



Highlights of [GAO-08-388](#), a report to Congressional Committees

## Why GAO Did This Study

The Joint Strike Fighter (JSF) program seeks to produce and field three aircraft variants for the Air Force, Navy, Marine Corps, and eight international partners. The estimated total investment for JSF now approaches \$1 trillion to acquire and maintain 2,458 aircraft.

Under congressional mandate, GAO has annually reviewed the JSF program since 2005. GAO's prior reviews have identified a number of issues and recommended actions for reducing risks and improving the program's outcomes.

This report, the fourth under the mandate, focuses on the program's progress in meeting cost, schedule, and performance goals; plans and risks in development and test activities; the program's cost-estimating methods; and future challenges facing the program.

To conduct its work, GAO identified changes in cost and schedule from prior years and their causes, evaluated development progress and plans, assessed cost-estimating methodologies against best practices, and analyzed future budget requirements.

## What GAO Recommends

GAO recommends that DOD revisit and, if appropriate, revise the Mid-Course Risk Reduction Plan to address concerns about testing, use of management reserves, and manufacturing. GAO also recommends action to improve the reliability and fidelity of the JSF cost estimate. DOD substantially agreed.

To view the full product, including the scope and methodology, click on [GAO-08-388](#). For more information, contact Michael J. Sullivan (202) 512-4841 or [sullivanm@gao.gov](mailto:sullivanm@gao.gov).

# JOINT STRIKE FIGHTER

## Recent Decisions by DOD Add to Program Risks

### What GAO Found

Since last year's report, the JSF program office estimates that total acquisition costs increased by more than \$23 billion, primarily because of higher estimated procurement costs. The JSF development cost estimate stayed about the same. Development costs were held constant by reducing requirements, eliminating the alternate engine program, and spending management reserve faster than budgeted. Facing a probable contract cost overrun, DOD implemented a Mid-Course Risk Reduction Plan to replenish management reserves from about \$400 million to about \$1 billion by reducing test resources. Progress has been reported in several important areas, including partner agreements, first flights of a JSF prototype and test bed, and a more realistic procurement schedule.

The midcourse plan carries the risk of design and performance problems not being discovered until late in the operational testing and production phases, when it is significantly more costly to address such problems. The plan also fails to address the production and schedule concerns that depleted management reserves. Cost and schedule pressures are mounting. Two-thirds of budgeted funding for JSF development has been spent, but only about one-half of the work has been completed. The contractor is on its third, soon to be fourth, manufacturing schedule, but test aircraft in manufacturing are still behind, the continuing impacts of late designs, delayed delivery of parts, and manufacturing inefficiencies.

We believe that JSF costs will likely be much higher than reported. The estimates do not include all costs, including about \$6.8 billion for the alternate engine program. In addition, some assumptions are overly optimistic and not well documented. Three independent defense offices separately concluded that program cost estimates are understated by as much as \$38 billion and that the development schedule is likely to slip from 12 to 27 months. Discrepancies in cost estimates add to program risks and hinder congressional oversight. Even so, DOD does not plan for another fully documented, independent total program life-cycle cost estimate until 2013.

As JSF finalizes the three designs, matures manufacturing processes, conducts flight tests, and ramps up production, it faces significant challenges. JSF's goal—to develop and field an affordable, highly common family of strike aircraft—is threatened by rising unit procurement prices and lower commonality than expected. The program also makes unprecedented funding demands—an average of \$11 billion annually for two decades—and must compete with other defense and nondefense priorities for the shrinking federal discretionary dollar. Further, expected cost per flight hour now exceeds that of the F-16 legacy fighter, one of the aircraft it is intended to replace. With almost 90 percent (in terms of dollars) of the acquisition program still ahead, it is important to address these challenges, effectively manage future risks, and move forward with a successful program that meets our and our allies' needs.