

F-16 Fighting Falcon (the History of Development)

(an extract from the 1st volunteer-made self-study English manual)

(first draft)

Lightweight Fighter program

The Vietnam War showed the need for air superiority fighters and better air-to-air training.

The request for proposals issued by the United States Air Force (USAF) in 1972 called for a cost-effective air-to-air day Lightweight Fighter (LWF) with a good turn rate, acceleration, and range, and optimized for combat at speeds of Mach 0.6–1.6 and altitudes of 30,000–40,000 feet (9,100–12,000 m). It called for a small fighter aircraft that could maneuver with the minimum energy loss and incorporated an increased thrust-to-weight ratio.

The F-16 was one of the last purpose-designed day fighters that could be purchased in great numbers to establish air superiority. The F-16 quickly matured into a much more capable multi-role combat aircraft. Current models are all-weather capable and effective for air-to-ground attack.

Maiden Flight

The maiden flight of the prototype YF-16 was made in February 1974. It is worth noting that its actual first flight occurred accidentally during a high-speed taxi test in January 1974. While gathering speed, a roll-control oscillation caused a fin of the port-side wingtip-mounted missile and then the starboard stabilator to scrape the ground, and the aircraft then began to veer off the runway. The test pilot, decided to lift off to avoid a potential crash, safely landing six minutes later. You may want to watch the first 60 seconds of [this video](#) for details of F-16's accidental maiden flight.

First Production and Operation

The USAF ordered the F-16 in 1972. The first production variants were the F-16A (single seat) and F-16B (two seat) aircraft. These were built in production blocks.

The F-16 was originally designed and built by General Dynamics, which is now part of Lockheed Martin. It was designed using dependable components from other aircraft, including the F-15 and F-111. The airplane first flew in 1976.

The first FSD F-16s were manufactured by General Dynamics in late 1975. The single-seat F-16A first flew in December 1976. The first operational F-16A was delivered in January 1979. The aircraft entered operational service on 1 October 1980.

European co-production was also launched. The F-16 was built under an agreement creating a consortium between the United States and four NATO countries: Belgium, Denmark, the Netherlands and Norway. The consortium's F-16s were assembled from components manufactured in all five countries.

F-16's Worldwide Usage and Prospects

The airplane has been used by more than 25 [air forces](#) around the world. It is also used by the [Thunderbirds](#), the USAF's [aerobatics team](#). Over 4,600 F-16s have been built. There have been more F-16s in military use than any other [fixed-wing aircraft](#).

The F-16 had been [scheduled](#) to [remain in service](#) with the USAF until 2025. Its [replacement](#) was planned to be the [F-35A variant](#) of the Lockheed Martin [F-35 Lightning II](#). In 2022, it was announced the USAF would continue to [operate](#) the F-16 for another two decades. The latest F-16 variant is presumably projected to [secure the operations](#) of the F-16 [fleet](#) until 2060 and even beyond.