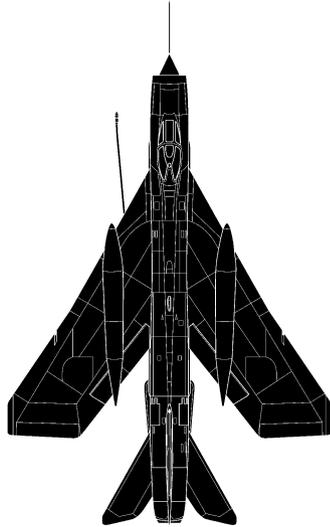


## Lightning



The Lightning was the first and only British-built fighter to have Mach 2 capability. The sophisticated English Electric design featured a unique vertically mounted two-engine setup, which gave a 100 percent increase in power with only a 50 percent increase in drag. The well-designed Lightning was aerodynamically far more advanced than its contemporaries. It was widely known for its blazing speed and unpainted natural metal finish.

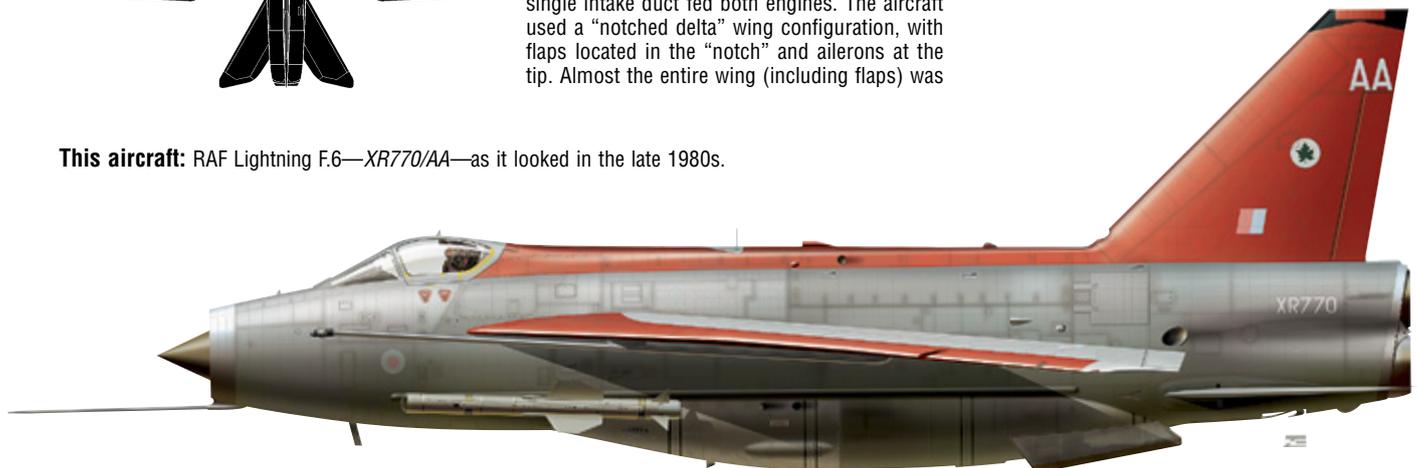
EE used experimental and preproduction prototypes to prove the design. Good results led to an RAF order for 50 F.1 Lightnings, the first of which arrived in 1959. The fighter was of an all-metal construction, with the cockpit well forward and the engines installed in the center section. The single intake duct fed both engines. The aircraft used a “notched delta” wing configuration, with flaps located in the “notch” and ailerons at the tip. Almost the entire wing (including flaps) was

used for fuel storage, but for most of its career, the aircraft lacked the desired range. The tail section was mounted low on the fuselage.

The aircraft was relatively easy to fly, but required extensive maintenance. Fuel leaks in the “under/over” engine arrangement created a fire hazard. With an initial climb rate of 50,000 feet per minute, the Lightning was perfect for the interceptor role. It did not mature as a multirole fighter until 1964. Then, the installation of a ventral fuel tank and modification of the wing resulted in the highly capable Lightning F.6.

—Walter J. Boyne

**This aircraft:** RAF Lightning F.6—XR770/AA—as it looked in the late 1980s.



**A banking Lightning displays a pair of Firestreak infrared guided missiles.**

### In Brief

Designed, built by English Electric ★ first flight April 4, 1957 ★ crew of one (two in trainer) ★ two Rolls Royce Avon turbojet afterburning engines ★ number built 340 ★ **Specific to Lightning F.6:** max speed 1,500 mph (Mach 2.2) ★ cruise speed 595 mph ★ max range 800 miles ★ armament two 30 mm cannons, two Firestreak or Red Top missiles, 44 rockets ★ weight (max) 50,000 lb ★ span 34 ft 10 in ★ length 55 ft 3 in ★ height 19 ft 7 in.

### Famous Fliers

**Notables:** Roland Beamont (more than 1,300 test flights), Brian Carroll (flew above 87,000 ft), J. L. Dell, T. M. S. Ferguson, Mike Hale (intercepted U-2 above 60,000 feet), J. C. Hall, Peter Hillwood, J. K. Isherwood, D. M. Knight, J. W. C. Squier, Desmond de Villiers.

### Interesting Facts

Nicknamed “Frightening” by some who flew it ★ became first to demonstrate “supercruise” ★ reached Mach 2.0 on Nov. 25, 1958—a first for a British aircraft ★ shot down a runaway Harrier which had continued to fly after pilot ejected ★ became first Royal Air Force platform to use integrated weapons system for automated missile delivery ★ sold to Saudi Arabia (100 for 100 million pounds) ★ flown by the No. 56 Squadron—the “Tiger Squadron”—and Firebirds aerobatic team No. 74 Squadron ★ fitted with both over- and underwing mounts for tanks and armament ★ had jettisonable over-the-wing tanks.