Battle of Britain Day

By Dr Alfred Price FRHistS

"Surprise is obtained by opposing the enemy with a great many more troops than he expected at some particular point. The superiority in numbers in this case is very different to an overall superiority in numbers; it is the most powerful instrument in the art of war."

Von Clausewitz

Of the actions fought during the Battle of Britain the best known was that on 15 September 1940, commemorated annually as "Battle of Britain Day".

Following a heavy bombardment of RAF airfields lasting twenty-four days, on 7 September the Luftwaffe had shifted the focus of its attack to London. Since then there had been four daylight attacks on the capital, but RAF fighters had not engaged these with the ferocity that characterised many of the August actions. The first attack on the capital had come as a surprise, while during the others cloud cover had hindered the control of the defending fighter squadrons.

To Luftwaffe intelligence officers, the drop in the effectiveness of the defences looked like clear evidence of Fighter Command was nearing its long-predicted collapse. Now was the time to mount further attacks on London, to draw the remaining fighters into engagements they were bound to lose.

With that in mind, on 15 September the Luftwaffe planned to deliver two daylight attacks on London separated by a couple of hours. In the first, the main target was Latchmere rail junction at Battersea, an important concentration of routes linking the main line stations at Victoria and Waterloo with points north, west and south. The second attack would be against dock areas to the east of the capital. In the context of a strategic bombing campaign, these were all legitimate military targets.

Since the primary purpose of the attacks was to draw British fighters into action, almost every Messerschmitt 109 Gruppe in France would be committed to support the attacks. Most single-engined fighter units would fly double sorties.

THE NOON ATTACK

In the vanguard of the first attack on London, planned to open shortly before noon, came approximately a hundred Messerschmitt 109 fighters. These flew free-hunting patrols across Kent, to hunt down defending fighters. Next came twenty-one Messerschmitt 109 fighter-

bombers of Lehrgeschwader 2 to attack railway targets in the south-eastern quarter of the city.[1] Then, twenty-seven Dornier 17s of Kampfgeschwader 76 were to attack Latchmere Junction.[2] Each fighter-bomber and bomber formation was to have a similar number of fighters flying close escort.

Almost from the start the German attack plan went awry. The Dorniers, from IInd and IIIrd Gruppen of KG 76, assembled into formation at low level over their airfields at Beauvais and Cormeilles-en-Vexin. Then the forces joined up and headed for the Pas de Calais to rendezvous with their fighter escort. During the climb the bombers ran into an unexpectedly thick cloud layer, which compelled them to break formation. Once above cloud, the leader had to orbit for several minutes to re-assemble the formation.[3] Two bombers failed to rejoin and these returned to base. The Dorniers continued on to Pas de Calais, where they picked up their assigned force of escorting fighters. However, the unscheduled delay had eaten into the fighters' already meagre fuel reserves.

PREPARING THE RIPOSTE

By now the Battle of Britain had been running for seven weeks and the AOC No 11 Group, Air Vice-Marshal Keith Park, had developed his defensive tactics to a fine art. If this was yet another attack on London, he knew that the Messerschmitt 109 escorts would be near the limit of their radius of action when they reached the target.

Park planned to fight the forthcoming battle in three phases. In the first phase, to begin shortly after the German formations crossed the coast, three squadrons of Spitfires on the forward patrol line over Canterbury would go into action. If possible these fighters were to engage the enemy bombers. But if the escorting Messerschmitts prevented this and dogfights developed, that too would serve Park's purpose. It might draw some escorts away from the bombers, leaving the latter more vulnerable to British squadrons attacking later. It would also force the German fighters to fly at full throttle and burn fuel much faster than in the cruise.[4]

Air Vice-Marshal Keith Park who oversaw the direction of the air fighting on 15 September.

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During the second phase, fought as the raiders headed across Kent to the capital, six squadrons of Hurricanes operating in pairs were to be fed into the action. Again the aim was to engage the enemy bombers if possible, and also to keep the escorts busy.

For the third and final phase of the engagement, the bulk of the Spitfire and Hurricane units were to engage the enemy force over the south-eastern outskirts of London. By then, Park hoped, many of the escorting Messerschmitt 109s would be short of fuel and unable to spend long in action.[5]

As the first of his fighters were climbing into position to engage, Park was requesting assistance from neighbouring fighter Groups. In reply No 10 Group in the south-west scrambled a squadron of Spitfires to patrol over Windsor. And No 12 Group in the midlands sent Squadron Leader Douglas Bader's "Big Wing" to patrol over the capital. For the first time, the "Big Wing" was heading south with its full planned strength of three squadrons of Hurricanes and two of Spitfires.

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Scramble take-off by Hawker Hurricanes during the Battle of Britain. This type bore the brunt of the Fighter Command operation on 15 September, flying 327 sorties which engaged the enemy (63 per cent of the total).

