

## Belcher Bits Decal BD6: Canadian CF-104

In 1959, Canada chose the Lockheed F-104 Starfighter to replace the Canadair Sabres for the RCAF's new nuclear strike role in NATO. This aircraft was originally designed as an air superiority fighter with emphasis on speed, but its characteristic stubby wings made it a stable and very fast attack aircraft. It also was used as a strike reconnaissance aircraft when fitted with the VICON camera pod. The Canadian F-104G variant with strengthened airframe and increased fuel tankage (replacing the 20mm Vulcan) was built by Canadair under license, 200 being produced for the RCAF and a further 140 for other NATO countries.

This decal sheet allows the modeller to build a CF-104 in ANY of the operational schemes in which it served, from initial delivery to the RCAF until it went out of service in 1986. The decal sheet is generic, and although specific aircraft are illustrated, there should be enough numbers to do just about any aircraft desired. Specific schemes illustrated are:

1. CF-104 s/n 12721, 427 Sqn RCAF, Oct 1962.
2. CF-104 s/n 12758, 1 Wing RCAF, Marville 1965.
3. CF-104 s/n 104799, 439 Sqn CAF, Marville 1969.
4. CF-104 s/n 104830, 427 Sqn CAF, Baden-Soellingen 1969.
5. CF-104 s/n 104842, 421 Sqn CAF, Baden-Soellingen 1973.
6. CF-104 s/n 104753, 417 Sqn CAF, Cold Lake 1975.
7. CF-104 s/n 104841, 421 Sqn CAF, Lahr 1975.
8. CF-104 s/n 104783, 417 Sqn CAF, Cold Lake 1982.

This decal sheet also allows you to depict at least one of the following Tiger Meet schemes (by year): '71 (104823), '72 (104770), '75 (104865), '76 (104756), '77 (104838), '79 (104862), '81 (104761), '82 (104796) and '83 (the final CF-104 Tiger Meet a/c 104706); nine different Tigers in all!

### Other 1/48 Belcher Bits decal sets available:

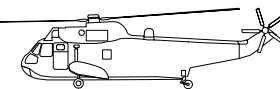
- BD1: Canadian Navy Helicopters; 2 x HO4S-3, 3 x CH 124 Sea King
- BD2: CAF Helicopters; H-19, H-34, 4 x CH 136, 1 x CH 139, 3 x CH 118, 3 x CH 135
- BD4: Canadian Harvard Mk IIs
- BD5: USN SNJ-2s and SNJ-6s

### Other 1/48 CF-104 products available:

- BB14: CF-104 Weapons pack: Mk 28 & B 43 nuclear bombs, Twin Stores Carriers, 5 x BL 755 cluster bombs, centreline pylon, VICON camera

Other products available; contact us for a free product listing

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## CF-104 Starfighters in Service

Initially, the Canadian No.1 Air Division in Europe was organized in wings; 1 Wing (Marville, France) with 439 and 441 Sqns, 2 Wing (Grostenquin, France) with 421 and 430 Sqns, 3 Wing (Zweibrücken, W. Germany) with 427 and 434 Sqns and 4 Wing (Baden-Söellingen, W. Germany) with 422 and 444 Sqns. In Canada at CFB Cold Lake was No.6 Strike and Operational Training Unit (later becoming 417 Sqn). French concerns about foreign troops on French soil led to some squadrons being disbanded and the rest being based in Germany; In 1969, the Air Division comprised 1 Wing at Lahr (439, 441 and 430 Sqns) and 4 Wing at Baden-Söellingen (421, 422 and 427 Sqns). When the nuclear strike role was abandoned in the 1970, CF-104s were re-fitted with the 20mm rotary cannon and used as low level strike aircraft, carrying either rockets or bombs. The Air Division was replaced by 1 Canadian Air Group with 421, 439 and 441 Sqns. CF-104s served until 1986 when the Canadian air presence in Europe was phased out.

During 24 years of service, more than half the Starfighter fleet was lost in accidents, and the aircraft earned the nickname of 'widowmaker'. However, much of the carnage was due to its operational role, where fast low-level flying in poor weather conditions allowed no second chances following bird strikes or mechanical failure.

