



Spotlight

Messerschmitt Me 262

FlyPast

Scrutinizes the history of...



The Messerschmitt Me 262

Above
A captured two-seat Me 262B is the centre of attention among Allied personnel.

BOTH KEY

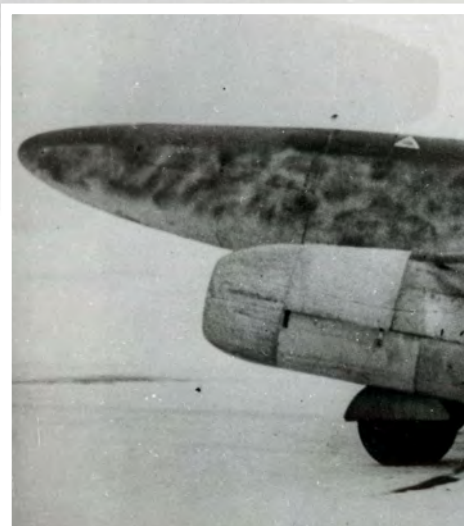
Many aircraft are described as 'legendary' but one type that truly deserves such an epithet is the Messerschmitt Me 262. It has the distinction of being the world's first operational jet-powered fighter. It entered service earlier than the Gloster Meteor, and was faster and better armed than the earliest incarnations of the British aircraft.

Arguably, the impact made by the Me 262 could have been far greater had its development not been plagued by engine problems, and interference from high-ranking officials. Introduced in 1944, the twin-engined jet was a devastating weapon when flown to its best advantage. Had it arrived earlier in the war, or been available in greater numbers, it would surely have posed an enormous deterrent both to

Allied bombers and their escorts.

In reality, an increasingly hard-pressed Luftwaffe could not keep more than a few hundred of the machines airworthy at any one time. This was partly because the type was reliant on troublesome and short-lived Junkers Jumo engines, and partly because Allied attacks on airfields and industrial targets meant that fuel and essential parts were in short supply. While German pilots repeatedly proved the potency of the Me 262, concerted Allied efforts effectively neutralised the 'miracle' weapon's alarming potential.

Nevertheless, so advanced was the Messerschmitt that many captured examples were test flown by other nations after the war, and went on to influence the design of such successful and well-known aircraft as the North American F-86 Sabre and the Boeing B-47 Stratojet.



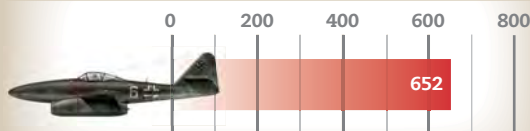
Jet flight

Although Sir Frank Whittle is credited with single-handedly inventing the turbojet engine, German designers were also hard at work on similar technology. The first jet aircraft to fly was the Heinkel He 178, which took off on August 27, 1939, around 18 months before the Gloster E.28/39 made its first flight with Whittle's engine.

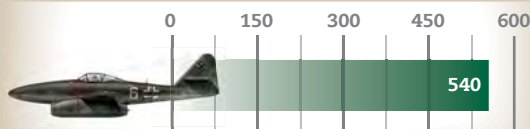
Headed by Dr Waldemar Voigt and Messerschmitt's chief of development Robert Lusser, plans for the Me 262 began to take shape

Messerschmitt Me 262

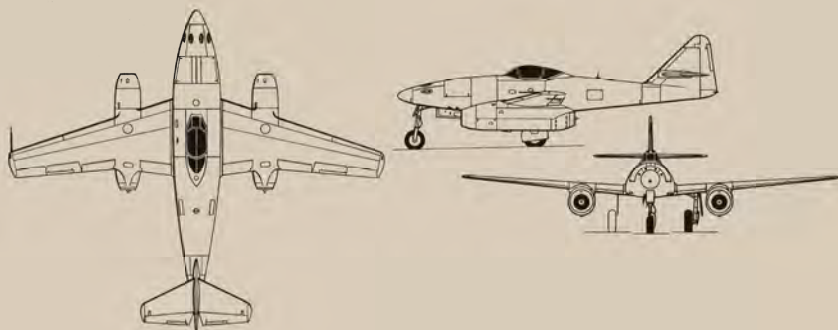
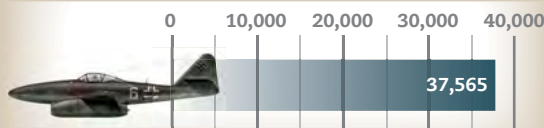
AT A GLANCE: RANGE (miles)



AT A GLANCE: SPEED (mph)



AT A GLANCE: CEILING (feet)



- Construction:** A total of 1,433 of all variants were built.
- First Flight:** The first purely turbojet-powered example flew on July 18, 1942, after the piston-engined V1 flew on April 18, 1941.
- Powerplant:** Two 1,980lb/st (8.9kN) Junkers Jumo 004B-1, -2 or -3 turbojets.
- Dimension:** Span 40ft 11in (12.48m). Length 34ft 9in. Height 12ft 7in. Wing area 234sq ft (21.7sq m).
- Weight:** Empty 9,742lb (4,419kg). Loaded 14,100lb.
- Performance:** Max speed 540mph (869km/h) at 19,685ft (6,000m). Service ceiling 37,565ft. Initial climb 3,937ft per min. Typical range 526 to 652 miles (846 to 1,049km).
- Armament:** Four 30mm cannon in nose. A-2a could also accommodate a 500kg bomb load. Other versions added another pair of 20mm cannon, while A-1b could carry up to 24 rockets.
- Crew:** One or two, depending on type.

Note: performance and weights varied according to role and configuration.



in mid-1939. Funding was in short supply, as Luftwaffe officials were convinced that conventional aircraft were all that was required to win the war.

A first prototype nevertheless flew on April 18, 1941 – though at this point it was fitted only with a nose-mounted Jumo 210 piston engine, the idea being to test the airframe. A second prototype, the V2, flew with a combination of two underwing BMW-made jets and the piston unit. It was the third example, coded PC+UC, that first flew with just

jets, on July 18, 1942 – almost nine months ahead of the first Meteor. It was not until the arrival of the fifth aircraft – V5 PC+UE – that the Me 262 adopted its retractable tricycle undercarriage configuration.

Test flights continued, but teething troubles with the new engines persisted. It was decided that the Junkers Jumo 004 was marginally more reliable than its BMW equivalent, but a shortage of materials meant there was never a good supply of the units.

What was not in question was

the aircraft's remarkable speed, and its potential as a combat machine, which pilots proved beyond doubt from July 1944 when the Me 262 made its first 'kill'.

Stormbird

With many adapted as fighter-bombers (nicknamed Sturmvogel; Stormbird) and others employed as both day- and night-fighters, the Me 262 had an immediate impact. When pilots had ironed out flaws in tactics, and had the advantage of surprise, they could tear massive holes in bomber formations and simply could not be caught by Allied fighters.

They were, however, vulnerable when returning to their landing strips. The jets required a relatively long and slow approach, making them easy targets for marauding NA Mustangs and Hawker Tempests, among others. Sheer weight of Allied numbers, plus a hopeless dearth of parts, fuel, trained personnel and serviceable aircraft put an end to any hope that the Me 262 might turn the tide of war. When the conflict ended, so too did the Stormbird's brief military career – although a handful of Czech-built examples flew on until around 1951. ●

Left
Retaining the tailwheel configuration of the Me 262 V1 prototype, V2 PC+UB was the first version to be fitted with turbojets.



Spotlight

Messerschmitt Me 262

Galland's 'Renegades'

Robert Forsyth describes how the discredited Adolf Galland gathered an elite group of pilots to defend the Reich with the incredible Me 262

Above
Major Rudolf Sinner, Gruppenkommandeur of III/JG 7, taking off from Brandenburg-Briest.

Right
Uffz Johann-Karl Müller made the relatively rare transition from ground-attack Fw 190s to the Me 262 with JV 44.

