



F-5N/F Adversary aircraft

Description

The F-5N is a single seat, twin-engine, tactical fighter and attack aircraft providing simulated air-to-air combat training manufactured by Northrop Grumman Corporation. The F-5F is a dual-seat version, twin-engine, tactical fighter commonly used for training and adversary combat tactics. The aircraft serves in an aggressor-training role with simulation capability of current threat aircraft in fighter combat mode.

Features

As a tactical fighter aircraft, the F-5N accommodates a pilot only in a pressurized, heated and air conditioned cockpit and rocket-powered ejection seat while the F-5F is a two-seat combat-capable fighter. This aircraft has an upward opening canopy, which is hinged at the rear. The design places particular emphasis on maneuverability rather than high speed, notably by the incorporation of maneuvering flaps. Full-span leading-edge flaps work in conjunction with trailing-edge flaps and are operated by a control on the pilot's throttle quadrant. The F-5 also has anti-skid brakes, Initial Navigation System (INS), ALR-87 Radar Warning Receivers (RWR), AN/APQ-159 radar and ALE-40 chaff/flare capability. This aircraft carries AIM-9 Sidewinder missiles on wingtip launchers.

Background

The F-5 was developed by Northrop Grumman for export through the Military Assistance Program (MAP) in February 1965. This aircraft was initially offered as a candidate for a U.S. lightweight fighter, but became extremely popular as an export finding its niche in the overseas market. In December 1970, Northrop Grumman began development and production on the F-5A-21, an aircraft design that emphasized maneuverability rather than high speed and was officially reclassified as the F-5E. The F-5N/Fs are third-generation F-5 fighter aircraft designed for replacement of the F-5A/B/E production models. These aging aircraft will be replaced by low-houred F-5N/F acquired from the Swiss Air Force surplus by United States Navy (USN).

Currently, the Swiss F-5N Replacement Program replaces the present high-time Navy F-5Es with low-time F-5Ns allowing the USN/USMC to operate the F-5N aircraft to Fiscal Year (FY) 2015. The Phase Depot Maintenance (PDM) required modifications to USN configuration provides a safer, lower-flight time Adversary aircraft with increased capability for Department of Navy (DoN) pilots. These aircraft are assigned to Government facilities, namely, NAS Key West, Florida, MCAS Yuma, Arizona, and NAS Fallon, Nevada.

Service

USN, USMC, USAF and current worldwide air forces

Point Of Contact

Naval Air Systems Command
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General Characteristics

Contractor: Northrop Grumman.

Date Deployed: F-5N First flight: March 2003; F-5F First Flight: September 1974.

Propulsion: (2) J85-GE-21C turbojet engines each producing 5,000 pounds (2,273 kg) of thrust.

Length: F-5N: 47 feet 4.7 inches (14.4 meters); F-5F: 51 feet 7 inches (15.7 meters).

Height: F-5N: 13 feet 4.25 inches (4.1 meters); F-5F: 13 feet 1.75 inches (4.0 meters).

Wingspan: F-5N/F: 26 feet 8 inches (8.1 meters).

Weight: F-5N/F5F: Maximum Design Takeoff Weight is 24,722 pounds (11,214 kg). Maximum Design Zero Fuel Weight is 9,723 pounds (4,410 kg).

Airspeed: F-5N: Mach 1.64 at 36,000 feet; F-5F: Mach 1.56 at 36,000 feet; F-5N/F: Maximum Dive Pull-Out = Mach 1.68;

Aircraft Placard Number = Mach 2.0 at 31,000+ feet.

Ceiling: F-5N/F-5F: 50,000+ feet.

Range: Maximum: 2,314 miles (4,286 kilometers). F-5N Ferry: 825 miles, clean; 1,155 nautical miles, with centerline fuel tank; 1,340 nautical miles, with three 275 fuel tanks; 1,545 miles, tanks dropped. F-5F Ferry: 745 nautical miles, clean; 1,075 nautical miles single tank; 1,270 nautical miles three tanks and 1,455 nautical miles three tanks dropped. (These include 20 minutes reserved for landing.)

Crew: F-5N: 1; F-5F: 2

Armament: AIM-9 Sidewinder missiles on wingtip launchers.

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