### References:

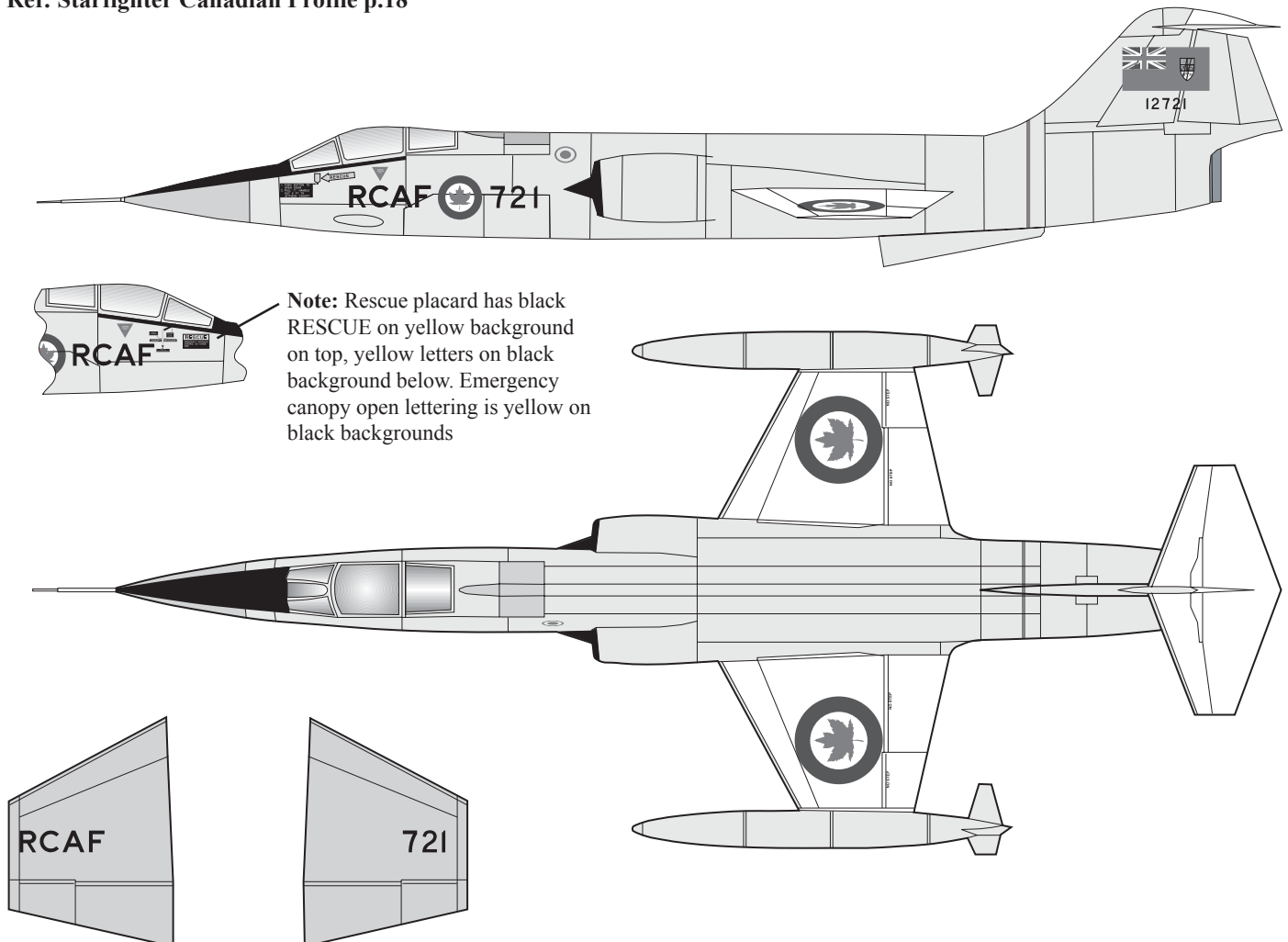
1. CANAV Books website; summarized from 'Canadair: The first 50 years'
2. Starfighter by David Bashow, Fortress Publications, 1990
3. CF-104 Starfighter Canadian Profile by Bob McIntyre, Sabre Publishing, 1984
4. Personal photo collection of Anthony Stachiw (Thanks very much, Tony)

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### 1. CF-104 s/n 12721, 427 Sqn RCAF, Oct '62

This aircraft was the first CF-104 delivered for service in Europe. Overall natural metal, with white wing tops. Operational machines like '721 had white horizontal stabilizer (top and bottom); Canadian-based trainers had red. Underside of wings and radome was grey 501-109 (similar to Boeing Gray); antenna patch behind cockpit was brownish-grey fibreglass colour. 48" RCAF roundels on wing tops, 'RCAF' and 'last 3' of the serial in 12" black letters below the wings. Fuselage roundels were 24", flanked by 'RCAF' and 'last 3' in 12" black letters. Note that 'RCAF' was forward of the roundel on both sides. Canopy jettison and operation placards as shown in the drawings; note that the ejection seat warnings were the larger red-only triangles. 48" Red Ensign flag on the tail (Union Jack forward on both sides) with 6" black s/n below. There was a 2" red turbine warning strip around the aft fuselage, but no danger arrow. Fuel filler location on port side was marked with red concentric circle.

Ref: Starfighter Canadian Profile p.18

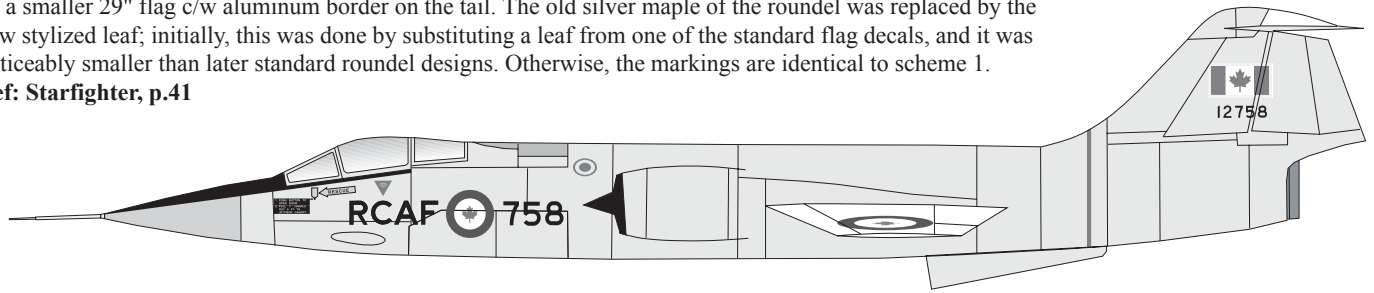


Underside of wings: Note natural metal leading edge strip on top and bottom (horizontal stabs as well)

**2. CF-104 s/n 12758, 1 Wing RCAF, Marville '65**

Canada got a new flag in 1965, and RCAF markings were revised to include it. The Red Ensign was replaced by a smaller 29" flag c/w aluminum border on the tail. The old silver maple of the roundel was replaced by the new stylized leaf; initially, this was done by substituting a leaf from one of the standard flag decals, and it was noticeably smaller than later standard roundel designs. Otherwise, the markings are identical to scheme 1.

