



THE SWEDISH FIGHTER PILOT

Have you ever thought of becoming a fighter pilot? Have you thought about what life is like as a fighter pilot, and how the everyday is? Søren Nielsen tries to find the answers.

PROWLER RETIREMENT

March 8, Marked a historic moment in USMC aviation history as the last EA-6B Prowler aircraft were officially retired.

INIOCHOS 2019

Another episode of the Iniochos exercise took place in April 2019. The place to be was Andravida AB in the north west of Greece.

JAPANESE PHANTOMS

The last Phantoms in the land of the rising sun, are soon to be retired.

The retirement of the Prowler, exercise reports and in depth features from around Europe is the theme of this issue. FLYMAG visited the Swedish fighter wing at F 17 Blekinge Flygflottilj to find out what it's like amongst others to be a fighter pilot.

Enjoy!

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JOINT WARRIOR ON THE PLAIN

TEXT & PHOTOS - DARREN WILLMIN

Helicopters forming Aviation Task Force One (ATF-1) began arriving at Keevil Airfield, Wiltshire on Friday 24th April marking the beginning of Joint Warrior 2018-1 (JW 18-1) on Salisbury Plain Training Area (SPTA). Darren Willmin of Aviation in Action visited the area.



Two AAC AH-64 Apaches conduct hot refuelling during Joint Warrior. Photo by Darren Willmin

Joint Warrior on the Plain

Joint Warrior (JW) is normally a bi-annual exercise, the largest of its kind in Europe usually occurring in the spring and autumn, however 2018 will see only one edition of the exercise due to construction work being undertaken at RAF Lossiemouth in Scotland. The autumn iteration of JW is being replaced this year by a larger exercise in Oman.

Running from the 21st April to 4th May, JW 18-1 incorporated all three UK armed services, the Royal Air Force, British Army and Royal Navy. The exercise is linked directly with the NATO Military Training Exercise Programme and is designed, planned and delivered by the Joint Tactical Exercise Planning Staff (JTEPS) based at Northwood (NATO Allied Maritime Command) in London.

Exercise Joint Warrior 2018-1 was a huge military event incorporating nations throughout Europe with nearly 12,000 military personnel from 17 nations taking part. Forces participated from nations including Denmark, Estonia, Finland, Latvia, Lithuania, the Netherlands, Norway, Spain, Sweden, and the US. The two week exercise is coordinated from Her Majesty's Naval Base Clyde in Scotland seeing more than 50 ships and 70 aircraft involved.

Exercise activity was also seen at RAF Lossiemouth in Moray, RAF Spadeadam, the Scottish Highlands, Wales, the South West of England and the Salisbury Plain Training Area (SPTA).

Deploying for a two week period, five AAC AH-64D Apaches, four RAF CH-47D Chinooks, two AAC AW-159 Wildcats and two RAF Pumas took residence at Keevil to begin JW 18-1 tasking for the first week.

Saturday 28th April saw the Apaches and Chinooks relocate to Netheravon Airfield further into SPTA whilst the Wildcats and Pumas operated between the two locations from then on. ATF-1's primary purpose was to support 16 Air Assault Brigade along with other NATO allies and partner nations throughout the exercise, providing air transport, close air support, intelligence and logistical support.





Air Assault Task Force

16 Air Assault Brigade are specially trained and equipped to deploy by parachute, helicopter and air-landing. Its role is to maintain the Air Assault Task Force which is a battlegroup held at high readiness to deploy worldwide from non-combatant evacuation ops to war fighting.

This year the training framework provided participating forces the opportunity to train together to conduct “high-end” war-fighting operations within territories related to fighting terrorism and anti-smuggling activity, information warfare and evacuation operations.

Troops from the British Army’s 3 PARA Battlegroup, the 16th Air Assault Brigade Parachute Regiment, the Danish Army’s II Panserinfanteribataljon Jydske Dragonregiment (2 JDR), the Lithuanian “Iron Wolf” Brigade and the Latvian Mechanised Infantry Brigade amongst others deployed to Salisbury Plain Training Area along with a myriad of vehicles and support.

Conducting operations under the Joint Expeditionary Force (JEF), urban combat operations were carried out with air support provided by the Apaches from AAC 4 Regiment - RAF Wattisham, Chinooks from 18 Squadron - RAF Odiham, Wildcats from 659 Squadron AAC 1 Regiment - RNAS Yeovilton and Puma HC.2s from 28 Squadron - RAF Benson. All rotary and fixed wing aircraft including RAF Tornado GR.4s from RAF Marham were controlled by 4 Regiment AAC to form the basis of Aviation Task Force 1 (ATF-1).

Preparing the best way

During the exercise, troops and armour from allied and partner nations conducted varying scenarios with the aid of air support. Different aircraft were tasked with distinct roles including Royal Air Force C-130 Hercules undertaking troop dropping, Chinooks and Puma’s performing troop movements, troop insertion/extraction and underslung loads. AAC Wildcats from 659 Squadron, newly reformed and taking part in their first major exercise on the new aircraft were tasked with troop protection, close air support (CAS) and Intelligence, Surveillance and Reconnaissance (ISR).

This allowed AAC Apaches to engage the enemy and provide close air support both to troops on the ground and to other air assets. Throughout the exercise Forward Arming and Refuelling Points (FARPs) were set up at Keevil Airfield, Netheravon Airfield and Rolleston Camp to enable air assets to hot refuel whilst on tasking enabling a prolonged period of time in the air. Ground units also provided re-arming facilities to Apaches at the FARP enabling them to remain in the fight without having to travel back to a permanent base of operations.

Thursday 3rd May at Copehill Down, a Ministry of Defence training facility (known as a FIBUA village) was used as an air and ground assault arena by the JEF and partnering NATO forces to demonstrate to members of parliament, high-ranking dignitaries and the mainstream media the success Joint Warrior had been and the value it brings to allied nations whilst working together. As UK Defence Secretary Gavin Williamson explained: “*Joint Warrior prepares our troops in the best way to meet the intensifying threats our country faces by providing a major opportunity to exercise with our allies. Nations are judged by the friends they keep. The exercise today sends a clear message to our allies and adversaries alike – our nations have what it takes to keep our people safe and secure in an uncertain world*”.

With the conclusion of the live demonstration to gathered officials and media, it signalled the end of Joint Warrior 2018-1 as all units involved debriefed, wrapped up and begun to head back to their home bases.



CZECH AIR FORCE METAMORPHOSIS

TEXT & PHOTOS - PATRICK ROEGIES & HANS ANTONISSEN

The Czech Republic proved to be very successful in the European Union and after a number of economic reforms joined NATO on 12 March 1999 and the European Union on 1 May 2004. Patrick Roegies and Hans Antonissen takes a look at their air force.



A pair of Czech Air Force Jas 39 Gripens in tiger stripes.

Photo by Hans Antonissen

Introduction

After the cease of the Warsaw Pact Czechoslovakia became a democratic nation again in November 1989. As a result from the Velvet Revolution led by Václav Havel, and on 1 January 1993 the country was separated in two independent nations; the Czech Republic and Slovakia, after a peaceful process.

The Czech Republic proved to be very successful in the European Union and after a number of economic reforms joined NATO on 12 March 1999 and the European Union on 1 May 2004.

The end of the cold war

The Czechoslovakian Air Force possessed an impressive inventory mainly consisting of Soviet designed and built aircraft. Almost immediately after the cease of the Warsaw Pact a large amount of the aging aircraft were withdrawn from use and the remaining inventory was to be divided between the two newly formed nations. With the integration into NATO the Czech Air Force almost immediately commenced with the design of a mid-term and a long-term plan in order to determine the requirements of their Air Force once integrated in NATO.

This resulted in the withdrawal of the Mikoyan Gurevich designed MiG-21 and MiG-23 aircraft and the Sukhoi designed Su-22 and Su-25 fighter bomber aircraft. Just prior to the end of the Warsaw pact the Czechoslovakian Air Force also received a number of brand new and factory fresh MiG-29 fighter aircraft, which had been equally divided over the two newly formed nations when they became independent. Where Slovakia decided to keep operating the MiG-29 aircraft until today, the Czech Republic decided to put the aircraft up for sale and were eventually delivered to the Polish Air Force.

This created the possibility to obtain a new fighter fleet which was independent of deliveries of both material and training from their former allies.

Since the diplomatic relations changed with the “end of the cold war”, the requirements for, and capabilities of, the Air Force also changed significantly. The Air Force used to operate as a first line of defense in case of a future NATO attack during the cold war and had almost all aspects of military aviation covered within its operational inventory.





