

**PROFILE  
PUBLICATIONS**

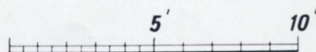
The  
Focke-Wulf  
Fw 190A

**NUMBER 3  
TWO SHILLINGS**

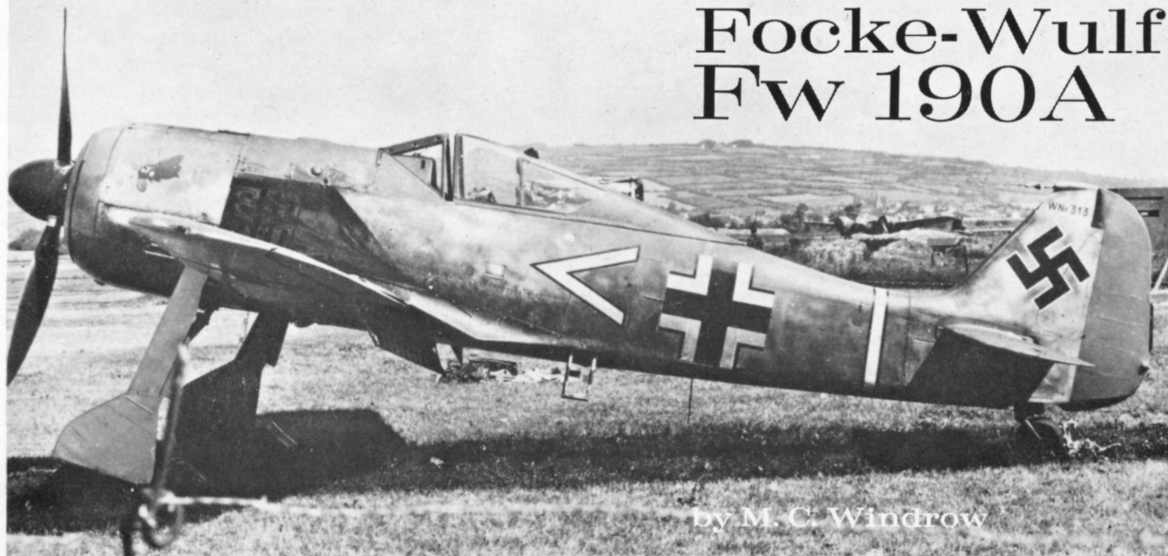




Focke-Wulf  
Fw 190A-7/R3



# The Focke-Wulf Fw 190A



by M. C. Windrow

Oblt. Faber's Fw 190A-3.

The Focke-Wulf Fw 190, one of the most aesthetically attractive and functionally successful aircraft to emerge from the Second World War, was the brain-child of Dipl. Ing. Kurt Tank, technical director of the *Focke-Wulf Flugzeugbau*. The designer of many impressive projects, Tank achieved perhaps his most spectacular success with the Fw 190. Combining a bulky air-cooled engine with a slim airframe, he produced a beautifully proportioned aeroplane which completely avoided the cumbersome rotundity of most other radial-engined fighters of the period. The Focke-Wulf's appearance at the fighting front ushered in a period of heavy losses and high-level alarm in the R.A.F. Superior in many respects to contemporary British equipment, the nimble radial-engined "Butcher-bird"\* forced a loss/victory ratio of at least 2/1 on Fighter Command Spitfire Vs in the first few months of its operational career.

In the autumn of 1937, the German *Reichsluftfahrtministerium* instructed the *Focke-Wulf Flugzeugbau*, uncommitted to any other major project, to submit a single-seat fighter design to supplement the Messerschmitt Bf 109, which had entered squadron service with the young *Luftwaffe* eighteen months previously. Of the twin proposals put forward by Tank, one was planned around the B.M.W. 139 radial engine while the other was based on the liquid-cooled Daimler-Benz DB 601. The climate of opinion in contemporary aviation circles was in favour of the low-drag characteristics of in-line engines, but nevertheless the radial-engined design was accepted. Considerable demand for the Daimler-Benz powerplant was partly responsible.

Detail design work commenced in mid-1938, culminating in the completion of the first prototype, designated Fw 190V1, in the spring of 1939. Designed for production by widely-dispersed sub-contractors, the aircraft had other features which strongly recom-

mended it to the *Luftwaffe*. The wide-track undercarriage eliminated one of the weaknesses most noticeable in the Bf 109; and front-line maintenance requirements were cut to a minimum.

The Fw 190V1 was flown for the first time on June 1st 1939 by chief Focke-Wulf test pilot Hans Sander. After five flights the machine was handed over to the *Luftwaffe* for service trials at the Rechlin test establishment. Despite the lack of forward visibility while taxi-ing, which was to prove fatal to inexperienced pilots later in the Fw 190's career, the *Luftwaffe* pilots were extremely impressed by the new fighter. The prototype displayed superb handling qualities, well-balanced controls and brisk acceleration. By October the second prototype, the Fw 190V2, was ready for testing. Featuring a large ducted spinner instead of an engine cooling fan, it was armed with two 7.9 mm. MG 17 and two 13 mm. MG 131 machine guns. After armament tests and some 50 hours of flight trials the machine, which had been plagued from the outset by engine overheating, was destroyed following a crankshaft failure.

Later prototypes differed in being powered by the improved B.M.W. 801C engine, offering 1,600 h.p.

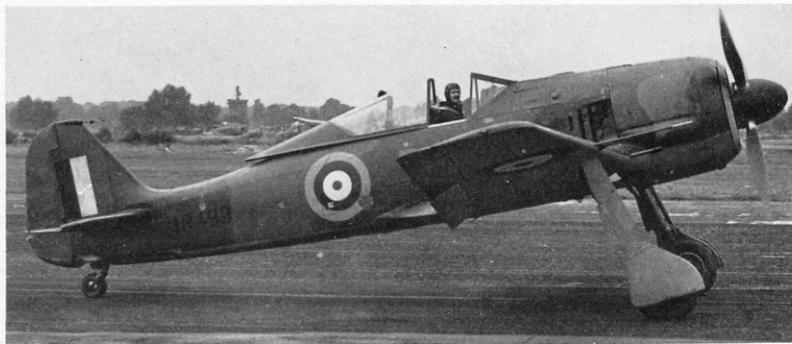
Power-egg of Fw 190A-3 showing MG 17 Mgs. ('Flight' photo)



\* The Fw 190A-1 was christened "Würger" or "Butcher-bird".



The third prototype Focke-Wulf Fw 190. Designated Fw 190V5k, this aircraft had the short span wing. (Photo: Imperial War Museum)



Faber's aircraft under test by the Royal Air Force. It carried the serial MP 499 and the standard R.A.F. colour scheme. (Photo: Imperial War Museum)

With strengthened engine mounts and the cockpit moved further back, these models were free from the heat and discomfort noticed by pilots of the earlier prototypes.

