The As Skyhawk



ANTI



The IAF Aircraft Series

This publication is intended to bring to all modelers as well as to all Israeli Air-Force enthusiasts, the story of the legendary arm of the IDF.

It is based on the different types of aircraft, on the highest possible professional level, both of the epic as well as of the technical data concerning the aircraft, the squadrons' insignia and specific duty of the aircraft in each squadron.

All the details were gathered by the author in years of dedicated work on the subject; some of this material has been published in the past, but never in such a comprehensive way.

The profiles of the aircraft have been designed and accurately reworked by computer as well as the squadrons' insignia, marks and signs.

All the photographs are from the private collection of the author and from friendly contributors. There are still many classified details like the squadrons' numbers etc... Therefore these are not mentioned together with their signs and names.

I hope this publication will be of interest and help to all it's readers.

About the author

Amos Dor was born in 1958 in Tel-Aviv, Israel. His father served in the IAF between 1950-1954 and later, for many years, as a civilian in the IAF and the Israel Aircraft Industries, in various positions.

No wonder that Amos "breathed" IAF and it's legends - which are real - since his craddle days, and this is about when he started to build plastic models.

Later on he graduated from the IAF technical school and served as a "A-4 Skyhawk" mechanic between 1977-1980 in the "Flying Wing" Squadron. He then continued as a reservist in the same squadron until 1982, when he "converted" to the F-16.

In 1988 he was a founder member of the I.P.M.S. Israel and the editor of the club magazine "Kne-Mida".

Today he lives in Milano, Italy, with his wife and daughter, he owns a Graphic Design Studio and is, of course a member of the I.P.M.S. Italy.

© Copyright 1999 AD Graphics August 1999 Milano - Italy P. IVA. 12472810154 e-mail. Info@adgrafica.com Web: http://www.adgrafica.com

All rights reserved. No part of this work covered by copyright hereon may be reproduced or used in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping or information storage & retrieval systems, without the written permission of AD Graphics.

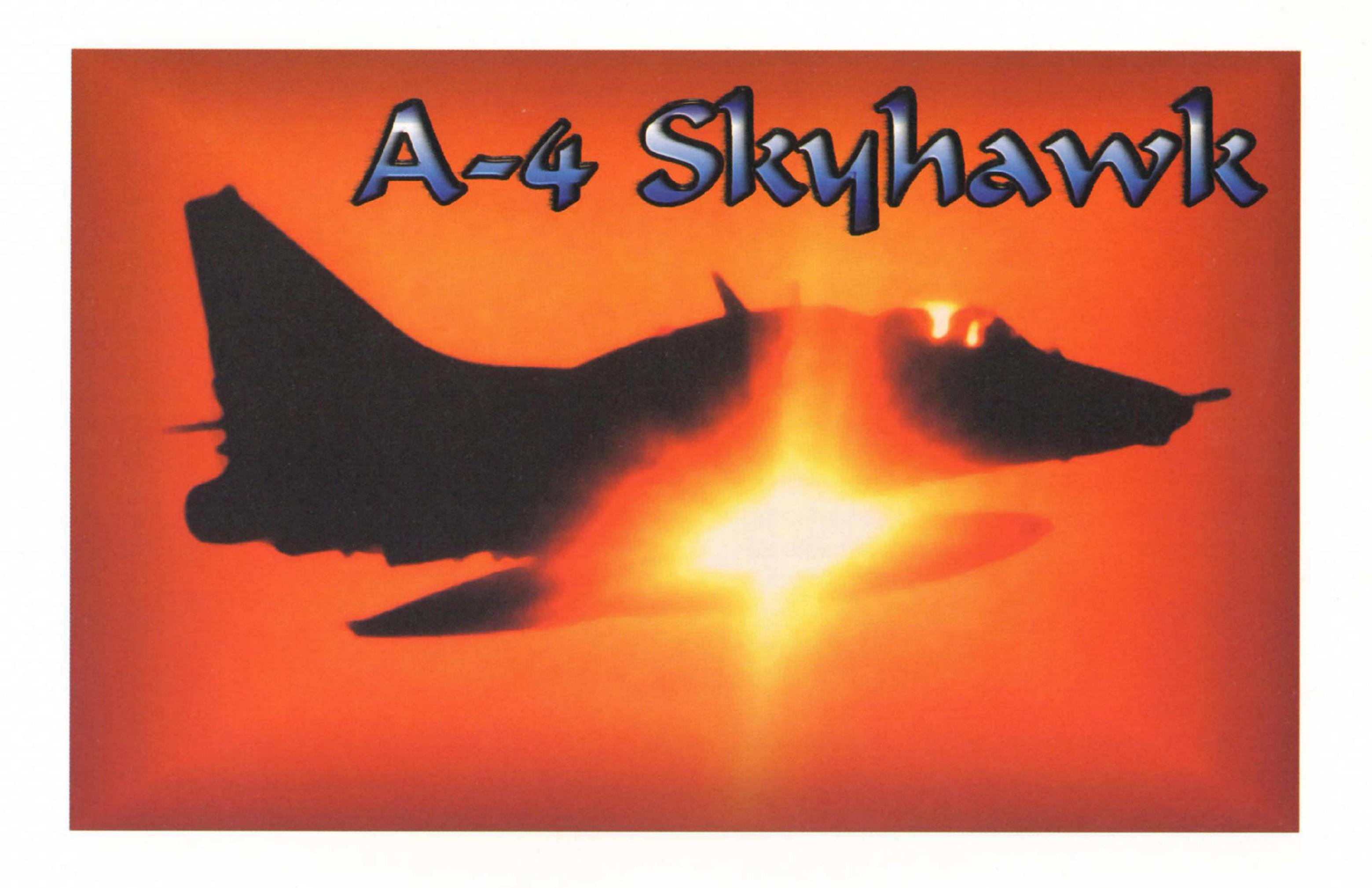


TABLE OF CONTENTS

The A-4 Skyhawk in service with the IAF.	P 2
A-4 SKYHAWK types in the IAF.	P 3
The "VALLEY" Sqd.	P 4
The "FLYING TIGER' Sqd.	P 7
The "FLYING DRAGON" Sqd.	P 10
The "FLYING WING" Sqd.	P 13
The "GOLDEN EAGLE" Sqd.	P 16
The "SMASHING PARROT" Sqd.	P 18
The "GORING DEER" Sqd.	P 19
The "KNIGHTS of the NORTH" Sqd.	P 23
The "FLYING SCHOOL BASIC" Sqd.	P 25
The "FLYING SCHOOL ADVANCED" Sqd.	P 27
Technical data	P 29
The IAF fierst mid-air refueling a/c	P 30
Notable dates and events.	P 34
Epilogue.	P 35
Modelers sources.	P 40



THE A-4 SKYHAWK IN SERVICE WITH I.A.F

During the tenure of EZER WEIZMAN as commanding general of the IAF (28.7.1958-26.4.1966), the procuring policy was to stop dependence on a single a/c supplier (FRANCE) and convince the US administration to help doing it. Weitzman focused on the A-6 INTRUDER but the US finally agreed only on a limited quantity of 48 SKYHAWKs. So, willy-nilly, the SKYHAWK was here!

The contract for the 48 a/c was signed on June 2nd, 1966; however, the main point was that not only the IAF had a new supplier, but also a lasting strategic partner. The era of American a/c with IAF began. To start with the integration program of the SKYHAWK into the IAF it was given the code name "AYIT" (Vulture).

The "VALLEY" sqd. located at the RAMAT DAVID base, till then flying "MYSTEREs IV" was the first to upgrade and fly the new a/c. A second and new sqd. was created, in HATZOR base to be stationed later at the new HATZERIM base, the "FLYING TIGER" sqd.

The IAF also requested a series of modifications and McDonnell introduced them into a new type specially for the IAF: it was the A-4H type. Some of the items were: Brake-chute, Squared-off fin tip of the vertical stabilizer which also increased it's surface; as well as changes in the E.C.S.

The first four A-4Hs arrived in Israel by ship to the Haifa port, on Dec. 19th, 1967.

From the port they were transported by trucks to the IAF Technical school for a very impressive ceremony which took place the next day and one day later they were transported in the same way to their new home base at RAMAT DAVID. The first flight of the SKYHAWK in the IAF was performed by the "VALLEY" Sqd. CO. Lt. Col. OHAD SHADMI, on 1.1.1968.

Following the first order, an additional agreement was signed for 42 A-4Hs and 10 two-seaters TA-4Hs which were supplied during the years 1969-1970.

Some USAF out-phased A-4Bs were also supplied to the IAF mainly for maintenance-training purposes, as well as an additional TA-4H which was converted from a TA-4J.

The IAF purchased also about 50 US Navy and USMC surplus A-4Es overhauled in the States and delivered in the course of 1971.

The IAF used the SKYHAWK massively during the "ATTRITION WAR" and was satisfied with it's performances; so much so that it ordered a respectable quantity of the very new improved SKYHAWK II (for Israel only, coded A-4N).

According to the manufacturers publications, Mc Donnell sold 117 A-4Ns to the IAF between 1972-1976.

To replace a/c lost in the "YOM-KIPPUR" war, about 60 surplus US Navy a/c types A-4E, A-4F, TA-4J and TA-4H were also sent to the IAF.

The SKYHAWK was used as a fighter by the IAF in by far larger numbers than by any other country which had it in it's arsenal.

The SKYHAWK was considered the "work-horse" of the IAF until recently, when the F-16s started to gradually replace it.

The SKYHAWK is still used as an advanced training a/c and two Sqds. are flying them as OTU in "quiet times" but can quickly change into an emergency fighting force, if needed.





A-4 SKYHAWK TYPES IN THE I.A.F

A-4B

The second operational type of Skyhawk, it started it's career in the US navy in 1956.

It was originally equipped with the Wright J65-W-16A engine of 3,500kg. thrust-power, later replaced by the more powerful 3,860kg. engine. Only very few of these a/c made the trip to Israel and were mostly used for maintenance ground-

training.

A-4E

This was the fourth type developed for the USN and became operational towards the end of 1962, it had a heavier load capability and a longer range. It was propelled by a P&W J52-P-6A engine with a thrust power of 3,860kg.

It was later up-graded to have a J52-P-8A engine with a thrust power of 4,220kg.

This type had five external hooking points, capable to load 3,720kg.

Some of the a/c were equipped with an electronic counter-measures (E.C.M.) system, installed behind the cockpit, on the upper part of the fuselage (dorsal hump).

The mid-air refueling probe was redesigned to be shorter and inclined sidewards.

A-4F

Derived from the A-4E, it had the following improvements:

- Wing leading-edge slots.
- Steerable nose-wheel.
- Low pressure tyres.
- Zero-altitude ejection-seat.
- Armored plates around the cockpit.
- Advanced E.C.M. System.

A-4H

Based on A-4F, it was up-graded as per IAF specifications:

- Landing drag-chute.
- Replacement of original 20mm cannons by 30mm DEFA cannons.
- Increased surface of the vertical stabilizer by squaring-off the fin-tip.

The IAF equipped it with a new E.C.M. system, placed in the dorsal hump and later on it replaced the J52-P-8A engine with the 5,080kg. J52-P-408N engine, however, the refueling probe was not modified!

A-4N

Based on the latter version of the A-4M.

The IAF requested the following additional modifications:

- Cockpit redesign (human engg.).
- Increased cockpit hood for better bird's-eye view capability.
- -Shorter and inclined probe.
- -Latest state-of-the-art E.C.M. System, including targeting and navigational "KRISTAL" system.
- Head-up display.

The first A-4N made it's maiden-flight in June 1972 and the new type was named "Skyhawk II".

TA-4J/E/F

Two-seat training type with low fighting capabilities (no rockets, no cannons etc...)

The E&Ftypes had 20mm cannons.

Engine: J52-P-9A.

TA-4H

Two-seater based on the A-4H, it was developed for the IAF as an advanced OTU a/c.

It was equipped with an internal targeting and navigation system, as well as with a couple of 20mm cannons. (some with 30mm).

Up-Grades

After the "Yom-Kippur" war the IAF equipped all types of it's Skyhawks with a tail-pipe extension, to minimize damage by hot or infra-red oriented missiles.

The IAF also installed on all A-4N a/c - on the rearlower section of the fuselage Chaff-Flare launchers.







The "VALLEY" Sqd.

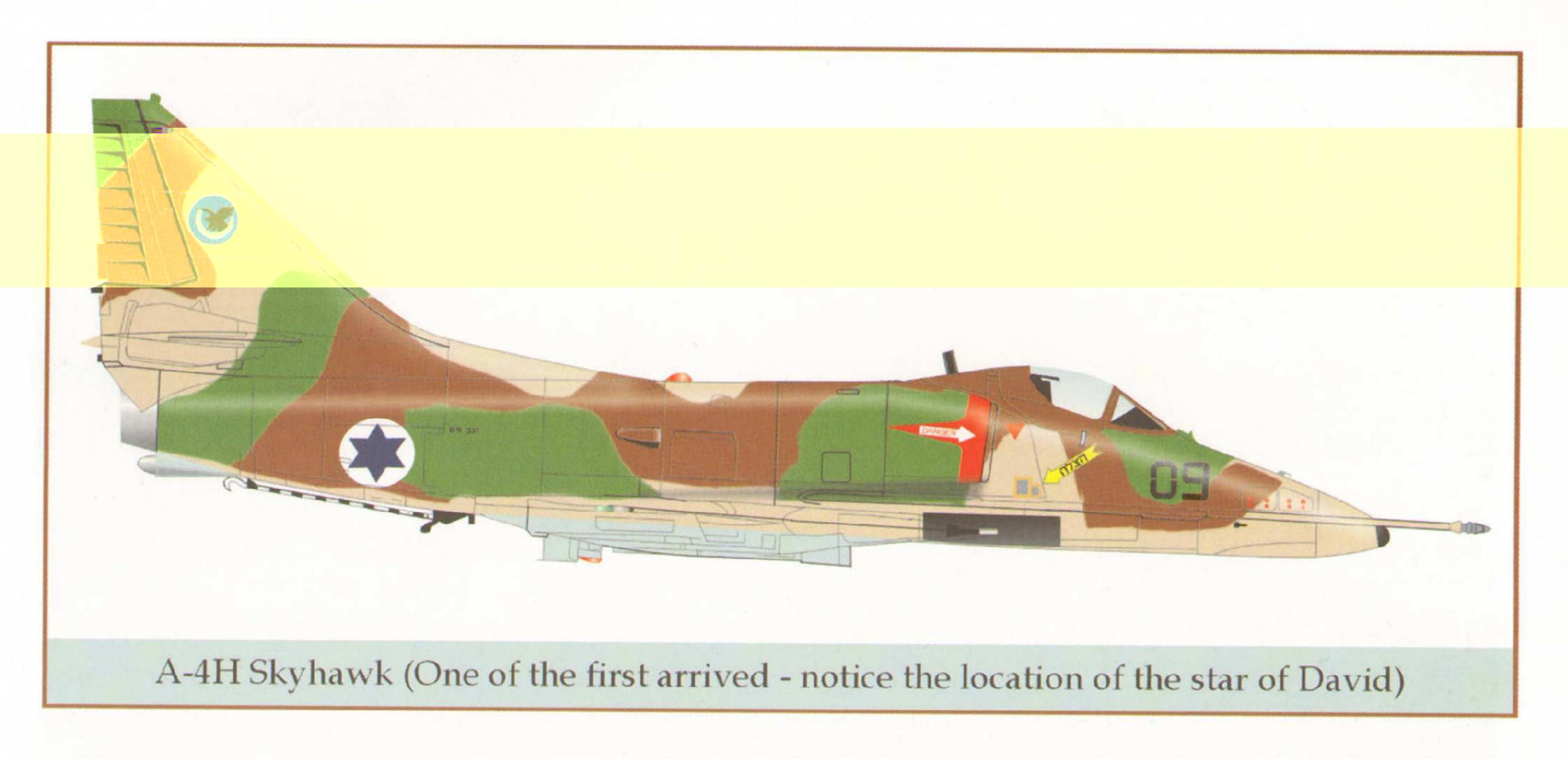
Was founded in June 1952 at RAMAT-DAVID base as the first MOSQUITOSqd. On 1st. December 1956 the Sqd. converted to MYSTEREs and on 29th December 1967 the Sqd. converted again this time as the first Skyhawk Sqd. The first 4 a/c to arrive were H type and numbered 03, 05, 07 and 09. As the first Sqd. CO. was nominated Lt. Col. Ohad Shadmi. On July 1985 the Sqd. phased-out, and reopened on July 1991 with the new F-16D.

