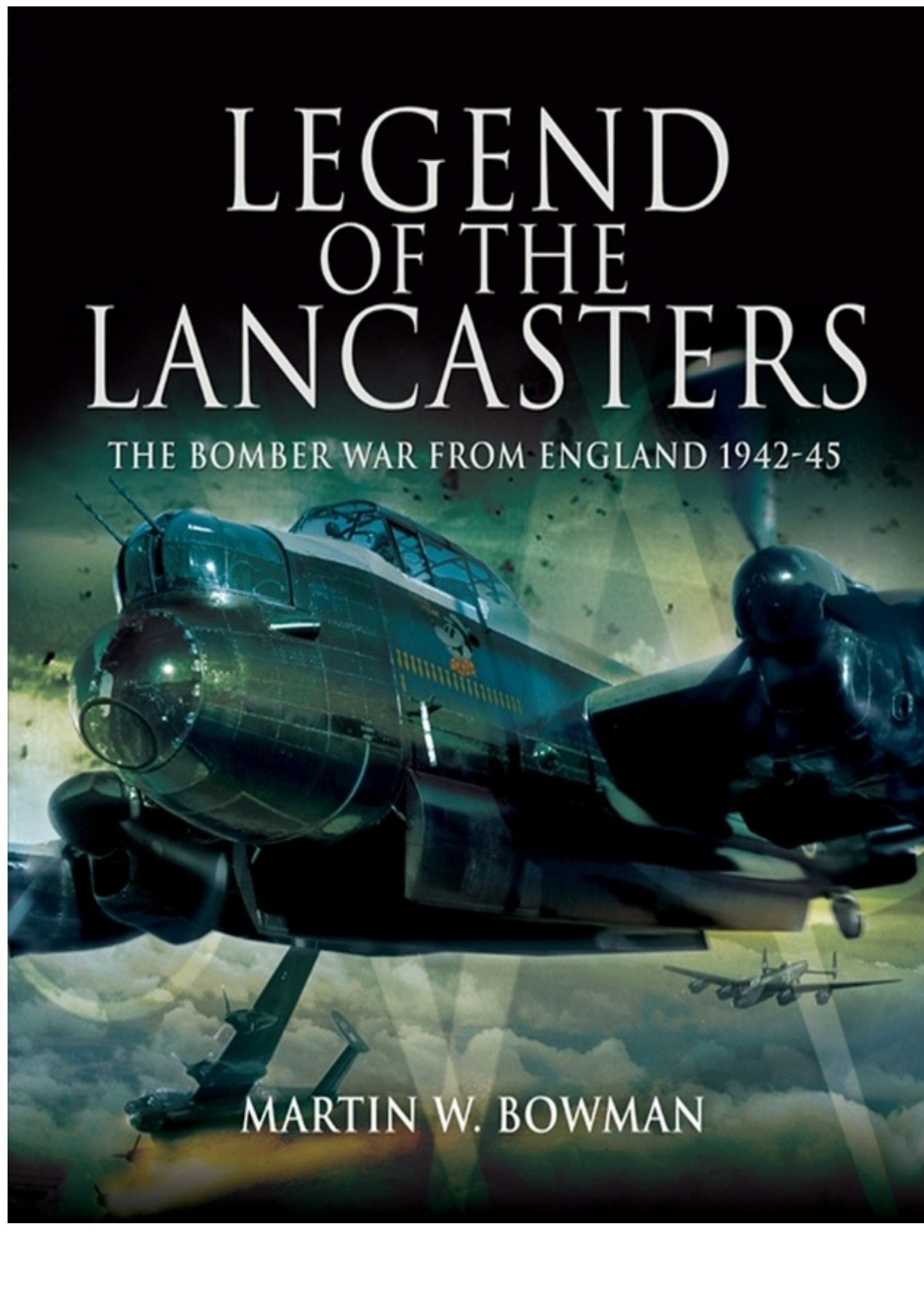


# LEGEND OF THE LANCASTERS



THE BOMBER WAR FROM ENGLAND 1942-45

MARTIN W. BOWMAN

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England 1942–45

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# Table of Contents

Title Page

Copyright Page

Acknowledgements

Chapter 1 - Under Cover of Darkness

Chapter 2 - The Battle of the Ruhr

Chapter 3 - Chastise

Chapter 4 - Bellicose and Beyond

Chapter 5 - Hamburg and Hydra Come Hell or High Water

Chapter 6 - To the Big City

Chapter 7 - Berlin or Bust

Chapter 8 - 'There's a War on Tonight'

Chapter 9 - Night Fighter Nights

Chapter 10 - Dawn of D-Day

Chapter 11 - 'Round the Clock'

Chapter 12 - All Clap Hands for the Walking Dead

Appendix 1 - RAF Bomber Command Battle Order 5 June 1944

Appendix 2 - Operation Chastise – Dams Raid 16/17 May 1943

Appendix 3 - Bomber Command Lancaster Aircrew Victoria Cross Recipients

Appendix 4 - Bomber Command Battle Order – Units Operating Lancasters (less training units) 18 April 1945

Appendix 5 - Comparative Heavy Bomber Sorties and Casualties

Index

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# *Chapter 1*

## *Under Cover of Darkness*

The Germans entered this war under the rather childish delusion that they were going to bomb everybody else and nobody was going to bomb them. At Rotterdam, London, Warsaw and half a hundred other places, they put that rather naive theory into operation. They sowed the wind and now they are going to reap the whirlwind.

Air Marshal Sir Arthur T. Harris

On a warm July afternoon the dull throb of aircraft engines could be heard from high in the sky. At Mousehold aerodrome on the outskirts of Norwich no air-raid siren was sounded. At Barnards Iron Works, a collection of First World War hangars and outbuildings, there was no cause for alarm. It was Tuesday 9 July 1940. Although the Battle of Britain was about to start the cathedral city was not yet in the front line. When an air-raid warning was sounded, a young teenager, Derek Patfield, took his place as one of the pairs of spotters in the watchtower erected on the top of the Enquiry Office, watching for enemy attack using a pair of powerful binoculars. To relieve the boredom he often trained his binoculars on the young female employees walking between the workshops and offices. If he saw approaching enemy aircraft, or thought they identified one as enemy, Derek pressed the alarm siren which sounded all over the works resulting in the employees dashing to the air-raid shelters. Derek was a quiet lad with one hobby – aeroplanes. Flying was his only interest. In 1932 the Patfield family had moved from King's Lynn to Acacia Road at Thorpe-Next-Norwich near Mousehold aerodrome. Derek spent his spare time building flying models and on one occasion while doping the skin of a model, gave Mrs Hanson next door quite a scare as the smell of the dope was a strong pear drop, which she associated with a gas attack. She was most relieved when she saw young Derek in his garden doping a model. At Mousehold aerodrome he watched Professor Henri Mignet fly his home built aeroplane, The Flying Flea and he got Clem Sohn's autograph. Sohn, better known as, 'The Birdman' jumped out of an aeroplane and spread small under-arm wings and a web between his legs glide down, finally landing by parachute. Derek Patfield made a shaped pair of wings from garden canes and an old sheet and jumped off the coalhouse roof and finished up with a badly sprained ankle and a dressing down from his father for being so daft.

When the young spotters got fed up with the lack of aircraft activity during their two-hour shift, they would sound the siren, just for the hell of it, to see the panic it caused! False alarms were explained away as 'incorrect identification'. At 17.00 on the afternoon of 9 July when the two aircraft approached from the north-east, flying at about 600 feet, they made out the black markings in the shape of crosses on the wings and flung themselves to the ground. They were Dornier Do 17s. The factory site was hit by twelve 50kg high-explosive bombs. Three bombs, which failed to explode, were

also dropped. The raid was all over in six long seconds. Two men who were working by the loading dock were killed and another threw himself to the ground 20 yards from where a bomb exploded but his only injury was a damaged toe, which later had to be amputated. One worker had a most remarkable escape when a bullet or bomb splinter went through his trouser-leg while others pierced the walls on either side of him. One of the aircraft was seen to bank away towards the centre of the city. At the famous Colmans' Mustard Works at Carrow, workers coming off shift poured through the main gates – jostling, laughing and bicycle bells ringing. As the Dorniers suddenly appeared overhead many of the women were pushing their bicycles up Carrow Hill. The Dorniers banked a little and dived and the sound of a whistling bomb rent the air. The older men, remembering the sound of falling bombs from the First World War, threw themselves to the ground at the same time shouting to the women, 'Down!' The women and girls did not immediately abandon their bicycles and they did not throw themselves to the ground. A bomb crashed through trees at the top of Carrow Hill and exploded at ground level. Four women were killed. Others were seriously injured and many suffered minor injuries.

