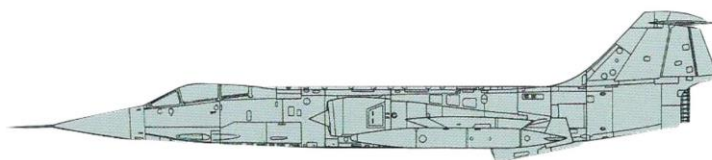


F-104



STARFIGHTER

*** INDIVIDUAL AIRCRAFT HISTORY ***

UNITED STATES AIR FORCE

(TAIWAN-PAKISTAN-JORDAN)

LOCKHEED A / B / C / D SERIES



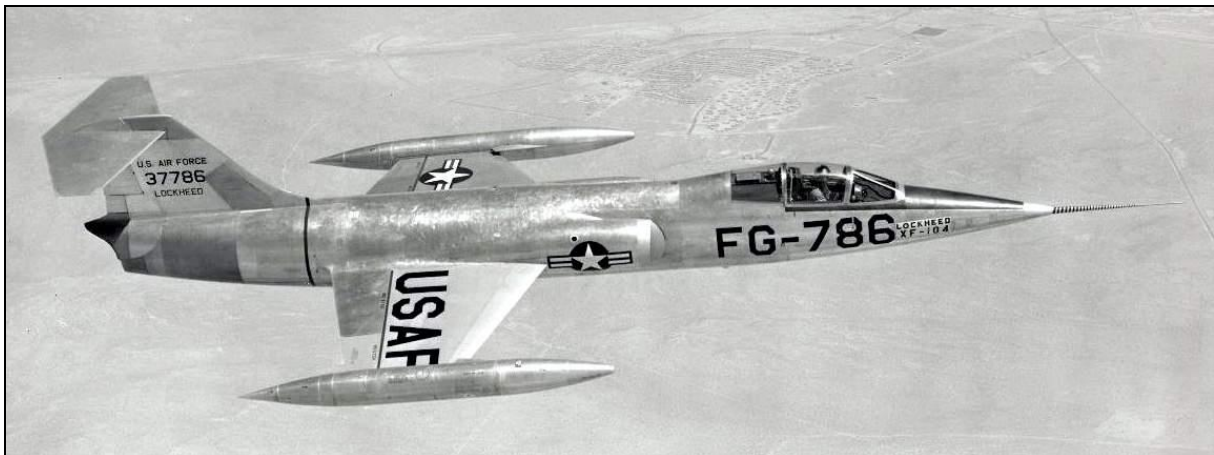
WORLD MILITARY AIRCRAFT

VOLUME 10

Introduction

Lockheed STARFIGHTERS

During the war in Korea, chief engineer of the Lockheed company Clarence "Kelly" Johnson talked to USAF pilots what sort of aircraft they wanted. At that time, the U.S. pilots were confronting the MiG-15 with North American F-86 Sabres, many felt that the MiGs were superior to the larger and more complex American design. With all this information collected, he went back to the US and began to design a fighter aircraft on the drawing board. The design was presented to the Air Force in November 1952, and they were interested enough to create a General Operating Requirement for a light-weight fighter as a replacement for the North American F-100 Super Sabre. Three other companies were also involved in the tender, as there were Republic with XF-91, North American with the F-107 and Northrop with the N-102.



XF-104 1001, USA, 1954.

Lockheed however was granted a development contract in March 1953 for two prototypes, these were given the designation XF-104. Already at the end of April that year a mock-up was ready for inspection. And late May work began on two prototypes. Meanwhile, the new developed J79 engine was not ready and therefore both prototypes were instead designed to use the Wright J65 engine. Early 1954 the first prototype was completed and on March 4, 1954 it made its first flight at Edwards AFB. When the USAF revealed the existence of the XF-104 „Starfighter“, they only gave a vague description of it. Based on the XF-104 testing and evaluations, the next variant, the YF-104A, was lengthened and fitted with the new General Electric J79-GE3 engine, modified landing gear and modified air intakes.