A deadly new phenomenon entered the air war over northwest Europe in October 1944. Considered by the Allies to be largely outnumbered and out-gunned, the Luftwaffe suddenly hit back against the strategic daylight bomber offensive targeting the cities and factories of the Reich. The sharp shock came in the shape of Professor Willy Messerschmitt's impressive new state-of-the-art fighter, with swept-back wings and a power source that could out-perform anything in the Allied inventory – the jet engine.

The Messerschmitt Me 262 had first taken to the air using pure jet power in July 1942 and suffered a delayed gestation, largely attributable to setbacks with engine development and supply. On April 17, 1943, Hauptmann Wolfgang Späte, a 72-victory Knight's Cross-holder, flew the second prototype, becoming the first Luftwaffe pilot to do so.

Späte reported to his commander, Generalmajor Adolf Galland, that: "The climbing speed of the Me 262 surpasses that of the Bf 109G by 5 to 6 metres per second. The superior horizontal and climbing speeds will enable the aircraft to operate successfully against numerically superior enemy fighters.

"The extremely heavy armament permits attacks on bombers at high approach speeds with destructive results despite the short time the aircraft is in the firing position." In the standard Me 262A-1a fighter configuration, it was to be armed with four formidable 30mm MK 108 cannon mounted in the nose.

This was music to Galland's ears. On May 22, he flew one and made his famous report to Hermann Göring, Luftwaffe Commander-in-Chief, in which he enthused: "It felt as if angels were pushing!"

Galland became a firm advocate for the further development of the jet, recognising the advantages the Me 262 could offer. He wrote to his superiors that all measures should be taken to ensure swift and large-scale production: "It represents a great step forward and could be our greatest chance; it could guarantee us an unimaginable lead over the enemy if he adheres to the piston engine."

The Me 262 first went into action with an interceptor unit used to trial new equipment, Erprobungskommando 262 Kommando Nowotny, the latter named after its first commanding officer, Major Walter Nowotny. Results were far from spectacular; in the first half of October 1944,



no fewer than ten jets were either destroyed or damaged due to take-off or landing accidents.

With its effortless speed, short endurance and rapid descent, Kommando Nowotny's pilots, most of them drawn from conventional single-engined fighter units, found the Me 262 difficult to handle. The isolated successes did little to reverse a growing scepticism, and Adolf Hitler was agitating for the jet to operate as a high-speed bomber rather than in its planned role of interceptor.

Squadron of aces

Early in 1945 Galland got his opportunity to prove the Me 262 in combat personally. Desperate to retain favour with Hitler in the face

SPOT FACT Towards the end of the war, many Me 262s were grounded by lack of fuel

Men Behind the Me 262



“It represents a great step forward and could be our greatest chance; it could guarantee us an unimaginable lead over the enemy if he adheres to the piston engine”

of a faltering air war against the Allies, the megalomaniacal Göring sacked Galland as commanding general of the fighter arm and gave him leave to set up a new unit equipped with jets. Jagdverband 44 (JV 44) was established at Brandenburg-Briest, to the west of Berlin, in March 1945.

The JV 44 unit has long been a source of fascination. It largely became famous due to its commander's decision to call in several fellow Luftwaffe 'aces' to fly alongside him and to fight against drastic odds.

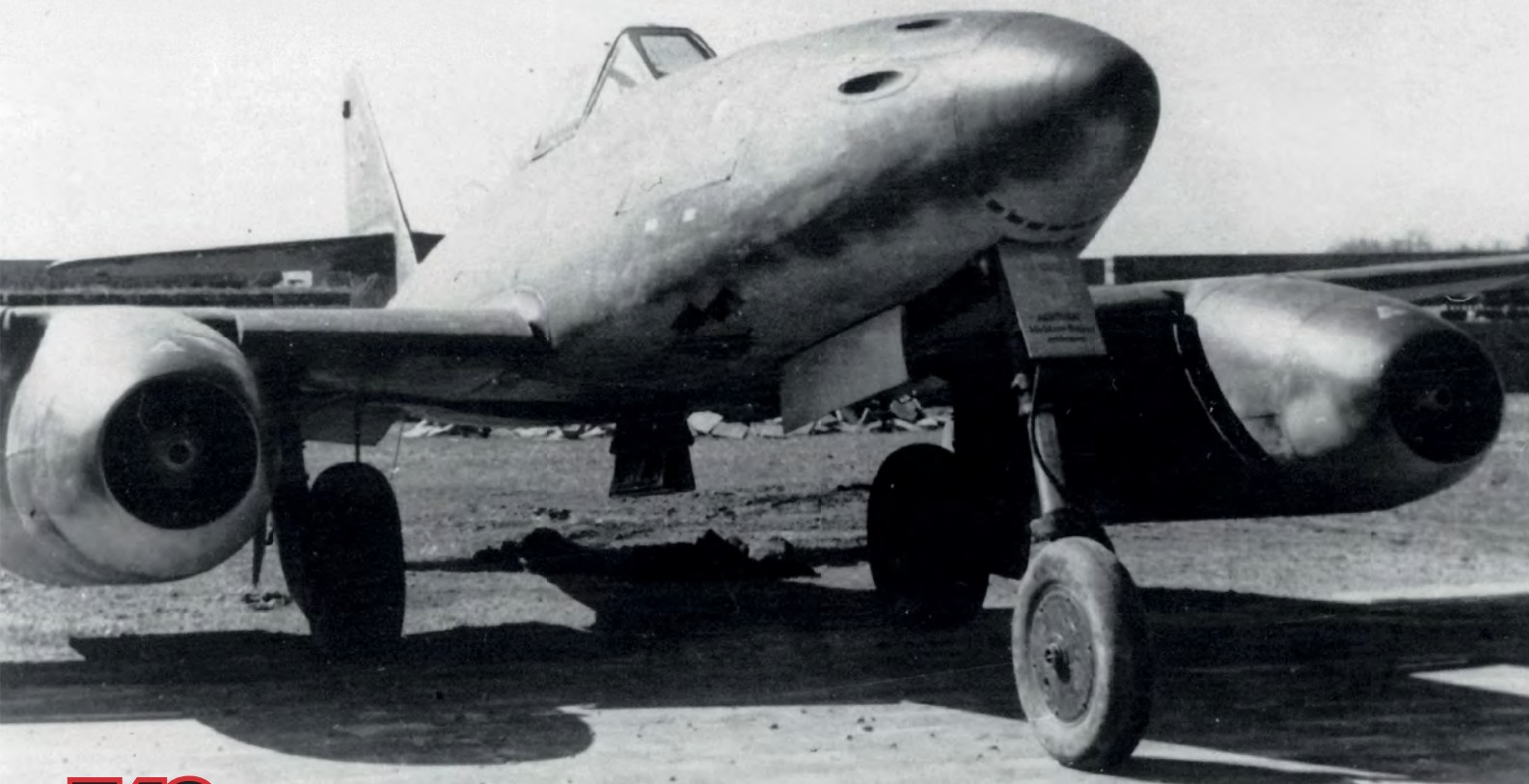
It is true that 17 Knight's Cross-holders were assigned to the unit at one time or another during its short existence, most of whom had enjoyed illustrious military careers and impressive victory records. However, by early 1945 several of them were exhausted from continuous operations on the Eastern or Western Fronts, or from flying in defence of the Reich.

Despite being assigned to JV 44, a number of them elected not to fly the Me 262 regularly, let alone in combat. They found the interceptor an alien machine to master under such pressing circumstances.

In reality, the 'backbone' of Galland's unit comprised a small group of junior officer and NCO pilots. Most were either skilled instructors or from other branches of the Luftwaffe, such as the ground-attack arm, who had suffered wounds and had been passed as

Left
Adolf Galland (left) at Munich-Riem in April 1945 with Oberst Günther Lützow.

Below
Me 262A-1a 111745 'White 5' of JV 44 at Munich-Riem between March and May 1945.





Above
Oberst Johannes Steinhoff at JV 44's Munich-Riem base with Leutnant Gottfried Fährmann, in sunglasses, to right.

Right
Former instructor pilot Oberfeldwebel Rudolf Nielinger at Munich-Riem in the typical late-war flying garb worn by many of JV 44's pilots.

recovered at just the moment JV 44 was formed.