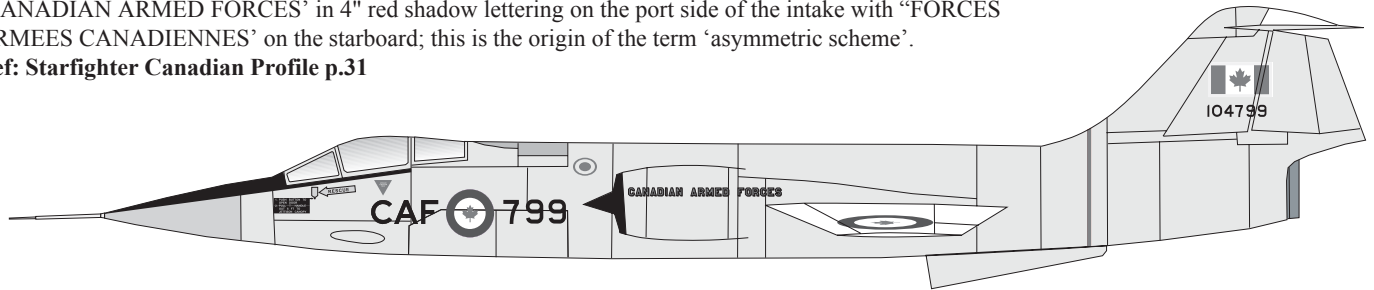
**Ref: Starfighter, p.41**



**3. CF-104 s/n 104799, 439 Sqn, Lahr '69**

With the unification of the Canadian Armed Forces in 1968, the RCAF became CAF. Markings evolution on the CF-104 was relatively simple. The R was removed from under the wing, and on the port side of the fuselage; on the starboard side, 'CAF' was painted to the left of the roundel, and the 'last 3' moved to the right side. Very early examples of this scheme (such as this example) still had the old small leaf roundels, although these eventually were replaced by the standard configurations. Serial numbers were also revised, with all a/c types now having the 'first 3' as the type (i.e 104) while the last 3 remained the same. These aircraft had 'CANADIAN ARMED FORCES' in 4" red shadow lettering on the port side of the intake with 'FORCES ARMEES CANADIENNES' on the starboard; this is the origin of the term 'asymmetric scheme'.

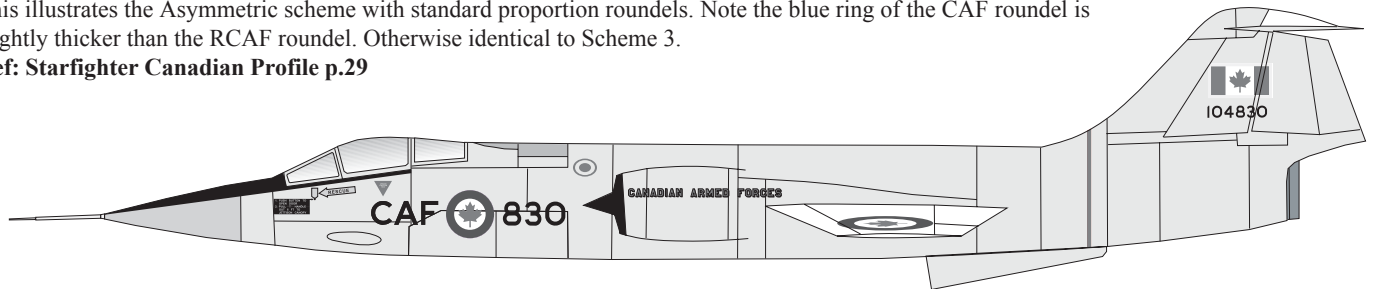
**Ref: Starfighter Canadian Profile p.31**



**4. CF-104 s/n 104830, 427 Sqn CAF, Baden-Soellingen '70**

This illustrates the Asymmetric scheme with standard proportion roundels. Note the blue ring of the CAF roundel is slightly thicker than the RCAF roundel. Otherwise identical to Scheme 3.

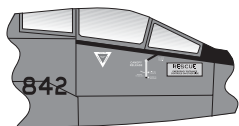
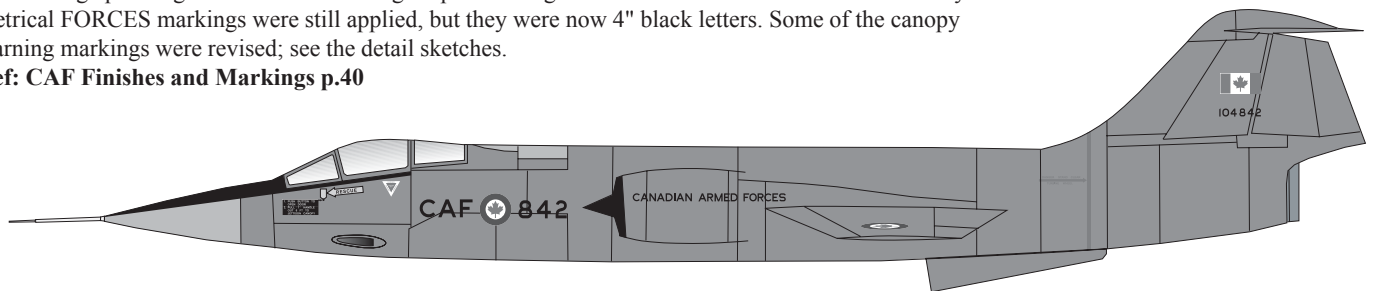
**Ref: Starfighter Canadian Profile p.29**



**5. CF-104 s/n 104842, 421 Sqn CAF, Baden-Soellingen '73**

When the nuclear strike role was exchanged for low level strike, operational aircraft received a camouflage paint scheme of overall green 503-322, a color which seemed to span the range from dark olive green to dark green. Radome and antenna patch were still grey. Markings sizes were generally reduced; upper wing roundels were 24", fuselage were 26". Underwing CAF and 'last 3' remained 12" black, but fuselage CAF and 'last 3' were reduced in size to 9", tail serials to 4" black numbers. A warning arrow was added to the rear fuselage pointing to the turbine warning stripe. The flag on the tail was reduced in size to 20". Asymmetrical FORCES markings were still applied, but they were now 4" black letters. Some of the canopy warning markings were revised; see the detail sketches.

