

## Dambusters:

A sight to make the heart swell: Britain's only airworthy Lancaster rolls back the years as it skims over Derwent Reservoir where Dambuster crews trained for famous raid 70 years ago

Dam in the Hope Valley of Derbyshire was used by brave airmen for practice runs in WWII

RAF Battle of Britain Memorial Flight and 617 Squadron passes over reservoir's twin towers

Flypast one of many events to mark anniversary of the daring Dams Raid of May 16-17 1943

A Lancaster bomber performed a flypast at Derwent Reservoir today as part of events to mark the 70th anniversary of the war-time Dambusters air raid.

The dam, in the Hope Valley of Derbyshire, was used by the brave airmen for practice runs. Today, the RAF Battle of Britain Memorial Flight and 617 Squadron recreated history by flying over the twin towers of the reservoir.

A Mark X1X spitfire flew over, followed by the Lancaster . It was followed by two tornado GR4s from the current 617 squadron.



Spectacular: A Lancaster bomber during the Battle of Britain Memorial Flight performs a flypast over the Derwent Reservoir in Derbyshire.





What a sight: The Lancaster bomber during the Battle of Britain Memorial Flight performs the flypast. Veterans and invited guests gathered for the event.



Remembered: The planes, armed with scientist Dr Barnes Wallis' bouncing bombs, flew to the Ruhr Valley either side of midnight on May 16, 1943.





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Beautiful: The only operational Lancaster in Europe flew over the Derwent Reservoir to mark the 70th anniversary of the Dambusters raid.



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Flight: Even with the loss of life, the operation was hailed an incredible success at the time but in recent decades historians have downplayed its effects.





Coming in: The Royal Air Force's Memorial Flight Lancaster Bomber sweeps low over the Derwent Dam in commemoration of the 70th anniversary of the Dams raid.



Up in the air: A Second World War Lancaster bomber takes off from RAF Scampton in Lincolnshire, where the crews set off from on their mission 70 years ago.



Ready to go: A Lancaster bomber prepares for take off at RAF Scampton. Ladybower and Derwent reservoirs were used by the RAF's 617 Squadron to test the bouncing bomb.



Checks: A pilot makes final preparations before take off in a Second World War Lancaster bomber at RAF Scampton in Lincolnshire.





Posing: Second World War re-enactors stand for a photo in front of a Lancaster bomber at RAF Scampton in Lincolnshire.

The aircraft were set to continue on to Chatsworth House to carry out a flypast for members of the public gathered for the historic moment.

The flypast was one of several events taking place to mark the anniversary of the daring Dams Raid of May 16-17 1943 during the Second World War.

In Staffordshire, the Royal British Legion was due to create a Field of Messages at the National Memorial Arboretum in Alrewas.

More than 10,500 cardboard crests carrying written messages from supporters were on display at the memorial throughout the day.



Emotional: Leading aircraftsman, Cyril Gosling, 90, the only Dambusters veteran on the dam, layed a wreath to mark the 70th anniversary of the daring raid.



On the ground: Guy Gibson's modified Lancaster B.I, ED825/G, designed by Barnes Wallis and used by 617 Squadron to attack dams in the Ruhr industrial heartland of Germany on 16/17 May 1943.



Daring: Dambusters Raid leader, Wing Commander Guy Gibson, seen with his crew as they board their Avro Lancaster III ED932/AJ-G for the Dams' Raid in May 1943. (Left to right) Flight Lieutenant RD Trevor-Roper, Sergeant J Pulford, Flight Sgt GA Deering, Pilot Officer FM Spafford, Flt Lt REG Hutchison, Gibson and Plt Off HT Taerum.



Days gone by: Wing Commander Guy Gibson (left), the Commanding Officer of 617 Squadron, and Sir Barnes Wallis (right), inventor of the bouncing bomb, used in the Lancaster bomber raids on the dams of the Ruhr and Eder Valleys in Germany during the Second World War.

Later, a sunset ceremony will take place at RAF Scampton, near Lincoln , where the crews set off from on their mission 70 years ago.



Veterans and invited guests will gather for the event, which is set to include a further flypast by the Battle of Britain Memorial Flight and 617 squadron.

The raid was carried out by 133 airmen in 19 Lancaster bombers from the specifically formed 617 squadron.

It was an attempt to cripple a major part of the Nazi war economy by carrying out attacks on three dams in the industrial heartland of Germany .



Meeting: Britain's last dambuster, Sqn Ldr George 'Jonny' Johnson, 91, with Mary Stopes-Roe, daughter of Sir Barnes Neville Wallis, who invented the bouncing bomb.



