

**ROYAL AIR FORCE  
BOMBER COMMAND**

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**SQUADRON PROFILES**

**NUMBER 22**



**77 SQUADRON**

*Esse potius quam videri*

**RESEARCHED, COMPILED AND WRITTEN**

**BY**

**CHRIS WARD**

**ROYAL AIR FORCE  
BOMBER COMMAND  
SQUADRON PROFILES**



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# GENERAL NOTES

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## GENERAL NOTES

This profile is a reference work on the activities of the squadron during the Second World War. Bomber Command operated exclusively from stations in the UK, and used overseas bases purely for shuttle operations, or as advanced staging posts for specific purposes. For this reason, periods spent on detachment, or permanent postings to overseas Commands, do not fall within the scope of this work.

This profile is not intended to serve as a comprehensive squadron history, but to provide as much information as possible in a non-anecdotal form. The brief history narrative is basically an account of Bomber Command's war, with the individual squadron's involvement interwoven into it. The publications listed in section 5 are not only recommended reading, but represent the best available sources of information for serious students of the subject. The operational record is based almost entirely on the figures provided in *The Bomber Command War Diaries* by Martin Middlebrook and Chris Everitt, and I am indebted to Martin Middlebrook for allowing me to use them.

An aircraft is included in section 3 if; a) it spent time on squadron charge, no matter how briefly, and irrespectively of whether or not it operated. b) its type was used operationally by the squadron. Information is restricted in most cases to; where from, where to, unless it completed its service with the squadron, in which case, some detail of its demise appears. Aircraft which failed to return have the date and target recorded. Where no information follows the serial number of a type still in use when the squadron departed Bomber Command, or at war's end, it can be assumed that the aircraft was still on squadron strength. However, where there is a blank space following the serial number of a type which has been withdrawn from service with Bomber Command, it signifies that I don't know its ultimate fate. An absence of information does not imply that the aircraft flew no operations during its time with the squadron.

Those squadrons which served with the AASF in France between the outbreak of war and the fall of France, were not technically part of Bomber Command. However, a number of them retained their Fairey Battles on return to the UK, and formed part of the reconstituted 1 Group. The AASF service of these squadrons is recorded, and their aircraft listed, but Battle squadrons which relinquished the type on their return to Bomber Command, do not have this period detailed. The Blenheim squadrons of the AASF are treated as if under Bomber Command.

Finally, information has been drawn from a variety of sources, ranging from Records Branch to individuals with squadron connections, and I am grateful for their contributions. There will inevitably be errors and omissions when dealing with a subject as vast as Bomber Command, and I am happy to be corrected and/or updated by readers.

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# **SECTION 1**



# **BRIEF HISTORY**

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## 77 SQUADRON

MOTTO **ESSE POTIUS QUAM VIDERI** (Better to be than seem).

Codes **KN TB**

Originally formed as a home defence unit on the 1st of October 1916, 77 Squadron spent the remainder of the Great War in Scotland, protecting the Capital from Zeppelin raids. Disbandment followed in June 1919, and the number was not allotted again until the 14th of June 1937, when B Flight of 102 Squadron was designated as the new 77 Squadron. Whitleys were taken on charge in November 1938, by which time the squadron was resident at Driffield, a station which it would share with 102 Squadron until mid 1940, and it was from here that it would begin operations at the outbreak of war in September 1939. Under the command of W/C Bradbury, who had been in post since February, the squadron was one of five front-line units in 4 Group, and as such, was one of the few qualified to fly night operations, in a Command which had expected and prepared to operate by day.

The unwillingness of either camp to risk an escalation into total war by bombing each other's territory, restricted operations by other Groups to armed reconnaissance of enemy shipping off northern Germany, a policy which was to become expensive before the year was out, and would lead to a rethink of the self-defending bomber formation theory. 4 Group, in contrast, would be able to roam at will over the length and breadth of Germany by night, dispensing nothing more lethal than propaganda leaflets, but in the process, gaining valuable experience in night navigation, and developing a familiarity with the vagaries of night flying, which would stand its crews in good stead, when the rest of the Command fell into line in 1940. Perhaps this is why so many of the early 4 Group airmen went on to distinguished careers as the war progressed, many of them serving with distinction in other Groups. While 51 and 58 Squadrons carried out their first "nickeling" operations on the night that war was declared, 77 Squadron had to wait until two nights later, when a number of aircraft delivered reading material to the residents of the Ruhr and Holland. Such operations would occupy the squadron sporadically until March of the following year, and they would result in a number of losses. The squadron registered its first aircraft casualty on the night of the 8/9th, when F/O Raphael landed K8961 at Buc in France on return from Essen, and in difficult visibility, collided with a parked French aircraft while taxiing, rendering the Whitley beyond economical repair. 77 Squadron became the first to become operational on the new Mk V Whitley, and had ten of the type on charge by the end of September.

October brought with it the first of many wartime failures to return, and it fell to F/O Williams to be the first name in the squadron Roll of Honour. He and his crew were shot down over Germany in K8947 during a leaflet sortie to Munich, launched from the forward base at Villeneuve-les-Vertus on the 15/16th. The four members of his crew all survived the experience to be taken into captivity. They were more fortunate than their colleagues in N1358, which failed to return to Driffield from north Germany on the 24/25th, and was presumed to have crashed into the sea, taking with it P/O Walker and crew. On the 1st of November, W/C Appleton was appointed as the new commanding officer, having previously served the squadron in that capacity in the rank of Squadron Leader during 1937/38, and he

presided over the squadron's next loss, that of flight commander, S/L Begg and crew, who had taken off from Villeneuve-les-Vertus for Frankfurt in N1364 on the 10/11th, and having completed the operation, crashed in France on return, killing all on board. Enemy mining of the seaplanes around Britain was causing concern, and the Admiralty requested assistance from Bomber Command in the form of patrols over the seaplane bases from where these operations were being mounted. The intention was to discourage mine-laying aircraft from taking off, and patrols began on the night of the 12/13th of December, involving Whitleys of 77 and 102 Squadrons in an area around Sylt, Borkum and Norderney. No further losses were sustained by the squadron as a result of these operations during what remained of the year.

## 1940

The winter of 1939/40 was particularly harsh, and seemed to deepen as the year progressed. Operational flying became severely restricted, and there was almost no activity between mid January and the end of February. An operation was planned for the 26th, which called for a contingent of Whitleys to fly to Villeneuve-les-Vertus, before setting off for the distant destinations of Prague, Vienna and Munich. Two aircraft each from 77 and 102 Squadrons were the only ones to reach the forward base, and there they remained, frozen in, until the 22nd of February, when they were able to undertake their assigned tasks. The first actual bombing operation of the war against enemy territory, was in retaliation for the accidental slaying of a British civilian in the Orkneys by a stray German bomb, during an operation against elements of the Royal Navy in Scapa Flow on the 16/17th of March. Thirty Whitleys and twenty Hampdens of 5 Group were ordered to bomb the seaplane base at Hörnum on the Island of Sylt on the 19/20th, in an operation which was allowed a time span of six hours. Returning crews claimed a major success, which was not confirmed by photographic reconnaissance on the 6th of April, and this inability of crews to locate and hit a target, and assess the results accurately, would lead to many over-zealous claims in the future, and the eventual discrediting of the Command by the Butt Report in 1941. An additional problem for crews over Europe during the early days of 1940, was the existence of neutral countries, which were obliged to discourage incursions into their airspace. While on a reconnaissance sortie to the Ruhr on the 27/28th, N1357 strayed over Holland, and was promptly shot down by a Dutch fighter. One man was killed, and F/O Geach and three others underwent a short period of internment, before returning to Driffield. N1351 was also over the Ruhr that night, and fell victim to flak, which resulted in F/O Boardman and three of his crew becoming POWs, while the fifth crew member was killed.

A training accident cost the squadron one of its aircraft on the 2nd of April, when N1368 crashed on landing in the hands of a 102 Squadron crew, but losses were of a more serious nature as the month progressed. On the 9th, German troops marched into Denmark, and landings began in Norway. Bomber Command was directed to slow down the invasion of Norway, while an Anglo-French force tried to gain a foothold at Narvik in the North. It was beyond the range of the Command to support the Allied landings directly, and operations were mounted instead against shipping and airfields in the south. Operations by the Whitley squadrons began on the 11/12th, when twenty three of them carried out an armed reconnaissance in the Skagerrak and Kattegat. Four aircraft bombed, and one claimed a direct

hit on an ammunition ship, which was believed sunk. One aircraft failed to return, 77 Squadron's N1347, which was lost without trace with the crew of F/O Saddington. On the 15th, the squadron moved up to Kinloss to be closer to its objectives, and that night, and on the 16/17th, Whitleys attacked airfields at Stavanger, Trondheim and Oslo. Returning from the latter operation short of fuel, S/L Hastings baled his crew out over Scotland, and successfully force-landed N1387 without damage to himself. Shipping around Trondheim and Oslo was the objective for the 18/19th, but poor weather prevented all but three crews from bombing, and P/O Hall was forced to ditch N1352 in the North Sea on return, and he went down with the aircraft, while his crew survived to be rescued. It was an ill-fated campaign from the start, and had effectively run its course, when the squadron returned to Driffield on the 4th of May.

Whatever the state of play on that front, events elsewhere brought the Command's involvement to an abrupt halt. On the 10th of May, German forces began their advance into the Low Countries, and the Battle and Blenheim squadrons of the AASF and 2 Group were pitched into the unequal fight against murderous ground fire and marauding BF109s. Over the succeeding week, the AASF was all but wiped out in a vain attempt to stem the speed of the enemy advance, and the so-called heavy squadrons of Bomber Command were put to work attacking objectives behind enemy lines. This required raids on road and rail communications in the Ruhr and west of the Rhein, and Mönchengladbach became the first German town to be deliberately bombed, when a small force of Whitleys and Hampdens went there on the 11/12th. Three aircraft failed to return, the sole Whitley among them, N1366, belonging to 77 Squadron, and just one man survived from the crew of F/O Parrott. Oil refineries and railway yards were the principal objectives for a force of sixty aircraft on the 18/19th, and while outbound to Hanover, N1388 was damaged by flak at the Dutch coast, and forced to ditch. The now F/L Raphael, who had been involved in the squadron's very first incident in September 1939, was rescued along with his crew, apparently none the worse for the experience. Two nights later, F/O Pryde had to force-land N1384 in France during an operation to the Cambrai area to help stem the German advance, but he and his crew also survived intact, and returned to duty. F/O Geach had also been involved in an earlier incident, when being shot down by a Dutch fighter and interned in March. His luck ran out on the 28/29th, when attacking German positions around the Dunkerque pocket, and he and his crew were killed when N1432 crashed in France.

On the 1st of June, W/C Macdonald was posted in from 102 Squadron, where he had been B Flight commander, to become the new commanding officer of 77 Squadron. His first month in the post coincided with the squadron's most testing time to date, and he lost his first crew on the 4/5th. During an operation to Gelsenkirchen, an engine fire afflicting N1522 forced P/O Meigh and crew to abandon the stricken Whitley over Belgium, and all were taken into captivity. Two nights later, a flare ignited inside a squadron Whitley, possibly N1508, while it was outbound to Bapume to attack troop concentrations. P/O Dunn brought the damaged aircraft back to Finningley, where he baled out his crew, and completed a successful forced-landing. This was the first incident in what was to be a troubled and brief existence for this gallant officer and his crew. N1356 was written off in a landing accident on the Isle of Man, while Sgt Coogan and crew were training, but there were no injuries, and then N1372 crashed



while trying to land at Abingdon, having been forced to return early from the Somme battle area on the 9/10th. P/O Dunn extricated himself from a wreck for the second time in three days, and walked away with minor injuries. Italy declared war on the 10th of June, and on the 11th, thirty six Whitleys set off for the Channel Islands to prepare for the Command's first operation against the new enemy. 77 and 102 Squadrons landed at Jersey airport, while 10, 51 and 58 Squadrons staged from Guernsey. The primary target for the night's effort was to be the Fiat works at Turin, with alternatives laid on in case of difficulties. The Alps proved to be beyond the capability of over twenty of the Whitleys in unhelpful weather conditions, and only nine reached Turin, where most bombs were aimed at railway installations. On the way home, the squadron's N1362 crashed in France, and Sgt Songest and crew became the first fatalities of Bomber Command's offensive against Italy. P/O Dunn was in the wars again, for the third time during the month, when he was forced to ditch N1476 off the Sussex coast, having lost an engine to an attack by two nightfighters on the way home from bombing an oil refinery at Wanne-Eickel on the 19/20th. Once again the crew survived, although two of them sustained injuries. Eighty three aircraft were despatched to various targets in Germany and Holland on the 29/30th, from which three failed to return, among them a single Whitley. Briefed for Frankfurt in P4948, flight commander S/L Hastings and his crew were all killed.

June had been a very expensive month for 77 Squadron, but in contrast, July would be negotiated without loss. Overhead, the Battle of Britain was beginning to gain momentum, and the 3rd of the month brought the first operations against marine craft being assembled in the occupied ports for the intended invasion. These, airfields in the occupied countries and German ports kept the Command busy throughout the month, and this was its contribution to the desperate backs-to-the-wall struggle to keep the enemy at bay. The pattern of operations continued into August, as the Battle of Britain approached its most critical period, and enemy bombers targeted fighter airfields in the south. On the 14th, W/C Macdonald concluded his short period in Command of the squadron, and was posted to the command of 82 Squadron, a 2 Group Blenheim unit, which on the previous day had lost eleven of the twelve aircraft it had sent against an airfield at Aalborg in Norway, including that of its commanding officer, W/C Lart. A distinguished career would see W/C Macdonald survive his spell with 82 Squadron, and a six month tour as commanding officer of XV Squadron during the first half of 1942, before becoming station commander at Horsham-St-Faith, from where he would fly a 105 Squadron Mosquito on a daylight operation to Flensburg on the 2nd of July, be shot down, and spend the rest of the war as a guest of the Reich. His replacement at 77 Squadron was W/C Jarman, who had arrived from 10 OTU as the new B Flight commander on the 2nd, and would remain in post for a considerable time. On the night of his appointment, the 14/15th, the squadron suffered its first loss for six weeks, when P5044 collided with a balloon cable on return from raiding an oil refinery at Bordeaux, and F/O Stenhouse and crew died in the ensuing crash in Hampshire. On the 15th, the Luftwaffe paid a visit to Drifffield, and four 77 Squadron Whitleys were among those destroyed in the bombing, N1353, N1501, N1506 and P5056.

Briefings took place for wide ranging targets in Germany, France and Italy on the 24th, and these operations involved twenty eight Whitleys, ten for Italy, and the remainder for southern Germany. The sole missing aircraft was N1473 of 77 Squadron, which crashed in Holland on

the way home from Augsburg, and there were no survivors from the crew of P/O Montagu DFC. A change of address took the squadron to Linton-on-Ouse on the 28th, from where operations continued. Frequent trips to Italy for the Whitley brigade was a feature of early September, before attention shifted back to occupied ports and the build-up of invasion craft. The squadron's first loss of the month occurred on the 10/11th, when P5042 failed to return from Bremen, having crashed in Holland, and Sgt Deans and crew all fell into enemy hands. The decisive day in the Battle of Britain came and went on the 15th, and although it would not be apparent for some time, and the campaign against the invasion fleet would go on into October, Hitler's plans to invade in 1940 were shelved. A large force was despatched on the 18/19th to Channel ports and railway targets in Germany. N1425 failed to return from Soest, a town just to the north of the later famous Möhne Dam, having been shot down by a nightfighter over Holland, and P/O Eldridge and crew were killed. Also lost that night was the crew of P/O Brayne in P4992, which crashed into the sea off the Belgian coast while attacking Antwerp, and again there were no survivors. This was only the second time since operations began, that two of the squadron's aircraft had failed to return in one night, and on the other occasion one of the crews involved returned to duty after a period of internment in Holland. In a departure from normal policy, it was decided to despatch a large force to multiple aiming points at one main target, for which Berlin was selected on the 23/24th. In the light of events three years hence, it was an ambitious undertaking, in which twenty nine Whitleys participated. 112 crews claimed to have bombed their objectives, predominately railway yards, power stations and gas works, for the moderate loss of three aircraft. 77 Squadron's P5046 suffered flak damage over the target, and was forced to ditch well out in the North Sea. P/O Dunn had used up his ration of good fortune, and he died with three of his crew, the single survivor enduring four days in a dinghy before rescue came.

The squadron changed residence again on the 5th of October with a move to Topcliffe, and on the 9/10th suffered its first casualty from here, when P5091 crashed in Yorkshire on return from Hanau, and Sgt Brown and crew were all killed. Also on the 5th, Sir Richard Peirse succeeded Sir Charles Portal as C-in-C Bomber Command, and he presided over a period of reduced activity as the threat of invasion receded. The German oil industry became the main focus of attention for the time being, although the effectiveness of such operations, conducted mostly by small numbers of aircraft, was nil. Twenty two Whitleys were despatched to the distant port of Stettin on the 14/15th, and after more than ten hours in the air, T4206 crashed while trying to land at Topcliffe in difficult weather conditions, and one man was killed, while Sgt Coogan and the remainder of his crew sustained injuries. No further losses would be incurred during the second half of the month, but November and December would be characterized by ditchings and crashes, and a number of failures to return. The principal culprit was the fuel shortage experienced by most crews on return from the long range targets to which the Whitley force was best suited, and therefore most frequently committed. T4151 had been airborne for thirteen hours, when it was put down into the sea off Northumberland on return from Milan on the 5/6th of November, but the crew of P/O Miller was picked up safely. Returning early from the oil target of Wesseling on the 12/13th, T4208 crashed in Holland, and only the pilot, P/O Wiltshear, survived to become a POW. Two nights later, a force of fifty assorted aircraft set off for Berlin, only half of which reached it to carry out their assigned tasks. T4238 crashed in Germany, killing S/L Neal and crew, and T4172 was ditched

off the Yorkshire coast on return, from where Sgt Bizley and crew were rescued. A trip to Turin on the 23/24th ended for T4160 with a ditching in the Dover Straits, and P/O Bagnall alone of his crew survived. Returning from the same destination, T4169 crashed in Suffolk while trying to land, and F/O Rees and his crew lost their lives.

Sgt Bizley and crew were in trouble again on the 3/4th of December, having got back from Mannheim in T4205 with a full bomb load after more than fourteen hours aloft. Following a forced-landing at Topcliffe, a fire broke out, and a number of bombs exploded, and this resulted in injuries to the crew. (Bomber Command Losses Vol 4 W R Chorley). It was a particularly busy month for the Whitley brigade, with operations mounted on twenty one nights. Mannheim was the principal objective, and alone received seven raids, while Düsseldorf, Duisburg and Berlin were attacked twice each. The first of the Berlin operations came on the 15/16th, when sixteen Whitleys were despatched, and of these, one was shot down by a nightfighter, one crashed, and three ditched in the North Sea. It was a particularly bruising night for 77 Squadron, which began when T4138 returned early with an engine fire, and crashed in Yorkshire, killing one man, and injuring the others. The pilot was P/O Miller, who had ditched on return from Milan back in November, and he was among the survivors. P/O Svenson and crew also had to abandon their sortie, when T4292 developed engine trouble, and they came down in the North Sea and failed to survive. A similar fate befell Sgt Rowe and crew off the Yorkshire coast some eight hours after take off, and a search could find no trace of T4226 or its crew. This raid was followed by three of the operations to Mannheim on consecutive nights from the 16/17th, and Boulogne, Lorient and Bordeaux were the main objectives during the final week of the year.