On his 18th birthday Derek Patfield volunteered for the RAF as a fighter pilot but he was not quite tall enough. He was told to re-apply when he had managed to put on the extra inch. In the meantime his boyhood friend Joe Whittaker had become a sergeant air gunner on Wellingtons. When he was killed in action in 1942 on a raid on Saarbrücken, it was a pivotal moment for Derek and it set firm his determination to avenge his death. At last he got his call-up papers and AC2 Patfield set off for London, complete with small attaché case to get kitted out at Lord's cricket ground. His RAF uniform included a white flash on his forage cap denoting trainee aircrew, which made him very proud. On arrival AC2 Patfield asked the corporal in charge of recruits, 'What sort of aircraft do we fly? Where do we fly from?'

He replied, 'We haven't got any aircraft here. You've got to learn to march first.'

After lengthy spells training in England and Canada, two years later Flight Sergeant Patfield was beginning his tour as a bomb-aimer on Avro Lancaster bombers in RAF Bomber Command. This mighty four engined bomber could not have been more different from the twin engined Wellingtons that aircrew like Joe Whittaker had to fly during the first three years of the war when the aircraft was the mainstay of bomber operations from England.

Bombing German cities to destruction was not an entirely new concept. Ever since October 1940 crews were instructed to drop their bombs on German cities, though only if their primary targets were ruled out because of bad weather. During 1941 more and more bombs began falling on built-up areas mainly because pinpoint bombing of industrial targets was rendered impractical by the lack of navigational and bombing aids. By 1942 the Air Staff saw the need to deprive the German factories of its workers and, therefore, its ability to manufacture weapons for war, and mass raids would be the order of the day or rather the night, with little attention paid to precision raids on military targets. However, RAF Bomber Command did not yet possess the numbers or type of aircraft necessary for immediate mass raids. All this would change under the direction of Air Marshal Sir Arthur T. Harris CB OBE who, on 22 February 1942, arrived at High Wycombe, Buckinghamshire to take over as Commander-in-Chief of RAF Bomber Command. Harris was directed by Marshal of the RAF, Sir Charles Portal, Chief of the Air Staff, to break the German spirit by the use of night area, rather than precision, bombing and the targets would be civilian, not just military. The famous area bombing directive, which had gained support from the Air Ministry and Prime Minister Winston Churchill, had been sent to Bomber Command on 14 February, eight days before Harris assumed command. Harris warmed to his task and announced:

‘The Germans entered this war under the rather childish delusion that they were going to bomb everybody else and nobody was going to bomb them. At Rotterdam, London, Warsaw and half a hundred other places, they put that rather naive theory into operation. They sowed the wind and now they are going to reap the whirlwind.’<sup>1</sup>

‘Butch’ or ‘Bomber’ Harris, as his crews were to call him, has been described by some of his ‘old lags’, as he fondly referred to them, as ‘. . . a rough, tough, vulgar egomaniac’. He was just what Bomber Command needed. He feared no foe, senior officers or politicians. He brooked no arguments from juniors and pooh-poohed any from those of equal or senior status who had a different opinion. Harris knew what he was going to do and proceeded to move heaven and earth to do it. Woe betide anyone who stood in his way. He was a firm believer in the Trenchard doctrine and with it he was going to win the war. According to Professor Solly Zuckerman, technical advisor to those responsible for the bombing policy, Harris ‘. . . liked destruction for its own sake’.<sup>2</sup> On taking up his position Harris had found that only 380 aircraft were serviceable and only 68 of these were heavy bombers while 257 were medium bombers. Salvation, though, was at hand.

In September 1941 the first of the new four-engined Avro Lancasters, a heavy bomber in every sense of the word, had been supplied to 44 (Rhodesia) Squadron at Waddington for service trials. In early 1942 deliveries began to trickle through to 44 Squadron and on the night of 3/4 March four aircraft flew the first Lancaster operation when they dropped mines in the Heligoland Bight. That same night Harris selected the Renault factory at Billancourt near Paris, which had been earmarked for attack for some time, as his first target. A full moon was predicted so Harris decided to send a mixed force of 235 aircraft, led by the most experienced crews in Bomber Command, to bomb the French factory in three waves. It was calculated that approximately 121 aircraft an hour had been concentrated over the factory, which was devastated and all except 12 aircraft claimed to have bombed.<sup>3</sup>

During March the first Gee navigational and target identification sets were installed in operational bombers and these greatly assisted bombers in finding their targets on the nights of 8/9 and 9/10 March in attacks on Essen. On the latter date 187 bombers, including 136 Wellingtons, bombed the city which, without Gee, had been a difficult target to hit accurately. The first Lancaster night-bombing operation of the war was flown by 44 Squadron when two of its aircraft took part in the raid by 126 aircraft on Essen on 10/11 March. Despite the new technological wonder, the bombing was scattered on all three raids on the city, which was covered alternately by industrial haze and unexpected cloud. The same month 97 Squadron moved from Coningsby to Woodhall Spa, about ten miles away, to become the second squadron to convert from the Manchester to the Lancaster. But the early Lancasters gave some trouble, as 23 year old David ‘Jock’ Penman, ‘a square, chunky’ Scottish pilot,<sup>4</sup> recalls:

‘Flight Lieutenant Reginald R. “Nicky” Sandford DFC of 44 Squadron flew a Lancaster in to convert a few pilots. Conversion consisted of one circuit by Nicky followed by one circuit each for the pilot to be converted. We then climbed into a Manchester and went to Woodford where we collected six Lancasters. I still remember with pleasure the surge of the four Merlins and the tremendous acceleration of the lightly loaded Lancaster after the painfully underpowered Manchester. Unfortunately the Lancaster had teething problems and the first was a main wheel falling off Flying Officer Ernest A. Deverill DFM’s machine when he took off from Boscombe Down. Then an outboard engine fell off after a night landing on the grass at Coningsby. More serious trouble came [on 20 March off the Friesians] when six aircraft took off on the first operational sortie loaded with six 1,500lb mines. Returning over Boston 28 year old Flying Officer Eric E. “Rod” Rodley, who despite



being one of the oldest on the squadron was the most youthful in appearance, looked out to see first one and then the other wing tip fold upwards. Even at full power he was descending but luck was on his side, as he dropped the aircraft in the sea without injuring the crew.<sup>5</sup> A second aircraft diverted to a strange airfield and, overshooting the runway, ended in a quarry. Engine trouble, maladjusted petrol cocks and upper wing skin buckling restricted flying but all were overcome in the end. The Lancaster was easy to fly and after the Hampden and Manchester it was like stepping from an ancient banger into a Rolls-Royce. After the wing tip failures, bomb load with full fuel was reduced from 9,000lbs to 6,000lbs and we stopped doing circuits and bumps with a full bomb load! It had always been customary to do night flying tests before operations with bombs on, though it was stopped on the Hampdens at Waddington when one enthusiastic low flyer skidded to a halt in a field with 4 × 500lb bombs on board.'

On 28/29 March 234 bombers, mostly carrying incendiaries, went to Lübeck, an historic German town on the Baltic, with thousands of half timbered houses and an ideal target for a mass raid by RAF bombers carrying incendiary bombs. Eight bombers were lost but 191 aircraft claimed to have hit the target. A photo-reconnaissance a few days later revealed that about half the city, 200 acres, had been obliterated. The increase in RAF night bombing raids in the more favourable spring weather met with a rapid rise in Nachtjagd victories. In March 1942 41 bombers<sup>6</sup> and in April 46 bombers,<sup>7</sup> were brought down by German night fighters. II./NJG 1, which had recently moved to St Trond, achieved its first six victories from this Belgian base during the month. On the night of 6/7 April, 157 bombers went to Essen but the crews encountered severe storms and icing and there was complete cloud cover at the target. Only 49 aircraft claimed to have reached the target area and there was virtually no damage to Essen. Five aircraft were lost.<sup>8</sup>

On the night of 8/9 April 97 Squadron operations finally recommenced in earnest when 24 Lancasters started up their 27-litre Merlin engines, took off and carried out a minelaying operation in the Heligoland Bight while the main Bomber Command thrust, by 272 aircraft, was aimed at Hamburg. Icing and electrical storms hampered operations. Although 188 aircraft claimed to have hit the target area, only the equivalent of 14 bomb loads fell on the city. Five aircraft failed to return, all seven Lancasters returning safely.

On 11 April 44 Squadron was ordered to fly long distance flights in formation to obtain endurance data on the Lancaster. At the same time 97 Squadron began flying low, in groups of three in 'vee' formation to Selsey Bill, then up to Lanark, across to Falkirk and up to Inverness to a point just outside the town, where they feigned an attack, and then back to Woodhall Spa. Crews in both the squadrons knew that the real reason was that they were training for a special operation and speculation as to the target was rife.

