

KENT'S TWENTIETH-CENTURY MILITARY AND CIVIL DEFENCES. PART 5 – SWALE

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This Defence of Kent Project study presents an overview of the findings for Swale District made in 2013/14 by Victor Smith and Alan Anstee for the Heritage Conservation Group of Kent County Council. Additional information discovered later by the Historic Defences Committee of the Kent Archaeological Society has been included. Some 400 sites have been discovered and the information generated by this project is in the process of being added to the Kent Historic Environment Record. The purpose of the Defence of Kent Project and the context of the county's defences may be found in Part 1.¹

Boundaries and physical characteristics

Swale District, formed of Swale Borough Council, has an area of 364 square kilometres. It is bounded to the north by the coast of the Isle of Sheppey and the River Thames, to the west by Medway Council, to the south by Maidstone and Ashford councils and, to the east, by that for Canterbury. The district is divided by the Swale Channel into two 'blocks', comprising the mainland and the Isle of Sheppey. The North Downs, from 60-140m high, occupy the southern and central areas of the mainland, diminishing north and giving way to marshlands cut up with drainage channels, which border the Swale and the Medway. Other than the rising ground of the Isle of Harty, the southern parts of Sheppey are also marshland or low-lying, from which, in the north, rise 15-45m high clay hills, terminating in friable coastal cliffs overlooking the Thames, with low, marshy ground at the Sheerness and Shellness ends of the island. Much of the district was, in various ways, agricultural but there was also brewing, fishing, boat and sailing barge building and repair, brickmaking and paper and cement manufacture. An explosives industry served both government and civilian sectors and there was the naval/industrial complex at Sheerness.

The district entered the 20th century with a developed system of roads and railways, of use not only for the movement of defenders but potentially for the advance of an invader. Chief among the roads on the mainland was the strategic Watling Street which, via Canterbury to the east, connected London with the Kent coast. It also provided the historic spine for the evolution and development of Newington, Sittingbourne and Faversham, the latter two connected to the Swale by

Milton, Oare and Faversham creeks, with port functions. Conyer Creek connects with the hamlet of Conyer, also having been a port. Roads from Sittingbourne and Faversham connected south with Maidstone, Hollingbourne and Ashford while, just east of Faversham, a turning from the Watling Street ran north-east to Whitstable and Herne Bay, then east towards Thanet. Networks of smaller roads formed nodes in villages on either side of the main roads and, in turn, joined with them, more strategically so in the towns. The road network of Sheppey, reached by a route across the Iwade Peninsula and via the Kingsferry crossing, served Queenborough and Sheerness as well as communities as far east as Leysdown and Harty to the south-east. There was, until the 1940s, a ferry between Harty and the mainland at Oare. Like the Watling Street, the north Kent railway joined London to the coast, dividing at Faversham north-east to Whitstable, Herne Bay and Margate and, south-east, through Canterbury to Dover, Hythe and Folkestone as well as north-east again to Ramsgate. A branch line from Sittingbourne ran via Queenborough to Sheerness and, from this in 1901, continued east to Leysdown, this extension being discontinued in 1950. On both the mainland and Sheppey there were also lines connecting to and serving certain of the industries.

Strategic significance

Although interrelating, the strategic significance of the district was influenced by whether it was north or south of the Swale channel, the latter being a strategic factor on its own account. The mainland was a possible corridor for invading forces advancing west, whether from a landing on the north or East Kent coast, from the Swale and/or across that channel from the Isle of Sheppey, with, as its objective, the capture of Chatham and its dockyard and/or a drive on London. Axes of advance would primarily have been along the Watling Street and, perhaps even the nearby parallel railway, as well as – depending on the period and the point of main landing in the county – other roads entering the district from the south. These factors were, in varying degrees, to influence the strategy of defence.²

Sheppey's strategic importance lay in the presence of the naval base on the promontory known as Garrison Point at Sheerness and the nearby Nore anchorage as well as the relationship of the island with the Medway and the Thames. Collectively these waters and those into which they flowed outside the estuary were embraced within the naval Nore Command. Sheerness and its partner upstream at Chatham were, until the establishment before and during the First World War of new bases at Rosyth, Cromarty and Scapa Flow far to the north, Britain's only naval bases facing the North Sea, retaining their role against the German threat in the two world wars. The importance of Sheerness naval base meant that it had to be strongly defended as well as for the Sheppey coast to the east to be secured against a landing force intent on its capture. Sheerness also added its firepower to that at Grain to bar the Medway upstream and, in cooperation with the guns at Shoeburyness, had a vital role to play in denying penetration of the Thames estuary. In consequence, it was also at risk of an attack from across the Swale to silence its defences from the rear.³

Finally, the Swale itself represented a theoretical vulnerability for Sheerness and for Chatham Dockyard against a raiding form of attack by small boats,

demonstrably exposed in 1887 by two Royal Navy torpedo boat commanders who, during Jubilee Year manoeuvres, raced along its course from Shellness.⁴ There was also the vulnerability of the earlier-mentioned creeks between the Swale and Sittingbourne and Faversham to small landing forces.

Perceived threats to Swale from Sea and Air

Before the Twentieth Century the Thames and Medway defences were generally regarded as separate entities. However, the increasing ranges of artillery pushed heavy gun defence further downstream, in time enabling both rivers to be covered from riverbank positions in the estuary. Parallel with this was a contraction of second line batteries upstream. Control of the Thames by an enemy, whether by naval blockade or penetration, would have applied a stranglehold to the throat of the nation. Entered from the North Sea, an advance up its wide and then narrowing estuary would, however, in varying degrees have been impeded by shoals and sandbanks on to which, without coordinated use of charts, buoys and pilots, vessels of any draught risked running aground. As in earlier periods, the defences on land were a second line behind the Royal Navy. The assumed primacy of the latter, including flotillas of local forces was, until the era of airpower, the defensive guarantor.⁵