**Ref: CAF Finishes and Markings p.40**



**Note:** Rescue placard is yellow with black letters.  
Emergency canopy open instructions are yellow letters.  
Ejection seat warning has white background

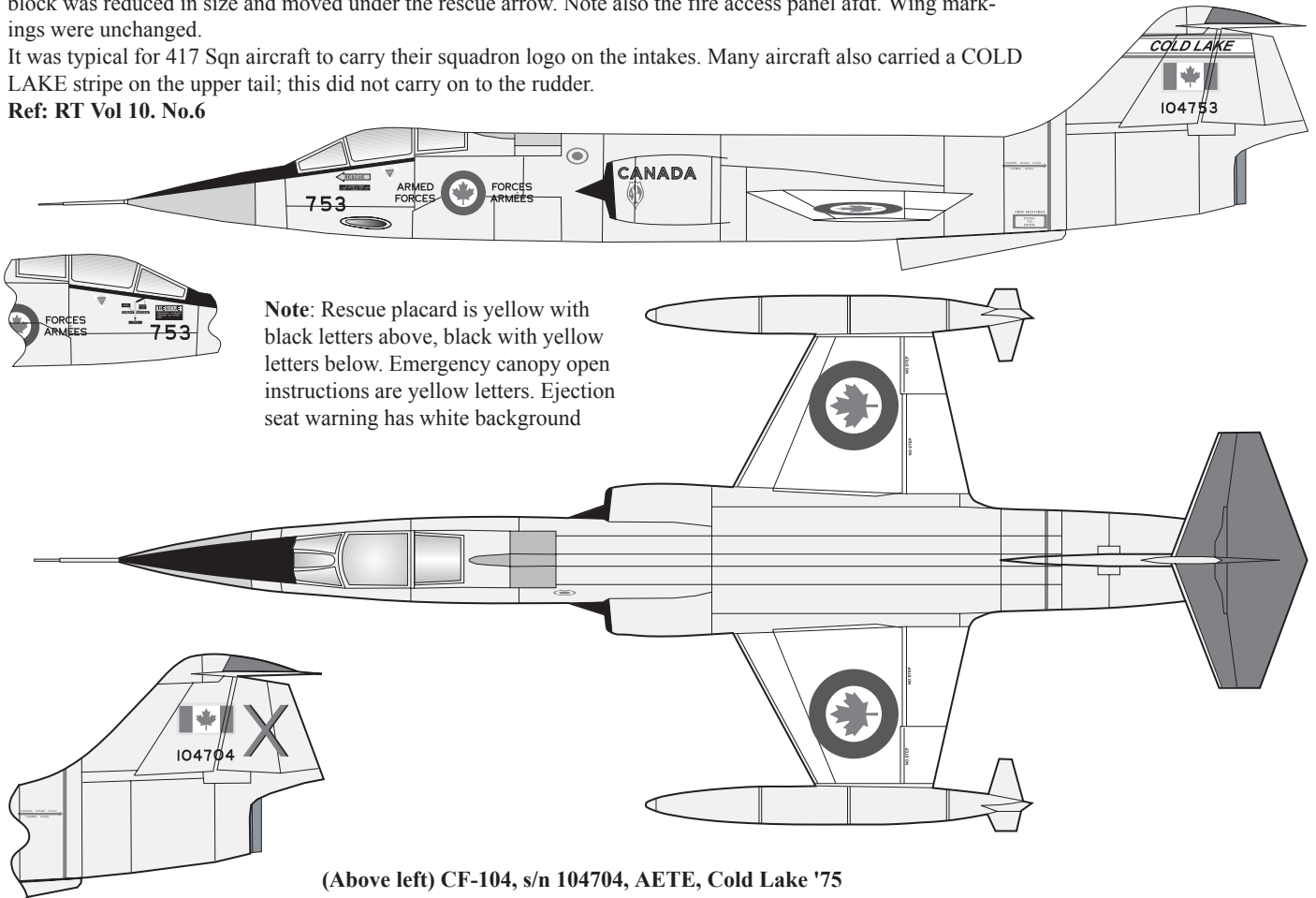
**6. CF-104 s/n 104753, 417 Sqn CAF, Cold Lake '75**

In the '60s, training a/c carried the identical scheme as operational aircraft except the horizontal stabilizer (top and bottom) was red vs. white. Training aircraft were never painted green, although some camouflaged aircraft did come back to Canada as attrition replacements when European squadrons disbanded.

In 1973, a new symmetrical marking scheme was implemented throughout the CAF. The story is that the asymmetrical scheme contravened ICAO regulations which forbade aircraft from being marked differently on each side. Whatever the reason, a new 'roundel ident' was introduced with ARMED FORCES on the left side of the roundel and FORCES ARMEES on the right. The 24" roundel version was on the forward fuselage and the 'last 3' were now displayed in 8" black numbers on the lower nose area. On the intakes was the word CANADA in 6" black-bordered red letters. Under the port canopy, the canopy opening block was reduced in size and moved under the rescue arrow. Note also the fire access panel aft. Wing markings were unchanged.

It was typical for 417 Sqn aircraft to carry their squadron logo on the intakes. Many aircraft also carried a COLD LAKE stripe on the upper tail; this did not carry on to the rudder.

**Ref: RT Vol 10. No.6**



**Note:** Rescue placard is yellow with black letters above, black with yellow letters below. Emergency canopy open instructions are yellow letters. Ejection seat warning has white background

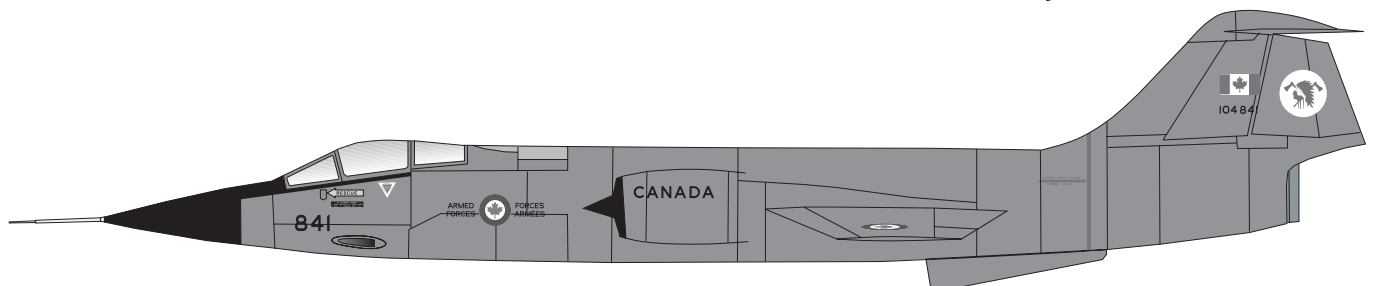
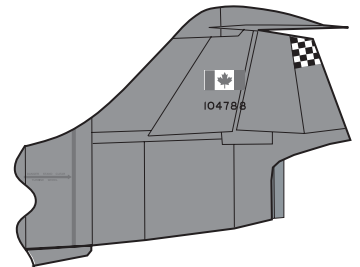
**(Above left) CF-104, s/n 104704, AETE, Cold Lake '75**

The Central Experimental and Proving Establishment (CEPE) received five CF-104s (12701-05) and one dual (12652) for simulator acceptance and weapons testing. This unit later became Aerospace Engineering and Test Establishment (AETE), and its aircraft carried the red X on the tail. Otherwise, the marking scheme was identical to scheme 6.