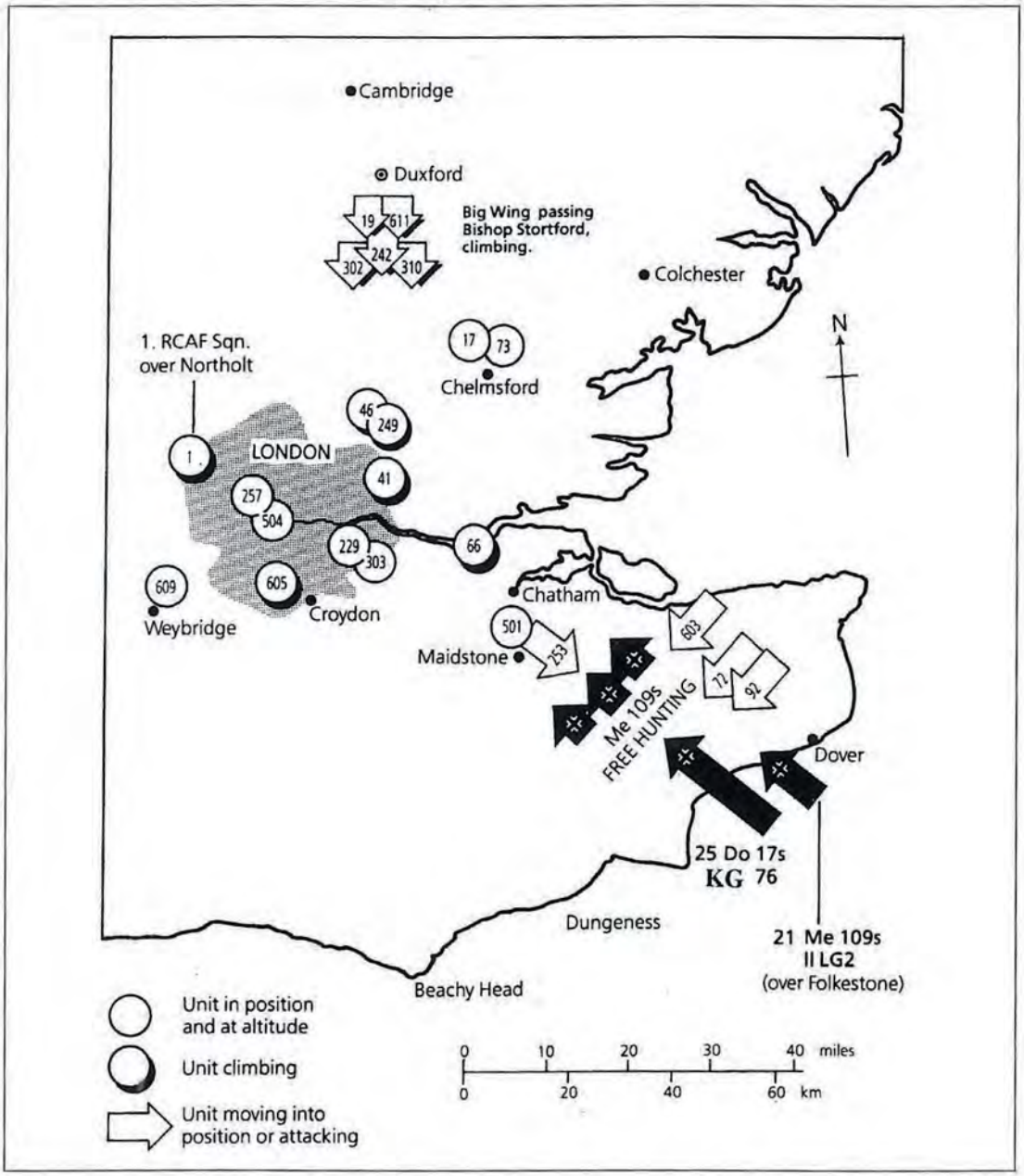

Figure 1 The positions of the opposing forces at 1150 hrs, at the time of initial contact

Three Squadrons of Spitfires were engaging the Dornier formation and its escorts. Other squadrons were over their patrol areas waiting to be directed into the fight, while yet other units were climbing into position. Squadron Leader Douglas Bader's "Big Wing" from No 12 Group in the midlands was airborne, and heading south to join the defence of the capital.

MORE DIFFICULTIES FOR THE RAIDERS

As the leading element of the raiding force made its landfall near Folkestone, the weather took a further hand in the proceedings. At the bomber's attack altitude, 16,000 – 20,000 feet, the wind at this time was about 90 mph from the north west.[6] For the Messerschmitt 109 fighter-bombers and escorting fighters, cruising at an airspeed of around 270 mph at 20,000 feet, the wind's effect was not too serious – the Messerschmitts made good a ground speed of about 180 mph. For the heavily laden Dorniers it was a different matter, however. Cruising at an airspeed of 180 mph, the powerful headwind reduced the bombers' groundspeed by about half. Combined with the earlier delay to reassemble formation, the Dorniers were behind schedule and falling further behind with each minute that passed.[7]

As Park had planned, the three Spitfire squadrons assigned to the Canterbury patrol line went into action against the Dorniers and their escorts soon after they crossed the coast. As the raiders moved across Kent six Hurricane squadrons joined the engagement, fed into action in pairs. The escorting Messerschmitts mounted an effective covering operation, however, and prevented attacks being pressed home on the bombers.

The main action was concentrated around the Dornier formation and its escorts, allowing the fighter-bombers of Lehrgeschwader 2 a clear run to the capital.[8] The high flyers looked like one of the dangerous free-hunting fighter patrols, and RAF pilots had learned that if possible it was better to leave those well alone. One defending pilot, Pilot Officer P. Gunning of No 46 Squadron, reported that part of the raiding force although he was ignorant of its true intentions. Afterwards he noted that a force of Me 109s had passed over him at high altitude but they "...did not appear to attempt to attack anyone below."[9] The German fighter-bomber pilots had orders not to engage enemy fighters unless they were directly threatened. In this instance, each side was happy to ignore the other.

When the fighter-bombers reached London they split into the three-aircraft sections. The section leaders picked out rail stations and the elements attacked in 45-degree dives, each pilot releasing his 50 kg (110 pound) bomb from around 17,000 feet using the gunsight for aiming.[10] This crude method was inaccurate, and the fighter-bombers inflicted minor damage in the boroughs of Lambeth, Streatham, Dulwich and Penge. Their task complete, the fighter-bombers headed for home still without encountering British fighters.

Although the Dornier formation had been harried most of the way across Kent, it reached the outskirts of London intact and without having lost a single bomber. However, due to the various delays the Dorniers were more than half an hour behind schedule when they entered their bombing run. By then the Messerschmitt 109 escorts were low on fuel and, section by section, they were forced to turn for home.[11] Several anti-aircraft gun batteries opened up at the raiders, but then ceased fire as they saw RAF fighters moving in to engage.[12]

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THE BATTLE OVER LONDON

In accordance with AVM Park's plan, the fighter controllers had positioned twelve fresh squadrons with 131 Spitfires and Hurricanes over the eastern outskirts of London in readiness to meet the enemy.[13] The strong winds at altitude greatly helped the process; by slowing the advance of the raiding force during the flight across Kent, it gave the defending fighters an extra half hour in which to climb to combat altitude and move into their assigned positions.

