

## **Starfighter of the Kongelige Norske Luftforsvaret (Royal Norwegian Air Force)**

© 2004, 2017 Marcus Herbote



*archives H. Franke: 263 TF-104G 331Skv, Gütersloh (June 1976) The squadron strength of the 331 Skv until mid-1975 was 16 F-104G and 1 TF-104G. Afterwards two trainer from the German Training Command at Luke AFB, Arizona were added. Note the typical blue flash of the squadron on the tip-tank.*

### **The arrival by ship**

When on August 7, 1963 the American ship "USS Croatan" docked in the harbor of the northern Norwegian town of Bodø, the Mach 2 era for the KNL (Kongelige Norske Luftforsvaret) started. 13 brand new F-104G Starfighter stood on the deck of the ship, representing the modern military aviation more than any other fighter aircraft in the early sixties.

Initially the Norwegians wanted to equip two squadrons with this new aircraft, but opted instead to purchase a larger number of cheaper Northrop F-5 Freedom Fighter.

Upon arrival at the port of Bodø, the Starfighter was placed with a crane onto land and eventually pulled under large sympathy of the population with tractors through the streets of the city to the airbase. During this presentation the public life rested almost entirely. Although the Norwegian Starfighter were first delivered as RF-104G, they received an immediate modification with the General Electric M-61 Vulcan cannon and the new designation F-104G. The first flight took off from Bodø AB with a US pilot with the aircraft coded "FN-N" on August 12, 1963. All Norwegian Starfighter were delivered in natural metal finish, the typical painting of the sixties.

### **Introduction with the 331 Skvadron**

The 331.Skvadron in Bodø had been chosen as sort of flag ship squadron of the Air Force to fly the Starfighter. The F-86F Sabre of the squadron were transferred as early as November 1962. Since the first F-104s would reach Norway not before the summer of the following year, the pilots flew in the meantime the Sabres the 338 Skvadron.

In the fifties and sixties, the squadron strength of a Norwegian fighter aircraft squadron was always about 25 machines, but with the introduction of the F-104 his figure was reduced to 16 single-seater and 2 two-seat trainer. Until that time there was no combat trainer in the RNoAF, like in many other

## F-104 RNoAF history

---

NATO air forces as well. The training took place exclusively on the T-33A (T-Bird) in the 718.Skvadron.

The Squadron Commander of 331 Skvadron, Major Eyvind Schibbye, had already gone through training on the Starfighter in Texas together with Captain Hove, all other pilots should be trained directly in Bodø. They were strongly supported by the American Instructor pilot Joe Nevers.

Since no two-seater were available, the training of the pilots of 331 Skv. was done on the F-104G single seater. Both TF-104G were airlifted and arrived in Norway in early September and on September 6, 1963 were already integrated into the training. Both versions were nearly identical except for the missing cannon in the TF-104G. Three more F-104G reached the squadron on October 26, 1963 by air transport.



© Erich Westersötebier **263 TF-104G and 104G F-240, 629 and 630** 331Skv, Gütersloh (September 1975) All four Norwegians guests in a row. The pilot of the "240" is just checking the aircraft. The squadron strength of 331Skvadron was 16 F-104G and 1 TF-104G. In June 1975 two more trainer were received from the German Luftwaffe.

Three additional F-104G were built by Canadair in Montreal and arrived in June 1965 and February 1966 for 331 Skv. They flew directly from the Danish base Aalborg to Norway and had been supplied in connection with the first delivery lot of F-104G for the Danske Flyvevabnet.

In 1964 the Luftforsvaret (Royal Norwegian Air Force) bought a flight simulator for 10 million Crowns, and now emergency situations could be trained at any time realistically and cost-effectively.

### **Permanent "abuse" of the TF-104G**

Both TF-104G very popular in the early days. In the Norwegian Air Force, there were then no restrictions to fly along with individuals and so the Starfighter pilots were inundated with new "friends". Everyone wanted to travel with supersonic speed. Shortly afterwards extensive restrictions were implemented for the use of the two trainer, they were allowed exclusively for the pilot training.