Dealing with independency

With this threat gone and with the integration within NATO the Czech government decided to drastically reduce the number of aircraft and capabilities.

A reorganisation which took place during the second half of 1992 and throughout 1993 resulted in a completely new structure of the Czech Air Force which came into effect in the course of 1994.

As a result a modest number of air bases were closed and a major reorganization led to the full withdrawal from use of the An-12, Il-14, MiG-21R, MiG-23BN, MiG-23MF, the MiG-23ML, MiG-23UB, Su-22, Su-25 and Mi-8T.

Restructuring

In 1998 the Czech Republic changed the conventional name of the Air Force - Letectvo a Protivzdušná obrana Armády České Republiky - the Air Force and Air Defence of the Army of the Czech Republic, to Vzdušné síly armády České Republiky - Czech Air Force.

In 1994 the second phase of the major reorganization was initiated which resulted in the current Czech Air Force structure. During this second phase the regiment structure was abandoned and five Air Bases were formed incorporating several squadrons.

After the Czech Republic joined NATO twelve MiG-21MF's received some upgrades to MiG-21MFN standard to make them suitable for NATO operations and to bridge the temporary gap until a new aircraft type was selected and integrated within the Air Force

On 29 December 2000 the first domestic designed and built L-159 ALCA aircraft were delivered introducing the formation of the "new" Air Force. Early 2002 the Czech government chose the JAS 39 Gripen as the MiG-21 successor.

The Air Force gained quite a few additional aircraft since by means of two new L-410UVPs in 1996, an An-26 in 1998 as well as a number of W-3A Sokols which were obtained from Poland in 1996 by exchanging them with the remaining ten MiG-29's which had been in storage at České Budějovice for over a year.

Russian supplies

By 2004 the Czech aircraft manufacturer Aero Vodochody had completed delivery of 72 L-159s ALCAs to the Czech air force. However following the disbanding of 32.zTL at Náměšť nad Oslavou in late 2003 only 21 aircraft (16 single seaters and 5 trainers) now remain in service with 212. tl at Čáslav. In 2005 the last MiG-21s were finally replaced by a batch of fourteen leased JAS 39C/D Gripen fighters which were all delivered between April and August 2005.

As a part of their debt deal, Russia agreed to supply sixteen factory fresh Mi-35/Mi-24V Hind attack helicopters as well as a similar number of Mi-171Sh transport helicopters. These new helicopters replaced the majority of the current fleet of Mi-17 and Mi-24s.

Additional plans to acquire three An-70s as part of the debt payments were abandoned and the Czech air force focused on the Casa C295M as a successor to its Antonov 26 transports. In addition there was an urgent requirement to replace the VIP fleet. This process started with the purchase of two A319s which replaced the Tu-154s. The first A319 was delivered in January 2007.

In 2019 three additional aircraft will be acquired (L-159T2), they will replace the remaining L-39's which will be withdrawn from use next year. The L-159 aircraft that had been withdrawn from use and put up for storage have all been sold to Iraq and United States adversary companies. Only one spare aircraft is kept.

The Sokol W3 helicopter trade against MiG-29 was considered a good trade. According to Czech Air force Commander Major General Petr Hromek, this was a good deal since it meant the air force was no longer relying on the delivery of spare parts from Russia anymore. With all the remaining former Soviet built fighters phased out, the air force could focus on new partners.

The sole remaining Russian hardware are the Mi-24V/Mi-35 helicopters and the air Force is searching for a replacement. It is not certain what it is going to be, by the end of this year the request, with the criteria, will be sent to several, probably western, manufacturers. The new helicopters are planned to enter service within the next 3-4 years.



Mid term planning

The Air Force training is provided by the Euro company enterprise which is created by the MoD. The domestic training center for pilots generally uses Zlin 142 aircraft to provide basic training. After the basic flying training the L-39/L-159 is used for advanced flying training and a selection is made for the student to advance to jet aircraft, helicopters or transporters based upon the results. The Czech Air Force does not train its pilots abroad.

The backbone of the Czech Air Force is the JAS 39 Saab Gripen. These aircraft have been acquired in 2004 via an initial lease contract for 10 years. Since the Air Force was very satisfied with the performance and the capabilities of the JAS 39 the lease was extended in 2014 to 2027. The JAS 39 is able to fulfill all required missions. Within the lease contract the aircraft will be upgraded next year with a Link-16 system and Laser Designating Pod (LDP) capabilities ensuring the aircrafts ability to operate well into the 2020s.

More into NATO

In 2021-22 the process for a possible future replacement will be reviewed. Since there are no specifications determined it is not clear if this will be a leap into the fifth generation fighter aircraft development or if the Air Force decides to continue operations with fourth generation fighters due to budget confines.

The next period the budgets for the domestic defense are increased. Also, the budget reserved for operations in support of NATO will increase. In 2021 the current assigned budget will be increased with 1.4% on an annual basis increasing to a 2% budget increase by 2025. At least two additional Casa C295M aircraft will be acquired in support of the land forces. Also the planned replacement of the new attack helicopters is included within this budget. Remaining modernizations and upgrades are to be decided on.

Cooperation

The relations with the Slovak Air Force remains very good. Since both nations speak the same language it makes cooperation fairly easy. The cooperation however is limited and mainly focuses on Air Force training, assistance in the QRA (Quick Reaction Alert) missions and logistic support. There is no cooperation in procurement in new aircraft.

Tactical training

On an annual basis a fighter pilot within the Czech Air Force performs approx. 125 actual flying hours and an additional 40-50 hours in an advanced mission simulator. The tactical simulation center located in Pardubice provides mainly training of tactics. In this simulation center almost all scenarios can be projected with up to eight cockpits working at the same time, doing BVR (Beyond Visual Range) training and adversary training in a 4 versus 4 aircraft setup.

The available training ranges and areas are situated very near to the Czech Air Bases. This means that the time available on the ranges is very efficient since minimum time is lost flying to and from the range, thus giving pilots maximum time of actual flight training.

International exercises

The Czech Air force has been a trusted participant of the NATO Tiger Meet exercises for over a decade. Besides the Tiger Meet the Czech Air Force also participates in the Gripen nation exercise Lion Effort. During 2018 the Czech Air Force also organized and participated in the NATO exercise "Ample Strike". The Czech Air Force does not participate in the US organized "Red Flag" exercises. Given the distance and the lack of air-air refueling capabilities participating in this exercise is a not a realistic option.

Conclusion

2018 marked 100 years of Czechoslovak Air force. A lot of things have changed, The Czechoslovak Air force no longer exists and was split into two separate Air Forces after the country was broken up into the Czech and Slovak Republic as a result of the end of the Cold War. The Czech Air Force changed from a large, Soviet structured organization to a relative small, western, Air Force. Well equipped and trained for the tasks it is supposed to execute but also with a lot of challenges going forward in a fast changing playing field.



JAPANESE PHANTOMS

TEXT & PHOTOS - HENK DE RIDDER

The closing down of 302nd squadron at Hyakuri Air Base, Japan, in December 2018 made it clear that the Japan Air Self-Defense Force (JASDF) is decreasing the operations with one of the most beautiful fighters of its inventory.



*A fading beauty in the land of the rising sun.
Photo by Henk de Ridder*

A fading beauty

The closing down of 302nd squadron at Hyakuri Air Base, Japan, in December 2018 made it clear that the Japan Air Self-Defense Force (JASDF) is decreasing the operations with one of the most beautiful fighters of its inventory. Currently, 301st Hikotai is the sole active air defense operator within the JASDF flying the F-4EJ Kai.

The F-4 operations now have returned to the same situation as in 1974, when the JASDF started operating the F-4EJ Phantom. The 301st was the first squadron to fly with the F-4EJ in the JASDF. And now, fittingly, is the last one: first in, last out. During almost 50 years of use in the JASDF, a total of seven squadrons flew Phantoms.

In 1971 four F-4Es arrived at Komatsu Air Base, Japan. They came straight out of the McDonnell Douglas plant in St. Louis, Missouri. McDonnell Douglas supplied Mitsubishi with 11 kits of parts and fuselages. The Phantoms for the JASDF were assembled at the Mitsubishi plant in Nagoya. The first one was delivered in 1972, the last one in 1981.

A total of 138 airframes were produced. The models, which were delivered to the JASDF, were similar to the United States Air Force F-4E models, but missed the in-flight air refueling possibility and the ground attack systems. These were not needed because of the 'Peace Constitution' that went into effect after World War II in 1947.