The Bordeaux operation of the 27/28th was directed at an aircraft factory, and involved nine Whitleys as part of a force of seventy five aircraft. It was another testing time for 77 Squadron, although with less serious consequences than resulted in mid month. Two of the pilots involved were further examples of 77 Squadron officers who would go on to distinguished careers, although sadly, neither of them would survive the war. F/L Gomm was trying to land P5111 at Abingdon after eleven hours in the air, but the Whitley crashed, happily without injury to those on board. F/L Gomm, whose life and career in many ways paralleled that of W/C Guy Gibson, was from an ex-patriate family resident in Brazil, although he was educated in England. Following his tour with 77 Squadron, he would undergo a tour on nightfighters, and eventually be the first commander of 467 Squadron RAAF in 1942/43, a 5 Group Lancaster unit, which would gain a fine reputation for efficiency and performance under his leadership. His personal reputation was based on leading his squadron from the front, and it was while doing this in August 1943, that he lost his life during an operation to Milan. Flight commander S/L Robinson was also experiencing difficulties while returning from Bordeaux in T4335, and this Whitley eventually crashed in South Wales, again without injury to the crew. This officer's future career would see him command 78 Squadron early in the coming year, and twice command 35 Squadron, the first Halifax unit in the Command, and attain the status of Group Captain and station commander at Graveley, from where he would fly to Berlin in August 1943, after his operational service had officially ended, and fail to return. The final casualty on this night in December 1940, however, was T4293, which collided with another Whitley at Topcliffe on return, in the hands



of Sgt Dowling, and although no injuries resulted, the aircraft was deemed beyond economical repair. The year had seen many lessons learned, but few achievements in operational terms, and many of the finest pre-war airmen had been lost for little or no return. The New Year would bring little improvement, and it would be a case of survival and treading water for at least another fourteen months, before any perceptible increase in effectiveness became evident.

## 1941

A second consecutive harsh winter restricted operations to an extent at the start of the year. The accent in January was on ports, both in Germany and in the occupied countries, and Bremen was raided on each of the first three nights of the year, on the 1/2nd and 3/4th with some degree of success. Brest was to feature prominently during the year, and it received its first visit on the 4/5th, when elements of the German Navy were the intended targets. Wilhelmshaven, as the temporary home of the Tirpitz was the month's principal target, and was raided on six occasions by forces of varying sizes. Nine Whitleys took part on the 8/9th, when some heavy damage was inflicted upon the town, and some bombs narrowly missed the warship, and on the 15/16th and 16/17th, the first of which was particularly effective, and left many fires burning and inflicted damage on a number of industrial premises and public buildings. On the 15th, a new Air Ministry directive reaffirmed oil as the priority objective, and a list of seventeen production sites was drawn up, the top nine of which represented the bulk of the enemy's output. 77 Squadron negotiated the month without casualties, and the first half of February, which was a time of limited activity for the Whitley squadrons.

The first major operation of the new month brought a record commitment of aircraft to a single target. 222 aircraft, including thirty Whitleys took off for Hanover on the 10/11th, and 183 crews claimed to have bombed as briefed. On the following night, twenty four Whitleys made up a force of seventy nine aircraft bound for Bremen, but few crews reached the target, and fog caused major problems on return, and a massive twenty two aircraft crashed or were abandoned. The 14/15th and 15/16th were devoted to attacks on oil refineries, the Whitley brigade participating at Sterkrade on the latter occasion in company with Wellingtons. One of each type failed to return, and 77 Squadron registered its first loss of the year, when T4164 succumbed to a nightfighter attack and crashed in Holland, delivering the crew of P/O Hubbard into enemy hands. There were only four more nights of operational activity for Whitleys before the end of the month, and these involved small numbers of the type at Düsseldorf on the 21/22nd and 25/26th, and Cologne on the 23/24th and 26/27th. Cologne was also the main objective in a low key start to March, and suffered a useful raid on the 1/2nd, which fell mainly into the docks area, sinking a couple of river steamers and destroying warehouses and other commercial premises. Fog again provided a testing time for returning crews, and 77 Squadron's Z6463 was among fourteen aircraft to fall victim to the conditions, crashing in Yorkshire while trying to land, killing one member of the crew of P/O Rogers. An attempt to repeat the success failed on the 3/4th, and thereafter, minor operations saw the Command through almost to the end of the second week.

On the 9th, a new Air Ministry directive was issued in response to the continuing losses of merchant shipping to U-Boats in the Atlantic. From this point on, the U-Boat and its partner in crime, the long range maritime reconnaissance bomber, the Focke-Wulf Kondor, were to be attacked where-ever they could be found, at sea, in their bases, at the point of assembly and in the component factories. A new list of priority targets was drawn up accordingly, which included Kiel, Hamburg, Vegesack and Bremen, each of which had U-Boat yards, the last mentioned a Focke-Wulf aircraft factory also, Mannheim, one of the homes of diesel engine manufacture, and the French ports which contained U-Boat bases. This new campaign began at Hamburg on the 12/13th, when a number of useful hits were scored at the Blohm & Voss ship yards by around eighty aircraft, which included over twenty Whitleys, while a further fourteen of the type were involved in a simultaneous scattered and ineffective raid on Berlin. A return to Hamburg on the following night brought more damage at the Blohm & Voss yards, and over a hundred fires were started altogether. The squadron's N1493 failed to return to Topcliffe, and was lost without trace, presumably in the sea, with the crew of Sgt Arkwright. Oil was not to be totally abandoned in favour of the maritime diversion, and production was halted for a time at a refinery at Gelsenkirchen following an attack on the 14/15th. Whitleys and Wellingtons inconclusively raided the U-Boat base at Lorient on the 15/16th, and Whitleys returned there on the 20/21st. In-between, a handful went to Bremen on the 17/18th, and twenty four hours later, twenty took part in the most effective raid to date on Kiel, in which the Deutsche Werke U-Boat yards sustained damage along with buildings in the city centre. The largest Whitley effort of the month was reserved for Berlin on the 23/24th, when twenty eight were despatched with thirty five Wellingtons, but cloud prevented an assessment of results.

On the 29th, the German cruisers Scharnhorst and Gneisenau were reported to be off Brest, and by the following day they had taken up residence. This was to be the start of a ten month long saga, which would prove to be a thorn in the flesh of Bomber Command, and a constant distraction from its strategic role. Over a hundred assorted aircraft took off to attack the ships on the 30/31st, but no hits were scored, and it was a similar story on the 3/4th of April, when a force of around eighty aircraft found the ships difficult to pinpoint. Two 77 Squadron crews encountered difficulties on their return home on this night, and the outcome for both was unfortunate. P4947 stalled and crashed while Sgt Kyle was trying to land at Topcliffe, and he died with all but one of his crew, and Sgt Dowling was diverted to Tangmere, and he and two others of his crew were killed in the attempt to land Z6583. Whitleys did not take part in the attack on the German cruisers at Brest on the 4/5th, but the operation led to the Gneisenau being moved to an anchorage in the harbour, after a bomb landed in its dry dock and failed to detonate. While there, the raider was severely damaged by a Coastal Command torpedo, and had to be returned to dry dock for a six month repair programme. A new record force of 229 aircraft was despatched to Kiel on the 7/8th, and this included a contribution of forty nine Whitleys. Quite widespread damage was inflicted on the docks area and shipyards, and this success was gained for the loss of just four aircraft, two of which were Whitleys. On the following night, a smaller force returned to Kiel, and delivered another effective attack, which fell this time predominately into the town. Forty four Whitleys were involved on this night without loss, and these two operations represented the biggest efforts of the month by the type. Seventeen more joined Wellingtons, Hampdens and Stirlings for a raid on Berlin on

the 9/10th, during the course of which, Z6570 went down over enemy territory with failing engines, and Sgt Lee and his crew were soon in captivity. Berlin was on again eight nights later, but in the meantime, a Whitley element was present at raids on Düsseldorf on the 10/11th, Brest and Bordeaux-Merignac airfield on the 12/13th, Merignac again on the following night, Brest on the 14/15th, Kiel and Boulogne on the 15/16th, and Bremen on the 16/17th, not one of which produced more than slight superficial damage. Twenty eight Whitleys joined forces with Wellingtons, Hampdens and a solitary Stirling to do battle with the Capital on the 17/18th, but haze thwarted accuracy, and eight aircraft failed to return. It was not a good night for 77 Squadron, which posted missing two crews, and was fortunate not to lose a third. Sgt Pocock and his crew were all killed in T4338, and likewise F/O Pearson and his crew in Z6585. Z6582 was damaged by flak and forced to return early, and ended up being ditched off the Northumberland coast, from where Sgt Craddock and his crew were rescued. Sgt Singleton and his crew took T4332 for a training flight on the 20th, and engine failure brought them down in Nottinghamshire, where they all emerged from the wreckage unscathed. With the exception of Cologne on the 20/21st and Mannheim on the 29/30th, all the remaining operations during the month were against ports in line with the March directive, and 77 Squadron negotiated its involvement without casualties.

May was to begin in busy fashion for the Whitley brigade, with the type involved in no less than twenty four different operations during the first two and a half weeks, before the pace slackened somewhat for the final third of the month. The first major operation of the month was conducted by ninety aircraft with Hamburg as their destination on the 2/3rd. A number of large fires were started, but the results were not in proportion to the effort expended, and 77 Squadron posted missing the crew of Sgt Hughes, who were all killed when Z6461 crashed into the North Sea. Thirty five Whitleys were among a hundred aircraft despatched to Cologne on the 3/4th, but results were again disappointing, and hits were claimed on the German raiders at Brest on the following night, although they were unconfirmed. The almost total ineffectiveness of Bomber Command operations in the war to date would be revealed in the damning Butt Report following its release in August, but typical of the failures highlighted was a raid mounted on the 5/6th. Thirty Whitleys formed part of a force of 141 aircraft which took off to attack Mannheim, and 121 returning crews claimed to have bombed as briefed. The city authorities reported one house and a barn destroyed, serious damage to four houses, and superficial damage to two hundred others. On the credit side, no aircraft were lost, and this was a rare luxury which was repeated at Hamburg twenty four hours later, when again, despite the commitment of over a hundred aircraft, damage was of the slight and superficial variety.

Further hits were claimed but not confirmed at Brest on the 7/8th, and on the following night, a new sortie record was set when almost two hundred aircraft were sent back to Hamburg, while the largest ever Whitley effort of seventy eight aircraft took off for Bremen in company with a Wellington contingent. The latter was an effective attack, which left damage in the city, but failed to hit the important shipyards. There were forty two Whitley crews among the 146 briefed for an operation to the twin cities of Mannheim and Ludwigshafen on the 9/10th. It was a moderately successful raid for the period, on return from which, the squadron's Z6559 crashed on landing at Topcliffe in the hands of Sgt Mills and his crew, but no injuries



were reported. Two outstanding attacks hit Hamburg on the 10/11th and 11/12th, both of which created numerous fires, a good proportion of which were large. Whitleys were present at the former, but during the latter, they went instead to Bremen, where some useful damage was inflicted in the docks, although most of the bombing fell in the city. Mannheim and Ludwigshafen escaped serious damage on the 12/13th, and an attack on Hanover on the 15/16th was inconclusive. Cologne was raided on the consecutive nights of the 16th and 17th, but on neither occasion was damage commensurate with the effort expended. The latter operation cost 77 Squadron Z6578, which crashed in Belgium killing Sgt Gray and two of his crew, the two survivors falling into enemy hands. On the 21st, W/C Jarman completed his tour as commanding officer, and a week later he was appointed to the command of 76 Squadron. He was replaced at 77 Squadron by W/C Hanafin, who had previously served as a flight commander with 10 Squadron. There was little operational activity for him to preside over for the remainder of the month, and it was the 2/3rd of June before Whitleys were again out in numbers. 150 aircraft were despatched to Düsseldorf on this night, thirty nine of them Whitleys, but they failed to make an impression in the cloudy conditions. Haze was blamed for a poor performance at Dortmund on the 8/9th, and two nights later, a further unsuccessful attempt was made to bomb the Scharnhorst and Gneisenau at Brest, which was now playing host to the Prinz Eugen as well. Düsseldorf and Duisburg were the main targets for the 11/12th, the Whitley brigade assigned to the latter with an equal number of Hampdens, but neither target recorded bombs falling, while Cologne suffered quite extensive damage, and was presumably attacked as an alternative.

The 12/13th was devoted to railway targets at four different locations serving the Ruhr, and a new record number of eighty Whitleys was despatched to the yards at Schwerte, south-east of Dortmund. Only half of the force was able to bomb through the haze, and three aircraft failed to return home. The squadron's T4279 was shot down by a nightfighter over Holland, and there were no survivors from the crew of Sgt McFarland. For the remainder of the month, Cologne and Düsseldorf featured prominently, and were attacked simultaneously on no fewer than nine occasions by forces of varying sizes between the nights of the 15th and the 30th. Whitleys were involved at the former on the 16/17th, 17/18th, 23/24th, 24/25th, 25/26th and 26/27th, and at the latter on the 15/16th, 19/20th, 21/22nd and 25/26th, and 77 Squadron came through its participation without loss. The night of the 27/28th became a disaster for three Whitley squadrons, which had contributed to a raid by over a hundred aircraft on Bremen. Nothing went right for the crews, who encountered storms and icing conditions, and fierce nightfighter activity, and it seems that most if not all of the bombing fell on Hamburg rather than the intended target. Eleven Whitleys failed to return in a new record night loss of fourteen aircraft, and 10 and 102 Squadrons each lost four aircraft. 77 Squadron escaped comparatively lightly in comparison, posting missing the crews of P/O Tidswell and P/O Singleton in Z6630 and Z6647 respectively, the former for certain the victim of a nightfighter, and neither aircraft produced a survivor. Z6568 was hit by flak, and was forced to ditch a hundred miles out from the Yorkshire coast. A search and rescue aircraft located Sgt Harpur and his crew, and dropped a dinghy, but the pilot died shortly before rescue came on the 29th.

After a blank night on the 1/2nd, July began with Whitleys involved in operations in reasonable numbers on the following eight nights. Chronologically, the first objectives were

Cologne, Essen, Brest, Münster and Dortmund, and it was from the latter, on the 6/7th, that 77 Squadron posted missing its next crews. Both Z6642 and Z6652 were brought down onto Dutch soil, the latter by flak, but happily, the crews of Sgt Bizley and P/O Simmonds survived intact to be taken prisoner. On the following night, Z6799 was shot down by a nightfighter also over Holland during the course of an operation to Osnabrück, and just one man survived as a POW from the crew of the experienced F/L Petley DFC. Two nights later, an operation to Aachen claimed the lives of Sgt McLean and his crew when Z6743 crashed in Belgium, and this concluded an expensive first quarter of the new month. Earlier on the 9th, a new Air Ministry directive had pointed to the enemy's transport system and the morale of the civilian population as the weak points, and attacks on these would form the basis of the latest campaign now that the maritime diversion was over. Railways were precision targets requiring clear conditions, and on such nights, railway installations at the main centres ringing the Ruhr were to be the principal objectives, and on moonless nights, area raids were to take place on Cologne, Duisburg and Düsseldorf. On dark, dirty nights, the bomber force would roam further afield into central and southern Germany, but some effort would continue to be directed at the German raiders at Brest.

After a four night break for the Whitley brigade, nineteen of the type were despatched to Bremen, and a further twenty four to Hamburg two nights later, on both occasions as part of a force numbering around a hundred aircraft. Neither raid produced more than superficial damage, and attempts to bomb Hanover on the 19/20th, Cologne on the 20/21st and Frankfurt on the 22/23rd fared no better. On the 23/24th, thirty Whitleys operated alone to La Pallice to attack the docks, and the squadron's Z6643 crashed in Wiltshire on return, injuring F/L Dury and his crew. La Pallice was the scene on the following day of a lunchtime assault by 4 Group Halifaxes on the Scharnhorst, which had just arrived from Brest. Meanwhile, the Gneisenau and Prinz Eugen were embroiled in a battle with Wellingtons at Brest, while other elements of the Command created a diversion under a fighter escort. In return for severe damage to the Scharnhorst, and unconfirmed claims of hits on the Gneisenau, the Command lost seventeen aircraft. The maritime flavour of operations continued to the end of the month, with raids on Emden on the 24/25th and Dunkerque on the 27/28th, both by small numbers of Whitleys and Wellingtons, and twelve Whitleys were recalled when bound for Boulogne on the 30/31st. T4212 crashed immediately after take-off for this operation, but P/O Iveson and his crew were unhurt. In just over two years time, this officer would be appointed to the command of 76 Squadron, a post which he would hold throughout the main Battle of Berlin and the pre and post-invasion periods.

The August account opened fairly ineffectively at Hamburg on the 2/3rd, but it was Frankfurt which occupied the attention of the Whitley force for the remainder of the first week, attacks on the 3/4th, 5/6th and 6/7th by thirty nine, forty six and thirty four Whitleys respectively, the last two with Wellingtons for company, producing nothing of a noteworthy nature. P/O Baker and crew did not make the primary target on the 5/6th, bombing Coblenz instead, but on the way home, flak damage forced them to abandon Z6826 to its fate over Belgium, and having come safely to earth, the pilot and three others fell into enemy hands, while one man managed to evade capture. Later on the 6th, Z6740 caught fire while on a training flight, and P/O Ogston and his crew were killed in the ensuing crash in Warwickshire. Fifty five Whitleys

were included in a force of 152 aircraft which set off for Hanover on the 14/15th, but the largest effort of the month by the type was reserved for Frankfurt on the 29/30th, when sixty two joined eighty other aircraft to deliver a disappointing raid on Frankfurt. In between, Whitleys took part in numerous raids which included Cologne on the 16/17th, 18/19th and 26/27th, Bremen on the 17/18th, Düsseldorf on the 24/25th and Mannheim on the 27/28th, but there were no further losses of 77 Squadron aircraft. In mid month, the Butt Report had been completed, and it swept away all confidence in the effectiveness of the Command's efforts to date. It highlighted the inability of the crews to land their bombs within miles of their intended targets, and showed their claims of success to be wildly optimistic. It rocked the Command to the core, and forever blighted the reputation of the C-in-C, Sir Richard Peirse.

The campaign against Frankfurt continued into September, and it received its first major raid of the month on the 2/3rd at the hands of a force of around a hundred aircraft. Forty four Whitleys had taken off, but just how many found the target is uncertain, and it was another disappointing effort. The squadron's Z6648 crash-landed at Derby on return without casualties among the crew of Sgt Mercer, but their reprieve was to be of a temporary nature. After eleven months at Topcliffe, the squadron moved to Leeming on the 5th, and carried out its first operation from its new home on the 6/7th. Eighty six Whitleys, Wellingtons and Hampdens took off for the target, a chemicals factory at Hüls, and returning crews claimed good results. Seven aircraft failed to return, however, and five of them were Whitleys, of which two were from 77 Squadron. Z6668 crashed in Germany with no survivors from the previously mentioned Sgt Mercer and crew, and a nightfighter accounted for Z6824 over Holland, killing flight commander S/L Hannigan and all but one of his crew, while the survivor was captured. To compound these losses, Z6654 crash-landed on the shore at Cromer with battle damage sustained in a brush with a nightfighter, but P/O Havelock and his crew emerged unscathed. Sadly, time was also running out for this crew, and only one member would survive to see the New Year. Almost two hundred aircraft, including thirty one Whitleys, took off for Berlin on the following night, and some damage was created, although nothing of a serious nature. On the 9th, W/C Hanafin was posted away from the squadron at the conclusion of his tour, and he was replaced by W/C Young.

The new commanding officer presided over his first operation on the 11/12th, when thirty two Whitleys were despatched to attack the docks at Warnemünde on the Baltic coast. Thereafter during the month, Whitleys were employed in smaller numbers as their role began to diminish in favour of the Halifax, and only eighteen were sent to Berlin on the 20/21st, as part of an overall force of seventy four aircraft, which were recalled because of bad weather. A number of the crews did not receive the recall and pressed on, although none reached the capital, and alternative targets were bombed instead. On return, Z6827 was ditched off the Yorkshire coast after more than nine hours in the air, but Sgt Harwood and his crew were rescued shortly afterwards. Less fortunate, however, were their colleagues, Sgt Sinclair and crew, who all died when Z6934 crashed in Germany. The biggest Whitley effort of the month saw fifty six of them join eighty three other aircraft for the long trip to Stettin on the 29/30th. Ninety five crews claimed to have bombed as briefed, and eight aircraft failed to return home, half of them Whitleys. There were no survivors from the crew of P/O Smith in Z9150, but Sgt



Wheatley and crew had a lucky escape when Z9147 stalled and crashed onto the airfield on return, after more than nine hours aloft.

