

**ROYAL AIR FORCE
BOMBER COMMAND**

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**SQUADRON PROFILES
NUMBER 50**



149 (EAST INDIA) SQUADRON

Fortis Nocte

RESEARCHED, COMPILED AND WRITTEN

BY

CHRIS WARD

**ROYAL AIR FORCE
BOMBER COMMAND
SQUADRON PROFILES**



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149 SQUADRON



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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) the type was used operationally by the squadron. Where a squadron has a Conversion Flight involving a type with which it is intending to re-equip, but then does not, as in the case of 101 and 460 Squadrons, these have been included, on the basis that they sometimes found themselves on operations. 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 from January 1940. Nevertheless, their service is deemed to be on behalf of Bomber Command for the purpose of the relevant Profiles, and their experiences are, therefore, detailed, and their aircraft listed. The Blenheim squadrons of the AASF are also 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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149 (EAST INDIA) SQUADRON

MOTTO **FORTIS NOCTE** (Strong by night)

Code **OJ TK**

First formed as a night bomber unit on the 3rd of March 1918, 149 Squadron moved to France in June, and conducted operations against German units in Belgium and France. It was disbanded in Ireland on the 1st of August 1919, and remained on the shelf until its reformation from B Flight of 99 Squadron at Mildenhall on the 12th of April 1937. Conversion from Heyfords to Wellingtons began on the 20th of January 1939, with the arrival on charge of L4252, L4253 and L4254. These were followed on the 24th by L4255, L4256, L4257 and L4258, and by L4249 and L4259 on the 6th of February, L4263 and L4264 on the 7th, L4265 and L4266 on the 10th, L4271 and L4272 on the 17th, and L4270 on the 9th of March. The squadron was thus the third in Bomber Command to receive the type after 99 and 38 Squadrons, and at the outbreak of the Second World War on the 3rd of September, it was one of six frontline squadrons operating within 3 Group. The commanding officer was W/C Russell, who had been in post since the 5th of January, and on the 1st of September, he presided over a complement of twenty four officers and 194 airmen, with twenty Mk I Wellingtons and three Mk IAs.

The squadron had the honour of conducting its first operation on the day that war was declared, when despatching three aircraft, in company with six from 37 Squadron, to the Schillig Roads in search of enemy warships. The section was led by the A Flight commander, S/L Dabinett, in L4254, with the crews of F/O Turner and Sgt Way in L4252 and L4264 respectively. They took off from Mildenhall at 18.35 hours, but in what was described as adverse weather conditions and approaching darkness, the objective was not reached, and they turned for home. As training to date had not dealt with the delicate subject of landing with bombs still on board, all of the crews followed orders, and jettisoned their four 500lb bombs into the sea, before touching down five minutes either side of 22.00 hours. 149 Squadron was fortunate in having two particularly fine officers as flight commanders, both of whom would achieve squadron commander status before long. S/L Dabinett would command 3 Group's 115 Squadron between July 1940 and January 1941, and 1 Group's 12 Squadron from the end of July 1942 until February 1943. The B Flight commander was S/L Paul Harris, who had served pre-war as a flight commander with 214 Squadron. In August 1940, he would take command of the newly reforming 7 Squadron, and lead it through its testing period, introducing the Stirling to operational service. On the afternoon of the 4th, eight crews set off to bomb elements of the German Navy at Brunsbüttel, led this time by S/L Harris in L4302. The other crews and aircraft were captained by F/L Duguid in L4272, F/O Riddlesworth in L4374, F/S Kelly in L4270, Sgt Heays in L4271, Sgt Harrison in L4263, F/L Stewart in L4229, and F/O Macrae in L4265. Only F/O Macrae attacked the primary target, while S/L Harris dropped his bombs in the River Eider near Tönning, and the remainder jettisoned their bombs into the sea. The above-mentioned F/L Duguid would also attain higher command later in the war, when being appointed as the commanding officer of 196 Squadron in March 1943.

What the Americans dubbed the "Phoney War" restricted operational activity at this stage of the proceedings to daylight armed reconnaissance operations in search of enemy shipping. No bombs were to be dropped on enemy territory for fear of reprisals, and ships could only be attacked if at sea, in case a stray bomb damaged civilian property. As the Command was about to learn, ships were difficult to hit, and boasted a formidable defence in the form of their own batteries, and an umbrella of fighters. The pre-war belief, that the bomber formation would always get through to its target by daylight, had not yet been tested, but when it was, it proved to be a difficult idea to dislodge from the minds of its advocates. On the 29th of September, 144 Squadron lost five Hampdens, but the warning bells did not sound. On the 30th of October, 149 Squadron despatched six crews under S/L Harris to attack enemy ships around the Frisian island of Terschelling, but found nothing, and returned to base, this time, all but one with bombs still on board. While 2, 3 and 5 Groups were engaged in this fruitless activity, the Whitley crews of 4 Group, the only crews in the Command trained in the art of flying by night, undertook long range leafleting sorties, or "nickels". In so doing, they gained invaluable experience in navigating over hostile territory in the dark, but also suffered unimaginable hardships, often spending ten hours and more aloft in their unheated aircraft.

On the 3rd of December, twenty four Wellingtons from 38, 115 and 149 Squadrons were sent to attack German warships in the Heligoland area. The 149 Squadron element of twelve was led by the new commanding officer, W/C Kellett, in N2960, he having taken up his appointment on the 6th of November, when W/C Russell was posted to No 6 School of Technical Training. Despite being intercepted by fighters, no aircraft were lost, and a 115 Squadron crew inadvertently dropped a hang-up onto Heligoland, the first RAF bomb to fall onto German soil in the war. On the 14th, 99 Squadron lost five out of twelve Wellingtons during an attack on a convoy in the Schillig Roads. Three of them fell to fighters, and one of the victims collided with a fourth Wellington, causing it also to crash into the sea, while a fifth was shot down by flak. On return, a further aircraft crashed, and most of the survivors bore the scars of battle. Still the High Command failed to give credit to the enemy fighters, and blamed poor formation flying as the major contributory factor behind the disaster. On the 18th, another twenty four Wellingtons, from 9, 37 and 149 Squadrons, were sent in search of shipping off Wilhemshaven, S/L Harris leading the Mildenhall contingent of nine aircraft in N2980. Twenty two aircraft reached the target area, and carried out an attack from 13,000 feet in clear conditions. As they turned for home, enemy fighters appeared, and a running battle ensued, in which twelve Wellingtons were shot down into the sea. The first to go down was 149 Squadron's N2962, which fell to the guns of a BF110, and dived straight in from 10,000 feet, killing the crew of F/O Speirs. N2961 was damaged in the engagement, and was ultimately ditched around fifty miles off the Norfolk coast. S/L Harris attempted to drop a dinghy, but it fouled the tailplane, and made the rest of the return journey somewhat difficult. He eventually landed safely at Coltishall, where it was discovered that the Wellington had sustained a number of bullet holes. At least three of F/O Briden's crew were observed to climb out of the ditched Wellington, but no survivors were found by the Cromer lifeboat, and two bodies were washed ashore some time later. This disaster, and that of four days earlier, had a profound effect on attitudes to unescorted daylight operations. The "Phoney War" and the arrival of a harsh winter restricted activity from this point, and allowed time for the policy makers to reconsider their options. The result of this would be effectively to commit Bomber

Command, with the exception of 2 Group, to waging war by night, but it would be some time yet before the bombing war began in earnest.

1940

The winter seemed to deepen as the year progressed, and it would be towards the end of February before it loosened its grip sufficiently to allow unrestricted operations. In the meantime, the New Year began badly for 149 Squadron, which registered its first casualties on the 2nd of January. N2943 and N2946 were part of a section carrying out reconnaissance duties over the North Sea, when they were attacked by enemy fighters. The former was seen to be despatched by a BF110, which sent it crashing into the sea in flames, and there were no survivors from the crew of F/O McBullock. Nothing was heard from the crew of Sgt Morrice in the latter, and it was, therefore, presumed to have suffered a similar fate. The first night operations by Wellingtons were leafleting sorties to Hamburg on the 11/12th. Thereafter, from February to April, the Wellington squadrons were involved in isolated shipping searches in the North Sea, and further leafleting operations, and it was the latter which precipitated the squadron's next loss. N2984 was bound for Bremen on the night of the 1/2nd of March, when it crashed in Suffolk eleven minutes after take-off, killing F/O Field and his crew. Wellingtons were not involved in the first intentional bombing of enemy territory, which took place on the 19/20th. In retaliation for the inadvertent slaying by a stray bomb of a civilian on the island of Hoy, during a Luftwaffe raid on elements of the Royal Navy at Scapa Flow, thirty Whitleys and twenty Hampdens carried out an attack on the seaplane base at Hörnum on the island of Sylt. Returning crews reported a highly successful outcome, which was enthusiastically reported by the press, but photographic reconnaissance on the 6th of April failed to detect any signs of damage. On the 23/24th, P9225 was hit by flak over the French coast while on the way home from a reconnaissance sortie, and it became necessary for F/O Turner and his crew to abandon the Wellington to its fate. All arrived safely on the ground, and returned to England two days later.

The gloves would come off in April, as German forces advanced into Scandinavia, but before this took place, P9267 crashed on approach to Mildenhall during a training flight, killing four of the occupants. F/L Griffiths-Jones and two others sustained injuries, to which a further man later succumbed. At first light on the 9th, German troops marched unopposed into Denmark, and began sea and airborne landings in southern Norway. Although Denmark was a lost cause from the outset, the British and French responded by sending a force to carry out landings at Narvik in northern Norway. Bomber Command was ordered to slow the enemy advance by attacking shipping on the route from Germany, and the airfields at Oslo, Stavanger and Trondheim, and the first sorties by 3 Group were conducted by 115 Squadron on the 11th. On the 12th, eighty three aircraft were involved in attacks on shipping at Stavanger, and this was the largest bombing operation of the war to date, and also the last major daylight effort by Wellingtons and Hampdens. In the face of a fierce fighter and flak defence, nine aircraft were lost, including two from 149 Squadron. P9246 crashed into the sea in the target area, taking with it the crew of Sgt Wheller, and P9266 was believed to have fallen victim to a BF110, and also went into the sea, killing Sgt Goad and his crew. On the 21/22nd, twelve Wellingtons attacked the airfields at Stavanger and Aalborg for the loss of one of their number. This was

149 Squadron's P9218, which crash-landed in Denmark, delivering F/O Knight and his crew into enemy hands, the first of many from the squadron to become PoWs. Operations against Norwegian airfields by the Wellington brigade continued for the remainder of the month, and that against Stavanger on the 25/26th involved 149 Squadron aircraft in an experiment. The ground crews attached small blue lights to the Wellingtons, to enable the crews to maintain visual contact with each other in cloud, but they proved impossible to see, and failed to prevent formations from becoming dispersed. By the end of the first week in May, the ill-fated Narvik expedition had already effectively failed gallantly, and shortly afterwards, events closer to home grabbed the attention of the world.

At dawn on the 10th of May, German forces began their advance through Luxembourg into Belgium and Holland, and this signaled the start of the massacre of the Battle and Blenheim squadrons of the Advanced Air Striking Force based in France, and the home-based Blenheim squadrons of 2 Group. That night, thirty six Wellingtons were despatched to attack Waalhaven airfield at Rotterdam, and returning 149 Squadron crews claimed hits on buildings, and reported fires burning. A small number of Wellingtons and Whitleys attacked a road junction west of the Rhine on the 12/13th, and eighteen of the type were involved in the Aachen area on the 14/15th. On the 15th, the War Cabinet authorized the bombing of targets east of the Rhine, and this allowed the Command to strike for the first time at Germany's industrial Ruhr. That night, ninety nine aircraft were sent to sixteen different targets, including factories at Dortmund, Cologne, Sterkrade and Castrop-Rauxel, while twelve Wellingtons and Whitleys targeted communications in Belgium. This was the first time that over a hundred aircraft had been employed in a single night. Although it was intended that 3, 4 and 5 Groups would concentrate solely on strategic targets, such was the speed of the enemy advance, that it became necessary for them to lend tactical support to the retreating British Expeditionary Force. On the 17/18th, forty six Wellingtons were sent to attack troops and communications in Belgium, and similar operations were mounted for the remainder of the month and through the Dunkerque evacuation. On the 19/20th, 149 Squadron crews bombed a bridge at Courteilles in France, and another at Namur on the 21/22nd. A marshalling yard at Givet on the Franco-Belgian border was the target on the 23/24th, on return from which, P9270 crashed in Suffolk, killing F/L Grant-Crawford and two of his crew, and injuring two others. Two nights later, bridges were attacked in the same region, and P9247 ran short of fuel. P/O Sherwood was forced to put down at Le Bourget, where he and his crew were not well received by their French hosts, and they returned home on the following day.

It seems likely that it was around this time, that W/C Kellett departed the squadron, and was replaced by W/C Whitley. The evacuation from Dunkerque was completed on the 3rd of June, and that night, the Command set a new record, by despatching 142 aircraft, most of them to urban targets in Germany, while a few Wellingtons carried out the final attacks on enemy troop positions around Dunkerque. On the 6/7th, the squadron was involved in operations against enemy troops and communications in the Arras area, and on the 8/9th, it was bridges at Abbeville. On the 10th, Italy entered the war, an eventuality which had been anticipated, and for which provision had been made. A week earlier, an order had been issued, ordering the formation of a special bombing force, made up of six Wellingtons each from 99 and 149 Squadrons, the former to be based at Salon, and the latter at Le Vallon in southern France.

The "Haddock Force" was specifically intended for operations against Italy, and flew out to prepare for a raid. The permission of the French authorities had to be gained before the operation could take place, and as this was not forthcoming, the crews returned home. That night, L7800 failed to return to Mildenhall after a raid on Soissons, and it was later established, that it had crashed into the sea, without survivors from the crew of F/O Douglas-Cooper. The French relented on the 14th, and the two squadrons flew out again for an operation on the following night. In the meantime, that night, elements of 149 and 214 Squadrons, the latter conducting its first operation, flew deep into Germany, to drop the "Razzle" incendiary device on the Black Forest. This was one of a number of weapons tried out in the early stages of the war, and was intended to destroy by fire Germany's wooded areas and crop fields. The Command would persist with Razzle for a few months, but when it failed to force the enemy to sue for peace, it was consigned to the "it was worth a try" file. On the night of the 15/16th, eight Haddock force Wellingtons set out for Genoa, but only one bombed, and on the following night, both Genoa and Milan were raided, on each occasion without loss, and the force returned to England on the 18th. On the 17/18th and 19/20th, 149 Squadron sent an element to the Ruhr, and on the 24/25th, six squadron crews participated in a raid on industrial targets in Bremen, while three others went to Kamen. On the 25th, Sgt W D G Watkins was presented with a DFM by AVM Baldwin, the 3 Group AOC. Watkins was destined to rise through the ranks, until being appointed to the command of XV Squadron in April 1944. On the 16th of November of that year, he would be the sole survivor of his crew, after being shot down during a daylight operation against Heinsberg. Eleven aircraft were detailed for attacks on airfields in Holland on the 27/28th, but one of those bound for Ostheim burst a tyre on take-off, and was forced to abort.

The father of the RAF, Viscount Trenchard, paid a visit to Mildenhall on the the 3rd of July, and then it was back to business on the 5th. Seven 149 Squadron aircraft took part in cloud-cover raids on German ports and airfields in Holland. The squadron contingent was assigned to Bremen, Wilhelmshaven and Emden, and all returned safely claiming a successful outing. Nine aircraft took off for night attacks on objectives at Bremen, Hamm and Osnabrück on the 9th, but were recalled because of worsening weather conditions. One crew failed to receive the recall, and pressed on to complete its sortie, before returning safely. Two nights later, nine aircraft joined others to attack U-Boat yards and a naval base at Bremen. L7805 failed to return to Mildenhall, and there were no survivors from the crew of P/O Torgalson. Two nights later, twelve Wellingtons were despatched, three each to Hamm, Osnabrück, Hamborn and Duisburg, where port facilities and railway yards were the objectives. The Duke of Gloucester visited the station on the 25th, and late that night, two crews were briefed to attack the airfield at the important oil town of Gelsenkirchen. Both returned safely, although one lost an engine at the Dutch coast, and was slightly damaged on landing. An aerodrome at Rottenburg was the target for nine of the squadron's aircraft on the 21/22nd, and two nights later, ten carried out a raid on Gotha, and dropped leaflets. All aircraft returned safely, but one observer was killed by enemy action during the outward journey. 166 aircraft were out and about over the Ruhr and Holland on the 25/26th, eight of them sent by 149 Squadron to attack aircraft factories at Dortmund. The squadron's final operations of the month involved nine aircraft on the 29/30th, three each to attack industrial and railway targets at Monheim, Homberg and Cologne. As invasion fever began to mount, and the Battle of Britain gained momentum

overhead, each Group was required to have designated aircraft standing by at readiness to repel boarders, and this was the duty for six 149 Squadron crews on the 31st.

The procession of visiting dignitaries continued on the 1st of August with the Duke of York, and that night, ten crews took part in a raid on industrial targets at Kamen, led by the commanding officer. All returned safely, and spent much of the next ten days on stand-by or stand-down. Ten crews were briefed on the 11th for an operation to Gelsenkirchen that night, and for Razzling and nickeling. There were no losses to the defences, but P9244 collided with a radio mast on approach to Mildenhall on return, and crashed with fatal consequences for P/O Miller and his crew. Frankfurt, Soest and Hamm were the targets for eight crews on the 13/14th, while eight crews were detailed for Koleda on the 16/17th, and two others to attack the marshalling yards at Soest. R3174 failed to return from the former with the crew of flight commander S/L Thwaites, and it was later learned that he and two others had lost their lives, and that the three survivors were in enemy hands. The first Bomber Command raid of the war on Berlin took place on the 25/26th in retaliation for the bombing of London. Approximately fifty aircraft were involved, including eight from 149 Squadron, whose crews were briefed to bomb the aerodromes. The operation destroyed a summerhouse, but more importantly, it demonstrated to the German people that Bomber Command could penetrate deep into their homeland, despite the idle boast of the Luftwaffe chief, Reichsmarschal Göring. Two nights later, six 149 Squadron Wellingtons targeted the cruiser Gneisenau at Kiel, and lost one of their number in the process. P9272 contained the crew of F/L Vaillant, all of whom survived the experience to fall into enemy hands. The month ended for the squadron with a return by ten aircraft to Berlin on the 30/31st, and all returned safely.

The Battle of Britain would reach its crescendo in mid September, and much of the Command's effort over the coming weeks would be directed at the build-up of marine craft in enemy occupied ports, in preparation for Operation Sea Lion, the planned invasion of Britain. Such operations had been undertaken throughout the summer, but now they were to take precedence. The month began for 149 Squadron, however, with a return to the Black Forest by ten aircraft with Razzles on the night of the 2/3rd. The operation was repeated by seven aircraft on the 5/6th, while a single crew attacked barges at Delfzijl. R3163 was absent from Mildenhall on the following morning, and some time later, news filtered through that F/O Burton and his crew were in captivity. Over a hundred aircraft were committed to operations on the 8/9th, some against German ports containing U-Boat yards, and others to attack barges at Boulogne and Ostend. 149 Squadron contributed eight aircraft to the assault on barges at Boulogne, and two of them failed to return. P9245 crashed into the sea off the Essex coast, and flight commander S/L Andrews and all but one of his crew went down with the Wellington. The sole survivor was the second pilot, P/O Parish, who managed to swim ashore. He would enjoy a distinguished career with 75(NZ) Squadron, before becoming a Pathfinder with 7 Squadron, and losing his life in April 1943. R3175 was also lost in the sea, and there were no survivors from the crew of P/O Leeds. On the 11/12th, nine crews were despatched to a variety of targets at Hamm, Ostend and Brussels, and this time, all returned safely home. Two nights later, nine crews carried out attacks on barges and other shipping at Antwerp, and again operated without loss. The 15/16th was a busy night, on which the main thrust was directed at the Channel ports. 149 Squadron put up nine aircraft for Calais, and a

further three for Soest, and all returned safely having completed their assigned tasks. It was similar fare on the 18/19th, when eleven 149 Squadron crews were sent to Le Havre and Flushing, and one failed to arrive back with the rest. R3160 was lost in the Channel, and it took with it to their deaths the crew of P/O Pay. Seven squadron aircraft participated in attacks on invasion craft at Dunkerque on the 21/22nd, before a major assault was mounted against Germany's Capital on the 23/24th. The eighteen separate aiming points included railway yards, power stations, gas works and factories, to which 129 aircraft were despatched, including seven from Mildenhall. 112 crews claimed to have bombed within the Berlin area, although searchlight glare and ground mist made target identification almost impossible. It was back to barge concentrations at Calais for nine crews from 149 Squadron on the 25/26th, while two others were sent on the long journey to Mannheim in southern Germany, to attack marshalling yards. The squadron's final operation of the month took place on the 28/29th, when six aircraft were sent to Hanau to attack industrial targets, while Le Havre and Soest were visited by one aircraft each. R3164 failed to return from the first mentioned, but P/O Petersen and four of his crew survived in enemy hands, while one man died.

149 Squadron opened its October account at widespread targets on the 1/2nd. Three crews were briefed for Berlin, five for Gelsenkirchen, and one each for Le Havre and Soest, and all returned safely home. From the 2nd to the 6th, the squadron was required to have six aircraft on invasion alert stand-by, at three hours readiness from dusk till dawn, and no operations were conducted during the period. The 5th brought a change of leadership for the Command, with the departure to become Chief-of-the-Air-Staff of Sir Charles Portal, and the installation of AM Sir Richard Peirse as his successor. On the 7/8th, ten 149 Squadron crews were airborne, four for the long slog to Berlin, and the remainder to continue the anti-invasion campaign at Boulogne. P/O Topham and his crew were thirty miles out over the sea in L7896, a Wellington borrowed from 99 Squadron, when they came under attack from an enemy nightfighter. The sortie was aborted, and with the undercarriage all but shot away, a belly-landing was successfully carried out at Honington, without injury to the crew, who scrambled clear before the wreckage was consumed by fire. They were more fortunate than their colleagues in P9273, which was lost without trace with the crew of P/O Furness during an operation to Herringhen on the 9/10th. Two nights later, four aircraft returned to this target, while ten went to Kiel on the 13/14th, and two others attacked industrial targets at Gelsenkirchen. Icing and low cloud hampered the night's operations, and R3212 was forced to return early with radio problems. This night's targets were revisited on the 15/16th in similar numbers, before bad weather intervened, and caused the cancellation of operations on the 17/18th and 18/19th. Eleven aircraft took off from Mildenhall for three destinations on the 21/22nd, Gelsenkirchen, Cologne and Hamburg, where the Bismarck was berthed. The importance of the German battleship was reflected in the fact, that both 149 Squadron flight commanders, S/Ls Lynch-Blosse and Griffith-Jones took part, along with F/L Cookson, in R3206, T2737, and N2775 respectively. The battleship was not hit, but eight large fires were started within the city. On the 23/24th, the squadron contributed six aircraft to Berlin, and four to Emden, and it was on return from the latter, that T2740 crashed, while F/O Donaldson was trying to make an emergency landing near the Essex coast. He and his crew emerged unscathed, he and his second pilot, P/O Woollatt, ultimately to go on to better things. Woollatt played the role of second pilot to W/C "Pick" Pickard in the propaganda and morale

boosting film, *Target for Tonight*, which was released in 1941, and featured Wellington F-Freddie. Later in the war, Woollatt would be appointed flight commander with 12 Squadron in 1 Group. For his part, F/O Donaldson was not to be feted as a film star, but he would see out the final eleven months of the war as the commanding officer of 192 Squadron in 100 Group. There were just two more nights of operations for the squadron before the turn of the month, eleven aircraft divided between the oil refinery at Leuna, and industrial targets at Bremen on the 26/27th. The largest effort on the 29/30th was reserved for Berlin, but only four of the thirty aircraft involved actually reached the target area in the face of bad weather. 149 Squadron contributed eleven Wellingtons to the Capital, and two to Wilhelmshaven, and all returned safely.

November would see the difficult weather conditions continuing, and a number of operations would be effected. 149 Squadron contributed eleven aircraft to the night's main activity at Berlin on the 1/2nd, and also sent three to Gelsenkirchen. Six aircraft were detailed for operations on the 4/5th, when Le Havre and Boulogne were the destinations, but one sortie was cancelled, and one aircraft was forced by the conditions to return early. Eighteen Wellingtons set out for Berlin on the 6/7th, seven of them from Mildenhall, but only one of the force reached its objective in the conditions. On the 8/9th, nine squadron Wellingtons headed for the marshalling yards at distant Munich, and fared better than the two crews joining a raid on Gelsenkirchen, where bad weather intervened. It was a similar story on the 13/14th, and all three operations involving 149 Squadron crews, Berlin, Gelsenkirchen and Cologne, were ruined by adverse weather. It was, at least, a good month for the squadron in terms of losses, and, in fact, only one aircraft would fail to return. This was N2774, which crashed in Germany during an operation to Berlin on the 19/20th, and there were no survivors from among the crew of P/O Hide. On the 24th, W/C Whitley was posted away from the squadron, to be replaced temporarily by flight commander S/L Heather. In the rank of Group Captain, Whitley would become station commander at Linton-on-Ouse in May 1941, a post which he retained until being shot down in a 76 Squadron Halifax in April 1943. Typically, he evaded capture, and returned to resume his RAF career, and was to see out the war as the AOC 4 Group. On the 28th, W/C Powell was appointed as the new commanding officer, a position he would retain until the following summer. That night, eight aircraft were despatched to Mannheim, two to Düsseldorf and one to Boulogne, and this concluded the squadron's operational activity for the month.

