

= D @-@ Day naval deceptions =

Operations Taxable , Glimmer and Big Drum were tactical military deceptions conducted on 6 June 1944 in support of the Allied landings in Normandy . The operations formed the naval component of Operation Bodyguard , a wider series of tactical and strategic deceptions surrounding the invasion . Small boats , along with aircraft from RAF Bomber Command , simulated invasion fleets approaching Cap d 'Antifer , Pas @-@ de @-@ Calais and Normandy . Glimmer and Taxable played on the German belief , amplified by Allied deception efforts over the preceding months , that the main invasion force would land in the Calais region . Big Drum was positioned on the western flank of the real invasion force to try to confuse German forces about the scale of the landings . These operations complemented Operation Titanic , which was intended to confuse the Germans about the D @-@ Day airborne forces .

It is unclear whether the operations were successful , due to the complexity of their execution , poor weather , and lack of response from German forces . It is possible that they contributed to the overall confusion of D @-@ Day as part of the wider Bodyguard plan .

= = Background = =

Glimmer , Taxable and Big Drum were World War II deception operations . They were conducted as part of Operation Bodyguard , a broad strategic military deception intended to support the Allied invasion of German @-@ occupied France in June 1944 . Bodyguard was designed to confuse the Axis high command as to Allied intentions during the lead @-@ up to the invasion . The London Controlling Section (LCS) had spent some time convincing German commanders that the fictional First United States Army Group (FUSAG) represented the bulk of the Allied invasion force . FUSAG 's existence was fabricated through Operation Fortitude South .

The Allied story for FUSAG was that the army group , based in south @-@ east England , would invade the Pas @-@ de @-@ Calais region several weeks after a smaller diversionary landing in Normandy . In reality , the main invasion force would land in Normandy on D @-@ Day . As D @-@ Day approached , the LCS moved on to planning tactical deceptions to help cover the progress of the real invasion forces . As well as naval operations , the LCS also planned operations involving paratroopers and ground deceptions . The latter would come into effect once landings were made but the former (involving naval , air and special forces units) were used to cover the approach of the true invasion fleet .

In preparation for the coming landings , Allied scientists had worked on techniques for obscuring the size and disposition of an invasion force . The German defences relied on the Seetakt radar system . Scientists from the Telecommunications Research Establishment discovered that the resolution of the Seetakt was about 520 yards (480 m) . To deceive the radar system they proposed dropping clouds of aluminium foil (chaff , then code @-@ named Window) at two mile intervals . The clouds would appear as a continuous blip , similar to one created by an approaching fleet , on German screens . The Allies also repurposed radio equipment , code named Moonshine , to jam the Seetakt signal . Allied command decided that , rather than mask the approaching fleet , these measures would serve to alert German defences . So it was decided to combine these techniques with small groups of boats to simulate an entire invasion fleet aimed at the Calais region .

Allied planners proposed that small boats , towing large radar reflecting balloons (code named Filbert) and carrying both Moonshine jamming and standard wireless equipment (for transmitting fake traffic) , would advance toward the French coast under a cloud of Window . The chaff and other countermeasures would hide the small size of the naval force while wireless traffic would play on the FUSAG story to mislead the Germans into expecting a major landing . A third deceptive force , Operation Big Drum , would use radar countermeasures on the western flank of the true invasion fleet . This operation was intended to lend confusion as to the extent of the landings in Normandy .

= = Glimmer and Taxable = =

Glimmer and Taxable were very similar operations . They were executed in the early hours of 6 June 1944 whilst the invasion fleet was approaching Normandy . Taxable simulated an invasion force approaching Cap d 'Antifer and Glimmer threatened Pas @-@ de @-@ Calais . By dropping chaff in progressive patterns , Royal Air Force (RAF) bombers were able to create the illusion of a large fleet on coastal radar screens . Beneath the chaff , small boats towed radar reflector balloons and simulated the radio traffic expected of a large fleet . Once German forces were drawn to the coast , it was planned that the RAF would attempt to contain them in this region , and away from Normandy , by bombing bridges and roads .