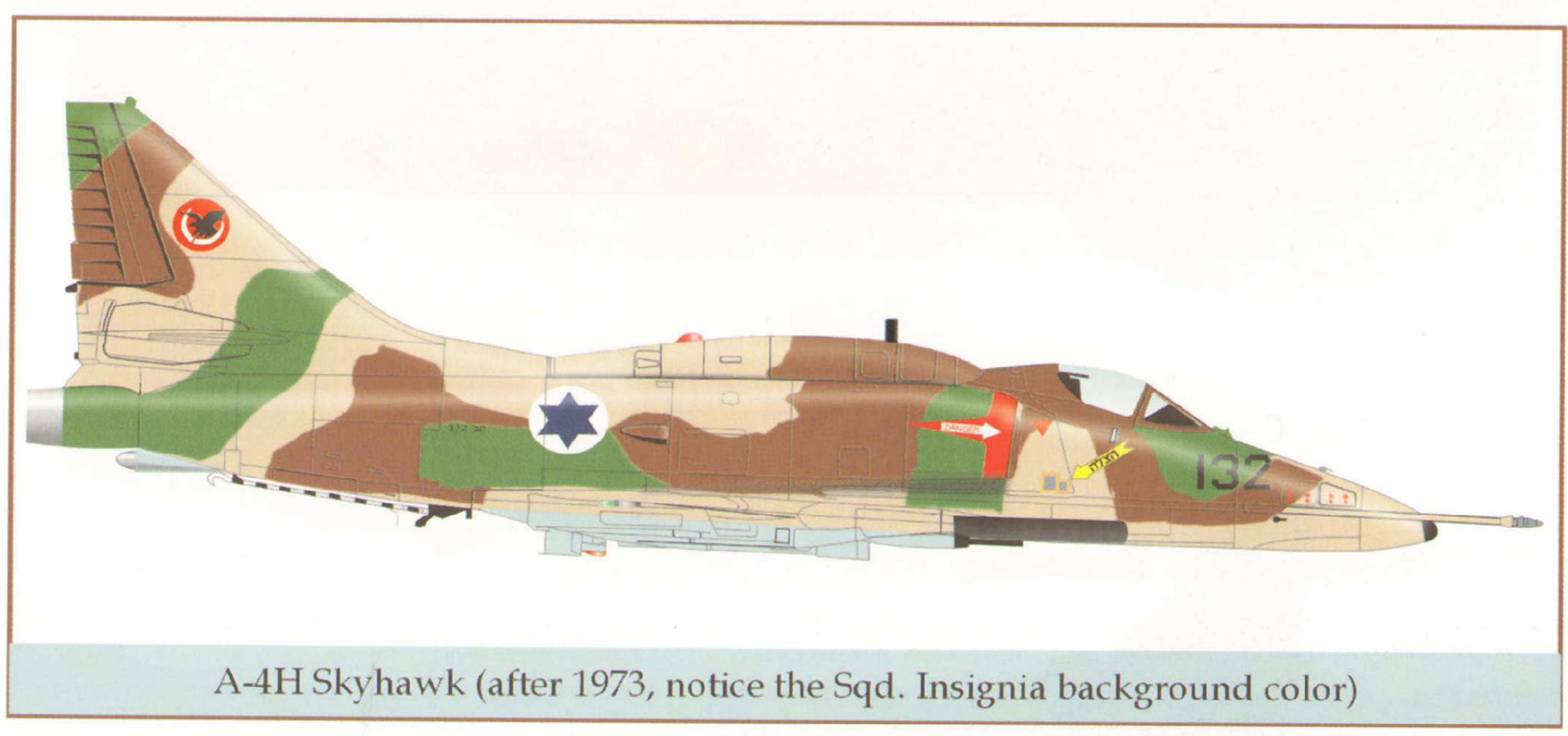


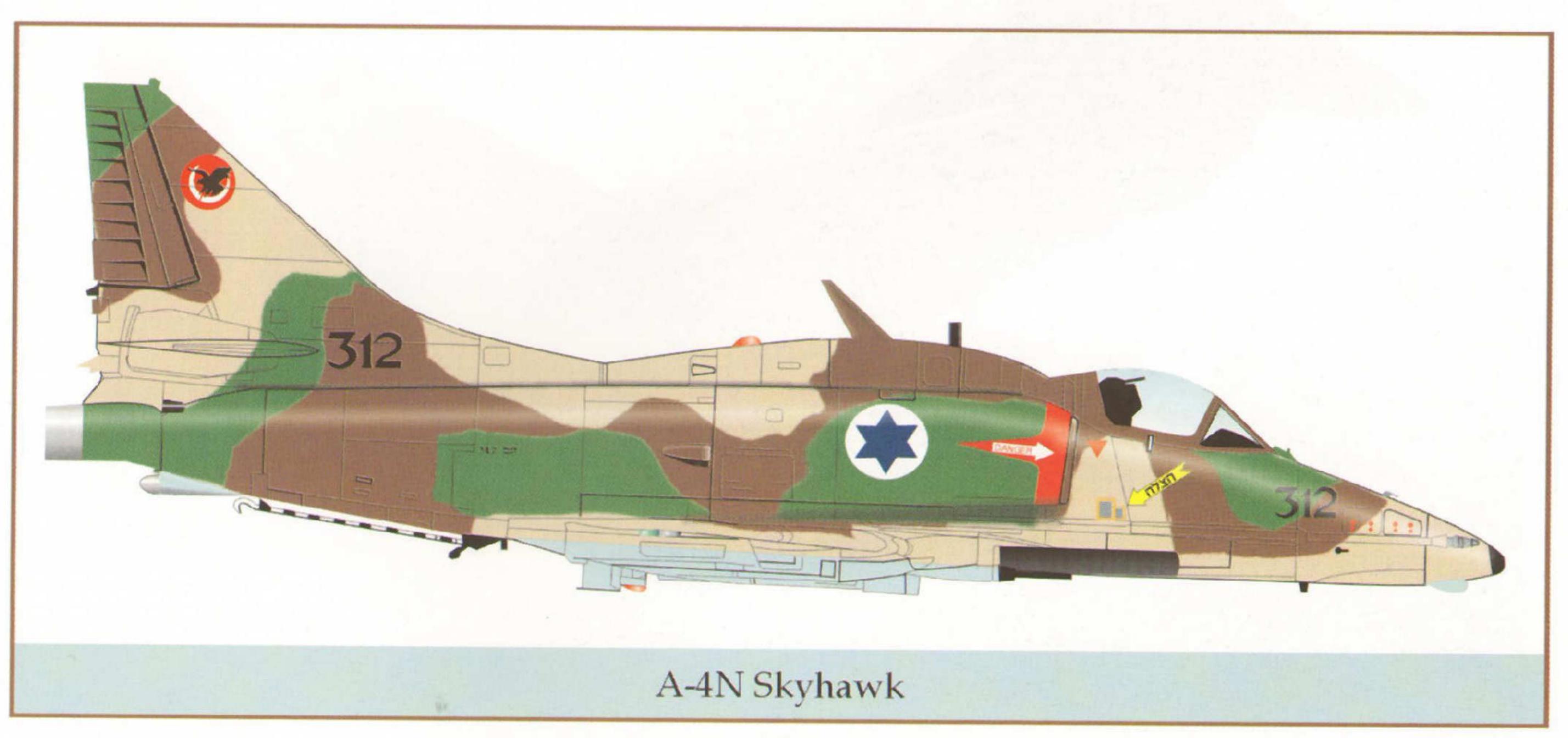
V A-4H Nr. 17 from the "VALLEY" Sqd. in action. (1968)















A formation of A-4Hs from the "VALLEY" Sqd. in the early days (1968).

V Skyhawk A-4H from the "VALLEY" Sqd. in the early days (1968).







The "FLYING TIGER" Sqd.

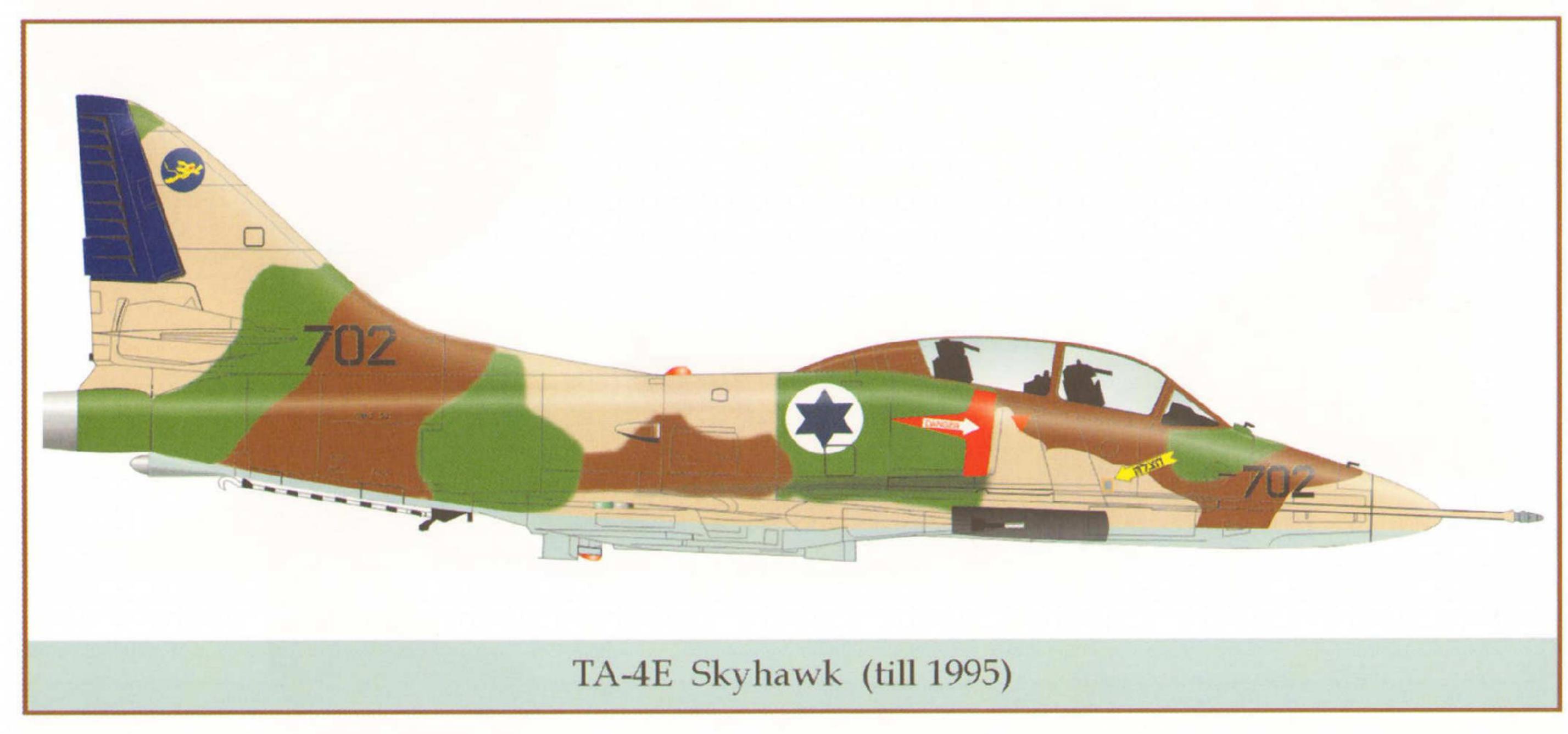
Was founded on 29.12.1967 at the HATZOR base, with Maj. Joseph Sarig as CO. On 17.6.1969 it was transferred to HATZERIM, a new base, the construction of which was just completed. In April 1990 it was converged with the Advanced training Sqd. of the IAF flying school. In Nov. 1994 it was divided into a fighting Sqd. and a training Flight pertaining to it; it functions under this configuration up to now.

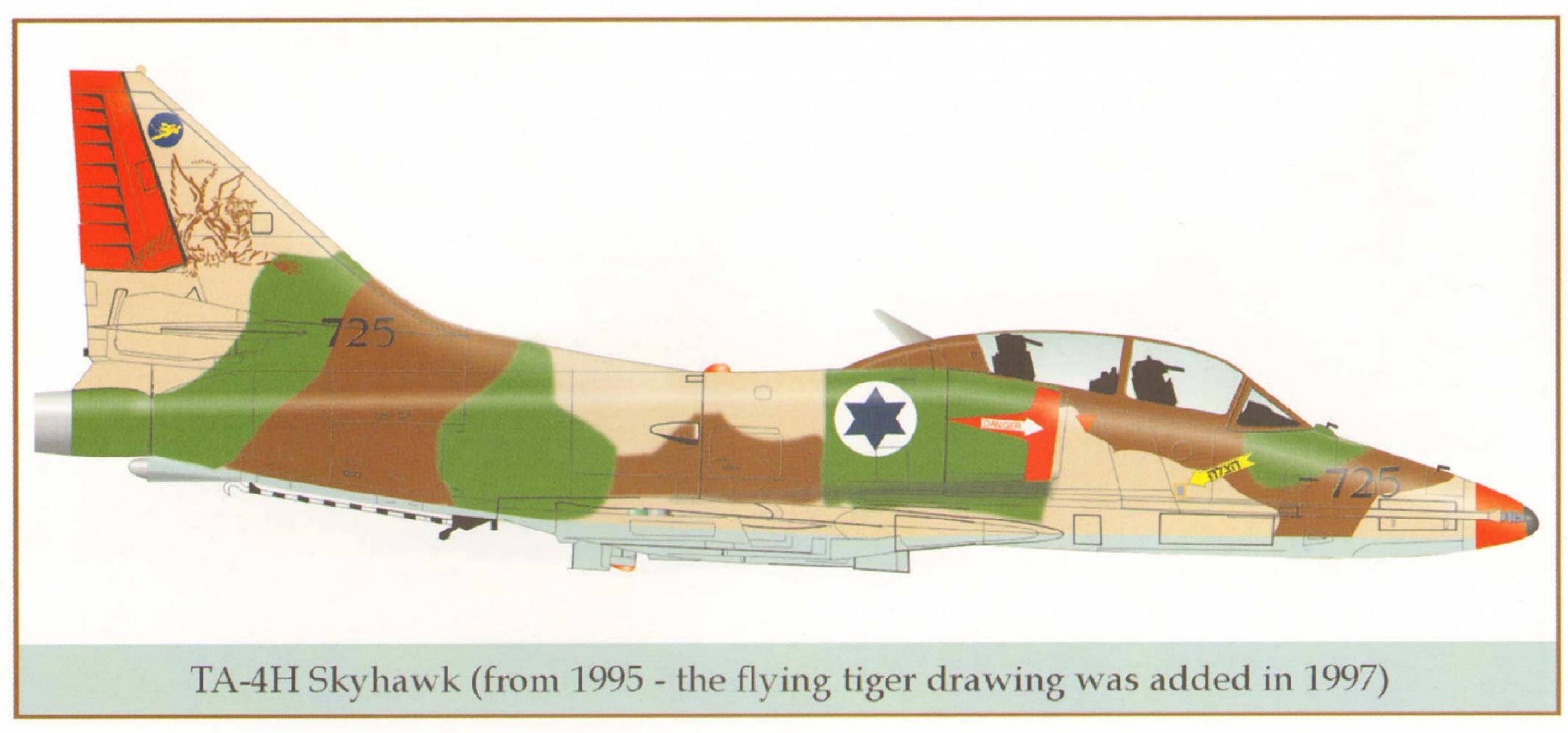


A-4E Skyhawk















A-4N Nr. 438 from the "FLYING TIGER" Sqd. during take-off.





The "FLYING DRAGON" Sqd.

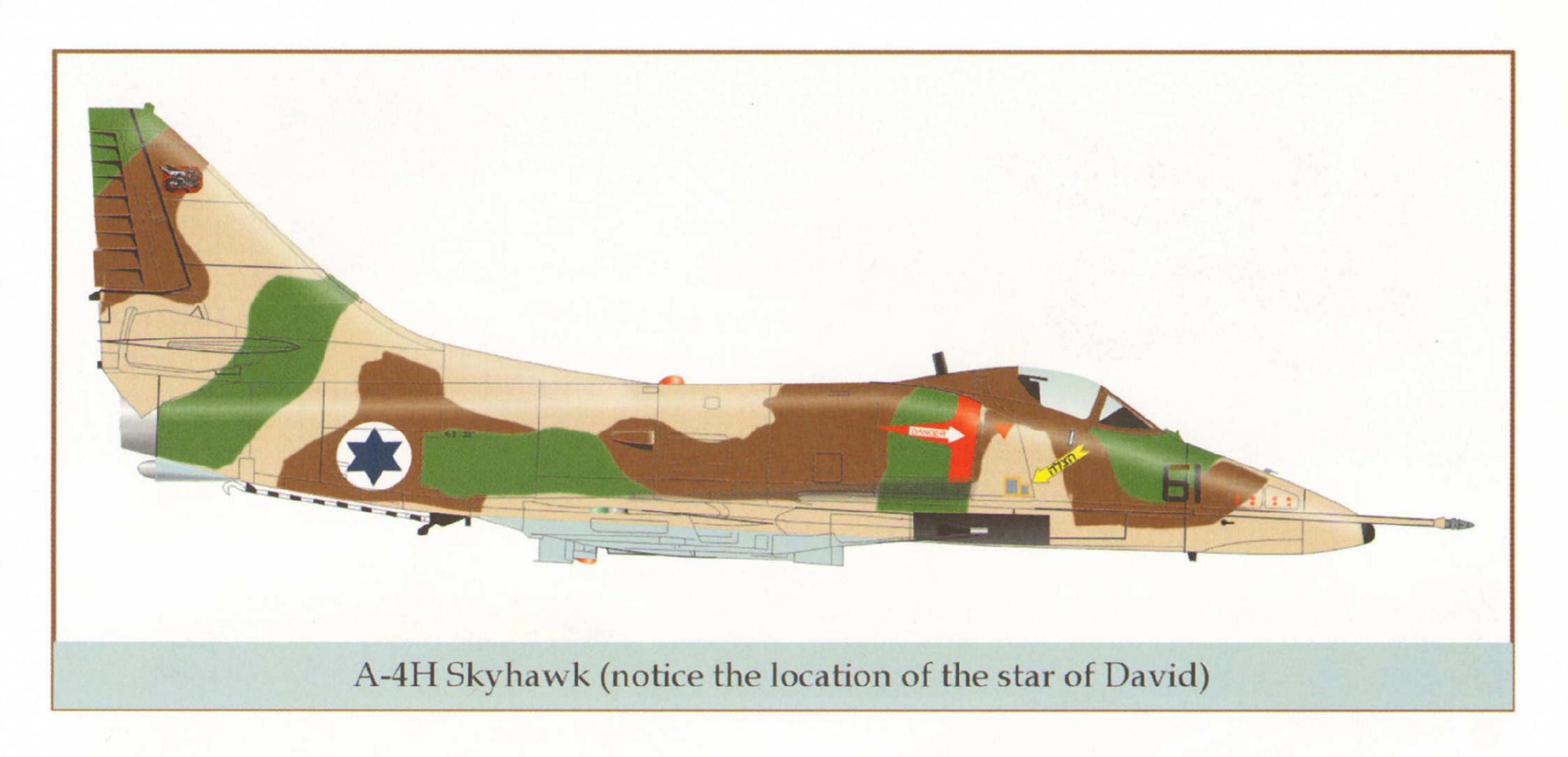
Was founded in July 1954 as a Flight unit of four R & Ph. PR-16 MOSQUITOs at HATZOR base. In May 1956 it grew up to be a Sqd. and in July it was moved to the EKRON (Tel-Nof) base. It started soon to include R. & Ph. METEORs. The Sqd. was decommissioned after the KADESH campaign. On March 19, 1969 the ship "CRANE" arrived at the seaport ASHDOD with three new cocooned A-4Hs. The next night the a/c were loaded on trucks and transported to the TEL-NOF base; next morning the "FLYING DRAGON" Sqd. (known also as the "RED TAIL" Sqd.) was officially re-created with Maj. Eliezer Prigat as Sqd. CO. In 1986 the Sqd. was transferred to the NEVATIM base, about a year after it's twin, the "FLYING WING" Sqd., went the same way.