December was to be a less demanding month operationally, particularly at the start, and it was the night of the 4/5th before the squadron was first called into action. Five crews were briefed for Turin, while five others were to target Düsseldorf, along with over seventy other aircraft. Less than half reached their respective objectives as the weather played its part, but no losses were incurred by the squadron. A number of operations were planned over the ensuing two weeks, but were subsequently cancelled because of the weather. It was during this period, that R1294 crashed near the airfield during an air-test on the afternoon of the 16th, killing Sgt Lloyd, and the other six occupants. The flight had been in preparation for the night's major operation to Mannheim, which was intended as a retaliatory gesture after the recent heavy bombing of London, Coventry and Southampton. A forecast of poor weather at home reduced the numbers taking part to 134 aircraft, but this still represented the largest force yet sent to a

single target. 149 Squadron put up a creditable fourteen aircraft for the operation, which was to be led by the most experienced crews, whose bombs were supposed to start fires in the city centre. This was not achieved, and the attack was scattered, although a relatively large amount of damage for the period was inflicted on predominately residential districts. On return to base, P9268 overshot the landing in the hands of Sgt Marr, who had been second pilot on the occasion of the crash-landing of the 99 Squadron aircraft in October. Happily, as then, there were no casualties to report. During the remainder of the year, the squadron took part in an operation to the Pirelli factory at Milan on the 18/19th, a raid on Berlin on the 20/21st, and Ludwigshaven on the 23/24th. The few days after Christmas were beset by inhospitable weather, and although aircraft took off for Lorient on the 28/29th, alternative targets were bombed. It was a difficult year to categorize, having begun with the "Phoney War" and a rethink on the policy of unescorted daylight raids. Apart from 2 Group, Bomber Command had been largely untouched by the events in France, which had brought about the massacre of the AASF. The so-called heavy squadrons had gained experience in flying over hostile territory in the dark, but most of them did not have a clue where they were, to within ten to twenty miles, and many claims of success were born out of optimism. The best that could be said of Bomber Command in 1940, was that it was the only branch of the armed forces able to present a belligerent and defiant face to an as yet all-conquering enemy, and this it had done with enthusiasm.

1941

A second successive harsh winter played its part in restricting operations during January, and most of those which were mounted, targeted German and French ports. Bremen was the objective for the first three nights of January, although 149 Squadron only took part on the 2/3rd, when contributing twelve Wellingtons to a scattered and ineffective raid. Snow and bad visibility grounded the squadron from then until the 9/10th, when fourteen Wellingtons departed Mildenhall for Gelsenkirchen. Less than half of the 135 original starters claimed to have bombed as briefed, and many of these hit other Ruhr towns. Nine Wellingtons were sent across the Alps to Italy on the 12/13th, the 149 Squadron contingent led by W/C Powell. Five returned home safely, but T2807 was absent, and it later became known that Sgt Hodgson and his crew were in enemy hands. Whatever W/C Powell achieved during this operation, it was worthy of a DSO, and this was presented to him by H.M. The King at Mildenhall on the 18th, when flight commander S/L Sawrey-Cookson also received an award. The latter was destined for higher office and a premature end, and this was to come with 75(NZ) Squadron, which he would command from September, before losing his life in April 1942. On the 15th, a new Air Ministry directive alluded to an approaching critical period for Germany's oil situation, and suggested that a concerted effort against this industry would have a material effect on the enemy's war effort. A list of seventeen targets was drawn up accordingly, the top nine of which represented 80% of Germany's production capacity, but it would be February before Peirse could attempt to carry out his orders. Bad weather continued to keep 149 Squadron on the ground almost until the end of the month, when twelve aircraft were despatched to attack the Tirpitz at Wilhelmshaven on the 29/30th.

The start of February was also relatively quiet for the squadron, and it was not until the night of the 4/5th that it was next called into action. The target was an enemy warship at Brest, for which nine aircraft took off, and all returned safely. Peirse's monthly "big night" for February fell on the 10/11th, when a new record number of 265 aircraft was despatched to various targets. The majority, 222, headed for Hanover, and this number included eleven Wellingtons from Mildenhall. 183 crews returned claiming to have bombed as briefed, while over thirty others attacked alternatives. Also on this night, three Stirlings conducted the first operational sorties by the type against oil storage tanks at Rotterdam, accompanied by forty other aircraft, including three from 149 Squadron. 3 Group managed to put 119 aircraft into the air on this night, the first time that any Group had achieved a hundred. On the following night, Bremen was the main target, while a small force returned to Hanover. 149 Squadron supported both operations with three and four aircraft respectively, and also sent four to Magdeburg. The weather on return meant diversions for the Mildenhall brigade, and not all got down without incident. L7811 was abandoned by Sgt Turner and his crew on return from Bremen, and all arrived safely on the ground. Having been to Hanover, P9247 crashed in Lincolnshire, killing one member of the crew of Sgt Warren, for whom this would be only a temporary reprieve. The oil directive was put into effect on the 14/15th at Gelsenkirchen and Homberg, nine Wellingtons from 149 Squadron assigned to the Nordstern refinery at the former. On the following night, it was the turn of Sterkrade and Homberg, but the numbers of aircraft committed to these attacks precluded any chance of delivering a telling blow, even had all of the bombs found the mark, which they clearly did not. Nineteen Wellingtons bombed Wilhelmshaven on the 21/22nd, and the single loss was the squadron's R1045, which was lost without trace with the crew of F/O Henderson.

March began with an unusually effective attack on Cologne on the 1/2nd, which left around ninety houses destroyed, and many others seriously damaged, along with sundry river craft and commercial premises. Eleven 149 Squadron crews shared in the success, and then the squadron sat out the next week and a half on the ground. During this period, on the 9th, a new Air Ministry directive was issued in response to the continued and mounting losses of Allied shipping to U-Boats in the Atlantic. This menace, and its partner-in-crime, the Focke-Wulf Kondor long range maritime reconnaissance bomber, were to be hunted down and attacked where-ever they could be found, at sea, in their bases, in the shipyards and assembly plants, and at the component factories. A new list of targets was drawn up, headed by Kiel, Hamburg, Vegesack and Bremen, each of which had at least one U-Boat construction yard, while the last mentioned also contained a Focke-Wulf factory. On the 11/12th, twenty seven Wellingtons were despatched to Kiel, including twelve from Mildenhall. One returned early, but the others all bombed as briefed and came safely home. The 12/13th brought a busy night of operations, with Hamburg, Bremen and Berlin as the main targets for forces of eighty eight, eighty six and seventy two aircraft respectively. The important Blohm & Voss U-Boat yards, and four other ship building concerns were hit in Hamburg, and twelve high explosive bombs landed in the Focke-Wulf factory at Bremen. Over a hundred aircraft returned to Hamburg twenty four hours later, and inflicted further damage on the Blohm & Voss yards, while starting over a hundred fires.

The Gelsenkirchen authorities reported serious damage to an oil refinery after a raid by under a hundred aircraft on the 14/15th, but one of the 149 Squadron participating crews was not able to attend debriefing. L7858 was shot down by a nightfighter over Holland, and there were no survivors from the crew of Sgt Hawley. This was the start of a spate of losses for the squadron over a period of five nights, which continued on the 17/18th, when R1474 was shot down by an intruder on final approach to Mildenhall when returning from Bremen. The crew was that of Sgt Warren, who, in the previous month, had survived the crash on return from Hanover. On this night, only one of his original crew was on board, and sadly, there were no survivors. Two nights later, while returning from a disappointing all-Wellington effort against Cologne, R1159 clipped trees and crash-landed in Suffolk in the hands of Sgt Hall and his crew, who were able to walk away. As home to a U-Boat base, Lorient was one of a number of French ports to fall within the parameters of the recent directive, and was attacked on consecutive nights from the 20/21st. A force of Wellingtons and Whitleys targeted Berlin on the 23/24th, but complete cloud cover 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. Thus began an eleven month saga, which would occupy much of the Command's attention, and cost it dearly in aircraft and crews for precious little return. That night, fifty Wellingtons were among more than a hundred aircraft sent to the port, but no hits were claimed on the warships. On the last night of the month, 9 and 149 Squadrons sent a total of six aircraft to Emden, for what, in its way, was a momentous occasion. P/O Franks and crew took off in a Merlin powered Mk II Wellington, W5439, to deliver the first ever 4,000lb high capacity bomb, or "cookie", on Germany, for which the aiming point was marked with incendiaries by 9 Squadron's S/L Wasse, a future commanding officer of 149 Squadron. No aircraft were lost to the defences, but R1229 crashed during the landing at Mildenhall, and although Sgt Morhen and his crew survived the incident, one man later succumbed to his injuries.

Brest provided the main focus of attention in April, while Kiel was the most frequently visited destination in Germany. Wellingtons made up more than half of the force bound for the former on the 3/4th, when the warships were difficult to locate. On the following night, a bomb landed in the dry dock occupied by the Gneisenau, but failed to explode. It was decided to move the ship out into the harbour while the bomb was dealt with, and it was while moored there on the next day, that a coastal command torpedo struck home and inflicted serious damage. The gallant crew of the Beaufort had known that they were embarking on what was tantamount to a suicide mission, and sadly, they all died in the withering hail of fire, ignorant of their success. The pilot, F/O Campbell, was posthumously awarded the Victoria Cross. The Gneisenau would require six months to repair, and in the meantime, she and Scharnhorst would continue to attract the attention of Bomber Command. Bad weather hampered a further tilt at the warships on the 6/7th, before two effective attacks were delivered on Kiel on consecutive nights. The first, on the 7/8th, employed over two hundred aircraft, half of them Wellingtons, and inflicted useful damage in the docks area, and caused a two day loss of production at two U-Boat yards. The following night's raid was centred more on the town itself, and the casualty figure of 125 people killed and three hundred injured was the highest of the war to date. X3167 failed to return to Mildenhall, having crashed into the sea, and there were no survivors from the crew of Sgt Jago.

Berlin was the main target on the 9/10th, and then another assault was planned for Brest and its lodgers on the 10/11th. Earlier in the day, R1181 collided with trees while taking off for a training flight, before crashing near the airfield. The second pilot and another man were killed, and the pilot, P/O Fisher, and the other five occupants were injured. 149 Squadron contributed nine aircraft to the night's operation, led by S/L Cookson in R1593, but Sgt Clifton was forced to put in at Abingdon, after R1343 developed engine trouble. Most crews carried out two bombing runs, dropping a stick on each occasion, and a number of near misses were claimed, although no hits. It was later established, that four bombs had struck the Gneisenau, and fifty men were killed, and this further delayed the vessels return to sea-going condition. While another raid on the port was in progress on the 12/13th, 149 Squadron participated in an attack on Merignac airfield at Bordeaux. T2897 failed to return home with the others, and news came through later, that it had crashed in France, killing Sgt Morison and all but one of his crew. S/L Cookson again led the eleven strong squadron contingent when Kiel was the target on the 15/16th, while the sole "cookie" was in the tender care of P/O Grimston in W5399. He was The Honourable Bruce Grimston, son of the 4th Earl of Verulam. His elder brother, The Honourable Brian Grimstone DFC, or the Honourable Grimmy, as he was known, served with 156 Squadron of the Pathfinders, and lost his life in April 1943. Bruce Grimstone would also be lost in July 1944, while serving with 524 Squadron of Coastal Command. On this night, however, it was Sgt Meynell and his crew who failed to return in R1439, which crashed in the target area with no survivors. Two nights later, when Berlin was the main target, to which the squadron despatched five aircraft, ten Wellingtons raided Cologne, and lost three of their number. Among them was 149 Squadron's P9248, which was lost without trace with the crew of Sgt Clifton. After another disappointing raid on Cologne on the 20/21st, the remainder of the month was dominated by Brest and Kiel, but results were poor in the face of adverse weather conditions, and no significant damage was achieved by the few crews finding their respective targets.

May began with a raid on Hamburg on the 2/3rd, where thirteen large fires were started, and this was followed by Cologne twenty four hours later. Despite the commitment of a hundred aircraft, no more than ten bomb loads fell within the city, and this outcome, which was typical for the period, was repeated at Mannheim on the 5/6th. 141 aircraft set off for this southern city, but only twenty five bomb loads found the mark, and damage was light and superficial. It was a similar story at Hamburg on the 6/7th, before W/C Powell led a squadron contingent to Brest on the 7/8th. Hits were claimed on both of the resident German cruisers, which were not confirmed, but at least, no losses were incurred. It was back to Hamburg on the 8/9th, and this time, an effective attack developed, which resulted in over eighty fires, the destruction of ten apartment blocks, and a death toll of 185 people, the highest of the war to date. Four aircraft were missing from the original 188, and 149 Squadron was represented by R1506, which fell victim to a nightfighter off Heligoland, and crashed into the sea. F/S Burch and three of his crew were killed, while the two survivors were taken into captivity. The twin cities of Mannheim and Ludwigshafen, astride the Rhine in southern Germany, would feature prominently as Bomber Command targets throughout the war, and 146 aircraft set out to attack them on the 9/10th. In the context of the period, the operation was moderately successful, and cost only two aircraft. On the following night, the squadron supported operations to Hamburg and Berlin, the former creating over a hundred fires, while only twelve

of twenty three crews reported bombing in the Berlin area. Sgt Keymer and his crew failed to return from the main objective in R1512, and no clue to their fate was ever found. P/O Franks had been briefed for Berlin to deliver a cookie, but he was unable to reach that particular destination, joining in at Hamburg instead. The 4,000 pounder was dropped from 14,000 feet, and the crew reported the largest explosion that they had ever witnessed. The third raid on Hamburg in four nights took place on the 11/12th, and this was also effective, and left over eighty fires burning. A return to Mannheim and Ludwigshafen on the 12/13th was a dismal failure, and a raid on Hanover three nights later was inconclusive and almost certainly ineffective. Two attacks on Cologne on consecutive nights from the 16/17th were disappointing, the latter producing the better results, with the destruction of one industrial premises and thirty houses. Earlier on the 17th, S/L Clark had taken R1587 for a training flight, and collided with a Hurricane of 1401 Met Flight over Cambridgeshire, with fatal consequences for all on board the Wellington. It was probably during the course of this month, that W/C Powell was posted from the squadron, to be replaced by W/C Beaman.

The first major operation in June was mounted by a force of 150 aircraft against Düsseldorf on the 2/3rd. Despite the enthusiastic claims of returning crews, the city authorities reported only light, scattered damage. It was this kind of outcome, together with overly optimistic reports of damage, which would lead to calls for the dissolution of an independent bomber force a few months hence. Minor operations held sway for the next week, until the 10/11th, when a hundred aircraft targeted the German cruisers at Brest, which now included the Prinz Eugen. Düsseldorf and Duisburg were the main targets on the 11/12th, but it seems that many of the bombs intended for them fell on Cologne. Briefed for the former, Sgt Harrison and his crew found themselves in captivity, after W5439 was hit by flak, and had to be crash-landed in Holland. The night of the 12/13th was devoted largely to attacks on railway yards, those at Hamm and Osnabrück providing the objectives for all-Wellington forces. From mid month, Cologne and Düsseldorf dominated proceedings, and the two cities were targeted simultaneously on no fewer than eight occasions between the 15/16th and 26/27th. Not one of the raids inflicted significant damage, and the disappointing month ended with raids on Bremen on the 27/28th and 29/30th, the former resulting in the heaviest night loss of the war to date, of fourteen aircraft.

The July account opened at Brest on the 1/2nd, and it was an inauspicious beginning to the month for 149 Squadron. R1343 crashed in the target area, killing P/O Vincent-Welch and his crew, and there were no survivors either from the crew of P/O Horsfield, when R1408 crashed in France. The assault on Bremen continued on the 2/3rd and 3/4th, when good bombing was claimed, and Essen was also attacked by a predominately Wellington force on the latter occasion. Brest followed on the 4/5th and 6/7th, with Münster in between on the 5/6th and again on the 6/7th. On the 7/8th, an all-Wellington force of over a hundred aircraft took off for Cologne, and those reaching the target delivered upon it its most effective raid of the year, while a smaller all-Wellington force also produced good results at Münster. On the following night, Wellingtons returned to Münster to hit railway installations, and a smaller number of the type attacked a power station at Bielefeld. The former pre-empted a new Air Ministry directive issued on the 9th, which highlighted Germany's transportation system and the morale of its civilian population as its weakest points. The C-in-C was therefore urged to concentrate

his efforts during the moon period against the major railway centres ringing the Ruhr. On moonless nights, the Rhine cities of Cologne, Düsseldorf and Duisburg would be easier to locate, while on dark nights with less favourable weather conditions, more distant urban targets were to be attacked. That night, an unusually destructive raid fell on Aachen, with Wellingtons playing only a minor role, while the majority of the Wellingtons operating were failing dismally at Osnabrück. It was no better on the following night, when Wellingtons dominated in a raid on Cologne by over a hundred aircraft, which achieved only slight superficial damage. 149 Squadron had sustained no losses since the first night of the month, but T2737 failed to return from what was claimed as a highly successful raid on Bremen on the 14/15th, and the entire crew of P/O Dixon was later reported to be in captivity. Three nights later, a flak damaged N2853 crashed in Suffolk on return from Cologne, after Sgt Stewart was blinded by a searchlight. He and four of his crew suffered injuries, and one man was killed.

Ineffective operations were mounted against Cologne, Frankfurt and Mannheim over the next few nights, before a major daylight attempt on the cruisers at Brest was planned for the 24th. On the 23rd, the Scharnhorst slipped out of port and headed south to La Pallice, forcing a change of the plan, which had originally involved around 150 aircraft going to Brest. The new plan called for an attack on the Scharnhorst at its new location by Halifaxes, while Wellingtons from 1 and 3 Groups concentrated on the Gneisenau and Prinz Eugen. Three Fortresses of 2 Group's 90 Squadron were to carry out high level bombing runs to draw up some of the enemy fighters, while Hampdens of 5 Group did likewise at a less rarified altitude under the umbrella of a Spitfire escort. The seventy nine Wellingtons were to take advantage of the distractions to make their attack without cover, and would hopefully fight their way through to the target. In the event, the fighter opposition was far stronger than expected, and ten Wellingtons were shot down. Six hits were claimed on the Gneisenau, although they were unconfirmed, but the Halifaxes severely damaged the Scharnhorst, at great cost to themselves, and she was forced to return to Brest, where better repair facilities existed. The month ended with another ineffective raid on Cologne on the 30/31st, for which the continuing period of bad weather was blamed.

August's operations for the Wellington brigade began at Hamburg and Berlin on the 2/3rd, the squadron providing eleven aircraft for the former, two of which brought their bombs home and two others attacked alternatives. The month continued with a useful raid on Mannheim on the 5/6th, for which the squadron again put up eleven aircraft. R1524 was absent from Mildenhall after this operation, having crashed in Belgium, and there were no survivors from the crew of Sgt Fowler. The same target claimed X9633 on the following night, this Wellington also going down over Belgium, and taking to their deaths the crew of Sgt Farmer. Essen escaped with light damage on the 7/8th, despite the commitment of over a hundred aircraft, including thirty two Wellingtons, while forty five others were sent to bomb railway yards at Hamm. Hamburg was the target for Wellingtons on the 8/9th, and Hanover and Berlin on the 12/13th. P/O Beamer and his crew were briefed for Hanover, and they all died, when R1024 was shot down into the sea off Sylt. T2716 was hit by flak, which killed one member of the crew, and was further damaged by the attentions of a nightfighter. P/O Fox crash-landed the Wellington in Suffolk, and another member of the crew subsequently succumbed

to his injuries. Hanover was the main target on the 14/15th, while most of the Wellingtons operating on the 16/17th were sent to Cologne and Duisburg, the 149 Squadron contingent of seven targeting the latter. It was on the 18th, that civil servant Mr D M Butt completed his analysis of recent Bomber Command operations, and its disclosures were to send shock waves reverberating around the Cabinet Room and the Air Ministry. Having studied around four thousand photographs taken during a hundred night operations in June and July, he concluded that only a tiny fraction of bombs were falling within miles of their intended targets. This swept away at a stroke any notion that the Command was having an effect on the enemy's war effort, and demonstrated its claims of success to be little more than propaganda. It also provided ammunition for the detractors, who were calling for bomber aircraft to be redistributed to other Commands, to help in the battle against the U-Boat, and to redress reversals in the Middle East. These damning revelations would forever unjustly blight the period of tenure as C-in-C of Sir Richard Peirse, and would ultimately lead to his departure.

On the night of the report's release, forty one Wellingtons, including seven from Mildenhall, were sent to attack railway installations at Duisburg, and 149 Squadron's X9704 failed to return. This aircraft was shot down by a nightfighter over Holland, killing P/O Lynn and one of his crew, and a further man succumbed to his injuries while in captivity. X9746 was also engaged by a nightfighter and severely damaged, but P/O Gregory was able to nurse it back home to a safe landing, where it was declared to be beyond economical repair. It was possibly this exploit which sealed the award to P/O Gregory of the DFC on the 26th. The final third of the month was dogged by bad weather, and operations to Kiel on the 19/20th, Mannheim on the 22/23rd, Karlsruhe on the 25/26th, Cologne on the 26/27th, Mannheim again on the 27/28th, Duisburg on the 28/29th, Frankfurt and Mannheim on the 29/30th and Cologne and Essen on the night of the 31st were generally ineffective, and damage was nowhere significant.

Cologne hosted a small raid by Wellingtons and Hampdens to open the September account on the 1/2nd, and this was followed by Frankfurt and Berlin twenty four hours later. 1, 4 and 5 Groups were recalled while outbound for Brest on the 3/4th, but the 3 Group crews pressed on to bomb on estimated positions through a smoke screen. Almost two hundred aircraft set off for Berlin on the night of the 7/8th, and 137 crews claimed to have reached and bombed the target, three of which were from 149 Squadron. A modest degree of damage was inflicted on houses, transport and public utilities and a handful of war industry factories, but it was achieved at a cost of fifteen aircraft, plus three others from a simultaneous raid on Kiel, to which the squadron had committed two aircraft without casualty. This made it the heaviest night loss of the war to date, and among the missing was 149 Squadron's X9705, in which Sgt Fenton and his crew lost their lives. The weather relented in time for the first major attack of the war on Kassel on the 8/9th, and clear skies provided an opportunity for the crews to inflict some useful damage on two important industrial premises, some public buildings and a railway station. Fifty five Wellingtons were despatched to bomb shipyards at Kiel on the 11/12th, and two of them failed to return. Of these, X9879 was one of seven aircraft from Mildenhall, and it crashed in the target area, killing Sgt Bennett and his crew. On a brighter note, there would now follow almost six weeks of loss-free operations, despite a busy schedule, which, for the remainder of the month, was as follows; two freshman crews to Cherbourg on the 12/13th, eleven aircraft to Brest on the 13/14th, seven to Karlsruhe and three

to Le Havre on the 16/17th, eight to Stettin on the 19/20th, ten to Berlin, two to Münster and one to Boulogne on the 22/23rd, eight to Genoa, two to Frankfurt and three to Emden on the 28/29th, and seven to Stettin, four to Hamburg and two to Cherbourg on the night of the 30th. Twelve sorties were also launched to Genoa, Cologne and Emden on the 26/27th, but they were recalled in the face of worsening weather conditions.

On the 12th of October, Stirlings N6093 and W7448 arrived at Mildenhall in preparation for the squadron's conversion to the type, following in the footsteps of 7 and XV Squadrons. The first major night of activity of the month came that night, when the main course was Nuremberg, the birthplace of Nazism, for which eighty two Wellingtons were detailed, while smaller forces went to Bremen and Hüls. The 373 sorties represented a new record, but this massive effort was not rewarded with success, and few bombs found the mark at any of the targets. Matters did not improve much, if at all, at Düsseldorf on the 13/14th, Nuremberg on the 14/15th, Duisburg on the 16/17th and Bremen on the 20/21st, and it was the last mentioned which brought the attentions of the Grim Reaper back upon 149 Squadron. Z8795 crashed into the River Scheldt on the Belgian bank, and there were no survivors from the crew of P/O Hodge. Haze was blamed for difficulties at Bremen again on the following night, cloud and icing conditions hampered an attempt on Mannheim on the 22/23rd, but some hits were scored on the Deutsche Werke U-Boat yards at Kiel on the 23/24th. Unfavourable weather persuaded most crews to abandon their efforts to reach Frankfurt on the 24/25th, but at last, two nights later, some useful damage was caused at Hamburg, although this could not be repeated, when fifty six crews returned there on the last night of the month.