'Despite frequent groundings', recalls David Penman, 'training continued and early in April rumours of some special task for the Lancasters were confirmed when eight crews were selected to practice low level formation flying and bombing. The final practice was a cross-country at 250 feet in two sections of three led by Squadron Leader John S. Sherwood DFC\* with myself leading the second section.<sup>9</sup> We took off from Woodhall Spa and were to rendezvous with 44 Squadron near Grantham but because of unserviceability they did not take off. We flew down to Selsey Bill and then turned round and headed for Inverness. Due to compass errors the lead section got off track and were heading into an area of masts and balloons. With no communication allowed I eventually parted company with the lead section and we did not see them again until we were bombing the target in the Wash at Wainfleet. Our low level flight up valleys to Edinburgh was exciting, but over the higher ground in the North we climbed to a reasonable altitude over cloud, descending in the clear at Inverness for a low

level run. Once beyond Edinburgh, on the way back, we descended again to low level and, full of confidence, really got down to hedgehopping. Flying Officer Deverill on the left and Warrant Officer Thomas Mycock DFC<sup>10</sup> on the right maintained very tight formation and my only regret was the stampeding cattle when we could not avoid flying over them. Greater satisfaction came as we roared across familiar airfields a few feet from the hangar roofs and Waddington got the full blast of our slipstream as we rubbed in our success whilst they were stuck on the ground. A perfect formation bombing run with Sherwood's section running in behind completed a very successful day.

'A few days later I went to HQ 5 Group in Grantham with the Station Commander from Coningsby and Squadron Leader Sherwood. At 5 Group when the target was revealed, we were shattered and suicide was a common thought. However, the briefing was thorough with an excellent scale model of the target area and emphasis on low level to avoid detection, massive diversionary raids and little acknowledgment or opposition at Augsburg. This briefing was only a day or two before the 17th and no one else was to be informed until the briefing on the day of the raid when take-off was to be 1515 hours. On Friday the 17th briefing was immediately after lunch with crew kitted ready to go. The scale model of the target was on display and the gasps as crews entered the room and saw the target were noticeable.

At Waddington Wing Commander Roderick A. B. 'Babe' Learoyd VC, the 44 Squadron CO, began his address to the crews with, 'Bomber Command have come up with a real beauty this time' and added 'I shan't be coming with you. I've got my VC already. I've no desire to get another.'<sup>11</sup> At Woodhall Spa when the curtain was drawn back at the briefing there was a roar of laughter instead of the gasp of horror. Before the laughter had died down, the 97 Squadron commander, Wing Commander Collier, entered and walked quietly forward to the front of the briefing room and mounted the dais. The crews came to order at once, listening intently. 'Well gentlemen', smiled the Wing Commander, 'now you know what the target is'.

The target was the diesel engine manufacturing workshop at the MAN<sup>12</sup> factory at Augsburg but no one in the room believed that the RAF would be so stupid as to send 12 of its newest four-engined bombers all that distance inside Germany in daylight. Crews sat back and waited calmly for someone to say, 'Now the real target is this' but Augsburg was the real target. Air Marshal Harris wanted the plant raided by a small force of Lancasters flying at low level (500 feet), and in daylight, despite some opposition from the Ministry of Economic Warfare, who wanted the ball-bearing plant at Schweinfurt attacked instead. Crews were ordered to take their steel helmets on this raid. Sixteen Lancaster crews, eight each from 44 (Rhodesia) and 97 Squadrons (including four 1st and 2nd reserve) were specially selected. Squadron Leader John Dering Nettleton, still on his first tour in 44 Squadron, was chosen to lead the operation. The 24 year old South African, who had been born at Nongoma in Natal and educated in Cape Town, had spent 18 months at sea in the merchant service before coming to England to join the RAF in 1938 to train as a pilot. Dark haired but fair-skinned, tall and reticent, grandson of an admiral, he was an inspired choice as leader.

Flying Officer Eric E. 'Rod' Rodley, the reserve pilot, who was known for his whimsical sense of humour, found nothing to smile about. He was appalled when the target was named but he and his crew of F-Freddie had clung to the hope that they were only the reserve. Rodley had been 'one of the lucky ones'; joining the RAFVR in 1937 and he already had instructing experience when war broke out. Consequently, he graced the first War Instructors Course at CFS in October 1939, after which he spent an exhausting and unrewarding year and a half in Training Command. Hence, by June 1941, he had over 1,000 hours in his logbook but he was '... quite unprepared for any wider aspects of the art'. A strange set of circumstances rescued him from the thralldom of instructing when 97 Squadron was re-formed and equipped with the Avro Manchester when all pilots had to have at least 1,000 hours

under their belts. One of his contemporaries in 97 Squadron was Norfolk man, Flying Officer Brian Roger Wakefield 'Darkie' Hallows who, after flying three days of long formation cross-countries, was set to fly B-Baker<sup>13</sup> Like Rodley, Hallows had been an instructor before becoming a Manchester and then a Lancaster pilot.<sup>14</sup> It was his reputation for the use of R/T language 'which caused some watch tower WAAFs to giggle, some to blush'<sup>15</sup> and not for his jet black hair and full moustache that earned him his nickname 'Darkie'. When he had got lost and invoked the R/T get-you-home service of those early days, 'Darkie, Darkie' he, receiving no response, had tried again, but still no reply. Once more he had transmitted to the void: 'Darkie, Darkie – where are you, you little black bastard?'

Hallows recalls:

'Plenty was said about how important it [Augsburg] was and all that stuff. So we were obviously not intended to come back in any strength. Fighter Command had been on the job for several days, hounding the German fighters and when we were on the job we saw no fighters at all, all the way ...' Just before the Lancasters took off 30 Bostons bombed targets in France in a planned attempt to force hundreds of German fighters up over the Pas de Calais, Cherbourg and Rouen areas. This was designed to draw the enemy fighters into combat so that the passage of the Lancasters would coincide with the refuelling and re-arming. Unfortunately it had the opposite effect and the incursion put the Luftwaffe on the alert. David Penman continues:

'Take-off was to be at 1515 hours with the two reserve aircraft taking off and dropping out when the two Vics of three set course.<sup>16</sup> We were to meet 44 Squadron near Grantham and then on to Selsey Bill, across the Channel, then down south of Paris before turning left and heading for Lake Constance. Take-off was on time, singly, with full fuel [2,134 gallons] and four 1,000lb RDX bombs with 11-second delay fuses to be dropped from 250 feet. Weather forecast was perfect with clear skies and good visibility all the way. I took-off and soon had Deverill on my left and Mycock on my right. We joined the lead section of Squadron Leader Sherwood, Flying Officer Hallows and Flying Officer Rodley. [As they had watched the other six aircraft starting up some of Rodley's crew had begun to have mixed feelings and almost wished now that they had got this far that they were going. Then Apple had a mag drop on No. 1 engine and Rodley's crew had fallen silent. Rodley thought of his wife in Woodhall Spa. She would probably guess what had happened. He took off with the others and moved into the No. 3 position, tucked in to port of Sherwood.<sup>17</sup>] Once again there was no sign of 44 Squadron near Grantham and we were never to meet. We maintained 250 feet to Selsey Bill and then got down as close to the sea as possible for the Channel crossing. As we approached the French coast my rear-gunner informed me his turret was U/S and I told him it was too late to do anything about it and he would just have to do what he could with it. Crossing the French coast was an anti-climax as not a shot was fired and we flew on at tree top height to Lake Constance. We saw the odd aircraft in the distance but otherwise it was a very pleasant trip.'

Penman's Australian navigator, Pilot Officer E. Lister 'Ding' Ifould, who had joined the RAAF in 1940 and went to England in July 1941, saw frightened bullocks scampering across the furrows with their ploughs bumping along behind them. He saw French workers wave to them but usually only when they were working in secluded parts where their greeting would be unobserved. One greeting came from two or three workers deep in a quarry, down which Ifould had a momentary glimpse as his Lancaster flew over almost at tree-top height and again, in a wood, some charcoal burners stopped to give them a secret wave. The Lancs passed over no fewer than 27 German airfields almost at ground level and saw nothing except a few parked aircraft. This hedgehopping was a severe test of skill and endurance. Ifould's captain, Penman, had blisters on both hands when the job was done.<sup>18</sup>

Meanwhile 44 Squadron had not been as fortunate as 97 Squadron. Nettleton took his formation flying in Vics of three down to just 50 feet over the waves of the Channel as the French coast came into view. Five minutes later fighters intercepted Nettleton's first two sections in a running fight that lasted an hour. The Lancasters tightened formation, flying wingtip to wingtip to give mutual protection with their guns, as they skimmed low over villages and rising and falling countryside. The Bf 109s of II./JG2 were forced to attack from above. Nettleton's No. 3, H-Harry, flown by Sergeant C. T. 'Dusty' Rhodes, was first to go down, a victim of Spanish Civil War veteran Major Walter 'Gulle' Oesau, Kommodore, JG 2.<sup>19</sup> None of the crew stood a chance at such a low altitude in an aircraft travelling at 200 mph. Nettleton recalled, 'I saw two or three fighters about 1,000 feet above us. The next thing I knew, there were German fighters all round us. The first casualty I saw was Sergeant Rhodes' aircraft. Smoke poured from his cockpit and his port wing caught fire. He came straight for me out of control and I thought we were going to collide. We missed by a matter of feet and he crashed beneath me. Two others went down almost at once and I saw a fourth on fire. At the time I was too much occupied to feel very much. I remember a bullet chipped a piece of Perspex, which hit my second pilot in the back of the neck. I could hear him say, "What the hell". I laughed at that.'

