

## **HELLENIC AIR FORCE (II)**

### **START OF PART TWO – PART ONE SEE FORMER EDITION**

#### **Turbo trainer in major training role**

From the air force academy Skoli Ikaron (Icarus School) at Dekelia/Tatoi cadets receive in the first year after the boot camp in a screening phase some eleven hours of flying training with the Cessna T-41D from 360 MEA (Mira Ekpaidefsis Aeros = Air Training Squadron). Some twenty are in use and the type is a very easy controllable aircraft and very suited for the first practical steps in initial flying. After these initial flights, the candidates get evaluations and when you fail, you leave the air force immediately. Otherwise, the next step will be in the second year training on the T-6 Texan II. Finally, there will be a choice for fighter, cargo or helicopter pilot. For training programmes the Hellenic air force does have an outstanding facility at Kalamata Air Base in the south of the Peloponnese, where the number of daily sorties is higher than of all the other bases together in one day. Kalamata is a huge base when considered that the only task is to train pilots, however the T-2 Buckeye is camouflaged because of a specific reason and this has everything to do with the possibility to deploy the aircraft in front line actions when surplus attack power is needed. Four Squadrons are organized in the 120 PEA (120 Pteriga/120 wing ) comprising two T-2 and two T-6 squadrons . Totally 45 T-6 Texan II were ordered and delivered from August 2000 onwards first in the 361 MEA 'mystras' and in March 2006 the 364 MEA was established.

The turboprop trainer replaced the Cessna T-37 and Greece, also adopted the philosophy that this modern aircraft has enough capability to meet the same requirements as a simple jet training aircraft and act as a lead-in for more advanced jet training. Greece needs much training capacity in order to ensure a situation with enough pilots to fly the large quantity of front line aircraft and this does not include Army or Navy training having their own training trajectory. The aircraft has an 1100 hp engine, which is very sophisticated and provides very much power for the cadet and instructor and this is of much significance for safe landings. The T-6 Texan II is easy handling and very forgiving to the pilot, very manoeuvrable and fully aerobatic and probably the hardest part in the beginning is to learn all the electronic instruments in the cockpit. The trainer is equipped with cockpit climate control, a Martin Baker ejection seat and avionics like TACAN, ILS, GPS, DME/VOR etc. and it is very useful to have some introduction with cockpit technology for modern fighter aircraft. Training concerns an initial phase (second year) to acquire skills for basic procedures, manoeuvres and management of aircraft systems and a basic phase (third year) to improve those skills leading to more situational awareness and learning to take decisions more independently. Initial training includes CBTS computer based training, simulator training and training in the water survival school. Some of the Texans have the application to take external fuel tanks or the provision to carry mk.81/82 bombs or gun pods or unguided rocket pods with manual aiming of weapons.

#### **The Buckeye, unique in Europe**

Many people consider the T-2 Buckeye as an obsolete naval fighter but if you look close at this trainer aircraft, you will discover some advantages. The type has a double engine and this is very comfortable to instructors, not to have to leave the airplane by one engine failure and during that circumstance at the same time being or feeling responsible for a cadet. Another good point is the nice landing characteristic of the Buckeye, designed as a fighter to operate from aircraft carriers. The type is steady with very good flying capabilities, very easy to teach and as already mentioned very safe. Like the Texan II, the rear seat is higher

situated giving the instructor the same visibility as the man in the front. According to instructors the really benefit is the combat training capacity above the basic advanced training. The lack of modern cockpit instruments (there is only a TACAN provision) is felt like a gap. For a light aircraft with two engines there is much power and the trainer is very good for basic air combat manoeuvres and can climb a lot. The Buckeye, of which 40 came in service in 1977, should have been changed by now for another type but budget went to other elements in the air force. Some 35 are still in service and a few ex USN T-2C examples were selected from air frames in the Davis Monthan storage facilities in the United States to meet immediate training needs. Training programmes consist of an advanced phase and operational phase at the 362 MEA 'nestor' (initial training) and 363 'danaos' MEA (weapons training) both units flying T-2E and T-2C. When you are graduated from Sholi Ikaron in the fourth year, you will be promoted to the rank of 2<sup>nd</sup> lieutenant but it will take another two years to create a fighter pilot. In the advanced phase, the student pilot meets the Buckeye for the first time and he will learn aerobatics, instrument flying, formation flying and navigation techniques.