As November began, 149 Squadron had eight Stirlings on charge, and conversion training was well under way. Thick cloud over Kiel on the 1/2nd allowed the residents to hear the bomber force above, but prevented the crews from locating the target, and no bombs fell within the town. On the 6th, S/L Spence was posted from 218 Squadron to Alconbury, to begin the rebuilding process of 40 Squadron, most of which had departed for Malta in October, leaving only a skeleton staff. The significance of this would become apparent to 149 Squadron later in the month. No doubt frustrated by the recent spell of bad weather, and eager to erase the memory of the Butt Report, Peirse planned a major night of operations for the 7/8th. The original plan was to raid Berlin with over two hundred aircraft, but a discouraging weather forecast prompted the 5 Group AOC to object, and he was allowed to withdraw his aircraft, and send them instead to Cologne. A third operation was also to be mounted, involving Wellingtons and Stirlings of 1 and 3 Groups, whose destination would be Mannheim. Together with the night's support and minor operations, the 392 sorties despatched represented a new record high. 169 aircraft ultimately took off for the Capital, including five 149 Squadron Wellingtons as follows; X9832 F/L Fox, X9758 P/O Barnes, X9878 Sgt Dane, X9824 Sgt Parker and Z8837 Sgt Swain. The Cologne contingent consisted of sixty one Hampdens and fourteen Manchesters, while fifty three Wellingtons and two Stirlings took on Mannheim. The night degenerated into a disaster, partly as a result of the weather, and less than half of the Berlin force reached the target area. Among them was just one of the 149 Squadron crews, that of P/O Barnes, three of the others abandoning their sorties because of severe icing. A massive twenty one aircraft failed to return from what was a dismal failure, which had succeeded in destroying only fourteen houses, and damaging a few dozen other

buildings. 149 Squadron was represented among the missing by X9878, in which Sgt Dane and all but one of his crew lost their lives. The Cologne contingent fared much better in terms of losses, and came through unscathed, but so did the intended target. No bombs at all fell on Mannheim, and seven Wellingtons were lost in the process. Together with the missing aircraft from all other activity, the Command registered the loss of thirty seven aircraft, more than twice the previous highest, and this was the final straw for the War Cabinet and the Air Ministry. Peirse was summoned to a meeting with Churchill to make his explanations, and on the 13th, he was instructed to restrict further operations, while the future of Bomber Command was considered at the highest level.

There were no operations of any description from the 10th until the night of the 15/16th, when small-scale raids were mounted against Emden and Kiel. The squadron's R1627 failed to return from the former, and was lost without trace with the crew of Sgt Bramhall. French ports held sway from then until the 26/27th, when a hundred aircraft were despatched to Emden again, but only fifty five crews reported bombing the general area. It was during this period, on the 22nd, that the squadron registered its first Stirling casualty. W7456's starboard outer caught fire on take-off from Oakington for a training flight in the hands of P/O Lofthouse, who carried out a successful crash-landing in Cambridgeshire, without injury to the crew. P/O Lofthouse would go on to a distinguished career as a Pathfinder with 7 Squadron, which ended when he was shot down on approach to Berlin in August 1943. On board the Lancaster was the Oakington station commander, G/C Willetts, and all eight men survived to be taken prisoner. Earlier on the 26th, W/C Heath assumed command of 40 Squadron, releasing the now W/C Spence to replace W/C Beaman as the commanding officer of 149 Squadron. In February 1942, the home echelon of 40 Squadron would be renumbered 156 Squadron, and go on to a distinguished career as a founder member of the Pathfinders. On the night of his appointment, W/C Spence presided over his first operation, which also brought the operational debut of 149 Squadron's Stirlings. N6099 went to Ostend in company with seventeen Wellingtons, and returned safely. On the following day, two Stirlings, including W7455 with P/O Lofthouse at the controls, conducted a North Sea search for a missing aircraft. Düsseldorf was the target for that night, but Cologne received many of the bombs intended for it, and the month ended with 181 aircraft heading for Hamburg to attack the city and its shipyards. During the course of the month, the A Flight commander, S/L James, was screened, but he would return to the operational scene in the following May as the commanding officer of 9 Squadron

December would be dominated by the port of Brest and its lodgers, and no fewer than thirteen operations of varying sizes were sent against it. Targets in Germany included Aachen on the 7/8th, Cologne on the 11/12th, Wilhelmshaven on the 16/17th, Cologne again on the 23/24th, Düsseldorf on the 27/28th, and Wilhelmshaven, Hüls and Emden on the 28/29th, and only the latter Wilhelmshaven raid produced any significant damage. One of the minor operations on the 11/12th was to Le Havre, and this was P/O Lofthouse's first in a Stirling. Sadly, complete cloud cover forced him to return with the bombs still aboard N6103, but he took the same aircraft to Dunkerque on the following night, and delivered his payload across the docks from 12,500 feet. It had been a bad year for the Command, despite the promise of three new aircraft types entering operational service during the spring. The Stirling, Halifax and

Manchester had all failed to match expectations, and each had undergone long and frustrating periods of grounding, while essential modifications were put in hand. The inability of the crews to locate and hit targets at night had come to a head with the damning Butt Report in August, and a dark shadow had been cast over the Command and its C-in-C Peirse. In truth, he and his crews had done their level best with the equipment available to them, but there was never a chance of fulfilling the often unrealistic demands placed upon them by the decision makers. It stemmed from a naïve pre-war belief that dead reckoning and astro-navigation would take crews unerringly to precision targets, and as a result, insufficient priority had been given to the development of navigation aids. Only now was the Gee device in the trials stage, and it would be March before it became available for general use in the hands of selected squadrons. As the New Year dawned, the future of the Command was still hanging in the balance, the one bright spot emanating from 44 Squadron, to which the first production Lancasters had just been delivered.

1942

January began as December had ended, with the continuing obsession with the port of Brest, and eleven operations were mounted against it during the month. 149 Squadron's first involvement came in the early hours of the 10th, when four Stirlings took off, but only one bombed, before returning with a holed fuel tank. Another aircraft was hit by flak, and had to be landed at Weston Zoyland with a badly wounded rear gunner. The first trip to Germany by the Command involved 124 aircraft, whose crews were briefed for Wilhelmshaven later that night. Returning crews claimed a successful outcome, but this was not borne out by the local authorities. Hamburg was attacked on the 14/15th and 15/16th, for which ninety five and ninety six aircraft respectively were despatched. Fires were started on both occasions, but no significant damage was inflicted. The squadron's W7461 lost an engine over the target during the latter raid, and once over England, F/O Barnes baled his crew out, before successfully force-landing the Stirling in Yorkshire. Hamburg also found itself designated as an alternative target for Bremen on the 17/18th, when only eight of eighty three aircraft attacked the primary in what might have been poor weather conditions. On the 21st, 149 Squadron Conversion Flight was established at Lakenheath, where detachments from the squadron proper were in residence from time to time. The Conversion Flight would remain here until being absorbed into 1657CU on the 2nd of October. There were no major calls on Stirlings during this period, but four from 149 Squadron were detached to Lossiemouth on the 28th, in preparation for an attack on the Tirpitz at Trondheim. Also on that day, F/L Evans wrote off W7458 in a heavy landing at Mildenhall while training, but the eight occupants were unhurt. Operation Oiled was mounted by nine Halifaxes and seven Stirlings on the 29/30th, but the Tirpitz was not located. W7462 skidded on the icy runway on return, before losing its legs and being written off, but F/L Turtle and his crew emerged unscathed.

There was little activity at the start of February, and the obligatory raid on Brest was delivered inconclusively on the 6/7th. Another small-scale operation was mounted to the port on the 10/11th, to be followed by yet another by eighteen Wellingtons on the evening of the 11th. Within hours of the last mentioned, the three warships slipped anchor, and under a heavy escort of destroyers and E-Boats, headed into the English Channel in an audacious bid for

freedom. A plan had been prepared for this precise eventuality under the code name Operation Fuller, but it seems that not all charged with its implementation were fully appraised of its requirements. In the event, it was already 10.30 hours on the 12th, when the enemy fleet was first spotted, and only 5 Group was standing by at four hours readiness. The first sorties were launched at 13.30 hours, by which time the warships had almost run the gauntlet of the Channel, and in the atrocious weather conditions of squalls and low cloud, it proved almost impossible to establish and maintain contact. It was dusk before two 149 Squadron Stirlings became airborne, and they failed to locate their quarry. Despite the commitment of a record number of 242 daylight sorties, few attacks were carried out, and no hits were scored. The flotilla made good its escape through the Straits of Dover and into open sea, and although Scharnhorst and Gneisenau struck mines recently laid by 5 Group, all the ships arrived in home port on the following morning. The "Channel Dash" episode was a major embarrassment to the government and the nation, but on the credit side, this annoying itch had been scratched for the last time, and the Command could now concentrate on more suitable strategic targets.

On the 14th, a new Air Ministry directive was issued, which opened the way for the blatant area bombing of urban Germany, and an assault on the morale of the civilian population, particularly its workers. This had, of course, been in progress for a long time, but it could now be prosecuted in the open, without the pretence of aiming for industrial and military targets. Waiting in the wings was a new leader, who would pursue this policy with a will, and who had the force of character to fight the Command's corner against all-comers. ACM Sir Arthur Harris took up his appointment on the 22nd, and set about the massive task of turning Bomber Command into a war-winning weapon. He arrived at the helm with firm ideas already in place on how to win the war by bombing alone, a pre-war theory, which had never been put to the test. He recognized, that to destroy an urban target with acceptable losses, it was necessary to overwhelm the defences and emergency services, by condensing the raid into the shortest possible time. He also knew, that to deliver a knock-out blow, he must concentrate his forces at a single target, rather than deliver ineffective pin-prick attacks at multiple targets simultaneously. He was aware too, that built-up areas are most efficiently destroyed by fire rather than blast, and it would not be long before the bomb loads carried by his aircraft reflected this thinking. This all signaled the birth of the bomber stream, and an end to the former practice, whereby crews determined for themselves the details of their sorties. It would be March before the first signs of a new hand on the tiller were made manifest, and in the meantime, he continued with the small-scale attacks on German ports. It was during such an operation on the 26/27th, that the war threw up one of its great ironies. In an attack on the floating dock at Kiel, a high explosive bomb entered the bows of the Gneisenau, now supposedly at safe haven after enduring eleven months of almost constant bombardment at Brest, and her sea-going career was ended for good.

For his first major operation, Harris selected the Renault lorry factory at Billancourt in Paris, for which a meticulous plan was prepared. Mounted on the night of the 3/4th of March, it was a three wave attack, led by experienced crews, and with extensive use of flares to provide illumination. 235 aircraft took off, the largest force yet to a single target, and 223 crews claimed to have bombed as briefed. In the face of a weak flak defence, most of them

delivered their attack from low level, both to aid accuracy, and to avoid civilian casualties in adjacent residential districts. The operation was an outstanding success, which destroyed 40% of the factory's buildings, halting production for a month, and was achieved for the loss of just one Wellington. The satisfaction was marred only by the deaths of 367 French civilians, and this was a problem, which would never satisfactorily be addressed. It was somewhat paradoxical, that Harris, as a champion of area bombing, should gain his first victory by way of a precision target. Essen was to feature prominently in Harris's future plans, and the first of three raids on consecutive nights, and five during the month, took place on the 8/9th. Over two hundred aircraft were involved on this night, including twenty seven Stirlings, and the leading aircraft were equipped with the Gee navigation device for the first time. While it helped with general orientation, Essen was concealed beneath its ever-present blanket of operational haze, and damage was only slight. On the following day, W7452 ground looped on landing at Ayr during training, and was written-off, although without injury to Sgt Austin and his crew. That night, 187 aircraft set off to return to Essen, and succeeded in destroying just two houses, while scattering bombs over a score of other Ruhr towns. It was a similar story on the 10/11th, but this time it cost 149 Squadron two aircraft, one of them the first squadron Stirling to fail to return from an operation. N6126 was brought down over Germany, and only a gunner survived from the eight man crew of P/O Bailey. R9295, having sustained flak damage to the undercarriage, approached Mildenhall for a belly landing, but struck trees while circling, and crashed close to the airfield. F/O Pilkington and six of the eight men on board were killed, and a gunner survived with injuries. Flying as second pilot was S/L Coleman DFC*, a New Zealander, who had completed a tour with the squadron in 1940, before serving with 148 Squadron in the Middle East. He began his third tour with 115 Squadron at Marham in September 1941, where he took part in some of the flying sequences for the feature film, Target for Tonight. He was posted back to 149 Squadron part way through his tour, and at the time of his death, he had fifty three operational sorties to his credit. (The airmen of St John's-Beck Row. P&M Wilson.)

The first successful Gee-led raid fell on Cologne on the 13/14th, when some useful industrial damage was inflicted, and fifteen hundred houses were damaged to some extent. It was during this month, that Stirlings were first employed on mine-laying, or "gardening", and on the night of the 24/25th, three 149 Squadron crews sowed twelve mines off the French coast. The month's fourth and fifth attacks on Essen took place on consecutive nights from the 25/26th, and both were again highly disappointing. The problem, as Harris well knew, was how to navigate at night over a blacked out country, which was often concealed under cloud. He believed, however, that if he could provide his crews with pin-points on the ground, they would do the rest. Coastlines provided the best reference points, and this was a major factor in his selection of the Baltic port of Lübeck as the target for an area attack on the 28/29th. Other factors were the half-timbered construction of the buildings in the narrow streets of its old centre, which would aid the spread of fire, and the paucity of its defences. Twenty six Stirlings were among the 234 aircraft taking off over a two hour period during the mid evening, for an operation to be conducted along similar lines to those employed so successfully at Billancourt at the start of the month. The predominately incendiary bomb loads reflected the fire-raising intention, and this was duly achieved in the first major success

for the area bombing policy. Over fourteen hundred buildings were destroyed, and photographs suggested that 30% of the city's built-up area had been gutted.

A new record force of 263 aircraft was Cologne-bound on the evening of the 5th of April, but the damage inflicted was not commensurate with the effort expended. After spending five years at Mildenhall, 149 Squadron moved out on the 6th, and took up residence at Lakenheath, which it had been using as a satellite station for some time. The next tilt at Essen came on the following night, but severe storms and icing conditions persuaded many crews to bomb elsewhere, and this most important centre of war production again escaped serious damage. The squadron's N3726 survived a brush with a nightfighter while outbound over Holland, but was forced to return early on three engines, and on landing at Oakington, suffered the Stirling malaise, a collapsing undercarriage. The Stirling was written off, but F/L Evans and his crew, which included a certain Sgt Middleton as second pilot, emerged from the wreckage unscathed. Yet another new record was set on the 8/9th, when 272 aircraft took off for Hamburg to encounter icing conditions and electrical storms. A little short of two hundred crews reported bombing in the target area, but the local authorities reported only a few bomb loads within the city. Essen was raided ineffectively twice more, on the 10/11th and 12/13th, bringing the number of major operations against it during the Harris era to eight. Over this period, 1,555 sorties had been launched at a cost of sixty four aircraft, in return for which, damage had been slight and insignificant. Harris turned his attention to Dortmund on the 14/15th and 15/16th, but despite a combined total of 360 sorties despatched, only a handful of houses were destroyed, and bombs were distributed over a wide area of the Ruhr. The squadron's N6068 failed to return from the latter operation, having crashed in Belgium, and there were no survivors from the eight man crew of P/O Field. A moderately successful operation started seventy five fires in Hamburg on the 17/18th, and this was followed on the 22/23rd by an experiment to gauge the efficacy of Gee as a blind bombing device. Cologne was selected as the target for a force of sixty four Wellingtons and five Stirlings, every one of which was equipped with Gee. Around fifteen bomb loads fell within the city, thus demonstrating the limitations of the device for precision bombing. On return, N3719 suffered an undercarriage collapse, but F/S Woodhouse and the other seven occupants were able to walk away. This was the second Stirling of the evening to be written off through an undercarriage collapse, the first involving R9307, which came to grief on take-off for Le Havre in the hands of P/O Cheetham. The crew emerged uninjured, but they would have less than two weeks to enjoy their reprieve.

In an attempt to repeat the success at Lübeck at the end of March, Harris chose another Baltic port, Rostock, for a series of raids during the final week of the month. The presence nearby of a Heinkel aircraft factory was an added attraction, and a proportion of the force would be directed specifically at this. There were many similarities with Lübeck, its coastal location, narrow streets and light defences, and the first of four operations on consecutive nights was mounted on the 23/24th. Thirty one Stirlings took part in what was a disappointing start to the campaign, but the centre of the town was heavily bombed on the following night, although the Heinkel factory again escaped damage. The third raid, on the 25/26th, was also accurate, and this time, W/C Guy Gibson led a 106 Squadron contingent against the Heinkel works, and at last scored some hits. The final attack was perhaps the most concentrated, and the combined

tally of destruction amounted to over seventeen hundred buildings destroyed, and 60% of the main town area was deemed to be in ruins. A remarkable feature of the series was the loss of just eight aircraft from 520 sorties, and the only missing Stirling was a 149 Squadron aircraft, which failed to return from the final operation. W7512 crashed into the Baltic, and took with it the eight man crew of P/O Thomson. The month ended with a useful attack on Cologne on the 27/28th, damage to all three of Kiel's shipyards on the 28/29th, and an attempt to hit the Gnome & Rhone aero-engine factory at Gennevilliers in Paris on the 29/30th. As might be expected, it was the squadron's busiest month yet on Stirlings, and seventy two sorties were launched for the loss of five aircraft, only two of which were missing.

Hamburg opened the May account on the 3/4th, when over a hundred fires were started, and eleven blocks of flats were demolished by a cookie. Three raids on Stuttgart on consecutive nights began twenty four hours later, and each was a disappointing failure, brought about by a decoy fire site and ground haze. N6124 crashed in France during the course of the first operation, and the previously mentioned crew of P/O Cheetham failed to survive. Returning from the third raid, DJ972 crashed on landing as the result of damage inflicted by a nightfighter, but F/O Brogan and his crew lived to fight another day. Another Baltic port, Warnemünde, was subjected to an attack on the 8/9th, and a disappointing outcome was compounded by the loss of nineteen aircraft. A 3 Group mining effort involving sixty Stirlings and Wellingtons took place on the 17/18th around the northern Frisians and Heligoland. Nightfighters arrived on the scene, and seven aircraft failed to return, including three from 149 Squadron. N3752 came down in Denmark, delivering Sgt Jarman and his crew into captivity, while R9310 and R9320 both crashed into the sea off the Danish coast. There were no survivors from the crew of P/O Frost in the former, but the previously mentioned F/S Woodhouse and four of his crew escaped with their lives from the latter, and they too fell into enemy hands. After an attempt to hit Mannheim on the 19/20th had resulted in most of the bombs finding open country, a period of operational inactivity descended upon the Command.

On taking up his appointment as C-in-C, Harris had asked for four thousand bombers with which to win the war. While there was never the slightest chance of this being granted, he needed to ensure, that those earmarked for him were not spirited away to what he considered to be less deserving causes. Bomber Command had not yet done enough to rescue its tarnished reputation, and calls were still heard in high places, principally the Admiralty, for bomber aircraft to be diverted. Harris needed a major success, and perhaps, a dose of symbolism, to silence the critics and help his cause. Out of this was born the Thousand Plan, Operation Millennium, the commitment of a thousand aircraft in one night against an important German city, for which Hamburg was pencilled in. Harris did not have a thousand front-line aircraft, and in order to achieve the magic figure, he would need the support of other Commands, most notably Coastal. This was forthcoming in a letter on the 22nd, but following an intervention by the Admiralty, Coastal Command withdrew its offer of help. Undaunted, Harris, or more likely his able deputy, AM Sir Robert Saundby, scraped together every airframe capable of controlled flight, or something resembling it, and pulled in the screened crews from their instructional duties. Come the night, not only would the magic figure be achieved, it would be comfortably surpassed. Over the last week of May, a collection of aircraft from the training units taking up residence at bomber stations from

Yorkshire to East Anglia gave rise to much speculation, but as usual, it was only the civilians in the local towns and villages who knew what was afoot. All that remained in question was the weather, and as the days ticked inexorably by towards the end of the month, this seemed in no mood to comply. Harris was aware of a real danger, that the giant force might draw attention to itself, and compromise security, and the point was fast being reached, when the operation would have to take place or be scrubbed for the present. It was in this atmosphere of frustration that "morning prayers" began at Harris's HQ at High Wycombe on the 30th, when all eyes were turned upon the chief meteorological adviser, Magnus Spence. He was finally able to give a qualified assurance of clear skies over the Rhineland after midnight, with a strong possibility of moonlight, while north-western Germany and Hamburg would be swathed under buckets of cloud. Thus did the fickle finger of fate turn away from Germany's Second City, and point unerringly at Cologne as the host for the first one thousand bomber raid in history.

That night, 1,047 aircraft lined up for take-off either side of 23.00 hours, for the now familiar three-wave attack, with the four engine heavies bringing up the rear. 149 Squadron's contribution was seventeen Stirlings, of which four would return early with technical problems. Some of the older training hacks took somewhat reluctantly to the air, and were probably lifted more by the enthusiasm of their crews than by the power of their engines. Unable to climb to a respectable height, a number of these would fall easy prey to the defences, or would simply drop from the sky through mechanical failure. The conditions over the target were as forecast, and the operation was, by any standards, an outstanding success, which left over 3,300 buildings destroyed, and serious damage to many industrial premises, where loss of production resulted. The loss of forty one aircraft was a new record high, but in conditions favourable to attackers and defenders alike, it was an acceptable figure, particularly in the context of the scale of success. The 149 Squadron contingent all returned safely, and girded their loins for round two. Harris was anxious to use the Thousand force again as soon as possible before it was dismantled, and planned a raid on Essen for the first night of June. During the course of the month, W/C Spence concluded his tour as commanding officer, and he was replaced by W/C Charlton-Jones. Eighty one sorties were flown during the month, for the loss of five aircraft and four crews.

Only 956 aircraft were available to answer the call on this night, but their crews found Essen difficult to identify, and the Ruhr Valley was showered with bombs. Other towns suffered far greater damage and casualties than the intended target, where only eleven houses were destroyed. Thirty one aircraft failed to return, but 149 Squadron again came through unscathed. A follow-up raid on the 2/3rd by under two hundred aircraft was equally unconvincing, but some compensation was gained on the following night, when Bremen reported its heaviest raid to date. Harris couldn't leave Essen alone, and he sent another 180 aircraft back there on the 5/6th to produce another dismal failure, and a bad night for 149 Squadron. It was an eventful night for F/S Whitney and his crew, who were on their way home over Belgium, when R9314 collided with a nightfighter. The rear turret fell away from the aircraft, and took with it to his death Sgt Roderick, but the Stirling remained airborne, until being ditched, from where the crew were picked up by an air-sea rescue launch. The nightfighter crew were apparently also alive and well, having parachuted to safety. (Bomber

Command Losses. Vol 3. W R Chorley.) W7508 was also despatched by a nightfighter over Belgium, killing P/O Clayton and five of his crew, while one was taken prisoner, and another evaded the same fate. Finally, R9321 was shot down by a nightfighter over Germany, and there were no survivors from the crew of flight commander S/L Harris. ACM Harris turned away from the Ruhr for a night, and sent over two hundred aircraft to the port of Emden on the 6/7th, the first of four attacks during the month. This was the only successful one, and it left three hundred houses in ruins, and a further two hundred seriously damaged. Harris tried a final fling at Essen, with raids on the 8/9th and 16/17th, but there was no improvement, and the former cost the squadron N6084, which crashed in Germany with no survivors from the crew of F/S Davis. This five raid series during the month had cost the Command eighty four aircraft from 1,607 sorties, with nothing to show for it but a few broken houses.

The return to Emden on the 19/20th, 20/21st and 22/23rd did not build on the earlier success, and left a combined total of fifty houses destroyed, with a few hundred damaged. The Thousand force was reassembled for the final time for an operation to Bremen on the 25/26th. 960 aircraft were made ready, and ordered by Churchill to participate, Coastal Command put up another 102 aircraft, in what was classed as a separate raid. This meant that the numbers converging on the target actually exceeded those going to Cologne at the end of May, and while a similar level of success was not achieved, the results far surpassed the debacle at Essen. A fraction under seven hundred Bomber Command crews claimed to have bombed the city, leaving 572 houses in ruins, and damage to war industry factories. A new record of forty eight aircraft were lost, but none of these was from 149 Squadron. Three follow-up raids on the 27/28th, 29/30th and 2/3rd of July, all achieved significant levels of damage to industry, port facilities, shipping and housing, but the second of the series was expensive for 149 Squadron. R9330 suffered engine failure on take-off and crashed, injuring one of F/S Hockley's crew, but two others failed to return with the rest of the squadron participants. N6082 was a nightfighter victim over Holland, and flight commander S/L Alexander died with six of his crew, while one man escaped with his life to become a PoW. BF310 was lost in a similar manner over the Ijsselmeer, this time with no survivors from the crew of P/O Simmons. The squadron launched 102 sorties during June, the highest since converting to Stirlings.

Mining operations occupied the next few nights, before almost three hundred aircraft took off for Wilhelmshaven on the 8/9th. Most of the bombs fell into open country, and damage in the town was fairly modest. A five raid series of operations against Duisburg began on the 13/14th, and unfavourable weather conditions did little to assist the crews to locate and hit the target. Damage was light, and the series would mirror the Command's experiences at Essen. An evening cloud-cover attack on Lübeck was conducted by twenty one Stirlings on the 16th, but only eight reached the city, and two failed to return. 149 Squadron's BF312 was hit by flak, and had to be crash-landed in Germany, delivering P/O Forward and the other four survivors into enemy hands. On the 19/20th, Halifaxes, Stirlings and Lancasters attempted to bomb the U-Boat producing port of Vegesack through cloud on Gee, but no bombs found the mark. The Duisburg campaign continued on the 21/22nd, 23/24th and 25/26th, and resulted in very modest housing damage. The middle raid brought the failure to return of the squadron's W7580, which was shot down by a nightfighter over Holland, killing the entire crew of F/O Bowes. The largest non-1,000 force to date of 403 aircraft took off for Hamburg on the

evening of the 26th, and those arriving over the city delivered the most effective assault of the war after Cologne. Over eight hundred fires were started, more than five hundred of them classed as large, and 823 houses were destroyed. A repeat was planned for two nights later, but bad weather kept 1, 4 and 5 Groups on the ground, and it was left to 3 Group and Training Unit aircraft to carry on. In the event, the Training Unit aircraft were recalled, and many 3 Group crews turned back as the weather worsened. The seventy one Stirlings despatched represented the best effort yet by the type, but only sixty eight aircraft reached the target area to bomb, and fifteen large fires were started. Saarbrücken hosted its first large-scale raid of the war on the 29/30th, and bombing from medium level, 248 aircraft destroyed almost four hundred buildings. The success was marred for 149 Squadron by the loss of two of its aircraft, BF320 crashing in the target area without survivors from the eight man crew of P/O Hulse. R9161 was sent crashing onto French soil by a nightfighter, and just one man survived as a PoW from the crew of F/L Neate. The last night of the month saw over six hundred aircraft, again including some from the Training Units, winging their way towards Düsseldorf, and 484 arrived in the target area to bomb. As would always happen from this point, when large forces attacked this city, some of the bombing spilled over into nearby Neuss, and 453 buildings were destroyed at the two locations. The success was gained at the high cost of twenty nine aircraft, but not one of the sixty one Stirlings fell to the defences. During the month, the squadron despatched ninety seven sorties, for the loss of four aircraft and crews.