**7. CF-104, s/n 104841, 421 Sqn, 1 CAG '75**

Operational aircraft (overall green 503-122) also received symmetrical markings in 1973. Generally similar to scheme 5 except for the following differences. There was a 16" roundel ident on the forward fuselage and the 'last 3' were displayed in 8" black numbers on the lower nose area. On the intakes was the word CANADA in 6" black letters. This aircraft carried a 421 Sqn Red Indian on a white disc on the tail. At the same time, 441 Sqn aircraft carried a small black and white checkerboard at the top of the rudder (see the detail for s/n 104788 at right).

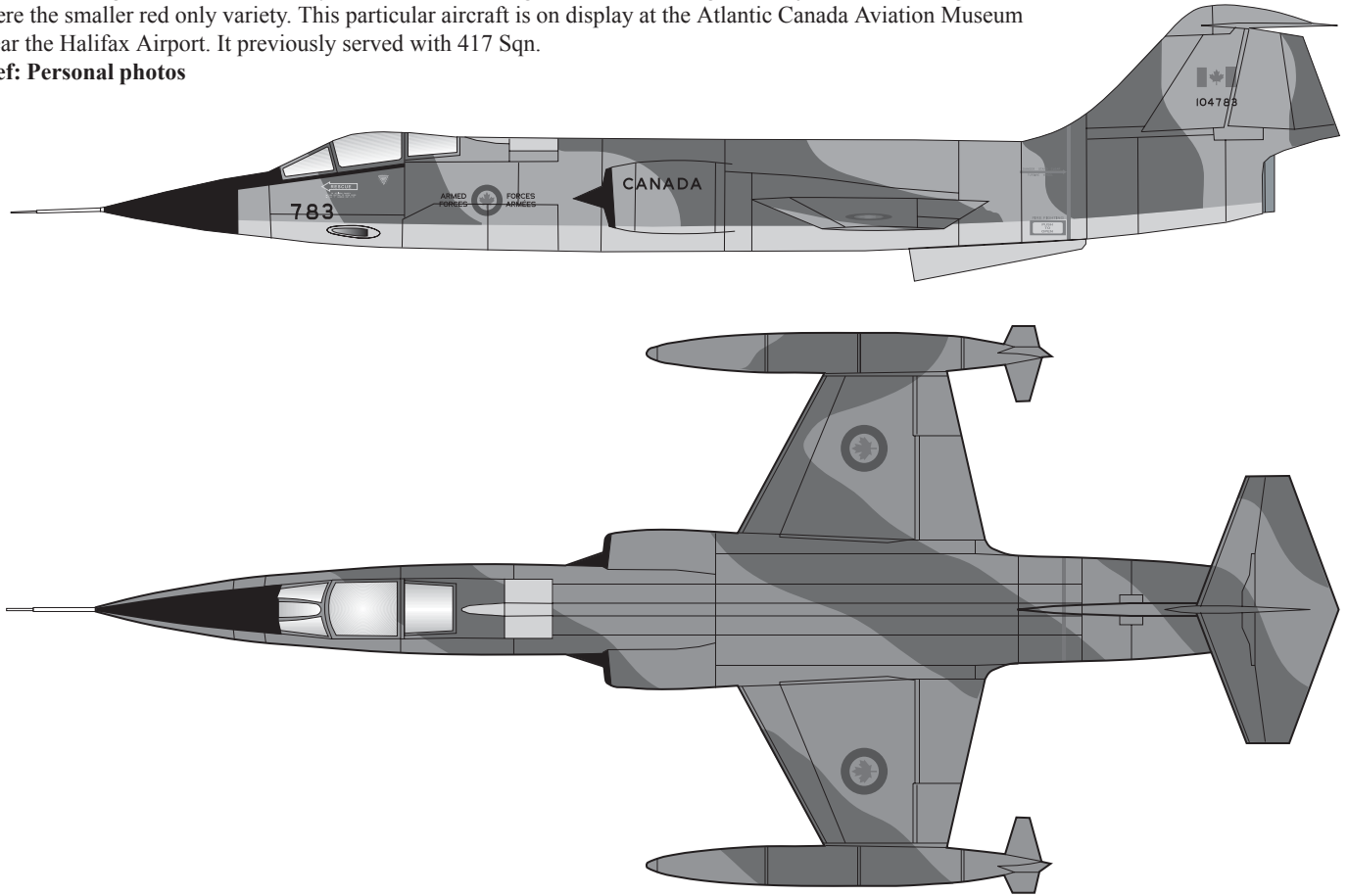
**Ref: RT Vol 10. No.6**



**8. CF-104, s/n 104783, 417 Sqn, '83**

The final scheme worn by the CF-104 was a variegated camouflage with low visibility markings, and both operational and training aircraft were painted in this manner. The colours comprised green 503-301 (similar to FS 34064, shown as the darker shade here) and grey 501-302 (FS 36118) over light grey 101-327 (FS xxxxx). The topside colours had a tight overspray and the top/bottom dividing line was straight. The markings were identical to scheme 7 except all the white was removed from the roundels and flag. Canopy rescue markings on both sides were yellow stencil lettering on the camo background. Ejection seat triangles were the smaller red only variety. This particular aircraft is on display at the Atlantic Canada Aviation Museum near the Halifax Airport. It previously served with 417 Sqn.