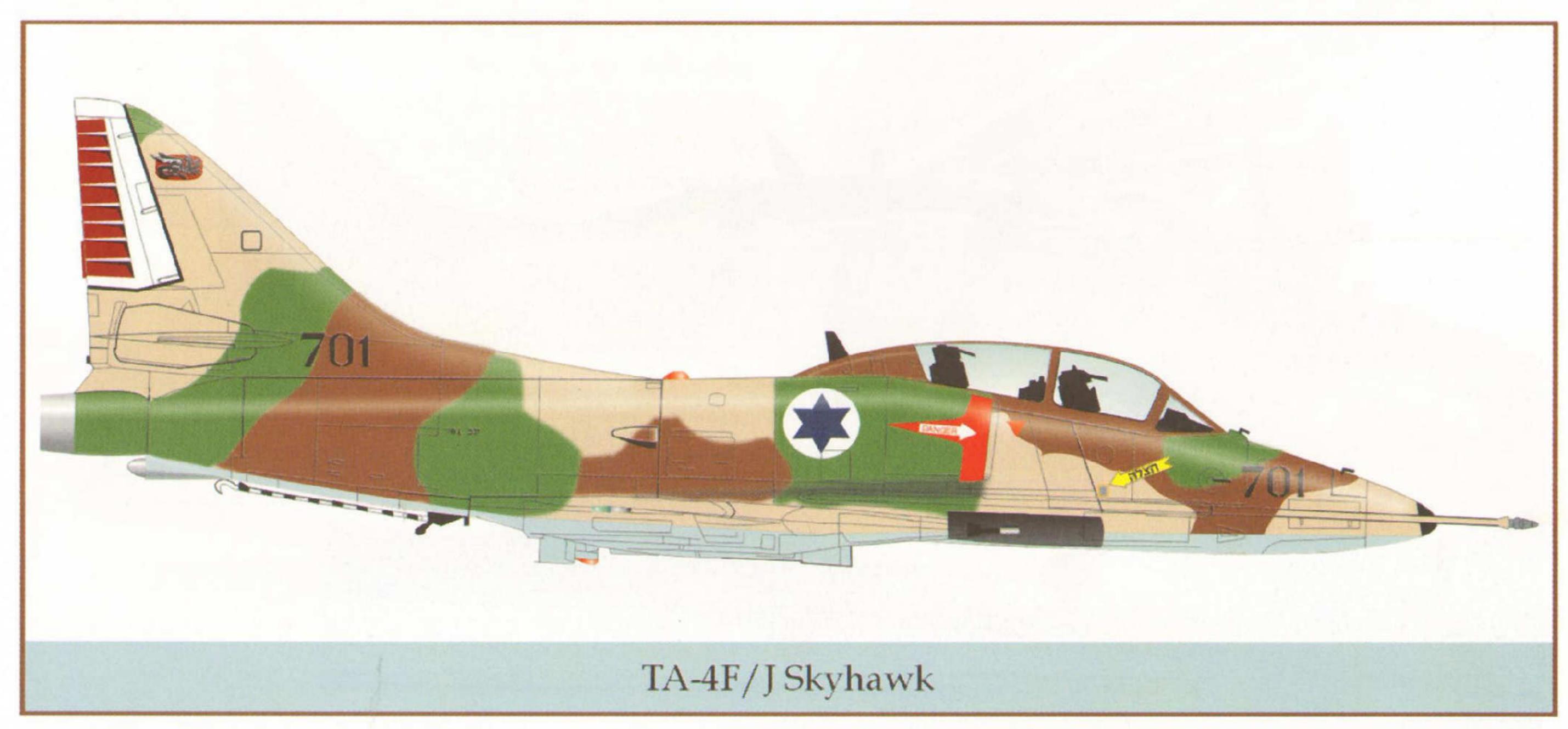


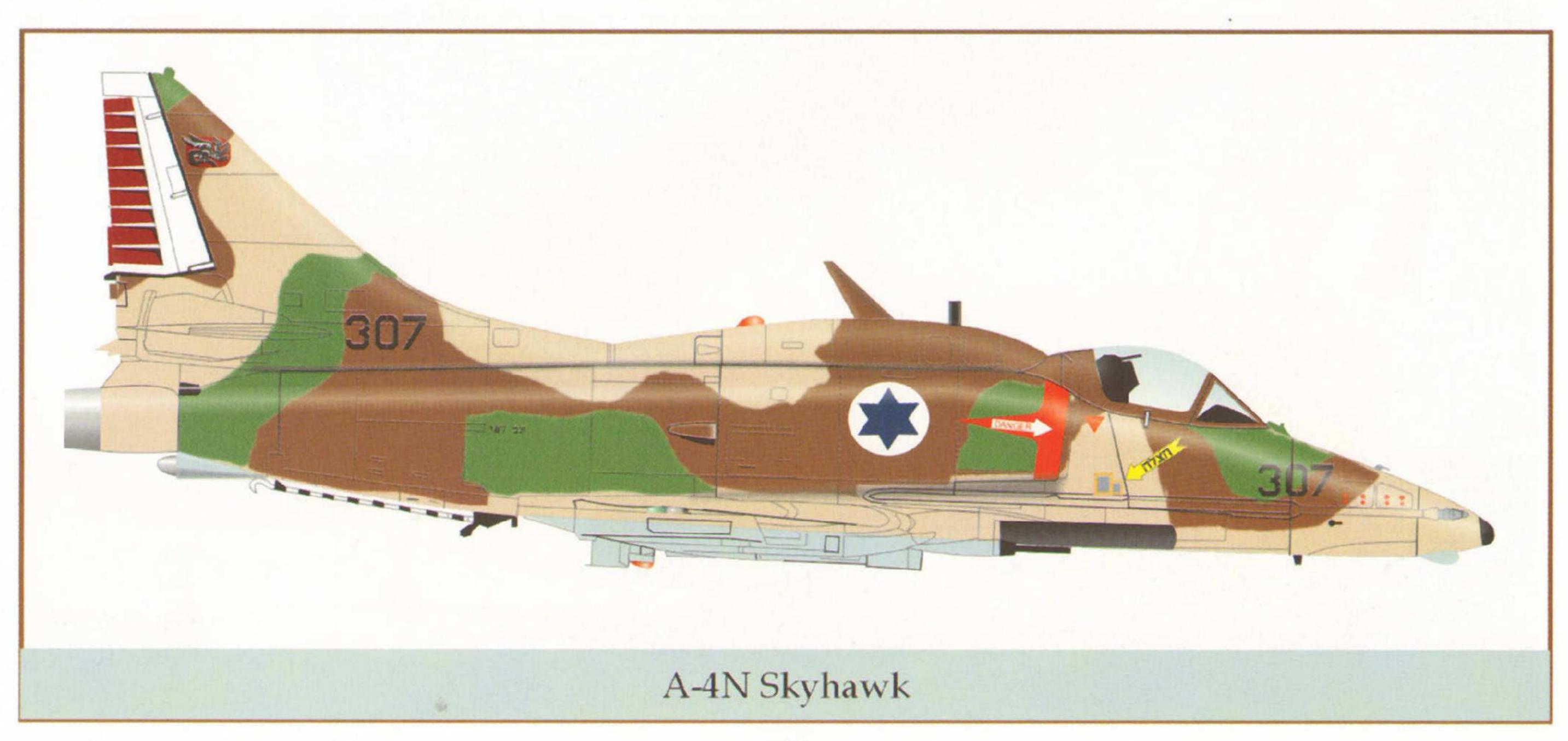


Tail closeup of A-4N from the "FLYING DRAGON" Sqd.













Skyhawk A-4N Nr. 307 from the "FLYING DRAGON" Sqd. just after landing.



Skyhawk A-4N Nr. 302 from the "FLYING DRAGON" Sqd. being displayed at an IAF a/c show.







The "FLYING WING" Sqd.

Was founded in April 1956 at the EKRON (Tel-Nof)base, flying P-51D MUSTANG. It gained the nickname the "CUTTERS" Sqd. because its famous operation in the opening day of the "KADESH" campaign in Oct. 1956, by cutting the Egyptians phone lines in Sinai with leadweight ropes (nicknamed "ONION ROPES"), eventually with the propellers and the wing-tips. The Sqd. was phased-out for the first time in Oct. 1960 and reopened in Aug. 1961 with MYSTERE IV a/c. In April 1970, the Sqd. phased-out again and reopened in Feb. 1971 with A-4 Skyhawk, with Lt. Col. Joseph Aviv as Sqd. CO. In 1985 the Sqd. moved to the newNEVATIM base.

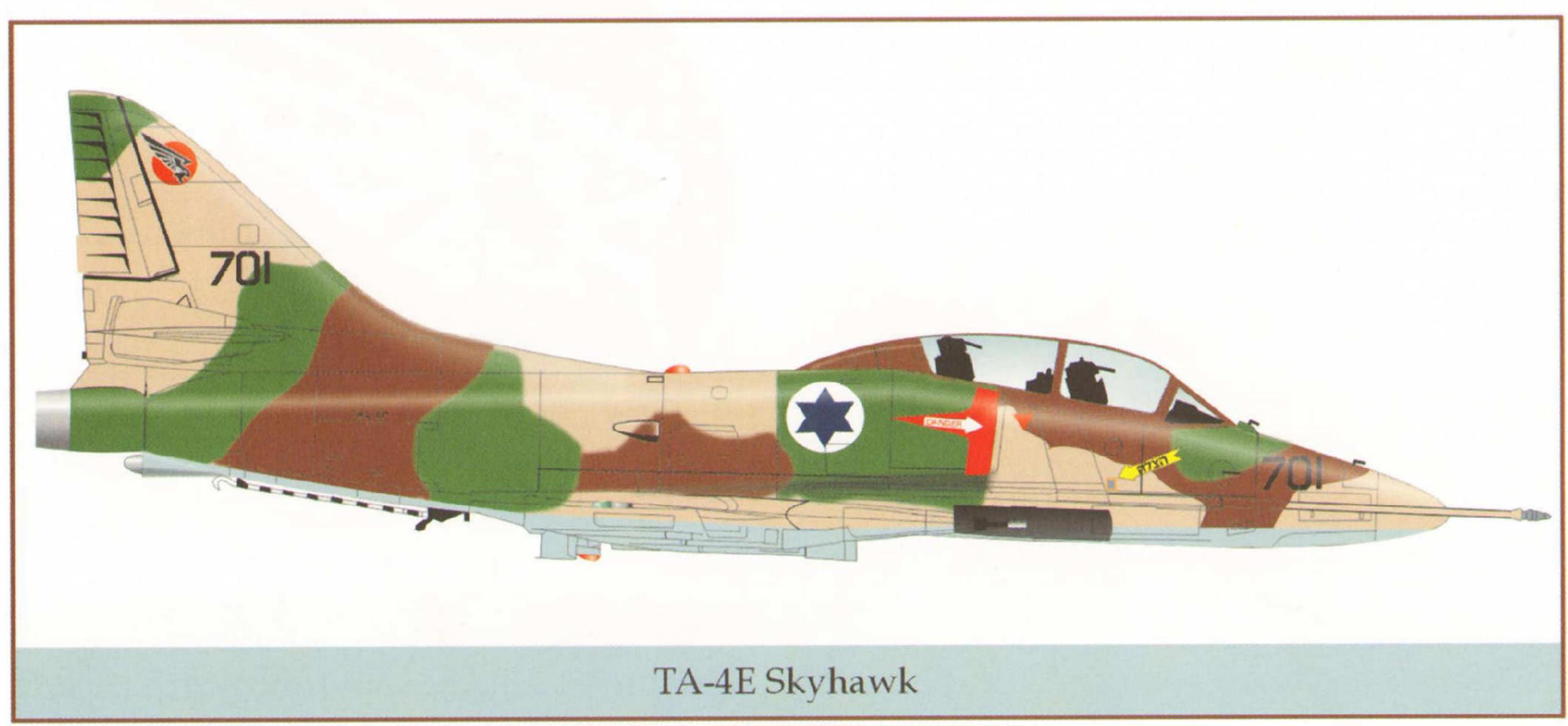


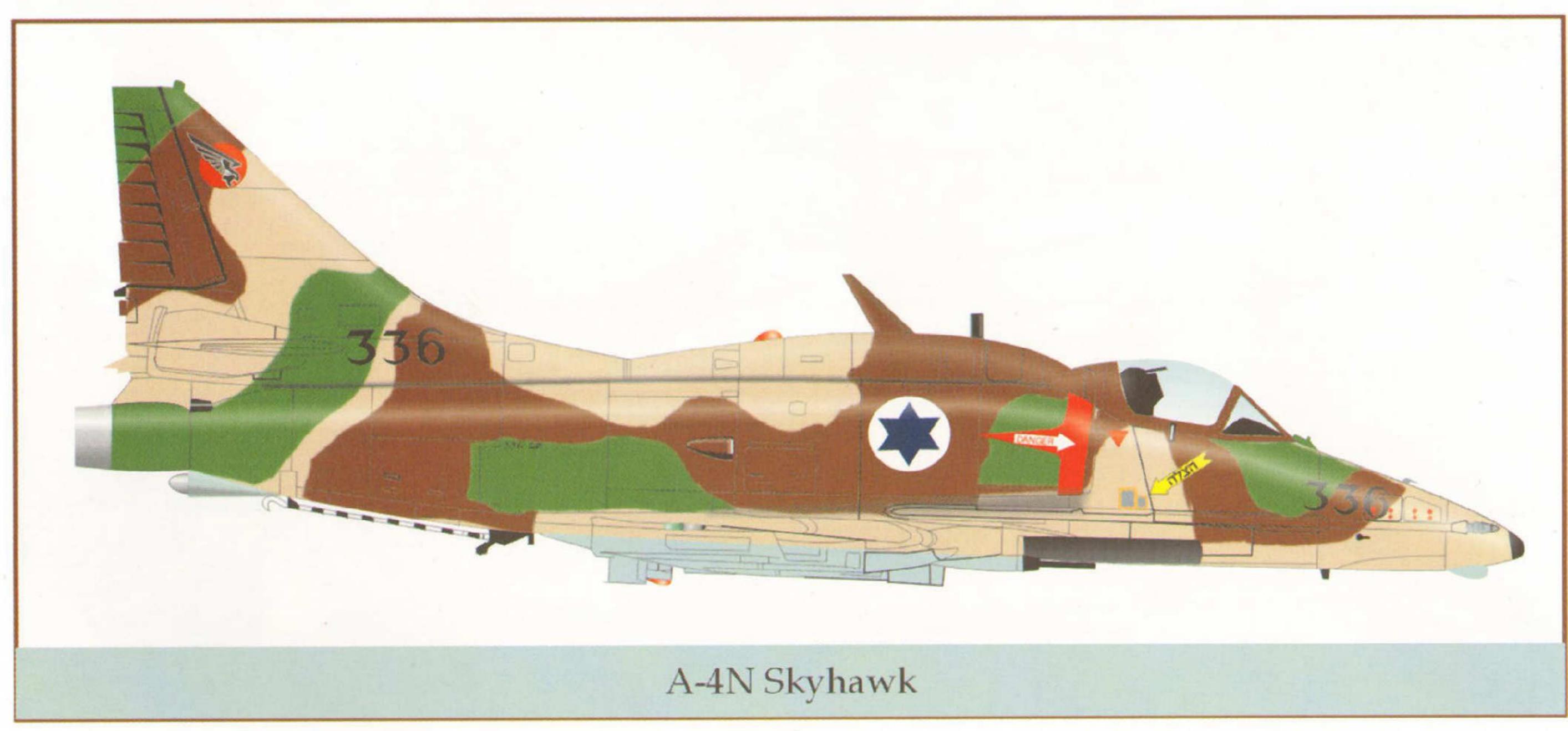
Skyhawk TA-4J Nr. 701 from the "FLYING WING" Sqd. over the NEGEV.















Skyhawk A-4N Nr. 377 from the "FLYING WING" Sqd. is being displayed at an IAF a/c show.

Skyhawk A-4N Nr. 307 (ex 'FLYING DRAGON" a/c) from the "FLYING WING" Sqd. just after landing.







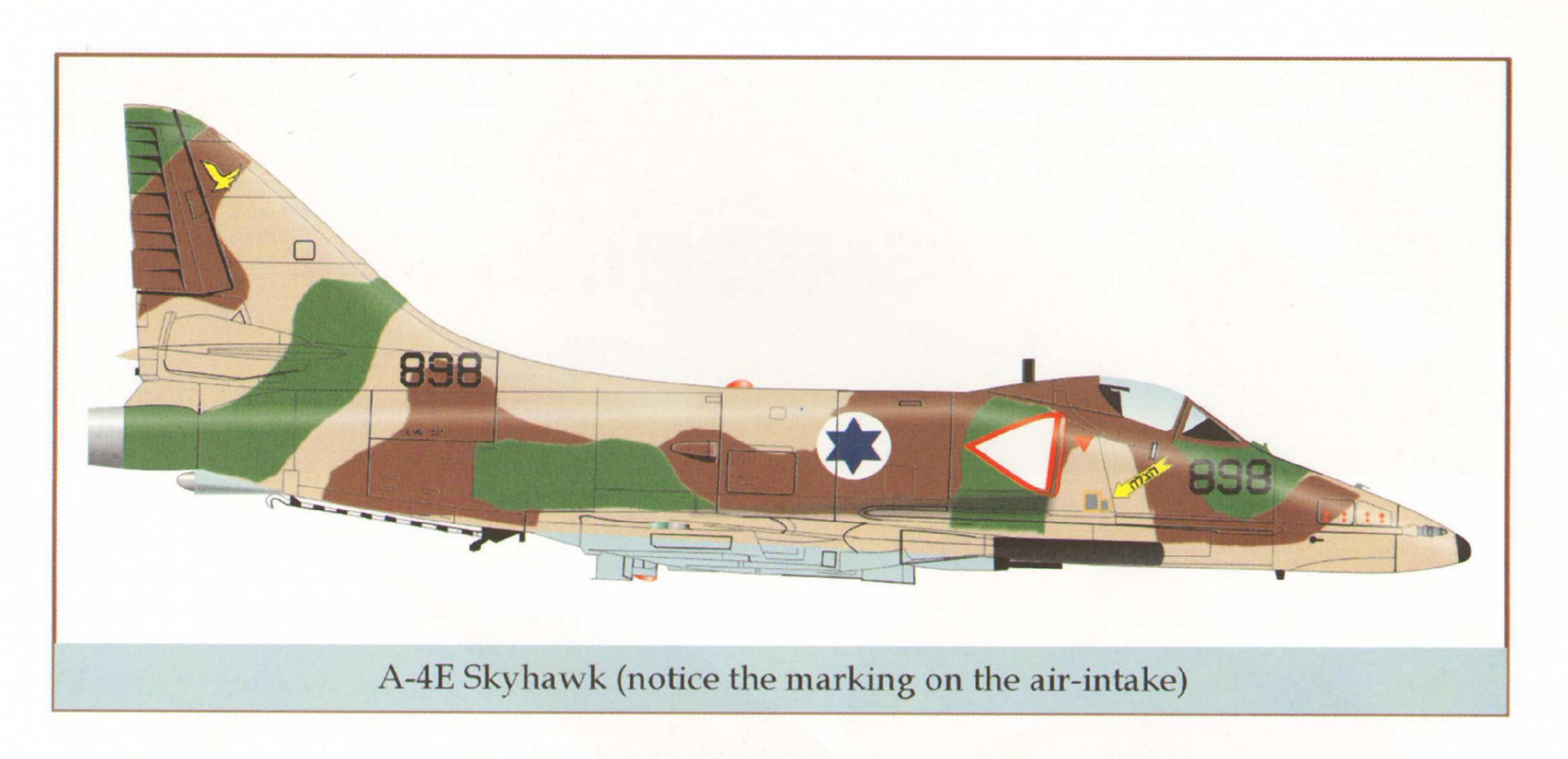
No exact date is known as to the inception of this Sqd. it is known only that it flew HARVARDs during the "KADESH" campaign in 1956 and it was closed after this war. During the "SIX DAYS" war it was operational again with FOUGA MAGISTERs taken from the Flying School as ground-supporting; it was closed again after the war. In 1973 the Sqd. was opened formally as an Skyhawk Sqd. in ETZION base near EILAT, with Lt. Col. Dan Pessach as Sqd. CO. During the "YOM KIPPUR" war the Sqd. operated from two bases: RAMAT-DAVID and TEL-NOF. After the Egyptian-Israeli peace agreement signed in 26.03.1979 and the return of the Sinai in April 1982, the Sqd. was relocated at the new NEVATIM base. During 1986 the Skyhawks were gradually replaced by F-16 A/B.

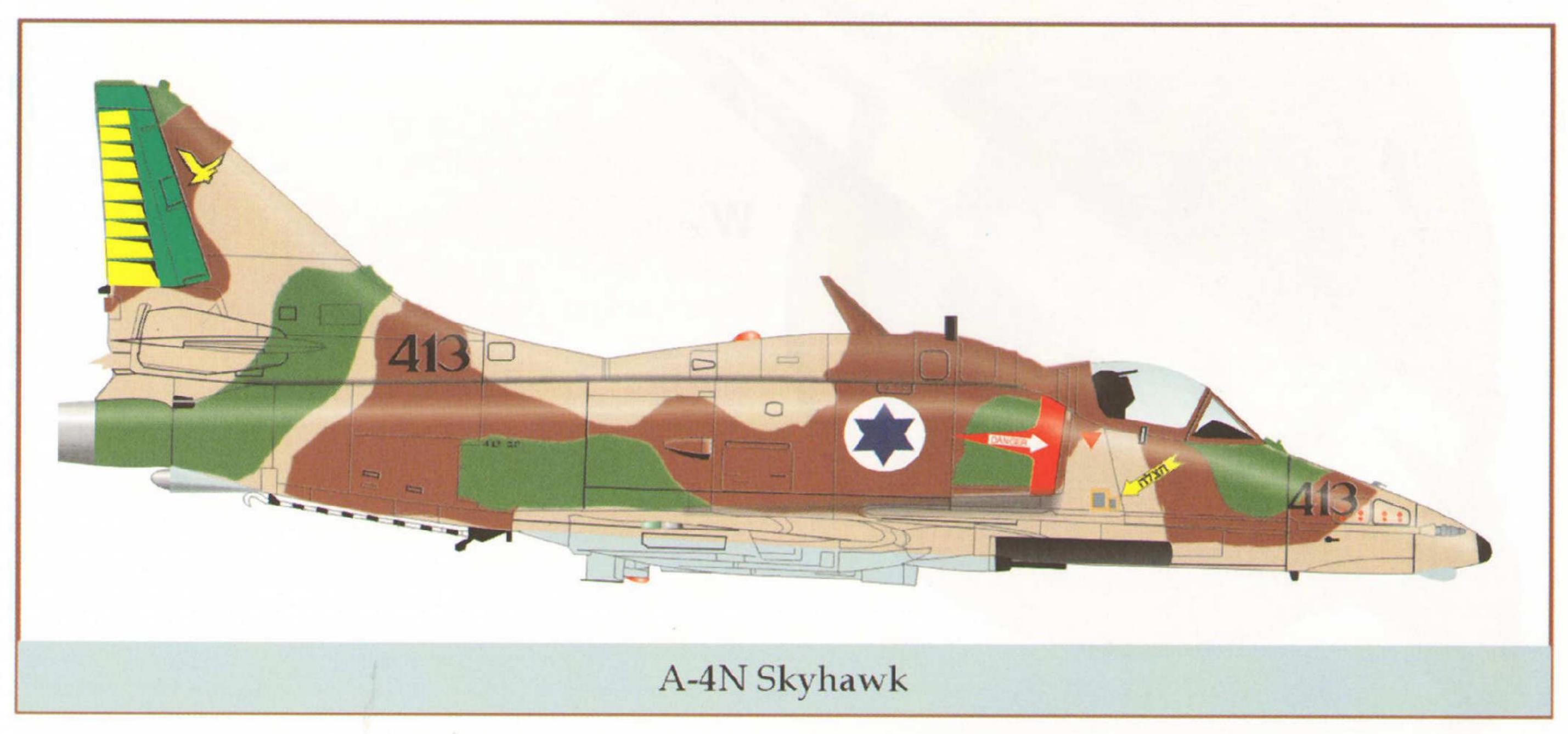


V Skyhawk A-4E Nr. 899 from the "GOLDEN EAGLE" Sqd. over the NEGEV.









