

THE DAMBUSTERS

– A special breed of airmen

by Michael Clegg

OPERATION CHASTISE
 16th/17th May 1943
 Planned routes,
 targets and crash sites

Map created by Mark Postlethwaite GAvA www.posart.com www.wingleader.co.uk

Regarded by many as the most famous bombing raid in the history of air warfare, the Dambusters Raid of 16th/17th May 1943 has been commemorated over the years as one of the most audacious bombing attacks of the Second World War and in the process, making its Commanding Officer, Wing Commander Guy Gibson something of a national hero. As we commemorate the 75th Anniversary of the raid in 2018 (which also happens to be the Centenary year of the Royal Air Force), it could be argued that ‘Operation Chastise’ was much more significant than just a successful bombing raid by a relatively small force of specially modified Lancasters and their crews, as it also served to demonstrate the resolve and determination of the Allies to prevail in this struggle at all costs. The raid highlighting the fact that Bomber Command had both the technology and capability to strike at the very heart of Nazi Germany’s war machine and perhaps even more than this, its success also managed to bypass Germany’s extremely effective propaganda machine, clearly showing the German people that no matter what they were being told via official channels, they were going to lose this war.



The Upkeep bomb and spin inducing drive mechanism underneath Gibson’s Lancaster ED932 AJ-G

Charged with forming a new ‘Specialist’ Squadron at RAF Scampton in March 1943, Wing Commander Guy Gibson gave his assessment of the challenge which lay before him by stating ‘This Squadron will either make history or it will be completely wiped out’. Taking experienced volunteer crews from within 5 Group Bomber Command, Squadron X (or 617 Squadron as it would later be numbered) was formed under the utmost secrecy, which for the men who joined would mean censorship screening of all letters and monitored telephone conversations. Initially, the Squadron received ten Lancaster bombers for

training purposes, taking aircraft from existing operational units as these had been tried and tested on operations. It was felt that new aircraft were usually prone to suffering from numerous annoying little problems and the tight training schedule meant that there was absolutely no time to waste on rectifying such issues. The training would be extremely intense and would be both physically and mentally demanding for the airmen involved.

The crews would be required to fly their Lancasters at low level by both day and night and over some of the most demanding terrain in the UK, including the steeply protected approaches to three specific reservoir sites around the country – Eyebrook in Leicestershire, Abberton near Colchester and Derwent Dam in Derbyshire. These locations were selected to prepare the crews for their impending Special Mission, although at this time neither they, nor Wing Commander Gibson were aware of their intended target.

On 8th April 1943, the first of 20 modified type 464 ‘Provisioning’ Avro Lancasters arrived at RAF Scampton, which included two under-fuselage spotlights and modified bomb bay, featuring robust mounting arms and drive mechanism to allow the ingenious ‘Upkeep bomb’ to be delivered effectively. Although often referred to as ‘Bouncing Bombs’ Upkeep resembled more of a large oil drum than anything else, but weighing in at just over 4 tonnes, this powerful mine was developed with one specific aim in mind, the destruction of a dam. Just a few days before the raid was due to take place, 56 of the Upkeep mines were also delivered to Scampton, which must have caused significant interest amongst the crews training hard using the ten standard Lancasters. On 12th May, less than five days before the raid was scheduled to take place, some No.617 Squadron crews began training

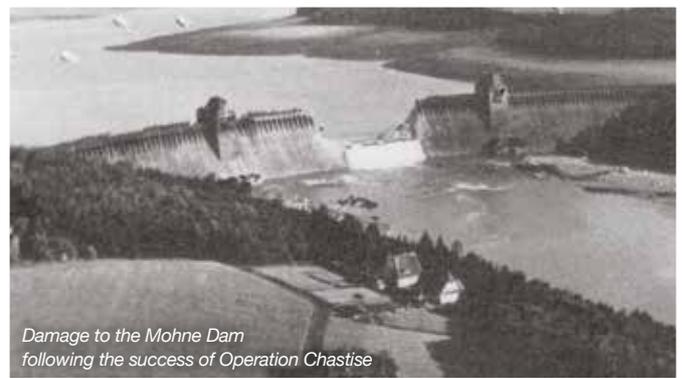


with their new Lancasters, equipped with their unusual bombs, with Gibson and his crew being amongst the first. Performing practice releases at the test site at Reculver on the north Kent coast, crews were amazed to see these large rotating mines actually skipping along the surface of the sea and heading inland towards the beach, leading many of them to immediately assume that their intended target would be the massive German battleship Tirpitz.