There was a gentle start to August for most crews, and it was not until the night of the 6/7th, that the first major operation was mounted. This was the final raid of the series on Duisburg, and it went the way of the others, with very modest damage, and most of the bombs finding open country. Three nights later, forty Stirlings took part in a raid by a mixed force on Osnabrück. A number of industrial buildings were hit, and two hundred houses were destroyed, and all of the Stirlings returned home. Fifty two aircraft were sent mining in Kiel Bay and off Denmark on the 10/11th, when the single Stirling casualty was R9162 of 149 Squadron. It crashed into the Kattegat, and took with it to their deaths F/S Oliver and his crew. The first major raids of the war on Mainz inflicted heavy damage on the 11/12th and 12/13th, for a combined loss of eleven aircraft, and this was followed by a disappointing attack on Düsseldorf on the 15/16th. Earlier in the day, a new era had begun with the arrival on 3 Group stations of the founder squadrons of the Pathfinder Force, for which Wyton was the initial HQ under the then G/C Don Bennett. Opposed in principle to the idea of an elite target finding and marking force, Harris, once overruled by higher authority, gave it his unstinting support, and was eager to send it into battle at the earliest opportunity. In the meantime, over a hundred aircraft returned to Osnabrück, and inflicted moderate damage on northern and north-western districts. The squadron's W7589 survived a brush with a nightfighter, but crashed in Norfolk on return, without injury to Sgt Baker and his crew. A week hence they would be involved in a similar incident, which would delay their return home.

The first Pathfinder-led operation took place on the 18/19th, with the port of Flensburg as the objective. Situated in the eastern side of the narrow neck of land where Germany and Denmark meet, it should have been a relatively easy target to find. In the event, in an inauspicious beginning to what would become an illustrious career, the fledgling force ended

up over Denmark, where a number of towns reported being bombed. On the 20/21st, Sgt Robertson and his crew took R9329 for a mining sortie to the French coast, during the course of which, it crashed in Devon, killing all on board. The second Pathfinder operation was to Frankfurt on the 24/25th, and its crews again found difficulty in identifying the target. Most of the bombs fell into open country north and west of the city, although there was moderate property damage, and seventeen large fires were started. The operation began badly for 149 Squadron, when N6083 developed an engine fire, and crashed in Suffolk eleven minutes after take-off, killing P/O Wynn and his crew. W7572 fell victim to a nightfighter over Belgium, and the previously mentioned Sgt Baker and his crew were forced to take to their parachutes. The pilot and three others ultimately evaded capture, but their colleagues were rounded up and became PoWs. The Pathfinders achieved success for the first time at Kassel on the 27/28th, when good illumination allowed the main force crews to destroy over 140 buildings, and seriously damage over three hundred more. The Command paid a price of thirty one aircraft, and a further twenty three were missing from a raid on Nuremberg twenty four hours later. On this occasion, the aiming point was marked with great accuracy, the Pathfinder crews employing target indicators for the first time, but the main force crews did not fully exploit the opportunity, and damage was only moderate. 149 Squadron's N6081 was shot down by a nightfighter over Germany, and the commanding officer, W/C Charlton-Jones was killed with five others of the eight men on board. He was the first of the squadron's commanders to be lost in action, and he was replaced by W/C Wasse, who had completed a six month tour as the commanding officer of 9 Squadron in January. The squadron despatched seventy eight sorties during the month, for the loss of six aircraft and five crews.

September began with the pathfinders posting a "black" on the 1/2nd. Briefed to mark Saarbrücken, its crews identified the non-industrial town of Saarlouis in error, and much to the chagrin of its inhabitants, the main force delivered an accurate attack. This might have been an ill-omen for the month, but, in fact, from this point, the Command embarked on an unprecedented series of effective operations, which took it through to mid month. It began at Karlsruhe on the 2/3rd, where photographic reconnaissance revealed much damage to housing and industry, and continued at Bremen on the 4/5th, when 480 buildings were destroyed. 114 buildings were reduced to rubble at Duisburg on the 6/7th, and while this was a modest return, it still represented something of a victory at this notoriously difficult target. The run of successes was halted temporarily at Frankfurt on the 8/9th, but an attack on Düsseldorf on the 10/11th signaled a return to winning ways, and produced perhaps the most damaging raid of the war after Cologne. The Pathfinders employed "pink pansies" as target indicators for the first time, and over nine hundred houses were destroyed, and fifty two industrial premises in the city and in Neuss were so severely damaged, that production was halted for varying periods. It was a raid in which the training units participated, and they shared in the heavy loss of thirty three aircraft. 149 Squadron posted missing the crew of F/S Potts in R9170, which was shot down by a nightfighter over Holland, killing all but the navigator. Bremen received its second raid of the month on the 13/14th, and the damage sustained by the city exceeded that inflicted by the Thousand force in June. 848 houses lay in ruins, and a number of important war industry factories were hit, thereby losing production. Wilhelmshaven reported its heaviest raid to date on the 14/15th, and even Essen was hit harder than ever before on the 16/17th, with damage to the giant Krupp armaments producing complex, on top

of the more familiar catalogue of destruction to residential and public property. It was by no means a precision operation, however, and many other Ruhr towns reported bombs falling within them. As far as losses were concerned, though, this was a bad night for the Command, the Thousand bomber raids aside, its worst to date from a single operation. Thirty nine aircraft were missing, including some from the training units, and 149 Squadron registered the loss of R9164 to a nightfighter over Belgium, and there were no survivors from the crew of F/S Kynaston.

It can be no coincidence, that this remarkable run of successes came at a time, when the Pathfinder Force was emerging from its shaky start, and the crews were coming to terms with the complexities of their demanding role. There would be no overnight transformation, and failures would continue to outnumber successes for some time to come, but the encouraging signs were there, and it boded ill for Germany in the coming years. Two operations were mounted on the 19/20th, the larger one to Saarbrücken, while sixty eight Lancasters and twenty one Stirlings targeted Munich. Less than half the crews at the latter found the mark, and most of the bombs fell into the suburbs. BF334 of the Conversion Flight was ditched off the Kent coast with engine failure on the way home, and two men were killed, while a third later succumbed to his injuries. Sgt Philp and three of his crew survived the incident, and three of them were awarded the BEM for their heroic part in the rescue. On the last night of the month, BF328 crashed into the North Sea during a mining sortie, and F/S Wells and his crew all lost their lives. The squadron posted its own record 110 Stirling sorties during the month, and lost three aircraft and crews, plus that from the Conversion Flight.

October was to be more expensive, and began with losses from the first two operations. A disappointing raid on Krefeld on the 2/3rd cost seven aircraft, one of which was 149 Squadron's R9167. It contained the crew of flight commander S/L Greenslade, and there were no survivors after it was sent crashing onto Dutch soil by a nightfighter. The weather helped Aachen to escape with only slight damage three nights later, and N3755 arrived back over Kent with dry tanks. All but the pilot baled out safely, but P/O Lonsdale was still at the controls when the Stirling crashed, and he failed to survive. A moderately successful attack on Osnabrück destroyed 149 houses and six industrial premises on the 6/7th, and this was the last bombing operation for a week. Mining continued, however, and BF348 suffered technical problems shortly after take-off for the Gironde Estuary. The Stirling struck trees and crashed in Norfolk while F/S Hart was trying to land at Watton, and he and five of his crew were killed, while one of the gunners survived with injuries. A decoy fire site drew away half of the bomb loads intended for Kiel on the 13/14th, but the remainder inflicted a reasonable degree of damage. A similar decoy attracted most of the bombs at Cologne on the 15/16th, rendering the operation a failure, and W7526 failed to return to Lakenheath, after being shot down by a nightfighter over Holland, with no survivors from the crew of F/S Brocket. On the following night, BF392 failed to return from a mining sortie to the mouth of the Gironde, and it was later established that the Stirling had crashed off the French coast, and that F/S Ekelund and his crew had all died.

A new campaign began on the 22/23rd, in support of Operation Torch, the Allied landings in North Africa, which would ultimately lead to Montgomery's victory over Rommel at El

Alamein. It involved the Command in attacks on the major Italian cities, and would occupy much of its resources until well into December. Proceedings were opened by 5 Group at Genoa on the 22/23rd, and 3 and 4 Groups followed up at the same target on the next night. Unfortunately, cloud cover confounded the crews, and it was later discovered that the raid had fallen on the town of Savona, some thirty miles away. It was a tough trip across the Alps for the low-ceilinged Stirling, and the squadron's W7628 arrived back over Kent with empty fuel tanks and crashed, killing the entire crew of Sgt Siwak. 5 Group again had the first crack at Milan by daylight on the 24th, and it was 1 and 3 Groups which followed up that night, in a raid which was spoiled by the weather. On the 27th, BF389 crashed on take-off for a training flight, but F/S Gow and his crew were able to walk away. The month had seen the squadron despatch a more modest seventy six sorties, but seven aircraft had failed to return or crashed.

November was to place even less demand on the squadron, and the first bombing operation did not take place until the 7/8th, when Genoa was the destination for 175 aircraft. A successful outcome was achieved, and this was followed by a modest return from a raid on Hamburg on the 9/10th. Later on the 10th, the squadron lost another crew to a training accident, when W7582 developed an engine fire, and crashed in Suffolk, killing the crew of flight commander S/L Hutchings. Genoa was raided twice more with only a small Stirling participation, before W7566 crashed into the sea off the French coast during a mining sortie, and there were no survivors from the crew of Sgt West. Turin was the objective on the 18/19th and 20/21st, and Stuttgart escaped with modest damage on the 22/23rd, after cloud and ground haze obscured the city centre. A return to Turin on the 28/29th brought the first award of a Victoria Cross to a member of a Stirling crew. F/S Middleton was an Australian, who had joined the squadron in February 1942, and been involved in F/L Evans's crash on landing at Oakington in April. This had led to a meeting on a train with W/C Hamish Mahaddie, who at the time, was a flight commander with 7 Squadron of the Pathfinders. Mahaddie was impressed with Middleton, and invited him to apply for a posting to 7 Squadron to join his flight. Middleton eventually took up the offer in August, but it soon became clear that his navigator was not up to the required standard. W/C Mahaddie, who at the completion of his tour would become The Pathfinder "Horse Thief", whose job was to recruit or poach suitable crews from the main force squadrons, offered him the chance to remain at 7 Squadron with a new crew, or return to 149 Squadron. A fierce crew loyalty persuaded him to take the latter option, and as he and his crew took off at 18.14 hours on that fateful evening, one of seven from 149 Squadron, they were embarking on the 29th operation of their first tour. Once in the target area, Middleton came down to two thousand feet to establish his position, and made three runs across the city, sustaining damage from light flak. A shell exploded in the cockpit, severely wounding both pilots and the wireless operator, but the second pilot was able to deliver the bombs while his captain was unconscious, before turning for home. Further flak damage was sustained on the return flight, and on arrival at the Kent coast short of fuel, and doubtful of his ability to safely attempt a landing, Middleton selected a parallel course and baled out five members of his crew. They all survived, but sadly, Middleton and two others were still on board when BF372 crashed into the sea, and the subsequent VC was awarded to him posthumously. On the following night, Turin claimed another 149 Squadron crew, that of F/S Bowie, all eight of whom died, when R9202 crashed in Italy. It was an unhappy end to a

month in which the squadron launched sixty one sorties, for the loss of four aircraft and twenty five men.

The December account opened at Frankfurt on the 2/3rd, a relatively small-scale affair, which, in keeping with past raids on this city, failed to produce a telling blow, and most of the bombs were wasted in open country. Cloud cover over Mannheim forced crews to bomb on dead reckoning on the 6/7th, after the Pathfinders withheld their flares, and damage was scant. The squadron's N3727 sustained flak damage, persuading F/S Ashley and his crew to abandon it to its fate after crossing the south coast, and all arrived safely on the ground with a number of injuries between them. While 5 and 8 Group continued the assault on Turin on the 8/9th, elements of 1, 3 and 4 Groups went mining off the German and Danish coasts. Three Stirlings failed to return, and two of them were 149 Squadron aircraft, while a third, W7639, crashed in Suffolk after returning early, and P/O Philp and his crew lost their lives. The missing aircraft were R9253, which crashed into the Baltic, taking with it the eight man crew of F/O Izzard, and BF391 of F/O Good, who all died in the crash in Germany. Stirlings operated against Italy for the last time during the current campaign on the 9/10th, when Turin was the target, and the same city brought the offensive to an end, when attacked by 1, 4 and 5 Groups on the following night. On the 19th, F/O Hunt took R9265 for an air-test, and died with the other seven occupants, when structural failure caused the Stirling to crash in Bedfordshire. Minor operations saw the Command through to the 20/21st, a night on which a highly significant operation took place almost unnoticed. While over two hundred aircraft carried out an attack on Duisburg, six Mosquitos of 109 Squadron set off for a power station at Lutterade in Holland, led by their commanding officer, W/C Hal Bufton. Since becoming a founder member of the Pathfinder Force in August, 109 Squadron had been engaged in magnificent pioneering work with the Oboe blind-bombing device, marrying it to the Mosquito, and ironing out the teething troubles. This night's operation involved the first Oboe-aimed bombs as a calibration test to gauge the margin of error. Three aircraft experienced equipment malfunctions, and bombed Duisburg instead, but W/C Bufton and two other successfully released their bombs. Sadly, a mass of craters from a recent misdirected raid on Aachen invalidated the calibration aspect of the operation, but further trials would take place, leading to a revolution in bombing accuracy in the coming year. A modest thirty sorties were flown by the squadron during the month, and five aircraft were lost in the process. It had been a much better year for the Command after the tribulations of 1941, and the advent of Oboe promised much for the future.

1943

The year began with a continuation of the Oboe trials programme, in which 109 Squadron marked for small forces of Lancasters from 1 and 5 Groups. During the first two weeks of January, no less than seven of these operations were directed at Essen, and one at Duisburg. 149 Squadron registered its first incident of the year on the 3rd, when R9334 crashed near Lakenheath after overshooting during a training sortie. Thereafter, the month would proceed without further loss, and February would only bring a single failure to return. On the 14th of January, a new Air Ministry directive was issued, authorizing the area bombing of those French ports which were home to U-Boat bases and support facilities. A target list was drawn

up accordingly, which was headed by Lorient, and that night, over a hundred aircraft, mostly Halifaxes and Wellingtons with twenty Stirlings in support, carried out the first of nine raids on the port over the next month. It was not a very satisfactory attack, but a better performance by the crews on the following night led to the destruction of eight hundred buildings. Stirlings were excluded from two disappointing raids on Berlin on the 16/17th and 17/18th, when proper target indicators were employed by the Pathfinders for the first time. Stirlings were back in action on the 23/24th and 26/27th, however, for the third and fourth raids of the series on Lorient. Düsseldorf was left to the Lancasters and Halifaxes on the 27/28th, and Lorient to Wellingtons and Halifaxes on the 29/30th, but seven Pathfinder Stirlings joined a predominately Lancaster force at Hamburg on the 30/31st, for the first H2s raid of the war. The month passed quietly for 149 Squadron, which despatched a modest twenty three sorties for the loss of the single aircraft already mentioned.

February would make far greater demands on the squadron, although it sat out the month's first major operation to Cologne on the 2/3rd. 263 aircraft, including sixty six Stirlings, set out for Hamburg on the following night, when the weather persuaded many crews to return early, but those who persevered started over forty large fires. Stirlings were also well represented at Turin on the 4/5th, and they contributed to the creation of widespread damage. The sixth operation against Lorient took place on the same night, without a Stirling presence, and the seventh was delivered by three hundred aircraft in a two phase attack on the 7/8th, for which sixty two Stirlings were despatched. Over four hundred aircraft returned on the 13/14th, and dropped more than a thousand tons of bombs, before a force of Halifaxes, Wellingtons and Stirlings raided Cologne on the 14/15th. H2s based skymarking was used in the face of cloud cover, and around a hundred buildings were destroyed. A fairly modest nine aircraft failed to return, and among them was the squadron's W7638, which was shot down by a nightfighter over Holland, killing F/S Gow and three of his crew. Lorient's ordeal ended on the night of the 16/17th, by which time it was little more than a deserted ruin. Three raids on Wilhelmshaven, on the 18/19th, 19/20th and 24/25th, all failed to find the mark, and most of the bombing was wasted in open country. Nuremberg escaped a telling blow on the 25/26th, when the bombing caught only the northern rim of the city, but three hundred buildings, nevertheless, sustained damage, and nine aircraft were lost. The run of disappointing operations continued, when four hundred aircraft returned to Cologne on the 26/27th, and again wasted many bombs, but those which hit the city produced the familiar catalogue of damage to housing and public buildings. Having dealt with Lorient, the Command now turned its attention upon St Nazaire, and on the last night of the month, laid waste to 60% of the town's built-up area. A busy month of bombing and mining operations saw 149 Squadron despatch a new record 113 Stirling sorties for the loss of just one aircraft and crew.

March would bring the first major campaign of the year, but before it began, there were operations to Berlin and Hamburg for the crews to negotiate. The former took place on the 1/2nd, and involved a force of three hundred aircraft, sixty of which were Stirlings. The massive urban sprawl of the Capital made it difficult for the Pathfinder crews to pick out the city centre aiming point, and the subsequent bombing was scattered over a very wide area, with the main emphasis in south-western districts. Despite the lack of concentration, Berlin underwent its most damaging attack of the war thus far, registering the destruction of almost

nine hundred buildings, while many of its factories were hit. The squadron's BK692 was one of seventeen missing aircraft, and was initially damaged by a nightfighter in the target area. Two crew members were mortally wounded in the engagement, but the Stirling remained airborne, until being hit by flak at the French coast. Five of the crew baled out at this point, but the pilot, F/L Richman, and the two wounded men were still on board when the aircraft crashed. The five survivors were taken prisoner, but one of them retained his freedom for nine months before eventually being captured. Two nights later, a further misinterpretation of H2s returns led to the town of Wedel receiving many of the bombs intended for Hamburg, although a hundred fires had to be dealt with by the city's fire brigades. Harris now felt ready to set his hand against Germany's industrial heartland, the Ruhr, a region which had always been protected by its blanket of haze, and consequently, had never experienced a decisive blow. This was the first campaign for which Bomber Command had been genuinely prepared and adequately equipped, and it was an opportunity for Oboe to prove its worth. As arguably the most important industrial city in Germany, Essen was selected to open proceedings, and a plan was prepared for over four hundred aircraft to deliver a three-wave attack.

The Stirlings were assigned to the second wave, along with Wellingtons, and 149 Squadron, in the event, was to play only a minor role in the operation. 442 aircraft took off either side of 19.00 hours and headed towards the Ruhr, but an unusually high number of early returns and the bombing of alternative targets reduced the numbers arriving over Essen to 362. Among them were four of the original six crews despatched by 149 Squadron, those of S/L Stephens in EF342, F/L Ellis in BK698, P/O Fulton in EF327 and F/S Smith in BK696. These contributed to a highly successful outcome, the first telling blow on this city, in which over three thousand houses were destroyed, and the Krupp complex sustained damage to fifty three of its buildings. Fourteen aircraft failed to return, but the 149 Squadron contingent returned safely. In May, the above mentioned S/L Stephens would be posted to command XV Squadron. Before round two of the Ruhr campaign took place, Harris turned his attention upon southern Germany, attacking Nuremberg on the 8/9th, Munich on the 9/10th and Stuttgart on the 11/12th. The first mentioned enjoyed a reasonable degree of success, despite many crews undershooting with their bombs, and six hundred buildings were destroyed. A modest eight aircraft were lost, but the 149 Squadron casualty occurred in England, and involved EF328. This suffered engine failure, and was crash-landed in Suffolk by P/O Southall, without injury to the occupants. Almost three hundred buildings were destroyed in Munich, where the BMW aero-engine factory was rendered inactive for six weeks, and the cost was again eight aircraft. The last mentioned raid was a failure, resulting in the destruction of around a hundred houses, and the first recorded employment of dummy target indicators was possibly a factor. The squadron's EF327 lost its legs on landing, but P/O Fulton and his crew emerged from the wreck without injury, to enjoy a temporary reprieve.

The night of the 12/13th brought the second Ruhr operation, for which Essen was again the target. The Oboe marking went according to plan, and this time, the Krupps works found itself in the centre of the bombing area, and sustained 30% more damage than a week earlier. Although substantially less buildings were destroyed on this night, the total amounting to around five hundred houses, the degree of concentration was greater, and it was another successful operation. The losses climbed to twenty three aircraft, and this figure included the

squadron's EF330, which fell victim to a nightfighter over Holland, and there were no survivors from the eight man crew of F/S Pearson. There were only minor operations for the next nine nights, before St Nazaire was attacked on the 22/23rd, although 3 Group issued a recall to its Stirlings, and all but eight crews complied. The Ruhr offensive moved on to Duisburg on the 26/27th, but equipment failure among a high proportion of the Oboe Mosquito force led to inaccurate skymarking, and the bombing was scattered and ineffective. The month ended with two raids on Berlin, sandwiching another tilt at St Nazaire. The first attack on the Capital was mounted on the 27/28th, and caused extensive but light damage, with only a handful of houses destroyed. The weather intervened for the second Berlin raid, on the 29/30th, and most of the bombs fell into open country. BK708 crashed in Germany, killing the previously mentioned P/O Fulton, an American serving in the RAF, and five of his crew, while one of the gunners survived in enemy hands. F/L Butler and his crew had to cut short an air-test in BK715 on the 31st, when an engine erupted in flames, but a safe landing was carried out, and the aircraft was evacuated before it was consumed by fire. The squadron launched eighty nine sorties during the month, losing six aircraft and three crews.

April would prove to be the least rewarding month of the Ruhr offensive, but this was largely because of the number of operations conducted away from the region, and beyond the range of Oboe. It began in encouraging manner, however, with another successful assault on Essen on the 3/4th, in which over six hundred buildings were destroyed in mostly central and western districts. On the following night, the largest non-1,000 force to date, comprising 577 aircraft, set off for Kiel, where strong winds and decoy fire sites were blamed for a dismal failure. Among the twelve missing aircraft was 149 Squadron's R9327, which crashed in Denmark, killing Sgt Way and his crew. Two further attempts were made on Duisburg on the 8/9th, by a mixed main force, and twenty four hours later by Lancasters, but neither succeeded in inflicting more than very modest damage. All previous efforts against Frankfurt had failed to bring the hoped-for significant blow, and a force of five hundred aircraft, including ninety eight Stirlings, proved no more able on the 10/11th, when only a few bombs fell into southern districts. The creep-back phenomenon, a feature of most Bomber Command heavy raids, rescued an attack on Stuttgart on the 14/15th, by falling across one industrial and a number of residential suburbs, destroying almost four hundred buildings. Stirlings and Wellingtons shared the bulk of the twenty three losses with eight each, and two of the former were 149 Squadron aircraft. BK759 crashed in Germany, and BF500 in France, and neither produced a survivor from the crews of P/O Ogle and P/O White respectively.

Harris divided his forces on the 16/17th, sending the Lancasters and Halifaxes to attack the Skoda armaments works at Pilsen in Czechoslovakia, while a predominately Stirling and Wellington force carried out a diversionary raid on Mannheim. The former was a failure, caused by Pathfinder route markers being confused for target indicators, and the disappointment was compounded by the loss of thirty six aircraft, split evenly between the two types. The latter was moderately effective, but also cost eighteen aircraft, and this brought the night's total casualty figure to a new record fifty four. While Lancasters and Halifaxes raided Stettin on the Baltic coast on the 20/21st, eighty six Stirlings peeled off to attack the Heinkel aircraft factory at Rostock. An effective smoke-screen thwarted the crews, leading to scattered bombing, and eight aircraft failed to return. 149 Squadron again had to

post missing two crews, both of which were experienced. BK698 disappeared into the sea, and took with it the eight man crew of F/L Ellis, and the squadron's high attrition rate in flight commanders continued, when BK714 flew into the ground in Denmark, while skimming low over the countryside to evade flak. The bomb-aimer was killed, but S/L Howell and five others survived to fall into enemy hands. The most effective raid on Duisburg thus far took place at the hands of five hundred aircraft on the 26/27th, when three hundred buildings were destroyed. This was despite the fact, that many of the bombs missed the city altogether, but as events were to prove, its charmed life was coming to an end. Two large mining operations were mounted on the 27/28th and 28/29th, before the month ended with a modestly successful attack on Essen on the night of the 30th. During the course of the month, W/C Wasse was posted away to be replaced by W/C Harrison. Ninety seven sorties were despatched by the squadron during April, and five aircraft and crews were lost.