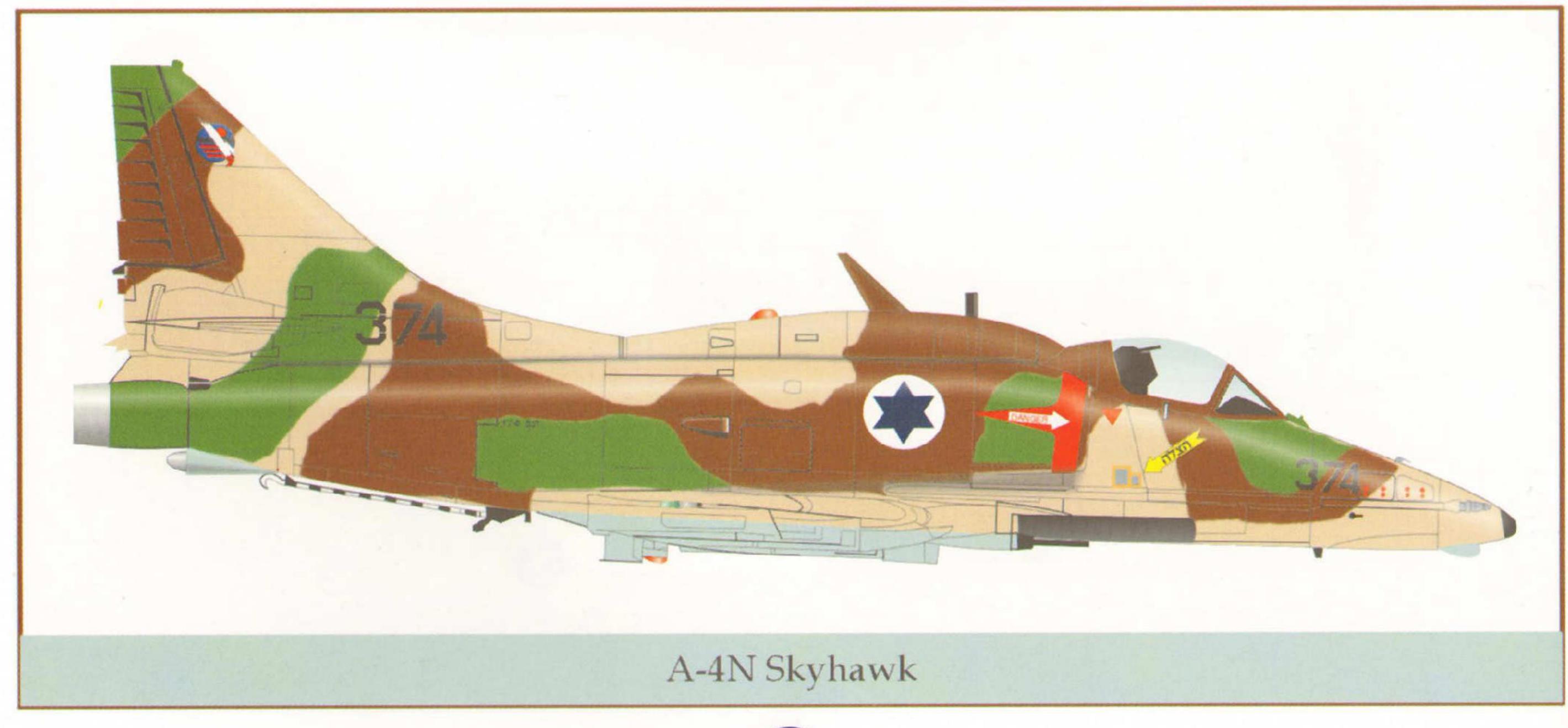






The "SMASHING PARROT" Sqd.









The "GORING DEER" Sqd.

No exact date is known as to the inception of this Sqd.; it is only known that it flew STEARMANs and HARVARDs during the "KADESH" campaign in 1956 and it was closed after this war. The earliest recolection is that these a/c were flown as primery and advanced trainers - as originally designed for - together with COUNSULs and AVRO ANSONs in a wing named "The Flying School", about 1950, located at the KFAR SIRKIN base. In 1977 the Sqd. was reestablished at the HATZERIM base with Skyhawks, it had Lt. Col. Patishi as sqd. CO.; nowadays it is not active.

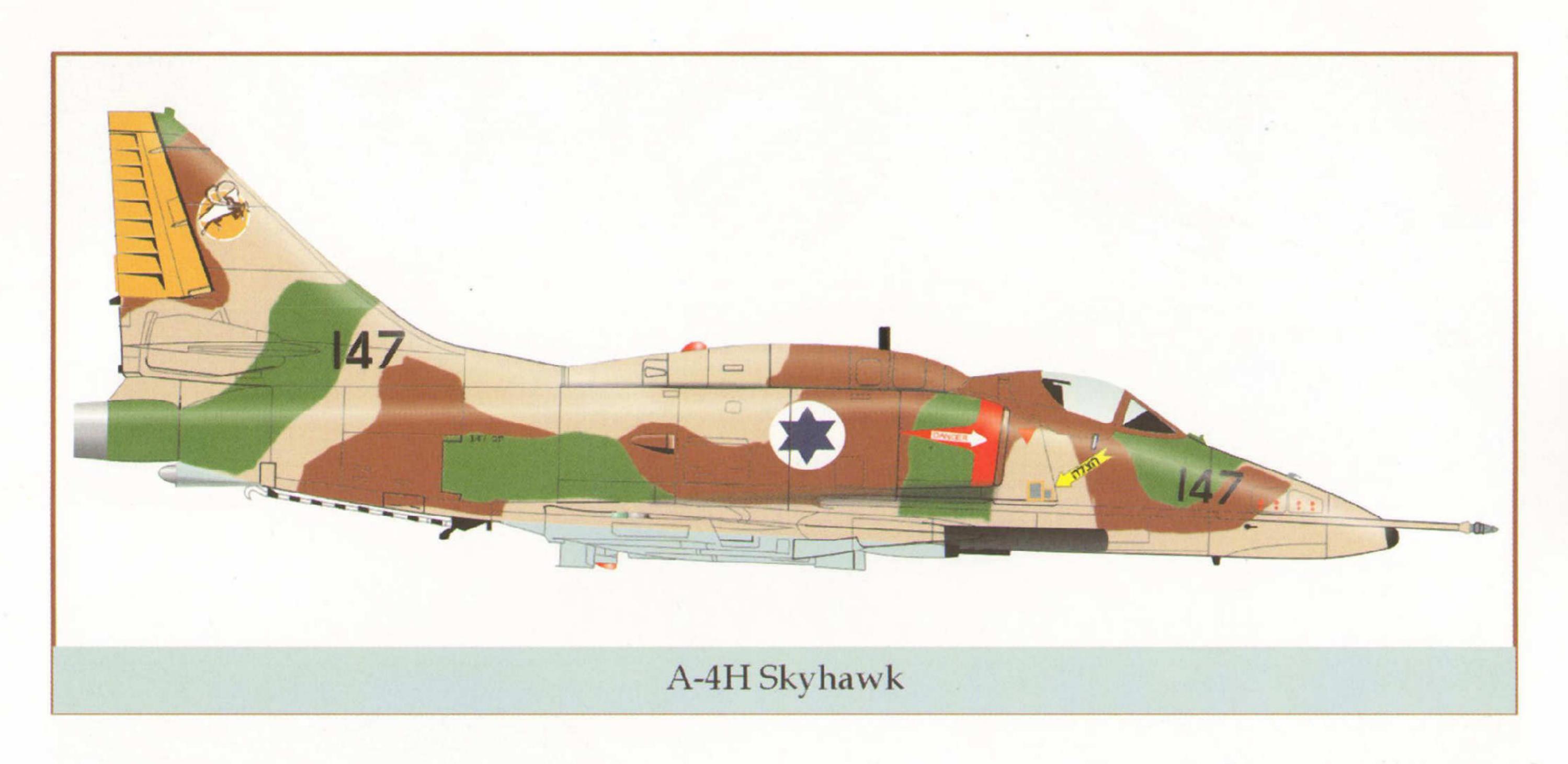


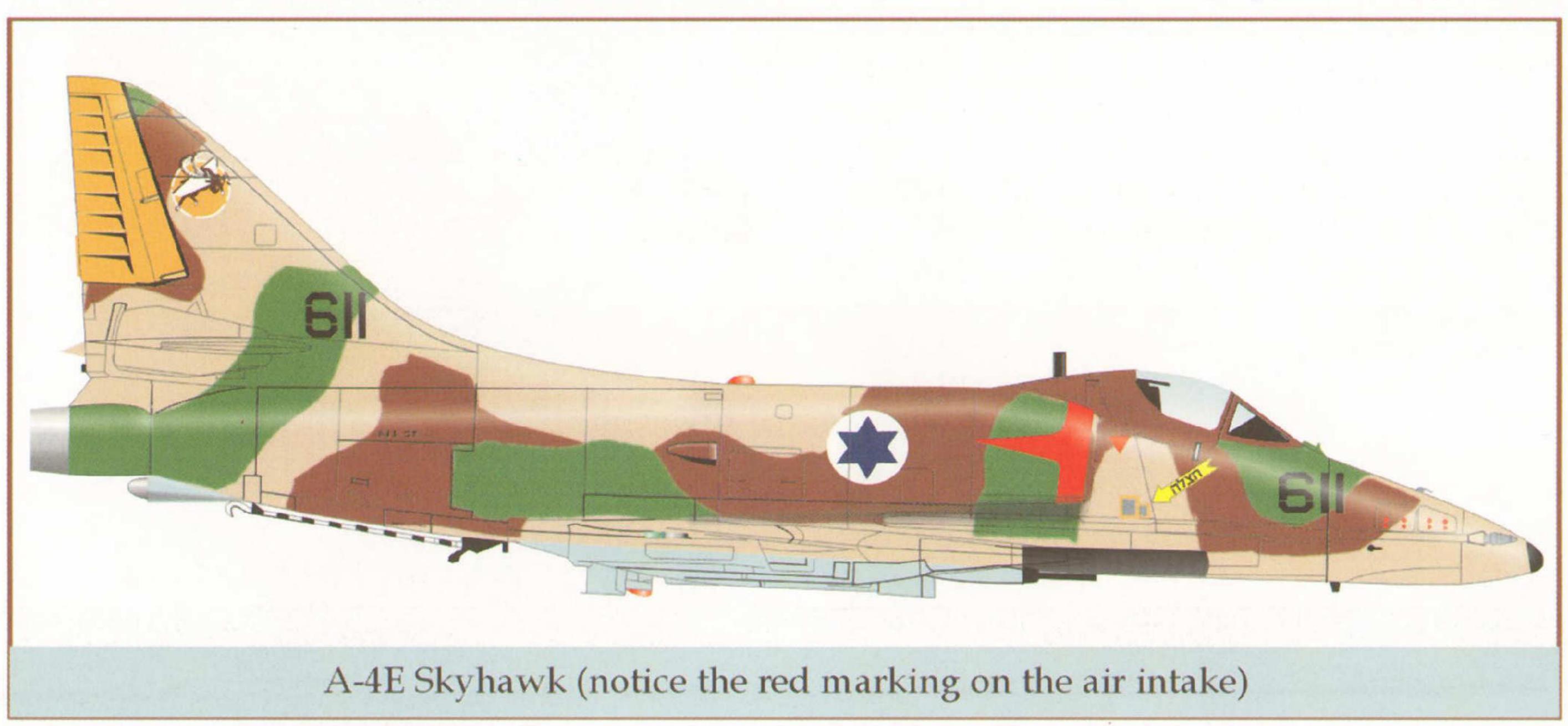
Skyhawk TA-4H Nr. 715 from the "GORING DEER" Sqd. being displayed at an IAF a/c show.







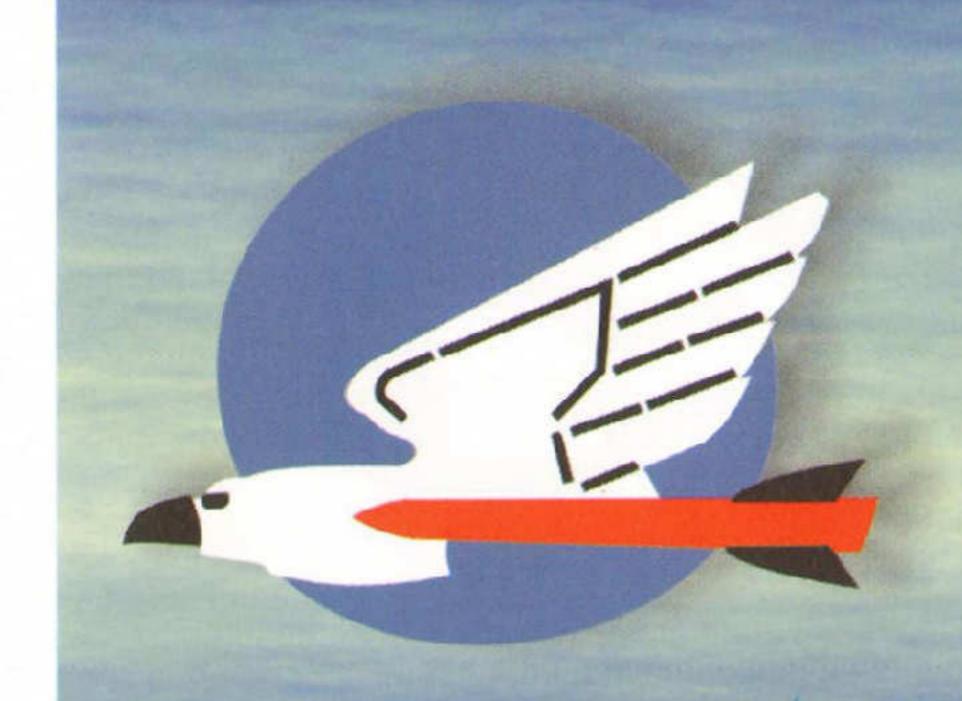




Skyhawk A-4E Nr. 603 from the "GORING DEER" Sqd. during take-off.

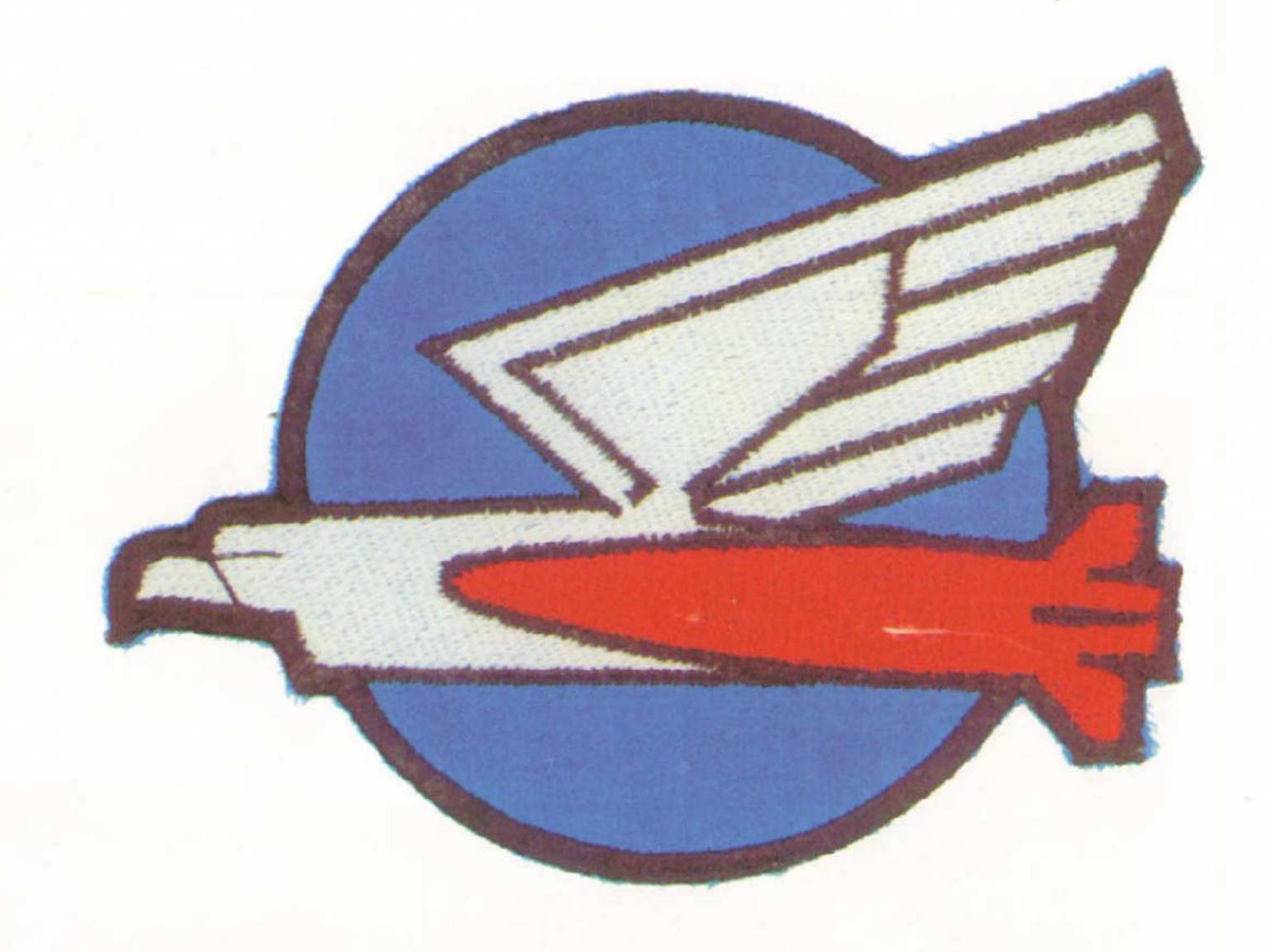






The "KNIGHTS of the NORTH" Sqd.

