

A GUIDE TO SECOND WORLD WAR ARCHAEOLOGY IN SUFFOLK

Guide 1: Lowestoft to Southwold



Robert Liddiard and David Sims

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First published 2014

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Printed in England by Barnwell Print Ltd.,
Dunkirk Industrial Estate, Aylsham, Norfolk, NR11 6SU, UK.



By using Carbon Balanced Paper through the World Land Trust on this publication we have offset 926kg of Carbon & preserved 77sqm of critically threatened tropical forests.

We would like to thank all those who have helped in the production of this guide, especially the staff at the Imperial War Museum, the Suffolk Record Office at Lowestoft, Suffolk County Council Archaeology Service, the RSPB and The National Archives, Kew. Valuable assistance was also provided by Harvey Young. This guide has been produced as part of the 'World War II Heritage' project funded by the European Union: www.worldwar2heritage.com

Lowestoft to Southwold is one of four guides to Second World War archaeology in Suffolk. Three guides examine the anti-invasion coastal defences, built principally in 1940–41, while the fourth examines the stop lines constructed during the same period. Although the Second World War is a conflict rapidly fading from human memory, its physical legacy is more permanent, and in places it is still possible to gain an impression of how militarisation affected the landscape. We hope that this guide will help readers to explore, understand and enjoy the physical remains of that conflict that still lie in the countryside, as well as giving some idea of the historical background.



Introduction

The stretch of coastline between Lowestoft and Southwold is perhaps less well-known than some other parts of Suffolk, but nonetheless is quintessentially East Anglian. The long runs of sandy beaches and grazing marshes, together with the muted topography, give a sense of an isolated landscape that has changed little over time (Figure 1). The tranquillity of the modern countryside belies an altogether more dramatic period of history in the recent past, however, as during the Second World War this part of the coast was transformed into a military landscape, with closed beaches, pillboxes, gun emplacements and artillery batteries.

Today, only a fraction of what was put in place survives. In part this is because the majority of the wartime defences were cleared away after 1945, but it is also due to coastal erosion, which has in places removed whole parts of the coastline, taking the Second World War remains with it. Nevertheless, enough remains to gain an impression of how the coastline of north Suffolk was defended and why defences exist in some places and not others.



Figure 1. The north Suffolk coast. Today it is a tranquil area, but during the Second World War it was very much in the front line of Britain's defence and heavily fortified.

A Vulnerable Coastline

In contrast with the coastal strip further to the south, the landscape of north Suffolk was arguably more conducive to defence (Figure 2). Inland

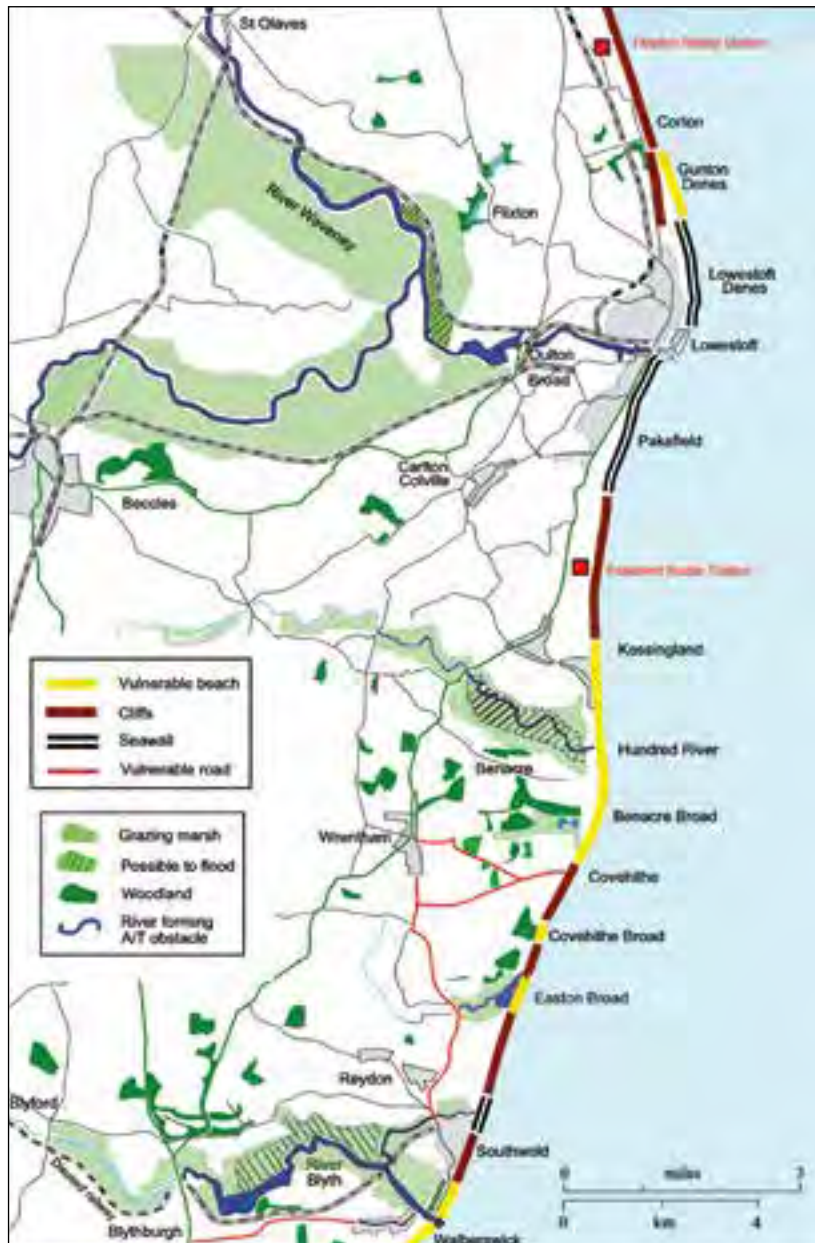


Figure 2. Map of the area covered by this guide, showing vulnerable parts of the coastline.

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from the beaches there was less heath than elsewhere (see Guides 2 and 3), but plenty of small fields with hedgerows and a greater abundance of woodland. While there was some good tank country, the landscape encouraged the use of camouflage and ambushes, and provided numerous opportunities to slow down an invading force. Furthermore, the presence of marshes adjacent to the rivers Blyth and Waveney and the Hundred River, the Easton Marshes, bodies of water at Flixton Decoy and Easton, Covehithe and Benacre Broads, and the marshy landscape inland from Lowestoft at Oulton all meant that north Suffolk was not the ideal place for mass parachute or glider landings (Figure 3).

The presence of long runs of cliffs along this part of the coastline, together with existing sea walls, was also an advantage to British military planners. While infantrymen could land on north Suffolk's extensive beaches and then scale the cliffs, it was different for tanks and other vehicles, which could move inland only where the slopes were shallower or where there were clear exits. The latter were to be found at Southwold, Easton Broad and Kessingland. While in reality troops could be landed almost anywhere, there was little point in



Figure 3. Oulton Broad. The presence of large bodies of water and marshland in this part of Suffolk limited the potential for landings by parachute troops and gliders.

simply dumping men and equipment on the shore; consequently, many of the anti-invasion defences was associated with the relatively small number of places that were viable as entry points to the hinterland.

But the dominant factor in the defence of north Suffolk was the presence of Lowestoft (Figure 4). This is Britain's most easterly point, with the North Sea beyond a 'mobility corridor' that provided access to ports



Figure 4. Lowestoft harbour today. Before the war the town was a fishing port and a holiday destination, but it was soon transformed into a bustling and important naval base.

in Germany and the Low Countries. In both World Wars Lowestoft and the surrounding area was on the front line against invasion and so required substantial defences (Figure 5). In addition to being a target for enemy operations, Lowestoft was a valuable defensive asset in its own right, with its harbour and port facilities important to the protection Britain's domestic sea lanes. In addition, radar stations at nearby Pakefield and Hopton were links in the chain of Britain's air defence system and also presented themselves as targets.

One of the bugbears for British military planners was the exposure of Britain's coastal defences on the landward side. The German capability to land paratroopers and troop-carrying aircraft was well-known and there was an expectation that any invasion attempt or major raid would comprise an assault from inland as well as from the sea. As a result, the hinterland back from the invasion beaches needed to be defended just as much as the coastline. As far as the defence of Lowestoft was concerned, the rear of the town needed protecting, as did the beaches on either side at Corton and Pakefield. It was expected that, if enemy vehicles were got off the beaches, they would envelope the town. Such considerations go a long way to explaining how and why the defence of this part of Suffolk was conducted.



Figure 5. First World War pillbox at Kessingland. Although smaller numbers of pillboxes survive from the First World War than from the Second, those that do survive are an important reminder of an earlier threat of invasion.

