

## BACK TO TOP NOTCH WITH THE STARFIGHTER

The first German production aircraft took off from Manching 40 years ago

**WHEN THE GERMAN AIR FORCE** was being established in 1955, it was initially grateful for the generous donations of aviation equipment from the USA and Canada. The somewhat elderly F-84F / RF-84F and F-86 aircraft at least meant the German Air Forces had entered the jet age. At the supreme command level, however, there was never any doubt that a more up-to-date successor would have to be procured in the very near future if the German Air Force were to be in a position to fulfill its designated role in NATO.

Understandably, Germany would have preferred to develop a successor on its own. Preliminary discussions with the domestic aviation industry, however, showed that the requirements for a state-of-the-art combat aircraft could not be met by industry within the time available. The only possibility was, therefore, to procure a foreign aircraft that was manufactured under license.

The Federal Ministry of Defense issued a corresponding request for proposal in 1957. The new aircraft type was required to be fast (Mach 2), for tree-top flight and suitable for delivering nuclear weapons. Further conditions were all-weather capability and at least the existence of one preproduction prototype. Both the German Air Force and Navy expected a multi-role aircraft for a wide range of mission scenarios. This request for proposals was by no means unimportant for industry, especially as other NATO partners were confronted by the same problem and would probably follow Germany's decision.

One of the competing companies was the Lockheed Aircraft Corporation with its F-104 Starfighter. This true air-superiority fighter had already created a stir by establishing various altitude and speed records. It was the first combat aircraft ever to be capable of flying at twice the speed of sound over a long period of time. Its accelerating power and its



climbing capability were extraordinarily high but its range short. The US had not displayed any real interest in any of the previous four production models (A to D). It had generally procured the F-104 in small numbers as a stopgap and only kept it operational for a relatively short period of time.

**THE "EUROPEANIZED" F-104G** version submitted for the competition had not progressed further than the drawing board at the time. The designers were still a very long way from converting what was simply a fine-weather fighter to a long-range all-weather fighter-bomber. But the aircraft proposed by Lockheed's competitors were similarly a long

way from satisfying all the requirements, and far as its performance envelope was concerned, the F-104 was far superior to its competitors. Added to this was the fact that it promised the greatest development potential.

By the fall of 1957 there were only two other companies still in the race and, following a somewhat turbulent test phase, the Defense Minister of the day, Franz Josef Strauss, announced on November 6, 1958 that the F-104G had come out on top in the request for proposals. This gave rise to a controversy, frequently polemical, within politics, the armed forces and the media that was to continue for years. At the same time he gave the go-ahead

Left:  
One of the nicknames –  
"winged rocket".

Right:  
Series production started  
in 1961 at Manching.



for a gigantic program for construction under license, however. Canada, Belgium, the Netherlands, Italy and Norway likewise decided in favor of procuring the F-104G and its licensed production in 1959 and in 1960. A cross-border manufacturing industry was even set up with Belgium, the Netherlands and Italy.

December 16, 1958 saw the foundation of ARGE-Süd, a consortium consisting of Messerschmitt, Heinkel, Dornier and Siebel. It was intended that the assemblies would be manufactured at the plants in Augsburg, Speyer, Neuauwing and Donauwörth. The initial contract covering the licensed production of 210 F-104G aircraft was signed with Lockheed on March 18, 1959. In addition, provision was made for producing 30 F-104F two-seaters. Lockheed was to build 60 more F-104G aircraft for the Federal Republic of Germany, which were to be used mainly for training and instruction purposes.

The then Messerschmitt AG received an order for the final assembly and shake-down of the Starfighter. But there was no suitable facility featuring an airfield and works' shops. The choice fell on Manching; reasons such as favorable weather conditions, transport connections and terrain were the major criteria in selecting Manching. With the move of the repair depot of Messerschmitt AG from Riem, Munich, to Manching in 1961, the development of the facility began, which saw it become the largest maintenance facility for military aircraft in Europe over the years. The newly created plant became one of the most important employers in the region shortly after it was established.

The go-ahead for licensed production in Germany was given on December 1, 1960. The first F-104 G components arrived at Manching on June 13, 1961, all still coming from the USA. Their reassembly began on June 22 and a good month later, on July 25, this aircraft took off as the first "Manching" Starfighter. The first German series production aircraft took off on its maiden flight on October 5, 1961, and the Works Manager at that time, Willi Langhammer, delivered the first German F-104G to the German Air Force in December that year.

### **THE STARFIGHTER PROGRAM EMPLOYED UP TO 100,000 PERSONS AT TIMES**

The domestic aviation industry caught up again with the world leaders through the Starfighter program, which offered employment to more than 100,000 persons at times. Industry succeeded in coping with this demanding major order, which confronted it with a state-

of-the-art and sophisticated weapons system. Emphasis was placed on very high production standards right from the beginning. System integration and the associated, completely new quality management brought an inestimable boost in know-how.

By the time the program was phased out in 1972, five production consortia had manufactured 1536 different versions of the F-104G, of which 916 were delivered to the German armed forces. At Manching, a total of 283 Starfighters (260 F-104G, 23 TF-104G) rolled out of the assembly shops. Furthermore, 130 F-104 aircraft were delivered from the USA in kit form, and reassembled and shaken down at Manching. The overall technical and logistic support for the F-104G was taken over by the plant as from the middle of 1964. This was one of the factors which led to the facility acquiring its maintenance and repair capability for military aircraft. The experience gained under the Starfighter program was later to put the facility in a position to implement and manage sophisticated weapons systems such as the Tornado and Eurofighter. *Wolfgang Mühlbauer*