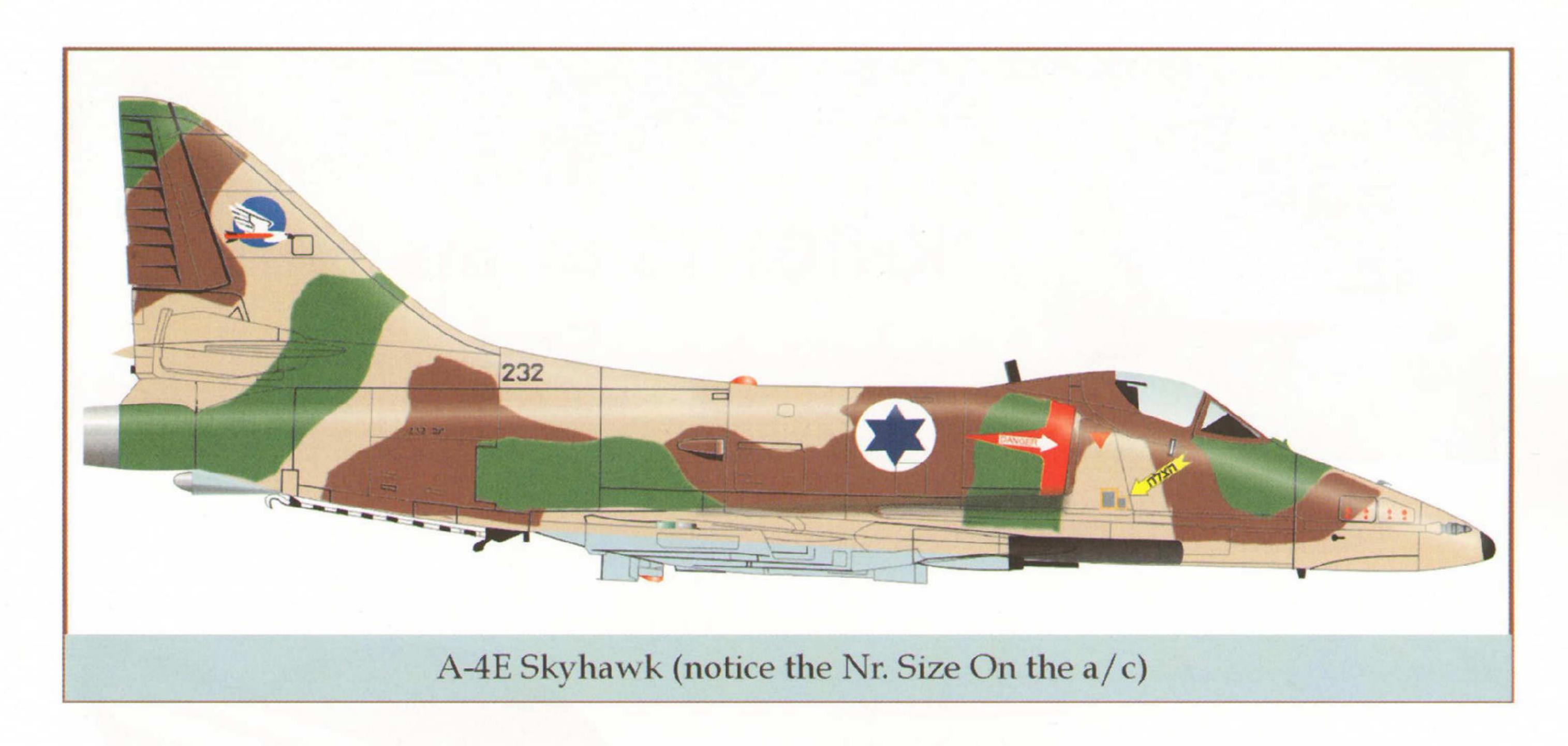
Was founded in September 1952 at the HATZOR base and it flew MOSQUITOs; it was closed in April 1957 and reopened in April 1958 again with VAUTOURs. In August 1970 it closed for the second time and reopened in January 1971 with Skyhawks; Lt. Col. Gieorah Goren was nominated Sqd. CO. In October 1980 the IAF started to dispatch the Skyhawks from this Sqd. and prepared it to received the first F-16 A/B to arrive to Israel. In February 1987 the F-16 A/B (NETZ) were dispersed to other Sqd. and replaced with the new F-16D (BARAK) which started to arrive in August 1987.

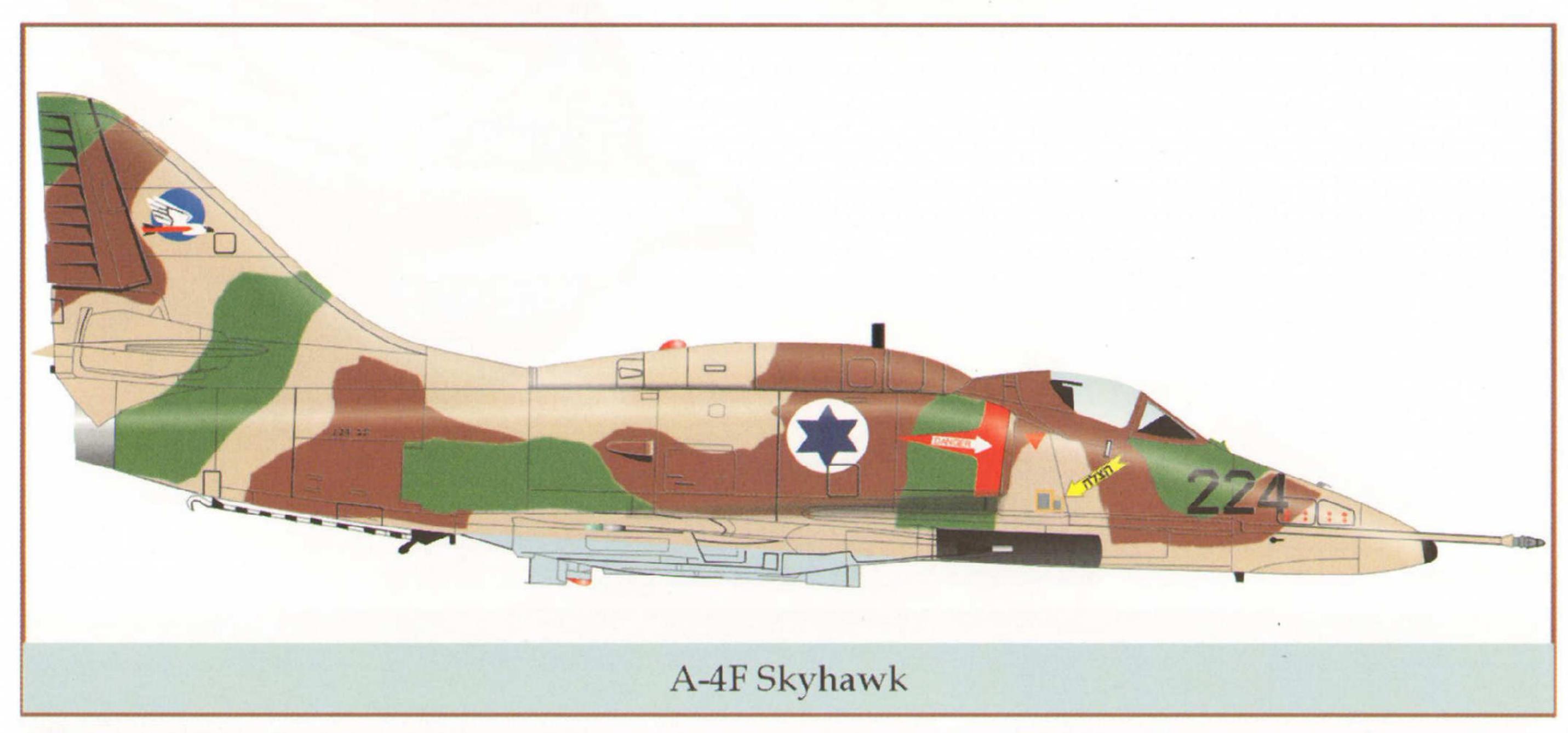


V Skyhawk A-4H Nr. 293 from the "KNIGHTS of the NORTH" Sqd. just after landing.

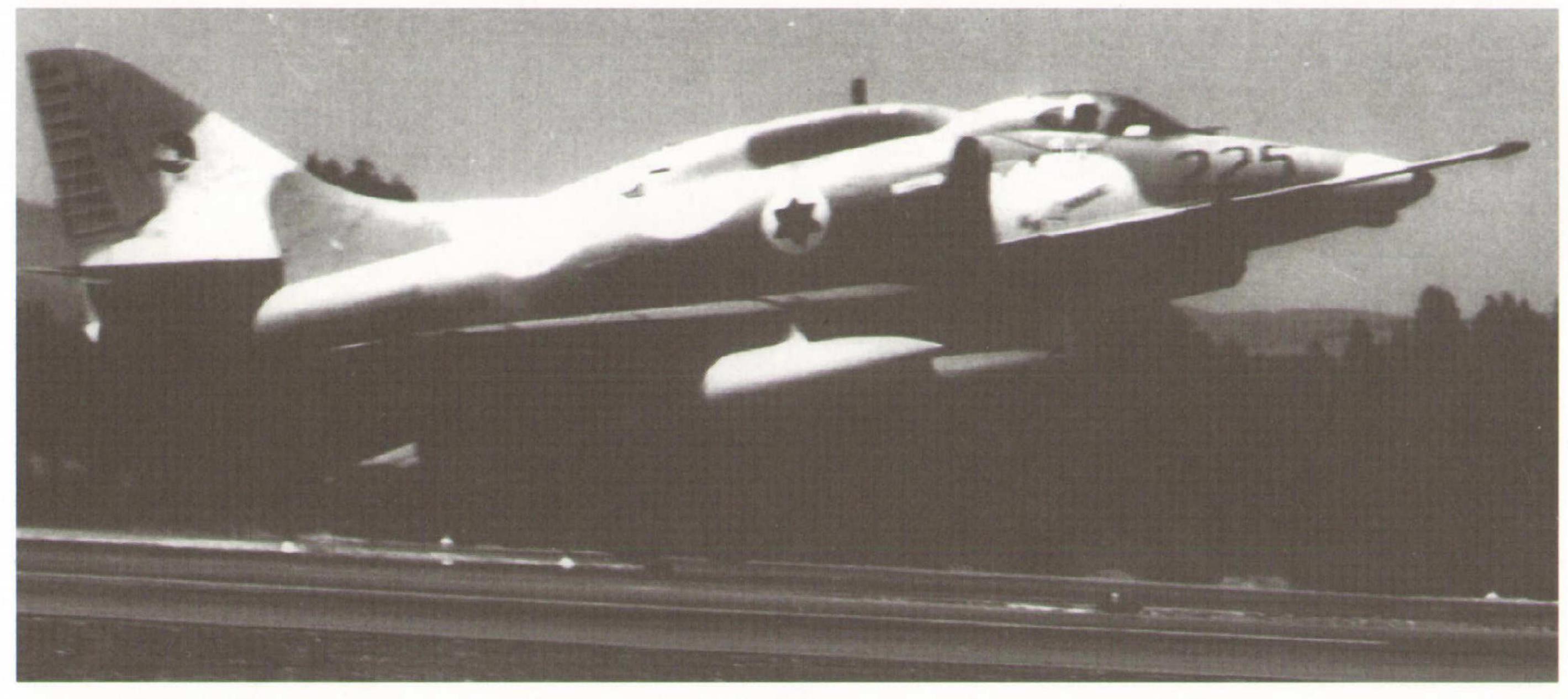








Skyhawk A-4F Nr. 225 from the "KNIGHTS of the NORTH" Sqd. during take-off.







The Flying School Basic Sqd.

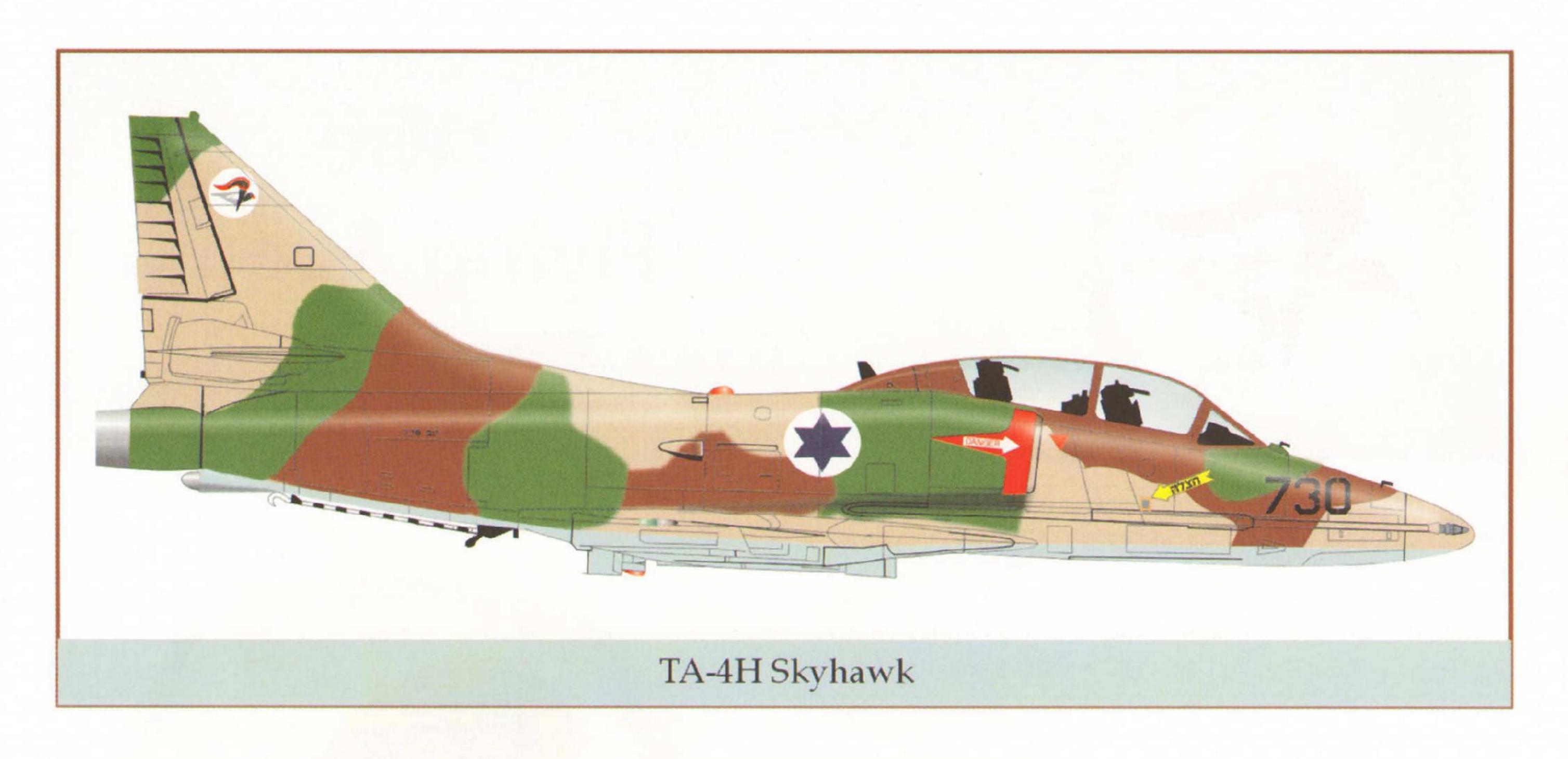
The training Skyhawks flew with the Sqd. insignia of the Basic School till the school was divided to separate the Basic School from the Advanced School, no exact date of this action is known.

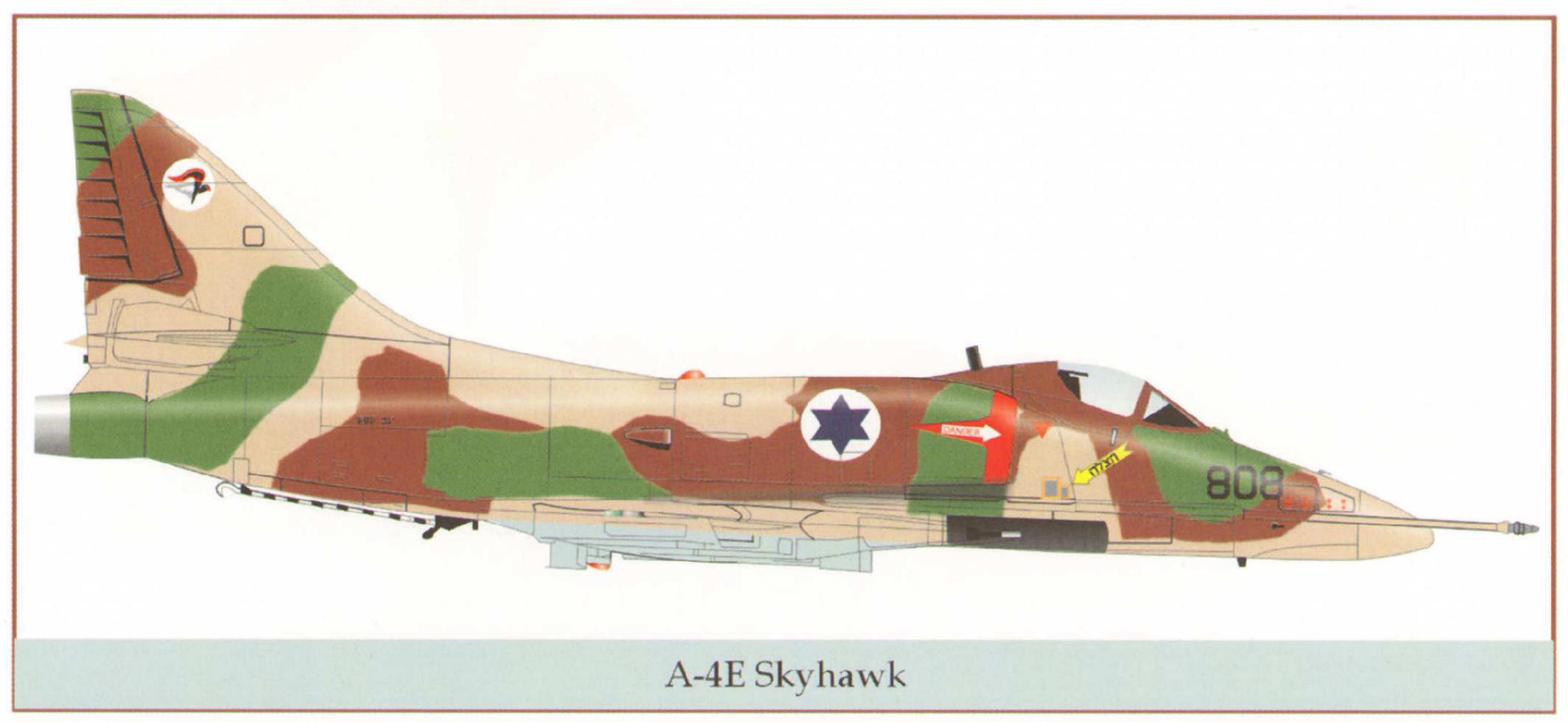


V Skyhawk A-4E Nr. 808 from the "FLYING SCHOOL" taxiing on the runway for take-off.

