

# Butcher Bird

Tale of the  
FW 190

BY BARRETT TILLMAN

**In August 1941**, a new shape appeared over the French coast: a blunt-nosed, elegantly pugnacious profile possessed of startling performance bearing black crosses. It was the product of a two-year program that immediately changed the Channel air war. Britain's standard Spitfire Mk V could not compete with the Luftwaffe's new *Würger* (shrike or "butcher bird").

Legendary RAF leader Douglas Bader recalled the effect of the new fighter's debut: "At first, we were told that the Jerries must have got hold of some old Curtiss aeroplanes, and we said 'If that's the case, could we get some of those old Curtiss aeroplanes, please?'"

The bogus report alluded to the Curtiss Hawk 75, an export P-36 that equipped French units in 1939-40. Even as a low-wing radial-engine fighter, the Hawk bore little resemblance to the new Focke-Wulf 190, but the mystery soon was cleared up. Spitfire pilots fought on the defensive for nearly a year until the Mk IX arrived, with an improved Merlin engine with two-stage supercharger. But even then, the new Spit largely matched the FW rather than beat it.

## Professor Tank

Focke-Wulf's chief designer was a rare talent. Born into a military family, Kurt Tank rode off to World War I as an *Uhlan*, a lancer like Manfred von Richthofen, and 30 years later, he had produced one of the classic fighters of all time.

Following the Great War, Tank earned an engineering diploma, became a test pilot, and worked for various aircraft companies. His hallmark was versatility. He produced Focke-Wulf's first commercial success, the FW 44 trainer, and, in 1936, gained world attention for the FW 200 Condor airliner. The FW 190 emerged in 1939, within three months of the Second World War.

While the airframe progressed well, the 190 had other problems. The factory and the Reich Air Ministry approved of a radial powerplant, freeing Daimler-Benz for Messerschmitt designs, while enjoying a potentially more powerful engine. But the BMW 139, while rated at 1,500hp, had serious cooling problems.

The new fighter flew on June 1, 1939, but

two years passed before testing and production tasks were completed. Tank's design crew—seldom more than a dozen men, including pilots—worked hard to put the *Würger* in the air. The replacement BMW 801 had teething problems, ranging from leaks to inadequate cooling to broken connecting rods. German metallurgy, technically world-class, suffered throughout the war from quality.

Besides the airframe and engine, Focke-Wulf devised a hydromechanical computer controlling fuel flow, mixture, propeller pitch, and even ignition in one "go lever." Allied pilots found the arrangement convenient but imprecise, as fuel economy could not be optimized. The relatively short missions flown by most German fighters, however, rendered the concern largely moot.

## Combat

During August 1941, *Jagdgeschwader 26* began transitioning to the FW 190 A. But until production ramped up, several squadrons flew mixed bags of Bf 109Es and Fs plus 190s. Among the first 190 losses that month were write-offs with engine failure. The first combat loss was to German AA fire on August 29.

On September 18, Pilot Officer Cyril Babbage of No. 41 Squadron RAF described an encounter: "We intercepted several enemy aircraft, one

The Flying Heritage Collection is home to the only flying FW 190. (Photo by John Dibbs/planepicture.com)



A propaganda photograph of a lineup of factory-fresh FW 190 A-5s of 6./Schl.G 2 just after its formation on December 17, 1942, at Gleiwitz (Gliwice) in Upper Silesia, Poland. The unit markings comprised red letters and a black triangle outlined in white of the *Schlachtgruppe* units. Note that two of the aircraft have had the Mickey Mouse emblem applied to the engine cowling. During March 1943, the *Staffel* transferred to Brindisi in Italy, where it completed its training. (Photo courtesy of EN-Archive)



of which fired ineffectively at my No. 2... This aircraft appeared to be very similar to a Curtiss 75A but with a slimmer fuselage. It then turned south at high speed, and I followed with 12 1/4 lb. boost and 2,800 revs, with the result that I was overhauling slowly, indicated a/s 350mph at sea level. I got within range just off Ostend and fired a five-second burst with cannon and machine guns from dead astern. The e/a broke up and crashed into the sea."

Babbage's victim probably was *Hauptmann* Walter Adolph, *Kommandeur* of II/JG 26, the first unit fully equipped with 190s.

The other Channel Front fighter wing, JG 2, began converting from Bf 109s in early 1942. The RAF received an unexpected gift in June when, in a colossal navigation error, *Oberleutnant* Armin Faber became disoriented after combat and landed

his FW 190 A in South Wales. Head-to-head comparisons only confirmed combat experience: The 190 was superior to the Spitfire Mk V in every aspect except turn radius.

