

**ROYAL AIR FORCE  
BOMBER COMMAND**

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**SQUADRON PROFILES**

**NUMBER 53**



**156 SQUADRON**

*We light the way*

**RESEARCHED, COMPILED AND WRITTEN  
BY  
CHRIS WARD**

**ROYAL AIR FORCE  
BOMBER COMMAND  
SQUADRON PROFILES**



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# GENERAL NOTES

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## **GENERAL NOTES**

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

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

An aircraft is included in section 3 if; a) it spent time on squadron charge, no matter how briefly, and irrespectively of whether or not it operated. b) 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 However, where there is a blank space following the serial number of a type which has been withdrawn from service with Bomber Command, it signifies that I don't know its ultimate fate.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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## 156 SQUADRON

**MOTTO** We light the way.

Code **GT**

First formed on the 12<sup>th</sup> of October 1918, 156 Squadron's development to operational status was thwarted by the end of the Great War a month later. Consequently, before it received its first aircraft, it was consigned to the shelf, thus remaining as a number only, until almost two and a half years into the Second World War. In October 1941, Alconbury based 40 Squadron received an Air Ministry directive, which ordered it to send a detachment to Malta, for what was intended to be a two month tour of duty. Accordingly, on the 23<sup>rd</sup>, W/C Stickley led B Flight on a direct route to the island, while A Flight departed on the 25<sup>th</sup> via Hampstead Norris and Gibraltar. This represented the entire operational strength of the squadron, which from the outbreak of war, had seen service with the AASF in France, 2 Group, and since November 1940, 3 Group, with which it had flown Wellingtons as part of Bomber Command's night offensive. A large number of the squadron's servicing and administration personnel was also required in the Middle Eastern theatre, and what remained at Alconbury was little more than a skeleton staff.

On the 6<sup>th</sup> of November, S/L Spence was posted in from 218 Squadron to begin the rebuilding process, and the first training flights took place on the 22<sup>nd</sup>. Four days later, W/C Heath arrived to assume command, while S/L Spence was promoted to Wing Commander, and was posted to command 149 Squadron. W/C Heath presided over his first operation on the 27<sup>th</sup>, when two sorties were despatched to Ostend. Limited operations were conducted through to the end of the year, partly as the result of harsh weather conditions, but principally because of an edict from the Air Ministry. The weather since September had certainly been frustrating the C-in-C, Sir Richard Peirse, in his attempts to hit at Germany, at a time when he badly needed to prove the worth of the Command. It stemmed from the completion of the Butt Report on the 18<sup>th</sup> of August, which was an analysis by civil servant Mr D M Butt of recent Bomber Command operations. His conclusions were to send shock waves resounding around the Cabinet Room and the Air Ministry, and would unjustly blight Peirse's period of tenure as C-in-C. Having studied around four thousand photographs taken during a hundred night operations in June and July, he concluded, that only a fraction of bombs were falling within miles of their intended targets. This swept away at a stroke the notion that the bombing offensive was having an effect on Germany's war effort. The final straw had come with an ill-fated night of operations on the 7/8<sup>th</sup> of November, when Berlin, Cologne and Mannheim had been the main targets, while other aircraft carried out minor operations. A record number of 392 sorties resulted in the loss of thirty seven aircraft, a figure which was more than twice the previous highest. Peirse was summoned to a meeting with Churchill to make his explanations, and on the 13<sup>th</sup>, he was ordered to restrict further operations while the future of the Command was considered at the highest level.

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Meanwhile, back at Alconbury, W/C Heath was finding the rebuilding process of 40 Squadron a somewhat trying business, because of the posting out of its Canadian and New Zealand aircrew to 419 and 75(NZ) squadrons respectively, while others were sent to 215

Squadron serving in the Far East. On the last day of 1941, an Air Ministry communique was received, to the effect that the Malta echelon would be renumbered 156 Squadron, and proceed to Egypt rather than return to Bomber Command, while the Alconbury echelon would retain the coveted original 40 Squadron identity. This news was not well received by W/C Stickley, who had, as an ally, W/C Beare, whose own 104 Squadron had also been posted to the Middle East from Bomber Command, and was now to be renumbered 158 Squadron. Following strong representations by both men over the succeeding weeks, the decision was reversed, and the home based squadrons were the ones to undergo renumbering. In this way, it was 156 Squadron rather than 40 which went on to fame as a founder member of the Pathfinder Force, and 158 Squadron, not 104, which became one of the mainstays of 4 Group's offensives for the remainder of the war.

The final operation by the squadron under its 40 Squadron appellation was during the ill-fated Channel Dash episode on the 12<sup>th</sup> of February 1942, when the Scharnhorst, Gneisenau and Prinz Eugen passed through the English Channel following their audacious breakout from Brest. The two former had spent most of the preceding eleven months undergoing constant bombardment in the port, suffering damage on occasions, and diverting a sizeable proportion of the Command's effort from targets to which it was better suited. Operation Fuller had been devised to deal with precisely this eventuality, but the squally conditions and very low cloud base concealed the warships until late morning, when only 5 Group was standing by at four hours readiness. The first aircraft were launched at 13.30 hours, but despite the commitment of a record 242 daylight sorties throughout the course of the day, including five by 40 Squadron, few attacks were carried out in the atrocious weather conditions, and no hits were scored. Both Scharnhorst and Gneisenau struck mines recently laid by 5 Group aircraft, but this had little effect on their progress, and by the following morning, the fleet had arrived in home ports. The loss of fifteen aircraft and crews came on top of all those missing from Brest since the end of March. The embarrassment to the government and the nation was enormous, and it did nothing for the already tarnished reputation of the Command, but at least, this annoying itch had been scratched for the last time, and no further crews would be sacrificed to it.

On the 14<sup>th</sup>, 40 Squadron officially became 156 Squadron, and remained at Alconbury under the command of W/C Heath. Also on this day, a new Air Ministry directive reaffirmed the assault on the morale of the enemy's civilian population, and cleared the way for the blatant area bombing of Germany's urban areas, without the pretence of aiming for industrial and military targets. Waiting in the wings was the man who would pursue this policy with a will, and who also had the stubbornness and self belief to fight his corner against the vultures in high places. These were calling for the dissolution of Bomber Command, and for its aircraft to be employed in the fight against the U-Boat menace in the Atlantic, and to redress reversals in the Middle East. Between the 18<sup>th</sup> of January and the 10<sup>th</sup> of February, 40 Squadron had received Wellingtons R1168, X9975, Z1052, Z1068, Z1080, Z1108, Z1114, Z8969 and Z8973, and three of these took part in 156 Squadron's first operation, which was a roving commission to Essen on the 16/17<sup>th</sup>, from which all returned. On the 22<sup>nd</sup>, ACM Sir Arthur Harris took up his post as the new Commander-in-Chief of Bomber Command, and immediately set about the task of ensuring its future. He arrived at the helm with firm ideas

already in place on how to win the war by bombing alone. The offensive to date had been characterized by the sending of small numbers of aircraft against multiple targets simultaneously, thus diluting the effort, and more importantly, the effectiveness of attacks. Harris, on the other hand, recognized the need to overwhelm the defences by pushing the maximum number of aircraft across an aiming point in the shortest possible time. This was the birth of the bomber stream, and it signalled an end to the former practice, whereby crews determined for themselves the details of their sorties. He also was aware, that urban targets 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. For the remainder of the month, however, he continued the relatively small scale attacks on German ports, and it was during this period, that the war threw up one of its ironies. While attack the floating dock at Kiel on the 26/27<sup>th</sup>, one of the participating Wellingtons, Hampdens and Halifaxes landed a high explosive bomb on the bows of the Gneisenau, now supposedly in safe haven after enduring eleven months of almost constant bombardment at Brest, and her sea-going career was ended for good.

In the first indications of a new hand on the tiller, and a sign of things to come for the enemy in the years ahead, Harris sent a new record force for a single target, of 235 aircraft, to the Renault lorry factory at Billancourt in Paris on the 3/4<sup>th</sup> of March. It was a carefully planned operation, which was conducted in three waves, led by experienced crews, and with extensive use of flares to provide illumination. The bombing was carried out at low level in the face of scant flak defences, both to aid accuracy, and to try to avoid casualties among French civilians in adjacent residential districts. The operation was an outstanding success, in which 223 crews destroyed 40% of the factory buildings, and halted production for four weeks, for the loss of a single Wellington. The satisfaction was marred somewhat by the heavy casualties inflicted upon civilians, and this was a problem which would never satisfactorily be addressed. The Squadron suffered the first of its many wartime aircraft casualties on the 8<sup>th</sup>, although without injury to the crew involved. Sgt Shilleto was ferrying X3333 from 57 Squadron at Feltwell, when it ran off the runway on landing at Alconbury, and was written off. That night, the first of three raids on Essen on consecutive nights was conducted by a force of around two hundred aircraft. It was led for the first time by aircraft equipped with the Gee navigation device. The industrial haze, which thwarted most operations to the region, prevented accurate bombing, and this most important centre of war production escaped with only slight superficial damage. It was a similar story on the succeeding two nights, and this would continue to be the case at Essen for a further twelve months.

Following a successful all Wellington attack on Kiel on the 12/13<sup>th</sup>, the first effective Gee-led raid took place on Cologne on the 13/14<sup>th</sup>, when a number of war industry factories were damaged, along with fifteen hundred houses. A return to Essen on the 25/26<sup>th</sup> and 26/27<sup>th</sup> brought more disappointment, but some compensation was about to be gained. In order to locate and strike at a target effectively, it was necessary to provide easily identifiable land marks by which to navigate. The ancient and historic city of Lübeck, on Germany's Baltic coast, would provide exactly the right reference points for the navigators, and the narrow streets and half-timbered buildings in its centre, made it an obvious choice for a fire-raising attack. A force of 234 aircraft set off during the course of the evening of the 28<sup>th</sup>, for a three



wave operation along the lines of the successful raid on the Renault factory at the start of the month. The vanguard was equipped with Gee, which, although lacking the range for this target, at least provided a preliminary guide to navigation. A light defence had been correctly anticipated, and this allowed crews to come down to as low as two thousand feet to deliver their attack. 191 aircraft reached the target area, and dropped over four hundred tons of bombs, two-thirds of which were incendiaries, and the ensuing fires destroyed over fourteen hundred buildings, and seriously damaged almost two thousand more. An estimated 30% of the built-up area was deemed to be in ruins, according to post-raid reconnaissance photos, and this was the first major success for the area bombing policy.

April began with a busy night of small scale operations on the 1/2<sup>nd</sup>, and Wellingtons featured in all three. The docks at Le Havre involved thirty four of the type, in company with Hampdens, seventeen went to attack the Ford Motor factory at Poissy in Paris with twenty four Whitleys, while the largest effort was by thirty five Wellingtons and fourteen Hampdens at Hanau, where railway installations were the objectives. All three operations were inconclusive, and the last mentioned was a disaster for two of the Wellington units, 57 and 75(NZ) Squadrons, which lost twelve aircraft between them. A return by forty Wellingtons and ten Stirlings to the Ford works on the following night was successful, however, and cost just one aircraft. A new record force of 263 aircraft was despatched to Cologne on the 5/6<sup>th</sup>, and despite enthusiastic claims by returning crews, only modest damage resulted, and this was miles from the intended aiming point. The series against Essen continued on the 6/7<sup>th</sup>, when less than a third of the 157 strong force reached the target area in foul weather conditions to bomb through cloud, and the raid was another failure. Similar weather was encountered on the following night, when it was the turn of Hamburg to escape with superficial damage at the hands of another new record force of 272 aircraft, 188 of which attacked the primary target.

The highly disappointing campaign against Essen fizzled out with two more dismal efforts on the 10/11<sup>th</sup> and 12/13<sup>th</sup>, which between them cost twenty four aircraft, although a number of high explosives and incendiaries hit the Krupps works on the latter occasion, and started a large fire. Essen was not the only Ruhr city to benefit from wayward bombing during the period. Dortmund was raided on the consecutive nights of the 14/15<sup>th</sup> and 15/16<sup>th</sup>, and a combined total of six buildings were destroyed, five of them houses, from 360 sorties over the two operations. Three Wellingtons and a Stirling were missing from the latter raid, and among them was 156 Squadron's X3697, which crashed in Belgium with no survivors from the crew of P/O Griffith. This was the squadron's first operational loss, and the second came on the following night, when X3417 failed to return from a mining sortie in French waters, and P/O Sheffield died with his crew in the target area. A modestly rewarding attack on Hamburg created seventy five fires on the 17/18<sup>th</sup>, and two nights later, fifty one aircraft were sent mining in the Frisians. The squadron's X3485 disappeared into the sea, and took with it the crew of P/O Fox. On return, F/O Pinion landed at Warboys in error for Wyton, and ran off the end of the runway, writing off X3708, although happily, without crew casualties, but this would prove to be only a temporary reprieve.

The following night was devoted to an operation by sixty four Wellingtons and five Stirlings, all of which were equipped with Gee. The target was Cologne, and the intention was to test

the device's suitability for use as a blind bombing aid. It was not a successful trial, and less than 25% of the bomb loads found the city. Rostock was raided on four consecutive nights from the 23/24<sup>th</sup>, in an attempt to repeat the success gained at Lübeck a month earlier. Also on the Baltic coast, this port had the added attraction of a nearby Heinkel aircraft factory, and a proportion of the force was specifically assigned to this. The first operation was disappointing, but the second hit the centre of the town squarely, and many fires were started. For the second night running, the Heinkel factory escaped damage, but the third raid resulted in it being hit by a contingent from 106 Squadron, led by W/C Guy Gibson, and the town again suffered heavy damage. By the end of the final attack on the 26/27<sup>th</sup>, 60% of the built-up area had been destroyed, and this was followed by a useful raid on Kiel on the 28/29<sup>th</sup>, which inflicted damage on all three ship yards. 156 Squadron had registered no losses during these operations, but one more crew would be lost before the end of the month. This occurred on the 29/30<sup>th</sup>, when a predominately Wellington force of eighty eight aircraft was sent against the Gnome & Rhone aero-engine factory at Gennevilliers in Paris. The raid failed in its purpose, but hit other industrial concerns nearby, and three Wellingtons failed to return. Among them was Z1571, containing the crew of the previously mentioned F/O Pinion, and they were all killed in the crash in France.

The May account opened at Hamburg on the 3/4<sup>th</sup>, and despite the presence of thick cloud, which forced the crews to bomb on estimated positions, those which reached the target area produced unusually effective results, including over a hundred fires. A three raid series on Stuttgart on consecutive nights from the 4/5<sup>th</sup> failed completely, and an attack on the Baltic port of Warnemünde on the 8/9<sup>th</sup> fared little better, and cost a hefty nineteen aircraft. Minor operations occupied much of the next ten nights, before a raid by almost two hundred aircraft was mounted against Mannheim on the 19/20<sup>th</sup>. Most of the bombing fell into open country, and the squadron's X3671 crashed in France, killing the crew of one of the flight commanders, S/L McGillivray DFC. Another period of relative inactivity followed, during which, the arrival on bomber stations from Yorkshire to East Anglia gave rise to much speculation. A second attempt was made against the Gnome & Rhone factory at Gennevilliers on the 29/30<sup>th</sup>, but the mixed force of seventy seven aircraft again failed to find the mark. Among the five missing aircraft was that containing the squadron's commanding officer, W/C Heath, and he was killed along with his crew, when X3706 crashed near Paris. He was replaced by W/C Price, who was posted in from 218 Squadron, and whose own brief period in command would also be brought to a premature conclusion.

When Harris took up the reins of Command, he had asked for four thousand bombers with which to win the war. Whilst there was not the slightest chance of getting them, he needed to ensure, that those earmarked for him were not spirited away to what he considered less deserving causes. Coastal Command and the Middle East were continuing to make demands for bombers, and Harris needed a major victory, with perhaps, a dose of symbolism, to demonstrate to higher authority, that Bomber Command was the only worthwhile recipient. Out of this was born the Thousand Plan, Operation Millennium, the commitment of a thousand aircraft in one night against a major German city, for which Hamburg had been pencilled in. Harris did not have anything like a thousand front-line aircraft, and he would need to secure the co-operation of other Commands, principally Coastal, which immediately,

in a letter to Harris on the 22<sup>nd</sup>, put at his disposal 250 aircraft. Following an intervention by the Admiralty, however, Coastal Command underwent a change of heart, and withdrew its support, leaving Harris well short of his target. Undaunted as always, he, 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 of one thousand aircraft be achieved, it would be comfortably surpassed. The only remaining question concerned the weather, and as the days ticked by towards the end of May, this was showing no signs of complying. Harris was aware of the danger, that the giant fleet might draw attention to itself, and compromise security, and the time was fast approaching when he would either have to give the green light, or scrub the whole show for the time being. It was in this atmosphere of frustration, that "morning prayers" began at Harris's High Wycombe HQ on the 30<sup>th</sup>, when all eyes were turned on the chief meteorological adviser, Magnus Spence. He was able to give a qualified assurance that conditions over the Rhineland would be sufficiently clear to mount an attack, while north-western Germany would be lying under banks of heavy cloud. Thus did the fickle finger of fate spare Hamburg the dubious honour of hosting the first one thousand bomber raid in history, and dumped the consequences onto Cologne.

The basis of major operations had been established since the advent of Harris, and this operation would proceed accordingly in three waves, with the genuine heavies bringing up the rear. In the late evening, the first of 1047 aircraft began to take off, some of the older hacks from the training units doing so somewhat reluctantly, probably lifted more by the enthusiasm of their crews than by the power of their engines. A number of these, unable to climb to a respectable height, would fall easy prey to the defences, or just drop from the sky through mechanical fatigue. 156 Squadron put up sixteen Wellingtons for this momentous occasion, although one returned early for technical reasons. Inevitably, not every aircraft reached the target area, but 868 crews reported having done so, and they delivered what by any standards was a stunningly effective attack, which destroyed over 3,300 buildings, and seriously damaged two thousand others. The loss of forty one aircraft was high, but in conditions which had favoured both attackers and defenders, this was understandable. 156 Squadron was represented among the missing by two crews, those in DV715 and X3598. The former crashed in Holland, with no survivors from the crew of Sgt Malin, and the latter was shot down into the Scheldt by a nightfighter, killing P/O Bain and all others on board.

While the force was still assembled, Harris employed it again against Essen on the 1/2<sup>nd</sup> of June. Only 956 aircraft were available on this night, and in keeping with all previous attempts to deal a knock-out blow on this most important of industrial centres, and home of the giant Krupps complex, the bombing was sprayed all over the Ruhr, and only eleven houses were destroyed in the southern districts of the city. A follow-up attack by a much smaller force twenty four hours later was equally ineffective, and it cost 156 Squadron DV786, which crashed in Belgium, with no survivors from the crew of Sgt Powell. Four further operations were mounted against Essen over the next two weeks, on the 2/3<sup>rd</sup>, 5/6<sup>th</sup>, 8/9<sup>th</sup> and 16/17<sup>th</sup> making it five in all during the first half of the month, but not one achieved any degree of success, and the series cost the Command eighty four aircraft. Two 156 Squadron aircraft failed to return from the raid of the 5/6<sup>th</sup>, DV812 and X3339, and neither produced a survivor



from the crews of Sgt Thompson and P/O Smith respectively. The former was shot down by a nightfighter over the IJsselmeer, while the latter crashed near Geldern, west of the Ruhr, and close to the border with Holland. Two nights earlier, Bremen had experienced what the local authorities described as a heavy attack, which damaged housing and harbour installations. Emden was the month's other principal target, and received the first of its four visits on the 6/7<sup>th</sup>. This was a highly successful raid for the period, which left around three hundred houses destroyed, but those on the 19/20<sup>th</sup>, 20/21<sup>st</sup> and 22/23<sup>rd</sup> were disappointing in comparison, and only the last mention caused any damage of note.

The third and final use of the Thousand Force was against Bremen on the 25/26<sup>th</sup>, for which 960 aircraft were made available. Ordered by Churchill to participate, Coastal Command also provided 102 aircraft, although their contribution was classed as a separate operation. Nevertheless, the numbers converging on the target on this night exceeded those going to Cologne at the end of May, and while not achieving the outstanding success of that operation, the results far surpassed the debacle at Essen. 572 houses were destroyed, and a further six thousand were damaged to some extent, but the loss of forty eight aircraft represented a new record total. 156 Squadron lost no aircraft to the defences, but BJ594 crashed on landing following an early return, and one of Sgt Thompson's crew subsequently succumbed to his injuries. This night saw the last offensive sorties by the ill-fated Manchester, and from this point, 5 Group was an all Lancaster outfit. Bremen was raided again by smaller forces on the 27/28<sup>th</sup> and 29/30<sup>th</sup>, and both operations produced some useful damage to important war industry factories. The former occasion brought the loss of the squadron's Z1619, which crashed in Germany without survivors from the crew of Sgt Owen.

Having closed the June account, it fell to Bremen to open that of July on the 2/3<sup>rd</sup>, when a thousand houses were damaged, and seven ships were hit in the harbour. Forty two aircraft went mining on the 6/7<sup>th</sup>, and two of the three missing Wellingtons were from Alconbury. Sgts Galley and Attwater and their crews were briefed to operate in the waters around Lorient in X3345 and Z1576 respectively, and both fell in the target area with total loss of life. Duisburg was selected for a series of four operations beginning on the 13/14<sup>th</sup>, none of which brought outstanding success, but some damage did result to housing. The others took place on the 21/22<sup>nd</sup>, 23/24<sup>th</sup> and 25/26<sup>th</sup>, and the combined losses from the four nights amounted to thirty seven aircraft, although none from 156 Squadron. In each year of the war, the Command sent forces to Hamburg during the final week of July, and in this year, raids were mounted on the 26/27<sup>th</sup> and 28/29<sup>th</sup>. The former, for which four hundred aircraft were despatched, caused widespread damage, largely in residential districts, and over five hundred large fires were reported. The cost, at twenty nine aircraft, was high, but 156 Squadron negotiated the operation without loss. Between these two trips to Hamburg, eight Wellingtons were sent on daylight cloud-cover sorties to north-western Germany on the 27<sup>th</sup>, F/S Munday and his crew briefed for Hamburg again in Z1659. While outbound, the port engine exploded, causing loss of control, and ultimately, the order to bale out was given. The pilot and three others arrived safely on the ground to fall into enemy hands, while the fate of the fifth member of the crew has never been determined. The second of the night operations to Germany's Second City also resulted in 156 Squadron casualties, and three empty dispersals at Alconbury on the morning of the 29<sup>th</sup> told their own sorry tale of events. X3710 was lost

without trace with the crew of F/S Borsberry, F/L Wilson and his crew were also all killed when BJ592 crashed in Germany, and BJ603 was believed to have crashed into the sea, taking with it the commanding officer, W/C Price, and his crew. W/C Cook became the new commanding officer, in time to preside over a new era, which would begin for the squadron in a little over two weeks. In the meantime, July was brought to a close with a destructive attack on Saarbrücken on the 29/30<sup>th</sup>, in which almost four hundred buildings were reduced to rubble, and a heavy raid on Düsseldorf on the night of the 31<sup>st</sup>. Over six hundred aircraft took off, and more than a hundred Lancasters were operating for the first time. Bombs fell in most districts of the city, and over four hundred buildings were destroyed. The training units contributed over a hundred aircraft, and eleven of the twenty one failures to return belonged to them. 156 Squadron posted missing the crew of P/O Woof in Z1622, which crashed into the sea with no survivors.

There were no important operations at the start of August, until over two hundred aircraft took off for Duisburg on the 6/7<sup>th</sup>, to complete the five raid series begun in mid July. This elusive target again escaped serious damage, and a total of 212 houses destroyed was a modest return indeed for the commitment of 1,229 sorties during the five nights, and the combined loss of forty three aircraft. Osnabrück was raided with some success on the 9/10<sup>th</sup>, and while only two hundred houses were completely destroyed, four thousand other buildings were damaged to some extent. Mainz was visited twice on consecutive nights, beginning on the 11/12<sup>th</sup>, and both were highly effective operations, in which the town centre bore the main weight of the attack. The earlier raid brought another bad night for 156 Squadron, however, which, for the second time in two weeks, posted missing three crews. X3798 and Z1595 both crashed in Belgium, the former taking F/S Harker and one of his crew to their deaths, while the three others were marched off into captivity. The latter resulted in total loss of life among the crew of S/L Beavis, and the third loss involved BJ603, which crashed on Dutch soil, where the bodies of P/O Taylor and his crew were found in the Wellington's wreckage on the following morning.

