

# **BOMBING DECOY AT THE OUTSTRAY HUMBERSIDE**

## **ARCHAEOLOGICAL SURVEY REPORT**

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RCHME Newcastle

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HUMBERSIDE**

**TA 22 SW 11**

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Keith Blood

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During the Second World War, in a vain effort to confuse German bombers heading for Hull, an arrangement of water-filled, concrete tanks, each one illuminated by an overhead lamp, was constructed on The Outstray, a large area of saltings on the north bank of the Humber Estuary 9kms downstream from Hull. The tanks were designed and positioned in such a way as to simulate the docks at night in an imperfectly blacked-out state.

The name the Outstray is applied on the OS 25-inch maps of 1968 and 1969 to the saltings which then extended from about TA 215 210 in the south-east to about TA 178 246 in the north-west, a distance of over 5kms, between mud flats to the south-west and a flood protection bank to the north-east; the bank, up to 3.5m high, defines the south-west edge of farmland. Since 1969, a new flood bank has been constructed from TA 187 238 to run in a north-westerly direction closer to the river. The whole area of former salt marsh to the north-east of this new bank, in total about 20 hectares, has been reclaimed, and is now under winter wheat. Towards the south-east end, the saltings are quite wide, up to 330m from the mud flats to the flood bank, and it is here where most of the wartime tanks have survived. To the north-west, the marsh narrows perceptibly until the inshore edge of the mud flats and the bank are virtually coincident, though new saltings are developing. There are a number of shallow, brackish ponds on the saltings including a wildfowlers' decoy pond surrounded by hides; these tend to vary in size and shape dependant on the height of the more recent tides, and have therefore been omitted from the plan.

The existence of the tanks was brought to the attention of RCHME in the final report on the Holderness Pilot Study on military installations undertaken by the Fortress Study Group for RCHME, and completed in July 1992.

There have been at least 47 tanks disposed along the Outstray from TA211 217 to TA186 241, a distance of about 3.5kms, of which 45 were depicted on the OS 25-inch maps of 1968 and 69. Since then, 17 of them have been destroyed either by erosion of the saltings, by land reclamation, or by total or partial demolition. Almost all of the survivors are in the south-east part of the marsh, and this area was chosen for a 1:2500 survey by RCHME Newcastle in order to check the portrayal of the tanks on the current OS 25-inch published map, surveyed in 1967, and also to determine the degree of erosion which had occurred since then. For this a Wild T1000 theodolite and DI1000 EDM total stations package were used. The RAF APs of 1946 (CPE/UK.1748:1096-8 and 6032-4), of 1947 (CPE/UK.2042:1078-9), and of 1948 (541/170:3326-7) were also examined to assess the erosion factor and destruction since the war. For that part of the Outstray to the North of the RCHME survey, the OS 25-inch maps (paper copies) were examined and modified where necessary.

It became clear during the course of the survey, and by examination of the OS 25-inch maps, that most of the tanks were aligned in such a way to replicate individually some of the docks in Hull or parts thereof, albeit at a reduced scale, which had been incompletely blacked-out. When lit up by their attendant lamp, the triangular tanks were intended to represent the internal angles of the docks, and the pentagonal examples the re-entrant angles. Accordingly, the tanks have been grouped into separate 'docks', and numbered individually within the group (A9, C3 etc).

According to Mr Wilf Leake (pers. comm.), who farmed at Little Humber during the war, the tanks were built in 1941, and the lamps, known as "leaking lights" were operated by the Royal Navy from a post centred at TA 1981 2361. Part of this post has survived; it is a brick-built structure, 10m by 3.5m, faced with cement, with a flat roof of concrete. Much building debris has been piled up against it, and it is no longer possible to gain entry, nor to establish how much has been demolished. Presumably this structure contained machinery for the generation of power for the lights.

The walls of the tanks, 0.5m high, and their floors are of unitary concrete construction, designed to hold water, which many of them still do. They are either rectangular (on average 9m by 5m) right-angled triangular (c.6.5m by 6.5m) or pentagonal (c.10m by 9m). Adjoining the wall of each tank is a concrete foundation, about 0.8m square and up to 1m deep, into which a vertical wooden post, about 3m high, has been set (see RCHME plans of tanks at 1:100 scale). A lamp was attached to the top of this post, and angled to shine onto the water-filled tank. None of the lamps survive but several of the posts do to full height.