In the early years the 331 Skvadron operated exclusively as a Ground Attack Squadron, in 1967 the Air Defense role was adopted as the main task. To mark this "role change-over" the squadron flew a 12-ship formation over the city of Bodø. This means that the time for numerous intercept missions began in Norwegian territory by flying intercepts on Soviet reconnaissance aircraft. The importance of Norwegian Starfighter pilots grew significantly due to the numerous photos of Soviet reconnaissance

and bomber aircraft, these pictures eventually found their way into a variety of NATO and intelligence departments.



*Archives H. Franke 629 F-104G 331Skv, Gütersloh (June 1976) From the far north came this F-104G to visit the Gütersloh Lightning squadrons. Normally, the Norwegian Starfighter made on the flight from Bodø to Gütersloh a stopover in Aalborg. Although the single-seaters were first delivered as RF-104G, they received the M61 Vulcan cannon. The Sidewinder were either carried under the wings (like the Belgians) and optionally at Catamaran carriers under the fuselage (like the Danes).*

### **The QRA**

The Norwegian QRA was in constant 15-minute standby Alert, 24 hours a day, seven days a week, all year round. Two more F-104G were in 1-hour standby and were automatically upgraded after the start to the 15-minute-readiness. The QRA Starfighter of 331 Skvadron were almost always equipped in the standard configuration - two Tiptanks and two AIM-9B Sidewinder under the wings or on the catamaran carrier. For subsonic missions the former (Sidewinder under the wings) was preferred, but for supersonic intercepts the latter (on the catamaran), because the fuselage carrier caused a lot less drag (air resistance).

Due to the particular hard and dark winters in Norway alternate aerodromes were always mandatory for the Starfighter pilots. The QRA launched even in poor weather conditions into the air, so it could happen that due to a sudden weather deterioration neither Bodø nor any other airfield like Andøya, Banak, Bardufoss or Orland was suitable for landing and therefore had to divert to Oslo-Gardermoen - 1150 km away! With internally 3,391 liters plus two Tiptanks á 1,287 liters of kerosene on take-off that was easily possible with 3,900 pounds remaining. Like the Danes the Norwegians sometimes flew without external fuel tanks, the excellent climb and acceleration values a mission in this configuration still gave a satisfactory range coverage.

The first pilot with 1.000 flying hours of 331.Skvadron was Kpt Helge Moe reaching this magic number. After landing a red carpet and champagne for the pilot was waiting to celebrate this event.



© Erich Westersötebier **630 F-104G** 331Skv, Gütersloh (September 1975) Due to the rapid acceleration of the F-104 Soviet bomber crews were not once surprised at how little time passed from the alarm of the machine in Bodø to the interception point. With a climb time of only four and a half minutes from the start point to 18 km altitude and acceleration to Mach 1.9, this was certainly no surprise. At the end of the seventies the activities of the Soviets increased, in 1979 the QRA scrambled 150 times, in next year even 200 times! The burden was on the 331Skvadron since they had as main task the air defense.

### **The "dark" years 1970 and 1971**

Were there no total losses in the early years, but in 1970-71 some very serious accidents happened. On November 19, 1970 TF-104G FN-Z crashed a few seconds after take-off on the runway in Aalborg, Denmark. The pilot was able to escape with the ejection seat, the person in the back cockpit, a sergeant, was killed. Less than three months later on February 10, 1971 two F-104G flew into the mountain Skotstind at Steigen. Both pilots were killed. The two Starfighter FN-D and FN-A were completely destroyed. On June 21, 1971 the FN-C was lost, the aircraft was part of a two ship formation and crashed into the upper Tolladal in Beiarn. This time the pilot was able to eject safely.