The flight trials of the Fw 190V1 had prompted an order for 18 pre-production fighters, the first batch being ready for testing in October 1940 under the designation Fw 190A-0. The eighth and subsequent A-0s were fitted with the longer-span wing, which became standard. Hermann Goering was an enthusiastic supporter of the new type, and preparations were made for quantity production in plants at Bremen and Hamburg, an initial order for 100 Fw 190A-1s being placed. The A-1 differed from late A-0 models only in its stressed engine cowling and assisted-release cockpit hood; armament comprised two MG 17s in the cowling and two in the wing roots. In June 1941 the first 30 Fw 190A-1s were delivered to the *Luftwaffe* for operational testing. Early examples of the A-2, with two slow-firing 20 mm. MG FF cannon in the wing-root positions, were already under test at Le Bourget.

June of 1941 saw the opening of hostilities with the Soviet Union and intensive *Luftwaffe* activity in the Mediterranean, including the conquest of Crete. The only fighter units remaining in Northern France were *Jagdgeschwader 2 "Richthofen"* and *Jagdgeschwader 26 "Schlageter"*. At the close of May JG 2 replaced JG 26 in the Brest/Cherbourg sector, the latter unit moving to the Abbeville/St. Omer airfield complex near the Belgian border. In July Adolf Galland's famous JG 26 received its first Fw 190A-1s and A-2s,

the more welcome because of the mauling their Bf 109F-2s had been suffering at the hands of R.A.F. Spitfire Vs.

The first operational encounter between R.A.F. fighters and Fw 190s in squadron service took place on September 27th 1941, and further combats followed with increasing frequency. A story current in R.A.F. circles at the time was that the new radial-engined fighters were ex-*Armée de l'Air* Curtiss Hawks appropriated by the *Luftwaffe*; but any pilot who encountered the Fw 190 personally could testify to the absurdity of this theory. No pre-war vintage fighter in the world could outfly the Spitfire V, and yet the sinister-looking "Butcher-bird" could break off combat with Spitfires at will by virtue of its 10/20 m.p.h. speed advantage. Faster and more stable in the dive, and capable of magnificent aileron turns, the Focke-Wulf fighters immediately reversed the narrow margin of superiority so painfully won by the R.A.F. over the Bf 109E and Bf 109F.

The *Luftwaffe* was to maintain this advantage until the arrival of the first Spitfire IXs on the squadrons in July 1942.

The late summer and autumn of 1941 was a period of intense activity over the English Channel as the R.A.F. attempted to draw *Luftwaffe* units away from their triumphant campaign in the East, and the appearance of the Fw 190 at the front further reduced the already questionable effectiveness of this offensive.

During this period the Fw 190A-3 superseded the A-2 on the assembly lines. Powered by the 1,700 h.p. B.M.W. 801Dg engine, the A-3 carried two fast-firing MG 151 cannon in the wing roots, the MG FFs being moved outboard and the MG 17s retained in the cowling. One hundred examples of the A-3 were supplied to the Turkish Air Force, finished in the early *Luftwaffe* desert camouflage of brown/green dappling. They were preferred by Turkish pilots to the Spitfire Vb, also operated by that air force.

The first major action in which the Fw 190A participated was the "Channel Dash". On the night of 11th/12th February 1942 the German capital ships *Scharnhorst* and *Gneisenau* left Brest with escorting vessels and began a hazardous voyage through the Channel on their way to safer anchorages in Kiel and Wilhelmshaven. Galland, newly promoted to Inspector of Fighters on the death of his colleague Werner Molders, had the task of providing fighter cover throughout the voyage. Available to him were 252 aircraft, consisting of Bf 109Fs drawn from JG 1, JG 2, and the fighter school at Paris; 30 Bf 110 night

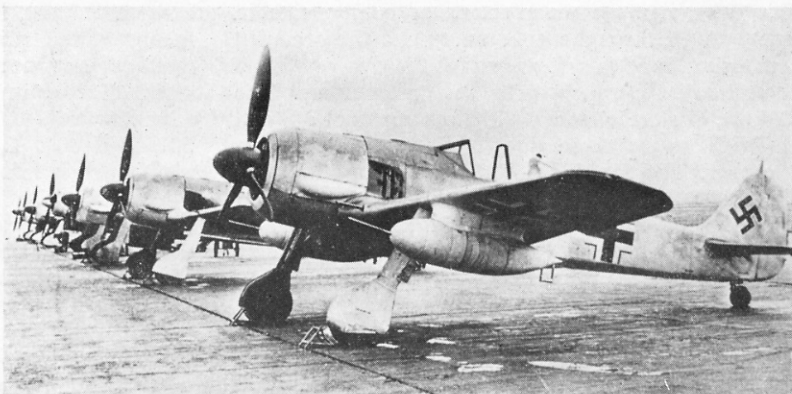
fighters for dawn and dusk operations and the mixed strength of JG 26, operating both Bf 109F-4s and Fw 190A-2s. The Focke-Wulfs acquitted themselves well in the almost continual combats of February 12th and Operation Thunderbolt (the official German code-name) was a heartening success for the *Luftwaffe* and *Kriegsmarine*.

On March 10th 1942 Sperrle, commander of *Luftflotte 3*, ordered JG 2 and JG 26 to form a fighter-bomber (*Jagdbomber* or *Jabo*) *Staffel* within each of the *Geschwader*. Initially equipped with the Bf 109F-4/B, the two *Staffeln* began "tip-and-run" raids against England. Ten *Jabo*/JG 2, based at Caen-Capriquet, attacked Channel shipping while 10 *Jabo*/JG 26 flew missions against Dover, Worthing, Brighton and other south coast towns.

The first Fw 190A to become available for evaluation by the R.A.F. was Oberleutnant Arnim Faber's Fw 190A-3, W.Nr. 313. Oblt. Faber, the adjutant of III/JG 2, landed his machine at R.A.F. Pembrey on the evening of June 23rd 1942. Although his *Staffel* (7/JG 2) had been in combat with Spitfires of the Exeter-based Polish Wing returning from a strike on Morlaix airfield, Faber's Focke-Wulf was undamaged, and his reasons for landing are obscure. The most likely theory, that he mistook the Bristol Channel for the English Channel and thought he was landing at a *Luftwaffe* airfield in Northern France, is borne out by the series of victory rolls he performed before touching down. Faber's garishly-painted aircraft was immediately examined by R.A.F. and industrial experts and service pilots; their findings substantiated the reports received from aircrew on the squadrons, and seriously influenced British thinking in fighter design for the future. An example of the trend is the Hawker Tempest II; the conception was finally perfected in the Hawker F.2/43 Fury.

