



Highlights of [GAO-07-656T](#), a testimony before the Subcommittees on Air and Land Forces, and Seapower and Expeditionary Forces, Committee on Armed Services, House of Representatives

## Why GAO Did This Study

The Joint Strike Fighter (JSF) is the linchpin of future Department of Defense (DOD) tactical aircraft modernization efforts because of the sheer size of the program and its envisioned role as the replacement for hundreds of aircraft that perform a wide variety of missions in the Air Force, Navy, and Marine Corps. DOD implemented the JSF alternate engine development program in 1996 to provide competition between two engine manufacturers in an effort to achieve cost savings, improve performance, and gain other benefits. This testimony focuses on GAO's cost analysis performed in response to Section 211 of the John Warner National Defense Authorization Act for Fiscal Year 2007. We examined the following areas: (1) sole-source and competitive scenarios for development, production, and sustainment of the JSF engine, (2) results of past engine programs and their related strategies, and (3) impact on the industrial base in the event of the complete cancellation of the JSF alternate engine program. DOD did not provide comments on our findings.

[www.gao.gov/cgi-bin/getrpt?GAO-07-656T](http://www.gao.gov/cgi-bin/getrpt?GAO-07-656T).

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](mailto:sullivanm@gao.gov).

## DEFENSE ACQUISITIONS

### Analysis of Costs for the Joint Strike Fighter Engine Program

#### What GAO Found

- Continuing the alternate engine program for the Joint Strike Fighter would cost significantly more than a sole-source program but could, in the long run, reduce costs and bring other benefits. The current estimated life cycle cost for the JSF engine program under a sole-source scenario is \$53.4 billion. To ensure competition by continuing to implement the JSF alternate engine program, an additional investment of \$3.6 billion to \$4.5 billion may be required. However, the associated competitive pressures from this strategy could result in savings equal to or exceeding that amount. The cost analysis we performed suggests that a savings of 10.3 to 12.3 percent would recoup that investment, and actual experience from past engine competitions suggests that it is reasonable to assume that competition on the JSF engine program could yield savings of at least that much. In addition, DOD-commissioned reports and other officials have said that nonfinancial benefits in terms of better engine performance and reliability, improved industrial base stability, and more responsive contractors are more likely outcomes under a competitive environment than under a sole-source strategy.
- DOD experience with other aircraft engine programs, including the F-16 fighter in the 1980s, has shown competitive pressures can generate financial benefits of up to 20 percent during the life cycle of an engine program and/or improved quality and other benefits.
- The potential for cost savings and performance improvements, along with the impact the engine program could have on the industrial base, underscores the importance and long-term implications of DOD decision making with regard to the final acquisition strategy solution.