Despite these mishap series the 331 Skvadron celebrated its 30th anniversary on July 24, 1971. For this event an Eight-ship formation flew over the city of Bodø with loud howling J-79 engines. As these events were not enough for the press and the public, it was on March 21, 1971 that an incident occurred with two Soviet Tupolev 16 "Badger D", violating Norwegian airspace near Vaeroy. Apparently they were not aware of their actual location. Two Starfighter were immediately scrambled and directed the two bombers back into international airspace. After this obvious reaction test of the Warsaw Pact, the Norwegian Government delivered an official note of protest to the Soviets.

### **The 334 Skvadron receives Canadian CF-104 and CF-104D**

After several crashes of Norwegian F-5A and B, the Air Force decided to reduce the number of squadrons with the Freedom Fighter in order to replenish again the inventory of 332, 336, 338 and 718 Skvadron. So it was decided to convert the 334 Skvadron from the F-5 to the CF-104. The Starfighter were available following the decision to reduce the Canadian squadrons in Europe. The 334 Skvadron of the KNL was as well stationed at Bodø AB and so the Norwegian Starfighter could ideally operate from one base.

First negotiations with the Canadians began in January 1972, the Danes had already begun with the purchase negotiations and were assigned their first aircraft. The Norwegians received a total of 19 CF-104 and 3 CF-104D starting in June 1973. All flew later in a new olive green paint scheme with a white



radome, the Canadians were still painted green-gray. So these Starfighter were clearly distinct from the silver-gray machines of 331 Skvadron. The Danes had recently taken the "best" CF-104 and CF-104D, the Norwegians could therefore only select what was left over.

Since the Canadian Starfighter were employed in the nuclear strike role, they carried no gun. The company Scottish Aviation finally equipped the Norwegian CF-104 with the Vulcan cannon and gradually installed the ALR-46 radar warning devices. The airborne radar was modernized in Norway to ensure a better use in the air-to-air role.

On September 1, 1972 the Norwegians changed their registration system beginning with "FN" serial codes were replaced by the last three digits of the serial number.

The F-5A and B left 334 Skvadron between January and March 1974. The squadron was tasked with its CF-104 Starfighter mainly for sea target control, and a second task was the air defense duty. The olive-green camouflage therefore was very useful. Unlike the aircraft of the 331 Skvadron the Starfighter of 334 Skvadron were rarely seen on other Central European NATO airfields.

On January 1, 1975 a Starfighter of 331 Skvadron was involved in an impressive humanitarian action. A patient in a hospital in Oslo urgently needed a kidney transplant, the appropriate organ was eventually found in the northern Norway town of Tromsø. From there a UH-1B helicopter brought the kidney to Bardufoss AB, then a F-104 flew the organ to Oslo-Gardermoen. The donor kidney arrived after only 5 hours and 15 minutes at the receiver, after a journey of over 1,600 km.

Since the strength of the 331 Skvadron was only 16 F-104G and one TF 104G, two 2 double seater were acquired for replenishment in June 1975. These two trainer came from Luke where they had previously flown with American serial numbers 66-13627 (shadow serial number 28+08) and 63-8469 (shadow serial number 27+71).

It was finally again Kpt Helge Moe, who in April 1975 was the first one to log the 2.000th hour on the Starfighter.

### **Permanent deployments of 334 Skvadron**

In June 1975, the 334 Skvadron celebrated its 50th anniversary and formed the "Green Arrows" aerobatic team with three Starfighter. Starting in 1975 the squadron moved once a year to Bardufoss AB in Northern Norway as part of the NATO weapons training. With other NATO squadrons a squadron exchange took place once a year, so the 331 Skvadron was in September 1975 with four F-104G host of the 19 Squadron and their Lightnings F.2A at RAFG Gütersloh. The 334 Skvadron visited the German MFG 2 in Eggebek in June 1976 with five CF-104/D for their first deployment. After returning to Bodo Norwegian customs discovered more than 400 bottles of wine and liquor in the Starfighters, the press published the secret and there was a scandal in Norway!