By July 20th 1942, the day of the costly "reconnaissance in force" by Canadian troops at Dieppe, 10 *Jabo*/JG 26 was flying Fw 190A-4s. The A-4 subtype was powered by a B.M.W. 801D-2 engine with MW 50 fuel injection, raising the maximum speed to 416 m.p.h. Formations of JG 26 were active over the beaches and town of Dieppe during the raid.

Two months later, the *Jabo* units of both JG 2 and JG 26 were equipped with the Fw 190A-4/U8; armed with two MG 151 cannon in the wing roots, this variant could carry 1,100 lb. of bomb load and two 66 gallon wing tanks. The task of intercepting the



The Fw 190A-4/U8 fighter-bomber.

(Photo: Imperial War Museum)



An Fw 190A-4/U8 of SKG 10 which landed at R.A.F. West Malling on the night of July 16th 1943. A matt-black temporary finish was applied to the aircraft for night intruder sorties.

(Photo: Imperial War Museum)

*Jabo* raids became increasingly difficult. Approaching the English coast at wave-top height, pairs of Focke-Wulfs avoided the radar defences and were diving southwards again at full throttle before R.A.F. Spitfires could locate them. Fighter Command began tedious and uneconomical standing patrols and it was not until the operational appearance of the Hawker Typhoon that this threat to the morale of the population was countered. Insignificant in terms of military results, these pin-prick raids caused a reaction from the R.A.F. out of all proportion to the *Luftwaffe's* efforts.

The first raids on French targets by the 8th U.S.A.A.F.'s B-17 Flying Fortresses were carried out in August 1942, and by the end of the year the Fw 190A-equipped *Staffeln* of JG 2 and JG 26 could no longer be spared for fighter-bomber duties. In the spring of 1943 a new unit, SKG 10 (*Schnellkampfgeschwader* or Fast Bomber Wing) was formed, equipped with the Fw 190A-4/U8. Initially operating under the *Fliegerführer Atlantik* on anti-shipping strikes in the Bay of Biscay, SKG 10 was transferred in early summer to the Amiens area, and took up the *Jabo* offensive abandoned by JG 2 and JG 26. In July II, III, and IV/SKG 10 were rushed to Sicily, and the Focke-Wulfs of I/SKG 10 continued operations over the Channel until early in 1944. The *Gruppe* even took part in night intruder missions over London and the Home Counties.

The close of 1942 saw full-scale production of the

Fw 190A and the manufacture of components in many plants throughout Germany and the occupied territories; among others, some Fieseler and Ago factories were switched to this programme. The *Luftwaffe* had received over 1,900 examples of A-3 and A-4 fighters and A-4 fighter-bomber variants during the year. The Fw 190A-5 appeared early in 1943. Essentially the same aircraft as the A-4, this next production variant differed only in its improved engine mountings, which necessitated the engine being moved 5½ inches further forward.

Of all theatres of operation where the Fw 190 was needed, North Africa presented the most pressing problem. In the early spring of 1943 Erwin Rommel's forces were fighting a hopeless rearguard action in Tunisia, and their airborne lines of communication across the Mediterranean were being ravaged by Allied fighters. The two desert fighter formations, JG 27 and *Jagdgeschwader 53 "Pik As"*, had been reduced to a pitiable condition, and the newly-drafted JG 77 and II/JG 51 were suffering heavy losses. Units of Fw 190A-4/Trops, with desert filters and fuselage racks for a 550 lb. bomb, enjoyed a fair measure of success in operations with the *Fliegerführer Tunis*, but even so the campaign ended in costly defeat in May 1943. A quarter of a million men of the *Afrika Korps* surrendered and the Fw 190s took part in a hurried evacuation of *Luftwaffe* personnel to Sicily, carrying as many as three men per aircraft.

The Allied invasion of Sicily followed on July 10th and Fw 190A-4/U8s, A-4/Trops, and A-6/R2s (a model with 1,650 lb. bomb load capacity) were heavily committed in operations with Kesselring's *Luftflotte 2*. By the time these units (including II, III, and IV/SKG 10) were withdrawn to Italy they had suffered crippling losses.

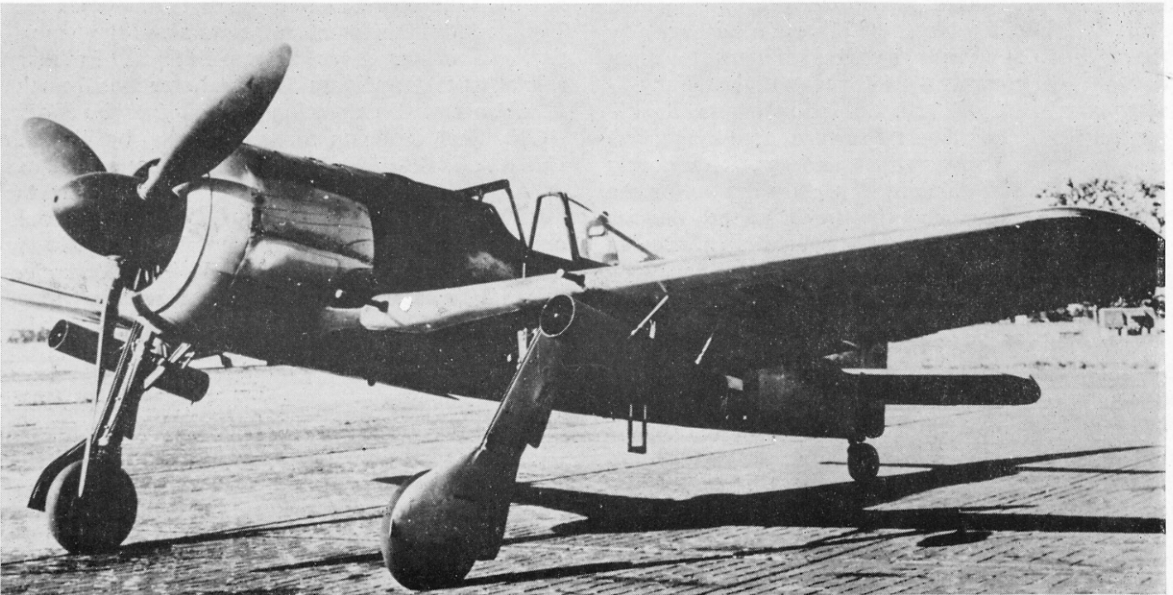
Another type of operation in which the Fw 190A gained good initial results was free-lance night fighting. This venture was instigated by a *Luftwaffe*

ex-bomber pilot, Major (later Oberst) "Hajo" Herrmann, whose private experiments in single-seater fighter operations against R.A.F. Bomber Command's night offensive in the spring of 1943 resulted in the formation of *30 Jagd Division*, comprising JGs 300, 301, and 302. Despite complaints from orthodox night fighting formations that these *Wilde Sau* (Wild Boar) aircraft were causing serious confusion in the crowded night skies, the volunteer pilots were the darlings of Press and public as their scores mounted. Aircraft used in these operations were the Fw 190A-5/U2, with flame-dampers and anti-glare screens and the Messerschmitt Bf 109G-6/U4N. By the winter of 1943 both aircraft and pilots had been "flown to death", and losses mounted; *30 Jagd Division* was withdrawn from night operations early in 1944 and underwent conversion to various "dirty-weather" and special duties rôles.