On the 15<sup>th</sup>, the Pathfinder Force came into existence, and 156 Squadron moved to Warboys as one of the four founder heavy squadrons. Initially, and until Group status was bestowed upon it in the New Year, the new force fell nominally under the control of 3 Group, on whose stations it lodged with a degree of unease. Not only had Harris been opposed in principle to the formation of an elite target locating and marking force, his Group commanders, with the exception of AVM Roddy Carr of 4 Group, were unanimously of the same mind. Harris's choice of the then Group Captain Don Bennett as the leader of the Pathfinders was both controversial and inspired, and to see a relatively junior officer in such a responsible position, ruffled a few feathers among his contemporaries. Bennett, however, was among the most brilliant airmen of his time, with unparalleled qualifications, particularly in the field of navigation. Before the war, he had been an airline pilot, clocking up thousands of hours flying, and earlier in the war, he had been entrusted with setting up the Atlantic Bridge, to bring much needed aircraft over from America. His operational experience since then had been as the commanding officer of 77 and 10 Squadrons in 4 Group, and he had demonstrated his resourcefulness by evading capture in April, after being shot down over Norway while attacking the Tirpitz. Within a month of force-landing his Halifax, he was back at the helm of

10 Squadron, and two months later, was being interviewed by Harris for the Pathfinder post. Although renowned for his lack of humour, and the almost impossibly high standards which he set, Bennett would attract the fiercest loyalty from those serving under him, and on a personal level, he would rise above the criticisms and petty jealousies of his more senior peers. Likewise Harris, once overruled by higher authority, would give the Pathfinder force his unstinting support, and was eager to utilize it immediately. Each of the four founder squadrons was to receive its fresh crews via the Group from which it came, 7 Squadron from 3 Group, 35 Squadron from 4 Group, 83 Squadron from 5 Group, and 156 Squadron from 1 Group, this despite its 3 Group roots, and having had no previous association with 1 Group.

On the night of its move to Warboys, 156 Squadron put up eight Wellingtons for a non-Pathfinder operation to Düsseldorf, which developed into a scattered raid in poor visibility, and little damage was inflicted. Only four aircraft failed to return, but one of these was the squadron's DF666, which was shot down by a nightfighter over Holland, and F/S Newlove and his crew were all killed. The Pathfinder Force made its debut on the night of the 18/19<sup>th</sup>, for which the port of Flensburg was selected as the target. Its location on the eastern side of the narrow neck of northern Germany, close to the frontier with Denmark, should have made it an easy target to locate. Unfortunately, in an inauspicious beginning to what would become an illustrious career, the Pathfinders failed to find the mark, and no bombs at all fell on the intended target, while a number of Danish towns reported being hit. 156 Squadron's contribution was eight Wellingtons, all of which returned safely, and F/L Greenup and crew won the unofficial race to be the first Pathfinder crew to cross into enemy territory. It was not until the 24/25<sup>th</sup> that the Pathfinders ventured forth again, when Frankfurt was the objective for a force of over two hundred aircraft. They again found difficulty in identifying the target area in conditions of cloud, and most of the bombing fell into open country, but at least 156 Squadron's four participants all returned home, while sixteen others failed to do so. Finally, on its third operation, on the 27/28<sup>th</sup>, the fledgling force was able to identify the city of Kassel in the absence of thick cloud, and illuminate the area for the main force crews to exploit. This they did with only moderate effect, destroying 144 buildings, but the Pathfinders had registered their first success, and this would be a platform for the future. On the debit side, it was not a good night for the squadron, which began with four of its fourteen crews returning early for various reasons, and ended with three empty dispersals, which should have been occupied by X3367, Z1613 and DF667. The first mentioned was shot down by a nightfighter over Germany, killing F/S Savage and his crew, while a similar fate befell the second over Holland, and there were no survivors either from the crew of P/O Longhurst. The third loss involved the crew of Sgt James, again with total loss of life, and this was the third time in the space of a month, that the squadron had lost three crews in one night. On the following night, Nuremberg escaped serious damage as bombs were scattered over a wide area, and the squadron posted missing its eighth crew of the month, and its fourth from four Pathfinder operations. X3728 crashed in Belgium, killing F/L Gilmour and his crew, a particularly sad loss of a highly experienced pilot, who was on his forty seventh operation. (They led the way. Michael P. Wadsworth.)

The omens for September were less than encouraging, when BJ716 crashed in Huntingdonshire shortly after midnight on the 2<sup>nd</sup>, and just six minutes after taking off for



Saarbrücken. The Wellington burst into flames, and Sgt Douglas and one of his crew sustained injuries, while three others lost their lives. The ill-fortune then transferred to the rest of the Pathfinder element, which posted a "black", by illuminating the small town of Saarlouis in error for its industrial neighbour. Much to the chagrin of its inhabitants, the almost two hundred strong main force followed up with accurate bombing, and extensive damage was caused. Thereafter, the Command embarked on an unprecedented series of effective operations, which took it through to mid month. On the 2/3<sup>rd</sup>, Karlsruhe was subjected to a sharp attack, which left extensive damage in residential and industrial districts, and Bremen suffered the destruction of almost five hundred buildings on the 4/5<sup>th</sup>, while nearly fourteen hundred more were seriously afflicted. 114 buildings in Duisburg were reduced to rubble on the 6/7<sup>th</sup>, and while this was only a modest total, it still represented a minor victory at such a notoriously elusive Ruhr target. The run of successes was halted temporarily at Frankfurt on the 8/9<sup>th</sup>, when the Pathfinders again failed to locate the city, and most of the bombs fell into open country and nearby towns and communities. On the 10/11<sup>th</sup>, a contribution from the training units helped to swell the numbers converging on Düsseldorf to over 450 aircraft, and some of the Pathfinder contingent were carrying "pink pansy" target markers for the first time. As often happened at this location, some of the bombing spilled over into nearby Neuss, and the catalogue of destruction included over nine hundred houses and eight public buildings, while fifty two industrial concerns lost all production for varying periods.

Three nights later, it was the turn of Bremen to suffer the destruction of over eight hundred houses, while a number of important war industry factories were severely damaged, and also lost vital production. The Wilhelmshaven authorities reported the port's heaviest raid to date on the 14/15<sup>th</sup>, but this resulted in two 156 Squadron aircraft failing to return. BJ789 was lost without trace with the crew of S/L Collier, and P/O Brough and his crew were all killed, when BJ600 crashed in Holland. Even Essen felt the effects of a moderately useful attack on the 16/17<sup>th</sup>, in which the Krupps works was hit by fifteen high explosive bombs, and a crashing bomber. The squadron's X3822 was badly shot up by a nightfighter, and burned out after crash-landing at Warboys, but not before Sgt Proudfoot and his crew had scrambled clear. It can be no coincidence, that this succession of effective operations came at a time when the Pathfinder Force was emerging from its shaky beginnings. If any period in the Command's slow evolution to becoming a war-winning weapon could be identified as the turning point, then surely, these first sixteen nights in September 1942 was it. There was to be no immediate transformation, and failures would continue to outnumber successes for some time to come, but the encouraging signs were there, and the hard work currently being conducted behind the scenes would bear fruit in spectacular fashion in the coming year. In the meantime, two operations involved a Pathfinder element on the 19/20<sup>th</sup>, the larger, by a hundred aircraft against Saarbrücken, while eighty nine Lancasters and Stirlings were sent to Munich. The former escaped with only minor damage, and the squadron's BJ883 was one of ten aircraft to fail to return. Unusually for 156 Squadron, Sgt Bastable and his crew all survived the experience, and were marched off into captivity. S/L Arty Ashworth, late of 75(NZ) Squadron, had an eventful time after flares ignited inside his Wellington. Having ordered his crew to vacate the aircraft, he was apparently unable to locate a parachute for himself, and

was forced to remain at the controls, ultimately, coming home single-handed to a landing at West Malling.

There was a decrease in the scale of activity during October, although the first week brought three operations, beginning at Krefeld on the 2/3<sup>rd</sup>. Marking difficulties caused by thick haze led to a disappointing attack, and damage was fairly light. A raid on Aachen on the 5/6<sup>th</sup> fared no better, and it was an ill-fated operation from the start for 156 Squadron. The five participating aircraft took off in a violent thunderstorm, and X3811 was seen to be on fire. It was abandoned by F/S Case and his crew over Huntingdonshire, and all arrived safely on the ground, although the pilot and one other sustained ankle injuries. BK203 fell victim to the icing conditions, and was also abandoned, this crew coming down in Essex without the pilot, Sgt Chiddick, whose body was found in the wreckage of his Wellington. Osnabrück was subjected to an accurate and concentrated assault by over two hundred aircraft on the 6/7<sup>th</sup>, and then a week elapsed before the next major operation took place. This was against Kiel on the 13/14<sup>th</sup>, when decoy fires lured away half of the bombing to fall into open country. It was, never-the-less, a useful raid, from which BJ775 failed to return after crashing into the sea, and F/S Taylor perished with two of his crew, while the three survivors fell into enemy hands. Two nights later, it was the turn of Cologne to escape the destruction intended for it, and again, decoy fires were responsible for attracting a large proportion of the bombing. Among the eighteen missing aircraft was the squadron's BK339, which went into the sea off the Dutch coast, killing S/L Hobbs and his crew.

A new campaign began on the 22/23<sup>rd</sup>, against Italian cities, in support of Operation Torch, the Allied landings in North Africa, which would ultimately lead to Montgomery's victory over Rommel at El Alamein. This first raid was a 5 Group affair against Genoa, which was repeated by a force made up predominantly of Halifaxes and Stirlings twenty four hours later. Milan followed on the 24<sup>th</sup>, a daylight attack by 5 Group, and elements of 1 and 3 Groups with Pathfinder support returned that night. 156 Squadron did not participate at this stage, and flew no further operations during the month. On the 28<sup>th</sup>, W/C Cook was posted to Hemswell, and he was replaced by the South African, W/C Tommy Rivett-Carnac, who inevitably became known as "Nuts and Bolts". Operations resumed for the squadron on the 7/8<sup>th</sup> of November, the first major outing for the Command since Milan. The target on this occasion was Genoa, for which 175 aircraft took off, including nine from the squadron. X3422 failed to return from what was a highly successful raid, and was lost without trace with the crew of P/O Chell. The squadron contributed eight Wellingtons to a disappointing raid on Hamburg on the 9/10<sup>th</sup>, and all of these returned home safely. The four engined types conducted the next two operations to Genoa, before the squadron returned to the fray at Turin on the 18/19<sup>th</sup> and 20/21<sup>st</sup>. Both attacks were successfully concluded, and 156 Squadron came through each unscathed. Cloud and haze thwarted an attempt to deliver a telling blow on the difficult target of Stuttgart on the 22/23<sup>rd</sup>, and X3672 failed to arrive back at Warboys after crashing in France. F/L Fletcher and two of his crew lost their lives, while the two survivors were taken into captivity. Turin suffered more punishment on the 28/29<sup>th</sup>, and this concluded the month's operational activity.

December proceeded in kindly fashion for 156 Squadron, with no losses from disappointing operations to Frankfurt and Mannheim on the 2/3<sup>rd</sup> and 6/7<sup>th</sup> respectively. Turin followed on three consecutive nights from the 8/9<sup>th</sup>, the first of which was highly effective. The middle of the month was bereft of major operations, and it was not until the night of the 20/21<sup>st</sup>, that the Command ventured forth again in numbers. The main target on this occasion was Duisburg, to which over two hundred aircraft were despatched, and returning crews claimed an accurate attack in clear conditions. Two 156 Squadron crews were not at debriefing, those of W/O Watkins and F/S Proudfoot, who had been flying in Z1660 and BJ589 respectively. The former took the pilot and one other to their deaths, while the three survivors fell into enemy hands, and these were joined by the pilot and one of his crew from the latter, which was shot down by a nightfighter over Holland, killing the remaining three men. A small scale operation of massive significance also took place on this night, which represented the culmination of months of pioneering work by the Mosquito crews of 109 Squadron, under their commanding officer, W/C Hal Bufton. Since joining the Pathfinder force as a founder member in August, the squadron had been developing the Oboe blind bombing device, and marrying it to the Mosquito, after it had initially been earmarked for the projected pressurized high level Wellington. Although it would be the following summer before all the technical glitches had been eradicated, it was now sufficiently advanced for a live trial to take place. W/C Bufton led six 109 Squadron aircraft in an attack on a power station at Lutterade in Holland, and delivered the first Oboe aimed bombs. The target was not hit, but the margin of error was well within acceptable limits for an urban area, and this would portend ill for the towns and cities of Germany's industrial heartland in the coming year. On the following night, Munich was raided by over a hundred aircraft, most of which bombed open country, and one 156 Squadron Wellington was among the twelve missing aircraft. BK386 crashed in France, and there were no survivors from the crew of F/L Cybulski. As events turned out, this was the final loss of a 156 Squadron Wellington and crew. 1942 had been a year of change and gradual development for the whole Command, but for 156 Squadron, it had brought a particularly testing time, in which almost forty crews had been posted missing since its reformation. The coming year would bring further innovation, and there would be outstanding successes to celebrate, but 156 Squadron could look forward to another tough year of persistent losses, which would reach their peak almost twelve months hence. As the final act of the present year, however, Lancaster W4851 arrived at Warboys on New Year's Eve to herald a new era, and the squadron thus became the 16<sup>th</sup> operational unit in the Command to receive the type.

## 1943

The year began with a series of Oboe trials, involving the Mosquitos of 109 Squadron, and small forces of Lancasters from 1 and 5 Groups. Essen was the principal target, and was raided seven times between the 3/4<sup>th</sup> and 13/14<sup>th</sup> of January, with a solitary raid on Duisburg on the 8/9<sup>th</sup>. 156 Squadron was busy working up to operational status on the Lancaster, but continued to fly Wellingtons into battle in the meantime. On the 8<sup>th</sup>, Group status was at last bestowed upon the Pathfinder Force, and henceforth it would go to war as 8 Group, flying from its own stations, which were duly transferred over from 3 Group. On the 14<sup>th</sup>, a new Air Ministry directive authorized the area bombing of those French ports, which were home to U-



Boat bases and support facilities, and a list of four such targets was drawn up accordingly. This came in response to mounting losses in the Atlantic, and the campaign was launched immediately, beginning that night at Lorient. Accurate marking by the Pathfinder crews was not exploited by their cousins in the main force, and a modest 120 buildings were destroyed. The following night's effort brought greater success, and at least eight hundred buildings were destroyed, in what was the penultimate operation for 156 Squadron Wellingtons. The night of the 16/17<sup>th</sup> was devoted to the first major raid on Berlin for fourteen months, and it was attended by the first use of genuine target indicators. An all four engined force precluded a contribution by the squadron, but its effort was largely wasted, and the only scalp of note was the ten thousand seater Deutschlandhalle, the largest covered arena in Europe, which was totally destroyed. A bonus was the loss of just one Lancaster, but this was redressed somewhat twenty four hours later, when a similar force returned, and lost twenty two of its number, in return for another disappointing attack.

156 Squadron returned to the fray on the 23/24<sup>th</sup>, when Lorient was again the objective for what was claimed as a successful assault, and the squadron's final Wellington sorties were completed without mishap. Lorient was also the destination for the squadron's first Lancaster sorties, when four were despatched there on the 26/27<sup>th</sup>, and all returned safely. On the following night, a further four joined 158 other aircraft in a raid on Düsseldorf, where Oboe Mosquitos provided ground marking ahead of the Pathfinder heavy brigade for the first time. It was a successful operation, which augured well for the forthcoming Ruhr campaign, and it was another step forward in the development of techniques and tactics, which the Command would bring to bear against the industrial base of Germany. Lorient was visited by a small force of Wellingtons and Halifaxes on the 29/30<sup>th</sup>, and the month's operations were concluded at Hamburg on the 30/31<sup>st</sup>. This was the first H2s raid of the war, and it was, at best, only a modestly effective baptism for the device, which left over a hundred fires burning, but no significant damage. Five Lancasters failed to return, and 156 Squadron registered its first casualty of the type, when W4835 returned at dawn to crash-land at Warboys. The aircraft caught fire, but W/O Taylor and his crew were able to walk away.

February began with the continuing search for a reliable marking method, and a combined system of Oboe and H2s was tried at Cologne on the 2/3<sup>rd</sup>. It resulted in widely scattered bombing, with no significant damage, but at least the losses were low at five aircraft. Unfortunately, one of these was a 7 Squadron Stirling, and this presented the enemy with an example of an H2s set on only its second employment over Germany, and this would enable them to develop a counter-measure. An attempt on Hamburg on the 3/4<sup>th</sup> was hampered by icing conditions over the North Sea, which persuaded many crews to turn for home. Those which reached the target, produced a scattered and relatively ineffective attack, and sixteen aircraft were lost. On the following night, Lorient was hit yet again, while 156 other aircraft bombed Turin to good effect. Over three hundred aircraft returned to Lorient on the 7/8<sup>th</sup> in a successful two wave attack, and the next major operation was against Wilhelmshaven on the 11/12<sup>th</sup>. Thick cloud covered the target, forcing the use of the least reliable skymarking method, but despite this, it was a damaging raid, which was boosted by a direct hit on a naval ammunition dump, and the ensuing explosion laid waste to around 120 acres of built-up area. The penultimate and heaviest raid on Lorient took place on the 13/14<sup>th</sup>, when over a thousand

tons of bombs were delivered, and this was followed by two main operations on the 14/15<sup>th</sup>, one to Cologne without Lancasters, and the other to Milan. The former was disappointing, while the latter created fires which were visible from a hundred miles away. Following the final raid on Lorient on the 16/17<sup>th</sup>, the town was left as little more than a deserted ruin.

Three more attacks were directed at Wilhelmshaven on the 18/19<sup>th</sup>, 19/20<sup>th</sup> and 24/25<sup>th</sup>, but not one of them came close to repeating the destruction wrought by the earlier raid, and much of the bombing found open country. The second mentioned did, however, lead to the squadron's first failure to return of a Lancaster, when ED485 was lost without trace with the crew of F/S Case. He was a squadron original member, and it will be recalled, that he had survived a descent by parachute back in October, when his Wellington was bound for Aachen. Nuremberg benefited from poor weather conditions on the 25/26<sup>th</sup>, which caused most of the bombing to fall either onto the northern fringes, or into neighbouring towns and villages, although three hundred buildings within the city suffered varying degrees of damage. Cologne also escaped more lightly than intended on the 26/27<sup>th</sup>, when approximately a quarter of the four hundred strong force managed to hit the built-up area, but still managed to inflict useful damage on industrial, residential and public buildings. Having dealt effectively with Lorient, the Command's attention was now turned to St Nazaire, and around 60% of the town was destroyed during an accurate attack on the last night of the month.

March would bring with it the opening rounds of the Ruhr offensive, but first, the crews had to negotiate operations to Berlin on the 1/2<sup>nd</sup>, and Hamburg on the 3/4<sup>th</sup>. Whilst neither proceeded according to plan, the Capital suffered its most destructive raid to date, despite the wildly scattered nature of the bombing. Almost nine hundred buildings were destroyed, and many factories, and the railway repair works at Templehof, were badly damaged. This was in return for the loss of seventeen aircraft, although all nine from 156 Squadron returned safely. Misinterpretation of the H2s returns led to the main weight of bombs intended for Hamburg falling upstream of the Elbe, around the small town of Wedel, but over a hundred fires were, never-the-less, started in Germany's Second City. A combined loss from the two operations of twenty seven aircraft included none from Warboys, and the squadron girded its loins with the rest of the Command for what lay ahead. This was the first campaign for which Harris, and any of his predecessors, had at their disposal an adequately equipped and suitably prepared force. A predominately four engined bomber force could carry an unprecedented weight of bombs, with the means to hand in the form of Oboe to deliver it, with accuracy, on any given urban target within range.

The Battle of the Ruhr began on the 5/6<sup>th</sup>, with the much visited, but seldom hard-hit industrial centre of Essen as the target, for which 442 aircraft were made available. 156 Squadron contributed eleven Lancasters to this momentous occasion, led by S/L Hookway in LM304, and S/L White in W4851. The other crew captains and aircraft were; F/L Goodley in W4856, F/L Kearns, who would go on to fame as a Mosquito and Lancaster pilot with 617 Squadron, in W4851, F/O Verdon-Roe, a member of the Avro Aircraft Company family, which built the Lancaster, in W4882, W/O Anderson in W4854, W/O Horan in W4849, F/S White in W4896, Sgt Wallis in W4894, Sgt Stewart in W4902, and Sgt Wendon in R5912, a veteran Lancaster, which had already seen good service with 49 Squadron. The crews set out



either side of 19.00 hours, and the operation was beset by an unusually high number of early returns. These, and the bombing of alternative targets by others, reduced the numbers reaching Essen to 362, but they produced effective bombing, largely between the city centre and the Krupps works, and over three thousand houses were destroyed, while fifty three buildings within Krupps were damaged. It was an outstandingly successful start to what would be a long running offensive, and even failure among a proportion of the Oboe sets had not prevented an accurate attack from taking place. Fourteen aircraft failed to return, and among them was the experienced crew of S/L Hookway, who died with his crew, when LM304 crashed near Mönchengladbach. By the conclusion of the campaign in five months time, no less than six others of the above mentioned crews would have been posted missing, with only one man surviving to tell the tale.

Before embarking on round two, Harris switched his attention to three cities in southern Germany, and consequently beyond the range of Oboe, beginning with Nuremberg on the 8/9<sup>th</sup>. Haze interfered with the marking process, and a proportion of the bombing undershot the city by up to ten miles, but over six hundred buildings were, never-the-less, destroyed for the modest loss of eight aircraft. These included 156 Squadron's W4896, one of nine aircraft despatched, and this contained the crew of F/S White, from which there were no survivors. Almost three hundred buildings were destroyed in Munich on the following night, when strong winds pushed the main weight of the attack into the city's western half. As at Nuremberg, some important war industry factories were damaged, causing loss of production, and eight aircraft also failed to return on this night. 156 Squadron contributed seven Lancasters, and was again forced to post missing one of its crews, that of F/L Goodley in W4856, and although two men did escape by parachute, one struck a tree, and ultimately succumbed to his injuries. Also among those killed, was S/L Ball, the squadron navigation leader. Stuttgart followed on the 11/12<sup>th</sup>, and this operation resulted in the destruction of a little over a hundred houses in south-western suburbs, possibly after some of the main force crews were lured away by dummy target indicators.

The 12/13<sup>th</sup> brought a return to Essen for round two of the Ruhr campaign, for which 457 aircraft took off. While substantially less buildings were destroyed, the bombing was concentrated around the Krupps works, and the complex suffered 30% more damage than in the raid of a week earlier. Minor operations occupied most of the next nine nights, before the second assault on St Nazaire, in line with January's directive, took place on the 22/23<sup>rd</sup>. After 3 Group issued a recall to its crews, a little under three hundred aircraft delivered a concentrated attack on the port area. Duisburg was selected for the next Ruhr operation, but Germany's largest inland port would continue to lead a relatively charmed life for the time being. On this night, five of the nine Oboe Mosquitos were forced to return early with technical problems, and one other was lost, the first Oboe Mosquito to go missing. This, and the presence of cloud, led to a widely scattered raid, and a mere fifteen houses were destroyed. A force of almost four hundred aircraft was sent to Berlin on the 27/28<sup>th</sup>, but many of those reaching the target area undershot by many miles, and the operation was a major disappointment. 156 Squadron despatched eleven Lancasters, and only ten returned, W4895 having crashed in Germany, killing Sgt Wallis and his crew. Over three hundred aircraft returned to St Nazaire on the following night, and delivered another accurate attack on the

port area. Berlin was again the main target for the 29/30<sup>th</sup>, when weather conditions were difficult, and much of the bombing fell into open country south-east of the city.

April would prove to be the least rewarding month of the Ruhr campaign, but many of its operations were directed against targets in other regions of Germany, and beyond the range of Oboe. It began in promising fashion, however, with another successful tilt at Essen on the 3/4<sup>th</sup>, in which more than two hundred Lancasters took part for the first time. Over six hundred buildings were destroyed in clear conditions, mostly in central and western districts, and more than five hundred others were seriously damaged. Among the twenty one missing bombers was W4894, which crashed into the sea, taking with it the recently arrived crew of Sgt Byass. A new record non-1,000 force of 577 aircraft departed their stations for Kiel on the 4/5<sup>th</sup>, and wasted most of their effort outside of the town. This disappointment was compounded for 156 Squadron by the loss of two more crews, those of P/O Davies and S/L Grimston in W4850 and ED615 respectively. S/L The Honourable Brian Grimston DFC was the son of the 4<sup>th</sup> Earl of Verulam, and had been with the squadron during the Wellington era. His Lancaster crashed in the target area, killing him and the other seven men on board. He had been a popular figure, known throughout the squadron as "the Honourable Grimmy" and he would be sorely missed. (They led the way. Michael P Wadsworth.) The other missing 156 Squadron Lancaster also crashed in Germany, and again there were no survivors. It was a similar story of inaccurate and scattered bombing at Duisburg on the 8/9<sup>th</sup>, when almost four hundred aircraft managed to destroy only forty buildings in the face of thick cloud. The defenders brought down nineteen aircraft, including ED622, one of eight participating from 156 Squadron, and this Lancaster crashed on German soil, without survivors from the crew of F/S Younger.

Cloud thwarted another attempt on Duisburg by a smaller all Lancaster heavy force on the 9/10<sup>th</sup>, and a modest fifty houses were destroyed, while an attempt to hit Frankfurt on the 10/11<sup>th</sup> also failed dismally. Some compensation was gained at the Italian port of La Spezia on the 13/14<sup>th</sup>, where heavy damage was inflicted, and some important war industry factories were hit in Stuttgart on the following night. This, however, was more as a result of the creep-back phenomenon than accuracy on the part of the attacking force. Losses were beginning to edge upwards, and twenty three aircraft were missing from this operation, although none were from Warboys. High losses would become a feature of the Ruhr campaign, and even on the occasions of major victories, it would rarely be a one-sided affair. Harris divided his forces on the 16/17<sup>th</sup>, when sending the Lancaster and Halifax brigade to attack the Skoda armaments works at distant Pilsen in Czechoslovakia, while a predominately Wellington and Stirling force raided Mannheim as a diversion. The squadron contributed ten aircraft to the former, which did not proceed according to plan. In his excellent book, *They led the way*, Michael Wadsworth states that the initial target indicators were dropped as route markers to point the way to the aiming point, but were bombed by the main force crews, which consequently missed the Skoda factory by many miles. To compound this, a massive thirty six aircraft were shot down, split evenly between the two types, and 156 Squadron was represented among them by two Lancasters. Both crashed in France, and neither produced a survivor from the crews of P/O Anderson and Sgt Gonce respectively. The Mannheim contingent enjoyed

greater success, but also lost eighteen aircraft, and this brought the night's total casualty figure to a new record high of fifty four.

