GAO Highlights

Highlights of GAO-15-492T, a testimony before the Subcommittee on Strategic Forces, Committee on Armed Services, U.S. Senate

April 29, 2015

SPACE ACQUISITIONS

Some Programs Have Overcome Past Problems, but Challenges and Uncertainty Remain for the Future

Why GAO Did This Study

DOD's space systems provide critical capabilities to military and other government operations. Over the last decade, DOD space system acquisitions have been characterized by the long-standing problem of program costs increasing significantly from original cost estimates. Given this, DOD must manage system acquisition carefully and avoid repeating past problems.

This testimony focuses on (1) the current status and cost of major DOD space system acquisitions and (2) how DOD will address future space-based mission needs. It is based on GAO reports on space programs and weapon system acquisition best practices over the past 6 years; space-related work supporting GAO's 2015 weapon system assessments and GAO's 2014 report on duplication, overlap, and fragmentation; updates on cost increases and improvements; and preliminary observations from ongoing work. The updates are based on GAO analysis of DOD funding estimates for selected major space system acquisition programs for fiscal years 2014 through 2019. Ongoing work includes analyzing program status documents, reviewing acquisition strategies, and interviewing relevant DOD officials and contractors.

What GAO Recommends

Past GAO reports have generally recommended that DOD adopt best practices for developing space systems. DOD has agreed and is currently implementing those practices. Consequently, GAO is not making any recommendations in this testimony.

View GAO--15-492T. For more information, contact Cristina T. Chaplain at (202) 512-4841 or chaplainc@gao.gov.

What GAO Found

In recent and ongoing work, GAO has found that several space system acquisitions have largely overcome acquisition challenges—such as matching resources to requirements, facilitating competition, and parts quality issues—and are producing and launching satellites. But other programs continue to face difficulties, both in technology development and in ensuring ground and user systems are delivered in time to maximize a satellite's capability. Specifically:

- GAO reported in 2015 that, while the most recent Global Positioning System (GPS) III satellite program took steps to avoid past problems with satellite acquisitions, it is facing more than a 2-year delay for its satellite launch due to development problems. A complete GPS III satellite has not yet been tested, and the program is now rebaselining its cost estimates as a result of the schedule delay and associated increased costs.

- The next-generation ground system needed to operate GPS satellites has experienced significant schedule delays and cost growth, and is still facing technical challenges. During development, the contractor encountered problems that led to significant rework, delaying the delivery of the ground system. As a result, as GAO's ongoing work for this committee is finding, some GPS satellite capability will likely go unused for several years while the capability of the ground system catches up to the functionality of the satellites.

- While new missile warning satellites are now on orbit after years of delays and significant cost growth, the ground system needed to operate the satellites is still in development, meaning the satellites cannot be fully utilized—complete and usable data from the satellites will not be available until over 5 years after the first satellite was launched, based on recent updates.

The Department of Defense (DOD) also faces challenges in providing future space-based capabilities. In October 2014, GAO reported that fiscal constraints and growing threats to space systems have led DOD to consider alternatives such as disaggregating—or breaking up—large satellites into multiple, smaller satellites or payloads, and introducing competition into the acquisition of launch services. DOD is assessing options for future capabilities in several key mission areas through analyses of alternatives, comparing multiple potential solutions to satisfy capability needs. However, the time frames for making decisions about the way forward are narrowing, and if not made in time, DOD may be forced to continue with existing approaches for its next systems, as GAO reported in April 2015. Implementing any new approaches will be difficult if DOD does not overcome long-standing leadership problems for its space programs, including cultural resistance to acquisition process changes and fragmented responsibilities. More recently, DOD has taken steps to address some of these leadership challenges, though it is too early to tell whether such efforts will be effective.