© PA

Inspection: Retired Squadron Leader Clive Rowley with a Lancaster and a Hurricane at RAF Coningsby. Rowley is a former commanding officer of the Battle of Britain Memorial Flight.



© PA

Proud: Retired Squadron Leader Clive Rowley poses with a Lancaster at RAF Coningsby in Lincolnshire. Rowley is now an aviation historian and author.





© Rod Kirkpatrick/F Stop Press



Taking flight: A Lancaster bomber was put through its paces taxiing along a Lincolnshire airfield. In the interior, a radio operator's position and the cockpit can be seen.



© Rod Kirkpatrick/F Stop Press

Cockpit: The top-secret mission, codenamed Operation Chastise, was led by wing commander Guy Gibson and was credited with boosting morale across Britain.

**THE DAM BUSTERS**  
Operation Chastise 16/17th May 1943

**617 SQUADRON**  
ROYAL AIR FORCE  
617 SQUADRON

**AFTER ME THE FLOOD**  
617 Squadron was formed at Scampton on 21 March 1943 specifically to undertake one operation - Operation Chastise - the breaching of dams vital to the German war effort. The Squadron's Commanding Officer, Wing Commander Guy Gibson, was given free reign to comb other Lancaster squadrons for the crews he thought could best undertake the mission.

**THE TARGETS**  
The successful attacks on the Mohne and Eder dams released 330 million tons of water into the western Ruhr, reducing water production by 75% and flooding large amounts of farmland. It was an economic disaster for the Third Reich that diverted significant resources away from Germany's war effort at a critical point during the conflict.

**THE MISSION**  
Lancasters were dispatched in three waves, each aircraft armed with the Upkeep bomb developed by Barnes Wallis for attacking German dams. The operation was to be carried out at low level to escape attack from night fighters and to release the bombs just above the water in the reservoirs. Wing Commander Gibson's aircraft and four other crews bombed the Mohne Dam and breached it despite intense fire from defending forces. Three aircraft went on to bomb the Eder Dam, which was also breached. Two aircraft bombed the Sorpe Dam and one the Schweins Dam but without breaching in their walls. The twelfth surviving aircraft could not find its target in low visibility and returned to England without dropping its bomb. Three further Lancasters were shot down after they had released their bombs.

**THE LANCASTER**  
Lancaster B Mk.III (Special)

**OPERATION CHASTISE**  
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**THE BOMB**  
The rod and spring under compression  
Bomb bay structure  
Trusses swing outwards to release bomb

**THE INVENTOR**  
Scientist and engineer Barnes Wallis

**THE RAID**  
Two spotlights were used to gauge altitude; modified Lancasters dropped backscupper drum-bombs which skipped over torpedos nets protecting the dam. After impact the bombs spun down to the dam's base and exploded.

**THE ROUTE**  
RAF Scampton  
1st & 3rd Wave  
2nd Wave  
Flouffe flown by the first and third waves  
Route taken by the second wave  
Attack route on the primary targets (Mohne, Eder and Sorpe) taken by all waves  
Enschede  
Approximate routes taken by the Lancasters from RAF Scampton to the dams in the Ruhr valley

**SPECIFICATIONS**  
Length: 169ft 6  
Wing span: 102ft  
Bomb load: up to 22,000lbs  
Range: up to 2,530 miles  
Power: 4x Merlin engines - 1,250 horse power each  
Speed: 275mph max cruising flight  
Crew: 7  
Surface ceiling: 24,500ft  
Total Lancaster production: 7,366

**NUMBERS**  
2 dams breached  
8 aircraft shot down  
53 aircrew killed  
3 aircrew taken prisoner  
1 dam lightly damaged  
approx. 1,600 killed (including 1,000+ prisoners and forced labourers)

Press Association Graphic  
Sources: Press Association Images / MOD; thedambusters.org.uk

Dambusters: The raid, carried out by 133 airmen in 19 Lancaster bombers from the 617 Squadron, was an attempt to cripple a major part of the Nazi war economy.

## DAMBUSTERS GAME APP LAUNCHED

Now anyone can try to experience what it might have been like to have been involved in the 1943 Dambusters raid.

An iPhone and iPad app has been developed by former pilot Bruce Steel to give a 3D simulation of the mission.

He told the Daily Telegraph: 'The first version of the game was so accurate that nobody could play it.'

'The challenges faced by these men were so great that I had to simplify the gameplay so that people could actually play it.'

Fifty-six of the men did not return from the mission, which required them to fly the Lancaster bombers at just 60ft above the ground - incredibly low when compared to the 250ft aircraft must fly at nowadays - in the dark across northern Europe.