173 Lancasters and five Halifaxes took off on the evening of the 18<sup>th</sup>, to cross the Alps and attack the dockyard at La Spezia. The town itself received most of the bombs, and the railway station was among the buildings hit. Just one Lancaster failed to return, and this was W4849 of 156 Squadron, which was presumed to have crashed into the sea off the French coast, taking with it the crew of Sgt Cooper. Another distant target was the Baltic port of Stettin, and over three hundred aircraft set course for it on the evening of the 20<sup>th</sup>. While some towns and cities had always seemed in the past to escape lightly at the hands of Bomber Command, rarely, if ever, did Stettin. This night brought the destruction of an estimated one hundred acres of its central area, wherein 380 houses and thirteen industrial premises were reduced to ruins, while production was halted temporarily at other war industry factories. Over five hundred aircraft carried out an attack on Duisburg on the 26/27<sup>th</sup>, a city, which this time felt the weight of a partially effective operation, in which over three hundred buildings were destroyed. The damage would have been more extensive, had much of the bombing not fallen short, but this still represented the most effective raid at this target to date. Seventeen aircraft were missing, and among them was the squadron's W4140, which crashed in the target area, killing Sgt Waugh and his crew, who had only joined the squadron from 1656HCU two weeks earlier. A massive mining operation took place on the 27/28<sup>th</sup>, involving a record 160 aircraft, and this was surpassed on the following night, when 207 took part. The month closed with another useful tilt at Essen on the night of the 30<sup>th</sup>, although the results fell short of the earlier raids. This concluded a period of mixed fortunes, during which the results generally had not been commensurate with the effort expended.

May would bring a return to winning ways, and produce some spectacular successes. The month's account opened at Dortmund on the 4/5<sup>th</sup>, when a new record non-1,000 force of 596 aircraft was despatched, and half of those reaching the target area delivered an outstandingly accurate attack, which destroyed over twelve hundred buildings, and caused damage in the docks area. The other half was attracted by a decoy fire site, and these bombs were wasted in open country. A heavy loss of thirty one aircraft was incurred, and this was the highest at a Ruhr target thus far in the campaign. The squadron's ED877 was hit by flak over the target, and broke up, throwing clear F/L Laing and one of his crew, and these were the only survivors. ED715 arrived back in poor visibility and short of fuel, and was successfully abandoned to its fate over Cambridgeshire by S/L Duigan and his crew. Minor operations filled much of the period up to the 12/13<sup>th</sup>, on which night, Duisburg finally succumbed to a devastating attack, which destroyed almost sixteen hundred buildings, and sank or seriously damaged sixty thousand tons of shipping in the port. A new record loss for the campaign of thirty four aircraft was felt by 156 Squadron, which posted missing two more of its own, who had both been participants in the opening raid on Essen. ED837 contained the crew of Sgt Wendon, all but one of whom were Australians, and there were no survivors, and ED857 was the mount of S/L Verdon-Roe and his crew, who were also all killed in the crash in the target area. Another member of the Verdon-Roe family had been killed on operations in July 1941, while flying in a 102 Squadron Whitley. Almost four hundred buildings were destroyed in



Bochum on the 13/14<sup>th</sup>, while 5 Group tried in vain to rectify the recent failure at the Skoda works at Pilsen.

There were no major operations for the next eight nights, and it was during this period, that 617 Squadron secured its place in history with its epic attack on the Dams. The main force and Pathfinder squadrons returned to the fray, rested and replenished, on the 23/24<sup>th</sup>, when Dortmund was the objective for another new record non-1,000 force of 826 aircraft. Central, northern and eastern districts were those hardest-hit, and almost two thousand buildings were reduced to rubble, while production was lost at a number of important war industry factories. The defender fought back well, and claimed a hefty thirty eight bombers, the highest casualty figure of the campaign to date, but 156 Squadron's twenty two Lancasters, its own best effort to date, came through unscathed. A further twenty seven aircraft failed to return from an ineffective raid by over seven hundred aircraft on Düsseldorf on the 25/26<sup>th</sup>, for which the squadron put up twenty one Lancasters. Two nights later, Essen suffered a moderately successful assault, which left almost five hundred of its buildings in ruins, and this operation cost twenty three aircraft. The squadron's W4943 fell victim to a nightfighter over Holland, and F/S Wallace was killed with two of his crew, while the remainder fell into enemy hands. The last operation of the month was directed at Barmen, one of the twin towns at the eastern end of the Ruhr known jointly as Wuppertal. The attack, on the 29/30<sup>th</sup>, was delivered by around seven hundred aircraft, which included a contingent of seventeen Lancasters from Warboys. During the course of May, some of the squadron's aircraft had been fitted with H2s, and these were operating as backers up. This task had formerly been the preserve of 7 and 35 Squadrons, but the advent of 156 and 83 Squadron to "Y" status would release 7 Squadron to exchange its Stirlings for Lancasters. The marking and bombing on this night were extremely accurate, and 1,000 acres of the town's built-up area was destroyed by fire, amounting to four thousand houses, five of the six largest factories, and numerous other buildings, while the death toll was put at 3,400 people. In return, the defenders brought down thirty three bombers, none of which was from 156 Squadron, and thereafter, the Pathfinder and main force crews enjoyed a twelve night stand-down from operations.

In the meantime, on the other side of the world, an all Australian crew, captained by 156 Squadron's F/L Peter Isaacson DFC, DFM, touched down in Queensland in Lancaster ED930 on the 3<sup>rd</sup> of June, having completed an epic flight from Britain across the Atlantic and Pacific. This was in response to a suggestion from an Australian savings group, which felt that the presence of a mighty Lancaster might boost income, and raise the country's morale, at a time when the threat from Japan was looming large. Having departed from Prestwick on the 22<sup>nd</sup> of May, and staging through Canada and the U.S.A., a total time of seventy two hours was spent in the air, and a new record time was set for crossing the Pacific. Back home on the 8<sup>th</sup> of June, W/C Rivett-Carnac's tour as commanding officer came to an end, and he was replaced by the larger than life figure of G/C Collings, who would combine the job of squadron commander with that of "Station Master". It had been he, who, as a Wing Commander, had overseen the reformation of 35 Squadron in late 1940, and led it through its testing period of introducing the Halifax into operational service.

It was not until the night of the 11/12<sup>th</sup> of June that operations resumed, when the destination for 783 aircraft was Düsseldorf, while seventy two Pathfinder aircraft carried out a mass H2s trial at Münster. The former operation was an outstanding success, despite an errant Oboe marker, which attracted a proportion of the bombing. Almost nine thousand fires were recorded, forty two war industry factories lost production for various periods, eight ships were sunk or damaged in the harbour, and almost thirteen hundred people lost their lives. It turned out to be a very expensive night for the Command, however, with thirty eight aircraft missing from this main operation, and five from the 8 Group effort, which was also highly accurate. 156 Squadron contributed twenty one Lancasters to the latter, and one of these was among the missing. It was the squadron's first loss for two weeks, and involved ED935, which crashed into the Ijsselmeer, with no survivors from the eight man crew of F/S Lay. F/L Mandeno's aircraft lost its air speed indicator immediately after take-off, and it was seriously damaged by a nightfighter when close to the target. Never-the-less, the crew pressed on to carry out their attack, before bringing the crippled Lancaster back to Warboys, and F/L Mandeno was awarded the DFC two weeks later. Having been subjected to a moderately successful attack a month earlier, Bochum now reeled under a heavy assault at the hands of almost five hundred aircraft on the 12/13<sup>th</sup>. Despite complete cloud cover, the town centre was left in ruins, courtesy of Oboe marking, and 449 buildings were destroyed. An all Lancaster force of under two hundred aircraft pounded Oberhausen on the 14/15<sup>th</sup>, and this was followed by a predominately Lancaster attack on Cologne by 1, 5 and 8 Groups two nights later. The marking was carried out entirely by H2s, and although this was not entirely satisfactory, four hundred houses were destroyed, and other damage was inflicted on industrial and railway buildings. Fourteen aircraft failed to return, and the night turned sour for 156 Squadron, which posted missing three of its crews. Flak accounted for ED840 over Belgium, and S/L Mackintosh died with three of his crew, while the three survivors all fell into enemy hands, and EE122 went down near Germany's border with Holland, taking with it to their deaths the crew of Sgt Miller. There were no survivors either from the crew of W/O Busby in ED863, which probably crashed in the same area.

A hectic round of four major operations in the space of five nights began at Krefeld on the 21/22<sup>nd</sup>, and this was a massively destructive operation, which laid waste to a record number of over 5,500 houses, amounting to almost half of the town's built-up area. The Pathfinders suffered heavily among the forty four missing aircraft, another new high for the campaign, and ED885 was the 156 Squadron representative, its ultimate fate, and that of the crew of F/S Marson, remaining undetermined. On the following night, Mülheim was subjected to an equally accurate and concentrated raid, which reduced over 60% of its built-up area to rubble, but the defenders again fought back to claim a further thirty five bombers, including one from Warboys. ED599 was shot down by a nightfighter over Holland, and there were no survivors from the crew of F/S Winterbon. At the end of May, the Barmen half of Wuppertal had undergone an ordeal of almost unprecedented proportions, and now, on the 24/25<sup>th</sup>, it was the turn of its twin, Elberfeld, to experience a similar night of almost total devastation. Over 90% of its built-up area was gutted by a force of six hundred aircraft, and eighteen hundred of its inhabitants were killed. In return, another thirty four aircraft failed to make it home, and 156 Squadron's continuing run of losses was made manifest by two empty dispersals at Warboys on the following morning. ED858 crashed in Germany, and EE127 was lost without trace, and

there was total loss of life among the crews of P/O Hudson and W/O Brown respectively. The run of successes was brought to a halt at the oil town of Gelsenkirchen on the following night, when, in an echo of the past, bombs were sprayed over a wide area of the Ruhr, and few, if any, fell on the intended target. Thirty aircraft were missing as a result of this failure, but none on this occasion were from Warboys.

After two nights of minor operations, while Harris regrouped, the first operation took place of a three raid series against Cologne, which spanned the turn of the month. Over six hundred aircraft took off in the late evening of the 28<sup>th</sup>, and encountered complete cloud cover over the target, which necessitated the use of skymarking. Despite this, over 6,400 buildings were reduced to ruins, and fifteen thousand others were damaged to some extent, while 4,377 people lost their lives. This eclipsed by far the effects of the Thousand bomber raid in May 1942, and was Cologne's worst experience of the war. The loss of twenty five aircraft was almost modest by recent standards, and 156 Squadron again came through unscathed. Having closed the June account, it fell to Cologne to open that of July on the 3/4<sup>th</sup>, when over six hundred aircraft delivered another devastating assault, which destroyed 2,200 houses and twenty industrial premises. The series was concluded on the night of the 8/9<sup>th</sup> at the hands of an all Lancaster heavy force drawn from 1, 5 and 8 Groups, and when the smoke had cleared, the city authorities were able to begin their assessment of the catalogue of destruction. It eventually transpired that eleven thousand buildings had been completely destroyed over the three nights, 5,500 people had been killed, and a further 350,000 were without homes, for the loss to the Command of sixty two aircraft. Although this averaged a modest, by recent standards, twenty one aircraft per operation, it still represented the equivalent of one entire two flight squadron plus reserves on each occasion.

Gelsenkirchen continued to lead a charmed life, when attacked by four hundred aircraft on the 9/10<sup>th</sup>, and this was largely as a result of problems with Oboe. It would not be until a new oil offensive began in the summer of 1944, that a decisive blow would be dealt to its oil refineries. Although two further operations to the region would be mounted at the end of the month, the Ruhr offensive had now effectively run its course, and Harris could look back over the past five months with genuine satisfaction at the performance of his squadrons. Losses had been grievously high, and "Happy Valley's" reputation well earned, but the factories had more than kept pace with the rate of attrition, and eager new crews were flooding in from the training units to fill the gaps. The crews could always be relied upon to do their bit, but the crucial element had been Oboe, which had finally negated the ever present and frustrating cloak of industrial haze, and allowed the bomb-aimers to "see" the target. On the 12/13<sup>th</sup>, a force of almost three hundred Lancasters from 1, 5 and 8 Groups crossed the Alps to attack Turin to good effect, and lost thirteen of their number in the process. Twenty one Lancasters had set out from Warboys, and twenty returned home, to leave just ED919's dispersal unoccupied. This aircraft was lost without trace, and it took with it the crew of P/O Hewerdine. With confidence high in the ability of his Command to deal a knockout blow, Harris now sought a suitable city target to destroy, in a short, sharp series of operations until the job was done. Already at the end of May he had earmarked Hamburg as the objective, just as he had a year earlier for the first One Thousand bomber raid, which ultimately fell on Cologne. As Germany's Second City, Hamburg satisfied all of Harris's main criteria,



particularly from a political standpoint. Its destruction would have a profound effect on the morale of the enemy's population, both civilian and military, although, whether it would be sufficient to loosen the Nazi Party's grip on the hearts and minds was a matter for conjecture. There were other considerations of an operational nature, which also made this Hanseatic city and long time trading partner an attractive proposition. Its status as a centre of vital war production, particularly U-Boat manufacture, was undeniable, but its location close to a coastline, and within reasonable proximity to the bomber bases in England was also of significance. This meant that it could be attacked during the few hours of darkness afforded by mid summer, and without the need to traverse large tracts of hostile territory. Additionally, the city lay beyond the range of Oboe, which had been the difference between success and failure at the Ruhr, and as compensation, it boasted the wide River Elbe to provide a strong H2s signature for the navigators high above. The crews would be under no illusions concerning the ferocity of Hamburg's defences, but they would go into battle from now on with a new device up their sleeves, and the opening night of the campaign would bring its first operational use. Window was designed to confound the enemy's nightfighter, searchlight and gun-laying radar, by swamping it with so many false returns, that it would be impossible to single out a genuine bomber. At a predetermined point on the outward flight, the appointed crew member would begin dispensing into the slipstream thousands of strips of tin-foil backed paper, and continue to do so until the enemy coast was cleared on the way home. The device had actually been available for twelve months, but the War Cabinet had vetoed its use, in case the enemy copied it to use against the Allies. As it happened, a similar German system already existed under the name of Düppel, which had also been withheld for the same reason.

The Battle of Hamburg, Operation Gomorrah, began on the night of the 24/25<sup>th</sup>, when almost eight hundred aircraft began to depart their stations shortly after 22.00 hours. There were noticeably few encounters with nightfighters during the outward flight, and those aircraft which were shot down at this stage of the operation, were invariably off course, and outside of the protection of the bomber stream. Once in the target area, there was a marked absence of the usually efficient co-operation between the searchlight and flak batteries, and anti-aircraft defence was, at best, sporadic and random. The Pathfinder marking was slightly scattered and misplaced, but was close enough to the city centre to be effective, had all the crews pushed through to bomb on the target indicators. In the event, around half of the force bombed within three miles of the markers, while the remainder contributed to a six mile creep-back, which caused a proportion of the effort to be wasted in open country. Nevertheless, a swathe of destruction was cut from the city centre, out across the north-western districts along the line of approach, and substantial damage was inflicted, while fifteen hundred people lost their lives. A modest twelve missing aircraft was testimony to the efficacy of Window, and all twenty four 156 Squadron Lancasters returned, although one of them landed with a badly shaken crew. As F/L Vincent was on approach in the Warboys circuit, his Lancaster was struck by that of the 83 Squadron commanding officer, the soon to be famous G/C Searby, who was on his way into Wyton. This was just one of many overlapping circuits in the bomber counties, which would result in the loss of numerous crews, but happily, on this occasion, both got down without safely without casualties. Before embarking on round two of the campaign against Hamburg, Harris turned his attention on Essen on the following night, to take advantage of the body blow dealt to the enemy's

defensive system by Window. Thirteen 156 Squadron crews joined almost seven hundred others to inflict massive damage on the city, particularly in the industrial areas of its eastern districts. The Krupps works suffered what was probably its most destructive single raid of the war, and on top of this, almost three thousand houses were reduced to rubble. Twenty six Bomber Command aircraft failed to return, and among them was the squadron's ED734, which was shot down by a nightfighter over Holland, killing F/O Hudson and all but one of his crew.

After a night's rest, 787 aircraft took off to return to Hamburg on the late evening of the 27<sup>th</sup>, and what followed their arrival in the target area was both unprecedented and unforeseeable, and was the result of a combination of factors. A period of unusually hot and dry weather had left tinderbox conditions within the city, and the initial spark to ignite it came with the Pathfinder markers. These fell two miles east of the intended aiming point, but with uncharacteristic concentration into the densely populated working class residential districts of Hamm, Hammerbrook and Borgfeld. 729 aircraft of the main force followed up with unaccustomed accuracy and scarcely any creep-back, and delivered most 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. It was a meteorological event of such ferocity, that trees were uprooted and flung bodily into the flames, along with debris and people, and the temperatures at the seat of the inferno exceeded one thousand degrees Celcius. This phenomenon became known as a firestorm, and whilst it was the first to be recorded, other similar catastrophes would overtake other German cities before the war ended. Forty thousand people lost their lives on this one night alone, and the following morning brought the start of a mass exodus from the city, which would ultimately involve 1.2 million inhabitants. Two of the squadron's eighteen participating crews were among the seventeen which failed to return, and it was later learned that only one man had survived. EE178 fell victim to a nightfighter over Germany, and exploded, flinging clear the pilot, F/S Wilkins, who was taken into captivity. JA709 was also accounted for by a nightfighter, and crashed just off the north-western coast of Germany, with the crew of F/O Crampton.

A night's rest preceded the third raid, for which 777 aircraft took off on the evening of the 29<sup>th</sup>. The marking was again misplaced, and this time a creep-back developed, which spread across the already devastated firestorm area, before falling into other residential districts further north. A large area of fire was created, although there was no repeat of the firestorm phenomenon, and further heavy damage was inflicted upon the city. As the defenders began to recover from the setback caused by Window, the bomber losses continued to mount, and twenty eight failed to return on this night. Nightfighters were responsible for the demise of both of the missing 156 Squadron Lancasters, ED598 and ED822, which crashed in Germany, and neither produced a survivor from among the crews of F/L Smith and F/S Hall respectively. The Ruhr town of Remscheid was raided by a comparatively small force of around 250 aircraft on the 30/31<sup>st</sup>, but these were sufficient to destroy over three thousand houses and a hundred industrial buildings, and this operation brought down the final curtain on the Ruhr offensive. The final round of Operation Gomorrah took place on the 2/3<sup>rd</sup> of August, and was rendered ineffective by violent electrical storms during the outward flight,



which persuaded many crews to bomb alternative targets, or to jettison their bombs over the North Sea. Little further damage occurred at Hamburg, and thirty aircraft were lost, although 156 Squadron was able to welcome back all twenty one of its crews. During the campaign against Hamburg, the squadron despatched eighty three sorties, of which, all but ten reached and bombed the target as briefed, and four aircraft failed to return. (The Battle of Hamburg. Martin Middlebrook.)

Italy was by now teetering on the brink of capitulation, and Bomber Command was invited to attack its major cities to help nudge it over the edge. The raids began on the 7/8<sup>th</sup>, when elements of 1, 5 and 8 Groups were sent to Genoa, Milan and Turin. The last mentioned was used by G/C Searby of 83 Squadron as a dry run for the Master Bomber technique, which had been pioneered by Gibson at the Dams, and which he would use himself at a vitally important target ten days hence. Before returning to Italy, two operations were mounted against targets in southern Germany, Mannheim on the 9/10<sup>th</sup> and Nuremberg twenty four hours later. The former was outstandingly successful, and resulted in fifteen hundred fires, while over thirteen hundred buildings were destroyed or seriously damaged, and production was lost at numerous war industry factories. The latter operation was also moderately effective, and the catalogue of damage included industrial, public and residential property. The squadron came through both unscathed, and did likewise after contributing to a raid on Turin on the 12/13<sup>th</sup>, while a much larger force attended to Milan. 140 Lancasters of 1, 5 and 8 Groups took off for another swipe at Milan on the 14/15<sup>th</sup>, and 199 from 5 and 8 Groups did likewise on the 15/16<sup>th</sup>. The final Bomber Command operation against Italy came on the 16/17<sup>th</sup>, for which 3 Group provided the main force. Many of the Stirlings involved on this night were diverted on return, and the delay in getting them back to their stations meant that a proportion of them could not be made ready in time for the operation of vital importance mentioned above.

Since the start of hostilities, intelligence had been filtering through concerning German research into rocket technology. Through the interception and decoding of radio signals, it became clear that the centre for such activity was Peenemünde, an island on the Baltic coast. Reconnaissance flights to the area provided confirmation, and photographs were taken of what became known to the photographic interpreters at Medmenham as the Peenemünde 20, more familiarly known as the V-1. Churchill's chief scientific adviser, Professor Lindemann, or Lord Cherwell as he became, steadfastly refused to give credence to rocket weapons, and remained unmoved even when presented with a photo of a V-2 on a trailer at Peenemünde, taken by a PRU Mosquito as recently as June. It took the combined urgings of Duncan Sandys and the brilliant scientist, Dr R V Jones, to convince Churchill of the need to act, and an operation was finally authorized to take place at the first available opportunity. This arose on the night of the 17/18<sup>th</sup> of August, and a complex plan was drawn up accordingly. This was the operation for which G/C Searby had recently tested the Master Bomber system somewhat disappointingly at Turin, and he would control proceedings by remaining in the target area for as long as possible, directing the marking and bombing. A three phase attack was incorporated, to deal with the main areas of the site, the housing estate, the factory and the experimental site, and each was assigned to a specific wave of bombers. 3 and 4 Groups were to begin the main force assault by attacking the estate, 1 Group would deal with the factory, while 5 and 6 Groups brought up the rear and targeted the experimental site. The Pathfinders

were charged with the exacting task of shifting the point of aim accordingly, and a spoof raid on Berlin by eight Mosquitos of 139 Squadron was intended to keep the nightfighters away, and give the bombers a clear run. Although the crews were not told the precise nature of the activities at Peenemünde, it was made abundantly clear, that if it were not destroyed first time round, a second attack would be inevitable.

156 Squadron contributed twenty two aircraft and crews to the total of 597 Lancasters, Halifaxes and Stirlings, the numbers somewhat depleted for the reason already outlined. This was the largest effort by any 8 Group squadron, and the participating crew captains and aircraft were; W/C White in ED969, who would act as second deputy Master Bomber, S/Ls Mansfield and Young in EE177 and JA674 respectively, F/Ls Cook, Vincent, Mandeno, Thompson, Anset, Fawcett and McGrath in JA915, JA698, JA941, JA694, ED859, JA925 and ED883, F/Os Lutz, Pritchard and Wright in ED926, JA858 and JA909, P/Os Sloper, Overton, Coldham and Stewart in JA702, JA921, ED952 and ED856, W/O Rose in JA681, and F/Ss Stimpson, Slade, Stephens and Fry in JA697, JA714, ED841 and JA673. Most of the force became airborne between 21.00 and 22.00 hours, and the bomber stream headed north-east towards the narrow neck of land which forms the frontier between Germany and Denmark. The initial marking of the housing estate went awry, and the target indicators fell more than a mile south of the planned aiming point, and onto the forced workers camp at Trassenheide, where heavy casualties were inflicted on the friendly foreign nationals, who were trapped inside their wooden barracks. This was rectified, however, when the H2s operator in the 156 Squadron crew of P/O Overton released his markers right over the housing estate, and thereafter, the bombing was accurate, and a number of important members of the scientific staff were killed. 1 Group dealt reasonably effectively with the factory buildings, and it was while the 5 and 6 group aircraft were attacking the experimental site, that the nightfighters belatedly arrived from Berlin, after being lured there by the 139 Squadron spoof raid. Once on the scene, they began to exact a heavy toll of bombers, both in the skies above Peenemünde, and on the route home towards Denmark, and in all, forty aircraft were shot down by them and the local flak batteries. Twenty nine of the missing came from the last wave, but 156 Squadron's contingent returned safely, all but one of them having carried out their assigned tasks. The operation was sufficiently successful to delay the development programme of the V-2 by a number of weeks, and the production of secret weapons was continued underground.