XF-104 53-7786 and YF-104A 55-2955, Edwards AFB, USA, 1956.

A first order for 17 YF-104A was placed by the USAF. The first flight of an YF-104 took place on February 17, 1956 and with the other 16 trials aircraft they soon carrying out aircraft and equipment evaluation and tests. As compared to the service-test YF-104As, production F-104As featured a strengthened airframe that was stressed for 7.33-G maneuvers. An aft-mounted ventral fin was fitted on the centerline to improve directional stability at high speeds and high altitudes. A total of 153 F-104As were built in seven production blocks F-104A-1-LO to F-104A-30-LO. The last F-104A that was built at Palmdale, was delivered to the USAF in December of 1958. The number built was far less than originally planned.

In April of 1965, a single squadron (the 476th TFS) of the 479th TFW deployed with their F-104Cs to CCK AB in Taiwan, with regular rotations to the forward base at Da Nang Air Base in South Vietnam. The 436th TFS assumed the 476th's commitment in DaNang on 11 July, and the 436th began flying combat sorties the next day. Their job was to fly MiG combat air patrol (MiGCAP) missions to protect American fighter bombers against attack by North Vietnamese fighters. They flew these missions armed with their single M61A1 20-mm cannon and four AIM-9 Sidewinder air-to-air missiles. In the early months of 1966, the MiG threat began to re-emerge, with the supersonic MiG-21 beginning to appear. In response, a new contingent of F-104Cs returned to Vietnam in June of 1966 and were assigned to the Udorn base in Thailand. In the first deployment, eight F-104Cs of the 435th TFS



F-104C 1216, Udorn, Thailand, 1968.

landed at Udorn, Thailand on June 6, 1966. At the time of the F-104's second deployment to SEA, TAC was in the process of phasing-out the type, and the 479th TFW was in the process of converting to F-4 aircraft. The Air Force decided to replace these F-104Cs by more efficient McDonnell F-4D Phantoms starting in July of 1967. The 435th was then rotated back to George AFB for the last time. Following the withdrawal of the F-104C from Southeast Asia in 1967, surviving F-104Cs were transferred to the 198th TFS of the Puerto Rico Air National Guard. The F-104Cs replaced that unit's elderly F-86H Sabre fighter-bombers. This ANG unit operated the Starfighter until it converted to LTV A-7Ds in July of 1975. Over the years a grand total of 296 Starfighter of the A/B/C/D version were actually in service with the USAF.



F-104B 5015, N819NA Edwards AFB, USA, 1975.

NASA

This organisation also operated some F-104A's. In August 1956, the seventh built YF-104A (55-2961) was transferred to NASA. Later this aircraft was renumbered as 818 N818NA. This aircraft was used by NASA for various test flight purposes until it was finally retired in November 1975. In October 1957, NASA acquired two ex-USAF F-104A single seater (56-0734, 56-0749) for use in flight testing; (56-0749) crashed in 1962. Those planes were never assigned NASA s/ns. In December 1959, F-104B (57-1303) was transferred to NASA and assigned the NASA number of 819 / N819NA. It served until 1978, when it was finally retired.



F-104A 1112, mid 1960's.

56-0826/0877: Lockheed F-104A-25-LO; c/n 183-1114/1165

56-0826 **1114** available Lockheed January 2, 1958, accepted by USAF June 12, 1958, delivery date 30 June 1958, 337th FIS 9 June 1958 till 19 October 1959, 83rd FIS 19 October 1959 till 6 July 1960, 197th FIS 6 July 1960 till 1964, 6515th OMS/MAIG McClellan 1964 till August 1964, Converted to JF-104A in 1964, AFTCE 10 August 1964 till 25 January 1968, Converted to F-104A between 1965 and 1968, MASDC coded "FB014" (25Jan68-22Oct71) as RIT sold July 25, 1978 to Allied Aircraft at Tucson, scrapped 16 May 1979 (for spare parts business)?