For the final few miles to the target, the virtually unescorted Dornier formation was heavily engaged. Holding his Dornier straight and level on the bombing run, Feldwebel Wilhelm Raab noticed what looked like a swarm of flies emerge from behind a cloud ahead of him. "Of course they weren't flies. It was yet more British fighters, far in the distance but closing rapidly. I counted ten before I had to give up and concentrate on holding formation."[14]

Piloting the nearest "small fly", Squadron Leader John Sample led twenty Hurricanes of Nos 504 and 257 Squadrons in for a curving attack from the rear. Later he wrote:

> "As we converged I saw that there were about twenty of them and it looked as though it was going to be a nice party, for the other squadrons of Hurricanes and Spitfires also turned to join in. By the time we reached a position near the bombers we were over London. We had gained a little height on them, too, so when I gave the order to attack we were able to dive on them from their right."[15]

The bombers maintained a tight formation in vics of threes, with a frontage of about 200 yards. That forced the defending fighter squadrons to attack one at a time from the rear, with units "queuing up" to do so. The absence of German escorts in the area was regarded as a rare piece of luck.

The Dorniers positioned at the rear of the formation took severe cumulative damage during the repeated fighter attacks. One bomber lost speed and straggled until it was half a mile behind the formation. Several RAF fighters moved in for the kill and the bomber crashed in the forecourt of Victoria Station.[16]

Things were bad for Bomber Geschwader 76, and they were about to get worse as Squadron Leader Douglas Bader's "Big Wing" arrived over the capital with fifty-five fighters. The three Hurricane squadrons were at 25,000 feet, the two of Spitfires were 2,000 feet higher and up-sun to block the expected counter-attacks from German fighters. Flight Lieutenant Bob Oxspring of No 66 Squadron was one of several No 11 Group pilots heartened by the sight of the new arrivals:

> "I saw the formation of five squadrons coming from the north, Douglas Bader's Wing. I thought 'This is great! Five squadrons, that's what we want!' It must have been devastating for the Germans to see that lot coming in all at once."[17]

For those in the Dorniers it was indeed a demoralising sight. In their post-action report the size of Bader's force swelled with the telling; the official Luftwaffe analysis on the action noted "Over the target large formations of fighters (with up to 80 aircraft) intercepted."[18] Certainly this did not look like Fighter Command in its death throes.

Meanwhile, the German crews held formation and fought their way through the last seconds of their bombing run. Wilhelm Raab observed: "With the British fighters whizzing through our formation, the leading aircraft began releasing their bombs. My navigator shouted 'Ziel!' and released ours."[19]

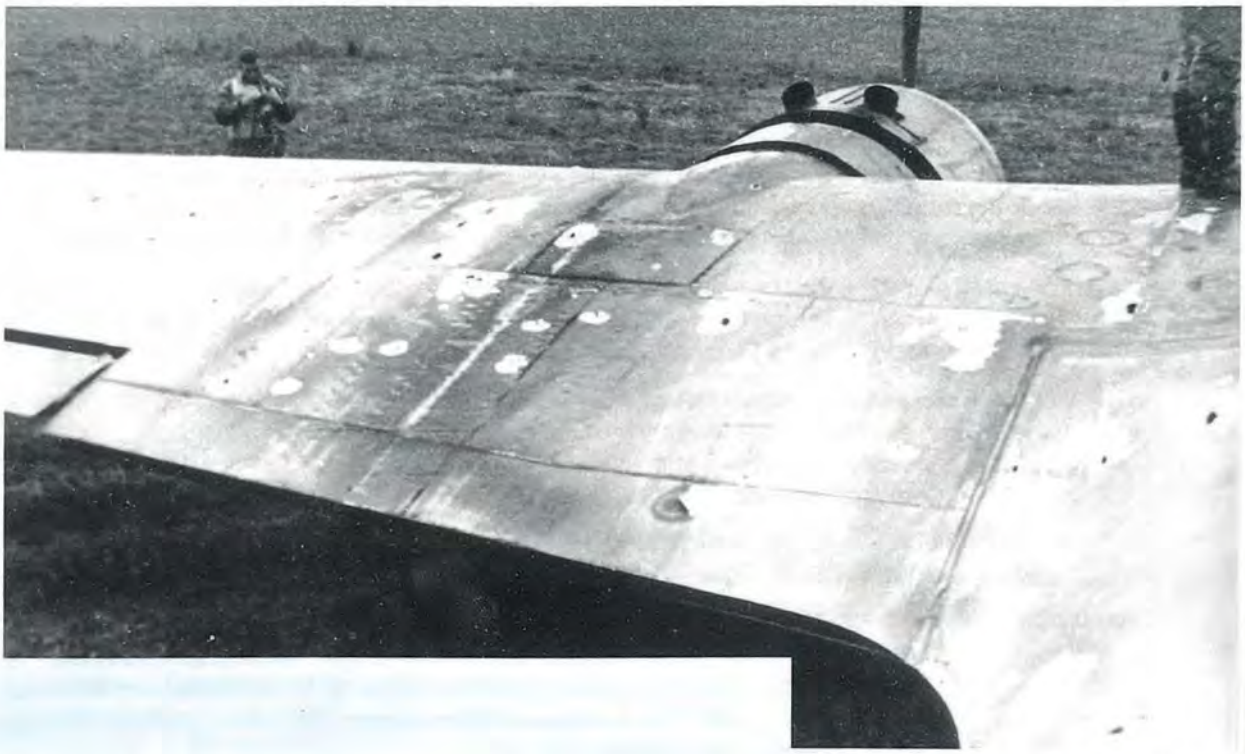
Thirty seconds after release, the sticks of bombs began exploding in rows across Latchmere Junction. Each plane's load of twenty 50 kg bombs fell in a stick about 500 yards long across at the convergence of railway tracks. But abutting the tracks on each side were close-packed houses, and inevitably many bombs fell among these.[20]