A few nights of rest for the crews preceded the start of the next major offensive, which was the one Harris believed could be decisive in ending the war. Before embarking on it, however, he sent over four hundred aircraft to the Ruhr town of Leverkusen on the 22/23<sup>rd</sup>, where the important I G Farben chemicals factory was designated as the aiming point. Complete cloud cover greeted the crews, and this was compounded by problems with an Oboe transmitting station, and the raid degenerated into something more reminiscent of early 1942. This failure cost only five aircraft, and none from among the twelve from Warboys. Harris had long believed that Berlin held the key to ultimate victory. As the seat and the symbol of Nazi power, its destruction might have a sufficiently profound effect on the nation's morale to bring about a collapse, and an end to the war without the need for an invasion. Having personally witnessed the carnage of trench warfare during the Great War, Harris hoped to

avoid a similar protracted and bloody land campaign this time round, and held fast to the belief that the war could be won by bombing alone. To be fair to Harris, no enemy had ever been subjected to the kind of onslaught which he planned for Germany, and it remained to be seen whether a people could be bombed into submission. It is only in the light of more recent events, that we know conclusively of the need to occupy the enemy's territory to gain complete unconditional surrender.

The campaign against Berlin, which was to become the longest and most bitter contest of the war for Bomber Command, began on the night of the 23/24<sup>th</sup> of August, for which 727 aircraft were made available. A feature of the series of attacks against the Capital would be the difficulty experienced by the Pathfinders in identifying and marking the city centre, and also the number of bomb loads which would find their way into outlying communities. On this night, the markers fell largely around the southern outskirts of Berlin, and much of the bombing was wasted as a consequence. Never-the-less, substantial damage was inflicted on built-up areas, and 2,600 buildings were either destroyed or seriously damaged. A spirited defence could always be guaranteed at the nation's Capital, and in return for its partial success, Bomber Command registered a new record loss for a single night of fifty six aircraft. 156 Squadron was represented among them by the recently arrived crew of P/O Illius, who were all killed when ED829 crashed in Germany. F/S Steven's Lancaster was hit by flak over the target, and was then pounced upon by a nightfighter, and the rear gunner was killed, while two other crew members were wounded. Despite severe damage, the Lancaster was brought home to a landing at Attlebridge. Four nights later, 674 aircraft set out for Nuremberg, and wasted much of their effort in open country, with just the southern and eastern suburbs sustaining damage. The disappointing outcome was compounded by the loss of thirty three aircraft, which again included a 156 Squadron representative in the form of EE177. This Lancaster crashed on French soil, and took with it to their deaths the crew of F/O Nesden. Some compensation was gained on the 30/31<sup>st</sup>, when a heavy raid took place on the twin towns of Mönchengladbach and Rheydt, and a combined total of over 2,300 buildings was reduced to ruins for the loss of twenty five aircraft. The following night was devoted to Berlin, when over six hundred aircraft took part in another disappointing effort, which began with the Pathfinder element again marking well south of the city centre. Much of the main force bombing undershot by miles, and less than a hundred houses were classed as destroyed, while the enemy nightfighter force was extremely active in the target area, and claimed two thirds of the forty seven shot-down aircraft.

It was an all Lancaster heavy force of 316 aircraft, which was prepared for a return to Berlin on the evening of the 3<sup>rd</sup> of September, and twenty of these were provided by 156 Squadron. Earlier in the day, JA915 had crashed in Norfolk during a training flight, and the six men on board of the senior crew of Canadian F/O Forderingham DFC were killed. That night, much of the bombing again fell short of the target, although some residential damage was recorded, and an important industrial district was hit, which caused loss of production at some war industry factories. Twenty two aircraft failed to return, and the squadron posted missing the mostly Australian crew of F/O Shanahan in JA681, which was lost without trace. It had not been an encouraging series of raids on the Capital, and the modest damage inflicted was not commensurate with the heavy losses sustained. The Pathfinders had experienced great



difficulty in finding the mark with the current H2s equipment, and in view of the imminent arrival of an improved version, Harris called a halt to the offensive, and for the time being at least, concentrated his efforts elsewhere. Attacks on the twin cities of Mannheim and Ludwigshafen, astride the Rhine in southern Germany, were generally profitable for the Command, particularly when the creep-back phenomenon was incorporated into the plan. Six hundred aircraft were despatched there on the night of the 5/6<sup>th</sup>, when the Pathfinder crews were briefed to mark the eastern half of the former, to allow the bombing to spread back westwards along the line of approach. The plan worked perfectly, and massive destruction was inflicted at both locations, although the losses were again far too high at thirty four aircraft. The squadron's JA858 was shot down by a nightfighter, but F/O Pritchard and four of his crew escaped with their lives to fall into enemy hands. A scattered raid on the southern and western districts of Munich on the 6/7<sup>th</sup> was a poor return for the loss of sixteen aircraft, and 156 Squadron experienced a bad night. S/L Coates's ED926 suffered severe damage at the hands of a nightfighter while outbound, but he continued on, bombed the target and returned safely, although the Lancaster was subsequently found to be beyond economical repair. Less fortunate was this crew's squadron colleagues in ED990 and JB177, both of which failed to return to Warboys. The former took F/O Lutz and his crew to their deaths, and the latter was shot down in the target area by a nightfighter, killing F/L MacLachlan and three of his crew, while the survivors were taken into captivity. The month had begun inauspiciously for the squadron, with six aircraft and five crews having been lost during the first week, but no further operations would be mounted to targets in Germany for more than a fortnight.

A six day stand-down from operations allowed the crews to continue their intensive training programme, and it was not until the night of the 15/16<sup>th</sup>, that the squadron was called upon to provide a crew for operations. It was, in fact, just one aircraft which joined forces with over 360 others for an attack on the Dunlop Rubber factory at Montlucon in central France. The operation was controlled by 35 Squadron's W/C Dean as Master Bomber, and the main force was provided by 3, 4 and 6 Groups. Despite the precision nature of the target, an excellent performance by all concerned left every building damaged, and a large fire raging. On the following night, the same Groups tried to repeat the success against railway yards at Modane in southern France, but the difficult terrain thwarted their best efforts, and the operation failed. The night of the 22/23<sup>rd</sup> signaled a return to Germany for over seven hundred aircraft, which had Hanover as their destination. Despite good visibility over the target, the bombing was concentrated south-south-east of the city centre, and the results were inconclusive for the loss of twenty six aircraft. As if in compensation, Mannheim was the victim of another destructive raid on the following night, which left almost a thousand buildings in ruins, but this was achieved at a cost of thirty two aircraft. The second of what would be a four raid series against Hanover took place on the 27/28<sup>th</sup>, for which 156 Squadron contributed twenty one Lancasters to an overall force of 678 aircraft. The bombing was very concentrated, but as on the earlier raid, wrongly forecast winds pushed the effort away from the city centre, and most of it fell into open country to the north. It was another costly night, which saw a further thirty eight missing aircraft, among them the squadron's JA919. This contained the experienced crew of S/L Vincent, and a newly arrived pilot, Sgt Knight, who was flying as second dicky, and who alone abandoned the stricken Lancaster before it crashed in the target

area. Two nights later, Bochum was subjected to a concentrated attack by three hundred aircraft, of which nine failed to return. All ten from Warboys arrived back over England, but EE118 came down in Norfolk near Downham Market, and only the rear gunner from Sgt Ray's crew survived the crash, sustaining a broken leg.

The start of October was characterized by a hectic round of operations for the Lancaster brigade during the first eight nights. The Ruhr town of Hagen was devastated by a relatively small force of under 250 Lancasters on the 1/2<sup>nd</sup>, and over forty industrial concerns were included in the catalogue of damage. Almost three hundred Lancasters from 1, 5 and 8 Groups delivered a scattered raid on Munich on the 2/3<sup>rd</sup>, but much of the bombing, particularly that of 5 Group, using its "time and distance" method, undershot by some distance. The Halifaxes and Stirlings joined in for an assault on Kassel on the 3/4<sup>th</sup>, and although the operation did not proceed according to plan, a number of districts were devastated by fire. The eastern half of Frankfurt and its docks area were also engulfed in flames following a raid by under four hundred aircraft on the 4/5<sup>th</sup>, and this was achieved for the modest loss of ten aircraft. It was this operation which accounted for the squadron's first casualty of the month, and the loss of a highly experienced and popular crew. JB242 crashed in Germany, and took the lives of S/L Cook DFC, DFM and all of the others on board. Three nights later, over three hundred Lancasters of 1, 3, 5, 6 and 8 Groups carried out an effective if scattered attack on Stuttgart, accompanied by ABC Lancasters of 101 Squadron, operating in their radio countermeasures role in numbers for the first time. Whether or not these were responsible, the remarkably small number of four aircraft failed to return. In the following month, the newly formed 100 Group would begin to develop RCM to a fine art, and save the lives of many Bomber Command crews from then until the end of the war.

The squadron was involved in two operations on the 8/9<sup>th</sup>, the main effort against Hanover, and a diversion to Bremen. Over five hundred aircraft took off for the former, and those which reached the target area delivered the first decisive blow against this city. The Pathfinders identified the city centre, and a good performance by the main force kept the bombing concentrated within two miles. Almost four thousand buildings were completely destroyed, and a further thirty thousand were damaged to some extent, while twelve hundred people lost their lives. Twenty seven aircraft failed to return, as did three from Bremen, and there are different accounts concerning the loss of 156 Squadron's ED969. In his book, They led the way, Michael Wadsworth has this Lancaster participating in the diversion, while Bill Chorley, in Bomber Command Losses vol 4, shows Hanover as the target. The crash occurred north-west of Stade, some miles from the west bank of the River Elbe, and well north of Bremen and west of Hamburg. This location is more likely to apply to the withdrawal route of the Hanover force, but one of the three survivors reported violent evasive action by the pilot during an attack by two nightfighters, as a result of which, two engines were set on fire, and the aircraft entered a vertical spin. It is possible that this took the aircraft to a more northerly position than might be expected, but its ultimate fate is not in question, and it exploded in the air, killing F/O Fry and three others. The navigator fell to earth with burns and a charred parachute, and sustained injuries sufficient to see him repatriated. This six raid burst of activity over the first eight nights of the month had cost the Command seventy five aircraft,

but at an average of just over twelve per operation, it was in marked contrast to what had gone before.

A welcome break took the crews through to the final Hanover operation on the 18/19<sup>th</sup>, which was an all Lancaster affair, and was a disappointing failure, costing eighteen aircraft. Another all Lancaster effort was directed at Leipzig on the 20/21<sup>st</sup>, when the crews encountered appalling weather conditions, and the outcome was inconclusive. Kassel was selected to receive its second visit of the month on the 22/23<sup>rd</sup>, and in contrast to the earlier raid, which was only partially effective, this one was a demonstration of what the Command could achieve with concentrated bombing. Over five hundred aircraft took part, and although decoy fires lured some of the bombs away, most fell with great concentration into the city, and set off a chain of events similar to those experienced at Hamburg in July. A firestorm erupted, of lesser proportions, but sufficient to contribute to the destruction of over 4,300 apartment blocks, while more than 6,700 others were damaged. This amounted to over 60% of the city's living accommodation, and there was also serious damage to industrial premises and public buildings. At least six thousand people lost their lives under the bombs and in the inferno, while a hundred thousand others were rendered homeless, but the survivors were no doubt cheered by the news that forty three RAF bombers would not be returning home. 156 Squadron was basking in a loss free period, which began after the 8/9<sup>th</sup>, and would extend for six weeks, but it would come to an end with a vengeance once the winter campaign began in a month's time.

There were no further operations in October, and it was on the evening of the 3<sup>rd</sup> of November before the Command once more took to the air in numbers. The target for the 589 aircraft was Düsseldorf, for which there was an early evening take-off, and it was the city's central and southern districts which bore the main weight of the assault. Extensive damage to housing and industry resulted, and eighteen aircraft failed to return. During the course of the operation, Mk II Lancasters from 3 and 6 Groups conducted the first large-scale trial of the G-H blind bombing system on a steel works in the northern outskirts, and produced encouraging results. It would be towards the end of 1944 before this device came into its own in the hands of 3 Group, which would employ it with great effect against Germany's oil industry. Also on this night, a small force of Pathfinder Lancasters and Mosquitos carried out a very accurate diversionary raid on Cologne without loss. Lancasters of 5 and 8 Groups returned to Modane in southern France on the 10/11<sup>th</sup>, the scene of a failure in September. This time the bombing was accurate, and the railway system suffered severe damage. The few demands placed on the squadrons by Harris since Kassel, had allowed them time to rest and replenish before the resumption of the Berlin offensive. This would begin on the night of the 18/19<sup>th</sup>, but on the night before, eighty three Pathfinder Lancasters and Halifaxes conducted a blind bombing raid on Ludwigshafen, purely on the strength of H2s, and without target markers, for the loss of just one of their number.

In a minute to Churchill on the 3<sup>rd</sup> of November, Harris stated, "We can wreck Berlin from end to end if the USAAF will come in on it. It will cost between us 400-500 aircraft. It will cost Germany the war". It was a forlorn hope. The Americans were committed to a land invasion, and there was never the slightest chance of enlisting their support. Undaunted as



ever, Harris would go back to Berlin alone over the winter, and embroil his crews in the most daunting and morale-sapping campaign of the entire war. It must have been appreciated that Berlin was no Hamburg or Cologne, but a massive metropolis of modern design and construction, with wide thoroughfares and open spaces to act as fire-breaks. It would be almost permanently cloaked under a thick blanket of cloud, its defences were already known to be formidable, and its distance from the bomber stations would mean maximum fuel loads at the expense of bombs, and an exhausting seven to ten hour round trip for the crews. The long, rock-strewn road to Germany's Capital was rejoined by an all Lancaster heavy force of over four hundred aircraft on the evening of the 18<sup>th</sup>, while 3, 4, 6 and 8 Groups sent almost four hundred Halifaxes, Stirlings and Lancasters to Mannheim and Ludwigshafen as a diversion. The latter was successful in restricting the losses among the Berlin brigade to nine aircraft, while losing twenty three of their own, but the former operation itself produced only modest success in the face of widely scattered bombing. The 156 Squadron contingent of twenty one aircraft had been led away at 17.04 by W/C White in JB363, and almost four hours later, the Lancaster was shot down by flak over the target, and all on board were killed. This outstanding officer, pilot and flight commander had joined the squadron in February, and captained one of 8 Group's most experienced and skilled all-officer crews. He and four others were holders of the DFC, while the remaining two crew members wore the DFM. Two squadron aircraft returned early with frost-bitten gunners, but the remainder carried out their assigned tasks.

A maximum effort raid was planned for Berlin four nights later, and 764 aircraft and crews answered the call, including twenty one from Warboys. As usual, Berlin was completely hidden under a layer of cloud, and the crews were unable to make an assessment of the results of their efforts. Had they known, they would have been mightily heartened on the long return journey, but as it was, they would have to wait for photographic reconnaissance to reveal the truth. A swathe of devastation cut westwards from the city centre across residential districts, and more than three thousand houses and apartment blocks were destroyed. In addition to this, twenty three industrial premises were also reduced to rubble, and thousands of other buildings were left scarred by their experience under the bombs. Firestorm areas were reported, and 175,000 people were rendered homeless, although they were more fortunate than the two thousand others, who lost their lives. This was the most destructive raid of the war on Berlin, and the loss of twenty six aircraft was, within the context of the scale of the success, an acceptable price to pay. However, the rate of attrition, which this target would inflict upon 156 Squadron over the next four months, continued on this night, with the failure to return of two crews. S/L Anset and his crew went missing without trace in JB304, and as in the recent case of W/C White, the loss of this experienced crew would be keenly felt at Warboys. Also missing was the crew of F/S Stephens, who all died in the wreckage in Germany of JA694. The disproportionately high losses of Stirlings had been giving rise to concern for some time, and this would be the type's final operation over Germany. Twenty four hours later, a predominately Lancaster force was winging its way back to the Capital, guided to the target area by the glow of fires still burning from the previous night. Nineteen 156 Squadron aircraft departed Warboys, but four returned early, and back-to-back operations to this target in the future would result in high numbers of aborted sorties. Once again, a major success was scored, with a catalogue of destruction, which included around two

thousand houses, ninety four temporary wooden barracks and eight industrial premises. Twenty aircraft failed to return, among them JB223, which contained the eight man crew of the recently commissioned P/O Rose, and there were no survivors. Sadly, JB293 also crashed in Norfolk on return, and F/S Fordyce and two of his crew lost their lives, while four others sustained injuries.

After a two night rest, the Lancaster brigade returned to the "Big City", while a smaller force of predominately Halifaxes targeted Stuttgart as a diversion. Twenty one Lancasters left Warboys, and twenty one returned, a rare occurrence indeed during this phase of the campaign. They contributed to what developed into a very useful attack, which, despite clear conditions, began with the Pathfinder markers falling many miles north of the intended city centre aiming point. Much of the bombing found industrial areas, and thirty eight war industry factories were destroyed, along with the usual catalogue of housing and public buildings. Twenty eight aircraft were shot down, but the credit tally for the last three raids amounted to an enormous 8,700 houses and apartment blocks destroyed, 4,300 people killed and a further 450,000 bombed out of their homes for varying lengths of time. (The Bomber Command War Diaries. Martin Middlebrook and Chris Everitt.) The overall cost to the Command was seventy four aircraft, which, when put into perspective, represented the loss of one complete three flight squadron per operation. There were no more major operations during what remained of the month, but December promised only more of the same.

It fell to Berlin to open the December account on the 2/3<sup>rd</sup>, and the predominately Lancaster force of 458 aircraft took a direct route across Holland to the target. A scattered attack ensued, which managed to hit some industrial districts, and this saved the operation from being a total disappointment. Nightfighters got among the bombers over the city and on the way home, and forty of them failed to return. Nineteen Lancasters had set out from Warboys, but in the cold light of dawn, three dispersals were seen to be standing empty. JA697 was lost without trace with the crew of F/L Staniland, while JB179 probably went down over Germany, and there were no survivors from the crew of F/S Redfern, who were on their first operation with the squadron. JB472 certainly crashed in Germany with the crew of W/O Wicks, who, with the exception of the flight engineer, were all Australians, and just one of them survived to fall into enemy hands. The most successful raid of the war on Leipzig was delivered on the 3/4<sup>th</sup> by almost five hundred aircraft, which headed towards Berlin before turning off, leaving a Mosquito element to carry out a spoof attack on the Capital. Severe damage was inflicted on residential and industrial buildings, and had it not been for a proportion of the returning force flying over Frankfurt, the loss of twenty four aircraft might well have been considerably less. A period of minor operations now took the Command through to mid month, and it was on the late afternoon of the 16<sup>th</sup>, that almost five hundred Lancasters took off, twenty one of them from Warboys, with Berlin again their destination. This is a night, which will forever be remembered for the thick blanket of fog greeting the tired crews on their return from a moderately effective raid, which hit mainly housing and railway installations. Twenty five aircraft failed to return, but those which did, encountered real problems as their crews searched for somewhere to land, many of them with insufficient fuel to reach a diversionary airfield. 1, 6 and 8 Groups were those most badly effected by the zero visibility, and as a result, twenty nine Lancasters either crashed or were abandoned by

their crews, and around 150 crewmen lost their lives in these most tragic of circumstances, when so close to home and safety. From the operation itself, 156 Squadron posted missing the highly decorated crew of F/L Aubert, who were lost without trace in JB216. JB282 was one of those which crashed on return, and F/S Watkins and five of his crew died at the scene in Cambridgeshire, while just one man survived with injuries.

In a break from Berlin, 650 aircraft were sent to Frankfurt on the 20/21<sup>st</sup>, for which 156 Squadron again provided twenty one crews, while a small 1 and 8 Group diversion took place at Mannheim. The main operation was hampered by decoy fires, which lured away a proportion of the bombing, but on this occasion, the creep-back worked in the Command's favour, and substantial damage resulted to predominately residential and public buildings. Forty one aircraft failed to return, however, and the Halifax squadrons bore the brunt of the nightfighters' attentions in the absence of the Stirling contingent. Two 156 Squadron Lancasters crashed in Germany, and there were no survivors from the all-decorated crew of F/L Sullivan in JA674, and none escaped with their lives either from the crew of F/O Watts in JB113. The squadron put up sixteen aircraft for the penultimate Berlin operation of the year, on the 23/24<sup>th</sup>, and after the take-off time was put back, it was already past midnight before the crews eventually got away. A Mosquito diversion at Leipzig, and unfavourable weather conditions over Germany, helped to keep the nightfighters at bay, but the Pathfinders experienced difficulties with their H2s sets, and the markers fell over the south-eastern suburbs, where under three hundred buildings were destroyed. Among the sixteen missing Lancasters was the squadron's JB711, which was lost without trace with the crew of F/O Warfield. The fifth wartime Christmas was observed in relative peace, but Berlin beckoned again before the year was out, and the operation on the 29/30<sup>th</sup> was the first of a three raid series in the space of an unprecedented five nights spanning the turn of the year. A maximum effort of over seven hundred aircraft, including twenty one from Warboys, produced a disappointing raid, which hit southern and south-eastern districts, destroying a little under four hundred houses, and a few other buildings. 156 Squadron came through this one unscathed, but could look back on eleven crews missing or killed in crashes in England, as a result of Berlin operations since the resumption of the campaign six weeks earlier. As far as the hard-pressed crews were concerned, the New Year promised more of the same, but what they couldn't know, was that the first month of 1944 would cost them the equivalent of two complete flights.

## 1944

The common hope of the beleaguered Berliners and hard-pressed aircrew alike, was that the Capital would cease to be the main focus of Harris's attention. However, proud of their status as Berliners first and Germans second, the native people of this, one of the world's great cities, were a hardy breed. Just like their counterparts in London during the blitz of 1940, they would bear their "winter of discontent" with fortitude and humour, and would not buckle under Bomber Command's best endeavours. It had been suggested, when area bombing was first considered, that the morale of German civilians was more susceptible to persistent bombing than that of the British, but this was nonsense, and they would find solidarity and resolve in their communal trials. They taunted their tormentors by parading banners through



the shattered streets, proclaiming, "You may break our walls, but not our hearts". The melodic strains of the song, Nach jedem Dezember kommt immer ein Mai, After every December comes always a May, could be heard endlessly over the radio, hinting at a change of fortunes with the onset of spring. It was to be sometime yet before either camp saw their hopes realized, and before New Year's Day was over, four hundred Lancasters were on their way to open 1944's account, arriving over the Capital in the early hours of the 2<sup>nd</sup> of January. The nightfighter force made contact with the bomber stream early on, and many Pathfinder aircraft were among those shot down before the target was reached. It was not a successful operation in the face of complete cloud cover and skymarking, and many of the bombs fell in wooded or open country, while those which hit the city destroyed only twenty one houses and a solitary industrial building. The disappointment was exacerbated by the loss of twenty eight Lancasters, and the atmosphere at Warboys on the following morning was sombre indeed. Four crews were missing, and those of S/L Stewart and S/L Fawcett were among the most experienced in the entire Pathfinder Force. They were flying in JB703 and JA925 respectively, the former crashing in Germany, and the latter disappearing without trace. Also missing were the crews of F/O Docherty and P/O Bond in JB476 and ND384 respectively, the former also falling onto German soil, while the latter crashed close to the Franco-Belgian frontier, both without survivors. When the bombers returned on the following night, they again failed to achieve any concentration, and scattered bombs ineffectively all over the city, destroying a modest eighty two houses in the process. The defences were as ferocious as ever, however, and brought down twenty seven Lancasters. Fourteen crews had departed Warboys for this operation, only nine returned, and thirty six telegrams went out to next of kin. The missing crews were those of F/L Ralph, F/O Cairns, P/O Cromarty, P/O Borland and Sgt Barnes, in JB310, ND380, JB640, JB553 and JB317 respectively. JB310 and ND380 crashed in Germany, JB640 was lost without trace, and JB553 went down in the Berlin defence zone, all without a single survivor. JB317 was shot down by a nightfighter while outbound near Bremen, and was abandoned by four of the crew, who were taken into captivity, while the pilot and two others died in the wreckage of their Lancaster.

Replacement crews were drafted in to fill the gaps, and S/L Brooks arrived as a flight commander. Even so, demands were made on the squadron to make good losses in other Pathfinder units. On the 3<sup>rd</sup>, a flight commander, W/C Deane, was posted to 83 Squadron, to replace W/C Abercromby as commanding officer, following his failure to return from Berlin on the 2<sup>nd</sup>. Somehow, the squadron managed to send eighteen aircraft to Stettin on the 5/6<sup>th</sup>, a target which, as already noted, never seemed to escape lightly. On this night, it suffered the destruction of five hundred houses and twenty industrial buildings, while a further twelve hundred buildings were seriously damaged, and eight ships were sunk in the harbour. All of the 156 Squadron participants returned safely, to give a much needed shot in the arm of morale. The heavy brigade stayed on the ground for the next eight nights, and when briefings took place on the 14<sup>th</sup>, there must have been a degree of relief, that the red marker tape on the wall maps stopped some way short of the "Big City". It terminated, in fact, at Brunswick, an historic town to the east of Hanover, which had not been visited by the Command in numbers before. What happened was a disaster for the Command as a whole, and for 156 Squadron in particular. The attack almost completely missed the target, and thirty eight Lancasters fell victim to the defences, most of them to the marauding nightfighters. Once again, 156

Squadron was forced to post missing five crews, among them that of W/C Mansfield, a highly experienced flight commander, who had been posted in from 97 Squadron in June. His ND357 was shot down by a nightfighter over Holland on the way home, and killed with him was his entire crew, which, between them, held three DFCs and two DFMs. JA698 also fell to a nightfighter, this time in the target area, and F/O Illingworth and four of his crew, were the only squadron survivors from the missing aircraft. The other casualties involved F/L Stannard and his crew in JA975, which was brought down over Germany by a combination of flak and a nightfighter, P/O Palmer and crew in JB483, and P/O Bagot and his crew in LM344, both of which crashed in Germany.