The whole of 44 Squadron's second 'Vee' was shot out of the sky. First to go was V-Victor flown by Warrant Officer J. F. 'Joe' Beckett DFM. His rear turret was out of action and this had attracted most of the enemy fighters. Hauptmann Heine Greisert of II./JG2 was later credited with shooting the Lancaster down. It crashed into a tree and disintegrated. The crew never stood a chance. T-Tommy flown by Warrant Officer Herbert V. Crum DFM, a wily bird, old in years and experience by comparison with most of the others, was next to go, shot down by Unteroffizier Pohl of II./JG2. 'Bert' Crum crash-landed his Lancaster in a wheat field at Folleville after two engines were set on fire. Fortunately, his second pilot, Sergeant Alan Dedman, had managed to jettison the bombs 'safe' before the crash. All the crew survived and six of them were taken prisoner. Sergeant Bert Dowty, the 19 year old front gunner was trapped in the nose turret until Crum attacked it with an axe and got him out. Crum split the petrol tanks with his axe and tried to set fire to the escaping petrol using a Very pistol but it would not ignite. Then one of the crew threw a lighted match into the petrol and soon the Lancaster was well alight. Breaking up into small parties, they set out to walk to unoccupied France but most never reached the Black Cat Café at Bordeaux. Dowty evaded capture and managed to hear all about the results of the raid on the BBC. He was caught on a train 16 days later near Limoges and was eventually repatriated at the end of the war. The Lancaster flown by Flight Lieutenant Nicky Sandford DFC, the leader of the section, faced the milling enemy fighters alone and forced his aircraft down even lower in a desperate attempt to shake off his pursuers. Suddenly ahead of him he saw a line of telephone wires. He held the nose down and flew underneath them but the FW 190s followed firing all the time. A little fellow with a pleasing personality, who was keen on music and who bought all the records for the Officers' Mess, he always wore his pyjamas under his flying suit for luck. This time Sandford was all out of luck. He finally fell victim to the guns of Feldwebel Bosseckert. With all four engines on fire, his Lancaster crashed into the ground in an inferno of flame.

Nettleton and Flying Officer John 'Ginger' Garwell DFM piloting A-Apple continued to the target alone, flying low in the afternoon sun across southern Germany until the South African sighted the River Lech, which he followed to the target. Over France Nettleton had noticed people working in the fields and cows and sheep grazing, and a fat woman wearing a blue blouse and a white skirt, and horses bolting at the roar of his engines, with the ploughs to which they were attached bumping behind them. But once in Germany nothing was to be seen. 'The fields appeared untenanted by man or beast and there was no traffic on the roads. But when we got near the target they started to shoot at us, but the heavy flak soon stopped – I think because the gunners could not depress their guns low enough to

hit us. The light flak, however, was terrific. We could see the target so well that we went straight in and dropped all our bombs in one salvo.' Coming over the brow of a hill on to the target, the two Lancasters were met with heavy fire from quick-firing guns. The bomb-aimers could not miss at chimney-top height on a factory covering an area of 626×293 feet. Nettleton and 'Ginger' Garwell went in and dropped their bomb loads but Flight Sergeant R. J. Flux DFM, his wireless operator, yelled in Garwell's ear: 'We're on fire!'

Flux kept pointing over his shoulder and Garwell took a quick look behind him. The armour-plated door leading into the fuselage was open and he could see that the interior was a mass of flames. Garwell ordered, 'Shut the door' and saw Nettleton and some of his crew staring at his burning Lancaster. Garwell stuck his fingers up in a V-sign before turning to port into wind and putting A-Apple down in a field two miles west of the town. By now all five men crowded into the front cabin were coughing violently from the blinding, choking smoke and Flux opened the escape hatch over the navigator's table to try to get some air. A sudden down draught from the hatch cleared the smoke for a fraction of a second and Garwell could see a line of tall trees straight ahead. He opened up the engine and pulled back on the stick and flew into the ground at 80 mph. The Lancaster slid on its belly for about 50 yards and the fuselage broke at the mid-turret. Garwell, Sergeant F. S. Kirke DFM RNZAF and Sergeants J. Watson and L. L. Dando scrambled from the hatch but outside they found Flux, lying dead under the starboard inner engine. He had been thrown out on impact. His quick action had probably saved their lives. The two men in the fuselage perished.<sup>20</sup>

The second formation of six Lancasters in 97 Squadron had flown a slightly different route and had avoided the fighters in France. All they saw was a single German Army cooperation aircraft, which approached them and then made off quickly. Just inside Germany Flying Officer Ernie Deverill DFM at the controls of Y-Yorker noticed a man in the uniform of the SS who took in the situation at a glance and ran to a nearby post office where there was a telephone. Brian Hallows' crew in B-Baker shot up a passenger train in a large station and saw an aerodrome crowded with Ju 90s. South of Paris Flying Officer 'Rod' Rodley, flying F-Freddie, saw only the second aircraft he saw during the whole war. It was probably a courier, a Heinkel 111. It approached and, recognizing them, did a 90-degree bank and turned back towards Paris. Rodley continued flying at 100 feet. Occasionally he would see some Frenchmen take a second look and wave their berets or their shovels. A bunch of German soldiers doing PT in their singlets broke hurriedly for their shelters as the Lancs roared over. Their physical exercises were enlivened by a burst of fire from one of the rear-gunners and 'the speed with which they took cover did great credit to their instructor'. At a frontier post on the Swiss-German border an SS man in black uniform, black boots and black cap shook his fist at the low flying Lancasters. Crossing Lake Constance a German officer standing on the stern of one of the white ferry boat steamers fired his revolver at the bombers. Rodley could see him quite clearly, 'defending the ladies with his Luger against 48 Browning machine guns'. At Lake Ammer, the last turning point 10 miles south of the target, an old bearded Bavarian standing on the shores of the lake, took pot shots at them with a duck gun. One of the gunners asked his pilot if he could 'tickle' him.

'No, leave him alone' was the reply.

Accurate map reading, notably by Flight Lieutenant McClure and Pilot Officer D. O. Sands, Nettleton's navigator, in the first flight and Flying Officer Hepburn in the second, brought them to their destination.<sup>21</sup>

David Penman continues:

'Rising ground then forced us to fly a little higher and eventually we spotted our final turning point

a small lake. I had dropped back a little from Sherwood's section at this stage and mindful of the delay fuses on the bombs, made one orbit before turning to run in on the target. The river was a very good guide and the run in was exactly as shown in the scale model at briefing. A column of smoke beyond the target, presumably came from Garwell's aircraft and it was soon joined by another . . .'

Brian Hallows explained:

'The target was easily picked out – the situation of the factory in a fork made by the River Wertach and an autobahn made it easy to identify – and we bombed the hell out of it. The gunners were ready for us and it was as hot as hell for a few minutes.'

'Rod' Rodley recalled:

'We were belting at full throttle at about 100 feet towards the targets. I dropped the bombs along the side wall. We flashed across the target and down the other side to about 50 feet because flak was quite heavy. As we went away I could see light flak shells overtaking us, green balls flowing away on our right and hitting the ground ahead of us. Leaving the target I looked down at our leader's aircraft and saw that there was a little wisp of steam trailing back from it. The white steam turned to black smoke with fire in the wing. I was slightly above him. In the top of the Lancaster there was a little wooden hatch for getting out if you had to land at sea. I realized that this wooden hatch had burned away and I could look down into the fuselage. It looked like a blowlamp with the petrol swilling around the wings and the centre section, igniting the fuselage and the slipstream blowing it down. I asked our gunner to keep an eye on him. Suddenly he said, "Oh God, skip, he's gone. He looks like a chrysanthemum of fire."'

David Penman watched as K-King flown by Sherwood also aged 23, received a shell through the port tank just behind the inboard engine and it crashed and blew up about 10 miles north of the town: 'Escaping vapour caught fire and as he turned left on leaving the target with rising ground, the port wing struck the ground and the aircraft exploded in a ball of flame. (I was sure that no one had survived and said so on return to Woodhall Spa but Mrs Sherwood would not believe it and she proved to be right.<sup>23</sup> I met Sherwood after the war and he had been thrown out of the aircraft, still strapped in his seat, up the hill and had been the sole survivor). As we ran in at 250 feet, tracer shells from light anti-aircraft guns on the roof of the factory produced a hail of fire and all aircraft were hit. Mycock's aircraft on the right received a shell in the front turret, which set fire to the hydraulic oil and in seconds the aircraft was a sheet of flame. It went into a climb and swinging left passed over my head with bomb doors open and finally burning from end to end was seen by my rear-gunner to plunge into the ground.'<sup>24</sup>

