



retracting the fins of the pod. In post-combat use of the test, this pod is also dropped for recovery when used by an AT-38. Unlike airplanes like the F-16 that have the ability, however, to retract the pod and bring it back in base. Finally, standard travel pods have been confirmed to allow carriage and operation of GPS position measurement equipment.

To mark the modifications made to the aircraft, the non-standard systems and wires have been painted orange, except for those non-standard components that should not be painted because of their functionality. Like the T-38, AN, and C-band radar beacons. The aircraft themselves are not involved in any new developments related to the aircraft type itself, but patch serve as host platforms and, besides their capability to carry the aforementioned pods, the Talons are intensively used to fly cruise missile profiles, photo safety chase and target missions.

Test restrictions

However, the Talon has some restrictions and can therefore not cover the full spectrum of test requirements. As the engines for the T-38 are not as robust as the engines of an F-16 or F-15, for example, above 35,000 ft (10,668 m), on a standard day or cooler, the aircraft has minimum Mach restrictions. This means that, above that altitude, the pilot has to maintain the maximum Mach speed by moving the throttle only 1 in. 2.5 cm every 3 seconds. It gets worse when the temperatures are lower. Then the operational ceiling of the aircraft also goes down. This not only restricts the

The Talon provides fighter-like performance at a fraction of the cost, making it ideal for many of the test duties assigned to the 586th. The squadron can employ a helmet-mounted camera system (right) to allow the pilot to record chase imagery without having to physically operate a camera. Note the co-located 01-45 at Det 1, 38th AFWS in the background.

aircraft's maneuverability, but moreover does not leave a lot of room for corrections or, worse, errors. Consequently, safety requirements sometimes limit the type of profiles that can be flown and some specific high-altitude test requirements cannot be met with the Talon. Thus, the Talon is limited in its endurance, and longer or repetitive missions on occasions can become real challenges to support adequately.



The 586th's AT-38s have an equipment bay in the spine that can house various test instruments. This example carries an unusual test fixture.