To be prepared to fly above the sea some of such flights will be undertaken and the pilot will have to learn some airspace management. Located on the base is a flight simulator to assist the student pilot in his course. In the operational phase the skills of performing ground attack is practised, but air- to air missions as well. The instructor pays much attention to basic fighter manoeuvres (BFM) and air combat manoeuvres (ACM) in numerous sorties. Air to ground attack will be conducted with firing exercises and manoeuvres can involve two- or three ship attack formations. Night training is limited to landings practice while further operations require more cockpit instruments. After the training is completed with a final evaluation sortie, the pilot will go to one of the Skoli Meteklaidefseos (SMET) or operational conversion unit with a front line squadron. The HAF hopes to replace the Buckeye in near future with a latest generation advanced trainer and candidates mentioned are the Bae Hawk 200, Aermacchi 346 and the T-50 from Korea .

### **Elefsina, super base in Greece-style**

Elefsina is very near Athens and very beautiful located with several squadrons based on the airfield. They operate many different aircraft and the squadrons are situated in a surround area with central runways. On the base the 112 wing comprises all squadrons in the logistic field in a logistic command; Diokisi Aeroporiki Ythikoy. Within 112 wing are transport units, fire fighting units, AEW units, VIP units and helicopter units in SAR/VIP/CSAR organised. The transport unit is very important for Greece is a large country. For heavy transport Greece rely on the C-130 Hercules of which today 10 C-130H models are in use (12 were delivered in 1965-1977, two were lost in fatal accidents). Next to this, five ex USAF C-130 B were added to the fleet to fill in the needs and the demanding tasks and to spread the workload on more aircraft. In order to meet today's requirements, the HAF launched an Aircraft Upgrade Programme (AUP) for 15 Hercules cockpits. The Canadian SPAR company was selected and the upgrade of the partial glass cockpits comprises a new electronic flight information system (EFIS), a flight management system (FMS), electronic traffic collision avoidance system (ETCAS), EW systems including a missile proximity warning system (MPWS), new radio and radar. Other new systems are GPS/inertial navigation, improved weather radar, new autopilot, new IFF, digital engine control (DEC) and enhanced ground proximity warning system (GPWS). Three airplanes were converted with SPAR and HAI at Tanagra is doing the others. All of this equipment is very needed to maintain national and international tasks. There have been missions in support of international operations in Somalia, Bosnia, Kosovo, Albania, FYROM and the last one in Karachi for the NATO operations in Afghanistan. This support have been handed over to the Italian air force which C-130 have the ability of ECM and flare/chaff dispensers and can be exposed to a higher level of risk.

Other missions in human relief were in Banda Aceh in Indonesia for the tsunami disaster and in Gabon, Congo and Uganda. The aircraft do not have too many hours (between 15.000-17.000) and there are no plans for a structural life extension programme (SLEP). The aircraft are flying with the 356 mira 'iraklis'(Hercules) and transport involves soldiers, equipment, spare parts but also personnel from the base to their home. In the same squadron is one remaining NAMC YS-11A (out of six ex- Olympic Airways examples) in special colours, sometimes used for calibrations and occasionally for VIP flights. Two Hercules examples can be equipped with a Mobile Airborne Fire Fighting System (MAFFS) but this will only occur in special weather circumstances because when installed the plane can not be used for other purposes. The system use a chemical bubble and spray 12 tonnes liquid (no water) in 8-10 seconds, taking away the oxygen. The system can distinguish fire but also prevent surrounding area to catch fire.

### **Mixed aircraft types**

To assist the C-130, Greece ordered twelve C-27J Spartans for medium transport. Greece had besides the Hercules only light transport capacity from Dornier Do-28 aircraft. However the Do-28 is withdrawn from use one example was seen recently flying in special colours and probably doing VIP duties. Deliveries are in progress and some five were seen at Elefsina. For the C-27J are three options running, but the personnel is speaking about solving some difficulties first. Greece is one of the first operators and maybe lessons learned can influence the aircraft designer to better versions. The Spartans are in use with 354 mira 'pagasus' and are standing on the same platform as the C-130. On the other side of the airfield we can find the AEW aircraft. For ASW, ASuW and MPA six ex US. Navy P-3B Orion tacnavmod MPA's were delivered replacing the Hu-16B Albatross. The pilots are air force but the maintenance is navy. Today it is believed that two are grounded and in use for spare parts while two were seen active recently and two were seen at the HAI facility for overhaul or maybe some minor upgrade. The 353 mira 'triena' (Harpoon) is the principal HAF P-3B operator. After a competition involving the E-2C Hawkeye, the Saab 340 Argus and the Embraer EMB 145, the last one was selected for the Airborne Early Warning & Control task. Totally four airplanes with Ericsson Erieye FSR 890 dorsal phased array radar and Thales self protection systems were delivered to 380 mira 'ouranos' ASEPE (Aerometeferomenou Sistimatos Egairis proedopiisis & Elenchou = AEW & C). As part of the off set two VIP configured ERJ-135 executive jets were delivered to 356 mira 'iraklis' to join the remaining YS-11 and a Gulfstream V. In addition to AEW capacity one of NATO's forward AWACS bases is located in Greece at Action. For fire fighting the 355 'ifaistos' (Vulcan) is using the canadair CL-215 flying from Elefsina to fire spots around Athens and in the South.