Additional Luftwaffe wings converted from 109s to 190s that spring, including JG 1 in the Low Countries, although increasing Eighth Air Force pressure required FWs in Reich skies.

A typical reaction was when *Hauptmann* Heinz Lange, already an experienced *Jagdflieger*, transitioned to the 190 in the Soviet Union:

"I was absolutely thrilled. I flew every fighter version of it employed on the Eastern Front. Because of its smaller fuselage, visibility was somewhat better out of the Bf 109. I believe the FW 190 was more maneuverable than the Messerschmitt—although the latter could make a tighter horizontal turn. If you master the FW 190, you could pull a lot of Gs and do just about as well.

"In terms of control and feel, the 109 was heavier on the stick. Structurally, it was distinctly superior to the Messerschmitt, especially in dives. The radial engine of the FW 190 was more resistant to enemy fire. Firepower, which varied with the particular series, was fairly even in all German fighters. The central cannon of the Messerschmitt was naturally more accurate, but that was really a meaningful advantage only in fighter-to-fighter combat. The 109's 30mm cannon frequently jammed, especially in hard turns—I lost at least six kills this way."

Lange finished the war commanding JG 51 with 70 victories.

The 190 A was a good 20mph faster than the Spitfire V up to 25,000 feet, while the FW and the Mk IX were evenly matched with perhaps 10mph difference at most altitudes. The Mk IX outclimbed the 190 above 22,000 feet, while the Spit did best overall above 25,000 feet, but high-altitude combats were relatively rare. The Spit was poorest between 18,000 and 22,000 feet and below 3,000 feet.

After evaluating captured 190s, the RAF's tactics unit concluded, "In defense, the Spitfire XIV should use its remarkable maximum climb and turning circle against any enemy aircraft. In the attack, it can afford to 'mix it' but should beware of the quick roll and dive. If this maneuver is used by the FW 190 and the Spitfire XIV follows, it will probably not be able to close the range until the FW 190 has pulled out of its dive."

The Royal Navy's foremost test pilot, Lt. Eric Brown, was a FW enthusiast. He wrote, "I recall clearly the excitement with which I first examined the Focke-Wulf fighter; the impression of elegant lethality that its functional yet pleasing lines exuded. To me, it represented the very quintessence of aero-



autical pulchritude from any angle. It was not, to my eye, more beautiful than the Spitfire, but its beauty took a different form—the contrast being such as that between a blonde and brunette!"

In the United States, NACA tests showed the 190 with the most effective ailerons in the European Theater of Operations (ETO). At 250mph, the FW recorded nearly 160 degrees per second, easily besting the Allied fighters. A clipped-wing Spitfire was marginally better at 200mph, but of the aircraft tested, only the P-63 exceeded 100 degrees per second, with the P-47 and P-51 between 80 and 90 degrees per second.

American fighter pilots in the ETO encountered, at first, more 190s (mainly JG 2 and 26),

but Bf 109s evened out with deeper penetrations into Reich airspace from late 1943 on. The 10 leading ETO aces engaged 113 Focke-Wulfs versus 110 Bf 109s.

In the West, Maj. Josef "Pips" Priller almost certainly claimed 50 kills in the 190 from 1941 onward. He was best known, however, for leading the two-plane strafing pass at the British beaches on D-Day. He and his wingman got away clean, but by then, the Allies owned the skies over Normandy.

### Other Fronts

By 1942, the *Würger* was fighting a truly global war: from JG 5 in Norway and southward in the

Above: A rare color photograph of two FW 190 A-5s of I./JG 54 in flight over the Soviet Union with the familiar *Geschwader* green heart emblem. At this time, April 1943, the command of I./JG 54 had passed to Major Reinhard Seiler, who led the *Gruppe* until July 6, 1943, when he was seriously injured flying an FW 190 A-5. He eventually returned to flying, leading the fighter training *Geschwader*, JG 104, from August 1944. (Photo courtesy of EN-Archive)

Left: The cockpit of an FW 190 is the exact opposite of the cramped pilot quarters in a Messerschmitt. The 190 pilot not only had much more room but also was able to lean back at a comfortable angle with unmatched visibility in all directions. (Photo by John Dibbs/planepicture.com)



Eurasian landmass against the Soviet Union; and along the Channel coast, back through the greater Reich, and across the Mediterranean.