Each lighter by about a ton, the Dorniers began a sweeping curve to the left and headed for home. Wheeling his squadrons above the enemy formation, Douglas Bader waited impatiently for the No 11 Group fighters to finish their attacks. The "Big Wing" idea was still on trial and nobody would thank him if his fighters got in the way of those of No 11 Group.[21] Finally the way was clear, and later Bader wrote:

> "Dived down with leading section in formation onto last section of 3 enemy aircraft. P/O Campbell took left-hand Do 17, I took middle one and Sub Lt Cork the right hand one, which had lost ground on outside of turn."[22]

The fight around the bombers now developed into a confused fracas, as the remaining "Big Wing" fighters joined the action. Bader later commented:

> "The sky was full of Spitfires and Hurricanes, queuing up and pushing each other out of the way to get at the Dorniers which for once were outnumbered."[23]



Close-up of the same Dornier. On the original print more than fifty bullet hits are visible around the port engine.

Badly shot up over London during the noon action on 15 September, this Dornier 17 of KG 76 returned on one engine and crash landed near Poix. Afterwards more than two hundred hits from machine guns rounds were counted, indicating the inadequate destructive power of the .303-in Browning gun fitted to RAF fighters. That number of hits suggests that at least two British fighters had fired almost their entire complements of ammunition into the aircraft from short range. The Dornier was a write off.

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Dornier 17 bombers of Kampfgeschwader 76. This unit was badly mauled during the noon action.

Kampfgeschwader 76 had taken a fearful mauling yet, considering the absence of escorts over the target and the overwhelming concentration of RAF fighters, it is surprising that any of its Dorniers survived

Nine more Dorniers suffered damage and were forced out of formation during the initial part of the withdrawal. Five of them were finished off by RAF fighters in short order, the other five reached cloud and made their individual escapes. The powerful winds that had slowed the raiders' advance on the capital now worked in their favour, thrusting the force rapidly across Kent. Near Maidstone the Messerschmitt 109s assigned to cover the withdrawal met the Dorniers and shepherded the survivors home.

Of the twenty-five bombers that had crossed the coast of England three-quarters of an hour earlier, six had been shot down and four limped exploiting cloud cover.[24] The remaining fifteen Dorniers came back with the formation, most of them with some degree of battle damage.

Kampfgeschwader 76 had taken a fearful mauling yet, considering the absence of escorts over the target and the overwhelming concentration of RAF fighters, it is surprising that any of its Dorniers survived. The fact that three-quarters of the bombers got home is testimony of the leadership of Major Alois Lindmayr, the German commander, and the discipline and flying skill of his crews. There must have been a strong temptation for the leader to fly out at full throttle and leave the damaged bombers to their fate. Instead, Lindmayr reduced speed to give his charges a better chance of holding formation.[25] By any yardstick he had conducted a brilliant fighting withdrawal, in the most difficult of circumstances.

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Major Alois Lindmayer, commander of the IIIrd Gruppe of Kampfgeschwader 76, led the noon attack on London. Shortage of fuel forced the escorting Me 109s turn for home just short of the city, but Lindmayer and his bombers continued with their attack on Latchmere junction. Afterwards he conducted a brilliant fighting withdrawal, while under attack from twelve squadrons of British fighters.

THE AFTERNOON ATTACK

As the noon attack force left the coast of England, the units assigned to the next attack were airborne, assembled in formation and climbing towards the Pas de Calais to meet their escorts. This raiding force was far larger than the previous one, with 114 Dornier 17s and Heinkel 111s. It targets were the Royal Victoria, the West India and the Surrey Commercial Docks either side of the Thames to the east of London.[26]

As the vanguard of the German force crossed the coast at Dungeness, the bombers wheeled on to a north-north-westerly heading. For ease of escort they were arranged in three parallel columns flying about three miles apart: in the left column were two Gruppen of Dornier 17s from Kampfgeschwader 2, in the middle column Heinkel 111s of KG 53, and in the right-hand column were more Dorniers of KG 3 followed by Heinkels of Kampfgeschwader 26.[27]

