



Highlights of [GAO-08-899T](#), a testimony before the House Committee on Science and Technology, Subcommittee on Energy and Environment

Why GAO Did This Study

The National Polar-orbiting Operational Environmental Satellite System (NPOESS) is a tri-agency acquisition—managed by the Department of Commerce’s National Oceanic and Atmospheric Administration (NOAA), the Department of Defense (DOD), and the National Aeronautics and Space Administration (NASA)—which has experienced escalating costs, schedule delays, and technical difficulties. These factors led to a June 2006 decision to restructure the program thereby decreasing its complexity, increasing its estimated cost to \$12.5 billion, and delaying the first two satellites by 3 to 5 years.

GAO was asked to summarize a report being released today that evaluates progress in restructuring the acquisition, assesses the status of key program components and risks, and assesses the agencies’ plans for obtaining the data originally planned to be collected by NPOESS sensors, but eliminated by the restructuring.

What GAO Recommends

In its report, GAO recommends that Commerce, DOD, and NASA coordinate to develop plans on whether and how to restore climate and space weather sensors removed from the NPOESS program. GAO also reemphasizes that the appropriate executives finalize and approve key acquisition documents. Agency officials agreed with both recommendations.

To view the full product, including the scope and methodology, click on [GAO-08-899T](#). For more information, contact David A. Powner at (202) 512-9286 or pownerd@gao.gov.

ENVIRONMENTAL SATELLITES

Polar-orbiting Satellite Acquisition Faces Delays; Decisions Needed on Whether and How to Ensure Climate Data Continuity

What GAO Found

The NPOESS program office has completed most of the major activities associated with restructuring the acquisition, but key activities remain to be completed. In the past year, the program redefined the program’s deliverables, costs, and schedules, and renegotiated the NPOESS contract. However, agency executives have not yet finalized selected acquisition documents. Without executive approval, the program lacks the underlying commitment needed to effectively manage a tri-agency program. In addition, given that DOD has stated it would not release fiscal year 2009 funds to the NPOESS program if key acquisition documents are not completed by August 2008, delays in completing these documents could affect the program’s funding and schedule.

In the past year, the NPOESS program has made progress in completing development and testing activities associated with the spacecraft, sensors, and ground systems. However, key milestones have been delayed and multiple risks remain. Specifically, poor workmanship and testing delays caused an 8-month slip in the delivery of a complex imaging sensor called the Visible/infrared imager radiometer suite. This late delivery caused a corresponding 8-month delay in the expected launch date of the NPOESS Preparatory Project demonstration satellite, moving it from late September 2009 to early June 2010. Moving forward, risks remain in completing the testing of key sensors and integrating them on the spacecraft, resolving interagency disagreements about the appropriate level of system security, and revising outdated operations and support cost estimates—which program officials say could increase the lifecycle cost by about \$1 billion. The program office is aware of these risks and is working to mitigate them, but these issues could affect the program’s overall schedule and cost.

When the NPOESS restructuring agreement removed four climate and space environment sensors from the program and degraded four others, it led NASA, NOAA, and DOD to reassess their priorities and options for obtaining climate and space environment data. Since the June 2006 restructuring decision, the three agencies have taken preliminary steps to restore the capabilities of selected climate and space weather sensors that were removed from the NPOESS program by prioritizing the sensors, assessing options for restoring them, and making decisions to mitigate near-term data continuity needs by restoring two sensors to the demonstration satellite and one sensor to the first NPOESS satellite. However, the agencies have not yet developed plans on whether and how to replace sensors on a long-term basis as no plans have been made for sensors or satellites after the first satellite of the program. Until such a plan is developed, the agencies may lose their windows of opportunity for selecting cost-effective options or they may resort to an ad hoc approach to restoring these sensors. Almost 2 years have passed since key sensors were removed from the NPOESS program; further delays in establishing a plan could result in gaps in the continuity of climate and space data.