JG 2's II *Gruppe* flew in Tunisia from November 1942 to March 1943, paced by *Oberleutnant* Kurt Bühligen, who claimed 40 RAF and U.S. victims. But with defeat of the *Afrika Korps*, Germany withdrew from the continent, never to return. Among their American opponents was Lt. J. D. Collinworth of the 31st Fighter Group, a Spitfire pilot from Texas who downed six 190s in six months. He said, "Those boys knew their business, and I didn't get greedy!"

During 1943–44, the typical 190 was the A-8, carrying 950 rounds of 13mm ammunition and 780 of 20mm, a total 1,730 rounds. In contrast, the contemporary Bf 109 G-6 had 600 rounds of machine-gun and 200 rounds of cannon ammo.

Thus, the 190 typically flew with more than twice the ammunition of a midwar 109. The greater loadout translated to more trigger time, optimizing opportunities for multikill engagements, as often demonstrated by JG 54.

On the Eastern Front, the 190 arrived in strength in 1942. The "Green Hearts" of JG 54 began transitioning near year's end and readily took to the FW.

*Oberleutnant* Otto Kittel scored 236 of his 267 victories in FWs during the two years from February 1943 to February 1945. He often claimed 20 kills per month, topping at 33 in September 1944. He was killed attacking Il-2 Sturmoviks in

February 1945.

Kittel's colleague, Major Walter Nowotny, was already a major talent, with 62 victories from July 1941 through February 1943. He ranked second among FW aces with 193 *Abschüsse* between March and November, claiming 46 in August alone. Withdrawn from combat for almost a year, he died in an Me 262 in November 1944 with 258 *Abschüsse*.

Another Green Hearts superstar was *Leutnant* (later *Hauptmann*) Emil Lang who set records in the 190. He seemed an unlikely candidate as an *Experte*: a 34-year-old former airline pilot who transitioned to fighters in early 1943. That October, he hit his stride, claiming 68 victories including 10 or more on two days.

He only got better. "Bully" Lang reached centurion status with eight kills on November 2 and then ran wild. The next day, in five combats, he gunned nine Il-2s, five Yaks, three LaGGs, and an unidentified victim—eighteen kills in barely five hours.

In June 1944, Lang was transferred to JG 26 in France. He was killed that September, when his small formation was overwhelmed by Mustangs and Spitfires. With 173 victories, he probably was the third-ranking 190 pilot.

### Sturmgruppen

Despite greater production in 1943–44, the FW always was outnumbered by the 109. In February 1944, during the Eighth and 15th Air Forces' "Big



An FW 190 A-3, W.Nr. 1033, white 14 belonging to 7./JG 2 is being serviced in a dispersal area among some trees on the outskirts of an airfield in France in the autumn of 1942. Note the camouflage netting piled on the port wing, ready for the aircraft to be covered when maintenance is completed. (Photo courtesy of EN-Archive)



Week" offensive, the GAF deployed 23 *Gruppen* of 109s, six of 190s, and three equipped with both. Of the four *Gruppen* in Italy, one flew 190s. There were also seven *Zerstörer Gruppen* with twin-engine fighters.

The *Jagdgruppen* took a heavy toll of U.S. bombers. That month, of 251 Eighth Air Force heavies known lost to enemy action, 170 fell to fighters. Conversely, on four days of Big Week, FW *Gruppen* lost 64 aircraft and 27 pilots.

Even after the grim days of late 1943, when bombers flew unescorted, deep-penetration missions, the Luftwaffe remained lethal.

In the summer of 1944, the Luftwaffe formed units specifically to destroy American bombers: *Sturmgruppen* with heavily armed and armored FW 190s. The *Viermot* killers sustained heavy losses—sometimes 100 percent or more in a year. But their morale was described by the late Oskar Bösch of JG 3: "You are 20 years old, and you think you are rough and tough. You can drink all night and please the girls. Then you climb into your 190, turn the oxygen up to 100 percent, and when you take off to engage 1,000 heavy bombers, you are immediately sober!"

When controllers could direct fighters onto a vulnerable American formation, a *Sturmgruppe* could shred a bomb group in minutes. On July 7, 1944, JG 3's *Sturmgruppe*, escorted by 109s, savaged a B-24 formation. One bomb group alone lost a dozen Liberators, while other defenders hacked down 16 more. The Germans lost nine planes and five pilots but scored a clear victory.

On July 18, the 15th Air Force in Italy lost 15 Liberators, all but one from the 483rd Bomb Group. Thus, American airmen learned firsthand the brutal effectiveness of Luftwaffe pilots pledged to down a *Viermot* or ram a bomber.

