

The F-5's of Talavera, a powerful fighter-trainer beauty on the correct spot.

& - The First Spanish Female Pilot –

In Spain the F-5 'Tiger' will continue flying some years to come in the progressed jet training in Spain. Why did Spain make his choice for this plane while in other countries the type has already been phased out or goes to it's maximum life span ? This is an interesting point of discussion ! Looking further away to USAF, the T-38 Talons have been continuesly upgraded and severe maintained. And Spain stands not alone in the choice for the 'Tiger', also in Switzerland the F-5's fly the stars from heaven, and Austria was very keen to lease a batch of F-5's from Switzerland for an extended period.

Talavera La Real

Spanish based it's F-5's trainers of Ala 23 (23rd Wing, Esc. 231 & 232) at Talavera la Real in the Extramadura region, near the Portugese border. In the early morning sun the planes seem to rest on a large concrete platform, yellow little stairs protruding from outside the cockpit alongside the fuselage. But soon there will be a very busy theatre here ! Instructors and cadets in the fifth year of their course will take their seats, and the next thing you notice is a lot of flights (today over 12.500 training hours have been executed)

Modernising was a good decision

The Spanish Air Force (Ejercito del Aire = EdA) acquired 70 F-5's during 1968-1971 produced under licence in the Spanish CASA factory and designated SF-5B. Totally 18 aircraft were delivered in fighter version, another 18 in SRF-5A photoreconnaissance version and 34 in the SF-5B trainer version. The first two versions have already withdrawn from use for some time but the trainer version fills in essential needs for the EdA and has been upgrade twice. In 1991 CASA and Bristol Aerospace in Canada modified the engines, parts of the wing and the undercarriage of 22 SF-5B and placed new ejector seats. The newly upgraded version was called SF-5B+. In the end of the nineties military authorities recognised the need for a lead-in trainer for modern fighter aircraft but also that this was only possible when this trainer aircraft would be equipped with modern avionics.

A 'state-of-the-art' cockpit

A contract is signed with the LAHAV division of Israel Aircraft Industries (IAI). They introduced a kit on the market including very advanced avionics for the F-5. This kit was also sold to the USAF for 500 (!) Talons. Integration of the systems was done in cooperation with EADS/CASA en Boeing while the Indra cooperation delivered a new simulator. The result was the F-5M (M = Modernisato). The SF-5B+ already received some avionic updates like instrument landing system and VHF omnidirectional range radio (ILS/VOR), V/UHF radio's tactical aid for navigation (TACAN) and identification

friend foe (IFF). On the F-5M new instruments comprise a head up display (HUD), hands-on-throttle and stick controls (HOTAS), two multifunctional/electronic engine displays (MFD/EED) in both cockpits, an electronic flight instrument system (EFIS) and a training data transfer system (TDTs). Avionics of this kind are very much the same like on the EF-18 or Typhoon but pilots for the Mirage F-1 squadrons will have to adapt some more to this aircraft. Modifications on the airframe make it possible to extend the operational life until 2016, and will be fitted during 2007 in phase two. Not a bad choice for the F-5 after all must be the conclusion !

Ready to go

The cadet faces himself the task to combine things. However the F-5 has nice flying characteristics the airplane is not that forgivable like the C-101 Aviojet which was primarily designed as trainer aircraft for the Spanish Air Force and acts in the pre- F-5 trajectory. While landing the F-5 you have to be aware to control the speed because of a considerable 'stall' effect and with to low landing speed dangerous situations can occur easily. You got to work in the cockpit and learn to understand and to operate the new avionics which supply much information, this can be quite demanding in the beginning. Comparing the C-101 the F-5 is more challenging in terms of flying characteristics and operational possibilities providing a new dimension to cadets. After initial flying training de cadet will proceed instrument flying training also under night conditions and combined with simulator training and formation flying (two, three or four aircraft), flying in tactical formations and in the end introduce in combat training.

