

Highlights of [GAO-06-447](#), a report to the Committee on Armed Services, U.S. Senate

**Why GAO Did This Study**

Through 2011, the Department of Defense (DOD) plans to spend \$20 billion to significantly increase its inventory of unmanned aircraft systems, which are providing new intelligence, surveillance, reconnaissance, and strike capabilities to U.S. combat forces—including those in Iraq and Afghanistan.

Despite their success on the battlefield, DOD’s unmanned aircraft programs have experienced cost and schedule overruns and performance shortfalls. Given the sizable planned investment in these systems, GAO was asked to review DOD’s three largest unmanned aircraft programs in terms of cost. Specifically, GAO assessed the Global Hawk and Predator programs’ acquisition strategies and identified lessons from these two programs that can be applied to the Joint Unmanned Combat Air Systems (J-UCAS) program, the next generation of unmanned aircraft.

**What GAO Recommends**

GAO recommends that DOD (1) limit Global Hawk production until the program demonstrates an integrated system and develops a new business case to justify future investments and (2) develop a sound business case and acquisition strategy for J-UCAS and follow-on efforts to ensure cost and schedule goals are met. DOD did not concur with our Global Hawk recommendations because it believes it is taking appropriate measures to manage risk.

[www.gao.gov/cgi-bin/getrpt?GAO-06-447](http://www.gao.gov/cgi-bin/getrpt?GAO-06-447).

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](mailto:sullivanm@gao.gov).

**UNMANNED AIRCRAFT SYSTEMS**

**New DOD Programs Can Learn from Past Efforts to Craft Better and Less Risky Acquisition Strategies**

**What GAO Found**

While the Global Hawk and Predator both began as successful demonstration programs, they adopted different acquisition strategies that have led to different outcomes. With substantial overlap in development, testing, and production, the Global Hawk program has experienced serious cost, schedule, and performance problems. As a result, since the approved start of system development, planned quantities of the Global Hawk have decreased 19 percent, and acquisition unit costs have increased 75 percent. In contrast, the Predator program adopted a more structured acquisition strategy that uses an incremental, or evolutionary, approach to development—an approach more consistent with DOD’s revised acquisition policy preferences and commercial best practices. While the Predator program has experienced some problems, the program’s cost growth and schedule delays have been relatively minor, and testing of prototypes in operational environments has already begun.

Since its inception as a joint program in 2003, the J-UCAS program has experienced funding cuts and leadership changes, and the recent Quadrennial Defense Review has directed another restructuring into a Navy program to develop a carrier-based unmanned combat air system. Regardless of these setbacks and the program’s future organization, DOD still has the opportunity to learn from the lessons of the Global Hawk and Predator programs. Until DOD develops the knowledge needed to prepare solid and feasible business cases to support the acquisition of J-UCAS and other advanced unmanned aircraft systems, it will continue to risk cost and schedule overruns and delaying fielding capabilities to the warfighter.

	
Global Hawk	Predator
Sought quantum leap in capabilities	Incremental development of capabilities
Design relied on unproven technologies	Design relied more on proven technologies
Significant overlap of technology development, design, testing, and production	Moderate overlap of testing and production
Risk tolerant leadership	Strong direction to follow defense acquisition policy preferences
Funding optimistic and compressed in a few years	Funding realistic and balanced over time

Sources: Northrop Grumman Corporation and General Atomics-Aeronautical Systems, Inc. (pictures). GAO analysis of DOD program data.