In the new age of military aviation and the potential for air bombing, shipping, naval shore assets and civilian communities in and around the defended ports of the Thames and Medway were easily identified from the air within the distinctive riverine geography in which they were set. The Thames was also effectively a route-marker for enemy aircraft intent on bombing London. The Sheerness naval base – and its counterpart at Chatham – were key targets requiring dedicated air defence. As well as point defence being deployed in these and other locations within the district, the latter became embraced within regional and national systems of active and passive air defence. Experience gained during the First World War gave cause for belief that air power now ranked alongside – some said would supplant – the threat of navies as a primary arm to attack (and to defend) Britain. Post-war grew the threat that enemy troops might be landed by parachute or glider to seize particular targets.⁶

DEFENCES IN PLACE BEFORE THE FIRST WORLD WAR

In 1900 home defence remained focused on a perceived threat from France but there was recognition of the rise of imperial Germany and a possible future challenge. Indeed, as early as 1896/7, staff studies by Admiral Von Knorr highlighted the Thames and Sheerness as possible places for a German attack and landing.⁷

Until the First World War, Swale's mainland did not have defences but the district in general played host to drill halls for the army volunteers (from 1908 the Territorial Force), whose role on mobilisation was primarily to be home defence although individual soldiers could volunteer to serve overseas. Drill halls were established in Sittingbourne and Faversham (with a training gun battery in the marshes at Oare) as well as at Sheerness.⁸ At the latter there was also, on account of the dockyard and its defences, a significant regular military and naval

presence. Sheerness remained in use until the Cold War. Indeed, Sheerness and Chatham ranked alongside Portsmouth and Plymouth in their importance as did the fortifications that grew around them.

The naval base at Sheerness and its defences, threats

At the start of the 20th century Sheerness was a destroyer base against the rising threat of the torpedo boat in the fleets of potential enemies.⁹ The dockyard became prominent for the refitting of British destroyers and torpedo boats. The naval base at Sheerness was the sum of successive building, development and extensions since its origins in the later 17th century, presenting an extensive footprint of basins, docks, timber yards and smithies and an array of other buildings as well as barracks. Including the civil settlement of Blue Town, it was fronted to the north by forts and batteries facing the Thames, and enclosed to landward with 18th century and later bastioned lines. At a distance, embracing Mile Town and Marine Town, was an advanced mid 19th-century defensive barrier between West Minster and Barton's Point, called Queenborough Lines, to be manned by infantry forces with moveable guns.¹⁰

Like British coastal defences generally, the north front defences at Sheerness were modernised from muzzle-loading to breech-loading guns from the end of the 1880s and 1890s to the first few years of the 20th century. This included the mounting of heavy 9.2-in. guns, medium 6-in. weapons and light quick-firers, the latter especially against the threat of incursions by fast torpedo boats. Just outside the 18th century lines, Ravelin Battery was added for heavy guns (**Fig. 1**).¹¹ The scheme of artillery defence later included the building of two concrete Martello-like towers in Centre Bastion for quick firing guns, as well as arrangements for river minefields and the positioning of searchlights for night firing.¹² Fixings for a boom defence across the entrance to the Medway were made at Garrison Point and Grain tower. At Garrison Point an installation for the wire-guided Brennan Torpedo was continued for several years. Further to the east at Barton's Point, near the northern extremity of Queenborough Lines, an outlying battery was built

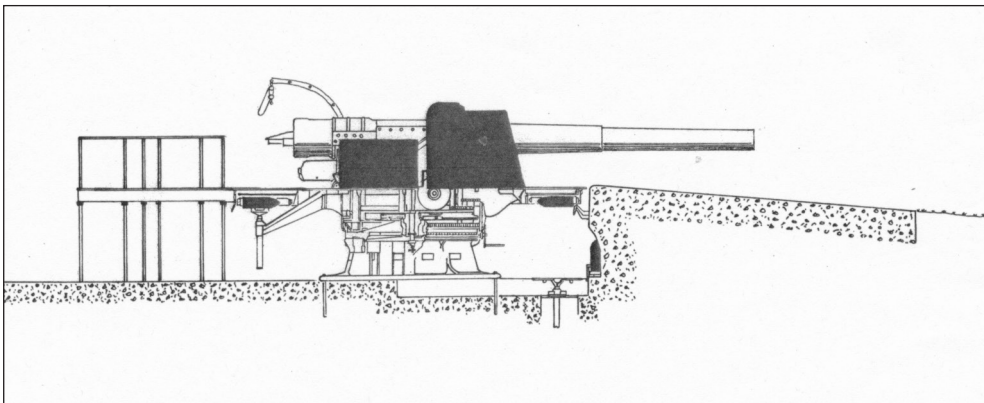


Fig. 1 A 9.2-in. breech-loader as mounted at Ravelin Battery, Sheerness (Victor Smith).

for heavy and medium guns. Next to this a rifle range was built for the use of the services in 1899.

Collectively, these improvements transformed the defences of Sheerness, giving their weapons up to 7 miles (11km) range and the ability to cover a wide arc of the Thames approaches. At the same time, the earlier-mentioned vulnerability of the Medway river approaches to Chatham dockyard against a flank attack by torpedo boats from the Swale was countered by preparations for a boom defence between Burntwick Island and south Grain, secured by the construction of permanent batteries.¹³ Except for Ravelin Battery, demolished in the 20th century, in varying degrees, traces of these various defences remain.