The 334 Skvadron moved with four CF-104 to Sola AB near Stavanger in September 1976 for almost a month. In November 1977 the unit again exchanged with a wing in Germany, this time with the MFG 1. In the following years there was mixed squadron exchanges with the 331 and 334 Skvadron together (usually three F-104); in 1978 with the Buccaneers of the 208 Squadron at RAF Honington, in 1979 with the Phantoms of 92 Squadron at Wildenrath AB and in 1980 with the Jaguars of 17 Squadron at Bruggen AB.

### **Russian aggressors**

At the end of the seventies the activity of the Soviets increased; in 1979 the QRA flew 150 scramble missions and in the next year even 200 missions. The burden was on the 331. Skvadron since they had as main task the air defense role. During larger Soviet maneuvers 20 or more Tu-16 Badger flew in the direction of the Norwegian airspace and turned away before reaching the border. These were intercepted and accompanied by two F-104G of the QRA and the bombers were photographed. The Starfighter landed in the meantime, were refueled and took off again to accompany the Russians again.

On April 28, 1980 Lt Haugland and 2<sup>nd</sup>Lt Strand were approaching the home base when both aircraft had a hydraulics failure. Strand landed first and skidded with his F-104G in the grass before he could stop the aircraft. Haugland skidded with his F-104G as well into the grass after landing and stopped in the same place as Strand. The two aircraft encountered only minor damage and were back in action soon after.



© Erich Westersötebier **240 F-104G** 331Skv, Gütersloh (September 1975) This Norwegian Starfighter looks more like patch work due to its different-colored aluminum parts. The "240" flew from July 1981 on with the Turkish Air Force and thus survived the harsh Norwegian weather, and often not totally harmless encounter with the Russians during the time with 331Skvadron.

In the Mid-seventies the Norwegians, together with the Dutch, Belgians and Danes were looking for a follow-on model for the Starfighter. They found it in the General Dynamics F-16, which was intended to replace the F-5 Freedom Fighter in Norway. The first pilots of 331 Skvadron went to Rygge AB in January 1981 for the training on the F-16. The squadron received the first F-16 in June of the same year. The unit flew the Starfighter for the last time on July 9, 1981, one TF-104G was passed on to 334 Skvadron for another year. This squadron flew the Starfighter until March 1983 to go on as well upgrading to the F-16A/B.

With a most impressive Starfighter formations of not less than 18 CF-104 and CF-104D the 334. Skvadron said farewell in 1981 under a lot of whining from the population of Bodø. From June to November 1982 most Starfighter were transferred for the temporary storage at Sola AB. Most F-104 were later passed on as US property (MAP) to Turkey, where they were in service for several years.

For the Norske Luftforsvaret the following Starfighter were delivered with the corresponding serial numbers:

**F-104G (initially delivered as RF-104G):**

FN-K / 625, FN-B / 626, FN-C / 627, FN-D / 628, FN-E / 629, FN-F / 630, FN-H / 631, FN-R / 632, FN-U / 633 FN-T / 232, FN-P / 233, FN-S / 234, FN-A / 237, FN-N / 238, FN-W / 239, FN-X / 240

**F-104G:**

FN-L / 757, FN-Y / 758, FN-G / 785

**TF-104G:**

FN-M / 263, FN-Z / 264, 469, 627

The following 22 Starfighter arrived in the years 1972-1974, from the production of Canada (Canadair) for the Kongelige Norske Luftforsvaret:

**CF 104:**

717, 730, 755, 759, 766, 797, 800, 801, 818, 833, 836, 850, 860, 870, 882, 886, 889, 890, 900

