PLANES of the LUFTWAFFE FIGHTER ACES

Vol 1

Bernd Barbas

These two lavish volumes on Planes of the Luftwaffe Fighter Aces will undoubtedly come to be regarded as the most authoritative and comprehensive reference works ever published on this fascinating subject.

Consisting of a remarkable collection of approximately 400 rare and mostly unpublished photographs in each volume plus many superb color paintings and line drawings, they present a vast amount of highly prized information which, hitherto, has been unsuccessfully sought by the world's modellers and air historians.

This monumental work is the result of interviewing surviving German fighter pilots and groundcrew over a long period, thus gaining access to many unpublished private photographic collections. By virtue of this entirely original research it has now been possible to provide an unequalled coverage of the aircraft of many famous German fighter pilots and even more who were lesser publicised.

It is an astonishing collection of material in its own right and is sure to be enjoyed by all with even the slightest interest in aviation.

This, the first of two volumes, includes almost 450 photographs in black and white and color, six superb double-page color paintings and 23 line drawings.

Cover.
Günther Rall, who flew with 8./JG 52 in the Bf 109G-1, Black 13 shown here, was the third most successful *Luftwaffe* ace of WW 2 with an officially credited total of 275 victories. He was eclipsed only by Gerhard Barkhorn (301) and Erich Hartmann (352).
Jacket design by Norman Clifford.

PLANES OF THE LUFTWAFFE FIGHTER ACES

Vol I

PLANES OF THE

LUFTWAFFE FIGHTER ACES

Vol 1

Bernd Barbas

Color paintings by Richard Goyat

Line drawings by Reinhard Sandow

Kookaburra Technical Publications Pty Ltd
Melbourne

KOOKABURRA TECHNICAL PUBLICATIONS PTY LTD
PO BOX 648 DANDENONG 3175,
MELBOURNE, VICTORIA, AUSTRALIA

© 1985 BY KOOKABURRA TECHNICAL PUBLICATIONS PTY LTD

FIRST PUBLISHED IN 1985

ISBN 0 85880 052 7
ISBN 0 85880 048 9 (Vol 1)
ISBN 0 85880 050 0 (Vol 2)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any electronic, mechanical, photocopying or recording method without the prior written permission of the Publishers.

Barbas, Bernd-Dieter, 1943-
Planes of the Luftwaffe fighter aces

Includes index
ISBN 0 85880 052 7
ISBN 0 85880 048 9 (v 1)
ISBN 0 85880 050 0 (v 2)

1. Fighter planes — Germany — History. 2. World War, 1939-1945 — Aerial operations, German.
1. Title.
623.74'64'0943

Gothscans ltd

PLANNED AND DESIGNED IN AUSTRALIA
BY KOOKABURRA TECHNICAL PUBLICATIONS PTY LTD
PRINTED IN HONG KONG

FOREWORD

When Bernd Barbas invited me to contribute the foreword to Planes of the Luftwaffe Fighter Aces, I was pleased and honored to accept the opportunity to do so.

Once I examined the early proofs I was surprised to see the extent and variety of the material he had managed to collect during his research. It quickly took me back to my earlier days as a wartime fighter pilot.

Looking back through photographs taken in those difficult times made me realize how young and innocent we were; yet despite this, many of us somehow managed to come through it all.

These days, however, it merely brings home to me the fact that so many of my contemporary airmen on both sides were not nearly so fortunate.

I also think of the great work our ground personnel performed, often under very difficult and exhausting conditions. This was especially true when airfields were a sea of mud or when it was necessary to work in the open during the unbelievably cold wintry weather on the Russian Front. What a fine example they set and what little acknowledgement they received!

When I look back and reflect upon the war years, I can only hope that today's youth will be spared the day-by-day experiences we lived through in those times.

I would like to record my gratitude to the author for the fine task he has performed, and commend his work as a valuable enrichment to the record of aerial warfare. It is also my wish that it may contribute something to mutual goodwill and international understanding amongst all who fly themselves or who are interested in aviation.

Erich Hartmann

(Erich Hartmann)

Maj Hartmann in front of his Bf 109G-10 on 17th April 1945, just after his 350th victory. At the time he was *Kommandeur* of I./JG 52. The name *Usch* was written in white on a red heart and the aircraft's dual chevrons were probably in green with white borders. Hartmann's unusual camouflaged jacket was a precaution against being picked up if he had to bale out and walk home.

Upper. Adolf Galland, one of Germany's best-known fighter pilots and a fine leader, photographed in his Bf 109E-4, W Nr 5819, at Audembert, France, in December 1940. Those not so familiar with *Luftwaffe* history may not realise that his score of 104 was comparatively modest for no less than 92 other pilots were credited with higher tallies. Lower. *Reichsmarschall* Hermann Göring chats to Galland a year later, by which time Galland had achieved 95 victories.

INTRODUCTION

The widespread interest shown in the camouflage and markings of aircraft of the German *Luftwaffe* in recent years has led inevitably to a demand for information on particular aircraft, especially those flown by the more successful fighter pilots. In the author's attempt to present information of his nature, it has been inevitable that he has been drawn into providing details of victory claims made by many German fighter aces whose names have become so well known to modellers and students of aviation history. The two subjects of the aircraft and their pilots are inseparable. In Planes of the Luftwaffe Fighter Aces, Bernd Barbas has gathered together an abundance of new material that provides a useful reference on a neglected topic which has for far too long required authoritative treatment. Like most Kookaburra books, it consists of genuine original research from many new and sometimes surprising primary reference sources.

Accurate scale drawings in full color have always been the best means of conveying the appearance of individual aircraft, as witness the wide range of books which have used this medium in dealing with the many aspects of aviation history. It can, however, be easily forgotten or ignored by the reader that in the search for absolute accuracy, every painting or line illustration – if it is to have any integrity – must be based directly on photographic evidence. This material of course requires competent interpretation in the areas of colors, dates and locations, to take account of the many changes in official orders or operational requirements relevant to particular theatres of war.

Research into the colors themselves and their application is an acquired skill that requires an enormous amount of sheer practice, based of necessity upon a sound knowledge of the range of camouflage schemes relevant to that period and locale. The author's use of extensive archive material and the contents of numerous private collections of wartime photographs has helped throw new light upon what has been until now a largely unknown and speculative subject. This is not due to any lack of research or enquiry, but because many desired photographs and documents simply do not exist. To take for example, the case of Werner Mölders; although the reader will find photographs of Bf 109Fs flown by this well-known ace, there is no known evidence of the complete markings of any of the *Emils* which he flew during 1940. In this first of two volumes, however, all possible means have been employed and a vast range of sources explored in order to depict as many fully authenticated examples as possible of various aces' aircraft.

At this juncture the reader should perhaps be reminded that a degree of discrimination should be exercised when considering the camouflage and markings schemes found in some magazines and in the box-lid artwork of many model kits. The question should always be posed as to *the source of the information and the reliability of its interpretation*. A great deal of careful and exhaustive research lies behind the facts and photographs presented here, including the author's personal contact with, wherever possible, the pilots or ground-crew of particular aircraft selected for illustration. Although it is a fact that after so many years the color memories of those involved can seldom can be relied upon completely, is is equally true that contemporary photographs – especially some of the color ones presented here – can often confirm or stimulate their impressions of the distant past and help verify known data.

In a field where all too much speculative material has come to be accepted as fact, the reader may thus be assured that the aircraft color schemes included have been prepared strictly in relation to reliable photographic evidence unless noted otherwise.

Within reasonable bounds it has been the aim here to present a collection of hitherto unknown photographs, the small number of known shots being reproduced only because they provide such excellent affirmation for the color paintings. A list appears elsewhere of those who have contributed to the data or to the illustrations, its length providing some indication of the vast amount of research which was necessary before the selection of material for this volume could be finalised.

Neither comment nor controversy about claims, counter-claims or losses have any place here. This work seeks to be purely and simply an objective historical study of the aircraft themselves. The information quoted comes from the researches of the author who has recorded what was witnessed and accepted during what were often mere seconds of air combat. There is also a sombre thought that the reader might bear in mind, that behind the supposed glory of each recorded victory was the personal tragedy of the vanquished, a sentiment that has come to be recognised by those survivors from both sides who can recall the horrors of total war.

It will be noted that the presentation of Mr Goyat's superbly detailed color paintings, commissioned especially for these volumes, is something of a departure from the usual Kookaburra style and is perhaps worthy of a final comment. With the specific needs of the modeller in mind, the originals have been drawn to almost *double* the size of normal aviation artwork intended for reproduction. The reason for this will be immediately apparent; much more fine detail could be included on the original painting and the much larger printed size has permitted superior reproduction of many exacting and tiny details which would normally be lost. Indeed, most artists normally omit such meticulous refinements from smaller-size original artwork because of time and cost and also because they would never reproduce satisfactorily in any case. The color artwork presented here therefore represents an area of particular attention and it is hoped that this slightly different approach – tailored to what we perceive to be a special need for the reproduction of very fine detail in full color – will prove acceptable to the majority of readers.

The Publishers

ACKNOWLEDGEMENTS

The author would like to express his thanks to all who have contributed to this undertaking; firstly to Erich Hartmann for writing the foreword, and to all those friends and associates who provided advice and information, especially: Jean-Yves Lorant, Peter Petrick, M. Rosenboom (of VFW-Fokker), J.B. Frappé, Jim Crow, Heinz Grass, Hans Lächler, F. Quinones, Richard P. Lutz, K.H. Faltermeier, Mr Palecki and many others, but especially to Paul Stipdonk who furnished so many pictures from his collection. Also to G. Aders, Ernst Obermaier, Hans Ring, Werner Girbig and Karl Ries, without whose work and co-operation this book would have been impossible to produce.

Thanks also go to all the ex-*Luftwaffe* personnel and their relatives who have made available their private photograph collections. These include: Mrs Dörr and Mrs Abelmann, Karl Demuth, Walter Giese, Hermann Graf, Kurt Bühligen, Lothar Busse, Erich Rudorffer, Wilhelm Vermeulen, Rudolph Schwaiger, Wolfgang Ewald, Ernst Laube, Martin Villing, Anton Hackl, Ernst Börngen, Hugo Dahmer, Franz Demattio, Werner Schroer, Gerhard Ille, Johannes Wiese, Walter Krupinski, Franz Reichenbach, Norbert Hannig, Heinz Schwertfeger, Karl Brill, Erwin Leykauf, Walter Loos, Hans Neuschütz, Dr Otto Schürer, Hans Herrmann, Walter Horten, Ernst-Wilhelm Reinert, Zeno Bäumel, Karl Munz, Ernst Schröder, Fritz Treiber, Fritz Tegtmeier, and Herr Heizmann.

Additional information came from: Erich and Ursula Hartmann, Günther Rall, Gerhard Barkhorn, Peter Düttmann, Walter Schuck, Wilhelm Batz, Gustav Rödel, Dietrich Hrabak, Alfred Grislawski, Reinhard Seiler, the late Herbert Rollwage and Karl Schnörrer, Gerhard Thyben, Hans-Ekkehard Bob, Otto Kath, Kurt Dombacher, Ernst Düllberg, Erwin Fleig, Josef Haiböck, Dr Heinz Lange, Helmut Mertens, Friedrich Karl Müller, Oskar Romm, Hermann Schleinhege, and Gerhard Stamp. Thanks are also due to Horst Amberg and the late Rolf Lehmann of the *Gemeinschaft der Jagdflieger* for their invaluable help and to Herr Schönemann of WAST, for information concerning the fate of several pilots. Further assistance came from Michael Payne, Dr H. G. Mutke, Frank Smith, Thomas Hitchcock, Hermann Dorner, the US Army, and Hanfried Schliephake.

A particular mention should be made of *Gen* Hannes Trautloft, a former *Kommodore* of JG 54, for his help in obtaining so many photographs of his old unit. The author would also like to pay particular credit to Richard Goyat who prepared the outstanding colored artwork and to Reinhard Sandow for his equally meticulous black and white drawings.

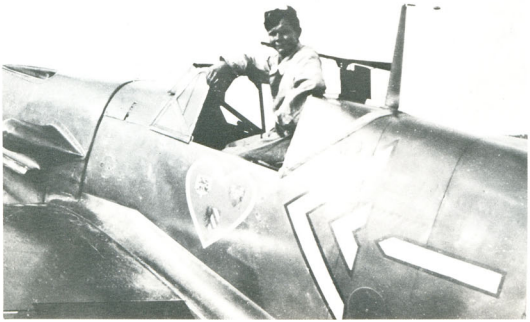
Finally, the author must pay tribute to the tolerance and help afforded not only by his publishers but also by his wife Christa who prepared the original typescript. In view of the limited information in some areas of research, the author will be most grateful to receive any further material and may be contacted at:

Hersbergweg 12,
7997 Immenstaad,
West Germany.

PUBLISHER'S NOTE:

The second 172-page volume includes the remaining unit histories, a short summary of color schemes, a victory list of over 200 German pilots, a selection of combat stories, and almost 400 black and white and color illustrations. Prints suitable for framing of the large color paintings are also available direct from the Publishers; please send two International Reply Coupons for prices and our complete catalogue.

Unfortunately, it is not possible to reply to reader research queries or requests for photographs. All such correspondence must be directed to the author only, whose address appears above.

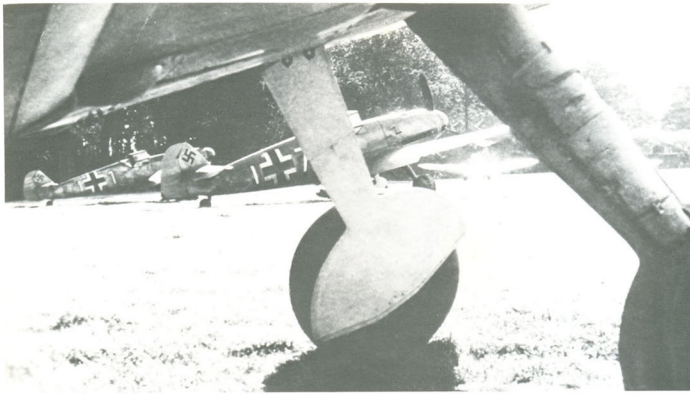


Mechanic Neuschütz in the cockpit of a Bf 109F flown by Hannes Trautloft, *Kommodore* of JG 54. The glossy surface of the two green camouflage colors is apparent. The green heart unit emblem bore three *Gruppe* emblems.

CONTENTS

FOREWORD 5
INTRODUCTION 7
ACKNOWLEDGEMENTS 8
Chapter 1
FIGHTER AIRCRAFT OF THE GERMAN LUFTWAFFE 11
Chapter 2
ORGANISATION AND VICTORY AWARDS 21
Chapter 3
JAGDGESCHWADER 1 OESAU 29
Chapter 4
JAGDGESCHWADER 2 RICHTHOFEN 35
Chapter 5
JAGDGESCHWADER 3 UDET 47
Chapter 6
JAGDGESCHWADER 4 53
Chapter 7
JAGDGESCHWADER 5 EISMEER 56
Chapter 8
JAGDGESCHWADER 6 HORST WESSEL 65
Chapter 9
JAGDGESCHWADER 7 NOWOTNY 67
Chapter 10
JAGDGESCHWADER 11 69
Chapter 11
JAGDGESCHWADER 26 SCHLAGETER 77
Chapter 12
JADGESCHWADER 27 89
Chapter 13
JAGDVERBAND 44 97
Chapter 14
JADGESCHWADER 51 MÖLDERS 100
Chapter 15
JADGESCHWADER 52 112
Chapter 16
THE AIRCRAFT COMPARED 139
Chapter 17
AIRCRAFT IN DETAIL 160
COLOR PLATES 41-44, 61-64, 81-84, 101-104, 121-124, 141-144
INDEX 171

Upper. Bf 109E, Black 3 of JG 52, undergoing maintenance in 1940. The forward cowling clearly shows the running boar unit emblem. Lower. The Fw 190 was highly successful on the Eastern Front. This winter-camouflaged fighter-bomber of JG 54 was photographed just before starting up.



Framed by the undercarriage legs of another Bf 109F were two other aircraft, White 1 and White 7, both flown by Egon Mayer, *Staffelkapitän* of 7./JG 2. The victory markings of the former machine are barely visible.

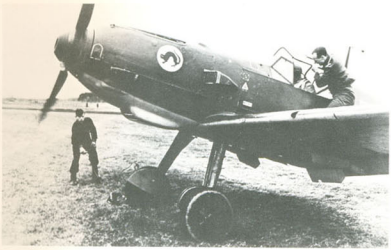
CHAPTER 1

FIGHTER AIRCRAFT OF THE GERMAN LUFTWAFFE

At the outbreak of war on 1st September 1939 on the frontiers of Poland, the German fighter units were equipped for the most part with the Bf 109E. Only I./JG 77 and I./ZG 2 under *Hpt* Gentzen had the outmoded Bf 109D, but despite this, Gentzen became the first ace, with seven victory claims during the Polish campaign. The German strength of about 1,600 aircraft was pitted against Poland's 1,200, of which only about 400 were of modern design, and after only four weeks of conflict, the Polish Air Force had been wiped out. The *Luftwaffe*, nevertheless, had lost about 70 Bf 109s. During this period in the West, which came to be known as the *Sitzkrieg*, or the Phoney War, the German fighter units were equipped with a mixture of Bf 109Es (*Emils*) and Bf 109Ds (*Doras*), even two units partially with Bf 109Bs (*Berthas*). These were ZG 26 and 11./JG 2. During this period there was only limited activity against British and French fighter and reconnaissance aircraft and the biggest action undertaken by the German fighter arm was the battle fought over the German Bight against a force of attacking Wellington bombers of the RAF on 18th December 1939. Losses and claims are still unconfirmed, but the RAF were well and truly defeated by the defending Bf 109Es and Bf 110s. The German occupation of Denmark and Norway in April saw only limited fighter activity.

On 10th May 1940, the war in the West really began. A total of 4,900 Allied aircraft (Morane 406s, Dewoitine 520s, Curtiss Hawk 75s of the French Air Force and Gladiators and Hurricanes of the RAF) opposed 3,800 aircraft of the attacking German forces. For France and the RAF it was a disaster. By 25th June their losses by aerial combat, ground fire and destruction on the airfields were enormous. They have never been numbered precisely, but the most successful *Gruppe* of the *Luftwaffe* was I./JG 2 which claimed 123 victories. *Hpt* Balthasar claimed 23 of these and the German fighter losses were stated as being approximately 200 Bf 109s.

The Battle of Britain (*Luftschlacht um England*) in the summer and autumn of 1940 found 870 German fighters facing about 700



Standard equipment for the *Luftwaffe* when war broke out was the Bf 109E, the shot on the left showing a machine of 8./JG 51, Red 5 or Red 7, being prepared for a training mission. Its wing guns were MG 17s. The shot on the right shows Yellow 4 of JG 54 at Guines, France, in 1940.

of the RAF, mainly Bf 109Es against Hurricanes and Spitfires. Overall losses were roughly the same, but the German production of only 975 new *Emils* during the five critical months was insufficient to replace the losses, while during the same period the British production (and repair) figure of about 2,350 was decisive in tipping the balance in their favor.

Early in 1941, about 50 Bf 109T-2s were delivered to I./JG 77 at Trondheim, Norway. The suffix T was for *Trägerflugzeug*, or carrier aircraft, as they had been destined for the proposed German carrier *Graf Zeppelin*. During April 1941, when Germany occupied the Balkans, many of the fighter units were still flying the Bf 109E, although some had converted to the Bf 109F. *Luftwaffe* losses of about 20 fighters were remarkably low compared with the 170 British, Greek and Yugoslav aircraft shot down, plus about 100 RAF machines destroyed on the ground. The Yugoslav pilots had 73 Bf 109Es and they found themselves in combat with the later Bf 109F-2s of the *Luftwaffe*! It was also at this time that the Bf 109F-2 reached the units in the West in some numbers. The F-1 sub-type had arrived earlier, but a succession of accidents involving tail units breaking off in flight had presented problems that delayed any widespread use.

On 22nd June 1941, Operation *Barbarossa* began — the attack on the Soviet Union by Germany with about 800 fighter aircraft participating, mainly Bf 109F-2s. German victory scores rose rapidly against the Russian machines, the I-15, I-16 Rata, and the more elderly I-152 and I-153. It was claimed that by October more than 14,000 Soviet aircraft had

An interesting shot of two Bf 109Es of JG 52, Black 15 and Black 1, taken somewhere in the West during early 1940. The 71/02/65 camouflage scheme is clearly discernable on the near machine.

Ernst Reinert of JG 77 prepares to take off in his Bf 109E, White 12. Judging by the strong contrast between the two topmost colors on the rear fuselage, they may well have been 71 and 02. This machine had a bright yellow cowling.

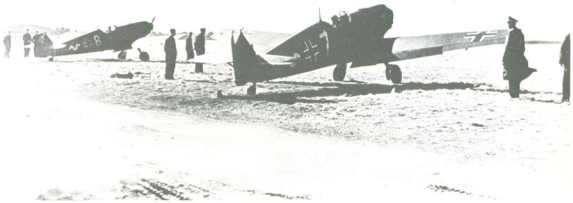
been destroyed, many of these being accounted for on their airfields during the initial attacks. Three German pilots, Mölders, Oesau and Lützow, reached their 100th victories.

In April the Bf 109Es of I./JG 27 reached Africa and joined combat over the desert with British Hurricanes and P-40 Tomahawks. It was on 25th April that *Fr* Marseille claimed his first victory, a Hurricane. During June and July, 7./JG 26 under *Hpt* Müncheberg landed in North Africa with their Bf 109Es, and by the end of 1941 the rest of JG 27 was there also. In a period of 20 months, JG 27 claimed 1,300 victories with Bf 109Es, Fs and Gs, including over 700 P-40s, some 300 Hurricanes and more than 100 Spitfires.

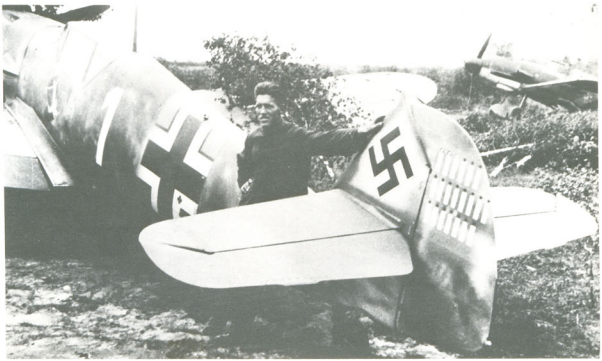
After the first models had been withdrawn for modifications, examples of the new Fw 190 reached JG 26 at Le Bourget late in April 1941. As it came into service it proved to be vastly superior to the contemporary Spitfires of the RAF and both JG 2 and JG 26 were equipped with Fw 190A-3s by the autumn. In the spring of 1942 the Bf 109G-1 to G-4 sub-types appeared, with the G-5 and 6 following in the summer. The Fw 190A-4 also appeared that same summer, with the A-5 in April 1943, the A-6 in June and the A-7 in December. Although there were further important developments during 1944, most people recognised by then that the war had been lost for Germany. In mid-1944, the Bf 109G-10 and G-14 were introduced and in October the K-4, the final variant of a total of more than 30,000 Messerschmitts built. The Fw 190A-8 had appeared in the spring of 1944, and the A-9 in October. This was the last radial-engined variant in a total of over 20,000 Fw 190s built.

From the summer of 1944, the Fw 190D-9 fitted with the in-line Jumo 213 engine saw action with III./JG 54 and II./JG 26, the first *Gruppen* to be fully equipped with this type. Later JG 2 was also completely equipped with the 'Dora-Nine'. Precise production figures are not known, but it is believed that several hundred were built. Professor Kurt Tank, the creator of the Fw 190 series, saw the D-9 only as a step in the development of the Ta 152, which was to use the powerful DB 603 engine. The RLM (German Air Ministry) believed that an engine of 33.9 litre capacity such as the DB 601 was powerful enough and had refused to permit the development of the bigger DB 603 with its volume of 44.7 litres. But like many things during the war which were ultimately successful, Daimler-Benz continued their work

Please turn to Page 17

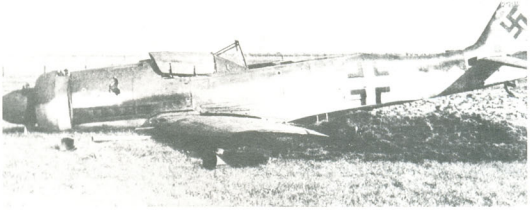


Upper. Seen here in the early camouflage scheme of dark greens 70 and 71 were White 7 and White 8 of 7./JG 51, the *Staffel* having formerly been 1./JG 20. Left. A fine flying shot of a Bf 109, Red 9, probably taken during the French campaign. Lower. A mechanic with Reinhard Seiler's 1./JG 54 Bf 109F, White 1, on 16th August 1941, by which time he had scored 21 victories. The "high hat" symbol commemorates 2./J88 during the Spanish Civil War.



Upper. The introduction of the Fw 190 saw many scenes of jubilant pilots returning with stories of spectacular successes over the highly respected Spitfire. In the foreground is *Hpt* Stolle, *Staffelkapitän* of 8./JG 26 on 26th November 1942 when the unit had just made its 200th victory claim. Left. Rudolf Meyer, centre, with mechanics in front of his Bf 109F, Black 15, of JG 5. Lower. Bf 109F, Yellow 1, of 3./JG 54's *Oblt* Schmoller-Haldy. It bore the wild hunter unit emblem on the cowling and the Mickey Mouse emblem of 3./J88.

Upper. Siegfried Schnell addresses his fellow pilots of JG 2 in front of a distinctively marked Fw 190A-3. Left. Taken at Siverskaja during the winter of 1942/3, this shot shows the Fw 190A of Hannes Trautloft which is illustrated in color in Vol 2. Lower. Late-war Fw 190s bearing the blue-white-blue tail bands of II./JG 300. In the centre was White 11.



Upper. One of Germany's most potent piston-engined fighters was the Fw 190D-9, which was a good match for the P-51 Mustang. Most, like this example, W Nr 210052 (?), appear to have been painted in the late-war greens with plain black crosses and swastikas on the side and lower surfaces. Right. Another Fw 190D-9, W Nr 212133, after being downed by flak.

without permission and Kurt Tank was able to have the DB 603 for his aircraft. The first examples appeared at the turn of the year and by the war's end about 150 machines had been built. These Ta 152Hs equipped the *Stab* and III. *Gruppe* of *Jagdgeschwader* 301, and were acclaimed by many pilots as the best piston-engined fighters of the war. The summer of 1944 saw the début of the Me 262, the world's first operational jet fighter. The first unit to be equipped, *Erprobungskommando* 262, received 15 aircraft and was later re-named *Kommando Nowotny*. The unit had little success, however, and was disbanded after the death of its commander. At the end of 1944, JG 7 was established with the Me 262 and during its brief career claimed about 500 victories. Early in 1945, JV 44 was formed, also equipped with the Me 262. By the end of the war a total of 1,433 machines had been built and about 500 more were under construction.

Making its first flight during 1941, the Me 163 was the first rocket-propelled fighter in the world and first saw action during February 1944 with I./JG 400, a unit formed out of *Erprobungskommando* 16. Altogether only four *Staffeln* were equipped with the Me 163 and only about 20 victories were claimed with the type. The end of 1944 saw the introduction into service of yet another new aircraft, the He 162. The basic design philosophy was to make use of 50 per cent of the materials needed for an Me 262, to use only a single jet engine, and to instal only two MK 108 guns, and yet to achieve a similar performance to that of the Me 262. I and II./JG 1 were the only units to receive this type during the last weeks of the war and few victories were claimed. There were about 50 machines at Leck at the time of the capitulation in May 1945.

In order to complete the coverage of the types of aircraft which served in the *Luftwaffe* units, mention must be made that for some time during its existence JG 5 included a *Zerstörerstaffel* (13./JG 5) equipped with the Bf 110. During 1943 this unit had on charge for operational assessment two Arado Ar

Left. The sleek nose of the Ta 152 V7, W Nr 110007, one of three such aircraft tested during the winter of 1944/45. Its DB 603 engine gave it an outstanding performance. Right. An extremely rare shot of an operational Ta 152H, W Nr 158167, photographed inside a hangar somewhere in Germany.

240As, an aircraft similar to the Bf 110 and with an excellent performance.

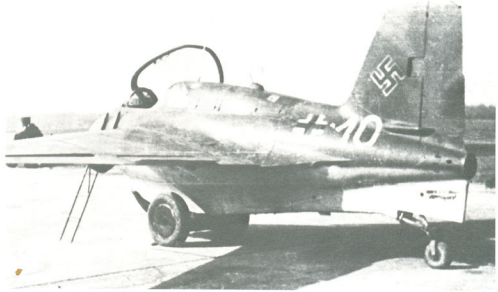
Two further unusual types also saw limited action as fighters over Germany. The Fw 187A-0, a twin-engined machine, was used in the role of factory defence in the *Industrie-Schutzstaffel* at the Focke-Wulf works and a number of He 112s served in the equivalent unit at the Heinkel works. It is reputed, but not confirmed, that some victories were claimed by both *Staffeln*.