### Jabos!

The Luftwaffe term for fighter-bomber was *Jabo*, a combination of *Jagd* and *Bomben*. Dedicated fighter-bomber variants were F and G models, accounting for nearly one-third of 190 production. The F series debuted in 1943, first committed to the Soviet Union. It eventually replaced the *Stuka* for all the obvious reasons: vastly superior performance and the inherent self-defense of a fighter. The longer-ranged G model lent more versatility in the attack role.

Some *Stuka Gruppen* began switching to FW 190s in mid-1943, with most probably converted by late 1944.

Ordnance varied widely but typically included bomb racks on the centerline and under wings, up to 500kg bombs. With additional armor protection against ground fire, the attack versions lost some performance but still were able to fend for themselves. *Leutnant* August Lambert was a fighter-bomber pilot in SG 2 but scored 116 victories along the way—a record for *Schlachtfliegern*.

Focke-Wulfs also were employed in the "Wild Boar" night-fighter role, logging some success against British bombers in 1943.

A less prevalent attack option was the *Mistel* project, with single-engine fighters lifting a twin-engine bomber (usually Ju 88) packed with explosives. The 190 pilot aimed his "missile" optically and disengaged it by firing explosive bolts, leaving it to dive into selected targets. Accuracy was poor, and few successes were recorded.

Even in a losing war, some Teutonic niceties were observed. *Leutnant* Wolfgang Fischer joined JG 2 in 1944 and observed a peculiar ceremony at the Aschersleben FW factory. Recently transferred from Italy, he assumed that things were taken seriously. Instead, he recalled, "A new pilot

The FW 190 performed every possible kind of combat task from dog fighting and night fighting to ground pounding and, in this case, testing a new form of gliding torpedo. (Photo courtesy of Joe Gertler)



PHOTO BY JOHN DIBBS/PLANEPICTURE.COM

## Flying the 190

In December 1943, the U.S. Army Air Forces Material Air Command in Britain evaluated a captured FW 190 A. Colonel Ernest Warburton and Captain Emil Sorensen made short flights at RAE Farnborough and submitted a joint report. Warburton had survived the 1934 air-mail fiasco and led the AAC aerobatic team. At Wright Field, he logged 2,500 hours of flight test through 1944.

### Cockpit Layout

"The instrument panel is quite untidy as there are several decks of gages and also the gas tank selector control, emergency gear control, and windscreen cleaner control and cowl flap hand crank protrude through the center of the panel.

"The engine control (combined propeller, mixture, and throttle and idle cutout) is very large and coarse to operate with no friction adjustment provided.

"The pilot position, which necessitates extending the legs almost straight out, seems quite suitable for pursuit work. The shoulder room and headroom are extremely limited and are the main objections to the cockpit arrangement. The pilot is bound to feel like a 'rat in a trap' when the canopy is closed... The cockpit was very hot at

low altitudes tried (below 10,000 ft), and gasoline fumes were quite strong, probably originating from the primer, which cannot be locked closed."

### Takeoff and Initial Climb

"The takeoff is very blind until the tail can be raised. The run is short as the aircraft accelerates rapidly. An indicated airspeed of 120 (no flaps) seems about right.

"Initial climb is good, with the ship exhibiting a relatively steep angle of climb. Gear retraction is rapid and smooth, with no trim change to speak of. Airspeed acceleration after takeoff is noticeably good.

"Angle of climb is steep, with indicated rate of climb about 3,500 fpm. at full power."

### Handling and Control

"All controls are good at slow speeds but tend to get heavy

at about 350 indicated. On this machine, the ailerons were overbalanced to the left at high speeds. The airplane buffets and shakes considerably in a dive, with this characteristic being more noticeable at reduced power."

### Trim and Stability

"No rudder or aileron trimmers are provided. They can successfully be eliminated because there is remarkably little trim change with speed.

"The elevator trim tab is electrically operated and activates too slowly in maneuvers to handle such cases as the minimum radius of turn, wherein elevator loads are excessive without trim.

"Stability at cruising speed is very satisfactory."

### Stall and Stall Warning

"The clean stall power off is about 118 IAS. The dirty stall power off is about 105 IAS. There is very little stall warning, and the airplane falls off sharply to the right. Elevator loads are heavy, requiring trim to get a complete stall."

### Maneuverability and Aerobatics

"The outstanding maneuverability feature of the airplane

is its extremely high rate of roll, especially from one bank to another. The turn is poor, with a very unpleasant accelerated stall occurring at 180 with about 2 G applied. The maneuver flap position, 10 deg., brings this down to 140 IAS. The elevators are very heavy in a tight turn, necessitating trim."