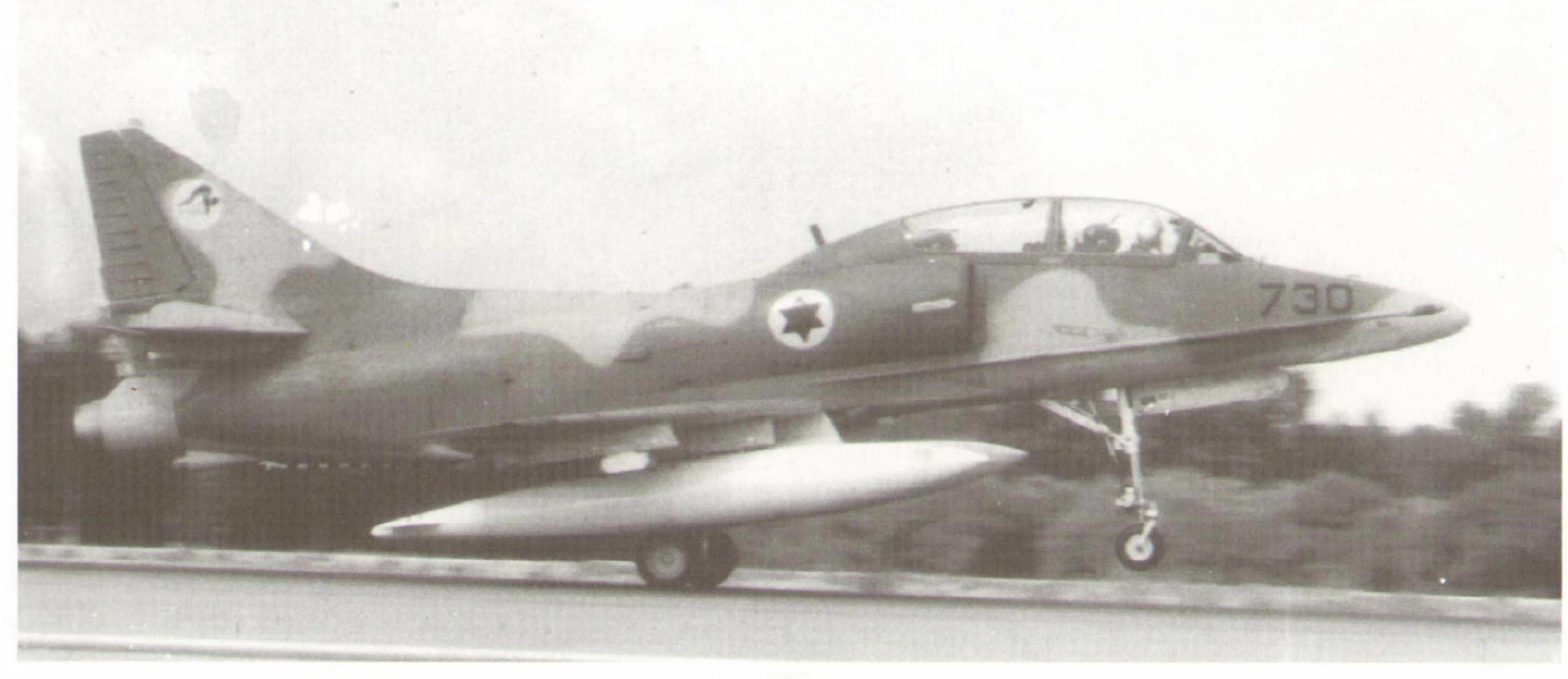








V Skyhawk TA-4H Nr. 730 from the "FLYING SCHOOL" during take-off...



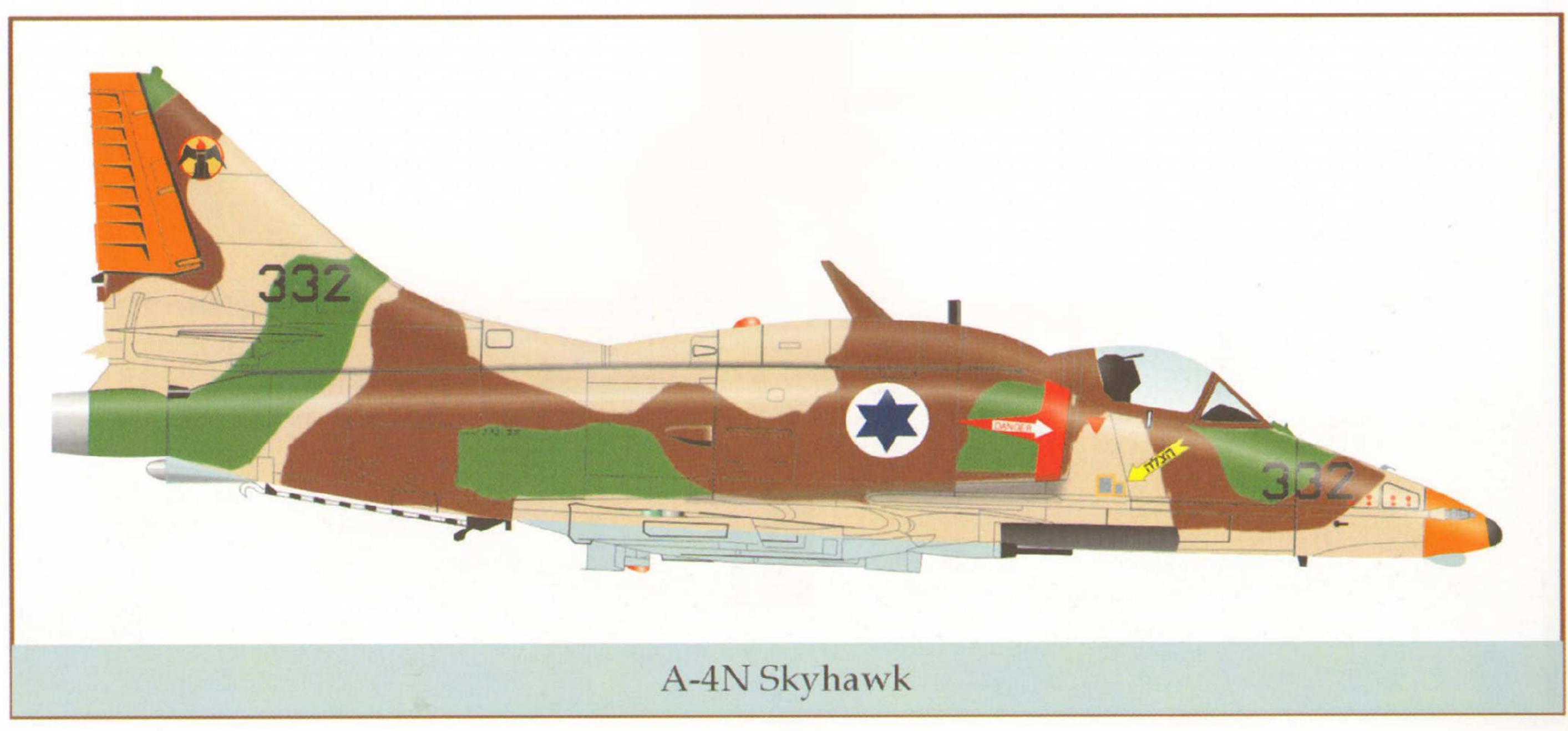




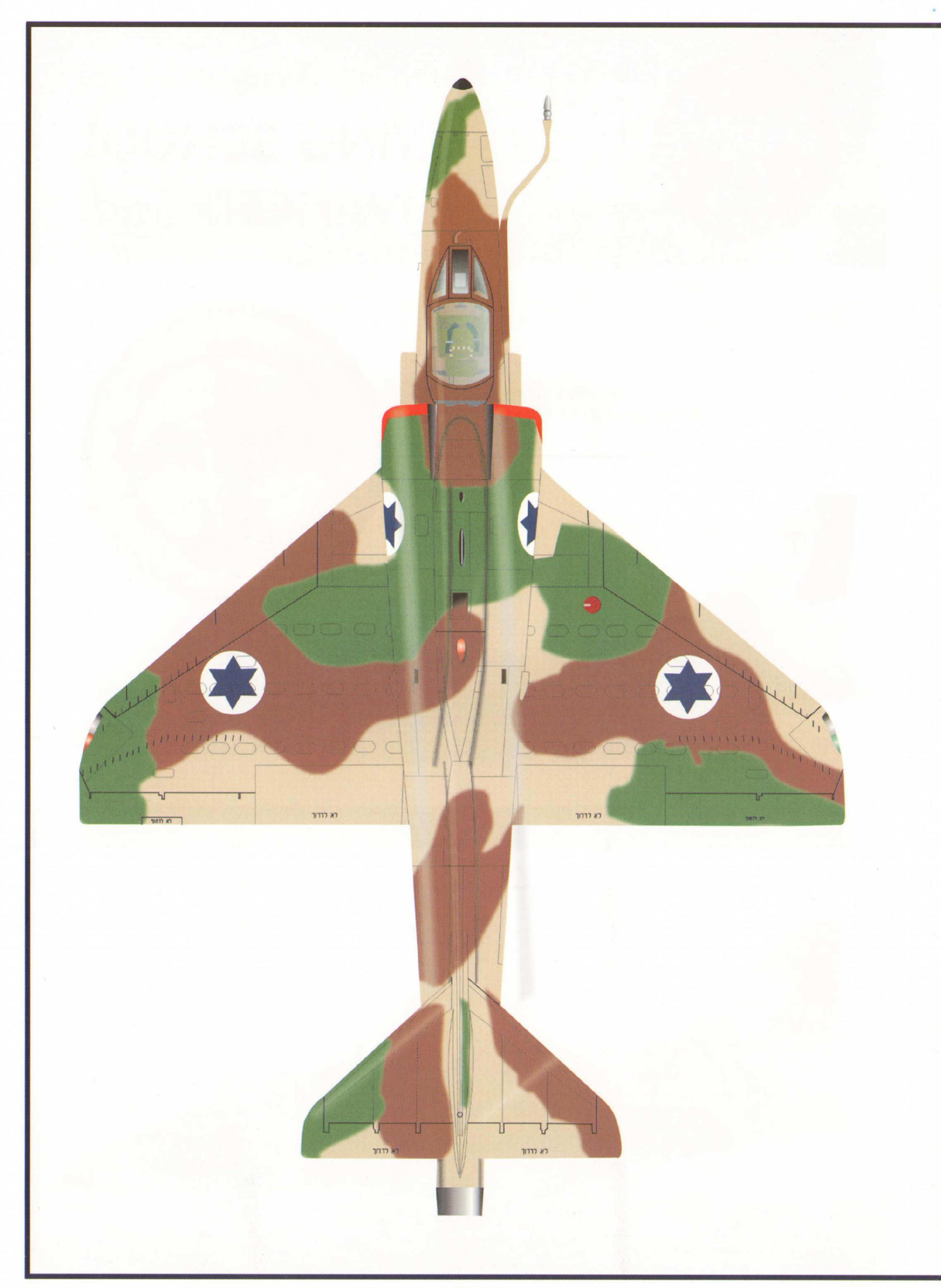
The FLYING SCHOOL ADVANCED Sqd.

Started to fly Skyhawks in 1972 at the 'HATZERIM" base with Lt. Col. Ron Goren as the Sqd. CO. In 1993 the a/c were transferred to the "FLYING TIGER" Sqd. which operated as advanced training unit as well as an operational attack Sqd.

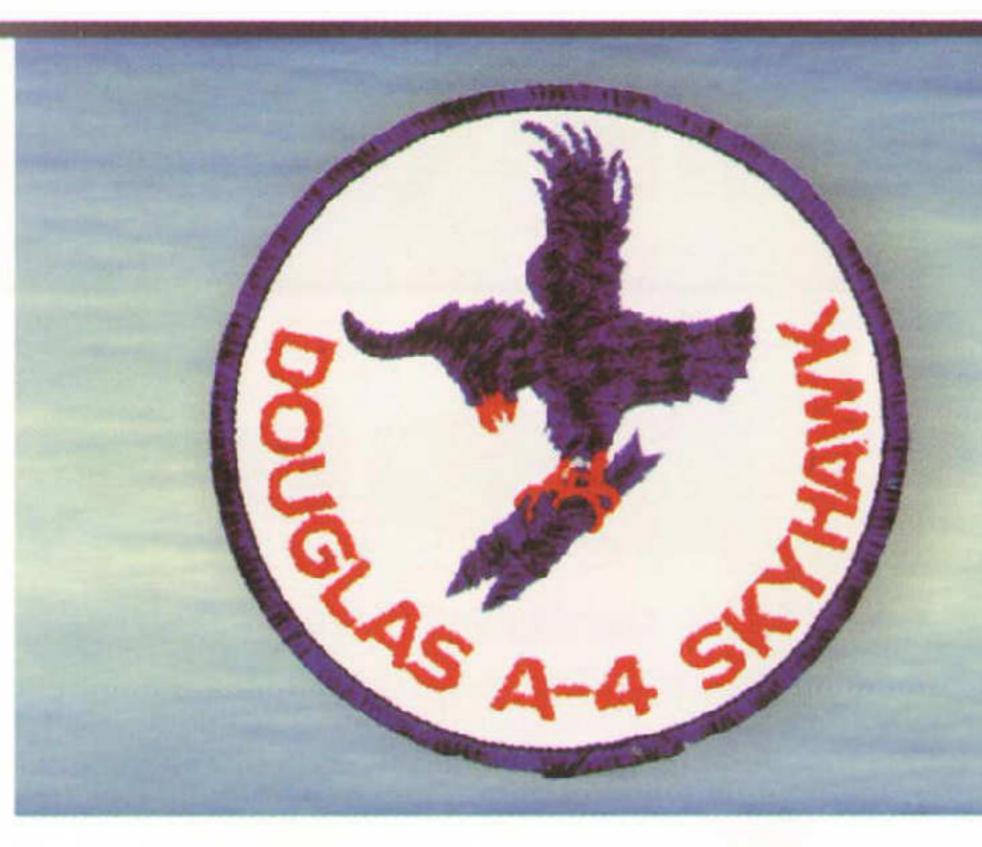




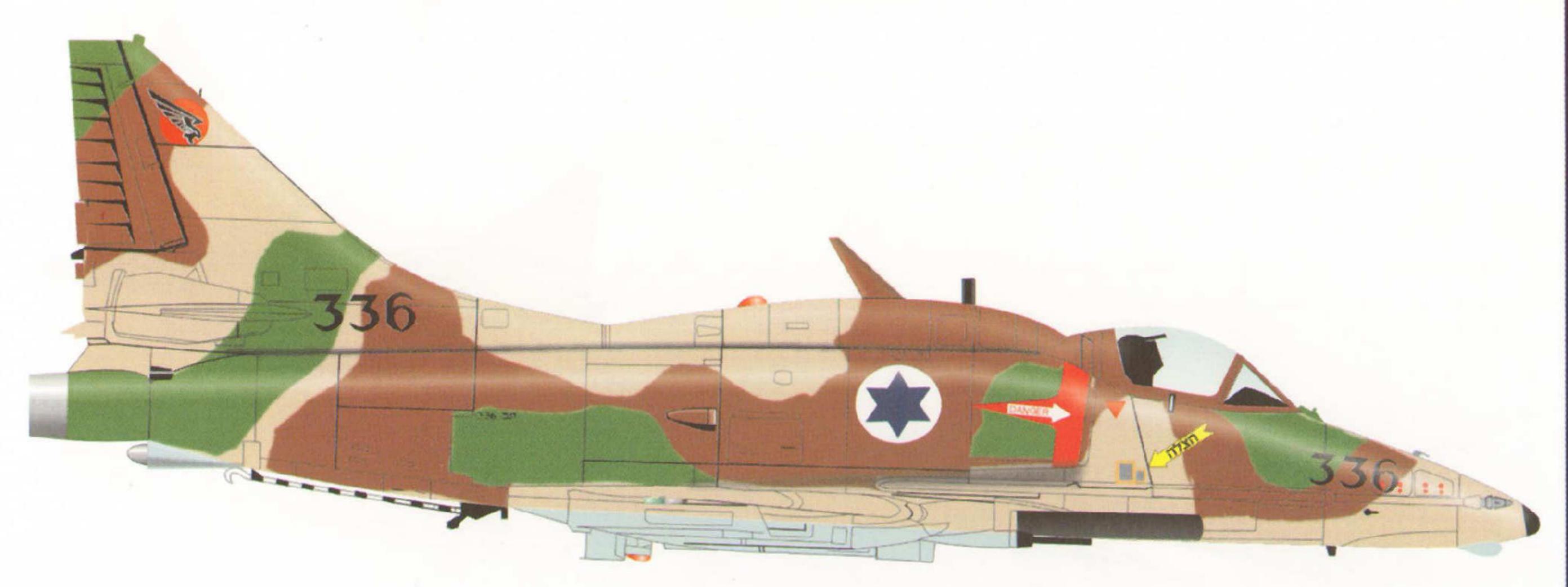








A-4N SKYHAVK



TECHNICAL DATA

TYPE: Single-seat attack.

ENGINE: One Pratt & Whitney J52-P-408A turbojet 5,080kg. (11,200lb.).

DIMENSIONS: Wing span - 8,38m.;

length - 12,29m.; height - 4,57m.; wing area - 24,16m².

WEIGHTS: Empty - 4,985kg.; max. loaded - 11,113kg.

ARMAMENT: Two 30mm DEFA 552A guns

with 150 rounds each.; max. external load - 4,150kg.

PERFORMANCE: Max. speed - 1,078km/h;

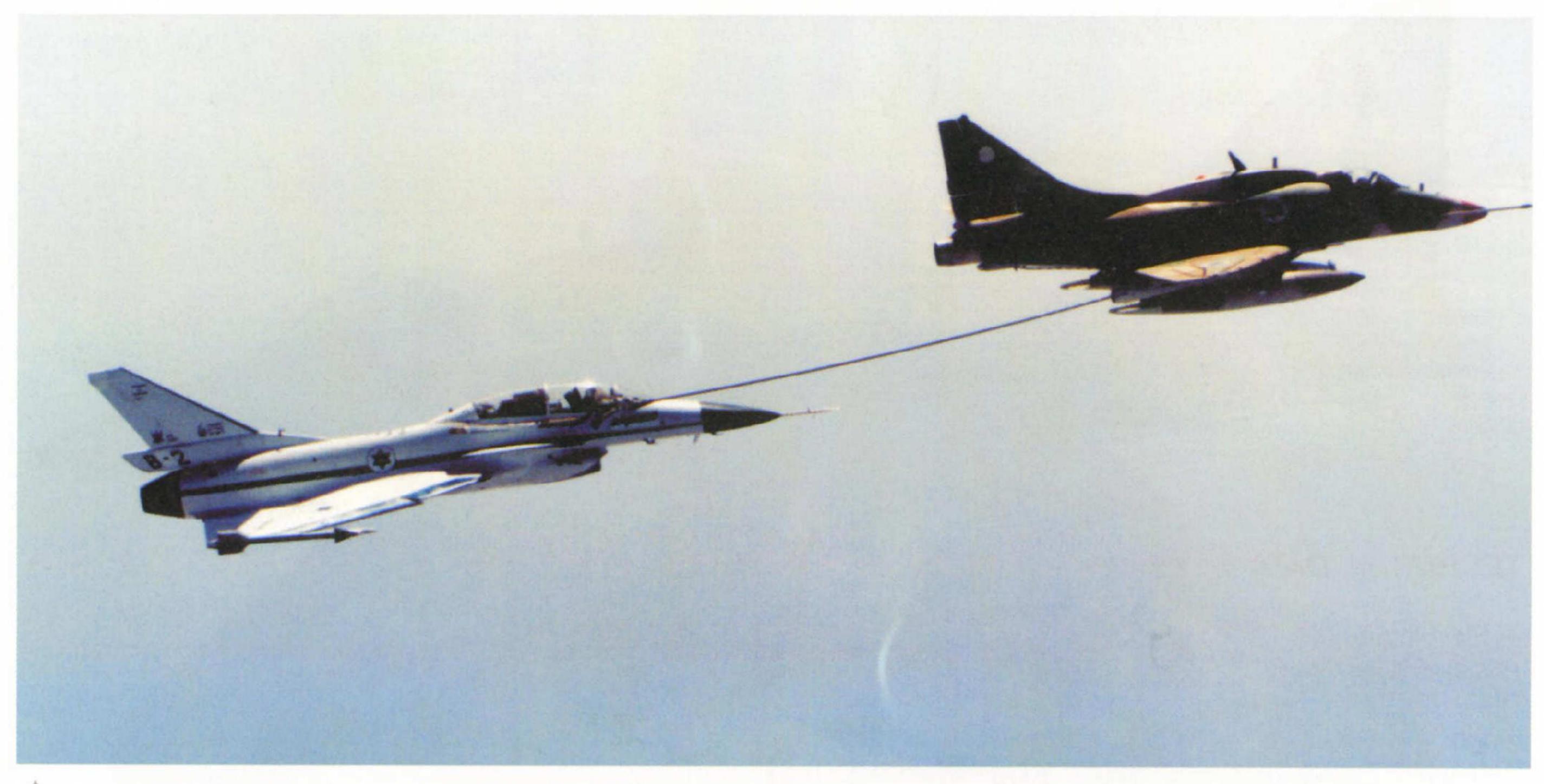
climbing rate - 3,140m/min.; max. altitude - 12,900m.;