With a relatively short training period ahead of them and using new weapons and specific delivery methods, not everything went entirely to plan during the practice release sorties and several Lancasters were damaged by the huge plume of water which resulted from the mine hitting the sea and engulfing the rear of the aircraft. If the Lancaster was flying too slowly or if the aircraft was too low to the water at the point of release, this splash plume could cause significant damage, resulting in the aircraft needing maintenance time in the hangar. Indeed, one Lancaster was so badly affected by a splash plume that it was still receiving attention on the night of the raid itself, meaning the attack force was now down to just 19 aircraft.

Optimum Upkeep delivery

The intense flying training in the days leading up to the dam's raid illustrated that there was a problem with the initial delivery instructions issued to the crews. Dropping their mines at a height of 150ft was resulting in too many of them breaking up or failing to deploy as intended. Watching from the beach at Reculver, the inventor of the weapon and its delivery method, Barnes Wallis, could clearly see the problems the Lancaster crews were having and amended the optimum delivery requirements to ensure their success – unfortunately, these changes were not going to make things any easier for the crews. Still unaware of their intended target, the crews must deliver their Upkeep mine from a height of just 60ft above the water, travelling at 220mph and at a distance of around 450 metres from the target, all whilst potentially coming under heavy enemy defensive fire, having safely navigated to a target by night. The back-spinning mine was designed to skip across the surface of the water, bouncing over defensive anti-torpedo nets before coming to rest against the wall of the dam. The still back-spinning mine would begin to sink, with the direction of the spin ensuring it retained contact with the dam wall and at a pre-determined depth of 30ft, would detonate causing maximum



Damage to the Mohne Dam following the success of Operation Chastise

damage and hopefully a breach of the structure – that was the theory in any case.

For this to happen, the crews would have to navigate to their targets at extremely low level and over hostile territory, before negotiating the steeply sided valleys which protected the dams and perfectly executing their attack run, most likely coming under intense enemy defensive fire and using a new weapon operationally for the first time – these crews were about to write their names in aviation history.

On the day prior to the attack, Gibson was finally briefed on the mission and his intended targets – primary targets were A - the Mohne Dam, B – the Eder Dam and C – the Sorpe Dam, with three additional dams listed as secondary targets, information he then shared with a small number of his trusted officers. He was also informed of the impact a successful attack would have on both the Allied war effort and the morale of the German people. Barnes Wallis had calculated that the successful delivery of just a single mine would be sufficient to cause a breach as long as the dams were full and whilst he was more concerned with the science behind this audacious attack, military planners knew how devastating the potential outcome could be. Striking at the very heart of the mighty German industrial manufacturing base in the Ruhr valley, their aim was to disrupt war production by breaching three of the huge dams in the area, depriving factories of water and power generation, whilst also wreaking devastation on an unprecedented scale, with the torrent of water potentially flooding the entire region. Devastation on this scale would both seriously affect Germany's ability to keep its armed forces supplied with weapons and ammunition, whilst also rendering

large areas of farmland unworkable. The resultant repairs would draw valuable resource away from front line operations and force the continued deployment of Luftwaffe units in the area, again preventing them from being used elsewhere.

'Operation Chastise' **– The attack against Germany's great dams**

During the afternoon of the attack date of 16th May 1943, a full briefing took place at Scampton and for the first time, the men of No.617 Squadron would learn of the task that lay before them and the reason behind the weeks of intensive training. Following the briefing, the men made their own individual preparations for the coming operation, some writing letters, some in the company of their fellow crewmates and others making final checks on their aircraft, but by 9.00pm the airfield was reverberating to the sound of 56 Merlin engines powering up. The attack would be formed of three waves of aircraft, with the first two having defined targets, whilst the third would follow later as a reserve force and receive their target instructions en-route, dependent on the success for the previous attacks. The second wave, which consisted of five aircraft, had a primary target of the Sorpe Dam, but as their route took them on a more northerly course than the main attack wave, they were the first aircraft to leave Scampton. These were closely followed at 9.39pm by the first wave, which consisted of nine Lancasters heading for their primary target of the Mohne Dam and was led by the Operation Commander Guy Gibson. These aircraft would leave Scampton in sections of three, ten minutes apart and take a route south over Suffolk, before heading out over the North Sea and crossing the Dutch coast at Zeeland, heading inland towards their target. The routes had been planned to avoid known concentrations of defensive flak and Luftwaffe nightfighter bases, but a raid of this size was certain to attract the attentions of enemy units.

The third attack wave would follow the same route as Gibson's main group but would not take off from Scampton until just after midnight on the morning of 17th May, over two hours after the first Lancasters had left. We now know that by this time, the attacking force had already lost three aircraft destroyed and a further two being forced to abort their missions and return to base. Guy Gibson and his crew were also approaching the vicinity of their primary target and preparing to launch their first attack run against the Mohne Dam.

