



Highlights of [GAO-03-598](#), a report to the Subcommittee on Tactical Air and Land Forces, Committee on Armed Services, House of Representatives

## DEFENSE ACQUISITIONS

# Matching Resources with Requirements Is Key to the Unmanned Combat Air Vehicle Program's Success

### Why GAO Did This Study

The Department of Defense (DOD) is developing a new unmanned combat air vehicle (UCAV) that can suppress enemy air defenses and conduct other air-to-ground attacks, particularly against heavily defended targets. Because it may perform these missions at a relatively low cost, the UCAV could be used to replace some of DOD's aging tactical aircraft fleet. A key to UCAV's success will lie in DOD's ability to match users' needs, or requirements, with the developer's resources (technology and design knowledge, money, and time) when product development begins. Our work shows that doing so can prevent rework and save both time and money. Therefore, we assessed DOD's ability to make this match. GAO conducted its work on the basis of the Comptroller General's authority and addresses the report to the Subcommittee because of its interest and jurisdiction in the program.

### What GAO Recommends

We recommend that DOD develop a joint UCAV acquisition approach that balances requirements and resources at the start of product development. We also recommend that the Secretary formalize the UCAV management role performed by his office, ensure that the services are fully involved in the process, and work to develop an efficient approach to transition the UCAV to the product development phase so the needs of the war fighter can be met more quickly.

[www.gao.gov/cgi-bin/getrpt?GAO-03-598](http://www.gao.gov/cgi-bin/getrpt?GAO-03-598).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Paul Francis at (202) 512-2811 or [francisp@gao.gov](mailto:francisp@gao.gov).

### What GAO Found

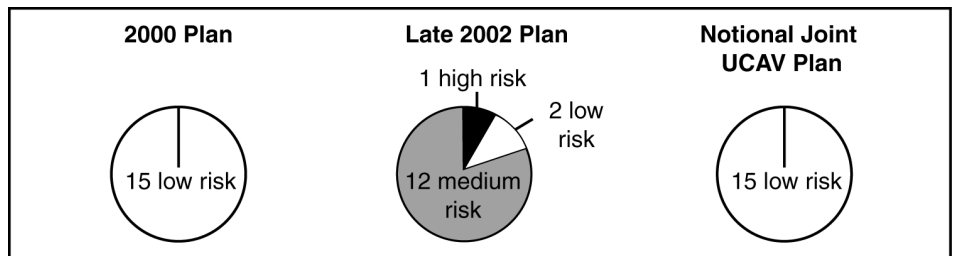
The UCAV program's original performance objectives posed manageable challenges to build an affordable, highly survivable, and lethal weapon system. The Air Force, however, added requirements for electronic attack and increased flying range after DOD accelerated the program's product development schedule by 3 years. These changes widened the gap between the customer's requirements and the developer's resources, specifically time, reducing the probability that the program would deliver production aircraft on cost, on schedule, and with anticipated performance capabilities.

DOD has recently decided to adopt a new joint service approach to UCAV development that provides more time to close the requirements—resource gap before product development starts. It appears DOD may add new content because it is proposing to build a new prototype that would be a larger air vehicle, capable of flying and carrying out combat missions for longer periods of time. To reduce technical risk, DOD anticipates delaying the start of product development for several years in order to address new requirements.

As a gap between resources and requirements widened in 2002, risks projected for the start of product development with UCAV's 15 technologies, processes and system attributes increased significantly. The new joint plan brings the risks back down. This action also allows competition back into the UCAV development effort.

DOD will still face challenges in controlling joint, multimission requirements and ensuring that both services continue to provide funds for the program while also funding other large aircraft investments. If these challenges are not met, the gap between requirements and resources could resurface. DOD's role will continue to be instrumental in helping to negotiate requirements, assure resources are in place, and make difficult program trade-offs.

Risk Levels Projected at Start of Product Development under Different UCAV Plans



Source: GAO analysis.