Referring to the RCHME 1:2500 plan, group A at TA 209 218 formerly comprised 16 tanks (A1-16) arranged in the shape of a broad, squat T, 455m from the north-west to the south-east by a maximum of 136m transversely. This is a scaled-down, incomplete representation of King George V Dock in Hull (at TA 144 286), which is about 1150m long (measured on OS 1:50000).

Tank A1: triangular, water-filled with a broken stump of the post. (NW corner of dock).

A2: rectangular, water-filled; wooden post survives to full height (see RCHME enlargement at 1:100).

A3: identical to A2.

A4: visible on RAF AP CPE/UK.1748:6032 but not shown on OS 25-inch map of 1967. This tank was located by RCHME in 1992; it is rectangular and water-filled, measuring 9.5m by 5.0m. The post has been sawn off flush with the concrete foundation.

A5: rectangular and water-filled; part-buried post-foundation is on the north side.

A6: same as A5.

A7: rectangular and water-filled with sawn-off post; situated on the edge of a duck-decoy pond.

A8: a raised hide has been built on the top of this triangular tank, and only parts of the north and east sides, including the stump of the post, are visible.

A9: a triangular tank, part waterlogged, part obscured under a platform of earth, probably to accommodate a hide. The post has been sawn off.

A10: rectangular and water-filled; the post survives to a height of 0.8m.

A11: this tank, shown on OS 24-inch map of 1967 as pentagonal, appears to

have been systematically destroyed. All that remains *in situ* is part of the post and a short length of concrete wall; the rest is either displaced or removed entirely.

A12: Rectangular and waterlogged; the concrete foundation for the post is hidden beneath the turf on the south side.

A13: similar to A12.

A14: waterlogged and pentagonal; detail of post-foundation hidden beneath the turf (see RCHME 1:100 enlargement).

A15: rectangular, water-filled tank; post is in situ to full height.

A16: triangular and water-filled; post broken off at base.

Group B comprising three rectangular tanks (B1-3) arranged in a curving line; no features forming a similar pattern can be identified in Hull Dockland.

B1: rectangular and water-filled, with the post surviving to full height.

B2 and B3 are both water-filled; the post has been sawn off at the base.

Group C, containing eight, possibly nine, tanks (C1-9), is a more tenuous arrangement than A. It seems to be in the form of a rectangle, smaller than A, but the disposition of the tanks at the north-west side (C8 and 9) is confusing. Also due to the reducing space available on the saltings, it was not possible for the builders of the tanks to fit in a replication of the whole of the south-west side of the dock. Nevertheless, judging by the pattern of tanks and their relationship to group A (confidently identified as King George V Dock), it appears highly probable that C was intended to represent Alexandra Dock centred at TA124 289 in Hull.

C1: triangular and water-filled with the remains of a post, 0.3m high. It seems to represent the north corner of the dock.

C2: this tank is partly water-filled, but it has been mutilated by the routing of a later drainage pipe into it, and some of the concrete edging has been piled up in the middle.

C3: rectangular, of which only three sides survive; the wooden post remains to full height. It adjoins a shallow pond and is waterlogged.

C4: a triangular, water-filled tank; no post is visible.

C5: triangular and water-filled; post 0.2m high.

C6: rectangular containing water; the post is 0.3m high.

C7: largely destroyed by the erosion of the saltings, the remains of this tank, which has been rectangular, now lie in the mud flats. They comprise the wall at the east and west corners, most of the concrete floor with a covering of mud, and the post foundation together with the post protruding from it, 0.7m long; all of which are displaced.

C8: rectangular and water-filled with the post to full height.

C9: This is a water-filled triangular tank; the post has been sawn off at ground level. It probably represents the north-west corner of a 'dock', possibly a part of Alexandra Dock.

To the north-west of group C, the Outstray narrows considerably, so that in places the mud flats and the flood protection bank are virtually coincident. Thus the area available to represent the shape of the docks is limited, and the tanks are grouped in a series of lines apparently to suggest one side of the docks only, or possibly the waterfront. It therefore becomes increasingly difficult to equate the tanks with specific docks. The OS map of 1968 shows that group D (at TA199 227) comprised five tanks (D1-5), the end examples being triangular and the intermediates being rectangular; this may be a representation of Victoria Dock, formerly at TA11 28, but now filled in. Since the date of the OS map, erosion of the saltings has in part destroyed the tanks. The RCHME survey extends only as far as and including tank D3; for the remainder to the west of here refer to the OS 25-inch map.