As stated above, the 8th U.S.A.A.F. began operations from England in August 1942 and these first insignificant raids were the forerunners of the immense formation attacks by B-17s and B-24 Liberators which during the next three years shattered the German industrial machine and German morale. At the outset of the offensive only JGs 1, 2, and 26 were available to defend the western approaches of the Reich against daylight bombing; two years later nine *Geschwader* proved inadequate, and this drain on resources seriously aggravated the situation on the Russian front.

Fw 190As equipped many first-line units of the *Reichsverteidigung* (*Luftwaffe* Home Defence Command). The rapidly increasing numbers of Allied escort fighters and their unexpected improvement in range led to a continuous series of air battles over the Netherlands, France and Germany in which the North American P-51 Mustangs and Republic P-47 Thunderbolts inexorably wore down the strength of the *Luftwaffe*. New tactics and new weapons were

The Fw 190A-4/R6 was fitted with two WG 21 rocket launchers for bomber interceptor duties. (Photo: Imperial War Museum)



evolved for the *Jagdgeschwader* (an example is the WG 21 “Dodel” rocket launcher fitted to the Fw 190A-4/R6) but despite the spirited resistance of the German fighter pilots, which earned them the ungrudging admiration of the American aircrews, sheer weight of numbers was on the side of the Allies. The output of new fighters from the factories was stepped up in an intensive effort which was a credit to the industry, but useless in the long run.

In respect of armament the Fw 190A variants were slightly superior to the Bf 109G models, but the Focke-Wulf’s performance fell off badly above 21,000 feet, the height at which the bombers usually operated. Even when the escort fighters were evaded, a *Luftwaffe* pilot attacking a combat “box” of 18 B-17s had to face a combined defensive armament of more than 200 heavy machine guns, and while the Fortresses were by no means invincible, it required a fighter pilot of considerable skill and determination to press home attacks on such a formation with his four 20 mm. cannon.

In the winter of 1943/44 Fw 190As were fitted with additional armour for a new rôle—that of “storm-fighters”. A Major von Kornatski had suggested to Galland that special suicide squadrons should be formed to ram the “Ami” bombers, especially the lead aircraft. Turning down this plan on principle, Galland approved the formation of an experimental *Sturmstaffel* whose task would be to press home attacks in tight formation at close range, whatever the cost. As a last resort, the pilots were to ram and bale out; an optimistic view of the results of a mid-air collision at combined speeds of up to 700 m.p.h. This volunteer unit achieved excellent results and the first *Sturmgruppe* was formed. It was Galland’s intention to add a *Sturmgruppe* to each of the *Reichsverteidigung Geschwader*, but the invasion of Normandy interrupted this programme. The aircraft used by the *Sturmgruppe* was the Fw 190A-5/U16.

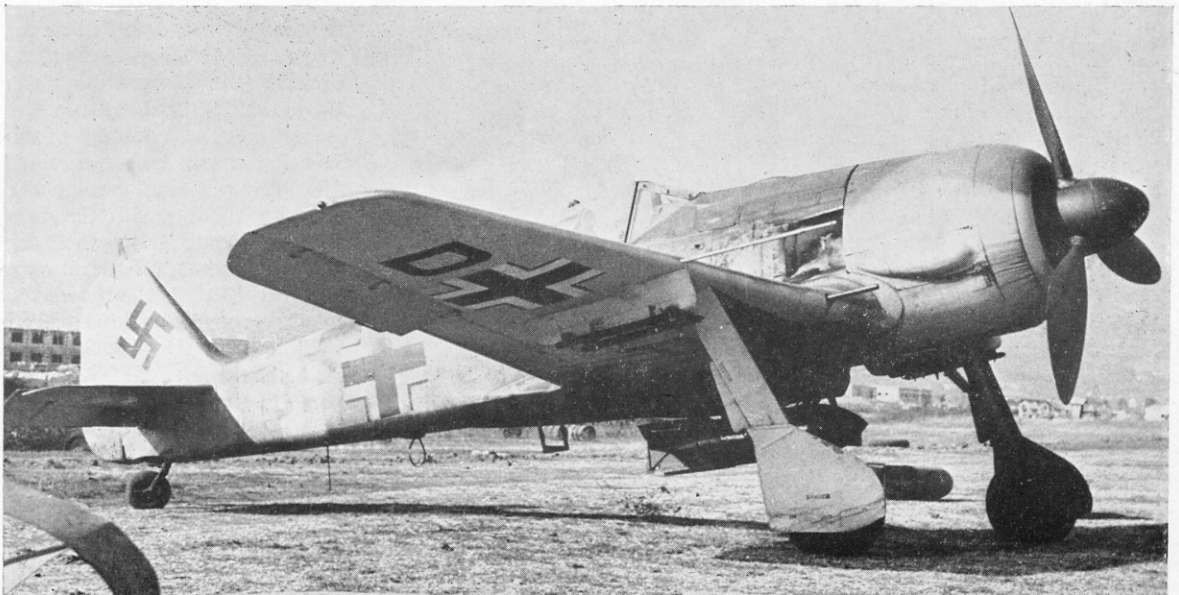
*An Fw 190A-5/U3 fighter-bomber abandoned by the retreating Luftwaffe in Italy in September 1943. (Photo: Imperial War Museum)*

The other major sphere of action in which the Fw 190 participated was “the Verdun of the air”—the savage fighting on the Russian front. Despite the fact that the Focke-Wulf was opposed in this theatre by aircraft of inferior design and performance, it gained for the *Luftwaffe* no lasting margin of air superiority. The cause of this failure did not lie in any technical shortcomings, it was simply part of the overall inability of the German air arm as a whole to cope with the special circumstances encountered in this campaign.

In the early hours of June 22nd 1941 the forces of the Third Reich began their massive offensive in the East on a front of more than 2,000 miles. In spite of the huge number of obsolete Soviet aircraft destroyed on the ground and in the air in the initial stages of the campaign, the elimination of the Red Air Force as an effective arm was never achieved. The main centres of aircraft production remained beyond the range of the *Luftwaffe*’s bombers, and the flow of replacements continued to reach the often depleted squadrons.