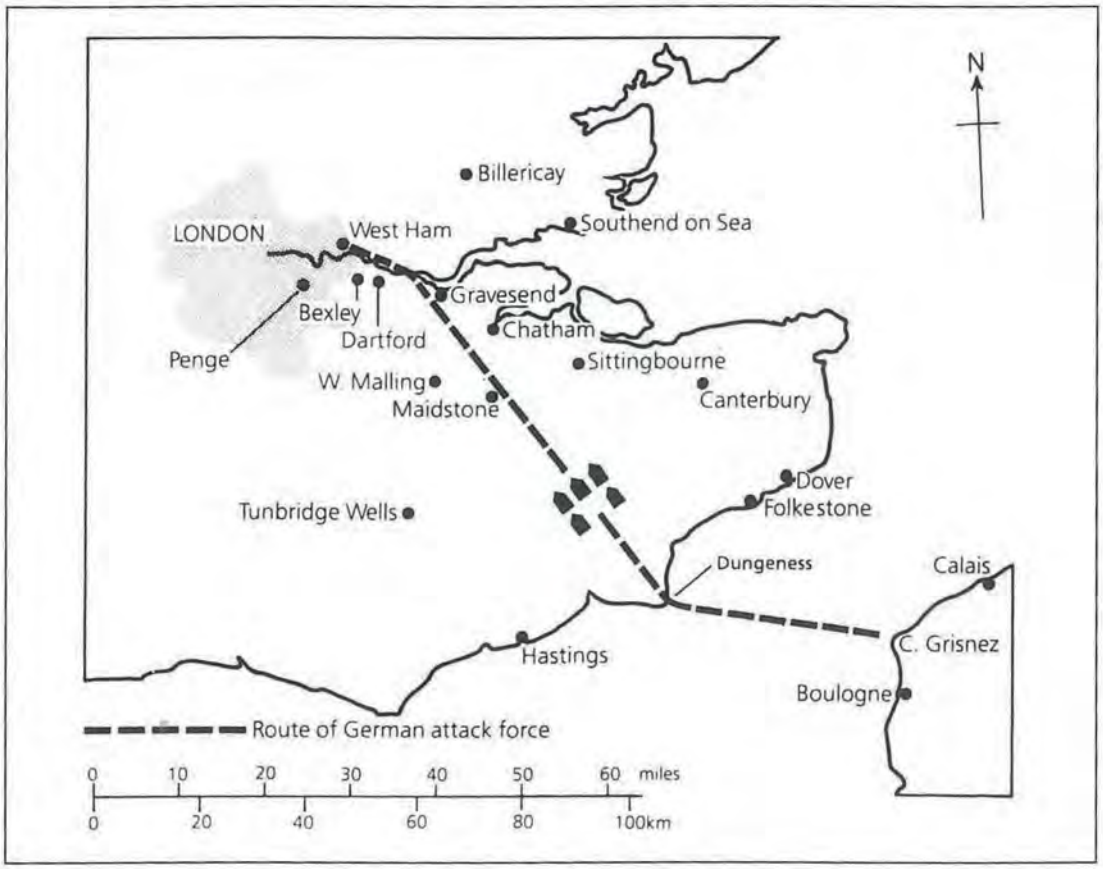

Figure 2 The route of the German raiding force during the mid afternoon action, heading for London's dock areas

To meet this penetration AVM Park scrambled all twenty-one of his Spitfire and Hurricane squadrons. From No 12 Group, Squadron Leader Douglas Bader again headed south with the five-squadron "Big Wing". And from the south-west, No 10 Group sent three squadrons to assist in the defence of the capital.[28]

The action opened in the same way as that earlier in the day, with an attack by the three forward-deployed Spitfire squadrons on the raiders as they moved inland. Again the German formations were harried by squadrons of Spitfires and Hurricanes as they moved across Kent.

Again and again the Messerschmitts dived to break up the attacks or drive away the Spitfires or Hurricanes. For their part the bomber crews held tight formation and put up a powerful cross-fire whenever a British fighter came within range.

For the pilots of the Messerschmitts assigned to the close escort this was a frustrating time. They were not permitted to pursue enemy fighters and go for a kill if that meant leaving their charges. As the Messerschmitts broke off the chase and returned to their bombers, the British fighters returned and the process had to be repeated.[29]

On the way to the target the formation at the front of the right-hand column lost two bombers in unrelated ramming attacks by British fighters. The formation, from IInd Gruppe of Kampfgeschwader 3, had started out with nineteen Dornier 17s. In the first of these incidents, Hurricanes of Nos 607 and 213 Squadrons were delivering a head-on attack on the German formation.[30] Pilot Officer P. Stephenson of No 607 Squadron fired a short burst at one of the bombers, and was about to pull up to clear the top of his victim when he found his path blocked by another Hurricane. In the split second before impact Stephenson decided that if collision there had to be, it was better to hit a foe than a friend. He continued straight ahead and his starboard wing struck the starboard wing of the Dornier, shattering both.[31] The two aircraft spun out of the sky, only Stephenson bailed out.

The second ramming incident took place about four minutes later, as the Hurricanes of Nos 501 and 605 Squadrons were delivering their attack. Pilot Officer T. Cooper-Slipper of No 605 Squadron had closed in to short range to engage a Dornier when an accurate burst struck his aircraft. Left with only partial control over the Hurricane he knew he would have to bail out, so he decided to take the enemy bomber with him.[32] He flew into the Dornier from starboard rear, wrecking both planes. All six men bailed out successfully.

In each case the ramming had been a spur-of-the-moment decision, but the watching German bomber crews reached a more sinister conclusion. To them it looked as if the defenders were in such desperate straits that RAF pilots had been ordered to ram their adversaries.[33] Chastened by what they had seen, and knowing they were helpless against this form of attack, the Dornier crews adjusted their formation to close the gaps and continued grimly toward their target.

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"NO RESERVES"

By 1425 AVM Park's force was at full stretch. That day Winston Churchill was visiting Park's operations room at Uxbridge, and that august gentleman watched the air battle as it unfolded on the plotting table. After the war he would write:

> "I became conscious of the anxiety of the Commander, who now stood still behind his subordinate's chair. Hitherto I had watched in silence. I now asked: 'What other reserves have we?' 'There are none,' said Air Vice-Marshal Park. In an account which he wrote about it afterwards he said that at this I 'looked grave'. Well I might. What losses should we not suffer if our refuelling planes were caught on the ground by further raids of '40 plus' or '50 plus'! The odds were great; our margins small; the stakes infinite."[34]

Winston Churchill was a brilliant orator, and he probably never intended the rousing statement to be taken literally. Yet in later years the writers of several published accounts have done just that. Although it is true there were no more Spitfire or Hurricane squadrons left at the airfields near London, the situation not nearly as desperate as the Prime Minister intimated. For one thing the 276 fighters committed to battle amounted to only about one-third of the eight hundred or so serviceable Spitfires and Hurricanes in Fighter Command's order of battle.[35] The remaining fighter units were sited to protect the west, midlands and north of England and Scotland.