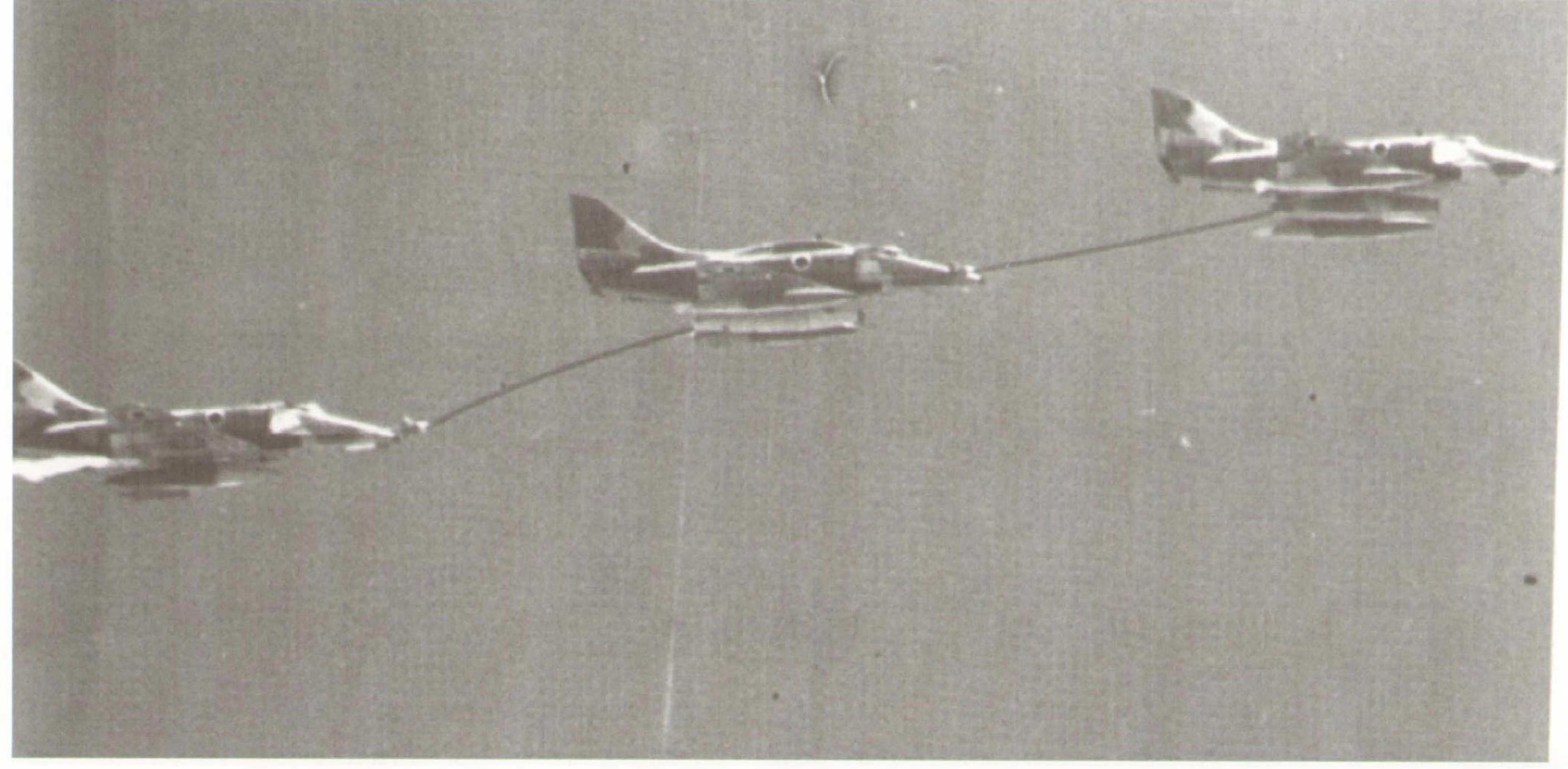
The IAF first mid-air refueling a/c

The introduction of the A-4 SKYHAWK into IAF opened new strategic horizons because of the double capability of the a/c to be mid-air refuelled as well as to be a refueling tanker. This enabled the IAF to reach deeper into enemy territory, for the first time. On June 6, 1968 the first mid-air refueling was successfully executed between several Skyhawks from the "VALLEY" Sqd. and a converted BOEING C-97 STRATOCRUISER. The IAF gave good operational proves, in due time, that the exercise really succeeded!!!

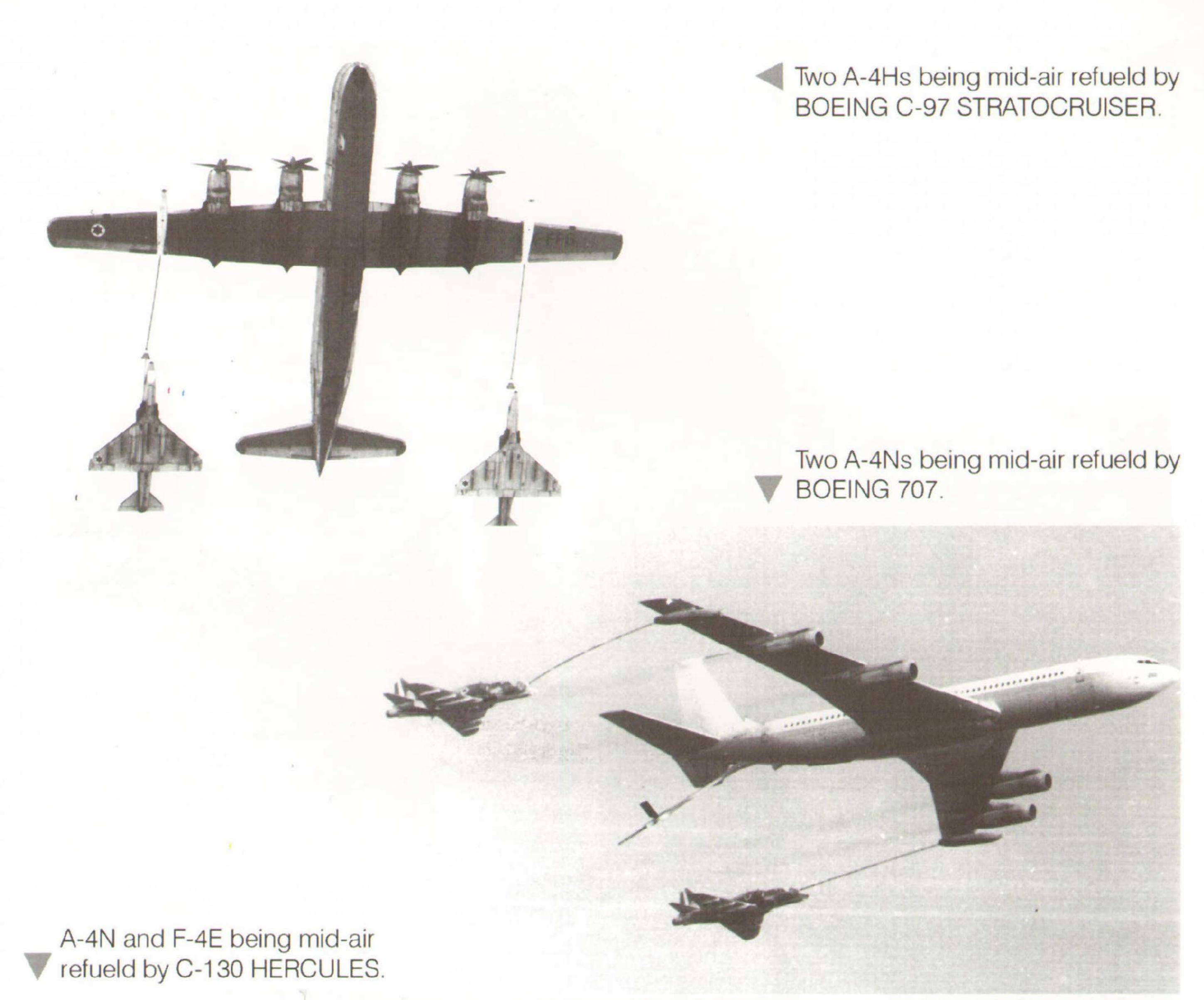


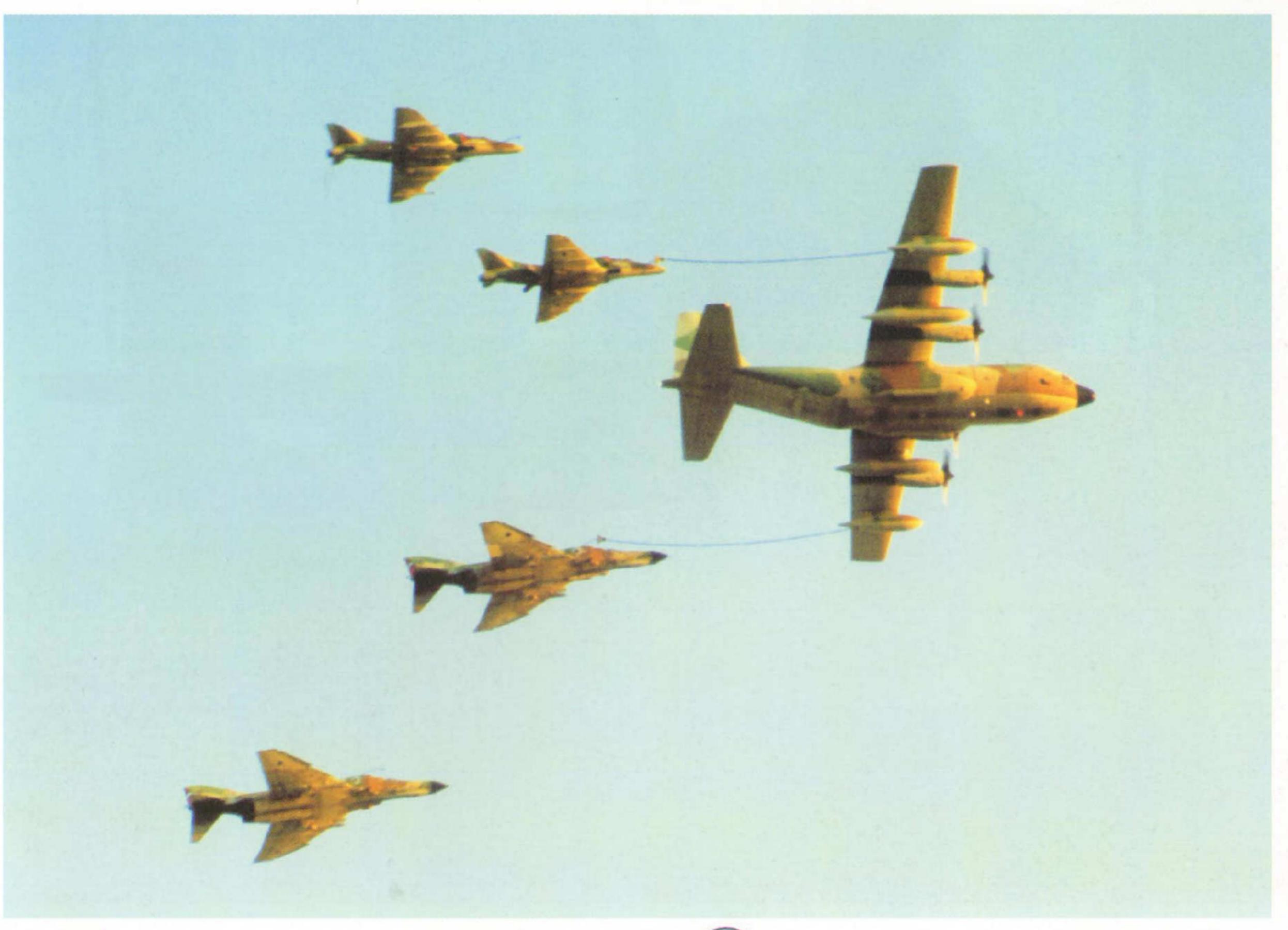
The LAVI being mid-air refueled by A-4H.

3 A-4Es in mid-air refueling formation.











Members of the IAF delegation receiving one of the first A-4H from the Douglas representations (US 1967).

A-4H SKYHAWK armed with bombs and rockets combs.. (in the foreground a 20mm cannon-pod).







✓ Maj. Ezra Dotan (BABAN)Z"L

describing Syrian MiG 17

being downed by him; in the

background his 03 a/c.

(12/05/1970).

A two-seater TA-4H from the "FLYING TIGER" Sqd. taxiing for a training mission; on the foreground, a FOUGA-MAGISTER from the Flying School, waiting for its tern to the take-off position.





NOTABLE DATES AND EVENTS

Feb. 15, 1968

Operation "SPIKE" - first assault of the 'VALLEY" Sqd. Skyhawks, bombing Jordanian artillery positions on the GIL'AD slopes.

Aug 4, 1968

First attack of the "FLYING TIGER" Sqd. a/c's on the A-SALT region in Egypt.

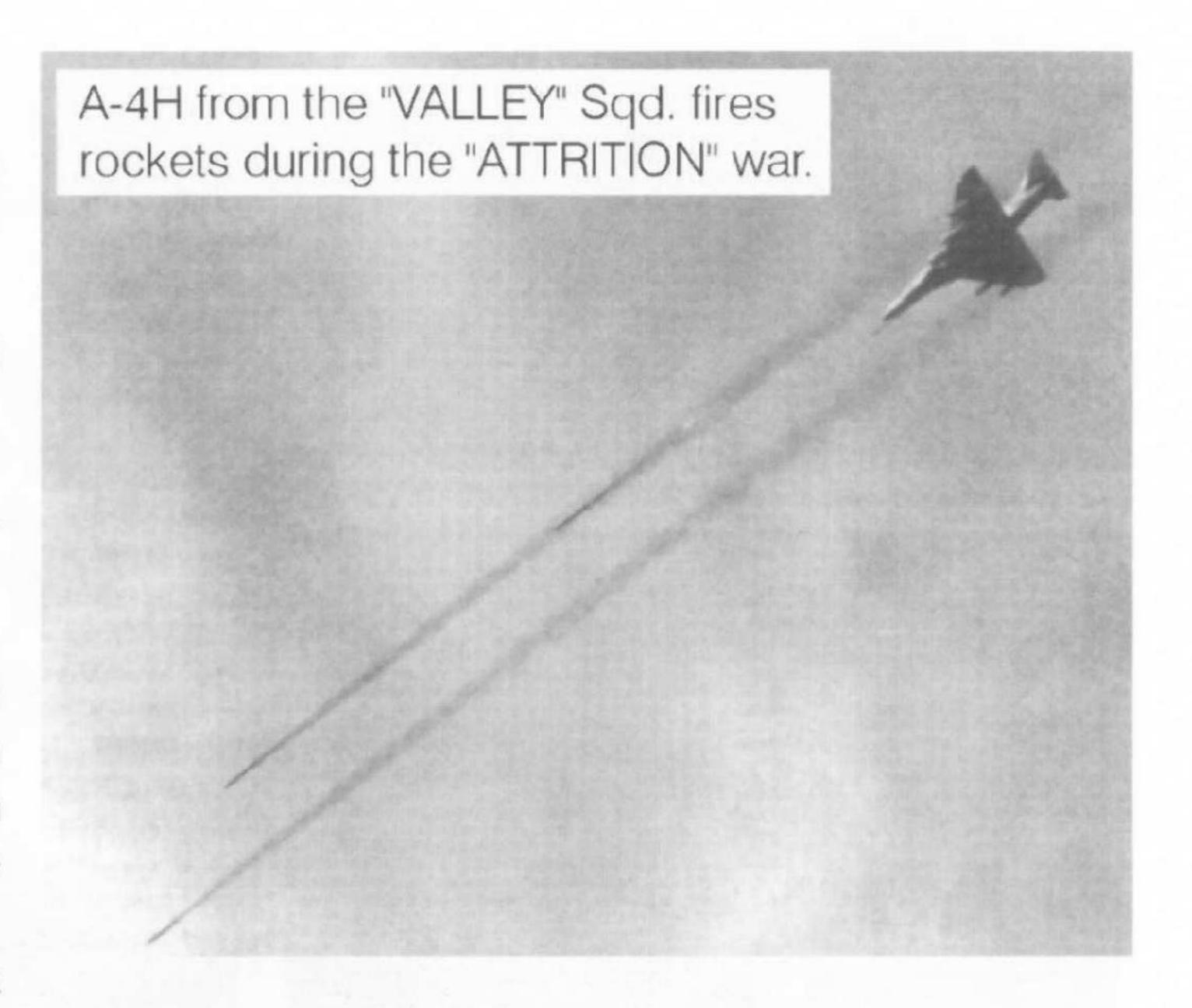
Aug 19, 1969

For the first time, two Skyhawks were hit; one of them was flown by the "FLYING TIGER" Sqd. CO. Maj. Nissim Ashkenazy; injured, he ejected himself and was taken by the Egyptians as P.O.W.; on Dec 6, same year he returned home in a P.O.W. exchange.

The second a/c, from the same Sqd., flown by a promising young pilot, Lt. Moshe Melnik, was hit by anti a/c fire whilst strafing at low altitude the longshore of PORT-IBRAHIM; incredibly, Lt. Melnik lands back home at the REFIDIM base, almost without the tail section!!!

May 5, 1970

A small formation of two a/c from the "VALLEY" Sqd. prepared to dive on FATAH-LAND region in Lebanon; four Syrian MiG 17 are observed to fly just under them; Maj. Ezra Dotan (Baban), the Sqd. CO., intercepted one of them and after several failures, destroys it with anti-tank rockets. With very little fuel left, he decided to follow another MiG and after a dramatic dog-fight shot it down with the experimentally mounted 30mm. cannons of his N° 03 a/c!(See please photo on page 33). This was the second time in history a Skyhawk downs a MiG in a dog-fight. The first time it was done three years earlier in Viet-Nam, when TED SCHWARZ of the US Navy downed a North-Vietnamese MiG 17 with Zoony rockets.