The structure of the Red Air Force placed the *Luftwaffe* at a disadvantage from the outset. A tactical arm of the Soviet ground forces, it was geared to the task of supporting the Red Army on a wide front as “aerial artillery”, and although equipment and standards of flying were somewhat crude by Western criteria, the MiGs, LaGGs and Ilyushins performed their task admirably.

As the area of operations in Russia constantly expanded and shifted, the type of operation most favourable to the *Luftwaffe*—the assembly of numerically and qualitatively superior forces at a limited number of key points—became largely irrelevant. The physical scope of the campaign and the dauntingly primitive conditions in the field struck at the sophisticated and therefore sensitive structure of the *Luftwaffe*. The length of lines of communication, the consequent delays in supply, and the limited numbers of units

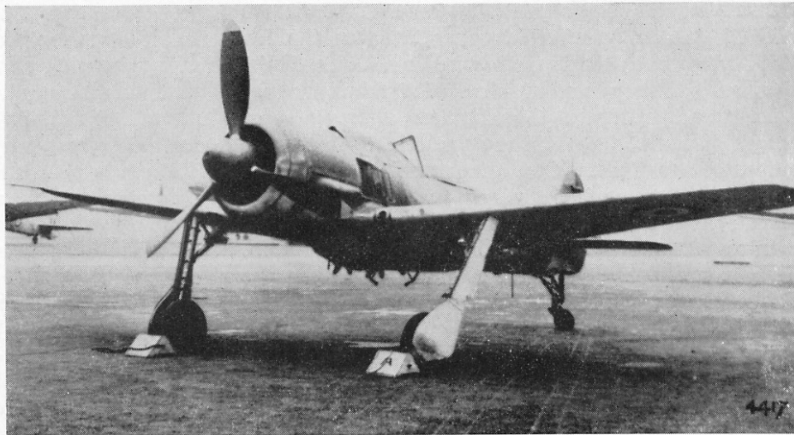


available conspired to rob the *Luftwaffe's* fighter *Gruppen* of their initiative, to distort their correct employment, and to condemn them to continual sacrifice in "penny packets" on a wide front, frittering away men and machines in a horrifying war of attrition.

A fine example of the fatal incongruities forced upon the *Luftwaffe* in Russia is the fact that in 1943 JG 54 "Grunherz", a veteran interceptor unit, was equipped with the Fw 190F-8 ground attack aircraft. The suitability of the Fw 190 for fighter-bomber duties led to constant competition between fighter and fighter-bomber units for the insufficient supplies of these machines.

Fw 190A fighters first appeared on the Russian front with I/JG 51. This unit was re-equipped in time to take part in the counter-offensive of early July 1943, and distinguished itself in action against units of the 1st, 4th, and 16th Soviet Air Armies. In the ground attack rôle, the Focke-Wulf had reached *Schlachtgeschwader 1* (Ground Attack Wing No. 1) in April of that year, in the Kursk salient. From late summer Korten, the new *Luftwaffe* Chief of Staff, instituted a vigorous programme of re-equipment in the ground attack units, replacing ageing Junkers Ju 87Ds with Fw 190 variants. Despite conflicting demands on the production lines, *Schlachtgruppen* were soon being re-equipped at a rate of about two every six weeks. Ground attack versions of the Fw 190A to appear at the front during these months were the A-5/U3 and A-5/U8, with light armament and large bomb load capacity, and the heavily-armed

An Fw 190A-5/U3 Trop fighter-bomber of I/SG 4. (Photo: Imperial War Museum)



The Fw 190A-5/U15 torpedo-fighter operated by III/KG 200.

A-5/U11 with only 990 lb. bomb load capacity.

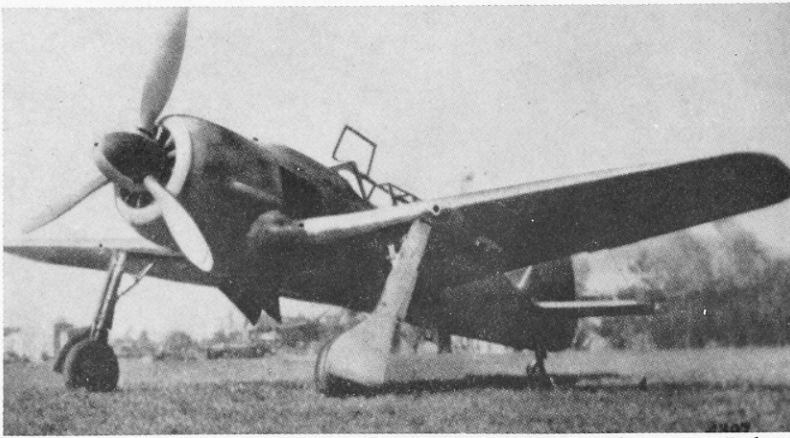
During 1944 the Ju 87D was largely relegated to night operations and the Fw 190 took over daylight missions, although hampered by shortages of ammunition, tyres and fuel.

By the early months of 1944, the *Luftwaffe* was in a precarious position on all fronts. The Russian "steamroller" was grinding westwards over the remains of the once-triumphant German forces. The Allied bombing offensive was causing serious shortages of synthetic fuel and components, and many *Jagdgeschwader* veterans had died in attacks on Fortress and Liberator "boxes". The training establishments were stepping up their output of raw pilots whose life expectancy could be measured in days. The ultimate collapse was still a year away, but it was already predictable. An ominous symptom was the growing number of *Luftwaffe* personnel being pressed into service as infantrymen, artillerymen, or SS troopers; and many units had disappeared entirely, to

be hurriedly replaced by composite formations.

Fearful for their depleted fighter units in Northern France, the *Luftwaffe* High Command ordered the dispersal of the *Gruppen* of JG 26 away from the intensive Allied bombing of the invasion coasts in May/June of 1944. Thus it was that on the morning of June 6th the only fighter forces to launch an attack on the Normandy beaches were two Fw 190As! They were the machines of Oberst Josef "Pips" Priller, the flamboyant *Geschwaderkommodore* of JG 26, and his *rottenflieger* (wingman) Feldwebel Wodarczky. I/JG 26 had flown to Rheims, II/JG 26 to Mont de Marsan in Gascony, and III/JG 26 to Metz. The two pilots' strafing run was the only *Luftwaffe* activity over the beachhead during the daylight hours of D-Day.





The Fw 190A-8/VI trainer, first flown on January 23rd 1944, and used to re-train Junkers Ju 87 aircrew on conversion courses.