On the 15<sup>th</sup>, W/C Eaton arrived from his command of 1662 CU at Blyton, to replace G/C Collings, who retained his post as station commander. W/C Eaton was an experienced officer, who had commanded 101 Squadron during its conversion from Wellingtons to Lancasters in 1942. Sadly, his period of office would be brought to a premature conclusion a few months hence. A five night rest from operations was broken on the 20/21<sup>st</sup> by the next trip to Berlin, which was conducted by over seven hundred aircraft. Complete cloud cover prevented an assessment by the crews of the results of their efforts, but it was later learned that the main weight of the attack had fallen into the hitherto less severely afflicted eastern districts, where substantial damage was caused. The carnage wrought by the defences continued, and thirty five aircraft failed to return, although, all from Warboys got back safely. Magdeburg followed twenty four hours later, and this resulted in another bloody nose for the Command, with nothing conclusive to show for it. Over six hundred aircraft took off in mid evening, fourteen of them provided by 156 Squadron, and the omens were not good, once enemy nightfighters met the bomber stream even before it crossed the German coast. The two forces remained in contact all the way to the target, and fifty seven empty dispersals on bomber stations next morning presented a sobering picture of the Command's fortunes. This new record loss included only one from 156 Squadron, and remarkably, in the light of recent events, all of F/O Kilvington's crew got out before JA912 crashed in the target area, the victim of a nightfighter. Ahead lay three Berlin trips in an unprecedented four nights, and this would be the supreme test of the squadron's mettle, also in the light of what had gone before.

It was a five hundred strong all Lancaster force which began this intense round of activity on the 27/28<sup>th</sup>, a night on which extensive diversionary operations were laid on to confuse the enemy nightfighter controllers. The now familiar scattered raid ensued, and a reasonable degree of damage was inflicted, but probably not sufficient to compensate for the thirty three aircraft which were lost. The fates were kind to the squadron on this night, and all sixteen of its aircraft returned home. Fifteen Lancasters made up the squadron's contribution on the following night, when the Halifax squadrons joined in, and again they all returned, although forty six others were less fortunate. It was another moderately successful raid in terms of damage, which left 180,000 Berliners without homes, and many of their public and administrative buildings displaying the scars of battle. After a night's break, a predominately Lancaster force of over five hundred aircraft delivered a scattered attack, the main concentrations of which were in central and south-western districts. Many other parts of the city reported being bombed, large areas of fire raged out of control, and at least a thousand people lost their lives. Much of the effort also found its way onto outlying communities, as



had been common-place throughout the offensive, and seventy nine were afflicted on this night. The nightfighters missed the planned interception of the bomber stream over the sea, and had to play catch-up for much of the outward flight. Once in contact, however, they took a steady toll, which continued on the homeward leg, and thirty three aircraft failed to make it back. 156 Squadron despatched sixteen Lancasters, and had two of them return early, while two others were among the missing. JB302 was shot down by a nightfighter over the Capital, and W/O Bateman and two of his crew escaped by parachute as the only survivors, and were taken into captivity. JA702 blew up after tangling with another nightfighter, before its remains crashed into the Ijsselmeer. Two members of the crew were thrown clear by the explosion, and survived to fall into enemy hands, but W/O Rule and four others perished.

Inhospitable weather conditions helped to keep the squadrons on the ground for the first two weeks in February, and it gave them a chance to replenish and draw breath. Harris had intended another raid on Berlin early in the month, to follow on the heels of the intensive assault at the end of January, but this had not been possible. In effect, this proved to be the last concerted effort to bring Berlin to its knees, and although it had been sorely wounded, it remained a functioning city and the seat of government, and nowhere were there signs of imminent collapse. When the Command next took to the air in numbers, on the 15/16<sup>th</sup>, it was for the penultimate raid of the campaign, and indeed, of the war by RAF heavy bombers against the "Big City". It was also a record breaking operation in a number of ways. The 891 aircraft which took off represented the largest non-1,000 force to date, it was the first time that over five hundred Lancasters and three hundred Halifaxes had operated together, and the weight of bombs actually reaching the target would be a record 2,600 tons of high explosives and incendiaries. Much of this was put to effective use within the built-up area of Berlin, where a thousand houses and five hundred temporary wooden barrack blocks were destroyed, and many important war industry factories were damaged. Diversionary tactics, including a raid on Frankfurt-an-Oder, for which the squadron contributed six aircraft led by W/C Eaton, failed to deceive the nightfighter controllers, and forty three aircraft failed to return. Among them was ND504, one of twenty one aircraft put up by the squadron, and this was lost without trace with the crew of F/L Stimpson, a pilot who had joined the squadron as a Flight Sergeant in July. It was the start of another period of sustained losses, although it would be nothing like as severe as those in January.

After another rest, which lasted three nights, over eight hundred aircraft took off, and headed towards the Dutch coast on their way to Leipzig, and the greatest disaster to afflict the Command thus far in the war. Twenty one Lancasters departed Warboys either side of midnight, and as they and the rest of the bomber stream crossed into enemy territory, they were met by enemy nightfighters, which remained in contact all the way into eastern Germany. Wrongly forecast winds led to some aircraft reaching the target area ahead of the Pathfinders, and they were forced to orbit, while they waited for the markers to go down. Collisions and the local flak batteries accounted for about twenty four of these, while the others delivered an inconclusive attack in the face of complete cloud cover. When all of the aircraft which were going to return home had done so, there was an unbelievable shortfall of seventy eight, making this, by a clear twenty one aircraft, the worst reversal of the war to date. Warboys was perhaps fortunate in counting only two absentees, JA921 and ND358, but

the latter contained the crew of the highly experienced S/L Saunders, who already had almost fifty sorties to his credit. None survived the destruction of their Lancaster by a nightfighter over the Reich, and only one man escaped with his life from the crew of W/O Stanners, before the former crashed in Holland. The casualty rate among the squadrons operating the Mk II and V Halifaxes had been giving rise to concern for a considerable time, and like the Stirlings before them, they were withdrawn from this point from further operations over Germany. Inevitably, this would reduce the numbers available for the main offensive, but the new Hercules powered Mk IIIs were already in service with many 4 and 6 Group squadrons, and the others would soon re-equip.

Less than six hundred aircraft and crews answered the call to raid Stuttgart on the following night, and they produced a scattered but effective attack, which fell mainly on central and northern districts, and hit housing, industry and public buildings. In contrast to the previous night, only nine aircraft were missing, but among them was ND345, which was hit by flak over southern Germany, and exploded. As occasionally happened in such circumstances, F/L Mackay, the pilot, protected by his armour plated seat, was thrown clear, alone of his crew to survive. Flying with him in the rear turret had been the squadron gunnery leader, S/L Muir. A new tactic was introduced for the next two operations, in an attempt to reduce the unsustainable losses of recent weeks. A two phase raid was launched against Schweinfurt on the 24/25<sup>th</sup>, with a two hour gap between waves, with the intention of catching the enemy nightfighters on the ground refueling and rearming. The raid itself suffered badly from undershooting, and was not successful, but the fact that the second wave lost 50% fewer aircraft than the first, suggested that there was perhaps some profit to be gained from this new approach. Never-the-less, thirty three bombers failed to return, and 156 Squadron again had the sad task of posting missing crews. JB479, JB721 and ND454 were the Lancasters absent from their dispersals on the morning after, and they had contained the crews of W/C Porter, F/L Day and P/O Neighbour respectively. All were part of the first wave, and the first mentioned crashed in southern Germany with no survivors, while the other two came down in France, F/L Day and his flight engineer alone surviving to be taken into captivity. The two phase method was used again at Augsburg twenty four hours later, with devastating consequences for this beautiful and historic city. Eighteen 156 Squadron crews again took the early shift, and they contributed to an outstandingly accurate and concentrated attack, which tore out by fire its cultural heart, destroyed almost three thousand houses, and consigned to oblivion centuries of history. Twenty one missing aircraft represented a further reduction in casualties, but 156 Squadron was again touched by them. This time it was F/S Millen and his crew who failed to return in JA941, which was another victim of a marauding nightfighter over Germany, and only the navigator and rear gunner survived as PoWs.

No further operational activity was required of the heavy squadrons until the 1/2<sup>nd</sup> of March, when over five hundred aircraft returned to southern Germany, and carried out a successful attack on Stuttgart, for the remarkably low loss of four aircraft. 156 Squadron's contingent of eighteen aircraft departed Warboys for the last time for this operation, but F/S Baker and his crew would not take part in the imminent move to Upwood, having all died in the wreckage in Germany of ND446, after tangling with a nightfighter. The change of residence to Upwood took place on the 5<sup>th</sup>, during what for most squadrons was a stand-down period, and this

would remain home to 156 Squadron until after the end of hostilities. Just as Stuttgart had brought down the curtain on the squadron's operations from Warboys, so it opened proceedings for the squadron's new era on the 15/16<sup>th</sup>. The second largest non-1,000 force of 863 aircraft included a 156 Squadron contribution of twenty four Lancasters, but sadly, this mammoth effort was not rewarded with success. Much of the night's bombing fell into open country south-west of the target, after the Pathfinder marking undershot, although limited fresh damage occurred within the city's central districts. It was, however, a night of fierce nightfighter activity once the opposing forces made contact short of the target, and in contrast to two weeks earlier, thirty seven bombers failed to return. A cause for celebration at Upwood was the arrival back of all twenty four 156 Squadron Lancasters, a noteworthy occurrence in view of the squadron's record of late. Two heavy and devastating raids fell on Frankfurt on the 18/19<sup>th</sup> and 22/23<sup>rd</sup>, both involving over eight hundred aircraft. The former alone left over six thousand buildings either destroyed or seriously damaged, while the latter was even more catastrophic, and denied half of the city electricity, gas and water for an extended period. The combined total of fifty five missing aircraft from 1664 sorties, or 3.3%, was not excessive within the context of recent experiences and the scale of the success. 156 Squadron again operated without loss, having despatched twenty four and twenty one Lancasters respectively, and now faced, with the rest of the Command, the nineteenth and final raid of the campaign against Berlin.

Over eight hundred aircraft took off for the Capital in the early evening of the 24<sup>th</sup>, twenty one of them from 156 Squadron. The captains and aircraft for this last raid on Germany's Capital by Bomber Command heavy aircraft were; S/L Walbourn, soon to be posted to 582 Squadron as a flight commander, and thence to the command of 7 Squadron in September, in ND737, F/L Blamey in ND534, F/L Hewitt in ND406, F/L Hopton in ND348, F/L Richmond in JB667, F/O Hiscock in JB230, F/O Wiseman in ND492, F/O Gilmore in ND409, F/O Cameron in ND477, Capt Johnsen in ND466, P/O McLean in EE108, P/O Etchells in JB239, P/O Langford in ND422, P/O Smith in ND348, P/O Trotter in ND618, P/O Lindley in ND577, W/O Higgs in ND714, W/O Marshall in ND349, F/S Cuthill in JB228, F/S Ward in JA673, and F/S Gipson in ND502. Two aircraft returned early, but the remainder, once at cruising altitude, encountered unusually powerful winds from the north, which drove the force south of track, and broke the cohesion of the bomber stream. This led to a wildly scattered attack, and over a hundred outlying communities reported bombs falling onto them. Residential districts were the main victims within the city from this moderately successful attack, but as the aircraft flew home, many were driven by the winds over heavily defended areas of the Reich, and the flak batteries brought down over two thirds of the seventy two aircraft which failed to return. 156 Squadron posted missing a crew from Berlin for the last time during the war, that of F/L Richmond, and just one man survived in enemy hands after JB677 was shot down over Germany while on the way home. The squadron's record in the Battle of Berlin was both magnificent and heart-rending. It participated in all nineteen of the main raids sent against the Capital, and despatched 362 sorties, the highest number in 8 Group, and the third highest in the Command after 460 and 101 Squadrons. Twenty four of its aircraft failed to return, a figure only exceeded by fellow Pathfinders 7 Squadron. Only eleven of its airmen survived being shot down, and the 168 men killed represented the highest death toll in the Command. (The Berlin Raids. Martin Middlebrook).



Although the Berlin offensive had now run its course, the winter campaign still had a week to run, and two more major operations would take place before this long and bitter period could be declared at an end. The first was against Essen on the 26/27<sup>th</sup>, for which 705 aircraft took off, including eleven from 156 Squadron. Over seventeen hundred houses were destroyed, and almost fifty industrial buildings were seriously damaged, thus continuing the remarkable run of successes at this target since the introduction of Oboe to main force operations a year earlier. The sudden switch to a Ruhr target caught the nightfighter controllers off guard, and only nine aircraft were missing. On the 30<sup>th</sup>, briefings took place for a standard maximum effort raid on Nuremberg, for which 795 aircraft were made ready. The plan departed from normal practice in just one respect, and in the event, this was to prove critical. In place of the customary 8 Group prepared route, incorporating feints to throw off the nightfighter controllers, a 5 Group inspired plan was selected, which would take the bomber stream on a long, straight leg from Belgium across Germany, to a point about fifty miles north of Nuremberg, from where the final approach would commence. The vehement protests by AVM Bennett went unheeded, and a report from a Met Flight Mosquito casting doubt on the forecast weather conditions was also not acted upon. No one could have foreseen the effect of these conditions on the outcome of the operation, but once airborne either side of 22.00 hours, the crews were struck by some unusual features. The light cast by the relatively new moon was uncharacteristically bright, and the visibility had a rare crystal clarity. The forecast cloud at cruising altitude failed to materialize, but formed instead beneath the bombers to silhouette them like flies on a table cloth. The jetstream winds which had so adversely effected the Berlin raid a week earlier were also present, only this time from the south, breaking up the bomber stream and spreading it over a wide area. As the final insult, condensation trails formed to further advertise the bombers' presence, and all these factors conspired to hand the force on a plate to the nightfighters, which were circling their control beacons close to the route. The carnage began over Charleroi in Belgium, and from there to the target, the track was marked out by the burning wreckage of aircraft on the ground. Those crews which failed to notice the strength of the wind, or refused to believe the evidence, were driven up to fifty miles north of their intended track, and turned towards Nuremberg from a false position. Many of these were among the hundred or more which bombed Schweinfurt in error, and together with the eighty or so shot down during the outward flight, this reduced the numbers available to carry out the planned attack. Thick cloud and a cross-wind ruined the Pathfinder marking, and a creep-back developed into open country, rendering the raid a failure. Ninety five aircraft failed to return home, and around twenty others were written off in crashes at home, or with battle damage too severe to repair. Only nine of the forty nine participating squadrons came through completely unscathed, and 156 Squadron suffered an unhappy night. As the tired crews related their experiences to the intelligence officers at Upwood, the return of four more was awaited in vain, and the crews of ND406, ND466, ND476 and ND492 were duly posted missing. All four were shot down by nightfighters before reaching the target, and all were experienced crews. W/O Murphy died with all but one of his crew, the survivor being flung clear when the Lancaster exploded, and they were on the nineteenth operation of their tour. S/L Goodwin and three of his crew escaped with their lives, but four others on board were killed, and they were on the seventeenth operation of their second tour. All eight men in the crew of Norwegian Capt Johnsen were killed, and P/O Lindley was the sole survivor from his crew.

The winter campaign was now over, and a new one was about to begin, which would be in marked contrast to that which had been endured over the past five months. The new priority was the Transportation Plan, which would form a major and vital part of the preparations for the forthcoming invasion of Europe. The French and Belgian railway networks were to be systematically dismantled by bombing, in a campaign which had already begun in March at the hands of the Halifax and Stirling squadrons, utilizing those aircraft which had been withdrawn from operations over Germany because of their vulnerability to the defences. These attacks had begun at Trappes on the 6/7<sup>th</sup> of March, and during the course of the month, railway yards were targeted at Le Mans, Amiens, Laon, Aulnoye, Courtrai and Vaires, mostly with success. Now, the entire Command was available to take part, and for the crews, this meant that the long slog to Germany on dark, often dirty nights would be replaced by mostly shorter range hops to France and Belgium in improving weather conditions. These operations would prove to be equally demanding in their way, however, and would require of the crews a greater commitment to accuracy, to avoid, as far as possible, casualties among friendly civilians. 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 grievous losses over the winter, 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 predecessors. This was, to attack multiple targets simultaneously, with forces large enough to make an impact. He could now assign targets to individual Groups, to Groups in tandem, or to the Command as a whole, as dictated by operational requirements. Although pre-invasion considerations were the overriding priority, while Harris was at the helm, his favoured policy of city-busting would never be entirely shelved, and whenever an opportunity arose, he would strike at industrial Germany.

The next six months in particular would require a supreme effort from the Pathfinder squadrons, the presence of which on occasions, might be needed at half a dozen separate targets simultaneously, whether in the form of just Oboe Mosquitos, and or heavy aircraft. In order to facilitate this, although more immediately to compensate for the imminent, and to Bennett, shattering loss of 83 and 97 Squadrons on permanent detachment to 5 Group, 582 Squadron was formed at Little Staughton. Half of the new squadron was provided by 156 Squadron's C Flight under S/L Walbourn, while 7 Squadron supplied the other half, and this reduced 156 Squadron to a complement of sixteen aircraft in two flights under W/C Brooks and W/C Scott. After a much needed period of leave for many of the crews, the new campaign began on the 9/10<sup>th</sup> of April, when over two hundred aircraft from 3, 4, 6 and 8 Groups attacked the Lille-Delivrance goods station, and destroyed over two thousand items of rolling stock, and damaged track and buildings. A similar size of force, meanwhile, targeted railway yards at Villeneuve-St-Georges on the outskirts of Paris, and returning crews claimed a successful operation. Sadly, collateral damage at both locations inflicted heavy casualties on nearby civilians, and this would be a recurring theme until the liberation of France. Just six Lancasters from 156 Squadron participated at Lille, and they all returned safely. On the following night, five railway yards were raided in France and Belgium, and a 156 Squadron element of seven aircraft backed up the Oboe markers at Laon, but this was the night's least effective attack. An area raid on Aachen on the 11/12<sup>th</sup> involved over three hundred aircraft



from 1, 3, 5 and 8 Groups, and these delivered a highly accurate assault, which produced a death toll in excess of fifteen hundred people. Eleven 156 Squadron Lancasters had taken off, and again, all returned safely.

Officially from the 14<sup>th</sup>, Bomber Command became subject to the requirements of SHAEF, and would remain thus shackled until the Allied armies were sweeping towards the German frontier at the end of the summer. On the 18<sup>th</sup>, 83, 97 and 627 Squadrons completed their move to 5 Group to act as its marker force. The background to this was the frustration borne out of attacks by 617 Squadron against flying bomb sites in the Pas-de-Calais in December. The squadron had plastered the Oboe markers, only to find that these had missed the aiming point by a few hundred yards, and the targets had escaped damage. Oboe was ideal for urban targets, but its accuracy was not sufficiently pinpoint for the purposes of 617 Squadron, and this had led to experiments in low level visual marking methods, firstly in a Lancaster, a somewhat hairy pursuit, and later in a Mosquito. The credit for the development of this system goes to W/C Cheshire and S/L "Mick" Martin, and so effective was it, that Harris authorized the squadron to take on charge a number of Mosquitos. Having proved the system at precision factory targets in France, it was decided to give 5 Group its own target marking force, hence the transfer of the squadrons mentioned. This was no reflection on the performance of the official Pathfinders under Bennett, but it was a cruel blow to him personally, and it served further to deepen the rift between him and the 5 Group AOC, AVM Sir Ralph Cochrane. The crews involved in the move were also disenchanted at being torn from what they considered to be an elite status as Pathfinders, although they retained all the benefits in terms of rank and badge. From this point on, 5 Group would be known in 8 Group circles rather disparagingly as "The Independent Air Force", or "The Lincolnshire Poachers", and the former, at least, would prove to be an accurate appellation.

On the night of the 18/19<sup>th</sup>, 156 Squadron divided its sixteen aircraft between railway yards at Rouen and Noisy-le-Sec in support of 1 and 3 Groups at the former, and 6 Group at the latter. Both operations were highly successful, and the squadron came through unscathed. Two nights later, while the Independent Air Force, complete with its new arrivals, carried out its first major operation employing the low level marking method at La Chapelle, elements of 1, 3, 6 and 8 Groups conducted an old-style city-busting raid on Cologne. Massively successful, it left over eighteen hundred houses and apartment blocks in ruins, and damaged hundreds of industrial and business premises and a further twenty thousand houses. All thirteen 156 Squadron aircraft returned safely, and on the 22/23<sup>rd</sup>, some of the fourteen crews despatched for the night's operations joined a two phase attack on railway yards at Laon, for which 3, 4 and 6 Groups provided the main force. This was a busy night for the Command, which also involved almost six hundred aircraft raiding Düsseldorf, including another contingent from Upwood, while 5 Group tried out its low level visual marking method for the first time over a heavily defended German target at Brunswick. Düsseldorf was an outstanding success, Brunswick was a disappointment, and severe damage was caused at Laon, for the combined loss for the night of forty two aircraft. 156 Squadron's ND349 was one of these, and was shot down by flak near Düsseldorf, W/O Higgs surviving with two of his crew. One of the other missing Lancasters was ND508 of W/C Cousens, the commanding officer of fellow Pathfinders 635 Squadron. He had been Master Bomber for the Laon operation, and his death

directly affected 156 Squadron, when W/C Brooks was posted to Downham Market on the 26<sup>th</sup> as his replacement. This was just one of many postings of experienced personnel between the PFF squadrons, which was made necessary by the heavy losses they were incurring.

W/C Eaton led the 156 Squadron crews to Karlsruhe on the 24/25<sup>th</sup>, and all returned safely from an operation spoiled by cloud and strong winds, which led to only northern districts receiving bombs, although nine hundred houses were destroyed or seriously damaged. It was on this night that 5 Group proved the efficacy of its marking system over Germany, with an outstandingly successful operation against Munich. On the 26/27<sup>th</sup>, the squadron sent fourteen aircraft to Essen as part of a force numbering almost five hundred. Returning crews claimed a successful attack for the modest loss of seven aircraft, but the crew of F/L Kayll, who had been involved in a sideways posting from 7 Squadron just two months earlier, were not at debriefing. Their Lancaster, JB307, crashed on Dutch soil, and all on board were killed. On the following night, 1, 3, 6 and 8 Groups joined forces to attack the important industrial town of Friedrichshafen deep in southern Germany, and close to the border with Switzerland. The specific objectives were factories involved in the manufacture of tank engines and gearboxes, and accurate Pathfinder marking led to a highly concentrated raid, which laid waste to over half of the built-up area, and severely affected tank production. Eighteen aircraft were lost, most, if not all, to nightfighters, and one of these was from the fourteen despatched by 156 Squadron. It contained the crew of the commanding officer, W/C Eaton, who were all killed when ND409 was shot down by a nightfighter over southern Germany. As a final postscript on the life of this gallant officer, who like so many of his breed, led his squadron from the front, his promotion to acting Group Captain was announced a month after his death with effect from February. Flight commander S/L Godfrey assumed temporary command, until the arrival of W/C Bingham-Hall. On the last night of the month, fourteen squadron crews took part in an unsuccessful raid on railway installations at Somain, for which 6 Group provided the main force.

May's operations began with attacks on railway yards at three locations, and those at St-Ghislain were severely damaged by a force which included a 156 Squadron element. On the 6/7<sup>th</sup>, elements of 4 and 8 Groups attacked railway targets at Mantes-la-Jolie, where collateral damage to the town itself caused over fifty civilian deaths. The squadron's ND449 was brought down to crash in France, killing F/L Churchill and two of his highly decorated crew, while the remainder all managed to evade capture. Later on the 7<sup>th</sup>, W/C Bingham-Hall assumed command of the squadron, and that night, presided over his first operation, when sending fourteen crews to attack the airfield at Nantes in company with others from 3 and 8 Groups. On the 11/12<sup>th</sup>, six separate operations were mounted to targets in France and Belgium, including railway yards at Hasselt, which was a predominately 1 Group show with PFF support. The Master Bomber called a halt to proceedings when haze obscured the aiming point after only a proportion of the force had bombed, and the target escaped damage. Five aircraft were shot down, and a number of 156 Squadron aircraft had brushes with nightfighters. The Lancaster of Dutchman F/L t'Hart was one of them, and departed the target area in flames, whereupon, two of his crew baled out. The others stayed with the aircraft, and an emergency landing was ultimately carried out at Woodbridge without further incident. As it happened, Upwood was closed to traffic anyway, S/L Davies having landed with a full

bomb load and a punctured tyre, which had caught fire, and the crippled aircraft was now blocking the runway. Eight separate targets received attention on the 19/20<sup>th</sup>, most of them railway yards, for which the squadron provided crews, while others joined an all 8 Group attack on a radar station at Mont Couple.