Right-hand man

Galland selected 32-year-old Oberst Johannes 'Macky' Steinhoff to serve as his right-hand man on JV 44. By 1938 Steinhoff had been given his first command, as Staffelkapitän of the hastily organised 10(Nacht)/JG 26, a night-fighter unit equipped with the Bf 109C. (See the panel for more on the units and ranks mentioned.)

In December 1939, having converted back to the day-fighter role, the unit engaged in the well-publicised attack on RAF Wellingtons despatched to bomb warships at Wilhelmshaven. Steinhoff shot down one bomber in what became one of the earliest organised interceptions of a daylight raid.

Steinhoff led 4/JG 52 during the fighting over the English Channel in 1940. His style of command was known to be fair-minded and professional, and he expected the same of his men. For that reason, he wasted little time in evicting from his Staffel a young Fähnrich (cadet) by the name of Hans-Joachim Marseille whose somewhat overly casual demeanour he was unable to tolerate.

Awarded the Knight's Cross for his 35th victory, scored in Russia on August 30, 1941, Steinhoff was appointed Kommandeur of II/JG 52 on February 28, 1942. By August 31 he had chalked up 100 'kills' and received the Oak Leaves decoration to the Knight's Cross two days later. His 150th victory came on February 2,



1943 and the following month he was transferred from the Eastern Front to Tunisia where he assumed command of JG 77.

Leading JG 77 from Africa to Sicily and Italy, for the first time Steinhoff engaged American heavy bombers and their escorts, further adding to his personal score. In late July 1944, he was awarded the Swords to his Knight's Cross to recognise his 167th victory.

In November 1944, Steinhoff was suddenly relieved of his command and recalled to the Reich, where he was assigned to command the recently formed JG 7, equipped with the Me 262.

Rumours had begun to circulate within Göring's staff that a small clique of senior fighter officers, loyal to Galland, had expressed their growing dissatisfaction at the Reichsmarschall's leadership. Göring took swift action, recalling some of the 'culprits' home.

After barely five weeks in the post, Steinhoff was relieved of his command on the grounds of 'inactivity'. He recalled: "It was in a mood of wretched depression that I collected together the last of my things the morning after my 'dismissal'... What bothered me was the idea that, with the war sliding hopelessly towards catastrophe, I could not fly any more, could not lead my group any more... An officer without a command, I was virtually non-existent. It was as if I had been killed in action."



Eastern Front ace

So it was that JV 44 came as salvation – of a kind – to Steinhoff, as it also did for Hptm Walter Krupinski. He had flown over 1,100 operational missions during which he had been credited with 197 confirmed victories, been wounded five times, baled out on four occasions and undergone numerous crash-landings.

'Graf' Krupinski assumed his first operational posting with 6/JG 52 in the autumn of 1940 and began what was to become a long and highly successful association with that Geschwader. He became one of the Jagdwaffe's most successful aces on the Eastern Front where he scored his first kill late in 1941 against a Soviet Ilyushin DB-3 bomber south of Leningrad.

Wounded in action and hospitalised, Krupinski spent a brief time as a fighter instructor in France. Returning to Russia, his rapidly increasing score saw the award of the Knight's Cross on October 29, by which time he had accounted for virtually every type of Russian frontline aircraft. On one day in July 1943 he scored eleven victories, going on to achieve his 150th kill by mid-October.

Krupinski left JG 52 in March 1944 bound for the homeland to take up command of I/JG 5. After accounting for a B-17 Fortress, two P-51 Mustangs and a P-47 Thunderbolt, and having been awarded the Oak Leaves to the Knight's Cross, he was transferred again, this time as Gruppenkommandeur of II/JG 11.

With the Allied invasion of June 1944, the Gruppe was one of those rushed to Normandy where it operated from makeshift strips, undertaking low-level missions against the advancing Allied armies. Krupinski went on to claim another ten Allied fighters destroyed, including three P-51s before his Bf 109 exploded in mid-air. Miraculously, he survived but was once again hospitalised.

After recovering from his wounds Krupinski was transferred in October 1944 to Oberstleutnant Josef Priller's JG 26, taking command of the Bf 109-equipped III Gruppe at Plantlünne. It was a challenging position made worse by a long autumn of attrition, with the whole of JG 26 deployed along the German-Dutch border pitted against Spitfires and Typhoons of the RAF's 2nd Tactical Air Force.

Although Krupinski's III/JG 26 was eventually re-equipped with the much-vaunted Focke-Wulf Fw 190D-9 it was unexpectedly disbanded on March 25, 1945; Krupinski had effectively been made redundant.

With no prospect of a satisfactory posting, it seemed likely that he would sit out the remaining weeks of the war in a fighter pilots' rest home in Bavaria.

He had been there for less than a week when he received two surprise visitors who made him an offer he could not refuse. Krupinski: "It would have been the night of April 1, 1945. Steinhoff and Galland turned up completely unexpectedly. I'd heard about this unit Galland had formed. Steinhoff asked me if I wanted to fly the Me 262. I was astonished, but immediately said 'Yes!'"

Lethal exponent

In late March 1945 another veteran fighter pilot joined JV 44, apparently because of disciplinary issues. Fähnjenjunker (senior officer candidate) Oberfeldwebel Klaus Neumann had begun his operational career with 2/JG 51 in Russia in May 1943.

Having been credited with 12 victories, in late June 1944 his Staffel returned to Germany where it was re-designated as part of IV(Sturm)/JG 3, a specialist anti-bomber unit. Neumann proved to be a lethal exponent in the art of the destruction of four-engined bombers.

On November 25, 1944 Neumann was awarded the Knight's Cross in recognition of his shooting down 19 American bombers; it was presented

to him by Hitler on December 9. The following month the young ace was transferred to a staff position with JG 7, but he clashed with Major Theodor Weissenberger, the unit's recently appointed Kommodore.

Neumann recalled: "Weissenberger had just taken over from Steinhoff. But I got into trouble with him; it was for personal reasons. Shortly afterwards Steinhoff and then Galland approached me and asked me if I wanted to join their new jet unit. I could see no problem with that – so I went along and just got on with the job."

Pure chaos

Alongside such highly-decorated officers came the NCOs, all equally experienced men. In late November 1944, former night-flying instructor Unteroffizier Eduard Schallmoser began preparatory training for the Me 262A-1a standard fighter. With 'faultless' take-off and landing skills, good flying capability, confidence and reasonable gunnery, Schallmoser's previous commanding officer at 12/EJG 1 had recommended him for jet fighter training.

Getting ready for the Me 262 involved 4½ hours on the twin-engined Siebel Si 204 and Bf 110, with a further six hours on a Bücker Bü 181 Bestmann for gunnery and target skills. On January 10, 1945, Schallmoser undertook final ➔

Left
Hauptmann Walter Krupinski found the transition to the Me 262 fairly easy.

Below
The Me 262A-1a of JG 7's Geschwaderkommodore, Major Theodor Weissenberger, in February 1945.

Luftwaffe Unit Structure

Staffel: (Plural - Staffeln) Smallest combat flying unit, normally of nine aircraft. Denoted using Arabic numerals, thus 4/JG 52 would be the 4th Staffel of Jagdgeschwader 52. RAF equivalent would be a squadron.

Gruppe: (Plural - Gruppen) Comprising three or four Staffeln plus a Stab, headquarters or staff, flight. Denoted using Roman numerals, thus II/JG 52 would be the 2nd Gruppen of Jagdgeschwader 52. RAF equivalent would be a Group.

Geschwader: (Plural is also Geschwader) Comprising three or four Gruppen plus a Stab, headquarters, or staff, flight. RAF equivalent would be a Wing.

Types of Geschwader mentioned in this issue: JG - Jagdgeschwader, fighter wing; EJG - Ergänzungs Jagdgeschwader, replenishment fighter wing; SG - Schlachtgeschwader, ground-attack wing; SKG - Schnellkampfgeschwader fast bomber wing.