56-0827 **1115** delivery date July 9, 1958, 538th FIS (Jul58-May60), 157th FIS (May60-May63), 319th FIS (May63-Aug67), TPS (-), J79-GE-19 engine, MASDC (17Dec69-12May70) coded "FB033", MAP to Taiwan July 30, 1970 as "4242" to 41 TFS of 2 TFW 11 AG, June 25, 1972 slid off runway after landing at Hsinchu AB, pilot Fon Shian-Hua was lightly injured; 1974 to 8 TFS of 3 TFW 3 AG, wfu 1988. The aircraft has been repaired.

56-0828 **1116** delivery date July 16, 1958, 538th FIS (Jul58-Sep58), 83rd FIS (Sep58-Dec58), with 83 FIS during Quemoy crisis 1958, 337th FIS (Dec58-Oct59), 538th FIS (Oct59-Mar60), MAP to Taiwan September 5, 1960 as "4202" with 8 TFS of 3 Wing, crashed on April 5, 1962 due to asymmetric flap condition on a GCA approach into Chia Yi Air Base, Taiwan. Aircraft slowly rolled to the left and dove after flaps were lowered during approach for landing. Full right stick did not control roll. Flap lever could not be returned to UP position. Pilot Wang Gan Zong ejected safely at about 700 feet, J79-GE-11A engine, Lockheed C-2 ejection seat, written off **first RoCAF F-104 loss**

56-0829 **1117** delivery date July 16, 1958, 538th FIS (Jul58-May60), 157th FIS (May60-Jan64), 319th FIS (Jan64-Dec69), AFFTC/ARDC (Dec69-May70), MAP to Taiwan October 12, 1972 as "4261"; J79-GE-19 engine, to 41 TFS 2 TFW 11 AG, 1974 to 8 TFS 3 TFW 3 AG, crashed November 1, 1975 after flame-out (throttle malfunction), pilot Hsu Nin-Yuan ejected safely, written off



F-104A 1117, Edwards AFB, California, USA, May 1970.

56-0932 **1220** delivery date March 9, 1959, 479th TFW (Mar 1961-1965), 436 TFS DaNang 1965, Feb 1967 to 435th Tactical Fighter Squadron (Pacific Air Forces), Udorn RTAFB, Mar 1967 to 8th Tactical Fighter Wing (PACAF), Udorn RTAFB, AFFTC/ARDC (Jul 1969), 198th TFS PR ANG (Jul 1969-Apr 1973), Aug 1975 dropped from inventory by transfer to museum status, to Van Nuys AFB August 4, 1975, at Van Nuys AP, California as gate guard, to Thomas P Stafford Air & Space Museum, Weatherford, Oklahoma, 29th October 1999 noted, 2003 noted, museum is on the field, 2005 last noted



F-104C 1221, Edwards AFB, USA, 1969.

56-0933 **1221** delivery date April 20, 1959, 479th TFW (Apr 59-1966), McClellan to 479 TFW George July 8, 1966; back to McClellan March 31, 1967, 479 TFW George June 8, 1967, to Edwards on July 11, 1967 AFFTC (ARDC) until 1969, at Air Victory Museum Chicago, display at Mid-America Air Museum, Liberal, Kansas, suspended from the roof 1993, grey/white camo, 2004 last noted



F-104C 1222, USA, 1961.

56-0934 **1222** delivery date May 1, 1959, 479th TFW (1960-1968), 435th TFS September 19, 1961 to Ramstein AB, Germany from George direct, 436th TFS January 18, 1962 to Hahn AB, Germany, 476th TFS April 8, 1962 Hahn AB, Germany until August 10, 1962, noted China Lake 1968, AFFTC/ARDC (May 69-Dec 73), wfu dec 73, static display at George AFB, California 1979, marked GA. Seattle "Museum of Flight", Boeing Field, WA 1992, moved to Great Gallery at the Main Museum March 1998 as "NASA 820", seen 2000 This Starfighter is painted to represent a NASA F-104 as "NASA 820", 2004 last noted.