This constitution allows the people of Japan the right of having a self-defense force, but prohibits that force from possessing nuclear weapons or other offensive arms. The JASDF Phantoms are interceptors and have the Westinghouse AN/APQ120 radar fire control system, the 20mm 640 round M61A 1 Vulcan cannon and AIM 7-9 missile capability. Avionics were not as advanced as those used in USAF's F-4Es, but a CNI (Communications, Navigation and Identification) suite, a Japanese designed RHAW (Radar Homing And Warning)-system and a gun camera were added to the F-4EJ.

The inflight refueling hardware was delivered and stored, and was later fitted to some models for practicing inflight refueling with USAF KC-135s.





The Kai models

In 1984, a Service Life Extension Program (SLEP) upgrade was initiated, in which 96 models of the F-4EJ Phantoms received ground attack capabilities. A lightweight, improved Westinghouse AN/APG66J pulse-Doppler radar and J/APR-4 Kai radar warning system, an INS (inertial navigation system), HUD (head-up display) and new central computer were installed.

The airframes were also improved to extend their lifetime from 3,000 hours to 5,000 hours. This gave the F-4EJ Phantom designation the addition 'Kai', meaning 'Plus'. The program concluded in 1992. Since then, the JASDF has Phantoms which are able to fire the latest AIM-7F Sparrow and AIM-9L Sidewinder air-to-air missiles. Furthermore, the Mitsubishi ASM-1C anti-ship missile can be launched from the improved F-4EJ Kai airframes.

The Kai models were the first that were fitted with a F-15 fuel tank. These tanks can be stressed to a higher G-level. In total 47 new items were added to the improved Kai model. One of the most eye-catching changes is the large UHF blade antenna in the middle on the back of the airframe, behind the cockpit and in front of the tail. Also the use of the AN/ALQ131 Electronic Counter Measures pod became possible with the upgraded Phantoms.

Japan also received 14 RF-4Es built by McDonnell Douglas as a reconnaissance aircraft. These models were almost identical to the Luftwaffe RF-4Es, with just a few differences. For instance, no RHAW (Radar Homing And Warning system) suite was installed on the JASDF's RF-4EJs.

The recce models

Fitting an APR-3 system compensated this. In 1974 the first aircraft was delivered. These 14 RF-4Es, together with 17 F-4EJs modified during the Service Life Extension Program (SLEP) to the RF-4EJ Kai standard (while remaining their original F-4E nose type and gun), can carry a mix reconnaissance pods.

The RF-4EJs were improved with the new APQ 172 radar and a Head Up Display. Also an ELINT (Electronics Intelligence) pod built by Mitsubishi-Melco from Thomson CFR ASTAC can be carried. This pod was also used by French Mirage F-1CR reconnaissance planes.

Another pod in use by the RF-4EJ Kai is the SLAR 2000 sideways-looking radar. Both recce models - the McDonnell Douglas delivered ones and the modified F-4EJs as mentioned above - are called RF-4EJ Kai and fly with these reconnaissance pods. The 14 original RF-4EJs were delivered in standard JASDF grey, like the F-4EJs. Later different camouflage patterns were adapted.

All the improved Kai models are operated by 501st Hikotai, based at Hyakuri Airbase near Tokyo, which is the sole unit in the Teisatsu Kokutai (Reconnaissance Wing) of the JASDF. They are scheduled to fly until 2020.

The oldest F-4EJ, # 17-8301 delivered in 1971 and now 48 years old, came directly from McDonnell Douglas and is still flying in the test unit of the JASDF at Gifu Air Base; the Hiko Kaihatsu Jikken Dan. This test and development unit is the third unit flying the F-4EJ. It has seven F-4EJ Kai in its inventory.



The squadrons - 301st Hikotai

The squadron was formed on 16 October 1973 at Hyakuri. It was established out of an operational conversion unit the year before. It was part of the Central Air Defense Force: 7th Kokudan (Air Wing) and responsible for the air defense of the Tokyo region. In 1985 it moved to Nyautabaru and became part of the 5th Kokudan, responsible for the air defense in the western part of Japan.

The updated F-4EJ Kai version was received in 1991. The squadron moved back to Hyakuri in October 2016. Now it is the last air defense squadron equipped with the Phantom within the JASDF. Together with the already disbanded 302nd Hikotai, the 301st will move to Misawa to receive the F-35.

302nd Hikotai

Formed 1 October 1974 at Chitose, being part of the 2nd Kokudan of the Northern ADF. The squadron moved to Naha in November 1985 where it became part of the Southwest Composite Air Wing. When Victor Belenko defected to Japan from the USSR in September 1976 with his MiG-25, two F-4EJs scrambled from Naha to intercept him.

They were unable to catch up with the MiG, and that led to changes in the Japanese defense system. On 9 December 1987 a 302nd Phantom opened a warning shot at a Russian intruding Tu-16 Bear. This was the first time after WWII a JASDF fighter fired warning shots at an intruder. The Kai version was welcomed in 1995. In March 2007, the 302nd went to Hyakuri.

The squadron disbanded in December 2018. Two Phantoms underwent a special paint job for the closing down ceremony of the squadron. The 302nd flew the Phantom for 44 years. The squadron is scheduled to be re-activated with the F-35 at Misawa in the North of Japan's main island Honshu.

303rd Hikotai

Activated in October 1976 at Komatsu where it flew the F-4E until November 1986 when it received the F-15J Eagle, which is still in use today.

304th Hikotai

Received the first Phantoms in 1977 at Tsuiki, being part of the 8th Air Wing Western Region. The unit converted to the F-15J Eagle in 1989.

305th Hikotai

Became active on 1 December 1978 at Hyakuri and switched to the F-15J in 1993. The squadron is nowadays based at Nyutabaru, flying the F-15 Eagle.

306th Hikotai

Formed on 30 June 1981 at Komatsu and attached to the 6th Kokudan for Central Air Defense. The 306th received their Kais in 1989. The first F-15J Eagles came to the 306th in 1997. The squadron is still at Komatsu and was the seventh, and last squadron, to receive the F-15J.

501st Hikotai

This is the only squadron within the JASDF that fulfills the reconnaissance role. Aircraft used: 14 RF-4EJ Kai and 17 F-4EJ Kai. After the transition from Sabres to Phantoms at Iruma in 1974, the 501st moved to Hyakuri in 1975. The squadron is still present there. The RF-4EJ Kai can be equipped with an array of reconnaissance pods.

Hiko Kaihatsu Jikken Dan

Based at Gifu, this unit operates a variety of aircraft including seven F-4EJ Phantoms. The unit received its first Phantoms in 1971. It then relocated to Hyakuri and formed the 301st Hikotai. The unit moved to Gifu for development and testing of the F-4EJ Kai Phantom.

It also carries out tests with the new TERC (Tactical Electronic REConnaissance sensor) and other reconnaissance pods like the ASTAC and the SLAR 2000 for the RF-4EJ Kai at Hyakuri's based 501st Hikotai.



PROWLER RETIREMENT

TEXT & PHOTOS - IVAN VOUKADINOV

March 8, 2019 marked a historic moment in US Marine Corps aviation history as the last of the venerable EA-6B Prowler aircraft were officially retired and at the same time the last squadron that operated them, VMAQ-2 "Death Jesters", was also formally deactivated.



The last Prowlers in the sky.

Photo by Ivan Voukadinov

Prowler Retirement

March 8, 2019 marked a historic moment in US Marine Corps aviation history as the last of the venerable EA-6B Prowler aircraft were officially retired and at the same time the last squadron that operated them, VMAQ-2 "Death Jesters", was also formally deactivated. No other tactical jet has had such a long history with the USMC, and the retirement brings an end to the use of specialized electronic warfare aircraft by the Marines.

The pilots are flying daily with a mission lasting between one and a half to three hours, with a further four to five hours for mission planning beforehand and a three-hour debriefing after arriving back at Leeuwarden Air Base. Two waves were flown daily, usually more aircraft were flown in the morning wave than in the afternoon.

The event regularly draws many aviation media and enthusiasts to Leeuwarden Air Base during the 2-week period, averaging around 500 people per day such is the scale and interest in the exercise.

History of the Prowler in USMC

The EA-6B Prowler is a dedicated electronic warfare (EW) aircraft which first flew on May 25, 1968 having been developed from the earlier A-6 Intruder and EA-6A "Electric intruder".

The first examples entered service with the US Navy in January 1971, but it wasn't until 1977 that the Marine Corps got their first jets. They were taken up by the sole airborne EW squadron VMAQ-2, at the time known as the "Playboys", which had until then been operating EA-6A aircraft. This 4-squadron structure remained until the end of Prowler operations.