The already-overstretched fighter units were immediately re-deployed to contest the Allied advance in the Cotentin peninsula; and many *Gruppen* were decimated above the holocausts of Caen and St. Lô. III/JG 54 operated from Villacoublay, and suffered 50 per cent losses in pilots and 70 per cent losses in its Fw 190As. The Fw 190A-4/U8s of SKG 10 flew from Dreux for a few days until the unit was virtually annihilated.

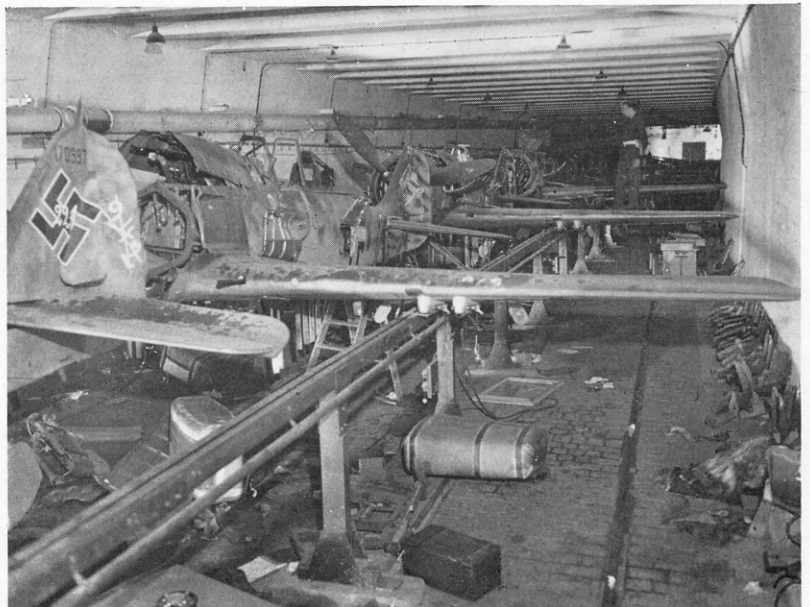
Few of the *Jagdgeschwader* long survived the battles over Normandy as organised tactical units. Retreating across Europe, some formations operated from concealed bases under more or less improvised conditions, with little or no contact with higher authority. By mid-winter of 1944 Allied bombs had destroyed the last synthetic fuel refineries, and remaining stocks were jealously regulated. On New Year's Day 1945, about 650 Fw 190s of JGs 2, 3, 4, 26, and several other units took part in Operation Hermann, Goering's last ditch attempt to cripple the Allied air component in Europe by destroying their aircraft on the ground. Many *Luftwaffe* pilots were so pitifully inexperienced that they had to be guided to their targets by master-navigators in Ju 88s. The dawn raid gained good results in terms of aircraft destroyed, and increased the strain on the pilots whose machines survived, but the Allies' vast industrial capacity could quickly make good the losses, R.A.F. and U.S.A.A.F. casualties were not heavy, and the *Luftwaffe* lost more men and machines than they could afford at that stage.

By mid-February 1945 the Russians had captured Fw 190 component, assembly and repair facilities at Marienburg, Sorau, Riga, Warsaw, Posen, Breslau, Liegnitz and Kreisling; the Marienburg and Sorau plants alone represented 25 per cent of

all Fw 190 production. In March the last stocks of fuel were issued; and the following month many brand-new examples of the *Focke-Wulf Flugzeugbau's* graceful fighter stood with dry fuel tanks on their battered dispersals, under heavy camouflage, or in tunnels beside *Autobahn*-runways. More than 20,000 had been built, the vast majority Fw 190A variants; but the other branches of *Luftwaffe* organisation broke down before many of them could be used in action.

It is an interesting comment on the versatility of this most attractive of German fighters that one of its last rôles before hostilities ceased was that of torpedo-bomber with a *Kampfgeschwader*. The three A-5/U15 torpedo-carrying Fw 190s built were operated by III/KG 200 in attacks on bridges in the winter of 1944/45; and other formations of this infamous "special duties" *Geschwader* were working-up with the "Mistel" or "Beethoven" combination weapon, with a Focke-Wulf as the carrying aircraft and a converted Ju 88A-4 as the "flying bomb". Operating from Berlin in 1945, KG 200 flew "Beethovens" against Russian bridges on the Oder.

An assembly line of Focke-Wulfs discovered under the administrative buildings of Tempelhof airport after the German capitulation. (Photo: Imperial War Museum)



## LUFTWAFFE UNITS

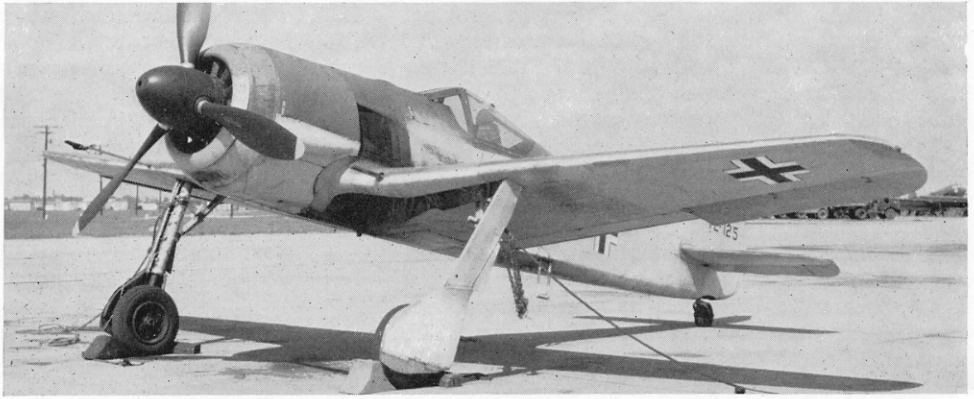
The basic *Luftwaffe* tactical unit was the *Geschwader*. A fighter *Geschwader* (*Jagdgeschwader* or JG) usually comprised three *Gruppen*, each of which was in turn made up of three *Staffeln*. The operational strength of these groupings varied considerably, but a *Jagdstaffel* usually mustered between twelve and sixteen aircraft (the latter figure was official policy from 1943 onwards). The average *Jagdgeschwader* thus had an establishment of about 110/140 aircraft. *Gruppen* and *Staffeln* were numbered independently. Thus II/JG 2 (the second *Gruppe* of JG 2) comprised the fourth, fifth, and sixth *Staffeln* of JG 2; and 7/JG 2 (the seventh *Staffel* of JG 2), 8/JG 2 and 9/JG 2 together made up III/JG 2. Some *Jagdgeschwader* mustered four *Gruppen* at some time during their life (e.g. JGs 2, 27, 51, 54) but this was not the general rule.



Exhaust detail of Fw 190A-3.