During March 1945, in the final weeks of the war, the *Jagdgeschwader* were equipped as follows:

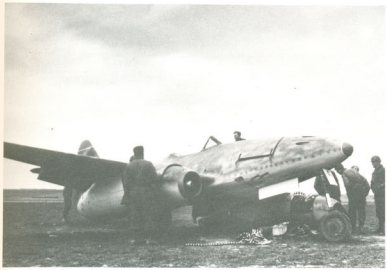
I./JG 1	He 162	
II./JG 1	Fw 190A-8 and 9	converting to He 162
III./JG 1	Bf 109G-10	
JG 2	Fw 190D-9	
II./JG 3	Bf 109G-10	converting to K-4
III./JG 3	Bf 109K-4	
IV./JG 3	Fw 190A-8 and 9	converting to D-9
II./JG 4	Fw 190A-8 and 9	converting to D-9
III./JG 4	Bf 109K-4	
IV./JG 4	Bf 109G-10	converting to K-4
JG 5	Bf 109G-14	converting to K-4
I. and II./JG 6	Fw 190A-8 and 9	converting to D-9
III./JG 6	Bf 109G-14 AS	converting to K-4
JG 7	Me 262	
I. and III./JG 11	Fw 190A-8 and 9	converting to D-9
II./JG 11	Bf 109G-10	converting to K-4
JG 26	Fw 190D-9	converting to D-12
I. and III./JG 27	Bf 109K-4	
II./JG 27	Bf 109G-10	converting to K-4
JV 44	Me 262	
JG 51	Bf 109G-14	converting to K-4
JG 52	Bf 109G-14	converting to K-4
JG 53	Bf 109K-4	
JG 54	Fw 190A-8 and 9	converting to D-9
I./JG 77	Bf 109G-14/U4	converting to K-4
II. and III./JG 77	Bf 109G-10	converting to K-4
II./JG 300	Fw 190A-8 and 9	converting to D-9 and then to Me 262
III. and IV./JG 300	Bf 109G-10/R6	converting to K-4/R6 and then to Me 262
I. and II./JG 301	Fw 190A-9/R11	converting to D-9/R11 and then to Ta 152
Stab and III./JG 301	Ta 152	
JG 400	Me 163	converting to He 162*

* It was planned, during April, to convert this unit to the Go 229, although at this time only prototypes of this machine existed.

Upper. The Me 262V-3 prototype, tested at Leipheim in July 1942. Lower. One of the many He 162s surrendered at Leck in May 1945.



White 10, an Me 163B-1 rocket fighter of 1./JG 400 ready for action at Wittmundhafen during June 1944. This machine also had a white nose cone. Note the absence of any *Werk Nummer*.



Left. Curious American soldiers examine an abandoned Me 262A-2a fighter-bomber at Giebelstadt airfield on 5th April 1945. This machine, W Nr 500079, was coded F1 + DA. Lower. The Fw 190 was an outstanding fighter by any standards and was in widespread use at the end of hostilities. This shot was taken in 1944 and shows Otto Heizmann on the left with a companion and his Fw 190A-7/R2, which was fitted with an auxiliary fuel tank.

Upper. Notable victories were a cause for celebration and often decorations in the field, this occasion being the 300th of 1./JG 54 at Gatschina in November 1942. Walter Nowotny was the pilot responsible and is seen here with some of his comrades and his White 8. Lower. Hans König, saluting, reporting to *Gen* Stumpff at Rotenburg in front of a very pale-colored Fw 190.

CHAPTER 2

ORGANISATION AND VICTORY AWARDS

Commencing with the smallest unit, the operational structure and administrative organisation of the fighter units within the *Luftwaffe* were as follows: The *Rotte*, with two aircraft, was the basic unit, a pair of these comprising a *Schwarm* of four machines. Next came the *Staffel* with a nominal complement of twelve aircraft, although in practice the number could vary between five and fifteen according to serviceability and operational requirements. Leading the *Staffel* was the *Staffelkapitän*, or, in his absence for any reason, the *Staffelführer*. The *Staffelkapitän* usually held the rank of *Leutnant*, although in many recorded instances he was an *Oberleutnant*.

At first three *Staffeln*, later four, formed a *Gruppe*, led by a *Gruppenkommandeur*. He and his executive officers flew the aircraft of the *Gruppenstab*, which could vary between two and five machines. The *Kommandeur* was a *Hauptmann*, but it was not unknown for an *Oberleutnant* or a *Major* to hold this appointment. Three *Gruppen* (again, later, four) formed a *Geschwader*. As for the *Gruppen*, the *Geschwader* had a *Stabsschwarm* of several aircraft flown by the executive staff whose leader was the *Kommodore* with the rank of *Major, Oberst* or *Oberstleutnant*. Some *Geschwaderkommodore* had two aircraft at their disposal. Thus, with all these possible variations in numbers, the operational strength within a *Gruppe* could vary between 30 and 67 machines, and that of the *Geschwader* between 94 and about 150, although of course operational losses and damaged aircraft often took their own toll of the numerical strength.

Each *Geschwader* operated under the control of a *Luftflotte,* which was the largest operational unit.

Luftflotte 1 covered the northern sector of the Eastern Front.

Luftflotte 2 covered North-west Germany, and later, the Mediterranean area.

Luftflotte 3 covered South-west Germany and France.

Luftflotte 4 covered the *Protektorat* (Bohemia) and the southern sector of the Eastern Front.

Luftflotte 5 covered the north, including Norway and Finland.

Luftflotte 6 covered the central sector of the Eastern Front.

Awards and Victories

In addition to the *Eisernes Kreuz* (Iron Cross), Second Class and First Class, and the *Deutsches Kreuz* (German Cross), the most

Left. Johannes Wiese of JG 52 photographed in July 1943 after his 100th victory. He was later credited with a further 33 confirmed. Centre. One of the most publicised German pilots of the war was Hans-Joachim Marseille who had a meteoric rise to fame in North Africa. He received the *Brillianten* on 2nd September 1942 for 126 victories. Right. This autographed photograph of Walter Nowotny shows him also wearing the *Brillianten* award.

coveted German award was the *Ritterkreuz* (RK) of which there were several different grades. First came the *Ritterkreuz des Eisernen Kreuzes*. (Knight's Cross of the Iron Cross). Then came the *Ritterkreuz des Eisernen Kreuzes mit Eichenlaub* (Knight's Cross of the Iron Cross with Oak Leaves), abbreviated to RK-EL or simply *Eichenlaub*. Further to this, there was the *Ritterkreuz des Eisernen Kreuzes mit dem Eichenlaub mit Schwertern* (Knight's Cross of the Iron Cross with Oak Leaves and Swords), abbreviated to RK-S or *Schwerter*. Last came the same form with the addition of Diamonds, (*Brillanten*), abbreviated to RK-Br. Higher awards were conferred upon only two persons; the Golden Oak Leaves awarded to *Obst* Hans Ulrich Rudel as *Kommodore* of SG 2 *Schlachtgeschwader 2*) Immelmann and the Grand Cross (*Grosskreuz*) awarded to Hermann Göring, as Supreme Commander of the *Luftwaffe*.

In all, about 7,500 *Ritterkreuze* were awarded, though only 1,730 to personnel of the *Luftwaffe* and of these only 453 were won by pilots of the single-seat fighters and destroyers. In the early months of the war it was almost automatic that a pilot would be given a *Ritterkreuz* after 20 victories, but after the opening of the Eastern Front this critical figure rose to 100 during the spring of 1943, although it later came down to 75. There was the same trend behind the award of the *Brillanten*; the Diamonds were given to Mölders and Galland for about 100 victories, in the case of Gordon Gollob it was 150, for Marseille 126 (mostly in North Africa), for Hermann Graf it was 172, for Nowotny 250, and finally for Hartmann it was 301.

If these figures are compared with the 80 victories of von Richthofen in WW 1, it is at once apparent that all these pilots were decorated for an unbelievably high number of victories. The victories were won in air combat in a variety of situations, for apart from such duties as bomber escort and attacking ground targets, the main function of the fighter force was to deny airspace to the enemy over a battlefield. The forcing down of an enemy machine by gunfire, by ramming, or by pursuit, was seen as achieving this purpose and

This photograph was taken in September or October 1942 and shows three *Ritterkreuz* holders in front of Günther Rall's Bf 109G-2, Black 13. From the left were *Uffz* Karl Gratz, *Oblt* Günther Rall and *Uffz* Friedrich Wachowiak.

This photograph taken on 2nd March 1944 shows a group of airmen parading before Adolf Hitler for the award of the *Eichenlaub*. From the left were *Maj* Bühligen of JG 2, *Hpt* Wiese of JG 52, unknown, but not a fighter pilot, *Maj* Seiler of JG 104, *Hpt* Ademeit of JG 54, *Oblt* Krupinski of JG 52 and *Lt* Hartmann, also of JG 52.

was therefore claimed as an air victory. By the German system of verification, each claim submitted by a pilot had to be witnessed and his combat report corroborated before the claim described in his report could be confirmed as a victory. The documentation also had to be scrutinized by the pilot's *Gruppenkommandeur* or by the *Kommodore* before being passed to the authorities for confirmation and it is quite clear that very few false claims ever reached official recognition. It was only in the last few weeks of the war, when the usual official channels had disintegrated, that a number of victory claims had to remain unconfirmed by the normal process.

In round figures the German day and night fighter forces gained about 70,000 victories at the cost of 14,300 personnel. More precise figures researched solely in respect of the Western theatre of war reveal that a total of 41,922 aircraft was lost by the RAF and USAAF due to enemy action, and for roughly the same period the German OKW (High Command) claimed to have destroyed 36,471 Allied machines.*

The use of the word "ace" in the sense in which it was used by the Allies, for a pilot with five or more victories, was unknown in *Luftwaffe* circles. Had it been used, the word would have implied a pilot with the award of the *Ritterkreuz* and the number of victories which had earned it. The success of so many of the German fighter pilots, whose victory tally was so much higher than in other air forces, was to a degree due to the different system of operational service in the German *Luftwaffe*. Pilots were not generally rested or rotated into non-flying appointments in the same way as were Allied aircrew and those successful German pilots who had gained combat experience and survived their early service, were able

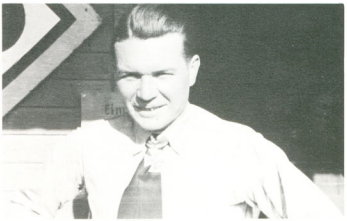
* Statistics: Julius R. Gaal, with the assistance of the German Fighter Pilots' Association, Munich. 1965. (Editor's note).

Left. Photographed here on 25th July 1943 after achieving 5./JG 52's 500th victory was Peter Düttman. His aircraft, Black 12, was a Bf 109G-4. Right. The 101-victory ace Josef Priller with lifejacket and *Ritterkreuz*.

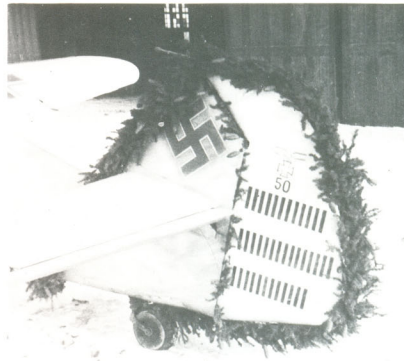
to make use of their expertise to amass a steady list of victories. Those who were not killed first, simply flew to the point of exhaustion.

There were some pilots in special categories, such as *Oblt* Kurt Welter, the most successful jet pilot with 30 victories while flying the Me 262 or *Oblt* Herbert Rollwage, the most succesful day fighter pilot in action against four-engined bombers. The most outstanding non-German pilot flying for the Axis powers was Eino Ilmari Juutilainen, a Finn who claimed 94 1/6 victories.

Lower. *Oblt* Gustav Rödel, *Staffelkapitän* of 4./JG 27, visiting what appears to have been a command post of JG 77, another unit which operated in south-eastern Europe.



Left. Congratulations were the order of the day after Theodor Weissenberger of JG 5 scored his 200th victory. Right. A close-up of Walter Nowotny sitting on the cockpit edge of his White 8, the same machine as shown on Page 20.



Left. Knight's Cross holder Ernst Börngen of JG 27 who was credited with 45 victories. A further 24 were unconfirmed. Upper. An interesting shot of the specially decorated tail of *Hpt* Hans Philipp. Although the rudder shows only 89 victories, he had in fact reached 100 by 31st March 1942 when this photograph was taken.

Left. Amidst much merriment, Anton Hafner, one of the top-scoring pilots of JG 51 with a total of 204 credited victories, receives a large replica of the *Ritterkreuz* which he was awarded on 23rd August 1942. Right. *Obstlt* Werner Mölders, *Kommodore* of JG 51, wearing the *Ritterkreuz mit Eichenlaub*, awarded on 21st September 1940 for his 40 victories.

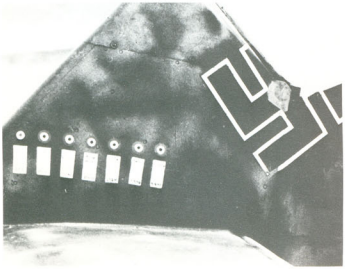
Left. Werner Schroer was hoisted high and presented with flowers after achieving his 100 victory on 24th May 1944. At the time he was *Gruppenkommandeur* of III./JG 54 and flew a Bf 109G-6. Right. Trautloft congratulates his *Adjudant*, Otto Kath, after JG 54's 300th victory.

Right. Trautloft in full military regalia decorating a fellow pilot. Lower. The first *Ritterkreuz* in the far north was awarded to *Ofw* Hugo Dahmer, whose Bf 109E rudder is shown here with 22 victories.

Upper. The victory board of 4./JG 3 which at the time showed a total of 202. Lower left. *Maj* Wolfgang Ewald photographed in Russia during the spring of 1943, when he was *Gruppenkommandeur* of III./JG 3. His final tally was 78 victories. Lower right. *Lt* Karl Demuth, *Staffelkapitän* of 3./JG 1. His highest award was the *Deutsches Kreuz in Gold*.

Hans Philipp, left, and Dietrich Hrabak on the right in front of the latter's Bf 109F at Mal Owsischtschi, Russia, in July 1941. The rudder shows 24 of Hrabak's eventual 125 victories.

Lower left. The tail of Reinhard Seiler's Bf 109E was particularly interesting, for not only did it have an unusual white Battle of Britain tactical marking, but the aircraft destroyed included a Bloch MB 151, three Blenheims, two Spitfires and a Hurricane. Lower right. Walter Schuck, centre, with fellow members of JG 5 at the funeral of Jakob Norz, who was killed in a crash landing on 16th September 1944.



Left. Heino Hanke and two of his groundcrew with his Bf 109E, White 6, at Leuwaarden in 1940. The camouflage on the upper surfaces was probably mainly dark green 71. Right. *Obst* Herbert Ihlefeld, *Kommodore* of JG 1, wearing the *Ritterkreuz mit Eichenlaub mit Schwertern*.

CHAPTER 3

JAGDGESCHWADER 1 OESAU

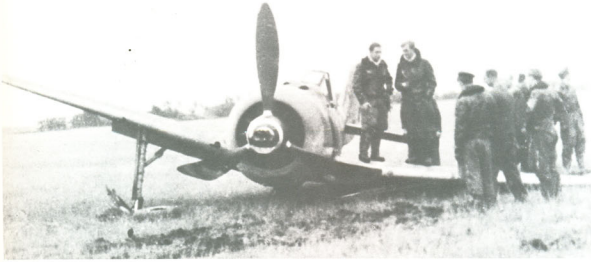
At the beginning of World War 2 only the Staff of this unit existed, based at Jever in North-western Germany and controlling aircraft drawn from other units. Its task was to defend the German Bight from attack by the RAF. The unit operated during the invasions of Denmark and Norway in April 1940, and later in the Netherlands and in Northern France. At the end of 1940 I./JG 1 was based in the Netherlands. Returning from Russia in September 1941 as I./JG 3, the *Gruppe* was redesignated II./JG 1 and was one of the first units to receive the Fw 190. By the end of the 1941 there was a third *Gruppe*, based in Denmark and during Spring 1942, a fourth *Gruppe* was established. Both saw action over Northern Germany.

In April 1943, I. and III. *Gruppen* became JG 11. The fourth *Gruppe* became I./JG 1 and III. *Gruppe* was re-formed in the Netherlands. During 1943, JG 1 constituted the backbone of Home Defence, countering the American daylight raids. After the *Kommodore*, Walter Oesau, was killed in combat with American P-38 Lightnings on 11th May 1943, the unit took his name, Oesau, as a title of honor.

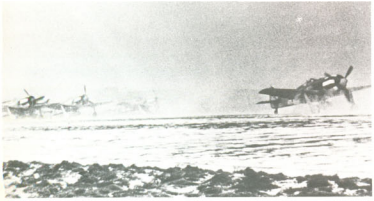
Please turn to Page 32.

Another aircraft flown by Hanke was the Bf 109F Black 7, whose number's thin white outline had only been half finished. The machine had standard grey camouflage.

Upper. Hanke's distinctive Fw 190A-3, W Nr 0495, photographed when he was *Gruppenadjudant* of III./JG 1. The third *Gruppe* bar was missing and the color scheme is believed to have been a 71/02 combination. The unit emblem may be seen under the windscreen. Right. Hanke's first victory bar is added to the rudder of a later machine, W Nr 5701. He claimed a Lancaster shot down on 26th February south-west of Heligoland. Lower. A close-up shot of the aircraft at the top of the page.



Upper. Karl Demuth stands forlornly on the wing of his Fw 190, probably Black 11, after a landing accident. Right. Demuth surrounded by members of JG 1, in front of his Fw 190A-7, Black 11, W Nr 642558. On 6th March 1944 he had to bale out over Minden after claiming two victories. Lower. Their black and white striped cowlings still obvious despite the poor weather conditions, these Fw 190s of I./JG 1 were preparing to take off.



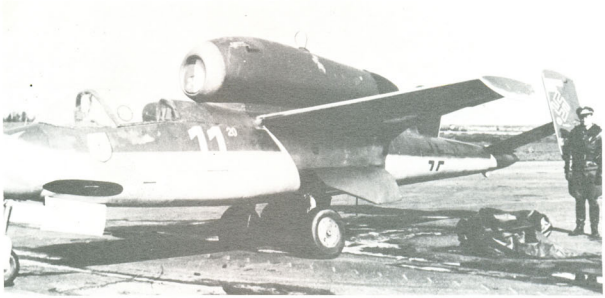
Bottom. White 4 of 1./JG 1 after a particularly heavy landing. The aircraft had several noticeable variations in its markings and camouflage.

Left. A Fw 190A-6 of I./JG 1 under inspection during February 1944. On its black and white striped cowling was a variant of the JG 1 emblem. Upper. *Hpt* Hans Ehlers, *Gruppenkommandeur* of I./JG 1.

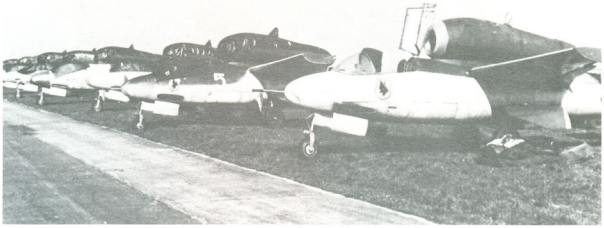
After D-Day in June 1944 the unit moved to France and by August had been virtually wiped out. Re-established in November 1944, the unit resumed its home defence duties, based at Twenthe, Lengerich and Rheine. On 1st January 1945, I./JG 1 attacked Maldeghem and II. *Gruppe*, St Denis Westrem while III. *Gruppe* supported I. *Gruppe*. Some aircraft of I./JG 1 also attacked Ursel. At a cost of 24 pilots lost, JG 1 claimed to have destroyed 32 Spitfires. Later in the month JG 1 was moved to Königsberg in the East, where it flew as air cover for Ju 52s supplying the Kurland pocket. When the Soviets overran the area, the unit was withdrawn. At Garz, on the island of Usedom, the Fw 190s of I. *Gruppe* were handed over to the pilots of II. *Gruppe* so that the former could train for conversion to the He 162 at Parchim and Ludwigslust during March. In April 1945 they went to Leck in Schleswig-Holstein where they were joined in May by II. *Gruppe*. The third *Gruppe* was disbanded.

Contrary to what has been previously reported in some publications, the He 162 did see combat and victory claims were made. Tactics were the same as for the Me 262, but owing to lack of fuel supplies, limitations on flight time, lack of fighter direction and the generally chaotic conditions, few operational sorties were flown. On 4th May 1945, I and II. *Gruppen* were combined to become I. (*Einsatz*)/JG 1 under the command of *Maj* Zober. Two days later British troops occupied the airfield.

Left. Ehlers' Fw 190A-4, W Nr 581 (?), carried the JG 1 emblem under the cockpit and the I. *Gruppe* emblem, also seen in the shot on the right, painted on the cowling.



Upper. White 11, 20, a colorful Heinkel He 162A-2, W Nr 120074, showing 16 victories over American aircraft on the rudder. The camouflage was probably 82/76 or 71/76 with a I./JG 1 badge under the cockpit. The arrow and the engine intake were red. To solve yet another riddle, the pilot explained that the mystifying number 20 indicated the aircraft of the *Gruppenkommandeur*, not the V-20, numerals being used because a chevron marking would have made it a prime target. Further, Demuth's aircraft shown here was numbered in the 120 . . . series and was built at Rostock-Marienehe, whereas the He 162V-20, W Nr 220003, was built at Hinterbrühl. Left. *Hpt* Heinz Künnecke with his He 162A-2, Yellow 5. The diving eagle badge with its red and white background originated in JG 77 and was probably the *Staffel* emblem of I./JG 1. Lower. White 1 was *Lt* Rudolf Schmitt's He 162 at Leck. The differences in camouflage are interesting.



The three *Staffelkapitäne* of I./JG 1 from left to right were *Hpt* Wolfgang Ludewig, *Hpt* Heinz Künnecke and *Oblt* Karl Demuth. When this photograph was taken at Leck, Schleswig-Holstein, at the end of the war, there were about 45 He 162s of I./*(Einsatz)* JG 1 in the background. Right. One of the unit's He 162s, White 23. Lower. In front of a partly painted He 162 were, from left, *Maj* Zober, *Obst* Ihlefeld, *Hpt* Künnecke, *Oblt* Demuth, *Hpt* Gallowitsch, unknown, and *Hpt* Ludewig.

A fascinating shot of several Bf 109Es of III./JG 2 taken as their engines were being serviced, the nearest aircraft being that of the *Gruppenadjudant*. The badge on the cowling in the foreground is that of 7. *Staffel*.

CHAPTER 4

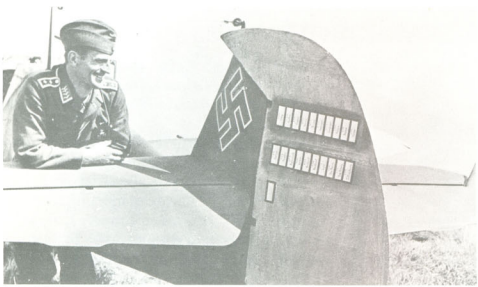
JAGDGESCHWADER 2 RICHTHOFEN

At the outbreak of war only the *Geschwaderstab* and 1. *Gruppe* of JG 2 existed. Only 1. *Staffel* saw action during the Polish campaign, and in November 1939 the unit moved to Frankfurt/Main. With the second and third *Gruppen* formed during 1940, the *Geschwader* served in the West until 1943. Together with JG 26, the unit was heavily engaged in the Dieppe landing in August 1942. JG 2 re-equipped with the Fw 190A-2 with the exception of 2. *Staffel* which flew the Bf 109G-1 from Ligescourt under the control of JG 26. The *Stab* and I./JG 2 were at Triqueville with 35 aircraft, II./JG 2 was at Beaumont-le-Roger with 25 aircraft and III./JG 2 at Cherbourg-Maupertus with 40 aircraft. Over Dieppe on 19th August, the pilots of JG 2 and JG 26 claimed 106 victories, of which 98 were fighters. JG 2 lost 12 aircraft, plus 10 damaged; meanwhile JG 26 lost seven, plus one damaged.

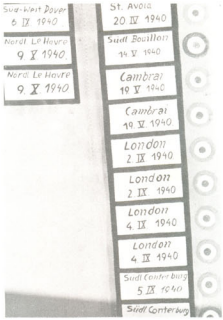
During November 1942 the second *Gruppe* moved to Sicily and in March 1943 to Tunisia. 11. *Staffel* also moved to Sicily and was absorbed by JG 53. The remainder of JG 2 was meanwhile hard pressed in France. I. *Gruppe* moved to Italy in February 1944 to operate over the Anzio/Nettuno beachheads. After D-Day on 6th June 1944, the unit was almost annihilated by overwhelming Allied air superiority. In August the *Geschwader* was re-established in Germany, but there was no respite. On 1st January 1945, with the Fw 190F-8s of SG 4, the aircraft of JG 2 attacked

On 30th August 1940 Helmut Wick's latest victory had just been added. Yellow 2 had a very dark speckled mottle of 71 with unusual borders to its fuselage *Balkenkreuz*. The 3./JG 2 pennant on the cowling was blue with yellow details. Right. *Oblt* Wick using the universal language of an airman in a conversation with *Maj* Hennig Strümpell of 1./JG 2.

Right. *Ofw* Werner Machold painting the ninth victory bar on his aircraft, his previous tally including six French machines and three British. The interesting brush-applied speckled camouflage was typical in the unit. Lower. Machold again, this time with 21 victories displayed on what appears to have been a rather crudely repainted yellow rudder.



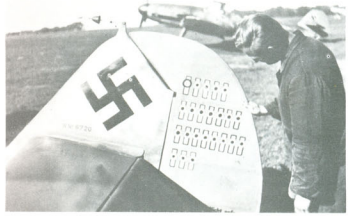
Lower. *Ofw* Siegfried Schnell pictured in 1940 looking at the tail of his Bf 109E, W Nr 1232, which at the time displayed 16 victories. Like the aircraft on the left, its rudder had been repainted yellow except for the victory markings.



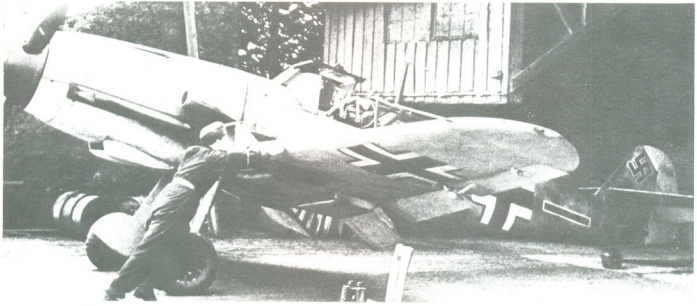
Left to right. Egon Mayer with his Bf 109F, the Bf 109E rudder of *Hpt* Otto Bertram, who commanded III./JG 2, and Bertram in uniform.

St Trond in Belgium, a former *Luftwaffe* night-fighter base which was at this time occupied by the P-47 Thunderbolts of the American 48th and 404th Fighter Groups.

I. and III. *Gruppen* had been re-equipped with brand-new Fw 190D-9s and II. *Gruppe* with AS-engined Bf 109s, G-14 and K-4 models. Many Allied aircraft were destroyed on their airfields, but at a cost of 23 pilots killed or missing, ten taken prisoner and four wounded. During April, JG 2 moved from Frankfurt to Munich and it was here that the unit ended the war.

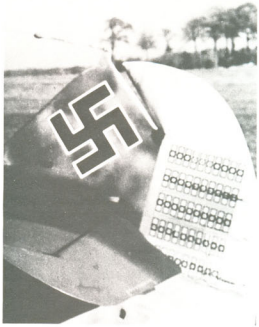


Upper right. Egon Mayer's Bf 109F, White 1, also seen on Page 11. The rudder had been painted yellow and indicated one French and 22 British aircraft, albeit that a very light shade of blue had been used in the roundels. Mayer was the first to reach 100 victories during the very difficult fighting on the Western Front. Lower. An unidentified Bf 109F of the second *Gruppe*. Its yellow rudder displayed eight victories.

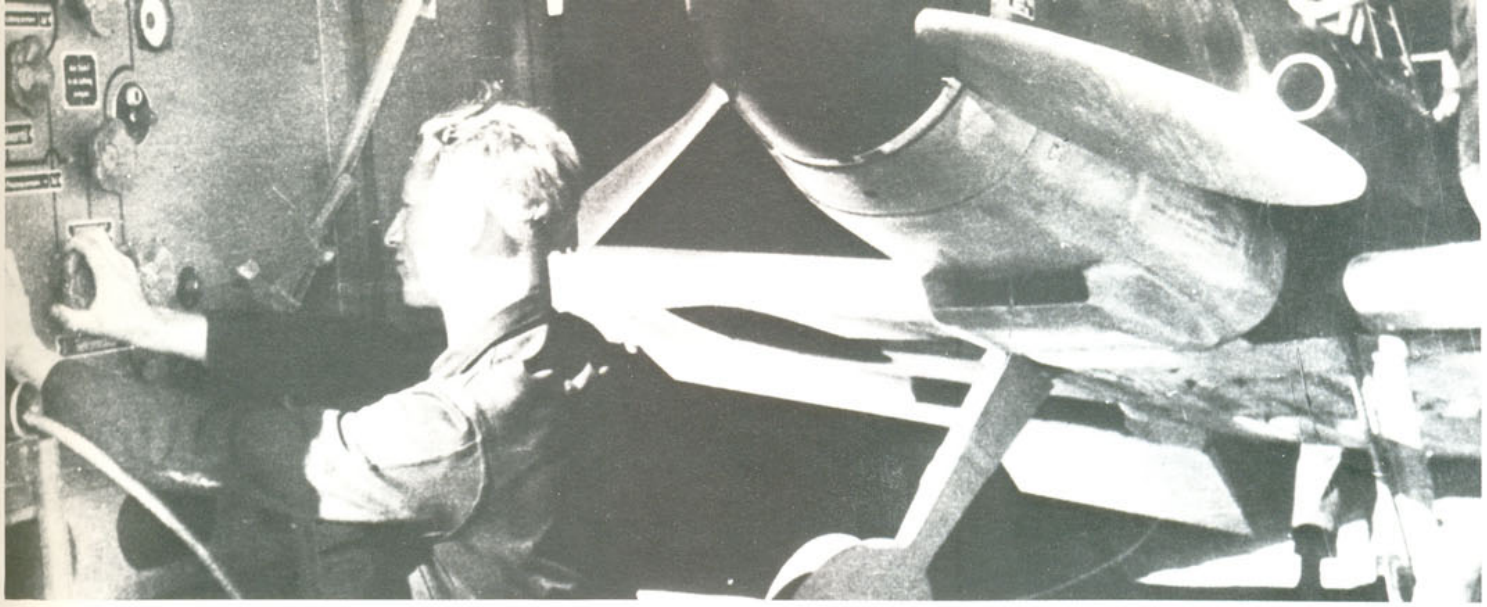


The yellow rudder of this grey-camouflaged Bf 109F of JG 2, White 12, showed two victories.