Taking part in major conflicts

Traditionally, all VMAQ squadrons were based at MCAS Cherry Point in North Carolina with 5 Prowlers assigned to each squadron.

The exception is VMAQ-4 which moved to Cherry Point from Whidbey Island following the 1992 reorganization. Throughout its history, Marine EA-6Bs have been on over 90 deployments, taking part in every major conflict such as Desert Storm, Allied Force, Enduring Freedom and many others and accumulating more than 264,000 flight hours with the Marine Corps.

Around 16 aircraft were eventually operated by VMAQ-2, which were split up into three detachments (X, Y and Z). A Marine Reserve squadron, VMAQ-4, was also formed in 1981 flying EA-6A aircraft, and didn't receive their first Prowlers until 1991. Following a major reorganization of the Marine Corps' airborne EW community in 1992, the three detachments of VMAQ-2 became separate squadrons, now numbered VMAQ-1 through VMAQ-3, while VMAQ-4 switched from a reserve to a permanently active squadron.





One of the last EA-6B Prowler

Photo by Ivan Voukadinov



Marines Only

Following the official retirement of the last Prowler from US Navy service on June 27, 2015, the USMC remained the only operator. For this reason, even earlier in 2013, VMAQ-1 “Screamin’ Banshees” was made into a training squadron (VMAQT-1), acting as an FRS (Fleet Replacement Squadron) for the USMC. Thus, pilot and maintenance training could continue, which had previously been the job of VAQ-129 in the US Navy.

USMC squadrons also began operating 6 aircraft instead of 5. The USMC at this point was operating only the most advanced ICAP III standard aircraft, featuring a plethora of upgrades and improvements which included: replacement of the AN/ALQ-99 Receiver System with the AN/ALQ-218, replacement of the AN/TDY-43 display system with a new Commercial Off The Shelf (COTS) based display system, upgrade of the Recorder Reproducer Set with a new Digital Recorder, incorporation of the Multi-Mission Advanced Tactical Terminal (MATT) to provide reception of data links, incorporation of the AN/USQ-113 Communication Receiver/Jammer with the AN/ALQ-218, updated mission planning using the Joint Mission Planning System (JMPS), incorporation of Link-16 to include basic EW battle management capabilities, and other upgrades.

The Prowlers in USMC service were also able to carry a LITENING targeting pod. The ICAP III Prowlers continued to be updated even in the final years, receiving block 7 software as recently as 2017.

As the retirement of the Prowler was already planned for 2019, it was decided to deactivate one squadron every year until then. Naturally, this meant VMAQT-1 would be the first to go in April 2016. VMAQ-4 “Seahawks” was slated to be the next, and completed a final 7-month deployment to Incirlik, Turkey in October 2016 in support of Operation Inherent Resolve. Following that, the squadron took part in Red Flag 17-2 at Nellis air force base before deactivating three months later in June 2017. This marked the last Prowler participation in Red Flag. Meanwhile, VMAQ-2 had already deployed to Incirlik to replace VMAQ-4 and returned from that deployment in April 2017.

The “Moon Dogs”

With only two squadrons remaining, there was still a definitive operational need for the aircraft and the remaining VMAQ community was kept busy. In October 2017, Prowlers (from VMAQ-2) took part in the Weapons and Tactics Instructors Course (WTI) at Marine Corps Air Station Yuma for the last time, integrating with the Marine Aviation Weapons and Tactics Squadron One (MAWTS-1) and providing support for the students participating.

Despite the mentioned combat deployments, WTI had still enjoyed Prowler participation until then from whichever squadron was home. Around the same time in October 2017, VMAQ-3 “Moon Dogs” had just completed their final deployment, spending six months at Incirlik air base. Soon after, in May 2018, VMAQ-3 was deactivated leaving VMAQ-2 as the sole squadron remaining.

The Final Chapter

Despite the impending sundown of the Prowler in USMC service at the end of 2017, there were already signs that one last deployment was possible. Until then, Prowlers had been deployed continuously and were an important asset to coalition forces in the fight against the so-called Islamic State. Marine EA-6Bs were in fact one of the first deployed to Al Udeid airbase in Qatar in the build-up to US combat operations against ISIS in early 2014.

Even though the number of operational aircraft whittled down to a handful, the decision to deploy VMAQ-2 was eventually made, and as the squadron did so in April 2018, VMAQ-3 completed their deactivation. Aircraft were shuffled around between the two squadrons, with the six Prowlers meant to deploy with VMAQ-2 handpicked between the remaining airworthy airframes based on overall technical condition and remaining flight hours.

Lt Col Julian “Pico” Flores, the executive officer of VMAQ-2, reflects on this decision; *“I think what’s significant about the last deployment is that the powers-that-be decided that they wanted to deploy the Prowler all the way up until its deactivation. I think that shows how important the Prowler’s mission and electronic attack is to the Department of Defense.”*



The long missions

As VMAQ-2 arrived in Al Udeid, they fell under CENTCOM (United States Central Command) where they integrated with the 379th Air Expeditionary Wing and were tasked with supporting three major missions in two areas of operation, spreading thin the available aircraft.

This included Operation Inherent Resolve (OIR), Operation Freedom's Sentinel (OFS) and Operation Resolute Support (ORS). Almost immediately, on April 14th, one of the aircraft was involved in a high profile operation when a Prowler escorted a pair of B-1 bombers as they carried out airstrikes against the Barzah Research and Development Center located near Damascus, Syria. Although most details about the missions during the deployment remain classified, Lt Col Andrew Rundle, commanding officer of VMAQ-2, sheds some light: *"By and large we did a good portion of the missions that we have trained for. So supporting ground forces, coordinating with aircraft, whatever the case may be. In all theatres that we flew in and out of."*

The EW capabilities of the EA-6B were likely utilized to jam ISIS communications, roadside bombs and suppress enemy air defenses in the contested airspace over Syria, as well as possible intelligence gathering within the electronic spectrum.

Lt Col Flores also elaborated: *"What made these missions different was that because of the versatility of the Prowler and our ability to support different operations, it allowed for very long missions. We're talking 6-8 hours so it's a lot of time to stay focused on what you need to do and I'd say it definitely tested the endurance of the aircrew to be able to fly to our areas of responsibility and maintain that focus."*

A lot of the missions we did were classified and sensitive but it makes me feel good that we did support the folks on the ground with our capabilities. It was something that was needed so much so that they deployed us all the way until the end. We're considered a DOD asset so we don't necessarily deploy with Marine units. We tend to deploy as a single squadron and we fly in support of the highest priority. It could be the Marines or Army or whatever is needed."

The last squadron

Long missions certainly were reflected in the cumulative time spent in the air, with a total of about 2500 hours flown during the almost 8 month deployment which averages to around 10.5 hours per day. This of course put a lot of stress on the maintenance crew as well, which had to maintain operational readiness at all times.

Despite the aircraft's age and high tempo of operations, the full mission capable readiness was in the mid-70th percentile, exceeding the official deployed requirement of 68%. In a way, being the last squadron actually ended up helping the maintenance, as Chief Warrant Officer (CWO) Hamilton explained: *"The challenges we had 10 years back were honestly much greater than now. With the sundown across the Navy and Marine Corps and being the last squadron, I would say it's made it a lot easier. Our readiness for the last couple of years has been outstanding just due to the fact that there's no competition out there when it comes to parts availability. We're the only squadron being supported so if we drop a document for an engine or flight control surface the availability has been there and has been timely."*

Besides parts, this also meant a consolidation of maintenance personnel, who were also handpicked from the previously deactivated squadrons and ended up forming a concentration of experience and very high qualifications within VMAQ-2.

Some of them had just completed a deployment with VMAQ-3 less than 6 months prior. CWO Hamilton explains the most memorable maintenance woes: *"Technical issues we had are TJSR (Tactical Jamming System Receiver) for the first half of our deployment, spanning across multiple aircraft. It's not something we utilize stateside as often, but on deployment it's used daily. We also had an aircraft with an anomaly that was plaguing us the latter half of the deployment with fire temp lights erroneously and erratically popping whenever they wanted to. The last 45 days we had 3 tech reps out there assisting with the troubleshooting. It was never actually fixed, we flew it back with interim flight clearance."*

Technical problems also held up the return home, which normally should have taken around 5 days but ended up taking 17 days with the squadron finally coming home in mid-November 2018.