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Apart from that, there was little danger of the squadrons based in south-east England being "caught on the ground" by a follow-up attack on their airfields. Keith Park was an astute commander and there is little doubt he weighed the risks carefully before he committed his entire force. On the far wall of his operations room were boards showing the current state of the weather at his airfields. From Meteorological Office records, we know the sort of picture those boards presented during the early afternoon:

> Croydon – 8/10 cumulus and strato-cumulus, base 2000 ft
> Hornchurch – 6/10 cumulus and strato-cumulus, base 3000 ft
> Northolt – 9/10 cumulus, base 3500 ft
> Hendon – 9/10 cumulus, base 2100 ft
> Biggin Hill – 9/10 cumulus and strato-cumulus base 2000 ft[36]

The No 11 Group commander would have been aware that the almost-complete blanket of cloud would prevent accurate high altitude attacks on his bases. It is speculation on this writer's part, but it would be surprising if this had not influenced his decision to commit all of his Spitfire and Hurricane squadrons.

THE AFTERNOON ACTION IN FRONT OF LONDON

Again Park concentrated the bulk of his force immediately in front of London for the main engagement. Nineteen fresh squadrons were moving into position to the south and east of the capital, with one hundred and eighty-five Spitfires and Hurricanes.[37] Yet again the strong headwind

had slowed the German bombers' approach, but the screens of protective fighters were much stronger than before and this time there was no hiatus in the escort when the force reached the target area.

As the raiding force came within range of the anti-aircraft batteries deployed along the Thames, the concentration of twenty 4.5-in and eight 3.7-in guns deployed to protect the Royal Navy dockyard at Chatham opened up a heavy cannonade that damaged two bombers and forced them to leave formation.[38]

Yet again the formation leading the right-hand column of raiders was hit hard. Now the Dorniers of Kampfgeschwader 3 came under attack from sixty-three fighters from six RAF squadrons. Two Dorniers were shot down, two more were damaged and forced out of formation to be finished off later. When the formation commenced its bombing run it was without six of its original nineteen aircraft.[39]

In contrast the formation at the rear of that column, comprising twenty-eight Heinkel 111s of Kampfgeschwader 26, lost only one aircraft. Yet even there the bomber crews were left in no doubt that they were facing a resolute foe. Leutnant Roderich Cescotti, piloting one of the Heinkels, recalled:

...the German bomber crews were left in no doubt that they were facing a resolute foe

> "Few Tommies succeeded in penetrating our fighter escort. I saw a Spitfire dive steeply through our escort, level out and close rapidly on our formation. It opened fire, from ahead and to the right, and its tracers streaked towards us. At that moment an Me 109, that we had not seen before, appeared behind the Spitfire and we saw its rounds striking the Spitfire's tail. But the Tommy continued his attack, coming straight for us, and his rounds slashed into our aircraft. We could not return the fire for fear of hitting the Messerschmitt. I put my left arm across my face to protect it from the plexiglass splinters flying around the cockpit, holding the controls with my right hand. With only the thin plexiglass between us, we were eye-to-eye with the enemy's eight machine guns. At the last moment the Spitfire pulled up and passed very close over the top of us. Then it rolled on its back, as though out of control, and went down steeply trailing black smoke. Waggling its wings, the Messerschmitt swept past us and curved in for another attack. The action lasted only a few seconds, but it demonstrated the determination and bravery with which the Tommies were fighting over their own country."[40]

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The courageous Spitfire pilot was Flying Officer Arthur Pease of No 603 Squadron who was shot down at the time and place, and in a manner consistent with Cescotti's account. Pease was still in the cockpit when his blazing fighter dived into the ground near Maidstone.[41] The attack inflicted only minor damage on Cescotti's Heinkel and he continued with his mission. On their way to the target four German bombers were shot down, and seven damaged to such an extent that they were forced to leave formation and turn for home. All five formations of bombers reached London intact, however, and now they lined up for bombing runs on their assigned dock areas.[42]

MORE PROBLEMS FROM THE WEATHER

Throughout the day, cloud had been building up over southern England. By early afternoon the capital lay beneath nine-tenths cumulus and strato-cumulus, base at 2,000 feet with tops extending to 12,000 feet. Each of the German crews' briefed targets was shrouded in cloud, and north of the Thames the only patch of clear sky was over West Ham. Two Gruppen of Heinkels and one of Dorniers re-aligned their bombing runs on the borough, where they caused severe damage to the Bromley-by-Bow gasworks.[43]

As Douglas Bader's "Big Wing" arrived over London, it came under attack from free-hunting Messerschmitt 109s diving from above. Bader ordered the three Hurricane squadrons to split up and engage the enemy fighters while, in a reversal of their intended role, the Spitfires were to try to get through to the bombers.[44]

Meanwhile the two Gruppen of Dorniers of Kampfgeschwader 2, forming the left hand column of the raiding force, arrived over the capital to find their target – the Surrey Commercial Docks – blanketed by cloud. Unable to deliver their attack, the bombers turned through a semi-circle without releasing their bombs. As the raiders made their turn, three squadrons of Hurricanes were in this process of engaging this part of the raiding force. The sight of the enemy planes turning for home was a sudden and unexpected delight. The RAF pilots were convinced that they had frightened the German crews into abandoning their attack, and this conclusion was reported widely in later accounts of the battle.

In fact the Dorniers had reached the capital having lost only one aircraft, their formation was intact and they would certainly have bombed their briefed target had they been able to find it. On the south-east outskirts of the capital there were few worth-while targets clear of cloud, but on their way out the Dorniers dropped their bombs on targets of opportunity. Afterwards there were reports of damage in the Penge, Bexley, Crayford, Dartford and Orpington areas.[45]

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Elsewhere that day Heinkels of Kampfgeschwader 55 attacked the Royal Navy base at Portland,[46] and a small force of Messerschmitt 109 and Messerschmitt 110 fighter-bombers made an unsuccessful attempt to attack the Supermarine aircraft works at Woolston near Southampton.[47] Neither raid caused significant damage to military targets.