From 1895-1904 the battleship HMS *Sans Pareil*, armed with massive 16-in. guns, became guardship for Sheerness.¹⁴ After this, and as part of a general strategy for providing local naval patrol forces for naval and other east coast ports, the force for the Greater Thames consisted of light and fast vessels based at Sheerness and Chatham. There were also several naval signal stations and contingency planning for many more to be rapidly established in wartime. One of the permanent sites was a Port War Signal Station at Sheerness, operated by naval personnel, to regulate the navigation of the river under war conditions.¹⁵

The defence plans of 1904 and 1906

Protective measures were encapsulated within defence plans of 1904 and 1906.¹⁶ These described the expected forms of attack and set out a range of counter-measures. The threat of bombardment by battleships and cruisers from either off Southend Pier or from the Kentish Knock, was to be countered by the cross-firing heavy and medium guns at Sheerness, Grain, Allhallows and Shoeburyness. As well as this there was the danger of raids on individual points such as the coastal batteries or of landings in force and invasion. In the event of the latter, Shellness, Harty Ferry and Elmley (added to which was Warden Bay/Leysdown) were places where an enemy could land troops with artillery, although much of the coastline of Sheppey and of the mainland was, to some degree, vulnerable to landing forces. The object of an invasion of Sheppey would have been to seize Sheerness, neutralising the naval base and its batteries. The role of the high ground along and behind the north coast of Sheppey was paramount to command or block such advances, whether by offering physical obstruction, positions from which to direct artillery fire on enemy troop movements or as tactical pivots for ground operations by defending infantry. Plans provided for the rising ground across Sheppey to be entrenched in some of the same areas proposed for fortification in 1860 by the Royal Commission for the Defence of the United Kingdom. Across the marshes, cut with drainage channels, the ways for an attacker were limited, known about and could be defended against.

On the mainland other plans for a line of fieldworks from Iwade, curving west to Bluebell Hill, were to act as a support for a field force to block the way to an invader advancing towards Chatham and London.

The Owen Committee's review of coastal defences

No sooner had extensive national modernisation of the permanent coastal defences

taken place than the Owen Committee of 1905 signalled a reassertion of Naval influence in home defence planning. This followed decades of, at time acrimonious, debate between the military or 'bolt from the blue' lobby, contending that no amount of expenditure on the fleet could guarantee immunity from invasion and the naval or 'blue water' school, which argued that large expenditure on the army and fortifications should be re-directed at expanding and modernising the fleet which, they asserted, could prevent invasion in the first place. The findings of the committee expressed confidence in the new and more powerful ships of the Royal Navy as guarantors against invasion, placing a lesser emphasis on the need for large numbers of coastal batteries and guns. This led on to a raft of recommendations for swingeing reductions in coastal artillery nationally. In this connection, heavy guns were withdrawn from Centre Bastion at Sheerness and from Barton's Point but were retained at Ravelin Battery, with medium and light guns at Garrison Point and in the Indented Lines. In combination with the heavy guns at Grain and at Allhallows, this reduced armament was still thought adequate to close the Thames estuary with their long-range fire.¹⁷

Protection against surface attack began to be supplemented by consideration of the risk of assault from the air. This gave rise, by 1908, to the creation of a government committee to study this and to predict future defence needs.¹⁸ Meanwhile, the district saw the creation of a civil airfield at Eastchurch on Sheppey in 1910, which led in 1911 to the site becoming a naval air training wing, followed by a period of important experimentation and development of military aviation. In the summer of 1913, the Medway naval bases and other local strategic assets were subjected to several British 'dummy' bombing raids to test the possibility of enemy air action. This was to help develop defensive tactics.¹⁹ It might have been these trials that gave rise to rumours, enduring to this day, that the Germans had mounted secret air reconnaissance missions over the Medway and which they might well have done.

THE FIRST WORLD WAR

The defence scheme of Feb 1914 set out the air threat for the first time and the measures initially taken against it in the form of the placement of a number of a new generation of light high-angle (anti-aircraft) guns. Their initial deployment was not on Sheppey itself, but on the Hoo Peninsula at Lodge Hill and Beacon Hill, protecting important ammunition magazines, as well as at Port Victoria to defend the naval oil stores and at Chatham Dockyard. On the north side of the Thames were other guns to protect the Thames Haven oil stores. It was also thought that the port might, in some degree be subject to the attack of submarines which had emerged as a menacing weapon of war.²⁰

There were adjustments to earlier proposals for anti-invasion fieldworks on Sheppey, with systems to be made just behind the coast between Garrison Point and Barton's Point, with further defences at and near Minster. Other fieldworks, with some use of pre-existing civilian buildings being made defensible, were to be established at key places inland, including at Kingsferry Bridge over the Swale. Such field defences were to be formed in two phases, first in the Precautionary Period leading to war and immediately war was declared.²¹

On the outbreak of War

Some years before war with Germany was joined in 1914, the Admiralty had become less sure of the ability of the Royal Navy to prevent invasion, a descent of 70,000 men being thought possible.²² Indeed, Sir Charles Douglas, the Chief of the Imperial Staff, stated in a report of September 1914 to Lord Kitchener, that Germany had the shipping to transport a more substantial force and, under some circumstances, might well risk a larger landing. The sinking of three British cruisers by a single German submarine in under two hours that same month was especially corrosive to confidence in the navy's ability to prevent invasion. The perceived threat of invasion became greater when Germany seized Ostend, seemingly poised to capture the Channel ports, more perilously close to England. Defences on land were strengthened while, at the same time, a coastal defence fleet, eventually totalling 260 vessels, was created nationally.²³ In the Thames a local force of destroyers, torpedo boats and submarines was soon supplemented by several battleships. Tragically, and with great loss of life, the battleship *HMS Bulwark* blew up in an accidental explosion, soon after its arrival and mooring off Sheerness. The other battleships were then redeployed elsewhere, it being considered at this stage of the war that such valuable assets were too much at risk from submarine attack. There was an equally devastating explosion of the mine layer *Princess Irene* in the river off Sheerness, also thought to have been an accident.²⁴

The coastal defences

Initially, the coastal defences of Sheerness remained substantially 'post-Owen', with adjustments to the Centre Bastion and the Indented Lines. There were now also coastal watchers on bicycles to report sightings of suspected enemy vessels to the Coastguard.²⁵ Later, in 1917, a major addition to the permanent defences was the building of the still surviving Fletcher Battery at Swanley Farm on the coast north of Eastchurch, armed with guns withdrawn from Slough Fort at Allhallows.²⁶ With the guns at Shoeburyness, this greatly extended the heavy gun coverage of the Thames estuary to the east, as far as a line of fire north across the river from Seasalter, also allowing defence of the approaches to the eastern entrance of the Swale. Offshore were controlled anti-shipping minefields, individual mines being exploded electrically from the shore. The Brennan torpedo station at Garrison Point had been taken out of service. Spanning the waterway between Sheerness and Grain was the boom defence to close the Medway against penetration. This had a fixed timber section from the beach at Grain, angling around Grain Tower to a moveable section supported on floats, to be opened and closed by a boom defence vessel.²⁷