Sundown

Changes quickly followed after the return to Cherry Point. Three of the aircraft were immediately sent to the “boneyard” in Tucson for storage. Flying operations continued with the three remaining aircraft until mid-January 2019 when one was sent to the MAPS Air Museum. By that point, the gradual breakup of the squadron had also begun and by February 2019 only 4 pilots and 12 ECMOs (Electronic Countermeasures Officers) remained.

Flying continued however, as CO Rundle explained: “A lot of it has been proficiency for aircrew allowing them to maintain their instrument rating. We’ve continued to progress some of our aircrew, even though they are mission specific qualifications for this specific aircraft. Instead of flying just to fly we still did some tactical training even though there was no operational point to it anymore.

But there is still the desire to always improve and achieve something on the way out. A lot of these guys are going to move on to other platforms too, so to have the knowledge of what we’ve done and what we can contribute as they transition to other things, they have the ability to ensure that the mission of electronic attack is still considered in the platforms they’re going to.”

Moving on from the Prowler means different things for every individual, with many of the aircrew and maintenance personnel moving on to various platforms from C-130s to F-35s and even UC-35s and RQ-21s. Some of the senior people in the squadron on the other hand are looking at retirement from the USMC.

Nevertheless, everyone will remember the aircraft fondly, as XO Flores shares: “It’s not a technologically advanced aircraft. It was designed in the 60s-70s and is not fly-by-wire. You really have to pay attention to what you’re doing and have a good “seat of the pants” feel of the aircraft. There’s no HUD so there’s a lot of analog and digital combined. I feel fortunate to fly such a jet. They don’t make them like this anymore, now it’s all fancy screens. I think I’ll miss it. Now I think with the newer jets it’s almost like cheating. A lot of the new guys are used to using GPS a lot. When I first started off it wasn’t that easy, you had to use your navigation skills a lot more.”

A privilege to be part of

Gunnery Sergeant Kevin Randall has been maintaining Prowlers for 18.5 years, and describes his thoughts on it going away: “Everything from connections to the landing gear and how the airplane is heated and cooled inside is old. For example, newer airplanes use quick disconnect for the hydraulic lines instead of B-nuts screwing on that leak all the time. Technology has come a long way and the airplane itself, other than the avionics, never got upgraded.

On the F-35, to take something off it’s a couple of clips. We have 100 screws to take off one panel. I’ll miss the airplane a lot. I joined the USMC to work on airplanes. For the last 18.5 years this is what I’ve known. It challenges your mind to troubleshoot, you see something different every day. I’m going to miss teaching people because I’m a very hands-on person.”

The final two aircraft were displaced to museums. Aircraft 162228 went to the Dallas Love Field Flying Heritage museum on March 12, while aircraft 162230 went to the Smithsonian Udvar-Hazy museum near Washington DC on March 14 which was in fact the final ever flight of a Prowler.

Although a direct replacement is not coming, the USMC will take Prowler capability and distribute it amongst remaining and future assets in a concept known as Marine Air-Ground Task Force – Electronic Warfare (MAGTF-EW). The USMC describes MAGTF-EW as “an integrated system of distributed, platform-agnostic EW capabilities on manned and unmanned assets.” Airborne tactical EW will still be provided by the Navy’s EA-18G Growler aircraft.

Lt Col Flores perfectly summed up the spirit in the squadron as the end came: “It’s bittersweet, and a privilege to be part of it. I’m looking forward to the deactivation ceremony events and meeting all the former VMAQ aircrew and listen to all the old stories. The Prowler has been around for so long that there are a lot of “father-son” relationships and it’s been an honor to carry on their legacy and finish strong.”

HELLENIC NAVAL ROTARY FORCE

TEXT & PHOTOS - PETER TEN BERG

Not far from Athens you can find the main helicopter base of the Greek navy, Kotroni. Peter ten Berg reports from Greece and the Greek Navy.



*A S-70 Aegean Hawk from the Greek Navy.
Photo by Peter ten Berg*

Kotroni - Hellenic Naval rotary force

Not far from Athens you can find the main helicopter base of the Greek navy, Kotroni. Situated on a hilltop with distant views to the Aegean sea and in close proximity to several historical Greek temples you can see daily flight activity of the navy rotors. When driving uphill nothing indicates you are entering a naval facility, until you pass the onbase roundabout, with a large anchor and small vessel on display in the middle.

Down below Kotroni hilltop lays Marathon, the town where according to the old stories, the original 42 km run found place around the year 490 BC. Although the grounds are inspired from historical belief, the Greek navy had allegedly other considerations when it decided to construct a new naval air arms facility, as the previous base of Amphiali-Athens had become too small.

The naval helicopter fleet was growing and the isolated Kotroni hilltop was ideally located to house the unit for the coming future. Close to the coast for easy Greek Navy Frigate ship access and not too far away from naval headquarters in Athens, Kotroni was also for Greece centrally located and therefore ideal to reach all other countries' detachment locations.

After becoming operational in 1986, Kotroni Naval Air Station received the latest navy asset from Amphiali, the AB-212 for which a Naval Aviation school was founded to train crews on this new type. The unit divided into 2 flights and also operated some Alouette IIIs. A few years later, in 1996, another new type entered the Greek Navy, when deliveries started of the S-70B-6 "Aegean Hawk" helicopters to Kotroni.

Some years ago, in 2013 to be precise, the Alouette IIIs were taken out of service, but the AB-212 and S-70B choppers remain the backbone of Greek Naval Aviation which form 2 squadrons at Kotroni; 1 and 2 MEN. The base is also host to the Greek Helicopter Coast Guard unit flying several SA-365 Dauphin.

1st "Mira Elikopteron Naftikou" (MEN), or 1st Navy Helicopter Squadron is the Kotroni operator of the AB-212. Currently only a Anti Submarine Warfare (ASW) variant is in use after the Greek Navy took their 2 Electronic Warfare (EW) types out of service. The EW role is still vital, but it appeared to be more efficient to embed this within the tasks of the S-70 Aegean Hawk.

1st "Mira Elikopteron Naftikou"

Tasked with the ASW are 8 AB-212 choppers of 1 MEN, regularly deployed to Greek Navy frigates. For their sea based operations the AB-212 is equipped with variable depth sonar, a surface surveillance radar, an Automated Identify System (AIS) for detection and tracking of enemy surface targets and a Sapphire II Forward Looking Infrared (FLIR) system.

The last 3 are mainly for the Anti Surface Warfare (ASuW) of 1 MEN. Also a GPS system with a moving map is being installed onto the AB-212 fleet, which combines the received signals from sonar, radar, AIS and FLIR into one overall view. This tactical system, called OCTOPUS, is developed by 1 MEN navy personnel. AB-212 available arms consists of Mk.46 mod 3/5 ASW torpedoes and an MG-3 gun.

1 MEN shares the base' right hand main hangar with the Coast Guard unit and has also reserved some space for one of their former helo types, a blue colored Alouette III, which is kept in excellent (although non airworthy) condition. The primary mission of the AB-212 of 1 MEN focuses on ASW and ASuW and a standard crew always consists of a pilot, co-pilot and a radar operator.

This trio can be complemented with a gunner or mechanic, depending on the mission. The 1stNavy Helicopter Squadron's has furthermore a 24/7 alert status for Helicopter Emergency Medical Services or so called HEMS flights. These flights, of which most of the responses are not military related, but support countrywide civilian medical emergency situations. The alert includes an on base available crew to secure a 30 minutes response time in case of an emergency call. For these flights the standard AB-212 crew of 3 is added with a doctor and/or nurse.





2 MEN

With the arrival of the Apache, the selection and training program for aircrew changed. Gilze-Rijen received the other based Navy Helicopter Squadron is 2 MEN, which operates the S-70B Aegean Hawk since 1996 in its inventory and exclusively uses the left hand main hangar, which is marked with a large squadron insignia. 2 MEN was founded in 1995 prior to the delivery of the S-70B-6's.

Originally 8 choppers were ordered, but by 2005 another 3 improved Aegean Hawks were delivered to 2 MEN. The S-70s are fitted, besides the similar equipment and weapons of the AB-212s, with a Helicopter Long Range Active Sonar (HELTRAS) and can furthermore conduct passive EW, the Electronic Warfare role it took over from the AB-212's.

The 3 most recently acquired S-70Bs (recognized by their serials PN-59, PN-60 and PN-61) were installed with a Raytheon AN/AAS-44 FLIR system which made the helicopters capable to attack "Air-to-Surface" targets with Hellfire or Penguin guided missiles. Further upgrades also included LCD cockpit monitors (glass cockpit), which run a Rockwell Collins Flight Management System (FMS), a BAe ALE-47 Countermeasure Dispensing System and improvements on GPS/INS navigation and Electronic Support Measures.

