

Why GAO Did This Study

Aerial refueling allows U.S. military aircraft to fly further, stay airborne longer, and carry more weapons, equipment, and supplies. Yet the mainstay of U.S. tanker forces—the KC-135 Stratotanker—is over 50 years old. It is increasingly costly to support and its age-related problems could potentially ground the fleet. As a result, the Air Force has initiated the \$52 billion KC-46 program to replace the aerial refueling fleet. The program plans to produce 18 tankers by 2017 and 179 aircraft by 2027.

The National Defense Authorization Act for Fiscal Year 2012 requires GAO to annually review the KC-46 program through 2017. This report addresses (1) progress made in 2012 toward cost, schedule, and performance goals, (2) identified program challenges, and (3) program risk mitigation tools. To address these areas, GAO reviewed key program documents, discussed development plans and results with officials from the KC-46 program office, other defense offices, and the prime contractor, Boeing. GAO assessed the program's development schedule and technology risks. GAO also assessed the program's acquisition plan to determine compliance with acquisition legislation and acquisition best practices.

What GAO Recommends

GAO recommends that the Department of Defense (DOD) analyze the root causes for the rapid allocation of management reserves and improve the KC-46 master schedule. DOD fully concurred with these recommendations.

View [GAO-13-258](#). For more information, contact Michael J. Sullivan at (202) 512-4841, or sullivanm@gao.gov.

KC-46 TANKER AIRCRAFT

Program Generally Stable but Improvements in Managing Schedule Are Needed

What GAO Found

The KC-46 program 2012 estimates for cost, schedule, and performance are virtually the same as last year's, with the contractor running very close to the planned budget and schedule. Development work is more than one-fourth complete and a successful preliminary design review was held on schedule in April 2012. In response to a prior GAO recommendation, the program now has fully implemented metrics to measure the progress toward its key performance parameters and expects to meet these requirements. There are two areas of concern regarding program cost: first, both the contractor and government estimate the cost of development will exceed the contract ceiling price of \$4.9 billion (although government liability is capped at that ceiling); and second, the contractor has already allocated about 80 percent of the management reserves budget, primarily for identified, yet unresolved, development risks, with the bulk of work—about 5 years—remaining. GAO maintains that significant use of these funds early in a program may indicate problems. The program has not yet evaluated how the significant use of these funds early could impact future milestones.

With development generally stable, the program is addressing, in varying degrees, some key challenges. First, defense, contractor, and federal aviation officials all identify the flight test schedule as a substantive concern. An integrated test team continues to evaluate and adjust flight test plans ahead of the 2015 start. Second, the contractor must still complete a significant number of engineering drawings needed for the upcoming critical design review; about three-fifths are complete and some lower level subsystem reviews are behind schedule. Third, the contractor is still in the process of relocating key personnel and establishing facilities needed for integrating defense equipment after deciding to close the original location. Additional work continues to more fully mature critical technologies, solidify software plans, address growth in aircraft weight, and ensure there are no design issues with the wing refueling pods and the boom refueling system. Program officials continue to monitor these issues to ensure they will not have major impacts.

The KC-46 program acquisition strategy and contract type are effective mechanisms for mitigating risks. The use of a fixed price contract limits government cost risk and technology risk is lessened by converting a commercial derivative aircraft into the KC-46 tanker. The KC-46 master schedule, acquisition plan, and management framework favorably compare with best practices and acquisition reform legislation, with some exceptions. For example, the master schedule met 7 of 10 best practices criteria, but did not include and sequence all activities and could have incorporated a broader range of uncertainty, leaving room to improve the schedule so program success is not jeopardized.