Lowestoft

During the war Lowestoft housed some five Royal Navy establishments. Arguably, the most important of these was HMS Europa (known colloquially as Sparrow's Nest), the headquarters for the Royal Navy Patrol Service (RNPS). This often-overlooked part of the Navy operated various small patrol craft and auxiliary vessels and a fleet of requisitioned trawlers that were variously tasked with escorting convoys, anti-submarine operations and minesweeping (Figure 6). At the height of its operation some 6000 naval recruits were training in the town before being detailed off to crew vessels, with some 70,000 men passing through the establishment during the whole war. Unsurprisingly, the



Figure 6. Painting of armed trawlers moored at Lowestoft, 1942. Although not the most glamorous of vessels, ships such as these were vital for maritime operations. (Imperial War Museum ART LD 2146)

town became crowded with seamen, one of whom later described Europa as 'a poverty-stricken set up, and enough to break the spirit of the most hardy of types, let alone a greenhorn landlubber fresh out of training, which was heaven by comparison' (Figure 7).

Lowestoft also had an important role in Britain's inshore convoy system. As the country's rail and road networks were simply unable to cope with the demands of the wartime economy, much of Britain's logistical needs



Figure 7. The 'Sparrow's Nest', now home to a museum.

had to be met by convoys of merchantmen, particularly colliers, which brought coal from the north-east to where it was needed on the south coast and at the channel ports. For much of the war the east coast was a battleground, with convoys exposed to air attack as well as the dangers posed by E-boats, motor torpedo craft and minefields. Royal Navy ships operating out of Lowestoft played a major part in escort duties, mine laying and minesweeping, as well as engaging German vessels operating in the North Sea. Although often overshadowed by the much larger Battle of the Atlantic, the battle of the East Coast was arguably just as important in a regional context and some twenty-eight Lowestoft vessels were lost during the conflict (Figure 8).

As a military asset, Lowestoft was naturally a target for German attack. A bombardment by the German Navy with the aim of damaging the port facilities was thought to be unlikely, but was still considered; such an attack had been made on the town in February 1916, which resulted in damage to 200 buildings. Other possibilities considered by the British included an attempt to seize the town with a mass raid by German motor torpedo boats and seaplanes, combined with a parachute assault, an attack by destroyers under cover of a smoke screen, an attack on the harbour by mine-laying aircraft (which was undertaken by the Germans



Figure 8. Lowestoft-based Motor Gun Boats in March 1943 after an engagement in the North Sea in which one German 'E' Boat was sunk and others driven off. Such boats often had crews of up to thirty men in order to operate the relatively large number of guns on board. (Imperial War Museum, A 14911)

at Felixstowe) or simply a long-range bombardment by German warships that lay out of range of British coastal guns. The defence of the port itself was the responsibility of the Royal Navy, rather than the army, and, in what seems to be a throwback to the days of Nelson, in the event of a major attack on the port all vessels in the harbour were expected to launch and engage the Germans at close quarters.

The most serious eventuality was a full-scale invasion attempt, in which Lowestoft would be a major target. From a German point of view capturing a port would be crucial to their success, as facilities would be needed for successive waves of invading troops as well as to supply those already ashore. The successful capture of port facilities would be critical to any invasion, particularly since the sea lane between Suffolk and the occupied ports of the Low Countries permitted rapid reinforcement. Such an invasion would be characterised by a period of heavy bombing followed by the arrival of E-boats, barrage-breaking ships, torpedo boats and minesweepers before the attacking troops themselves. It was thought that at least 3000 yards of

coastline would be needed by the Germans to land an armoured division, with at least thirty ships needed to land troops and another two dozen tank-carrying landing craft. It was estimated that such a landing would take about three hours to complete. Gunton and Pakefield, on either side of the town, were eminently suitable for such an operation, but here the invaders would need to negotiate the cliffs before they could move inland.

Although events such as these never happened, Lowestoft had its share of attention from the Luftwaffe. Nearly 300 people were killed in the town as a result of eighty-three separate air raids (Figure 9). Lowestoft was a designated 'Gun Zone' and so was provided with heavy anti-aircraft guns for its defence, arranged around the town in four batteries (Figure 10), in addition to numerous lighter Bofor guns. More passive defence was eventually provided by land-based barrage balloons, the catalyst for their installation a raid on 12 May 1943 when thirty-three people were killed and fifty-five injured by a raid in which thirty-two German fighter-bombers flew low over the town (Figure 11).



Figure 9. Bomb damage outside the Imperial Hotel in Lowestoft in 1941 during a raid in which over 900 bombs fell on the town. (Lowestoft Record Office)



Figure 10. Heavy anti-aircraft gun site at Mautby near Great Yarmouth. Similar sites existed for the air defence of Lowestoft.

Figure 11. Barrage balloons over Lowestoft; these were put in place after a major raid on the town in May 1943. In the bottom right corner of the photograph anti-tank scaffolding can be seen. (Lowestoft Record Office)



Coastal Artillery

Given the importance of the East Coast in general, and Lowestoft in particular, the provision of coastal artillery in this part of Suffolk was considerable. On the outbreak of war in 1939 Britain's fixed defences were situated at the major ports (such as Felixstowe), but this situation changed out of all recognition in May 1940 when the Emergency Coastal Defence Battery (ECDB) programme greatly expanded coastal artillery. This initiative saw guns that had been taken off ships scrapped after the First World War and subsequently put into storage hurriedly brought back into service. The normal arrangement was for the guns to be placed in pairs at perceived vulnerable points along the coastline. Initially, the battery positions were often rudimentary, but in time ECDBs became miniature strong points in their own right; they were integrated into the broader anti-invasion defences and often had elaborate arrangements for their own defence.

By the end of 1941 there were some seven batteries in total in the area covered by this guide: three at Lowestoft (the Lowestoft (or Kent) Battery, the South Pier Battery and the Grand Hotel Battery) and one each at Covehithe, Kessingland, Pakefield and Southwold (Figure 12).

As early as March 1940 Lowestoft had been earmarked as the site for a coastal battery, but at that date the first defences had already been put in place. These comprised an antiquated pair of First World War field guns placed within sandbagged emplacements on Lowestoft Esplanade and the North Pier Extension. At the commencement of the ECDB programme in May work started on batteries at Lowestoft, Pakefield and Southwold, with Covehithe following in early June. In 1941 an additional battery was constructed at Kessingland, the site of the battery at Covehithe was moved to a better location at Easton Woods and that at Southwold was shifted northwards from its initial location on the Denes to Gun Hill.

The arrangements for coastal artillery around Lowestoft were elaborate, with each of the port's three batteries having slightly different roles. The South Pier battery, with two quick-firing 12-pounder guns, offered close protection for the harbour, while from 1941 the Grand Hotel battery, with 6-inch guns, covered the main harbour entrance and the South Roads, while the Lowestoft (Kent)



Figure 12. Distribution map of coastal artillery sites in the guide area, 1940–41.

Battery, also with 6-inch guns, had an additional role in what was known as the 'Examination Service', which controlled entry to the port. This battery could immediately fire on unidentified vessels attempting to gain unauthorised entry. The southern approaches to the harbour area were protected not only by coastal guns placed in the town itself but also by the battery at Pakefield.

One purpose of the batteries was to engage enemy shipping that came within range of the coastline, which was normally 6000 yards or less. While it was possible that major warships might present themselves as targets during a major confrontation, more likely objectives would be the shelling of smaller vessels, such as E-boats or landing craft being used during a major raid or an invasion attempt. Defending the beaches themselves was a secondary role. That at Easton Bavents, for example, was permitted to fire on the beaches around Benacre Broad, while that at Kessingland could fire on land targets at Lowestoft Swing Bridge, the harbour area, the Claremont Pier and the railway junction.

The design of each coastal battery was similar and the sites were made up of common elements, but the exact arrangement varied on the ground. Typically, the guns themselves were housed in concrete gunhouses (Figure 13). adjacent to which were magazines from which the ammunition was brought up. Usually in close proximity was the generator building. Searchlights, used to illuminate targets, were usually placed on either side of the gunhouses. At Kessingland the searchlights were on the beach on either side of the gun positions, something that necessitated the removal of mines. Ancillary structures included crew shelters, kitchens, billets and gun stores (Figure 14).

In the initial stages of the ECDB programme the batteries were manned by Navy personnel as a temporary measure, while army gunners from the Royal Artillery were trained in how to use the unfamiliar equipment. Thus, at Pakefield, the battery's two 6-inch guns were initially established by the Navy before a heavy regiment of the Royal Artillery was ready to take over in July. The Lowestoft (Kent) battery began as 6-inch guns on concrete foundations in a gunhouse built of sandbags and was manned by Royal Marines. It subsequently developed first into two gunhouses built of steel poles and corrugated iron and then into brick gunhouses with concrete roofs. The full battery position was finally finished in December 1940 (Figure 15).