The main missions for the S-70B helicopters of 2 MEN are ASuW and ASW. Secondary missions includes Search & Rescue (SAR), Medical Evacuation (MEDEVAC), Vertical Replenishment (VERTREP) and Special Operations Forces (SOF). The SAR missions of the Hellenic Navy Helicopter Squadron 2, have also a significant social (civilian) contribution and are kept on 24/7 alert status.

An Aegean Hawk crew normally consists of 1 pilot and a co-pilot, joined by a tactical coordinator/operator and an acoustic sensor operator, or a hoist operator and a rescue swimmer - or a mix - depending on the type of mission.



Coast Guard

As of 2005 the Hellenic Coast Guard became the 3rd operator out of Kotroni Naval Air Station, after leaving Dekelia-Tatoi Air base. The Helicopter Coast Guard unit operates on average 6 Sud-Aerospatiale SA-365 N3 Dauphin helicopters, which they acquired in 2004.

Kotroni is the base station from where Dauphin maintenance is carried out and training flights conducted. Coast Guard operations are flown from various detachment locations throughout the country to control and monitor the immense Greece coastal lines. The Helicopter Coast Guard unit of Kotroni is, although acting as an independent organization, placed within the operational and administrative command structure of the Command Hellenic Naval Helicopters (COMHELNAVHEL) like both the Kotroni Navy Helicopter Squadrons, 1 MEN and 2 MEN.

For several years an internal survey has been running to investigate the future requirement of Greek Navy helicopters. Although they will serve for quite some years to come, the AB-212 is the oldest navy asset which has to be replaced at some time. Another aspect is the retirement of the Alouette III in 2013 which was not followed up by a replacement, therefore reducing training capacity. At this stage there has not been any official statement regarding timings for when the outcome of the investigations and further advice will be presented.

The author would like to thank the Commander Captain Tsarmaklis, LCDR Dourmas, their Kotroni NAS crew and PA Hellenic Navy General Staff who made the article possible.



INIOCHOS 2019

TEXT & PHOTOS - PAUL VAN DEN HURK

Another episode of the Iniochos exercise took place in April 2019. The place to be was Andravida AB in the north west of Greece, three hours away from Athens. Held between the 1st- 12th April, it is the largest exercise held in the Mediterranean area.



A 'Home team' F-16 taxis by a line of Israeli F-16s.

Photo by Paul van den Hurk

Iniochos 2019

Another episode of the Iniochos exercise took place in April 2019. The place to be was Andravida AB in the north west of Greece, three hours away from Athens. Held between the 1st-12th April, it is the largest exercise held in the Mediterranean area.

Several foreign countries were invited to join the Elliniko Polemiki Aeroporia (Hellenic Air Force) during the exercise organized by the Air Tactics Center at Andravida. Among them were old friends from previous editions of Iniochos exercises, in particular the Israeli Air Force, the Italian Air Force, the United Arab Emirates Air Force and the US Air Forces in Europe. Observers from the following countries were present during the exercise: Canada, Croatia, Egypt, France, Germany, Jordan, Kazakhstan and Romania.

The Iniochos history

The Iniochos exercise was held for the first time in the late 1980's as a small scale tactical exercise. Realistic training for personnel in planning and execution of Combined Air Operations (CMAO) in a realistic environment, in order to test and evaluate operational plans and tactics. Through the years this concept became a success and the Greek Air Force made the decision to start to organize this as an annual event.

The Hellenic Fighter Weapons School (FWS), which was responsible for the execution and conduction of the exercise was deployed to Larissa AB. On this base the air force had established the National Center for Air Operations with the necessary facilities. The FWS was sent to this center to form the White Cell during the exercise, and this cell was responsible for the coordination and planning of the operations.

Participating aircraft were also deployed to Larissa and flew their missions from this air base. In 2005 the exercise was decentralized again and at that time aircraft were launched from their own homebase to fly the missions. Meanwhile, the coordination and planning of the operations by the White Cell took place at the Air Tactics Center (ATC) and Fighter Weapons School facilities at Andravida Air Force Base.

Multiple threat environments

In November 2013 the air force decided to develop the exercise into an Single Base Concept and this was tested in 2014. The objective was to create a more realistic and demanding environment with the intention to increase the level of training within the air force, for its pilots. In 2015 the air force decided to launch the exercise as an INVITEX (Invitation Exercise). For the first time foreign countries were invited and the Israeli Air Force and USAF Special Forces participated. Since then it's brought hundreds of participants together in face to face planning, briefing and debriefing.

Participants have been exposed to multiple threat environments. The exceptional flying environment - the Aegean Sea - which does not have any restrictions because it is Greek national air and water. Because of the participation of the Greece Army, Navy and Special Forces, different threat levels were implemented into the exercise throughout the years. More foreign countries has found their way to Andravida and the exercise has been expanding ever since.





Iniochos 2019

The duration of the exercise was based on 15 calendar days, but the exercise was actually divided into four phases;

- **Phase 1**
Exercise Preparation 4-15 March
- **Phase 2**
Force Deployment 26-28 March
- **Phase 3**
Execution Phase 1-12 April
- **Phase 4**
Force Redeployment 12 April

On the 11th the Hot Wash Up day was used by the participants to prepare planes and personnel to get ready to go home the day after.

During Iniochos 2019 the FWS still had the responsibility to oversee the missions, from scenario planning up to the debrief. To make certain that the missions covered the full spectrum of missions flown currently by the HAF. Some of the missions flown were, for instance;

- Air Operations versus Integrated Air Defense Systems
- Reconnaissance missions
- Combat Search and Rescue missions
- Time Sensitive Target Missions
- Dynamic Targeting / Strike Coordination and Reconnaissance / Close Air Support
- High Value Airborne Asset / Protect - Attack
- Slow Mover Protection
- Offensive Counter Air / Airfield Attack
- Air interdiction on special targets (bridges, power stations, vehicles)
- Anti Surface Warfare

The scenario of the exercise was the escalation of a local crisis into a full scale international conflict. A large flying force was tasked to operate together with maritime and land forces. Naval and Army forces provided a full scale threat and target array. During the exercise the operations made use of the majority of the Athena FIR. The Accurate Shot / Event Assessment is also an important part of the scenario. This is achieved with the use of onboard and offboard tracking data, sensors and specialized debriefing software. All these devices are used to reconstruct the missions, under the experience of Fighter Weapons School instructors who will oversee the debriefing process.

Exercise objectives

Some of the objectives of the 2019 scenario were to develop interoperability and standardization between HAF units and allied nations Air Forces, to promote jointness especially for the integration of tactics, techniques and procedures during Air Land and Air Sea operations, the use of legacy and modern assets integrated into a modern battlefield, and to prepare aircrews for the future battlefield. The mission commanders who were planning the CAMAO's during the exercise were rotated on daily bases. They planned, arranged and organized the available weapon systems, with the help of the other participating countries in order to accomplish the task of the mission.

According to Colonel (P) Konstantinos Zolotas, CO of KEAT: *"The participating personnel is exposed to an intensive battle rhythm with realistic attrition rates and challenging scenarios which include multiple modern threats and real time live injects, tailored to produce the fog of war and the friction effect (per Clausewitz), which is expected to dominate the modern battlefield and test both the physical and psychological endurance of the modern fighter."*

Deployment commander Israeli AF and commander 117th squadron: *"A formation of Blue aircraft fly low on their way to strike an airfield belonging to the enemy, the Red forces. The threat is challenging and the complex mission requires tight cooperation between aircrews from different countries. We acted as Blue and Red forces at the same time. Each side is unaware of the plans from the others. Every day each division takes a whole day to come up with the best possible plan, and the results are then examined in the debrief".*

Israeli AF deployment commander, Lt. Col. 'A': *"The threats and mountainous topography require that we plan our mission as precisely as possible and try to avoid encountering the hostile forces. During the exercise we chose to focus on low altitude flight and airstrikes on hostile areas. Made for the exercise which can not normally be held in Israel. This is our fifth time that we've participated in the Iniochos exercise. We tighten our cooperation with the international militaries. From maintenance crews and planning on the ground up to mutual flight, thus proving our place as a significant and powerful air force".*



The technical department

The MQT is provided by the Dutch 302 squadron. 'Pilot' from 117th squadron who participated during Iniochos: *"The terrain was unfamiliar, the threats were different to what we were used to and we had to face great uncertainty. A large amount of aircraft in the air makes for a mess in the airspace, and communicating in English makes everything more difficult."*

"This made everything feel like a sort of Tower of Babylon, where we have squadrons from many nations utilizing various different aircraft with each flight formation focusing on a different mission and utilizing different munitions".