**Ref: Personal photos**



The additional sheet provides the natural metal background for a number of special Tiger Meet aircraft markings. Some a/c numbers had an aluminum border, others were painted on a natural metal block. The attached sheet should allow the modeller to do any one of nine Tigers. Pictures of Tiger meet aircraft from above are rare and usually oblique, pictures from below are even more rare. It *appears* the large upper wing roundels did NOT have an aluminum border, even when other markings did. None are provided with this sheet. Note also that some Tiger schemes had a yellow tiger on the black background; others were reversed showing a black tiger on a sprayed yellow background.

24" Roundel      Tail Numbers      16" Ident      Turbine Warning Arrow      24" Roundel

CANADA

12" CANADA 4 ▽ ▲ CANADA

8" Fuselage Numbers 2 3 5 6 7 8 8 [ ] [ ] CAF

24" Roundel

CAF ▽ ▲ CAF

770 823 770 / 823 770 823

C.A.F.      Tail Numbers      F.A.C.

4 Wing

3 Wing

1 Wing

4 ATAF

Bonus Crests

White and Aluminum Backgrounds



## Tiger Meet Aircraft

Starfighters also are remembered for their vivid special schemes, especially the colorful Tiger Meet stripes. This decal sheet allows you to depict at least one of the following Tiger Meet schemes (by year): 1971 (104823), '72 (104770), '75 (104865), '76 (104756), '77 (104838), '79 (104862), '81 (104761), '82 (104796) and '83 (the final CF-104 Tiger Meet a/c 104706); nine different Tigers in all! There are a few years missing; I have not been able to find photos for all years, and some years there were no aircraft painted.

From the few aircraft where both sides are pictured, it appears that the stripes are more or less symmetrical. Top side views are rare and upper wing markings can be seen on the side views. If you assume underwing markings are similar, you won't be far wrong. One general trend is that number of stripes reduced over the years; later a/c show fewer and broader black bands.

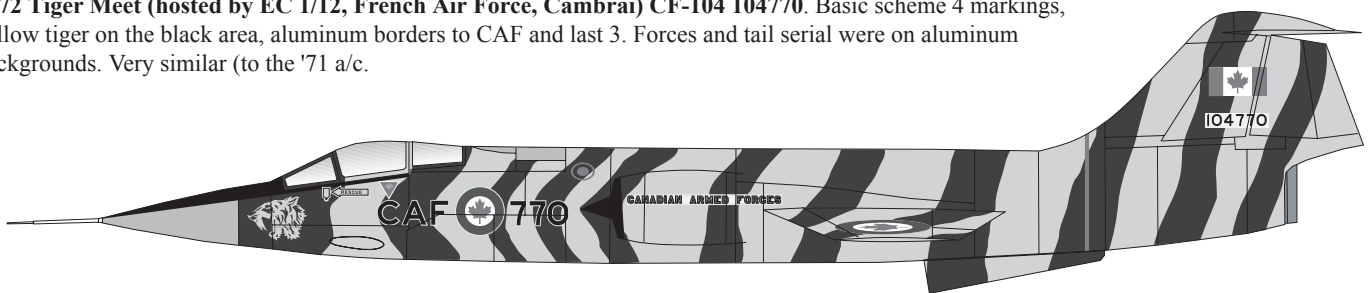
**1969 Tiger Meet (hosted by 79th TFS, USAF, Woodbridge. CF-104 12833** (not shown on this sheet): The original Tiger had a distinctive scheme and a unique large tiger head on the nose of the aircraft. The Starfighter profile has a good four view of this aircraft, for those keen enough to handpaint the scheme. This a/c was unique in that the stripes were hand painted with hard edges; all others were sprayed albeit with a tight overspray edge.

**1970 Tiger Meet (hosted by 31eme Esc, Belgian AF, Kleine Brogel) (s/n unknown)**

**1971 Tiger Meet (hosted by 431 Sqn, RAF, Upper Heyford) CF-104 104823.** This aircraft crashed early in the meet just after its official picture was taken, so you don't see too many shots. Basic scheme 4 markings, yellow tiger on the black area, aluminum borders to CAF and last 3. Forces and tail serial were on aluminum backgrounds. The ejection seat warning was the larger red style, and it as well as rescue arrow and latch had an aluminum border



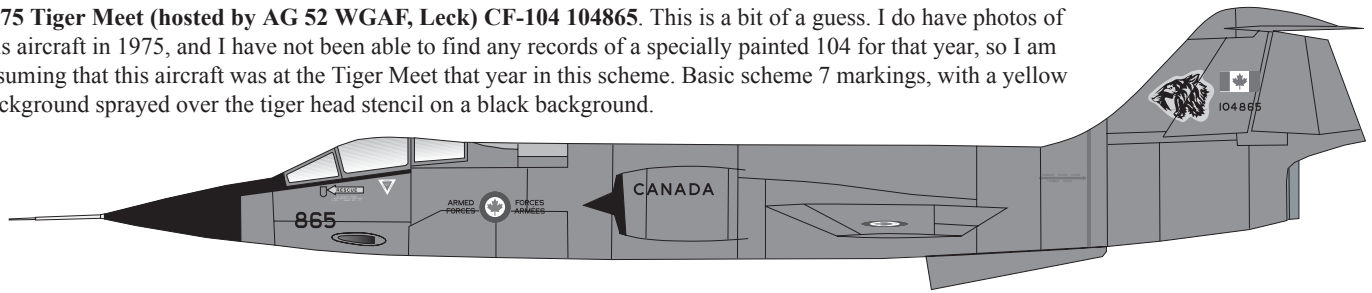
**1972 Tiger Meet (hosted by EC 1/12, French Air Force, Cambrai) CF-104 104770.** Basic scheme 4 markings, yellow tiger on the black area, aluminum borders to CAF and last 3. Forces and tail serial were on aluminum backgrounds. Very similar (to the '71 a/c.