In February 1915 the coastal batteries of the Thames and Medway district (the outer and inner line defences) mounted 6 x 9.2-in. breech-loaders (BL), 10 x 6-in. Mk VII BL, 4 x 4.7-in. Quick firers (QF) and 12 x 12 pr. QF guns. Of these, 2 x 9.2-in., 3 x 6-in., 2 x 4.7-in. and 6-12-pr. guns were at Sheerness.²⁸ This armament seems small given the importance of the Thames as a route to London, the presence of naval dockyards and other defensive assets and the fact that there were rarely

heavy warships nearby. Those which were stationed there from time to time were usually pre-Dreadnought ships, a lesser match for the German ships they were likely to encounter. Ultimately though, the defence of the Thames and Medway and of the country more widely depended upon the balance of sea power remaining in favour of Britain, with the presence of friendly naval forces, including heavy-gun monitors, in the estuary and beyond.

The anti-invasion fieldworks – Sheppey and south of the Swale

Early in the war, formations of the 2nd Home Defence Army were deployed to the district, on the Isle of Sheppey, mainly reserve battalions of the Rifle Brigade and the King's Royal Rifle Corps. Eight infantry battalions were stationed on the island and in and around Sittingbourne in September 1914, adding a total of the 12,076 men to the normal garrison of Sheerness and the Thames and Medway. The forces on the mainland were the Middlesex Brigade, (four battalions of the Territorial Force). Numbers fluctuated but a full infantry brigade seems to have been stationed around Sittingbourne throughout the war. These numbers did not include troops under training in the area. Reserves were available on call from elsewhere, as part of a strategy for local forces to meet an initial attack, to be followed by deployment of a Central Force to deliver a counter-blow once the enemy's intentions became clear.²⁹

Soon after the outbreak of war, the earlier planning for the anti-invasion defences of Sheppey was implemented. As incrementally extended, fieldworks stretched the entire length of the island from Sheerness to Shellness, designed and partially constructed by Royal Engineer units, assisted by the resident infantry on the island. Similar new measures were adopted on the mainland south of the Swale in the formation of a stop line to impede an advance west through Chatham and towards Woolwich Arsenal and London. The system along the Stockbury Valley was begun in late 1914/very early 1915. Works to the west of this would have been started at about the same time. These fieldworks were similarly designed and built by Royal Engineer Fortress Companies, with infantry initially from the Royal West Kent Regiment (Territorial Force) providing the labour.³⁰

Along the north coast of Sheppey, especially occupying the commanding hills, the fieldworks formed an elaborate system, in some ways resembling the British Western Front defences in France and Belgium. Deployed along the cliff and beach line, machine-gun pillboxes, some field guns and lines of barbed wire were to offer initial resistance to a landing. Behind were further entanglements and trenches between, and connecting with, a line of redoubts supported by further pillboxes and blockhouses and field artillery to provide a second or main line of resistance. Lines of wire and trenches turning inland, similarly supported, were further physical blocks and, collectively, acted as a tactical pivot for a counter-attack against enemy forces advancing on Sheerness, whose Queenborough Lines were also put into a condition of defence. There was also a network of signal stations and observation posts. The latter were likely to have both controlled the fire of the 15-pr. breech-loading field artillery, which was concentrated between Scrapsgate and Warden Point and, depending upon tactical circumstances, of the larger coastal defence guns which could fire both to seaward and inland. At Warden Point was an

especially strong complex of field defences formed of successive lines of barbed wire, trenches and pillboxes. The high ground commanded the lower ground and the marshes to the south and the roads that crossed it. There were outposts at Scocles Farm, Wallend and Straymarsh between the main line and Queensferry, the bridge at the latter being enclosed with wire as a point of resistance. A short distance north of the latter was a pontoon bridge across the Swale, provided as a tactical communication. The *East Kent Gazette* in November 1914 published an official notice by the Chief Constable of Kent that passes were to be introduced and movement restrictions imposed on the island, arrangements later renewed and reinforced. So visible was the military presence and that of barbed wire that in the words of Sheppey historian David Hughes, 'Sheppey was ... effectively one huge army base ... popularly known as Barbed Wire Island'.³¹

On the mainland the defence line ran south from Kemsley, then south-west to Detling, before swinging west to Boxley Hill. Layouts and component parts were similar to Sheppey but more substantial and with reinforcement of rectangular and oval pillboxes at a number of places. There were, however, differences. Some of these were also probably due to different RE units working on Sheppey and the mainland for much of the war having a large degree of autonomy. There were small earth and timber redoubts, usually with fire positions on two levels and at times with observation posts nearby, some in trees. As on Sheppey, whole sections of trenches were formed into larger redoubts, such as the 'Ginger Beer Redoubt' at Detling airfield, which incorporated the small 'Upton Redoubt', which was similar to those mentioned above.³²

Command and control would have been exercised via four buildings/groups of buildings selected to act as Brigade headquarters, one of which at least, from anecdotal evidence seems to have been substantially strengthened. These would have been needed as the area lacked permanent defences such as those found on Sheppey, which included such facilities. These HQs may indicate that a full division plus a brigade could have defended these works. Where the geology allowed it there were submerged machine gun emplacements, entered via or in tunnels. 'Tunnel Hill' above Chestnut Street is a good example, although they appear all along the line. With their earlier mentioned mission to block the invasion corridor west, the fieldworks were as important as those on Sheppey. Between the London Road west of Newington and Boxley were four prepared reinforcing positions for heavy long-range guns (6-in. MK IV BL or Mk VI naval pieces), with further prepared positions for lighter pieces in among the trenches. The northern part of this line could also be fired upon by the coastal guns on Sheppey (**Fig. 2**). As early as 1903/4 an extension along the scarp of the Medway Valley to Blue Bell Hill was also envisaged, some of which seems to have been constructed during the war.³³