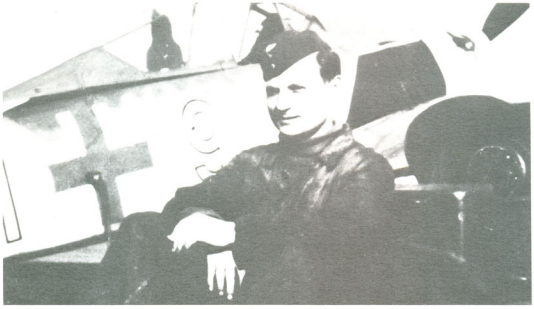
This Bf 109F, White 8, was probably the machine of Kurt Goltzsch of 7./JG 2. The name under the cockpit seems to have been *Anni*.



Two shots of the rudders of *Oblt* Hans (Assi) Hahn, *Staffelkapitän* of 4./JG 2. The one on the left shows 20 victories. The photograph on the right was taken on 19th November 1941, after he had been awarded the *Eichenlaub* for 42 victories when with III./JG 2 in the West.



Upper. In this shot taken in November 1941, the oxygen bottles of this Bf 109F of JG 2 were being replenished. Left. Mechanics or "black men" as they were called, working on another Bf 109F. The apertures for the upper wing guns are plainly shown. Lower. A seat parachute pack ready for immediate operational use.

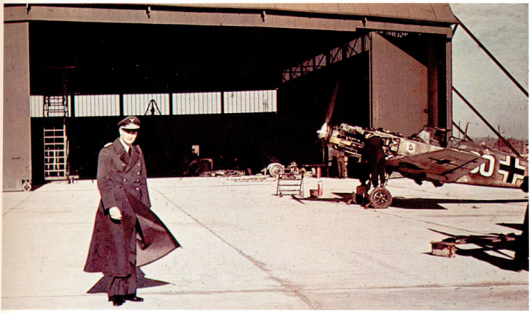


This photograph shows the *Hahn* (Cockerel) emblem of III./*Gruppe* on the cowling of Fw 190, White 9, of 7./JG 2.

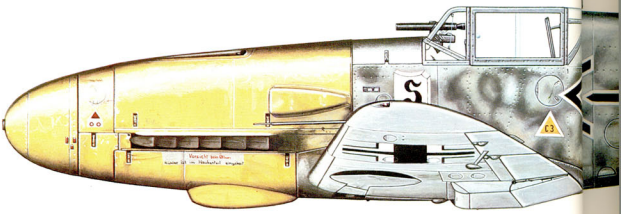
Rudorffer's Fw 190A at Tindja-Bizerta, North Africa, during the spring of 1943. Whilst leading 6. *Staffel* he gained a further 26 victories. Heavily camouflaged because of the bare terrain, the fighter appears to have been painted tan 79 and carried the white fuselage band associated with the Mediterranean theatre.

Lt Gehr with another of 6./JG 2's Fw 190's in North Africa, again with similar camouflage.

Upper and right. Two shots of Walter Horten of III./JG 26 in the cockpit of his Bf 109E, White 7. Note the faded condition of the temporary yellow paint on the forward part of the cowling. Lower. Another shot of Horten with a strangely-marked JG 26 Bf 109 in the background.



Messerschmitt Bf 109F-2

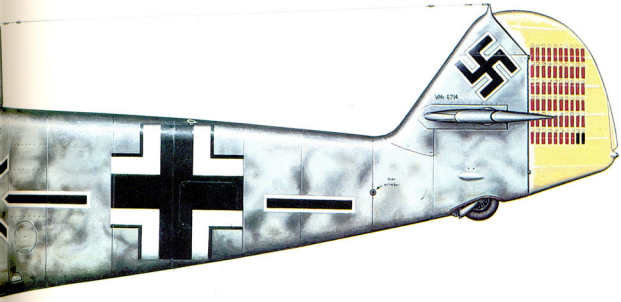


W Nr 6714, of JG 26

The camouflage scheme was an early grey one, and it is not clear colo used at this time were the official RLM 74/75/76 or not. The nose an rudder were in pale yellow, with the victory bars in red except for at two black, a total of 60.

The markings were those of a *Kommodore*, with the *Schlage*blem o JG 26, but Galland's personal Mickey Mouse badge was not carri ath sid of the machine were painted symmetrically. As a special featur aircra was fitted with a ZFR 5 telescopic sight, but Galland only used or lon

Adolf Galland

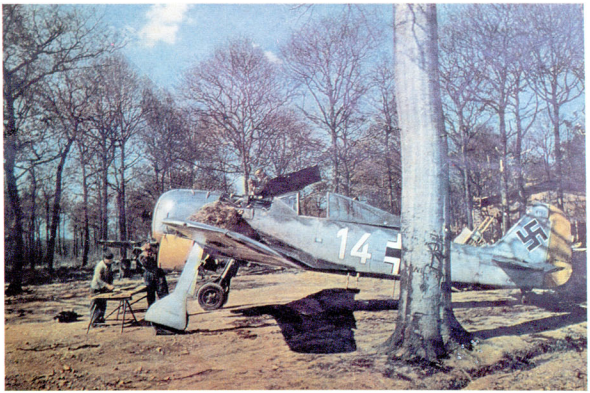


Painting by Richard Goyat

range identification, not for aiming. During this period, in April 1941, the Staff element of JG 26 was based at Brest-Guipavas in North-western France.

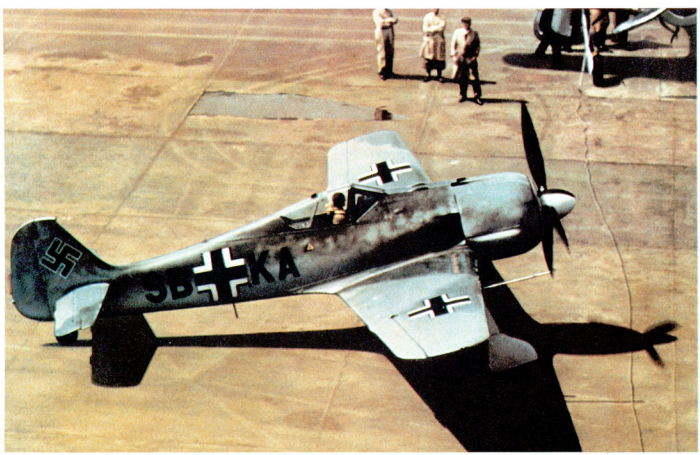
As a *Major*, Galland had been awarded the *Eichenlaub* during September 1940 for 40 victories. As an *Oberstleutnant* he was to receive the *Schwerter* (Swords) on 21st June 1941 for 69 victories. Second only to Mölders, and as an *Oberst*, he was awarded the *Brillanten* (Diamonds) on 28th January 1942, for his 94 victories.

© Kookaburra Technical Publications Pty Ltd



This 1./JG 2 Fw 190A-3 was being serviced at an airfield on the Channel Coast during 1943. The dirt heaped on the wing was a makeshift attempt at better camouflage, for any aircraft temporarily out of commission was a highly vulnerable target.

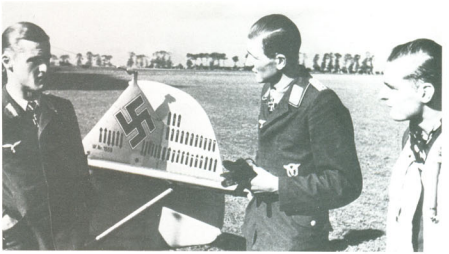
A newly-completed Fw 190A-1/U1 bearing the radio call-sign SB-KA immediately prior to a test or delivery flight.



Left. *Wumm* was the name of Hahn's pet bear. At parties he would be given a pair of boxing gloves to do battle with various pilots, but his owner was the only one who could beat him. Upper. Egon Mayer on the right visiting his mother in Engen/Hegau in company with Hermann Graf on the left who was also there on leave.

Lower left. 64 victories were displayed on the rudder of Siegfried Schnell's Fw 190A-3. As *Staffelkapitän* of 9./JG 2, he received the *Eichenlaub* on 9th July 1941 for his first 40 victories. The bars all showed RAF roundels. Lower. Josef Wurmheller's Fw 190A, W Nr 7334, showing the *Ritterkreuz mit Eichenlaub* for the first 60 victories plus a further 15, including five four-engined bombers. The photograph was taken at Vannes in July 1943. From the left were *Fw* Kopp, *Oblt* Wurmheller, and *Fw* Bleyer.

Upper. Siegfried Schnell with some of his pilots in June 1942 at Theville on the Cherbourg Peninsula. Right. *Maj* Kurt Bühligen claimed his 100th victory, a P-47 Thunderbolt, on 9th June 1944. He was being congratulated at Creil, France, by *Obstlt* Josef Priller of JG 26. Lower. The spotlessly clean and very new Fw 190A-4, W Nr 764, Yellow 4, of Siegfried Schnell of 9./JG 2. It had grey camouflage and a colorfully-adorned yellow rudder.



Left. *Hpt* Gordon Gollob preparing for a sortie in his Bf 109E during 1940. Right. Another 1940 photograph, this one was taken on 7th October and shows *Maj* Günther Lützow, the JG 3 *Kommodore* on the left and *Hpt* Wilhelm Balthasar, the *Gruppenkommandeur*, in front of the tail of the latter's Bf 109E which showed 38 victories.

CHAPTER 5

JAGDGESCHWADER 3 UDET

In September 1939 this unit consisted of only a *Stab* and I. *Gruppe*, II. and III. *Gruppen* not being added until the spring of 1940. After playing an important part in the French campaign and the Battle of Britain in the latter months of 1940, the unit was transferred to the East in June 1941 to take part in Operation *Barbarossa*. Following the advance into Russia, JG 3 moved forward from airfield to airfield. By October 1941, II. *Gruppe* was operating over the Crimea and at about the same time the first *Gruppe* was reconstituted. At the end of the year the entire *Geschwader* was withdrawn to Wiesbaden to rest and refit and it was at this time that the name Udet was adopted. Early in 1942, II. *Gruppe* moved to Sicily and North Africa for operations over Malta, whilst III. *Gruppe* went to the northern sector of the Russian Front.

The whole unit became involved in the battle for Stalingrad and one well-known pilot of JG 3, Georg Schentke (90 victories), a member of the *Platzschutzstaffel Pitomnik*, had to abandon his aircraft on Christmas Day. Landing behind the Russian lines, he was reported as missing in action. During 1943 the fighting was concentrated between the rivers Don and Donetz, over the Kuban and around Kursk where the great tank battle raged. I. *Gruppe* went home to Germany in the spring, followed in August by the remainder of the *Geschwader*. The *Stab* and I. *Gruppe* operated Bf 109s over western Germany, II. *Gruppe* over the Netherlands and III. *Gruppe* over southern Germany. A newly-formed IV. *Gruppe* remained for a while in Italy, but returned to the homeland to fly the heavily armored *Sturmböcke* — the Fw 190A-8. In June 1944, the *Stab*, II. and III. *Gruppen* were thrown against the invasion forces in Normandy and suffered heavily. Withdrawn to Germany, they again operated over the Ardennes battlefield in December 1944.

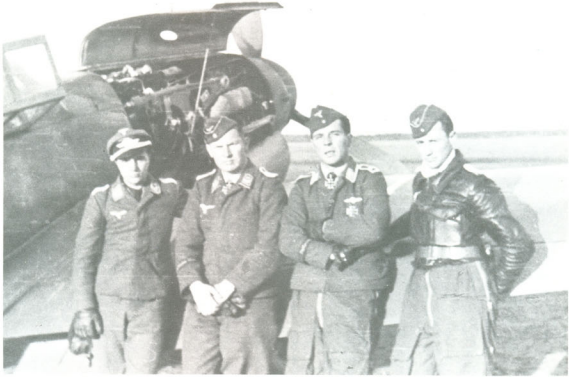
On 1st January 1945, the whole unit took off at first light from airfields in the Paderborn area. Their targets were the airfields of Eindhoven and Gilze Rijen where more than 11 Allied fighter squadrons were

Please turn to Page 51

Wilhelm Balthasar after returning from a mission on 4th November 1941 when he claimed four victories.

Upper and right. Taken in North Africa in the spring of 1942, these two photographs show Franz Schwaiger's Bf 109F-4, Yellow 3 of 6./JG 3 with Schwaiger and his friend Sepp Weber. Details of interest are the II. *Gruppe* emblem, the armored windscreen, the less faded tan 79 camouflage on the wing and the red "Don't walk" lettering. *Gisela* was the name of the pilot's girlfriend. Lower. Members of JG 3 and two of their aircraft near the *Arco dei Fileni*.

Left. Franz Schwaiger and his mechanics with Yellow 3, which is illustrated in color on Pages 62 and 63. Right. The same pilot, now wearing the *Ritterkreuz,* in front of a Bf 109G-6/R6 which bore the adopted emblem of JG 3, a stylised red-winged letter U (for Udet) on a white shield. Lower. Another shot of Schwaiger, second from right, with II./JG 3 in Russia. Second from the left was Otto Wessling, another holder of the Knight's Cross.



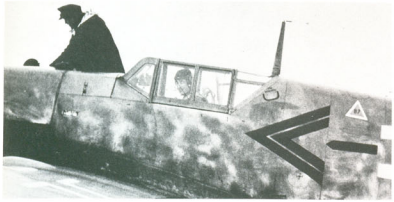
Upper. Two Bf 109G-2/R6 fighters flown by Wolf-Dietrich Wilcke and with identical markings. By this time, late 1942, their 74/75/76 scheme was standard camouflage. Both carried the JG 3 badge on their cowlings. Lower. This winter-camouflaged Bf 109G-2 is believed to have been flown by Kurt Brändle, *Gruppenkommandeur* of II./JG 3.

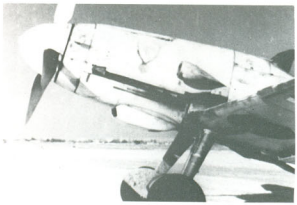
Upper. Another shot of the same two machines at the top of the page. Left. This Bf 109F in startling 3-color camouflage was Yellow 4, flown by *Ofw* Eberhard von Boremski. It had 43 victory bars and carried the name *Maxi* near the cockpit. The upper surface camouflage was almost certainly a 70/75/76 or 74/75/76 combination, like the other machine behind it. It will be illustrated in Vol 2.

A flashback to training days. This shot shows Franz Schwaiger, the future air ace with 67 victories, with his instructor and a Klemm trainer.

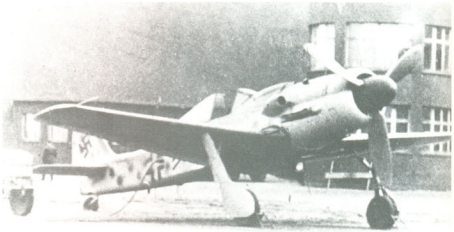
based. Heinz Bär, in his Fw 190A-9, claimed two Typhoons to bring his score to 204. Many Allied aircraft were destroyed, but at a cost of ten German pilots killed and six captured. Once more JG 3 returned to the East for the last battle for Berlin; but the war had been lost and the unit was disbanded in Northern Germany. Werner Schroer, the last *Kommodore*, has stated to the author that the complete records of JG 3 lie buried somewhere near the old airfield at Pasewalk.

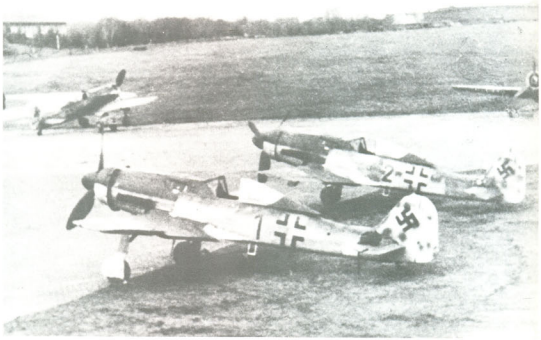
Right. *Maj* Wolfgang Ewald with *Obst* Wolf-Dietrich Wilcke, on the right. Wilcke was wearing the *Eichenlaub mit Schwertern* awarded for his 155 victories up to December 1942. Lower left. Ewald testing a new Bf 109G-1 in early 1943 in Russia. Its markings implied a combination of the functions of *Gruppenkommandeur* and *Kommodore*, who at the time was Wilcke. Traces of its overpainted radio call-sign are just visible. Lower right. A view of the nose of the same winter-camouflaged Bf 109G-2 as seen on the previous page.





Left. Bearing the single chevron markings of an *Adjudant*, this Fw 190D-9 was flown on occasions by Oskar Romm, *Gruppenkommandeur* of IV./JG 3. Lower. Another machine flown by the same pilot, this one had two black chevrons thinly outlined in white. It probably bore an 81/82/76 or 81/83/76 camouflage scheme.





Upper. *Fw* Strebel with his Bf 109K-4, White 4, of 9./JG 3 in March 1945. The simplified antenna mounting and C3 fuel sign are clearly shown. Like many K models, it was probably painted in a combination of late-war greens. Right. Two Fw 190D-9s of the Staff of IV./JG 3. Their numbers, 1 and 2 respectively, were probably in the dark blue staff colors.

Left. *Uffz* Walter Giese of 14./JG 4 seated on his faithful Black 8, a Bf 109G-14 AS, at Riesa-Leutewitz in October 1944. Right. This shot was also taken in October 1944 but at Finsterwalde and shows *Obgfr* Grüning and a Bf 109G-10, probably Black 10 of 14./JG 4. Note the tail bands on the aircraft in the background.

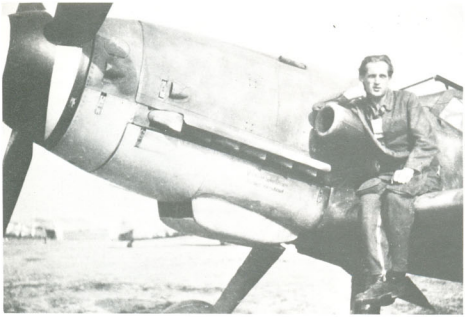
CHAPTER 6

JAGDGESCHWADER 4

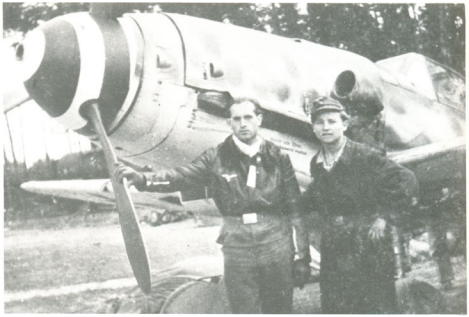
This fighter unit was formed in Romania at the beginning of 1943, with the establishment of only the first *Gruppe*. Its first major action took place on 1st August 1943 when a force of American B-24 Liberators attacked the Ploesti oil installations. From late 1943 until August 1944, JG 4 served in Italy. During the spring of 1944, a unit *Stab* was established at Kassel and this eventually became the *Geschwaderstab*, since a second *Gruppe* was formed under *Maj* von Kornatzki at this time and elements of a third *Gruppe* had already existed since October 1943. II. *Gruppe* was equipped with the heavily armored Fw 190s known as *Sturmböcke*. Most of the illustrations relating to JG 4 show the aircraft of IV. *Gruppe* which had previously been II./JG 5.

Owing to the overwhelming Allied air superiority over France during the invasion period, no concerted action by the whole of JG 4 was possible, and in the autumn of 1944 the *Geschwader* withdrew eastward to take up home defence duties. It also took part in the Ardennes battle at the end of the year. On 1st January 1945, 55 aircraft of JG 4 took off from the Frankfurt area, a mixture of Fw 190A-8s and Bf 109G-10s, G-14s and K-4s, to attack the airfield at Le Coulot, south of Brussels. For JG 4, Operation *Bodenplatte* was a disaster. The target could not be found and instead the aircraft were widely dispersed and joined in the attacks on other targets with machines from other units. Twenty-three pilots were lost and II. *Gruppe* was virtually wiped out. *Gefr* Walter Wagner of 5. *Staffel*, for example, landed his Fw 190, badly damaged by groundfire, at St Trond airfield. In mid-January the unit moved to the Eastern Front to operate over the river Oder where the Russians were crossing, but in April it was sent north where the *Geschwader* was disbanded at Leck, Schleswig-Holstein.

Lower. Black 13 of 14. *Staffel* was the machine of Scheufele, the *Staffelkapitän*, and is illustrated in color on Pages 142 and 143. The other pilots were Beck and Dittrich.



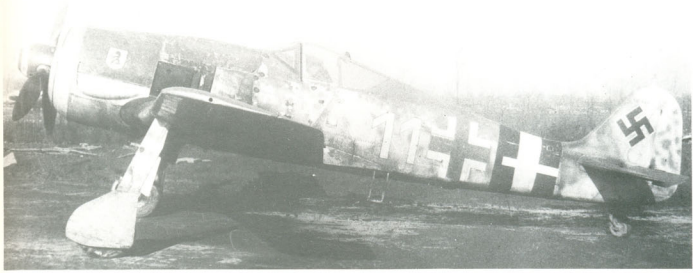
Uffz Beck on his Bf 109G-14. The machines in the background also appear to have had black, white and black fuselage bands and their pale-colored rudders were probably white.

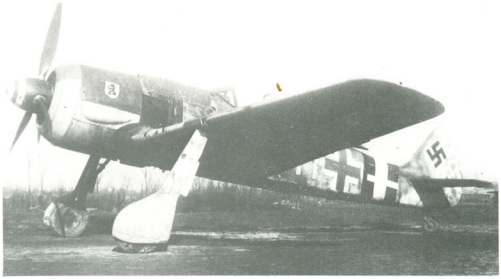


This photograph was taken at Rheinsdorf near Jüterbog in October 1944 and shows Beck with one of his mechanics in front of a Bf 109G-14 AS. Black and white spiral spinners had been introduced the previous July as an identification marking.

Beck again, this time with another machine, possibly White 13, showing clearly the prominent bulged fairing on the upper cowling which covered the breech blocks of the larger MG 131 armament.

Left. *Rfr* Kurt Esser and his Bf 109G-10. Points of interest are the oil cooler and the very carefully applied spiral on the spinner. Centre. The pilot and mechanic of the same machine. The emblem of the old 6./JG 5 now served 14./JG 14. Right. This shot of *Hpt* Laube with his Bf 109G-10, White 3, shows the wavy line of IV. *Gruppe* painted over the rear fuselage bands.





Upper and right. *Gefr* Walter Wagner of 5./JG 4 made an emergency landing on St Trond airfield on 1st January 1945. His Fw 190A-8, White 11, carried a camouflage of 74/75/76 as verified by a color photograph. After repainting, this prize machine was later flown by American pilots of the 404th FG.

A beautiful shot of a Bf 109F, Red 1, with the *Staffelkapitän*, *Uffz* Philipp, about to take off. This machine carried the standard grey camouflage scheme and the 7./EJG 5 shield emblem, probably in red, black and white, under the cockpit. In each corner of the unit marking was a white diamond.

CHAPTER 7

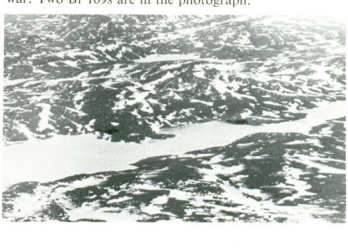
JAGDGESCHWADER 5 EISMEER

First established in January 1942 in Norway as I./JG 5, this unit was to have an eventful history. The initial *Gruppe* comprised elements drawn from I./JG 77, 14./JG 77, and 2./ZG 76, and was to be responsible for the fighter cover of the entire Norwegian coast as far as Petsamo and for defence against Russian bombers from Murmansk. The extreme weather conditions within the Arctic Circle presented an exceptional challenge to men and machines. In May 1942, a *Geschwaderstab* was formed in Petsamo, and *Jagdgruppe zbV* (special duties) at Petsamo became II./JG 5. The third *Gruppe* came from IV./JG 1 which had formed at Brest in France in January. They came to Petsamo and Kirkenes in April 1942. Another *Gruppe* was formed in the summer to defend Southern Norway, later to be joined by 13. (Z)/JG 5 and 14. (*Jabo*)/JG 5 flying Fw 190As. Operations were mainly concerned with countering the Allied convoys to Murmansk and interrupting the Russian railway link from the port to the Front.

II./JG 5 moved to the Russian Front in November 1943 and eventually became IV./JG 4. I./JG 5 moved during the same period to the Balkans, before joining in home defence operations. After a short spell in France after the invasion in June 1944, there was a return to home defence and re-designation as III./JG 6 in October 1944. 14./JG 5 went to Italy in April 1944 and became 4./SG 4, and 13./JG 5 was detached to become 10./ZG 26.

The *Stab* and III./JG 5 remained in Norway and were joined in August 1944 by IV. *Gruppe* which moved northward. On 3rd September 1944, the Finnish Government initiated armistice negotiations with the Soviets and these were concluded on 19th. Meanwhile, the Russian advance had reached Petsamo and in the operations here until 9th October, JG 5 claimed to have destroyed 85 enemy aircraft, including the unit's 3000th victim. By 23rd October, however, the last JG 5 pilot had left

This was the kind of terrain over which JG 5 fought its icy war. Two Bf 109s are in the photograph.



Left. The two seated pilots here were Franz Dörr on the left and Hans Philipp on the right, in front of two Bf 109Es, Yellow 4 and Yellow 8. Right. A more complete view of Yellow 8.

Kirkenes, and IV. *Gruppe* left for Stavanger without their machines, to be re-equipped with Bf 109G-6s. IV. *Gruppe* moved to Bardufoss to obtain Fw 190s. The blackest day for JG 5 was 12th November 1944, when RAF Lancasters sank the German battleship *Tirpitz* in Sandnessund near Tromsö with "Tallboy" bombs. Nearly 1,000 German sailors died and Ehrler, *Kommodore* of JG 5, was court-martialled and convicted, although it had been impossible to intercept the bombers due to incorrect reporting and because they were said to have flown over neutral Sweden.

JG 5 took no part in Operation *Bodenplatte* on 1st January 1945, but moved to Alesund in the south. But at the end of March a final combat with British naval aircraft brought four victory claims and three losses, the war ending for the unit in Andalsnes, Bergen and Stavanger.

On this Bf 109F, Black 3 of 8. *Staffel*, the *Staffel* badge was painted ahead of the *Gruppe* emblem. Ex-pilots of JG 5 have suggested it was probably the machine of *Oblt* Hermann Segatz, the unit's first *Staffelkapitän*.

Left. Franz Dörr, on the left, talking to another pilot in front of a Bf 109F bearing an unusual "scribble" pattern. Right. This machine, Black 4 of 8. *Staffel*, was flown by *Ofw* Karl Schulz and was painted in similar style. It was shot down by a Soviet fighter and overturned during the ensuing crash-landing.

Right. A snow fight between pilots of JG 5 near Alesund, Norway. The Bf 109G, Black 4 behind them had a IV. *Gruppe* marking on an entirely white tail unit except for the swastika and victory markings. Lower. Heinrich Bartels of 8./JG 5 being presented with a plaque to commemorate his 100th combat mission on 11th September 1942. His Bf 109F, Black 13, was named *Hella*. Bartels left JG 5 during the spring of 1943 with a total of 47 victories.

Left. Fw 190A-8s of 9./JG 5 at Herdla, Norway, in May 1945. The first machine was coded Blue 8 and had the *Geschwader* emblem on its cowling plus a IV. *Gruppe* marking on the rear fuselage. Right. *Oblt* Horst Berger, who succeeded Seegatz as *Staffelkapitän* of 8./JG 5 in September 1943, in his Bf 109F, Black 14. The camouflage style is interesting.

Left. *Ofw* Orlowski in his Fw 190, White 3, of 9./JG 5. It was named *Ingeborg*, and also carried the circular rear fuselage marking of IV. *Gruppe*. Its relatively dark upper surface camouflage was probably a combination of the greys RLM 74 and 75. Right. *Uffz* Opitz with one of his mechanics on his Fw 190A-8, *Netty*, at Herdla in early 1945.

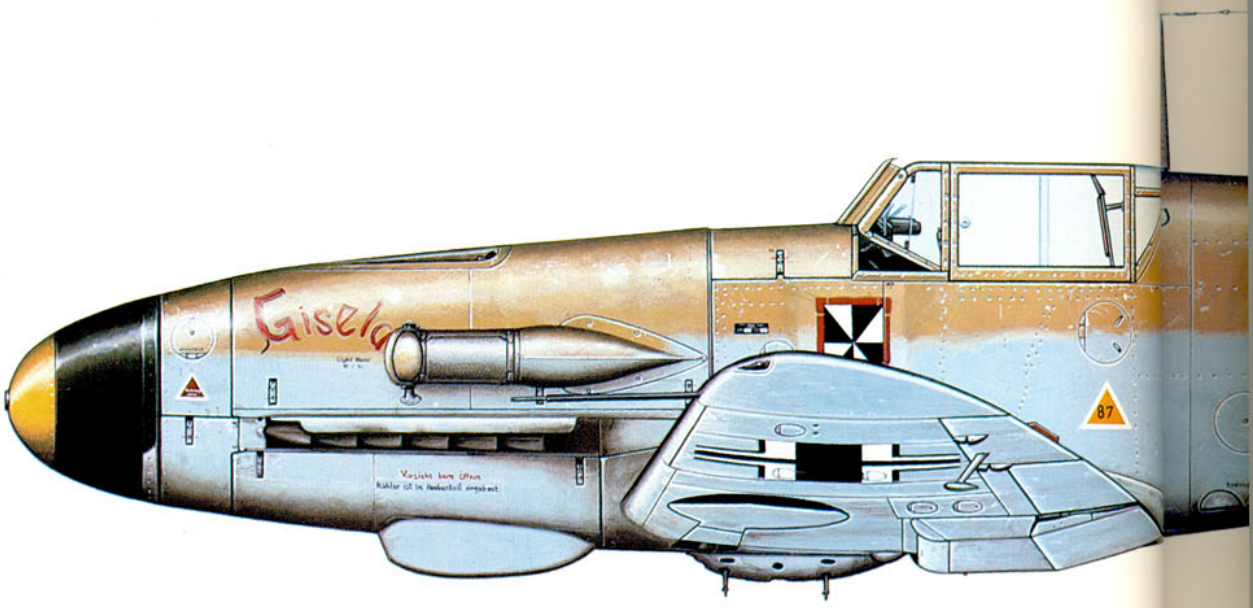
Left. A group of JG 5 pilots with a Bf 109G-6/Trop in unusual camouflage, possibly dark grey 74 and pale blue-grey 76 or white. It is believed to have carried a IV. *Gruppe* marking. Right. *Oblt* Franz Dörr, who was credited with 128 victories, perched on the cockpit ledge of his Bf 109G. It is clear that a previous marking under the forward of the fuselage cross had been repainted, probably in grey 74.

