

ISRAELIAN DEFENCE FORCE

STRONG BEGINNING IN A NEW MILLENNIUM

Every street or highway characterises itself with cars bearing 2 small little Israeli flags both sides of their roofs. Israel's 56th Independence day is a fact and it is celebrated with great festivities and also a 'Open Day' on the most Northern Airbase Ramat David. Here the many types of airplanes could be enjoyed and seen. Though the phasing-out of the F-4 Phantom - in Israel it's called 'F-4 Kurnas' - didn't bring the expected extra attention or fly-pasts. About 50.000 Israeli's visited this open day, being checked on every single person under extreme safety-conditions. Next to three Israeli press-people only three foreign journalists were permitted to make pictures for publication, and Cer Senin was there for you !! Also other bases were visited such as Hatzor, Tel Nof, SdDov, Tel Aviv and Hatzerim. Next to that some other departments of the IDF/AF (Israel Defence Force/Air Force) and other opportunities were visited.

IDF/AF – NOT A SEPARATE AIR FORCE

In contradiction to other countries who know separate defense-parts Israel has a total defence force called IDF, Israeli Defence Force. Navy, Intelligence, Groundtroops and Airforce have been integrated in one big organisation under one command set-up on 28th of mai 1948 by the former prime minister Ben Gurion. Next to this one organisation every other armed organisation in Israel is forbidden. The IAF (Israeli Air Force) is responsible for the complete 'Air Warfare' and is the only military aviation-force in the 'Defense Forces' which makes them the use the biggest part of the budget within the 'Defence Forces' because IAF also provides the Navy and Army parts with facilities. IAF's main tasks concern defending and maintaining the Israeli airspace 'Air Superiority' under all circumstances within the 'IDF's operational arena' Characteristic for three 'ring zones' as they call it themselves.

It's an importance of life that IAF secures and guarantees the superiority over the 'Combat Area'. Next to that their second goal is the 'Strategic Attack', under all weather conditions and 24 hours a day. IAF has a third task the CAS ofwel Close Air Support. The Israeli's are in contradiction to many other airforces rather reserved in giving information which is not surprising, but the information that was given is surely interesting to focus on. Israel is surrounded by Egypte, Jordan, Syria en Lebanon.

These countries form a Imaginary first defensive ring around Israel. Peace with Egypt and Jordan is called a 'cold peace'. Though there is economic traffic with these countries, all the rest of the contacts are at low-level. A second imaginary ring is formed by Libia, Saudi Arabia and Iraq. Everything outside these rings makes the third ringzone. This is simply said where the total defence of IDF is based on. Regional they accurately monitor 24 hours a day to avoid any sudden surprises. The strike aircraft of the Northern Ramat David can be over Lebanon within only a few minutes in case it should be necessary. Historically seen the older readers probably remember the Suez crisis (1956). In 1967 there was this six-day war, Yom Kippur in

1973 and in the period 1968 – 1970 Israel wasn't exactly on friendly speaking terms with Egypt. As the only Western oriented country in this region they must have a strong self supporting defence force for not to be wiped off the maps or driven into the sea. Worth mentioning fact for instance is that Israël has it's own plants where 'Hohova' is grown, little beans used for the production of very eminent oil, directly used for jet-engine applications. The firmly friendly connections with the United States resulted in the fact that the backbone of the airforce is dominated by American types of aircraft. Next to that there is an important own aviation industry which not only produces it's own types (IAI) but also modifications for the airforce (IAI), avionics (ELTA) and software (ELBIT) of excellent quality.

On worldlevel Israel is a major player providing knowledge, and various upgrading kits and packages are to be found on their commercial market for specific upgrading the older fighterjets to be found in the former Eastern european countries. In spite of the capacities to modify and digitalise continuesly some types of aircraft simply reached the end of their operational life because the qualities of the airframes are no longer of this time. Within these perspectives the IDF/AF wil say goodbye to the F-4 Phantom (Kurnass) and also the A-4N Skyhawk (Ayit) starts it's last days now, both legendary types. This makes the small number of world F-4 operators one less. The F-4 is destined to the museum(s) as well as the A-4, though a number of these found their way already to Bae Systems Flight Systems, who give them a last life-extension as target-towing machines for the German 'Luftwaffe'.

F-15I AND F-16I – TWO 'NEW' WELL KNOWN OLDIES

Nowadays the tasks of the A-4 and F-4 are taken over by the F-15 and F-16 who now are the main battleforce of the IDF/AF. There are 3 F-15 squadrons with the F-15 A/B/C/D versions named "Baz" and the F-15I, the Israëlïan variant of the Strike Eagle named "Ra 'am". With these 3 squadrons Israel has at it's disposal an air-superiority interceptor as well as a hypermodern 'Strike Eagle', attack airplane. In total there are nine F-16 squadrons who fly the F-16A/B "Netz" and the F-16 C and D types 'Barak'. The Barak is a higly improved version compared to the Netz version with amongst other things fly-by-wire and FLCS (Flight Control System) which implicates that on the stick various programs – all digital – can be programmed. Improved avionics, displays, radar, cpu, extremely flexibel in weaponsystems and more capable engines. Make it extremely capable and suitable airplanes. They will be concentrated mainly at Nevatim as well as the new F-16I 'Soufa' or ' Storm'. Nevatim will be the new mega-base of the IDF/AF in central Israel.