The line running around Detling Village differed from the rest of the works south of the Swale and consisted of a series of machine-gun emplacements linked by short trenches, some covered or short tunnels, rather than the intricate trench systems along the valley. Some formed strongpoints consisting of groups of two or three machine-guns. Most were at least semi-underground. These are reminiscent of the works constructed by Germany in France and Belgium in the latter stages of the war, perhaps indicating that the above works were completed during that period. Possibly because these works lacked the permanent defences that Sheppey

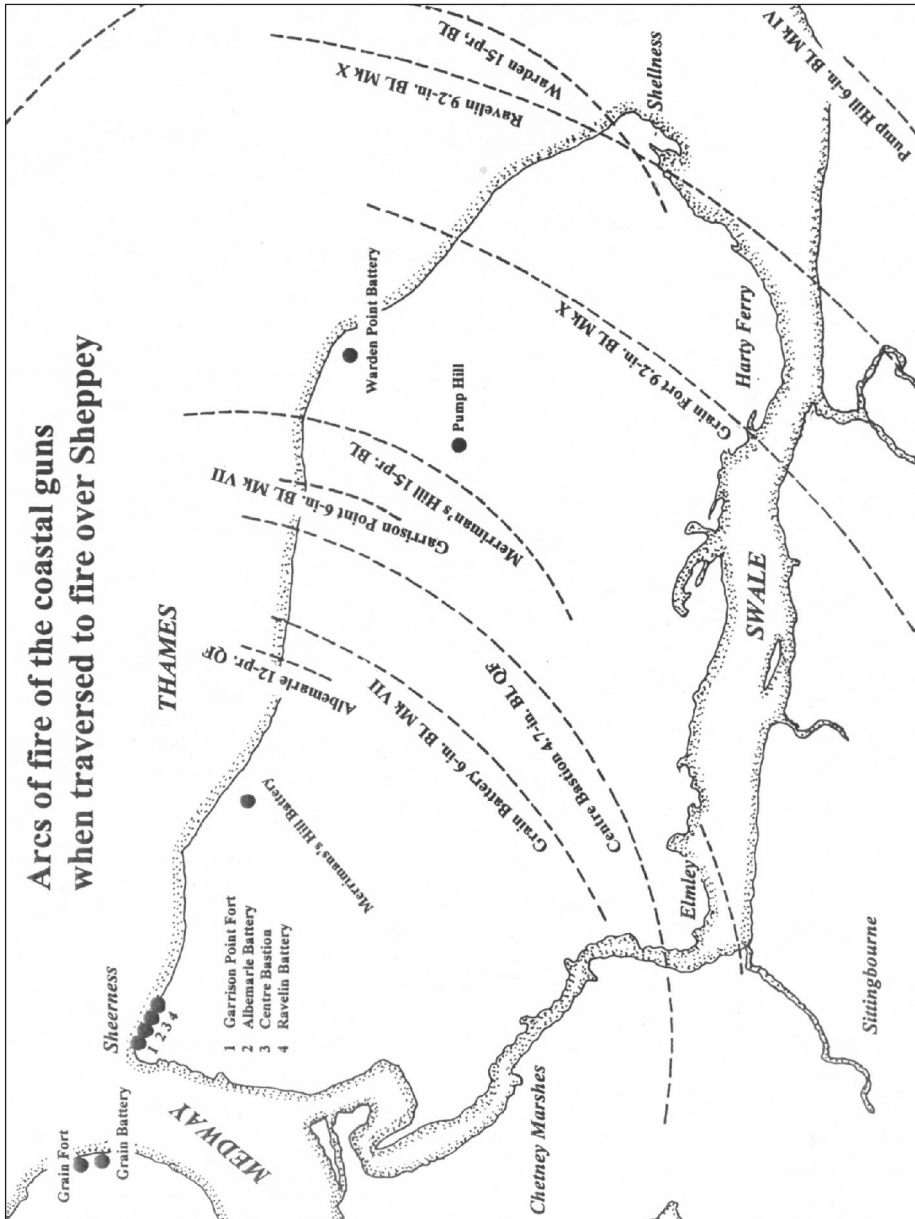


Fig. 2 Map of the arcs of fire of the coastal guns traversed to landward over Sheppey (Victor Smith).

enjoyed, 37 sites designated for mobile artillery were proposed, some at least as early as the planning of 1903. These were intended for field guns, including the 6-pr., and howitzers, possibly including the 9.45-in. None of these appear to have been prepared in any way: the majority of these were visited during this study and no sign of trenches or any other works were observed.³⁴

The fieldworks in Swale were mapped in an earlier volume of this journal.³⁵ Eleven of thirteen pillboxes remain on the mainland and several on Sheppey. Miles of infilled trenches might be identified archaeologically but surface traces also exist.

Naval defences

Afloat Naval defences (now 18 destroyers, 20 torpedo boats and 9 submarines) against riverine incursion by submarines or surface craft were supplemented with, in the estuary and beyond, anti-submarine and torpedo nets (including indicator nets) and minefields. There was also daily sweeping of enemy mines in the estuary to maintain clear channels, a force of minesweeping trawlers having been earmarked for this purpose. Added to these were minesweeping drifters and paddle steamers. In 1916 another battle squadron, the 3rd, consisting of pre-Dreadnought battleships led by the famous *HMS Dreadnought* herself, became based at Sheerness for a time. With the added power of the naval squadrons based at the flanking harbours of Harwich and Dover and a medley of defensive preparations including the availability of capital ships elsewhere, there was a dissuading presence of British naval power covering the waters from the North Sea to the English Channel. Despite the available enemy naval firepower, a German attack on the Thames and Medway would have been a risky undertaking. As part of a wider naval strategy, 'Q' ships for use in the oceans beyond and vessels for the Zeebrugge Raid in 1918 were fitted out at Sheerness and Chatham.³⁶

