

BF109F-2/F-4

Bayerische Flugzuegwerke began development work on the Me-109 in 1935. The project was overseen by the legendary aircraft designer Willy Messerschmitt. It was a technological breakthrough in many ways. It featured stressed skin construction, a retractable undercarriage, and a fully enclosed cockpit. In early 1937, the 109 entered service and shortly afterwards saw action in the Spanish Civil War. By the outbreak of World War II, the 109E model (or Emil) was entering squadron service. It was fitted with the 1,175 hp fuel injected Daimler Benz DB 601 engine.

In the summer of 1940, the Battle of Britain raged over southern England. The Emil was every bit a match for the Supermarine Spitfire Mk. II, and was clearly superior to the less advanced Hawker Hurricane Mk. I. In 1941 the British Spitfire Vb entered service. The Emil was outclassed by this faster, more heavily armed variant. Messerschmitt responded with the Bf-109F, which evened the playing field again.

The nose on the F series was redesigned to provide better streamlining. The most recognizable change was the much larger, more rounded spinner. The tailplanes were strengthened, and the struts were deleted. The wings were also redesigned, featuring new split trailing edge flaps and rounded wingtips. An uprated 1,350 hp DB-601E engine and larger propeller became standard from the F-3 model on. The increased performance and improved maneuverability made the F model the most popular variant with its pilots. Due to the changes in the structure of the wings, the wing mounted guns were deleted. Some felt that this left the Friedrich too lightly armed, but the combat records of many 109 pilots seem to dispute this assertion. The 109F first entered service on October 22nd, 1940. It saw much action in Europe, North Africa and the Russian front.

The Bf-109F-4 had a top speed of 415 mph, and had a service ceiling of 37,000 feet. It was a very compact fighter, with a wingspan of just over 32' and a length of 29' 7", and had a range of just over of 600 miles when fitted with a 300 liter droptank. The 109F was an excellent fighter. It was fast and highly maneuverable, but it had a few drawbacks as well: the narrow track undercarriage that led to many landing accidents throughout its career, the cramped cockpit with its restricted visibility, and its limited range, even when carrying a droptank. The Friedrich carried a 15mm MG 151 cannon firing through the spinner, and two 7.92mm Mg 17 machine guns in the upper cowling. For increased firepower when operating against heavy bombers, a pair of 20 mm MG 151 gun pods could be carried under the wings.

The 109 was one of the most-produced aircraft of all time, with over 33,000 built of all marks. It continued to be upgraded and improved until the last days of the war. In the hands of an experienced pilot, the Gustav could hold its own with the best Allied

aircraft of WWII. Many famous Luftwaffe aces flew this aircraft, including Erich Hartmann and Gerhard Barkhorn. They were the highest scoring aces of all time with 352 and 301 victories respectively. Both flew the 109 for most of the war, a tribute to this remarkable aircraft.