After an expensive month in September, October would be a little kinder to the squadron, and it was not until the 12/13th that the first casualty was sustained. This was the night of the first major operation of the month, which was directed at Nuremberg, the first time that the birth place of Nazism had been earmarked for attention by a sizeable force. 152 crews were briefed, of which fifty four would be flying in Whitleys, but in the event, few found the target, and bombs were sprayed liberally around southern Germany, wreaking havoc in a small town and a number of villages. Z6801 failed to make it back to Leeming having crashed in Belgium, and there were no survivors from the crew of P/O Lloyd. Following a number of operations involving small Whitley contingents, forty of the type represented the bulk of a force sent to Wilhelmshaven on the 20/21st, but again results were disappointing. Bremen, Mannheim and Kiel were attacked on the next three consecutive nights with very modest success by forces containing between twenty and twenty seven Whitleys, and twenty eight were despatched to Hamburg on the last night of the month, along with almost a hundred other aircraft. Sadly, all four missing aircraft were Whitleys, and 77 Squadron was well represented. Sgt Roberts and his crew were all killed in Z6950, and Z6953 was lost without trace with the crew of Sgt Couch.

November began with an intended attack on Kiel by 134 aircraft, a force which included thirty Whitleys. Barely half of the crews reported reaching the target area, and no bombs fell into Kiel. This inauspicious start to the month was followed by worse six nights later, when Peirse planned a night of major activity which would involve a new record number of sorties. Recent bad weather had undoubtedly affected the Command's performance, and in the light of the Butt Report, a success or two was badly needed. Berlin was selected as the night's principal objective, but doubts about the weather resulted in the 5 Group AOC withdrawing his contribution of seventy five aircraft, and sending it instead to Cologne, while a predominately Wellington force of fifty three aircraft targeted Mannheim. In the event, 169 aircraft set off for the Capital, of which less than half reached its general area, and scant damage was caused in return for the loss of twenty one aircraft. 77 Squadron's contribution was eight aircraft, led by Z6943 with W/C Young at the controls. He and three other crews, those of P/O Ogier in Z6628, F/L Parkin in Z6952 and P/O Havelock in Z9225, reached and bombed the primary target, before returning safely home after more than ten hours in the air. P/O Scott-Martin and his crew attacked Sylt as an alternative target in Z6822, and the three remaining sorties were abandoned altogether. The Cologne force fared equally badly in terms of results, but at least lost no aircraft, and seven Wellingtons were missing from Mannheim, where not a single bomb fell. The total losses for the night stood at a new record of thirty seven aircraft, more than double the previous heaviest night loss, and this was the final straw for the Air Ministry, which ordered Peirse to restrict further operations, while the future of the Command was debated in high places. Only small numbers of Whitleys were despatched on operations for the remainder of the month, and it was not until its last night, that 77 Squadron registered its single loss of November. The night's main target was Hamburg, to which 180 aircraft were committed, while fifty others headed for Emden. It was another bad night for the Command, which lost fifteen aircraft in return for modest damage inflicted, and the

squadron's Z9299 failed to return from the latter operation, just one man surviving as a POW from the crew of Sgt Vose.

December began for the squadron with another change of leadership. The very popular and respected W/C Young was posted away on the 2nd, shortly to assume command of 76 Squadron, a post in which he was to remain for the next nine months. In September 1942, he would be posted to the Middle East to take command of the newly forming 462 Squadron of the Royal Australian Air Force, a unit which would eventually find itself posted to 4 Group for a short spell in 1944, before completing its wartime service as one of 100 Group's heavy squadrons. The new commanding officer was W/C Don Bennett, who had been readmitted to the RAF after a civilian career as an airline pilot, and having most recently pioneered the Atlantic Ferry service. As an airman, Bennett undoubtedly ranked among the best, and as a navigator he was unrivalled. He was somewhat disappointed at finding 77 Squadron still equipped with Whitleys, but he would make the best of the situation, and bring the benefits of his vast experience to his crews. It was a fairly low key month, in which ports in general and Brest in particular provided the main focus. Whitleys went to Germany on a few occasions in smallish numbers, to Aachen on the 7/8th, Cologne on the 11/12th and 23/24th, Wilhelmshaven on the 16/17th and 22/23rd, Düsseldorf on the 27/28th and Emden on the 28/29th. After enjoying a previously loss free month, and a relatively kind final quarter of the year, the Düsseldorf operation provided 77 Squadron with a sharp reminder of the hazards of serving with Bomber Command. Three of its aircraft failed to return, Z6956, from which W/O Grace and three of his crew escaped with their lives to become POWs, Z9226, with total loss of life among the crew of P/O Scott-Martin, and Z9306, which was shot down by a nightfighter over Holland, killing P/O Havelock and all but one of his crew.

It had been a bad year for the Command, with hardly any advances on the previous year's performance, despite the introduction to operational service of three new aircraft types. Each had failed to live up to expectations, and had been beset with technical problems which had required frequent groundings and constant modifications. As a result, 4 Group's re-equipping with Halifaxes was a slow process, and a number of its squadrons would have to soldier on with the venerable Whitley for some time to come. The crews had done their best with the equipment available, but their best had been insufficient, and there had been little effect on the enemy's capacity to wage war. The coming year would bring change, but it would begin with more of the same old fare, the warships at Brest, and matters were to get worse before they got any better.

## 1942

No less than eleven operations of varying sizes were sent against Brest during January, the Whitleys involved in just the two largest of them, on the 5/6th and 8/9th. All the other targets for the Whitley brigade during the month were also ports, Emden receiving five visits between the 10/11th and the 26/27th. There were no losses to 77 Squadron during January, and the first half of February also passed without casualties. It was during this period that the long running distraction at Brest finally resolved itself, as the Kriegsmarine took matters into its own hands. Hours after a raid by eighteen Wellingtons on Brest on the evening of the 11th



of February, the Scharnhorst, Gneisenau and Prinz Eugen slipped anchor under cover of atrocious weather conditions, and headed into the English Channel, surrounded by destroyers and other escort craft. Operation Fuller had been prepared by the British authorities to cover this precise eventuality, but a question mark hangs over the quality of communication to those who were charged with its implementation. It was already late morning on the 12th before the enemy fleet was spotted, and only 5 Group was standing by at four hours readiness. The first of a record number of 242 daylight sorties were despatched at 13.30 hours, but in the squally conditions and low cloud, it was very difficult to even catch sight of the quarry, let alone deliver an attack. Despite heroic attempts by the crews of Bomber and Coastal Commands, no hits were scored, and the enemy ships passed through the Straits of Dover and made good their escape. Both Scharnhorst and Gneisenau struck mines recently laid by 5 Group, and their progress was slowed to an extent, but the three raiders all arrived in home port on the following morning, to complete a humiliating episode for the British government and the nation. It had been a bad day for Bomber Command as well, which had lost a further fifteen crews on top of all those missing as a result of attacking these ships at Brest over the previous ten months, but at least this annoying itch had been scratched for the last time, and the Command could now concentrate its efforts against more suitable targets.

On the 14th, a new Air Ministry directive swept away all the pretence of the bombing war to date, by authorising the area bombing of Germany's towns and cities in a direct assault on the morale of the civilian population, particularly the workers. Although area attacks had been carried out already for a considerable period, they had always been under the guise of aiming at a specific military or industrial objective, and this would no longer be necessary. On the 15/16th, 4 Group sent a small force of Whitleys and Halifaxes to St Nazaire, but the operation was thwarted by cloud. On return, 77 Squadron's Z9229 crashed in Warwickshire, killing F/S Connell and all but one of his crew, and Z9231 came to grief while trying to land at Colerne, with fatal consequences for the entire crew of F/S Millar. On the 22nd, ACM Sir Arthur Harris was installed as the new commander-in chief of Bomber Command, and he set about the task of transforming it into a war winning weapon. For the remainder of the month he sent small forces to bomb German ports, principally Kiel and Wilhelmshaven, where the Scharnhorst, Gneisenau and Prinz Eugen were thought to be sheltering. In one of those ironies thrown up by war, Gneisenau, having survived ten months of constant harassment at Brest, was hit by a heavy bomb on the 26/27th, just two weeks after arriving at the supposedly safe port of Kiel, and this ended her sea-going career. On the following night, thirty three assorted aircraft were despatched to Wilhelmshaven to attack the Scharnhorst, but cloud prevented accurate bombing. Three aircraft failed to return, and they were all 77 Squadron Whitleys. Z6943 was lost without trace with the crew of F/L Irving, P/O McCarthy and his crew all died in Z9148, and a nightfighter shot down Z9280 over Holland, killing S/L Parkin and all but one of his crew.

March began with an operation which was a sign of things to come for Germany in the years ahead. On the 3/4th, Harris sent the largest force yet to a single target, 235 aircraft, to the Renault motor works at Billancourt in Paris, as a dress rehearsal for the Gee led raids which were about to commence. Ironically, in view of Harris's firm commitment to the area bombing policy, this was a precision attack delivered in three waves, and headed by

experienced crews with extensive use of flares to provide illumination. Bombing was carried out from low level to avoid civilian casualties, and the raid itself was an outstanding success, which left extensive damage to the factory for the loss of just one Wellington. Sadly, civilian casualties amounted to over three hundred people killed, and even with the improved aids to accuracy available in 1944, it would never be possible to eradicate collateral damage. The first Gee led raid targeted Essen on the 8/9th, and it was a dismal failure which demonstrated the device's shortcomings as a blind bombing aid. Further attempts on Essen on the 9/10th and 10/11th were equally disappointing, and while the first Lancasters to raid a German target were included on the last mentioned occasion, Whitleys were excluded from the entire series, an indication of their now diminished importance. An equal number of Whitleys and Wellingtons made up the forty strong force which was sent to Emden on the 12/13th, but no bombs fell within five miles of the target. Losses amounted to three Whitleys, two of which were from 77 Squadron. Z9293 was lost without trace with the crew of P/O Spalding, and Z9312 went down into the North Sea, taking with it the crew of F/S Murphy. On the following night, Boulogne was one of the subsidiary targets to which small forces were despatched, and on return, the squadron's Z6075 crashed near the airfield, killing outright F/S Moore and three of his crew, while the sole survivor succumbed to his injuries a few hours later. The largest Whitley effort of the month was reserved for the 27/28th, when thirty five of the type operated in support of the commando raid on the dry-dock gates at St Nazaire. Only four aircraft were able to bomb the primary target in the conditions, and one Whitley was lost. 77 Squadron's Z9221 was forced to turn back early, and crashed in Yorkshire after jettisoning its bombs over the sea. P/O Harrison and three of his crew sustained injuries, and one man was killed. The first major success for the area bombing policy came at Lübeck on the 28/29th, in an operation conducted on the lines of the Billancourt raid at the start of the month. In a blatantly fire-raising attack, around 30% of the Baltic city's built-up area was destroyed, and this amounted to over fourteen hundred buildings. Whitleys were excluded from this operation, and April would bring the type's final sorties with front-line squadrons.

The first half of April was devoted to French ports as far as the Whitley squadrons were concerned, although twenty of the type were sent to bomb the Gnome & Rhône aero engine factory at Gennevilliers on the 5/6th. There was also a trip to Genoa for eighteen Whitley crews on the 12/13th, but cloud obscured the target. On the 14th, W/C Bennett was posted to the command of 10 Squadron, which was equipped with Halifaxes, and within two weeks he was to be shot down over Norway while attacking the Tirpitz. Showing typical resourcefulness, he evaded capture and returned to 10 Squadron exactly a month later to resume command, until being appointed in July to set up the new Pathfinder Force, where he would remain for the rest of the war. He was replaced at 77 Squadron by W/C Embling, and he presided over the final Whitley sorties by the squadron to targets in Germany. A series of four raids on consecutive nights from the 23/24th to the 26/27th on Rostock was an attempt to repeat the success gained at Lübeck a month earlier, and the nearby Heinkel aircraft factory was an added attraction to which a proportion of the force was assigned on each occasion. The first raid cost the squadron Z9363, which crashed in Germany with no survivors from the crew of Sgt Whitham, and the final one resulted in the loss of Z9386, which was damaged by flak, and ditched in the Baltic by P/O Valentine, from where he and his crew were rescued by the enemy. On the credit side, the series against Rostock was an outstanding success, which

destroyed over seventeen hundred buildings, amounting to 60% of the main town area. On the 6th of May, 77 Squadron was posted to Coastal Command, and took up residence at Chivenor, where it would remain until October. Its operations in its new role do not fall within the scope of this work, although the fate of its Whitleys is included in section 3.

During the squadron's absence from Bomber Command, the Pathfinder Force officially came into existence under the command of G/C Bennett on the 15th of August. After a hesitant and somewhat inauspicious beginning, the fledgling force began to get to grips with its exacting role, and the first half of September was characterized by an unprecedented series of highly effective operations, which might, in hindsight, be interpreted as the point when the Command at last began to turn the corner. On the 5th of October, 77 Squadron returned to Bomber Command, and took up residence at the new station at Elvington, still under the command of W/C Embling. The Whitleys were exchanged for Mk II Halifaxes, but these were withdrawn temporarily, and replaced with Mk Vs. Working up to operational status was to prove a lengthy process, and would not be achieved until well into the coming year. From the last week of October until the middle of December, much of the Command's effort was directed at Italian cities in support of Operation Torch, the landings in North Africa, which would ultimately lead to Montgomery's victory over Rommel at El Alamein. The inevitable training accidents would take their toll of 77 Squadron crews, but the squadron's first casualty of the Halifax era involved the commanding officer. While on attachment to 102 Squadron to gain operational experience on Halifaxes, W/C Embling went to Frankfurt on the 2/3rd of December in W7916, captained by S/L Walkington. This was one of three 102 Squadron aircraft to fail to return from the operation, but W/C Embling survived and ultimately evaded capture. He was succeeded at 77 Squadron on the 10th by W/C Lowe, who presided over the loss of DT625, which crashed in Yorkshire while training on the 20th, killing F/S Lord and four of his crew, while the sole survivor succumbed later to his injuries. On the 29th, DT631 crashed while trying to land at Elvington, also during training, and there were no survivors from the crew of F/S Orr.

## 1943

The year began with a continuation of the Oboe trials, which had culminated at the end of the preceding year with the dropping of the first Oboe aimed bombs. Since becoming a member of the Pathfinder Force on the 18th of August, 109 Squadron, under the command of W/C Hal Bufton, had been pioneering the development of the device which was to change the face of bombing in the coming spring. Between the 3/4th and 13/14th of January, 109 Squadron Mosquitos marked Essen on seven occasions for small forces of Lancasters from 1 and 5 Groups, and Duisburg once. 77 Squadron welcomed in the New Year by writing off one of its Halifaxes on the 4th, but Sgt Ellis and crew emerged unscathed from the wreckage of DT555 following their take-off crash. On the 14th, a new Air Ministry directive authorized the area bombing of those French ports which housed U-Boat bases and support facilities, and a list was drawn up which was headed by Lorient. Among January's operations were five against this target, and two against Berlin on the consecutive nights of the 16th and 17th. The first of the latter was accompanied by the first use of proper target indicators, but the only success of note was the destruction of the ten thousand seater Deutschlandhalle, the largest covered



arena in Europe. A bonus was the loss of just one Lancaster, but a total of twenty two was missing on the following night, in return for another very disappointing raid. On the 27/28th, Oboe Mosquitos of 109 Squadron carried out ground marking ahead of the Pathfinder heavies for the first time, and despite the presence of cloud, which under normal circumstances would have rendered the attack ineffective, substantial damage resulted. Lorient continued to be pounded in February, and by mid month was a deserted ruin. Wilhelmshaven was the month's other principal target, and was raided four times. Having destroyed Lorient, St Nazaire was next on the list of U-Boat bases to receive attention, and it was raided for the first time on the last night of the month.

March was to see the start of the first campaign of the war for which the Command was adequately equipped and prepared. Before it began, however, Berlin was subjected to a scattered but useful raid on the 1/2nd, and a partially effective attack hit Hamburg on the 3/4th. It was at this time that 77 Squadron was once more declared operational, having been away from the front-line for almost twelve months. On the night that the Ruhr campaign began, the 5/6th, 77 Squadron sent two crews to lay mines off the Frisians. Meanwhile, the 362 crews which reached Essen after an unusually high number of early returns had depleted the force, delivered the most punishing blow of the war to date on this mighty industrial centre. Over three thousand houses were destroyed, and fifty three buildings within the Krupps complex suffered damage. In view of the scale of success, the failure to return of fourteen aircraft was modest, and it was a most encouraging start to the spring offensive. Before the next round, Harris turned his attention to southern Germany, raiding Nuremberg with a reasonable degree of success on the 8/9th, and Munich on the 9/10th, and it was from the latter that the first of what would be many 77 Squadron Halifaxes failed to return. DT734 was returning early over Belgium when a nightfighter shot it down, killing one of the crew. The rest of those on board managed to escape by parachute, S/L Sage and two others falling into enemy hands, while three men evaded capture. JB795 went down over southern Germany, and there were no survivors from the crew of F/O Huggard.

A raid on Stuttgart on the 11/12th completed the current series against southern cities and was a failure, and then it was back to Essen on the 12/13th, and while the number of buildings destroyed was less than a week earlier, the damage inflicted on Krupps was substantially greater. A period of minor operations followed, leading up to a heavy raid on St Nazaire on the 22/23rd. A few days earlier, on the 18th, JB849 crashed on landing at Elvington while training, but no injuries were reported among the crew of F/L Bainbridge. After the scale of the successes recently gained at Essen, an attack on Duisburg on the 26/27th was a cause for disappointment. Failure of the Oboe equipment in a large proportion of 109 Squadron's Mosquitos led to a widely scattered raid and only superficial damage. Almost four hundred aircraft took off for Berlin on the 27/28th, and most of those which reached the target area undershot with their bombs. Losses were a modest nine aircraft, but a return to the Capital by three hundred aircraft in bad weather two nights later was equally ineffective, and this time cost twenty one. Among them was 77 Squadron's JB842, which crashed off Denmark with no survivors from the crew of F/S Newman.

April would prove to be the least rewarding month of the Ruhr offensive, but this was largely because a high proportion of the operations were mounted to targets outside of the region. The month, never-the-less, got off to an encouraging start with another successful tilt at Essen on the 3/4th. Central and western districts bore the main weight of the attack, and over six hundred buildings were destroyed. The largest non-1,000 force to date of 577 aircraft failed to inflict more than superficial damage on Kiel on the 4/5th, and it was a similar story at Duisburg on the 8/9th, a failure which was compounded by the loss of nineteen aircraft. 77 Squadron was represented among them by JB847, which fell victim to a nightfighter over France on the way home, and just one man survived as a POW from the eight man crew of F/L Balley. The run of disappointments continued at Frankfurt on the 10/11th, and the despised "creep-back" phenomenon, which seemed to dog most Bomber Command raids, was partially responsible for rescuing an attack by four hundred aircraft on Stuttgart on the 14/15th. Two nights later, Harris sent the Lancasters and Halifaxes to distant Pilsen in Czechoslovakia to target the Skoda armaments works, while a predominately Wellington and Stirling force attacked Mannheim as a diversion. The former operation was a complete failure, and most of the bombs fell miles from the intended objective. A massive thirty six aircraft, split evenly between the two types, failed to return, and a further eighteen were missing from Mannheim, where the bombing was more accurate, and this was a new record loss. 77 Squadron posted missing the crew of F/S Wall in JB908, and it was later learned that he and two others had survived as POWs.

Another distant target was Stettin on the Baltic coast, and this was attacked with great precision by a force of three hundred aircraft on the 20/21st. The central districts took a pounding, and almost four hundred buildings were reduced to rubble. There were two empty dispersals at Elvington next morning, however, those which should have been occupied by HR714 and JB804, and these were just two of twenty one failures to return. The former crashed into the sea off Denmark with no survivors from the crew of Sgt Watson, and the latter also involved total loss of life among the crew of F/L Lea. What was becoming an expensive month for the squadron became more so when over five hundred aircraft tried again at Duisburg on the 26/27th. This was the most effective raid to date on Germany's largest inland port, while still falling short of the successes at Essen. Over three hundred buildings were destroyed at a cost of seventeen aircraft, one of which was DT796, which was shot down by flak over Essen, killing P/O Pye and one of his crew, and delivering the others into captivity. The last night of the month was devoted to Essen, and this was the least destructive of the four raids so far sent against this centre of war production. Six Lancasters and six Halifaxes failed to return, and half of the latter were from 77 Squadron. JB783 and JB803 both fell to nightfighters over Holland, two men surviving from the crew of Sgt Camburn in the former, but none doing so from the crew of Sgt Watson in the latter, and there was also total loss of life in S/L Bertram's JB846.

