENBACHER.—commit to saying to

you—

Mr. WU. This is the program—

Vice Admiral LAUTENBACHER.—what the capabilities—

Mr. WU.—as originally configured and promised.

Vice Admiral LAUTENBACHER. The program that was originally configured and promised is not deliverable at this point. I have testified to that, and it has been proven by the other technical experts that have looked at it. You cannot buy the program that was originally forecasted. There is no way to do that. You can't go back in time.

Mr. WU. Thank you, Mr. Chairman.

Chairman BOEHLERT. Thank you, Mr. Wu.

#### IG RECOMMENDATIONS

Mr. Gutknecht.

Mr. GUTKNECHT. Thank you, Mr. Chairman.

And I want to thank the witnesses.

I particularly want to thank you, Mr. Frazier. I commend you for your professionalism. This has been one of the most thorough reports that we have received, and I apologize. I have had a couple of other meetings that I have had to be in and out of, so I haven't heard all of the questions.

But I do really want to get to what I think is the nub of this question, because your report is incredibly tough. And I want to thank you for that. We need that. And you get right up to the edge. It sounds to me that—well, let me say it this way. We don't ask for a criminal investigation, but do you think there should be one?

Mr. FRAZIER. We have not seen the evidence that would suggest that at this point, because one of the things, and I will be very candid, is that we go into these types of reviews looking for, what we call, the fraud indicators. And one of the reasons that on this particular job, one of our key people, I put my Counsel to the IG on it. That is how important it is to me. This is a person who works day-in and day-out with the investigators. So we are very mindful of that. We also put out some of our best auditors on it. So again, I don't go in with blinders on in saying that the possibility doesn't exist. When we started seeing the relationship, quite candidly, between the program manager, we said, "Why would he do that?" And we looked for the indications to go forward. We didn't see that. We did not see that. And in fact, you know, we explored a little more, without going into great detail, we explored. So I want you to understand that we went forward with this review looking for indicators that we should go forward, you know, and we have not found that.

Mr. GUTKNECHT. So I don't know if that makes us feel better, because, in some respects, when you see that—what I would describe, and I think most of the folks that I work for back home would describe, as enormous bonuses being paid out for work that isn't being done. It is either there is something criminal going on here or just gross incompetence. Either one is not exactly an answer we want to hear.

Mr. FRAZIER. The sad news here, and the sad commentary, is that, as the GAO report clearly delineates, this is not an anomaly.

This is something that happens way too often. I mean, they had—

Mr. GUTKNECHT. And that doesn't make us feel better, either.

Mr. FRAZIER. It doesn't. You know, I am not going to be able to give you the kind of level that—of comfort, I think, that you would like, because that is what is so troubling, you know, when you see how pervasive it is. In fact, people say, "In this community, this is what normally happens," because a lot of times people don't understand the complexity of the issues. And so it is like, "Okay. We better go ahead and give you this money." You know. "We will go ahead, because we don't want to alienate you." GAO did a superb job in looking at that, and of course, what they have done in their recommendations is now to recommend that the Air Force and that the Defense Department, which has the preponderance of these types of contracts, that they look at this and go back and try and make a reassessment. But the message always is how important it is for the program people to monitor, to stay on top so that they are in a position to make certain that people don't get awards and incentives that they are not entitled to. You know, I always hasten to add, I want to be the first person to make sure that contractors get what they deserve in terms of incentives, because they are the ones who are going to make or break these programs. But we need to make sure that we stay on top of it, we, being the program officials here, on top of them so that we can make certain that they don't get one dime more than they are entitled to.

Mr. GUTKNECHT. Well, I think what you have outlined here, and I hate to think that this is a pattern, but I can see how it could become a pattern, you know, an agency, or a Congressional Committee says, "Hey, we want the technology to do this, this, and this." And if you are the contractor, the advantage is to say, "Oh, yeah. We can do that. We can do that. Just," you know, "it is going to be expensive, but we can do that." And then, as you find out, "Well, maybe we can't do that." You say, "Well, what we need is more money." And so it just becomes this pattern. And I guess what I want to come back to is maybe we should start with some of these—and I am a big believer in DARPA and some of the other research agencies we have. Maybe we should start with them and say, "Will this work?" And if they can prove that the technology works, then maybe we should put it into projects like this one. What do you think?