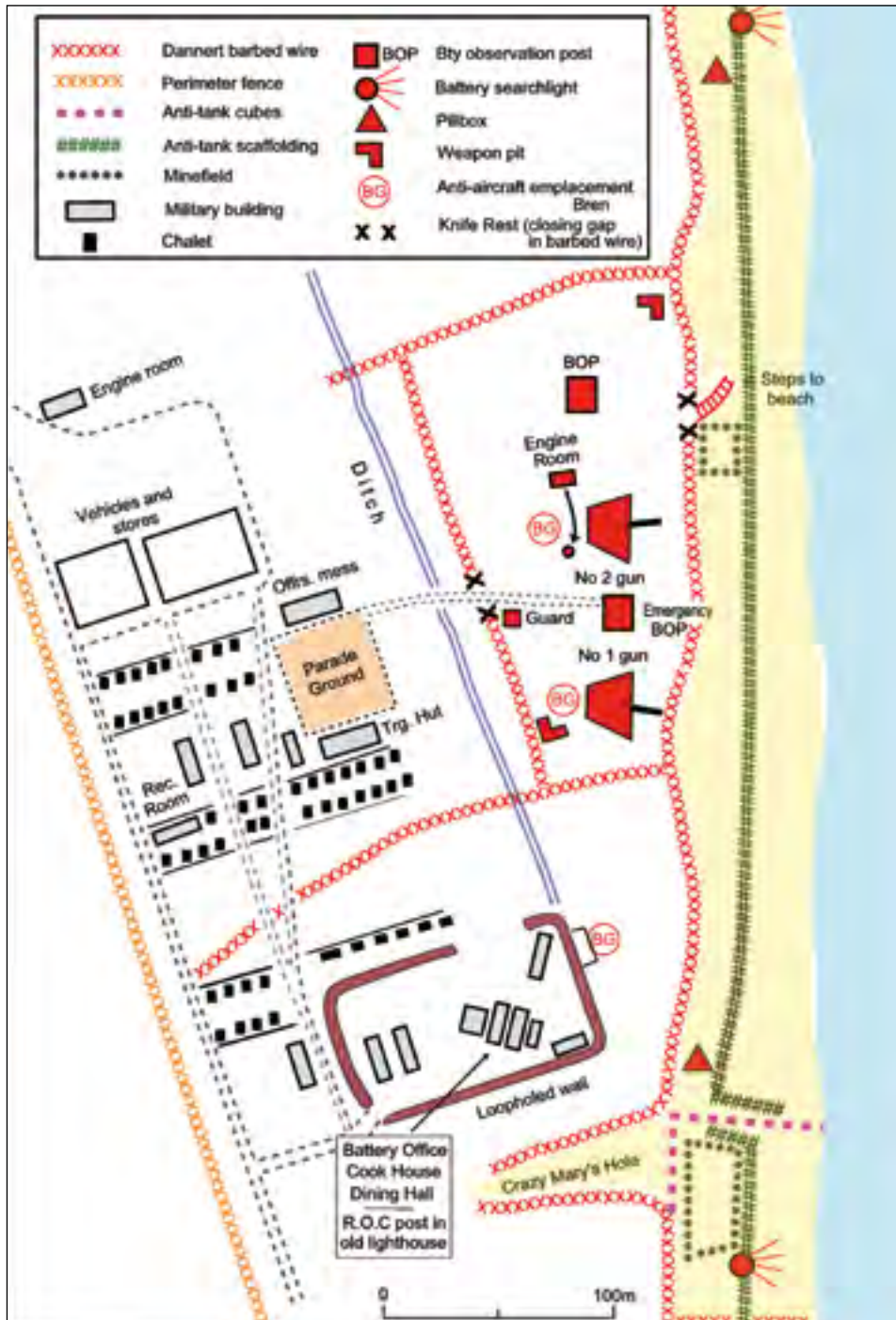


Figure 13. Plan of Emergency Coastal Defence Battery at Pakefield. The battery was sited close to a pre-war holiday camp.



Figure 14. Former gun store for ECDB at Lowestoft.

Figure 15. King George VI visiting a coastal battery at Great Yarmouth, which gives a good impression of a 'front line' coastal battery. (Imperial War Museum H 3270)



The batteries established in 1941 at Easton Bavents, Southwold and the Grand Hotel at Lowestoft were of a higher standard from the start; that at Easton Bavents had gunhouses, observation posts, generator and searchlight emplacements built of brick and concrete, with wooden hutted accommodation for the gunners. Elsewhere, the arrangements could be surprisingly complex; at Pakefield, for example, the principal battery buildings were all served by underground passages (Figures 16 and 17).



Figure 16. Former gunhouse from Grand Hotel Battery, Lowestoft, now used as a shelter.

A variety of structures was pressed into service for the ancillary buildings and billets. At Lowestoft South Battery the other ranks were accommodated in Nissen huts on the pier itself, while at the Grand Hotel Battery three rooms on the first floor of the north wing provided accommodation for the gunners. At the South Battery in Lowestoft water was taken from the mains supply via a pipe under the pier. The occupants of batteries often proved themselves adept at making day-to-day life as comfortable as possible and managed to raise the material conditions of their service to surprisingly high levels (Figure 18).

In addition, ECDBs were provided with weapons for the defence of the battery position itself. The garrison in each case was drawn from the ranks



Figure 17. Former observation post from the same battery, little changed from the end of the war.

Figure 18. Interior of the canteen at Easton Woods Battery, scratch built by the gunners themselves. (Imperial War Museum H 23553)



of the gunners themselves, while there might be, in addition, designated units for close defence (Figure 19). The armaments for battery defence were not always lightweight: at Kessingland, for example, the battery position was surrounded with barbed wire and a 75mm gun, a 6-pounder gun and two spigot mortars were provided for its defence, alongside an allocation of the local Home Guard. At Lowestoft Grand Hotel eighty-two Home Guard were available for the battery defence, which also included four Bren guns, four sten guns, 166 grenades, ninety-six petrol bombs and two spigot mortars. At Eaton Woods a company of infantrymen stationed at Southwold were designated for the battery's defence in the event of a 'Stand To'.



Figure 19. Close defence of an ECDB; this photograph shows men at Great Yarmouth manning the loopholes of their battery position. Had they fired their weapons in anger the noise would have been deafening. (Imperial War Museum H12957)

While the Germans would be aware from their reconnaissance that ports had fixed defences, the existence of Emergency Batteries would not necessarily be known and, to further this deception, camouflage occupied an important place during the construction and operation of the batteries

(Figure 20). The speed with which the batteries were established during 1940 meant that concealment was impossible at first, however; at Pakefield



Figure 20. Kessingland Battery under construction in 1941. The camouflaging netting was standard by this date, as there was to be no sign from the air that construction was ongoing. (Imperial War Museum H11482)

the ECDB was so obvious that one officer observed that ‘the whole layout was more conspicuous than any of the dummy batteries’ (Figure 21). By



Figure 21. Aerial photograph of Pakefield battery under construction in 1940. There is no concealment from German observation here, but the image shows the surrounding anti-invasion defences; note the lines of anti-tank blocks towards the top right of the photograph. (The National Archives)

1941, however, camouflage had developed into something of an art form. Photographs of the Southwold battery on gun hill show the sophistication of the scheme (Figure 22 and 23). At Lowestoft Grand Hotel Battery the gunhouses were camouflaged by scaffolding which supported nets onto which were fixed both barbed wire and fake plants, with the passageway between the two guns given similar treatment (Figure 24).

Camouflage also extended to deliberate deception. Dummy positions with fake guns were built to confuse Luftwaffe observers. After the Southwold battery had completed its move to Gun Hill the buildings on the former site were used by training troops in a deliberate attempt to convince German

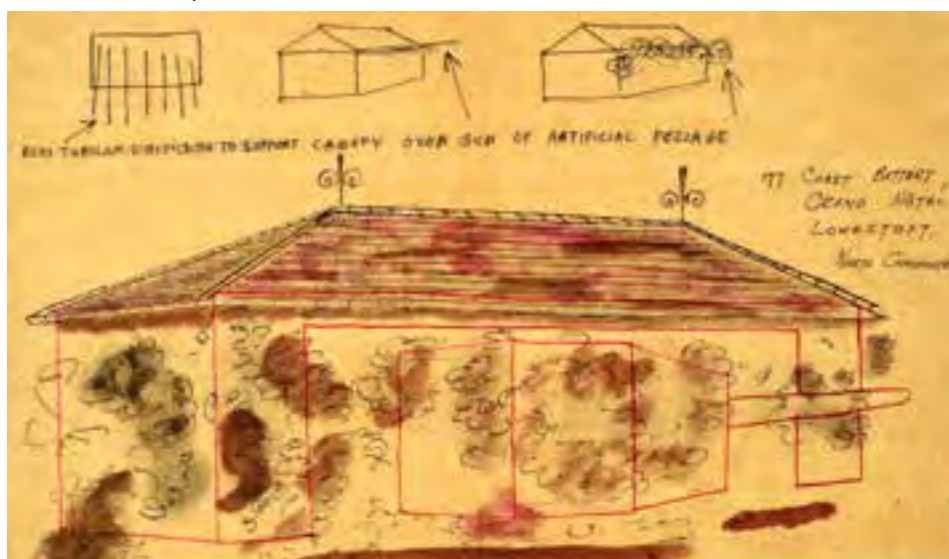


Figure 22. View of the ECDB at Gun Hill, Southwold, showing the elaborate camouflage scheme. (Imperial War Museum H15753)



Figure 23. And the same battery showing the gun in position and the battery observation post. (Imperial War Museum H15755)

Figure 24. Camouflage drawing for gunhouse at the Grand Hotel Battery, Lowestoft. (The National Archives)



reconnaissance that it was still active. Where their locations were known, the ECDBs were regular targets for the Luftwaffe. An aerial photograph of Southwold battery in 1941 shows a bomb crater close to the battery position and Pakefield ECDB was bombed twice in 1940, resulting in the death of a subaltern (Figure 25).