May would bring a return to winning ways with a number of records and outstanding successes. The largest non-1,000 force to date of 596 aircraft took off for Dortmund on the 4/5th, and those which arrived there destroyed twelve hundred buildings. Far from a one sided affair, however, thirty one aircraft were shot down, and from this point on, the losses at Ruhr targets would give rise to concern. Minor operations occupied the following seven nights, and

on the 11th, BB380 was written off in a take-off crash at Elvington during training, and Sgt Brannigan and crew emerged unscathed. Duisburg finally succumbed to an accurate and concentrated attack on the 12/13th, which left sixteen hundred buildings in ruins, and sank or damaged sixty thousand tons of shipping in the port. The success was paid for with thirty four aircraft, including 77 Squadron's DT632, in which Sgt Moran and his crew perished. JB865 crashed in Yorkshire on return, and F/O Archibald and one of his crew failed to survive. On the following night, Bochum was the target for over four hundred assorted aircraft, while 5 Group returned to Pilsen to try to rectify the recent failure. Almost four hundred buildings were destroyed at the former in return for the loss of twenty four aircraft, more than half of them Halifaxes, and the Skoda works again escaped damage as the bombing fell mainly into open country. The squadron's JB892 did not return from the Ruhr, having been shot down by a nightfighter over Holland, and F/O Puddephat and his crew were killed. During a nine day break from major operations, 617 Squadron guaranteed its place in bomber folklore with its attack on the dams on the 16/17th.

Having hosted a record force at the start of the month, Dortmund was now the recipient of a new record on the 23/24th, this time by a force of 826 aircraft. In return for the destruction of nearly two thousand buildings, the defences claimed thirty eight bombers, the highest number in the campaign to date, but on this occasion, 77 Squadron came through unscathed. Not so two nights later, however, when Düsseldorf was the objective for seven hundred aircraft, twenty seven of which failed to return from what was a disappointing raid. W7813 was shot down by a nightfighter over Belgium, killing Sgt Rees and his crew, and the destruction of Sgt Lewis's JB837 was a tragedy for three squadrons. Caught by a nightfighter close to Germany's western border, the Halifax exploded in the air with such force, that it brought down two Stirlings, one each from 7 and XV Squadrons, and all twenty one men lost their lives. (Bomber Command Losses. Vol 4. W R Chorley). A scattered raid on Essen on the 27/28th still managed to destroy almost five hundred buildings, and 77 Squadron's JD152 was among the twenty three aircraft which were missing, and there were no survivors from the crew of F/S O'Grady. Barmen, the western half of the urban sprawl known as Wuppertal, was the destination for seven hundred aircraft on the 29/30th. In one of the most devastating raids of the war, 80% of the towns built-up area, amounting to over four thousand buildings, was destroyed, and 3,400 people were killed. Thirty three aircraft and crews paid the price, but 77 Squadron was not represented on this occasion.

There were no operations for most of the crews of the heavy squadrons during the first ten nights of June. When the Command next went to war in numbers, on the 11/12th, it was to deliver on Düsseldorf its most damaging raid of the war to date. Over two hundred Halifaxes operated for the first time on this night as part of a force of almost eight hundred aircraft, and despite some bomb loads being wasted in open country, the city's central districts were pounded, and almost nine thousand separate fires were reported. The success was gained at the high cost of thirty eight aircraft, among which was JD168 of 77 Squadron, the victim of a nightfighter over Belgium, and Sgt Endicott and all but one of his crew, who were on only the second operation of their tour, survived their descent by parachute, to fall into enemy hands. The centre of Bochum was devastated on the following night, and then it was the 19/20th before the main force Halifaxes were called into action again, this for an attack with a



contingent of Stirlings on the Schneider armaments works at Le Creusot, the scene of an epic daylight raid by 5 Group in the previous October. The operation began badly for the squadron when JB863 swung on take-off, and failing in a desperate bid to gain a few precious feet of altitude, it crashed close to the airfield, and F/S Holvedge and his crew were killed.

A hectic round of four major operations in the space of five nights began at Krefeld on the 21/22nd. It was a massively destructive raid, which left five and a half thousand houses in ruins and killed a thousand people. On the debit side, the Command suffered its heaviest losses of the campaign, and the Halifax casualties represented almost 40% of the forty four missing aircraft. It was a bad night for 77 Squadron, which had three empty dispersals to contemplate on the following morning. Flak brought about the undoing of JB852 over Holland, and Sgt Hirsch and five of his crew died in its wreckage, and the sole survivor succumbed shortly afterwards. JD205 also crashed on Dutch soil following an encounter with a nightfighter, and two men died, while Sgt Gardner and three others were taken prisoner, and the seventh member of the crew evaded capture. Finally, W1157 disappeared without trace, and took with it Sgt Fitzgerald and his crew. Twenty four hours later, over eleven hundred houses were destroyed in Mülheim and neighbouring Oberhausen, along with numerous other buildings of a public nature, and a further thirty five heavy bombers failed to return home. 77 Squadron was again afflicted, and posted missing two crews, those of F/L Marshall in DT700, which crashed off the Dutch coast with no survivors, and F/S Sims in JD213, which likewise took its crew to a watery grave. A flak damaged JD110 was attacked by a nightfighter while returning over the North Sea, but the rear gunner in Sgt Mather's crew shot it down. After a night's rest, a force of six hundred aircraft inflicted a blow on Elberfeld, the eastern half of Wuppertal, which was every bit as devastating as that visited upon its twin at the end of May. When the smoke had cleared, 94% of the town's built-up area could be seen to be in ruins, in return for which, the defenders claimed thirty four bombers, although none on this occasion from 77 Squadron. This impressive run of successes came to an end at the notoriously difficult to hit oil town of Gelsenkirchen on the 25/26th, when bombs were sprayed over a wide area of the Ruhr, and little if any damage occurred at the target.

On the 28/29th, the first of three heavy raids on Cologne was one of the outstanding attacks of the war. It was delivered with such accuracy and concentration by a force of under six hundred aircraft, that it left almost six and a half thousand buildings in ruins, damaged to some extent fifteen thousand more, and killed 4,400 people. It was followed up on the 3/4th of July, when another 2,200 houses were destroyed, and the Luftwaffe employed its Wilde Sau nightfighting system for the first time. An all Lancaster force concluded the series on the 8/9th, by which time eleven thousand buildings had been destroyed, five and a half thousand people had been killed, and a further 350,000 had been rendered homeless. Gelsenkirchen again escaped much of the destruction intended for it on the 9/10th, and 77 Squadron registered its first loss for two weeks when JD126 was shot down by flak over Holland, and F/S Morrison and his crew were all killed. Although two more operations would be mounted to the region at the end of the month, the Ruhr campaign had now effectively run its course, and Harris could look back over the past five months with some genuine satisfaction at the performance of his squadrons. Much of Germany's industrial heartland lay in ruins, and although losses had been grievously high, the factories and training schools had more than

kept pace, and even allowed for a gradual expansion to take place. With confidence high, Harris now sought to deliver a knockout blow against one of Germany's major cities, in a short, sharp series of raids until the job was done. In the meantime, Halifaxes made up over half of a 350 strong force which devastated Aachen on the 13/14th, destroying almost three thousand buildings, and Halifaxes went alone to the Peugeot motor works at Montbéliard in southern France on the 15/16th, and inflicted heavy casualties on the civilian population.

Having been spared by the weather from hosting the first Thousand Bomber raid in May 1942, Hamburg suited Harris's criteria perfectly for Operation Gomorrah. As Germany's second city, its political status was undeniable, and as the centre of U-Boat production, it also ranked high in industrial terms. There were, however, other considerations of an operational nature, which made Hamburg an attractive proposition, not least of which was its proximity to a coastline for navigation purposes, and its accessibility without the need to traverse large tracts of enemy territory. It was also possible to reach in the few hours of darkness afforded by mid summer, and finally, beyond the range of Oboe, which had proved so decisive at the Ruhr, Hamburg boasted the wide River Elbe to provide good H2s returns for the navigators high above. The first operation was mounted on the 24/25th, and was attended by the first use of Window, the tin-foil backed strips of paper designed to swamp the nightfighter, searchlight and gun-laying radar with false returns. Almost eight hundred aircraft took off in the late evening, and 728 of them arrived in the target area to deliver 2,300 tons of bombs in a fifty minute period. The marking was slightly misplaced, and an extensive creep-back developed, but damage was severe in a swathe of destruction from the centre across the north-western districts along the line of approach, and out into open country, where a proportion of the bombing was wasted. The effects of Window had reduced losses on the outward flight to a few aircraft which were off track, and there was an absence of the usually efficient co-ordination between the searchlights and flak batteries in the defence zone around the city. A very modest twelve aircraft failed to return, in what was a most encouraging start to the campaign. On the following night, Harris switched his force to Essen to take advantage of the bodyblow dealt to the enemy defensive system by Window, and another outstandingly successful attack resulted, which left almost three thousand houses in ruins, and extensive damage to the Krupps works. 77 Squadron's JD320 suffered the failure of both starboard engines within minutes of taking off, and having returned immediately to Elvington, crashed while trying to land, although without injury to Sgt King and his crew. JB838 was among those failing to make it home after the raid, and was shot down by a nightfighter onto the island of Schouwen in the Scheldt Estuary, without survivors from the crew of F/O Matheson.

A night's rest preceeded the next round of Operation Gomorrah, for which almost eight hundred crews were briefed on the 27th. Taking off again between 22.00 and 23.00 hours, the crews headed towards a city which had been turned into a tinderbox by a period of unusually hot and dry weather, and the consequences of their actions over the succeeding few hours was both unprecedented and unforeseeable. The Pathfinders again failed to locate the planned aiming point, but dropped their markers with great concentration into the densely populated working class districts of Hamm, Hammerbrook and Borgfeld two miles to the east. The main force followed up with uncharacteristic accuracy and almost no creep-back, and delivered 2,300 tons of bombs into this relatively small area. The individual fires joined together to



form one giant conflagration, which sucked in oxygen from surrounding areas at hurricane velocity to feed its voracious appetite, uprooting trees, and flinging them bodily into the inferno, where temperatures exceeded one thousand degrees Celcius. Only when all the combustible material had been consumed did the flames subside, by which time forty thousand people had perished, on top of the fifteen hundred who had died three nights earlier. On the following morning, a mass exodus began which took over a million people out of the tortured city. Two nights later, a force of similar size returned to Hamburg, and for the third time, the Pathfinder marking was inaccurate, and fell a little to the south of the area of devastation caused by the firestorm. Despite the creep-back, which caused bombs to fall here, much new damage was inflicted on other residential districts, and the exhausted emergency services were powerless to deal with the new large areas of fire. As the Luftwaffe began to recover from the setback of Window, the bomber losses began to rise, seventeen on the night of the firestorm, and twenty eight on this night, among which was the squadron's JB956, which fell to a nightfighter over Germany, killing the eight man crew of F/S Sutton. On the following night, a force of under three hundred aircraft devastated Remscheid in an operation which brought down the final curtain on the Ruhr campaign.

Hamburg's ordeal ended on the night of the 2/3rd of August with a highly scattered and ineffective raid, caused largely by violent electrical storms encountered by the crews en-route, which persuaded many of them to bomb alternative targets or jettison their bombs. This raid apart, it had been a frighteningly successful offensive against a single city, and it had sent shock waves to rock the foundations of Nazi confidence. 77 Squadron's contribution to the battle had been seventy three sorties for the loss of just one Halifax, the second lowest casualty rate in the Group. (The Battle of Hamburg. Martin Middlebrook). With Italy now teetering on the brink of capitulation, Bomber Command embarked on a short campaign against its major cities to help nudge it over. 4 Group was not involved in the first operation on the 7/8th, but earlier in the day, 77 Squadron's W1141 was damaged beyond repair in a landing accident in the hands of Sgt brown and crew, who were training at the time. Mannheim suffered the destruction of or serious damage to over thirteen hundred buildings on the 9/10th, and this was followed by an effective assault on Nuremberg twenty four hours later. JD167 failed to return from the latter, having been accounted for over Belgium by a nightfighter, and P/O Hobbs and his crew were killed. 4 Group entered the Italian campaign on the 12/13th, when joining the Lancaster Groups at Milan. It was a successful raid which cost just three aircraft, among them JD125, which crashed on French soil without survivors from the crew of W/O Clinch.

Since the start of hostilities, intelligence had been filtering through concerning German research into rocket technology. It gradually became clear that the centre for this activity was at Peenemünde, an island on the Baltic coast, and the region began to attract regular reconnaissance flights. Churchill's chief scientific adviser, Professor Lindemann, or Lord Cherwell as he became, steadfastly refused to accept the feasibility of rocket projectiles, even when presented with a photograph of a V-2 at Peenemünde taken by a PRU Mosquito in June 1943. In the event, it took the combined urgings of Duncan Sandys and the brilliant scientist Dr R V Jones to convince Churchill of the need to act, and an operation was planned for the first available opportunity. This arose on the night of the 17/18th, and a complex plan was

drawn up to deal with the various sections of the establishment. There were three specific targets involved, the housing estate, the factory and the experimental site, each of which was assigned to a wave of bombers, with the Pathfinders charged with the responsibility of shifting the point of aim accordingly. The whole operation was to be overseen by a Master of Ceremonies, and the officer selected was G/C Searby, the commanding officer of 83 Squadron. It was essential to destroy the target at the first attempt, and bombing would, therefore, be conducted from medium level to ensure accuracy, while a spoof raid by eight Mosquitos of 139 Squadron would take place at Berlin to hopefully attract the nightfighters. 77 Squadron's contribution was twenty one Halifaxes led by S/Ls Duder and Badcoe in JD301 and JD413 respectively, and take-offs began shortly after 21.00 hours. The force of 596 aircraft was a somewhat depleted maximum effort caused by the late return from Italy that morning of a proportion of the Stirling brigade, and they could not be made ready in time to participate. They would have joined the rest of the 3 and 4 Group crews, who were briefed to attack the housing estate where the scientists and workers lived, while 1 Group dealt with the factory in phase two, and finally 5 and 6 Groups the experimental site.

The initial marking of the housing estate went awry, and some target indicators fell onto the forced workers camp at Trassenheide, a mile and a half beyond, inevitably attracting some bomb loads. Trapped in their wooden barracks, the friendly foreign national inmates suffered heavy casualties before the correct aiming point was established, and once this was done, the operation proceeded more or less according to plan. The spoof at Berlin was successful in delaying the arrival on the scene of the enemy nightfighters, and it was mostly the 5 and 6 Group aircraft which were in the target area at this time. The nightfighters began to take a heavy toll of bombers, both in the skies over Peenemünde, and on the route home towards Denmark, a number of them using their Schräge Musik upward firing cannons for the first time, and in all, forty aircraft failed to return. Back at Elvington, just one Halifax was missing, JD324, and its fate, along with that of the crew of Sgt Shefford has never been determined. The operation was sufficiently successful to delay the development programme of the V-2 by a number of weeks, and ultimately, flight testing was moved eastwards into Poland.

Harris had long believed that Berlin held the key to ultimate victory. As the seat and the symbol of Nazi power, its destruction would have a greater effect on German morale than that of any other target. Harris had stated, that with the support of the American 8th Air Force, he could "wreck Berlin from end to end", and thereby win the war without the need for the kind of bloody and protracted land campaigns that he had personally witnessed during the Great War. The Americans, however, were committed to victory on land, and would not accompany Harris to Berlin, but he, undaunted and as adamant as ever, would not be denied, and would wage war against the Capital alone. Before the first operation took place, a force of four hundred Lancasters and Halifaxes sprayed bombs all over the Ruhr when trying to hit Leverkusen on the 22/23rd. The Berlin offensive, a series of operations which, with an autumn break, would take the Command through to the following spring, began on the night of the 23/24th, when over seven hundred aircraft were involved. The attack was the most effective to date against the "Big City", with more than two and a half thousand buildings destroyed or seriously damaged, but many outlying communities were also afflicted, and this

would be a feature of raids throughout the campaign. Losses on this night amounted to a new record high of fifty six aircraft, among which were three from Elvington, all of which came down in Germany. Sgt Baxter and four of his crew were killed in BB238, while the two survivors were captured, P/O Massie and two of his crew died when JD379 was hacked down by a nightfighter, and there were just two survivors from the eight man crew of S/L Wright in JD465. This was the start of a sustained period of losses for 77 Squadron, which would see twenty crews go missing by the end of the first week in October.

A scattered and only partially effective attack was delivered on Nuremberg on the 27/28th for the loss of thirty three aircraft, eleven of each type, and for the second raid running, the disproportionately high percentage casualties among the Stirling element gave rise to concern. Two of the missing Halifaxes were from 77 Squadron, and both contained eight man crews. JD371 was brought down by a nightfighter over Belgium, and all three survivors from the crew of P/O Brannigan ultimately evaded capture. Flak was responsible for the demise of JD383, and the three survivors from the crew of P/O Byrne were soon in captivity. The twin towns of Mönchengladbach and Rheydt were pounded to 50% destruction on the 30/31st at a cost of twenty five aircraft, 77 Squadron represented on this occasion by JD460, which crashed in the target area, killing F/O Goulding and three others of his crew. A return to Berlin was made by six hundred aircraft on the last night of the month, and very modest damage was the scant compensation for the loss of forty seven aircraft. It was another bad night for 77 Squadron and Elvington, where there were three more empty dispersals on the following morning, and three more eight man crews to mourn. There was just one survivor from the crew of P/O Gawler in JB851, three from F/L Wilson's in JD413, one of whom succumbed to his injuries a few days later, and two from JD418, which had contained the crew of F/S Chester, and all three pilots were among the dead.

It was an all Lancaster heavy force which concluded the current round against Berlin on the 3/4th of September. This raid produced some useful industrial damage, but in the absence of the more vulnerable Halifaxes and Stirlings, twenty two Lancasters were lost. A devastating blow was delivered on the twin cities of Mannheim and Ludwigshafen on the 5/6th, but it was another example of a success gained at a high cost. Thirty three aircraft failed to return home, and the attrition rate afflicting 77 Squadron showed no signs of letting up. JB839 contained the eight man crew of F/O Mathers, a holder of the CGM, and there were no survivors, and JB970 fell to a nightfighter in the target area, killing F/L Hamblyn and three of his crew. Twenty four hours later, DT793 and JD405 failed to return from an inconclusive raid on Munich, and there were no survivors from the crews of P/O Munns and F/O Clifford respectively. A period of minor operations followed until the 15/16th, when a predominately Halifax and Stirling force from 3, 4, 6 and 8 Groups successfully dealt with the Dunlop Rubber factory at Montluçon in central France. On the following night, the same Groups tried and failed to bomb the railway yards at Modane in southern France, but at least the losses on both nights were light. A series of four raids on Hanover over the next four weeks began on the 22/23rd, when over seven hundred crews were briefed. The Pathfinder markers did not fall as intended into the centre of the city, and a proportion of the bombing was wasted. Twenty six aircraft were missing from this operation, including two more from 77 Squadron, and again there were no survivors. F/O Erickson's JB850 crashed in Germany, and flak



accounted for F/S Stuart's LW224 at the Dutch coast, and sent it crashing into the Waddensee. Mannheim was pounded for the second time during the month on the 23/24th, and some of the bombing spilled over the Rhein into Ludwigshafen. JD301 was the 77 Squadron representative among the thirty two downed bombers, Sgt Grant dying along with three of his crew. Later on the 24th, JD162 crash-landed at Elvington during a training sortie in the hands of Sgt Brown and his crew, but there were no injuries to report. The second of the Hanover series followed on the 27/28th, and this produced concentrated bombing which, unfortunately as far as the success of the operation was concerned, was five miles north of the city centre, and fell largely into open country. This disappointment was compounded by the loss of thirty eight aircraft, and inevitably, 77 Squadron was again represented. LW228 was lost without trace with the crew of F/L Shelton, but the crew of P/O Hallam survived to a man by abandoning a stricken LW265 to its fate, and falling into the arms of their captors. The month ended with an accurate and destructive Oboe led raid on Bochum on the 29/30th, and this time, the losses were restricted to nine aircraft.