56-0935 **1223** delivery date April 9, 1959, 479th TFW (Oct 59-Aug 62), noted at Hannover Air show May 4, 1960, 435th TFS September 19, 1961 to Ramstein AB, Germany from George direct, until January 22, 1962, crashed on August 21, 1962, at Shaffer near Fresno, California after engine failure when separating from the tanker. pilot Folston ejected safely at 4,000 ft, written off
57-1303 flew 1,731 flights and was flown by at least 19 different pilots (sixteen

from Dryden, two from Ames, and one from the US Air Force). These individuals included Apollo astronauts (such as Rusty Schweikert), X-15 pilots (Bill Dana, Joe Walker), and lifting body as well as XB-70 and YF-12 pilots. Transferred to McClellan AFB, California on June 16, 1983. (It was flown to the museum in a C-130 on July 13, 1983). On display at McClellan AFB, California as "71303-FG-303" 1986, 2005 last noted



F-104B 5015, Edwards AFB, California, USA, early 1960's.



F-104B 5016, USA, 1967.

57-1304 **5016** delivered October 8, 1958, TPS (AFLC) ADC (Dec61-1962), 331st FIS (1966), AFLC (1967-Jun67), 4760th CCTS (Jun67-Dec67), stored MASDC as "FB010" (Dec 4, 1967-1972), to McClellan AFB, California, sold to Jordan October 24, 1972 as "925/V", 9 sqn (Oct72-Jul77), wfu July 1, 1977, decoy H5 "Prince Hassan", stored Safawi AB, 2000 last noted



F-104B 5016, Sawafi (H5), Jordan, April 1994



F-104D 5030, Taiwan, late 1970's.

57-1320 **5032** delivery date February 3, 1959, 479th TFW (Feb 1959-March 1967), AFSC (AFFTC) (March 1967-July 1967), 198th TFS (July 1967-July 1975), PR ANG (Big-D), MASDC as "FB053" July 21, 1975, noted 1978, dropped from inventory as surplus August 1978, May 9, 1981 noted, departed 1980 (RECLM) to Mojave, California, to Travis AFB Museum, California, now at Six Flag Great Adventure Amusement Park "The Right Stuff" in Jackson, New Jersey as "FG-320", bare metal 1999, 2002 last noted **57-1320** 283-5032 d/d 03feb59, 479th TFW (feb59-mar67), AFFTC (mar67-jul67), 198th TFS (jul67-jul75), MASDC (jul75-1990) Preserved Jackson Six Flags Park

57-1321/1328: Lockheed F-104D-10-LO; USAF c/n 483-5033/5040 (8)



F-104D 5033, Edwards AFB, California, USA, early 1970's.

57-1321 **5033** delivery date March 5, 1959, 479th TFW (Mar 1959-Sep 1967), AFSC (AFFTC) (Sep 1967-Dec 1973), MASDC (13Dec73-30Jul75) coded "FB047", MAP to Taiwan July 30, 1975 coded "4165" to 8 TFS at CCK AFB, crashed June 13, 1980 after stalling the aircraft, both pilots Chen Huan-Chen and Fu Chung-Yi ejected safely, written off



F-104D 5034, Andrews AFB, USA, April 1976.



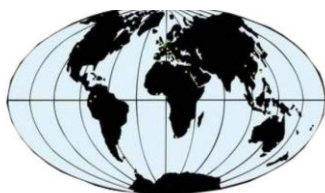
F-104A 1142, Edwards AFB, USA, 1965.



F-104D 5046, USA, 1972.



F-104A 1086, Peshawar, Pakistan.



WORLD MILITARY AIRCRAFT