May would bring a return to winning ways, with a number of spectacular successes, but it almost began badly for 149 Squadron. Thirty Wellingtons and Stirlings went mining in French waters on the 1/2nd, and BK696 sustained flak and nightfighter damage, which forced the crew of P/O Blair to safely abandon it to its fate over Hampshire. A new record non-1,000 force of 596 aircraft took off for Dortmund on the 4/5th, and despite the presence of a decoy fire site, which inevitably attracted a proportion of the bombs, over twelve hundred buildings were destroyed. War industry factories, dock facilities, public buildings and housing all featured in the catalogue of damage, but the success was achieved at the high cost of thirty one bombers. 149 Squadron posted missing the eight man crew of F/O Davey, after EF343 was shot down by a nightfighter over Holland, and there were no survivors. On the 11th, BK812 swung on take off and lost its undercarriage at the start of a ferry flight to XV Squadron at Mildenhall in the hands of P/O Beetles, but no injuries were reported. There was no escape for Duisburg on the 12/13th, after the Pathfinders were finally able to mark the city accurately. Over five hundred aircraft destroyed almost sixteen hundred buildings, and inflicted damage on some important war industry factories, while sixty thousand tons of shipping was either sunk or seriously damaged in Germany's largest inland port. Losses were again high at thirty four aircraft, and the 149 Squadron representative was EF357, which fell to the cannons of a nightfighter over Holland, with no survivors from the crew of Sgt Bass. On the following night, Bochum suffered the destruction of almost four hundred buildings at the hands of a mixed force, while a predominately Lancaster effort failed to rectify the recent disappointment at the Pilsen Skoda works. 149 Squadron experienced another bad night at the hands of enemy nightfighters, losing two more of its crews. BF479 was despatched over Belgium, and BK726 over Germany, but the fate of the crews of F/O Martin and P/O Forsyth was the same, and all fifteen men died. There would be no major operations by the heavy brigade thereafter for nine nights, and it was during this period, that 617 Squadron booked its place in history, with its epic attack on the Dams on the 16/17th.

A lull in main force operations did not have a marked effect on 149 Squadron's loss rate, as its crews were regular participants in the laying of mines. While sowing its vegetables in French coastal waters on the 17/18th, BK701 was hit by flak, and was ditched in the Loire Estuary by P/O Hill. He and two others were rescued by the enemy, but the other four crewmen went down with the Stirling. Four nights later, Sgt Tomlin and his crew took BF510

mining in the Biscay area, and disappeared without trace. After their long lay-off, the main force and Pathfinder crews returned to the fray on the 23/24th. For the second time in the month, Dortmund was selected to host a raid by a new record non-1,000 force, this time amounting to a massive 826 aircraft. Clear weather conditions allowed the Pathfinders to mark the centre of the city, and two thousand buildings were reduced to ruins, while numerous industrial premises were also hit. The defenders fought back to claim thirty eight aircraft, the highest casualty figure of the campaign to date, but the 149 Squadron contingent returned safely. Over seven hundred aircraft tried to repeat the success at Düsseldorf two nights later, but this time, cloud and decoy fire sites contributed to an expensive failure. Among the twenty seven missing aircraft was the squadron's BK710, which was shot down into the sea by a nightfighter, and there were no survivors from the crew of Sgt Uden. The Stirling brigade set out a raid by five hundred aircraft on Essen on the 27/28th, when almost five hundred buildings were destroyed. The month ended with an operation to Barmen on the 29/30th, this one of the twin towns known jointly as Wuppertal. Over seven hundred aircraft were involved, and accurate Pathfinder marking was exploited by the main force crews, to leave an estimated 80% of the town's built-up area in ruins. Four thousand houses were destroyed, along with most of the large factories, and 3,400 people lost their lives. It was rarely a one-sided contest, however, and thirty three bombers were claimed by the defenders, including the squadron's BF507, a nightfighter victim over Germany, with no survivors from the crew of P/O Flack. It had been a more demanding month for 149 Squadron, which posted a record 121 sorties, but lost ten aircraft and eight crews in the process, and only three of fifty eight men had survived to tell the tale to their German captors.

There were no major operations at the start of June, but that was no guarantee of safety, and this was brought home to Sgt Nicholson and his crew, when they survived a take-off crash in EH885 on the 9th, when bound for an air-test. The bombing campaign resumed at Düsseldorf on the 11/12th, when almost eight hundred aircraft departed their stations. Despite an errant Oboe marker attracting a proportion of the effort, massive damage was inflicted on the city, and almost nine thousand separate fire incidents were recorded. Production was brought to a complete halt at forty two war industry factories, and many others were at reduced capacity for a period, and eight ships were sunk or damaged in the port. The losses equalled the campaign's previous highest at thirty eight, but 149 Squadron was not represented among them. A successful attack on Bochum was delivered on the following night without the assistance of Stirlings, and twenty four hours later, F/O Porter and his crew earned a temporary reprieve, when surviving intact a landing crash at the end of a training sortie in BF531. Lancasters went alone to Oberhausen on the 14/15th, and were joined by a few Pathfinder Halifaxes on the 16/17th, for an experimental raid on Cologne, for which the marking was by H2s rather than Oboe. Problems with H2s sets led to late and scattered marking, which was reflected in the accuracy of the bombing, but four hundred houses were, never-the-less destroyed, along with nine railway stations, and many industrial premises were damaged. Elements of 3, 4, 6 and 8 Groups went to the Schneider armaments factory at Le Creusot on the 19/20th, the scene of a 5 Group daylight raid in the previous October. It was a difficult target, which had to be identified by the crews individually in the light shed by Pathfinder flares, and only 20% of the bombs hit the factory.

A hectic round of four operations in five nights began at Krefeld on the 21/22nd. It became a perfect example of the Command at its most destructive, and a record number of 5,500 houses were reduced to rubble, while over a thousand people lost their lives. The losses were also a record for the campaign, however, and the 72,000 people rendered homeless would have been cheered to know, that forty four of their tormentors would not be returning home. One of these was 149 Squadron's BK799, which was sent crashing into the Ijsselmeer by a nightfighter, killing P/O Lowrie and his crew. On the following night, Mülheim was heavily bombed, and some of the effort spilled over into neighbouring Oberhausen. Over eleven hundred buildings were destroyed, and more than twelve thousand others were damaged to some extent. Thirty five aircraft were added to the previous night's haul, and "Happy Valley's" reputation was being justifiably earned. After a night's rest, 630 aircraft took off for the Elberfeld half of Wuppertal, and visited upon it an ordeal even greater than that suffered by its twin Barmen at the end of May. Three thousand houses and 170 industrial premises were destroyed, and an estimated 94% of the town's built-up area was deemed to be in ruins. Thirty four aircraft failed to return, but 149 squadron came through unscathed, and did likewise on the following night, when Gelsenkirchen was the target for over four hundred aircraft. This notoriously difficult target again escaped serious damage, when, in an echo of past Ruhr raids, bombs were sprayed over a wide area onto other towns. Thirty aircraft were lost, and this gave a combined total over the four raids of 143, or the equivalent of six three-flight squadrons.

A series of three operations against Cologne spanning the turn of the month began on the 28/29th. Over six hundred aircraft took part on this night, and those reaching the target produced the most outstanding raid of the war to date. Over 6,400 buildings were destroyed, including dozens of an industrial nature, and 4,377 people lost their lives, a new record number, while 230,000 others were rendered homeless. The twenty five missing aircraft included five of the seventy five Stirlings despatched, and three of these were Lakenheath based. BF483 was lost without trace with the crew of Sgt Scott, while BK703 and EE880 were accounted for by nightfighters, the former over Holland, with no survivors from the crew of F/O Booker. The latter met its end over Belgium, but this did at least result in two survivors from the crew of the previously mentioned F/O Porter, the flight engineer, who evaded capture, and the wireless operator, who didn't. This was the final operation of a month, which had seen 103 sorties flown by the squadron, for the loss of six aircraft and four crews. Having closed the June account, it fell to Cologne to open that of July, and on the night of the 3/4th, it underwent another ordeal at the hands of six hundred aircraft. The attack was aimed at the more heavily industrialized districts on the east bank of the Rhine, and was carried out with stunning accuracy, which led to the destruction of twenty industrial premises and 2,200 houses. 149 Squadron suffered an early casualty involving EF400, which contained the crew of Sgt Rogers, and returned prematurely with engine failure, only to lose its undercarriage on landing. Thirty aircraft failed to return from Cologne, and it was later established that the squadron's BF530 had fallen victim to a nightfighter over Belgium during the outward flight. P/O Cozens and five of his crew had been killed, while two men survived, the wireless operator, ultimately, to evade capture. The series against Cologne was brought to a conclusion by an all-Lancaster heavy force on the 8/9th, after which, the city authorities were able to assess the extent of the damage and casualties arising out of the three raids. It

was the most extensive catalogue of misery of the war thus far, and included eleven thousand buildings destroyed, 5,500 people killed, and a further 350,000 without homes.

A disappointing failure at Gelsenkirchen on the 9/10th, which the Stirlings sat out on the ground, effectively brought an end to the Ruhr offensive, even though two further operations to the region would take place at the end of the month. It had been a bruising contest, but Harris could look back over the past five months with genuine satisfaction at the performance of his squadrons. Losses had been grievously high, but much of Germany's industrial heart lay in ruins, and the factories at home had more than kept pace with the rate of attrition. The training schools, too, were pouring eager new crews into the fray to fill the gaps, and a gradual expansion was taking place, which had enabled all Stirling squadrons to add a C Flight during May. Perhaps Harris derived his greatest satisfaction from the success of Oboe, which had been the crucial factor in the battle, the difference between success and failure, by providing, at last, the means to "see" through the previously impenetrable barrier of haze and cloud. With confidence high, Harris now sought an opportunity to rock the very foundations of Nazi morale, by consigning to oblivion a major German city in a short, sharp series of attacks until the job was done. In the meantime, Stirlings contributed to a massively successful raid on Aachen on the 13/14th, in which almost three thousand buildings were destroyed, and many public and cultural buildings were damaged. It was the last week of the month before Harris was ready to launch Operation Gomorrah, the appropriately, as it turned out, code-named series of raids, for which Hamburg was selected. Bomber Command had gone to Hamburg during the final week of July in each year of the war to date, and this tradition would be continued in 1944. Having been spared by the weather from hosting the first one thousand bomber raid in history more than a year earlier, Hamburg suited Harris's criteria now in a number of respects. As Germany's Second City, its political status was undeniable, as was its importance as a centre of war production, particularly with regard to U-Boat construction. It was also accessible to the Command without the need to traverse large tracts of hostile territory, and its location near a coastline would both aid navigation, and allow the aircraft to approach and retreat during the few hours of total darkness afforded by mid summer. Finally, lying beyond the range of Oboe, Hamburg boasted the wide River Elbe to provide a strong H2s signature for the navigators flying high above.

Operation Gomorrah began on the night of the 24/25th, and was attended by the first operational use of "Window". This was the tinfoil-backed strips of paper, which, when dispensed into the slip stream in great clouds, would flutter slowly to earth, and swamp the enemy's nightfighter control, searchlight and gun-laying radar with false returns. The device had actually been available for a year, but its use had been vetoed in case the enemy copied it. The enemy had, in fact, already developed a similar system of its own under the code name Düppel, which had also been withheld for the same reason. 791 aircraft took off after 22.00 hours, including 114 Stirlings from 3 Group, and they headed for the rendezvous point over the North Sea. Fewer than usual combats took place during the outward flight, and those aircraft shot down at this stage were invariably off course and outside of the protection of the bomber stream. At the appointed position, the designated crew members began to release the bundles of Window, and its effect became apparent once they arrived in the target area, to find the usually efficient co-ordination between the searchlight and flak batteries absent.

Defence was sporadic and random, and the opportunity was there to mark the target almost unhindered. In the event, the markers were slightly misplaced, but a concentrated attack began to develop, which was spoiled by an extensive creep-back. This cut a swathe of destruction from the city centre, back across the north-western districts along the line of approach, and out into open country, where a proportion of the bombing was wasted. It was, never-the-less, a highly encouraging start to the campaign, and was achieved for the modest loss of twelve aircraft, for which much of the credit belonged to Window. On the following night, Harris switched his force to Essen, to take advantage of the chaos dealt to the enemy's defensive system by the device, and another massive blow was delivered upon the city. Over 2,800 houses were destroyed, and the Krupp works sustained its heaviest damage of the war, in return for the loss of twenty six aircraft.

After a night's rest, 787 aircraft took off for round two of Operation Gomorrah, and what followed their arrival over the city was both unprecedented and unforeseeable, and the product of a conspiracy of circumstances. A period of unusually hot and dry weather had left parts of the city a tinderbox, and the initial spark to ignite it came with the pathfinder markers. These fell two miles east of the planned city centre aiming point, but with unaccustomed concentration into the densely populated working class residential districts of Hamm, Hammerbrook and Borgfeld. The main force crews followed up with uncharacteristic accuracy and scarcely any creep-back, and delivered the bulk of their 2,300 tons of bombs into this relatively compact 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. Such was the ferocity of this meteorological phenomenon, the first recorded bombing-induced firestorm in history, that trees were uprooted and flung bodily into the flames, along with debris and people, and the temperatures at the heart of the inferno exceeded one thousand degrees Celcius. The flames only subsided once all of the combustible material had been consumed, by which time, it was already too late for the forty thousand people who had perished. On the following morning, the first of an eventual 1.2 million people began to file out of the city, and did so under strict instructions not to talk about what they had witnessed. Seventeen aircraft failed to return, but 149 Squadron continued its fine record of loss-free operations since Cologne. Two nights later, a force of 777 aircraft set out to return to the tortured city, and the Pathfinders again dropped their markers two miles to the east of the centre, and a little south of the firestorm area. This time, there was a creep-back, which spread across the devastation of two nights earlier, before falling onto other residential districts further north, where extensive damage and casualties resulted. As the defences began to recover from the shock of Window, so the losses crept up, and twenty eight aircraft were missing. Before the final raid took place against Hamburg, under three hundred aircraft pounded Remscheid, to finally bring down the curtain on the Ruhr offensive. Eight Stirlings were lost on this night, almost 10% of those despatched, and the type's percentage loss rate was beginning to cause alarm at Bomber Command HQ. 149 Squadron launched 103 sorties during the month, for the loss of the single aircraft early on.

Operation Gomorrah was concluded on the 2/3rd of August, when violent electrical storms and icing conditions encountered during the outward flight persuaded many crews to jettison their bombs, or to attack alternative targets. Thirty aircraft were lost, some of them to the

conditions, and little fresh damage was created within the city. 149 Squadron's contribution to the assault on Hamburg amounted to sixty one sorties, fifty five of which were completed without loss. Italy was now teetering on the brink of capitulation, and Bomber Command was invited to nudge it over the edge, by attacking its major cities over a nine night period beginning on the 7/8th. The Stirling squadrons were not involved in this first night, and they also sat out a destructive raid on Mannheim on the 9/10th, but they were called into action on the following night for a tilt at Nuremberg. This operation by over six hundred aircraft was the first to inflict major damage on the birthplace of Nazism, and housing and industry suffered alike. The squadron's first casualty for over a month occurred during an air-test on the 9th, when BF512 crashed beyond the airfield after overshooting, and Sgt Cumming was killed with the other seven occupants. The night of the 12/13th was devoted to Italy, the Lancasters and Halifaxes targeting Milan, while 112 Stirlings, with thirty four Halifaxes and a handful of Pathfinder Lancasters raided Turin. It was during the latter operation, that pilot F/S Aaron of 218 Squadron earned the second and last award to a Stirling crew member of the Victoria Cross, although, sadly, like the first, it had to be bestowed posthumously. Lancasters continued the assault on Milan on the 14/15th and 15/16th, before the Command's interest in Italy was concluded with a raid on Turin on the 16/17th, conducted by a predominately Stirling force. On return, many of the 3 Group stations were fog-bound, and extensive diversions were necessary. A proportion of the aircraft involved would not return home until the following day was well advanced, and consequently, they could not be made ready in time to participate in the night's supremely important operation.

Since the start of hostilities, intelligence had been filtering through concerning German advances in rocket technology. As secret codes were broken, and signals traffic intercepted and deciphered, it became clear that such activity centred upon a research centre at Peenemünde, on the island of Usedom on the Baltic coast. Through this means, it became possible for the brilliant scientist, Dr R V Jones, to monitor the V-1 trials taking place over the Baltic, and reconnaissance flights were made to the general area to gather further information. Churchill's chief scientific adviser, Professor Lindemann, or Lord Cherwell as he became, steadfastly refused to give credence to rocket weapons, and even when confronted with a photograph of a V-2 on a trailer at Peenemünde, taken by a PRU Mosquito as recently as June 1943, he remained unmoved. It required the combined urgings of Dr Jones and Duncan Sandys 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 of August, for which a meticulous plan had been prepared. An innovation was the employment of a Master of Ceremonies to control all aspects of the raid, in the manner so successfully employed by Gibson at the Dams. The officer selected for the role was G/C Searby, the commanding officer of 83 Squadron, and successor to Gibson at 106 Squadron. There were to be three aiming points, the housing estate where the scientists and technical staff lived, the assembly buildings and the experimental site, each of which was assigned to a specific wave of bombers. A spoof raid on Berlin by eight Mosquitos of 139 Squadron was designed to keep the enemy nightfighters away from the scene, and this would be led by the former 49 Squadron commander, G/C Slee.

597 aircraft answered the call for a maximum effort, the numbers somewhat depleted by the absence of a proportion of the Stirling brigade for the reasons already mentioned. Fifty four Stirlings were available, and of these, only two were from 149 Squadron, BK798 and EE872, with the crews of P/O McPherson and F/S Smith respectively. Most of the crews got away between 21.00 and 22.00 hours, and they headed for the target via Denmark, with the final turning point at Rügen, an island to the north of Usedom. The 3 Group aircraft were in the first wave with the Halifaxes of 4 Group, and their crews were briefed to attack the housing estate. The initial marking went awry, and the target indicators fell around the forced workers camp at Trassenheide more than a mile beyond, where heavy casualties were inflicted on the friendly foreign national inmates, who were trapped inside their wooden barracks. Once rectified, the operation proceeded more or less according to plan, and a number of important members of the technical team were killed. 1 Group's attack on the assembly buildings was hampered by a strong cross-wind, but substantial damage was inflicted, and this left only 5 and 6 Groups to complete the operation by bombing the experimental site. It was as they approached the target area, that the nightfighters belatedly arrived from Berlin, and once on the scene, they proceeded to take a heavy toll of bombers, both in the skies above Peenemünde, and on the route westwards towards Denmark. Forty aircraft were shot down, twenty nine of them from the final wave, while only two Stirlings were lost, and both of the 149 Squadron aircraft returned safely having bombed as briefed. The operation was deemed to have been successful, and it certainly delayed the V-2 development programme by a number of weeks, and forced the manufacture of secret weapons underground.

Harris maintained his view that bombing could win the war on its own, without the need for the kind of bloody and protracted land campaigns, which he had personally witnessed during the Great War. He had long believed that Berlin held the key to ultimate victory, and that, as the seat and symbol of Nazi power, its destruction would demoralize the nation to the point where it would demand peace. On the 23/24th, Harris embarked on the first phase of what would be the longest and most bitter campaign of the war, when sending over seven hundred aircraft to the Capital. Past experience at the "Big City" had demonstrated the difficulty of identifying a specific aiming point by H2s, and on this night, it was the southern suburbs which were marked. Many bomb loads fell onto outlying communities and open country, something which would become a feature of all Berlin raids, but that which hit the city destroyed or seriously damaged over 2,600 buildings, most of them houses, and over eight hundred people were killed. The defences were very active, both in terms of flak and nightfighters, and a new record fifty six aircraft were lost. Two of these were from 149 Squadron, one of them BK765, a victim of flak in the target area, from which S/L Mahoney and all but his flight engineer escaped with their lives to become PoWs. The other was EE894, which was despatched by a nightfighter over Germany, killing F/S May and five others, and this time the flight engineer was the sole survivor. It was a bad night for the Stirlings generally, the type registering a 12.9% loss rate, compared with 9.2% for the Halifaxes and 5.1% for the Lancasters.

The high Stirling loss rate continued at Nuremberg on the 27/28th, when eleven of each type failed to return from a disappointing attack, which scattered bombs across the south-eastern and eastern suburbs. This represented a 10.6% casualty rate, and later in the year, this

unacceptable situation would lead to the withdrawal of the type from operations over Germany. The squadron's EE877 was one of those missing, and crashed in Germany with no survivors from the crew of F/S Steer. The twin towns of Mönchengladbach and Rheydt were the objectives on the night of the 30/31st, for which 660 aircraft took off. It was the first major attack on these targets, and over 2,300 buildings were destroyed for the loss of twenty five aircraft. For the third raid running, 149 Squadron posted missing one of its crews, that of F/S Bower, who all died when EF438 crashed in the target area. It was back to Berlin on the last night of the month for a dismal failure, which was characterized by massive undershooting, and the heavy loss of forty seven bombers. The Stirlings' losses amounted to 16%, and among them was the squadron's EE879, which was sent crashing onto German soil, killing the entire crew of F/S Moor. This final week of August had brought a bad time for the squadron, and a month's tally of 108 sorties for the loss of six aircraft and crews.

Berlin was left to the Lancaster squadrons on the 3/4th of September, and this was a modestly effective raid, which did at least cause some useful damage to war industry factories. The new month did not begin kindly for 149 Squadron, when participating in a raid on the twin cities of Mannheim and Ludwigshafen astride the Rhine in southern Germany. The relative positions of the cities provided an ideal opportunity to capitalize on the creep-back phenomenon, and build it into the plan of attack. The aiming point on this night was in the eastern half of Mannheim, with an approach from the west, and the plan worked perfectly to inflict severe damage on both cities. Eight Stirlings were among the thirty four missing bombers, and three of them were from 149 Squadron. BF477 suffered engine failure while over France and crashed killing two of the crew, but F/O Farmer and three others survived to be taken prisoner, while the flight engineer managed to evade a similar fate. EE872 was shot down by a nightfighter in the target area, and only a gunner survived from the crew of F/S Brown. Finally, BK711 fell to a combination of flak and a nightfighter on the way home over Germany, and F/L Cottrell and three of his crew died in the crash, while the three survivors joined their squadron colleagues in enemy hands. The Stirlings were rested on the 6/7th, when Lancasters and Halifaxes raided Munich, but they were out in numbers two nights later to take part in Operation Starkey. This was an attempt to mislead the enemy into believing that an invasion was imminent, and had begun in mid August with highly visible troop movements, and the assembling of landing craft and gliders. Harris was not amused at being ordered to participate in what he considered to be play-acting, but in the event, bad weather prevented the planned Bomber Command involvement during the final week of the month. It was not until the night of the 8/9th of September, that the opportunity arose to carry out his orders to bomb heavy gun emplacements at either end of the small resort town of Le Portel near Boulogne. Perhaps in a gesture of his attitude towards the whole Starkey affair, he committed only his two Oboe Mosquito squadrons and two heavy Pathfinder units, along with the Stirlings of 3 Group, and Wellingtons from the training units. Phase I was aimed at the northern site, code-named Religion, and phase II at the southern site, Andante, 149 Squadron sending nine aircraft to the latter only. Neither attack was successful, and Le Portel sustained heavy damage and civilian casualties.

On the 15th, a new Stirling unit was formed at Mepal, 513 Squadron, and W/C Harrison was posted from 149 Squadron to command. He was replaced by W/C Wigfall, who presided over

his first operation that night. The target was the Dunlop Rubber factory at Montlucon in central France, for which 369 aircraft of 3, 4, 6 and 8 Groups were detailed, and W/C Deane of 35 Squadron was the Master Bomber. He led a successful operation, which hit every building within the factory complex, and only three aircraft were lost. On the following night, the same Groups went to Modane in southern France to attack the main railway line to Italy, but the awkward location of the target in a steep valley thwarted the crews' best endeavours, and the operation failed. A series of four raids on Hanover over a four week period began on the 22/23rd, and involved over seven hundred aircraft, including 137 Stirlings. Stronger than forecast winds hampered the marking and bombing, and damage was believed to be modest, a poor return for the loss of twenty six aircraft. Over six hundred aircraft took off for Mannheim twenty four hours later, to hit the northern part of the city, which had escaped serious damage earlier in the month. The aim was achieved, and some of the bombing again spilled over into Ludwigshafen. Thirty two aircraft were lost, and this target again claimed a 149 Squadron crew, that of W/O Leedham, who died with four others, when EH883 crashed in Germany. Both of the gunners survived, however, and one of them ultimately evaded capture. The second Hanover operation took place on the 27/28th, and although the bombing was concentrated, it fell well to the north of the city centre, and mainly into open country. The squadron's EF495 crashed into the North Sea, killing F/S Hotchkiss and three of his crew, and the three survivors were picked up by the enemy, and carted off to prison camp. The squadron flew ninety four sorties during the month, for the loss of five aircraft and crews.