Left. Rudolf Glöckner, another successful fighter pilot with 32 victories. Centre. From the left in this photograph were Schuck, Dörr, Ehrler and Norz. Between them they claimed over 600 Allied aircraft destroyed. Right. *Lt* Walter Schuck with *Eichenlaub zum Ritterkreuz*. With 206 victories he was one of the foremost aces of JG 5.

Right. Jakob Norz in front of his faithful Black 8, a Bf 109G. Norz flew with II./JG 5 and was decorated with the *Ritterkreuz* by the *Luftflottenchef*, *Genobst* Stumpff. His final victory tally was 117. Lower. *Hpt* Theodor Weissenberger, centre, walking away from his Bf 109G on Frières airfield in France on 25th July 1944 after claiming two Spitfires near Rouen for his 199th and 200th victories. Within minutes of landing, the aircraft had to be dispersed and camouflaged out of sight of the ever-present Allied fighter-bombers. His fighter had a black and white spiral spinner and carried the double chevron markings of a *Gruppenkommandeur*.

Upper. Seen here in front of an exceptionally dirty Bf 109E flown by the *Gruppenkommandeur* of III./JG 26 was Walter Horten. The aircraft bore a camouflage scheme consisting of 71/02/65 with some lower areas repainted. Note the auxiliary fuel tank. Lower. The information visible in this shot is best evaluated with the photographs on Page 81, for it shows the same aircraft, White 10. The "sawtooth" style of upper surface camouflage was so arranged that the landing flaps could be painted in the one color.

Messerschmitt Bf 109F-4/Tr

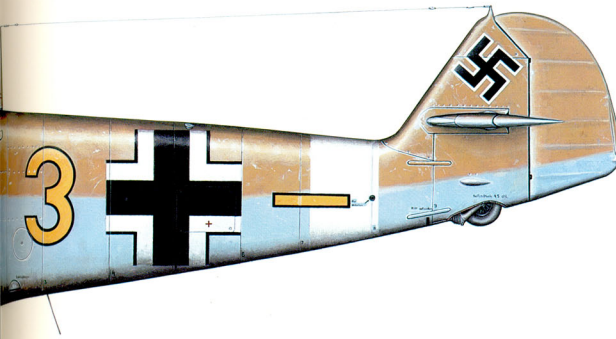


JG 3, February 1942

This aircraft displayed a typical tropical camouflage scheme, the uppe surfaces in RLM 79 and RLM 78 underneath. The badge of II.3 was i black and white with a red border. The yellow 3 and the bar of secon *Gruppe* was outlined in black. On the cowling was the name Gisela red wit black details, after the pilot's girlfriend at that time.

In this aircraft of 6./JG 3, Schwaiger took off his 120th operati flight o 23rd February 1942, to fly from Pantelleria to Castel Benito in N. Africa

Franz Schwaiger



Painting by Richard Goyat

At this time he had eight victories. On 29th October 1942, as an *Unteroffizier*, he was awarded the *Ritterkreuz* for 52 victories in the East.

On 24th April 1944, having 67 victories including 12 in the West, he made an emergency landing due to lack of fuel at Pessenburgheim after destroying an American four-engined bomber in his Bf 109G, White 15. An American fighter pilot witnessed this and killed Schwaiger after he had left his aircraft. He was *Staffelkapitän* of 1./JG 3 at the time.

© Kookaburra Technical Publications Pty Ltd

Upper and right. Two common types in *Luftwaffe* training units were the Bü 131 and Bf 109B. The biplane trainer had been fitted with skis. Lower. An interesting shot of *Oblt* Hermann Segatz, the *Staffelkapitän* of 8./JG 5, with his mechanic and German Shepherd dog. His aircraft in the background shows the Tyrolean eagle emblem also used by Pomaska.

An extremely rare photograph of brand-new Fw 190D-9s at Sorau just prior to delivery to JG 6 in February 1945. *Ofw* Perfahl is pictured in the foreground. The camouflage scheme on the two nearest machines has the appearance of an 81/83/76 combination.

CHAPTER 8

JAGDGESCHWADER 6 HORST WESSEL

Although this unit only operated for a short time, it nevertheless had a colorful history. In August and September 1944, JG 6 was formed from the *Geschwaderstab* and both the first and second *Gruppen* of ZG 26, a bomber-destroyer unit.

On 20th August 1944, II./JG 6 moved to a location near Reims in France, but within a few days of intense fighting was almost wiped out. The following month the *Geschwaderstab* and I. *Gruppe* moved to airfields in the Bonn area. In October a third *Gruppe* was added, having previously been I./JG 5. In November the entire *Geschwader* saw action from airfields to the east of Mecklenburg, moving in December to a base near Oldenburg.

For JG 6, Operation *Bodenplatte* was a complete disaster. At the time, I./JG 6 was based at Delmenhorst with II./JG 6 at Vechta and III./JG 6 at Bissel. In the early morning about 70 aircraft, Bf 109G-10s and G-14s plus a few Fw 190A-8s and A-9s, took off to assemble over Quakenbrück. Flying low at about 150 metres, they proceeded west but missed their turning point and mistakenly attacked Heesch, where Spitfires of the 126th Wing of the 2nd Tactical Air Force were based. Attacks were also made on Twenthe and Venlo, but only one air victory was claimed for a devastating loss of 23 pilots.

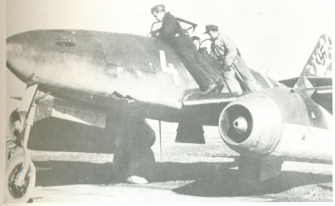
Shortly afterward, the entire *Geschwader* moved to the Posen area on the Eastern Front, III. *Gruppe* then proceeding to Oberschlesien. Commencing from January 1945, ground attack missions were mounted against the overwhelming might of the Russian advance in the Niederlausitz sector, but starved of fuel and after losing many ground personnel to the army, the unit gradually disintegrated. A retreat to Prague followed. Finally, what was left of JG 6 surrendered after reaching Bavaria.

Maj Barkhorn, centre, with some of his companions.

Gerhard Barkhorn, *Kommodore* of JG 6, with his Fw 190D-9 named *Christl* and his mechanic Albert Kusterer in February 1945. By March 1944 when he received the *Ritterkreuz mit Eichenlaub und Schwertern*, he had already achieved 250 victories.

Right. Barkhorn and comrades in front of the wing of an unidentified Fw 190D-9. The dark 81 and 82 camouflage is obvious as are the white "Don't Walk" markings.

Lower left. *Maj* Gerhard Barkhorn, wearing his battle honors. Right. The same Fw 190D-9 as seen at the top of the page. Note the tiny white 5 behind the chevron and the name *Christl*, after Barkhorn's wife. Both markings dated from his first Bf 109F, White 5, which he flew at the start of the Russian campaign.



Left. An Me 262A-1a, Yellow 4, of JG 7 at Perleberg on 15th April 1945. The mechanic on the right was Rumler. The yellow port engine ring is of interest. Right. This show shows the machine of Helmut Lennartz of *Erprobungskommando Thierfelder* after the first victory of an Me 262 over a B-17 near Stuttgart on 8th August 1944.

CHAPTER 9

JAGDGESCHWADER 7 NOWOTNY

The nucleus of JG 7 was the *Kommando Nowotny*, which had been established in the summer of 1944 by the *General der Jagdflieger*, Adolf Galland. Further personnel came from *Erprobungskommando Lechfeld*, which in turn had been formed from III./ZG 26.

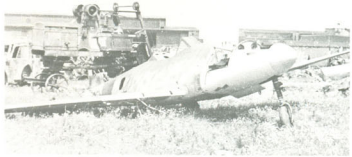
The first missions, from Lärz, Hesepe and Achmer met with only marginal success, for the defenders' airspace was on the direct bomber route to Berlin. Toward the end of November 1944, the unit was placed under the command of the *Geschwaderstab* of JG 7 in the Berlin area, thus forming III. *Gruppe*. I. *Gruppe* was established from former members of II./JG 3 and operated from Neumünster/Kaltenkirchen, until the final month of the war, when large numbers of miscellaneous fighter and bomber pilots were transferred in. The unit took no part in the *Bodenplatte* operation.

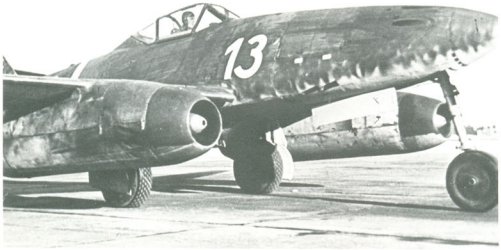
II. *Gruppe* reached operational readiness in February 1945 and together with the *Stabsschwarm*, which consisted of *Experten* from JG 5 and I. *Gruppe*, achieved very good results against Allied bomber streams and their escorting fighters.

When the Allies had occupied most of Germany, JG 7 retreated to Prague, but were caught up in the capitulation there. Sections of the unit moved to Niederbayern, but all to no avail; they simply surrendered there instead.

It is not clear how many victories were achieved by JG 7, but it is believed to have been close to 500. The last of these was also the last air-to-air victory in the European theatre, when *Oblt* Stehle and his wingman shot down a Russian Yak 9 near Freiberg on 8th May 1945.

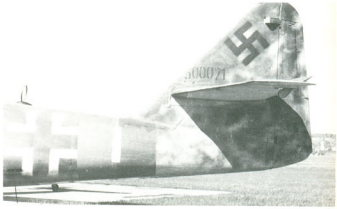
Photographs of JG 7 aircraft or, indeed, any Me 262s for that matter, are notoriously rare. The shot on the left shows one of the many aircraft graveyards which littered occupied Europe after the war. The machine in the foreground, White 9, W Nr 111617 of III./EJG 2, was found near Munich on 5th May 1945. Right. Another partially stripped and abandoned Me 262 was Black 4, which had probably belonged to a fighter-bomber unit.





This Me 262A-1a is believed to have been flown in the *Kommando Nowotny*, the unit which formed the nucleus of JG 7. An unconfirmed report states that the *Werk Nummer* of White 13 was 110522.

Upper and lower. Zürich-Dübendorf airfield in neutral Switzerland was the recipient of many aircraft from both sides including this 9./JG 7 Me 262A-1b, W Nr 500071, which was flown in on 25th April 1945 by *Fr* Hans Mutke. A Swiss report described its color scheme as moss green and olive green on top with pale blue undersurfaces. The forward rear fuselage band was red and the rear one, dark blue.



Anton Hackl, centre, with two companions in front of his grey-camouflaged Bf 109G-6. It had a yellow rear fuselage band, III. *Gruppe* bar and featured 132 victories on its white rudder. Hackl used this machine in parallel with a Fw 190, the former for combat against opposing escort fighters and the latter for attacking bombers.

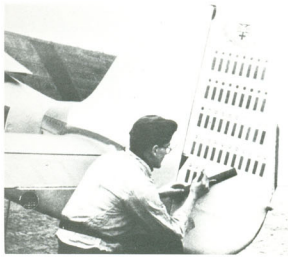
CHAPTER 10

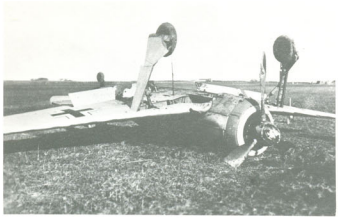
JAGDGESCHWADER 11

During April 1943, a completely new fighter *Geschwader* was formed for home defence purposes, using elements of JG 1 for its establishment. The *Geschwaderstab* was based at Jever. I./JG 11, formed from III./JG 1, was based at Husum and II./JG 11, formed from I./JG 1, was based at Rheine. A short time later, III. *Gruppe* was established at Neumünster and this unit moved to Oldenburg. At the same time and in the same area of North-western Germany, there was an autonomous fighter unit operating under the designation *Jagdstaffel Helgoland* which later became 11./JG 11. They were joined by a newly-formed tenth *Staffel* from Aalborg in Denmark.

After operating for a short spell in Norway, I./JG 11 rejoined the rest of the *Geschwader* on home defence duties, but a fighter pilot's life was not easy in those days when the American daylight offensive was at its height and the unit suffered heavy losses. Even heavier were the losses in France after D-Day, when I., II. and IV. *Gruppen* operated against

Left. Hackl, *Kommandeur* of III./JG 11, in his grey Fw 190 which had a roaring dragon for the pilot's personal emblem. Right. Hackl's 141st victory bar being added to the same machine. It had the yellow tail band of JG 11, a III. *Gruppe* bar and an oversprayed swastika.





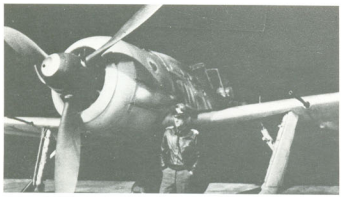
Left. Gunther Wiemann's crash at Husum on 3rd March 1943. Right. Heinz Born is welcomed home with champagne after his claim to have shot down a Spitfire. His machine was Yellow 11.

the invasion forces from bases north of Paris. II./JG 11, flying Bf 109s, was withdrawn to Wunstorf to rest and refit, but by August returned to the battle for Northern France. Meanwhile, III./JG 11 had moved to the Eastern Front, to fight over the central and northern sectors until moving back to Germany in September 1944.

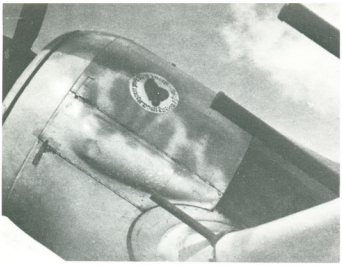
The first three *Gruppen* took part in the great New Year's Day attack on the Allied airfields. Under the *Kommodore, Maj* Günther Specht, they took off from bases south of Frankfurt and set course for Asch in Belgium. The attack was a failure and 25 pilots were lost including the *Kommodore* and *Hpt* von Fassong, *Gruppenkommandeur* of III./JG 11. During the latter part of January the unit moved to the Posen area and took part in the Battle for Berlin in February. During March, I. *Gruppe* was disbanded and II. Gruppe disappeared. What remained of JG 11 was found at the time of the capitulation in Schleswig-Holstein and in Denmark and Norway.

Heinz Hanke with Yellow 15, which was normally flown by Lorenz. It was probably a Fw 190A-7 sub-type.

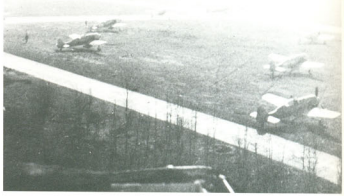
Left. Heinz Hanke and a Fw 190, possibly Yellow 2, which carried the 3. *Staffel* emblem on its cowling. Right. Herman Hoes, on the left, with Gutowski, the *Staffelkapitän*, at Husum in 1942. Gutowski's Yellow 1, with a variant of the 3. *Staffel* emblem aft of the fuselage cross, was in the background.



Upper. The strip and dispersal areas at Husum was so muddy that boards had to be used to prevent aircraft being bogged. This 1943 shot shows a typical scene. All of the aircraft had white borders to their fuselage crosses and narrow white rear fuselage bands. Lower. The Bf 109G-6 AS of *Maj* Günther Specht, specially decorated for the occasion of 8th April 1944 when he received his *Ritterkreuz* for 31 victories.



Left. An unusual close-up view of the nose of a 3. *Staffel* Fw 190 at Rotenburg showing its gun and heart unit emblem and "pulk-destroyer" armament. Right. *Fw* Alfred Gödicke of 3./JG 11 who was killed at Rheine on 10th February 1944.



Left. One of our pilots is missing . . . a photograph which speaks eloquently of the tragedy of total war, whatever the nationality of the airmen. Right. Fw 190s of I./JG 11 during an emergency take-off from Rotenburg. The use of pine boards for taxiways was very unusual.

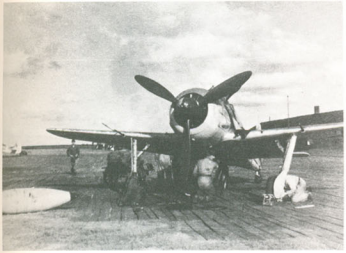
Left. Rudi Schmitt in front of a late-model Fw 190 fitted with four additional guns in the underwing gondolas. He was killed over Normandy in July 1944. Right. These two girls were photographed in front of Hans König's Yellow 4.

Upper. Hans Güthenke's Fw 190A-6, Yellow 7, W Nr 530106, at Husum in 1943. The 3./JG 11 badge is just visible on the cowling. Right. Güthenke had scored two victories by 26th June when this photograph was taken. Far right. In the 3./JG 11 mess was a large replica of the unit's gun and heart emblem surrounded by the words: *Wer zuerst schiesst hat mehr von Leben*. (He who shoots first lives longest.) Lower. Because of this emergency landing between Zutphen and Arnhem on 17th August 1943, Güthenke missed the interception of the huge Schweinfurt-Regensberg raid. At the time his Yellow 7 had about five victories on the rudder.

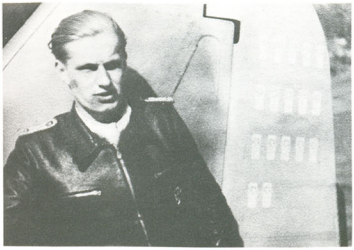
These three aircraft of 3./JG 11 had been fitted with auxiliary fuel tanks. With their markings overpainted they were much more difficult to spot at low level.

These seven aircraft of 3./JG 11 were photographed at Husum and by this time were all carrying wide yellow rear fuselage bands.

This Fw 190A-7/R2, Black 1 of 2./JG 11, was fitted with two 30-mm MK 108 cannon and was normally flown by either Zwernemann or Doppler.



Left. This Fw 190 of 3./JG 11 was photographed during 1943 whilst under repair on the wooden strip at Husum. Right. Yellow 7, the Fw 190F-8 of *Uffz* Karl Heinz Kabus was fitted with an AB small bomb container in which were 108 small bombs for use against soft-skinned targets.



Left. Gunther Wiemann in his Fw 190 before he was killed on 20th May 1944. The notice on the headrest is interesting. Right. Hans Heinrich König, the *Staffelkapitän* of 3./JG 11, with his Fw 190A-7, W Nr 430489. He claimed 17 victories, two British and 15 American. Like other aircraft in the unit, the swastikas had been overpainted.

Left. The devastating effects of an Allied bombing raid are seen in this dramatic shot of burning Fw 190s of JG 11. Right. An unidentified pilot of 3./*Staffel* with Yellow 14, which featured an unusually solid style of camouflage on its fuselage sides.

Upper left. *Maj* Erwin Clausen's rudder showed 129 victories. When *Gruppenkommandeur* of I./JG 11 he failed to return from a sortie in October 1943. His total then stood at 132. Right. Celebrating Rolf Hermichen's *Ritterkreuz* award on 26th March 1944 were, from left, Dreizehner, König, Stangl, Stöwer, and Hermichen. Left. Heizmann in his Fw 190, showing interesting close-up details. Lower. A final shot of two well-maintained Fw 190A-7s of I./JG 11 at Rotenburg in typical camouflage and markings for the unit. The nearer aircraft was Black 1 and the other, Black 15.

Official photographers visited 6./JG 26 during early 1940, the shot on the left catching one of them in the act! The 71/02/65 camouflage of these aircraft was a combination which had been introduced earlier the same year.

CHAPTER 11

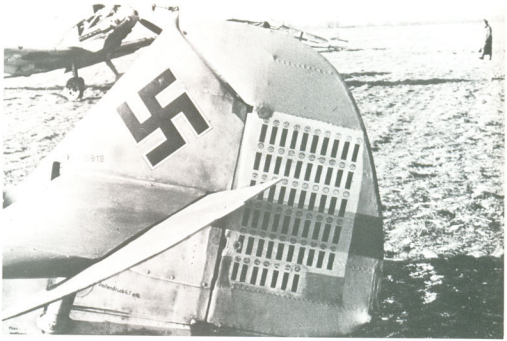
JAGDGESCHWADER 26 SCHLAGETER

Only I. and II. *Gruppen* existed at the outbreak of war and III. *Gruppe* was established soon afterward. The entire *Geschwader* remained in the West until it was called upon to take part in the French campaign and then in the Battle of Britain. In April 1941, JG 26 withdrew briefly to Germany, from where 7. *Staffel* moved to Sicily to operate over Malta, while the rest of the unit returned to France, occupying airfields in the St Omer region, their place in Germany being taken by JG 2. During the summer of 1941, JG 26 began to convert to the Fw 190 and in March 1942, 10. (Jabo)/JG 26 (a fighter-bomber *Staffel*) was established, equipped with Bf 109s and Fw 190s for attacking targets in Southern England and in the Channel. In February 1943, this *Staffel* was absorbed by a new unit, SKG 10. (*Schnellkampfgeschwader 10*). On 19th August 1942, JG 26 was heavily committed over Dieppe and claimed a large number of victories. During the same month, 11. *Staffel* was formed as a high-altitude unit, but in November it moved to the Mediterranean area and became a part of JG 51. In JG 26 a new 11. *Staffel* was formed, followed in April 1943 by 12. *Staffel*. The *Geschwader* continued operations over France, moving to the Paris area after D-Day and to the Netherlands at the end of August 1944. The sustained heavy fighting in the air continued and by the end of 1944 JG 26 had been forced to withdraw into Germany, to airfields around Rheine.

On the great attack of New Year's Day 1945, JG 26 took off with III./JG 54 (later to become a part of JG 26) to attack Grimbergen and Evère, near Brussels. About 180 aircraft were involved, mainly Fw 190D-9s, and at Evère they succeeded in destroying about 120 Allied aircraft on the ground, including most of the Spitfires of 416 Sqn RAF. During the closing months of the war, JG 26 moved further back into Northern Germany and surrendered there in May.

Left. Three mechanics of JG 26 in front of one of the unit's Bf 109Es, which carried a dapple camouflage on the fuselage at the time of the Battle of Britain. Right. The rudder of the *Geschwader* TO, bearing five victory bars, being examined by Adolf Galland, JG 26's *Kommodore*, in 1940.

Right. This Bf 109E, shown with Galland in the cockpit, carries the markings of the *Gruppenkommandeur*, for he led III./JG 26. On the aircraft was the red *Höllenhund* badge of 9. *Staffel*. Lower. The same pilot again but in a different aircraft which bore the Mickey Mouse marking facing aft. The special telescopic sight was used for identifying enemy aircraft, not for aerial gunnery. Lower right. A complete view of the same machine, taken in December 1940 at Audembert in the Pas de Calais.



A further shot of Bf 109E-4, W Nr 5819, which carried the markings of a *Kommodore* and a tally of 57 victories on its yellow rudder.

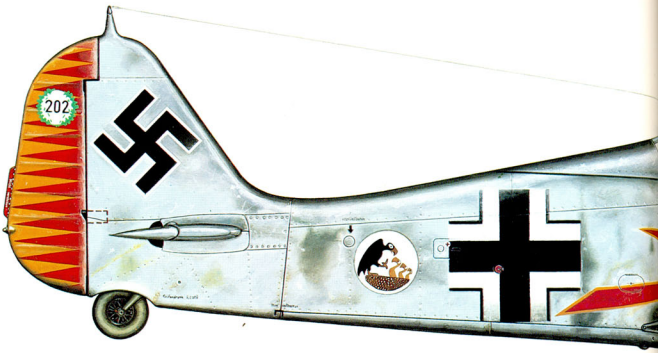
Upper left and right. Galland photographed with *Reichsmarschall* Hermann Göring during a tour of inspection in December 1941. The machine is one of two previously flown by the former pilot, its high gloss finish being the result of special waxing and polishing. Lower. The same grey-camouflaged Bf 109F-2 seen in the foreground as Göring addresses a parade of JG 26 from the podium on the right. The aircraft had MG FF armament in the wing and a yellow rudder adorned with 94 victories. See also Pages 42 and 43.

Left. Werner Bohnenkamp of 9./JG 26 in his Bf 109F at the end of 1940. Lower left. Pilots of 7. *Staffel* in front of their Bf 109E-7s in Sicily. The nearest aircraft was White 14. Lower. *Lt* Laube and his Bf 109E, White 15, also of 7./JG 26.

Lower. This Bf 109F of 8./JG 26 carried an unusually small black number in conjunction with the III. *Gruppe* bar. The *Staffel* badge was painted under the cockpit.

Upper and lower. These two exceptional photographs depict a Bf 109G, White 10, of I./JG 52 being serviced somewhere on the Eastern Front. The lower shot shows particularly good detail of the Daimler-Benz engine and the way the divided cowling panels hinged at the top. Of special interest is the obviously fairly new factory scheme featuring RLM 76 on the upper flying surfaces in conjunction with the same color elsewhere plus liberal blobs of RLM 02, 74, and 75. Even though the yellow rear fuselage band was also fairly new, its pale color is obvious.

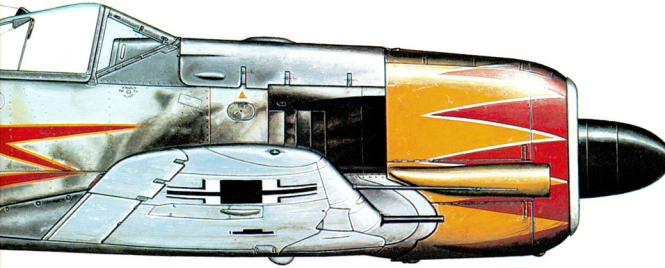
Focke-Wulf Fw 190A-5



W Nr 2594, of *Jagd Erg Gr Ost*

This aircraft was probably one of the most colorful eve
Luftwaffe. The marking of Hermann Graf (202 victories) is the
documented by photographs. The aircraft camouflage colors w
and 76. The cowling was deep yellow with red triangles, sepa
white line. The front armor ring was in white and the spinner,
The red and yellow rudder showed a white circle surrounde
leaves, with the number 202 shown in black. In front of the fuse

Hermann Graf

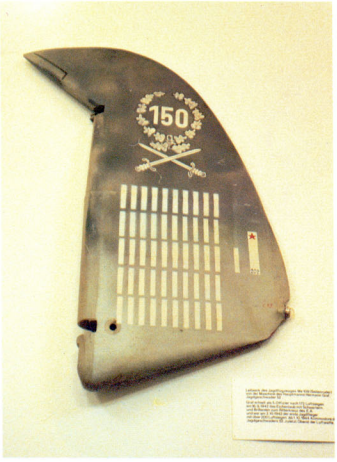


Painting by Richard Goyat

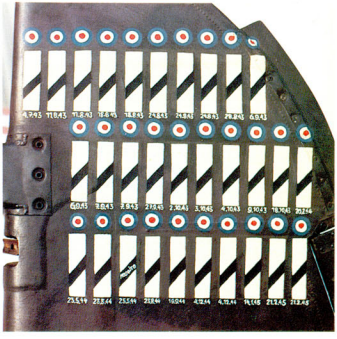
red flash outlined in yellow and behind it the bird's-nest emblem of a *Jagdergänzungsgruppe*, probably *Jagdergänzungsgruppe Ost*, commanded in France by Graf during 1943.

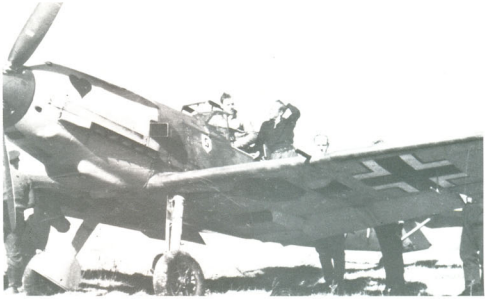
Graf flew several different aircraft, this one being equipped with a modified two-stage supercharger and special intakes, as shown. He was the first pilot to gain 200 victories, reaching 202 on 2nd October 1942. His total claim was 212, 202 in the East, and ten four-engined bombers in the West.

© Kookaburra Technical Publications Pty Ltd



A selection of rudders which are still in existence today. Upper left. Hermann Graf had achieved 202 victories by 2nd October 1942. Upper. Hans-Joachim Marseille's Bf 109F rudder showing his total of 158. Lower. These two shots show Friedrich Müller's Bf 109G-10 rudder as preserved at Mannheim Airport. In April 1945 the pilot removed the rudder and stored it away. The dark brown camouflage color was a late-war improvisation.





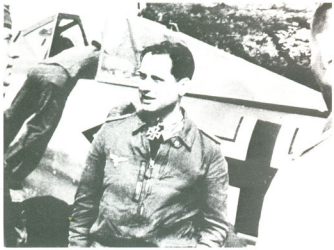
Oblt Joachim Müncheberg, *Staffelkapitän* of 7./JG 26, in the cockpit of a yellow-nosed Bf 109E-7 at Gela, Sicily, in 1941.

Müncheberg's usual Bf 109E-7 in Sicily during 1941. Judging by the appearance around the cockpit, it was either a different aircraft to the one above or had been repainted.

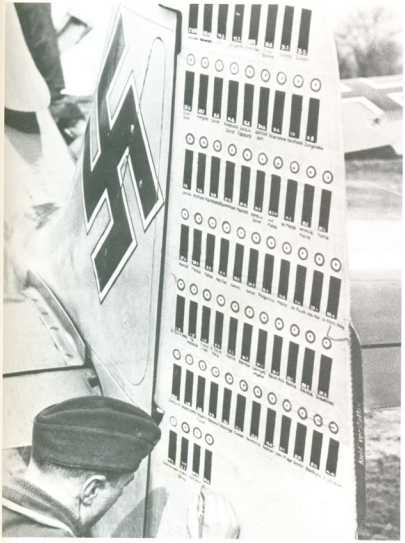
Lt Laube in the cockpit of White 3 in Sicily, its bright red heart emblem contrasting strongly with the pale yellow cowling.