Figure 25. Aerial photograph of the Southwold battery in 1941 before its move to Gun Hill. The gunhouses, battery observation post and searchlights can all be seen, as can the long line of anti-tank cubes on the beach. (English Heritage RAF Photography)

Together with the threat of attack, the placing of such large fortifications on the cliffs or close to the beaches posed further risk. The Southwold battery was moved from its initial location on the low-lying area of the Denes, to the south of the town, up to the high point of Gun Hill in part because of the risk of inundation by the sea. At Covehithe the risk of the battery falling off the cliff was the main reason for its move to Eastern Woods. At Kessingland one of the searchlights collapsed at the end of December 1942 during the high tide, while, similarly, at Lowestoft battery the high tides and strong winds at the end of December put one of the searchlights out of action. The same high tide in December 1942 was responsible for the fact that one of the searchlights for Pakefield battery was out of action the following January; this light was subsequently moved from the beach to the adjacent cliff top. Shortly afterwards, in February 1943, one of the searchlights at Lowestoft South Battery was temporarily rendered unusable as heavy seas had resulted in waterlogging.

During the first few years of the war it was fully expected that the guns might be fired in anger and regular exercises took place in 1941 and 1942 with a view to testing efficiency (Figure 26). Such exercises revealed problems that required correction, such as too many men from the battery being used to man the surrounding defensive positions, with a detrimental effect on the efficiency of the guns. How seriously all the men took such exercises is revealed in one post-exercise report, which commented that, during exercise 'Holdfast' in 1942, the Navy men who were supposed to be manning the battery defensive position were an 'embarrassment', as they were more interested in the activities going on in the cookhouse rather than in playing their part in the exercise.



Figure 26. Gunners under instruction at Easton Woods; although Suffolk's coastal artillery batteries hardly ever fired their guns in anger, training for the eventuality was almost constant. (Imperial War Museum H23556)

Infantry Positions

The coastline could have as many guns as required, but ultimately the invasion beaches had to be defended by infantrymen – the ‘boots on the ground’. Although subject to variation, throughout the war the defence of north Suffolk was usually shared between two infantry brigades, one defending Lowestoft itself and the other responsible for the coastline between Pakefield/Kessingland and Southwold. Coastal defence was a routine duty for the Home Army until the middle of the war and during the conflict successive battalions of troops moved in and out of the line as part of unit rotations.

Serious thought to the defence of the coastline began in November 1939, but, in comparison to what was to come the following year, the efforts were small-scale. The 4th Battalion Suffolk Regiment posted its companies in and around Lowestoft and Great Yarmouth with a view to dealing with German paratroopers dropped behind the lines and defending the two towns and their adjacent beaches in the event of a sudden raid or attempts at sabotage. The initial attitude to defence works is summed up by the fact that the troops were ordered not to dig earthwork positions or to erect barbed wire; only sandbag breastworks were permitted when supplies became available. Such restraint ceased on 11 May, when Germany opened the war in the west, and all defences were ordered to be dug and wired.

In the following six weeks the rapid advance of the Germany forces through France and the Low Countries precipitated a major invasion crisis in Britain (Figure 27). The British Expeditionary Force in France was defeated and the situation facing the Commander in Chief of British Home Forces, General Edmund Ironside, was bleak. With an exhausted army that had abandoned its modern equipment, Ironside decided to enact a strategy based on linear defence. A German invasion force would be held up by a fortified coastal ‘crust’. Landing grounds back from the coast were to be blocked; beach exits were to be given pillboxes and minefields; vulnerable beaches were to receive concrete pillboxes and barbed wire. These defences were not intended to throw the invader back into the sea, but rather to hold up the German advance for as long as possible. Once inland, German columns would find themselves consistently delayed by fortified nodal points and stop lines (described in Guide 4) until what was left of Britain’s mobile reserves could meet the invaders and defeat them in a pitched battle.



Figure 27. *Blitzkrieg*. German tanks passing over a pontoon bridge over La Bassee Canal during the Battle of France in 1940. The defeat of France and the evacuation of the British Expeditionary Force through Dunkirk precipitated a major invasion crisis in Britain. (Imperial War Museum, RML 147)

Evidence from war diaries shows that the men on the east coast started to take up war positions as soon as the war in the west started. There were also some hasty redeployments and, over the course of the next week, practically all available troops were pushed up to the coast, leaving little by way of reserves behind. There was then a period of frenetic activity as the military and civilian contractors began to fortify the coastline and, in a remarkably short time, Ironside's 'crust' started to take shape (Figure 28).

The units on the coast were chiefly Territorial battalions from the north-west that had been mobilised when the war started. The majority of men in the ranks had only recently been drafted and so were only partially trained. Some sense of the invasion panic comes from the war diary of the 7th Manchester Regiment, defending the northern part of Lowestoft, in which the Commanding Officer penned a memorandum to be read to all ranks:

Here ... we find ourselves suddenly in what is actually the front line, and it is apparent that while some of you do realise

the position, others are endeavouring to ‘rationalise’ their own behaviour by blinding themselves to the fact that at any moment they may have to fight and stay fighting – no withdrawal – where they are. It is for this reason only that you are being put to work hard and regularly, why you cannot have leave when you want it, except for the gravest reasons, and why we cannot allow you to be further away from your posts than will enable you to return to them in five minutes.

He went on to say that applying for leave or going sick on false grounds was tantamount to desertion in the face of the enemy.

Historical evidence shows that Ironside’s scheme, the skeleton of which was laid out in May, started to come together from June onwards. As early as 5 June part of the pier at Lowestoft had been deliberately blown up to deny its use to the enemy and pillboxes, sandbagged emplacements and dragon’s teeth (steel spikes sunk in beaches) were being built in places where there were no cliffs. By 15 June it was reported that there had been ‘great improvement in defences and construction of concrete pillboxes and anti-tank blocks, laying of minefields and underwater obstacles’. Lowestoft itself was ringed with defences, which by the middle of June were ‘being made into a “fortress”’, part of which was manned by men from the Royal Navy. By the middle



Figure 28. Suffolk Square pillbox at Gunton. As the name suggests, these designs are unique to Suffolk and were constructed by 558 Field Company Royal Engineers, based at Theberton Hall. Hundreds of pillboxes of many different designs were built across the county during the invasion summer of 1940.

of July the southern part of Lowestoft had seen over eighty concrete and sandbagged pillboxes constructed. A valuable map of the infantry defences at Southwold dating to August 1940 shows the thin, linear nature of the crust on this part of the coast. The company that defended the town occupied a thin strip immediately fronting onto the beach, with their positions firing directly out to sea or protecting the flanks (Figure 29).



Figure 29. Map showing the dispositions of the 2nd/4th South Lancashire Regiment, which was responsible for the defence of Southwold during the invasion summer of 1940. The positions of the infantrymen were something of a 'thin red line', with little in the way of reserve forces behind the beaches. (The National Archives)

Today, only a fraction of what was originally put in place in 1940 survives. In some places, such as Gunton Warren, there are enough remaining pillboxes to get some idea of how the long crust of defence worked on the ground (see the pillbox trail at the end of this guide). The distribution of pillboxes known from fieldwork, aerial photographs or documents and plans, most of which were constructed in 1940, does stand as a good proxy for infantry positions more generally. A thin line of these ran right along the coast, with smaller numbers built a little way inland, usually to guard the roads or intersections of tracks leading back from the beaches (Figures 30-32).



Figure 30. Map of anti-invasion defences around Lowestoft showing the defences built principally in 1940–41.



Figure 31. Map of anti-invasion defences from Covehithe to Pakefield.