October began in hectic fashion for the Lancaster squadrons, which were required to operate on six of the first eight nights. Hagen and Munich were their first two targets, on the 1/2nd and 2/3rd respectively, and it was on the following night that the Stirlings were called into action for the first time apart from mining. The target was Kassel, where the main weight of the attack fell onto western suburbs and outlying communities, although one eastern district was devastated. 113 Stirlings took part, and six of these were among the twenty four missing aircraft. The squadron's first casualty of the month came on the 4th, and involved EH987, which developed undercarriage problems, and was belly-landed at Lakenheath by P/O Connor, without injury to the crew. Seventy Stirlings were part of a four hundred strong force targeting Frankfurt on the 4/5th, a city which had always escaped serious damage at the hands of the Command, despite many attempts in the past. Its apparently charmed life ended on this night, when the eastern half and the inland docks were engulfed in flames, and many public and administrative buildings in the centre were damaged. A modest ten aircraft were lost, but neither of the Stirlings was from Lakenheath. 101 Squadron operated its radio-countermeasures ABC Lancasters in numbers for the first time in a raid on Stuttgart on the 7/8th, while elements of the Stirling squadrons continued their very profitable mining operations. Only one Stirling failed to return, 149 Squadron's EJ106, containing the crew of F/S McInnes. They were briefed to sow their vegetables in the Frisians, and may have done so before disappearing without trace. On the following night, five hundred aircraft were detailed for the third raid of the series on Hanover. Matters finally proceeded according to plan, and only the western districts escaped severe damage. Almost four thousand buildings were completely destroyed, while thirty thousand others sustained varying degrees of damage, and twelve hundred people were killed. Ninety five Stirlings were also in action on this night as

part of a diversionary raid on Bremen, but they couldn't prevent twenty seven aircraft being lost from the main operation.

A welcome lull in main force operations kept most of the Pathfinder and main force crews on the ground for the next nine nights, and even mining operations were suspended until the 17/18th. The Hanover series was concluded by an all-Lancaster force on the 18/19th, and was another disappointment, which cost eighteen aircraft. Only one of the operations had been a success, and perhaps this was sufficient compensation for the loss of 110 aircraft from a massive 2,253 sorties. The Lancaster crews suffered a bad time at the hands of the weather when attacking Leipzig on the 20/21st, and the city escaped serious damage. The second raid of the month on Kassel took place on the 22/23rd, without a contribution from the Stirling squadrons. It was an outstandingly successful operation, which reduced over 4,300 apartment blocks to ruins, and destroyed or seriously damaged over 150 industrial buildings and dozens of others of a public nature. A firestorm developed, and although it was not as extensive as that which had devastated parts of Hamburg three months earlier, it, never-the-less, played its part in the deaths of around six thousand people. 149 Squadron despatched a modest forty four sorties during the month, for the loss of two aircraft and one crew.

November would bring a resumption of the Berlin offensive, but the first operation took over five hundred aircraft to Düsseldorf on the 3/4th. The Stirlings were absent from this successful raid, but a few of them went mining around the Frisians without loss. There were few main force operations from this point, and none involving Stirlings until the 18/19th, but in the meantime, the squadron lost EF412 to a take-off crash during training on the 13th, from which P/O Knowles and his crew walked away. A landing crash at Lakenheath, also during training on the 17th, had more serious consequences for P/O Lowe and three of the crew of MZ260, who were killed, while the three survivors escaped injury. The long and rocky road to Berlin was rejoined by an all-Lancaster force on the 18/19th, while a predominately Halifax and Stirling diversionary raid was mounted against Mannheim and Ludwigshafen. The main raid was scattered and only moderately effective, but the loss of only nine aircraft may have been due to the diversion. The latter was a more productive affair, which destroyed over three hundred buildings, including four of an industrial nature, and others sustained damage, but twenty three aircraft were lost. Mannheim seemed to have a fatal attraction for 149 Squadron, and on this night it claimed EH903, which crashed in the target area, killing two of the crew, F/S Smith and four others falling into enemy hands. Elements of 3, 4, 6 and 8 Groups went to Leverkusen on the following night, the home of an important I G Farben chemicals factory. It was a night to forget after many of the Oboe aircraft suffered equipment failure, and only one high explosive bomb landed in the town. A maximum effort was called on the 22/23rd, and 764 aircraft answered the call to raid Berlin. It developed into the most devastating attack of the war on the Capital, with three thousand houses and twenty three industrial premises reduced to rubble, while a number of firestorms erupted, two thousand people were killed and a further 175,000 were rendered homeless. Twenty six aircraft were lost, including five of the fifty Stirlings, and this 10% loss proved to be the final straw for Harris. From this point on, the type was withdrawn from operations over Germany, and would be assigned to other important, if secondary duties. This effectively removed 3 Group from the front line, and left only its Lancaster II equipped 115 and 514 Squadrons to represent it over Germany, until XV

and 622 Squadrons completed their conversion to the Lancaster I and III in December. This can not have been a happy state of affairs for a Group used to being in the vanguard of operations since the very start of hostilities. The Lancasters and Halifaxes pressed on with the Berlin campaign, the former delivering a highly destructive follow-up on the 23/24th, which laid waste to a further two thousand houses and eight industrial premises, and killed around fifteen hundred people. A predominately Halifax force from 4 and 6 Groups achieved only moderate results at Frankfurt on the 25/26th, before over four hundred Lancasters returned to the "Big City", and more by luck than judgement, destroyed thirty eight war industry factories in a north-western suburb. 149 Squadron was not idle on this night, and contributed to a mining operation in the Gironde area, from which one of its Stirlings failed to return. EF202 was shot down by a nightfighter onto French soil, but not before the entire crew of Sgt Richardson had taken to their parachutes. The pilot and four others managed to retain their freedom, but two others were less fortunate, and were soon in captivity. It had been the squadron's least active month since January, and only thirty nine sorties were flown, mostly on mining operations, for the loss of four aircraft and three crews.

Mining was to be the staple diet for the squadron during December, while the Lancasters, in particular, kept up the pressure on Berlin. This was the destination for over four hundred Lancasters on the 2/3rd, while Halifaxes shared the load in a highly successful raid on Leipzig on the 3/4th. Minor operations then held sway until mid month, when an all-Lancaster heavy force enjoyed moderate success at Berlin, before returning home to find many stations fog bound. This was "Black Thursday", when twenty nine Lancaster either crashed or were abandoned by their crews during the frantic search for somewhere to land, and around 150 airmen lost their lives in these most tragic of circumstances. It was on this night, that twenty six Stirlings were given a new job, bombing a flying bomb site at Tilley-le-Haut near Abbeville in France. The marking was provided by Oboe Mosquitos, but while the device was ideal for urban sprawls, the margin of error was too great for small targets, and the operation failed. 617 Squadron was similarly employed and disappointed at a site at Flixecourt, but at least the frustration born out of this and other failures during the month and in January would set minds working. It would ultimately lead to the very successful low level visual marking method by Mosquitos, which was to give 5 Group virtual independence from April 1944. Earlier in the day, and much to the surprise of P/O Johnstone and his crew, EH904 suffered an undercarriage collapse while taxiing at a Welsh airfield during a training exercise. On the 20/21st, while the main force was achieving moderate success at Frankfurt, BK798 disappeared without trace with the crew of F/S Ayers while mining in the Frisians. Only thirty five sorties were flown by the squadron during the month, and just one aircraft was lost to enemy action. It had been a rewarding year for the Command, despite the heavy losses, but it had also signaled the decline of the Stirling, which as a first generation four-engine bomber, and was unsuitable for development. Its failings as a bomber had led to its increasing employment on mining operations, and around half of the Command's mining sorties during the year had been carried out by the type. Its time in Bomber Command was not yet over, however, and it would remain in 149 Squadron hands for a further nine months.

1944

It must have been strange for the Stirling crews to be somewhat sidelined from the main offensive, although the obvious benefit was a reduction in the formerly prohibitive rate of attrition. Mining took place on ten nights during January, and 149 Squadron despatched a total of thirty four sorties in this role. The Lancaster Squadrons, meanwhile, were receiving a bloody nose at Berlin for little return on the 1/2nd and 2/3rd, and although they redressed the balance with a very destructive assault on Stettin on the 5/6th, they were badly mauled at Brunswick on the 14/15th, and lost thirty eight of their number. Fifty seven Stirlings were involved in another attack on a flying bomb site on the 4/5th, and again while the Brunswick raid was in progress, and eighty nine were sent to various similar sites on the 21/22nd. This was the night of the ill-fated Magdeburg raid, which produced little damage of significance, and resulted in a new record loss of fifty seven aircraft. In the absence of Stirlings, it was the Halifaxes which attracted most of the attention, and their losses amounted to 16%. Flying bomb sites kept the Stirling brigade busy on the 25/26th, when the main force stayed at home, and this was followed by three Berlin operations in the space of an unprecedented four nights from the 27/28th, for which the Stirlings carried out diversionary mining operations. The squadron registered its first casualty of the year on this night, when EE969 failed to return from the Kattegat, and was lost without trace with the crew of P/O Wood. Forty one bombing sorties gave a total of seventy five sorties for the month, for the single loss mentioned above.

In February, the squadron detached a number of aircraft and crews to Tempsford, the top secret station in Bedfordshire, which was home to 3 Group's two "moon" squadrons, 138 and 161, which operated on behalf of the Special Operations Executive, (SOE) and Special Intelligence Service (SIS). They operated a variety of aircraft, the former engaged mostly in the dropping of arms and supplies to resistance organisations in France, and later, other countries, while the latter was responsible, among other duties, for the insertion and collection of agents into and from France. In December, 214 Squadron had detached crews, and in January it was the turn of 75(NZ) Squadron. Now it fell to 149 Squadron, and while the crews at Lakenheath had little to do during the month, launching a modest eighteen mining sorties, forty four special duties flights were carried out by the squadron's crews at Tempsford. It was dangerous work, calling for low flying in difficult winter conditions, and many deliveries failed to take place because of a failure to identify the dropping zone. The squadron suffered its first casualty from this line of work on the 5/6th, when EF187 crashed in France, with no survivors from the crew of F/L Colenutt. The main force had been kept on the ground by the weather for the first two weeks of the month, and it was not until the 15/16th that it returned to the fray, with a record-breaking operation to Berlin. The 891 aircraft taking part represented the largest non-1,000 force to date, and it was the first time that five hundred Lancasters and three hundred Halifaxes had operated together. Those reaching the target delivered a record 2,600 tons of bombs into Berlin and its surrounds, and inflicted extensive damage for the loss of forty three aircraft. This paled into insignificance compared with the disaster which befell the Command four nights later, when Leipzig was the target for over eight hundred aircraft. The nightfighters picked up the bomber stream early, and remained with it all the way to the target, where stronger than forecast winds led to a degree of chaos through some aircraft arriving early ahead of the pathfinders. When all of the returning

aircraft had been accounted for, there was a massive shortfall of seventy eight, the heaviest loss to date by a clear twenty one aircraft. The Halifaxes suffered a loss rate of 13.3%, and like the Stirlings before them, the less efficient Mark II and V variants were immediately withdrawn from operations over Germany. The Stirlings had conducted a diversionary mining operation on this night, but this was obviously in vain, and did not fool the nightfighter controllers. The main force enjoyed a better time at Stuttgart on the 20/21st, inflicting extensive damage for the loss of just nine aircraft, and a new tactic was introduced for the next two operations, to Schweinfurt on the 24/25th and Augsburg twenty four hours later. The forces were split into two waves, separated by two hours, and although the former suffered from undershooting and failed, the second phase lost 50% fewer aircraft than the first, in an overall loss of thirty three. 149 Squadron again took part in the diversionary mining activity, and lost EF307 without trace, with the crew of F/O Collins. The Augsburg raid was an example of the Command at its most awesome, and massive destruction was visited upon this beautiful and historic city, consigning centuries of its cultural past to an inferno of flames. 149 Squadron lost another Stirling without trace on this night, to a mining sortie in northern waters, and the crew of F/L Johnstone was added to the ever-growing squadron Roll of Honour.

The main force went to Stuttgart on the night of the 1/2nd of March, and inflicted widespread damage on central, western and northern districts for the remarkably low loss of just four aircraft. Thereafter, it remained at home until mid month, while minor operations took place, and the first salvoes were fired in the pre-invasion campaign. This was as part of the Transportation Plan, the systematic dismantling by bombing of the French and Belgian railway networks, to inhibit the movement of enemy forces before and after D-Day. Initially, it was the Halifax squadrons which provided the bulk of the aircraft for attacks on railway yards at Trappes on the 6/7th and Le Mans on the following night, while the Stirlings continued with mining and SOE sorties. Le Mans was raided again by Halifaxes on the 13/14th, but thirty eight Stirlings joined in to bomb railway yards at Amiens on the 15/16th, the night on which over eight hundred aircraft of the Pathfinders and main force return to action at Stuttgart. The latter was not a successful operation, and cost thirty seven aircraft. 149 Squadron registered its only loss of the month during the Amiens raid, when EJ124 crashed in France, killing the crew of P/O Munro. Halifaxes and Stirlings returned to Amiens on the following night, and delivered a successful attack without loss. Two utterly devastating operations against Frankfurt were delivered by forces numbering over eight hundred aircraft on the 18/19th and 22/23rd, the former alone leaving over six thousand buildings destroyed or seriously damaged. The latter was even more destructive, and left half of the city without electricity, gas and water for an extended period. An attempt by elements of 3, 4, 6 and 8 Groups to destroy the railway yards at Laon was halted by the Master Bomber half way through, when civilian housing was hit.

The final raid of the war on Berlin by Bomber Command's heavy brigade was mounted on the 24/25th, and involved over eight hundred aircraft. The crews encountered unusually strong winds from the north, which broke the cohesion of the bomber stream, and led to scattered bombing at the target. A moderate amount of damage was inflicted on the Capital, mostly in south-western districts, although over a hundred outlying communities were also afflicted. On

the way home, many aircraft were driven by the winds over heavily defended areas of the Reich, and two-thirds of the seventy two missing aircraft were claimed by the flak batteries. A force of Halifaxes, Lancasters and Stirlings failed to find the mark at Aulnoye on the 25/26th, and the railway yards escaped serious damage. Although the Berlin campaign was now over, the winter offensive still had a week to run, and two more major operations for the crews to negotiate. The first of these was against Essen on the 26/27th, when over seventeen hundred houses were destroyed, and forty eight industrial buildings were seriously damaged, thus continuing the remarkable run of successes at this once elusive target since the introduction of Oboe to main force operations a year earlier. A hundred aircraft of 3, 4, 6 and 8 Groups were sent to bomb the railway yards at Courtrai on the same night, and although some damage was inflicted, traffic was running again within three days. Unfortunately, the town sustained heavy damage and civilian casualties, and this was a problem which could not be avoided, and as already mentioned, would never be satisfactorily addressed. The winter campaign was concluded on the night of the 30/31st, with a standard maximum effort raid on Nuremberg. A disputed straight-in route, and a combination of almost freak meteorological conditions, conspired to hand the bomber force on a plate to the waiting nightfighters, and an unbelievable ninety five aircraft failed to return, without even the compensation of a successful attack. During the course of the month, 149 Squadron despatched 140 sorties, forty one mining, forty three bombing and fifty six SOE, a record number since operating Stirlings, and this figure was achieved for the loss of a single aircraft and crew.

That which now faced the crews of Bomber Command was in marked contrast to what had been endured over the winter months. In place of the long slog to Germany on dark, often dirty nights, shorter range hops to France and Belgium would become the order of the day in improving weather conditions, to prosecute the Transportation Plan. These would prove to be equally demanding in their way, however, and would require of the crews a greater commitment to accuracy to avoid civilian casualties. The main fly in the ointment was a dictate from on high, which decreed that most such operations were worthy of counting as just one third of a sortie towards the completion of a tour, and until this flawed policy was rescinded, an air of mutiny pervaded the bomber stations. Despite the prohibitive losses of the winter period, the Command was in remarkably fine fettle to face its new challenge, and Harris was in the enviable position of being able to achieve that, which had eluded his predecessor. This was to attack multiple targets simultaneously, with forces large enough to make an impact, and he could now assign targets to individual Groups, to Groups in tandem or to the Command as a whole, as dictated by operational requirements. While Harris was at the helm, of course, his preferred policy of city-busting would never be entirely shelved in favour of other considerations. 5 Group was about to go "independent" with its low level visual marking method using Mosquitos, and a rejuvenated 3 Group would gain its own degree of autonomy later in the year with the G-H bombing device.

The new campaign got into full swing on the night of the 9/10th, when elements of 3, 4, 6 and 8 Groups attacked the Lille-Delivrance goods station, while all of the Groups contributed to a raid on railway yards at Villeneuve-St-George on the outskirts of Paris. The former, involving twenty two Stirlings, was particularly effective, and destroyed over two thousand items of rolling stock, and left buildings and track severely damaged. The success was marred by very

heavy civilian casualties, and this was repeated to a lesser extent at the other target. A number of 149 Squadron crews were also over France on this night on behalf of SOE, during which, LK382 fell victim to a nightfighter and crashed, killing F/L Sanders and his crew. Flak accounted for EF502 on the following night during another supply drop to southern France, P/O Bray and four of his crew losing their lives, while both gunners evaded capture, the first to survive from the seven aircraft lost thus far in the year. The remainder of the Command was active at five railway targets in France and Belgium on this night, and all but one of the attacks was concluded successfully. An area attack on Aachen on the 11/12th left devastation in its wake and fifteen hundred people dead, and this was followed by a period of minor operations for the next week. In the meantime, from the 14th, the Command became officially subject to the dictates of SHAEF, and would remain thus shackled until the Allied armies were sweeping towards the German frontier at the end of the summer. Four railway targets provided the main fare on the 18/19th, while a large mining effort by 168 aircraft took place in northern waters. The squadron's LJ504 failed to return, and no trace of it or the crew of Sgt Jeal was ever found. An area raid on Cologne caused massive devastation on the 20/21st, and it was a similar story at Düsseldorf on the 22/23rd, a night on which elements of 3, 4, 6 and 8 Groups carried out a two wave attack on the railway yards at Laon. Severe damage was inflicted, but F/S Billens and his crew were all killed, when EH943 was shot down by a nightfighter over France. On the following night, over a hundred aircraft were sent mining in the Baltic, and LJ526 fell victim to a nightfighter over Denmark, again with no survivors, this time from among the crew of F/L Freeman. 5 Group had tried out its low level marking system for the first time over a heavily defended German target at Brunswick on the 22/23rd, and failed to deliver a telling blow. Munich provided another opportunity on the 24/25th, and this time it was a resounding success, and probably sealed the award of the Victoria Cross to W/C Cheshire of 617 Squadron at the conclusion of his tour in July. The last four nights of the month brought SOE sorties for 149 Squadron, and a flak damaged EF238 crash-landed at Methwold on return from France in the early hours of the 29th, but no injuries were reported among the crew of P/O McArthur. It had been another busy month for the squadron, with a record 155 sorties, seventy eight of them mining, fifty nine SOE and sixteen bombing.

As May dawned, only three Stirling squadrons remained operational in 3 Group, the others having by now been posted to 100 Group for radio countermeasures duties, or to 38 Group and a transport role. There would be no bombing operations for 149 Squadron at all during the month, and its time would be divided between mining and SOE drops, for which fifty three and sixty five sorties respectively would be flown. The main force spent the month in the relentless campaign against the railway system, but also began to attack coastal batteries in the Pas-de-Calais, a long way from the planned invasion beaches, to maintain the deception. 218 Squadron was screened for a period, while some of its crews trained for a special operation to be undertaken on D-Day Eve. On the 12th, the squadron began to move out of Lakenheath, and by the 15th, it had taken up residence at Methwold, which would be its home for the remainder of the war. It was possibly at this time, that W/C Wigfall was posted from the squadron, to be replaced by W/C Pickford. As far as industrial Germany was concerned, Duisburg received its first major raid for a year on the 21/22nd, and Dortmund was similarly honoured on the following night, both to good effect. 149 Squadron negotiated the

entire month without loss until the very last night, when LJ501 crashed off the Dutch coast during a mining sortie, and only the pilot, F/S Cutts, survived to be rescued by the enemy.

The weather at the start of June was not favouring the launch of the invasion, and the time was used up in further attacks on coastal batteries, radar and listening stations, and railway yards. On D-Day Eve, the 5/6th of June, over a thousand aircraft were aloft to support the landings by bombing nine coastal batteries, and carrying out other more specialized tasks. Although no actual reference to the invasion was made at most briefings, crews were given strict flight levels, and were instructed not to jettison bombs over the sea. Among the special diversionary operations was the dropping of dummy parachutists in north-western France, well away from the invasion area, by Halifaxes and Stirlings of 90, 138, 149 and 161 Squadrons. W/C Pickford, in EF140, led a contingent of seven 149 Squadron aircraft with nine man crews, and two of them were shot down. Both crashed in France, LK385 without survivors from the crew of S/L Hutchins, and LJ621, with three survivors from the crew of P/O Mayo, who was one of those killed, and one man evaded capture. Aircraft were taking off throughout the night, and some of those crews returning in dawn's early light were rewarded with a view of the armada ploughing its way sedately across the Channel below. A thousand aircraft were involved in operations against communications targets near French towns on D-Day night, and similar activity involved smaller numbers of aircraft on the following two nights. Four airfields south of the beachhead were attacked on the 9/10th, and then it was back to railways for most of the main force.

Two new campaigns began in quick succession, the first, against Germany's oil industry, beginning on the night of the 12/13th at the hands of 1, 3 and 8 Groups. This outstandingly accurate attack halted all production at the Nordstern synthetic oil refinery at Gelsenkirchen for several weeks, costing the enemy war effort a thousand tons per day of vital aviation fuel. The second new campaign was aimed at flying bomb launching and storage sites in the Pas-de-Calais, and the first of these were successfully bombed on the 16/17th. In between, the Command mounted the first daylight operations since the departure of 2 Group a year earlier. On the evening of the 14th, a two phase attack was delivered on E-Boats and other light marine craft at Le Havre, to prevent them harassing Allied shipping supplying the beachhead. A predominately 1 Group force attacked first, to be followed by 3 Group at dusk, and the operation was entirely successful. Boulogne received similar treatment on the following evening with equally satisfying results. Stirlings returned to bombing later that night, with a raid on railway yards at Lens, and two nights later they were involved in an attack on a railway cutting near Montdidier, which was abandoned almost immediately because of cloud. This proved to be the swan song for 90 Squadron's time with Stirlings, and now only 149 and 218 Squadrons were operating the type with 3 Group. The remainder of the month saw the continuation of the side-by-side campaigns against railways, oil and flying bomb sites, while the Stirlings mined the sea lanes and dropped supplies. It was while engaged in the former off Brest, that the squadron's EF188 succumbed to flak, and crashed in France, killing the crew of P/O Lincoln. LK386 was also hit, but P/O Lucas and his crew managed to nurse it back to Hartfordbridge, where it crashed on landing, injuring two of the occupants. On the following night, a few Stirlings took part in an attack on a flying bomb site at Ruisseauville, and two more 149 aircraft failed to return. EF140 crashed into the sea off Boulogne, and LK394 was

shot down by a nightfighter over the Pas-de-Calais, and neither aircraft produced a survivor from among the crews of F/L Roe and P/O Wunsch respectively.

The pattern of operations remained the same throughout July, and 149 Squadron's busy schedule would see it carrying bombs, mines and supplies. Returning from a drop over France early on the 6th, LJ477 crashed while an attempt was being made to land at Thorney Island on the south coast, and P/O Holmes and five of his crew sustained injuries, while the navigator was killed. Tactical support for the ground forces was provided by over four hundred aircraft on the evening of the 7th, when fortified villages were attacked north of Caen. A night training flight on the 16/17th led to LK388 crash-landing at Methwold, and two of F/S Arnott's crew lost their lives. On the following evening, with air superiority over the battle area having been established, Stirlings were included in daylight forays against a flying bomb site at Mont Condon. Over nine hundred aircraft were committed to the support of the British Second Army's Operation Goodwood in the early morning of the 18th. Bomber Command alone delivered over five thousand tons of bombs onto the enemy divisions below, and this enabled Goodwood to get off to an encouraging start. The first raid on a German urban target for two months took place on the 23/24th, when a large force appeared suddenly and with complete surprise from behind a 100 Group RCM screen, and proceeded to inflict heavy damage on Kiel. This was followed by a three raid series against Stuttgart over five nights, beginning on the 24/25th. By the end of the third attack on the 28/29th, the city's central districts lay in ruins. On the evening of the 27th, the two Stirling squadrons had bombed flying bomb sites at Les Landes and Les Lanville-et-Neuss, some of the 218 Squadron aircraft equipped with G-H, and adopting the G-H leader technique for the first time. This device would become a 3 Group preserve from October, and relied on a gaggle of aircraft releasing their bombs, when the G-H leader's were seen to go down.

218 Squadron moved into Methwold early in August, so that all servicing of Stirlings could be centralized, but as it was about to relinquish the type, one wonders why. The first week of the month was dominated by the flying bomb campaign by day, and both squadrons attacked the Mont Condon site on the 2nd, this proving to be the last operation to involve 218 Squadron Stirlings. Within a matter of days, the squadron would be fully equipped with Lancasters, and would fly its first operation on the 9/10th. Over eleven hundred aircraft were employed against three sites on the 3rd, and over a thousand took part in support of the ground forces on the 7/8th. On the previous night, 149 Squadron sacrificed its last crew to a mining operation, when LK383 disappeared without trace with the crew of F/O Adams, and this was the last Stirling from a main force squadron to be lost in Bomber Command service. During a heavy night of activity on the 12/13th, twelve 149 Squadron Stirlings joined an attack on a German troop concentration north of Falaise. This was an area upon which the 3rd Canadian Division was advancing, and operations against enemy troop positions on the 14th, led to the "friendly fire" incident, in which thirteen Canadian soldiers were killed, and over fifty wounded. In preparation for his new night offensive against Germany, Harris launched a thousand aircraft by daylight on the 15th, to attack nine nightfighter airfields in Holland and Belgium. Stettin and Kiel were attacked by large forces on the 16/17th, and Bremen was left devastated on the 18/19th. On the 25th, six Lancasters arrived at Methwold to begin 149 Squadron's conversion, and within four days, a full complement was on charge. The final operations of the flying

bomb campaign were mounted on the 28th, and shortly afterwards, the Pas-de-Calais returned to Allied control. The squadron despatched fifty seven mining and bombing sorties during the month, and lost just one aircraft and crew.