THE ACTIONS REVIEWED

During the daylight hours of 15 September the Luftwaffe flew about 1,020 sorties over England: 218 by bombers, 769 by single-engined fighters, about 40 by twin-engined fighters and about 15 by reconnaissance aircraft.[48]

In the course of these operations the Luftwaffe lost 56 aircraft, 5.5 per cent of the force committed. Thirty-five of the German planes lost, nearly two-thirds of the total, came down on English soil, the other twenty-one crashed in the sea. Three German planes returned damaged beyond repair, twenty-three others had severe damage. The actions cost the Luftwaffe 81 aircrew killed or missing, 63 taken prisoner and 31 wounded.[49]

This writer has found no hard evidence of a German aircraft being shot down by anti-aircraft fire alone; the guns shared at least four victories with fighters, however.

After the action on 15 September the defenders claimed the destruction of 185 German aircraft (compared with 56 German losses). At least fifteen bombers were claimed more than once; some were claimed several times. The Dornier 17 that crashed beside Victoria Station was a particularly blatant example of overclaiming. The only bomber to crash within 20 miles of the centre of London during the noon action, it can be linked to any claim for a bomber which fell on the city. This aircraft was separately claimed by no fewer than nine RAF pilots from five different squadrons, and all those claims were included in the defenders' total for the day.[50]

During the same period Fighter Command flew 705 operational sorties, which almost equalled the number of serviceable Spitfires and Hurricanes in its order of battle.[51] That total was two-thirds the number of sorties flown by the Luftwaffe for all types of aircraft, but it was nine-tenths the number of sorties flown by the German single-engined fighters. As mentioned earlier, by this stage of the battle the Luftwaffe intelligence service believed that Fighter Command was near to the end of its tether. Thus the British reaction was far stronger than had been expected.

Disregarding the standing patrols to protect convoys and other miscellaneous patrols, 604 sorties were flown by fighters scrambled to engage hostile aircraft tracked on radar or by the ground observer posts.[52] Of those 604, 417 (69 per cent) made contact with the enemy. In the two large-scale actions to defend London, however, the proportion of fighters engaging the enemy was far higher than this overall figure suggests. The powerful headwind slowed the German approach to the targets during each attack, giving the defenders additional time to move into intercept. As a result, Air Chief Marshal Dowding's fighter control system functioned at its triumphant best. During the noon action twenty-three squadrons of Spitfires and Hurricanes were scrambled; twenty-two engaged. During the afternoon action twenty-eight squadrons were scrambled; every one of them engaged the enemy.[53]

In the two main actions to defend London 192 Spitfires (37 per cent of the total) and 327 Hurricanes (63 per cent) engaged the enemy.[54] On the average, one German aircraft was destroyed for every nine Spitfires or Hurricanes that went into action. Because many of the German aircraft destroyed were engaged more than once, it has not been possible to draw meaningful conclusions on the relative merits of the Spitfire and the Hurricane as destroyers of enemy planes.

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Twenty-eight British fighters were lost during these actions;[55] thirteen to attacks by enemy fighters, six to return fire from bombers and nine to causes that could not be ascertained. Twenty Hurricanes were lost, just over 6 per cent of the sorties they flew. Eight Spitfires were lost, just over 4 per cent of the sorties they flew. Due to its superior performance and smaller size, on that day a

Spitfire making contact with the enemy was two-thirds less likely to be shot down than a Hurricane (the Spitfire's significantly higher survival rate was confirmed in other large-scale actions).

Twelve Royal Air Force pilots were killed or died of wounds immediately following the action, a further twelve were wounded, and one was taken prisoner

Twelve Royal Air Force pilots were killed or died of wounds immediately following the action, a further twelve were wounded, and one was taken prisoner.[56] Thus it cost the Luftwaffe about seven aircrew killed, missing, wounded or taken prisoner for each RAF pilot casualty. Historians have made much of the erosion of Fighter Command's strength during the Battle of Britain, but the German aircrew losses were even higher as a proportion of the total force.

Neither side had a monopoly on overclaiming that day. The German claim of 77 Hurricanes and Spitfires destroyed was proportionally almost as much in error as the British claim.[57]

The German bombers' intended objectives were the concentration of rail lines in Battersea and the London docks. The attack on the former disrupted traffic through the area for about three days. The docks escaped unscathed but the important Bromley-by-Bow gasworks, bombed as a secondary target, was largely destroyed. These were justifiable military targets, but they were located beside residential areas. In the Greater London area that day 57 civilians were killed, 87 seriously injured and 66 slightly injured. Civilian casualties in the rest of the country were 10 killed, 32 seriously injured and 31 slightly injured.[58]

HOW EFFECTIVE WAS THE "BIG WING"?

The day's action casts new light on the effectiveness of Douglas Bader's "Big Wing" tactics. Any air combat involving a large number of aircraft was likely to give rise to heavy overclaiming, and by definition any engagement by the "Big Wing" involved a large number of aircraft. Following the two actions the Duxford Wing issued claims for fifty-two enemy aircraft[59] – 28 per cent of the total British claim, and just four short of the total German loss! From the available records this writer has been able to confirm only five of Wing's claims, plus two more that it shared with fighters of No 11 Group. In addition there were four occasions where the Wing's fighters fired at aircraft that were going down anyway. The Wing's losses that day were five Hurricanes and a Spitfire.

During the war, and for many years after it, the "Big Wing's" overclaiming led to an exaggerated assessment of the effectiveness of these tactics. With hindsight, however, it is clear that the five-squadron Wing was too large and unwieldy for one man to direct effectively in combat. In terms of enemy aircraft destroyed, the "Big Wing" was somewhat less effective than that five squadrons going into action in ones and twos.

...it is clear that the five-squadron Wing was too large and unwieldy for one man to direct effectively in combat

That negative aspect of the "Big Wing" operations were more than counter-balanced, however, by the one area in which they were unfailingly and resoundingly successful: their devastating effect on German morale. Before the action on 15 September, Luftwaffe crews had been told they faced only the remnants of an almost-defeated British fighter force. The approach flight across Kent, in which the bombers came under repeated attacks from fresh squadrons of Spitfires and Hurricanes, cast doubts on the accuracy of that intelligence. Then to arrive at the outskirts of London, to be confronted by more than fifty Royal Air Force fighters approaching in what looked like parade-formation, led to an implosion of confidence on the German side.[60] That happened twice on 15 September.

