

Air Force Recapitalization

Preparing for the threats of the 21st century demands significant investment in the U.S. Air Force. Whether deterring potential aggressors, gathering intelligence, supporting humanitarian relief operations, or striking strategic targets, the U.S. Air Force's capabilities are unrivaled and invaluable national assets. However, this preeminence cannot be taken for granted. The Air Force has spent the past 19 years engaged in multiple combat operations and is utilizing an aircraft fleet that averages nearly a quarter of a century in age—with some planes in the inventory dating back to the Eisenhower Administration.

The most obvious problem associated with this aging fleet is that old airplanes break more often and eventually are no longer airworthy. In the years since Desert Storm the average age of the Air Force fleet has increased by nearly a decade and the availability rate has dropped in a corresponding fashion. This means that since 1991 the percentage of time an aircraft is not broken and can fly a mission has fallen from 77 percent to 65 percent. Aside from these costly maintenance challenges, a number of dramatic airworthiness issues have also afflicted the Air Force fleet. In 2000 the service grounded one third of its KC-135 air refueling aircraft because of a faulty flight control component. In 2004 the Air Force discovered that many of its C-130s had major cracks in their wings. In 2007 an F-15 broke in two while on a training flight due to structural fatigue. In 2008 the entire T-38 fleet was grounded for an extended period because of an aging control surface fixture. Most recently, half of the A-10 fleet was grounded due to wing cracks. More problems are certain to arise as the age of the fleet continues to increase.

It is also important to consider that most next generation aircraft yield tremendous operational efficiencies that dramatically offset their higher per-unit acquisition cost and yield long-term savings. This performance increase was clearly demonstrated on the first night of Desert Storm when 20 new F-117 stealth fighters took the unprecedented step of attacking 28 separate targets. On the same night it took a combined force of 41 legacy non-stealth aircraft to strike one target—4 F/A-18s to defend against enemy aircraft, 3 drones to serve as decoys, 5 EA-6B aircraft to jam enemy radar, along with 4 F-4s and 17 F/A-18s to suppress enemy surface-to-air missiles so that 4 A-6s and 4 Tornados could strike one target. The full spectrum cost imposed by these legacy aircraft was tremendous—aircraft development and acquisition funding, operations and maintenance expenses, personnel bills, base access issues, etc. Viewed from this perspective, the encompassing price of new aircraft like the F-22 and F-35 is not so high.

Finally, the global threat environment is rapidly evolving and proliferation of modern weaponry is negating the survivability of the Air Force's legacy fleet. Over thirty nations operate fighter aircraft that equal or exceed the capabilities of the F-15 and F-16, whose designs respectively date back to the 1960s and 1970s. Nations such as Russia and China are also developing 5th generation fighters that will have F-22-like capabilities in F-35-like quantities. Additionally, dozens of nations operate surface-to-air missiles that can easily shoot down aircraft such as the B-1, B-52, F-15, F-16, F-18, Predator, Global Hawk, C-17 and more. Had the US Air Force been called upon to engage in the recent Georgian conflict, the B-2 and F-22 were the only aircraft in the US inventory that would have survived in the threat environment. US national security demands a broader array of effective capabilities than just 20 B-2s and 183 F-22s.

Despite the obvious need to recapitalize the Air Force fleet, current budget projections show that the problem will continue to get worse unless major corrective action is taken. The Air Force currently has sufficient funds to acquire 125 aircraft per year for the next 6 years. This means they are on a replacement schedule of over 45 years. Much of the fleet will not last this long. The Air Force needs 200 aircraft per year to make a modest reduction in average aircraft age, which requires about \$20B extra per year for the next few years. While this is a significant amount of money, US national security is too valuable to consider any other option.