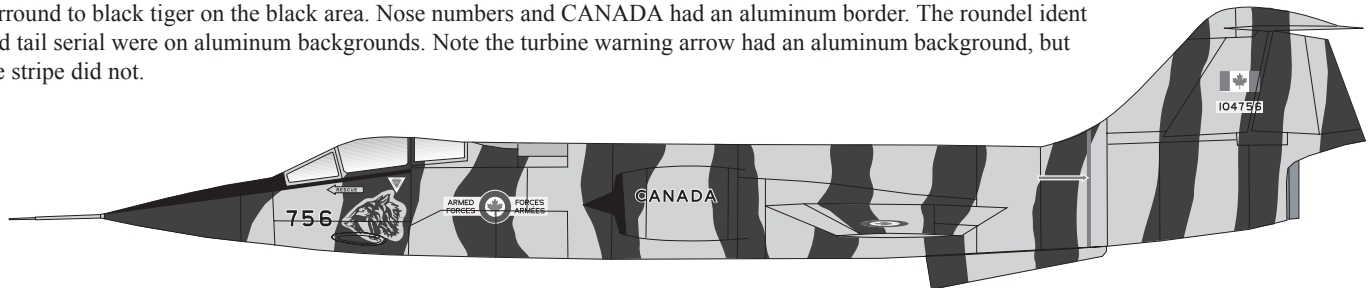
**1973 Tiger Meet (hosted by 21 Gruppo, Cameri, Italy) CF-104 104864.** This aircraft apparently had the numbers 439 on the nose replacing 864. However, no photos could be found to confirm that.

**1974 Tiger Meet (hosted by 53 TFS, USAF, Bitburg) s/n unknown.** No info on this meet.

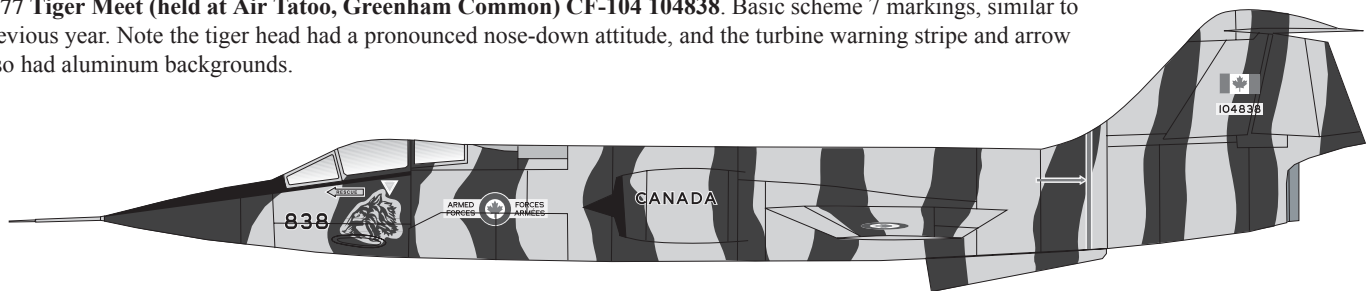
**1975 Tiger Meet (hosted by AG 52 WGAf, Leck) CF-104 104865.** This is a bit of a guess. I do have photos of this aircraft in 1975, and I have not been able to find any records of a specially painted 104 for that year, so I am assuming that this aircraft was at the Tiger Meet that year in this scheme. Basic scheme 7 markings, with a yellow background sprayed over the tiger head stencil on a black background.



**1976 Tiger Meet (hosted by 439 Sqn, CAF, Baden-Soellingen) CF-104 104756.** Basic scheme 7 markings, yellow surround to black tiger on the black area. Nose numbers and CANADA had an aluminum border. The roundel ident and tail serial were on aluminum backgrounds, but the stripe did not.

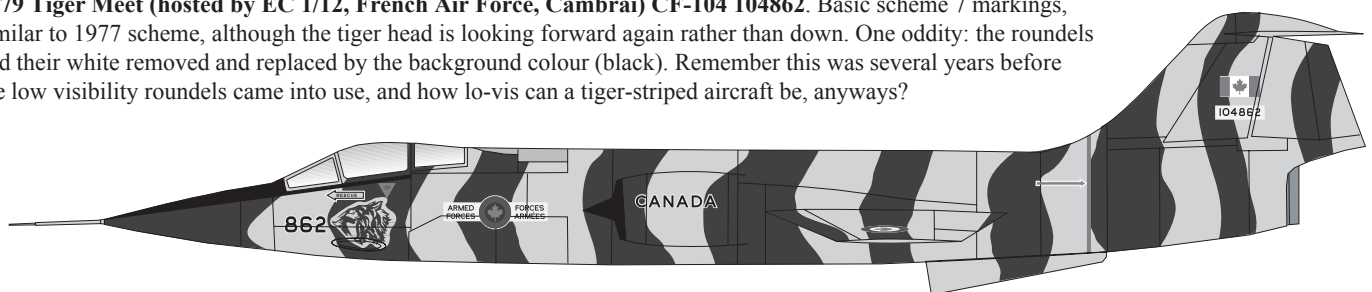


**1977 Tiger Meet (held at Air Tattoo, Greenham Common) CF-104 104838.** Basic scheme 7 markings, similar to previous year. Note the tiger head had a pronounced nose-down attitude, and the turbine warning stripe and arrow also had aluminum backgrounds.