**CF 104D:**

4632, 4633, 637

**Accidents involving Norwegian F-104**

Date	Serial	Type	Sqn	Course
<u>17.11.1970</u>	FN-Z 62-12264	TF-104G	331 Skv	The aircraft hit the ground only seconds after takeoff due to a strong cross wind and asymmetrical weight due to uneven pylon tank weight, killed passenger in the rear cockpit, pilot ejected safe.
<u>10.02.1971</u>	FN-D 61-2628	F-104G	331 Skv	crashed near Steigen. The plane was one of three on an intercept training mission from Bodø, when it flew into the mountain Skotstind in thick fog, pilot was killed.
<u>10.02.1971</u>	FN-A 62-12237	F-104G	331 Skv	crashed near Steigen. The plane was one of three on an intercept training mission from Bodø, when it flew into the mountain Skotstind in thick fog, pilot was killed.
<u>21.07.1971</u>	FN-C 61-2627	F-104G	331 Skv	crashed in upper Tolladal in Beiarn, pilot Lt Atle Melling ejected safely with minor injuries. FN-C was on a training mission in a two-ship formation when the accident occurred.
<u>18.09.1974</u>	625 61-2625	F-104G	331 Skv	on approach to Bodø the plane crashed 2,7 kilometers east of Setsa in Saltdal. pilot managed to eject, but he was still in the seat when he hit the ground and was killed.
<u>29.07.1975</u>	797 104797	CF-104	334 Skv	crashed at Revtind between Beiarn and Blakkadalen. The pilot was killed. He was on a routine navigation training mission and probably hit the mountainside.
<u>17.01.1978</u>	238 62-12238	F-104G	331 Skv	landed at Ramstein AB without extended main wheels, rolled into the safety net barrier, pilot was unhurt. The fighter was written off and brought to Kjevik, Norway for technical training use; scrapped in 1984.
<u>10.06.1978</u>	833 104833	CF-104	334 Skv	crashed aprox. 17 nautical miles north of Andoya. The plane was on a mission to identify three unknown vessels aprox 32 nautical miles from Hillesoy radar. After circling the targets twice, the fighter flew into the sea aprox. 5 nautical miles to the south of the vessels. The pilot was killed.

## F-104 RNoAF history

---

Date	Serial	Type	Sqn	Course
<u>08.06.1979</u>	860 104860	CF-104	334 Skv	crashed near the island Spildra in Kvaenangen. Just after completing a simulated missile attack on a small island northeast of Spildra, the pilot noticed reduced engine power and loss of airspeed. As the afterburner was lit, the plane caught fire. The pilot Squadron Commander Col Per Boethun ejected and escaped with minor injury.
<u>10.09.1980</u>	234 62-12234	F-104G	331 Skv	crashed in the sea near Helligvaer, aprox. 17 nautical miles northeast of Bodø AB. Two fighters had been on a mission to identify and photograph unidentified planes west of the Lofoten. On approach to Bodø one of the fighters crashed in the sea after a series of abnormal movements. The pilot managed to eject, but was too low for the chute to open. He was killed.
<u>18.12.1980</u>	632 61-2632	F-104G	331 Skv	crashed during approach to Bodø AB, the plane suffered a substantial loss of engine power. The pilot realised he would not reach the runway and decided to eject, he landed with minor injuries in Valnesfjorden, the plane came down in deep water at Skjerstadvfjorden, aprox. 24 km east of Bodø AB.
<u>04.02.1981</u>	627 66-13627	TF-104G	331 Skv	crashed near Bodø after sudden engine RPM drop; the crew decided to eject. Both pilots landed on the base area; the plane exploded on impact near shelter 16. The accident was caused by a canopy which was released and smashed against the left side of the plane. Pieces of plexiglas were ingested into the engine.
<u>18.01.1983</u>	900 104900	CF-104	334 Skv	crashed 1983 in the sea aprox. 15 km west of Bodø. The pilot lost control of the plane at low altitude, but managed to eject safely.

copyright: © 2017 Marcus Herbote; Spotting Group Gütersloh