Such a large fighter jet deployment would not be possible without the Technical Department, and many of the deployed IAF soldiers who handled the field and aircraft maintenance.

Explained by the commander of the exercises Technical Department: *"The main challenge in maintenance is doing it far from home when we don't have all our tools with us and our logistical support is limited. All we have is what we take with us and we have to use that in order to succeed in our mission and help the aircraft take off safely. At all times the Technical Department service members maintained aircraft from both the 117th and 109th squadron."*

"The goal was to establish a high quality training for the aircrew members. Naturally we are very curious regarding the ways other air forces maintain their aircraft, which are identical to ours. We participated in professional discourse with the US Air Force and learned about their maintenance ideology as well as the organizational structure of their technical department".

During the 2019 edition of exercise Iniochos around 2,000 men and women participated, together with 77 aircraft. The total number of sorties was 863. The deployment phase of the forces was between 26th – 28th March and the execution phase between 1st – 12th of April. The training area included the whole of Athens Flight Information Region (Athens FIR).

3rd, 4th and 5th generation

For the first time in the history of the exercise, aircraft from the 3rd, 4th and 5th generations were flying missions together.

Rather exceptional was the fact that aircraft from the two fighter squadrons at Araxos Air Base (335/336 Mira) flew missions from their own air base while participating in Iniochos, although pilots from Araxos were present at Andravida AB for the briefing and debriefing because of the physical environment. The total of sorties were flown by the participants in 9 operational days.

During the operational days usually two missions took place, one in the morning (take off time 10.00 hours local) and the second mission estimated time of departure 15.00 hours local. The mission planners also organized a few evening missions which started around 19:30 till 22.00PM.

Participants in the morning missions flew mostly above the Aegean Sea, and the afternoon participants flew above the mountain areas. Some days local missions were flown before the actual Iniochos flight.

These flights normally didn't last longer than an hour. The exercise included two air refueling aircraft, one KC-135 from the USAF and one KC-707 from the Israeli Air Force. These two tankers were only used by Greek Air Force F-16's. The pilots took fuel from the American tanker but they only were attached to the Israeli tanker without taking any fuel.





Italian Air Force

The participation of the Italian Air Force was of great importance for the exercise and the other participants. Six F-35s from the 32 Stormo and six Tornados from the 6th Wing were sent to Andravida.

The Tornados were divided between the three Tornado Interdiction Strike (IDS) aircraft and three Tornado Electronic Combat Reconnaissance (ECR) aircraft.

All this with about 200 pilots, navigators, technical and logistic personnel. The main objective for the ItAF was the integration between the F-35 and 3rd and 4th generation aircraft.

The Italian aircraft carried out some 145 sorties with a total of about 250 hours of training flights. Crews of the 6th Wing and 32nd Stormo operated in complex and highly realistic training scenarios.

SEAD and DEAD

Pilots flew Composite Air Operations training flights that included Suppression / Destruction of Enemy Air Defense (SEAD and DEAD), Close Air Support (CAS), Defensive Counter Air and Offensive Counter Air (DCA /OCA). The Air to Surface Integration (ATOSI) between the three different generations of fighter aircraft was of an educational importance. The F-35s flew side by side with the Tornado ECR from 155 Gruppo during Iniochos, which was of great value since the Lightning II is expected to replace the ECR in the future.

The Tornado ECRs were flying SEAD and DEAD missions while the Hellenic Land and Sea forces simulated the enemy threats. To make these missions more realistic and challenging the Tornados were flying with the CATM-88B captive air training missiles.

As part of large strike packages the F-35 also carried out joint missions with the F-4E of the Hellenic Air Force. The Lightning II is equipped with both the MADL (Multifunction Advanced Data Link) and Link 16 that allows the aircraft to communicate with the other generation aircraft.

Given the high level of HAF personnel and the capability to involve a variety of weapon systems within one of the largest exercise areas in Europe, the Iniochos exercise intends to become one of the competitive exercises in Europe and the Mediterranean region. Providing participants with a high level of training and unique experience of participation.

The author would like to thank the Hellenic Air Force, in particular ATC Comm. Col. Zolotas, HAF Spokesman Lt.Col. Tsitoumis and DEFAT Rome for all help received.



THE SWEDISH FIGHTER PILOT

TEXT & PHOTOS - SØREN NIELSEN

Have you ever thought of becoming a fighter pilot? Have you thought about what life is like as a fighter pilot, and how the everyday is? Søren Nielsen asked those questions to the Squadron Commander of 172 squadron of the Swedish Air Force at F 17 Ronneby, Lt Col Robert Krznic.



A pair Swedish Gripens

Photo by Søren Nielsen

The life of a fighter pilot

Have you ever thought of becoming a fighter pilot? Have you thought about what life is like as a fighter pilot, and how the everyday is? Søren Nielsen asked those questions to the Squadron Commander of 172 squadron of the Swedish Air Force at F 17 Ronneby, Lt Col Robert Krznic.

Everyone has seen the movie Top Gun, and most have most likely thought that it must be cool to be in the shoes of Maverick, and Iceman. A fascination about being in the control of the fighter jet live in most of us.

Although it wasn't the reason why Lt Col Krznic applied to become a fighter pilot, he still thinks it's one of the best movies. As he states: *"I love that movie (Top Gun), and I believe it's an important movie for all the air forces in the entire world since it really attracts people to our work."*

Not always the plan

Lt Col Krznic didn't initially plan on applying, but having family in the military shed light on what life would be like: *"I always thought that being a fighter pilot was cool, but I never thought about applying for it. My brother told me to apply when he was a conscript in the armed forces. I asked him, 'Why don't you apply yourself?', 'I think you would be a good pilot,' he said."*

Later on when I got older, when I was in college, I applied to become an air force pilot, I got in, I graduated and became a pilot. I have enjoyed my time ever since - and I don't regret it."

The education to become an officer, hereby also a fighter pilot are in many countries, including Sweden, being changed so it matches the educational system of civilian life, which means that you'll get an equal bachelor/candidate degree once you have finished the education.

This is to give the officers an educational foundation, should they want to leave the military at some point. It gives them a foundation in leadership that they can use in the civilian world, and they'll receive credentials asserting to such, as if they'd gone to a business school or similar.





The Gripens and their 'nest' - F 17 Blekinge Flygflottilj.

Photo by Søren Nielsen



Choosing where you want to be

You'll be stationed at many locations throughout your pilot education, such as the defence academy, pilot school, and depending on which kind of aircraft you're going to fly, then further training in other locations, to end up in a unit.

The Air Force tries to grant the graduates their wish to stay in the location they want, as this also brings harmony to the work and family life, as Lt Col Krznic illustrates if and how the student pilot can decide where they want to be stationed: *"If we need a lot of people on one base, let's say that we have ten students, then we're going to say that three of you will go to this base, three of you will go to that base and four of you will go to another base. Then we usually give the students the opportunity to choose which base they want to go to, and they'll usually sort it out amongst themselves. If they can't, then we, as an air force, will choose for them."*

But usually it works pretty good. If someone would come to my base and be very unhappy, because they have the family in the north, they could apply for a transfer, and I would support them and do what I can help them to swap. I might be able to do a switch by getting a pilot from that wing, and send our pilot there, or maybe just accept to be one pilot short for a period."

Besides having a solid educational foundation, a family and the life around the family is also important. Someone may consider it difficult being in the military, where everything seems strict, and combining it with family life.

But as Lt Col Krznic explains, there are challenges that need to be faced yet you can still have a family life: *"We have of course a lot of challenges - when you start you might have a partner, girlfriend or boyfriend, and eventually also children. That makes it slightly more challenging, since we can be away from home on exercises or operations from time to time, it requires some good, solid support from the partner"*

But of course it's possible to live both the life of a fighter pilot and have a family life, too."