D1: destroyed by erosion and by demolition. At the site are two displaced concrete foundations, each with a socket for a wooden post. From the shape of the concrete, it can be seen that one of them had been alongside a triangular tank, presumably the now defunct D1, and the other was associated with a rectangular example. The most likely explanation is that the latter was moved here from D2, 70m to the south-east.

D2: at this position are scattered pieces of concrete, but nothing remains *in situ*. See D1.

D3: partly destroyed by erosion. It can be seen to have been rectangular, but only a short length of wall remains in place on the south-east side, the rest having collapsed or been removed altogether. The foundation for the post, which has been sawn off, is displaced.

D4: now dry and mutilated by erosion, though in better condition than D3. The concrete base is exposed and some walling survives *in situ*, but most has fallen over or has been taken away. The post remains to its full height.

D5: this has been triangular, but the wall survives only on the north-east and part of the south-west sides, the rest having been carried away by the tide. The post remains to full height.

Group E, centred at TA 194 230, comprised two triangular and two rectangular tanks (see OS 25-inch map of 1969), but all have been destroyed, and little remains of them but small scattered pieces of concrete at their sites. At E4 (TA 1956 2301) are the displaced foundations for two posts, one of which was definitely associated with a triangular tank, presumably E4 itself.

Like E, group F comprised two rectangular and two triangular tanks at the time of the OS map revision of 1969, but there is now absolutely no trace. The saltings have been eroded away almost completely to the base of the flood bank.

Groups E and F may be equated with the docks in Hull extending from TA06 26 to TA09 27, but this is by no means certain.

Tank G1 does not appear to be associated with any others. It has been

undermined by the erosion of the saltings, and it is now deformed, though the triangular shape is very obvious. The floor is cracked and only a short stretch of walling is attached to it; the post foundation is still there.

H1 and H2 are probably associated, but which sector of Hull Dockland they supposedly represent is unclear. Both have been destroyed in the erosion of the saltings, and, at or close to their sites, the concrete bases for the overhead lamps can be identified, out of position, as well as broken pieces of the tanks themselves. A considerable quantity of concrete rubble of World War II vintage has been brought in and dumped along the shore-line in this area as a crude defence against the sea.

Of the remaining three tanks (J1, K1, and L1) which are shown on the OS 25-inch maps of 1969, all have been totally obliterated. The position of J1 is now beneath the re-routed flood bank, and the sites of K1 and L1 occur in reclaimed land. These tanks cannot be related to any identifiable dockland feature in Hull.

An RAF AP of 1948 (541/170:3326) shows an encampment including four walled constructions, octagonal in shape and each about 16m across, hutments and other structures in a field centred at TA201 234. This has been a battery of four anti-aircraft guns of World War II, each within an octagonal blast shelter, with ancilliary buildings, accommodation blocks etc.

All that remains of the gun emplacements now are three mountings comprising a circle of eight iron bolts, 2.15m in diameter, with two larger metal rings opposing each other, all set in a concrete foundation; two of the blast shelters remain, the other has been removed. At the site of the fourth gun there is a huge pile of building debris obscuring whatever may have survived of this emplacement. Also surviving is a flat roofed building, 8.1m by 6.7m, made of reinforced concrete, with heavy iron shutters at the windows, and some concrete building floors and road surfaces. This complex has no direct association with the bombing decoy.

## **Reference**

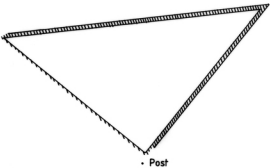
Burridge D *et al.* Final Report on the Holderness Pilot Study by the Fortress Study Group, for RCHME, 1992.

Survey was undertaken by Keith Blood and Colin Lofthouse, RCHME Newcastle.

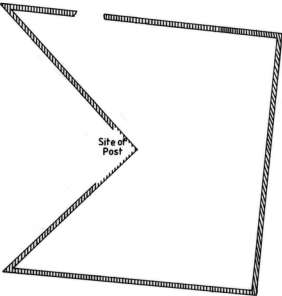


Enlargements at 1 : 100 scale

Tank C5



Tank A14



Tank A2

