

Why GAO Did This Study

Aerial refueling—when aircraft refuel while airborne—allows the U.S. military to fly farther, stay airborne longer, and transport more weapons, equipment, and supplies. The Air Force initiated the KC-46 program to replace its aging KC-135 aerial refueling fleet. Boeing was awarded a fixed price incentive contract with a ceiling price of \$4.9 billion to develop the first four aircraft, which will be used for testing. Boeing is contractually required to deliver the four development aircraft between April and May 2016. Boeing is also required to deliver a total of 18 aircraft by August 2017, which could include some of the development aircraft if they are brought to operational configuration. The program plans to eventually field 179 aircraft in total.

The National Defense Authorization Act for Fiscal Year 2012 included a provision for GAO to review the KC-46 program annually through 2017. This report addresses progress made in 2015 toward (1) meeting cost and performance goals and (2) delivering the aircraft on schedule. GAO analyzed key cost, schedule, development, test, and manufacturing documents and discussed results with officials from the KC-46 program office, other defense offices, the FAA, and Boeing, the prime contractor.

What GAO Recommends

GAO is not making recommendations at this time. DOD's technical comments on a draft are incorporated as appropriate in the final report.

View [GAO-16-346](#). For more information, contact Michael Sullivan at (202) 512-4841 or sullivanm@gao.gov.

KC-46 TANKER AIRCRAFT

Challenging Testing and Delivery Schedules Lie Ahead

What GAO Found

KC-46 tanker aircraft acquisition cost estimates have decreased for a third consecutive year and the prime contractor, Boeing, is expected to achieve all the performance goals, such as those for air refueling and airlift capability. As the table below shows, the total acquisition cost estimate has decreased from \$51.7 billion in February 2011 to \$48.2 billion in December 2015, about 7 percent, due primarily to stable requirements that led to fewer than expected engineering changes. The fixed price development contract also protects the government from paying for any development costs above the contract ceiling price.

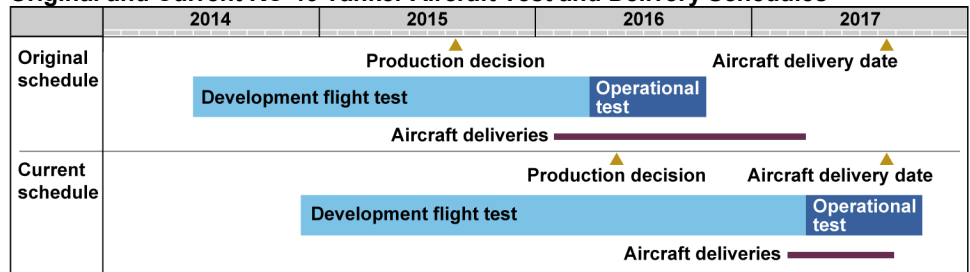
Changes in Total Program Acquisition Costs for the KC-46 Tanker Aircraft
(then-year dollars in millions)

	February 2011	December 2015	Change
Development	\$7,149.6	\$6,259.6	-12.4%
Procurement	\$40,236.0	\$38,764.9	-3.7%
Military Construction	\$4,314.6	\$3,187.5	-26.1%
Total	\$51,700.2	\$48,212	-6.7%

Source: GAO presentation of Air Force data. | GAO-16-346

Regarding the schedule, the program office delayed the low-rate initial production decision 9 months because Boeing had problems developing the first four aircraft. Boeing has largely addressed the problems, but proposed a new schedule to reflect the delays. (See figure below.) Boeing still plans to deliver 18 operational aircraft to the Air Force by August 2017—assuming the Air Force approves production. Operational testing will be completed later, in October 2017. While aircraft deficiencies could be discovered late, the plan presents little cost risk to the government because Boeing must correct deficiencies using its own resources. Boeing plans to deliver the aircraft over 6 months, instead of 14.

Original and Current KC-46 Tanker Aircraft Test and Delivery Schedules



Source: GAO analysis of KC-46 program data. | GAO-16-346

Note: The original schedule included delivery of four development aircraft in operational configuration by May 2016. Under the current schedule the last of these aircraft will be delivered by November 2017.

Boeing has a challenging road ahead to complete testing and deliver aircraft. Test officials believe Boeing's test schedule is optimistic and it may not have all aircraft available when needed to complete planned testing. Boeing also has not gotten several key aerial refueling parts qualified by the Federal Aviation Administration (FAA) and cannot get final FAA certification of KC-46 aircraft until this occurs. Program officials estimate there are 4 months of schedule risk to delivering 18 aircraft by August 2017 due to testing and parts qualification issues. Boeing is working on ways to mitigate the schedule risks.