September had been a tough month for the squadron, and October began in similar vein. The first outing for the Halifaxes was to Kassel on the 3/4th, when they were the most numerous type in a mixed force of over five hundred aircraft. Difficulties with the marking saved the city from more severe damage than it sustained, but an eastern suburb was destroyed by fire, two important aircraft factories were damaged, and some western districts were also hit. Twenty four crews paid the price, and the two missing from Elvington boded ill for the rest of the month. DT807 crashed on German soil, and Sgt Cracknell and four of his crew died in its wreckage, while LW269 went down in the target area, and Sgt Bailey and his crew all perished. As events were to demonstrate, the month would be relatively kind to the squadron, and it would be more than two weeks before the next crews were posted missing. The first really effective raid of the war on Frankfurt left eastern districts and the docks area in flames on the 4/5th, and the third raid in the series on Hanover proved to be an outstanding success, which left extensive damage in all parts of the city, and almost four thousand buildings in ruins. Neither operation resulted in loss to 77 Squadron, which welcomed a new commanding officer on the 12th. W/C Roncoroni was a veteran of the battle for France in the early summer of 1940, when he was serving as a flight commander with 57 Squadron. It seems that he had been away from the operational scene for most if not all of the intervening period, but was destined to remain at the helm of 77 Squadron through the Command's most critical period.

Lancasters concluded the mini campaign against Hanover on the 18/19th, and it was only when the Command went back to Kassel on the 22/23rd that the Halifaxes returned once more to the fray. This was one of the war's most devastating raids, which left over four thousand apartment blocks in ruins, and almost seven thousand more damaged, while the death toll exceeded six thousand people. The defenders fought back to shoot down forty three bombers, and this target again claimed two from 77 Squadron. F/L Needham and three of his crew survived the destruction of JB856 over Germany to fall into enemy hands, but F/O Barber and his crew were all killed in JD121. There were no further operations for the heavy brigade during the remainder of the month, and the November account was opened at Düsseldorf on the 3/4th. Almost six hundred aircraft took off, and all but eighteen returned home from what was a moderately successful attack. A nightfighter shot down JD321 over

Holland, killing the eight man crew of P/O Jones, while S/L Badcoe and his crew narrowly escaped a similar fate in JD385, but after inspection the Halifax was declared to be beyond economical repair. Before the resumption of the Berlin campaign in mid month, just one further operation involved Halifaxes, this by 124 of the type against railway yards at Cannes on the 11/12th. It was not a successful attack, and a few dozen French civilians were killed by stray bombs.

It was on the night of the 18/19th that the long and rocky road to Berlin was rejoined by an all Lancaster force numbering over four hundred. Meanwhile, far to the south, a predominately Halifax and Stirling contingent carried out a diversionary raid on Mannheim, and destroyed over three hundred buildings, a figure which exceeded the damage at the Capital. The diversion did succeed in minimizing the Lancaster losses, however, and only nine failed to return, while twenty three were missing from Mannheim. 77 Squadron registered the loss of JD247, which crashed in France after suffering engine problems, and W/O Charlesworth and one other of his crew were killed. Of the five who parachuted to safety, two ultimately evaded capture. Halifaxes made up two thirds of the force of over 250 aircraft which were despatched to Leverkusen on the following night, but difficult weather conditions and Oboe equipment failures contributed to just one bomb falling within the target area. After a two night break, a maximum effort raid took place on Berlin, which turned out to be the most destructive of the war on this target. Large areas of the city from the centre westwards were engulfed in flames, and three thousand houses were destroyed along with two dozen industrial premises. Two thousand people lost their lives, and a further 175,000 were rendered homeless at a cost to the Command of twenty six aircraft. LW290 fell victim to the defences, and there was just one survivor from the crew of F/S Smart. Having arrived back over Yorkshire, F/L Lynehan's LW264 collided with a 102 Squadron Halifax making for Pocklington, and both aircraft plunged into the ground without survivors. Twenty four hours later, an all Lancaster main force returned to the Capital and, guided by the fires still burning, gained another major victory. An all Halifax main force went to Frankfurt on the 25/26th, but failed to deliver a telling blow, and while the Lancasters targeted the "Big City" on the following night, 150 Halifaxes with Pathfinder Lancasters in support carried out a scattered diversionary raid on Stuttgart. 77 Squadron's LW267 survived an encounter with a nightfighter, but was so badly damaged during the engagement that it was declared a write off on return to base.

December began for the Lancaster squadrons with another trip to Berlin on the 2/3rd, and they were joined by the Halifax brigade for a successful assault on Leipzig twenty four hours later. DT730 failed to return on this night with the eight man crew of P/O Caseley, and it was later learned that it had crashed in Germany with just one survivor. This was the last major operation for the Halifaxes until the final third of the month, but in the meantime, LL122 crashed in Yorkshire while training on the 9th, and P/O Forest and four of his crew lost their lives. This was the first Mk V Halifax to be written off by the squadron, but the next operation accounted for two more on the 20/21st. The target on this night was Frankfurt, and while the operation did not proceed precisely as intended, over four hundred houses were destroyed and almost two thousand more were damaged. It was a good night for the defenders, however, who claimed forty one of the bombers, including two from 77 Squadron. Five men escaped with their lives from LL121, but P/O Howard and the other member of his

crew were killed, and S/L Bickerdike perished with four of his crew after a nightfighter despatched LL125 over Belgium, but one of the survivors evaded capture. The disproportionately high Halifax casualty rate on this operation was noted at Bomber Command HQ, particularly in the light of the withdrawal of the vulnerable Stirlings from duties over Germany a month earlier. The year ended with over seven hundred aircraft raiding Berlin on the 29/30th, the first of what would be three attacks on the Capital over a five night period spanning the turn of the year. The operation achieved only modest results for the loss of twenty aircraft, none of which was from 77 Squadron. It had been a good year for the Command generally, but a tough one for 77 Squadron, punctuated by frequent multiple losses. The new improved Mk III Halifaxes had now entered service with a few squadrons, but 77 and a number of other units would have to soldier on with the Merlin powered version for some time to come, and they would suffer the inevitable consequences.

## 1944

It was to be a year of contrasts for 77 Squadron, characterized by heavy losses during the first half, and only a handful during the second six months. The Lancaster squadrons were to bear the brunt of the Berlin offensive, as they had since the resumption in November, and it was they which opened the new year's account on the 1/2nd and 2/3rd. Both operations were a major disappointment and cost a combined total of fifty five aircraft, while doing little to dampen the irrepressible spirit of the population, who were proud to declare themselves Berliners first and Germans second. Like their counterparts in London during the blitz of 1940, they bore their trials cheerfully and resolutely, and carried banners through the streets which proclaimed, "You may break our walls but not our hearts." Other than for minor operations and mining sorties, the Halifax squadrons were not called into action until the 20/21st, when Berlin was the target for over seven hundred aircraft. Much of the bombing fell into the previously less afflicted eastern districts, and substantial damage occurred, but the Halifaxes again took a beating from the defences, and represented almost two thirds of the losses. The operation had got off to a bad start at Elvington, when F/S Smith had failed in his attempt to abort the take-off in LL128, and the Halifax had come to grief before being consumed by fire, although happily, without crew casualties. Less fortunate were their colleagues in HR946, which took F/L Surplice and six of his eight man crew to their deaths.

Worse was to come on the following night, however, when Magdeburg was the objective for over six hundred aircraft. The first nightfighters infiltrated the bomber stream before it even crossed the German coast, and the two forces remained in contact all the way to the target. Three 77 Squadron Halifaxes went down within sight of Magdeburg, LW233 and LL190 both definitely falling victim to nightfighters. All of those on board the former, with the exception of the pilot, F/O Garlette, escaped with their lives to become guests of the Reich, but S/L Farmery died with five of his crew in the latter. There was similarly only one survivor from the crew of F/S Lyon in JD471, and finally, F/O Footitt's LK730 crashed in Germany with total loss of life. There was not even the consolation of a successful operation to temper the new record loss of fifty seven aircraft, and it was again the Halifaxes which suffered the greater numerical and percentage casualties. The final concerted effort to destroy Berlin took place at the end of the month, with an unprecedented three raids in four nights, begun by the



Lancaster brigade on the 27/28th. After a modestly successful outcome, they were joined by the Halifaxes on the following night to inflict substantial property damage, but also to waste a large number of bomb loads on outlying communities. The nightfighters scored the majority of their success inside the Berlin defence zone, and contributed massively to the destruction of forty six bombers. Again more than half of them were Halifaxes, and again 77 Squadron was well represented among them. HR841 had the misfortune to collide with a nightfighter over Germany, and F/S Duncan and his crew died in the ensuing crash. F/S Walker's LK709 likewise crashed without survivors, but a total of seven men prevailed from the other two 77 Squadron aircraft. F/S Pettigrew and five others became POWs after flak brought down their LK711 near Berlin, and LK729 produced a single survivor from the crew of P/O Webster. A predominately Lancaster force completed the current series against Berlin on the 30/31st, and although the Capital had been sorely wounded, it was not wrecked from end to end, and continued to function as the seat of government. Two more operations would take place on Berlin in isolation over the next two months, but effectively the campaign was now over.

Inhospitable weather and the moon period helped to keep most of the Command on the ground for the first two weeks of February, but this gave an opportunity to rest and replenish, to the extent that when it next took to the air in numbers, on the 15/16th, for what turned out to be the penultimate raid of the war on Berlin by RAF heavy bombers, it smashed a number of records. The 891 aircraft which took off represented the largest ever non-1,000 force, and it was the first time that five hundred Lancasters and three hundred Halifaxes had operated together. Those which reached the target delivered a new record 2,600 tons of bombs, much of it to good effect within the built-up area of the city, destroying a thousand houses and hundreds of temporary wooden barracks. Outlying communities again received their share of stray bombs, and the defences claimed forty three bombers, of which three were from 77 Squadron. LW341 went into the Baltic, while LK726 and LL244 both crashed on German soil, and there was not a single survivor from the crews of W/O Edmonds, F/O Bodden and Sgt Blewett respectively. More than eight hundred crews were briefed on the 19th for a raid that night on Leipzig, and taking off either side of midnight, they headed towards the greatest disaster to afflict the Command thus far. Enemy nightfighters were waiting at the Dutch coast, and having infiltrated the bomber stream, they remained with it all the way to the target, scoring steadily. Wrongly forecast winds led to some aircraft arriving too early in the target area, and about twenty of these were brought down by the local flak as they orbited ahead of the Pathfinders. The operation itself was inconclusive, and when all the aircraft which were going to return home had done so, there was an unbelievable shortfall of seventy eight, a new record loss by a clear twenty one aircraft. It was unthinkable that 77 Squadron might escape such carnage with its past record, and indeed, four of its fourteen participating crews were posted missing. F/L Ellis and crew were lost without trace in LL143 on this, the thirtieth and last operation of their tour, and there were no survivors either from the crew of W/O Dunlop, whose LL184 crashed into the sea off the Dutch coast. In contrast, F/L Thomas and his crew all survived the destruction of HR949, and one of them even managed to evade capture, while three men parachuted into captivity from the crew of F/S Dalzell after LL239 was shot down by a nightfighter over central Germany. Although the Lancaster losses were numerically higher, in percentage terms the older marks of Halifax had proved themselves to be too vulnerable, and they were now withdrawn from operations over Germany.

This dictate would remove three of 4 Groups premier units from the line, 10, 77 and 102 Squadrons, the others having by now converted to the Hercules powered Mk III. It would mean them missing the raids to Stuttgart, Schweinfurt and Augsburg on the 20/21st, 24/25th and 25/26th respectively, the last two mentioned employing the new tactic of splitting the force into two waves two hours apart. They would also be absent from the two further attacks on Stuttgart on the 1/2nd of March and the 15/16th, but in-between, they would fire the opening salvoes in the pre-invasion campaign against the French railway system under the Transportation Plan. 261 Halifaxes of 4 and 6 Groups carried out the first of these interdiction raids at Trappes on the 6/7th, and inflicted severe damage on the railway yards and its installations. On the following night, the railway yards at Le Mans underwent similar treatment, although on this occasion, a few dozen French civilians were killed by stray bombs. Over two hundred Halifaxes returned to this target on the 13/14th, and destroyed fifteen locomotives and eight hundred wagons, while damaging a station and two nearby factories. While a force of eight hundred aircraft went to Stuttgart on the 15/16th, 130 Halifax and Stirling crews claimed a successful attack on the railway yards at Amiens, while losing three of their number. Both of the missing Halifaxes were from 77 Squadron, and both fell in France, with no survivors from the crew of F/L Edwards in LK667, and just one from the crew of F/L Spicer in LL229. 130 aircraft returned on the following night, and this time there were no losses.

Two massive and catastrophic blows fell on Frankfurt on the 18/19th and 22/23rd, without the participation of 77 Squadron, of course, but its aircraft joined other Halifaxes and Stirlings of 3, 4 and 6 Groups to bomb railway yards at Laon on the 23/24th. LL130 failed to return from this operation, and no trace was ever found of it or the crew of F/O Reynolds. On the 24/25th, the final raid of the war by the heavy brigade on Berlin, and the nineteenth since the campaign began in August, was mounted by over eight hundred aircraft, and it developed into another disaster for the Command, which registered the loss of seventy two aircraft. 77 Squadron participated in seven of the raids on the Capital, despatching 134 sorties for the loss of fifteen aircraft missing and one crashed. This shared with 158 Squadron the highest number of aircraft lost in 4 Group, but the highest percentage losses at 11.2%, and the highest casualty figure of ninety six men killed, belonged exclusively to 77 Squadron. (The Berlin Raids. Martin Middlebrook). Some compensation was gained for Berlin at Essen forty eight hours later, however, when over seventeen hundred houses were destroyed, and dozens of industrial buildings were seriously damaged. In between, a mixed force including the older Halifaxes failed in a bid to destroy the railway yards at Aulnoye on the 25/26th. The final operation of the winter offensive was directed at Nuremberg on the 30/31st, and as the direct result of a disputed 5 Group inspired route and some freakish meteorological conditions, it surpassed all previous disasters, and cost the Command ninety five aircraft missing, and many more written off in crashes or with battle damage.

With the winter offensive now consigned to the past, the entire Command could now be pitched into the pre-invasion softening up programme begun by 3 and 4 Groups during March. Such operations would be in marked contrast to those endured over the past eight months, and would require of the crews a far greater commitment to accuracy to avoid civilian casualties, although this would prove to be an impossible quest. Despite the grievous

losses over the winter, the Command was in remarkably fine fettle to face its new challenge, and Harris was able to succeed where his predecessor had failed, in dividing his forces to effectively hit multiple targets in a single night. The sheer numbers available to Harris of genuinely heavy bombers enabled him to assign targets to individual Groups, to Groups in tandem, or to the Command as a whole as operational requirements dictated, secure in the knowledge that each force had the capacity to destroy its target at the first attempt. Railways, fuel and ammunition dumps, airfields and coastal defences were to be the principal targets for the foreseeable future, but city-busting would never be entirely shelved in favour of other considerations while Harris was at the helm, and as operational dictates allowed, he would pursue his favoured policy.

Officially from the 14th of April, Bomber Command became subject to the requirements of SHAEF, and would remain thus shackled until the Allied ground forces were sweeping towards the German frontier, but 4 Group got into the action on the 9/10th when contributing to raids on the Lille-Delivrance goods station, and railway yards at Villeneuve-St-George. Both were successful raid in terms of damage to buildings and installations, and two thirds of the rolling stock was destroyed at the former, but massive casualties were inflicted on the local population as five thousand houses were hit by stray bombs here, and four hundred at the latter. 4 Group sent 150 Halifaxes to bomb the railway yards at Tergnier on the 10/11th, and returned there with elements of 3 and 8 Groups on the 18/19th, when colateral damage was again a problem. 4 Group provided all the heavy bombers for an attack on railway yards at Ottignies on the 20/21st, before contributing to two raids on the 22/23rd. An area attack on Düsseldorf fell mainly into the northern districts, and destroyed two thousand houses, while a two wave attack on the railway yards at Laon caused severe damage. 77 Squadron's LK710 was shot down by a nightfighter over France during the course of the latter, the squadron's first loss for a month, and S/L Bond was killed, while five of his crew managed to evade capture. On the following night, a large mining effort in the Baltic cost five aircraft, and two of the four missing Halifaxes were from 77 Squadron. Both were sent crashing by nightfighters onto Danish islands, four men from the crew of F/S Sykes in LW270 surviving to evade capture, while the pilot and two others were killed, and just one man escaped with his life from the crew of F/L Thompson in LL235. A busy end to the month required the Group to send aircraft to Karlsruhe on the 24/25th, an operation which was partially successful, Essen and Villeneuve-St-George on the 26/27th, Aulnoye and Montzen on the 27/28th, and Achères on the night of the 30th, the last four mentioned all against railway targets.

May began as April finished with an attack on railway yards at Malines on the 1/2nd, when civilian housing was again hard-hit, and it was a similar story at Mantes-la-Jolie on the 6/7th. On the 9/10th, seven coastal batteries were attacked in the Pas-de-Calais to maintain the deception concerning the invasion, and five railway yards in France and Belgium were targeted on the 10/11th. The Group was involved in mainly small scale operations during the mid month period, and on the 15th, 77 Squadron bade farewell to Elvington, which was to be taken over on the following day by the first of two French Halifax squadrons, No 346. The process of converting onto Mk III Halifaxes began for 77 Squadron soon after its arrival at its new home at Full Sutton, and many of its Mk Vs would find their way back to Elvington to be



taken on charge by 346 Squadron. The final loss of a 77 Squadron Merlin powered Halifax, and the first casualty from Full Sutton, came on the 22/23rd, during a predominately 4 Group raid on railway yards at Orleans. Just one aircraft was lost, and that was LL138, which crashed in France killing four of the crew outright, while a fifth succumbed to his injuries a month later. The pilot, W/O Haworth, and one other were the only survivors, and they were taken into captivity. Two railway yards at Aachen were attacked by four hundred aircraft from all but 5 Group on the 24/25th, when colateral damage inflicted substantial damage on the town itself, and then 4 Group took part in a two wave attack on railway yards at Trappes on the last night of the month.

The first week of June was dominated by the last minute preparations for the invasion, and a hundred aircraft of 4 Group were assigned to the signals listening station at Ferme-d'Urville on the night of the 1/2nd. It was not a successful attack, and it was left to 5 group to complete the job two nights later. Elements of 1, 4 and 8 Groups went to railway yards at Trappes on the 2/3rd, while others attacked coastal batteries in the Pas-de-Calais. Coastal batteries occupied elements of 1, 4, 5, 6 and 8 Groups on the 4/5th, one of which was in Normandy, and on D-Day Eve, over a thousand aircraft were aloft to drop five thousand tons of bombs onto ten sites. Briefed to attack the one at Maisy, 77 Squadron's NA511 suffered engine failure, and crash-landed at base six minutes after take-off, injuring P/O Baldwin and his entire crew. This was the first Mk III to be written off by the squadron, but the second one in two days time had far more serious consequences. In the meantime, another thousand aircraft attacked communications targets on the approaches to the beachheads on D-Day night, and smaller forces were similarly employed over the next two nights. It was shortly after 02.00 hours on the 8th when P/O Hyde and his crew began their take off in MZ701 for a training sortie. An engine failed at the critical moment, and the Halifax crashed back to earth killing all on board. Airfields were the main objectives for the 9/10th, to prevent their use by the enemy to bring up reinforcements, and then it was back to railways on the 10/11th and 11/12th.

A new oil campaign began at Gelsenkirchen on the 12/13th, when the Nordstern plant was severely damaged by elements of 1, 3 and 8 Groups. 4 Group was not involved in the evening attacks on Le Havre on the 14th, in which most of the enemy's fast, light marine craft were put out of action, but an element from the Group was present during a raid on enemy troop positions near Caen that night, and also on railway installations elsewhere. Boulogne was pounded on the 15th by elements of 1, 4, 5, 6 and 8 Groups in a further purge on marine craft which might threaten Allied supply ships serving the Normandy beachhead, and later that night, 4 Group carried out a raid on an ammunition dump at Fouillard without loss. A second new campaign, this one against flying bomb launching and storage sites in the Pas-de-Calais began on the 16/17th at the hands of four hundred aircraft drawn from all but 3 Group. A simultaneous operation at Sterkrade/Holten provided 4 Group with the opportunity to become involved in the oil campaign, along with elements from 1, 6 and 8 Groups. The attack was hampered by bad weather, and little useful damage was inflicted, and this disappointment was compounded by the loss of thirty one aircraft. Twenty two of these were Halifaxes, and it was an unmitigated disaster for 77 Squadron, which lost seven of the twenty three Halifaxes it had despatched. MZ698 crashed in Holland, killing F/L Wodehouse and four of his crew, while

MZ711 came down in the target area after F/L Goodman and all but one of his crew had parachuted to safety. MZ715 exploded over Holland throwing clear the only survivor from the crew of P/O Crain, and F/S Blair and his crew all perished in the wreckage, also on Dutch soil, of NA508. A similar fate befell NA524, although F/O Shaw and his entire crew at least managed to escape with their lives, one of them evading capture, but NA545 went into the sea off the Dutch coast, taking with it P/O Bird and his crew. Finally, MZ705 was forced to ditch off the Suffolk coast after an encounter with a nightfighter, which was itself seen to be on fire, and P/O Judd and his crew were all rescued safely.