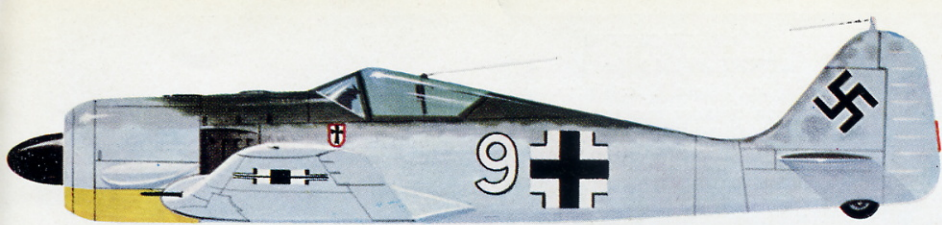
(‘Flight’ photo)

The Fw 190A-6 interceptor-fighter Armament consisted of four MG 151 cannon and two MG 17 machine guns. Another variant was the A-6/R2 fighter-bomber.



### Fw 190A POWERPLANT AND ARMAMENT

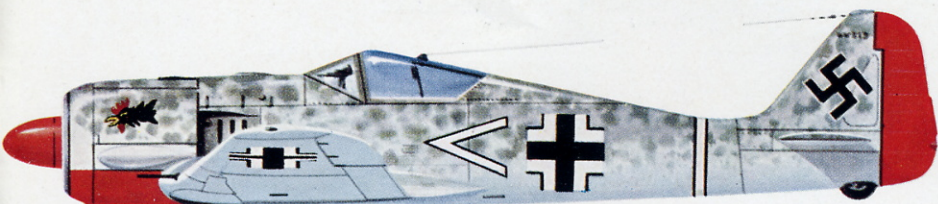
Fw 190V1	Powerplant 1,550 h.p. B.M.W. 139 (370 m.p.h.).	Armament 2 × MG17, 2 × MG131.
Fw 190V2	Powerplant 1,550 h.p. B.M.W. 139 (368 m.p.h.).	Armament 4 × MG17.
Fw 190V6	Powerplant 1,600 h.p. B.M.W. 801C (391 m.p.h.).	Armament 4 × MG17.
Fw 190A-0	Powerplant 1,600 h.p. B.M.W. 801C (398 m.p.h.).	Armament 4 × MG17.
Fw 190A-1	Powerplant 1,600 h.p. B.M.W. 801C (388 m.p.h.).	Armament 4 × MG17.
Fw 190A-2	Powerplant 1,600 h.p. B.M.W. 801C (382 m.p.h.).	Armament 2 × MG17, 2 × MG FF (later 2 extra MG17).
Fw 190A-3	Powerplant 1,700 h.p. B.M.W. 801Dg (391 m.p.h.).	Armament 2 × MG17, 2 × MG FF, 2 × MG151.
Fw 190A-4	Powerplant 2,100 h.p. B.M.W. 801D-2 (416 m.p.h.).	Armament 2 × MG17, 2 × MG FF, 2 × MG151.
Fw 190A-4 Tropf	Powerplant 1,800 h.p. B.M.W. 801D-2 (367 m.p.h.).	Armament 2 × MG17, 2 × MG151.
Fw 190A-4R/6	Powerplant 1,800 h.p. B.M.W. 801D-2 (373 m.p.h.).	Armament 2 × MG17, 2 × MG151, 2 × MG FF, 2 × WG 21 mortars.
Fw 190A-4/U8	Powerplant 1,800 h.p. B.M.W. 801D-2 (298 m.p.h.).	Armament 2 × MG151. Bomb load 1,100 lb.
Fw 190A-5	Powerplant 1,800 h.p. B.M.W. 801D-2 (379 m.p.h.).	Armament 2 × MG17, 2 × MG FF, 2 × MG151.
Fw 190A-5/U2	Powerplant 1,800 h.p. B.M.W. 801D-2 (377 m.p.h.).	Armament 2 × MG17, 2 × MG FF, 2 × MG151.
Fw 190A-5/U3	Powerplant 1,800 h.p. B.M.W. 801D-2 (298 m.p.h.).	Armament 2 × MG151. Bomb load 2,200 lb.
Fw 190A-5/U8	Powerplant 1,800 h.p. B.M.W. 801D-2 (298 m.p.h.).	Armament 2 × MG151. Bomb load 1,100 lb.
Fw 190A-5/U11	Powerplant 1,800 h.p. B.M.W. 801D-2 (373 m.p.h.).	Armament 2 × MG17, 2 × MG151, 2 × MK103. Bomb load 990 lb.
Fw 190A-5/U15	Powerplant 1,800 h.p. B.M.W. 801D-2 (310 m.p.h.).	Armament 2 × MG151.
Fw 190A-5/U16	Powerplant 1,800 h.p. B.M.W. 801D-2 (380 m.p.h.).	Armament 2 × MG17, 2 × MG151, 2 × MK108.
Fw 190A-6	Powerplant 1,800 h.p. B.M.W. 801D-2 (398 m.p.h.).	Armament 2 × MG17, 4 × MG151.
Fw 190A-6/R2	Powerplant 1,800 h.p. B.M.W. 801D-2 (310 m.p.h.).	Armament 2 × MG17, 2 × MG151. Bomb load 1,650 lb.
Fw 190A-7	Powerplant 1,800 h.p. B.M.W. 801D-2 (395 m.p.h.).	Armament 2 × MG131, 4 × MG151.
Fw 190A-7/R2	Powerplant 1,800 h.p. B.M.W. 801D-2 (390 m.p.h.).	Armament 2 × MG131, 2 × MG151, 2 × MK108.
Fw 190A-7/R3	Powerplant 1,800 h.p. B.M.W. 801D-2 (394 m.p.h.).	Armament 2 × MG131, 4 × MG151.
Fw 190A-8	Powerplant 2,100 h.p. B.M.W. 801D-2 (405 m.p.h.).	Armament 2 × MG131, 4 × MG151.
Fw 190A-8/R1	Powerplant 2,100 h.p. B.M.W. 801D-2 (391 m.p.h.).	Armament 2 × MG131, 6 × MG151.
Fw 190A-8/R3	Powerplant 1,800 h.p. B.M.W. 801D-2 (370 m.p.h.).	Armament 2 × MG151, 2 × MK103.
Fw 190A-8/R11	Powerplant 1,800 h.p. B.M.W. 801D-2 (398 m.p.h.).	Armament 2 × MG131, 2 × MG151, 2 × MK108.
Fw 190A-8/U1	Powerplant 1,800 h.p. B.M.W. 801D-2 (394 m.p.h.).	Armament 2 × MG131.
Fw 190A-8/U11	Powerplant 1,800 h.p. B.M.W. 801D-2 (311 m.p.h.).	Armament 2 × MG131, 2 × MG151. Bomb load 990 lb.
Fw 190A-9	Powerplant 2,000 h.p. B.M.W. 801F (416 m.p.h.).	Armament 2 × MG131, 4 × MG151.
Fw 190A-9/R11	Powerplant 2,000 h.p. B.M.W. 801TS (420 m.p.h.).	Armament 2 × MG131, 4 × MG151.
Fw 190A-10	Powerplant 2,000 h.p. B.M.W. 801T (310 m.p.h.).	Armament 2 × MG151. Bomb load 3,860 lb.



