



Highlights of [GAO-06-573T](#), a testimony before the Subcommittee on Disaster Prevention and Prediction, Committee on Commerce, Science, and Transportation, US Senate

Why GAO Did This Study

Polar-orbiting environmental satellites provide data and imagery that are used by weather forecasters, climatologists, and the military to map and monitor changes in weather, climate, the oceans, and the environment. They are critical to long-term weather prediction, including advance forecasts of a hurricane's path and intensity. Our nation's current operational polar-orbiting environmental satellite program is a complex infrastructure that includes two satellite systems, supporting ground stations, and four central data processing centers.

In the future, the National Polar-orbiting Operational Environmental Satellite System (NPOESS) is to combine the two current systems into a single, state-of-the-art environment-monitoring satellite system. NPOESS is considered critical to the United States' ability to maintain the continuity of data required for weather forecasting and global climate monitoring through the year 2020. The National Oceanic and Atmospheric Administration (NOAA), the Department of Defense (DOD), and the National Aeronautics and Space Administration (NASA) have formed a tri-agency integrated program office to manage NPOESS.

GAO was asked to determine the NPOESS program's current status and plans and to discuss considerations in moving the program forward.

www.gao.gov/cgi-bin/getrpt?GAO-06-573T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact David Powner at (202) 512-9286 or pownerd@gao.gov.

POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLITES

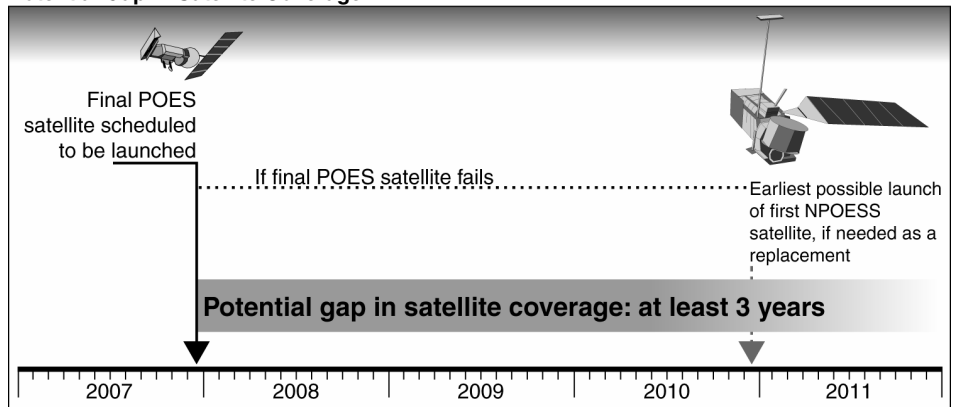
Cost Increases Trigger Review and Place Program's Direction on Hold

What GAO Found

The future direction of the NPOESS program—what will be delivered, at what cost, and by when—is currently on hold pending a decision on how to proceed. In recent years, the program has experienced significant cost increases and schedule delays, with cost estimates increasing to about \$10 billion and launch delays approaching 3 years. These factors triggered the need for difficult decisions about the program's direction and capabilities. In mid-November 2005, GAO reported that the NPOESS executive committee expected to make a decision by December 2005 on the direction of the program. GAO noted the importance of making a decision quickly so that the program could proceed. However, in late November 2005, NPOESS cost growth exceeded a legislatively mandated threshold that requires DOD to certify the program to Congress. This placed any decision about future direction on hold until certification takes place in June 2006. In the meantime, the program office has implemented an interim plan to continue work on key sensors and other program elements using fiscal year 2006 funding. Following certification, a decision on future direction should be clear. Proceeding will require a new program baseline and renegotiated contracts—efforts that could take up to a year.

As NPOESS undergoes the Defense certification process and important decisions are made on how the program is to proceed, there are several important considerations. First, NOAA and NASA representation in the DOD certification process is imperative. It will be important for these agencies to remain active players in the deliberation of options and the final decision on how to move the program forward. Second, continued indecision increases the risk of a gap in satellite coverage if the final satellite in the predecessor satellite series (the Polar-orbiting Operational Environmental Satellites or POES) were to fail (see figure). Thus, once program direction is decided, it will be important to move quickly to adjust agency budgets and contracts. Third, continuing oversight of program and executive management is essential to avoid repeating past problems.

Potential Gap in Satellite Coverage



Source: GAO analysis based on NPOESS Integrated Program Office data.