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JOINT STRIKE FIGHTER

Progress Made and Challenges Remain

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Highlights

Highlights of GAO-07-360, a report to congressional committees

Why GAO Did This Study

The Joint Strike Fighter (JSF) program—a multinational acquisition program for the Air Force, Navy, Marine Corps, and eight cooperative international partners—is the Department of Defense's (DOD) most expensive aircraft acquisition program. DOD currently estimates it will spend $623 billion to develop, procure, and operate and support the JSF fleet. The JSF aircraft, which includes a variant design for each of the services, represents 90 percent of the remaining planned investment for DOD's major tactical aircraft programs. In fiscal year 2004, the JSF program was rebaselined to address technical challenges, cost increases, and schedule overruns.

This report—the third mandated by Congess—describes the program's progress in meeting cost, schedule, and performance goals since rebaselining and identifies various challenges the program will likely face in meeting these goals in the future.

What GAO Recommends

GAO is recommending that DOD limit annual production quantities to no more than 24 aircraft per year until each variant's basic flying qualities have been demonstrated in flight testing now scheduled in the 2010 time frame. DOD non-concurred, believing its current strategy provides a balance of technical risk, financial constraints, and operational needs.

www.gao.gov/cgi-bin/getrpt?GAO-07-360.

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

What GAO Found

The JSF program has delivered and flown the first development aircraft. However, cost and schedule goals established in the fiscal year 2004 rebaselined program have not been met. Total JSF program acquisition costs (through 2027) have increased by $31.6 billion and now DOD will pay 12 percent more per aircraft than expected in 2004. The program has also experienced delays in several key events, including the start of the flight test program, delivery of the first production representative development aircraft, and testing of critical missions systems. Delays in the delivery of initial development aircraft were driven by incomplete engineering drawings, changes in design, manufacturing inefficiencies, and parts shortages. Despite these delays, the program still plans to complete development in 2013, compressing the amount of time available for flight testing and development activities. Also, the program projects it will meet all but one key performance requirement—line of sight communications---that is currently dependent on other capabilities being developed outside the JSF program.

Accurately predicting JSF costs and schedule and ensuring sufficient funding will likely be key challenges facing the program in the future. JSF continues to pursue a risky acquisition strategy that concurrently develops and produces aircraft. While some concurrency may be beneficial to efficiently transition from development to production, the degree of overlap is significant on this program. Any changes in design and manufacturing that require modifications to delivered aircraft or to tooling and manufacturing processes would result in increased costs and delays in getting capabilities to the warfighter. Low-rate initial production will begin this year with almost the entire 7-year flight test program remaining to confirm the aircraft design. Confidence that investment decisions will deliver expected capability within cost and schedule goals increases as testing proves the JSF will work as expected. The JSF program also faces funding uncertainties as it will demand unprecedented funding over the next 2 decades—more than $12.6 billion a year on average through 2027.

Overlap of Production Investments and Testing

	2007	2008	2009	2010	2011	2012	2013
Cumulative production investment (in billions of dollars)	$0.9	$3.7	$7.4	$13.5	$20.4	$31.0	$41.9
Cumulative aircraft	2	14	30	60	103	185	275
Percentage of flight test program completed	1%	3%	13%	35%	56%	77%	98%

Limited knowledge gained from flight tests → More knowledge gained from flight tests

Increasing confidence in investment outcomes

Source: DOD data, as of February 2007; GAO analysis and presentation.