On the 21/22<sup>nd</sup>, almost five hundred aircraft from 1, 3, 5 and 8 Groups delivered the first major raid on Duisburg since the Ruhr campaign a year earlier. 350 buildings were destroyed, but in an echo of past experiences when operating to this region, twenty nine aircraft were lost, and 156 Squadron posted missing the crew of F/S Ward. ND559 blew up over Holland after being attacked by a nightfighter, flinging clear the pilot, who alone of the occupants survived, and among those killed was the squadron gunnery leader, S/L Blair DFC DFM, who was on his sixty sixth operation. Having bombed the target, F/S Temple's JB217 was attacked by two nightfighters, which caused severe damage to the Lancaster, and wounded one of the gunners. Through spirited defence, the enemy was driven off, and the aircraft was nursed back to a crash-landing at Dunsfold where fire took hold, but no further casualties were incurred. On the following night, Dortmund was similarly honoured with its first major raid for a year, this coming at the hands of over three hundred aircraft drawn from 1, 3, 6 and 8 Groups. More than eight hundred houses and six industrial buildings were destroyed, and eighteen aircraft failed to return. Two railway yards at Aachen were the objectives for over four hundred aircraft on the 24/25<sup>th</sup>, when collateral damage to the town itself was extensive. A return to this target on the 27/28<sup>th</sup> was directed specifically at the Rothe Erde yards, which had not been completely destroyed in the earlier raid, and all through-traffic was halted. Six more operations were mounted on the last night of the month, including one against railway yards at Tergnier, for which the squadron's P/O Taggart acted as Master Bomber, with S/L Attwater as his deputy. It was the first time that the squadron had provided a Master Bomber, but from this point on, it would become a regular occurrence. NE143 was one of only two Lancasters missing from this operation, and crashed in France. F/L Sampson and three of his crew escaped by parachute, he and two others evading capture, while three men died in the wreckage of their aircraft. F/L Sampson returned to the squadron in August.

The first five nights of June were dominated by attacks on coastal batteries and signals stations ahead of the imminent invasion. On the 3/4<sup>th</sup>, the squadron contributed nine aircraft to a raid on gun emplacements near Calais, to continue the deception concerning the true location of the landings, and on D-Day Eve, over a thousand aircraft were aloft to silence ten gun batteries along the French coast. Sixteen Lancasters from Upwood were assigned to those at Houlgate and Langues, and the five thousand tons of bombs dropped on all sites represented a new record. The crews were not informed at briefings that the invasion had started, but all were forbidden to jettison bombs over the sea, and were given strict instructions as to flight level. Aircraft were taking off throughout the night, and some of those crews returning in dawn's early light were rewarded with a glimpse of the giant armada, ploughing its way sedately across the Channel. Similar numbers were engaged in operations on D-Day Night, in a concerted effort against enemy road and rail communications behind the beachhead. The 156 Squadron effort was scrubbed, but S/Ls Godfrey and Ison performed as Master Bomber and Deputy for a raid on railway installations at Acheres. It was the same fare on the succeeding two nights, and in line with this, four railway targets were bombed on the



7/8<sup>th</sup>. The attack directed at Versailles accounted for the squadron's ND577, which crashed in France, killing the eight man crew of flight commander S/L Hopton, who had been acting as deputy Master Bomber to S/L Ison. Four airfields south of the beachhead were bombed by almost four hundred aircraft on the 9/10<sup>th</sup>, the 156 Squadron crews briefed to attack those at Le Mans and Rennes. P/O Ribbins lost two engines to flak on the way home, but eventually put down safely at Upwood, and W/C Burroughs landed on three engines. Another four railway targets featured on the 11/12<sup>th</sup>, and the squadron provided the Master Bomber and Deputy team of F/L Taggart and S/L Attwater for the attack on Tours marshalling yards. The suitability for the role of Master Bomber was determined by experience and ability, rather than rank, and it was not uncommon for the Deputy to outrank the Master Bomber on the ground.

A new oil campaign began at Gelsenkirchen at the hands of 1, 3 and 8 Groups on the 12/13<sup>th</sup>, for which the squadron put up just three crews. The operation was an outstanding success, which halted production of vital aviation fuel at the Nordstern refinery for a number of weeks, although at a cost of seventeen Lancasters. The first daylight operation since the departure of 2 Group a year earlier, was directed at E-Boats and other light naval craft at Le Havre on the evening of the 14<sup>th</sup>. The two phase attack was opened by a predominately 1 Group force, and 3 Group followed up at dusk to complete the job. Few if any craft survived the onslaught to pose a threat to Allied shipping supplying the beachhead. Simultaneously with the latter operation, elements of 4, 6 and 8 Groups attacked railway installations at three locations, including St Pol, for which F/L Taggart and F/O Wiseman provided the Master Bomber team. The success at Le Havre was repeated at Boulogne on the evening of the 15<sup>th</sup>, but the town itself suffered heavy damage, and two hundred civilians were killed. The oil offensive continued at Sterkrade/Holten on the 16/17<sup>th</sup>, but with little success on this occasion, and thirty one aircraft were hacked down by flak and nightfighters. A second new campaign also began on this night, against flying bomb launching and storage sites in the Pas-de-Calais, and this would occupy much of the Command's attention for the next three months. Oboe Mosquitos led the raids on four locations, and the main force Lancasters and Halifaxes followed up accurately. Over three hundred aircraft took off for a daylight raid on three sites on the 21<sup>st</sup>, and while cloud forced two to be abandoned, that against St-Martin-l'Hortier went ahead. It was also conducted through complete cloud cover, under the control of S/Ls Ison and Attwater as the Master Bomber team, and the squadron contingent all returned safely from its first taste of daylight operations.

That night, the Independent Air Force became involved for the first time in the new oil offensive, when sending two forces to attack the refineries at Wesseling and Scholven-Buer. A number of 101 Squadron ABC Lancasters were in attendance at both locations, and Pathfinders at the latter. Cloud prevented use of the 5 Group method, and marking went ahead at Wesseling by H2s alone, and at Scholven by standard Oboe-based skymarking. Some limited loss of production resulted at both sites, but the Wesseling force was mauled by nightfighters, and four 5 Group squadrons each lost six aircraft in an overall casualty figure of thirty seven Lancasters. Two of four flying bomb sites on the 23/24<sup>th</sup> involved elements from 156 Squadron, those at Bientanes and Coubronne. S/Ls Attwater and Godfrey acted as the Master Bomber team at the former, while fourteen squadron crews took part in the latter,

from which JB230 failed to return with the crew of P/O Langford. The Lancaster crashed in Belgium, and the pilot died with five others on board, including the squadron engineer leader, F/L Manvell. It was a hectic time for the Pathfinder squadrons, and great demands were made on them to support the simultaneous campaigns against railways, oil and flying bomb sites, along with city-busting and tactical operations on behalf of the ground forces. Even when the squadron as a whole was not operating, Master Bombers and Deputies were still required, and S/Ls Godfrey and Davies fulfilled this role for a 4 Group raid on a V-3 site at Mimoyecques on the 27<sup>th</sup>. Six flying bomb sites were successfully attacked on the 27/28<sup>th</sup>, and the squadron provided crews for two of them. 1 and 5 Groups supplied the main forces for two launching sites in the early afternoon of the 29<sup>th</sup>, the one at Domlegger presided over by F/L Wiseman and F/L t'Hart as the Master Bomber and Deputy, and this concluded a busy month for 156 Squadron.

July began for the squadron with S/L Godfrey and F/L t'Hart performing as the Master Bomber team for a late afternoon raid on a flying bomb site at St-Martin-l'Hortier on the 1<sup>st</sup>. A daylight raid on a similar target at Oisemont followed on the 2<sup>nd</sup>, for which sixteen of the squadron's crews were briefed. Fifteen of them returned safely, but ND962 suffered an undercarriage collapse on landing, although happily, without serious casualties among the crew of W/O Clarke, and he was declared tour expired five days later. Operations against the flying bomb menace continued on the 5/6<sup>th</sup> at Biennais, for which the squadron provided the Master Bomber and deputy in the persons of F/L Taggart and S/L Attwater. A different pair, S/L Ison and F/L Wiseman, performed the same role at Vaires marshalling yards on the 7/8<sup>th</sup>, and the operation was successfully concluded without loss. Ten crews were briefed on the 9<sup>th</sup>, eight for a flying bomb site at L'Hay, and S/Ls Attwater and Davies as the Master Bomber and deputy team for a similar target at Chateau Bernapre. On the 10<sup>th</sup>, the squadron despatched fourteen crews to a flying bomb storage dump at Nucourt, and participated in two separate raids on another at Gapennes on the following day, for which seven crews were required. This was the first operation to employ heavy Oboe marking by Lancaster, a 582 Squadron aircraft piloted by W/C Grant, formerly of 156 Squadron, and now commanding officer of 109 Squadron. Eleven 156 Squadron aircraft were in action on the 12<sup>th</sup>, six for an attack on a V-2 launching site at Rollez, and five for a storage dump at Thiverny. That night, a squadron element went to Tours to bomb the marshalling yards, while the first of what would become a series of three operations was mounted by 1 Group against a railway junction at Revigny. The former was successful, but the latter had to be abandoned partway through when cloud obscured the aiming point. 156 Squadron and two other 8 Group units provided six Lancasters each for a small raid on the flying bomb site at St-Philibert-Ferme in daylight on the 14<sup>th</sup>, and that night, a second attempt was made to bomb the junction at Revigny. 156 Squadron provided nine crews, including those of F/L Wiseman and S/L Davies as Master Bomber and Deputy. The former found difficulty in identifying the aiming point, and after three runs across the target at ever reducing altitudes, he called off the attack, and sent the force home with its bombs. Shortly afterwards, PA984 exploded after being attacked by a nightfighter, and S/L Davies and the squadron bombing leader, F/L Stevens, alone of their eight man crew, were thrown clear to survive as PoWs.



A return to the flying bomb store at Nucourt by daylight was conducted in poor weather conditions under the control of S/L Godfrey and F/L t'Hart, with four other 156 Squadron crews in support, while two others operated later that night against another site at Bois-des-Jardins. A further two sites at Mont Condon and Bois de le Haie occupied the services of S/L Attwater and F/L Cochrane, and S/L Godfrey and F/L McDonald as the Master Bomber teams on the 17<sup>th</sup>. Support for the ground forces came in the Caen area on the 18<sup>th</sup>, for which twelve 156 Squadron crews were briefed. Five aiming points were targeted ahead of British forces, Cagny, Caen North, Caen South, Mannerville and Sommerville, and all crews returned safely to Upwood after completing their assigned tasks, although in the event, their efforts were not decisive in clearing enemy resistance. The oil campaign continued at Wesseling and Scholven-Buer in the early hours of the 19<sup>th</sup>, the former including five 156 Squadron aircraft, and the latter four. Both were successful operations, and inflicted sufficient damage to seriously effect production. Also on this night, 5 Group finally dealt effectively with the railway junction at Revigny, but suffered heavy casualties in the process. It was back to flying bomb sites for the squadron on the 19<sup>th</sup>, with a return to Rollez, and the target on the 20<sup>th</sup> was a site in the Foret du Croc. This operation, which involved eight 156 Squadron crews, failed, when the Oboe leader Lancaster was shot down on the bombing run, and the subsequent bombs missed the mark. S/L Godfrey and F/O Doyle were Master Bomber and Deputy for a similar target at Anderbeeck on the 21<sup>st</sup>, and four sites were targeted by small numbers from 8 Group on the 22<sup>nd</sup>, that at Coulanville involving a 156 Squadron element. Eight squadron aircraft returned to the Foret du Croc by daylight on the 23<sup>rd</sup>, and that night, a further fourteen participated in an attack on an oil storage depot at Donges, for which S/Ls Ison and Attwater performed the Master Bomber and Deputy role. S/L Godfrey and F/O Doyle were simultaneously employed at Les Catelliers on this night, which also saw the first major raid on a German urban target for two months. Kiel was the recipient, and suffered heavy damage when six hundred aircraft appeared suddenly and with complete surprise from behind an elaborate RCM screen provided by 100 Group.

Stuttgart was selected for a three raid series of heavy raids during the last week of the month, the first of which was mounted on the 24/25<sup>th</sup>. The second took place twenty four hours later, and both operations included a contingent from 156 Squadron. Earlier on the day of each of these, the squadron had put up crews for attacks on flying bomb sites at Acquet and Coquereaux respectively. By the conclusion of the final Stuttgart raid on the 28/29<sup>th</sup>, its central districts lay in ruins, and over eleven hundred people had lost their lives. This was achieved at a combined cost to the Command of sixty eight aircraft, thirty nine of them going down during the last operation. Also that night, a force of three hundred aircraft raided Hamburg for the first time in numbers for a year, and failed to gain any degree of concentration. PB114 suffered an undercarriage collapse during its emergency landing at Woodbridge, having received a direct hit by a flak shell when about to bomb. S/L Slade, on his fifty eighth operation, had, never-the-less, managed to deposit his bomb load onto the target before losing control of the Lancaster, and preparing his crew to abandon ship. Gradually, and with great skill, control was regained, and a course set for England, during which tense period, it was discovered that a number of bombs and target indicators had hung up and could not be jettisoned. No injuries were incurred during the landing, and S/L Slade received the immediate award of a DSO. With this, he was declared tour expired, as were S/L

Godfrey and F/L Wiseman. An attempt by almost seven hundred aircraft to lend support to American ground forces in the Villers Bocage-Caumont area on the 30<sup>th</sup> was badly hampered by cloud, and less than four hundred crews were able to complete an attack on six enemy positions. S/L Ison and F/L Doyle were Master Bomber and Deputy for a small raid by 1 and 8 Groups on Le Havre on the 31<sup>st</sup>, and that night, F/L Cochrane and S/L Hemmings led an unsuccessful return to the Foret du Croc. Another hectic month brought the squadron's sortie tally to 271, and only one aircraft had failed to return.

The first week of August was dominated by the campaign against V-Weapon sites, beginning on the 1st, when the squadron provided the Master Bomber and deputy teams for two aiming points, for a combined force of over seven hundred aircraft. F/L Doyle and S/L Griffin presided over the attack at Prouville, while F/Ls t'Hart and Wilson controlled the Coulon-Villers contingent, but adverse weather intervened, and only a fraction of the bomb loads were released before the operations were aborted. Raids followed on similar targets at Bois de Cassan, Foret de Nieppe and Trossy-St-Maxim by daylight on the 3<sup>rd</sup>, the first mentioned involving ten crews from Upwood, and in all, over a thousand aircraft took part. Smaller forces returned to two of them on 4<sup>th</sup> to ensure their destruction, the squadron contingent of four crews briefed this time for Trossy-St-Maxim. Also on this day, eight Upwood aircraft joined others to bomb an oil storage depot at Pauillac under the umbrella of a 100 Group Mosquito fighter escort. On the following day, over seven hundred aircraft were launched against six flying bomb launching and storage sites, Upwood providing eight and six crews for Foret de Nieppe and Coulon-Villers respectively. The marshalling yards at Hazebrouck provided a change of target for six of the squadron's crews on the 6<sup>th</sup>, and this was followed by a return to the flying bomb campaign at Fort d'Englos on the 9/10<sup>th</sup>, and railway yards at Somain on the 11<sup>th</sup>.

The 12/13<sup>th</sup> was a busy night, which involved over three hundred aircraft from all Groups trying again at Brunswick, where success continued to be elusive, a small force bombed retreating German forces in the Falaise area, and almost three hundred aircraft attacked the Opel motor works at Rüsselsheim. The last mentioned was not a successful raid and caused only slight damage to the target, while turning a lot of earth in the surrounding countryside. The price for this failure was the loss of twenty aircraft, including two from the sixteen despatched by 156 Squadron. ND444 and PB209 contained the experienced crews of S/L Hemmings and F/L McDonald respectively, both of whom had recently operated in the role of deputy Master Bomber, and there were no survivors from among the fifteen men on board the two Lancasters. Earlier on the 12<sup>th</sup>, W/C Falconer had arrived from 571 Squadron, a Pathfinder Mosquito unit, and he would eventually assume command of the squadron. A major daylight operation took place on the 14<sup>th</sup> against seven aiming points in support of Canadian ground forces in the Falaise area. 156 Squadron put up fifteen Lancasters on this tragic occasion, when misplaced markers led to friendly casualties on the ground, and thirteen Canadians were killed and over fifty were wounded. In preparation for his new night offensive against industrial Germany, Harris launched a thousand aircraft by daylight on the 15<sup>th</sup> against nine nightfighter airfields in Holland and Belgium. The squadron sent two crews to Volkel, and nine to Eindhoven, and all targets were left cratered.

The gradual return to targets in Germany began with operations to Stettin and Kiel on the 16/17<sup>th</sup>, the former an outstanding success, and the latter, to which the 156 Squadron element was assigned, only moderately so, although extensive damage was caused in the important docks area. Bremen received its most destructive raid of the war on the 18/19<sup>th</sup>, when under three hundred aircraft destroyed over eight and a half thousand houses and apartment blocks, inflicted massive damage on industry, and sank eighteen ships in the harbour, all for the loss of one Lancaster. Earlier, S/L Attwater and F/L Cochrane had acted as Master Bomber and Deputy for a small raid on a flying bomb site at Connantre. Following the recent failure at Rüsselsheim, elements of 1, 3, 6 and 8 Groups, including sixteen from Upwood, returned on the 25/26<sup>th</sup>, while 5 Group tried out its low level visual marking system at Darmstadt, and over three hundred other heavies attacked coastal batteries around Brest. Parts of the Opel factory were out of action for several weeks, and the last mentioned operation was successful, while the disappointing result at Darmstadt would be rectified in the most terrible fashion in a little over two weeks time. Kiel suffered a heavy and destructive raid on the 26/27<sup>th</sup>, during which the squadron's PB302 barely survived a brush with a nightfighter. However, the crew of F/L Etechells claimed to have destroyed their attacker, although the damage sustained in the engagement was too severe for the Lancaster to reach England. A ditching was subsequently made in the North Sea, from where the crew was eventually rescued by a Danish trawler over two days later, and it was a full five days before they were landed on the English coast. S/L Attwater and F/L Cochrane performed their Master Bomber and Deputy function for a predominately 6 Group raid on the V-3 site at Mimoyecques on the 27<sup>th</sup>, and the same pair led a raid on a V-2 storage site at St Riquier on the 31<sup>st</sup>, this proving to be S/L Attwater's final operation before being rested. Also on the 31<sup>st</sup>, W/C Bingham-Hall and F/L Doyle controlled an attack on a similar site at Limbres. In between these two dates, the final operations against flying bomb sites were mounted on the 28<sup>th</sup>, and shortly afterwards, the Pas-de-Calais fell into Allied hands. Later that night, Stettin suffered another devastating blow at the hands of 1, 3, 6 and 8 Groups, which left over fifteen hundred houses and thirty two industrial premises destroyed, and damage to shipping in the harbour.

Much of September would be devoted to liberating the three major French ports still under enemy occupation, but it began for the Upwood gang with participation by nine aircraft in a raid on Eindhoven airfield on the 3<sup>rd</sup>. On the 5<sup>th</sup>, W/C Burrough departed the squadron on posting to command 128 Squadron, the newly reforming addition to 8 Group's Light Night Striking Force. Le Havre was the objective for six attacks between that day and the 11<sup>th</sup>, in an attempt to dislodge German strong points. The squadron supplied the Master Bomber team for each occasion, but the operation mounted on the 9<sup>th</sup> was thwarted by poor visibility, and W/C Bingham-Hall was forced to call it off before any bombing took place. During the course of his deliberations, however, the squadron commander made a very low level pass across the target area, and his Lancaster, ND978, was peppered by light flak and severely damaged. Having limped back to Upwood with bombs still aboard, a crash-landing was successfully carried out, and the crew emerged unscathed. Tragically, after the bombs had been removed and were about to be towed away, they detonated, and seven armourers were killed. The commanding officer's flight engineer lost a leg in the explosion, all of B Flight's Lancasters sustained a degree of damage, and ND618 was written off. (They led the way. Michael Wadsworth). Shortly after the final attack by over nine hundred aircraft on the 11<sup>th</sup>, the



German garrison surrendered to British forces. Also on this day, over 350 aircraft attacked oil targets at Gelsenkirchen, Castrop-Rauxel and Kamen under a strong fighter escort. Visibility at Gelsenkirchen was affected by a smoke screen, and assessment of the results was impeded. Twelve of the squadron's thirteen aircraft returned, but sadly, ND534 did not, having crashed in the target area, and the entire crew of S/L Raw was killed. No losses were sustained by the squadron when sending five aircraft on a daylight raid to the oil refinery at Scholven-Buer on the 12<sup>th</sup>, or at Frankfurt that night, when sixteen aircraft joined forces with over 360 others for the final heavy raid of the war against this city.

A 4 Group effort against the Nordstern oil refinery at Gelsenkirchen by daylight on the 13<sup>th</sup> was supported by 156 Squadron and elements from other Pathfinder units, and large explosions were observed. On the 14<sup>th</sup>, it was a suspected V-2 store at Wassenaar near the Hague in Holland, which was the objective for a small 3 and 8 Group force, and this was also considered to be a successful operation. Almost five hundred aircraft from 1, 4, 6 and 8 Groups, including sixteen from Upwood, took off for Kiel late on the 15<sup>th</sup>, and delivered a concentrated attack on central districts and the port area. On the following night, operations involving 1, 3 and 8 Groups took place in support of the ill-fated Operation Market Garden. The squadron sent six aircraft with elements of 3 Group to attack flak positions around the bridge at Moerdijk, while a larger force went for four airfields. Just one day's operations were required to return the port of Boulogne to Allied hands, and these took place on the 17<sup>th</sup>, when over three thousand tons of bombs were delivered. S/L Cochrane and W/C Bingham-Hall acted as Master Bomber and Deputy, while F/Ls Doyle and Clayton performed a similar service for an attack on gun batteries at Flushing. The campaign to liberate Calais began on the 20<sup>th</sup>, when over six hundred aircraft bombed German positions under the watchful eye of S/L Ison as Master Bomber. Before the second raid was mounted, a squadron contingent participated in a heavy raid on Neuss on the 23/24<sup>th</sup>. A return to Calais on the 24<sup>th</sup> was attended by thick cloud, forcing some crews to come below cloud level to bomb visually. Eight aircraft fell victim to the lethal light flak, and the highly experienced F/L Doyle, who had been with the squadron since the dark days of the winter campaign, and was performing the Long Stop function on this occasion, was lost without trace in PB177. Almost nine hundred aircraft were employed over the Calais area on the 25<sup>th</sup>, but low cloud again intervened, and W/C Bingham-Hall, leading six 156 Squadron aircraft, sent two thirds of the force home with their bombs. Over seven hundred aircraft were committed to the same area on the 26<sup>th</sup>, when six 156 Squadron aircraft were among five hundred assigned to attack heavy gun positions at Cap Gris Nez. On the 27<sup>th</sup>, W/C Falconer and F/O Lewis controlled the penultimate operation in the series, and brought the force below the cloud base to carry out the attack. The final operations were mounted on the following day, when two 156 Squadron Master Bomber teams were on duty, F/Ls Clayton and Kitson, and F/L Wilson and F/O Lewis. Both the Calais attack, and those against six gun positions at Cap Gris Nez were abandoned partway through, but the job had been done, and the area was captured by Canadian forces shortly afterwards.

The days of heavy losses were now, thankfully, consigned to the past, at least as far as 156 Squadron was concerned, and October would be an entirely loss free month. A recurring theme throughout the month would be an assault on the sea walls at Walcheren, an island in



the Scheldt Estuary, where heavy gun emplacements were barring the approaches to the port of Antwerp. The intention was to inundate the land with sea water, sink the batteries, which had proved difficult to bomb in September, and create awkward terrain to defend in the event of a land attack. The first operations took place on the 3<sup>rd</sup>, at the hands of eight waves of thirty aircraft each, which bombed on markers provided by Oboe Mosquitos and Pathfinder Lancasters. The fifth wave created the first breach, and this was extended to about a hundred yards by those following. A new Ruhr campaign opened at Dortmund on the 6/7<sup>th</sup>, and the 3, 6 and 8 Group force inflicted further extensive damage. The frontier towns of Cleves and Emmerich were heavily bombed on the 7<sup>th</sup>, to prevent the possible movement through them of enemy ground forces attempting to attack the exposed Allied right flank, following the failure of Operation Market Garden. The Ruhr offensive continued at Bochum on the 9/10<sup>th</sup>, but this proved to be a failure in the face of cloud cover. Mid month brought the start of Operation Hurricane, a demonstration to the enemy of the overwhelming superiority of the Allied air forces ranged against it. Over a thousand aircraft took off for Duisburg at first light on the 14<sup>th</sup>, and arrived overhead shortly after breakfast time to deliver 4,500 tons of bombs into the already shattered city. Fifteen Upwood Lancasters were involved, and W/C Ison and F/L Wilson were the Master Bomber and Deputy. That night, similar numbers returned to press home the point about superiority, and 156 Squadron again put up fifteen aircraft, all of which returned safely. This impressive number of sorties was achieved without the assistance of 5 Group, which took advantage of the night activity over Duisburg to finally nail Brunswick, after so many failures earlier in the year. Essen received its visits from the Hurricane force on the evening of the 23<sup>rd</sup>, and the afternoon of the 25<sup>th</sup>, the latter occasion under the control of W/C Falconer and F/L Clayton, and by this time, the city had ceased to be an important centre of war production. Cologne's turn came on the 28<sup>th</sup>, and again on the 30<sup>th</sup> and 31<sup>st</sup>, when further massive destruction was heaped upon it. In between these raids, eleven enemy positions were attacked on Walcheren on the 29<sup>th</sup>, with S/L Cochrane, F/L Harris, F/L Clayton and F/L Lewis as the Master Bomber and deputy teams.