As soon as Ifould had let the bombs go, he heard Penman say: 'He's on fire!' Ifould looked over the side and saw flames streaming 10 to 15 feet behind Sherwood's Lancaster. Then he looked to starboard and saw that the other Lancaster (Mycock's) too was on fire. A second or two later the starboard side Lancaster dropped its bombs and dived like a stone to earth. Ifould learned later that it had been hit and set on fire when the Vee first got to the edge of the town, yet Mycock had carried on to the target and bombed. Penman's Lancaster, Ifould having dropped its bombs from about 300 feet, dived again to the safer level of the housetops and cleared the town safely. Seconds later they were overtaken by the port Lancaster in the Vee, in which the mid-upper gunner and wireless operator had gallantly succeeded in putting out the fire Ifould had seen streaming from it earlier. On only three engines, it seemed to overtake literally like a flash. As it passed Ifould caught a glimpse of a hole 6 feet by 4 feet wide in the metal of the fuselage, where the fire had burned through. The two men who had put the fire out later received the DFM for their bravery, which brought their aircraft safely home.

with no one hurt.<sup>25</sup>

A shell ripped the cowling of Penman's port inner engine and at the same time Deverill received a hit near the mid-upper turret and a fire started. Deverill told the mid-upper gunner to put it out. The starboard inner engine was pouring smoke and flame and Deverill fought to hold his position. Ron Irons, Deverill's wireless operator, left his set to help put out the fire. The oil recuperators had been punctured and burning oil was trickling down the fuselage into the well of the aircraft. 'Despite the distractions' recalls Penman, 'we held course and the front gunner did his best to reduce the opposition. My navigator was then passing instructions on the bombing run and finally called, "Bomb gone." We passed over the factory and I increased power and dived to ground level just as Deverill passed me with one engine feathered and the other three on full power. His navigator, Pilot Officer Butler, had managed to put out the fire near the mid-upper. I called Deverill and he asked if I would cover his rear, as his turrets were U/S. However, as my turrets were also U/S and I would have no wish to relinquish the lead, I told him to resume his position. Our attack had been close to the planned time of 2020 hours and as darkness took over we climbed to 20,000 feet for a straight run over Germany. It says a lot for Deverill's skill that he remained in formation until we reached the English coast and eventually landed at Woodhall Spa just before midnight.'<sup>26</sup>

It was close fighting; one rear-gunner spotted a German behind a machine gun on the roof and saw him collapse under his return fire. As the survivors turned westward, the light failed and the aircraft, led by Darkie Hallows flew back without any opposition under cover of darkness. Hallows noted. 'The quintessence of loneliness is to be 500 miles inside Occupied Europe with one serviceable turret! Time 8.15 hours.'

Hallows returned safely and was one of eight officers to be awarded the DFC for his part in the raid. Winston Churchill sent the following message to Arthur T. Harris: 'We must plainly regard the attack of the Lancasters on the U-boat engine factory at Augsburg as an outstanding achievement of the Royal Air Force. Undeterred by heavy losses at the outset, the bombers pierced in broad daylight into the heart of Germany and struck a vital point with deadly precision. Pray convey my thanks of His Majesty's Government to the officers and men who accomplished this memorable feat of arms in which no life was lost in vain.'<sup>27</sup>

Several days later Sir Dudley Pound, the Chief of Naval Staff, having waited for confirmation that the raid had been successful, wrote: 'I have now seen the photographs and assessment. I am sure this attack will have greatly helped in achieving our object. I much deplore the comparatively heavy casualties but I feel sure their loss was not in vain.'

Later, Hallows wrote in his diary:

'One event sticks in my mind. Over half the bombs dropped failed to explode!' Five of the 17 bombs dropped did not explode and although the others devastated four machine shops, only 3 per cent of the machine tools in the entire plant were wrecked. 'A bad way to spend an afternoon!'

Squadron Leader John Dering Nettleton, who landed his badly damaged Lancaster at Squires Gate, Blackpool 10 hours after leaving Waddington, was awarded the VC for his efforts. David Penman adds: 'Nettleton, it would appear, having increased speed to avoid fighters, bombed early and unable to cross Germany alone in daylight, turned back the way he had come. Due to navigational errors he eventually reached the Irish Channel and landed at Squires Gate. All surviving crews were grounded until a press conference, which I attended, was held at the Ministry of Information in London, when awards were announced.'<sup>28</sup>

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The week following the Augsburg raid saw the third Lancaster squadron declared operational when 207 Squadron at Bottesford in Leicestershire joined the Battle Order as a series of raids on Rostock began. The Baltic coast port, with its narrow streets, was lightly defended and was the home of a big group of aircraft factories forming part of the great Heinkel concern on its southern edge. For four consecutive nights, beginning on the night of 23/24 April when just one Lancaster took part, Rostock felt the weight of incendiary bombs dropped by Bomber Command. The concentration was very heavy, all the bombs falling within the space of an hour. From about 0200 onwards, fires raged in the harbour and the Heinkel works, and smoke presently rose to a height of 8,000 feet. The navigator of the Lancaster arriving towards the end of the raid told his captain that the fire he saw seemed 'too good to be true' and that it was probably a very large dummy. Closer investigation showed that it was in the midst of the Heinkel works and the Lancaster's heavy load of high explosives was dropped upon it from a height of 3,500 feet. Damage to the factory was considerable. The walls of the largest assembly shed fell in and destroyed all the partially finished aircraft within. Two engineering sheds were burnt out, and in the dock area five warehouses were destroyed by fire and seven crates fell into the dock. By the end of the fourth attack two large areas of devastation had been caused in the old town. All the station buildings of the Friederich Franz Station had been gutted and the Navigational School and the town's gasworks destroyed. Photographs taken in daylight after the second attack on Rostock in which five Lancasters took part, including three from 207 Squadron, showed swarms of black dots near the main entrance to the station and thick upon two of its platforms. These were persons seeking trains to take them away from the devastated city. By the end only 40 per cent of the city was left standing though the contribution by the Lancaster squadrons was small; they flew just 3 per cent of the total number of over 500 sorties. Morale in Lübeck and Rostock fell to a very low level after the heavy and destructive attacks made on them in March and April. Evacuation of both towns was on a large scale, especially in Rostock.

In the Ruhr orders were issued forbidding workers to move more than 10 kilometres from their place of employment. In March and April the Ruhr newspapers published warnings against the spreading of rumours in which, they said, the number of air raid casualties was grossly exaggerated. It was the duty of every good citizen to refrain from such talk.<sup>29</sup>

Within a few days of the attacks on Rostock, Lancasters of 44 and 97 Squadrons had deployed to Lossiemouth in Scotland to take part in two attempts to sink the German battleship Tirpitz lying in Trondheim Fjord.<sup>30</sup> Then came raids on Stuttgart, carried out on 4 and 5 May where one of the main targets was the Robert Bosch factory. A total of 28 Lancaster sorties were flown without loss but the raids were not successful. On 8/9 May 21 Lancasters were included in a force of 193 aircraft that attacked Warnemünde, one of five towns listed in a directive that stressed the importance of bombing targets containing vital aircraft factories. The raid on the Heinkel factory near the Baltic town, just north of Rostock went reasonably well but 19 Lancasters, including four of 44 Squadron, were lost. These took the Rhodesia Squadron's losses to 10 Lancasters in just three weeks of operations. Although Mannheim was not one of the five suggested targets on the recently issued bombing directive, this city, the second largest inland port in Europe, was the target on the night of the 19/20 May. The docks were continually full of raw materials, tank parts, armour plating and other war supplies, which came to them down the Rhine from the Ruhr. There were also many industrial plants situated in or near Mannheim. In this attack Stirlings dropped more than 4,000 incendiary bombs, which left many fires alight. Next day Mr Justice Singleton, who had been asked to predict what the results of bombing 'at the greatest possible strength' would be during the next 6, 12 and 18 months



would be, published his findings. Singleton concluded that overall accuracy had been low, except for a few exceptions and that electronic aids did not, as yet, appear to be having a significant effect. He considered that a trained target-finding force would greatly improve results. In the meantime attacks on easily located city targets with a concentration of bombers in a short a space of time, became the norm. Bombing specific targets was almost over although the Goodrich Tyre works at Gennevilliers near Paris was hit on 29/30 May. The Singleton Report had also considered that: 'The bombing strength of the RAF is increasing rapidly and I have no doubts that, if the best use is made of it, the effect on German war production and effort will be very heavy over a period of twelve to eighteen months and as such will have a real effect on the war position.'