Fw 190A/4 of I/JG1, Aalborg-Ost 1943.



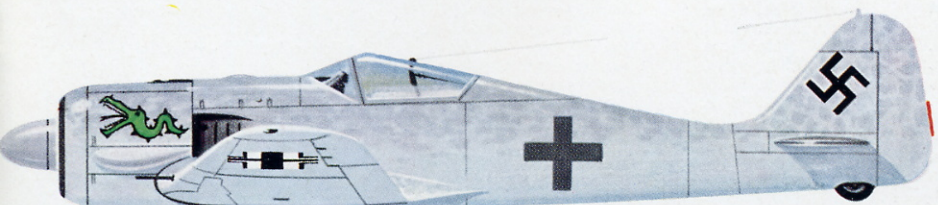
Emblem of JG1.



Fw 190A/3 of 9/JG2 'Richt-hofen'.



Emblem of 9/JG2.



Fw 190A/3 of II/SG1.



Emblem of II/SG1.



Fw 190A/4 of 9/JG2, Vannes, France, February 1943.



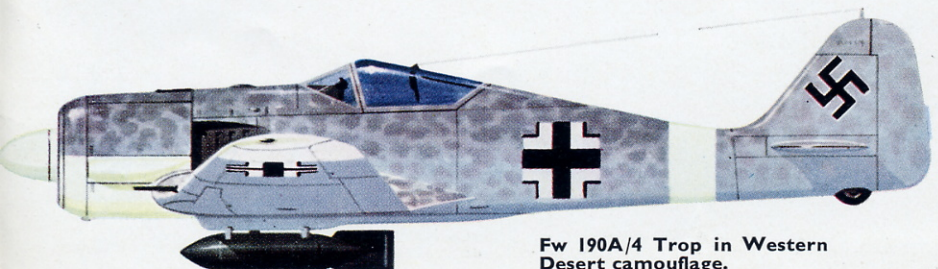
Emblem of I/SG1.



Fw 190A/3 of 5/JG1, North Germany, April 1942.



Emblem of 10 (Jabo) JG2 'Richthofen'.



Fw 190A/4 Trop in Western Desert camouflage.



Emblem of I/SG54 'Grünherz'.

SPECIFICATION  
**FOCKE-WULF Fw 190A-8**

**Dimensions:** Span 34 ft. 5½ in.; length 29 ft. 4¼ in.; height 13 ft. 0 in.; wing area 196.98 sq. ft.  
**Powerplant:** B.M.W. 801D-2 air-cooled fourteen cylinder two row radial engine of 1,700 h.p. (2,100 h.p. with MW 50 methanol/water injection system) at take-off.  
**Armament:** Two 13 mm. MG 131 machine guns in upper cowling of engine; two 20 mm. MG 151 quick-firing cannon in wing root positions; two MG 151 in outer wing positions.  
**Weights:** Empty, 7,000 lb.; loaded, 9,424 lb.; maximum, 10,800 lb.  
**Performance:** Maximum speed, 405 m.p.h. at 20,500 ft.; 355 m.p.h. at sea level; range (internal fuel), 500 miles; initial climb, 2,350 ft./min.; service ceiling, 37,400 ft.

**Fw 190A DIMENSIONS, WEIGHTS AND REMARKS**

Fw 190V1	Span 31 ft. 2 in.	Length 28 ft. 6½ in.	Loaded weight 3,968 lb.	<i>Ducted spinner.</i>
Fw 190V2	Span 31 ft. 2 in.	Length 28 ft. 6½ in.	Loaded weight 4,410 lb.	
Fw 190V6	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 7,055 lb.	
Fw 190A-0	Span 31 ft. 2 in.	Length 28 ft. 10½ in.	Loaded weight 6,170 lb.	
Fw 190A-1	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 7,065 lb.	<i>First seven with short span, eleven with long. 100 built.</i>
Fw 190A-2	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 7,716 lb.	
Fw 190A-3	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 8,377 lb.	
Fw 190A-4	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 8,380 lb.	
Fw 190A-4/Trop	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 8,820 lb.	<i>Fitted with booster MW 50.</i>
Fw 190A-4/R6	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 9,480 lb.	
Fw 190A-4/U8	Span 34 ft. 5½ in.	Length 28 ft. 10½ in.	Loaded weight 10,803 lb.	
Fw 190A-5	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,480 lb.	
Fw 190A-5/U2	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,655 lb.	
Fw 190A-5/U3	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 10,580 lb.	
Fw 190A-5/U8	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 10,800 lb.	
Fw 190A-5/U11	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,920 lb.	<i>Similar to Fw 190A-4/U8.</i>
Fw 190A-5/U15	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 10,800 lb.	
Fw 190A-5/U16	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,744 lb.	
Fw 190A-6	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 8,600 lb.	
Fw 190A-6/R2	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 10,360 lb.	<i>Torpedo fighter, three built.</i>
Fw 190A-7	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 8,818 lb.	
Fw 190A-7/R2	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,215 lb.	
Fw 190A-7/R3	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,039 lb.	
Fw 190A-8	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,424 lb.	<i>Lighter structure.</i>
Fw 190A-8/R1	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 10,360 lb.	
Fw 190A-8/R3	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 10,140 lb.	
Fw 190A-8/R11	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,920 lb.	
Fw 190A-8/U1	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight —	<i>Strengthened oleo legs.</i>
Fw 190A-8/U11	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 10,538 lb.	
Fw 190A-9	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,700 lb.	
Fw 190A-9/R11	Span 34 ft. 5½ in.	Length 29 ft. 4¼ in.	Loaded weight 9,920 lb.	
Fw 190A-10	Span 34 ft. 5½ in.	Length 29 ft. 5 in.	Loaded weight 11,050 lb.	<i>One 66 gallon belly tank. Improved internal fuel capacity. GM 1 boost, or further 25 gallon internal fuel</i>

*FuG 16ZE and FuG 25A. Two-seat trainer type. Two prototypes, one production model. Saw action in mixed units with Ju87. Similar to Fw 190A-8/R11. Three 66 gallon drop tanks, strengthened oleo legs.*

*The Fw 190A-2 seen with the radio coding—KB+PV—used during manufacturer's tests.*