Take care of the people

Lt Col Krznic continues: *“With a great understanding from your partner it’s going to be easier. We try to plan pretty things far ahead, so you can inform your family, and start making plans to be able to conduct your work. Planning and communication is essential, not just in your professional life, but also in your personal life.”*

It’s not all just strict orders with no flexibility. The human factor plays a big role in the way that Lt Col Krznic and his colleagues lead the air force, as he explains: *“We have strict orders, but beyond that and besides that, we have to take care of the people too, and I can not do that only by giving orders.”*

I have to have the human aspect of it as well, I need to understand the individual. If the person is happy, or if I feel that I can help them to become happy, I know that they will contribute with a lot more, and put in a bigger effort in their work

Essentially we’re helping each other. That’s my idea of being a squadron commander, I want to help the team as much as I can, and when I require them to be here, and to put in a lot of hours, then I expect them to contribute with all they can for the air force.”

As a squadron commander, Lt Col Krznic makes sure that his colleagues get the support needed, so that they can support him and the air force when needed: *“As the squadron commander I will support my team; if they need something I will do anything I can to support them, because I know they will support me and the air force as much as they can in return.”*

As an appreciation for that I in turn help them as much as I can. If someone was to have problems within their family, then I’ll try to support them, help them, and I will try to reschedule them to be able to take care of their family life.

I try to be very humble to their ideas and thoughts.”

The duty of a fighter pilot can be explained quite simply; to protect your country. Going beyond that the duties are more than just that, but the working hours are not much different from any other job, and they try to work within normal working hours.

Protecting your country

Lt Col Krznic explains: *“My duty is to protect my country - that’s the first duty I have. Then we have a couple of lower priorities; In peacetime, I need to be able to protect our country, and we do that with the QRA. We’re protecting our borders 24/7, 365 days a year, and we’re ready to take off to see who is getting close to our air space.”*

Then we’re educating younger pilots, once they have had their transition to the Gripen. When they’re done with the transition they will come to the squadron and we will teach them the tactical flying.

Beyond that we will do exercises, to be air combat ready and to protect our country.

These are the three duties we have. Normally we work normal days, sometimes you have to do QRA, which could be during weekends, Christmas, New Year, all year around, but the norm is an ordinary day work.

Usually we have long term planning, and sometimes things will happen in a short period of time, but then we’ll take care of it. With long term planning, it’s easier to plan your civilian life, and I think it works pretty good. Usually everyone is very motivated and tries to solve it, should anything come up.”

Having the benefit of normal working hours gives the possibility of living a regular life for all the crew of the air force, as Lt Col Krznic continues: *“Take myself as an example; I’m a soccer coach and I’ve been on the board of a tennis club. And I have to say it has worked quite well to combine work with a regular life with my family.”*

For me as a squadron commander, I have a lot of administrative work too, but I think it’s very important for me as a squadron commander, also as a leader, to be present in the most important work we have - and that’s flying. Everything on this base is here, to make it possible for some to be airborne, and I’m a part of that.”







Career possibilities

Lt Col Krznic continues: *“Besides that I go to meetings, take care of the administrative tasks, and contribute to the next generation of the air force. We always have to plan for the future as well. Sometimes we have to change tactics, we will have new equipment and we will try new tactics. It’s a very big dimension of the work that we’re doing, not only for me as a squadron commander, but also for the pilots.”*

The career possibilities within the air force are also many. Depending on what you want and where you want to live, you can more or less choose your own path, as Lt Col Krznic has done: *“As a pilot you’ll start as a student, a rookie, and you’ll develop yourself in a lot of different ways to be a good pilot. When you’ve been flying for a couple of years you’ll be presented with different paths and options. I, myself, chose to become a squadron commander, selected from the air force. It was the path presented to me and I took it. And if you don’t want to do it yet want to fly longer, you’re able to do that. Especially right now, as we’re losing a lot of pilots due to retirements within the next couple of years. So we need all the pilots we have. And today, and for the foreseeable future, as you get older you’ll have the opportunity to stay with the squadron and continue flying as a pilot.*

You can have a lot of different options, some people want to go to flight school to be an instructor, some people want to be a test pilot etc. So we have a lot of different paths in the air force should you want to stop flying after several years.

Then we have a lot of interesting positions in the headquarters, or you can be in operations, or work in other facilities not restricted to Sweden. There are a lot of opportunities to choose from.

I’m a squadron commander, and I’m going to be a squadron commander probably for four years. After that I’ll most likely have some other work connected to headquarters or something else (within the armed forces). I have a lot of opportunities for my next job after being squadron commander. If I know what I want to do I can try to apply for it, knowing I have a bigger chance of success if I do it well in advance.”

Son’t be afraid to apply

Don’t let the negative mindset of “I can’t become a pilot” or “I don’t have what it takes to make it through the education” or similar stop you from applying. As Lt Col Krznic explains: *“I want people to apply to become a pilot, or another air force officer, or armed forces officer, not only for Sweden, but for the country you live in, it’s a great job. I think it’s a challenging job, and I like that you’re doing something good for the society. People might not acknowledge you, but it’s actually good when they don’t see you.*

If you’re doing your job well nobody will interfere with your country. And as long as it’s like that, then you’re doing a good job. So for me it doesn’t matter if people don’t pay much attention to my job, I will continue to conduct my work to the best of my abilities and defend my country.

I talk to a lot of people that tell me ‘I can’t apply for it, it’s so difficult to enter and to become a pilot’, and I just say that you do not know that until you apply for it, and give it a try. And my message is, especially to young people, think about all the work, think about the pilot work, but also the important squadron work for the mission support element, and for all the different jobs we have in the armed forces. It’s good and challenging work, and we need people.

Don’t be afraid to apply for a challenging job. If you won’t be able to become a pilot, you’ll find another path. In order to become a pilot, you don’t have to have the best grades in school, but you have to have some specific characteristics, and if you have those special characteristics, then you can become a very good pilot. But you won’t know unless you try - apply for it, do the test, and if you have those characteristics, then you’ll have a challenging and great job for life.”

Lt Col Krznic concludes: *“I feel that I contribute to a good cause, to keep the peace for the people of Sweden and let them live safely. If we will be attacked, then we need to be there. But of course I hope that I’ll never have to use my aircraft in a real life war situation.”*

The author would like to thank the entire F 17 wing, and especially Lt Col Krznic, Major Westerstrand, and Jerry Lindbergh for making this article possible.

FAREWELL KING OF THE SEAS

TEXT & PHOTOS - DANNY REIJEN

With a 43 year old career as “the King of the Seas”, it is time to say goodbye to the venerable Sea King within the Belgium Air Force.



*The Seaking shines at night.
Photo by Danny Reijen*

Farewell King of the Seas

In 1976 five Westland-built Sea King Mk48 helicopters were delivered to the Belgian Air Force. Two Sea King helicopters were withdrawn from use in the past, the first in 2008 (RS-01) and the second in 2013 (RS-03).

Three Sea King Helicopters remained in Belgian Air Component service, operated as they have always been, by 40 Squadron at Koksijde Air Base on the coast of the North Sea. Their primary role is search and rescue. The fleet made more than 60,000 hours in the last 43 years with none of the airframes being lost.

The most remarkable rescue with a Sea King took place during, and after, the disaster with the ferry “the Herald of the Free Enterprise” off the coast at Zeebrugge on March 6th, 1987. Three Sea Kings were able to rescue 30 passengers in all.

The Sea King will be replaced by the NH Industries NH-90 NFH.

4 NH-90 NFHs will replace the three Sea Kings and the Alouette IIIs from the Belgian Navy.

In 1971 three Sud Aviation SA316B Alouette III were bought for the Belgian Navy for use as supply helicopters for ships at sea and are the frigate helicopters for the Belgium Navy Component. They used to be operated by the Marine Flight, that reported to 40 Squadron, based at Koksijde. Since July 2004 the flight has been completely absorbed into 40 Squadron.

The old Alouette IIIs are still on strength with 40 sqn but this will soon be over as well. Until now, a date regarding their withdrawal, is unknown.

The last goodbye

Because of the planned withdrawal of the Sea King, aviation enthusiasts got the opportunity to participate in a photoshoot on the 9th of January 2019 to get a last glimpse at the Sea King during a day and night shoot before they are withdrawn from use. With probably the last public appearance this day, with many people thanking their lives for the rescue of the Sea King, it is time for the mighty Sea King to hand over their search and rescue duties to its successor - the NH-90.

According to the Belgium Air Force the Sea King, with serial RS-05, will fly the last operational Sea King mission on March 21th, 2019.

With a 43 year old career as “the King of the Seas”, it is time to say goodbye to the venerable Sea King.



THE NEXT ISSUE OF FLYMAG MAGAZINE

The next issue of FLYMAG will be published in September of 2019. Ivan Voukadinov reports from the 115th Fighter Wing of the Wisconsin Air National Guard, and we take a detailed look at the Romanian Air Force amongst other.



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