Air defence

The air defences were strengthened, with the encircling of military and naval assets at Sheerness with anti-aircraft guns, three positions being along Queenborough Lines and two close to Garrison Point at Albemarle Battery and the Naval Recreation Ground. Elsewhere on Sheppey further AA batteries appeared at Scrapsgate, Neats Court, Eastchurch for defence of the airfield (**Fig. 3**), at Harty Hill as well as on *HMS Blazer* at Kingferry and *HMS Acteon* at Burntwick Island. Along the south side of the Swale other batteries were added at Lower Halstow, Conyer, Oare and at Graveney. Traces may survive. Similarly, further batteries were provided at Grain, Allhallows and Chatham Dockyard. However, the situation remained dynamic, with some guns disappearing and others appearing. Added to the land-based guns were many others on naval vessels in the estuary. There were ground observation posts to report sightings of enemy aircraft for the alerting of the air defences.³⁷ An early experimental sound mirror for detecting aircraft at a distance from their sound was built in 1915 at Binbury Manor, near Detling, just outside the district to the south.³⁸ Just as AA gun protection from the ground evolved, so did defence by aircraft. Even before the outbreak of war, seaplanes

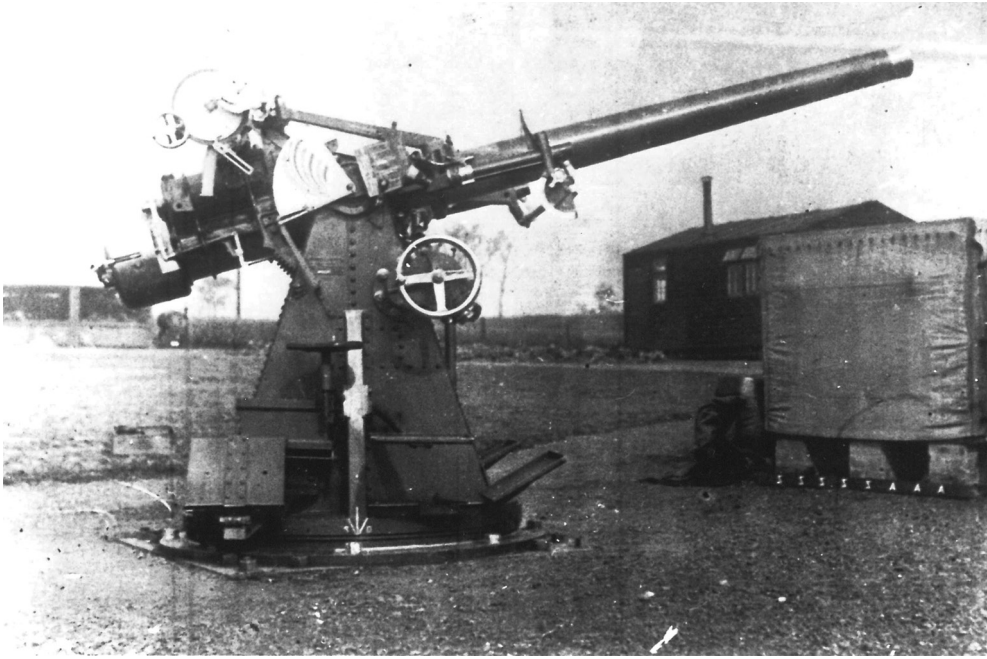


Fig. 3 A 3-inch anti-aircraft gun at Eastchurch on the Isle of Sheppey during the First World War (David Hughes Collection).

had been assembled at the Isle of Grain and aeroplanes at Eastchurch on Sheppey. These Royal Navy air stations, which had originated pre-war, were the setting for nationally important pioneering work in aviation and experimentation. Both became patrol and interceptor bases for the Thames estuary, joining their efforts with airfields at Westgate and Manston, as well as with others. An emergency landing ground existed at Leysdown and there was a kite balloon base at Sheerness where, also crammed in, was another landing ground for home defence aircraft. On the mainland a landing ground was established at Throwley, south of Faversham, with a patrol line to the Thames estuary and there was another field at Detling. The wider objectives of Nore Command at the extremities of the estuary and beyond were served not only from the deployment of winged aircraft but by patrol airships, mostly of the SS (Submarine Scout) type, from Kingsnorth on the Hoo Peninsula and elsewhere, which could spot and signal the presence of surfaced submarines threatening ships or convoys in the estuary.³⁹ Additionally, by 1917/18 planning for the contingency of invasion envisaged the employment of aircraft to strafe and bomb enemy troop transport vessels approaching the shore and landing forces on the beaches, over 500 aircraft being earmarked nationally for this purpose.⁴⁰

Absorption into the London Air Defence Area (LADA)

As air defence evolved and strengthened, the batteries locally became absorbed into the London Air Defence Area (LADA). This consisted of concentric belts

of anti-aircraft guns, searchlights, balloon barrage aprons and fighter zones, from which a limb from the Medway and the Thames estuary extended north to the River Blackwater. There were also outer air defence shields running through Swale south from Faversham to Romney Marsh and, further to the east, along the coast between Margate and Folkestone.⁴¹ By 1917 LADA was well organised and came to be used as an experienced-based frame of reference for post-war air defence planning.

Air activity and raids

Air activity reports for Nore Command show that the Thames estuary was frequently crossed and re-crossed by enemy airships and bomber aircraft, sometimes in a dance of death with interceptor aircraft and shaken by the burst of shells fired from the ground.⁴² Although their prime targets were London, its docks and Woolwich Arsenal, there were raids in the Thames estuary itself, with bombing of some ships, the defences and dockyard at Sheerness and of Chatham Dockyard, as well as attacks on Thames Haven, Southend, Shoeburyness, Grain, Whitstable, Sittingbourne, Faversham and elsewhere. Bombing of Chatham Dockyard in 1917 proved lethal to 136 sailors. Other bombs fell on the Chatham Lines and the town of Chatham. But this did not seriously disrupt key dockyard or industrial operations. Following earlier raids, the same may be said of the raids on Sheerness and Sheppey in the same year as for other raids into 1918. Despite the fatalities and injuries caused by air raiding this was, at a strategic level, a nuisance rather than a critical blow, not least because of the growing effectiveness of the air defences.⁴³ But bombing was, at times, a painful and salutary rehearsal for that which was to come in the Second World War, when more powerful and faster enemy bombers delivering greater destructive payloads were used.