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One hundred and forty years earlier Napoleon Bonaparte had commented: "In war, the moral is to the material as three to one." Each time it went into action, the five-squadron "Big Wing" demonstrated beyond any possible doubt that Fighter Command was far from beaten. If Douglas Bader's tactics did nothing else but impress that unpalatable fact on the Luftwaffe, they were well worth the effort involved.

Sqn Ldr Douglas Bader's "Big Wing", sent into action in full strength for the first time on 15 September, scored few aerial victories but had a devastating effect on Luftwaffe morale.

185 AIRCRAFT DESTROYED?

During the hard-fought actions on 15 September the Luftwaffe lost fifty-six aircraft. Initially the defenders claimed 175 German aircraft destroyed, increased a couple of days later to 185. On the British side few were in a position to doubt the veracity of the claim, and it certainly had the desired effect in stiffening civilian morale.

It must be stressed that the defending units produced individual combat reports to "substantiate" each of the 185 claims. The number had not been inflated for propaganda purposes. There was no need to, the figure were good enough as it stood.

Although the German losses on 15 September fell far short of those destroyed at the time, there can be no doubt that the day's fighting decided the outcome of the Battle of Britain. For the German High Command it was clear that the reports of Fighter Command's impending demise had been greatly exaggerated: the force was still in business and it was unlikely to be beaten before the weather broke in the autumn. On 17 September Hitler ordered that Operation Sealion, the planned invasion of England, be postponed until further notice. The ships and barges concentrated at ports along the Channel coast started to disperse, and the threat of invasion diminished with each day that passed.

The Battle of Britain would run for a few weeks longer, but its outcome had already been decided. That is why the action on 15 September is historically important, and that is why we in Great Britain commemorate it annually.

"Battle of Britain Day, 15 September 1940" by Alfred Price, the detailed account of the air battle, was published by Sidgewick and Jackson in 1990. It is to be re-issued by Greenhill Books in 1999.

NOTES

1. Interview ex-Oberleutnant Victor Kraft, LG 2.
2. Interview ex-Feldwebel Wilhelm Raab, KG 76.
3. Ibid.
4. Interview ex-Wg Cdr Lord Willoughby de Broke, senior controller No 11 Group HQ.
5. Ibid.
6. See meteorological records for the day held at the Met Office Library, Bracknell. RAF Bicester recorded a wind of 310/96 mph at 1800 (GMT). Afterwards there is the comment "20000 ft wind estimated to be about 90 mph at 1100 GMT".
7. Raab, op cit.
8. Kraft, op cit.
9. PRO Air 50, No 46 Sqn combat reports
10. Kraft, op cit.
11. Interview ex-Feldwebel T. Rehm KG 76.
12. Rehm, op cit.
13. Scramble times and patrol positions from Fighter Command Form F reports in PRO, AIR 16/957
14. Raab, op cit.
15. PRO Air 50, No 504 Sqn combat reports.
16. Ramsey, Winston, "The Battle of Britain Then and Now", pp.644-645, After the Battle, London, 1980.
17. Interview Gp Cpt R Oxspring, No 66 Sqn.
18. Oberbefehlshaber der Luftwaffe Lagerbericht No 376, original at the Bundesarchiv at Freiburg.
19. Raab, op cit.
20. Home Security Intelligence Summary No 758, in PRO HO 203/4.
21. Interview Gp Capt D. Bader.
22. PRO Air 50, No 242 Sqn combat reports.
23. Bader op cit.

24. "Then and Now", op cit, p.647.
25. Rehm, op cit.
26. Luftwaffe annotated map of the targets on 15 September, copy in the possession of the writer.
27. Layout of German attack formation from interviews with ex-Feldwebel H. Schultz KG 3, ex-Leutnant R. Cescotti KG 26 and ex-Oberleutnant P. Schierning KG 53.
28. Details of unit scramble times and patrol areas from Air Ministry Staff History "Air Defence of the United Kingdom", copy held in the PRO.
29. Interview ex-Oberleutnant H. Schmoller-Haldy, JG 54.
30. Fighter Command Form F reports, op cit.
31. Interview ex-Plt Off P. Stephenson No 607 Sqn.
32. Correspondence with ex-Plt Off T. Cooper-Slipper, No 605 Sqn.
33. Schultz, op cit.
34. Churchill, Winston, "The Second World War", Volume 2, Cassell, London, 1948.
35. Fighter Command Order of Battle on evening of 14 September, PRO AIR 16.
36. Met Office records, op cit.
37. "Air Defence of the United Kingdom", op cit, p.461 et seq.
38. 6th AA Division Detailed Intelligence Report No 89, in PRO WO 166/2169.
39. Schultz, op cit.
40. Interview Cescotti, op cit.
41. "Then and Now", op cit, p.455.
42. Interviews with Cescotti, Schierning, Schultz et al.
43. Ibid.
44. Fighter Command Form F reports, op cit, No 242 Sqn.
45. Home Security Intelligence Summary No 758, op cit.
46. Air Attack on Portland 15th September 1940, in PRO ADM 149/111.
47 Southampton Weekly Report 7/8 to 14/15 September, in PRO HO 199/126.
48. Oberbefehlshaber der Luftwaffe Lagerbericht No 376, op cit.
49. "Then and Now", op cit.
50. Ibid.
51. Fighter Command Form Y, Report on Operations for period ending 21 Hrs on 15 September 1940, copy in possession of the writer.
52. Ibid.
53. Fighter Command Form F reports, op cit.
54. Ibid.
55. Ibid.
56. Ibid.
57. Oberbefehlshaber der Luftwaffe Lagerbericht No 376, op cit.
58. Home Security Intelligence Summary No 758, op cit.
59. Fighter Command Form F reports, op cit, for Nos 19, 242, 302, 310 and 611 Sqns.
60. Interviews W. Raab and T. Rehm, op cit.

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