This new F-16I is not just an improved machine, it's another feeling flying this F-16I. Concerning the pilots we were explicitly asked not to picture their faces or publish their names due to their own safety. Not extremingly surprising, knowing that Hatzor base where 105 Sqn is based, is just a stonethrow away from Ghaza. The 'Soufa' F-16I variant is very new, in december 2003 it made it's first flight. In total 102 twin-seaters will be delivered. The special for Israel developed F-16I (I stands for Israel) - who just like the Barak is to be recognised by it's high back from cockpit to tail – is born out of the vision that little by little the multitude of systems is too much for the

pilot to handle all at the same moment. Nowadays on the heavy attack-platforms the pilots are working combined with a navigator as on the F-15 Strike Eagle, Tornado or the F/A-18 Strike Hornet. De F-16I also covers this need. The tailfin contains many avionics, on both sides of the fuselage there are 2 IAI-developed CFT's (Conformal Fuel Tanks) for a bigger action-range and there is more room for chaff and flares. (self defence systems for ground-air and air-air attacks). Next to that Soufa has turnable tailwings and cracks in the thrust-vector. For the complete fleet F-15/F-16 the most advanced weapons are purchased like AIM-120 AMRAAM Beyond Visual Range (BVR) missiles (F-15), JDAM-munition (F-16), Lantirn-system (F-15I) or Litening navigation and targeting pod (F-16I), AIM-9L Sidewinders as well as possibilities for the own weapon industry. (Rafael). Rafael profiles itself with the Rafael Phytion 4, a 4th generation air to air missile with a very large 'no-escape' zone and a very high accuracy sometimes called the most advanced WVR (Within Visual Range) missile in the west. This broad range weapons between stupid bombs and highly advanced smart-bombs like 'guided laserbombs', 'guided TV bombs', and guided GPS bombs' who use laser-targeting, TV-guided or GPS guided, a tremendous battleforce is available. The IDF/IAF has clearly an offensive character, and for anyone who knows the political situation this is fully understandable. Who ever needs to show a strong defensive deterrence needs the possibility to be able to win the first strike and counter it. This also concerns the helicopter services with AH-1 Cobra and AH-64A Apache battle helicopter squadrons which are called in Israël the 'Tzefa' and 'Peten' The Peten is armed with the deadly Hellfire missiles.

PILOTS, THEIR TRAINING, THEIR MISSIONS

IAF has been fully integrated in operations to be fulfilled on land and at sea. It is the 'long-range arm' of the IDF, a highly advanced organisation that attempts to have at their disposal 24 hours a day highly qualified personell and the best material in operational conditions. IAF exists out of five departments knowing te be Headquarters, Command & Control, Special Forces, the Squadrons and Maintainance. Dear the political situation and the position in the region it's a necessity and life concerning matter for Israel to have a well trained and strong army, as anyone shall understand. Though this doesn't mean that while necessarily actions take place always an overdose of violence is used, like the media always try to let us believe, on the contrary. Some films were shown to us of missions which we recognise from the Gulf-war. A situation was explained to us where a military enemy target had to be eliminated on enemy territory, a target which was situated in a civilian quarter in a house on the first floor !

How simple it would have been just to bomb the object, to blow away the house completely and make this operation military considered a 120 % succesfull one ! It would have possibly caused many civilian casualties. After reconnaissance the choice fell on a 'smart bomb' which was capable to penetrate the building and explode afterwards. A percentage of explosive load was used to make sufficient damage inside, but to avoid as much as possible civil victims outside the building. A 100 % result was not guaranteed within this choice, and even more less while - thinking from the same principle – a less effective impact angle was chosen according the building. A more effective angle might cause again civilian victims as

the pictures on the film explained. This accuracy nowadays enables the helicopter pilots not only to be able to choose what window the missile has to penetrate, but also in what corner of the window this fact should take place. Again - in contradiction of what the media like to make us believe – many times if the chance of collateral damage was too big a risk, and attacks were cancelled to avoid many civil victims. Except the fact that a pilot during real-time actions is fully depending - next to his avionics – to himself, within the Israeli Defence Force a brotherly cooperation exists between the Airforce personnel and the technical services. Like our pilot explained it is extremely important to be able to rely completely on these crews, therefore they are held in an optimal up-to-date and professional level. Much time and attention is used and paid to de-briefing, looking back and comparing to other missions to learn how the best can be done even better. How missions technically seen are executed we didn't get informed, except that one never flies alone and depending on the heaviness of the missions they always fly from two-ships formation up to about sixteen-ships platforms.