Armed with this information on 30/31 May, Harris intended to strike a hammer blow against Cologne, a city of nearly 800,000 inhabitants and the third largest in Germany. In March and April Cologne was visited four times by a total of 559 aircraft. The hurt caused was considerable. By the end of April the Nippes industrial district, occupied by workshops, had been damaged. Heavy bombs had completely destroyed buildings nearby and the Franz Clouth rubber works had been rendered useless, much of the buildings being level with the ground. To the east of the Rhine a chemical factory, and buildings beside it, was almost entirely destroyed. Severe damage had also been caused to the centre of Cologne. Harris now had four Lancaster squadrons, with 83 Squadron at Scampton having taken part in its first sorties just two nights earlier. The raid on Cologne would also include the first Lancaster operations of 106 Squadron, the fifth Squadron to be equipped. At Coningsby 106 Squadron was commanded by 24 year old Wing Commander Guy Gibson DFC\*, a leader who had already shown exceptional capabilities.<sup>31</sup>

'At six o'clock to the minute on that lovely May evening, the briefing-room was packed' recalls a contemporary account. 'Pilots, air-gunners, navigators, wireless operators and flight engineers squeezed into rows of old cinema seats, rescued months before from a blitzed London building. They stood in rows along the wall and they were crowded together at the rear of the room. They were cracking jokes and laughing and filling the room with din. They were happy. All day long they had known that something was in the air. Throughout the heat of the late morning and the afternoon of the 30th the ground crews had been working feverishly on the machines, testing, checking gauges and radio circuits, running in the ammunition, trundling out the bombs and setting fuses. There was every indication that a big show was on the slate. A door opened and the hubbub died. The station commander entered. He smiled as he held up a hand. For a moment he stood watching the concourse of eager young airmen, waiting for his words, words that would send them hurtling through hundreds of miles of space to attack an enemy that was beginning to feel the shock of retaliation. "Some of you have probably guessed that we've something special on the menu tonight," he said. "We have. We're bombing the Hun with over a thousand aircraft."<sup>32</sup> The announcement was received with cheers. Excitement ran like a fever among them, until checked once more by the commander's upraised hand. "I've a message for you from Air Marshal Harris." They waited and he read to them:

"The force of which you form a part tonight is at least twice the size and has more than four times the carrying capacity of the largest air force ever before concentrated on one objective. You have an opportunity, therefore to strike a blow at the enemy, which will resound not only throughout Germany but throughout the world. In your hands lie the means of destroying a major part of the resources by which the enemy's war effort is maintained. It depends, however upon each individual crew whether full concentration is achieved. Press home your attack to your precise objective with the utmost determination and resolution in the fore knowledge that, if you individually succeed the most shattering and devastating blow will have been delivered against the very vitals of the enemy. Let him

have it – right on the chin!”

The commander looked up as his voice added the final exclamation mark. The men broke ranks. Those seated rose to their feet. Arms lifted like lances in salute. The cheer broke in one vast wave. The briefing finished in an atmosphere of buoyant enthusiasm. The crews trooped out of the long room. Not a man of them but felt inspired by the words of the Commander-in-Chief ... They knew they were flying that night to make history ... They flew in the steely sheen of the midnight stars. Over the British coast and out across the darkness of the North Sea; south-east over the dykes and fields of the Netherlands; on over the banks of the Rhine towards the clustered pile of Cologne, ringed in red on the navigators' charts.'<sup>33</sup>

For 98 minutes a procession of bombers passed over the city and stick after stick of incendiaries rained down from the bomb bays of the Wellingtons to add to the conflagration. The Stirlings followed the Wellingtons closely. When the Halifaxes arrived, the raid had lasted for an hour and the fires then resembled 'distant volcanoes'. By this time Cologne was visible to latecomers 60 miles away, first as a dull red glow over a large area of ground. One captain reported: 'So vast was the burning that ordinary fires on the outskirts of the city or outside it, which I should usually have described as very big, looked quite unimportant. It was strange to see the flames reflected on our aircraft. It looked at times as though we were on fire ourselves, with the red glow dancing up and down the wings.' In one Lancaster that approached the target with a mixed bomb load the bomb-aimer, lying in the nose, jotted down his impressions of the kaleidoscopic scene. When later he got back to base he put those impressions on record:

'It looked as though we would be on our target in a minute or two and we opened our bomb-doors. We flew on. The glow was as far away as ever. We closed the bomb-doors again. The glow was still there, like a huge cigarette end in the German blackout. Then we flew into the smoke. Through it the Rhine appeared a dim silver ribbon below us. The smoke was drifting in the wind. We came in over the fires. Down in my bomb-aimer's hatch I looked at the burning town below me. I remembered what had been said at the briefing. "Don't drop your bombs," we were told, "on the buildings that are burning best. Go in and find another target for yourself." Well, at last I found one right in the most industrial part of the town. I let the bombs go. We had a heavy load of big high explosives and hundreds of incendiaries. The incendiaries going off were like sudden platinum-coloured flashes, which slowly turned to red. We saw their many flashes going from white to red, and then our great bomb burst in the centre of them. As we crossed the town there were burning blocks to the right of us while to the left the fires were immense. There was one after the other all the way. The flames were higher than I had seen before. Buildings were skeletons in the midst of fires; sometimes you could see what appeared to be the framework of white-hot joists.'

Flying Officer Brian 'Darkie' Hallows DFC could still see the fires on his way out and they were visible at the Dutch coast on return.<sup>34</sup> One gunner said later that he could see the burning city from the Dutch coast too. 'It was a fiery speck in the darkness like the tail of a motionless comet' was how he described the scene of destruction. The Daily Telegraph headline the following day was: 'At a Bomb Command Station. Sunday. On the 1,001st day of the war more than 1,000 RAF bombers flew over Cologne and in 95 minutes delivered the heaviest attack ever launched in the history of aerial warfare.' The German defences were locally swamped by the mass of bombers, 30 of the 43 losses (only one of which was a Lancaster) estimated shot down by night fighters. These were mainly achieved on the return journey when the bomber stream had been more dispersed than on the way in. In all, 868 crews claimed to have hit their targets and post-bombing reconnaissance revealed that more than 600 acres of Cologne had been razed to the ground. The fires burned for days and almost 60,000

people had been made homeless. Of the area laid waste that night about half was situated in the centre of the city. The cathedral appeared to be unscathed except for damage to windows; but 250 factory buildings and workshops were either destroyed or seriously damaged. Photo reconnaissance revealed what appeared to be a dead city. An air-raid warning, which was doubtless sounded, would have cleared the streets while the photographs were being taken; but it was significant that there was absolutely no transport visible, no trains, buses or cars.<sup>35</sup> The Air Ministry reported after reconnaissance had been made. 'In an area of seventeen acres between the Cathedral and the Hange Brucke forty or fifty buildings are gutted or severely damaged. Buildings immediately adjacent to the south-eastern wall of the Cathedral are gutted. There is no photographic evidence of damage to the Cathedral, although the damage to the adjoining buildings suggests that some minor damage may have occurred. The Police Headquarters and between two hundred and three hundred houses have been destroyed in another area of thirty-five acres extending from the Law Courts and the Neumarkt westwards almost to the Hohenzollernring. An area of three and a half acres between St Gereon's Church and the Hohenzollernring has been completely burned out.'

Speaking for the whole nation, the Prime Minister gave his congratulations to Air Marshal Sir Arthur Harris, the Air Officer Commander-in-Chief, Bomber Command.

'I congratulate you and the whole of Bomber Command upon the remarkable feat of organization, which enabled you to dispatch over a thousand bombers to the Cologne area in a single night and without confusion to concentrate their action over the target into so short a time as one hour and a half. This proof of the growing power of the British bomber force is also the herald of what Germany will receive city by city, from now on. Winston Churchill.'

The Air Marshal's reply to the Prime Minister was succinct, but it contained a promise: 'All ranks of Bomber Command are deeply appreciative of your message. They will pursue their task with undiminished resolution and with growing means at their disposal until the goal is achieved.' The intensified effort, in the words of Sir Arthur Harris, caused the Germans 'to look back to the days of Lübeck, Rostock and Cologne as men lost in a raging typhoon remember the gentle zephyrs of a past summer'.<sup>36</sup>

Squadrons repaired and patched their damaged bombers and within 48 hours they were preparing for a second 'Thousand Bomber Raid', this time against the Ruhr town of Essen in the heart of 'Happy Valley' on the night of 1/2 June. 'To ride the Ruhr', one Canadian pilot explained graphically, 'on a night when Jerry's on his toes is to switchback round the edge of hell. They sure brighten up the party and sling their greetings around with a free hand!' And the guns and searchlights were not the only defences. In the Ruhr night fighters 'swarmed like wasps round a particularly sour dustbin'.

