

J79 turbofan engines



Until the creation of the Mach 2 **J79**, most engines had been designed independently of the aircraft they eventually powered. The J79 was the first GE engine designed with the sophistication provided by demonstrated components and advanced instrumentation techniques that accurately predicted engine test performance. Its turboshaft counterpart is the LM1500 and its commercial derivatives include the CJ805-3 and CJ805-23.

The J79's first flight took place in Schenectady, New York in 1955. The J79 was placed in a bomb bay of a J47powered B-45 Tornado. The engine was tested by lowering it from the bomb bay into the air stream. The four J47s were shut down and the J79 powered the B-45.

The J79 was flown aboard the first flight for the XF4D and later set a world altitude record at 91,249 feet and a speed record of more than 1,400 miles per hour in a F-104 Starfighter. The J79 was later selected to power the F-4 Phantom. At the time of its introduction, the J79 was the most advanced turbojet ever designed. Currently, more than 1,000 engines are still in service, and many are projected to continue through 2020. The J79 also powered the B-58 Hustler, the first U.S. bomber capable of maintaining speeds in excess of Mach 2.

The J79-15 offers 17,000 lbs. of thrust and powers the F-4C/D and the J79-17 offers 17,900 lbs. of thrust and powers the F-4E.

The J79's supersonic capability coupled with the F-4's design made it a U.S. Navy regular. It has powered the U.S. Navy and U.S. Air Force demonstration teams, the Blue Angels and Thunderbirds.

Quick engine facts

Applications: B-58, F-4, F-104, Kfir, A3J Vigilante (RA-5), F-16/79 Introduction: 1954 Total number produced: ~17,000 Thrust range: 18,000 lbs