On the following night, ninety 4 Group Halifaxes carried out an attack on a railway target at St-Martin-l'Hortier, and on the 22nd it was a daylight raid on a V-weapon store at Siracourt. 77 Squadron had twice been to Laon during the current campaign, and on each occasion had lost an aircraft and all or part of a crew. It happened again on the 22/23rd, when MZ702 crashed in the English Channel, and only one member of Sgt Thomson's crew survived to be rescued. A number of flying bomb sites were targeted by daylight on the 25th, including one at Montorgueil which was assigned to 4 Group. Returning crews claimed an accurate attack, but two were absent from debriefing, one of them that of 77 Squadron's F/S Stevens, and the other from 102 Squadron. It transpired that the former's LL549 had collided in the air with MZ753, and both had plunged into the ground in the Pas-de-Calais with no survivors. This unhappy month had not yet done with the squadron, claiming its final victim during a 4 Group raid on railway yards at Blainville on the 28/29th. MZ748 crashed in France, killing P/O Jakeman and two of his crew, while three others evaded capture and one didn't. It was a remarkable fact, that more aircraft had been lost during June alone, than would be lost in the entire second half of the year, and the next four months were to bring just three failures to return.

The first half of July was dominated by the campaign against flying bomb sites, although isolated attacks on railways continued, and support was provided for the Allied ground forces around Caen on the evening of the 7th. On the afternoon of the 14th, P/O Groh and his crew took MZ768 for a training flight. During the course of it, the pilot lost control, and as the Halifax dived towards the earth, a wing was torn off, and none survived the ensuing crash in Yorkshire. Over nine hundred aircraft repeated the tactical operation around Caen on the 18th in preparation for Operation Goodwood, an armoured attack by the British Second Army. Oil and railways took a greater share of the effort as the month progressed, and the first major raid on a German urban target for two months took place on the 23/24th. A force of six hundred aircraft appeared suddenly from behind a Mandrel screen provided by 100 Group, and Kiel suffered extensive damage, particularly to its port area and shipyards. On the following night, a three raid series began on Stuttgart, by the end of which, its central districts would be in ruins.

August was also dominated by attacks on flying bomb related targets, but further support was given to the ground forces in the Normandy area on the 7/8th. Oil, railways and fuel dumps continued to attract attention, and then on the 12/13th, Brunswick was selected as the objective for a trial raid, to ascertain the ability of main force crews to locate and identify an aiming point on their own H2s, without the assistance of the Pathfinders. Brunswick had



always proved to be a difficult target at which to achieve concentrated bombing, and this night was no exception. In return for a scattered and only modestly effective raid, the defenders claimed twenty seven aircraft, and 77 Squadron registered its only loss of the month. The errant Halifax was MZ347, which crashed in Germany with no survivors from the crew of P/O Young. On the 14th, eight hundred aircraft took part in daylight attacks on German troop positions ahead of the Canadian forces advancing on Falaise, and it was on this occasion that thirteen soldiers were killed by friendly bombs. In preparation for his new night offensive against Germany, Harris launched a thousand aircraft by daylight on the 15th, to bomb nine nightfighter airfields in Holland and Belgium. The offensive would gain momentum in October, but Stettin, Kiel, Bremen, Rüsselsheim, Darmstadt and Königsberg were among the urban centres targeted during the second half of August. The final operations against flying bomb sites took place on the 28th, and within days, the Pas-de-Calais was in Allied hands.

The main focus during September was the clearing of enemy resistance from the French ports of Le Havre, Boulogne and Calais, which were desperately needed by the Allies to supply the ground forces and keep the advance mobile. Forces were sent to attack enemy positions around Le Havre on six occasions between the 5th to the 11th, 4 Group involvement coming on the 9th, 10th and 11th, after which the German garrison surrendered to British forces. Also on the 11th, three oil refineries were attacked under the umbrella of a fighter escort, 4 Group assigned to the Nordstern plant at Gelsenkirchen. Münster was subjected to a daylight area attack by a hundred Halifaxes of 4 group on the 12th, which left its southern districts engulfed in a sea of flames. MZ935 failed to return to Full Sutton, and it was later ascertained that the Halifax had crashed in Germany, killing F/O Cave and two of his crew, while the four survivors were now guests of the Reich. This was to be 77 Squadron's only loss of the month, and it would be more than six weeks before the next one occurred. On the 15th, W/C Roncoroni concluded his long spell in Command, and he was replaced by W/C Clark. That night, 4 Group was involved in a heavy raid on Kiel, and it also participated in the daylight attack on enemy strong points around Boulogne on the 17th, which precipitated its return to Allied control shortly afterwards. The assault on enemy positions around Calais began on the 20th, and continued on the 24th, 25th, 26th, 27th, before culminating on the 28th, after which the garrison surrendered to Canadian forces. It would be some time before these badly damaged ports could be made serviceable, and a request was made to 4 Group to ferry supplies of motor fuel to the Continent. Accordingly, for eight days from the 25th, 77, 102, 346 and 347 Squadrons carried between them thousands of jerrycans to Melsbroek airfield in Belgium, containing a total of almost 432,000 gallons.

A new Ruhr campaign began at Dortmund on the 6/7th of October, in the absence of 4 Group, but it provided 250 Halifaxes for a force of 350 aircraft which bombed the small town of Cleves on Germany's border with Holland later on the 7th. This, and the simultaneous bombing of nearby Emmerich, was to hamper any advance by enemy forces towards the exposed Allied right flank following the failure of Operation Market Garden. What would be a rare failure for the period was an attack on Bochum by elements of 1, 4, 6 and 8 Groups on the 9/10th, but its time would come early in the following month. Operation Hurricane was conceived as a demonstration to the enemy of the overwhelming superiority of the Allied Air

Forces ranged against it. It was unleashed by a thousand aircraft on an unsuspecting Duisburg at breakfast time on the 14th, and 4,500 tons of bombs rained down onto the already heavily damaged city. That night, similar numbers returned to press home the point about superiority, while Brunswick finally succumbed to a devastating assault by 5 Group. The final operation of the war against Wilhelmshaven took place on the 15/16th, and on the 23/24th, the Hurricane force paid the first of two visits to Essen, culminating in a mid afternoon attack on the 25th, after which, this once proud centre of war production lost its status. Cologne's turn came on the 28th, 30/31st and 31/1st, and further massive damage was inflicted on the Rheinland Capital.

November began with the Hurricane force raiding Düsseldorf on the 2/3rd, in an orgy of destruction which laid waste to or seriously damaged five thousand houses. It cost the Command nineteen aircraft, including 77 Squadron's MZ829, which crashed in Belgium with no survivors from the crew of F/O Pike. The Hurricane force left four thousand buildings destroyed or seriously damaged at Bochum on the 4/5th for the loss of twenty three Halifaxes and five Lancasters, five of the former coming from 346 Squadron at Elvington. It was the turn of Gelsenkirchen and its oil plants on the 6th, when seven hundred aircraft caused widespread damage, and then there was little for 4 Group to do until the 16th, when the small German towns of Düren, Jülich and Heinsberg were earmarked for destruction to cut communications behind enemy lines ahead of the American advance towards the Rhein. 4 Group was assigned to the second mentioned along with 6 Group, and massive damage was inflicted on all three targets. In the event, the American push foundered in difficult ground conditions, and proceeded only slowly. 77 Squadron's MZ750 was the only failure to return from Jülich, having crashed onto Allied held territory after the crew had taken to their parachutes. All nine men on board landed safely, F/L Beadle and four of his crew on the Allied side of the front, and the remaining four on the enemy side, and they were rounded up and sent to Germany for processing. Thereafter during the month, 4 Group was involved in a scattered raid on Münster on the 18th, a failure at Sterkrade on the 21/22nd, and a destructive raid on Essen on the 28/29th. During the course of the last mentioned, the squadron's MZ923 was struck by friendly bombs, and sustained damage which forced P/O Smith and his crew to part company with it over Belgium, and this they did safely, landing in Allied territory. Over five hundred aircraft of 1, 4, 6 and 8 Groups went back to Duisburg on the last night of the month, and remarkably, still found sufficient houses intact to destroy five hundred and seriously damage eight hundred more.

The same Groups opened their December account at Hagen on the 2/3rd, and they succeeded in destroying or seriously damaging eighteen hundred buildings, including numerous factories, at which months of production was lost. The town of Soest, just to the north of the by now famous Möhne Dam, suffered the destruction of a thousand houses at the hands of the same Groups again on the 5/6th. Twenty four hours later, they carried out a modestly effective attack on Osnabrück, from which the squadron's MZ428 failed to return, and was lost without trace with the highly experienced crew of S/L Egan-Wyer. The last heavy night raid of the war on Essen was delivered by five hundred aircraft drawn from 1, 4 and 8 Groups on the 12/13th, and as well as inflicting further substantial damage on the Krupps works, seven hundred houses were destroyed. MZ470 crash-landed at Full Sutton on return, but F/O

Murrell and crew emerged unscathed. There were also no injuries arising from an incident at Manston, where MZ336 crashed on return from Duisburg at breakfast time on the 18th, F/O Robinson and crew walking away unhurt. This was the final casualty in a year which had begun disastrously both for the Command and for 77 Squadron. Both had risen phoenix-like from the ashes of the winter campaign, and 77 Squadron had enjoyed a remarkable second six months of the year, losing just four complete crews to enemy action, and part of another. Despite the German breakout in the Ardennes, the outcome of the war was not in doubt, the only question was how long the tenacious and proud enemy could hold out against the inevitable. A new commanding officer, W/C Forbes, had been installed on the 21st, and he would see the squadron through to the end of hostilities.

## 1945

The New Year began with 4 Group failing to find the mark at a benzol plant at Dortmund on the 1/2nd, but it was a different story twenty four hours later at Ludwigshafen and nearby Oppau, where I G Farben chemicals factories were the principal objectives. Both were severely damaged, and there was remarkably little effect on nearby residential areas. MZ335 crashed immediately on becoming airborne when an engine burst into flames, but F/S Muggeridge and his crew were unhurt. Over six hundred crews of 1, 4, 6 and 8 Groups were briefed for the difficult target of Hanover on the 5/6th, and although the scale of destruction was commensurate with the effort expended, the defences demonstrated that they were by no means a spent force, and thirty one bombers failed to return. 77 Squadron posted missing its first crew of the year as a result of this operation, that of F/O Fitzgerald, who alone survived the destruction of MZ360 over Germany. Other operations involving the Group were at Hanau on the 6/7th, when 90% of the town was destroyed, Saarbrücken on the 13/14th, a Luftwaffe fuel storage depot at Dülmen on the 14/15th, Magdeburg on the 16/17th, Gelsenkirchen on the 22/23rd and the Stuttgart area on the 28/29th, none of which cost the squadron a crew. Earlier in the month, however, on the 12/13th, MZ812 failed to return from a mining sortie in the Baltic, and F/L Braund and his crew were lost without trace, and MZ321 crashed in Yorkshire after its starboard outer caught fire on the 13th, although this time the crew captained by W/C Forbes escaped serious injury.

After such a dramatic reduction in losses over the past seven months, and with the end now in sight, February brought a sharp reminder that much still remained to be done. In a busy but inauspicious start to the month, the Group joined elements of 6 and 8 Groups to raid Mainz on the 1/2nd, but failed to inflict more than superficial damage, and fared no better when attempting to hit the oil refinery at Wanne-Eickel twenty four hours later. A third failure occurred at Bonn on the 4/5th, while a second element from the Group caused only minor damage at the Nordstern refinery at Gelsenkirchen on the same night. The frontier town of Goch was the target for over four hundred aircraft from 4, 6 and 8 Groups on the 7/8th, and suffered extensive damage before the Master Bomber called a halt to proceedings part way through. Two Halifaxes were lost as the result of a single incident, and one of them was the squadron's MZ689, which was involved in a collision close to the German/Belgian frontier with NP973 of 158 Squadron as they turned away from the target with their bombs still on board. The latter fell on German soil with three survivors, but F/S Muggeridge and his seven



colleagues in the former all died in the wreckage of their aircraft in Belgium. A further attempt by elements of 4, 6 and 8 Groups to hit the refinery at Wanne-Eickel on the 8/9th was another disappointment, and bad weather was largely responsible for an inconclusive attack on the Braunkohle Benzin plant at Böhlen on the 13/14th. The only missing aircraft from the 368 despatched was the 77 Squadron Halifax MZ803, which crashed in Germany with no survivors from the crew of F/S Simmons. This was the night on which the Lancaster squadrons carried out the two phase attack on Dresden under the Churchill inspired Operation Thunderclap series, and inflicted upon it a firestorm, which killed between 50,000 and 135,000 people. On the following night, while a 4 Group element joined aircraft from 1, 3, 6 and 8 Groups to continue Operation Thunderclap with a disappointing raid on Chemnitz, MZ924 failed to return from a mining effort in the Kadet Channel, having crashed off the Danish coast, and F/L Braund and his crew were killed. It will be recalled that his brother had been lost in similar circumstances almost exactly one month earlier. Four raids were mounted against the town of Wesel on consecutive days from the 16th, with particular attention being paid to the railway installations. 4 Group's involvement came on the 17th, but was brought to a premature halt by cloud. A highly effective attack on the Rhenania-Ossag oil refinery at Reisholz in Düsseldorf was delivered by Halifaxes and Lancasters of 4 and 6 Groups on the 20/21st, and all production at the plant was halted. On the following night, Worms was the target for a predominately Halifax force of over three hundred aircraft, and there was massive destruction of housing, which left well over half of the population homeless, and the town's industry was also hard hit. 77 Squadron's NP967 was one of ten missing Halifaxes, but F/O Brennan and four of his crew abandoned the stricken bomber before it crashed in the target area, and they survived to be taken prisoner. A similar number of Halifaxes raided Essen on the 23rd, when most of the bombs fell within the Krupps complex, and thereafter during the month, the Group took part in raids on a synthetic oil refinery near Kamen on the 24th and Mainz on the 27th.

March was to be the penultimate month of the bombing war, and it would bring 77 Squadron's final casualties. The last RAF raid of the war on Cologne took place in the late morning of the 2nd, and four days later it fell to American forces. A predominately 4 Group return to Kamen on the 3/4th ended the plant's production for the remainder of the war, but returning crews ran into the Luftwaffe's Operation Gisella, a concerted intruder operation, which succeeded in bringing down twenty bombers, including eight 4 Group Halifaxes. 77 Squadron's NR210 was attacked near the airfield, knocking out the intercom, putting the rear turret out of action and slightly wounding its occupant, but a crash-landing was made at the second attempt by F/O Gaddes, without further casualties. Over seven hundred aircraft made amends for the previous month's failure at Chemnitz, by inflicting severe fire damage on its central and southern districts on the 5/6th, but a mainly Halifax assault on the Deutsche Erdöl refinery at Hemmingstedt fell wide of the mark on the 7/8th. The Group was involved in an attempt to hit U-Boat yards in Hamburg on the 8/9th, and in the largest raid of the war to date, by 1,079 aircraft on Essen on the 11th, and this proved to be the final RAF attack on this much bombed target. The new record was short lived, and survived only until the following day, when 1,108 aircraft took off to attack Dortmund, and this was a record which would stand to the end of hostilities. Although the Barmen half of Wuppertal had been all but destroyed at the end of May 1943, 4 Group helped to heap more misery upon it on the 13th,

and provided most of the aircraft for a successful attack on the town area of Homberg on the 14/15th, to prevent enemy reinforcements from passing through it. Later on the 15th, the Group carried out a daylight raid on the Mathias Stinnes benzol plant at Bottrop, and the single failure to return was 77 Squadron's RG507, one of its recently delivered Mk VI Halifaxes, but F/L Kilpatrick and all but one of his crew survived, to fall into enemy hands. As events were to prove, this was the squadron's penultimate loss, the final one coming just a few days later with an area attack on Witten by three hundred aircraft drawn from 4, 6 and 8 Groups on the 18/19th. The operation did not begin promisingly for F/O Marsh and the squadron when RG501 suffered an undercarriage collapse while taxiing to the take-off point, but the raid itself was a huge success, destroying 62% of the town's built-up area. RG529 was one of six Halifaxes, one Lancaster and a Mosquito which failed to return, and F/L Ward and his crew were posted missing. With the enemy retreating on all fronts, its urban areas in ruins and certain defeat looming, it was not a good time for a bomber crew to parachute onto German soil, and the above mentioned seven men paid the ultimate price for their misfortune at the murderous hands of their captors. On the 21<sup>st</sup>, RG541 careered off the runway when the starboard outer engine failed during landing after a training sortie, and the Halifax finished up on fire in a ditch, but F/O Kerslake and his crew emerged unscathed, if not unshaken.

For the remainder of the month and during April, the squadron participated in the final operations against Germany's oil industry and transport system, and went to war for the last time on the afternoon of the 25th, when almost five hundred aircraft of 4, 6 and 8 Groups pounded gun positions on the Frisian island of Wangerooge, which were barring the Allied approach to the north German ports. The operation was not successful, but in the grand scale of things, it didn't matter, and an operation later that night by 5 Group turned out to be the last of the war by the heavy brigade. Twelve days later, on the 7th of May, 4 Group left Bomber Command to take up transport duties, and in July, 77 Squadron began to trade in its mighty Halifaxes for less imposing Dakotas. 77 Squadron was a mainstay of 4 Group for most of the war, with just a short detachment to Coastal Command, and was one of those squadrons which pioneered night operations over Germany, and paved the way for the other Groups. It soldiered on with the less effective Mk V Halifax longer than most, and suffered consistently heavy losses for its pains. Within two months of re-equipping with the much improved Mk III, it entered a period of minimal losses, which it maintained until the end of the war. 77 Squadron's fine record of service, and its contribution to victory, stand as a tribute to all who served with it, whether in the air or on the ground.



## STATIONS

<b>DRIFFIELD</b>	25.07.38. to 15.04.40.
<b>KINLOSS</b>	15.04.40. to 04.05.40.
<b>DRIFFIELD</b>	04.05.40. to 28.08.40.
<b>LINTON-ON-OUSE</b>	28.08.40. to 05.10.40.
<b>TOPCLIFFE</b>	05.10.40. to 05.09.41.
<b>LEEMING</b>	05.09.41. to 06.05.42.
<b>CHIVENOR</b>	06.05.42. to 05.10.42.
<b>ELVINGTON</b>	05.10.42. to 15.05.44.
<b>FULL SUTTON</b>	15.05.44. to 31.08.45.

## COMMANDING OFFICERS

<b>WING COMMANDER J BRADBURY DFC</b>	20.02.39. to 01.11.39.
<b>WING COMMANDER C H APPLETON</b>	01.11.39. to 01.06.40.
<b>WING COMMANDER J C MACDONALD DFC</b>	01.06.40. to 14.08.40.
<b>WING COMMANDER G T JARMAN DFC</b>	14.08.40. to 21.05.41.
<b>WING COMMANDER D P HANAFIN DFC</b>	21.05.41. to 09.09.41.
<b>WING COMMANDER D O YOUNG AFC</b>	09.09.41. to 02.12.41.
<b>WING COMMANDER D C T BENNETT</b>	02.12.41. to 14.04.42.
<b>WING COMMANDER J R A EMBLING</b>	14.04.42. to 03.12.42.
<b>WING COMMANDER A E LOWE MBE DFC</b>	10.12.42. to 12.10.43.
<b>WING COMMANDER J A RONCORONI DFC</b>	12.10.43. to 15.09.44.
<b>WING COMMANDER D W S CLARK DFC</b>	15.09.44. to 21.12.44.
<b>WING COMMANDER J D R FORBES DFC AFC</b>	21.12.44. to 07.07.45.