Left. An unidentified pilot of 9./JG 26 in his Bf 109F. The winged griffon emblem was red and white. Right. Josef (Pips) Priller in front of his Bf 109F, evidently being congratulated on his last victory.

Left. Johannes Naumann of 8. *Staffel* prior to another mission in his Bf 109F. The cartoon figure, *Adamson*, was the emblem of 8./JG 26. Not long after this photograph was taken Naumann was awarded the *Ritterkreuz*, recording 34 victories in the West. Right. Paul Galland, a brother of the better-known Adolf Galland, in a Bf 109F of the same *Staffel*.

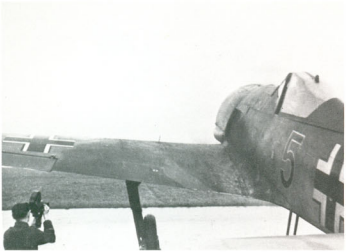


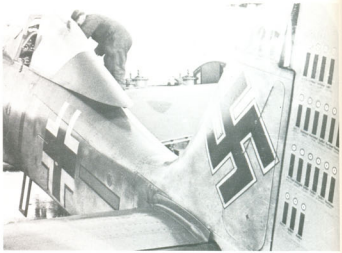
Left. *Maj* Gerhard Schöpfel, the *Gruppenkommandeur* of III./JG 26, with his Fw 190. He was credited with 42 victories. Right. The last of 25 victories scored by Joachim Müncheberg being added to the yellow rudder of his Bf 109. The identity of this aircraft is not known.



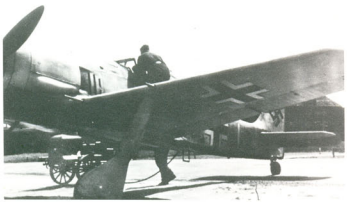
Left. The yellow rudder of Müncheberg's Fw 190 had a very detailed scoreboard and in early 1942 displayed 65 victories. At the time he was *Gruppenkommandeur* of III./JG 26. Upper. Müncheberg with friend, probably Galland's pet, *Schweinebauch*. The *Eichenlaub* award can just be seen.

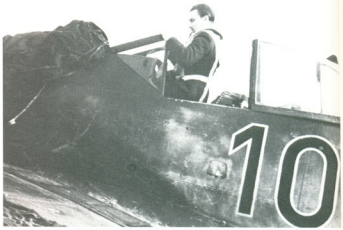
Lower. Some of *Ofw* Adolf Glunz's 71 victories, including 20 four-engined bombers, were achieved in this Fw 190. He flew with II./JG 26. Lower right. A photograph taken on 10th November 1941 showing what the *Luftwaffe* so concisely called an *Alarmstart*. Movement of the starter motor crank handle required considerable effort.



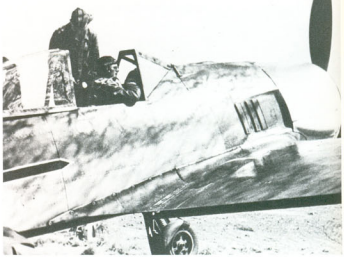


Left. An official photographer recording the arrival of new Fw 190A-1s of 5. *Staffel*. The camouflage on this machine, Black 5, had a very solid appearance. Right. An early Fw 190A-1, W Nr 027, Yellow 1 of 6./JG 26, flown by *Oblt* Walter Schneider in November 1941 when the rudder showed 19 victories on both sides. During the following month he was killed in a crash.





Left. The Fw 190A-1 flown by *Lt* Ernst Laube in late 1941. Some Fw 190s are known to have carried 71/02/65 camouflage and this and Black 10 on the right, flown by *Oblt* Wolfgang Kosse, *Staffelkapitan* of 5./JG 26, may have been examples of this practice.



Left. With Black 10 in the background, two unidentified pilots of JG 26 discuss combat tactics. Right. An overhead camouflage net was responsible for the curious dappled appearance of this Fw 190 occupied by *Hpt* Josef Priller, who was credited with a final tally of 101 victories.

Hpt Erbo von Kageneck with his Bf 109E, Yellow 5, in the spring of 1941 when his rudder indicated 14 victories. After being shot down and wounded by British fighters in December 1941 he died in a Naples hospital when his total was 67. His aircraft carried the grey European theatre color scheme.

CHAPTER 12

JAGDGESCHWADER 27

The beginnings of JG 27 were to be found in 1939 when I./JG 1 became in effect, although not yet in its designation, the third *Gruppe* of the new unit. After the Polish operations, I. and II. *Gruppen* were formed and the entire *Geschwader* fought through the French campaign and the Battle of Britain. By November 1940, the unit was back in Germany preparing for the 1941 Balkan campaign, during which JG 27 remained in Romania and Bulgaria until the Greek capitulation. During the summer, III. *Gruppe* moved to Sicily while the rest of the *Geschwader* took part in the opening stages of Operation *Barbarossa*.

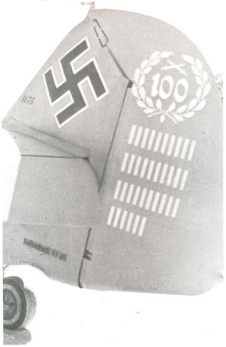
I. *Gruppe* had been in North Africa at the beginning of April and in July, II. *Gruppe* was also re-equipped for the desert war. III. *Gruppe* and the *Geschwaderstab* joined them in Africa in December, where they remained until the Axis powers were forced by the Allied advances to evacuate from Tunisia. The *Stab* moved back to Vienna and then to Athens. I. *Gruppe* was posted to the Channel Coast, II. *Gruppe* remaining in Sicily, withdrawing to the Italian mainland when the island fell. Meanwhile, III. *Gruppe* operated over the Aegean islands, based on Rhodes. Here a new IV. *Gruppe* was established and the two *Gruppen* stayed in this area until March 1944.

In July 1943, I. *Gruppe* moved from France to Vienna. II. *Gruppe* joined the other home defence units, but the remainder of the *Geschwader* moved up to fight over the Normandy beachhead and withdrew into Germany as the front moved eastward.

On 1st January 1945, JG 27 joined with IV./JG 54 in the attack on Melsbroek airfield near Brussels, losing 17 pilots, but achieving considerable success. The JG 27 pilots were flying Bf 109G-10s, G-14s and K-4s, while the JG 54 element used Fw 190A-8s. During the final withdrawal to Germany, the *Geschwader* was split up. The *Stab* and II. *Gruppe*, retreated to the north, with the remainder going to Prague and later to Salzburg before being disbanded.

Upper. In the centre of these three Bf 109s was the mount of *Hpt* Wolfgang Lippert of II./JG 27, which displayed the II. *Gruppe* badge on its yellow cowling. Its W Nr was 4148 and there were 21 victories shown on its rudder. In the foreground was W Nr 4180 showing 15 victories, the first of which was Polish. This was probably Gustav Rödel's aircraft. Lower. A close-up of Lippert's tail, with White 1 of 4. *Staffel* in the background.

Upper. This Bf 109E, very obviously in a grey camouflage scheme with white tail band and rudder, carried *Geschwader-adjudant* markings on its yellow cowling and the badge of III. *Gruppe* forward of the cockpit. The two Bf 109s in the background carried spotted desert camouflage, probably applied in the field with available Italian colors. Lower. A fine example of a Bf 109E-4/Trop, White 6 belonged to 3./JG 27 and was one of the few E models delivered in plain tan 79 upper surfaces. On its yellow cowling was the emblem of a negro's face and a leopard over a map of Africa.



Left. An informal shot of a then undistinguished JG 27 pilot, Hans-Joachim Marseille, with a Bf 109E in the background. Centre. The rudder of one of the Bf 109Fs, W Nr 8673, flown by Marseille. At the time he was *Staffelkapitän* of 3./JG 27 and had 136 victories shown on his much-photographed Yellow 14. Line drawings of two of his aircraft appear on Page 163. Right. Lullaby and goodnight . . . Marseille the practical joker.

Lower. *Lt* von Kageneck climbs out of his Bf 109E, Yellow 1, at Stoltzy on the Eastern Front, in August 1941. The III. *Gruppe* shield was carried just forward of the cockpit. Lower right. This Bf 109F in very light-colored desert camouflage was flown by *Lt* Ernst Börngen. It bore the markings of a *Geschwaderadjudant* and a lion emblem under the cockpit. See also Page 94.

In these two photographs Wolfgang Lippert is seen by the tail of his Bf 109F, W Nr 8469. A fairly new and very clean aircraft, it was camouflaged in 79/78 desert colors and in addition to the *Gruppenkommandeur* markings on the fuselage, its rudder carried 25 victory bars.

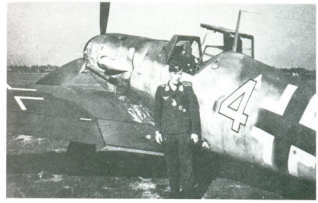
Left. *Oblt* Werner Schroer photographed at an airfield in Sicily with an Italian transport and a Bf 109, Yellow 5, starting up. Such hard surfaces were usually very dusty and contributed to short engine life. Right. A line-up of Bf 109Fs of 4./JG 27, all with unusually light-colored camouflage. Those identifiable from the original photograph were White 5, White 10 and White 7.

Left. This abandoned Bf 109G was found by Australian forces after the German retreat and carried a double chevron and small bar. Right. Gustav Rödel's Bf 109G was also left behind at Catania, Sicily, in June or July 1943. A Kittyhawk of No 3 Sqn RAAF was in the background.

Upper. One wonders what this group of pilots was discussing . . . Behind them was a transport wagon and two machines of 6. *Staffel*, Yellow 5 and Yellow 1. Again, their unusually light-colored camouflage is obvious despite their fairly new appearance. Lower. A group of pilots of JG 27. On the left were *Lt* Gorny and *Lt* Börngen whilst third from the right was *Hpt* Lippert, the *Kommandeur*, and on the far right, *Lt* Doyé. The second aircraft, that of the *Gruppenadjudant*, carried the II. *Gruppe* emblem on its cowling and a large caricature of a lion under the cockpit.

Upper. Behind these two JG 27 members were Yellow 3, Yellow 6 and Yellow 2 of 6. *Staffel* plus a He 111 transport. Lower left. A passenger has his parachute harness adjusted before embarking on a flight in this Caudron C455 used by I./JG 27 as a communications aircraft.

Two shots of Karl Schmitz with his Bf 109G-6, Yellow 4, of 6./JG 27. He is still alive today, being one of the few survivors of this unit. On the starboard side was the *Staffel* badge and on the port side the *Gruppe* emblem. Aft of the II. *Gruppe* bar was a white fuselage band.



This shot was taken in March 1944 at Wiesbaden-Erbendheim. On the left was Ernst Düllberg, the *Kommandeur* of III./JG 27. Centre left was Werner Schroer and in the centre, the former *Kommodore*, Max Ibel. Düllberg's Bf 109G showed 27 victory markings on the rudder.

Upper right. Werner Schroer being congratulated on his 100th victory on 24th May 1944 when he was *Gruppenkommandeur* of III./JG 54. His Bf 109G-6 carried the standard grey camouflage of the period. Lower and lower right. Schroer being presented with flowers in celebration of the occasion.

Seen from the left in this photograph were an unknown airman, *Lt* Hein Saschenberg, *Hpt* Waldemar Wübke and *Hpt* Klaus Faber. They were based at München-Riem airfield on 25th April 1945. In the background was an interesting black and white striped Fw 190D-9, a type which flew on airfield defence duties for Me 262s as they took off and landed, for it was then that the jets were most vulnerable to attacks by prowling Allied fighters.

CHAPTER 13

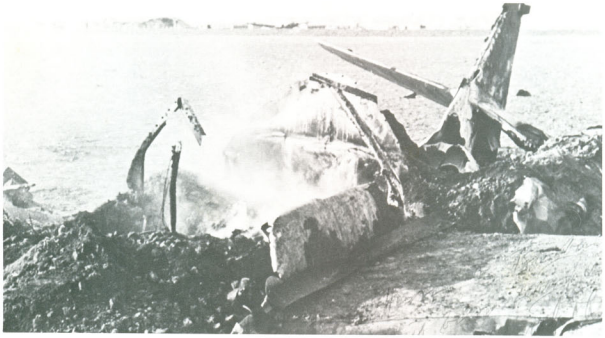
JAGDVERBAND 44

Led from its formation by the legendary Adolf Galland, who had been relieved of his post as *General der Jagdflieger*, unfounded rumors surround this unit like no other in the *Luftwaffe*. JV 44 was established during February 1945 at Brandenburg-Briest with 20 Me 262s. On the same airfield were also the Staff and one *Gruppe* of JG 7 under *Maj* Weissenberger.

After working up on their new jet fighters, JV 44 moved to München-Riem (Munich) in early April with 12 aircraft, and here they were fitted with batteries of R4M rocket projectiles. The unit continued to operate until the last days of the war, but with limited success. They suffered serious losses such as the accident to Johannes Steinhoff on 18th April and the death of Günther Lützow on 24th, whose body still lies in his wreck near Donauwörth where he crashed attacking the American forces crossing the Donau (Danube). Despite its complement of highly qualified and experienced pilots, the unit's record of successes (only about 50) compares poorly with the similarly equipped JG 7 who counted nearly 500 victories, though this was over a rather longer period.

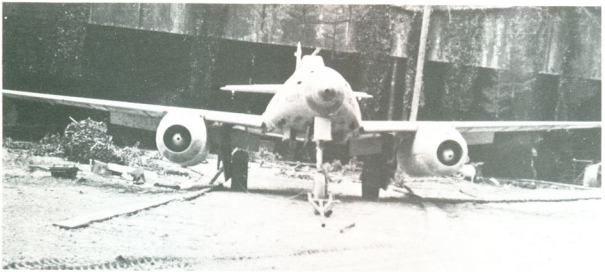
From 26th April when he was wounded, Galland handed over command to Heinz Bär, but the end came on 3rd May 1945 when the remaining Me 262s were destroyed on Salzburg airfield in the face of the advancing American army. In the late stages of the war these aircraft had no standard camouflage scheme and no unit emblems; indeed, some had no camouflage at all.

Seated on the long nose of this Fw 190D-9 were, from left, Saschenberg, Wübke, Faber and an unidentified pilot.

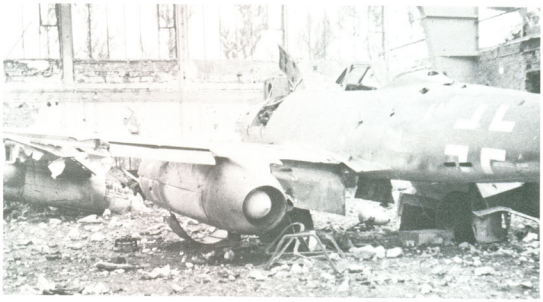


Upper. The charred and twisted remains of the Me 262 in which *Obst* Johannes Steinhoff crashed at München-Riem on 18th April 1945. The pilot survived but suffered serious burns. At that time his tally stood at 176 confirmed victories. Right. Steinhoff on an earlier occasion, probably as *Kommodore* of JG 77 in Italy. Just visible is the *Eichenlaub*, which the holders named *Blumenkohl* (cauliflower).

Far right. Few photographs were taken of the outstanding Fw 190D-9 fighter and as a consequence are extremely rare. The unit to which Yellow 1 belonged has yet to be identified. Lower. An Me 262 found at an assembly point by US forces after the capitulation.

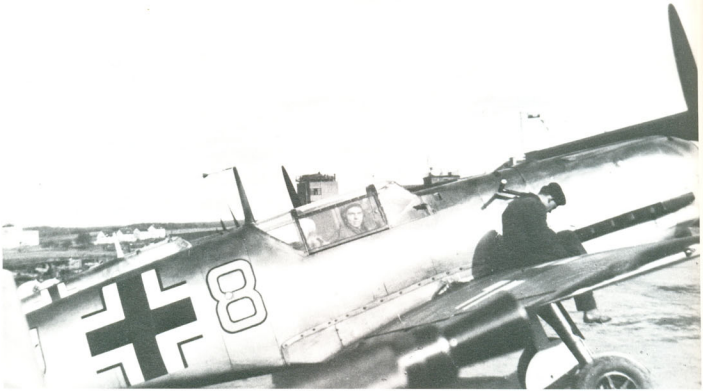


A flashback to 18th July 1942, when the new Me 262 V3, PC + UC, full of promise, was being readied for take-off with Fritz Wendel at the controls. A color photograph shows it to have had a 74/75/76 scheme with a dark brownish-green patch on the nose.



An Me 262 damaged by bomb blast, found by advancing Allied forces in 1945. Such sights were common at many airfields.

Large parts of this abandoned Me 262A-1b appear to have been painted with a light color, others seem to have been primed and yet others left in natural metal, a very interesting combination which probably came about because of disruptions to production in the final weeks of war.



Yellow 8, a very new Bf 109E of 6./JG 51 at Böblingen in April 1940. Behind it was Yellow 1.

CHAPTER 14

JAGDGESCHWADER 51 MÖLDERS

The composition of JG 51 was a complicated matter, involving the absorption of several smaller formations into a unit that became an entire *Geschwader*. I./JG 51 had existed since 1937. In November 1939, a *Geschwaderstab* was established to administer II and III. *Gruppen* also. II./JG 51 was formed from I./JG 71 and III./JG 51 had formerly been I./JG 20. During the summer of 1940 a fourth *Gruppe* was added when I./JG 77 became IV./JG 51.

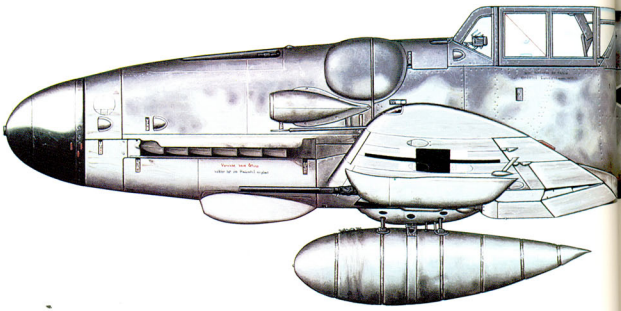
The *Geschwader* was based in the West throughout the early months of war, taking part in the French campaign in May and June 1940 and operating from the Calais area during

Please turn to Page 105

Left. Three Bf 109Es of 7./JG 51 in the dark green 70/71 camouflage in use during 1939. Shown here were White 4, White 1 and White 9. Right. Red 10, an aircraft of 8. *Staffel* being re-armed.

These two pleasantly informal shots were taken when JG 52 was operating on the Eastern Front during 1943. The upper one shows the unit's doctor and behind him a Bf 190G-6, Black 3. In the lower photograph, Gerhard Barkhorn, on the left, *Gruppenkommandeur* II./JG 52, chats to *Lt* Plücker at Charkow-Rogan in Russia. Although Barkhorn had won the *Eichenlaub* for 120 victories, he was wearing no decorations at the time.

Messerschmitt Bf 109G-5/R

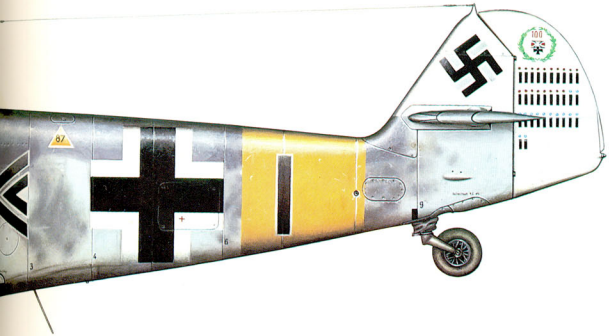


JG 11, early 1944

This aircraft was finished in the standard grey camouflage scheme. The upper surface was in RLM 74 and 75 over RLM 76, the base coat underneath. The yellow fuselage band was the home defence marking for JG 11. The double chevron, the *Balkenkreuz* and the bar of the third *Gruppe* were in black and white, with the spinner in white and RLM 70.

The white rudder displayed the *Ritterkreuz* with *Eichenlaub* with the red 100 surrounded by a wreath of green oak leaves. The 32 victory bars were in black. This aircraft was fitted with a 300-litre drop tank and MG 151/20 underwing

Anton Hackl



Painting by Richard Goyat

gondolas.

The aircraft carried the markings of a *Gruppenkommandeur* of III./JG 11 and was used by Anton Hackl at the beginning of 1944 in addition to a similarly marked Fw 190. He received the *Eichenlaub* for 104 victories on 6th August 1942. With a total of 192 victories plus a further 24 unconfirmed (87 in the West, including 32 four-engined bombers) during over a thousand missions, he was one of the most successful of all German fighter pilots.

© Kookaburra Technical Publications Pty Ltd

Upper. A pair of damaged Fw 190s at a repair and salvage depot in Russia, the machine in the foreground having belonged to a fighter-bomber unit. Behind it, bearing the markings of a *Gruppenkommandeur* of a second *Gruppe*, was a tropicalised version. The truck's heavy lifting equipment is of interest.

Right. *Hpt* Gordon Gollob, *Gruppenkommandeur* of II./JG 3, writing up his diary in front of his French-built car somewhere in Russia. His large canine friend in the foreground was accidentally shot at night by suspicious sentries. Gollob was the first airman to reach the outstanding number of 150 aerial victories and in recognition was awarded the *Brillianten*.

Left. This II./JG 51 aircraft photographed in March 1940 was completely devoid of individual markings. The upper surfaces were the then standard colors of dark green 71 and grey 02. Right. Josef Priller prepares for another mission in his Bf 109E.

the Battle of Britain. After re-equipping in Germany during the winter, the unit returned to its French airfields until June 1941 when it was transferred to Poland to support the invasion of Russia. IV. *Gruppe* was attached to JG 53 and operated over the southern sector of the Eastern Front, while the rest of JG 51 was based in the central sector around Bobruisk, Bryansk, Smolensk and Moscow. In August, IV. *Gruppe* rejoined its parent unit. On 24th November 1941, after the death of its former *Kommodore*, Werner Mölders, the unit adopted his name as a title of honor.

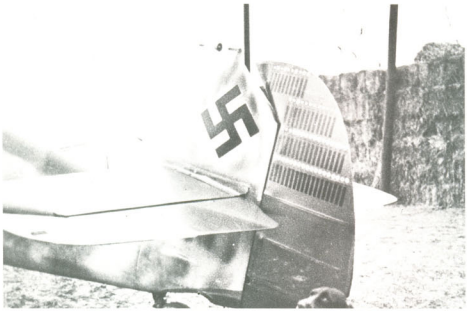
During the winter, I. *Gruppe* was moved to the northern sector and was withdrawn to Jesau during July and August 1942 to be converted from Bf 109s to Fw 190s. Meanwhile, II. *Gruppe* remained in the Orel-Bryansk area.

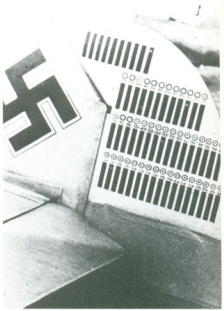
In June 1942, 15./JG 51 joined II. *Gruppe,* which was composed of Spanish pilots. In October, this *Gruppe* also converted to Fw 190s and was transferred to the Mediterranean theatre, operating successively over Tunisia, Sicily, Italy, Yugoslavia and Hungary, finally ending the war in Vienna.

During the summer of 1944, three *Staffeln* had been withdrawn from Russia to join the units defending Germany itself. The rest of the *Geschwader* retreated to East Prussia in the face of the Soviet advance. In April 1945, I. *Gruppe* was disbanded and many of its personnel became prisoners of the Russians together with some of III. *Gruppe*. The Staff and IV. *Gruppe*, however, withdrew to Schleswig-Holstein and surrendered to British forces. During the entire war JG 51 claimed about 9,000 victories.

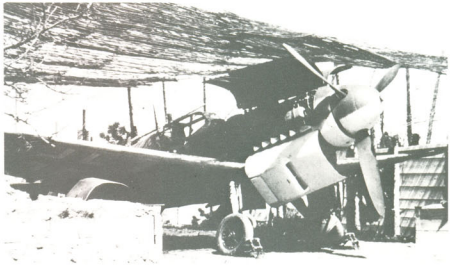
The fuselage sides of these two Bf 109Es seen at Böblingen in April 1940 were more densely camouflaged than usual. The *Geschwader* emblem, consisting of a raven with an umbrella under his wing, can be seen aft of the fuselage cross on the second machine.

Left and lower left. These two photographs show the Bf 109F of Mölders in a camouflaged dispersal pen. The yellow rudder showed 56 victories, each marked with an appropriate roundel in four rows, 10, 12, 16 and 18. Lower. On the rudder of this machine, almost certainly an earlier one used by Mölders, were 55 bars on a background of what appears to be pale blue-grey 65.





Lower. This shot is especially interesting because it is one of the few photographs to show an entire view of any of Werner Mölders' aircraft. It is reputed to have been taken at Wiesbaden in June 1941. At this time there were five rows of victory markings on the rudder, a total of 65, and a large *Geschwader* falcon emblem on its yellow cowling. Perhaps oddly for an F model, it carried a 71/02/65 camouflage scheme.



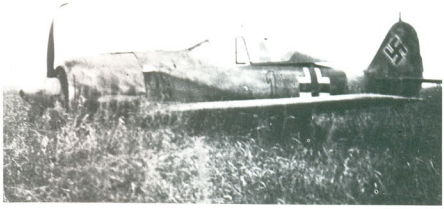
One of JG 51's Bf 109F's in a revetment at Syelce, Poland, in June 1941. Clearly visible are the three hinged cowling sections with the removable section ahead of the windscreen on the ground under the starboard wing.

Left. A musical interlude with Josef Priller and Sepp Wiedmann. Behind them was *Oblt* Werner Knittel, *Adjudant* of II. *Gruppe* who was lost over England on 28th October 1940. In 1973 his remains were found at Burmarsh, Kent, in the wreckage of his Bf 109E, W Nr 5095, and were given proper burial.

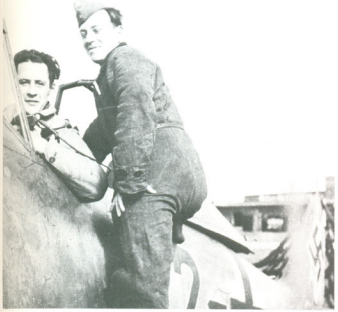
Lower left. *Oblt* Martin with a Bf 109G at Schalatowka in 1942. The aircraft carried white winter camouflage with a yellow tail band and rudder. Lower. Armor-mechanic Gaibler with a winter-camouflaged Bf 109G on which even the propeller blades had been overpainted.

Upper. Several Fw 190s of 3./JG 51. The second machine from the left was Bareuther's Yellow 1, although the color of the code has also been described as brown. Left. A Fw 190 under repair at Smolensk in September 1943. Lower. On this Fw 190 photographed at Sytschewka, Russia, in August 1943, the unit spray painter appears to have treated not only the front of the cowling with yellow, but the entire spinner and part of the propeller blades as well.

Upper. Yellow 8 of 3./JG 51 in a tiger-stripe style of camouflage which presents something of a problem to identify positively. Right. This Fw 190, Yellow 1, force-landed near Orel, Russia, in June 1943. The pilot, Herbert Bareuther, was the *Staffelkapitän* of 3./JG 51 and after recording 55 victories, was shot down in 14./JG 3 on 30th April 1945. He is believed to have been awarded the *Ritterkreuz* during the last days of the war. Lower. Another victim of poor pilot visibility during taxying was the Fw 190, Yellow 3, W Nr 0636.

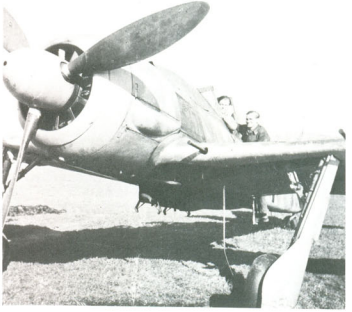


Left. This bruised and upended Fw 190, Yellow 2 of 2. *Staffel*, appears to have included some especially dark areas in its camouflage, which was otherwise the usual 74/75/76, albeit somewhat deteriorated due to operational use. Lower. Here, Paul Messmer was being chaired by fellow airmen after another victory. On his Fw 190 in the background the winter camouflage had almost worn through to the paintwork underneath.



Upper. Two shots of *Uffz* Merbeler and his mechanic Franz Breitler with Fw 190A-8, Black 12, W Nr 732090, of the *Geschwaderstab*. The pilot gained 12 victories before being shot down in January 1945.

Left. A pair of Bf 109Gs preparing to take off in front of a Ju 188 whose last two code letters were LM. It is believed the numerals of these two Messerschmitts were painted brown rather than the more usual yellow. Lower left and lower. Helmut Johne of the *Geschwaderstab* photographed in November 1944. His Fw 190A-8 carried black *Stab* markings and the number 3 on a rather patchy grey camouflage scheme. The spinner and noserings were yellow.



Lt Berthel's appropriately numbered Red 1 at Bonn-Hangelar during the autumn of 1939. In this machine Berthel claimed JG 52's first victory in the war. At this time the second *Staffel* numbers were usually red rather than black.

CHAPTER 15

JAGDGESCHWADER 52

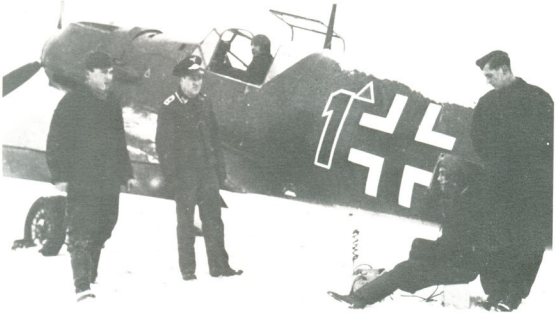
It was not until the spring of 1940 that a third *Gruppe* of JG 52 was established to join I. and II. *Gruppen* which had been defending the Franco-German frontier since the outbreak of war. The entire *Geschwader* fought in the French campaign and occupied bases on the Channel Coast to take part in the Battle of Britain, although III. *Gruppe* withdrew to Germany before going to Romania in October. I./JG 52 remained in France and the Netherlands until September 1941, the II. *Gruppe* and Staff only till May 1941, when they moved east in preparation for *Barbarossa*. Meanwhile, III. *Gruppe* had taken part in the Cretan operation during May, withdrawing again to Romania before moving up to the southern sector of the Eastern Front. While in the east, the *Geschwader* was joined by a 15. (Croat) *Staffel* and a 13. (Slovak) *Staffel* which operated until the end of 1943.