The operations required precise flying in elongated circuits with replacement aircraft having to merge in seamlessly to avoid tell @-@ tale gaps . The bombers were staged at 2 @-@ mile (3 @-@ 2 km) intervals parallel to the French coast . Once in position they would spend two and a half minutes flying toward the coast , dropping chaff at fifteen @-@ second intervals . Then the aircraft would turn and head away from the coast for two minutes and ten seconds . By repeating this circuit , the wide cloud of chaff edged toward the coast just like a real sea @-@ borne fleet . The aircraft had to be modified by cutting a hole in the nose to allow the large quantities of chaff to be dropped .

The larger of the two operations , Taxable , was carried out by 18 small boats , a mix of Harbour Defence Motor Launches (HDML) and RAF Pinnaces , designated Special Task Force A. Chaff was dropped by Lancaster bombers from the No. 617 " Dam Busters " Squadron . Each aircraft carried an expanded crew of up to 14 . The squadron began training for the operation on 7 May , but were not aware of their final target .

Task Force A left port in the evening of 5 June , but struggled in bad seas which affected their equipment and ability to converge at their meeting point . By 00 : 37 on 6 June the lead boats were on schedule and had reached the muster point . Between 02 : 00 and 04 : 00 the ships operated radar and radio equipment as they headed toward a point 7 miles (11 km) offshore . From there the task force simulated a landing attempt ; by running fast to within 2 miles (3 @-@ 2 km) of the beach before returning to the 7 @-@ mile marker under cover of smoke . During this time only a small German response was observed including searchlights and intermittent gunfire . Shortly after 05 : 00 the operation ended and the task force laid mines before heading toward Newhaven , reaching port by midday .

The air operations for Glimmer were conducted by No. 218 " Gold Coast " Squadron under Wing Commander R. M. Fenwick @-@ Wilson . The squadron , which flew Short Stirling bombers , was much smaller than No. 617 and so no relief aircraft were available . Instead each aircraft carried two pilots who rotated flying duties . The naval contingent , Special Task Force B under the command of Lieutenant Commander W. M. Rankin , consisted of 12 HDMLs equipped with jamming gear , radios and radar @-@ reflecting balloons . The task force began jamming operations at approximately 01 : 00 followed by radio chatter around an hour later .

Glimmer elicited more response from German forces than Taxable including reconnaissance planes sent to investigate the " fleet " . After completing their assignment (which , unlike Taxable , did not include laying mines) the ships returned to port , reaching their berths by 13 : 00 on D @-@ Day .

= = Big Drum = =

Big Drum was similar to the other D @-@ Day naval deceptions , but without an airborne component . Task Force C consisted of four HDMLs , whose job was to operate as a distraction on the western flank of the invasion . The plan originally called for the task force , which was attached to Force U (the westernmost convoy of the invasion fleet) , to operate radar jamming equipment as it approached the French coast , holding 2 miles (3 @-@ 2 km) off shore until first light . After the Germans failed to respond , the ships moved to within 1 @-@ 5 miles (2 @-@ 4 km) of the coast . No response , either in the air or on the shore , was observed , and the convoy returned safely to Newhaven .

= = Impact = =

Taxable , Glimmer and Big Drum were complicated in execution , requiring coordination of air and naval forces . Launched in poor weather conditions , Taxable did not appear to have the desired effect and failed to elicit any significant response from the Germans . The reaction to Glimmer was more encouraging . The attacks on the bomber squadrons indicated , at least to the satisfaction of RAF Bomber Command , that the Germans believed a genuine threat existed . There is no evidence that Big Drum elicited any specific response from the shore . According to historian Mary Barbier , the adverse conditions and complexity of the operations contributed to the limited enemy response .

From intelligence intercepts it appears that German forces in the Pas de Calais region reported an invasion fleet . In addition , there are reports of the decoys being fired on by shore batteries in that area . In an 11 June report on the operations , Lieutenant Commander Ian Cox (who was in charge of deception units) indicated that German forces had been convinced by the fake radio traffic . Intercepted dispatches from Hiroshi ?shima , the Japanese ambassador to Germany , made reference to the naval deceptions . An 8 June dispatch referred to the Calais region and stated " an enemy squadron that had been operating there has now withdrawn " .

Although disappointed not to have seen any action during the night of D @-@ Day , and still unsure of their actual impact , the bomber crews felt proud of the operations . Squadron Leader Les Munro of No. 617 Squadron wrote , " I have always considered the operation in one sense to be the most important the squadron carried out in my time ? not because [of] bad weather , nor because of any threat of enemy action and not measured by any visible results , but because of the very exacting requirements to which we had to fly and navigate " .