September was a month devoted largely to the liberation of the three major French ports still in enemy hands, and six operations took place against enemy strong points around Le Havre between the 5th and the 11th. The squadron sent five Stirlings against the port on the 5th, in company with 343 other aircraft, and all returned safely from an accurate attack. Two more completed their sorties against the same target on the 6th, and on the morning of the 8th, four aircraft, LJ481, LJ632, LK396 and LK401 flew the final sorties by 149 Squadron Stirlings, F/O McKee having the honour of being the last to touch down back at Methwold at 09.25 hours in LK396. Thus was ended the career of this type with Bomber Command's main force. Within hours of the final attack on the 11th, the German garrison surrendered to British forces. It required just one day and three thousand tons of bombs on the 17th to soften up the garrison at Boulogne sufficiently for the ground forces to go in, and the surrender of the port took place a little over a week later. This operation was the first by 149 Squadron in Lancasters, ten aircraft having been despatched, and it signaled the completion of 3 Group's resurgence to the forefront of Bomber Command's offensive. Only Calais now remained in enemy hands, and the first of six operations to rectify this situation was mounted on the 20th. Over six hundred aircraft took part, including ten Lancasters from 149 Squadron, and they all returned safely from a successful raid. On the 23/24th, over five hundred aircraft from 1, 3, 4 and 8 Groups destroyed or seriously damage more than six hundred buildings, mostly houses, in Neuss, and this was followed on the 24th by the second attack on enemy strong points around Calais. The dose was repeated daily up to and including the 28th, with 3 Group in attendance on each occasion, and the port was taken shortly afterwards. It had been a good month for 149 Squadron with the advent of the Lancaster, and their had been no aircraft or crew casualties from sixty six sorties.

October would bring a full return to the bombing of industrial Germany, and from this point on, an unprecedented tonnage was to be delivered onto its towns and cities. 3 Group opened its account on the 5/6th, when joining 1 Group to provided the main force for a raid on Saarbrücken. The aim was to cut the railway and block supply routes ahead of advancing American forces, and this was achieved, along with the destruction of almost 5,900 houses. A new Ruhr campaign began at Dortmund on the 6/7th, for which 3, 6 and 8 Groups put up over five hundred aircraft, fifteen of them from 149 Squadron, and the Methwold contingent all returned safely from a successful operation. The frontier towns of Cleves and Emmerich were heavily bombed on the 7th, to prevent access by enemy forces to the exposed Allied right flank after the failure of Operation Market Garden. 3 Group was present at both targets, and extensive damage was inflicted. The new Ruhr offensive led inexorably to Operation Hurricane, a demonstration to the enemy of the overwhelming superiority of the Allied air forces ranged against it. At first light on the 14th, over a thousand aircraft took off for Duisburg, 957 of them arriving over the city shortly after breakfast time to deliver more than four thousand tons of bombs. Late that night, they returned in similar numbers to press home the point about superiority, and remarkably, this massive effort of launching 2,018 sorties in less than twenty four hours, was achieved without a contribution from 5 Group. 149

Squadron's contribution was twenty and twenty one Lancasters, and all returned safely. Following participation in an effective raid on Wilhelmshaven on the 15/16th, the Group embarked upon its career of independence with the G-H device.

G-H had been used before but never by a large force, and around a third of the Group's Lancasters were equipped. The Group was to operate when the target was concealed by cloud, which did not extend above 18,000 feet, and the G-H aircraft carried bold fin markings to provide clear identification to those wishing to formate on them. To establish its effectiveness, it was important to select a virtually virgin target, and Bonn presented itself as the ideal choice. The operation was mounted on the morning of the 18th by 128 aircraft, eighteen of them from 149 Squadron, and was a complete success, which destroyed the city centre, and many of the historic and cultural buildings for the loss of just one aircraft. Despite its new role, the Group would still operate in tandem with others, and joined forces with 1, 6 and 8 Groups to attack Stuttgart to good effect on the 19/20th, for which the squadron supplied seventeen Lancasters. The Hurricane force moved on to Essen with a thousand aircraft on the evening of the 23rd, and returned on the 25th in smaller numbers to carry out an even more destructive attack. A hundred 3 Group Lancasters carried out a G-H raid on Leverkusen on the 26th, with the aim of hitting the I G Farben chemicals factory, which was engaged in the production of synthetic oil. Returning crews believed the operation to be successful, but were prevented by cloud from making an assessment. Cologne's turn at the hands of the Hurricane force came initially on the 28th, when over 2,200 apartment blocks were destroyed, and further massive damage was inflicted on the city on the evenings of the 30th and 31st. The squadron contributed seven and eight aircraft respectively to the two latter operations, whilst on the same days, despatching twelve and thirteen Lancasters for G-H raids on oil refineries at Wesseling and Bottrop. It was another successful month for 149 Squadron, and the second in succession without a single loss, from a total of 256 sorties.

November began for the Group in similar vein, with a G-H attack on the refinery at Homberg, for which the squadron put up twenty two aircraft. Large fires were reported by the returning crews, and there were no losses to 149 Squadron, although one of its Lancasters landed at Newmarket with flak damage. The Hurricane force visited Düsseldorf on the 2/3rd with over nine hundred aircraft, and destroyed more than five thousand houses and some industrial buildings. A 3 Group raid on Solingen on the 4th was scattered and ineffective, but the seventeen 149 Squadron participants again all returned. The operation was repeated on the following afternoon with great success, and thirteen hundred houses were destroyed, along with eighteen industrial premises. A night G-H attack on Coblenz followed on the 6/7th, when an estimated 58% of the town's built-up area was reduced to ruins. The busy start to the month continued with a return to the oil plant at Homberg on the 8th, but smoke from the early bombing quickly concealed the aiming point, and the remainder of the attack was scattered. On the 11th, over a hundred of the Group's Lancasters took off for another oil target at Castrop-Rauxel, and a similar plant at Dortmund occupied the Group on the 15th. 149 Squadron contributed twenty Lancasters to the latter, and its fine record of loss-free operations remained intact. On the 16th, the three small towns of Düren, Jülich and Heinsberg were attacked, to cut communications behind enemy lines ahead of advancing American ground forces. The last mentioned was assigned to 3 Group, and at the time of the attack,

contained only a hundred or so civilians, half of whom were killed, and a handful of enemy soldiers. The assault on Homberg went on, the squadron providing twenty Lancasters for a G-H raid on the afternoon of the 20th, and seventeen twenty four hours later, one of which landed at Mendlesham Heath with engine problems. On the 23rd, the Nordstern oil refinery at Gelsenkirchen was the target for a G-H raid by over 150 aircraft, and it was believed to be a successful operation. The 26th brought an experimental raid, to gauge the effective range of G-H. Thirteen 149 Squadron Lancasters joined sixty two others to raid railway yards at Fulda in central Germany south of Kassel, but the distance was too great, and the bombing was scattered. On the following day, the Group carried out a G-H attack on the Kalk Nord railway yards at Cologne, which was well within range, and a successful outcome was claimed. The squadron sustained its first crew fatality since August during this operation, when the wireless operator in F/L Tenduis's crew was killed by a flak splinter. The Group ended the month with separate raids on a coking plant at Bottrop, and a benzol plant at Osterfeld on the 30th, each with sixty aircraft. Yet another outstanding month for the squadron showed a tally of 230 sorties, and no aircraft losses.

The Group opened its December account at Dortmund on the 3rd, where the Hansa benzol plant was the target. Cloud obscured Oberhausen on the 4th, so that no assessment of the results could be made, but it was later established that 472 houses were destroyed, and some industrial and public buildings sustained damage. Hamm, a major railway centre, was attacked by the Group on the 5th, and 39% of the town's built-up area was destroyed. 1 and 3 Groups provided the main force for a raid on the oil refinery at Leuna near Leipzig on the 6/7th, when over four hundred aircraft completed the one thousand mile round trip. The effort was worthwhile, and extensive damage was inflicted on the installation. 3 Group conducted operations against railway yards at Duisburg on the 8th, and Osterfeld on the 11th, before targeting the Ruhrstahl steel works at Witten on the 12th. This was not a successful operation, and it brought the first 149 Squadron failures to return since the last Stirling went missing on the 6/7th of August. F/O Dorey and four of his crew were killed in HK645, while the flight engineer and bomb-aimer survived as PoWs. The fate of HK653 has never been established, and the names of F/O Miller and his crew are perpetuated on the Runnymede Memorial. Thankfully, these were the squadron's final casualties of the year, during the remainder of which, the Group carried out G-H attacks on railway yards at Siegen on the 16th, Trier on the 19th, 21st and 23rd, Cologne/Gremberg on the 28th and Vohwinkel on the 31st. The Group also bombed Hangelar airfield near Bonn on the 24/25th, and participated in raids on troop positions at St Vith on Boxing Day, railway yards at Rheydt on the 27th, and a similar target at Coblenz on the 29th. The year had begun with the Command at its lowest ebb during the winter offensive, but having risen phoenix-like from the ashes, it had become transformed into a juggernaut, smashing its way across the tortured Reich. Its peaking strength coincided with Germany's decline, and although the scent of victory was in the air, the heaviest bombardment of the war was still to come.

1945

The New Year began with a bang, as the Luftwaffe launched its ill-conceived and ultimately ill-fated Operation Bodenplatte at first light on the 1st of January. The intention, to destroy

elements of the Allied air forces on the ground at the recently liberated airfields of France, Holland and Belgium, was only modestly realized, and the cost in front-line fighters was around 250, and more critically, 150 pilots were killed, wounded or taken prisoner. This was a setback from which the Luftwaffe's day fighter force would never fully recover, although enemy nightfighters would continue to take a toll of RAF bombers, even if not on the former scale. 3 Group began the final few months of the war with a return to Vohwinkel on New Year's Night, and then contributed to a devastating raid on Nuremberg in company with 1, 6 and 8 Groups on the 2/3rd. On return to Methwold with no flaps, NG362 crashed during landing and burned out, but not before F/O Jones and his crew had scrambled to safety. Benzol plants at Dortmund and Castrop-Rauxel followed by daylight on the 3rd, and railway yards at Ludwigshafen on the 5th. An attack with 1 Group on the railway yards at Neuss on the 6/7th resulted in over seventeen hundred houses, nineteen industrial premises and twenty public buildings being destroyed or seriously damaged. The last major raid on Munich was mounted by 1, 3, 5, 6 and 8 Groups on the 7/8th, and 3 Group went alone to railway yards at Krefeld on the 11th, and left severe damage in that part of the town. Saarbrücken came next on the 13th, and this attack, too, appeared to be effective. Even so, 4, 6 and 8 Groups had another crack at it that night, and 3 Group returned on the 14th. Small-scale G-H raids on benzol plants at Bochum and Langendreer took place through complete cloud cover on the 15th, and similar conditions prevailed at Wanne-Eickel on the 16/17th, so that neither operation could be assessed. 1 and 3 Groups acted as the main force at Duisburg on the 22/23rd, for which 149 Squadron put up eleven Lancasters, and the Group ended the month with a G-H raid on the Gremberg railway yards at Cologne on the 28th, and the Uerdingen yards at Krefeld on the 29th. W/C Pickford was posted from the squadron on this day, to be replaced with extreme brevity of tenure by W/C Kay. 157 operational sorties were flown by the squadron during the month, and no aircraft failed to return.

3 Group was in action straight away in February, and fifteen aircraft of 149 Squadron departed Methwold in the early afternoon of the 1st to join 145 others heading for Mönchengladbach. A main force drawn from 1, 3 and 6 Groups carried out the first major raid of the war on Wiesbaden through cloud on the 2/3rd, but most of the bombing found the mark, and 550 buildings were destroyed. The squadron's NN708 crashed in Belgium, with fatal results for A/F/L Button and four of the others on board, while three men survived in enemy hands. One of those killed was W/C Kay, on his first operation with the squadron, and F/L Button, it seems, had been posted in during the previous September as a flight sergeant, and had risen quickly through the ranks. The new commanding officer was W/C Chilton, who would see the squadron through to the end of hostilities and beyond. To maintain the pressure on the oil industry, it was necessary to return to previous targets to undo any repairs, and the Hansa benzol plant at Dortmund provided the objective for a raid by the Group on the 3/4th, on this occasion without success. The oil refinery at Wanne-Eickel likewise escaped damage on the 7th, when bad weather intervened and scattered the force. There was a similarly disappointing outcome at the Hohenbudberg railway yards at Krefeld on the 8/9th, after which, a lull in operations preceded one of the most controversial operations of the war.

The Churchill inspired series of attacks on Germany's eastern cities under Operation Thunderclap began at Dresden on the 13/14th, and was a two phase affair opened by 5 Group,

employing its low level visual marking technique. A layer of cloud hampered the Mosquito marker force, but 244 Lancasters delivered over eight hundred tons of bombs, and started fires, which gained a hold, and acted as a beacon to the 529 Lancasters of 1, 3, 6 and 8 Groups following three hours behind. By the time that the Pathfinders arrived over the city, the skies were clear, and a further eighteen hundred tons of bombs rained down onto this beautiful and historic centre of culture. It triggered the same chain of events, which had so devastated parts of Hamburg over eighteen months earlier, and a firestorm erupted of unimaginable fury. The city's population had been swelled by tens of thousands of refugees fleeing from the eastern front, and some of these were among the staggering number of people killed. A figure of fifty thousand has been settled upon in recent years, although some believe the number to be substantially higher. On the following morning, the hapless inhabitants were subjected to a raid by American bombers, during which, escort fighters are alleged to have strafed the streets and open places where the survivors were sheltering. It was this operation more than any other, which unjustly earned Harris the hatred of many German people. Over seven hundred aircraft were involved in a similar two phase operation aimed at Chemnitz twenty four hours later, with 4 Group substituting for 5 Group, which was active elsewhere. Complete cloud cover and the use of skymarking led to a scattered raid, and much of the bombing fell into open country. The town of Wesel lay close to the ground action, and was to suffer a merciless pounding over the ensuing five weeks, beginning on the 16th, with a raid by a hundred Lancasters of 3 Group. It was attacked again on the 17th by 4 and 6 Groups, and on the 18th and 19th by 3 Group using G-H through cloud. The southern half of Dortmund was subjected to a heavy raid by 1, 3, 6 and 8 Groups on the 20/21st, and Duisburg's turn came on the following night at the hands of 1, 6 and 8 Groups. Oil refineries at Gelsenkirchen and Osterfeld occupied the Group by daylight on the 22nd, and a return was made to the former on the 23rd, to attack the Alma Pluto benzol plant. An attempt by 4, 6 and 8 Groups to destroy the oil refinery at Bergkamen on the 24th led to heavy damage in the nearby town of Kamen, and 3 Group was sent there on the following day to attack the site again by G-H. On the 25th it was the Hoesch benzol plant at Dortmund, on the 27th, the Alma Pluto plant at Gelsenkirchen again, and on the 28th, the Nordstern plant at the same location. A total of 264 sorties were flown during the month, for the single loss already mentioned.

Mannheim received its final raid of the war on the 1st of March, while a 3 Group force returned to Kamen. Cologne was attacked for the last time on the morning of the 2nd, in what was planned as a two phase assault involving over eight hundred aircraft. The intention was for 155 Lancasters of 3 Group to follow a seven hundred strong opening assault, but the failure of a G-H station in England all but cancelled out the 3 Group effort. Despite this minor setback, the city was left in a state of paralysis, and was taken by American forces four days later. G-H attacks were carried out on oil targets at Wanne-Eickel and Gelsenkirchen on the 4th and 5th respectively, and it was from the latter that the squadron registered its final failure to return of the war. NF972 was brought down by flak in the target area, killing F/L Williams and his wireless operator, and the remaining five men were taken into captivity. That night, Operation Thunderclap returned to Chemnitz, where central and southern districts were left in flames. On the 6th, a 3 Group force went to Salzbergen to attack the Wintershall oil refinery, and maintained the pressure on Wesel that night. 1, 3, 6 and 8 Groups delivered the only raid of the war on Dessau on the 7/8th, and on the 9th, the Group went alone to Datteln to carry out

a G-H attack on the Emscher Lippe benzol plant. An all-time record was set on the 11th, when 1,079 aircraft took off in the late morning to deliver the final raid of the war on Essen. The record stood for a little over twenty four hours, and was surpassed, when 1,108 aircraft departed their stations in the early afternoon of the 12th, to attack Dortmund for the last time. Benzol plants at Datteln and Hattingen kept elements from the Group busy on the 14th, and similar targets and railway yards saw the squadron through to the end of the month.

April would bring an end to the bombing war for the heavy brigade, but the pressure on Germany's oil industry and communications was maintained for the first half of the month. 3 and 6 Groups provided the main force for a raid on the synthetic oil refinery at Leuna on the 4/5th, and 1 and 3 Groups performed a similar role at Kiel on the 9/10th. The Deutsche Werke U-Boat yards were severely damaged and other shipyards hit, while the pocket battleship Admiral Scheer capsized. The final area bombing raid of the war was delivered on Potsdam by 1, 3 and 8 Groups on the 14/15th, the first time since March 1944 that RAF heavy bombers had operated within the Berlin defence zone, and a proportion of the attack spilled over into the Capital. Over nine hundred aircraft pulverized the island of Heligoland by daylight on the 18th, and 3 Group carried out the last operation of the oil campaign at distant Regensburg on the 20th. Two days ahead of an attack by the British XXX Corps, the south eastern suburbs of Bremen were bombed by 1, 3, 6 and 8 Groups, and this was the last major activity of the war for 3 Group. The other Groups concluded Bomber Command's heavy offensives by raiding the SS barracks at Hitler's Eaglesnest retreat at Berchtesgaden on the morning of the 25th, and heavy gun emplacements on the island of Wangerooge later in the day. That night, 5 Group attacked a refinery at Tonsberg in Norway, and then it was all over. From the 29th, the Group participated in the humanitarian Operation Manna, to drop food to the starving Dutch people still under German occupation, and in May began to ferry PoWs back to Britain as part of Operation Exodus.

149 Squadron was one of the stalwarts of Bomber Command and 3 Group, operating from the first day to the last in some capacity or other. It was one of only two squadrons to serve exclusively with the Command, and never to be detached elsewhere. Its record of service compares with any, and even during its long period of operations with the problematic Stirling, it maintained the best possible level of efficiency and performance. Its record with the Lancaster was possibly unsurpassed, in losing only four of the type during eight months of operations. Remarkably, little has been written about this magnificent unit's wartime exploits, and it is hoped that this modest effort will to some extent redress that omission, and do some justice to all those who served. I am indebted to my friend Martyn Ford-Jones, for generously allowing me access to his fund of information on the squadron, without which, this profile would have been the poorer.

STATIONS

MILDENHALL	12.04.37. to 06.04.42.
LAKENHEATH	06.04.42. to 15.05.44.
METHWOLD	15.05.44. to 04.46.

COMMANDING OFFICERS

WING COMMANDER G H RUSSELL DFC	05.01.39. to 06.11.39.
WING COMMANDER R KELLETT AFC	06.11.39. to 05.40.
WING COMMANDER J R WHITLEY AFC	05.40. to 24.11.40.
SQUADRON LEADER G W HEATHER	24.11.40. to 28.11.40.
WING COMMANDER J A POWELL	28.11.40. to 05.41.
WING COMMANDER BEAMAN	05.41. to 26.11.41.
WING COMMANDER G J SPENCE	26.11.41. to 05.42.
WING COMMANDER C CHARLTON-JONES	05.42. to 28.08.42.
WING COMMANDER K M WASSE DFC	29.08.42. to 04.43.
WING COMMANDER G E HARRISON DFC	04.43. to 15.09.43.
WING COMMANDER C R B WIGFALL	15.09.43. to 05.44.
WING COMMANDER M E PICKFORD	05.44. to 29.01.45.
WING COMMANDER L H KAY	29.01.45. to 02.02.45.
WING COMMANDER CHILTON	03.02.45. to

AIRCRAFT

WELLINGTON I/IA/IC	20.01.39. to 12.41.
STIRLING I	12.10.41. to 06.43.
STIRLING III	02.43. to 09.44.
LANCASTER I/III	08.44. to 11.49.

SECTION 2



OPERATIONAL RECORD

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OPERATIONAL STATISTICS

OPERATIONS	SORTIES	AIRCRAFT LOSSES	% LOSSES
738	5905	131	2.2

CATEGORY OF OPERATIONS

BOMBING	MINING	OTHER
567	160	11

WELLINGTONS

OPERATIONS	SORTIES	AIRCRAFT LOSSES	% LOSSES
218	1647	40	2.4

CATEGORY OF OPERATIONS

BOMBING	MINING	OTHER
213	0	5

STIRLINGS

OPERATIONS	SORTIES	AIRCRAFT LOSSES	% LOSSES
410	2628	87	3.3

CATEGORY OF OPERATIONS

BOMBING	MINING	LEAFLET
244	160	6

LANCASTER

OPERATIONS	SORTIES	AIRCRAFT LOSSES	% LOSSES
110 All bombing.	1630	4	0.2

TABLE OF STATISTICS

3rd highest number of overall operations in Bomber Command.
6th highest number of bombing operations in Bomber Command.
Highest number of mining operations in Bomber Command.
13th highest number of sorties in Bomber Command.
26th equal (with 77Sqn) highest number of aircraft operational losses in Bomber Command.

Out of 42 Wellington squadrons.

7th highest number of overall Wellington operations in Bomber Command.
7th highest number of Wellington sorties in Bomber Command.
12th highest number of Wellington operational losses in Bomber Command.

Out of 28 squadrons in 3 Group.

2nd highest number of overall operations in 3 Group.
3rd highest number of sorties in 3 Group.
4th highest number of aircraft operational losses in 3 Group.

Out of 18 Wellington squadrons in 3 Group.

5th highest number of Wellington overall operations in 3 Group.
5th highest number of Wellington sorties in 3 Group.
8th highest number of Wellington operational losses in 3 Group.

Out of 12 Stirling squadrons in 3 Group.

Highest number of overall Stirling operations in 3 Group.
Highest number of Stirling sorties in 3 Group.
3rd highest number of Stirling operational losses in 3 Group.

Out of 11 Lancaster squadrons in 3 Group.

8th highest number of overall Lancaster operations in 3 Group.
8th highest number of Lancaster sorties in 3 Group.
10th highest number of Lancaster operational losses in 3 Group.

SECTION 3



AIRCRAFT LISTING

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149 SQUADRON

WELLINGTON. To December 1941

L4214	From RAE via manufacturers. To 11 OTU.
L4229	From 99Sqn. To 214Sqn.
L4249	To 75Sqn.
L4252	To GRU. Took part in squadron's first operation 3.9.39.
L4253	To 215Sqn.
L4254	To 75Sqn. Took part in squadron's first operation 3.9.39.
L4255	To 15 OTU.
L4256	To 75Sqn.
L4259	To 15 OTU.
L4263	To 11 OTU.
L4264	To 15 OTU. Took part in squadron's first operation 3.9.39.
L4265	To 15 OTU.
L4266	To 11 OTU.
L4270	To 11 OTU.
L4271	Became ground instruction machine 4.42.
L4272 OJ-A/C	To 9BAT Flt.
L4374	To RAE.
L7800	From 148Sqn. FTR Soissons 10/11.6.40.
L7805	FTR Bremen 11/12.7.40.
L7806	From 75Sqn. To 311Sqn.
L7811 OJ-C	Abandoned over England on return from Bremen 12.2.41.
L7812	From 115Sqn. To RAE.
L7817	From 300Sqn. To 9Sqn.
L7845	To 115Sqn.
L7846	To OADF.
L7855 OJ-W	To 25 OTU.
L7858 OJ-H/A	FTR Gelsenkirchen 14/15.3.41.
L7896 LN-G	On loan from 99Sqn. Crash-landed at Honington and burned out on return from Berlin 8.10.40.
N2769 OJ-N	To 9BAT Flt.
N2774 OJ-A	From 99Sqn. FTR Berlin 19/20.11.40.
N2775 OJ-B	To 311Sqn.
N2783	From 57Sqn. To 25 OTU.
N2853 OJ-R	From 57Sqn. Crashed in Suffolk on return from Cologne 18.7.41.
N2866	To 215Sqn.
N2867	To 214Sqn and back. To CGS.
N2868	To 75Sqn.
N2869	To 75Sqn.
N2891	To 99Sqn.
N2892	To 7Sqn.

N2893 To CGS.
N2894 To 215Sqn.
N2943 FTR from reconnaissance sortie 2.1.40.
N2944 To CGS.
N2945 To 215Sqn.
N2946 FTR from reconnaissance sortie 2.1.40.
N2960 From 99Sqn. To 215Sqn.
N2961 From 99Sqn. FTR from armed reconnaissance operation 18.12.39.
N2962 From 99Sqn. FTR from armed reconnaissance operation 18.12.39.
N2980 To 37Sqn.
N2984 OJ-H From 99Sqn. Crashed in Suffolk when bound for leaflet sortie to Bremen 2.3.40.

N3012 To 215Sqn.
N3013 To 99Sqn.
P2517 From 37Sqn via Hendon & Yeadon. To 3Gp TF.
P2527 To 215Sqn.
P2528 To 215Sqn.
P9218 OJ-O From 214Sqn. FTR Aalborg 21/22.4.40.
P9224 To 115Sqn.
P9225 FTR from reconnaissance sortie to Mittelland Canal 23/24.3.40.
P9234 To 99Sqn.
P9240 To 99Sqn.
P9241 To 99Sqn.
P9244 OJ-E Crashed on final approach to Mildenhall on return from Gelsenkirchen 12.8.40.