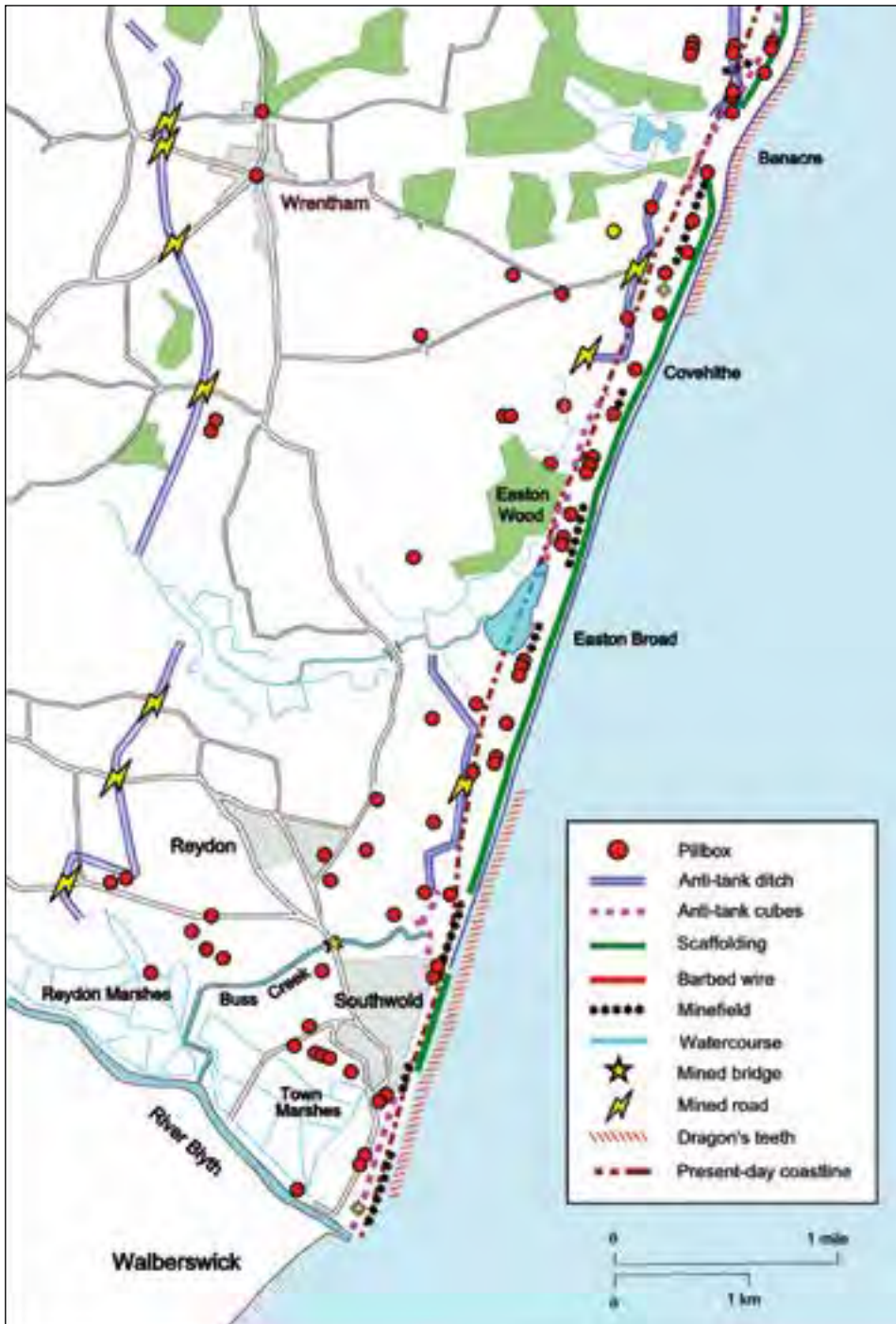


Figure 32. Map of anti-invasion defences from Southwold to Benacre.

What is not generally appreciated is that many of the pillboxes were accompanied by trenches and dugouts that were just as important as the concrete structures. A good impression of what infantry posts looked like during the summer of 1940 is provided by a series of staged propaganda photographs taken at the Denes at Great Yarmouth. These show pillboxes complete with their accompanying trench systems, some of which clearly run for considerable distances (Figure 33). The rudimentary nature of these defences is obvious, with trenches dug into the sand and corrugated iron, brushwood and pieces of timber used as revetments. Some trenches were clearly fully excavated ‘fire trenches’, which were over two metres deep and provided with a firestep; these are, in turn, lined up alongside shallow sections of communication trench. Surrounding the infantry positions are coils of the ubiquitous barbed wire; one image shows tin cans suspended from the wire itself as a crude alarm mechanism, the idea being that any German approaching the position by stealth and attempting to cut the wire would produce a rattling sound that would immediately be heard by the occupants of the trench (Figure 34). Particularly during the invasion summer of 1940, many of the defences along the north Suffolk coast would have been of similar appearance (Figure 35).



Figure 33. Photograph of a training exercise taking place on the anti-invasion beach defences at Great Yarmouth in the summer of 1940. This image shows infantrymen at their firing positions in a series of trenches dug into the sand. (Imperial War Museum H 2701)



Figure 34. A rare photograph of barbed wire defences. Wire covered north Suffolk's coastline and was placed on beaches, battery positions, landing grounds and, as here, around infantry positions. The tin cans are a rudimentary form of noise alarm. (Imperial War Museum H 2705)

Figure 35. This image shows an improvised dugout made from timber, corrugated iron and sandbags. Infantry posts such as these were built in some number during the invasion crisis of 1940. (Imperial War Museum H 2700)



What cannot be seen today is the litany of beach obstacles that went with the infantry defences. Lines of concrete anti-tank blocks were used principally to block the chief exits and often extended for considerable distances, with runs of hundreds of metres at Southwold, Covehithe, Benacre and Gunton. The area back from Gunton to the north of Lowestoft was criss-crossed by a network of blocks in order to corral any vehicles that had broken through from the beach (Figure 36).

In addition, lines of ‘Dragon’s Teeth’ – steel spikes stuck into the beach at low water mark that were intended to tear the bottom out of invasion barges when they landed – were laid at Southwold and Benacre, while barbed wire and minefields were commonly placed on the beaches. The latter were usually several hundred metres in length and were placed on the most vulnerable beaches to block likely exits at Southwold, Easton Bavents, Covehithe, Benacre and Gunton. Minefields were dangerous to all concerned; they could be moved by the sea, had to be accurately mapped and brought with them constant problems of maintenance. On 10 September some 600 mines exploded at a minefield south of Lowestoft – the culprit, an unfortunate dog that had strayed onto the beach.



Figure 36. Pile of anti-tank cubes that once formed a defence line around Lowestoft. The flat ground to the west of the town was covered in such cubes, which tests showed were an effective obstacle.

Field Artillery

The pillboxes, anti-tank cubes and other concrete obstacles are a familiar part of the coastal crust today, mainly because they are the elements that tend to survive. Less well-known, but just as important to the anti-invasion defences, was field artillery – batteries of field guns that were placed behind the lines with the aim of shelling any invaders that managed to land and move ashore. The Royal Artillery had some of the finest gunners of any nation during the Second World War and their contribution to the defence of the coastline has been curiously neglected.

The area between Southwold and Lowestoft was allocated proportionally more artillery for its defence than neighbouring sectors, something probably connected with Lowestoft's status as an important port. During 1940 the number of guns was gradually increased so by the autumn it was possible to hit any part of the coastline with defensive fire. Crucial to the operation of the artillery landscape was the ability of forward spotters to relay information back to the guns waiting miles behind the target. If this could be done quickly and accurately, then shells could begin falling on the beaches in minutes (Figure 37).

As with so much of the anti-invasion landscape of 1940, the arrangements for artillery were hurriedly put into place and characterised by the use of outdated equipment. The bulk of the firepower was provided by batteries of field artillery of medium and heavy calibre. From June 1940 there was a steady build-up of weapons so that, by October, the number of guns in this sector stood at twenty-four, a figure that would remain more or less unchanged until the middle of 1942. The composition of these batteries was mixed and changed over time. Initially, in 1940 and early 1941 the majority were First World War weapon, chiefly 9.2-inch howitzers, 6-inch howitzers and 75mm guns, the last of these being American-imported French weapons (Figure 38). Most of these guns had been in storage since 1918 and were completely unmodernised; some 6-inch howitzers had wooden spoked wheels. Even when new equipment arrived the regiments that received it had no spares or sometimes lacked the information needed to fire the guns. When one regiment received a batch of American-imported French 75mm guns an officer was sent to Lowestoft library and instructed to borrow the most recent book on artillery in order to establish its effective range. Over time these older guns were withdrawn from service and replaced, most by more modern 25-pounder field guns.

