

## Why GAO Did This Study

The Department of Defense (DOD) and the National Reconnaissance Office (NRO) plan to spend about \$15 billion for launch services from fiscal year 2013 to fiscal year 2017 through DOD's Evolved Expendable Launch Vehicle (EELV) program. The program launches satellites for military, intelligence, civil, and commercial customers. In 2009, DOD and the NRO decided the program's business model needed improvement, and initiated studies to determine the best approach. The studies addressed potential business models, cost reductions, and the nation's assured access to space. Given expected changes to the EELV acquisition strategy, GAO was asked to (1) determine whether DOD has the knowledge it needs to develop a new EELV acquisition strategy, and (2) identify issues that could benefit future launch acquisitions. To address these questions, GAO reviewed launch studies, a supplier survey, and interviewed DOD and other officials.

## What GAO Recommends

Among other things, GAO recommends DOD assess engine costs and mission assurance activities, reassess the length of the proposed block buy, and consider how to address broader launch acquisition and technology development issues. DOD generally concurred with the recommendations.

## EVOLVED EXPENDABLE LAUNCH VEHICLE

### DOD Needs to Ensure New Acquisition Strategy Is Based on Sufficient Information

## What GAO Found

DOD officials believe the launch industrial base is unstable and plan to implement an acquisition strategy they believe will help stabilize it. The leading proposal would commit the government to a block buy of eight common booster cores—the main component of a launch vehicle—each year, for a 5-year term. However, this approach may be based on incomplete information and although DOD is gathering data that it needs as it finalizes the new acquisition strategy, some critical knowledge gaps remain. DOD expects the strategy to be finalized in the next few months, but this may not allow DOD sufficient time to leverage the knowledge it continues to gain as it develops the strategy. DOD analysis on the health of the U.S. launch industrial base is minimal, and officials continue to rely on contractor data and analyses in lieu of conducting independent analyses. Additionally, some subcontractor data needed to negotiate fair and reasonable prices are lacking, according to Defense Contract Audit Agency (DCAA) reports, and some data requirements were waived in 2007 in exchange for lower prices. Mission assurance comprises numerous activities to ensure launch success, but DOD has little insight into the sufficiency or excess of these activities. The expected block buy may commit the government to buy more booster cores than it needs, and could result in a surplus of hardware requiring storage and potentially rework if stored for extended periods. Also, DOD is gaining insight into the rise in some engine prices, expected to increase dramatically in the near term, but it is unclear how this knowledge will inform the expected acquisition approach or subsequent negotiations. Program decisions at the National Aeronautics and Space Administration (NASA) later this year could impact EELV engine prices, but DOD may lock in higher prices before it fully understands NASA's plans. Further, DOD intends to allow companies other than the current sole-source contractor to compete for EELV launches as they prove vehicle reliability, but DOD is still developing criteria to facilitate this competition. A recent memorandum of understanding between the Air Force, NRO, and NASA committed to publish a coordinated certification strategy by July 31, 2011, but did not meet that date.

Broader issues exist as well, regarding the U.S. government's acquisition of, and future planning for, launch services—issues which GAO believes should be addressed, given that they could reduce launch costs and assure future launch requirements are met. For example,

- Federal agencies—like the Air Force, NRO, and NASA—could more closely coordinate their acquisitions of launch services, and recently committed to do so, but many details are yet to be determined.
- Resource planning focused on launch technology development could inform the next generation of launch vehicles particularly with respect to engines, for which the United States is partially reliant on foreign suppliers.

Policymakers could benefit from additional insight into these issues, but it is not clear that DOD will address these issues in its upcoming strategy.