## AIRCRAFT

<b>WHITLEY III</b>	11.38. to 10.39.
<b>WHITLEY V</b>	09.39. to 10.42.
<b>HALIFAX II</b>	10.42. to 11.42.
<b>HALIFAX V</b>	11.42. to 12.42.
<b>HALIFAX II</b>	12.42. to 05.44.
<b>HALIFAX III</b>	05.44. to 03.45.
<b>HALIFAX VI</b>	03.45. to 08.45.

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# **SECTION 2**



# **OPERATIONAL RECORD**

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## OPERATIONAL RECORD

OPERATIONS	SORTIES	AIRCRAFT LOSSES	% LOSSES
486	5379	131	2.4

### CATEGORY OF OPERATIONS

BOMBING	MINING	OTHER
443	27	16

### WHITLEYS

OPERATIONS	SORTIES	AIRCRAFT LOSSES	% LOSSES
239	1687	56	3.3

### CATEGORY OF OPERATIONS

BOMBING	LEAFLET	RECONNAISSANCE
223	13	3

### HALIFAXES

OPERATIONS	SORTIES	AIRCRAFT LOSSES	% LOSSES
247	3692	75	2.0

### CATEGORY OF OPERATIONS

BOMBING	MINING
220	27



# TABLE OF STATISTICS

(Heavy squadrons)

22nd highest number of overall operations in Bomber Command.

19th highest number of sorties in Bomber Command.

26th highest number of aircraft operational losses in Bomber Command.

## **Out of 30 Halifax squadrons.**

(Excluding SD).

8th highest number of Halifax overall operations in Bomber Command.

7th highest number of Halifax sorties in Bomber Command.

8th highest number of Halifax operational losses in Bomber Command.

## **Out of 24 squadrons in 4 Group.**

5th highest number of overall operations in 4 Group.

5th highest number of sorties in 4 Group.

7th highest number of aircraft operational losses in 4 Group.

## **Out of 6 Whitley squadrons in 4 Group.**

Highest number of Whitley overall operations in 4 Group.

3rd highest number of Whitley sorties in 4 Group.

Highest number of Whitley operational losses in 4 Group.

## **Out of 15 Halifax squadrons in 4 Group.**

7th highest number of Halifax overall operations in 4 Group.

7th highest number of Halifax sorties in 4 Group.

7th highest number of Halifax operational losses in 4 Group.

# SECTION 3



# AIRCRAFT LISTING

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## 77 SQUADRON.

### WHITLEY.

To October 1942.

**K8947 KN-O** From 102Sqn. FTR from leafleting sortie to Munich 15/16.10.39.  
**K8953** From 102Sqn. To 2BAT Flt.  
**K8959** To 51Sqn.  
**K8960** To RAE.  
**K8961** Damaged beyond repair while taxiing at Buc in France on return from leafleting sortie to Essen 9.9.39.  
**K8976** From 58Sqn. To 102Sqn.  
**K8977 KN-P** From 58Sqn. To 102Sqn.  
**K8991** To 102Sqn.  
**K8992** To 102Sqn.  
**K8993** To 102Sqn.  
**K8994** To 102Sqn.  
**K8995** To 10 AGS.  
**K8996** To 102Sqn.  
**K8997** To 102Sqn.  
**K8998** To 102Sqn.  
**K9014** From 97Sqn. To 102Sqn.  
**K9015 KN-R** To 102Sqn.  
**N1347 KN-E** From 78Sqn. Ditched on return from shipping sweep in the Kiel/Oslo area 11/12.4.40.  
**N1348 KN-G** From 78Sqn twice. To RAE.  
**N1351** From 78Sqn. FTR from reconnaissance sortie to the Ruhr 27/28.3.40.  
**N1352 KN-B** From 78Sqn. Ditched on return from shipping raid to Trondheim 18.4.40.  
**N1353 KN-M** From 78Sqn. Destroyed in air raid on Driffield 15.8.40.  
**N1354 KN-L** From 78Sqn. To 10Sqn.  
**N1355 KN-X** From 78Sqn. Crashed on landing at Cottam 20.8.40.  
**N1356 KN-D** From 78Sqn. Crashed on landing in the Isle Of Man while training 8.6.40.  
**N1357 KN-H** From 78Sqn. Shot down and interned by Dutch during reconnaissance sortie 27/28.3.40.  
**N1358 KN-T** From 78Sqn. FTR from leafleting sortie in the Wilhelmshaven and Hamburg area 24/25.10.39.  
**N1362** FTR Turin 11/12.6.40.  
**N1363** To 1 AAS.  
**N1364** FTR from leafleting sortie to Frankfurt 10/11.11.39.  
**N1365** To Topcliffe.  
**N1366** FTR Mönchen-Gladbach 11/12.5.40.  
**N1367 KN-S** To 19 OTU.  
**N1368 KN-K** From 102Sqn. Crashed on landing at Driffield while training 2.4.40.

**N1371 KN-J/P** From 102Sqn. To 19 OTU.  
**N1372 KN-J/O** From 102Sqn. Crashed on approach to Abingdon following early return from operation to the French battle area 10.6.40.  
**N1373** From 102Sqn. To 19 OTU.  
**N1379** From 102Sqn. To 19 OTU.  
**N1384** FTR Cambrai 20/21.5.40.  
**N1387** Force-landed in Scotland on return from an operation to Norway 16/17.4.40.  
**N1388 KN-R** To 83Sqn and back. Ditched in North Sea during operation to Hanover 18.5.40.  
**N1390 KN-Q** From 51Sqn. To 10 OTU.  
**N1410 KN-A** To 19 OTU.  
**N1415 KN-D** From 102 Sqn. To 19 OTU.  
**N1425 KN-E** From 51Sqn. FTR Soest 18/19.9.40.  
**N1431 KN-D** Crashed on landing at Linton-on-Ouse while training 11.9.40.  
**N1432** FTR Hirson 28/29.5.40.  
**N1435 KN-O** From 58Sqn. To RAE.  
**N1473** FTR Augsburg 24/25.8.40.  
**N1474** To 10 OTU.  
**N1476** From 97Sqn. Ditched off Sussex coast on return from Wanne-Eickel 20.6.40.  
**N1493** From 19 OTU. FTR Hamburg 13/14.3.41.  
**N1501 KN-H** Destroyed in air raid at Driffield 15.8.40.  
**N1506** Destroyed in air raid at Driffield 15.8.40.  
**N1508 KN-B** Possibly burnt out at Finningley on return from Bapume 6/7.6.40. SOC 9.11.40.  
**N1521** From 97Sqn. To 58Sqn.  
**N1522 KN-G** From 97Sqn. FTR Gelsenkirchen 4/5.6.40.  
**N1524 KN-G** From 102Sqn. To 10 OTU.  
**P4938 KN-C/G** To 19 OTU.  
**P4942 KN-L** To 10 OTU.  
**P4947** Crashed on approach to Topcliffe on return from Brest 3.4.41.  
**P4948** FTR Frankfurt 29/30.6.40.  
**P4969 KN-H** From 51Sqn. To 1502BAT Flt.  
**P4985 KN-A** From 51Sqn. To 19 OTU.  
**P4989 KN-V** To 102Sqn.  
**P4992 KN-T** FTR Antwerp 18/19.9.40.  
**P5004 KN-J/U** To 10 OTU.  
**P5017** SOC 4.9.40.  
**P5023 KN-X** To 10 OTU.  
**P5042 KN-K** FTR Bremen 10/11.9.40.  
**P5044** Crashed in Hampshire on return from Bordeaux 14/15.8.40.  
**P5046 KN-O** From 102Sqn. FTR Berlin 23/24.9.40.  
**P5049 KN-H** To 3 OTU.  
**P5056 KN-Y** Destroyed in air raid at Driffield 15.8.40.



**P5091** KN-Y From 102Sqn. Crashed in Yorkshire on return from Hanau 9.10.40.  
**P5111** KN-A From Hendon. Crashed on landing at Abingdon on return from Bordeaux 28.12.40.  
**T4134** To 58Sqn.  
**T4138** KN-M/H Crashed in Yorkshire when returning from Berlin 15/16.12.40.  
**T4151** KN-M/N From 58Sqn. Ditched in off Northumberland coast on return from Milan 6.11.40.  
**T4158** KN-B To 78Sqn.  
**T4160** KN-L Ditched in the Channel on return from Turin 24.11.40.  
**T4164** KN-T From Hendon. FTR Sterkrade 15/16.2.41.  
**T4169** KN-F Crashed in Suffolk on return from Turin 24.11.40.  
**T4172** KN-R Ditched off Yorkshire coast on return from Berlin 15.11.40.  
**T4200** KN-N To 10 OTU.  
**T4205** KN-S Crashed on landing at Topcliffe on return from Mannheim 4.12.40.  
**T4206** KN-A Crashed on approach to Topcliffe on return from Stettin 15.10.40.  
**T4208** KN-O/T FTR Wesseling 12/13.11.40.  
**T4212** Crashed on take-off from Topcliffe when bound for Boulogne 31.7.41.  
**T4226** KN-J FTR Berlin 15/16.12.40.  
**T4238** KN-Y FTR Berlin 14/15.11.40.  
**T4260** KN-D From 58Sqn. To 102Sqn.  
**T4267** KN-R Crashed and burnt out 25.12.40.  
**T4279** KN-F FTR Schwerte 12/13.6.41.  
**T4292** KN-P FTR Berlin 15/16.12.40.  
**T4293** KN-E Damaged beyond repair in landing accident at Topcliffe on return from Bordeaux 28.12.40.  
**T4331** KN-Y To 10 OTU.  
**T4332** KN-Q Force-landed in Nottinghamshire while training 20.4.41.  
**T4333** KN-S To 19 OTU.  
**T4335** KN-P Force-landed in Glamorgan on return from Bordeaux 28.12.40.  
**T4336** To 102Sqn.  
**T4337** To 10 OTU.  
**T4338** KN-L FTR Berlin 17/18.4.41.  
**Z6461** KN-R FTR Hamburg 2/3.5.41.  
**Z6463** Crashed in Yorkshire on return from Cologne 1/2.3.41.  
**Z6559** Crashed on landing at Topcliffe on return from Ludwigshaven 10.5.41.  
**Z6568** KN-B Ditched in the North Sea on return from Bremen 27/28.6.41.  
**Z6570** FTR Berlin 9/10.4.41.  
**Z6578** KN-P FTR Cologne 17/18.5.41.  
**Z6582** From 10Sqn. Ditched in North Sea following early return from Berlin 17/18.4.41.  
**Z6583** Crashed in Sussex on return from Brest 4.4.41.  
**Z6585** FTR Berlin 17/18.4.41.  
**Z6628** KN-M To 19 OTU.  
**Z6629** To 161Sqn.  
**Z6630** From 10Sqn. FTR Bremen 27/28.6.41.

**Z6640** From 1484Flt. SOC 19.4.45.  
**Z6641** To 19 OTU.  
**Z6642** FTR Dortmund 6/7.7.41.  
**Z6643** Crashed in Wiltshire on return from La Pallice 24.7.41  
**Z6645** KN-N To 10 OTU.  
**Z6647** FTR Bremen 27/28.6.41.  
**Z6648** Crash-landed at Derby on return from Frankfurt 3.9.41.  
**Z6654** Crash-landed on Cromer beach on return from Hüls 7.9.41.  
**Z6668** FTR Hüls 6/7.9.41.  
**Z6671** To 10Sqn.  
**Z6740** Crashed in Warwickshire during training 6.8.41.  
**Z6743** FTR Aachen 9/10.7.41.  
**Z6751** To 502Sqn.  
**Z6752** KN-F FTR Dortmund 6/7.7.41.  
**Z6755** To 102Sqn.  
**Z6799** KN-U From 78Sqn. FTR Osnabrück 7/8.7.41.  
**Z6800** To 102Sqn.  
**Z6801** FTR Nuremberg 12/13.10.41.  
**Z6814** From 58Sqn. To 161Sqn.  
**Z6817** From 1484Flt. To 10 OTU.  
**Z6818** From 58Sqn. To 58Sqn and back. Returned to 58Sqn.  
**Z6822** KN-H To 19 OTU.  
**Z6824** FTR Hüls 6/7.9.41.  
**Z6826** FTR Frankfurt 5/6.8.41.  
**Z6827** Ditched off Yorkshire coast on return from Berlin 21.9.41.  
**Z6863** To 102Sqn.  
**Z6866** To 102Sqn.  
**Z6873** From 78Sqn. To 24 OTU.  
**Z6876** From 102Sqn. Ditched in Bay of Biscay during patrol 7.7.42.  
**Z6878** To 44Sqn.  
**Z6934** FTR Berlin 20/21.9.41.  
**Z6943** KN-A FTR Wilhelmshaven 27/28.2.42.  
**Z6950** FTR Hamburg 31.10/1.11.41.  
**Z6952** KN-P To 161Sqn.  
**Z6953** FTR Hamburg 31.10/1.11.41.  
**Z6956** KN-B FTR Düsseldorf 27/28.12.41.  
**Z6975** KN-V Crashed on approach to Leeming on return from Boulogne 13.3.42.  
**Z6978** KN-P From 51Sqn. To 3 OTU.  
**Z9124** From 58Sqn. To 502Sqn.  
**Z9142** From 58Sqn. SOC 12.3.44.  
**Z9143** KN-J From 10Sqn. To PTS.  
**Z9147** Crashed on landing at Leeming on return from Stettin 30.9.41.  
**Z9148** KN-W/L To 138Sqn and back. FTR Wilhelmshaven 27/28.2.42.  
**Z9150** FTR Stettin 29/30.9.41.  
**Z9163** KN-C From 10Sqn. To 502Sqn.

**Z9209 KN-G** From 58Sqn. FTR from patrol 9.9.42.  
**Z9221** From 10Sqn. Crashed in Yorkshire on return from an abortive operation to St Nazaire 28.3.42.  
**Z9225** From 10Sqn. To 296Sqn.  
**Z9226 KN-K** From 10Sqn. FTR Düsseldorf 27/28.12.41.  
**Z9229 KN-M** From 102Sqn. Crashed in Warwickshire on return from St Nazaire 16.2.42.  
**Z9231 KN-U** Crashed at Colerne airfield on return from St Nazaire 15/16.2.42.  
**Z9280 KN-Y/K** FTR Wilhelmshaven 27/28.2.42.  
**Z9290** From 78Sqn. To 3 OTU.  
**Z9293 KN-G/D** From 102Sqn. FTR Emden 12/13.3.42.  
**Z9294 KN-X** To 10 OTU.  
**Z9297** 78Sqn.  
**Z9299** FTR Emden 30.11/1.12.41.  
**Z9302** To 78Sqn.  
**Z9306 KN-S** FTR Düsseldorf 27/28.12.41.  
**Z9309 KN-U/Y** From 78Sqn. To 24 OTU.  
**Z9312 KN-S** From 78Sqn. FTR Emden 12/13.3.42.  
**Z9317** From 58Sqn. To 3 OTU.  
**Z9321** From 102Sqn. To 10 OTU.  
**Z9322 KN-K** From 51Sqn. To 81 OTU.  
**Z9363 KN-H** FTR Rostock 23/24.4.42.  
**Z9386 KN-W** From 78Sqn. FTR Rostock 26/27.4.42.  
**Z9429** From 58Sqn. To 10 OTU.  
**Z9438 KN-S** To 161Sqn.  
**Z9440** To 10 OTU.  
**Z9461 KN-V** From 1485Flt. Shot down over North Sea during search for missing aircraft 13.8.42.  
**Z9462 KN-Y** SOC 1.1.44.  
**Z9477 KN-G** FTR from patrol 11.6.42.  
**Z9480** To 42 OTU.  
**Z9515 KN-H** FTR from shipping strike off Brittany 2.9.42.  
**AD695** From 24 OTU. To 53Sqn.  
**AD698KN-R** Crashed on Lundy during patrol 1.6.42  
**AD708** To 10 OTU.  
**AD711** From 58Sqn. To 10 OTU.  
**BD195KN-M** To 78Sqn.  
**BD202** To 161Sqn.  
**BD223** To 10 OTU.  
**BD228** To 161Sqn.  
**BD252** To 1484Flt.  
**BD253** To 1484Flt.

**HALIFAX.****From October 1942.**

<b>W1141KN-H</b>	From 35Sqn. Crashed on landing at Elvington while training 7.8.43.
<b>W1157KN-U</b>	From 158Sqn. FTR Krefeld 21/22.6.43.
<b>W1180</b>	To 76Sqn.
<b>W1183</b>	To 78Sqn.
<b>W7813KN-C</b>	From 76Sqn. FTR Düsseldorf 25/26.5.43.
<b>W7856</b>	From 78Sqn. To 1658CU.
<b>BB238 KN-Y</b>	From 76Sqn. FTR Berlin 23/24.8.43.
<b>BB244</b>	To 78Sqn.
<b>BB247</b>	To 78Sqn.
<b>BB248</b>	To 10Sqn.
<b>BB252</b>	To 10Sqn.
<b>BB284</b>	From 76Sqn. To 1668Sqn.
<b>BB366</b>	From 158Sqn. To 10Sqn.
<b>BB380</b>	Crashed on take-off from Elvington while training 11.5.43.
<b>BB427</b>	To 10Sqn.
<b>DG250</b>	To 518Sqn.
<b>DG251</b>	To 518Sqn.
<b>DG270</b>	To 1662CU.
<b>DG273</b>	SOC 28.12.44.
<b>DG274</b>	To 518Sqn.
<b>DG275</b>	To 1660CU.
<b>DG276</b>	To 1663CU.
<b>DG278</b>	To 1664CU.
<b>DG279</b>	To 518Sqn.
<b>DJ980</b>	To 1664CU.
<b>DJ981</b>	To 518Sqn.
<b>DJ982</b>	To 1664CU.
<b>DJ983</b>	To 1663CU.
<b>DJ984</b>	To Bircham Newton.
<b>DJ985</b>	To 518Sqn.
<b>DJ986</b>	To Bircham Newton.
<b>DT555</b>	From 78Sqn. Crashed on take-off from Elvington while training 4.1.43.
<b>DT563</b>	To 76Sqn.
<b>DT564</b>	To 158Sqn.
<b>DT567</b>	To 158Sqn.
<b>DT568</b>	From TFU. To 51Sqn.
<b>DT578</b>	From 78Sqn. To 1658CU.
<b>DT579</b>	To 158Sqn.
<b>DT581</b>	To 51Sqn.
<b>DT582</b>	To 51Sqn.
<b>DT583</b>	To 158Sqn.
<b>DT584</b>	To 51Sqn.

<b>DT585</b>	To 158Sqn.
<b>DT588</b>	To 102Sqn.
<b>DT612</b>	To 1658CU.
<b>DT618</b>	To 1658CU.
<b>DT625</b>	Crashed in Yorkshire while training 20.12.42.
<b>DT626</b>	To 51Sqn.
<b>DT628</b>	To 51Sqn.
<b>DT629</b>	To 419Sqn.
<b>DT631 KN-E</b>	Crashed while landing at Elvington during training 29.12.42.
<b>DT632 KN-Z</b>	FTR Duisburg 12/13.5.43.
<b>DT637</b>	To 158Sqn.
<b>DT643 KN-V</b>	To 1654CU.
<b>DT645</b>	To 51Sqn.
<b>DT649</b>	To 51Sqn.
<b>DT666 KN-F</b>	To 51Sqn.
<b>DT670</b>	To 51Sqn.
<b>DT671</b>	To 158Sqn.
<b>DT685</b>	To 51Sqn.
<b>DT700 KN-U</b>	From 158Sqn. FTR Mülheim 22/23.6.43.
<b>DT730 KN-B</b>	From 51Sqn. FTR Leipzig 3/4.12.43.
<b>DT734 KN-J</b>	FTR Munich 9/10.3.43.
<b>DT736 KN-M</b>	To 1652CU.
<b>DT751</b>	To 76Sqn.
<b>DT793 KN-E</b>	FTR Munich 6/7.9.43.
<b>DT796 KN-D</b>	FTR Duisburg 26/27.4.43..
<b>DT807 KN-R</b>	FTR Kassel 3/4.10.43.
<b>EB204</b>	From 76Sqn. To 1663CU.
<b>HR714 KN-K</b>	From 102Sqn. FTR Stettin 20/21.4.43.
<b>HR723</b>	From 35Sqn. To 1666CU.
<b>HR732</b>	To 51Sqn.
<b>HR841 KN-T</b>	From 35Sqn. FTR Berlin 28/29.1.44.
<b>HR932</b>	From 78Sqn. To 346Sqn.
<b>HR935 KN-Q</b>	From 51Sqn. To 346Sqn.
<b>HR946 KN-X</b>	From 51Sqn. FTR Berlin 20/21.1.44.
<b>HR947</b>	From 102Sqn. To 1658CU.
<b>HR949 KN-H</b>	From 51Sqn. FTR Leipzig 19/20.2.44.
<b>HX240</b>	From 466Sqn. To 102Sqn.
<b>JB781 KN-W</b>	To 1652CU.
<b>JB783 KN-N</b>	FTR Essen 30.4/1.5.43.
<b>JB788</b>	To 466Sqn.
<b>JB793</b>	To 419Sqn.
<b>JB795 KN-H</b>	FTR Munich 9/10.3.43.
<b>JB803 KN-G</b>	FTR Essen 30.4/1.5.43.
<b>JB804 KN-Q</b>	FTR Stettin 20/21.4.43.
<b>JB837 KN-D</b>	FTR Düsseldorf 25/26.5.43.



