



Highlights of [GAO-13-508T](#), a testimony before the Subcommittee on Strategic Forces, Committee on Armed Services, U.S. Senate

## SPACE ACQUISITIONS

### DOD Is Overcoming Long-Standing Problems, but Faces Challenges to Ensuring Its Investments Are Optimized

#### Why GAO Did This Study

Each year, DOD spends billions of dollars to acquire space-based capabilities that support military and other government operations. Just a few years ago, the majority of DOD's space programs were characterized by significant cost and schedule growth. In 2012, GAO reported that the worst of those space acquisition problems now appear to be behind the department. While new major satellite acquisitions are facing potential cost growth and schedule slips, they are not as widespread and significant as they were several years ago. However, the department still faces serious challenges, such as the high cost of launching satellites, fragmented satellite control operations, as well as disconnects between fielding satellites and synchronizing ground systems.

To address the progress DOD has made this year, this testimony focuses on (1) the current status and cost of DOD space systems acquisitions, (2) the results of GAO's space system-related reviews this past year, and (3) recent actions taken to address acquisition problems. This testimony is based on previously issued GAO products over the past 5 years, interviews with DOD officials, and an analysis of DOD funding estimates.

GAO is not making recommendations in this testimony. However, in previous reports, GAO has generally recommended that DOD adopt best practices for developing space systems. DOD agreed and is in the process of implementing such practices. DOD agreed with GAO's characterization of recent actions it has taken to improve space acquisitions.

View [GAO-13-508T](#). For more information, contact Cristina Chaplain at (202) 512-4841 or [chaplainc@gao.gov](mailto:chaplainc@gao.gov).

#### What GAO Found

Most of the Department of Defense's (DOD) major satellite programs are in mature phases of development, that is, the initial satellites have been designed, fabricated, and launched into orbit while additional satellites of the same design are being produced. For the portfolio of major satellite programs, new cost and schedule growth is not as widespread as it was in prior years, but DOD is still experiencing problems. For example, total program costs have increased approximately \$180 million from a baseline of \$4.1 billion for one of two satellite programs that are in the earlier phases of acquisition. Though satellite programs are not experiencing problems as widespread as in years past, ground control systems and user terminals in most of DOD's major space system acquisitions are not optimally aligned, leading to underutilized satellites and limited capability provided to the warfighter. For example, the development and fielding of user terminals for a Navy communications satellite program lag behind the launch of new satellites by more than a year. Additionally, the development of ground software needed to extract capabilities of new missile warning satellites is not expected to be complete until at least 2018, even though satellites are being launched. Another acquisition challenge facing DOD is the cost of launching satellites into space, which range from around \$100 million to over \$200 million per launch.

Recent GAO space system-related reviews highlight other difficulties facing the space community as it has sought to mitigate rising costs and deliver modernized capabilities. For instance, in July 2012 GAO reported that DOD had numerous efforts in progress to address knowledge gaps and data deficiencies in its Evolved Expendable Launch Vehicle acquisition strategy. However, GAO also reported that more action was needed to identify opportunities to leverage the government's buying power through increased efficiencies in launch acquisitions. In April 2013 GAO reported that satellite control networks are fragmented and potentially duplicative. Moreover, GAO found that DOD faced barriers—such as lacking long-term plans and reliable cost data—that complicate its ability to make improvements to its satellite control networks and adopt commercial practices. GAO recommendations included determining business cases for proceeding with either dedicated or shared satellite control networks for future satellite programs and implementing commercial practices to improve DOD satellite control networks.

Congress and DOD continue to take steps towards reforming the defense acquisition system to increase the likelihood that acquisition programs will succeed in meeting planned cost and schedule objectives. For instance, in response to legislation passed in 2009, DOD has taken steps that should help improve the department's acquisition process and create more executable programs, such as developing performance measures to assess acquisition program activities. DOD has also undertaken actions such as chartering senior-level reviews of space programs and participating in governmentwide space councils. The changes DOD has been making to leadership and oversight appear to be increasing senior management attention on space programs, but it is unclear whether the changes will overcome the problems GAO has identified with fragmented leadership in the past.