

BLAZE Hangar Tails: T-38C Talon II

Mission

The T-38 Talon II is a twin-engine, high-altitude, supersonic jet trainer used in a variety of roles because of its design, economy of operations, ease of maintenance, high performance and exceptional safety record. Air Education and Training Command is the primary user of the T-38 for joint specialized undergraduate pilot training. Air Combat Command, Air Force Materiel Command and the National Aeronautics and Space Administration also use the T-38A in various roles.

Features

The T-38 has swept wings, a streamlined fuselage and tricycle landing gear with a steerable nose wheel. Two independent hydraulic systems power the ailerons, rudder and other flight control surfaces. Critical aircraft components are waist high and can be easily reached by maintenance crews.

The T-38C incorporates a "glass cockpit" with integrated avionics displays, head-up display and an electronic "no drop bomb" scoring system. The AT-38B has a gun sight and practice bomb dispenser. The T-38 needs as little as 2,300 feet (695.2 meters) of runway to take off and can climb from sea level to nearly 30,000 feet (9,068 meters) in one minute. T-38s modified by the propulsion modernization program have approximately 19 percent more thrust, reducing takeoff distance by 9 percent.

Background

Air Education and Training Command uses the T-38C to prepare pilots for front-line fighter and bomber aircraft such as the F-15E Strike Eagle, F-15C Eagle, F-16 Fighting Falcon, B-1B Lancer, A-10 Thunderbolt and F-22 Raptor.

The Talon first flew in 1959. More than 1,100 were delivered to the Air Force between 1961 and 1972 when production ended. As the T-38 fleet has aged, specific airframe, engine and system components have been modified or replaced. Pacer Classic is the name given to a sustainment program that integrates essential modifications, and includes major structural replacements into one process.

AETC began receiving T-38C models in 2001 as part of the Avionics Upgrade Program. T-38C models will also undergo a propulsion modernization program which replaces major engine components to enhance reliability and maintainability, and an engine inlet/injector modification to increase available takeoff thrust. These upgrades and modifications, with the Pacer Classic program, should extend the service life of T-38s to 2020.

Advanced JSUPT students fly the T-38C in aerobatics, formation, night, instrument and cross-country navigation training.

Test pilots and flight test engineers are trained in T-38s at the U.S. Air Force Test Pilot School at Edwards Air Force Base, Calif. Air Force Materiel Command uses the T-38 to test experimental equipment such as electrical and weapon systems.