Civil defence

Air raids were a danger to soldier and civilian alike. On Sheppey the Commanding Royal Engineer at Sheerness advised the civil authorities of his arrangements for notifying the start of an alert or a raid by sirens and other means, and for lowering or eliminating visible lights at night and giving an all-clear. Generally, lighting restrictions of several kinds were introduced to inhibit enemy night navigation whether in the air or at sea off the coast, heavy fines being imposed on malefactors. In 1916 concerns were expressed about visible lighting at Queenborough railway station and the flashes of light from tramcars seen on the occasion of an air raid on Sheerness. Discussions also took place about providing military, naval and civilian populations with air raid shelters, where communities were close to the military assets likely to be attacked. There were counterpart preparations for mainland communities, including designation of cellars for shelter. First aid parties stood by for dealing with the casualties of air raids.⁴⁴

The civilian presence and schemes for their evacuation

Although some left, civilians remained present in the defended ports of the Thames and Medway but, at or near military assets, were subject to security restrictions

such as those mentioned earlier for Sheppey. From the outset and seen as legitimate security and defence concerns, German shop keepers, traders and other residents became objects of suspicion as possible spies and could be monitored by the Police, arrested, expelled or imprisoned. It was an easy next step to paranoia, with the spotting of any rogue light at night being liable to be interpreted as signalling to an enemy, whether at sea or in the air. There was a checkpoint on the Watling Street west of Sittingbourne and towards Chatham, perhaps several of them, to guard against the possibility of traitors using car headlights to signal the location of bombing targets.⁴⁵

Extensive and detailed arrangements were put in place by local Emergency Committees such as those at Sittingbourne, Faversham, Queenborough and Sheerness to prepare civilian populations for the effects of invasion and clearing them from the affected areas. Evacuation routes that did not impinge on military priorities were identified for the population, their livestock and machinery. Members of the community and officials were found to organise evacuation, collect and requisition horses and livestock, provisions and other portable assets such as cars, bicycles and tools, bullion and money, as well as to carry out acts of destruction to deny assets and facilities to an advancing enemy. Volunteer forces were in place to provide immediate labour for trench digging and other works as soon as the emergency of invasion was realised.

Voluntary Aid Detachment (VAD) hospitals were established in the district and the Historical Research Group of Sittingbourne have discovered that some VAD personnel who were in the Red Cross also played a part in the local air raid warning process.⁴⁶

THE INTERWAR YEARS

After 1918 the possibility of a new European war seemed unlikely for some years. With the restrictions placed on Germany's military capacity by the Treaty of Versailles in 1919, a North Sea threat ceased. Instead, defence planning was against France as the nominal or notional enemy but more on the basis of a balance of power prudence in an effort to ensure equality with or, if possible, superiority over that country as then the next most powerful in Europe.⁴⁷ The naval threat against Sheerness, the Medway and the Thames envisaged in the event of war with France was chiefly that of cruiser raids, incursions by torpedo boats and to an extent submarines, with perhaps long-range bombardment by a battleship. Added to this was the possible use of block ships to close and disrupt the river channels that the Royal Navy and British merchant vessels would need to use. This required the maintenance of adequate defences. But with slight adjustments, the armament of Sheerness and the entrance to the Medway remained much as it had been at the end of the war.

Re-organisation against France was also the focus for air defence, but expansion and modernisation was challenged by cuts in government finance. This struck most of all at anti-aircraft gun defence which, nationally, nearly reached vanishing point, with guns being mostly removed from defensive positions and placed in store. There was a vast number of military aircraft left over from the war but many were unserviceable or rapidly becoming so. Moreover, they were in need of replacement

with more modern types. A scheme to revitalise the air force to achieve parity with the French struggled slowly forward, hindered by under-funding. The Steel-Bartholomew Scheme of 1923 envisaged Sheerness and the Swale being protected by a localised pocket of anti-aircraft guns within the outer fringe of a large new London Air Defence Area.⁴⁸ Observer posts were to report incoming aircraft which were to be engaged either by guns or by interceptors based in an aircraft fighting zone. This was mostly a paper scheme but in the 1920s observer posts, at least, were established across Swale district, at Eastchurch, Oare, Faversham and Sittingbourne.⁴⁹ The airfields at Throwley and Sheerness had been abandoned but Eastchurch was retained for flight training and Leysdown continued as an emergency landing ground.⁵⁰

Sheerness Dockyard and Naval Base

Like Chatham, the naval base at Sheerness may have contributed sailors and other resources to the maintenance of port operations elsewhere during the General Strike of 1926. Then, as at other dates, fear of Bolshevik-type disturbances may also have resulted in the creation of contingency plans for securing this national asset. By this date the dockyard was operating at a reduced level and in 1928 closure was announced by government although this was rescinded.⁵¹

Reorientation of the defences against Germany

Consideration was given in the later 1920s and opening of the 1930s to diminishing the role of coastal artillery in favour of the use of air bombers to defend against the attack of seaborne raiders or invaders. However, by 1932 this idea had been set aside. Planning against a theoretical attack from the French continued into the first few years of the 1930s, distances to Sheerness from France being quoted in defence plans as late as 1934.⁵² This was not on account of the possibility that the French coast might one day be occupied by another state hostile to Britain, then to be used as a base of operations but was directly related to the theoretical threat from France itself. However, by this date the German menace had begun to re-assert itself, leading to a reorientation of the strategy of defence to face a revived North Sea threat.⁵³ This emphasised the importance of the role of Sheerness and the Medway as a possible base for fleet operations. Both received a new lease of life. The vulnerability of Sheerness and the Swale district and the revised defence requirements were now set out. Threats included not only bombardment of the naval base but attacks by torpedo boats and, to a lesser extent, submarines, as well as landings. In the two years before the outbreak of the Second World War plans were laid for reviving and strengthening the defences, including arrangements for re-established boom defences, with a new long one planned between the coast of Sheppey and the Essex shore. Following construction of a new battery on Canvey Island in 1938 (where there was to be another boom) work began at Garrison Point on new defences against torpedo boats, as well as provision for mining of the approaches to Sheerness and the entrance of the Medway.