SPOT FACT Small numbers were fitted with rocket packs, which could be used to devastating effect

Below
Feldwebel Josef 'Jupp' Dobnig, one of the core of former fighter instructors who flew with JV 44.

conversion to the 262 with 10/EJG 2. As with his earlier training, his instructor was very satisfied with his abilities and upon the successful completion, Schallmoser received his posting to JV 44 on March 2.

From JG 103, based on the Baltic coast, came 26-year-old instructor Obfw Josef 'Jupp' Dobnig. He had flown a total of 141 missions in Bf 109s in Russia with II/JG 51, and later in Fw 190s with JG 26 in France, and was credited with nine victories. Posted to JG 103 in the east in early 1944, the Russian advance later that year forced the Geschwader to make a transfer west, to Wesendorf, where

Dobnig managed to land in thick cloud on his last drops of fuel and his red fuel warning lamp blinking ominously. He recalled: "It was pure chaos, female Luftwaffe

auxiliaries, Hungarian pilots, German pilots, Hitler Youth all crowded in..."

The order for Dobnig to report to JV 44 had come suddenly and very unexpectedly in early March and it had saved him from training on the Panzerfaust anti-tank weapon which the instructors and student pilots at JG 103 were expected to use as hurriedly trained 'infantry' against the anticipated Soviet armour. Dobnig: "At first I was speechless, because this was Galland's elite unit.

We'd heard that the Knight's Cross was virtually a part of their uniform. And now, I, a simple soldier, was to join it? But it was a much better prospect than fighting enemy tanks."

Boarding a train, Dobnig journeyed to Brandenburg-Briest where he

discovered he was among the very first NCO pilots to report for operations with Galland's unit.

Anzio veteran

Also arriving from JG 103 was Obfw Rudolf Nielinger, who had served with II/JG 51 over France and the Eastern Front in 1941. He had accumulated his first nine victories flying Bf 109s in a series of almost non-stop patrols in support of the Army Group Centre's drive on Moscow.

Having survived 280 missions over Russia, in early November 1942 Nielinger was transferred along with the rest of II/JG 51 to Tunisia as reinforcement intended to engage Allied fighters covering the landings in French Morocco and Algeria. He scored his first victory in Tunisia when he shot down a Bristol Beaufort northwest of Bizerte only three days after arriving.

Nielinger later found himself pitted against British bombers escorted by Spitfires as the Eighth Army pushed against the Mareth Line. On April 20 II/JG 51 fled for Sicily and in May it moved again, this time to Sardinia, where he scored his 20th and final victory, over a P-40 Warhawk, before leaving the island in September for a brief sojourn in the Reich.

In January 1944, he re-joined his Gruppe in Italy where it was flying ground-attack escort missions over the Anzio beachhead, but at the end of that month he was taken seriously

Orders of the Day



A stellar group of JV 44 pilots assembled to receive the orders of the day from Oberst Günther Lützow (110 victories) and Oberst Johannes Steinhoff (176 victories) at the unit's dispersal area at Munich-Riem in early April 1945.

Identifiable from left to right: Major Erich Hohagen (55 victories), Hptm Walter Krupinski (197 victories), Oberst Günther Lützow (standing in leather overcoat), Oberst Johannes Steinhoff (seated centre), Lt Blomert (leaning against hut), Uffz Eduard Schallmoser (standing, wearing a forage cap), Obfw Klaus Neumann (37 victories, seated on arm of chair wearing forage cap), Oblt Klaus Faber (of the Fw 190D-9-equipped airfield defence flight, standing wearing officer's cap), unidentified. Note the field telephone and flare pistols on the table.





ill, probably as a result of his service in Africa. Following a period of recuperation, Nielinger was assigned as an instructor with JG 103 training desperately needed fighter pilots using an assortment of ageing Bf 109Es as well as Fw 190s.

By early 1945 the majority of fighter schools were being disbanded and thus the need for instructors such as Nielinger, Dobnig and Schallmoser had diminished considerably. Trained to instruct blind flying techniques, these men were ideal for JV 44's needs.

Nielinger received orders to report to Galland and he arrived at Brandenburg-Briest in an Fw 190 on March 11, 1945. He was somewhat startled to find that he was to go operational on the Me 262!

Stuka escort

Uffz Johann-Karl 'Jonny' Müller was an experienced ground-attack flier. He had been hospitalised from mid-October 1944 until late January 1945 because of wounds incurred on fighter-bomber missions on the Eastern Front with II/SG 10.

Müller had joined this unit in Normandy shortly after its formation as IV/SKG 10 in April 1943 and taken part in low-level 'nuisance' raids along the south-eastern coast of England. Whilst engaged in these, Müller crash-landed his Fw 190 on at least two occasions in France, but was able to walk away unharmed.

Later, in 1943, Müller saw action over Sicily and Italy until October of that year, when IV/SKG 10 was re-designated II/SG 10. By that December, the Gruppe had transferred to southern Russia.

In the autumn of 1944 Müller was flying escort missions for Junkers Ju 87 'Stuka' units repulsing the Soviet advance through Hungary. Having been wounded, he found himself ordered to report to JV 44 in early March 1945.



One-armed ace

Established towards the end of 1944, the Luftwaffe's other main Me 262 fighter unit was JG 7. By definition, much larger than Galland's 'Verband', JG 7 comprised – on paper, at least – three Gruppen. After Steinhoff's brief tenure of command, leadership of JG 7 passed to Theodor Weissenberger, a recipient of the Knight's Cross with Oak Leaves and formerly with JG 5, he led the Geschwader to the end.

From March 1945 JG 7's limited numbers of Me 262s were engaged in intense air battles against Allied heavy bombers over northern Germany, defending the 'air gateway' to Berlin. Its pilots were drawn from conventional Luftwaffe fighter units, as well as a small cadre of former bomber pilots whose units had been disbanded or reduced in strength.

As with JV 44, it comprised former aces such as Leutnant Rudolf Rademacher, a JG 54 veteran who had scored 90 victories flying under Nowotny in Russia before serving as a fighter instructor. Rademacher had been seriously wounded while flying an Fw 190 against American heavy bombers on September 18, 1944.

For his 81 victories, he was awarded the Knight's Cross on the 30th. Recovered from his wounds, he joined 11/JG 7 on January 30, 1945.

Personal injury did not deter Lt Viktor Petermann. Joining JG 52 in June 1942 on the Eastern Front, in just under a year he had accumulated 40 victories. He flew as wingman to the aces Herbert Ihlefeld and Gordon Gollob.

Having rammed a Soviet Polikarpov I-153 biplane, Petermann successfully brought his Bf 109 back to base over a distance of 62 miles. He also destroyed at least one enemy gunboat and on one occasion was forced down behind Russian lines where he evaded capture and survived exposure,



Left to right
The tenacious, one-armed Leutnant Viktor Petermann.

Leutnant Rudolf Rademacher joined 11/JG 7 with 81 victories scored over the Eastern Front.

Oberfeldwebel Hermann Buchner proved himself a potent jet fighter pilot scoring several victories in the aircraft while with JG 7. ALL VIA AUTHOR

dehydration and exhaustion to fight another day.

Even more remarkable were the events of October 1, 1943. While returning from escorting German bombers, his Bf 109 took a direct hit from German flak in a 'friendly fire' incident. Suffering severe wounds to his left arm and foot and with his engine on fire, he decided to bale out of his stricken Messerschmitt. Discovering his parachute had been damaged; he belly-landed his aircraft between German and Soviet lines and was rescued by German troops.

The price of survival was the amputation of his left arm and one of his toes. His determination, valour and 60 victories were recognised with the award of the Knight's Cross while he was still in hospital on February 29, 1944.

Petermann was posted to the Air Ministry, but eventually managed to persuade those in the corridors of power to allow him to return to operational flying, with an artificial arm. Initially posted to III/JG 52, he flew a Bf 109 in September 1944, before joining 10/JG 52, scoring another four victories in March 1945. He was subsequently posted to JG 7.