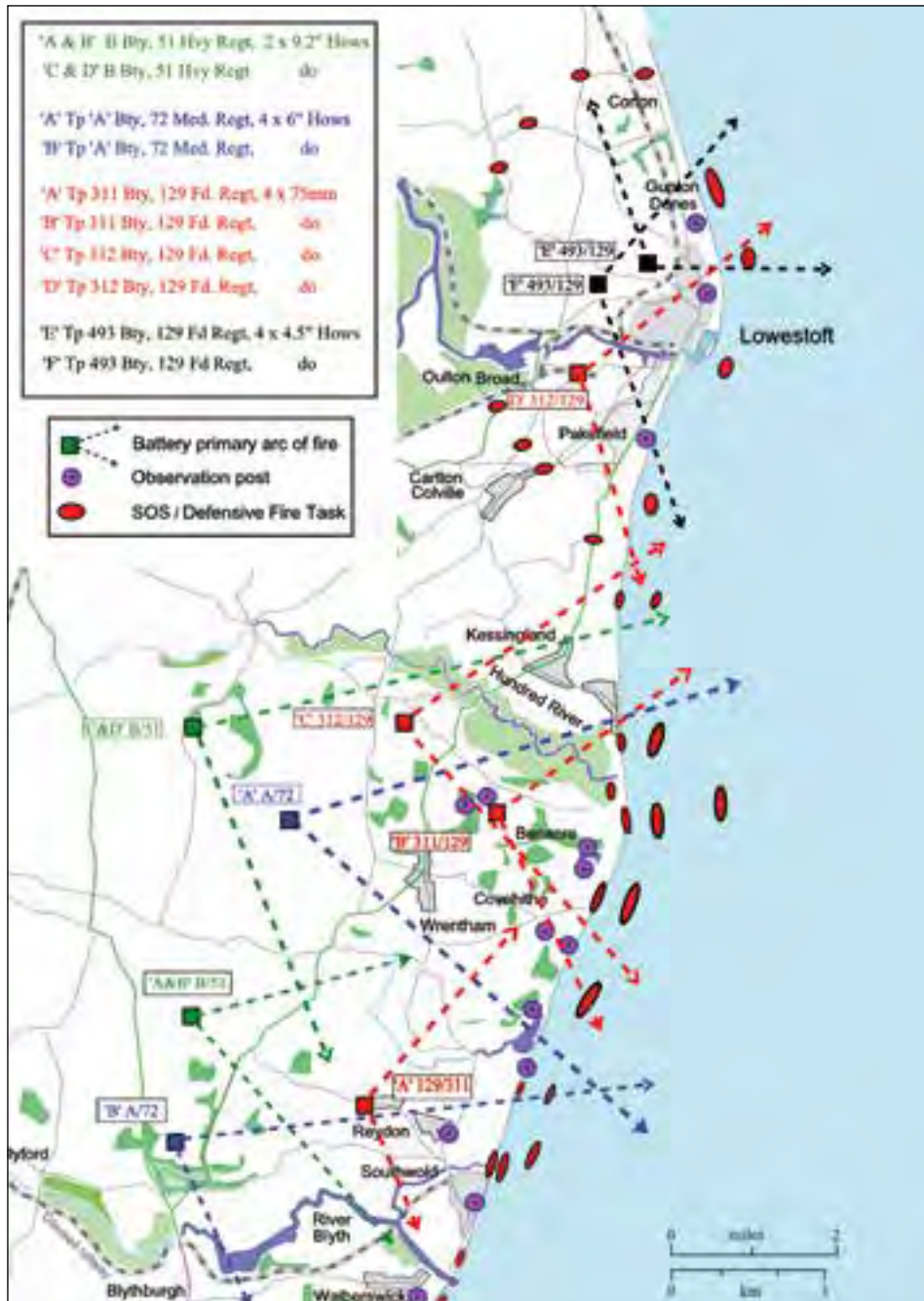


Figure 37. Map showing arrangements for field artillery in north Suffolk in May 1941. By this stage of the war elaborate arrangements were in place to bring defensive fire down onto pre-registered targets. Interestingly, around Lowestoft some of these tasks were inland, so that the guns could cover the main roads into the town. This is the only part of the county where such 'SOS' tasks were inland. Later in the year the artillery landscape changed considerably as units were relocated.



Figure 38. Photograph of a 6-inch howitzer taken somewhere in England, possibly Suffolk, in 1940. As with so much of the field artillery used for coastal defence, such guns were from the First World War and were taken out of storage in 1940. This example shows a gun in unmodernised form; over time they were refurbished and provided with pneumatic wheels. (Imperial War Museum H1248)

The siting of field artillery was undertaken with great care and took account not only of the intended targets but the range of the guns concerned, the requirements for forward observers and the need for camouflage. The latter was particularly important, as there was the persistent fear that the precious guns would be subjected to attack from the air, so woodland was nearly always chosen as the gun site (Figure 39).

The exact arrangements for the placement of the guns in 1940–41 adhered to a basic logic. On the coastline were a small number of field pieces which could engage targets at sea if needed but were chiefly intended as anti-tank guns, and had the capacity to enfilade large sections of beach (Figure 40). A miscellaneous group of guns was also deployed inland as anti-tank weapons. Back from the coastline itself there were two further gun lines. Approximately



Figure 39. Map of 1940, showing the location of a troop of four field guns in Henham Park. The actual gun site was a small copse; woodland was nearly always used for artillery positions. (The National Archives)

Figure 40. Emplacement for a 6-pounder anti-tank gun at Corton.



three to six kilometres inland were positions for medium artillery, with the heavier artillery further back, at up to eight kilometres from the beaches. Such locations permitted the best use of the ranges of the guns concerned, which were expected to cover considerable stretches of coastline (Figure 41).



Figure 41. A 9.2-inch howitzer in Kent in 1940. This behemoth of a weapon was developed during the First World War for shelling well-built German trenches, but was pressed into service again in 1940 in anticipation of invasion, when its huge shells were expected to wreak havoc amongst a German landing fleet. (Imperial War Museum H1468)

The careful placement of the guns meant that, in principle, all parts of the coastline could be subjected to bombardment; locations thought especially vulnerable could be subjected to a barrage by a number of guns firing from several places at the same time. Those particularly vital points that were critical to the defence were designated ‘SOS tasks’: pre-arranged targets upon which the gunners could immediately fire in the event of receipt of a specific message. As a last resort during an emergency, infantrymen could also call up artillery gunfire by firing a signal rocket. SOS tasks tended to be focused on the good landing areas and the exits that led inland; here the presence of cliffs meant that British planners could be relatively certain where any enemy troops and vehicles would attempt to get off the beaches. These were also the places where the beach defences were concentrated, the idea being that men and vehicles either on incoming barges or held up trying to get ashore would be torn apart by shellfire.

The whole system relied heavily on the ability of the forward observers to spot for their guns and so the location of observation posts (OPs) and the protection of their occupants were crucial to effectiveness. It was not uncommon for OPs to be placed right on the beaches themselves or directly overlooking the coastline, and these were often rebuilt in concrete as 1940 progressed (Figure 42).



Figure 42. Artillery observation post at Benacre.

Given the need for wide fields of vision in the rolling countryside of this part of the county, tall buildings were also rapidly pressed into service. In defiance of the Geneva Convention, which prohibited the use of religious buildings for military purposes, churches at Southwold, Reydon, Benacre and Covehithe became OPs, as did Southwold lighthouse, several windmills and one water tower on the Benacre estate. In one case a tree at Benacre was also used; presumably this was a large pollard on the edge of the wood which provided not only camouflage but also an excellent field of observation over the Denes.

Messages were relayed back to the guns in a variety of ways. Radio or field telephone were the most efficient methods, but had potential drawbacks: in one case in 1940 the gunners complained that infantry driving their Bren Gun Carriers had cut their telephone lines. Owing to a lack of equipment in the summer of 1940 war diaries make clear that signals were passed back from the coast by flag, despite the practice being abolished by the army in

1936 as it was considered obsolete. It was also commented in 1940 that the number of elm trees made it difficult to achieve good lines of sight.

Despite the use of old equipment and dated methods of fire control, the artillery system worked. In 1941 at Southwold a demonstration of the gunner's ability was arranged. The waiting infantrymen on the beach were told that shells would land fifty feet north of the pier and 200 yards out from the beach. The infantry called up their SOS task and in two minutes a series of shells landed in exactly the right place, exploding on the surface of the water.

For the men who found themselves on the front line in the summer of 1940 the invasion crisis was a gruelling period of service characterised by long hours of physical labour. This time was also far from peaceful, as the Luftwaffe kept up a steady stream of air attacks. As heavy raids were possibly the precursor to an invasion, night-time bombing required the manning of defensive posts. By June such was the level of enemy air activity that in one artillery regiment orders were given to work at night and sleep during the day, something discontinued after two days as 'there was so much work that needed to be done during daylight hours'. The experience of the 2nd/4th South Lancashire's with a similar experiment was different; the battalion war diary reported that 'New hours of work adopted by forward companies. These companies now get 8 hours of undisturbed sleep from 0300 to 1100 instead of being constantly disturbed by Air Raid Warning Red. Their day now runs from 1100 to 0300 hours and several visiting officers have been much surprised at being greeted with "Good morning sir" at 4. O'Clock in the afternoon.'

But by September, and the end of the Battle of Britain, it was clear that there would be no invasion and those on the coast paused to draw breath. Britain's anti-invasion defences had been transformed by months of work. When one unit was rotated out of the line that summer the war diarist wrote that 'the men enjoyed the work in Suffolk, which was a taste of something approaching nearer to war-like activity than anything so far experienced. The lack of leave is being felt however; there has been no leave since early May.' Some years later the gunners from 136 Field Regiment Royal Artillery put it another way: 'We had arrived in peace, expected for several weeks to be annihilated, and considered ourselves lucky to have escaped with only two bullets holes through E Troop's cookhouse chimney.'

Allan Brooke: Forward Defended Localities, 1941

But even during the summer of 1940, at the moment when the anti-invasion defences had nearly reached completion, critical voices began to be raised. The speed with which the coastal defences had been constructed was commendable, but mistakes had been made. General Majendie, the commander of 55 Division in Suffolk, commented that

I am very much concerned that we are going pill-box mad, and losing all sense of proportion in the matter of siting defences. The lure of concrete is leading us away from first principles. The countryside is covered with pillboxes, many of which will never be occupied, many could never serve any useful purpose, and many face the wrong way. Much labour, money and material have been wasted. I realise that this is largely due to haste and the desire to get something done quickly ...