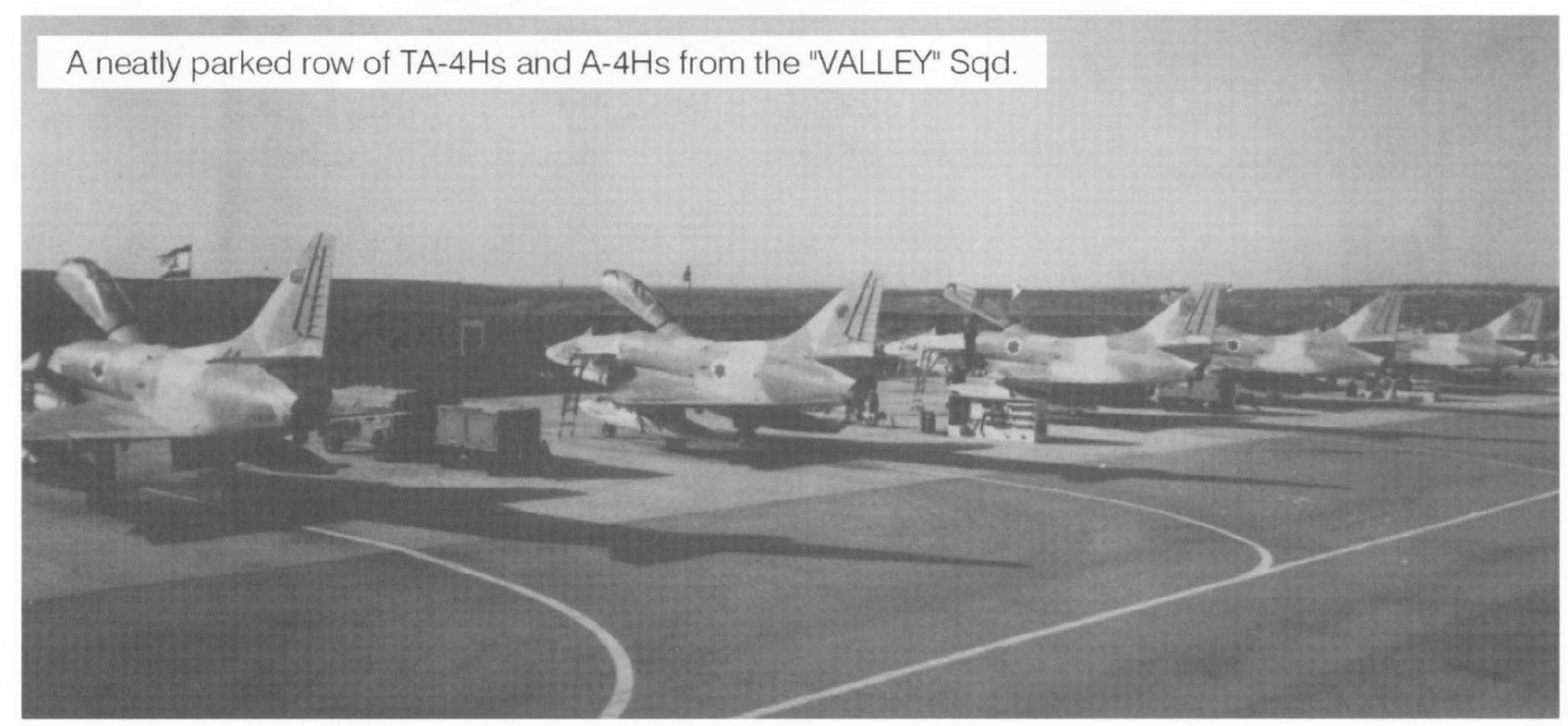


August 1971

Starting the installation of KRISTAL ECS system and the replacement of 20mm. cannons with 30mm DEFA ones.

Oct 9, 1973

The fourth day of the "YOM-KIPPUR" war. Col. ARLOZOR LEV (ZORIK), the CO. of the RAMAT-DAVID base volunteered into a formation of Skyhawks of the "KNIGHTS of the NORTH" Sqd. Just minutes before starting the attack on PORT-SAID his a/c was seen diving into the sea. His burial place is not known to this day. Zorik was a famous and glorious old-timer and his death should be considered a National loss. He received his wings after absolving pilots course Nº 10. The author's father learned in the same course, unfortunately did not finish it; however, during ground school and the basic training period, a friendship developed between the two. So, for us, it is still a family open wound.





Oct 18, 1973

The most famous Skyhawk in IAF, the 03 of the "VALLEY" Sqd., was hit during an attack on missiles batteries on the Egyptian front. The pilot somehow succeeded to bring it back over Israeli territory, eject himself and was saved, but for the historic a/c it was the end.

The "YOM KIPPUR' war

During this war the IAF operated about 150 Skyhawks, which executed more sorties then any other a/c. 49 a/c were lost, mostly by ground - to - airmissiles.

1974

During this year all the Skyhawksin

the IAF were provided with long jetpipe extensions designed for better cooling of the engine exhaust gases as well as for minimizing damage to the tail section in case of near-by explosion or directOhit of heat-seeking missiles.

May 1976

The "GOLDEN EAGLE" Sqd. transfers it's A-4Es to the "FLYING TIGER" Sqd. and gradually integrates the new

A-4N type.

March 1986

The "GORING DEER" Sqd. is be in g decommissioned and it's A-4Ns a/c are be in g transferred to the "FLYING TIGER" Sqd. which is high adually eliminates the old A-4E type from the IAF aggregate.



Row of A-4Ns from the "FLYING WING" Sqd. waiting for the tower take-off permission.



EPILOGUE

The operations of the Skyhawk during the war of "ATTRITION" and since, up to this day, prove the capabilities of this a/c not to be lesser than it's heavier and faster "colleagues", nay, in some cases even higher. The Skyhawk is a small but very "stinging" a/c with a very high degree of manoevrabity and a heavy and diverse weapons loading capability. It is very economically operated and has a good range performance.

It also proved to be a very effective trainer as well as having a high degree of maintainability.

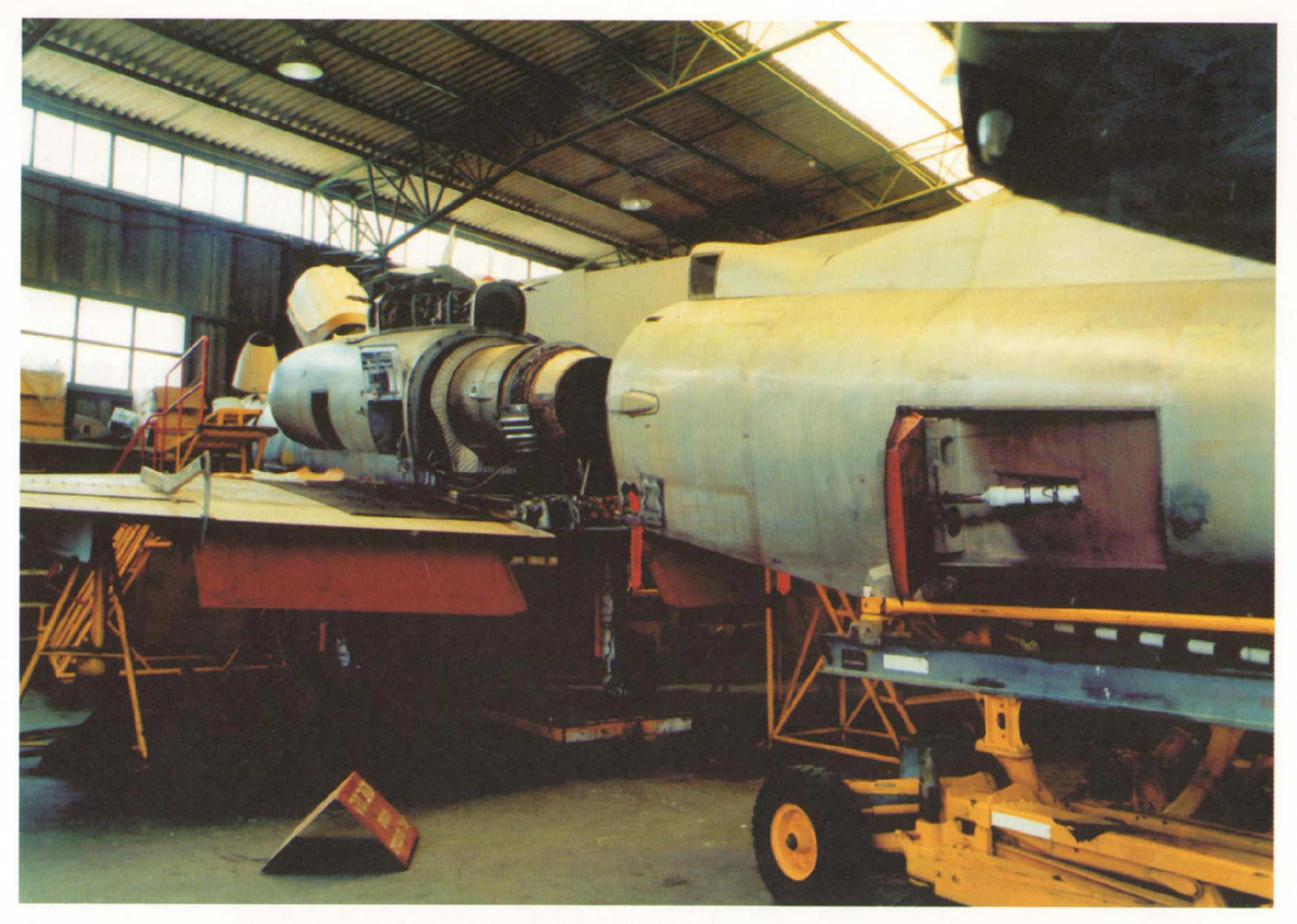
During the "SHELEG" war it proved to be an excellent ground-support a/c. Even in encounters with fighters

like different MiG types it proved to have the upper hand because of it's small radius turning efficiency which enables it to chauge roles very fast, becoming pursuer instead of pursued.

Today, however, the F-16 is replacing the Skyhawk as the "first line" and the "back-bone" of the IAF.

The IAF is also "window-shopping" for a 3K state-of-the-art trainer... and may be planning an envelope for one...





A Dismounting the engine in a maintenance unit.

V Closeup of the tail pipe extension added by the IAF.







One of the A-4E SKYHAWKS sold to the Singapore Air Force ready for flight.



V A-4B SKYHAWK as a memorial in one of IAF bases.







A-4E's preparing for painting.

TA-4H Nr. 716 from the "Flying Wing" Sqd. returning from its training mission.







A IAF pilot n the back seat of a TA-4H

V TA-4J Nr. 715 from the "Flying Wing" Sqd.





Camouflage

The basic scheme for Israeli A-4s was applied according to a single pattern, and were remarkably uniform when the a/c was delivered to the IAF. However, over time, the colors have remained the same and the patterns look alike at quick glance, now no two a/c patterns are the same. Check your references carefully for the a/c you are modelling!!!



Decals & Convertion kits

There aren't any special decals sheets for Israeli SKYHAWKs, You'll have to use the ones that come in the model box for the stenseling. For the Squadrons insignia you'll have to use the IAF-1 decals from IsraDecal.

For converting any model (1/72 or 1/48) to Israeli A-4N there is a beautiful convertion kit produced by Eagle Design, set No. 72-CK-05 or 48-CK-05.



Diorama presenting preperation of a A-4H SKYHAWK for flight. (IPMS Israel)

Recommended Kits

1/72 scale - Hasegawa, Fujimi, Italeri.

1/48 scale - Esci or Monogram.

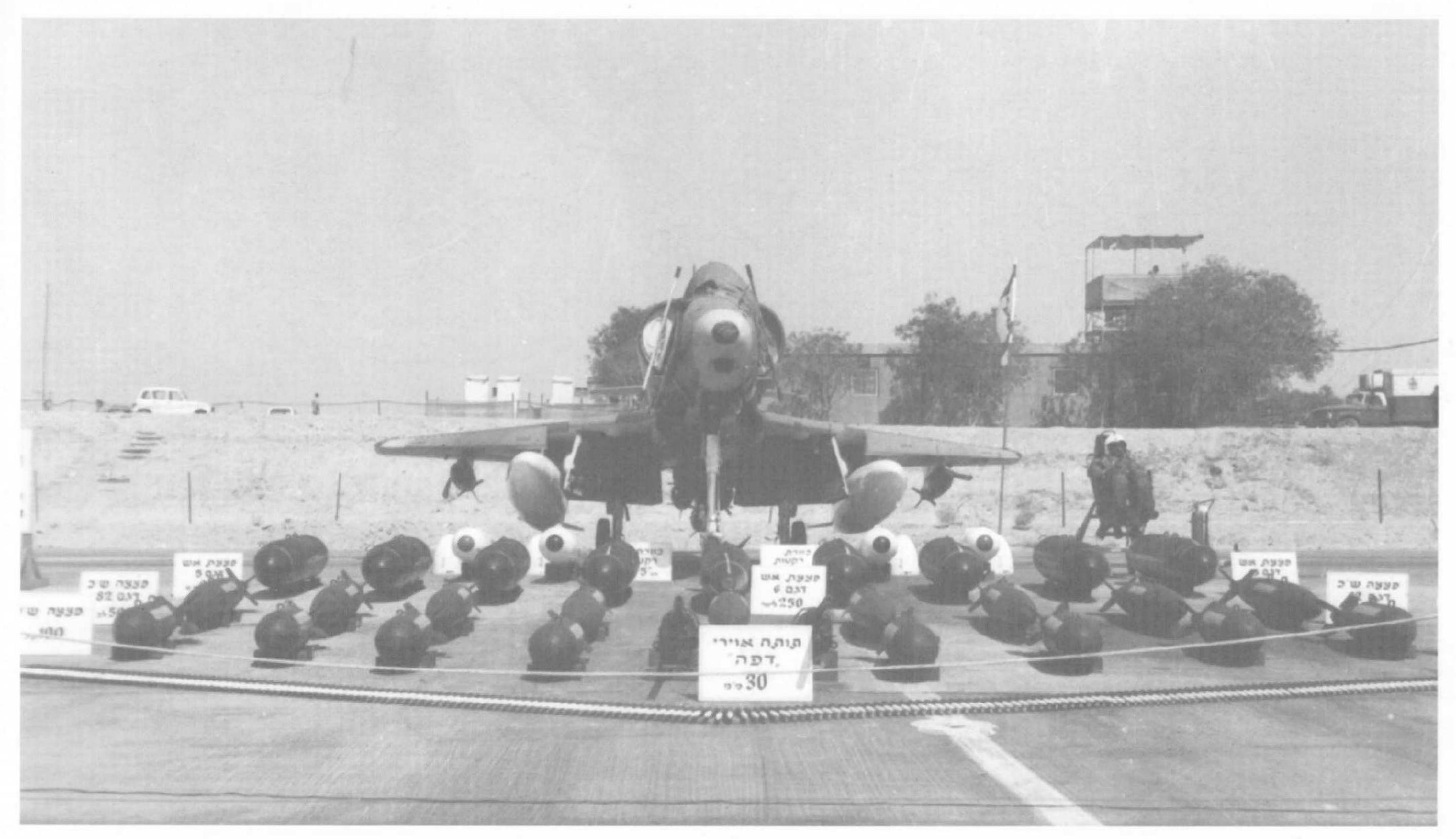
1/32 scale - Hasegawa.





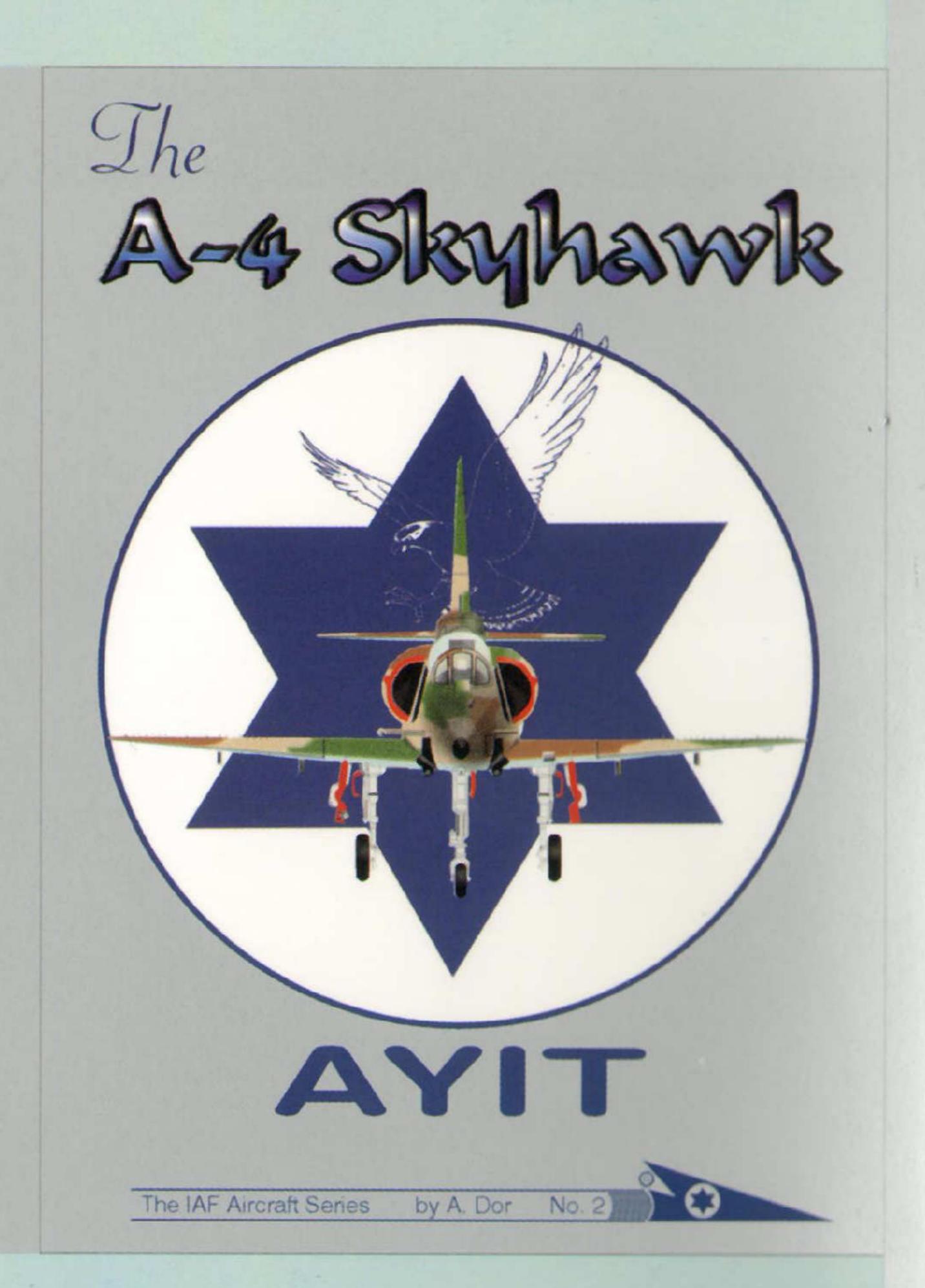
▲ Typical A-4E Skyhawk armament.

Typical A-4N Skyhawk armament.

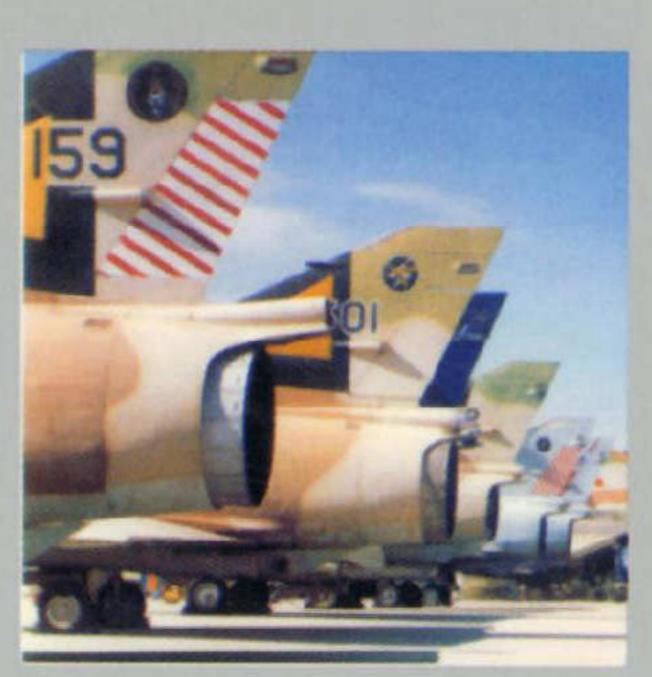


The IAF Aircraft Series





Next to come...



Nº 3 - From Mirage to Kfir.



Nº 4 - The F-16 in the IAF.



Nº 5 - IAF light Helicopters.