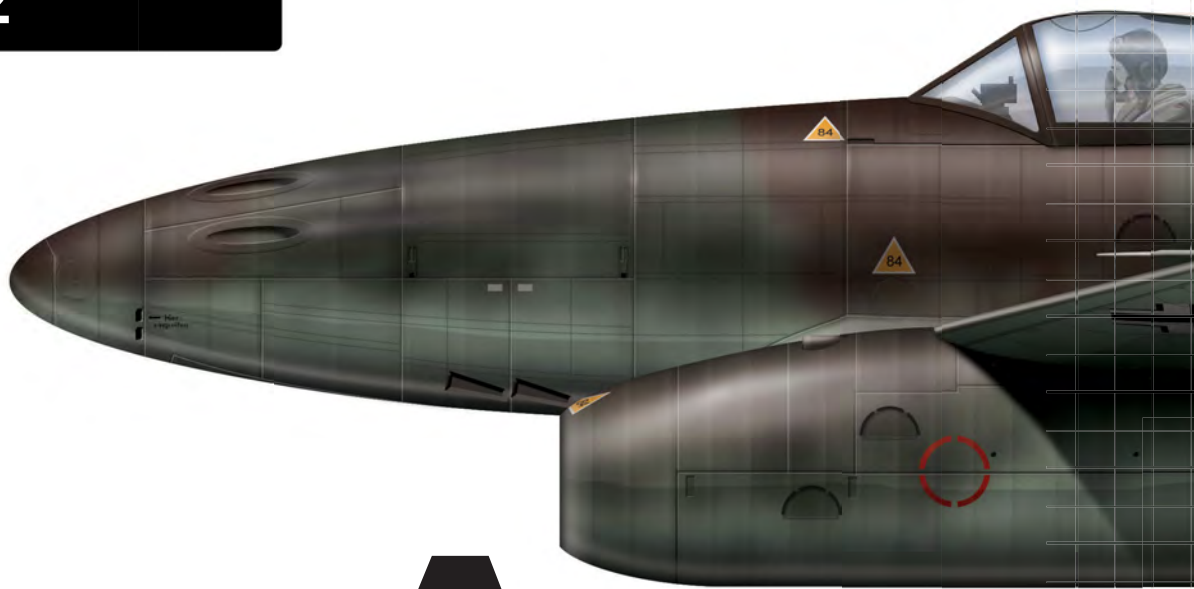
As with JV 44's Johann-Karl Müller, at least one eminent ground-attack pilot served with JG 7. Obfw Hermann Buchner had flown with 6/SG 2 on the Eastern Front, where he had destroyed no fewer than 46 enemy tanks and been awarded the Knight's Cross in July 1944. He joined 9/JG 7 in early December and made the relatively rare transition to jet fighters.

From varied backgrounds and experiences, pilots had been gathered to protect the Reich using the world's most formidable fighter. They faced a desperate last stand, flying on until the end of the war, at which point JG 7 was permanently disbanded. ●



Spotlight

Messerschmitt Me 262



A Chariot for Aces

Artwork
Messerschmitt Me 262 'White 6' of JV 44, flown by Oberst Johannes Steinhoff, München-Riem, Germany, April 1945. ANDY HAY-2016

Andy Hay artwork of an Me 262 flown by a Luftwaffe ace

Messerschmitt's innovative Me 262 was not the easiest fighter to fly. Inexperienced pilots were frequently taken aback by its handling and power, but in the hands of seasoned 'experten' (aces), the jet was one of the most potent machines of World War Two.

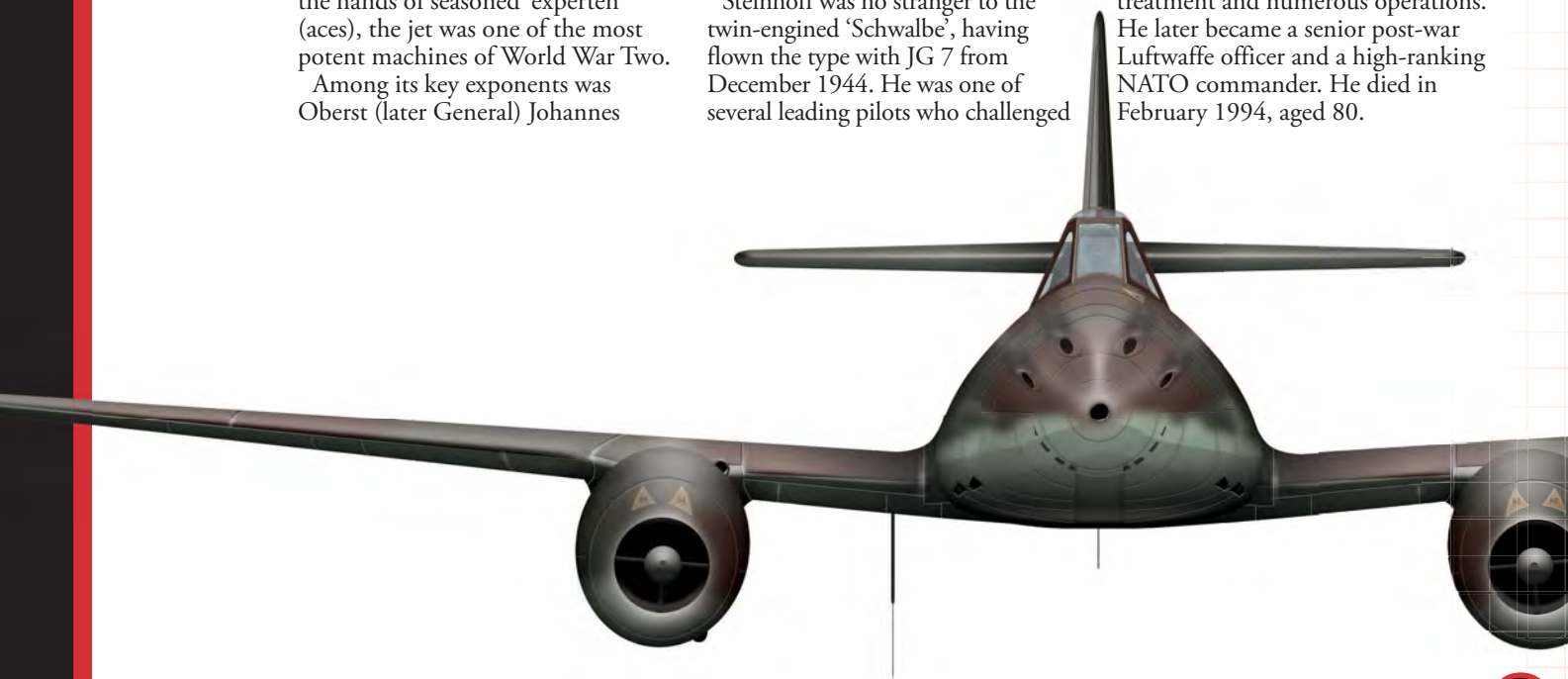
Among its key exponents was Oberst (later General) Johannes

'Macky' Steinhoff. Sensing the need to match the best German technology with the best German fighter pilots, fighter leader Adolf Galland selected Steinhoff to join the newly formed Jagdverband 44 (JV 44) in March 1945. Equipped with the Me 262, it was a special fighter unit comprising the top Luftwaffe aces, and a desperate bid to repel ever more powerful Allied raids.