Early in 1942, the I. and II. *Gruppen* were re-equipped in Germany, returning to take part in the big summer offensive in which they gained many victories in the central and southern sectors. When the Crimea was lost, however, the *Geschwader* was split up, with three *Staffeln* (one from each *Gruppe*) being allocated during May 1944 to home defence duties. II. *Gruppe* retreated through Romania and Hungary to Vienna and surrendered at the end of hostilities at Graz and Bad Aibling. The Staff, with the other two *Gruppen*, moved back first to Romania, but then to Poland, the Kurland pocket, East Prussia and Silesia, finally surrendering to the American 90th Division at Böhmen. The Americans handed over their prisoners, including many women and children, to the Russians. For many JG 52 personnel, such as Erich Hartmann, this act was to mean ten years captivity in the Soviet Union.

During the entire period of its existence, JG 52 was equipped with successive models of the Bf 109, reputedly gaining about 11,000 victories, thus making it the most successful *Luftwaffe* fighter unit of the war.

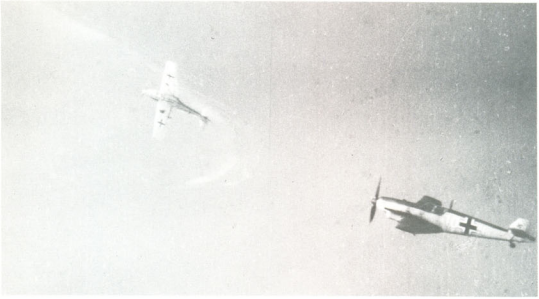
Upper. The first victory bar being added to *Lt* Berthel's Bf 109E, W Nr 3335, at Bonn-Hangelar on 6th October 1939. The dark 70/71 camouflage and swastika centrally located on the rudder hinge line were standard for the period. Left. Part of the tail of Berthel's unfortunate victim, a LeO 451.

Lower. Red 1 again, during the very cold winter of 1939-40. Maintaining aircraft under such trying conditions was very demanding on the ground crews.

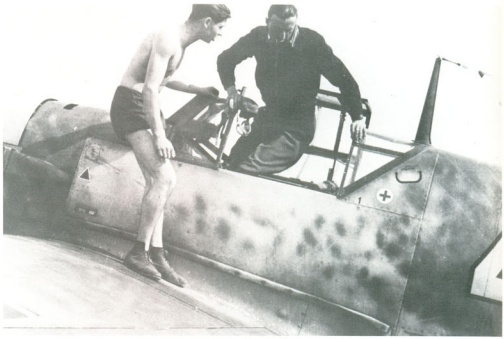


Upper. White 8 of JG 52 undergoing maintenance in a blast pen during 1939. Behind the fuselage cross was the running boar *Gruppe* insigne. Because of the angle of the strong late afternoon sunlight, the dark camouflage appears much lighter than usual. Lower. Good luck for Red 13! The unusually thick style of the numbers is a noteworthy feature.

Upper. Members of JG 52 ruefully survey the damage to Yellow 7, one of the unit's Bf 109Es. The bent propeller blades suggest that the engine was still firing at the time of impact. Lower. The Bf 109's narrow-track undercarriage was a shortcoming which continued to plague it for years. Moving an aircraft as deeply bogged as Yellow 6 was a time-consuming and troublesome procedure.



Upper. A mock combat between two Bf 109Ds, the pursuing aircraft being coded 10+N. Right. Hermann Graf climbing from a yellow-nosed Bf 109E, Yellow 4, at a training unit.



Lower. A general view of JG 52 Bf 109Es staging through Frankfurt whilst en route to Madgeburg in 1940. All aircraft appear to have had the 71/02/65 camouflage scheme. Right. The I./JG 52 emblem in detail. On the background of blue and white was a black running boar, the lower dark section being red, with a white border thinly outlined in black.

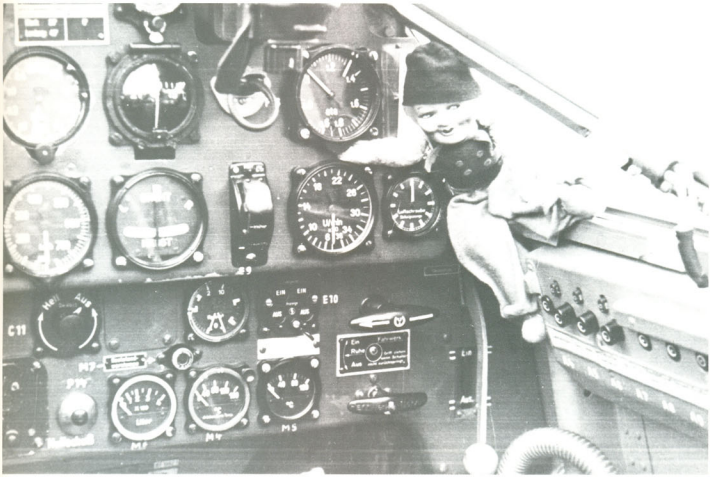
This partly dismantled Bf 109E, Black 15, presented a sad sight before it could be moved elsewhere for repair. It had crash-landed, probably having run out of fuel during combat. Being so exposed, it was a vulnerable target for enemy aircraft, hence the camouflage netting.

Uffz Eugen Kind dozing in front of his Bf 109E. In the event of an emergency take-off, the tarpaulins and nets could be speedily removed. Kind was shot down over Kent on 5th September 1940.

White 4 has its oxygen bottles replenished at a forward base. Under the cockpit was JG 52's red, black, silver and white dagger emblem and aft of the fuselage cross, the badge of I. *Gruppe*.

Upper. Three Bf 109s at the scenic location of Hoppstädten, all aircraft carrying the 71/02/65 camouflage scheme and the I. *Gruppe* badge on their cowlings. Lower. The nearest aircraft in this group of Bf 109Es carried the markings of the *Gruppenkommandeur* of I./JG 52. Its cowling was painted yellow and it had a partially white spinner. The pilot was probably *Hpt* Helmut Kühle.

Upper. Practically the whole of I. *Gruppe* appears to be using Charleville airfield in this shot taken during the French campaign in May 1940, over 20 aircraft being visible. Lower. A lucky charm, in this case a rag doll, was often a companion to pilots on operations. The cockpit is that of a Bf 109E.



Left. *Ofw* Gerber in the aircraft in which he had just claimed a victory somewhere in the west. It is probably the same Red 13 as shown on Page 114. Right. *Hpt* Helmut Kühle in his Yellow 1, with *Oblt* Horst Tietzen by the cockpit. Tietzen, already a *Ritterkreuz* holder in 1940, was the fourth pilot to reach 20 victories but was shot down over the Channel on 18th August 1940.

Left. *Lt* Wolfgang Ewald of 2./JG 52 and his yellow-nosed Bf 109E. He had just returned from a mission over the English Channel in which he claimed another of his eventual total of 78 victories. Right. A JG 52 *Emil*, partly hidden from the air, being readied for operations. Wherever possible, revetments were built near trees to afford maximum natural protection, a basic dictum of effective camouflage.

Left. This Bf 109E, Yellow 1, of 9./JG 52 in very spotted 71/02/65 camouflage was photographed at a forward base in France during 1940. On the cowling was the brown and yellow leaping fox emblem of III. *Gruppe*. Right. Karl Munz in his Bf 109E, Black 3. He was awarded the *Ritterkreuz* in the last weeks of the war for his 60th victory.

These two post-war shots taken in Los Angeles show one of several Me 262 fighters in the USA long before the care of old veterans had achieved its present-day respectability, for now such prizes are displayed much more frequently indoors away from the elements. Although the faded camouflage scheme suggests an 81/82/76 combination with the green 82 predominating, this painting was most likely done in the USA. Unfortunately, the crosses and swastikas are of incorrect size and, judging from their freshness, the other markings had probably been applied a short time before the photographs were taken.

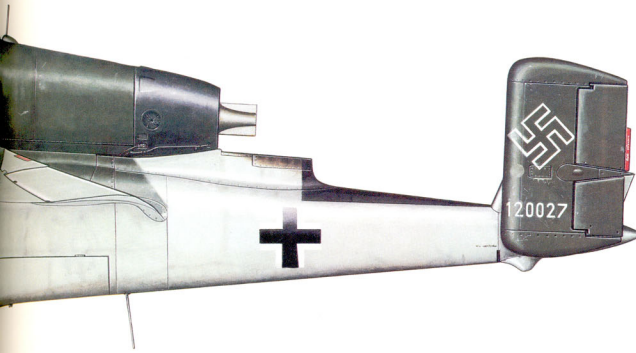
Heinkel He 162A-2

W Nr 120027, of JG 1

The camouflage on this aircraft was RLM 71 and RLM 76, the red arrow being merely an embellishment. The diving eagle badge was probably that of 1./JG 1, but this cannot be verified. On this He 162 the number 120027 is provisional, for neither the pilot's log book nor the rudder photo could provide the actual number. On the rudder shot, due to the high gloss finish, only the first three digits, indicating Rostock-Marienehe production, could be discerned.

W Nr 120027 was chosen because White 3 (W Nr 120028) and a crashed aircraft (W Nr 120029) both had very similar camouflage. It should be noted that

Rudolf Schmitt



Painting by Richard Goyat

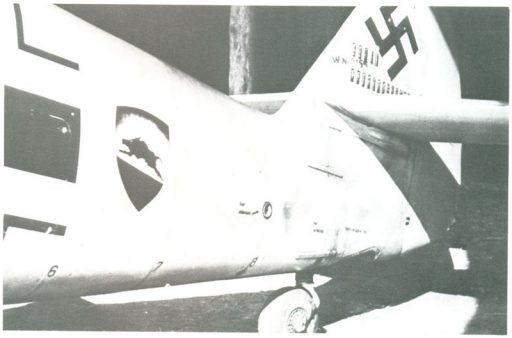
the camouflage of He 162s differed from aircraft to aircraft. Light-colored fins and rudders were also used.

The fuselage *Balkenkreuz* had obviously been applied in some haste. White 1 was one Heinkel which saw genuine action and the *Staffelkapitän* of 1./JG 1, *Lt* Rudolf Schmitt, claimed one of the unit's few victories, a Typhoon, with this machine on 24th April 1945. Due to the chaotic war situation this claim was never confirmed officially.

© Kookaburra Technical Publications Pty Ltd

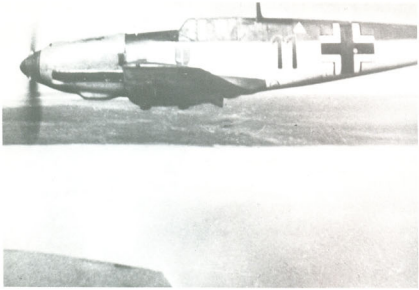
These two interesting shots show Herbert Schramm of III./JG 53 when he had nine victories to his credit; two French and seven British. His Bf 109E was camouflaged in 71/02/65 and had a yellow nose and rudder. Schramm reached a total of 42 victories before being shot down and killed by Thunderbolts near Eupen in Belgium on 1st December 1943.

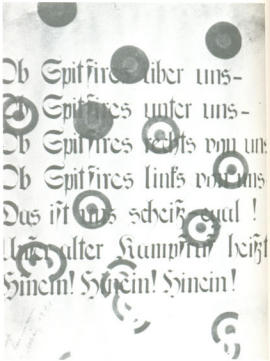
Oblt Bennemann inspecting bullet holes in his Bf 109E after returning from a mission. The badge was that of I. *Gruppe*.



An interesting close-up of Karl-Heinz Leesmann's Bf 109F, W Nr 8155, showing the external rear fuselage strengtheners and all the factory stencilling.

Lower and lower right. Leesmann's earlier Bf 109E, W Nr 5065, showing nine and eleven victories respectively during 1940.



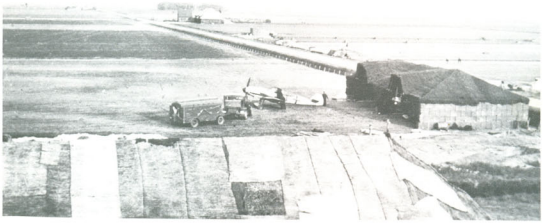


Upper. A Bf 109E of 2. *Staffel* over the English Channel. It carried the unit badge of JG 52 under the cockpit and the shield of I. *Gruppe* on its yellow cowling. Right. "Spitfires over us, Spitfires under us . . .", a battle song popular with JG 52.

Upper. *Oblt* Erich Hartmann, the world's most successful fighter pilot with a tally of 352 victories, seen with his mechanic Mertens and his Bf 109G-6.

Lower. Helmut Lipfert, the *Staffelkapitän* of 6./JG 52, in his Bf 109G-6, Yellow 1. Part of a name can be seen under the cockpit. Right. Congratulations were in order for *Oblt* Leesman after his 21st victory. He was awarded the *Ritterkreuz* on 23rd July 1941.

Upper. When this photograph was taken in July 1941, there were 21 victories shown on the tail of Karl Heinz Leesmann's Bf 109F. He was then *Kommandeur* of I. *Gruppe*, whose emblem appeared on the rear fuselage of his aircraft. Lower. Two more Bf 109Fs of JG 52, the machine on the right being fitted with underwing gondolas. The one on the left was coded Yellow 2.



This photograph was taken at Texel, Holland, in 1941. In front of the heavily camouflaged hangars was the Bf 109F, Black 1 of 2. *Staffel*, probably the mount of Wolfgang Ewald. It had a yellow cowling plus a black-green and white spinner.

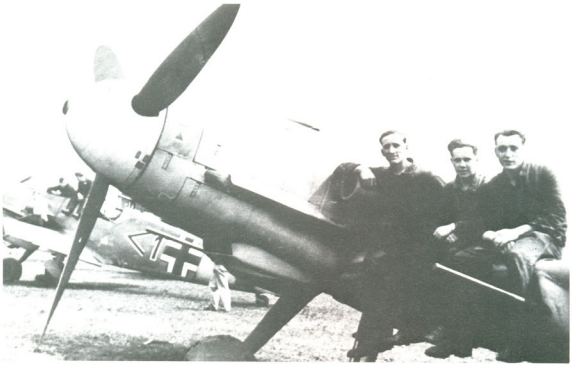
This crashed Bf 109F of JG 52 was well beyond repair. The characteristic staff-and-numeral marking can be seen forward of the fuselage cross.

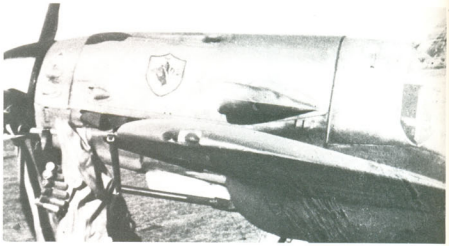
Partly camouflaged Bf 109Fs of 1./JG 52 ready for action at a moment's notice.

Walking away from his Bf 109F was *Maj* Trübenbach, JG 52's *Kommodore* in 1941.

Trübenbach's aircraft raises a cloud of dust as it taxies out for take-off. Noteworthy features are the yellow cowling, fuselage band and *Kommodore* marking.

Lt Walter Krupinski of III. *Gruppe* in his Yellow 5 during October 1942 when he was awarded the *Ritterkreuz* after his 53rd victory. In the top bracket of German fighter aces, his final total was 197.





Upper. Mechanics sitting on a Bf 109F fitted with additional underwing armament. In the background was an aircraft bearing *Adjudant* markings. Right and lower. This Bf 109G-2 was flown by Helmut Bennemann, *Kommandeur* of I. *Gruppe*. To recall the period in which he served on the Channel Coast, he had retained the former *Gruppe* emblem of a black and white hand clawing at a Spitfire. The flying kit hanging on the pitot tube is of interest.

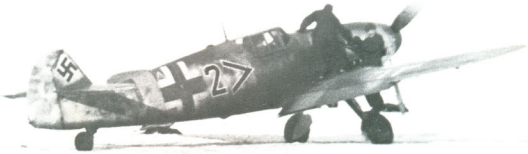
Upper. *Hpt* Bennemann's same Bf 109G-2, now in winter camouflage. Note the heavy smoke stains around the exhaust and gun ports. Lower left. Another shot of the machine above, with the pilot and one of his mechanics. Lower right. Bennemann about to celebrate a notable victory. The aircraft, probably an earlier *Gustav*, carried the markings of an *Adjudant*.

Left. *Hpt* Wiese with his Bf 109G-2/R6, Black 3, which was painted in unusually dark and solid camouflage, probably grey 74. Lower. Wiese being congratulated on his 100th victory. See also the photographs opposite.

Upper, left and lower. This interesting series of shots was taken in July 1943 and shows Johannes Wiese returning after his 100th victory. His machine had rather faded standard 74/75/76 camouflage, including the rudder, which carried no victory bars at this time. The placard read: "We congratulate you on your 100th victory". Holding the Perspex model of an Icarus was Paul Dähne, a *Ritterkreuz* holder with some 100 victories. He was killed at Warnemünde in April 1945 after ejecting through the closed hood of his He 162 on a landing approach.

Upper. Members of JG 52 appraising a newly-delivered Bf 109G-6 which still carried its radio call-signs. Right. Dietrich Hrabak, *Kommodore* of JG 52, in the cockpit of his Bf 109G with, from left, Friedrich Obleser and Karl Gratz, both of 8./JG 52 and on the right, Erich Hartmann of 9./JG 52. Lower and lower right. A *Kommodore's* aircraft, almost certainly that of Hrabak as shown above.

Upper, from right. *Oblt* Wilhelm Batz, *Hpt* Gerhard Barkhorn and *Lt* Heinrich Sturm in front of Batz's Bf 109G of 5./JG 52. The photograph was taken about Autumn, 1943. Right. Erich Hartmann being welcomed home on 25th August 1944 on the occasion of his 301st victory, eleven of them being claimed that day. On the pole was the *Karaya* emblem of 9./JG 52. Lower. Hartman climbing out of his Bf 109G, White 1, which was spectacularly marked with black tulip leaves on the nose. See also Page 5. This machine will be illustrated in color in Vol 2.



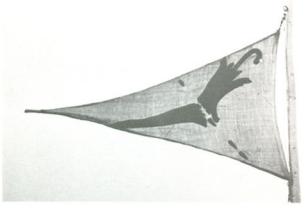
Upper. An unidentified Bf 109G on the Eastern Front. In late 1940 JG 52 began adding numerals to the *Stab* symbols to a much greater extent than other units, although the practice dated back to pre-war days. Left. *Hpt* Johannes Steinhoff in the Crimea in 1942 as *Kommandeur* of II./JG 52 with his Bf 109G-3. He ended the war in hospital as a result of a serious crash after achieving 176 victories. Lower. A Bf 109G of the Hungarian *Staffel* with its distinctive red, white and green tail markings. The pilots were, from the left: *Oblt* Miethig, *Oblt* Banloky Föhodnodj, the *Staffelkapitän*, *Hpt* Bennemann, *Hpt* Josef Haiböck and *Oblt* Geissler.

Another Bf 109G of JG 52, this one having the black and white spiral spinner marking introduced in July 1944.

An unidentified Bf 109G-6 belonging to JG 52 and bearing *Adjudant* markings.

Wiese, Hrabak and Dähne, the *Staffelkapitän* of 2./JG 52, with the latter's Bf 109G-6, Black 4. The softly sprayed and probably faded camouflage was very light in appearance.

Upper. The three Graf brothers. From the left were Wilhelm, Hermann and Josef, sitting on a Bf 109G-6 of *Stab.*/JG 52. Lower right. Wilhelm Graf leaving a Bf 109G-6 of the *Geschwaderstab* on which the bar had been overpainted with a washable white distemper.



Upper. The *Staffel* flag here showed the emblem of 3./JG 52. It represented Neville Chamberlain's well-known umbrella being shot to pieces. Chamberlain was Prime Minister of Britain until May 1940. Lower. Three *Ritterkreuz* holders celebrating JG 52's 5,000th victory at Taman in Russia. From the left were *Hpt* Bennemann, *Maj* Hrabak and *Hpt* Günther Rall.

A fine shot of an unidentified JG 27 pilot returning from a mission in his Bf 109E-4/N, which may have been White 2. Its camouflage was in the temporary Italian colors of yellow with flecks of brownish-green. On the cowling was the badge of I. *Gruppe*.

CHAPTER 16

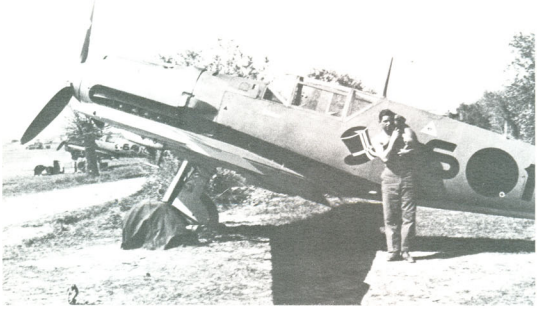
THE AIRCRAFT COMPARED

The Bf 109 in all its variants provoked a strong feeling of affection and confidence among the pilots who flew it throughout the war and it is significant that it was the sole equipment of the highest-scoring unit, from before the outbreak of hostilities in September 1939 until the capitulation nearly six years later. Other fighter units flew the Fw 190 after its introduction during 1941, but the aces of JG 52 retained their faithful Bf 109s, progressing from the E sub-type (*Emil*) to the F (*Friedrich*) and thence to the various models of the G (*Gustav*) and the ultimate Bf 109K.

As early as 1938 the American aerobatic pilot, Major Al Williams, had written enthusiastically about the qualities of the Bf 109. Williams had been an old friend of *Gen* Ernst Udet, himself an accomplished stunt pilot during the inter-war years, and when Williams brought his Grumman Gulfhawk 2 biplane to Europe to tour the 1938 air displays, Udet used his position in the expanding *Luftwaffe* to permit Maj Williams to fly one of Germany's latest production fighters, in the knowledge that his enthusiastic acclaim would provide the German propaganda organisation with some impeccably impartial material. What he wrote "... fastest single-seat fighter in production in the World ... best compromise in maximum speed, turning and landing speed ... dream of every fighter pilot ..." was undeniably true at that time.

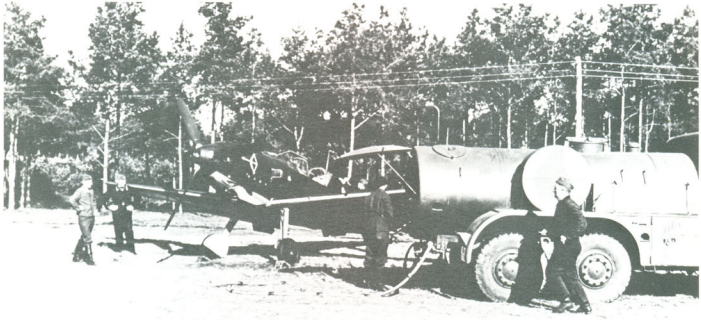
Please turn to Page 146

A JG 5 Bf 109E at Bodö in the winter of 1941/42.



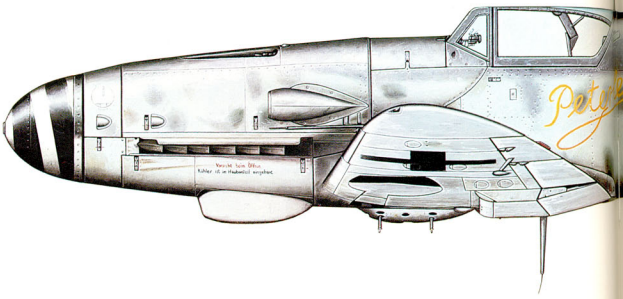
It is popularly believed that many *Luftwaffe* aces received their training either on gliders or whilst flying Bf 109Es such as this in Spain. Both suppositions, however, contain only a small element of truth.

Left. By 1940, Bf 109B-2s like this example were obselescent for front-line duties, but were nevertheless extensively used for fighter training. The two-bladed propeller and lower cowling scoop gave the type a distinctive appearance. Lower. Refuelling an effectively camouflaged Bf 109E of JG 51. On the cowling was the white bow and arrow marking of 7. *Staffel*.



Upper. A *Schwarm* of four Bf 190Es in yellow markings awaiting action at a training unit at Lachen-Speyerdorf (Pfalz) during the summer of 1943. Lower. White 5, a Bf 190G-6 of JG 52, photographed at Charkow-Rogan in the autumn of 1943. The predominantly grey camouflage and segmented spinner coloring are noteworthy.

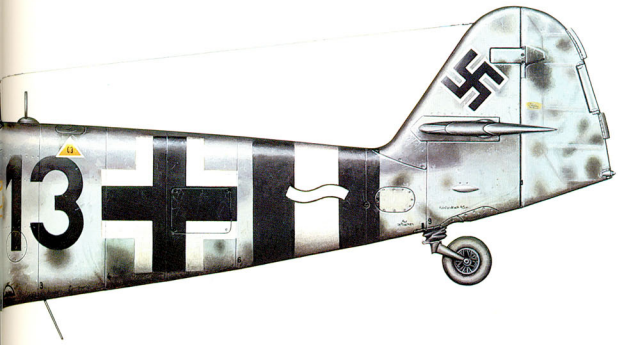
Messerschmitt Bf 109G-14 AS/C



JG 4, late 1944

This late-model Bf 109 with the refined cowling showed a mu
74/75/76 camouflage with spots of RLM 74/02 and also 70 on
sides. It belonged to the *Staffelkapitän* of 14./JG 4, *Oblt* Ernst
Black 13 displayed the home defence tail band of JG 4 (black
combined with the IV. *Gruppe* marking. At this time, about Au
Scheufele had a girlfriend nicknamed *Peterle*, from the song of th
This name was also painted in yellow on the left side of the cock

Ernst Scheufele



Painting by Richard Goyat

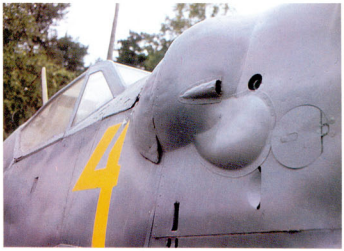
RLM
selage
ufele.
black)
1944,
name.

Ernst Scheufele at first flew cover for the navy, but he later joined II./JG 5 and served in the East; then to IV./JG 4 flying on home defence duties under *Kommodore* Michalski. On 3rd December 1944 he was shot down by ground-fire from an American supply unit near Aachen. He had a total of 18 victories, including three four-engined bombers and two P-51 Mustangs. Two of his claims were unconfirmed.

PLANES OF THE LUFTWAFFE FIGHTER ACES
© Kookaburra Technical Publications Pty Ltd

This Bf 109G-6/U2, W Nr 165227, MT-452, has been carefully restored in its wartime paintwork and is now displayed at Utti Air Force Base, Finland. It is one of two Messerschmitts preserved in that country, the other example being the Bf 109G-6/Y, W Nr 167271, MT-507.

Left. A front view showing such details as the narrow-track undercarriage, wheel wells, segmented spinner and tropical air filter. Right. A close-up of the fuselage showing well the grey camouflage scheme and very carefully applied markings.



Good detail for modellers is provided in these two close-range shots which show parts of the lower starboard wing and upper cowling respectively. Both sections of the aircraft embody subtleties which are not normally discernable in photographs taken from more conventional angles.

A French Potez 63, no match for the Messerschmitt Bf 109. This example was numbered 318 and was photographed near revetments in 1940. Its tricolor markings had been stripped from its twin rudders.

A particularly accident-prone aircraft was Black 3 of JG 54, seen here after mishaps at Le Mans and Guines respectively. Both incidents occurred in 1940.

The Hawker Hurricane Mk I, which bore the brunt of the Battle of Britain. An exceptionally strong aircraft which could take tremendous punishment, it was nevertheless at a disadvantage compared to the faster Bf 109E.

The Bf 109 was certainly all of those things, and no doubt a tremendous advance on the Curtiss Hawks with which Williams was familiar in the USA. But the Spitfires which he said he had seen in Britain and which were coming into RAF service might have given him reason to qualify his words to a degree, had he also been given the opportunity to fly one. The Hurricane, which he had also seen, was never a match for the Bf 109, except in its superb manoeuvrability in close combat and in its ability to absorb punishment. Werner Mölders, too, who was able to fly a captured Spitfire at Rechlin in 1940, echoed Williams' words — that he would "choose the 109 any day". Perhaps the fairest conclusion to be drawn from the numerous commentaries that have been written about the comparative merits of these two classic fighters would be that in the hands of equally experienced and determined pilots there was little to choose between them. Where one excelled in certain situations, the other could out-perform its adversary in others and victory in combat could go to the pilot who knew how best to take advantage of his opponent's weaknesses. *Gen* Hannes Trautloft, who flew the first of the Bf 109s to be sent to Spain, has averred that, having flown more than 100 missions across the unfriendly Channel in 1940 (and of course, innumerable operations in the East), he saw his Bf 109 not as a weapon of war, but more as a faithful and reliable friend.