New troops moving into the county as part of unit rotations were often scathing about the defences they encountered when they took up their new positions. At Lowestoft it was noticed that there was a gap in the line where the Divisions responsible for Norfolk and Suffolk met on the border, that many defensive posts fired over their own obstacles rather than being sited to give the maximum field of fire and that pillboxes were sometimes so close together that they blocked one another's line of fire. One complaint lamented the haphazard way in which the coastal crust had emerged along the coast itself: 'the defences are linear all down the beaches, and they just "happened"... 55 Div[ision] stuck pillboxes, gun pits, guns etc just where they wanted them'.

Remarks like these prefigured a radical shake-up of the coastal defences that took place in 1941. In July 1940 Ironside had been replaced as Commander in Chief Home Forces by Field Marshall Lord Alan Brooke, who was in favour of a more active defence than Ironside's static lines. What was referred to as 'Maginot Mentality' (a jibe at the ineffectiveness of the French Maginot Line in 1940) was to be stamped out and replaced with 'all round defence'. In practice this meant that, rather than being strung out in a thin line, the coastal crust would comprise a series of 'forward defended localities', self-contained islands that could expect to hold out in the event of invasion until relieving forces, which now existed in greater strength, could move up to deal with the invader. The forward defences would now be organised in greater depth and integrated where possible with anti-tank obstacles.

In some places work to rectify deficiencies started before the end of the year. The 1st/6th Lancashire Fusiliers between Kessingland and Southwold record in their war diary that they spent December 1940 'erecting strengthening and rebuilding the coast defences ... Regimental and Coy [Company] employments were kept to the absolute minimum. In this way great steps were made. The battalion being complimented of its splendid progress by many visiting officers.' In accordance with the new thinking, infantry positions were also subject to reorganisation; some were retained, new ones were constructed and others were abandoned. The chief alteration was the abandonment of concrete defences that were superfluous to requirements. At Lowestoft in March it was ordered that 'disused pillboxes [were] to be destroyed where they were liable to fall into the hands of the enemy or obstruct the field of fire' and in other places unnecessary sandbagged emplacements were to be vacated and, where pillboxes were no longer used, the embrasures were to be stopped up.

The spring of 1941 also saw the construction of additional beach defences in the form of more barbed wire, minefields and anti-tank blocks in those places that had not received them the previous summer and, from April, the appearance of beach scaffolding along the foreshore and anti-tank ditches inland.

Beach scaffolding comprised a framework of metal poles that stood three metres high. As a barrier it was simple and effective; tests showed that it was difficult to destroy with tank fire and challenging for armoured vehicles to cross. It was intended to prevent the movement of craft close to the beach and to inhibit the movement of tanks. Long runs of scaffolding were laboriously placed at Southwold and Lowestoft, while a particularly long run of nearly three miles was put in place between Southwold and Benacre. In effect, scaffolding closed the beaches off almost entirely from any kind of vessel wishing to land.

At the same time as the beach defences were being strengthened with scaffolding, anti-tank ditches were being excavated in two main lines. The first was close to the beaches and was intended to block exits. The second was constructed a little way inland, running parallel with the coast, with the purpose of slowing down any opposition attempting to break out from an initial beachhead. Because of the amount of resources that were necessary for their construction, lengths of ditch tended to link up existing obstacles, such as watercourses or marshland, wherever possible. The stretch of ditch to the north of Southwold, for example, ran for a mile and connected two

water courses. By the end of 1941 there was an almost continuous anti-tank ditch running from Lowestoft to Southwold.

In effect, a self-contained strip had now been formed, with the sea on one side and the anti-tank ditches on the other. The ultimate aim was to place all the military assets in this corridor, as it would mean that the defenders could fight either to defend the beaches or a western battle against a German force that had landed by plane or parachute (Figure 43). With a view to achieving this, the field artillery was relocated to fresh areas within this new zone with orders to prepare positions to fire on the coast and also inland. By 1942 the defence of Lowestoft against a German raid or attack was the main priority and guarding the whole coastline became of secondary importance. Even so, by this stage of the war the men on the coast were seemingly little worried and increasingly bored; one commanding officer needing to remind his officers of the need to keep up the enthusiasm and alertness of men who had seen nothing happen for months on end.



Figure 43. Wartime plan showing the infantry defence of Lowestoft, 1942. By this stage 'all round defence' meant that the town was completely surrounded by Forward Defended Localities, with the Home Guard positioned in the centre. (The National Archives)

The Wartime Landscape

One of the most interesting aspects of coastal defence landscape is the relationship between the army and civilians. Voluntary evacuations of civilians took place from 1940, when the coastline became a military area, but the needs of the local economy, and agriculture in particular, meant that people had to remain in the coastal zone. Naturally there were tensions, often brought about by the closure of roads and the damage of property by soldiers, but otherwise relationships were generally harmonious. One hint of possible strife was recorded at Pakefield on 1 June 1940, when policemen warned the military that there was potential for trouble with local fishermen as slipways used for launching boats had been removed to form fields of fire. The outcome of this matter is not recorded, but the issue of access to the sea was resolved on the ground by troops and locals. Gaps were deliberately left in the anti-invasion defences so that inshore fishing could continue; fishing could take place so long as the troops knew the times of departure and return, with the proviso that the army received a share of the catch.

Similar negotiations took place when it came to arable farming. During the summer, when crops were tall in the fields and interfered with lines of fire, rather than cut the crop prematurely the military placed farm machinery and rollers adjacent to defences so that fields could be flattened in the event of 'action stations', and in other places filled sandbags were to be on hand so that firesteps or mountings could be raised to provide a clear line of sight.

Abandonment

In 1942 Army Command ordered that, for units on the coast, training would take priority over the manning of defences; for the Allies the war was starting to shift from one of defensive to offensive operations. This was the beginning of the end for the coastal defences and in the latter half of 1942 troops began removing old positions and wire from a number of places along the coastline. The similarity of some of north Suffolk's beaches to those of northern France led to the area being considered as a training ground in preparation for the D-Day landings, and a small training area existed at Southwold. Some minefields were cleared in preparation but, ultimately, the presence of dragon's teeth meant that beach landings were not practiced as unnecessary damage to landing craft was undesirable.

The level of threat was so diminished by this time that even the coastal batteries were downgraded. At Kessingland by March 1943 the numbers of personnel had been reduced to such an extent that there were left only those to maintain the equipment. At Easton Woods the battery was closed in May 1944, with only a small number of men left in post to maintain the guns. This was reduced to two men from January to November 1945, before the guns were taken to Landguard Fort for scrap, a situation which was replicated at Southwold. Even Lowestoft Battery ceased to be operational by January 1945.

The exception to this general move towards demobilisation was the hurried British response to counter the German use of V-weapons, known as Operation Diver. This operation saw the redeployment of large numbers of anti-aircraft batteries along the coast with the aim of shooting down V1 rockets as they made landfall.

As the Allied armies advanced across northern Europe, the area of possible V1 launch sites became restricted and the flight paths from those that continued to exist took the rockets over the east coast. V1s were also launched from Luftwaffe aircraft flying over the North Sea, which took the rockets right across the county on the way to London. In September 1944 Anti-Aircraft Command established the 'Diver Strip', in which large numbers of anti-aircraft batteries were redeployed along the coast in a line stretching from Clacton to Great Yarmouth (Figure 44). The impact on the coastline was considerable, with some 16 anti-aircraft batteries deployed in the area covered by this guide. In the majority of cases there are only traces of the sites left above ground, but wartime photographs give an idea of what was originally in place (Figures 45-46).

Once the Allied advance had overrun the V-weapon launch sites, however, the move towards the removal of coastal defences became inexorable. Some beaches were reopened as early as August 1944 and many holidaymakers took to the beaches in the summers of 1945 and 1946 to the sound of minefields being cleared and leftover ordnance being exploded (Figure 47). Unsurprisingly, the following years saw many injuries and some deaths in accidents associated with both the clearance of minefield and beach holidays on former defence areas.

Former German prisoners of war had a hand in the rebuilding of Lowestoft, with a hundred men working on the new Gunton estate. Civilians started to



Figure 44. Distribution map of Diver sites in the guide area.



Figure 45. Propaganda photograph showing men manning a Diver Battery at Southwold. The temporary tented accommodation in the background is a reminder that the V-1 threat was unexpected and that Operation Diver involved an initially unforeseen refortification of the coastline. (Imperial War Museum H40433)

Figure 46. And the men running to their gun positions. Although a posed photograph, it probably gives some impression of the kind of activity that took place when an alarm was sounded. (Imperial War Museum H40434)





Figure 47. During the summer of 1944 some beaches were temporarily reopened. This photograph of Lowestoft Esplanade shows something like normal life, but with a backdrop of men and women in uniform and the presence of beach defences. (Lowestoft Record Office)

claim compensation for destruction and damage of property and farmland, actions which, for the historian, often provide excellent evidence for what was put in place during the war. At Southwold, when an area of flooded marshland was released back to the Southwold Corporation by the military in January 1944 a sum of £60 (at £15 per year for four years) was claimed because ‘the flooding of these Marshes with salt water & the water been allowed to remain therein for a very considerable time the grass has been utterly destroyed & it will take at least four years before they will again be fit to be used for grazing’.