Steinhoff was no stranger to the twin-engined 'Schwalbe', having flown the type with JG 7 from December 1944. He was one of several leading pilots who challenged

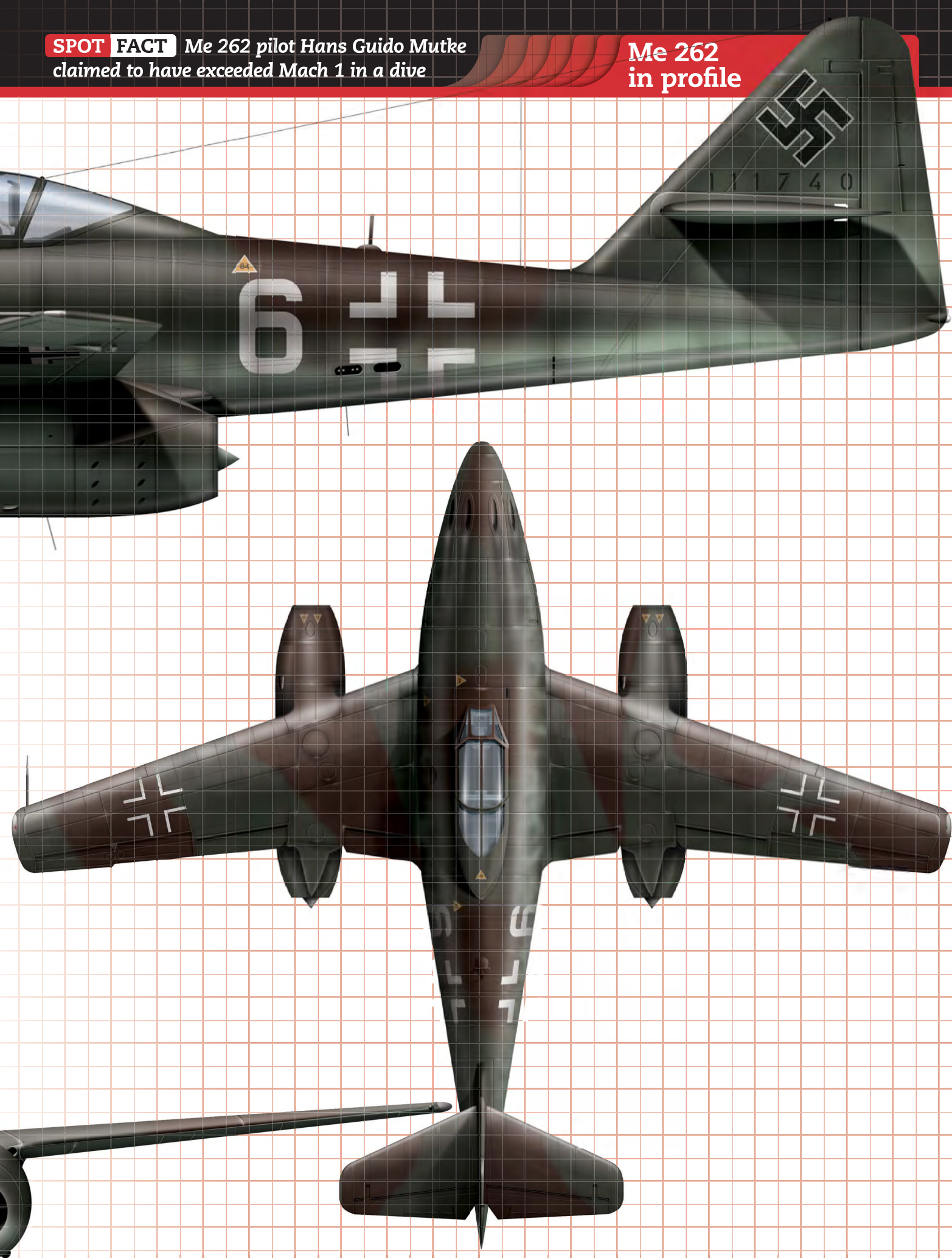
Hermann Göring's competence in the so-called Fighter Pilots' Revolt, and was briefly relieved of his command before being recalled by Galland.

With a total of 176 victories to his name, Steinhoff's career as a fighter pilot ended in a horrific accident at München-Riem on April 18, 1945, when his Me 262 crashed after take-off. Steinhoff suffered severe burns, and required years of hospital treatment and numerous operations. He later became a senior post-war Luftwaffe officer and a high-ranking NATO commander. He died in February 1994, aged 80.



SPOT FACT Me 262 pilot Hans Guido Mutke claimed to have exceeded Mach 1 in a dive

Me 262
in profile



single-seat Czech-built versions and three two-seaters were flown after the war



Spotlight

Messerschmitt Me 262

Too litt



In the final months of the war, Messerschmitt Me 262s proved they could devastate bomber streams.

Robert Forsyth describes the Luftwaffe's rear-guard action



“I was sitting in the cockpit of an Me 262. I had a hell of a bad head from too many drinks the night before. Steinhoff was standing on the port wing. He said: ‘The most difficult thing with this type of aircraft is to start the engines – I’ll do that for you.’

“There was no reading any

manuals or anything like that. There was no training programme. He just gave me some basic information – enough to get started. Actually, I found that taking off in the Me 262 was fairly easy because the nosewheel rolled nice and smoothly, but the problem was the engines didn’t accelerate fast enough. You needed the whole length of the airfield



le, too late

before you reached an adequate take-off speed.

"I prepared myself; I closed the canopy, threw a quick glance over the instrument panel – brakes off – and slowly, like a lame duck, the bird began to roll. But then the end of the runway, as I predicted, came towards me very quickly.

"A glance at the speed indicator told me I was moving at 200km/h. Pulling gently at the stick, I got into the air.

"No drag and she climbed swiftly. Landing gear up. Throttle lightly back to 8,000rpm. I climbed and the speed grew and grew 350, 400, 500, 600km/h. There seemed no end to its speed. Still I climbed, it was fantastic! I levelled out, my speed slowly approaching 900km/h."

Hardly had Hauptmann Walter Krupinski departed a pilots' rest home, than he found himself in the cockpit of an Me 262 twin-jet fighter for the first time.

His experiences of that debut, on April 2, 1945, are related above. By that stage Generalmajor Adolf Galland's special unit of interceptor Me 262s, Jagdverband 44 (JV 44) was operational at Munich's Riem airfield. (See the panel on page 75 for details of the units mentioned.)

The unit's 'training programme' – such as it was – saw tuition flights often doubled up as patrols with fully armed aircraft. Pilots were briefed to shoot down any enemy they might encounter.

Oberfeldwebel Josef 'Jupp' Josef Dobnig remembered his initial sorties, which were also supervised by Oberst Johannes 'Macky'

Steinhoff: "Within a few days after leaving JG 103 at Wesendorf, I was with JV 44 and receiving my training on the Me 262, which, aeronautically, was a completely new challenge. At first I was given a single familiarisation flight in a two-seat aircraft. But for a really good grounding on the type, there was neither time nor sufficient fuel."

Steinhoff oversaw Dobnig's training directly, accompanying him on four flights in a Siebel Si 204 piston-engined twin to familiarise him in multi-engine techniques. Blind-flying training was given by closing curtains over the Siebel's cockpit panels.

Legendary bird

The first Me 262s had arrived at JV 44 by March 14, 1945. Major Erich Hohagen, an experienced fighter pilot with 55 victories, and a holder of the Knight's Cross, recalled: "I had only received one week's training on the Me 262 at Lechfeld, as far as I remember, but I was very proud and honoured to fly it since I was still suffering from a head fracture that had occurred one month before. It was the absolute fulfilment of my flying career..."

"It was the biggest step since the Wright brothers flew... Basically there was no similarity in flight characteristics compared to other aircraft I had flown and though it was easier to handle on the piloting part, things were much more critical on the flight safety side of things. For example, the engines could have been improved and better fatigue resistance built in."

Feldwebel Franz Steiner had joined JV 44 from JG 11, before which he

had flown with JG 27 in the Balkans and North Africa. He remembered: "I was selected by Galland in person after a short conversation with him. Exactly what criteria I had to make him want to hang on to me and send others away, I don't know.

"For me, the most important thing was to fly the 'legendary bird'. Conversion on to the Me 262 at Brandenburg-Briest didn't give me any problems. Steinhoff just gave me a few prior instructions and then told me to take off on my first flight.

"Flying the Me 262 was the high point in my flying career. Whenever you first got off the ground and had attained height and speed, you couldn't help but feel a sense of absolute elation and wonderment.

"In my view, the only weak point was the engines. Engine failure during take-off, which unfortunately was all too common, almost always meant certain death for a pilot."

