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SPACE ACQUISITIONS

DOD Needs Additional Knowledge as it Embarks on a New Approach for Transformational Satellite Communications System

GAO Accountability·Integrity·Reliability

Highlights

Highlights of GAO-06-537, a report to congressional committees

Why GAO Did This Study

The Department of Defense (DOD) wants to create a networked force where soldiers and systems are able to operate together seamlessly. To help facilitate this transformation, DOD began the Transformational Satellite Communications System (TSAT) program in January 2004. We reported in 2003 that TSAT was about to begin without sufficiently mature technology. In this report, at your request, we followed up with an assessment of (1) how the TSAT program is progressing, and (2) whether the program is using an acquisition approach that will provide the knowledge needed to enter product development.

What GAO Recommends

We are recommending that, before entering product development, DOD: (1) reassess the value of TSAT in broader context of other DOD investments, using updated knowledge on likely cost, schedule, technology, and initial capability; (2) update requirements in coordination with the TSAT user community; (3) demonstrate the maturity of all critical technologies; and (4) establish new cost, schedule, and performance goals. In commenting on the report, DOD agreed with the recommendations.

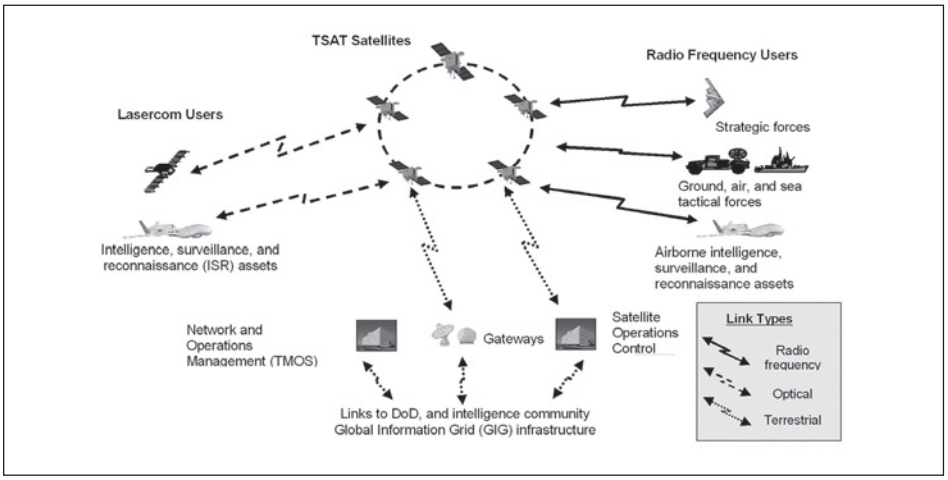
www.gao.gov/cgi-bin/getrpt?GAO-06-537.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Mike Sullivan at (202) 512-4841 or sullivanm@gao.gov.

What GAO Found

The Department of Defense is not meeting original cost, schedule, and performance goals established for the TSAT program. When the program was initiated in 2004, DOD estimated TSAT's total acquisition cost to be $15.5 billion and that it would launch the first satellite in April 2011. TSAT's current formal cost estimate is nearly $16 billion and the initial launch date has slipped to September 2014—a delay of over three years. Furthermore, while the performance goal of the full five-satellite constellation has not changed, the initial delivery of capability will be less than what DOD originally planned. After DOD established initial goals for TSAT, Congress twice reduced the program's funding due to concerns about technology maturity and the aggressiveness of the acquisition schedule. DOD developed the initial goals before it had sufficient knowledge about critical TSAT technologies.

DOD is taking positive steps to lower risk in the TSAT program so it can enter the product development phase with greater chance of success. However, as DOD prepares to implement a new incremental development approach for the program, it faces gaps in knowledge that could hamper its success. An incremental development will mean reduced capabilities in the initial satellites and more advanced capabilities in the remaining satellites. Given this change, it will be important for DOD to update requirements in coordination with the TSAT user community. While senior DOD officials have agreed to these reduced capabilities to get the first satellite launched in 2014, DOD has yet to reevaluate its investment in TSAT in light of other DOD investments using the knowledge it has now gained. Using this new knowledge, DOD could be in a better position to set more realistic goals, before entering product development.



Source: Air Force.