

McDonnell Aircraft Company TF-101F “Voodoo”

The Hickory Aviation Museum’s TF-101F “Voodoo” Serial Number 56-0243 is on loan from the National Museum of the US Air Force.



Role	Supersonic Twin Seat Trainer
National origin	United States
Manufacturer	McDonnell Aircraft Company
First flight	29 September 1954
Introduction	May 1957 (USAF/ANG/RCAF)
Retired	1972 (USAF), 1982 (ANG), 1984 (RCAF)
Status	Retired
Primary users	United States Air Force United States Air Nation Guard Royal Canadian Air Force
Produced	24 Converted From F-101B’s
Number built	807 All Variants
Propulsion	2 × Pratt and Whitney J57-P-55 Afterburning Turbo Jet Engines
Unit cost	US \$1,819,000

The McDonnell TF-101F Voodoo is a dual control, twin engine, dual control operational supersonic jet trainer. Twenty Four were built from F-101B airframes by extending the fuselages for the second cockpit. The F-101 first entered service in 1957 and the primary mission was a supersonic nuclear armed fighter bomber, but the aircraft also was used for photo reconnaissance. The Voodoo has a top speed of 1,134 mph (Mach 1.72). It can carry more than 24,000 pounds of fuel internally along with weapons on four external hard-points, including air-to-air missiles and Genie nuclear rockets.

<p>General Characteristics Crew: 2 Pilots (TF-101F) Length: 67 ft 5 in (20.55 m) Wingspan: 39 ft 8 in (12.093 m) Height: 18 ft in (5.49 m) Wing area: 368 sq ft (34.2 m²) Empty weight: 28,495 lb (12,925 kg) Loaded weight: 45,665 lb (20,713 kg) Max. takeoff weight: 52,400 lb (23,768 kg) Fuel capacity: 2,053 U.S. gal internal plus optional, 2x 450 U.S. gal optional drop tanks Thrust to Weight: 0.74</p>	<p>Performance Maximum speed: Mach 1.72 (1,134mph / 985kt) at 35,000 ft Cruise speed: 545mph Range: 1,520 mi (2,450 km, 1,320 nmi) Service ceiling: 58,400 ft (17,800 m) Rate of climb: 36,500 ft/min (185 m/s) Hardpoints: Missiles/Bombs/Other: AIM-4 Falcon missiles x4; AIR-2 Genie Nuclear Rockets x 2; 450 US gallon drop tanks x 2</p>
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Operational history

United States Air Force and Air National Guard:

McDonnell Aircraft's Voodoo was a supersonic fighter, bomber escort, all-weather interceptor and photoreconnaissance aircraft. It served during the Cuban Missile Crisis and during the Vietnam War.

It began as the XF-88 all-weather interceptor (fighter) and first flew at Muroc Dry Lake Air Base, Calif., in 1948. The XF-88 Voodoo had thin wing and tail surfaces designed to literally slice through the air and reduce drag to an absolute minimum. The wings were swept back sharply at a 35-degree angle to reduce compressibility effects. Only two XF-88 Voodoos were built; the U.S. Air Force canceled the project after the start of the Korean War.

In 1952, McDonnell received a development contract for the F-101 Voodoo, based on the XF-88. F-101s were designed as long-range twinjet fighters to escort bombers, attack distant targets and provide close support for ground troops.

The new fighter jet kept some of the supersonic aerodynamic characteristics of the XF-88, such as the wing area and wing platform, tail platform, and side-by-side arrangements of the engines. However, the F-101 wings were thinner, the size and location of the tail were altered, and the engines were moved forward in a larger fuselage.

Attack fighter, interceptor and reconnaissance versions served in the U.S. Air Force Strategic Air Command, Air Defense Command, and Tactical Air Command as well as in Canada.

Voodoo versions included the F-101A fighter-bomber; the F-101B two-seat, long-range interceptor; the RF-101A photoreconnaissance version; the RF-101C single-seat reconnaissance version; the TF-101B trainer version; the F-101C (an upgraded F-101A); and the CF-101F, transferred under license from the United States to the Royal Canadian Air Force.

The F-101 set several new speed records. In Operation Sun Run on Nov. 27, 1957, RF-101As set a transcontinental speed record by racing from Los Angeles, Calif., to New York and back to Los Angeles in 6 hours, 46 minutes—flying faster than the sun.

In Operation Firewall on Dec. 12, 1957, an F-101A fighter-bomber set a new absolute world speed record of 1,207.6 mph (1,943.4 kph) over the Mojave Desert in California. Because of its speed, pilots nicknamed the aircraft “One-oh-Wonder.”

During the Cuban Missile Crisis RF-101s flew 82 missions over Cuba, flying low to avoid fire from Soviet surface-to-air missiles. One RF-101 pilot claimed he flew so low that a Soviet technician almost hit his Voodoo with a volleyball.

Thanks to the Voodoo's reconnaissance flights, the United States could confirm that the Cuban nuclear sites were being dismantled. In recognizing the achievements of the 363rd Tactical Reconnaissance Wing pilots who made those flights, President John F. Kennedy said, "You gentlemen have contributed as much to the security of the United States as any group of men in our history."

Our version, the TF-101F was a two seat training aircraft variant that was produced from F-101B variants, and there were 24 produced. (Historical Snapshot Courtesy Boeing Aircraft Corporation)