### **Helicopters for different purposes**

There is a variety of helicopters based on Elefsina including the AB-205A for SAR (originally 20 delivered, but now partly replaced by the Cougar), the AB-212 for VIP (4 delivered) with 358 mira 'faethon' and three A-109 power helicopters for medevac duties. Other squadrons are the 384 mira equipped with the Super Puma/Cougar and an AMS (aircraft maintenance squadron). The SAR or Erevnas Diasosis role is very demanding and the majority of work has been taken over by AS-332C1 Super Puma equipped with nose-mounted Bendix 1500B radar (360 degrees search radar), a Thales Chlio S FLIR System, a Spectrolab search light, 272 kg. hoist capacity and Emergency Medical Facilities (EMF). The SAR Super Puma's are joining the AB-205A on the islands. A pair is always at Elefsina while the other two share the seven SAR detachments at Limnos, Chios, Rhodes, Heraklio, Kalamata, Araxos and Nea Anchialos. But when a station has experience with the Super Puma, or with the AB-205A it stays that way as much as possible without mixing the helicopters and locations. A joint rescue centre receives the emergency call and decides which helicopter must take action. This is not always the nearest because sometimes capacity is the key word and the Super

Puma can take up to twenty persons. The Huey as the AB-205 is called good teacher to beginning pilots to start with the demanding SAR flights and the Super Puma can be flown secondly after some experience. The crews are very dedicated but also modest and do not see their jobs in terms of heroic work. They just do their job. Whatever happens in the sea, we are there for them as they say. Thanks to the good experiences with the Super Puma, the HAF decided to order six more AS-532A2 Cougars to build a force to cover its long-standing CSAR needs. At this moment, crews are starting to use the NVG's in a trainings process with French instructors while the systems are still not in operational use. The NVG is subject in the CSAR task but more and more the NVG are in the world used in SAR role and this fact is recognized. Both navy and air force are involved in flying activities with this helicopter and personnel or costs are in a dual operation from Elefsina.

### **The danger of fire**

During the summer season from June to late October there is always the danger of fire in de forests or elsewhere. During this season the temperature can reach 45 degrees easily and for longer time. Hot winds and increased risks during the tourist season can be the circumstances when fire starts. Greece has one of the largest fire fighting fleets in the world. For small fires the old Grumman Ag cat and the PZL-Mielec M-18 Dromader agriculture planes were used in 359 mira 'dimitra' from Tatoi/Dekelia. The airplanes can be moved to other airfields when increased risk in the area. For real emergency cases the Canadair CL-215 and CL-415 are used. The CL-215 operates from Elefsina but the newer CL-415GR with turboprops is based at Micra, Thessaloniki in the north with 383 mira. The aircrafts are fully amphibious and can take water from the sea or lakes. The max volume of the CL-415 is about 680L. The water can be taken in 10-12 seconds depending on the waves. The water can be dropped by an optimum drop speed of 110-115 knots. Secondary roles are observation flights, SAR flights and evacuation missions. Two of the 10 CL-415's are optimised for the CSAR role. Four Dakotas operates still with 355/1 'atlas' flight from Micra. They are used for mapping, observation flights above the forests, liaison flights and fun for the officers, because this is a real plane. They stay in perfect condition and are the last four of over 85 delivered after world war 2. It is expected that they will leave the service soon but when the caring maintenance is like this they could go on for some time. Greece has many pilots in service and would not wish itself to have not such a plane in the inventory. This one is for the real flying.

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***END OF PART TWO – PART ONE IN LAST MONTHS EDITION***

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