**JB838** KN-U FTR Essen 25/26.7.43.  
**JB839** KN-K FTR Mannheim 5/6.9.43.  
**JB842** KN-E FTR Berlin 29/30.3.43.  
**JB846** KN-L FTR Essen 30.4/1.5.43.  
**JB847** KN-V FTR Duisburg 8/9.4.43.  
**JB849** Crashed on landing at Elvington while training 18.3.43.  
**JB850** KN-V/E FTR Hanover 22/23.9.43.  
**JB851** KN-J FTR Berlin 31.8/1.9.43.  
**JB852** KN-G FTR Krefeld 21/22.6.43.  
**JB853** To 1658CU.  
**JB856** KN-T/G FTR Kassel 22/23.10.43.  
**JB863** KN-V Crashed in Yorkshire soon after take-off from Elvington when bound for Le Creusot 19.6.43.  
  
**JB865** KN-J Crashed in Yorkshire on return from Duisburg 13.5.43.  
**JB892** KN-E FTR Bochum 13/14.5.43.  
**JB908** KN-W FTR Pilsen 16/17.4.43.  
**JB911** KN-X To 1658CU.  
**JB919** From 405Sqn. To 1658CU.  
**JB956** KN-O FTR Hamburg 29/30.7.43.  
**JB963** From 405Sqn. To 1674CU.  
**JB970** KN-Q/U FTR Mannheim 5/6.9.43.  
**JD110** KN-P To 301FTU.  
**JD121** KN-O FTR Kassel 22/23.10.43.  
**JD123** KN-A From 405Sqn. To 51Sqn.  
**JD125** KN-A From 51Sqn. FTR Milan 12/13.8.43.  
**JD126** KN-C FTR Gelsenkirchen 9/10.7.43.  
**JD152** KN-Z FTR Essen 27/28.5.43.  
**JD162** KN-H Crash-landed at Elvington while training 24.9.43.  
**JD167** KN-Z FTR Nuremberg 10/11.8.43.  
**JD168** KN-T FTR Düsseldorf 11/12.6.43.  
**JD205** KN-Y FTR Krefeld 21/22.6.43.  
**JD213** KN-V FTR Mülheim 22/23.6.43.  
**JD247** KN-H FTR Mannheim 18/19.11.43.  
**JD301** KN-L FTR Mannheim 23/24.9.43.  
**JD302** To 51Sqn.  
**JD313** To 1662CU.  
**JD320** KN-C Crashed at Elvington soon after take-off for Essen 25.7.43.  
**JD321** KN-G FTR Düsseldorf 3/4.11.43.  
**JD324** KN-U FTR Peenemünde 17/18.8.43.  
**JD371** KN-O To 429Sqn and back. FTR Nuremberg 27/28.8.43.  
**JD378** To 102Sqn.  
**JD379** KN-M FTR Berlin 23/24.8.43.  
**JD383** KN-H FTR Nuremberg 27/28.8.43.  
**JD385** KN-C Damaged beyond repair during operation to Düsseldorf 3/4.11.43.  
**JD405** KN-Z FTR Munich 6/7.9.43.

**JD413** KN-G FTR Berlin 31.8/1.9.43.  
**JD418** KN-A FTR Berlin 31.8/1.9.43.  
**JD421** To 102Sqn.  
**JD460** KN-D FTR Mönchengladbach/Rheydt 30/31.8.43.  
**JD461** To 51Sqn.  
**JD462** To 1658CU.  
**JD465** KN-U FTR Berlin 23/24.8.43.  
**JD471** KN-A FTR Magdeburg 21/22.1.44.  
**JD472** To 1666CU.  
**LK660** From 76Sqn. To 346Sqn.  
**LK667**KN-A From 76Sqn. FTR Amiens 15/16.3.44.  
**LK709**KN-R From 434Sqn. FTR Berlin 28/29.1.44.  
**LK710**KN-S FTR Laon 22/23.4.44.  
**LK711**KN-V FTR Berlin 28/29.1.44.  
**LK725** To 346Sqn and back. To 1663CU.  
**LK726**KN-O FTR Berlin 15/16.2.44.  
**LK727** To 1663CU.  
**LK728** To 346Sqn.  
**LK729**KN-F FTR Berlin 28/29.1.44.  
**LK730**KN-G FTR Magdeburg 21/22.1.44.  
**LK731**KN-K To 346Sqn.  
**LK737** From 76Sqn. To 346Sqn.  
**LK744**KN-Y From 76Sqn. To 346Sqn.  
**LK955** From 76Sqn. To 346Sqn.  
**LK999** From 76Sqn. To 346Sqn.  
**LL121** KN-G FTR Frankfurt 20/21.12.43.  
**LL122** KN-Y Crashed in Yorkshire while training 9.12.43.  
**LL124** To 346Sqn.  
**LL125** KN-K FTR Frankfurt 20/21.12.43.  
**LL126** KN-W To 346Sqn.  
**LL127** KN-H To 1662CU.  
**LL128** KN-C Crashed on take-off from Elvington when bound for Berlin 20.1.44.  
**LL130** KN-T From 76Sqn. FTR Laon 23/24.3.44.  
**LL131** To 346Sqn.  
**LL133** To 1663CU.  
**LL138** KN-N FTR Orleans 22/23.5.44.  
**LL143** KN-O FTR Leipzig 19/20.2.44.  
**LL184** KN-K From 76Sqn. FTR Leipzig 19/20.2.44.  
**LL190** KN-N FTR Magdeburg 21/22.1.44.  
**LL194** From 429Sqn. To 1664CU.  
**LL226** To 1667CU.  
**LL227** KN-N To 346Sqn.  
**LL229** KN-Z FTR Amiens 15/16.3.44.  
**LL234** From 76Sqn. To ECFS.  
**LL235** KN-L From 76Sqn. FTR from mining sortie 23/24.4.44.

LL237 From 76Sqn. To 346Sqn.  
LL238 To 346Sqn.  
LL239 KN-A FTR Leipzig 19/20.2.44.  
LL242 From 76Sqn. To 346Sqn.  
LL244 KN-T From 76Sqn. FTR Berlin 15/16.2.44.  
LL246 From 76Sqn. To 346Sqn.  
LL253 To 346Sqn.  
LL395 To 346Sqn.  
LL396 To 346Sqn.  
LL397 To 346Sqn.  
LL398 To 346Sqn.  
LL454 From 1667CU. Returned to 1667CU.  
LL544 KN-Y To 1658CU.  
LL545 To 1663CU.  
LL549 KN-N From 76Sqn. FTR Montergueil 25.6.44.  
LL552 To 102Sqn.  
LL555 To 102Sqn.  
LL556 To 102Sqn.  
LL557 To 102Sqn.  
LW179 To 102Sqn.  
LW191 To 102Sqn.  
LW192 To 102Sqn.  
LW195 To 102Sqn.  
LW224 KN-T FTR Hanover 22/23.9.43.  
LW227 To 51Sqn.  
LW228 KN-U FTR Hanover 27/28.9.43.  
LW233 KN-Z FTR Magdeburg 21/22.1.44.  
LW234 From 78Sqn. To 10Sqn.  
LW237 From 78Sqn. To 1658CU.  
LW241 To 102Sqn and back. To 346Sqn.  
LW260 From 158Sqn. To 1652CU.  
LW264 KN-K Collided with Halifax LW333 (102Sqn) near Pocklington on return from Berlin and crashed 22.11.43.  
LW265 KN-Y FTR Hanover 27/28.9.43.  
LW267 KN-E Damaged beyond repair during operation to Stuttgart 26/27.11.43.  
LW269 KN-T FTR Kassel 3/4.10.43.  
LW270 KN-P FTR from mining sortie 23/24.4.44.  
LW290 KN-U FTR Berlin 22/23.11.43.  
LW291 To 158Sqn.  
LW292 To 158Sqn.  
LW295 From 102Sqn. Crashed on take-off from Marston Moor 9.6.44.  
LW341 KN-D From Pocklington. FTR Berlin 15/16.2.44.  
LW469 From 578Sqn. To 1663CU.  
LW678 From 578Sqn. To 347Sqn.  
MZ298 To 102Sqn.

**MZ300** To 102Sqn.  
**MZ301** To 102Sqn.  
**MZ321 KN-Q** Force-landed in Yorkshire when bound for Saarbrücken 13.1.45.  
**MZ334**  
**MZ335 KN-A/R** Crashed immediately after take-off from Full Sutton when bound for Ludwigshafen 2.1.45.  
**MZ336 KN-R** From 102Sqn. Crashed on landing at Manston on return from Duisburg 18.12.44.  
**MZ346** From 102Sqn. To 640Sqn.  
**MZ347 KN-X/A** From 102Sqn. FTR Brunswick 12/13.8.44.  
**MZ353** To 76Sqn.  
**MZ354** To 76Sqn.  
**MZ359 KN-G**  
**MZ360 KN-A** FTR Hanover 5/6.1.45.  
**MZ393** To 640Sqn.  
**MZ396** To 462Sqn.  
**MZ397** To 192Sqn.  
**MZ428 KN-B** FTR Osnabrück 6/7.12.44.  
**MZ470 KN-F** Crash-landed at Full Sutton on return from Essen 12.12.44.  
**MZ486** To 346Sqn.  
**MZ673** From 102Sqn. To 297Sqn.  
**MZ676** From 102Sqn. To 1658CU.  
**MZ678** From 640Sqn. To 1658CU.  
**MZ689 KN-Z** From 51Sqn. FTR Goch 7/8.2.45.  
**MZ694** From 102Sqn. Returned to 102Sqn.  
**MZ695** From 102Sqn.  
**MZ697 KN-L** To 347Sqn.  
**MZ698 KN-J** FTR Sterkrade 16/17.6.44.  
**MZ699** To 102Sqn.  
**MZ700**  
**MZ701** Crashed almost immediately after take-off from Full Sutton for training flight 8.6.44.  
**MZ702 KN-Q** Crashed in the English Channel on return from Laon 23.6.44.  
**MZ703** From 158Sqn. Returned to 158Sqn.  
**MZ704** To 1658CU.  
**MZ705 KN-Q** FTR Sterkrade 16/17.6.44.  
**MZ708** From 51Sqn.  
**MZ710 KN-E** From 102Sqn. To 21 HGCU.  
**MZ711 KN-T** From 102Sqn. FTR Sterkrade 16/17.6.44.  
**MZ715 KN-Z** FTR Sterkrade 16/17.6.44.  
**MZ735** To 466Sqn.  
**MZ739** To 158Sqn.  
**MZ743** From 51Sqn. To 1658CU.  
**MZ744** To 1663CU.  
**MZ748 KN-A** FTR Blainville-sur-L'Eau 28/29.6.44.

**MZ750** KN-J Abandoned over Allied territory during operation to Jülich 16.11.44.  
**MZ765** To 51Sqn.  
**MZ766** To 51Sqn.  
**MZ767** To 51Sqn.  
**MZ768** KN-Q Crashed in Yorkshire while training 14.7.44.  
**MZ769** To 158Sqn.  
**MZ801** From 102Sqn. To 640Sqn.  
**MZ803** KN-G From 102Sqn. FTR Böhlen 13/14.2.45.  
**MZ804** From 346Sqn.  
**MZ809** From 102Sqn. To 347Sqn.  
**MZ812** KN-X From 102Sqn. FTR from mining sortie 12/13.1.45.  
**MZ827** To 102Sqn.  
**MZ829** KN-X FTR Düsseldorf 2/3.11.44.  
**MZ830** To 102Sqn.  
**MZ923** KN-N FTR Essen 28/29.11.44.  
**MZ924** KN-D FTR from mining sortie 14/15.2.45.  
**MZ935** KN-Q FTR Münster 12.9.44.  
**MZ936** To 347Sqn.  
**NA109**  
**NA233** To 158Sqn.  
**NA508** KN-A From 102Sqn. FTR Sterkrade 16/17.6.44.  
**NA511** KN-C From 102Sqn. Crash-landed at Full Sutton following early return from  
Maisy 6.6.44.  
**NA512** From 102Sqn. To 347Sqn.  
**NA515** KN-D From 102Sqn. To 347Sqn.  
**NA520** To 347Sqn.  
**NA524** KN-F FTR Sterkrade 16/17.6.44.  
**NA525** To 578Sqn.  
**NA531** To 1658CU.  
**NA544** To 1663CU.  
**NA545** KN-R FTR Sterkrade 16/17.6.44.  
**NA572** To 102Sqn.  
**NP763** From Pocklington. To 346Sqn.  
**NP767** From Pocklington. To 347Sqn.  
**NP860** From Pocklington. To 346Sqn.  
**NP921** From Pocklington. To 347Sqn.  
**NP947** From 424Sqn. To 347Sqn.  
**NP967** KN-N/Z FTR Worms 21/22.2.45.  
**NR120** From 433Sqn. To 640Sqn.  
**NR210** KN-Z From 102Sqn. Crash-landed at Full Sutton after attack by intruder on  
return from Kamen 4.3.45.  
**NR229** To 346Sqn.  
**PN175** To 347Sqn.  
**PN379** To 158Sqn.  
**PP208** To 347Sqn.



**RG346** To 466Sqn.  
**RG348** To 640Sqn.  
**RG435** To 10Sqn.  
**RG442** To 10Sqn.  
**RG443** To 10Sqn.  
**RG480**  
**RG486**  
**RG487**  
**RG488**  
**RG490** From 102Sqn. To 347Sqn.  
**RG499**  
**RG500** To 347Sqn.  
**RG501 KN-K** Undercarriage collapsed at Full Sutton while taxiing for take-off to Witten 19.3.45.  
  
**RG504**  
**RG507 KN-J** FTR Mathias Stinnes benzol plant at Bottrop 15.3.45.  
**RG508**  
**RG509** To 347Sqn.  
**RG510** To 346Sqn.  
**RG511** To 346Sqn.  
**RG512**  
**RG513** To 346Sqn.  
**RG527**  
**RG528**  
**RG529 KN-C** FTR Witten 18/19.3.45.  
**RG530**  
**RG531 KN-R**  
**RG532** To 102Sqn.  
**RG533**  
**RG534** To 347Sqn.  
**RG535**  
**RG536 KN-Y**  
**RG538**  
**RG539**  
**RG541 KN-W** Crashed on landing at Full Sutton during training 21.3.45.  
**RG542**  
**RG544**  
**RG584**  
**RG621**

#### **HEAVIEST SINGLE LOSS.**

16/17.06.44. Sterkrade. 7 Halifaxes FTR.

[www.bombercommandmuseumarchives.ca](http://www.bombercommandmuseumarchives.ca)

# **SECTION 4**



# **KEY TO ABBREVIATIONS**

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## KEY TO ABBREVIATIONS

<b>A&amp;AEE</b>	Aeroplane and Armaments Experimental Establishment.
<b>AA</b>	Anti-Aircraft fire.
<b>AACU</b>	Anti-Aircraft Cooperation Unit.
<b>AAS</b>	Air Armament School.
<b>AASF</b>	Advance Air Striking Force.
<b>AAU</b>	Aircraft Assembly Unit.
<b>ACM</b>	Air Chief Marshal.
<b>ACSEA</b>	Air Command South-East Asia.
<b>AFDU</b>	Air Fighting Development Unit.
<b>AFEE</b>	Airborne Forces Experimental Unit.
<b>AFTDU</b>	Airborne Forces Tactical Development Unit.
<b>AGS</b>	Air Gunners School.
<b>AMDP</b>	Air Members for Development and Production.
<b>AOC</b>	Air Officer Commanding.
<b>AOS</b>	Air Observers School.
<b>ASRTU</b>	Air-Sea Rescue Training Unit.
<b>ATTDU</b>	Air Transport Tactical Development Unit.
<b>AVM</b>	Air Vice-Marshal.
<b>BAT</b>	Beam Approach Training.
<b>BCBS</b>	Bomber Command Bombing School.
<b>BCDU</b>	Bomber Command Development Unit.
<b>BCFU</b>	Bomber Command Film Unit.
<b>BCIS</b>	Bomber Command Instructors School.
<b>BDU</b>	Bombing Development Unit.
<b>BSTU</b>	Bomber Support Training Unit.
<b>CF</b>	Conversion Flight.
<b>CFS</b>	Central Flying School.
<b>CGS</b>	Central Gunnery School.
<b>C-in-C</b>	Commander in Chief.
<b>CNS</b>	Central Navigation School.
<b>CO</b>	Commanding Officer.
<b>CRD</b>	Controller of Research and Development.
<b>CU</b>	Conversion Unit.
<b>DGRD</b>	Director General for Research and Development.
<b>EAAS</b>	Empire Air Armament School.
<b>EANS</b>	Empire Air Navigation School.
<b>ECDU</b>	Electronic Countermeasures Development Unit.
<b>ECFS</b>	Empire Central Flying School.
<b>ETPS</b>	Empire Test Pilots School.
<b>F/L</b>	Flight Lieutenant.
<b>Flt</b>	Flight.
<b>F/O</b>	Flying Officer.



<b>FPP</b>	Ferry Pilots School.
<b>F/S</b>	Flight Sergeant.
<b>FTR</b>	Failed to Return.
<b>FTU</b>	Ferry Training Unit.
<b>G/C</b>	Group Captain.
<b>Gp</b>	Group.
<b>HCU</b>	Heavy Conversion Unit.
<b>HGCU</b>	Heavy Glider Conversion Unit.
<b>LFS</b>	Lancaster Finishing School.
<b>MAC</b>	Mediterranean Air Command.
<b>MTU</b>	Mosquito Training Unit.
<b>MU</b>	Maintenance Unit.
<b>NTU</b>	Navigation Training Unit.
<b>OADU</b>	Overseas Aircraft Delivery Unit.
<b>OAPU</b>	Overseas Aircraft Preparation Unit.
<b>OTU</b>	Operational Training Unit.
<b>P/O</b>	Pilot Officer.
<b>PTS</b>	Parachute Training School.
<b>RAE</b>	Royal Aircraft Establishment.
<b>SGR</b>	School of General Reconnaissance.
<b>Sgt</b>	Sergeant.
<b>SHAEF</b>	Supreme Headquarters Allied Expeditionary Force.
<b>SIU</b>	Signals Intelligence Unit.
<b>SOC</b>	Struck off Charge.
<b>SOE</b>	Special Operations Executive.
<b>Sqn</b>	Squadron.
<b>TF</b>	Training Flight.
<b>TFU</b>	Telecommunications Flying Unit.
<b>W/C</b>	Wing Commander.
<b>Wg</b>	Wing.
<b>WIDU</b>	Wireless Intelligence Development Unit.
<b>W/O</b>	Warrant Officer.



# SECTION 5



# SOURCES OF INFORMATION

[www.bombay.com/mandmusemarchives.ca](http://www.bombay.com/mandmusemarchives.ca)

[www.bombercommandmuseumarchives.ca](http://www.bombercommandmuseumarchives.ca)

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# SECTION 6



# STOCK LIST

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