The top-secret mission, codenamed Operation Chastise, was led by wing commander Guy Gibson and was credited with boosting morale across Britain.

The planes, armed with scientist Dr Barnes Wallis' bouncing bombs, flew to the Ruhr Valley either side of midnight on May 16, 1943.



The Mohne and Eder dams were breached during the raid and the Sorpe damaged. The attack was immortalised by the 1955 film starring Michael Redgrave and Richard Todd.

Even with the loss of life, the operation was hailed an incredible success at the time but in recent decades historians have downplayed its effects.

Les Munro, the last surviving pilot of the raid, said he believed the raids were justified due to the effect on morale in Britain . Speaking to the BBC, the 94-year-old, who was born in New Zealand, said: 'I believe from an operational point of view they were very successful.



Drawing: An artist's impression of Lancaster bombers from the RAF's No 617 Squadron attacking the Moehne dam in Nazi Germany using one of Barnes Wallis's bouncing bombs.



Plans: Air Marshal Arthur Harris with his staff at HQ Bomber Command, High Wycombe , on 15 May 1942, shortly after taking up the position of Commander-in-Chief.



Heroes: Members of 617 Squadron photographed at RAF Scampton, near Lincoln , after the Dams raid in May 1943. It is now the 70th anniversary of the raids





Miniature: A 50th scale model of The Mohne Dam at the Building Research Establishment in Watford . Research which led to the bouncing bomb was carried out here.

'They had achieved the two major primary targets, they had damaged Sorpe - but not perhaps as great as Barnes Wallis had anticipated - but coming back to the general feeling the effect on the British morale was really significant.'

'I believe from an operational point of view they were very successful'

Les Munro, last surviving pilot of the raid

'I think from that point alone it was justified and can be categorised as successful.'

BBC Radio 2 are broadcasting Chris Evans' Breakfast Show live from RAF Scampton tomorrow to commemorate the anniversary.

Dermot O'Leary and Jeremy Vine will present a Friday Night Is Music Night concert live from Biggin Hill Airfield.

**'I'M THE PROUDEST MAN ALIVE': BRITAIN 'S LAST SURVIVING DAMBUSTER MARKS 70TH ANNIVERSARY AGED 91.**



© John Aron / Newsteam

Memories: Heroic George 'Johnny' Johnson, 91, joined fellow RAF veterans to commemorate the 1943 raid at a cinema just yards from the mess hall he had used as a young airman

Britain's last surviving Dambuster marked the 70th anniversary of the legendary raid with a special screening of the iconic film and said: 'I'm the proudest man alive'.



Heroic George 'Johnny' Johnson, 91, joined fellow RAF veterans to commemorate the 1943 raid at a cinema just yards from the mess hall he had used as a young airman.

The 617 Squadron veteran served as a 'bomb aimer' in the daring mission - credited with turning the tide of the Second World War - to destroy three dams in the German Ruhr Valley .

Mr Johnson was charged with releasing an 8,500lb 'bouncing bomb' from a Lancaster bomber flying just 30ft above the water of the Sorpe Dam.

The explosive was successfully deployed after eight attempts, causing a 10ft breach in the concrete wall and hampering the German War effort.

Mr Johnson - wearing medals from his 22-year RAF career - returned to Woodhall Spa, Lincolnshire , where his squadron had been based, to attend a screening of the 1959 'Dambusters' film yesterday.

Speaking afterwards, he told how he and comrades in Lancaster bomber 'T for Tommy' narrowly escaped death during the risky mission.

He said: 'I still remember it every day. It's like it happened yesterday. I was fortunate. I was one of the lucky ones.

'So many good men didn't come back. I had the right pilot and was in the right plane, at the right time. It's not something you forget in a hurry, even though it was all those years ago.

'So many of my good friends lost their lives. We were just relieved to get back in one piece but no-one felt like celebrating. When I look back at what we achieved, I'm the proudest man alive.'

Upon their return to RAF Scampton, George told how he and his comrades had inspected the pilot's seat to find it riddled with bullet holes.

Following the successful mission, the exhausted serviceman sat down to a breakfast of powdered scrambled eggs, bacon and tea.

Mary Stopes-Roe, daughter of 'bouncing bomb' inventor Barnes Neville Wallis, also attended the showing at the Kinema in the Woods cinema. The decorated serviceman - who holds a Distinguished Flying Medal - has tirelessly campaigned for a memorial to Bomber Command.

He went on to become a teacher after leaving the RAF and now lives in Bristol . He married Gwyn just two weeks before the raid. She died in 2005.

VIDEO: [Dambuster Memorial Video](#)