Combat training and tactics makes a pilot sharp like the edge of a knife

Talavera is no weapons training school but the squadron's do conduct training with simulated aerial fights and ground attack techniques. First basic fighter manoeuvres are on the menu and F-5's take alternating the aggressor or interceptor role or Air-to-air or Air-to-ground operations. Finally missions will be scheduled on the Zaragoza shooting range using dummy bombs with similar fall characteristics as real bombs and dummy sidewinders on the wingtips. Next to this the F-5's can carry a dart on the wing for target towing. When a cadet graduates he will be a lieutenant and will gain some 100 flying hours experience on the F-5 in nine months.

First female jet pilot in the Spanish Air Force

A cadet entering the F-5 training course needs 4 years experience at the Air Force Academy and received his initial flying training on the Enaer T-35C Pillan (In Spain this type is named the Tamiz) at San Javier. A follow up period starts on the CASA C-101 Aviojet for 120 hours for elementary jet training. After this the cadet receives admission for the 231 or 232 squadron van Ala 23. On this very moment Rosa Garcia, the first female jet pilot is in progress of the course on the F-5M. According to her instructor she is promising and maybe within some time she will appear probably as an EF-18 or Typhoon pilot. Patas Negras being the motto of Ala 23 is quite symbolic and means 'belonging tot the best'.

How does the course start?

The advanced jet training to fighter pilot has many faces. Initially you conduct simulator training to be later on combined with real flights to get accustomed to the airplane. This stage is called traffic and one learns the movements and the restrictions of the F-5M executing loops and sharp rounds without HOTAS controls. You must learn to feel the aircraft and to search for the limits to improve your flying technique. It is quite exciting work for an instructor who must think quickly because the F-5 is a fast airplane. His overview is good with the double digital cockpit which only differs in slight aspects and he can watch the cadet closely. The results of the flight can be evaluated thanks to the TDTs and Data Transfer Cards (DTC) can confront the cadet with his own mistake in the debriefing process. A camera in the HUD will save the cockpit data and pilot reaction to this. When necessary, additional simulator training can help to solve difficulties in the training program of the cadet. The Indra simulator is available in every module including the next step: introduction in night flying.

Instructors are essential

In the mess I am talking with cadets Navarro (Esc. 231), De Larossa (Esc. 232) and Nunes (Esc. 231) in their flight suites with their names on it and codes like A+, B+, and O+ resembling their blood types. They answer my questions politely and with patience while one goes and the other comes (time schedule for flights are strict and enables cadets to do interviews in short time intervals only). They have this enthusiasm of someone just discovered the flow of his work. When they have completed their instruction they will feel like a fish in the water on their F-5M planes and every mission will be a piece of cake. Thanks to Talavera's instructor group they come so far. Most of them will continue flying on first line squadrons of the Spanish Air Force and probably some of them will choose to work with the highly appreciated instructor group while new cadets will take their place. In that case their photographs will be attached to a kind of 'hall of fame' in a long corridor in the building.

Future options

As clearly has been described in the paragraphs above there is a good future for the F-5, not only because of their life extension program but also because they are a very good choice as lead-in trainer for modern fighter aircraft. Next to this Talavera has a splendid facility with many air corridors in the neighbourhood to train. A project which has been involved with rumours for many years is the Advanced European Jet Pilot Training (AEJPT) programme. This project commits itself to a common European advanced jet training program and Talavera might be a good place to base such an organisation. Now the fact is there that the F-5M seems a good lead-in for the Eurofighter changes even could increase. Careful watching the developments and waiting for progress in decisions will be the policy.

At this moment a few pilot exchanges exist among their instructors of Argentin Mirage 111's. Anyway Talavera is treated often by visits because when you look at little decoration gifts in the mess (kind of tradition to thank for the visit) you discover those of 61 Gruppo, 60 Aerobrigata, Italia, Basa Aera No.5, Monte Real, Portugal,

Piloot en Vliegtuig - Aranyas - Cockpit - TopguN - AFM - Aeronautica&Difesa - Fuerza

exchange l'ecole de chasse Alpha jet, France, 204 Gruppo Italia and we can continue with those of Maroc, Singapore, RAF and so on. What a beautiful world this is goes through my mind.

Wim Das & Kees Otten