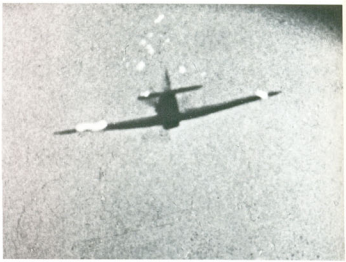
In the early months of the war, the Polish and French fighters provided fairly easy victories for the aggressive German pilots. Adolf Galland has been quoted as saying that the Hurricane was "a nice aeroplane to shoot down" and the early Soviet fighters were equally inferior in performance. The early marks of Spitfire were comparatively deficient in armament, with their eight .303 Browning machine guns against the two 20-mm cannon and two 7.9-mm MGs of the Bf 109E-3 and E-4. In addition, the Messerschmitt always held a certain advantage in negative 'G' manoeuvres owing to its fuel injection system. The superiority in firepower of the German fighters was maintained, with the exception of

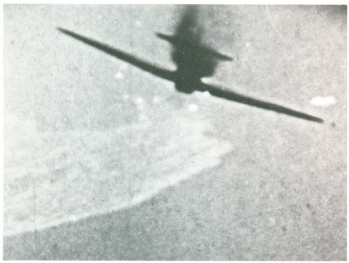
Left. Werner Mölders, holder of the Knight's Cross with Diamonds, was known throughout the *Luftwaffe* as a fine leader of men. His tally of 115 was nevertheless very modest by German standards. He had the opportunity to evaluate a captured Spitfire at Rechlin in 1940 and after testing it thoroughly, declared his preference to be for the Bf 109. Right. This force-landed Spitfire, ZP-J, in German hands, had formerly belonged to 74 Sqn RAF. It may well have been the one tested by Mölders.

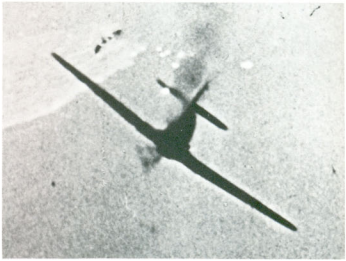
Hannes Trautloft, another Bf 109 exponent and a 58-victory ace, seen here piloting something different, a transport wagon used by JG 54. He had a high opinion of the Bf 109's reliability.

A French Bloch MB 152 fighter captured at the time of the fall of France. Although slower than opposing German fighters, they could take tremendous battle damage and were considered to be excellent combat aircraft.

This series of combat photographs is from the camera gun of Adolf Galland and shows one of his victories over a British Hurricane.





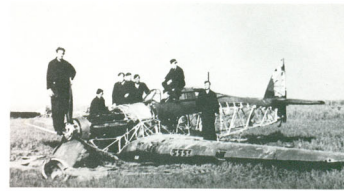


Galland climbing out of one of his modified Bf 109Fs fitted with a telescopic sight. Judging by his complete flying kit, it is fairly obvious where he had proposed to test it!

a brief period, throughout the war. Finally, since it had a higher service ceiling than its early opponents, the Bf 109E could engage or break off combat at will. This was important because the principles of air combat from the earliest days had decreed that superior height conferred an advantage and this still holds true in the current yo-yo manoeuvres. On the other hand, while the British fighters were developed to be aerodynamically forgiving in high 'G' manoeuvres at low level, both the Bf 109 and the later Fw 190 with their higher wing loadings and the trimming difficulties with the *Emil*, both experienced certain control and stability problems when changing direction at high speed near the ground.

In the Bf 109F the Messerschmitt fighter attained its zenith. With its aerodynamically improved form and more powerful engine, its top speed was about 45 mph higher than that of the *Emil*, but neither of the original problems was solved in the new type since the fuel tankage was basically the same and the weak, narrow-track undercarriage installation

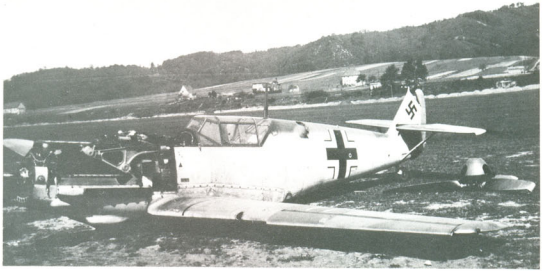
Please turn to Page 153



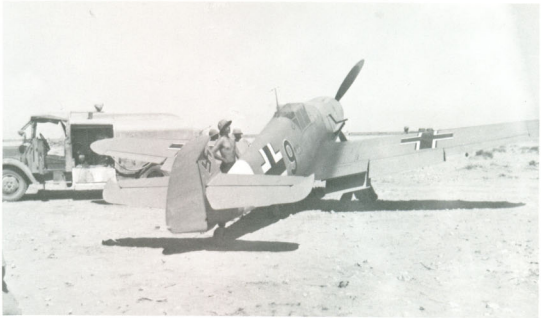
Upper. A derelict but basically intact Hawker Hurricane shot down in France. What restoration enthusiasts would give today for such a prize! Lower. A Polikapov I-16 *Rata*, the most widely used Russian fighter in 1941. The type was not phased out until two years later.

Another Spitfire which fell into German hands was XT-D, of 603 Sqn. On the port wing the apertures for the four .303-in machine guns stand out clearly, the fifth dark spot being the tip navigation light.

When an undercarriage leg failed such as on this 7./JG 54 machine in France in 1940, it presented a time-consuming salvage and repair job. White 11 had a yellow cowling and rudder with its number placed forward of the cockpit.



White 5 .... another casualty, this time of JG 52. The style of fuselage cross makes an interesting comparison with that on the aircraft above.

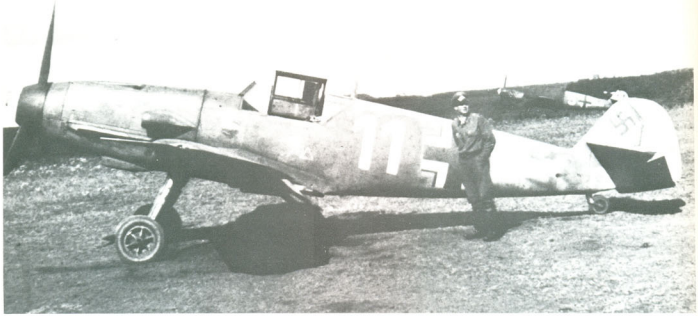


A newly delivered Bf 109F-2/Trop of II./JG 27. The strength of the tan 79 camouflage is very different from that on other new JG 27 aircraft pictured on Pages 92 and 93. Even allowing for photographic printing variations, the variation in shade is quite remarkable.

Left. In the hands of a good pilot the P-40 Kittyhawk and even its predecessor the P-40B Tomahawk was a very effective fighting weapon against the Messerschmitt Bf 109. Pilots have commented that they could out-turn the F model fairly easily, especially to the right. This machine, GA-W, was operated by 112 Sqn RAF. Lower. A deadly duo. Two of the most formidable Allied fighters of WW 2 were the Vickers-Supermarine Spitfire IX and the North American P-51 Mustang, seen here at Anzio in 1943. Many pilots preferred the more streamlined and faster P-51B to the later P-51D with its bubble hood.

Upper. Two well-known personalities whose views on their operational equipment make interesting reading. Werner Mölders of JG 51, on the right, visited Adolf Galland of JG 26 at Wissant in September 1940. On the left was *Oblt* Rotenberger, the *Adjudant*. Right. The *Friedrich* had the most agreable handling characteristics of all Bf 109 variants. These two very unusual machines were F-2R models, used for fighter reconnaissance with 4.(F)/123 in France during 1943.

Lower. Ernst Reinert was certainly successful in the Bf 109F and went on to record 174 victories, 71 of them in the West. He is shown here with his White 11 of II./JG 77, which bore the unit's eagle emblem forward of the cockpit.



remained unimproved. Moreover, a reduction in firepower drew disapproval from some pilots such as Galland and Oesau, though Mölders considered that the centrally mounted cannon plus the two synchronised machine guns above the engine gave greater accuracy. Oesau is said to have kept his *Emil* for as long as possible before reluctantly converting to the new type.

The British reply to the Bf 109F was the Spitfire Vb, which began to reach the squadrons from March 1941. Although it was unable to out-fly the Bf 109F at the higher altitudes where so many of the top cover escorts were operating at that period, the Spitfire Vb could certainly out-gun its German opponent with its new armament of two 20-mm cannon and four .303 machine guns. Subsequently, the *Friedrichs* were fitted with a pair of underwing gondolas mounting MG 151/20s (*Rüstsätze* R1, modification kit), with the consequent loss of aerodynamic purity and at the expense of handling qualities. But at least by Spring 1941 the problems associated with tail unit failures had been solved. The redesigned tail of the Bf 109F had eliminated the need of the supporting struts which had been so conspicuous on the *Emil*, but at certain speeds and engine revolutions the harmonic frequencies in the structure had set up vibrations which had caused failure of the tailplane spar. Nevertheless, for all its shortcomings, the F model was considered the most pleasant variant to fly.

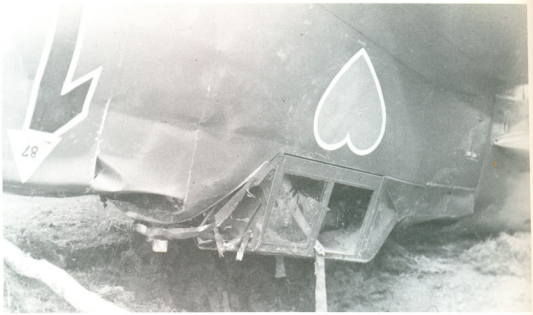
With the introduction of the *Gustav*, signs of over-development began to be manifested in the handling qualities. A 30-mm MK 108 cannon plus underwing gondolas improved the weight of its firepower, but the increase in loaded weight was barely matched by the increase in engine power and it was apparent that the time for the 109's replacement had come. Helmut Lipfert recalls that when he was flying escort for Fw 190 fighter-bombers at low level in even a late model G-10, he had little or no speed advantage and for this reason such missions were discontinued.

Shown inside this hangar were several Bf 109Fs of JG 52, the one on the right being fitted with underwing gondolas for two 30-mm MK 108 cannon.

When the Fw 190A first saw action in the summer of 1941 in the hands of 6./JG 26 under *Oblt* Walter Schneider, the appearance of the aircraft came as a great shock to the RAF operating offensively over Northern France. Consultations at Air Ministry level confirmed the reports by squadron pilots that the new type could out-perform the Spitfire V in every respect and what had at first and from the earliest sightings been dismissed as ex-

A hint of the dramatic success of the newly-introduced Fw 190 is provided in this shot of a Fw 190A-1, W Nr 027, Yellow 1, of *Oblt* Walter Schneider, which showed four rows of victories on its yellow rudder. The lower part of the cowling was also yellow. Further detail will be found on Page 88.

A series of pictures with a story ... A few minutes before this crash in November 1942, the famous Walter Nowotny of JG 54 had shot down three Russian aircraft. He celebrated by beating up the airfield three times but on the last pass ran out of fuel and overturned, fortunately without injury to himself. According to a reliable source, his Bf 109G-1 was painted a uniform dark green similar to RLM green 82 on the upper surfaces. JG 54 experimented considerably with field camouflage.



French Curtiss Hawk 75s were at last recognised for the very real threat that they presented to Fighter Command. Comparative losses rose to approximately two Spitfires for every Fw 190 destroyed, an unacceptable situation. Somewhat belatedly, the RAF phased into service what ultimately proved to be best-loved Spitfire of them all, the Mk IX with its Merlin 61 series engine equipped with a two-speed, two-stage supercharger and in later models the substitution of two .5-inch calibre machine guns for the outer-wing mounted .303s. But the Spitfire IX only entered service with No 64 Squadron in July 1942 and in the interim the Fw 190s continued to hack down the outdated Spitfire Vs.

There were a few minor problems associated with the early service life of the Fw 190. For example, like the British Typhoon, the Fw 190's engine sometimes caught fire when being started, but compared with the contemporary Bf 109s the newer type was superior in every way except at higher altitudes. The air-cooled radial engine was less vulnerable to gunfire, the extra stability conferred more accurate gunnery and most important of all, the efficient wide-track undercarriage helped to reduce the accident rate. The astute pilot would now avoid a horizontal turning combat with any Spitfire but he would never attempt to disengage from a P-47 Thunderbolt by diving away. With a weight of over 14,000 lb

Another variant in the Messerschmitt series was the Bf 109G-6/R2 which was fitted with WfrGr 21 rocket launchers under the wings.

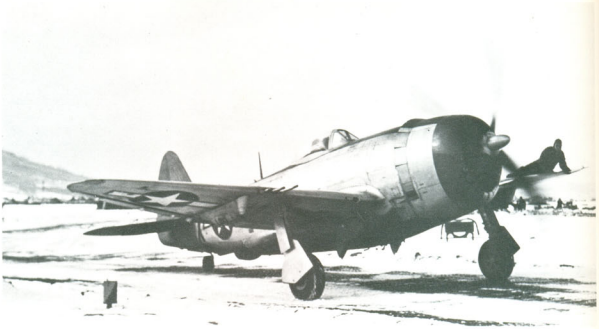
and with more than 2,000 horsepower in hand, the P-47 could achieve a remarkable acceleration in the dive.

In the East also, the Bf 109 was beginning to lose its ascendancy over Soviet fighters as the newer types came into widespread use and as the sheer weight of numbers became a decisive factor in the struggle for air superiority over the vast Russian Front. More than 27,000 examples were built of the Yak 3, Yak 9 and the La 7 and they all had a commendably good performance up to about 12,000 ft.

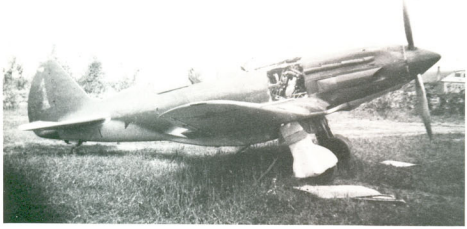
The Fw 190D-9 was superior to the earlier sub-types in its rate of climb and in its maximum speed, but its higher wing loading resulted in a greater turning circle and its

Please turn to Page 158

A strangely painted Fw 190, White 3 of 1./JG 54. Because of the degree of protection afforded the pilot by the nose armor plating and the huge radial engine, the Fw 190 was generally preferred to the Bf 109 for attacks against bombers.



The P-47 Thunderbolt, which weighed more than six tons, was practically impossible to catch in a dive and was capable of breaking off combat at will. This P-47D-30-RA, IZ-X, was taxying in to dispersal after a strafing mission over Germany during the winter of 1944/45. Left. Another formidable US fighter, the P-38 Lightning was called "Forked-tailed Devil" by the *Luftwaffe*. Lower. The P-51 Mustang had a legendary capacity for escorting bombers all the way to Germany and then taking on defending fighters on comparable terms. "Big Beautiful Doll" was flown by Lt-Col John Landers, a 14½-victory ace with the 83rd Sqn, 7th FG, 8th USAAF.

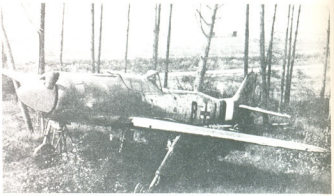


Upper. From about 1943 onward, as new types of high performance Russian fighters were produced, *Luftwaffe* pilots found it increasingly difficult to maintain their aerial supremacy. Brown 7, a Fw 190 of JG 51, had obviously seen hard operational use on the Eastern Front. Left. A far different proposition to the early I-16 was the MiG-3, an example of which, Yellow 1, is seen here. Its sleek appearance speaks for itself. Lower. This Fw 190A-8/R8, Yellow 12, flown by Werner Bohnenkamp, packed a lethal punch, for this version was fitted with two 30-mm underwing MK 108 cannon for close-in fighting against bombers.

armament was reduced to two MG 131s and two 20-mm MG 151 cannon in the wing roots. Its performance was comparable to the P-51 Mustang, the Tempest V and the later marks of Spitfires which were its contemporaries over Northern Germany. With the arrival of the Ta 152, the maximum speed was raised to over 460 mph at 41,000 ft with the use of MW 50 injection assistance. Comparable figures were, for the Spitfire XIV, 448 mph at 26,000 ft and the P-51D Mustang, 437 mph at 25,000 ft. Kurt Tank, the talented designer of the Fw 190 series, was reputedly able to escape quite easily from some P-51 Mustangs by using the MW 50 booster system in a Ta 152.

By bringing into service the Me 262, the first operational jet fighter in the world, the *Luftwaffe* achieved superiority over all other fighters in maximum speed, (542 mph at 19,500 ft) and in armament, (four MK 108 cannon of 30-mm calibre). But this very speed advantage sometimes brought with it its own limitations. For example, the closing speed when attacking a bomber formation was such that it was necessary to attack from the rear to ensure even a few precious seconds of firing time with the short-range MK 108s. The power units (Jumo 004B-ls) were extremely sensitive to throttle and jet-pipe temperature, a common weakness of all the early jet units and they needed sympathetic handling and frequent servicing. Acceleration in the air was sluggish and any coarse use of the engine controls was liable to result in damage to the turbines. Allied fighter pilots quickly realised the vulnerability of the Me 262 in the landing or take-off configuration and it was in the areas around their bases that most of the Me 262 losses occured. Once armed with the underwing batteries of 55-mm rocket projectiles — a total of twenty-four R4Ms — the Me 262 became an almost ideal weapons system and in its comparatively brief operational career it was a popular aircraft with its pilots.

The same operating criteria applied equally to the Heinkel He 162, but it lacked the heavy armament of the Me 262. It had been intended originally to mount two MK 108s, but these were subsequently replaced in the design by a pair of MG 151s. Although it saw limited operational use, its short career was limited by the constraints of the war situation in the spring of 1945. Although the type was accepted by its pilots, it was generally acknowledged that its slow speed flying characteristics were never very satisfactory.

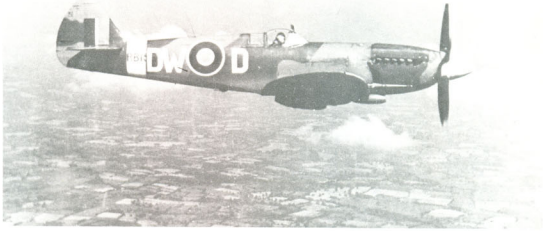


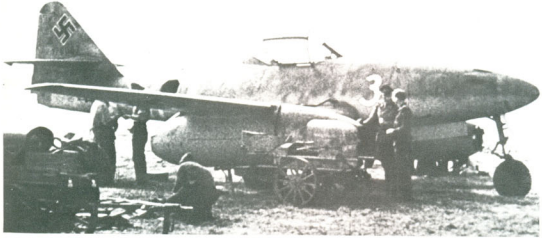
The Fw 190D-9 "long nose", an outstanding high performance fighter which appeared too late to have any decisive effect on events in the air. It is believed Black 8 may have belonged to III./JG 26.

The speed advantage enjoyed by the rocket-powered Me 163 was even greater — a maximum permissible speed at any altitude of 560 mph — but its power was used chiefly in gaining height, since the machine was designed primarily as an interceptor fighter to be employed in the defence of important strategic targets. Including its take-off run (on a two-wheeled trolley), the Me 163 could attain an astonishing 30,000 ft in a little less than three minutes, but after attacking with its twin 20-mm cannon, the aircraft then had to return to base in the rather vulnerable condition of a glider, albeit a very fast one. Its mission having been accomplished successfully, there remained only the hazardous landing, which had to be made on an extended skid under the belly. Great care was needed to make a smooth arrival, since heavy landings often resulted at best in back injuries to the unfortunate pilot and at worst in the detonation of the small amounts of the volatile and highly corrosive fuel that might remain in the tanks.

Unfortunately for the *Luftwaffe*, the technical achievements of successful jet and rocket power had arrived too late for either to have a decisive influence on the course of the final stages of the war.

By the end of the war a number of RAF units such as 610 Sqn had been equipped with the high performance Spitfire Mk XIV. This machine, DW-D, was flown by an almost unknown Australian ace, Sqn Ldr Tony Gaze, DFC, who had been credited with nine victories.





Me 262A-1a, Yellow 3, W Nr 170067, was used by *Erprobungskommando 262*, a test and evaluation unit based at Lechfeld. This machine was photographed in July 1944 and probably had grey rather than late-war green camouflage.

This Me 262A-1a interceptor, W Nr 501232, Yellow 5, is believed to have been decorated with a tail band consisting of blue and green checks. It belonged to 3./ISS 1, a special factory defence unit based at Lechfeld. The color scheme was probably 82/83/76.

CHAPTER 17

AIRCRAFT IN DETAIL

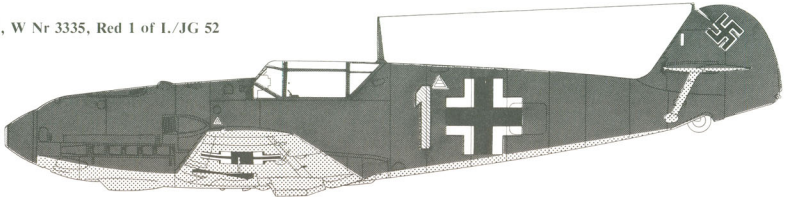
© Kookaburra Technical Publications Pty Ltd

Drawings by R. Sandow

In most cases with the black and white drawings which follow, it has proved an impossible task to establish the corresponding upper surface patterns of the specific aircraft concerned. Any photographs or combinations of photographs which show complete top views of *any* fighter aircraft, for that matter, are either extremely rare or simply do not exist. Scarce as this information is, the most comprehensive coverage of the subject is still Kookaburra's four-part reference series on *Luftwaffe* camouflage and markings, to which has now been added a completely new volume covering the 1935–40 period.

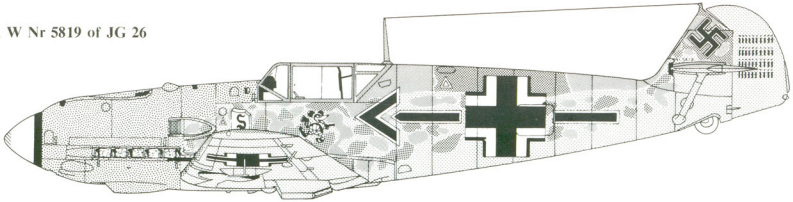
Although the aircraft colors described in the following selection represent the most up-to-date conclusions of a team comprising some of the world's most experienced color researchers, it must be appreciated that one-hundred-percent accuracy in identification of all colors in each and every case is a practical impossibility. Strong *probability* of accuracy is the best that can ever be hoped for. Where doubt exists as to the true colors, this is plainly stated on the drawing concerned.

Bf 109E, W Nr 3335, Red 1 of I./JG 52



It was in this aircraft that *Lt* Berthel scored JG 52's first victory of the war on 6th October 1939, the victim being a French reconnaissance bomber. The upper surfaces are believed to have been black-green 70 alone, which was most unusual at the time. Its undersurfaces were pale blue 65 with the aircraft's individual number in red. The single victory bar and the *Werk Nummer*, 3335, appeared in white on the rudder although the latter could not be shown on this drawing because it was so small.

Bf 109E, W Nr 5819 of JG 26

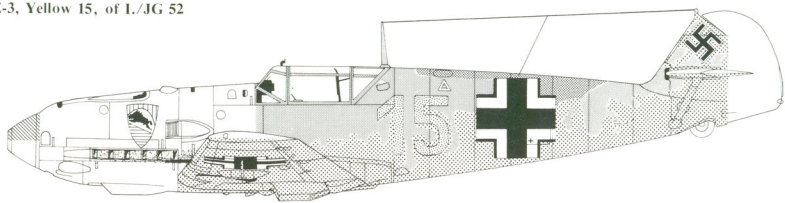


This aircraft with its striking markings belonged to *Maj* Adolf Galland, at the time *Kommodore* of JG 26. It had a grey camouflage scheme with pale blue and 65 undersurfaces and a yellow cowling. The spinner was black, white and red. It carried the JG 26 *Schlageter* emblem in black and white plus a painting of Mickey Mouse as a personal marking. The cockpit frames were painted dark grey, RLM 66. On the rudder were four rows of ten victories. All victory bars had a circle on top indicating the date of each encounter.

© Kookaburra Technical Publications Pty Ltd

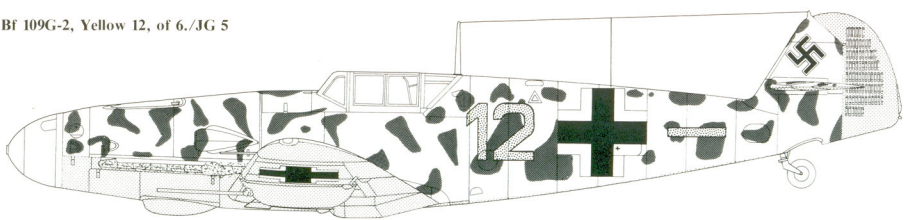
Drawings by R. Sandow

Bf 109E-3, Yellow 15, of I./JG 52



This aircraft was normally flown by *Fw* Kurt Wolff of 3./JG 52. It had an early grey camouflage scheme but its engine cowling, rudder and the upper surfaces of the wingtips were painted an extremely pale washable yellow. The spinner colors were red and white whilst the emblem of I./JG 52 appeared in red, white and blue with the boar shown in black. The special washable markings were used for the anticipated landing and occupation of England during September 1940. It should be noted that a rear vision mirror had been fitted on top of the cockpit canopy.

Bf 109G-2, Yellow 12, of 6./JG 5

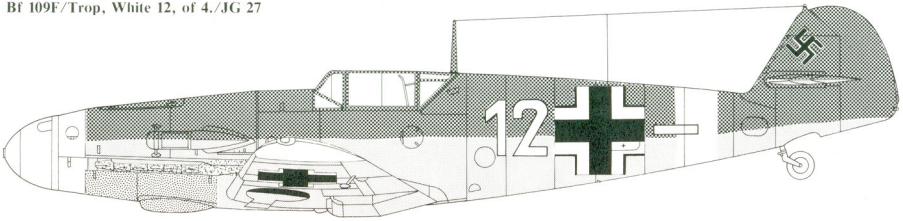


The aircraft shown here belonged to *Oblt* Heinrich Ehrler, *Staffelkapitän* of 6./JG 5. At this time, in March 1943, Ehrler had 77 of his 204 victories shown on his rudder. The rudder itself was probably RLM 76, although a mixture of 76 and 75 would have been quite possible. The upper surfaces of the aircraft were camouflaged in washable white, apparently with RLM 70 patches. The fuselage crosses had also been oversprayed in white. The number 12 and the second *Gruppe* bar were painted in yellow with a thin black border. The undersurfaces were RLM 76. During the summer, this aircraft had the standard grey camouflage scheme. It should be noted that Ehrler at this time sustained a hit in his engine-mounted cannon and the aircraft was replaced, resulting in two aircraft with similar markings.

© Kookaburra Technical Publications Pty Ltd

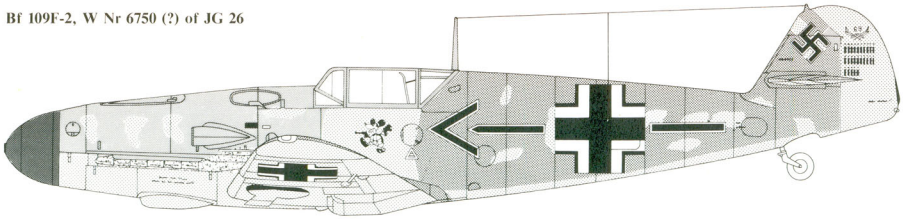
Drawings by R. Sandow

Bf 109F/Trop, White 12, of 4./JG 27



This machine belonged to *Ofw* Franz Stigler. In this case the usual emblem of 4./JG 27, a crash-landing British lion, was not used. The aircraft showed typical tropical camouflage, with upper surfaces in RLM 79 and RLM 78 underneath. The fuselage band, nose, and wingtips were painted in white with the lower part of the engine cowling in yellow.

Bf 109F-2, W Nr 6750 (?) of JG 26

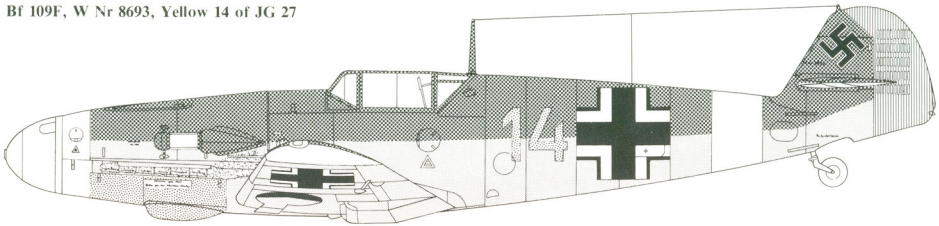


This aircraft, also in *Kommodore* markings, was allocated on *Obst* Adolf Galland of JG 26 during December 1941, before he left to become *Inspekteur der Jagdflieger*. It had had a grey and somewhat indistinct camouflage scheme with the usual black-green 70 spinner. On the rudder was the number 69 in red, surrounded by oak leaves with details in black plus silver swords. There were two further rows of victory bars and a third row with five more victories; a total of 94. All bars appeared in red. The aircraft was equipped with an engine-mounted cannon plus two MG 131s over the engine, the shells being ejected and not collected as on later models. At this time Galland also used a similar aircraft armed with two MG FF guns in the wings plus two MG 17s over the engine.

© Kookaburra Technical Publications Pty Ltd

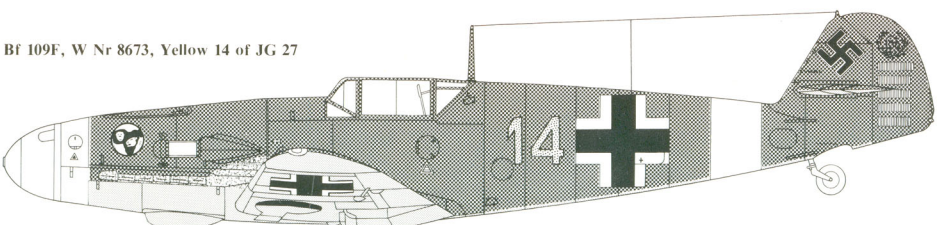
Drawings by R. Sandow

Bf 109F, W Nr 8693, Yellow 14 of JG 27



This Messerschmitt was one of the first Bf 109Fs used by the well-known Hans-Joachim Marseille during February 1942. The camouflage was of the standard tropical type with upper surfaces in RLM 79 and with RLM 78 underneath. The spinner, nose, fuselage tail band and undersurfaces of the wingtips were in white. On the reddish-brown primer-colored rudder were 50 victory bars in pale yellow, the same color as the lower engine cowling.