Mr. FRAZIER. Well, I think that there are a number of possibilities, in terms of improving the situation that you are very concerned about, and justifiably so. But I think that none of it replaces the importance of having program managers stay on top of what is going on. Because the way that the process is set up is that you have a contracting officer representative who is charged with the monitoring of those contractors. Sad to say, in fact, all of the IGs got together last week in Portsmouth, Virginia for two days. And we were comparing our top challenges. And out of 24 statutory IGs, 20 of us have on our list, as a material weakness top management challenges, the procurement issues and because of issues just like this. You know, you will find the same scenario—we see people getting awards, and sometimes it is just buying pencils and paperclips, and people will give them the same kind—how can that

be? Or you will see that people have been given an incentive award and they haven't performed. You know. And again, they are not these multi-billion-dollar programs. So part of it has to be that you have got to get the message out there that project managers, contracting officers, and contracting officer technical representatives should be on top of this and should make certain that people don't get one dime more than they are entitled to. And at the same time, give them the incentives so that they will come up with the creative solutions, that they will move forward with the solutions that are important to get these satellites up and to be on the cutting edge of science.

Mr. GUTKNECHT. Well, Mr. Frazier, my time has expired, but once again, thank you. I mean, on behalf of the taxpayers and this committee, thank you and I think you are exactly right. I mean, I do believe it is systemic. I think it invades lots of areas of the Federal Government. And it is an attitudinal thing. And somehow, we have an obligation to see that it changes. But the answer, Mr. Chairman, is not simply to give these agencies more money. And that seems to be what happens year after year after year. When you have got a program that is not working, the answer Congress gives is, "Well, I guess we just have to give them more money." I think that is a mistake, and I think it teaches bad habits.

And I yield back the balance of my time.

#### CONCLUDING REMARKS

Chairman BOEHLERT. I thank the gentleman.

And I would acknowledge that Mr. Frazier's excellent report does not make us feel very good. His job is not to make us feel very good; it is to inform us. And I would point out that this committee has been on top of this emerging problem for a long time with discussions with the Inspector General's office, and we have been encouraging every step of the way to do this report. We have had a number of meetings with Admiral Lautenbacher and other people within the EXCOM, and we are going to continue on this.

And Mr. Frazier, I have one final question for you, but before that, just let me say, you gain credit in the professionalism and objectivity of the Inspector Generals, and I thank you for your service.

Let me just close by asking, would it be okay for the Program Executive Officer, in your view, to serve as the fee determining official if that PEO is not involved in the day-to-day management of the program? And how would you define such involvement?

Mr. FRAZIER. I think that you can almost craft any kind of arrangement as long as it is monitored and managed very carefully in that there is a check and a balance. I don't think that there are any programs that should be allowed to have one individual or one group of individuals to have total say on any particular component. I think you always have to make sure that there is a check and a balance. And I am an accountant, so that is what we always look for, you know. And I think that the arrangements can be made in a variety of ways. I don't think that you can have somebody who has a vested interest in the program being the same person who is going to make that determination as to what that incentive fee should be, you know. But at the same time, whatever arrangement



you come up with, it is absolutely critical that you have a check and a balance on that. And that is through the reports that come out. One of the things that we have said in most of the recommendations is that now, in addition to sending the report to EXCOM, that you also send it to the Office of the Secretary. Will they look at it in great detail? Maybe not, but I will tell you what will happen as a result of that. If you know that another senior official is looking at it, or if it is the Committee or somebody else, I think that there is a greater tendency to make certain that what you are doing is something that will be very transparent and that will stand up to the test of evaluation.

Chairman BOEHLERT. Would you have any sense of whether the NPOESS PEO is sufficiently removed from daily issues to handle fee determinations?

Mr. FRAZIER. Again, we have the plan, as it still exists until the Nunn-McCurdy review is complete, is the way that we describe it in the report. I know the direction that we have been told, you know, that Sue will be taking on one responsibility and Colonel Stockton will be taking on another one. And again, in theory, and on paper, that should work very well. That should work very well. But again, on paper, what we had before was going to work very well. So I think that the test will be as to how that plays out, you know.

Chairman BOEHLERT. I thank you for that. And this is not the first, nor will it be the last, chapter in this sorry saga. We are going to remain on top of it, and we appreciate both of you being here today, and the candor of your remarks.

Stay tuned. Very important.

Hearing adjourned.

[Whereupon, at 12:20 p.m., the Committee was adjourned.]