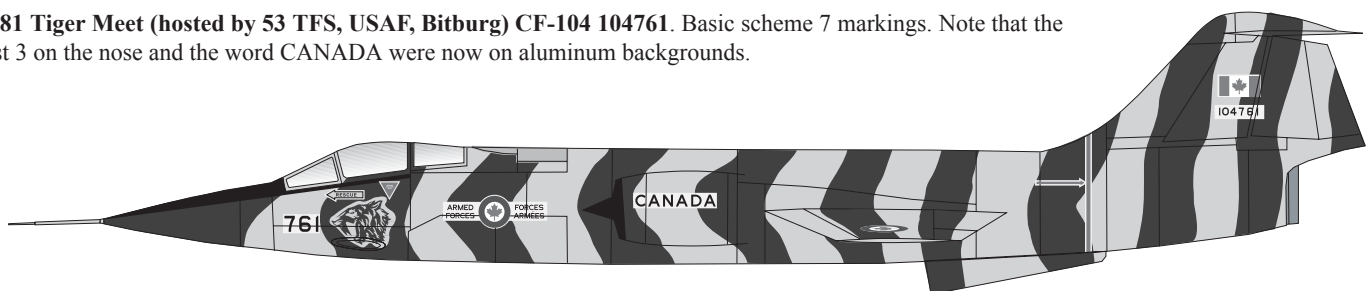
**1978 Tiger Meet (hosted by 31eme Esc, Belgian AF, Kleine Brogel)** No CAF aircraft was painted for this meet as the host squadron was painting one of their 104s in tiger stripes that year. Imitation being the sincerest form of flattery.

**1979 Tiger Meet (hosted by EC 1/12, French Air Force, Cambrai) CF-104 104862.** Basic scheme 7 markings, similar to 1977 scheme, although the tiger head is looking forward again rather than down. One oddity: the roundels had their white removed and replaced by the background colour (black). Remember this was several years before the low visibility roundels came into use, and how lo-vis can a tiger-striped aircraft be, anyways?

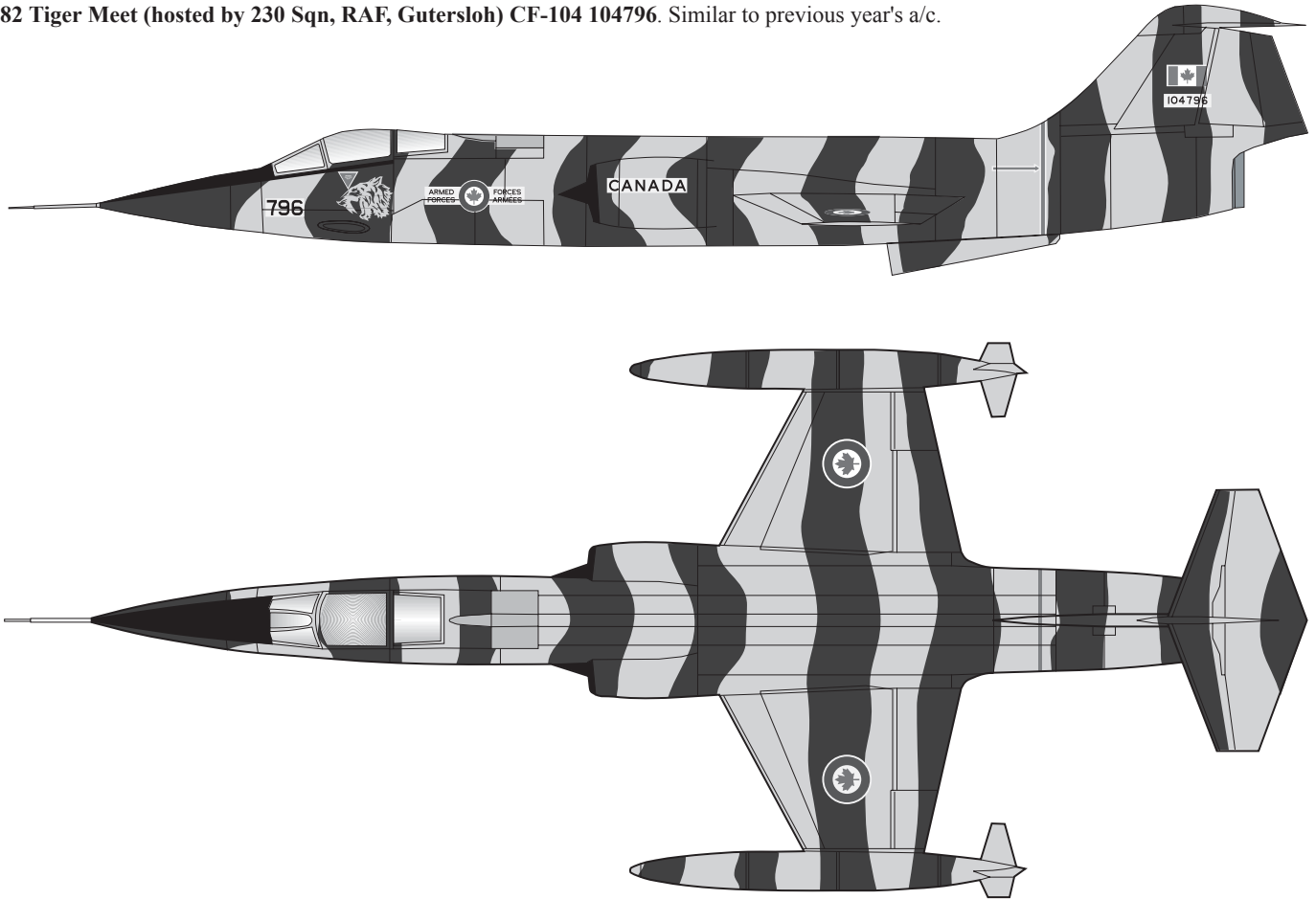


**1980 Tiger Meet (hosted by 21 Gruppo, Cameri, Italy) CF-104733.** This aircraft apparently had the numbers 439 on the nose replacing 733. However, no photos could be found to confirm that.

**1981 Tiger Meet (hosted by 53 TFS, USAF, Bitburg) CF-104 104761.** Basic scheme 7 markings. Note that the last 3 on the nose and the word CANADA were now on aluminum backgrounds.



1982 Tiger Meet (hosted by 230 Sqn, RAF, Gutersloh) CF-104 104796. Similar to previous year's a/c.



1983 Tiger Meet (hosted by 439 Sqn, CAF, Baden-Soellingen) CF-104 104706. This year marked the thirtieth anniversary of the base. All three squadrons did special schemes that year; 421 Sqn did a red 104 with a big white arrow on the side, and 441 Sqn had the rear fuselage covered with black and white checkerboards. This also marked the final year that a CF-104 participated in the Tiger Meet, since 439 Sqn stood down in November 1984.