Bf 109F, W Nr 8673, Yellow 14 of JG 27

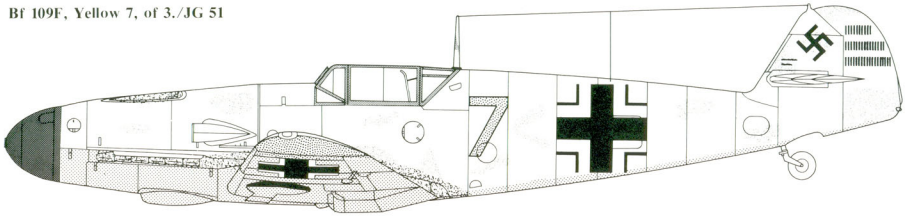


This aircraft was the last Bf 109F used by Marseille before he was killed in September 1942. No information is available about his eight victories in a Bf 109G-2. The camouflage was mainly RLM 79 with RLM 78 underneath. The nose and fuselage tail band were in white, but there were no white wingtips, nor yellow engine cowling. The emblem of I./JG 27, however, appeared on the engine cowling. This was Marseille's only aircraft where the yellow 14 was surrounded by a thin black border. On the rudder was the number 100 surrounded by a wreath of oak leaves, the first row of yellow victory markings having eleven, then four rows with ten each, a total of 151.

© Kookaburra Technical Publications Pty Ltd

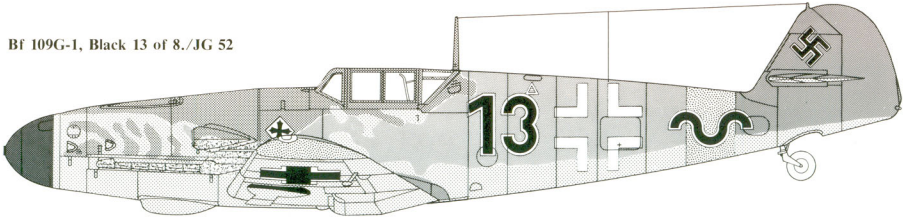
Drawings by R. Sandow

Bf 109F, Yellow 7, of 3./JG 51



The usual pilot of this aircraft cannot be positively identified, but it may have been *Fw* Erwin Fleig, a very experienced former wingman of Werner Mölders. The upper surfaces were almost totally painted in washable white, but in some places the grey camouflage showed through faintly. The exhausts and gun openings were covered in black grime. The spinner was painted the usual RLM 70, with the lower wingtips in yellow. Yellow 7 had its number surrounded by a black line, but had no customary yellow fuselage band. The undersurfaces were RLM 76. On the rudder were three rows with victories; 10, 15 and 18 respectively, a total of 43, all in black.

Bf 109G-1, Black 13 of 8./JG 52

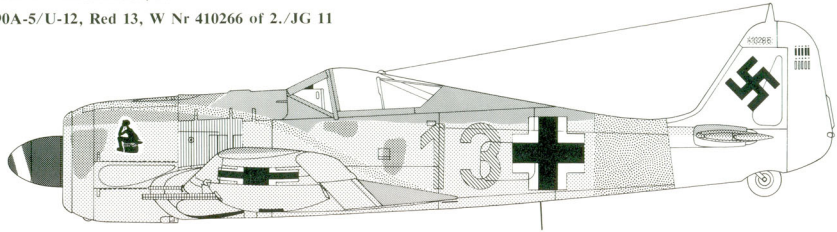


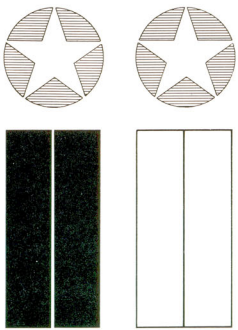
This machine belonged to the notable *Oblt* Günther Rall of 8./JG 52. It had 74/75/76 camouflage consisting of unusually large color areas on top. The number 13 and the *Gruppe* marking were painted in black outlined in white, with the fuselage tail band and lower wingtips in yellow. The spinner was painted the usual black-green 70. The III./JG 52 emblem showed a red cross on a white background surrounded by a thin black border. No victory markings were carried on the rudder and the fuselage section numbers were visible on the lower part of the fuselage sides.

© Kookaburra Technical Publications Pty Ltd

Drawings by R. Sandow

Fw 190A-5/U-12, Red 13, W Nr 410266 of 2./JG 11



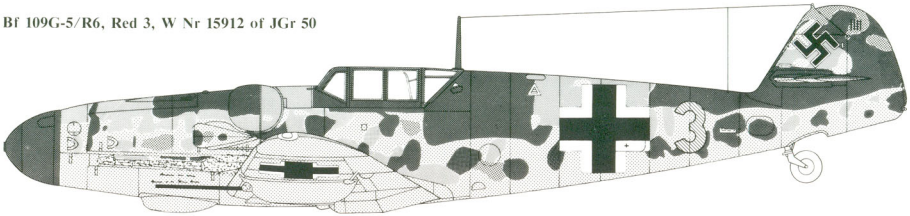


This aircraft was flown by *Lt* Erich Hondt, *Staffelkapitän* of 2./JG 11 during 1943. Although the normal grey camouflage scheme was used, the machine was still very colorful. It was coded Red 13 with the fuselage tailband in yellow and a completely white rudder showing a grey area around the *Werk Nummer* and ten victories over American aircraft. (See detail drawing). The spinner was painted RLM 70, with possibly one segment in yellow plus a white spiral. A yellow line swept from the nose on each side, whilst the engine cowling bore the hitherto unknown emblem of 8./JG 11. The lower drawings show the basically black and white emblem of 8./JG 11, the rear part of the man's hat being either brown or red. The victory bars in the upper row were shown in black with the lower row in white plus a thin black outline. The American markings were blue and white.

© Kookaburra Technical Publications Pty Ltd

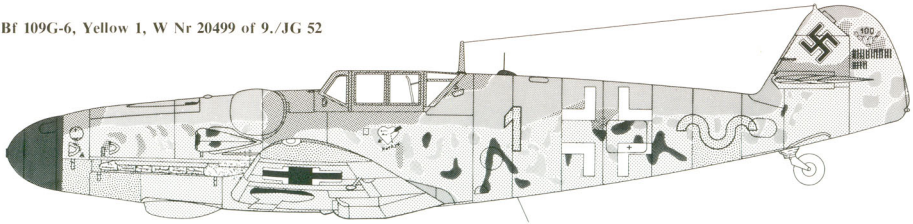
Drawings by R. Sandow

Bf 109G-5/R6, Red 3, W Nr 15912 of JGr 50



Published a number of times but never positively identified, this was the aircraft of *Lt* Gottfried Weiroster of JGr 50, a unit led by Herrmann Graf. Red 3 had basic grey 75 camouflage with heavy use of RLM 70. It also had a high-gloss surface to help increase the machine's top speed. On the rudder were four black victory markings, one of them including an American star. The red number 3 was surrounded by a white line. On this aircraft all stencilling had been left completely exposed rather than covered by camouflage as was very common.

Bf 109G-6, Yellow 1, W Nr 20499 of 9./JG 52

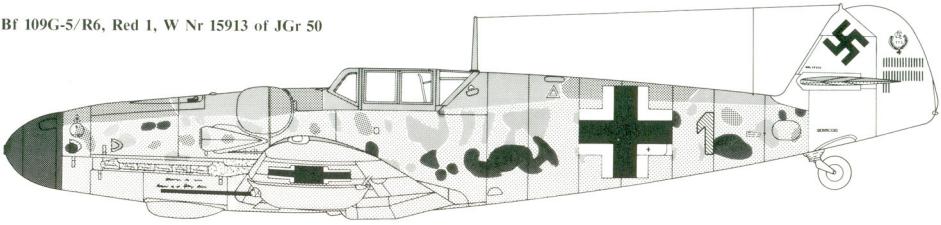


This aircraft belonged to the *Staffelkapitän* of 9./JG 52, the very successful *Lt* Erich Hartmann. Its camouflage was 74/75/76 with small areas of RLM 70 on the fuselage sides. The lower cowling, wingtips number 1, the III. *Gruppe* marking and the fuselage tail band were all in yellow. On the rudder was a century marking outlined thinly in black. The oak leaves were in green, with black details. In addition there were 21 victory bars in red. The pilot's personal red heart marking had a yellow arrow with yellow drops and the name *Karaya*, also in yellow. Written on the heart in white was the inscription *Dicker Max* (Big Show). About one sixth of the black-green 70 spinner was segmented in white.

© Kookaburra Technical Publications Pty Ltd

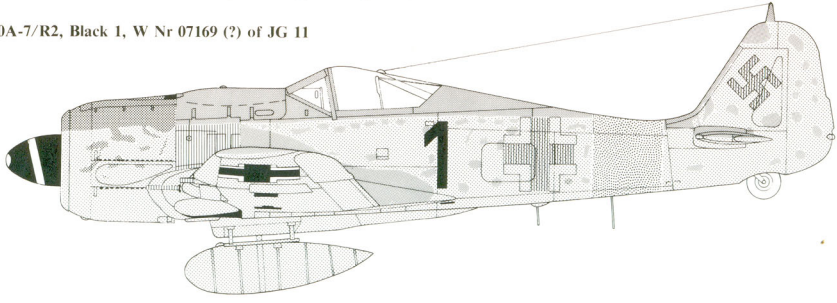
Drawings by R. Sandow

Bf 109G-5/R6, Red 1, W Nr 15913 of JGr 50



Hermann Graf flew this machine as *Kommandeur* of JGr 50, a unit based at Wiesbaden-Erbenheim, flying sorties against high-flying Allied aircraft. Red 1 had standard grey camouflage with black-green 70 patches and spinner. On a completely white rudder were Graf's personal markings; a 172-victory emblem, then two rows with 15 victories, each recording Russian aircraft, plus three victories over American aircraft. His *Gustav* is depicted as at 6th September 1943.

FW 190A-7/R2, Black 1, W Nr 07169 (?) of JG 11

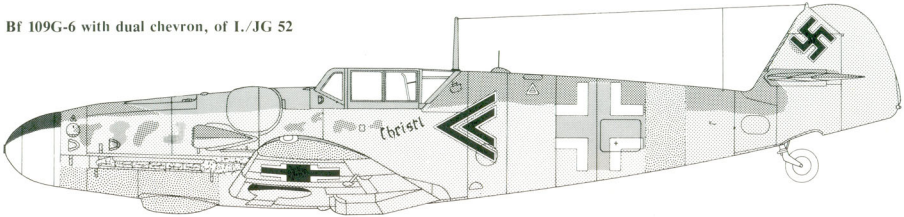


This machine was flown by the *Staffelkapitän* of 2./JG 11 during February 1944. Its pilot cannot be positively identified but it was either *Lt* Alwin Doppler or *Ritterkreuzträger* Josef Zwernemann. It had a grey camouflage scheme with an oversprayed fuselage cross and swastika, a black number 1 and a black spinner with encircling white spiral. The yellow fuselage tail band indicated JG 11. The area around the cooling flaps was the usual grimy black and the aircraft was equipped with 30-mm MK 108 cannon in the outboard sections of the wings. Overspraying of the markings made the aircraft extremely difficult to detect at low altitude, this ruse being widely used by JG 11 during 1944.

© Kookaburra Technical Publications Pty Ltd

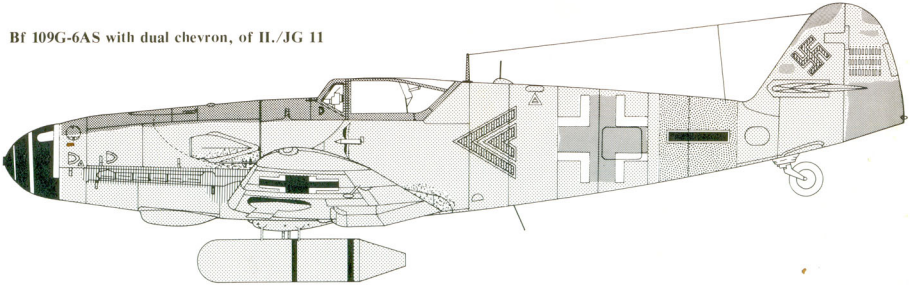
Drawings by R. Sandow

Bf 109G-6 with dual chevron, of I./JG 52



During the late summer of 1943 this aircraft was extensively used by the *Gruppenkommandeur* of I./JG 52, *Hpt* Gerhard Barkhorn. Its standard grey camouflage scheme had a semi-matt, rather silken appearance. It displayed the usual yellow fuselage tailband, lower wingtips and engine cowling. Its spinner was mainly white with approximately one third being painted black-green 70. Under the cockpit was his wife's name, Christl, which appeared in white and which was similar to that already published of his Bf 109G-5 or G-6 of II./JG 52. No victory bars nor unit emblem appeared on this machine.

Bf 109G-6AS with dual chevron, of II./JG 11

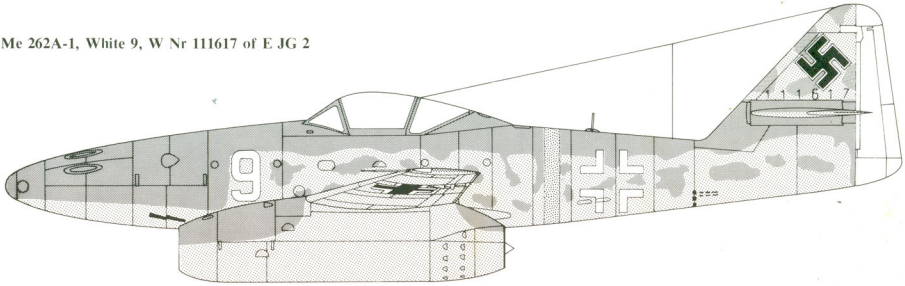


During April 1944 this aircraft was flown by the unit's *Gruppenkommandeur, Maj* Günther Specht. It had a very different 74/75/76 camouflage scheme with much overspraying, so that swastika and chevrons, including the white border lines, appeared as grey shades. Around the exhaust pipes was a black-painted area, followed by much discoloration. On the black spinner was a rather crudely applied white spiral. The rudder showed three rows of ten victories each. Above the first six bars were British roundels whilst above the others American stars were shown. Within each victory bar the aircraft type was indicated, the lower section showing the date of the victory. Under the cockpit was Specht's personal emblem, a winged pencil. Its colors were three shades of brown with wings in black, white and grey. The machine is shown here with a slightly unusual type of long-range fuel tank.

© Kookaburra Technical Publications Pty Ltd

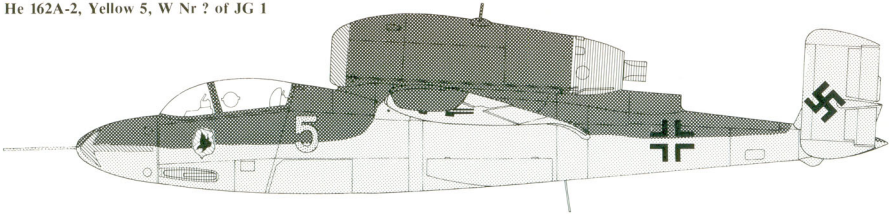
Drawings by R. Sandow

Me 262A-1, White 9, W Nr 111617 of E JG 2



This aircraft was usually flown by *Fjofw* Recker of *Ergänzungsjagdgeschwader* 2. It was an example of the early grey scheme with RLM 74 alone on the upper surfaces and RLM 76 underneath. On the fuselage it bore a white number 9 with a yellow tail band whilst af the rear of each engine a thin red ring had been painted. The rudder was a very light color, either a dirty white or an extremely light shade of pale blue-grey 76, by no means an uncommon feature of fighter camouflage of the period.

He 162A-2, Yellow 5, W Nr ? of JG 1

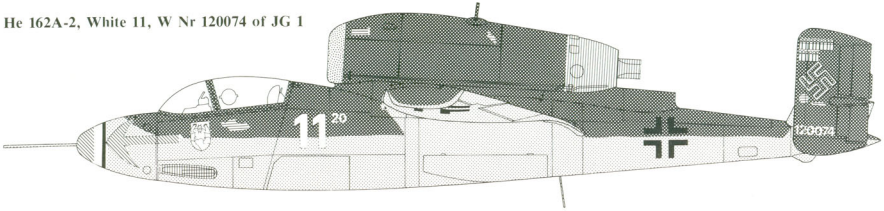


This aircraft was actually flown operationally by *Hpt* Heinz Künnecke of I./JG 1. The upper surfaces were probably either dark green 71 or 82 with pale blue-grey 76 underneath. The fuselage crosses and swastikas were shown in black. The black *Werk Nummer* is not known, but was probably also in the 120... series. The striking arrows on the nose and the engine intake were in red, with the rear end of the engine and the cannon openings in black. The number 5 appeared in yellow with a thin black border. The emblem had a red and white background whilst the eagle itself was black with yellow details, the whole being surrounded by a thin black border.

© Kookaburra Technical Publications Pty Ltd

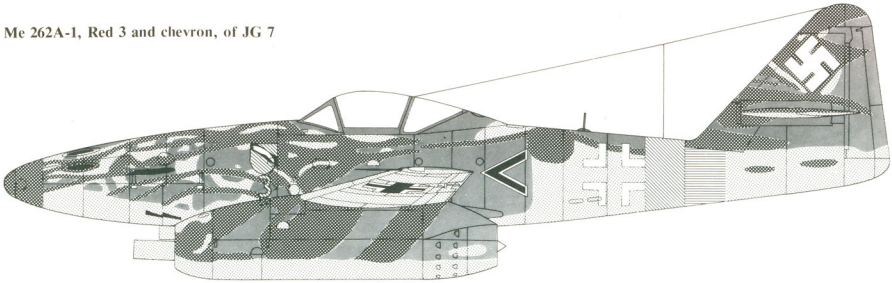
Drawings by R. Sandow

He 162A-2, White 11, W Nr 120074 of JG 1



This particular Heinkel was flown by the *Gruppenkommandeur* of I./JG 1, *Oblt* Karl Demuth. Its upper surfaces were probably also dark green 71 or 82 with pale blue-grey 76 underneath. The fuselage crosses were in black whilst on the dark rudder the swastikas and 16 American victories appeared in white. The engine intake was yellow with the rear end in black. The nose of this aircraft was red, white and black with red arrows. The emblem of I./JG 1 had a yellow background with white clouds whilst the devil was a flesh color with details in black. The gun apertures were also in black. Eleven was the pilot's favorite number, the small 20 here indicating the unit's *Gruppenkommandeur*.

Me 262A-1, Red 3 and chevron, of JG 7



The usual pilot of this machine cannot be positively identified, but the aircraft is believed to have been flown at one time by *Maj* Rudi Sinner, *Kommandeur* of III./JG 7 during 1945. It had a camouflage scheme consisting of long brownish-green 81 streaks over dark green 82 with pale blue-grey 76 underneath. The nose cone was brownish-green 81. The fuselage crosses were in white with the tail band shown in red and blue with the red leading. The chevrons were black with white borders, the unusual swastikas being all-white. Just forward of the cockpit was the emblem of JG 7 in blue, red and white whilst underneath was a red number 3 with a white border. The aircraft was equipped with two BR 21 rocket launching tubes fitted to the lower fuselage.

INDEX OF ILLUSTRATIONS

NOTE: Where a rank is quoted for an individual depicted in photographs, it is the rank applicable to the first photograph only of that person in the book. No account is taken of any subsequent promotion or photographs taken at an earlier date. In isolated cases it has not been possible to establish the full name of some individuals and the author, whose address is shown on Page 6, would be grateful for any further information.

Ademeit, *Hpt* Horst	23	
Balthasar, *Hpt* Wilhelm	47	
Bareuther, Herbert	108, 109	
Barkhorn, *Hpt* Gerhard	65, 66, 135, 168	Plate P 101
Bartels, Heinrich	58	
Batz, *Oblt* Wilhelm	135	
Beck, *Uffz*	53, 54	
Bennemann, *Oblt* Helmut	125, 130, 131, 136, 138	
Berger, *Oblt* Horst	59	
Berthel, *Lt* Hans	112, 113, 160	
Bertram, *Hpt* Otto	37	
Bf 109B	140	Plate P 64
Bf 109D	116	
Bf 109E	6, 10, 12, 13, 14, 26, 28, 29, 35, 36, 37, 47, 57, 77, 78, 80, 85, 89, 90, 91, 92, 100, 105, 112, 113, 114, 115, 116, 117, 118, 119, 120, 125, 126, 139, 140, 145, 150, 160, 161	Plates P 41, 61, 64, 124, 141
Bf 109F	6, 8, 11, 14, 15, 25, 28, 29, 37, 38, 39, 48, 50, 56, 57, 58, 59, 79, 80, 86, 87, 92, 93, 94, 95, 106, 107, 125, 126, 127, 128, 129, 130, 149, 151, 152, 153, 162, 163, 164	Plates P 42, 43, 61, 62, 63, 84
Bf 109G	Endpaper, 5, 22, 24, 49, 50, 51, 53, 54, 55, 58, 59, 60, 69, 71, 93, 95, 96, 107, 111, 126, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 154, 155, 161, 164, 166, 167, 168	Plates P 61, 81, 84, 101, 102, 103, 141, 142, 143, 144
Bf 109K	52	
Bleyer, *Fw*	45	
Bloch MB 152	148	
Bohnenkamp, Werner	80, 157	
Born, Heinz	70	
Börngen, *Lt* Ernst	25, 92, 94	
Breitler, Franz	111	
Bü 131		Plate P 64
Brändle, Kurt	50	
Bühligen, *Maj* Kurt	23, 46	
Caudron C455	95	
Clausen, *Maj* Erwin	76	
Dahmer, *Ofw* Hugo	26	
Dähne, Paul	133, 137	
Demuth, *Lt* Karl	27, 31, 33, 34, 170	
Dittrich	53	
Doppler, *Lt* Alwin	74, 167	
Dörr, *Oblt* Franz	57, 58, 59, 60	
Doyé, *Lt*	94	
Dreizehner	76	
Düllberg, Ernst	96	
Düttman, Peter	24	
Ehlers, *Hpt* Hans	32	
Ehrler, *Oblt* Heinrich	60, 161	
Esser, *Rfr* Kurt	55	
Ewald, *Maj* Wolfgang	27, 51, 120, 128	
Faber, *Hpt* Klaus	97	
Fleig, *Fw* Erwin	164	
Föhodnodj, *Oblt* Banloky	136	
Fw 190A	10, 15, 16, 19, 20, 30, 31, 32, 40, 45, 46, 55, 59, 69, 70, 71, 72, 73, 74, 75, 76, 86, 87, 88, 108, 109, 110, 111, 153, 155, 157, 165, 167	Plates P 44, 82, 83, 104
Fw 190D-9	17, 52, 65, 66, 97, 98, 158	
Galland, Adolf	6, 77, 78, 79, 148, 149, 152, 160, 162	Plates P 42, 43
Galland, Paul	86	
Gallowitsch, *Hpt*	34	
Gaibler	107	
Gaze, Sqn Ldr Anthony	159	
Gehr, *Lt*	40	
Geissler, *Oblt*	136	
Gerber, *Ofw*	120	
Giese, *Uffz* Walter	53	
Glöckner, Rudolf	60	
Glunz, *Ofw* Adolf	87	
Gödicke, *Fw* Aldred	72	
Goltzsch, Kurt	38	
Gollob, *Hpt* Gordon	47	Plate P 104
Göring, *Reichsmarschall* Hermann	6, 79	
Gorny, *Lt*	94	
Graf, Hermann	45, 116, 138, 166, 167	Plates P 82, 83, 84
Graf, Josef	138	
Graf, Wilhelm	138	
Gratz, Karl	22, 134	
Güthenke, Hans	73	
Gutowski	70	
Grüning, *Obgfr*	53	
Hackl, Anton	69	Plates P 102, 103
Hafner, Anton	25	
Hahn, *Oblt* Hans	38, 45	
Haiböck, *Hpt* Josef	136	
Hanke, Heino	29, 30	
Hanke, Heinz	70	
Hartmann, *Maj* Erich	5, 23, 126, 134, 135, 155, 166	
Hawker Hurricane	146, 148, 149	
He 162A	18, 33, 34, 169, 170	Plates P 122, 123
Heizmann, Otto	19, 76	
Hermichen, Rolf	76	
Hitler, Adolf	23	
Hoes, Herman	70	
Hondt, *Lt* Erich	165	
Horten, Walter		Plates P 41, 61
Hrabak, *Maj* Dietrich	28, 134, 137, 138	
Ibel, Max	96	
Ihlefeld, *Obst* Herbert	29, 34	
Johne, Helmut	111	
Ju 52	85	
Ju 188	111	
Kabus, *Uffz* Karl	75	
Kath, *Fw* Otto	26	

Kind, *Uffz* Eugen	117	
Kittyhawk, P-40	93, 151	
Klemm Kl 25	51	
Knittel, *Oblt* Werner	107	
König, Hans	20, 72, 75, 76	
Kopp, *Fw*	45	
Kosse, *Oblt* Wolfgang	88	
Krupinski, *Lt* Walter	23, 129	
Kühle, *Hpt* Helmut	118, 120	
Künnecke, *Hpt* Heinz	33, 34, 169	
Kusterer, Albert	66	
Landers, Lt-Col John	156	
Laube, *Lt* Ernst	55, 85, 88	
Leesmann, *Oblt* Karl-Heinz	125, 126, 127	
Lennartz, Helmut	67	
LeO 451	113	
Lightning P-38	156	
Lipfert, Helmut	126	
Lippert, *Hpt* Wolfgang	90, 93, 94	
Ludewig, *Hpt* Wolfgang	34	
Lützow, *Maj* Günther	47	
Machold, *Ofw* Werner	36	
Martin, *Oblt*	107	
Mayer, Egon	11, 37, 45	
Marseille, Hans-Joachim	21, 92, 163	Plate P 84
Me 163	19	
Me 262	18, 19, 67, 68, 98, 99, 159, 169, 170,	Plate P 121
Merbeler, *Uffz*	111	
Mertens, Helmut	126	
Messmer, Paul	110	
Meyer, Rudolf	15	
MiG-3	157	
Miethig, *Oblt*	136	
Mölders, *Obstlt* Werner	25, 106, 147, 152	
Müller, Friedrich Karl		Plate P 84
Müncheberg, Joachim	85, 86, 87	
Munz, Karl	120	
Mustang, P-51	151, 156	
Mutke, *Fr* Hans	68	
Naumann, Johannes	86	
Neuschutz	8	
Norz, Jakob	28, 60	
Nowotny, Walter	20, 21, 24, 154	
Obleser, Friedrich	134	
Opitz, *Uffz*	59	
Orlowski, *Ofw*	59	
Perfahl, *Ofw*	65	
Philipp, *Hpt* Hans	25, 28, 56, 57	
Plücker, *Lt*		Plate P 101
Polikarpov I-16	149	
Potez 63	145	
Priller, *Hpt* Josef	24, 46, 86, 88, 105, 107	
Rall, *Hpt* Günther	22, 138, 164	
Recker, *Fjofw*	169	
Reinert, Ernst	13, 152	
Rödel, Gustav	24, 90, 93	
Romm, Oskar	52	
Rudorffer	40	
Rumler, Hans	67	
Rotenberger, *Oblt*	152	
Saschenberg, *Lt* Heinz	97	
Scheufele, *Oblt* Ernst	53	Plates P 142, 143
Schmitt, *Lt* Rudolf	33, 72, 122, 123	Plates P 122, 123
Schmitz, Karl	95	
Schmoller-Haldy, *Oblt*	15	
Schneider, *Oblt* Walter	88, 153	
Schnell, *Ofw* Siegfried	16, 36, 45, 46	
Schöpfel, *Maj* Gerhard	86	
Schramm, Herbert		Plate P 124
Schroer, *Oblt* Werner	26, 93, 96	
Schuck, *Lt* Walter	28, 60	
Schulz, *Ofw* Karl	58	
Schwaiger, Franz	48, 49, 51	Plates P 62, 63
Segatz, *Oblt* Hermann	57	Plate P 64
Seiler, *Maj* Reinhard	14, 23, 28	
Sinner, *Maj* Rudi	170	
Specht, *Maj* Günther	71, 168	
Spitfire, Vickers-Supermarine	147, 150, 151, 159	
Stangl	76	
Steinhoff, *Hpt* Johannes	98, 136	
Stigler, *Ofw* Franz	162	
Stolle, *Hpt*	15	
Stöwer	76	
Strebel, *Fw*	52	
Strümpell, *Maj* Hennig	35	
Stumpff, *General*	20	
Sturm, *Lt* Heinrich	135	
Ta 152	18	
Thunderbolt, P-47	156	
Tietzen, *Oblt* Horst	120	
Trautloft, Hannes	8, 16, 26, 147	
Trübenbach, *Maj*	129	
von Boremski, *Ofw* Eberhard	50	
von Kageneck, *Hpt* Erbo	89, 92	
Wachowiak, *Uffz* Friedrich	22	
Wagner, *Gefr* Walter	55	
Weber, Sepp	48	
Weimann, Gunther	70, 75	
Weiroster, *Lt* Gottfried	166	
Weissenberger, *Hpt* Theodor	24, 60	
Wendel, Fritz	99	
Wessling, Otto	49	
Wick, *Oblt* Helmut	35	
Wiedmann, Sepp	107	
Wiese, *Hpt* Johannes	21, 23, 132, 133, 137	
Wilcke, *Obst* Wolf-Dietrich	50, 51	
Wolff, *Fw* Kurt	161	
Wübke, *Hpt* Waldemar	97	
Wurmheller, *Oblt* Josef	45	
Zober, *Maj*	34	
Zwernemann, Josef	74, 167	

The author is an electronics engineer from Immenstaad, West Germany, and has an active interest in historical aviation. After spending time with Dornier on developmental projects, he switched to his current involvement with satellite communications and currently works for Bodenseewerk Gerätetechnik GmbH.

Bernd Barbas has spent many years visiting former *Luftwaffe* fighter pilots in order to gather private photographs and other valuable information for this book. He is also the author of many magazine articles.

Other hobbies include skiing, swimming and travelling, his family including his wife Christa, who typed the manuscript, and a daughter, Bettina.