Today, the remnants of the Second World War defences survive only in places and, with the threat of coastal erosion, it is not entirely clear for how long those that are left will remain intact. For those interested in Second World War archaeology, it would be wise not to leave it too long to visit the north Suffolk coast.

Pillbox Trail: Gunton Warren

Gunton Warren Nature Reserve is managed by the Suffolk Wildlife Trust and comprises an area of valuable coastal heathland (Figure 48). It is home



Figure 48. Gunton Pillbox Trail.

to a series of pillboxes that marks the line of the defences established in 1940 and a walk through the reserve is not only pleasant in itself but gives a good idea of how this part of the coastline was defended during the Second World War. For the adventurous pillbox enthusiast there are numerous paths along the cliff which provide good views and the opportunity to inspect the concrete defences at close quarters. The Walk starts at Links Road car park, which provides free parking.

1. Walk to the sea wall, from where a collection of concrete remains can be seen on the beach, with at least one section probably from a pillbox destroyed by the sea.
2. Leave the car park, cross the track and head north towards Corton. After about 150 metres, at the lower edge of the cliff and partly covered with vegetation, is an emplacement for a 6-pounder anti-tank gun.

Walk along Gunton Denes and across Gunton Warren following the line of five pillboxes. These are all Suffolk Squares and together give a good idea of Ironside's linear coastal 'crust'.

3. The first is up on top of the slope, giving a good field of fire across the beach area.
4. The second is lower down, but again with a good field of fire.
5. The third, and by this stage the linear nature of the crust is very much apparent.
6. Here are the remains of a Suffolk Square, but this example has clearly been blown up by explosives. The ruined state of this pillbox is almost certainly a result of late military war training, probably by Royal Engineers practising the demolition of concrete bunkers in the build-up to D-Day. This part of the coastline was used for assault training in 1944, although the anti-invasion defences were so strong that it was decided not to practice an actual beach landing here; the dragon's teeth would represent too much of a risk to valuable equipment (Figure 49).



Figure 49. Suffolk Square pillbox built in 1940 and almost certainly blown up some years later as part of pre D-Day training.

7. The final Suffolk Square.

Continue along the Denes until the cliff becomes steeper and go up the path into 'Tramps Alley'.

8. Stop by a gate marked 'Private Path' and look to the north. Here you can see a row of anti-tank cubes that extends for approximately 100 metres between Corton Road and the steepest section of Gunton Cliffs. This line of cubes originally ran across the golf course and up to Gunton Hall, a distance of just under one kilometre.

Cross the road and follow the path, which leads to another car park. The walk to this point is not much more than one mile, but if the walker prefers not to return on foot this car park gives the opportunity to use two cars.

9-11. If the walker wishes to take a longer route then they may continue west along the path to the tunnel under the railway embankment. Here there are three concrete anti-tank cubes that once formed part of the roadblock that defended the tunnel. This tunnel was clearly felt to be of some tactical importance, as two

pillboxes were constructed on both sides of the embankment, facing north to cover the approaches. A climb up the wooden steps on the eastern side of the embankment and then a short walk south along the old railway line brings you to the west pillbox, below and to the side of the embankment. Its counterpart on the eastern side is now in dense undergrowth, although just enough is visible to make out the entrance.

12. The dedicated enthusiast can go a little further. Descend the embankment down the steps, go through the tunnel and walk further to the west to see another long run of anti-tank cubes, although these are difficult to spot among the vegetation cover. These are another section of the line of cubes that ran from Tramps Alley to Gunton Hall.

Pillbox Trail: A Round of Benacre

This is a long walk of some five and a half miles and if it were extended to Benacre Church the inland section, returning to Covehithe, could be avoided by using a second car. There are wide grassy verges close to Benacre church which offer space for parking (Figure 50).

This is a pleasant coastal walk and the reward is at the end of the first half of the route, where there is an excellent opportunity to see how the coastal crust would have worked in practice. Much of the first half of the walk is along the beach and extreme care must be taken as it is not possible at high water. Check the tide times before you start, do not take any chances and if you are in any doubt then return another day. It is suggested that the beach section is not walked between two hours before high water and two hours after high water.

The walk starts at Covehithe Church, where there is space to park a car on the roadside verges west of the pronounced fork in the road. From here take the pleasant track, signposted 'Beach', that leads south-east and eventually reaches the beach.

At the end of the track is Covehithe Broad. The beach is firm sand and good walking with only small areas of pebbles. Head north along the beach towards and past Benacre Broad, a large area of water that serves



Figure 50. Benacre Pillbox Trail.

as a bird reserve, until you get the area of the Denes at Beach Farm (Figure 51). Just past Benacre Broad is a narrow section of beach that is awkward around high water, so take care.



Figure 51. Benacre Pillbox Trail, detail.

In this area the walker needs to appreciate the extent of coastal erosion; in the 1940s the beach would have extended several hundred metres to the east. The large shallow depression on the beach (one of three originally) is a former extraction pit that was excavated during the war for gravel that was used in the construction of concrete defences.

1. On the beach itself is a jumble of some twenty concrete anti-tank blocks that can be seen at low water and which were probably moved here by some kind of intervention in the past.
2. Also visible at the time of writing are the remains of a military building that has been exposed by recent erosion, and close by are two heavily corroded sections of scaffold pole that were once part of the anti-tank defences .
3. Here is a 'Suffolk Square' pillbox of the normal type, with the commonly fitted concrete shelves. This pillbox was used as an artillery observation post in 1940 and served 'F' Troop, 348 Bty, manning two 75mm guns at Benacre Rectory. It would have made a good forward OP, being situated in the dunes above the beach with a wide field of view.
4. Just behind the beach is the beginning of an anti-tank ditch, now very eroded, which can be seen to continue into the distance. This once extended for over two kilometres to a point south of Kessingland.
5. At Beach Farm there is a stile and the wide concrete military road becomes a narrow path for a time. Across the front of the stile are three concrete anti-tank blocks, which originally would have blocked the exit off the beach.
6. Just past the gate a very overgrown path leads off to the left and runs along the cliff edge close to a fence around a large arable field. This is just about passable to the real enthusiast in suitable clothing. The path rises steadily and below the highest point is a Suffolk Square pillbox covered in vegetation and now close to the edge of the cliffs.

7. Walk on a little further and, with the help of binoculars, it is possible to see, to the north, a purpose-built artillery observation post. This is placed in the hedgerow at a distance of just over 200 metres from the path. This OP was located quite deliberately to give a full view of the extensive area of comparatively level ground above the cliffs and further out to sea. It was described as being situated on high ground south of Beach Farm, Benacre Ness ‘about 1000yds from the shore’. This post originally started life as some kind of dugout, with the concrete structure being added in August 1940. As the standard Royal Engineer design would not have allowed a clear field of vision across the whole front the apertures were widened to form a characteristic shape, something also found at Southwold. Originally, this OP was camouflaged as a ‘black hen house’. This OP was that for 53 Field Regiment Royal Artillery serving two 9.2-inch howitzers located in woodland inland at Sotterley Park, – replaced in 1941 by 51 Heavy Regiment with 6-inch guns.

Return to the concrete road, from which it is unfortunately not possible to see this OP, owing to the lie of the land; the track that leads to it is on private land with entry prohibited as it is a Conservation Area.

8. While walking west along the road, look north: a large pillbox is clearly visible on the skyline. This is a shellproof pillbox designed for the Vickers medium machine gun and is one of four to survive in Suffolk. This would have been intended both for shooting onto the beach itself and to block the exit leading inland. The railings on the top date to the Cold War, when the pillbox was reused by the Royal Observer Corps. This pillbox is on private land, so must be admired from a distance. (Figure 52).

9. The real pillbox enthusiast can now continue up to Benacre Church, which also served as an artillery observation post. This was an ‘as necessary’ OP and only likely to be used in the event of a successful enemy landing on the beach and the abandonment of the forward posts.



Figure 52. Heavy machine gun pillbox at Benacre, reused during the Cold War by the Royal Observer Corps.

10. Situated close to the road and to a path leading into the wood opposite the church is a Type 22 pillbox partially covered in vegetation. Its main role was clearly to defend the track and road leading in from the coast. Again, this stands on private land.

If you have parked a second car here you can now either find your way back to Covehithe via the narrow, winding local roads or, for the less enthusiastic driver, once the end of the concrete road is reached, you can turn left and follow the road south past Hall Farm and all the way back to Covehithe church. The return walk is part of the Suffolk Coast Path and is not unpleasant. Although it is mainly via a road (albeit narrow and very quiet) it does include a stroll down an interesting section of unmade track.

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S. Newsome, 'The Coastal Landscapes of Suffolk during the Second World War', *Landscapes* 4 (2003), 42–58.

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M. Osborne, *Twentieth-Century Defences in Britain: Suffolk* (Concrete Publications, Market Deeping, 2008).

Useful websites

<http://www.archaeologyuk.org/cba/projects/dob/>



Lowestoft to Southwold is one of four guides to Second World War archaeology in Suffolk, published in the same format. Together they will help readers to discover, appreciate and enjoy the physical remains of the conflict that still lie in the countryside. This guide describes the anti-invasion defences that once stood on this part of the Suffolk coastline.

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