Electricians, fitters, riggers and armourers worked as never before. The ground crews worked 18 hours a day for five days, fitting and testing every detail – engines, armament, electrical gear, instruments and other equipment. Without their unremitting toil and that of the repair and maintenance parties provided by the firms, which built the aircraft, no bomber would have been able to take the air. Finally, a force of 956 bombers, 545 of them Wellingtons, was ready. Again the numbers had to be made up by using OTU crews and aircraft. No. 5 Group contributed 74 Lancasters and 33 Manchesters. Essen was the chief focal point of the attack, with the assault spreading over the continuous string of industrial towns, which merged their municipal boundaries above the richest deposits of coal and iron in Europe. Although seemingly lacking the concentration of the earlier raid on Cologne, the bombing nevertheless was effective enough to saturate the defences. One skipper went as far as to say that the fires were more impressive than those of Cologne had been. A belt of fires

extended across the city's entire length from the western edge to the eastern suburbs. Many fires were also spread over other parts of the Ruhr. Of the 37 bombers lost on the raid, night fighters claimed 20 and just four of the losses were Lancasters – 5 per cent of the Lancaster force dispatched. After Cologne and Essen Harris could not immediately mount another 1,000 bomber raid and he had to be content with smaller formations. A force of just 195 aircraft, including 27 Lancasters, returned to Essen the following night with no more success. It was not until the night of 25/26 June when the number of Lancaster squadrons had risen to seven, that the third and final 'Thousand Bomber Raid', the series of five major saturation attacks on German cities, took place. In total, 1,006 aircraft, including 472 Wellingtons and 96 Lancasters, attacked Bremen, the second largest port in the Reich and home to the Focke Wulf aircraft factory.<sup>37</sup> The overall plan was similar to those of the previous 1,000 bomber raid except that the time over the target area was reduced to just over an hour. Once again instructors and OTU crews were pressed into the night action, as Squadron Leader David Penman, now an instructor at Waddington, recalls:

'On 25 June the operations board showed a "maximum effort" and much to my surprise my name was down to take Lancaster R5631 with Flight Sergeant Tetley, my student, as second pilot and five crew members I had never seen before. At briefing it was explained that this was to be a 1,000 bomber raid, needing all fit aircrew to get all the serviceable aircraft in the air for an attack on Bremen. With a number of different types taking part I was glad to be in a Lancaster. Briefing completed with six 1,000lb bombs aboard as well as three SBCs. The take-off was on time and we climbed and eventually levelled out at 16,000 feet with patchy cloud above, and enough gaps below, to see the target area. There was considerable flak and soon the evidence of night fighters in the area as aircraft caught fire and blew up. Forty-eight aircraft went down this night and I saw most of them. I was certainly glad to be in a Lancaster but sad to see so many aircraft on fire and exploding at lower levels. We were lucky with a suitable break in the cloud to enable the bomb-aimer to drop on target. With aircraft going down all round, we were glad to get clear of Bremen without being hit, and with all the weight gone made a very fast run back to Waddington. Total flying time, four hours twenty minutes. My visit to Bremen in a Hampden on 1 January 1941 had taken six hours ten minutes carrying only 2,500lb of bombs! This time the weight of bombs, and with the whole area on fire, the damage must have been dreadful. We lost a lot of aircraft and crews but the losses on the ground must have been very much greater. I felt sorry for the people on the ground who were being killed and injured and having their houses destroyed. Unfortunately it appeared to be the only way to bring the war to a close more quickly. It was a relief to transfer later in the war to Transport Command and do something constructive rather than destructive.'

The actual bombing operation was crowded into 1 hour and 15 minutes. The heavy bomber crews were given the opportunity of bombing the red glow of the fires, using Gee as a check, or proceeding to a secondary target in the vicinity of Bremen. The cloud conditions prevailed at many of the targets of opportunity and many crews, unable to bomb, brought their lethal cargoes home. The total of 48 aircraft lost was the highest casualty rate (5 per cent) so far, though only one Lancaster was lost. Large parts of Bremen, especially in the south and east districts were destroyed. The German high command was shaken but 52 bombers were claimed, destroyed by the flak and night fighter defences for the loss of just two Bf 110s and four NCO crew members killed or missing. A record 147 Bomber Command aircraft were destroyed by Nachtjagd in June.<sup>38</sup>

During the next few days three more raids were made against Bremen and the contribution made by the Lancaster rose to 20 per cent of the total effort. Twin engined types like the Wellington and, to a lesser extent, the Hampden still formed the backbone of Bomber Command but Harris was gradually

building up his numbers of four-engined types. The number of Lancasters available on any given night was averaging over 50 and this figure would double by the end of July. On the 11th 44 Lancasters made a dusk attack on the U-boat construction yards at Danzig, a round trip of 1,500 miles, of which the first half was made in daylight. Only two Lancasters were lost when they were shot down by flak at the target. On 26/27 July, 403 bombers including 181 Wellingtons and 77 Lancasters were dispatched in full moonlight to Hamburg, which suffered its most severe air raid to date and widespread damage was caused, mostly in the housing and semi-commercial districts. The Fire Department was overwhelmed and forced to seek outside assistance for the first time. Some 14,000 people were made homeless, 337 lost their lives and 1,027 were injured. Damage amounted to the equivalent of £25,000,000. Twenty-nine bombers including 15 Wimpys (so called from the American Disney cartoon character 'J. Wellington Wimpy' in 'Popeye') and two Lancasters were shot down.<sup>39</sup> Bomber Command was stood down on 27/28 July but this was the full moon period and on 28/29 July a return to Hamburg was announced at briefings. Crews were told that the raid would be on a far bigger scale than two nights before, with nearly 800 bombers planned but bad weather over the stations of 1, 4 and 5 Groups prevented their participation.<sup>40</sup> For the next main force raid, on Düsseldorf on 31 July/1 August, Bomber Command's training units again helped swell the numbers with 630 aircraft, including over 100 Lancasters for the first time in the war,<sup>41</sup> being dispatched. Some extensive damage was inflicted but 29 aircraft, 18 of which were shot down by Himmelbett night fighters, were lost. So ended the month of July and the 'moon period'.

The inaccuracy of bombing at this time led, in August, to the Pathfinder Force being created, under the command of Air Commodore Donald Bennett, whose dynamic leadership of 8 (PFF) Group was destined to play a vital role in marking targets for the main force on operations from now on.

Bennett himself was a great civil pilot before the war. In 1938 he flew the Mercury, the upper component of the Mayo composite aircraft, from Dundee to South Africa, and established a long-distance record for seaplanes. He joined the RAAF as a cadet in 1930, and was commissioned in the RAF in 1931. He took a flying boat pilot's course at Calshot in 1932, transferred to the RAAF Reserve in 1935 and the eve of war found him in command of the Cabot, the big flying boat, which was to carry the mail from Southampton to New York. Soon after the Germans invaded Norway the Cabot and her sister flying boat Caribou were destroyed by the enemy in the Norwegian fjords. Bennett was among the founders of the Atlantic Ferry Service. He was re-commissioned in the RAFVR in 1941 and was called on for service on the active list. As captain of a bomber, Bennett, then a wing commander, won the DSO for courage, initiative and devotion to duty when, after being shot down during an attack on the Tirpitz in Trondheim Fjord, Norway on 17 April 1942, he and his second pilot, Sergeant N. Walmsley, escaped from the enemy to Sweden. It was soon after his return that Bennett became associated with the new Pathfinder Force, whose identification symbol, worn only when not flying, was a gilt eagle worn below the flap of the left breast pocket.<sup>42</sup>

Five Group was still the only group of Bomber Command with Lancasters except for the Pathfinders who were allotted 83 Squadron. Another significant happening was the first of the Lancaster specialist operations, which took place on the night of 27/28 August when nine Lancasters of 106 Squadron led by Wing Commander Guy Gibson DFC\* carried out a raid on the Graf Zeppelin, Germany's only aircraft carrier, berthed at Gdynia. The carrier, which was launched in 1938, had been photographed at Swinemünde on 22 April but PR photographs taken on 5 May showed that the carrier had moved (it had put to sea for trials in the Baltic). Intelligence reports were that it was complete and ready for commissioning. The Squadron had trained for this operation for several weeks to gain accuracy in planting their turnip-shaped 5,000lb 'Capital Ship' bombs on a range target. The

Lancasters needed full fuel loads to return to base from their target, 950 miles distant, so that, together with the weight of the bombs, they took off at the unprecedented all-up weight of 67,000lb. Hitherto, 60,070lb had been the maximum permissible. Making his first operational trip since 1918 was Squadron Leader Dicky Richardson, an acknowledged expert on bombsights. Unfortunately a haze over Gdynia reduced visibility to a mile and in spite of some Lancasters spending as long as an hour over the target, only two of the seven that reached Gdynia dropped their bombs and there were no reports to confirm any hits on the target.<sup>43</sup>

During September 86 heavies were shot down by night fighters. One of the worst nights was on the 10/11 September when training aircraft swelled the numbers in a 479-bomber raid on Düsseldorf. Thirty-three aircraft failed to return and the OTUs were hard hit. Many training aircraft from various OTUs and Conversion Units were included in the force of 446 bombers that attacked Bremen on 13/14 September when 21 aircraft were lost. On 23/24 September 83 Lancasters bombed Wismar for the loss of four aircraft. By the end of the month 5 Group could put a total of nine Lancaster squadrons in the air. The first time that they did was on 1 October when 100 of them flew in magnificent procession across England to drop practice bombs on the Wainfleet range, while fighters carried out mock attacks along the route. The reason for this practice became known to crews when, on the afternoon of 17 October, Wing Commander Leonard C. Slee DFC, commanding 49 Squadron, led a force of 94 Lancasters to the Schneider armaments factory at Le Creusot on the eastern side of the Massif Central, 200 miles south-east of Paris. To maintain secrecy the code name Operation Robinson was chosen; a rather allusive name if the popular mispronunciation of Creusot is considered.<sup>44</sup>