P9245 OJ-W Crashed off Essex coast on return from Boulogne 9.9.40.
P9246 FTR from reconnaissance sortie to Norway 12.4.40.
P9247 OJ-M Crashed in Lincolnshire on return from Hanover 12.2.41.
P9248 OJ-D/G FTR Cologne 17/18.4.41.
P9266 FTR from reconnaissance sortie to Norway 12.4.40.
P9267 Crashed on approach to Mildenhall during training 4.4.40.
P9268 OJ-A Crashed while landing at Mildenhall on return from Mannheim 17.12.40.

P9270 OJ-G Crashed in Suffolk on return from France 24.5.40.
P9272 OJ-A From 99Sqn. FTR Kiel 27/28.8.40.
P9273 OJ-V From 99Sqn. FTR Herringen 9/10.10.40.
P9289 To 18 OTU.
R1024 OJ-V FTR Hanover 12/13.8.41.
R1045 OJ-E/M FTR Wilhelmshaven 21/22.2.41.
R1159 OJ-N Crash-landed in Suffolk on return from Cologne 19.3.41.
R1181 OJ-W From 99Sqn. Crashed soon after take-off from Mildenhall for training flight 10.4.41.

R1229 OJ-H Crashed while landing at Mildenhall on return from Emden 1.4.41.
R1294 Crashed near Mildenhall during air-test 16.12.40.
R1339 To 218Sqn.

R1343 OJ-B FTR Brest 1/2.7.41.
R1391 To 15 OTU.
R1408 OJ-J FTR Brest 1/2.7.41.
R1439 OJ-U FTR Kiel 15/16.4.41.
R1449 To 20 OTU.
R1469 To 150Sqn.
R1474 OJ-M From 115Sqn. Shot down by intruder on final approach to Mildenhall on return from Bremen 18.3.41.

R1506 OJ-D FTR Hamburg 8/9.5.41.
R1512 OJ-H FTR Hamburg 10/11.5.41.
R1514 OJ-H To 16 OTU.
R1524 OJ-P FTR Mannheim 5/6.8.41.
R1587 OJ-P Collided with a Hurricane during training and crashed in Cambridgeshire 17.5.41.

R1593 OJ-N To 1483Flt.
R1627 FTR Emden 15/16.11.41.
R1629 To RAE.
R1802 OJ-F To 311Sqn.
R3150 From 37Sqn. Returned to 37Sqn.
R3160 OJ-E From 115Sqn. FTR Le Havre 18/19.9.40.
R3161 OJ-O From 9Sqn. To 23 OTU.
R3163 OJ-G FTR Black Forest 5/6.9.40.
R3164 OJ-B FTR Hanau 28/29.9.40.
R3165 To 75Sqn.
R3174 OJ-A/V From 148Sqn. FTR Koleda 16/17.8.40.
R3175 OJ-V From 148Sqn. FTR Boulogne 8/9.9.40.
R3206 OJ-M To 311Sqn.
R3212 OJ-T To 300Sqn.
R3280 From Mildenhall. To 18 OTU.
R3285 To 17 OTU.
T2458 OJ-D From 9Sqn. To 21 OTU.
T2460 OJ-T From 99Sqn. To 18 OTU.
T2713 OJ-G From 57Sqn. To 115Sqn.
T2716 OJ-W From 40Sqn. Crash-landed in Suffolk on return from Hanover 13.8.41.
T2737 OJ-J/A FTR Bremen 14/15.7.41.
T2739 To 99Sqn.
T2740 OJ-E Crashed in Essex while trying to make an emergency landing on return from Emden 24.10.40.

T2747 To 16 OTU.
T2807 OJ-R FTR from Italian target 12/13.1.41.
T2846 To 101Sqn.
T2881 To 23 OTU.
T2897 OJ-O FTR Merignac Airfield 12/13.4.41.
T2898 OJ-F To 18 OTU.
T2899 OJ-G To 27 OTU.

T2994 OJ-A To 23 OTU.
W5399OJ-Q To 12Sqn.
W5439OJ-X FTR Düsseldorf 11/12.6.41.
W5567 To 305Sqn.
W5573 To 305Sqn.
W5718 To 75(NZ)Sqn.
W5724 To 27 OTU.
X3165 OJ-C To 14 OTU.
X3167 OJ-H FTR Kiel 8/9.4.41.
X3174 From 40Sqn. To 27 OTU.
X3176 OJ-O To 75(NZ)Sqn.
X3201 From 18 OTU. To 419Sqn.
X9633 OJ-R FTR Mannheim 6/7.8.41.
X9663 From 115Sqn. To 218Sqn.
X9679 From 301Sqn. To 218Sqn.
X9704 OJ-B FTR Duisburg 18/19.8.41.
X9705 OJ-J FTR Berlin 7/8.9.41.
X9733 From 115Sqn. To 311Sqn.
X9746 OJ-A Damaged beyond repair during operation to Duisburg 18/19.8.41.
X9758 To 214Sqn.
X9817 OJ-B/N To 214Sqn.
X9823 To 26 OTU.
X9824 To 40Sqn and back. To 40Sqn.
X9832 To 150Sqn.
X9877 From 115Sqn. To 311Sqn.
X9878 OJ-A FTR Berlin 7/8.11.41.
X9879 OJ-V FTR Kiel 11/12.9.41.
X9880 To 156Sqn.
X9890 OJ-G To 214Sqn.
Z1052 To 156Sqn.
Z8795 OJ-C FTR Bremen 20/21.10.41.
Z8837 To 40Sqn.
Z8838 To 40Sqn and back. To 311Sqn.

STIRLING.

From November 1941 to September 1944.

N3638 From XVSqn. To 106CF 3.1.42.
N3680 To 7Sqn 7.11.41.
N3682 OJ-F/U To 1657CU via 149CF 23.4.42.
N3684 To XVSqn CF.
N3719 OJ-S Crashed on landing at Lakenheath on return from Cologne 23.4.42.
N3723 OJ-E Abandoned after crossing the south coast, and crashed in Berkshire on return from Mannheim 7.12.42.
N3726 OJ-G Crashed on landing at Lakenheath after early return from Essen 7.4.42.
N3752 OJ-O FTR from mining sortie 17/18.5.42.

N3755 OJ-S To Conversion Flight and back. Crashed in Kent on return from Aachen 5/6.10.42.
N3766 To 214Sqn.
N6065 OJ-Z From XVSqn. Conversion Flight only.
N6066 To 26CF.
N6068 OJ-T FTR Dortmund 15/16.4.42.
N6079 OJ-F To 1657CU via 149CF 16.8.42.
N6080 OJ-G To 1657CU.
N6081 OJ-G/H FTR Nuremberg 28/29.8.42.
N6082 OJ-Q FTR Bremen 29/30.6.42.
N6083 OJ-N Crashed soon after take-off from Lakenheath when bound for Frankfurt 24.8.42.
N6084 OJ-C FTR Essen 8/9.6.42.
N6093 To 7Sqn.
N6094 To 7Sqn.
N6095 To 7Sqn. 8.11.41.
N6099 OJ-C To 1651CU 28.3.42.
N6100 To 26CF.
N6101 To 26CF and back. To 1651CU.
N6102 OJ-G To 1651CU.
N6103 OJ-E To 1651CU 10.5.42.
N6104 To 26CF 11.12.41.
N6122 OJ-Q To 149CF. Crashed on landing at Mildenhall 21.6.42.
N6123 OJ-F To 1657CU via 149CF 3.9.42.
N6124 OJ-R FTR Stuttgart 4/5.5.42.
N6125 To 214Sqn via 149CF 8.1.42.
N6126 OJ-U From 218Sqn. FTR Essen 10/11.3.42.
N6127 OJ-N From 218Sqn. To 1651CU.
R9142 OJ-B/R To 1657CU.
R9143 OJ-O From 7Sqn. To 1665CU 6.7.43.
R9161 OJ-T FTR Saarbrücken 29/30.7.42.
R9162 OJ-Q FTR from mining sortie 10/11.8.42.
R9163 OJ-A To 214Sqn.
R9164 OJ-Q FTR Essen 16/17.9.42.
R9167 OJ-N FTR Krefeld 2/3.10.42.
R9170 OJ-H FTR Düsseldorf 10/11.9.42.
R9200 OJ-P From 214Sqn. To 75(NZ)Sqn.
R9202 OJ-K FTR Turin 29/30.11.42.
R9203 OJ-D To 218Sqn.
R9242 OJ-B To 214Sqn.
R9253 OJ-C FTR from mining sortie 8/9.12.42.
R9265 OJ-N Crashed in Bedfordshire during air-test 19.12.42.
R9271 OJ-K To 90Sqn.
R9276 OJ-F To 90Sqn.
R9287 To 218Sqn.

R9295 OJ-G From 7Sqn. Crashed near Mildenhall on return from Essen 11.3.42.
R9296 OJ-D From 7Sqn. To 1657CU via 149CF.
R9299 To 149CF. Crashed in Cambridgeshire 16.7.42.
R9307 Crashed on take-off from Lakenheath when bound for Le Havre 22.4.42.

R9310 OJ-P From XVSqn. FTR from mining sortie 17/18.5.42.
R9314 OJ-R/T From XVSqn. FTR Essen 5/6.6.42.
R9320 OJ-S FTR from mining sortie 17/18.5.42.
R9321 OJ-R FTR Essen 5/6.6.42.
R9327 OJ-M From RAE. FTR Kiel 4/5.4.43.
R9329 OJ-V Crashed in Devon on return from mining sortie 20/21.8.42.
R9330 OJ-O Crashed on take-off from Lakenheath when bound for Bremen 29.8.42.
R9334 OJ-G Crashed near Lakenheath while training 3.1.43.
R9358 To 214Sqn.
W7448 To 7Sqn.
W7449 To 7Sqn.
W7450 To XVSqn.
W7451 To 7Sqn.
W7452 OJ-A Crashed on landing at Ayr while training 9.3.42.
W7453 To 26CF.
W7455 OJ-B To XVSqn via 149CF.
W7456 Crash-landed in Cambridgeshire during training 22.11.41.
W7457 To 149CF. Crashed on landing at Lakenheath 11.2.42.
W7458 Crashed on landing at Mildenhall while training 28.1.42.
W7459 To 26CF.
W7460 From XVSqn. To XVSqn and back. To 1657CU via 149CF.
W7461 OJ-N Force-landed in Yorkshire on return from Hamburg 16.1.42.
W7462 OJ-T Crashed on landing at Lossiemouth on return from attacking Tirpitz 29/30.1.42.

W7463 To XVSqn.
W7465 OJ-V From 1651CU. To 214Sqn.
W7469 From 218Sqn. To 75(NZ)Sqn.
W7508 OJ-D FTR Essen 5/6.6.42.
W7509 OJ-U To 1651CU.
W7510 OJ-B To 90Sqn.
W7512 OJ-A FTR Rostock 26/27.4.42.
W7513 From XVSqn. To 75(NZ)Sqn.
W7526 OJ-V To 214Sqn and back. To 149CF and back. FTR Cologne 15/16.10.42.
W7530 To 218Sqn.
W7566 OJ-C FTR from mining sortie 16/17.11.42.
W7567 To 214Sqn.
W7572 OJ-R FTR Frankfurt 24/25.8.42.
W7574 To 7Sqn.
W7580 OJ-D FTR Duisburg 23/24.7.42.
W7582 OJ-F/S Crashed in Suffolk during training 10.11.42.

W7589 OJ-P Crashed in Norfolk on return from Osnabrück 18.8.42.
W7619 OJ-A To 1651CU.
W7628 OJ-B Crashed in Kent on return from Genoa 24.10.42.
W7638 OJ-R FTR Cologne 14/15.2.43.
W7639 OJ-Q Crashed in Suffolk following early return from a mining sortie 8.12.42.

BF310 OJ-H FTR Bremen 29/30.6.42.
BF311 OJ-G To 75(NZ)Sqn.
BF312 OJ-A FTR Lübeck 16.7.42.
BF320 OJ-H FTR Saarbrücken 29/30.7.42.
BF323 To 1651CU.
BF325 OJ-A To 1651CU.
BF328 OJ-D FTR from mining sortie 30.9/1.10.42.
BF334 OJ-R To 149CF. Ditched off Ramsgate on return from Munich 20.9.42.
BF348 OJ-P Crashed while trying to land at Watton following early return from a mining sortie 10.10.42.

BF349 OJ-R To 218Sqn.
BF357 OJ-T To 214Sqn.
BF372 OJ-H Crashed in sea off Kent on return from Turin 29.11.42. F/S Middleton awarded posthumous VC.

BF389 OJ-S From XVSqn. Crashed on take-off from Lakenheath during training 27.10.42.

BF391 OJ-T FTR from mining sortie 8/9.12.42.
BF392 OJ-D From XVSqn. FTR from mining sortie 16/17.10.42.
BF416 From 115Sqn. To 218Sqn.
BF444 OJ-G To 214Sqn.
BF477 OJ-B FTR Mannheim 5/6.9.43.
BF479 OJ-E FTR Bochum 13/14.5.43.
BF483 OJ-C FTR Cologne 28/29.6.43.
BF500 OJ-M FTR Stuttgart 14/15.4.43.
BF503 OJ-U To 90Sqn.
BF507 OJ-S FTR Wuppertal 29/30.5.43.
BF509 OJ-N/B/R To 1653CU.
BF510 OJ-P FTR from mining sortie 21/22.5.43.
BF512 OJ-E Crashed while landing at Lakenheath after air-test 9.8.43.
BF520 OJ-B To 196Sqn.
BF530 OJ-B FTR Cologne 3/4.7.43.
BF531 OJ-M Crashed on landing at Lakenheath while training 14.6.43.
BF570 OJ-T/H To 1651CU.
BF573 OJ-W From 75(NZ)Sqn. To 620Sqn.
BF576 OJ-Y To 620Sqn.
BF580 To 620Sqn.
BK597 OJ-F From XVSqn. To 218Sqn.
BK598 To 90Sqn.
BK601 OJ-N From 214Sqn. To 1657CU.

BK612 OJ-E To 214Sqn.
BK665 To 90Sqn.
BK692 OJ-W FTR Berlin 1/2.3.43.
BK696 OJ-K/L Abandoned over Hampshire on return from mining sortie 2.5.43.
BK698 OJ-O From XVSqn. FTR Rostock 20/21.4.43.
BK701 OJ-G FTR from mining sortie 17/18.5.43.
BK703 OJ-K From XVSqn. FTR Cologne 28/29.6.43.
BK708 OJ-P FTR Berlin 29/30.3.43.
BK710 OJ-A FTR Düsseldorf 25/26.5.43.
BK711 OJ-O FTR Mannheim 5/6.9.43.
BK713 OJ-N To 620Sqn.
BK714 OJ-L FTR Rostock 20/21.4.43.
BK715 OJ-D Destroyed by fire at Lakenheath after air-test 31.3.43.
BK726 OJ-Z FTR Bochum 13/14.5.43.
BK759 OJ-X FTR Stuttgart 14/15.4.43.
BK765 OJ-P FTR Berlin 23/24.8.43.
BK772 OJ-T To 199Sqn.
BK781 OJ-L From 90Sqn. To 1651CU.
BK798 OJ-Q FTR from mining sortie 20/21.12.43.
BK799 OJ-O FTR Krefeld 21/22.6.43.
BK806 OJ-V To 199Sqn.
BK812 Crashed on take-off from Lakenheath for ferry flight to XVSqn at Mildenhall 11.5.43.
BK816 From 90Sqn. To 1651CU.
DJ972 OJ-T Crashed on landing at Lakenheath on return from Stuttgart 7.5.42.
EE872 OJ-N FTR Mannheim 5/6.9.43.
EE875 To 620Sqn.
EE877 OJ-E From XVSqn. FTR Nuremberg 27/28.8.43.
EE879 OJ-G FTR Berlin 31.8/1.9.43.
EE880 OJ-O FTR Cologne 28/29.6.43.
EE894 OJ-R FTR Berlin 23/24.8.43.
EE953 From 199Sqn.
EE963 OJ-N To 1653CU.
EE969 OJ-E FTR from mining sortie 27/28.1.44.
EF124 From 218Sqn. To 1653CU.
EF133 From 218Sqn. To 1651CU.
EF140 OJ-B FTR Ruisseauville 24/25.6.44.
EF161 From 199Sqn. To 1657CU.
EF185 OJ-D From 218Sqn. To 1653CU.
EF187 OJ-C FTR from SOE operation to France 5/6.2.44.
EF188 OJ-M From 90Sqn. FTR from mining sortie 23/24.6.44.
EF192 OJ-F From 199Sqn. To 1653CU.
EF193 OJ-D From 90Sqn. To 1653CU.
EF202 OJ-L FTR from mining sortie 25/26.11.43.
EF207 OJ-F From 218Sqn. To 1653CU.

EF233 OJ-D From 218Sqn. To 1657CU.
EF238 OJ-H Crash-landed at Methwold on return from SOE operation to France 29.4.44.
EF262 From 214Sqn. To 199Sqn and back. To 1653CU.
EF307 OJ-E FTR from mining sortie 24/25.2.44.
EF308 OJ-R FTR from mining sortie 25/26.2.44.
EF327 OJ-M From 75(NZ)Sqn. Crashed on landing at Lakenheath on return from Stuttgart 12.3.43.
EF328 OJ-R From 90Sqn. Crash-landed in Suffolk on return from Nuremberg 9.3.43.
EF330 OJ-P FTR Essen 12/13.3.43.
EF332 From 214Sqn. To 75(NZ)Sqn.
EF335 OJ-E/H From 214Sqn. To 1665CU.
EF336 OJ-F From 90Sqn. To 620Sqn.
EF337 From 75(NZ)Sqn. To 1657CU.
EF338 OJ-Q To 620Sqn.
EF340 OJ-D From 218Sqn. To 75(NZ)Sqn.
EF341 To 1665CU.
EF342 OJ-A To 1665CU.
EF343 OJ-B FTR Dortmund 4/5.5.43.
EF344 OJ-R To 1657CU.
EF357 OJ-V FTR Duisburg 12/13.5.43.
EF360 OJ-H To 1651CU.
EF389 OJ-Q To 1651CU.
EF395 OJ-L To 1651CU.
EF396 OJ-E To 1651CU.
EF400 OJ-C From 75(NZ)Sqn. Crashed on landing at Lakenheath after early return from Cologne 4.7.43.
EF411 OJ-K From XVSqn. To 1653CU.
EF412 OJ-F From XVSqn. Crashed on take-off from Lakenheath while training 13.11.43.
EF431 From 90Sqn. To 1651CU.
EF438 OJ-D FTR Mönchengladbach 30/31.8.43.
EF450 To 199Sqn.
EF495 OJ-R FTR Hanover 27/28.9.43.
EF502 OJ-G FTR from SOE operation to France 10/11.4.44.
EH879 From XVSqn. To 1651CU.
EH883 OJ-A FTR Mannheim 23/24.9.43.
EH885 OJ-V Crashed on take-off from Lakenheath for air-test 9.6.43.
EH903 OJ-L FTR Mannheim 18/19.11.43.
EH904 OJ-P Undercarriage collapsed while taxiing at Pembrey during training 16.12.43.
EH909 To 199Sqn.
EH922 OJ-O/V To 1653CU.
EH927 To 199Sqn.

EH934 To 199Sqn.
EH943OJ-B FTR Laon 22/23.4.44.
EH982OJ-S From 218Sqn. To 1653CU.
EH987OJ-P Crash-landed at Lakenheath while training 4.10.43.
EH993OJ-D Belly landed 4.6.44.
EJ106 OJ-O FTR from mining sortie 7/8.10.43.
EJ107 OJ-K To 1657CU.
EJ109 OJ-H/M To 1657CU.
EJ115 From 90Sqn. To 1653CU.
EJ122 OJ-Q From 90Sqn. To 1657CU.
EJ124 OJ-C From 214Sqn. FTR Amiens 15/16.3.44.
LJ447 From 218Sqn. To 1657CU.
LJ449 From 218Sqn. To 1651CU.
LJ472 OJ-Q From 218Sqn. To 1651CU.
LJ477 OJ-M Crashed while trying to land at Thorney Island on return from special SOE operation 6.7.44.

LJ481 OJ-U From 218Sqn. To 1653CU.
LJ501 OJ-H From 199Sqn. FTR from mining sortie 31.5/1.6.44
LJ504 OJ-K FTR from mining sortie 18/19.4.44.
LJ511 OJ-Q To 1332CU.
LJ522 OJ-N From 218Sqn. To 1657CU.
LJ526 OJ-P FTR from mining sortie 23/24.4.44.
LJ568 OJ-A From 218Sqn. To 199Sqn.
LJ577 To 1651CU.
LJ580 To 199Sqn.
LJ582 To 199Sqn.
LJ621 OJ-M FTR from special D-Day support operation 5/6.6.44.
LJ623 OJ-P To 1661CU.
LJ625 From 218Sqn. To 1657CU.
LJ632 OJ-P From 218Sqn. To 1653CU.
LK382 OJ-Q FTR from SOE operation to France 9/10.4.44.
LK383 OJ-A From 90Sqn. FTR from mining sortie 6/7.8.44.
LK385 OJ-C From 199Sqn. FTR special D-Day support operation 5/6.6.44.
LK386 OJ-T/P/J/O From XVSqn. Crashed on landing at Hartford Bridge on return from a mining sortie 24.6.44.

LK388 OJ-L Crash-landed at Methwold while training 17.7.44.
LK392 OJ-O From 90Sqn.
LK394 OJ-D FTR Ruisseauville 24/25.6.44.
LK396 OJ-M From 218Sqn. To 1657CU.
LK397 OJ-K From 199Sqn.
LK401 OJ-G From 218Sqn. To 1653CU.
LK445 OJ-C From 214Sqn. To 1657CU.
LK499 OJ-R To 1653CU.
LK500 OJ-S Crashed on take-off from Lakenheath 11.5.44.
LK516 To 90Sqn.

LK568 To 218Sqn via 90Sqn and back. To 1653CU.
MZ260OJ-C Crashed while landing at Lakenheath during training 17.11.43.

LANCASTER. From August 1944.

HK546 TK-K From 115Sqn.
HK549 OJ-L From 115Sqn. To 1651CU.
HK551 OJ-M/TK-J From 115Sqn.
HK555 From 115Sqn. Returned to 115Sqn.
HK572 From 115Sqn. Returned to 115Sqn.
HK577 TK-H/W To 10MU.
HK578 From 115Sqn. To 46MU.
HK598 From 115Sqn. To G-H Flt.
HK624 To 115Sqn.
HK645 TK-D/OJ-R FTR Witten 12.12.44.
HK649 OJ-J/S/F/X
TK-F
HK652 OJ-E/W
HK653 OJ-Y To 115Sqn and back. FTR Witten 12.12.44.
HK654 TK-G
HK655 To 1651CU.
HK656 To 115Sqn.
HK657 OJ-S To 46MU.
HK699 OJ-H/C/C2 To 54MU and back.
TK-C/H
HK792 To 138Sqn.
HK793 OJ-B/A
TK-A
HK795 OJ-O/TK-B
LM240 OJ-O From XVSqn.
LM692 OJ-P/S To 90Sqn.
LM697 OJ-E
LM721 OJ-O To 150Sqn.
ME352 OJ-E/K/S/T From 218Sqn.
NF927 OJ-D
NF953 From XVSqn.
NF969 OJ-F
NF970 OJ-O/R
NF971 OJ-P/S
NF972 OJ-H FTR Gelsenkirchen 5.3.45.
NF973 OJ-K/B
NG224OJ-J/V/K To 138Sqn and back.
NG299OJ-A/T From 622Sqn.
NG355OJ-F/G/Q/U/L From 218Sqn.
NG356OJ-C/O/V

NG361 OJ-E	
NG362 OJ-S	From 218Sqn. Crashed on landing at Methwold on return from Nuremberg and burned out 2/3.1.45.
NG387 OJ-L	
NG388	To 195Sqn.
NG407 OJ-X	
NG409 OJ-Q	
NN708 OJ-Q	FTR Wiesbaden 2/3.2.45.
NN756 OJ-R	
NN760 OJ-G/W	
PA166 OJ-B/G/U	
PA186 OJ-X	From 514Sqn.
PB483 OJ-B/G/J	To 186Sqn.
PB487 OJ-A/V	To 1656CU.
PB488 OJ-A	To 90Sqn.
PB506 OJ-B	To G-H Flt at Feltwell.
PB508 OJ-U	To G-H Flt at Feltwell
PB509 OJ-C	To 186Sqn.
PB697	From 83Sqn.
PB838 OJ-M	
PB902 OJ-H	From 514Sqn.
PD284 OJ-N	
PD364	From 218Sqn.
PP673 OJ-B	
PP677	
PP681 OJ-C	
PP684 OJ-A	
PP685 OJ-G	
PP686 TK-J	
PP687 OJ-F	
RF142	To 138Sqn.
RF143 OJ-A	To 138Sqn.

HEAVIEST SINGLE LOSS.

05/06.06.42. Essen. 3 Stirlings FTR.
 29/30.06.42. Bremen. 2 Stirlings FTR. 1 crashed on take-off.
 28/29.06.43. Cologne. 3 Stirlings FTR.

SECTION 4



KEY TO ABBREVIATIONS

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KEY TO ABBREVIATIONS

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

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



SECTION 5



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SECTION 6



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