



Highlights of [GAO-10-478T](#), a testimony before the Subcommittees on Air and Land Forces and Seapower and Expeditionary Forces, Committee on Armed Services, U.S. House of Representatives

Why GAO Did This Study

The F-35 Lightning II, also known as the Joint Strike Fighter (JSF), is the Department of Defense's (DOD) most costly and ambitious aircraft acquisition, seeking to simultaneously develop and field three aircraft variants for the Air Force, Navy, Marine Corps, and eight international partners. The JSF is critical for recapitalizing tactical air forces and will require a long-term commitment to very large annual funding outlays. The current estimated investment is \$323 billion to develop and procure 2,457 aircraft.

This statement draws substantively from GAO's March 19, 2010 report ([GAO-10-382](#)). That report discusses JSF costs and schedules, warfighter requirements, manufacturing performance, procurement rates, and development testing plans. This statement also provides an updated analysis of relative costs and benefits from a second (or alternate) engine program.

In previous years, we recommended, among other things, that DOD rethink plans to cut test resources, improve reliability of cost estimates, and reduce the number of aircraft procured before testing demonstrates their performance capabilities. In our March 2010 report, we recommended that DOD (1) make a new, comprehensive assessment of the program's costs and schedule and (2) reassess warfighter requirements. DOD concurred with both recommendations.

View [GAO-10-478T](#) or [key components](#). For more information, contact Michael J. Sullivan at (202) 512-4841 or sullivanm@gao.gov.

JOINT STRIKE FIGHTER

Significant Challenges and Decisions Ahead

What GAO Found

The JSF program continues to struggle with increased costs and slowed progress—negative outcomes that were foreseeable as events have unfolded over several years. Total estimated acquisition costs have increased \$46 billion and development extended 2 ½ more years, compared to the approved program baseline approved in 2007. Aircraft unit costs will likely exceed the thresholds established by the statutory provision referred to as Nunn McCurdy and may require DOD to recertify the need for the JSF to Congress. The program is at risk for not delivering aircraft quantities and capabilities on time. Dates for achieving initial operational capabilities may have to be extended or some requirements deferred to future upgrades. DOD leadership is taking some positive steps that should reduce risk and provide more realistic cost and schedule estimates. Officials increased time and funding for system development, added four aircraft to the flight test program, and reduced near-term procurement quantities. If effectively implemented, these actions should improve future program outcomes. Currently, however, manufacturing JSF test aircraft continues to take more time, money, and effort than budgeted, hampering the development flight test program. Slowed by late aircraft deliveries and low productivity, the flight test program only completed 10 percent of the sorties planned during 2009. Although restructuring actions should help, there is still substantial overlap of development, test, and production activities while DOD continues to invest in large quantities of production aircraft before variant designs are proven and performance verified. Under the current plan, DOD may procure as many as 307 aircraft at a total estimated cost of \$58.2 billion before development flight testing is completed.

Our updated analysis on engine costs shows that, without competition, an estimated \$62.5 billion (engine costs in the analysis are expressed in fiscal year 2002 dollars) will be needed over the remainder of the F135 primary engine effort to cover costs for completing system development, procuring 2,443 engines, production support, and sustainment. Additional investment of between \$4.5 billion to \$5.7 billion may be required should the department continue competition. Under certain assumptions, the additional costs of continuing the F136 alternate engine program could be recouped if competition were to generate approximately 10.1 to 12.6 percent savings over the life of the program. Air Force data on the first 4 years of competition for engines on the F-16 aircraft projected they would recoup at least that much. Actual savings will ultimately depend on factors such as the number of aircraft actually purchased, the ratio of engines awarded to each contractor, and when the competition begins. Competition may also provide non-quantifiable benefits with respect to better contractor responsiveness, technical innovation and improved operational readiness.