The Lancasters took off from their respective stations and joined up before heading south-west across Cornwall and then south for the Brest peninsula. Even over England the Lancasters flew low, so low that Sergeant N. J. Waddington RAAF, who was bomb-aimer in a leading Lancaster, noticed that their trailing aerial was taken off by a rock on the coast. The Lancasters crossed the French coast between La Rochelle and St Nazaire. Over France they hurdled telephone wires and houses while people opened their doors and windows and waved. He watched a horse with a plough bursting its way helter-skelter through hedges and ditches while the ploughman stood and waved. No. 50, the veteran RAF squadron that had played its part in the First World War as an interception unit in the defence of London, was in the centre of the raiding formation in the attack on Le Creusot. The Squadron's contingent included the famous 'Ye Olde Dingo Flyte' led by their Australian CO, Squadron Leader B. Moore DFC.<sup>45</sup> Forty-four miles from the objective the Lancasters fanned out and headed for the target as practised at Wainfleet. Pilot Officer A. S. Grant RAAF, Wing Commander Slee's navigator, was so accurate that the Lancs arrived over the vast armament factories at 1809, precisely to the minute ordered for the attack to begin. Within the next seven minutes 88 of the Lancasters got their bombs away over the 287-acre site. Six others of 106 Squadron, led by Wing Commander Guy Gibson DFC\*, each carrying ten 500-pounders, bombed the Henri Paul transformer and switching station at Montchanin, which supplied the plant with electricity. Crews reported accurate bombing at Le Creusot and dropped almost 140 tons of HE and incendiary bombs from 7,500 to 2,500 feet. Damage to the armaments factory was not extensive however, as many of the bombs fell short and struck the workers' housing estate near the factory.

The return route was flown at tree top level with four aircraft being damaged by birds. The only aircraft lost was a 61 Squadron Lancaster flown by Squadron Leader W. D. Carr, which crashed into a building while bombing the transformer station. Carr attacked at such a low altitude that the Lancaster was either caught in the blast of its own bombs or flew into a building. The only other casualty was a

Lancaster of 207 Squadron, which had turned back with an engine failure. While flying at 30 to 40 feet above the sea near Brest it was attacked by three Arado Ar 196 seaplanes. The rear-gunner got in a long burst at one Arado and it crashed into the sea. For a time the two other Arados kept pace with the Lancaster, slightly below it. Then one rose, fired and hit the bomber's ailerons. The Lancaster's front gunner replied, but a few seconds later the floatplane reappeared on the starboard and the two aircraft, bomber and fighter, turned in towards each other. The floatplane gunner fired a burst, killing the Lancaster's flight engineer. Sergeant J. H. Lovell, the Australian wireless operator/air gunner went on directing the fight from the astro hatch. Then the Lancaster's gunners fired again and like the first Arado, it went into the sea. The third Arado made off at once and the Lancaster returned safely to Langar.<sup>46</sup>

With the coming of autumn weather and a decrease in Bomber Command activity on some nights the 'Happy Valley excursion' ceased running and targets alternated between Germany and Italy. On 22/23 October 112 Lancasters and the Pathfinders were sent to Italy to drop 180 tons of bombs on Genoa in a raid which was to coincide with the opening of the Eighth Army offensive at El Alamein. It was a perfectly clear moonlight night and the Pathfinder marking was described as 'prompt and accurate'. Out of the winter night dropped showers of flares and the scene below was suddenly lit up like a stage. One Lancaster pilot observed, far below him, the vapour trails spread by other aircraft going low to make their bombing run. It was a concentrated attack in the new style that had developed from the thousand-bomber experiments. The defences, for once, seemed to be caught on one foot and no Lancasters were lost. Huge explosions were seen and large fires spread and grew more angry in colour.

Major Johnny Mullock MC the 5 Group anti-aircraft liaison officer, who had flown as special observer with Bomber Command on its raids on Lübeck, Rostock and the Renault works, went on the 1,500 mile round trip to Genoa. He watched the raid from the fall of the early bombs to the fading out of the resistance from the shore gunners, and gave it as his opinion, when he returned, that the raid was the most concentrated made to that date. He saw only one stick of incendiaries miss the target area: 'As we came down the other side of the Alps the valleys were shrouded in mist and we were afraid that Genoa might be obscured. But over the plain the weather cleared again. From thirty miles away I could see the light of the flares dropping over Genoa. As we got nearer it looked as though the whole town was ablaze. There was a big oil fire, with flames spurting up into the air and clouds of black smoke on top of them – we circled round before making our bombing run, and I counted thirteen big fires, and innumerable little ones. Clouds of smoke were coming up. When we first came in there had been A.A. fire and a good deal of tracer. As the attack developed, the guns almost entirely stopped firing. I could see tracers coming from the sea; the ships in the bay were evidently firing.'

It was the 46th operational flight for one flight lieutenant and when he got back to base he enthusiastically announced that it was by far his most successful: 'As we crossed the Channel on the way out, we watched what was about the best sunset I have the ever seen. We never saw land until we reached the Alps. The clouds above France were lit by the sunset glow. When the sun went down on our starboard side the full moon came up on our port, and the clouds were still lit up. Up cuts of air were driving the clouds away as we got to the Alps, the mountaintops soared above the clouds in the moon. The mountains were glistening white and almost purple in the shadows. We saw a wide glacier. As we passed the Alps the clouds were disappearing and the moon shone down into the deep valleys. There was no mist or haze and we could see every river, lake and village. We were early on Genoa, so we circled the Mediterranean. I think that another bomber and us were the first to drop flares. They went down at the same time and showed up the harbour, lots of buildings and streets. At first I thought

they were the shimmering white haze above Genoa, but it was only the whiteness of the town, which has a great many white buildings. After the flares came our bombs. When I had seen them burst on the target we came down to just above the sea to watch the main attack. We never saw a bomb wasted. Oil storage tanks blew up with a sudden red glow and gave off great volumes of smoke. We did a slow climb over the sea, and as we did so, we saw eighteen fires glowing in the target area. They were all well concentrated and five of them were very large indeed. We saw one searchlight trying to find us, though it was in the midst of a bunch of fires.'<sup>47</sup>

On 24 October, 88 Lancasters were sent to attack Milan in daylight. This time a fighter escort of Spitfires accompanied the force across the Channel to the Normandy coast. The Lancasters then split up and flew independently in a direct route across France, close together and very low, hedgehopping in the manner in which the Augsburg and Le Creusot raids had been made possible. Some crews went down as low as 200 feet and saw cars that had run off the road in some panic. One crew reported that searchlight was switched on! Using partial cloud cover as their only protection, the Lancasters rendezvoused at Lake Annecy before crossing the Alps into Italy. At 1704, the first Lancasters nosed down through the heavy clouds and unloaded. They came in rapidly, pinpointing their targets and wheeling round. Mixed in the general delivery of HEs and incendiaries was a goodly proportion of 4,000 pounders, which rocked the city's industrial heart. Altogether, 135 tons of bombs fell on the city in 18 minutes. Some of the Lancasters went down to 50 feet to bomb their targets. One captain identified the town by the racecourse and was able to aim at the new railway station and marshalling yards, which were the specific target. The surprise was total and the warning sirens only sounded after the first bombs exploded. Thirty large fires were started and over 400 houses were among the buildings destroyed or damaged. The Italians claimed that a Lancaster came down to rooftop level and machine-gunned people in streets near the church of St Christopher. A Fiat Cr.42 Falco biplane fighter attacked the Lancaster flown by Sergeant J. B. Cockshott of 61 Squadron but it did not close and he was able to bomb from 10,000 feet. A Maachi 202 Folgore (Thunderbolt) fired at another Lancaster. Anti-aircraft fire and Italian fighter defences were weak. One Lancaster was lost over the target and two were shot down by German night fighters over northern France on the way home in the evening, when darkness came down and afforded some protection. A fourth Lancaster, which was attacked over the Channel, crashed at Ford airfield in Sussex and all except two crew, one of whom died later, were killed. When the returning Lancaster crews landed, it was to hear news that brought ready grins to their faces. At the very moment they had touched down, Halifaxes, Stirlings and Wellingtons were en route to the targets they had left to drop more bombs.

Early in November Lancasters bombed Rommel's main supply base at Genoa again, as Allied troops prepared to invade North Africa. The night of 6/7 November was dark and a large number of flares had to be dropped by the Pathfinders to light up the port for the 72 Lancasters. Flak was heavier than before, especially from the dock area but the results obtained were described as 'very satisfactory'. Later it was found that most of the bombs had fallen in residential areas. Two of the Lancasters failed to return. The following night 175 aircraft, including 85 Lancasters, returned to the port in the heaviest raid on this city of the war. Weather conditions over the target were very favourable for bombing, but all the way to the Alps the bomber crews had their work cut out. Rain and a cloud brought visibility to only a few feet, while icing and sudden electrical storms gave the pilots some cause for anxiety. 'It was as if we were flying in the slipstream of another aircraft,' was the description given by a pilot later. One front gunner reported that, as his plane penetrated cloud, ice came crackling through the turret ventilators in handfuls, while currents threw the bombers about. Above the clouds when pilots climbed, the night was bitterly cold and thick hoarfrost coated the windscreens. Over the Alps snow was falling steadily. Ice flew in large chunks from the whirling



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