Speed and firepower

Austrian Major Rudolf Sinner had led 6/JG 27 over North Africa and the Mediterranean, before being appointed Kommandeur of IV/JG 27 in the Balkans in June 1943. Later, he led III/JG 54 and was wounded in the thigh, flying against B-17 Fortresses over Berlin on March 6, 1944. He returned to JG 27, commanding I Gruppe until the end of July 1944 when he took over II/JG 7. Jagdgeschwader 7 had been established in late 1944 in the interceptor role, the same task as Galland's JV 44.

Sinner recalled: "With the advantages of the increased speed and firepower of the Me 262, it was now possible to catch aerial targets ➡

Far left
Günther Wegmann,
commander of 11/JG 7.

Left
A member of the ground
crew closing the canopy on
Me 262A-1a 111892,
of III/JG 7 at Brandenburg-
Briest in the early
spring of 1945.

Below
Jets of JV 44 parked on
the concrete taxiway at
Riem.



SPOT FACT The type was already under development as Projekt 1065 before the start of World War Two

Right
Distinctively finished Me 262A-1a 'Green 3' of the Geschwader Staff Flight of JG 7. It has been fitted with a pair of 21cm WGr 21 air-to-air mortar tubes beneath the fuselage aft of the nosewheel, a relatively rare installation.

Below
Three of JV 44's Me 262s at Munich-Riem in March or April 1945. The pilot on the right is Uffz Eduard Schallmoser.

— especially photo-reconnaissance aircraft — which, due to their superior performance compared to our piston-engine fighters, could previously not have been taken on.”

He also noted the jet's disadvantages: “Flight duration was shorter and more dependent on altitude than a piston fighter. It was defenceless during take-off and landing, the powerplants were more likely to suffer disturbance and had a shorter life than piston engines. Also, the demands upon airfield size, ground support, engineering, flight safety and tactical management were greater and not adequately attended to.”

Leutnant Friedrich Wilhelm ‘Timo’ Schenk joined JG 7 from his post as Staffelführer of 2/JG 300 on March 15, 1945. He recalled: “I had about a week to come to terms with the technology of the Me 262. Then I made three training flights in one day. As there were no two-seaters available, these were made solo, the only assistance being my radio. My fourth take off in the ‘thing’ the next day was my first combat sortie. The conversion training of the others was at about the same pace.”

Devastating barrage

Supplementing the Me 262's formidable nose-mounted quartet of 30mm MK 108 cannon were 24 unguided 55mm R4M rockets. Held in underwing racks, 12 on each side, the rockets could destroy a B-17 or a B-24 Liberator in one hit from beyond the range of the defensive guns of the bombers.

A whole staffel equipped with R4Ms would be capable of launching a devastating barrage. Those bombers



not brought down would be scattered and, once isolated, were vulnerable to conventional Luftwaffe fighters.

It was JG 7 that first deployed R4Ms, on March 18, 1945 and the action of that day typifies the intensity of the geschwader's operations. Escorted by a force of 426 fighters, nearly 1,200 USAAF heavy bombers attacked railways and armament factories in the Berlin area.

Jets of 9/JG 7 intercepted the bombers over Rathenow, to the west of Berlin, and 144 rockets were fired into the American formation from distances of between 1,300 and 2,000ft (400-600m). Pilots reported astonishing amounts of debris and aluminium fragments — pieces of wings, engines and cockpits flying through the air from aircraft hit by the missiles.

Oberfähnrich Walter Windisch, who had joined the Luftwaffe in 1943 and had two victories to his credit by the time he joined JG 7, was one of

the first pilots of the geschwader to experience the effect of the R4M. He remembered: “Flying the Me 262 was like a kind of ‘life insurance’, but I was on that first sortie on March 18 during which R4M rockets were used and I experienced something beyond my conception. The destructive effect against the targets was immense. It almost gave me a feeling of being invincible.” While serving with JG 7, Windisch claimed five four-engined bombers shot down.

Lt Erich Müller claimed two bombers in the same mission, while Ohfr Pfeiffer shot down another. On the down side, Oberleutnant Günther Wegmann was shot down by the return fire from a B-17 he attacked. Severely wounded in the right leg, he attempted to land his badly damaged jet back at his base at Parchim, but his right engine began to burn and he decided to bale out. His leg was eventually amputated. Also lost in this mission, a result of defensive fire from





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the bombers, was Oblt Karl-Heinz Seeler, who had joined JG 7 from 5/JG 302 with whom he had scored seven victories – all four-engined bombers, including four at night.

Göring's bidding

Staffelkapitän of 1/JG 7, Oblt Hans Grünberg led four Me 262s up against the bombers. Behind him came another three, headed by Oblt Stehle, with a third four-aircraft formation led by Oblt Hans-Peter Waldmann, commander of 3/JG 7. Grünberg was wary because of the weather and had expressed his concerns to the fighter control officers at Stade that the cloudbase was way below the minimum for relatively untrained pilots to take-off.

A little later, Stade returned Grünberg's call, informing him that none other than Hermann Göring

had intervened, brushing aside the pilots' fears and ordering them into the air at the risk of receiving the Reichsmarschall's personal 'boor'.

The result was chaos. As Grünberg's element climbed through the cloud to a height of 3,280ft and began to circle, Stehle's echelon quickly followed. When Waldmann's 'schwarm' began its take-off in a tight, wing-tip to wing-tip formation, things soon began to go wrong.

Obfw Gerhard Reiher's jet suffered an engine failure and was left languishing on the ground. The three remaining jets climbed: Lt Hadi Weihs in the centre, flanked by Waldmann to his left and Ofhr Günther Schrey to his right. Moments later, according to Weihs, Waldmann disappeared from view into the cloud and collided with him.

Weihs recalled: "I went into a flat

Lethal Weapon



With the introduction of the 55 mm R4M air-to-air rocket the Me 262 interceptor took on far greater lethality. Launched from underwing racks in batteries of 12 on either wing, the 31in (80cm) R4M was a solid fuel-propelled, multi-fin stabilised missile. The warhead was a high-explosive charge of just over 520g.

spin, scrambled out of the cockpit and onto the wing in order to parachute to the ground." Weihs came down in a field close to the main Hamburg-Berlin railway line. Waldmann had failed to open his parachute and his body was later discovered near Schwarzenbek, some distance from his aircraft.

Meanwhile, Schrey had broken through the clouds only to cross the path of a formation of P-51 Mustangs which turned into him and shot him down. A board of enquiry later concluded that the unfortunate pilot had been fired upon by the enemy fighters while descending by parachute. His body was found near Eggenbüttel.

Point-blank range

Against this incursion I and III Gruppen of JG 7 had deployed 37 Me 262s, of which 13 engaged. Two pilots reported probable victories and there were six Herausschüsse – incidents of bombers being 'cut out' and forced away from their formations. The geschwader suffered the loss of three pilots with another badly wounded. Five jets had to be written off due to severe battle damage and a further two required repair.

Nevertheless, March 18, 1945 was the first real indication of what impact a small, determined force of jet fighters could have upon the enemy – even allowing for poor operating conditions. A USAAF Intelligence later graphically recorded: "The jets launched their strikes from out of contrails [condensation trails] and aggressively pressed home against the last two groups, in one instance to within 50 yards. Several concentrated attacks were made by two or four ➤

Above left
Oberleutnant Hadi Weihs,
Staffelkapitän of 3/JG 7.

Left
Me 262A-1a 111588
'White 5' of 11/JG 7 being
serviced close to what
appears to be a bomb
crater at Brandenburg-
Briest in late January or
early February 1945.

SPOT FACT Changing an engine could take several hours due to poorly made parts and hurried training

jets – others attacked singly.

“Jets made skilful use of superior speed, and though escort fighters engaged, only one jet was claimed damaged. Some 12 to 15 Me 262s made strong attacks on the 3rd Division from west of Salzwedel to Berlin; attacks, though not continuous, were skilful and aggressive, contrail being used to good effect; six bombers were lost.

“Initial attack, about 20 minutes before target, was on the low squadron of the second group in the column, which at the time was strung out and

unsatisfactory field of vision precluded this.