It is difficult to imagine the level of courage displayed by each and every crew member involved in Operation Chastise and the brave men of the Dambusters Raid. As Gibson and his crew made their attack run on the Mohne, the other Lancasters of the first wave circled the heavily defended target area, watching the effectiveness of the attack run and waiting for the instruction to commence their own attack. Having already released his Upkeep, Gibson flew alongside further aircraft during their run, attempting to draw enemy fire away from the attacking aircraft, in the hope that this would allow the other crew to deliver their weapon in the optimum manner and effect a breach. The fifth mine dropped was a perfect run and exploded in exactly the right place to cause the already weakened dam to fail – success. The remaining aircraft still carrying mines immediately set course for their secondary target, the Eder Dam, which was a further 45 miles deeper into German territory and a notoriously difficult target to attack. They were accompanied by Gibson's Lancaster, as he intended to oversee the attack on this next target, doing what he could to help ensure a second breach.

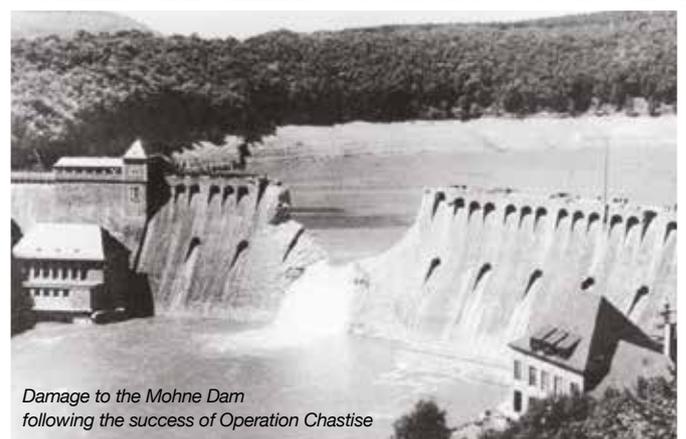
With steep wooded hills surrounding the Eder, the pilots would have to make perilous dives and tight turns to line up correctly on the target, before dropping their 'Upkeep' bomb at the optimum height in order to affect a breach. Fortunately for the crews, this severe terrain meant that the dam was not defended by Luftwaffe anti-aircraft units and the attacking Lancasters even had the luxury of being able to drop flares to mark the optimum

route to target. In spite of this, many were forced to make several aborted attack runs before finally releasing their mines, due to the difficulty of lining up correctly and all the time fearful of coming under enemy fighter attack. The Eder Dam was finally breached following a direct hit by the third aircraft to release its Upkeep mine and the remaining aircraft of this first wave all began the long and hazardous journey back to Scampton.

The heavy price of success

'Operation Chastise' was heralded as a huge success for Bomber Command, achieving many of the aims they had hoped for at the outset of the programme and illustrating that strategic, precision attacks could have a significantly greater impact than traditional area saturation bombing. Whilst the surviving Lancaster crews were trying to get some well earned rest back at Scampton, RAF reconnaissance Spitfires were already over the target areas obtaining photographic evidence of the devastation caused by the raid and with it, helping to create the enduring legacy of the brave Dambusters aircrew of RAF No.617 Squadron. The torrent of water from the dam's breaches resulted in significant loss of life, the destruction of two power stations and damage to a further seven, with many factories and houses either completely destroyed or damaged. Road and rail infrastructure was also severely affected, but most importantly, the Ruhr armaments factories suffered significant disruption and resulted in huge resource being required to re-establish production. The area was however, so important the German war effort that despite initial British hopes that the devastation would take years to recover from, the disruption would prove to be only the matter of a few short months. It also led to Barnes Wallis' frustration about the lack of follow-up raids to undermine the repairs taking place to the damaged dam walls, which he felt was something of a betrayal of the efforts of his Dambusters, many of whom did not return from the raid.

Displaying exceptional valour and extreme professionalism in undertaking this unique raid and having only undertaken a relatively short period of training, the men of No.617 Squadron would ultimately pay a heavy price for their skill and devotion to duty. Of the 19 Lancasters taking part in 'Operation Chastise', eight failed to return and 53 airmen would pay the ultimate price, a figure which represents a casualty rate of almost 40% of the men involved. With an average age of just twenty-two years, this collection of airmen from Britain, Australia, Canada, New Zealand and the USA came together to achieve something extraordinary and provide the Allied nations with a timely morale boost as they prepared for the final thrust against the Axis powers. It could be argued that the legacy of 'Operation Chastise' proved to be much more than the efforts of 19 specially equipped Lancasters and their precision bombing mission, but there can be no doubt that the airmen of RAF No.617 Squadron who carried out the raid will always be remembered as the 'Dambusters', with every one of them rightly earning a unique place in aviation history. ■



Damage to the Mohne Dam following the success of Operation Chastise