How do you get to IDF in case that is your dream ? It's simple ! Every eighteenth year old person joins the IDF. After the first selections either you join the ' Army-side ' or you join the Flight academy. This last group of selected ones only concerns a 10 %. Half this 10% will never reach the level of fighterpilot, which is ascertained already the first year, and about 32 % fall off in the second or third year. Only the extreme-best candidates (18%) get through. This group gets the dull nick-name ' Pilot-flowers ', like you get a nick-name in the first class of high-school. The first ten months of the first academy year through programs is tested how pilot fly on the F-16 and Skyhawk. On the end of this year the Commander exclusively decides what airplane a pilot is going to fly. This brought up the question for what kind of missions an F-16, and what kind of other missions an F-15 requires. The answer was as simple as amazing ! In fact they take whatever is available depending on the location. It doesn't matter if we send out F-16 platforms or F-15. The effectiveness is similar but generally spoken you could say that the F-15 is preferred in situations where air-to-air fights can be expected.

On the Academy at Beer Sheva five you get stages. First year concerns the operational trainings units of the F-16A/B. After that a nine months training follows in ' Basic Alert ' methods. Thereafter a period of eighteen months ' Any Alert ' stage, and training to work with unguided bombs, which gives you the qualification ' Full clarification '. Next a period follows of six years ' Pilot in the squadron ' in which you just build up your experience with your plane, ' Briefing, Flight, Debriefing ', air-to-air interception, using the guns (Vulcan, 6000 / minute), and specially training in all kinds of war simulation. According the air-ground part of course navigation is very important and training in avoiding unnecessary dangerous situations of all kind. Working with guided missiles, and training in ' leading the mission ' which means you are the ' leading man ' in executing sorties with all the other fighters. Finally the ' best of the best ' can try to take the ' Leading Course '. If you succeed for that you can fly everything under all circumstances and you may operate as ' leading man ' in real missions. One of the very best was Colonel Ilan Ramon, flying with the ' Scorpions '. From 1988 he followed the NASA space program and became the first Israeli astronaut. On the 1st of february 2003 he died catastrophic in the Columbia accident.

CSAR – COMBAT SEARCH AND RESCUE

One who has a strategy which reaches outside the borders, has self-evident the techniques to recover shot-down pilots. Implicating procedures to secure a quick fetch of them to Israel, wounded or not. Israel has a reputation to keep up with concerning CSAR. Just think of the famous raid on Entebbe where lots of Israeli hostages were liberated. Enemy territory is a daily item for the IDF/AF. The question how pilots are taken back and in what way remained unanswered of course, but they didn't mind explaining us that it is not only a matter of action after a pilot is missing or shot down. Much (self) survival training and attention is paid within the training courses to be able to hold out to the moment that CSAR-teams are on the spot to repatriate the unfortunate pilot. The specific case of Ron Arad, the shot down navigator who could not be traced and whose body was only recently released became a national trauma. The IDF/AF has own tankers (B707 Re 'em) at their disposal to be able to refuel air to air and as many types as possible should be able to connect on this system. This is also the case with the helicopters, operating with the Hercules KC-130 "Karnaf". Next to the well known CH-53-2000 "Yas 'ur" also the new UH-60L "Yanshuf" gets in flight refuelling probes (IFR) which makes operations far outside own territory possible.

BASEVISITS

Next to Ramat David, host of the open day, homebase of various F-16 squadrons and the marine helicopter squadron with HH-65 "Alatef" helicopters for day/night S.A.R. and reconnaissance missions Tel Nof was visited for a Photo-call and also the bases Hatzarim, Sde Dov and Ben Gurion in Tel Aviv. Sde Dov houses a variety of training planes such as the TB.20 Socata "Pashosh" and light helicopters of the Bell 206 "Saifan" type. Some Dornier Do-28 "Agur" planes do special intelligence electronic monitoring flights from here. At Ben Gurion the transport and tanker squadrons are stationed with some units light aircraft such as the IAI Arava. The IAI Westwind Seascan "Shahaf" marine patrol plane has been replaced by the new Beech King Airs "Tzufit" equipped with ELTA search-radar which is produced in Israel. At Hatzarim next to the "Hammer" squadron with the F-15I Ra'am (Thunder) the Flying Training School (FTS) and Flight Test Centre can be found. Elementary jet training and integration of new types of aircraft is taking place at this airfield. Also to be found here is the huge Air Force museum where we can find old friends such as the Super Mystere, RF-4E Phantoms and not to forget the Kfir's. The technical school at Haifa trains students for construction and maintenance techniques for the aviation industry or the military forces. Hatzarim museum shows us amongst other arms a big variety of phased out as well as operational types of airplanes.

ISRAEL AIRCRAFT INDUSTRIES (IAI)

IAI is very experienced as it comes to aircraft construction and production techniques. IAI-Lahav is the main "System Integrator" for the airforce and new avionics, mostly out of Israel's own 'kitchen' are implemented here. Various commercial kits can be bought by foreign customers who want to lift their planes into the digital era. Technical sublimation is the IAI- ELTA "Phalcon" AEW version of the

Boeing 707. This machine has no turning radar high mounted on it's back like AWACS but the systems are built in the sides of the fuselage. Visiting the country is very much worth while, if it were only to purchase a T-shirt with the texture: ' Don't worry America, Israël is right behind you!' Our impression after visiting Israel is one of a very competent defence force and eminent aircraft industries in which all aspects of techniques from the west are to be found. Not very seldom in an approved way !

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