

Air Force Aerial Refueling

Since the Cold War, aerial refueling tanker aircraft have been a key enabler of air power and of joint force operations. Tankers afford U.S. forces the ability to project global power on a moment's notice by increasing the range and effectiveness of fighters, bombers, and cargo aircraft—allowing them to fly farther, longer, faster, and more efficiently. Tankers allow for aircraft to take off with less fuel, and consequently more weapons, cargo, or personnel. Whether conducting a strategic strike mission or delivering humanitarian relief supplies, tankers make the difference in countless missions. Joint operations depend on tankers for range and endurance.

The history of aerial refueling dates back to the early 1900's. The first successful air to air refueling was conducted by the Army Air Force, the Air Force's predecessor, in 1923 using a hose to refuel one airplane from another. Despite achievements in aerial refueling during this period, it was treated with skepticism by those in charge through World War II. The need for long range strategic missions had not yet been fully recognized and further development lapsed. As relations between the United States and the Soviet Union began to deteriorate after the war, U.S. Army Air Force leaders began to realize that the distances between North America and the USSR were too far to fly. A means of extending the range of aircraft became immediate, and the first tankers were rapidly developed. Since then, tankers have been an integral part of air missions. During the Vietnam War, tankers greatly extended the range of fighters and bombers over the Pacific Ocean, and made it possible for damaged fighters leaking fuel to refuel their engines until they were able to get to a base to land. Tankers were also critical during this time to the search and rescue missions conducted by helicopters, which were required to fly long distances to rescue downed soldiers.

Recent conflicts only underscore the importance of aerial refueling. Tankers completed over 16,000 missions during Operation Desert Storm and have conducted even more missions in the Global War on Terrorism, providing heavy support to strike fighters operating deep in enemy territory and providing medical evacuation for wounded soldiers. The demand for aerial refueling is only expected to increase in the future with the increase of the ground component and increased reliance on CONUS basing. There are currently 477 KC-135s and 59 KC-10 tankers in our inventory. However, advanced age and demanding combat operations have created challenges and unforeseen problems for the Air Force's KC-135 fleet. The average age of the KC-135 is over 45 years old was procured during the Eisenhower and Kennedy Administrations. The tanker fleet is experiencing severe heat-induced corrosion, fatigue, and other aging problems that have drastically increased the costs of maintenance over the life of these airframes. An unforeseen problem with even one airframe in the KC-135 fleet would likely mean that the entire fleet would be required to stand down, grounding the vast majority of our refueling assets and leaving our military with very few alternatives available. If left without a dependable fleet of tankers, the military will be forced to field forward air bases near combat areas to enable sufficient ground-based refueling capability. Such a scenario would force the joint forces commander to expend significant resources to maintain secure airfields supplied with sufficient quantities of fuel to refuel combat aircraft.

The Air Force must begin replacing the current cost prohibitive and rapidly aging KC-135 with the KC-X immediately. The KC-X tanker will ensure aircraft availability and will provide greater capability than the current KC-135s. The KC-X is also expected to be capable of not just dispensing fuel in flight but also receiving fuel from other tankers, greatly enhancing its ability to provide fuel in the most efficient manner possible and providing maximum flexibility and reliability to the tanker fleet. The debate over how the KC-X will be procured continues, but the replacement of the KC-135 fleet remains the most important defense acquisitions issue for the next Administration.