Once visual contact was made with a bomber formation, the jets would manoeuvre to mount their attack from the rear. Getting into an effective attack position at 1,000m range on a dead-level approach was often challenging due to the Me 262's high speed and large turning radius. Decisions had to be made quickly and often at great distances from the target, where it was difficult to correctly assess the range, course and altitude of the bombers.



Right
An Me 262 caught on gun camera by a pursuing USAAF fighter.

Right
A 9/JG 7 Me 262 carrying a launch rack. The running fox emblem of JG 7 has been applied on the nose.

in poor formation. Four Me 262s in a formation similar to that used by P-51s came out of clouds and contrails from 5 o'clock low, closing from 75 yards to point-blank range; three bombers were badly damaged in this attack.

“Second attack, by three Me 262s, came in from 6:30 to 7 o'clock, low to level, resulting in the entire tail section of one B-17 being shot off.”

Interception tactics

By early April 1945, JV 44 had transferred south from Brandenburg-Briest to Munich-Riem in Bavaria, where the unit deployed against the heavy and medium bombers of the US Twelfth and Fifteenth Air Forces operating from bases in Italy and southeast Europe.

Tactics were greatly influenced by the low number of machines and pilots available to JV 44; it was usual to have just six serviceable jets available. Thus, Galland and Steinhoff tended to favour the tried and tested element of three aircraft – a ‘kette’ (meaning chain or string) – instead of the more commonly used formation of four as adopted by piston-engined fighter units. Once airborne, the trio would be staggered below and/or behind each other, but rarely behind and above as the Me 262's



“...it was dangerous to turn away by flying underneath, as pieces of shot-down bombers, men baling out, jettisoned bombs or burning aircraft flew straight into your face or into your turbines”

The very speed of the Me 262 – its greatest tactical advantage – curtailed the time available to a pilot to score hits on a target. Galland recalled: “My pilots were authorised to open fire from 600 metres. We also fired our rockets at that range. We often hit two bombers with them in one go.

“The Me 262s could only count on success in attacking formations of heavy bombers if they were able to approach in fairly close formation. A clear-cut allocation of targets had to be made and the jets had to fire

simultaneously in order to make the defensive fire of the bombers disperse.”

“From 600 metres onwards, you had to fly in a perfectly straight line whilst starting your offensive fire. When you were 150 metres away at the latest, you had to turn away above the bomber whatever happened; on no account could you afford to turn away while still directly behind thus exposing your belly as it was almost certain that you would have been hit.

“But, if you had approached to within 200 metres, there was only one way out and that was to turn away as close as possible, passing over the whole bomber formation. In any case, it was dangerous to turn away by flying underneath, as pieces of shot-down bombers, men baling out, jettisoned bombs or burning aircraft flew straight into your face or into your turbines.”

Mum's pancakes

Adolf Hitler celebrated his 56th birthday under a rain of American bombs in Berlin on April 20, 1945 – he was ten days away from committing suicide. During the late

morning JV 44 put up a formation of Me 262s against B-26 Marauders hitting the marshalling yards at Memmingen.

Just after 11:00 hours and under clear blue skies, the Me 262s, at least some of which were carrying R4M rockets, climbed to attack the tightly huddled bombers in loose three-aircraft elements at 10,000 to 13,000ft over the Kempten-Memmingen area.

The R4Ms proved deadly. A burst of fire from a Me 262's 30mm cannon shattered the port engine of B-26



Can't Get Started of the 454th Bomb Squadron (BS), 323rd Bomb Group, piloted by Lt Dale E Sanders. The Marauder was already trailing black smoke, before an R4M speared into the fuselage.

A gunner in a neighbouring bomber, T/Sgt Robert M Radlein, watched in horror: "The fighter attack had stripped away all the metal from the top of the wing... and, of course, one engine was also gone. I watched [the B-26] falling out of formation and reached over to snap on my chest pack 'chute – things were warming up pretty fast..."

Unteroffizier Eduard Schallmoser was one of the first German pilots to attempt to open fire on the B-26s, but his MK 108s jammed. Schallmoser quickly looked down at his gun button and, as he did so, the Me 262 took him dangerously close to the bombers.



When he looked up, it was too late.

Attracting fire from the Marauder gunners, his jet scraped into the starboard propeller blades of Lt James M Hansen's 455th BS B-26. Upon impact, the jet rolled over and nosed down through the enemy formation, streaming black smoke with pieces of its own debris falling behind it.

Somehow Hansen was able to control his Marauder. He kept the starboard engine running, despite the blades having been evenly bent six inches from their tips, and returned successfully to his base.

Having baled out of his plummeting aircraft, Schallmoser parachuted into his mother's garden in the small town of Lenzfried-im-Allgau! Folding up his parachute and suffering from a painful blow to one of his knees, he limped into his family home where his

bewildered mother fed him with a plate of pancakes.

Uffz Johann-Karl Müller also attacked. His R4Ms streaked towards the bombers and two were hit. It may be that one of his rockets hit *Ugly Duckling*, piloted by 1st Lt James

L Vining of the 455th BS.

Vining recalled: "I saw a jet coming in out of a slight turn with muzzle flashes around the four 30mm cannon in the nose... a terrific blast went off below my knees and the plane rolled to the right.

"I hit the feathering button... trimmed the plane for single engine operation and – just as rapidly – pressed the intercom button to order the bombardier to jettison the two tons of bombs. We were losing altitude at 2,000ft per minute, which slowed with the load gone."

As the B-26 fell away from its formation, the relatively inexperienced co-pilot took control and the radio operator/navigator applied a tourniquet to Vining's shattered leg together with some morphine. As a 'straggler' *Ugly Duckling* began to attract more attacks from the jets which attempted to finish the stricken bomber off. Miraculously, despite the substantial damage and a later onslaught by more Me 262s, the Marauder managed to return to friendly territory where it crashed close to the French border.

By the time JV 44's Me 262s turned away, they had shot down three B-26s and damaged a further seven. No Luftwaffe pilots were reported lost. Schallmoser's aircraft was destroyed and it is likely several others were damaged.

Inevitably, the tide of Allied air power was too strong for the small, but defiant numbers of Me 262 pilots to deal with. By late April air combats were minimal and it was a feat in itself for JG 7 or JV 44 to get airborne at all.

Despite meagre numbers, the Me 262 had given the Allies a severe scare. Messerschmitt's technology would serve aviation for the rest of the century and into the next. ●

Centre left

The wreckage of Johannes Steinhoff's Me 262 smouldering following its crash during take-off from Riem on April 18, 1945.

Left

Uffz Eduard Schallmoser posing for a snapshot with his mother in the garden of the family home near Munich on April 20, 1945.

Below

The remains of B-26 'Ugly Duckling' of the 323rd BG in an anti-tank ditch in Bavaria following an attack by JV 44 on April 20, 1945. ALL VIA AUTHOR





Spotlight

Messerschmitt Me262

Me 262
Photo File

From the Archive

A collection of images showing the innovative Messerschmitt fighter during and shortly after World War Two

Below
Towards the end of the war, Me 262s were often operated from hastily prepared or maintained airfields, and attempts were made to conceal them among trees or foliage. This captured example has been stripped of its engines and other components. **ALL KEY**



Prior to capture, Me-262B-1a/U1 110306 'Red 6' served as a night-fighter with the Luftwaffe's 10/NJG 11. Brought to the US aboard HMS 'Reaper', it was given the American serial FE-610.



A Messerschmitt Me 262A-2a undergoes wheel retraction tests.



Spotlight Next Month Bristol Beaufort

Next month, our **Spotlight** focuses on one of the unsung heroes of World War Two, the Bristol Beaufort. Overshadowed by the Blenheim, its more famous sister, the Beaufort nevertheless saw considerable action in the Mediterranean, and was also used extensively in the Pacific with the Royal Australian Air Force. We reflect on the history of this versatile torpedo-bomber in our **February** issue, on sale in the UK on **January 2** – see page 114 for our latest money-saving subscription offers.



US personnel examine one of the Junkers Jumo powerplants on a captured Me 262.