Oberhausen opened the November account, and it was a rare failure for the period, largely as a result of cloud. The Hurricane force took off for Düsseldorf on the 2/3<sup>rd</sup>, although 156 Squadron's PB486 failed to leave the runway, following a breakdown in communication between S/L Cochrane and his new flight engineer. This led to the undercarriage being raised prematurely, and the Lancaster, with a "cookie" on board, slid along on its belly. Some members of the crew evacuated while the aircraft was still in motion, but no injuries were sustained. Those of the nine hundred and more aircraft which did manage to leave the runways and reach the target, delivered a devastating attack, which proved to be the last major assault of the war on this much bombed city. The failure at Bochum was rectified by over seven hundred aircraft on the 4/5<sup>th</sup>, when four thousand buildings were destroyed or seriously damaged. The town of Gelsenkirchen and its oil installations were pounded by another seven hundred aircraft by daylight on the 6<sup>th</sup>, and the oil campaign continued at Homberg, Wanne-Eickel, Castrop-Rauxel, Harburg and Dortmund over the succeeding five days and nights. Assistance with the land campaign was also forthcoming as required, and American ground forces requested that the small towns of Jülich, Heinsburg and Düren be bombed ahead of their advance towards the Rhine. Over eleven hundred crews complied by daylight on the 16<sup>th</sup>, virtually erasing them from the map, and killing over three thousand

people in the last named, which was the target for the 156 Squadron contingent. Eleven aircraft took part from Upwood, after a ten day stand-down, and PB609 crashed on landing on return, W/C Falconer and his crew walking away unhurt. A scattered and inconclusive attack was delivered on Münster on the 18<sup>th</sup>, for which W/C Bingham-Hall and S/L Clayton were Master Bomber and Deputy. This proved to be the former's final operation with the squadron, after a distinguished period in command, and he was posted to Oakington on the 21<sup>st</sup> as station commander. He was replaced as commanding officer by the afore-mentioned W/C Falconer, whose tenure would be brief, and would be brought to a premature conclusion in action with the enemy. The squadron sent eight aircraft as part of a small 8 Group effort against Coblenz on the 20/21<sup>st</sup>, and was involved in three operations twenty four hours later, on a night when the Command launched over thirteen hundred sorties. Six 156 Squadron crews accompanied a predominately 1 Group attack on railway installations at Aschaffenburg, six others supported a 4 Group raid on the oil refinery at Sterkrade, and three took part in a minor operation at Worms. The month ended for the squadron with a burst of activity over the last four nights. It began at Freiburg on the 27/28<sup>th</sup>, an attack which missed the railway target but devastated the town, destroying two thousand houses, and killing a similar number of people. Two other squadron crews, meanwhile, supported a simultaneous raid on Neuss, which was moderately successful. 4 Group provided most of the aircraft for a raid on Essen on the 28/29<sup>th</sup>, and Duisburg suffered the destruction of over five hundred houses in a scattered attack by a predominately Halifax force on the following night.

December's account opened at Hagen on the 2/3<sup>rd</sup>, and this was followed by Karlsruhe on the 4/5<sup>th</sup>. Both operations were outstanding successes, and were followed by a raid on Soest, a town just north of the now rebuilt Möhne Dam, where the marshalling yards and a thousand houses were destroyed. During the first few years of the war, Osnabrück had been a frequent destination for elements of the Command, and on the 6/7<sup>th</sup>, it received its first major raid since 1942. 156 Squadron sent a contingent, but this was one of the rare occasions during the period when some degree of success was elusive, and only slight damage was inflicted on the railway, although the town itself suffered to a moderate extent. The last major night raid of the war on Essen hit the city on the 12/13<sup>th</sup>, and further damage ensued to industrial premises and housing. Thus far during the month, the squadron had registered no losses, but a night of heavy activity on the 17/18<sup>th</sup> brought this happy spell to an end. While elements of the Command conducted heavy raids on Duisburg and Munich, three hundred aircraft from 1 and 8 Groups attacked the old city of Ulm, and in twenty five minutes of concentrated bombing, destroyed over 80% of the built-up area. The squadron's PB675 crashed in France, and there were no survivors from the crew of F/L Cann. Among other targets attacked before the end of the month was Bonn on the 21/22<sup>nd</sup>, for which the squadron contributed eleven aircraft, and German airfields by daylight on the 24<sup>th</sup>. Some of the Command's crews were called into action on Christmas Eve, and those that returned, were able to enjoy the final wartime Christmas Day in relative peace, before activity resumed on Boxing Day in response to the enemy's recent breakout in the Ardennes. Support for the enemy push was coming through Coblenz, and two forces were despatched in daylight on the 29<sup>th</sup>, each to attack one of the two railway yards. No aircraft were lost, but F/O Cornelius sustained a flak wound to his heel, and his flight engineer was also hurt. The year ended on a sad note for the squadron, when W/C Falconer took over the remaining crew of F/O Cornelius, with the squadron engineer leader,

F/L Bingham, substituting for the regular flight engineer, and failed to return from a successful attack on the Kalk railway yards at Cologne on the 30/31<sup>st</sup>. PB621 received a direct hit from a flak shell over the target, and all seven of the occupants were killed. The B Flight commander, W/C Ison, was appointed as his successor, and he would see the squadron through until almost the end of hostilities. It had been a year of improving fortunes for the squadron, which had begun with it, and the Command, at their lowest ebbs during the dark days of the winter campaign. Having risen phoenix-like from the ashes, the Command was now a juggernaut, which was ending the year in a position of total dominance, delivering an ever increasing weight of bombs onto the tortured towns, cities, oil refineries and transport system of the once proud Reich.

## 1945

Much remained to be done before the tenacious enemy could be persuaded to lay down his arms, and the first week of the New Year brought a busy time for the Command. New Year's Day began with a flourish, as the Luftwaffe launched its ill-conceived and ultimately ill-fated Operation Bodenplatte at first light. The intention to destroy elements of the Allied air forces on the ground at the recently liberated airfields in France, Holland and Belgium was only modestly realized, and the losses sustained could be made good literally within hours from the enormous stock piles. For the Luftwaffe, however, whose BF109s and FW190s had to fly into the teeth of airfield flak defences, before running the gauntlet of fighters, it was a different matter. Around 250 of its front-line day fighters were lost, along with 150 pilots, who were either killed, wounded or taken into captivity. This was a setback from which it would never fully recover, and it was the beginning of the end for the Tagjagd at least.

New Year's Night took 5 Group to the Mittelland Canal, 3 Group to railway yards at Vohwinkel, and 4 Group to a benzol plant at Dortmund, with 156 Squadron included in the Pathfinder support at the last mentioned. Nuremberg, which had caused the Command so much misery in the past, and frequently escaped serious damage, succumbed to an accurate and concentrated attack on the 2/3<sup>rd</sup>, which destroyed the historic city centre, and caused extensive damage elsewhere to industry and housing. A controversial attack took place on the small French town of Royan in the early hours of the 5<sup>th</sup>, in response to requests from Free French forces, which were laying siege en-route to the port of Bordeaux. Many inhabitants declined an offer by the German garrison commander of safe passage out of the town, and paid with their lives under the 1, 5 and 8 Group onslaught. In the event, the operation failed to dislodge the enemy anyway, and the garrison stayed put until mid April. The first raid on Hanover since the costly series in the autumn of 1943 took place on the 5/6<sup>th</sup>, when around six hundred aircraft succeeded in destroying a large amount of housing. However, the loss of thirty one aircraft demonstrated that the Luftwaffe was by no means a spent force, incapable though it was through shortages in fuel and experienced pilots to defend every corner of the Reich. The squadron operated without loss, as at Hanau on the following night, when approximately 40% of the town was left in ruins, and the final raid of the war on Munich took place on the 7/8<sup>th</sup>.



Oil targets continued to be a priority, and the squadron contributed to a raid on a synthetic oil plant at distant Leuna, near Merseburg in eastern Germany, on the 14/15<sup>th</sup>. Over five hundred Lancasters took part from 1, 5, 6 and 8 Groups, and the operation was a major setback to Germany's oil production. A year earlier, the Command had suffered a defeat at Magdeburg, but an estimated 40% of the city's built-up area was reduced to ruins by over three hundred aircraft of 4, 6 and 8 Groups on the 16/17<sup>th</sup>. A benzol plant at Duisburg was one of two objectives on the 22/23<sup>rd</sup> for elements of 156 Squadron, in company with a moderate force from 1 and 3 Groups. The attack was successful, and a bonus was the extensive damage inflicted upon the nearby Thyssen steel works. The night's other target was Gelsenkirchen, which was subjected to a moderately successful, if small area raid. Just when it looked as though the squadron would negotiate the first month of 1945 without casualty, operations against railway targets in the Stuttgart area on the 28/29<sup>th</sup> claimed PB186, which crashed in the target area with no survivors from the crew of F/L Freeman.

The weather at the start of February was unhelpful, and a number of operations failed in the face of complete cloud cover. This was the fate of the attack on Mainz on the 1/2<sup>nd</sup>, when most of the bombing fell into open country, but at least none of the six missing aircraft was from 156 Squadron. Similar conditions obtained over Wiesbaden on the following night, but the attack, never-the-less, found the built-up area, and over five hundred houses were destroyed. On the 3/4<sup>th</sup>, the squadron sent nine crews as part of a force of under two hundred aircraft to Bottrop, to attack the Prosper benzol plant. The operation was successful, but two 156 Squadron Lancasters failed to return, ME366 and PB505, and the crews of F/Ls Evans and Spinley respectively were posted missing. The pilot and two others survived from the former, but only one man escaped with his life from the latter, and he was probably thrown clear when his aircraft broke up in the air over Belgium. To pave the way for the British XXX Corps to cross into Germany, the frontier towns of Goch and Cleves were heavily bombed by separate forces on the 7<sup>th</sup>. S/L Cochrane and F/L Harris performed as Master Bomber and Deputy at the former, bringing the main force below the cloud base to attack. Despite the fact that the operation was halted prematurely when smoke obscured the aiming point, much damage was caused, although, fortunately, most of the inhabitants had already fled. The oil refinery at Pölitz had been raided twice since December, and the third and decisive attack was delivered by 1, 5 and 8 Groups on the 8/9<sup>th</sup>. The squadron provided twelve aircraft, and S/L Wilson and F/L Lewis as the Master Bomber and Deputy for the second phase, and the plant was put out of action for the remainder of the war.

The Churchill inspired series of operations against Germany's eastern cities under Operation Thunderclap opened at Dresden on the 13/14<sup>th</sup>. This was another two phase affair, begun by 5 Group using its low level marking system. Over eight hundred tons of bombs were dropped in partially cloudy conditions, and the fires acted as a beacon to the 1, 3, 6 and 8 Group Lancasters following three hours behind. The cloud had cleared by the time of their arrival over the city, and nine 156 Squadron crews formed part of the Pathfinder element. A further eighteen hundred tons of bombs rained down onto the beautiful and historic city, unleashing the same chain of events which had devastated parts of Hamburg in July 1943. The attack produced the most horrific outcome from any Bomber Command action of the entire war, and led to a firestorm of unprecedented proportions. The city's population had been swelled by a



massive influx of refugees fleeing from the advancing Russian armies in the east, and a figure of fifty thousand people has been settled on as the death toll, although some believe the actual number to be substantially higher. A raid by American forces on the following morning added to the misery of the survivors, some of whom claimed to have been strafed by escort fighters in the streets and open spaces. It should be remembered, that the operations under Thunderclap were mounted at the insistence of Churchill, and in the face of little enthusiasm on the part of Harris, who would have preferred another crack at Berlin. It was he, though, who forever afterwards, carried the blame as the architect of this night's catastrophe. While the Lancasters were engaged at Dresden, the Halifax brigade was also active over eastern Germany, prosecuting the oil offensive at Böhlen, an operation to which 156 Squadron contributed seven aircraft. The target was the Braunkohle-Benzin synthetic oil plant, but in the face of inhospitable weather conditions in the form of thick ice-bearing cloud, the raid was inconclusive.

Operation Thunderclap moved on to Chemnitz on the following night, for another two phase attack, although without the presence this time of 5 Group. 156 Squadron provided nine aircraft for the first phase, and seven for the second, but Chemnitz was spared the fate of its neighbour by the presence of cloud, which led to scattered bombing. Two operations involved the squadron on the 20/21<sup>st</sup>, the largest of which was a raid on the southern half of Dortmund by five hundred aircraft, in which fourteen took part from Upwood. While this raid was in progress, a force numbering a little over 150 aircraft attacked the Rhenania-Ossag refinery at Düsseldorf. Three aircraft were lost, one of which was a Lancaster, and this was PB701 of 156 Squadron, one of only two Upwood representatives. F/L Pelly and his crew were duly posted missing, and it was later learned that the pilot and four of his crew were alive in enemy hands, but that their three colleagues had been killed. On the following night, while Duisburg was undergoing its final major raid of the war, Over three hundred aircraft, including a 156 Squadron element, carried out the only large attack of the war on Worms. Some of the bombing fell outside of the town, but the remainder destroyed over 60% of its buildings for the loss of eleven aircraft. On the 23/24<sup>th</sup>, 1, 6 and 8 Groups sent 380 aircraft to Pforzheim, ten of them from Upwood, and those which reached the target were involved in a twenty two minute orgy of destruction, which left over 80% of the town gutted by fire, and 17,600 people dead. It also brought the final award of the Victoria Cross to Captain Swales of 582 Squadron, the operation's Master Bomber. His Lancaster was attacked by a nightfighter and severely damaged while he was directing the raid, but he remained on station until the end, and took the aircraft back as far as Belgium, before ordering his crew to bale out. He was unable to follow them, and lost his life in the ensuing crash. A daylight raid on a synthetic oil plant at Kamen involved five 156 Squadron aircraft on the 24<sup>th</sup>, and the last heavy raid of the month fell with extreme prejudice on Mainz on the 27<sup>th</sup>. Despite complete cloud cover and the use of skymarking, over 5,600 buildings were destroyed, and at least eleven hundred people lost their lives.

March followed a similar pattern, and saw many smaller, seemingly insignificant towns being attacked, a trend which had begun towards the end of 1944, in the face of a dwindling number of worthwhile targets. Eleven Lancasters departed Upwood on the 1<sup>st</sup>, to join up with over 460 other aircraft bound for the last raid of the war on Mannheim. One 156 Squadron aircraft

returned early, and two others lost an engine while outbound, but continued on to attack as briefed, before returning safely home, for which F/Os Keeler and Boggiano were both awarded immediate DFCs. Over seven hundred aircraft carried out the final raid of the war on Cologne on the morning of the 2<sup>nd</sup>, with S/L Clayton and F/L Cleland forming the Master Bomber and Deputy duo. It was the end for this once proud Rhineland Capital, and four days later it fell to American forces. Chemnitz, having escaped the worst ravages of a Bomber Command assault in February, succumbed to an accurate raid on the 5/6<sup>th</sup>, in which fifteen 156 Squadron aircraft participated. Sixteen were provided for an assault on the eastern town of Dessau on the 7/8<sup>th</sup>, and this virgin target suffered a devastating experience at the hands of five hundred aircraft. Twenty four hours later, S/L Clayton and F/L Harris led a raid by three hundred aircraft against the Hamburg shipyards which were assembling the new Type XXI U-Boats. The target area was cloud covered, however, and the yards probably escaped damage. A new all-time record was set on the 11<sup>th</sup>, when 1079 aircraft took off in the late morning to bomb Essen for the last time. Seven 156 Squadron crews plied their trade as part of the Pathfinder element, and the city was left paralyzed, to fall shortly afterwards into Allied hands. Also on that day, PB669 was borrowed from the Navigation Training Unit for use by F/L Diemer and his crew for training purposes. Tragically, the Lancaster crashed in Northamptonshire, and all eight men on board were killed, among them a number who were decorated. The new record stood for just a little over twenty four hours, and was surpassed when 1,108 aircraft departed their stations for Dortmund on the early afternoon of the 12<sup>th</sup>, to carry out the war's final operation against this city. S/L Clayton and F/L Harris were the Master Bomber team, and they controlled the delivery of a new record at a single target of 4,800 tons of bombs.

The night of the 13/14<sup>th</sup> was devoted to relatively small raids by 1 and 8 Groups on benzol plants at Herne and Dahlbusch/Gelsenkirchen. The latter operation included a contingent of four Lancasters from 156 Squadron, and was claimed as successful, although, according to the Gelsenkirchen town archives, Dahlbusch was a coal mining settlement. 4 Group provided the main force for an attack on Homberg on the 14/15<sup>th</sup>, to hamper passage through it of enemy reinforcements to the front. This was followed by a raid on the synthetic oil plant at Misburg, for which S/L Clayton and F/L Harris were Master Bomber and Deputy, but most of the bombs missed the target. Nuremberg still had something to say in its almost personal battle with the Command, and claimed twenty four 1 Group Lancasters on the 16/17<sup>th</sup>, in what was its final raid of the war. 8 Group was also present with forty six Lancasters, including a 156 Squadron element, and sixteen Mosquitos, but all of its aircraft returned, even though F/O Benson's Lancaster was attacked by a nightfighter during the bombing run, and three crew members were wounded. Nuremberg, however, suffered extensive damage in return, and one district became engulfed in flames. F/L Mason and his crew were similarly engaged shortly after leaving Hanau on the 18/19<sup>th</sup>, after a highly successful attack, which destroyed over 2,200 houses, but they also got back without further incident. The squadron put up fifteen aircraft to attack the oil refinery at Hemmingstedt on the 20/21<sup>st</sup>, and then joined other 8 Group aircraft to mark the virgin target of Hildesheim for a 1 Group main force on the 22<sup>nd</sup>. The aiming point was the railway yards, but 70% of the town was reduced to rubble, and the catalogue of destroyed or seriously damaged buildings included 3,300 apartment blocks. On the 24<sup>th</sup>, F/Ls Harris and Cleland performed the Master Bomber role for an attack on the

Harpenerweg oil refinery at Dortmund. The main force was provided by 1 Group, and the operation was claimed as successful by returning crews. Four members of the 156 Squadron crew of F/O Hampson were lucky to make it back, after receiving a direct hit by flak in the bomb bay, while the bombs were still on board. Two men responded to a bale out order, and left the aircraft, while the mid-upper gunner fell through a gaping hole in the floor without his parachute. The already wounded flight engineer suffered a severe second leg wound when the aircraft was hit again, but he continued to assist the pilot in bringing the aircraft home to a landing at Manston, where it was declared a write-off. All four crew members were decorated for their perseverance and gallantry. Münster was one of three main targets on the 25<sup>th</sup>, and the squadron supplied the Master Bomber and Deputy in the persons of F/L Cleland and F/L Deramore-Denver. The attack appeared to be successful, but the target area was soon obscured by smoke, and an accurate assessment could not be made. With the Allied ground forces closing in, Hamburg was targeted a number of times during the month, including by daylight on the 31<sup>st</sup>, when the Blohm & Voss U-Boat yards was the specific objective. Over four hundred aircraft took part, and were drawn from 1, 6 and 8 Groups, but complete cloud cover led to much of the bombing falling into the city generally. ME262 jet fighters were encountered, and eleven aircraft failed to return, the last double figure loss from a single target. Two of the missing Lancasters were from 156 Squadron, and they were the last to result from enemy action. PB468 was brought down within the Hamburg defence zone, and PB517 also crashed in Germany, sadly, both without survivors from the eight man crews of F/O Taylor and F/L Pope respectively.

April was the final month of the bombing war, and it would bring the squadron's last casualty. The month began with two days of training, and a frustrating round of scrubbed operations over the following two days, before two elements got away from Upwood on the night of the 4/5<sup>th</sup>. It was a night devoted to oil related targets, and 156 Squadron was involved in a 3, 6 and 8 Group raid on the refinery at Lützkendorf, and one against a similar target at Harburg by 4, 6 and 8 Groups. The latter was highly successful, while the former achieved moderately good results, and all sixteen participants from Upwood returned safely. Ten crews were briefed to attack the Blohm & Voss U-Boat yards at Hamburg on the 8/9<sup>th</sup>, along with over four hundred other aircraft from 4, 6 and 8 Groups, and as in the previous raid on this target, most of the bombs fell into the city. 1, 3 and 8 Groups despatched almost six hundred aircraft to Kiel on the following night, of which the squadron put up sixteen. Two aiming points were marked in the harbour area, and severe damage was inflicted on the Deutsche Werke U-Boat yards, while the battleship Admiral Scheer was capsized, and the Admiral Hipper and Emden were badly damaged. Four squadron crews were involved in a daylight raid on two marshalling yards at Leipzig on the 10<sup>th</sup>, and that night, a further nine went to the same region of Germany, as part of the marking force at the town of Plauen for a 1 Group main force. S/L Letford was the Master Bomber, and F/L Deramore-Denver his Deputy, and under their control, the railway yards were hit, and 50% of the town's built-up area was destroyed.

W/C Ison was posted to 7 Group on the 10<sup>th</sup> at the conclusion of his tour, and he was replaced by W/C Craig, formally of 35 Squadron, where he had been a leading light. He presided over his first operation on the following day, when a small Pathfinder element supported a 4 Group



raid on railway yards at Nuremberg. The harbour area at Kiel was the objective on the 13/14<sup>th</sup>, but most of the bombing fell two miles away in the suburbs, and the following night brought the final area raid of the war on a city target. Five hundred Lancasters, including fifteen from 156 Squadron, headed for Potsdam, the first time since the Berlin campaign, that RAF heavy bombers would penetrate the Capital's defence zone. Much damage was caused, and some of the bombing spilled over into the northern and eastern districts of Berlin. A raid by a little over 150 aircraft of 6 and 8 Groups on a railway target at Schwandorf was successfully concluded on the 16/17<sup>th</sup> for the loss of a single Lancaster. 156 Squadron's PB403 was involved in a tragic collision with a Halifax of 100 Group's 171 Squadron over Germany, and both aircraft plunged to the ground before either crew had a chance to save themselves. Thus did the recently arrived F/O Jamieson and his six colleagues become the last to have their names entered into the squadron's wartime Roll of Honour. Over nine hundred aircraft plastered the island of Heligoland on the 18<sup>th</sup>, under the control of F/L Harris and W/C Craig as Master Bomber and Deputy, and F/L Harris and W/C Griffin performed a similar function for a raid on the south-eastern suburbs of Bremen on the 22<sup>nd</sup>, ahead of the advancing British XXX Corps. Twelve other 156 Squadron crews took part, and sixteen were involved when the squadron operated for the final time on the afternoon of the 25<sup>th</sup>, as part of a force of almost five hundred aircraft. The operation was against heavy gun emplacements on the northern Frisian island of Wangerooge, which were barring the approaches to Germany's naval ports. S/L Cochrane and F/L Hughes were the Master Bomber and Deputy, and the attack was successful. Earlier in the day, 350 aircraft went almost symbolically to Hitler's Eaglesnest retreat at Berchtesgaden, and bombed the SS barracks there. No more thereafter, would the heavy squadrons of the bombing Groups venture forth to war, but the humanitarian Operation Manna began for the squadron on the 30<sup>th</sup>, with food drops to the starving Dutch people still under German occupation. The repatriation of Allied PoWs under Operation Exodus also got under way, and the squadron participated from the 7<sup>th</sup> of May.

156 Squadron, as a unit, came late into the fray, but carried with it into battle the spirit of 40 Squadron, which had been present from the start. As a founder member of the Pathfinder Force, the squadron shared that organisation's inauspicious beginnings, but grew with it to contribute massively to the success of Bomber Command's offensives. From the dark days of Berlin to the very end of hostilities, it provided an opportunity for many of the finest crews in the Command to shine through. In the likes of W/C Ison, S/Ls Slade, Godfrey, Attwater, Hopton, Davies, Hemmings and Griffin, F/Ls Wiseman, t'Hart, Cochrane, McDonald, Doyle and Wilson, to name but a few, it probably supplied more Master Bombers and Deputies than any other Pathfinder squadron. A number of the most notable names in Bomber Command passed through the squadron on their way to higher office. W/C Deane went to command 83 Squadron at the start of 1944, W/C Womersley arrived as a crew captain in August 1942, and became a flight commander in April 1943, before his eventual appointment to command 139 Squadron in 1944. W/C Grant was C Flight commander until November 1943, and following a staff job, he rose to the command of 109 Squadron in April 1944. The commander of A Flight, W/C Brooks was posted to command 635 Squadron, also in April 1944, and B Flight commander, W/C Scott, took over 608 Squadron in August of that year. Another A Flight commander was W/C Burrough, and he became the first commanding officer of 128



Squadron in September. There is little doubt that the influence of such men contributed greatly to the quality and spirit of this outstanding squadron.

For a more detailed account of 156 Squadron during its Pathfinder career, I recommend the book, *They Led The Way*, by Michael P Wadsworth, published by Highgate Publications.

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## STATIONS

<b>ALCONBURY</b>	14.02.42. to 15.08.42.
<b>WARBOYS</b>	15.08.42. to 05.03.44.
<b>UPWOOD</b>	05.03.44. to 27.06.45.

