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GEOSTATIONARY OPERATIONAL ENVIRONMENTAL SATELLITES

Improvements Needed in Continuity Planning and Involvement of Key Users

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Highlights

Highlights of GAO-10-799, a report to congressional committees

Why GAO Did This Study

The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), with the aid of the National Aeronautics and Space Administration (NASA), is to procure the next generation of geostationary operational environmental satellites, called Geostationary Operational Environmental Satellite-R (GOES-R) series. The GOES-R series is to replace the current series of satellites, which will likely begin to reach the end of their useful lives in approximately 2015. This new series is considered critical to the United States' ability to maintain the continuity of data required for weather forecasting through the year 2028.

GAO was asked to (1) determine the status of the GOES-R acquisition; (2) evaluate whether NOAA has established adequate contingency plans in the event of delays; and (3) assess NOAA's efforts to identify GOES data users, prioritize their data needs, and communicate with them about the program's status. To do so, GAO analyzed contractor and program data and interviewed officials from NOAA, NASA, and other federal agencies that rely on GOES data.

What GAO Recommends

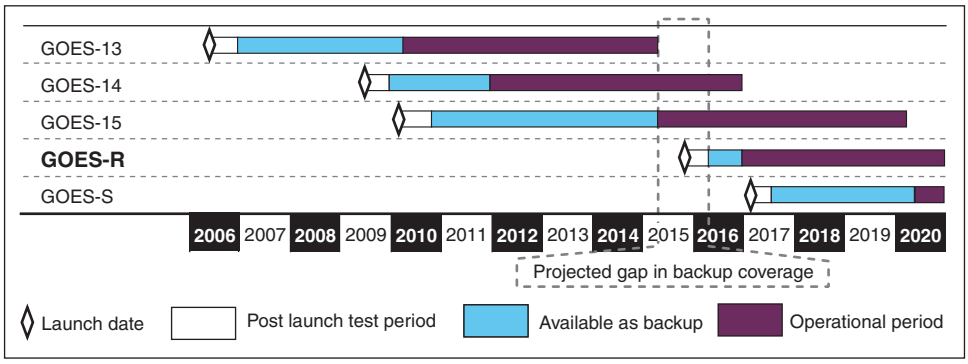
GAO is recommending that NOAA address weaknesses in its continuity plans and improve its processes for involving other federal agencies. In commenting on a draft of this report, the Secretary of Commerce agreed with GAO's recommendations and identified plans for implementing them.

To view the full product, including the scope and methodology, click on GAO-10-799. For more information, contact David A. Powner, (202) 512-9286, pownerd@gao.gov.

What GAO Found

NOAA has made progress on the GOES-R acquisition, but key instruments have experienced challenges and important milestones have been delayed. The GOES-R program awarded key contracts for its flight and ground projects, and these are in development. However, two instruments have experienced technical issues that led to contract cost increases, and significant work remains on other development efforts. In addition, since 2006, the launch dates of the first two satellites in the series have been delayed by about 3 years. As a result, NOAA may not be able to meet its policy of having a backup satellite in orbit at all times, which could lead to a gap in coverage if GOES-14 or GOES-15 fails prematurely (see graphic).

Potential Gap in GOES Coverage



Source: GAO analysis of NOAA data.

Even though there may be a gap in backup coverage, NOAA has not established adequate continuity plans for its geostationary satellites. To its credit, NOAA has established a policy to always have a backup satellite available and high-level plans if that policy is not met. Specifically, in the event of a satellite failure with no backup available, NOAA plans to reduce to a single satellite and, if available, rely on a satellite from an international partner. However, NOAA does not have plans that include processes, procedures, and resources needed to transition to a single or an international satellite. Without such plans, NOAA faces an increased risk that users will lose access to critical data.

While NOAA has identified GOES data users and involved internal users in developing and prioritizing the GOES-R requirements, it has not adequately involved other federal users that rely on GOES data. Specifically, NOAA's processes for developing and prioritizing satellite requirements do not include documented input from other federal agencies. Further, since 2006, the GOES-R program has undergone significant changes (such as the removal of certain satellite data products), but these have not been communicated to federal agencies. Until improvements are made in NOAA's processes for involving key federal users, these users may not be able to meet mission requirements.