Appendix:

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ANSWERS TO POST-HEARING QUESTIONS

## ANSWERS TO POST-HEARING QUESTIONS

*Responses by Vice Admiral Conrad C. Lautenbacher, Jr. (Ret.), Administrator, National Oceanic and Atmospheric Administration*

**Questions submitted by Representative Dana Rohrabacher**

*Q1. Are any of the following individuals Certified Project Management Professionals (PMPs) (were they as of May 11, 2006)?*

*A1. The National Polar-orbiting Operational Environmental Satellite System (NPOESS) government Program Management team has met all certification requirements of their respective agencies, and the specific certifications for each individual are listed below. The PMP certification is not widely used in the aerospace industry, whereas the Department of Defense (DOD) certification process is mandated by law. The PMP and DOD certifications are equivalent. We note that not all agencies have a formalized certification process. Some agencies use experience and performance evaluations and peer assessments as the criteria for assignment to key technical development positions.*

*Q2. For any Government and Military personnel in the above list, please provide the Defense Acquisition University (DAU) level of Program Management Certification, as well as Defense System Management College DSMC Program Manager School completion status of PMT 401 (Program Manager) and PMT 402 (Executive Program Manager) courses.*

*A2.*

- **Brigadier General (S) Susan Mashiko, NPOESS Program Executive Officer (U.S. Air Force)**
  - Department of Defense (DOD) Level III Certification in Program Management
  - Program Manager Career Track (PMT) 401 completed
- **Colonel Dan Stockton, NPOESS System Program Director (U.S. Air Force)**
  - DOD Level III Certification in Program Management
  - PMT 401 completed
- **Mr. Carl Hoffman, Senior Navy Advisor (U.S. Navy)**
  - DOD Level III Certification in Program Management
  - PMT 401 completed
- **Captain Timothy Wright, NOAA Corp, NPOESS Executive Director (NOAA)**
  - No certification requirement
- **Mr. Steve Simione, NPOESS Deputy System Program Director (U.S. Air Force)**
  - DOD Level III Certification in Program Management and Systems Planning, Research, Development, and Engineering (SPRDE) from Defense Acquisition Workforce Improvement Act from the Defense Acquisition University through the U.S. Air Force
  - PMT 401 completed
- **Mr. Stan Schneider, Director, Advanced Technology and Planning (NASA)**
  - No certification requirement
- **Mr. David Spencer, Chief Systems Engineer (U.S. Navy)**
  - No certification requirement
- **Mr. Hal Bloom, Payload Division Chief (NOAA)**
  - DOD Level III Certification in Program Management
- **Lieutenant Colonel Laura Blackburn (U.S. Air Force, retired)**
  - Lieutenant Colonel Blackburn has retired from federal service (with the U.S. Air Force) and is no longer working with the NPOESS program; we do not know her certification status
- **Mr. James Valenti, Deputy Chief, Ground Systems Division (NOAA)**

- DOD Level III Certification in Program Management
- PMT 401 completed
- **Mr. Joe Mulligan, Interface Data Processing Segment (IDPS) Lead (NOAA)**
  - No certification requirement
- **Mr. Peter Wilczynski, NPOESS Program Executive Office Staff (NOAA)**
  - No certification requirement
- **Mr. Bruce Needham (NOAA)**
  - No certification requirement
- **Any other Integrated Program Office (IPO) Professional Staff:**
  - There are no other relevant staff positions
- **Any Government personnel who hold Program or Project Manager (or Deputy) positions for NPOESS Instruments:**
  - **David Furlong, NPOESS Chief of Staff (NOAA)**
    - DOD Level III Certification in Program Management
    - PMT 401 completed
  - **Lieutenant Colonel David Beckwith, Chief, Program Control (U.S. Air Force)**
    - DOD Level III Certification in Program Management
    - PMT 401 completed
  - **Karen St. Germain, Algorithm Division Chief (NOAA)**
    - No certification requirement
  - **Gary R. Ross, Visible/Infrared Imager/Radiometer Suite (VIIRS) Instrument Manager (U.S. Air Force)**
    - DOD Level II Certification in Program Management
  - **Captain Chris Brann, Conical-scanning Microwave Imager/Sounder (CMIS) Instrument Manager (U.S. Air Force)**
    - DOD Level II Certification in Program Management, Test, and SPRDE
  - **Captain Jonathan A. Varoli, Survivability Sensor Instrument Manager (U.S. Air Force)**
    - DOD Level II Certification in Program Management
  - **Michael Tanner, National Environmental Satellite, Data, and Information Service (NESDIS) Headquarters Senior Program Advisor for NPOESS (NOAA)**
    - Program Management Acquisition Level-3 certified from Defense Systems Management College
    - Certified National Aeronautics and Space Administration (NASA) Executive Program Manager
- **Any Prime and Sub-contractor (Northrop Grumman, Raytheon, Ball Aerospace, Boeing, etc.) Program or Project Managers (and Deputies):**
  - Prime and sub-contractors do not require certification.
  - Northrop Grumman stated that the average experience level of senior members of their management team is 28 years. David Ryan, current NPOESS Program Director, has 29 years experience and has participated in 64 satellite programs. Experience and track record are the primary criteria in industry for assignment to critical programs.