## COMMANDING OFFICERS

<b>WING COMMANDER P G R HEATH</b>	14.02.42. to 30.05.42.
<b>WING COMMANDER H L PRICE</b>	30.05.42. to 29.07.42.
<b>WING COMMANDER R N COOK</b>	30.07.42. to 28.10.42.
<b>WING COMMANDER T S RIVETT-CARNAC DFC</b>	28.10.42. to 08.06.43.
<b>SQUADRON LEADER S G HOOKWAY (Temp)</b>	02.43. to 02.43.
<b>GROUP CAPTAIN R W P COLLINGS AFC</b>	08.06.43. to 15.01.44.
<b>WING COMMANDER E C EATON DFC</b>	15.01.44. to 27.04.44.
<b>SQUADRON LEADER T W G GODFREY (Temp)</b>	28.04.44. to 07.05.44.
<b>WING COMMANDER T L BINGHAM-HALL DFC</b>	07.05.44. to 21.11.44.
<b>WING COMMANDER D B FALCONER DFC AFC</b>	21.11.44. to 30.12.44.
<b>WING COMMANDER T E ISON DSO DFC</b>	30.12.44. to 10.04.45.
<b>WING COMMANDER A J L CRAIG</b>	10.04.45. to 25.09.45.

## AIRCRAFT

<b>WELLINGTON IC</b>	02.42. to 01.43.
<b>WELLINGTON III</b>	03.42. to 01.43.
<b>LANCASTER I/III</b>	01.43. to 09.45.

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# SECTION 2



# OPERATIONAL RECORD

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## OPERATIONAL RECORD

<b>OPERATIONS</b>	<b>SORTIES</b>	<b>AIRCRAFT LOSSES</b>	<b>%LOSSES</b>
313	4584	143	3.1

### CATEGORY OF OPERATIONS

<b>BOMBING</b>	<b>MINING</b>	<b>LEAFLET</b>
308	4	1

### WELLINGTONS

<b>OPERATIONS</b>	<b>SORTIES</b>	<b>AIRCRAFT LOSSES</b>	<b>% LOSSES</b>
83	651	39	6.0

### CATEGORY OF OPERATIONS

<b>BOMBING</b>	<b>MINING</b>	<b>LEAFLET</b>
78	4	1

### 3 GROUP WELLINGTON

<b>OPERATIONS</b>	<b>SORTIES</b>	<b>AIRCRAFT LOSSES</b>	<b>% LOSSES</b>
43	346	22	6.4

### CATEGORY OF OPERATIONS

<b>BOMBING</b>	<b>MINING</b>	<b>LEAFLET</b>
38	4	1

### 8 GROUP WELLINGTON

<b>OPERATIONS</b>	<b>SORTIES</b>	<b>AIRCRAFT LOSSES</b>	<b>% LOSSES</b>
40 (All bombing)	305	17	5.6

### LANCASTER

<b>OPERATIONS</b>	<b>SORTIES</b>	<b>AIRCRAFT LOSSES</b>	<b>% LOSSES</b>
230 (All bombing)	3933	104	2.6

# TABLE OF STATISTICS

(Heavy squadrons)

34th highest number of overall operations in Bomber Command.

28th highest number of sorties in Bomber Command.

23rd equal (with 83Sqn) highest number of aircraft operational losses in Bomber Command.

32nd highest number of bombing operations in Bomber Command.

## **Out of 59 Lancaster squadrons.**

21st highest number of Lancaster overall operations in Bomber Command.

13th highest number of Lancaster sorties in Bomber Command.

14th highest number of Lancaster operational losses in Bomber Command.

## **Out of 42 Wellington squadrons.**

25th highest number of Wellington overall operations in Bomber Command.

23rd highest number of Wellington sorties in Bomber Command.

13th highest number of Wellington operational losses in Bomber Command.

## **Out of 28 squadrons in 3 Group.**

24th highest number of overall operations in 3 Group.

23rd highest number of sorties in 3 Group.

16th highest number of aircraft operational losses in 3 Group.

## **Out of 18 Wellington squadrons in 3 Group.**

16th highest number of Wellington overall operations in 3 Group.

16th highest number of Wellington sorties in 3 Group.

11th highest number of Wellington operational losses in 3 Group.

**Out of 19 squadrons overall in 8 Group.**

8th highest number of overall operations in 8 Group.

3rd highest number of sorties in 8 Group.

2nd highest number of aircraft operational losses in 8 Group.

**Out of 8 heavy squadrons in 8 Group.**

4th highest number of overall operations in 8 Group heavy squadrons.

Highest number of sorties in 8 Group heavy squadrons.

2nd highest number of aircraft operational losses in 8 Group heavy squadrons.

**Out of 8 Lancaster squadrons in 8 Group.**

3rd highest number of Lancaster overall operations in 8 Group.

Highest number of Lancaster sorties in 8 Group.

Highest number of Lancaster operational losses in 8 Group.



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# SECTION 3



# AIRCRAFT LISTING

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## 156 SQUADRON

**WELLINGTON. From February 1942 to January 1943.**

**R1168** From 40Sqn. To 20 OTU.  
**R1457** From 75Sqn. To 22 OTU.  
**R1588** From 103Sqn. To 22 OTU.  
**R1707** From 57Sqn. To 20 OTU.  
**X3333** From 57Sqn. Crashed on landing at Alconbury during a ferry flight 8.3.42.  
**X3339** From 9Sqn. FTR Essen 5/6.6.42.  
**X3342** To 9Sqn.  
**X3345** From 115Sqn. FTR from a mining sortie 6/7.7.42.  
**X3367** From 166Sqn. FTR Kassel 27/28.8.42.  
**X3417** From 115Sqn. FTR from a mining sortie 16/17.4.42.  
**X3422** From 9Sqn. FTR Genoa 7/8.11.42.  
**X3455** From 1418Flt. To 101Sqn.  
**X3475** From 75Sqn. To 101Sqn.  
**X3479** From 75Sqn. To AFEE.  
**X3485** FTR from a mining sortie 19/20.4.42.  
**X3598** FTR Cologne 30/31.5.42.  
**X3671** FTR Mannheim 19/20.5.42.  
**X3672** FTR Stuttgart 22/23.11.42.  
**X3677** To 27 OTU.  
**X3695** To 101Sqn.  
**X3697** FTR Dortmund (Squadron's first loss) 15/16.4.42.  
**X3704** To 196Sqn.  
**X3706 GT-C** FTR Gennevilliers 29/30.5.42.  
**X3708** Crashed on landing at Warboys on return from a mining sortie 19/20.4.42.  
**X3710 GT-W** FTR Hamburg 28/29.7.42.  
**X3728** FTR Nuremberg 28/29.8.42.  
**X3741** To 30 OTU.  
**X3742** To 15 OTU.  
**X3798** FTR Mainz 11/12.8.42.  
**X3811** Abandoned over Huntingdonshire during operation to Aachen 5.10.42.  
**X3822** Crash-landed at Warboys on return from Essen 16/17.9.42.  
**X3878** To 115Sqn.  
**X3936** From 75Sqn. To 115Sqn.  
**X3959** From 75Sqn. To 12 OTU.  
**X9787** From 99Sqn. To 311Sqn.  
**X9880** From 149Sqn. To 311Sqn.  
**X9975** From 75Sqn. To 20 OTU.  
**Z1052** From 149Sqn. To 214Sqn.



**Z1068** From 75Sqn. To 214Sqn.  
**Z1080** From 101Sqn. To 1483Flt.  
**Z1090** From 99Sqn. To 311Sqn.  
**Z1108** From 75Sqn. To 103Sqn.  
**Z1114** From 75Sqn. To 214Sqn.  
**Z1571** FTR Gennevilliers 29/30.4.42.  
**Z1576** FTR from a mining sortie 6/7.7.42.  
**Z1595** FTR Mainz 11/12.8.42.  
**Z1609** To 115Sqn.  
**Z1612** To 101Sqn.  
**Z1613** FTR Kassel 27/28.8.42.  
**Z1619** FTR Bremen 27/28.6.42.  
**Z1620** To 115Sqn.  
**Z1622** FTR Düsseldorf 31.7/1.8.42.  
**Z1659** FTR Bremen 27.7.42.  
**Z1660** FTR Duisburg 20/21.12.42.  
**Z1673** To 16 OTU.  
**Z1690** To 23 OTU.  
**Z1723** To 23 OTU.  
**Z1727** From 419Sqn. To 428Sqn.  
**Z8837** From 40Sqn via 11 OTU. To 311Sqn.  
**Z8859** From 40Sqn. To Malta.  
**Z8969** From 99Sqn. To 11 OTU.  
**Z8973** From 99Sqn. To 12 OTU.  
**Z8978** From 75Sqn. To 20 OTU.  
**BJ589** From 115Sqn. FTR Duisburg 20/21.12.42.  
**BJ592** FTR Hamburg 28/29.7.42.  
**BJ594** Crashed on landing at Alconbury following abortive sortie to Bremen  
25/26.6.42.  
**BJ600** FTR Bremen 13/14.9.42.  
**BJ603** FTR Mainz 11/12.8.42.  
**BJ613** To 12 OTU.  
**BJ617** To 12 OTU.  
**BJ643** From 419Sqn. To Defford.  
**BJ646** To 17 OTU.  
**BJ655** From 425Sqn via 1483Flt. To 1483Flt.  
**BJ669** To 425Sqn.  
**BJ707** From 75Sqn. To 12 OTU.  
**BJ709** To 12 OTU.  
**BJ716** Crashed soon after take-off from Alconbury when bound for  
Saarbrücken 1/2.9.42.  
**BJ766** From 150Sqn. To 26 OTU.  
**BJ775** FTR Kiel 13/14.10.42.  
**BJ789** FTR Bremen 13/14.9.42.  
**BJ840** FTR Hamburg 28/29.7.42.

**BJ883** FTR Saarbrücken 19/20.9.42.  
**BK203** Abandoned over Suffolk during an operation to Aachen 5/6.10.42.  
**BK302** To 27 OTU.  
**BK315** To 26 OTU.  
**BK339** FTR Cologne 15/16.10.42.  
**BK386** From 75Sqn. FTR Munich 21/22.12.42.  
**BK397** To 26 OTU.  
**BK508** To 27 OTU.  
**BK534** To 23 OTU.  
**DF624** To 429Sqn.  
**DF626** From 420Sqn. Returned to 420Sqn.  
**DF635** To 428Sqn.  
**DF666** FTR Düsseldorf 15/16.8.42.  
**DF667** FTR Kassel 27/28.8.42.  
**DV507** From 101Sqn. To 311Sqn via 15 OTU.  
**DV518** From 214Sqn. Returned to 214Sqn.  
**DV715** FTR Cologne 30/31.5.42.  
**DV739** To 15 OTU.  
**DV776** From 214Sqn. To 15 OTU.  
**DV785** To 22 OTU.  
**DV786** FTR Essen 2/3.6.42.  
**DV799** To 311Sqn.  
**DV812** FTR Essen 5/6.6.42.  
**DV813** To 11 OTU.  
**DV814** To 11 OTU.  
**HF918** FTR Emden 6/7.6.42.

**LANCASTER. From January 1943.**

**R5514** From 44Sqn. To 1654CU.  
**R5757** From 49Sqn. To 61Sqn.  
**R5912 GT-O** From 49Sqn. To NTU.  
**W4113** From 49Sqn. To 1661CU.  
**W4140 GT-K** From 49CF. FTR Duisburg 26/27.4.43.  
**W4196** From 49Sqn. To 50Sqn.  
**W4235 GT-B** From 49Sqn. To 9Sqn via NTU.  
**W4245** From 49Sqn. To 576Sqn via NTU.  
**W4314** From 49Sqn. To 1662CU.  
**W4773** From 49Sqn. To 1662CU.  
**W4849 GT-G** FTR Spezia 18/19.4.43.  
**W4850** FTR Kiel 4/5.4.43.  
**W4851 GT-E** To 101Sqn.  
**W4853** Crash-landed at Warboys on return from Hamburg 31.1.43.  
**W4854 GT-D** FTR Pilsen 16/17.4.43.  
**W4856 GT-K** FTR Munich 9/10.3.43.

**W4882** GT-V To 101Sqn.  
**W4891** GT-P To 405Sqn.  
**W4894** GT-T FTR Essen 3/4.4.43.  
**W4895** FTR Berlin 27/28.3.43.  
**W4896** GT-W FTR Nuremberg 8/9.3.43.  
**W4897** To 106Sqn.  
**W4902** GT-C To 1661CU.  
**W4922** To 106Sqn.  
**W4924** To 1656CU.  
**W4930** FTR Pilsen 16/17.4.43.  
**W4933** To 44Sqn via NTU.  
**W4937** To 1661CU.  
**W4943** GT-Q FTR Essen 27/28.5.43.  
**W4947** To 1661CU.  
**W4950** To 61Sqn.  
**ED395** To 9Sqn.  
**ED474** To 622Sqn via NTU & 1667CU.  
**ED485** FTR Wilhelmshaven 19/20.2.43.  
**ED595** To 7Sqn.  
**ED598** From SIU. FTR Hamburg 29/30.7.43.  
**ED599** From 83Sqn. FTR Mülheim 22/23.6.43.  
**ED615** FTR Kiel 4/5.4.43.  
**ED622** GT-Q FTR Duisburg 8/9.4.43.  
**ED715** GT-A Abandoned over Cambridgeshire on return from Dortmund 4/5.5.43.  
**ED734** GT-H FTR Essen 25/26.7.43.  
**ED822** FTR Hamburg 28/29.7.43.  
**ED829** GT-Z From SIU. FTR Berlin 23/24.8.43.  
**ED837** FTR Duisburg 12/13.5.43.  
**ED838** To 9Sqn.  
**ED840** FTR Cologne 16/17.6.43.  
**ED841** To 101Sqn.  
**ED842** GT-W To 405Sqn.  
**ED856** To 50Sqn.  
**ED857** FTR Duisburg 12/13.5.43.  
**ED858** GT-R FTR Wuppertal 24/25.6.43.  
**ED859** To 619Sqn.  
**ED860** To 61Sqn.  
**ED863** FTR Cologne 16/17.6.43.  
**ED877** FTR Dortmund 4/5.5.43.  
**ED883** To 100Sqn.  
**ED885** FTR Krefeld 21/22.6.43.  
**ED919** FTR Turin 12/13.7.43.  
**ED926** From SIU. Damaged beyond repair in a collision 21.9.43.  
**ED935** From 625Sqn. FTR Münster 11/12.6.43.  
**ED952** From SIU. To NTU 11.43.

**ED969** From SIU. FTR Hanover 8/9.10.43.  
**ED990** From SIU. FTR Munich 6/7.9.43.  
**EE108** GT-O/Z To ETPS 4.45.  
**EE118** From 619Sqn. Crashed in Norfolk on return from Bochum 29/30.9.43.  
**EE122** From 9Sqn. FTR Cologne 16/17.6.43.  
**EE127** GT-X FTR Wuppertal 24/25.6.43.  
**EE128** To NTU.  
**EE173** From 7Sqn. To 207Sqn.  
**EE177** From 7Sqn. FTR Nuremberg 27/28.8.43.  
**EE178** GT-E/R From 7Sqn. FTR Hamburg 27/28.7.43.  
**EE200** To 7Sqn.  
**HK542** To 75Sqn.  
**JA673** To 582Sqn.  
**JA674** GT-Q FTR Frankfurt 20/21.12.43.  
**JA681** FTR Berlin 3/4.9.43.  
**JA685** To 7Sqn.  
**JA694** FTR Berlin 22/23.11.43.  
**JA697** GT-V FTR Berlin 2/3.12.43.  
**JA698** GT-C FTR Brunswick 14/15.1.44.  
**JA702** GT-Z FTR Berlin 30/31.1.44.  
**JA709** FTR Hamburg 27/28.7.43.  
**JA714** From 7Sqn. To 100Sqn.  
**JA718** To 7Sqn.  
**JA850** To 7Sqn.  
**JA858** GT-Y FTR Mannheim 5/6.9.43.  
**JA909** GT-B To 405Sqn.  
**JA912** GT-O FTR Magdeburg 21/22.1.44.  
**JA915** GT-U Crashed in Norfolk during an exercise 3.9.43.  
**JA919** FTR Hanover 27/28.9.43.  
**JA921** GT-Q FTR Leipzig 19/20.2.44.  
**JA925** GT-L FTR Berlin 1/2.1.44.  
**JA941** GT-A FTR Augsburg 25/26.2.44.  
**JA975** GT-N FTR Brunswick 14/15.1.44.  
**JB113** GT-B FTR Frankfurt 20/21.12.43.  
**JB177** FTR Munich 6/7.9.43.  
**JB179** GT-F FTR Berlin 2/3.12.43.  
**JB182** To 405Sqn.  
**JB186** GT-Q To 619Sqn.  
**JB216** GT-W FTR Berlin 16/17.12.43.  
**JB217** Crash-landed at Dunsfold on return from Duisburg 22.5.44.  
**JB223** GT-M FTR Berlin 23/24.11.43.  
**JB228** GT-S To 514Sqn.  
**JB230** GT-R/S From 405Sqn. FTR Coubronnes 23/24.6.44.  
**JB239** From 97Sqn via NTU. To 35Sqn.  
**JB242** GT-Y FTR Frankfurt 4/5.10.43.



**JB282** Crashed in Erith area on return from Berlin 16/17.12.43.  
**JB293** Crashed in Norfolk on return from Berlin 23/24.11.43.  
**JB302 GT-W** To 83Sqn and back. FTR Berlin 30/31.1.44.  
**JB304 GT-Z** From 83Sqn. FTR Berlin 22/23.11.43.  
**JB307 GT-H** From 405Sqn. FTR Essen 26/27.4.44.  
**JB309** To 83Sqn.  
**JB310 GT-O** FTR Berlin 2/3.1.44.  
**JB317 GT-C** From 7Sqn. FTR Berlin 2/3.1.44.  
**JB353** To 97Sqn.  
**JB363 GT-K** FTR Leverkusen 18/19.11.43.  
**JB471** To NTU.  
**JB472 GT-Z** From 83Sqn. FTR Berlin 2/3.12.43.  
**JB476 GT-R** From 83Sqn. FTR Berlin 1/2.1.44.  
**JB479 GT-K** FTR Schweinfurt 24/25.2.44.  
**JB483 GT-M** FTR Brunswick 14/15.1.44.  
**JB553 GT-J** From 83Sqn. FTR Berlin 2/3.1.44.  
**JB640 GT-V** FTR Berlin 2/3.1.44.  
**JB667 GT-T** FTR Berlin 24/25.3.44.  
**JB699** From 405Sqn. To 1651CU.  
**JB703 GT-X** FTR Berlin 1/2.1.44.  
**JB711 GT-W** From 83Sqn. FTR Berlin 23/24.12.43.  
**JB720** To 97Sqn.  
**JB721 GT-F** From SIU. FTR Schweinfurt 24/25.2.44.  
**JB726** To 97Sqn.  
**LM304 GT-J** FTR Essen 5/6.3.43.  
**LM314** To 97Sqn.  
**LM344 GT-H** FTR Brunswick 14/15.1.44.  
**LM345** To 405Sqn.  
**LM646** From 467Sqn. To 35Sqn.  
**LM686** From 467Sqn.  
**ME366 GT-H** FTR Bottrop 3/4.2.45.  
**ME368**  
**ME376** From 582Sqn.  
**ME377 GT-H**  
**ME378 GT-Q**  
**ND328 GT-R** To 100Sqn.  
**ND340 GT-J/R/T/S** From 97Sqn.  
**ND342** From 405Sqn. To 12Sqn.  
**ND345 GT-C** From 7Sqn. FTR Stuttgart 20/21.2.44.  
**ND348 GT-A** From 405Sqn. To 1668CU.  
**ND349 GT-C** FTR Düsseldorf 22/23.4.44.  
**ND357 GT-G** FTR Brunswick 14/15.1.44.  
**ND358 GT-T** From 7Sqn. FTR Leipzig 19/20.2.44.  
**ND380 GT-T** FTR Berlin 2/3.1.44.  
**ND384 GT-D** FTR Berlin 1/2.1.44.

**ND406** GT-S From 57Sqn. FTR Nuremberg 30/31.3.44.  
**ND409** GT-G FTR Friedrichshafen 27/28.4.44.  
**ND422** GT-Q To NTU 10.44.  
**ND438** To 582Sqn.  
**ND444** GT-G From 405Sqn. FTR Rüsselsheim 12/13.8.44.  
**ND446** GT-P FTR Stuttgart 1/2.3.44.  
**ND449** GT-M FTR Nantes 6/7.5.44.  
**ND453** To 35Sqn.  
**ND454** GT-L FTR Schweinfurt 24/25.2.44.  
**ND466** GT-P/Z FTR Nuremberg 30/31.3.44.  
**ND476** GT-N/V FTR Nuremberg 30/31.3.44.  
**ND477** From 405Sqn. To NTU 10.44.  
**ND492** GT-L FTR Nuremberg 30/31.3.44.  
**ND502** To 582Sqn.  
**ND504** FTR Berlin 15/16.2.44.  
**ND534** GT-O FTR Gelsenkirchen 11.9.44.  
**ND559** GT-J FTR Duisburg 21/22.5.44.  
**ND577** GT-E From 405Sqn. FTR Versailles 7/8.6.44.  
**ND591** GT-D From 83Sqn. Returned to 83Sqn.  
**ND618** GT-M Destroyed at Upwood when ND978 blew up 8.9.44.  
**ND643** To 35Sqn.  
**ND649** To 35Sqn.  
**ND714** From 35Sqn. To 582Sqn.  
**ND737** To 582Sqn.  
**ND808** GT-K To BCIS.  
**ND815** To 97Sqn.  
**ND854** To 83Sqn.  
**ND855** To 405Sqn.  
**ND875** GT-Q/T From 7Sqn. To 1660CU.  
**ND877** From 635Sqn. To 1660CU.  
**ND882** GT-B To 1661CU.  
**ND899** GT-L From 582Sqn. To A&AEE.  
**ND929** GT-G From 35Sqn. To 582Sqn.  
**ND962** GT-P Crashed while landing at Upwood on return from Oisemont 2.7.44.  
**ND978** Blew up at dispersal at Upwood 9.9.44.  
**NE119** To 405Sqn.  
**NE120** GT-J To 1656CU.  
**NE132** GT-H To 1653CU.  
**NE143** GT-G FTR Tergnier 31.5/1.6.44.  
**NE166** To 582Sqn.  
**PA966** GT-R From 35Sqn.  
**PA982** To 405Sqn.  
**PA984** GT-Q FTR Revigny 14/15.7.44.  
**PB114** GT-N Crash-landed at Woodbridge on return from Hamburg 29.7.44.  
**PB138** To 83Sqn.

<b>PB148</b>	To 7Sqn.
<b>PB149</b>	From 582Sqn.
<b>PB177 GT-L</b>	FTR Calais 24.9.44.
<b>PB186 GT-G/A</b>	FTR Stuttgart 28/29.1.45.
<b>PB209 GT-E</b>	FTR Rüsselsheim 12/13.8.44.
<b>PB240</b>	To 83Sqn.
<b>PB302 GT-B</b>	Ditched on return from Kiel 26/27.8.44.
<b>PB375</b>	To 1660CU.
<b>PB403 GT-E</b>	FTR Schwandorf 16/17.4.45.
<b>PB438</b>	To 97Sqn.
<b>PB468 GT-B</b>	FTR Hamburg 31.3.45.
<b>PB474</b>	To 7Sqn.
<b>PB486</b>	Crashed on take-off from Upwood 2.11.44.
<b>PB505 GT-F</b>	From 7Sqn. FTR Bottrop 3/4.2.45.
<b>PB507</b>	From 405Sqn. To NTU.
<b>PB516</b>	To 405Sqn.
<b>PB517 GT-O</b>	From 7Sqn. FTR Hamburg 31.3.45.
<b>PB523</b>	To 35Sqn.
<b>PB529</b>	To 35Sqn.
<b>PB560 GT-L</b>	To 1660CU.
<b>PB565 GT-R</b>	To 1667CU.
<b>PB578 GT-D</b>	To NTU.
<b>PB582</b>	To 7Sqn.
<b>PB584</b>	To 7Sqn.
<b>PB593 GT-R/T</b>	From 35Sqn.
<b>PB609 GT-A</b>	Crashed while landing at Upwood on return from Düren 16.11.44.
<b>PB611 GT-D</b>	From 582Sqn.
<b>PB613</b>	From 35Sqn.
<b>PB616</b>	To 83Sqn.
<b>PB621 GT-N</b>	FTR Cologne 30/31.12.44.
<b>PB625</b>	From 582Sqn.
<b>PB629</b>	To 582Sqn.
<b>PB631</b>	From 635Sqn.
<b>PB675 GT-C</b>	From 35Sqn. FTR Ulm 17/18.12.44.
<b>PB680</b>	From 635Sqn.
<b>PB701 GT-Q</b>	FTR Düsseldorf/Reisholz 20/21.2.45.
<b>PB917</b>	From 635Sqn.
<b>PB926</b>	From 166Sqn.
<b>SW259</b>	To 467Sqn.
<b>SW266</b>	To 35Sqn.

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

Berlin.	02/03.01.44.	5 Lancasters FTR.
Brunswick	14/15.01.44.	5 Lancasters FTR.

# **SECTION 4**



# **KEY TO ABBREVIATIONS**

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



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

## KEY TO ABBREVIATIONS

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

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



# **SECTION 5**



# **SOURCES OF INFORMATION**

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



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

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# **SECTION 6**



# **STOCK LIST**

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