### Approach and Landing

"Vision is adequate on the approach but poor for the ground run. An approach speed of 130 IAS seems satisfactory. Elevator force to get the stick back is large, with use of trim tab being necessary. The slow electrical operation of the tab would create a bad condition in case of a go-around."

### Powerplant

"A BMW 801 D-2 engine was installed. The simplified engine control is commendable for pursuit work. With the propeller selector in the automatic position, one control operates the propeller, mixture, and throttle. In the manual position, the propeller RPM is selected by a thumb switch on the end of the engine control. Engine operation was noticeably rough at all powers."

wasn't just pointed at a new aircraft and told to get on with it. It was to be ceremoniously handed to him by his (group) *Kommandeur*, who would also present him with a certificate of ownership recording the name of the pilot, the markings carried by the machine, and its serial number."

## Doras and Tass

Contrary to the original BMW radial, an inverted V-12 looked extremely promising. The 1,700hp Jumo 213 was proposed for an upgraded *Würger* in 1941, but no high-altitude requirement existed at the time; the factory lost a year of development before the 190 D entered production in the summer of 1944. Capable of 2,100hp with water-methanol injection, the "Dora" was a good 20mph faster than the 190 A series with greater ceiling and climb rate.

Some 1,800 D variants were delivered, but allotment was generally to specific units, beginning with JG 54 that August.

The Dora's top speed, relative to the Mustang, was proven to 15th Air Force ace Lt. Arthur Fiedler, who recalled: "On 20 January 1945, my flight of four bounced estimated 40 FW 190s. I eventually was alone with quite a few of them and finally decided to head for home. Several FW 190 D chased me at an estimated 32,000 feet all the way from Regensburg to the Alps but kept falling further and further behind. My P-51D was rated at 437mph top speed, so I doubt these FW 190s could do over 430mph."

In 1944, the Reich Air Ministry declared that new aircraft would bear the designer's imprint, so the follow-on 190 became the Ta 152. Probably fewer than 50 were built, but their performance was extraordinary. With a powerful Jumo 213 engine and high aspect-ratio wings, the 152 was optimized for high-altitude performance. Nitrous oxide boosted the Jumo to 2,200hp, increased speed to 420mph at 21,000 feet, and claimed an astonishing 470mph at 41,000 feet. The main advantages, however, were increased acceleration and climb—nearly 4,000fpm.

No less an authority than Kurt Tank reported the results of a race between the 152 and P-51s. In late 1944, he was taking a Ta 152 to a conference in Cottbus on the Polish border when a radio warning called Mustangs on a converging course. He shoved the throttle all the way forward, engaging the water-methanol injection. The long, lean 152 steadily opened the distance, leaving the P-51s well astern.

Nonetheless, the 152 saw only limited combat with JG 301, claiming few victories.

Despite the dispersal of German aircraft indus-

try, more than 20 FWs were delivered a day through much of the war.

By VE Day, all or parts of 11 fighter wings and six fighter-bomber wings had flown the *Würger* plus independent *Gruppen*.

Among nations allied with or maintaining relations with Germany, Hungary, Romania, and Spain flew 190s, as did largely neutral Turkey, which also operated Spitfires. For a brief time after the war, the French Air Force operated 190s, designated NC-900.

## Legends and Warbirds

An Internet urban legend, still circulating in 2014, told the story of a Ninth Air Force ace, Capt. Bruce Carr, reputedly shot down in 1945, who stole a 190 and returned to his base. The tale was, actually, far less dramatic. Shortly before VE Day, Carr made friends with some RAF personnel in Austria, convincing them to let him borrow a refurbished 190 and fly it to the 354th FG base near Nurem-



Every treasure hunters dream: The Flying Heritage Collection's FW 190A-5 was assigned to *Jagdgeschwader* (fighter wing) 54 near Leningrad. On July 9, 1943, while attacking a Soviet supply train, the plane crashed. The pilot became a prisoner in Russia, but his plane remained untouched and hidden by acres of impassable wetland and a growing forest of young saplings until discovered in the late 1980s. (Photo courtesy of FHC.)

berg, where he made a one-wheel landing.

In the 1980s, aircraft collector Doug Champlin acquired "Yellow Ten," the world's only privately owned 190 D, and consulted Professor Tank during the rebuild in Germany. The designer died in 1983 without seeing one of his dreams fulfilled: a Dora racing at Reno. Based on his own experience, the professor knew that a 190 could compete with the best of the field.

About 24 Focke-Wulf fighters remain today, more than half in the United States. The only all-original 190 still flying is the Flying Heritage Collection's JG 54 veteran at Everett, Washington, though Flug Werk replicas are popular in warbird circles. †