The period also saw the invention of the new and more advanced Fortress System of range finding and gun control for coastal artillery which was incorporated

within the district. Reorientation also applied to air defence, with national plans providing for a shield of defences from Portsmouth, round the east side of London and north to the Tees to protect the industrial Midlands against an attack from across the North Sea. Swale was to be partly within an intended aircraft fighting zone and partly within an outer artillery zone.⁵⁴ The naval base at Sheerness was again given a special focus for defence. A strategic map of 1935 showed that Swale was within range of bombers from Germany, even with their having to avoid the Low Countries, a limitation which was not to exist after the occupation of Holland, Belgium and France in 1940.⁵⁵ Some land purchases and construction of anti-aircraft batteries at named locations may have taken place in the district by 1938, as elsewhere. In 1935/6 there had been proposals for establishing a system of air defence early warning sound mirrors at various places to cover the Thames estuary. A mirror existed at Warden Point on Sheppey.⁵⁶ However, fixed sound mirrors were soon seen as a technological blind alley, to become set aside against the promise of the new radio-direction finding, expressed in the building in 1938 of a new Chain Home radar station just inside the district at Dunkirk. Meanwhile, the system of ground observers was enhanced in 1937/8, with the posts in the district originating from the 1920s upgraded and others added, for example at Sheerness. The airfield at Eastchurch continued in use for training with – at this period – fighter protection for the district being provided from fields outside. Air defences generally were put on standby and partly activated during the Munich Crisis of 1938, when the first of the air raid shelters which proliferated during the Second World War were constructed.⁵⁷

Civil defence

Civil defence became more prepared, having been incrementally developed following planning begun by central government in 1935. An air raid precautions map of April 1939 shows Sheerness and Queenborough to have had a high likelihood of bombing attack, attracting priority for shelter protection.⁵⁸ The remaining part of the district had a lesser perceived vulnerability. By then and in the several months to the outbreak of war, the basic infrastructure of civil defence had been established, including the first civil defence control centres, warden posts, first aid, rescue and gas decontamination posts, war mortuaries, emergency feeding centres and air raid sirens. There were curfew zones for the district and restricted coastal areas.⁵⁹

THE SECOND WORLD WAR

As in the First World War, the Thames, which was embraced by Nore Command, again became a nationally important two-way artery for the receipt of foodstuffs and the dispatch of assets needed for the war effort. This required the same mix of land, sea and air defences for its protection.

At the outbreak of war defence planners had little expectation that Britain would be invaded, reliance being placed on the navy to prevent this although attention was given to the protection of naval bases and key anchorages against attack by cruisers and battleships. The navy had been activated in the days before war, action

at sea characterising the first six months of the war. The dispatch of the British Expeditionary Force to join their French allies on the Continent acted, it was hoped, to impede any attempted German land advance west. In 1940 several cruisers became based at Sheerness and Chatham, with destroyers later, in a changing mix of naval vessels according to operational needs. The two bases were important for carrying out repairs and fitting out of warships as well as some ship-building, more so at Chatham, and especially of submarines. In 1940 Chatham saw the return of *HMS Ajax* for repairs after having been in the successful action in the South Atlantic against the *Graf Spee*, the most prominent commerce raider of her day.⁶⁰

A constant throughout the war was the need to escort convoys from the Thames by warships joining them from Sheerness. There was also the requirement to carry out continuous minesweeping against contact, acoustic and magnetic mines, dropped into the Thames estuary by German aircraft. Sheerness and Queenborough, with its pier, became bases for minesweeper operations. There was a mine watching organisation on shore and on barges to spot and report mines as soon as they were dropped. As well as this there was German bombing and strafing of British vessels in the Thames. As in the First World War there was the protective use of mines by the British in the approaches to the estuary against German naval incursions. At Sheerness itself there were defensive torpedo tubes on land and on moored barges.⁶¹ The 7-mile (11km) long Sheppey-Shoeburyness boom, formed at the end of 1940, was operated by the Royal Navy, with possible fixing points for it to be seen just to the east of Barton's Point, as well as an apparently related line of beached barges. There was a boom blocking the Swale at its eastern end.⁶²

Air defence

Air attack was considered a greater probability and more immediate prospect than invasion, resulting in exertions to carry forward the defensive measures begun in the later 1930s. Airfields were brought to readiness for the stationing of fighters, although the main defence by interceptors was mostly based outside the district, the nearest field being at Detling. For a time, Eastchurch became a training centre for Polish pilots and in the spring of 1940 it was used as a base for Blenheims to fly coastal patrols. Intermittently, Spitfire interceptors were based there. Although in a vulnerable location, fighters based there were well-placed to intercept enemy aircraft approaching London and along the Thames.⁶³ Leysdown continued as a range for bombing practice and Throwley became an emergency landing ground.⁶⁴

Parallel with this was completion of the network of anti-aircraft guns (**Fig. 4**). Within the district these covered the strategically important Sheerness naval base and also formed part of the wider gun barrier known as the Thames and Medway South Gun Defended Area. This included heavy batteries with a distinctive site layout centred on a battery command post. There were also light guns to protect localised vulnerable points. During this period the district had heavy batteries at Wetham Green, Iwade, Scrapsgate, Bell Farm and Warden Point with light batteries at Sheerness, Eastchurch, Warden Point, Shellness and Dunkirk, with other sites to be identified. Further guns defended searchlight sites.⁶⁵

Although fixed sound locators were no longer used, mobile ones were and the system of ground-based observers was strengthened and better organised. Strategic

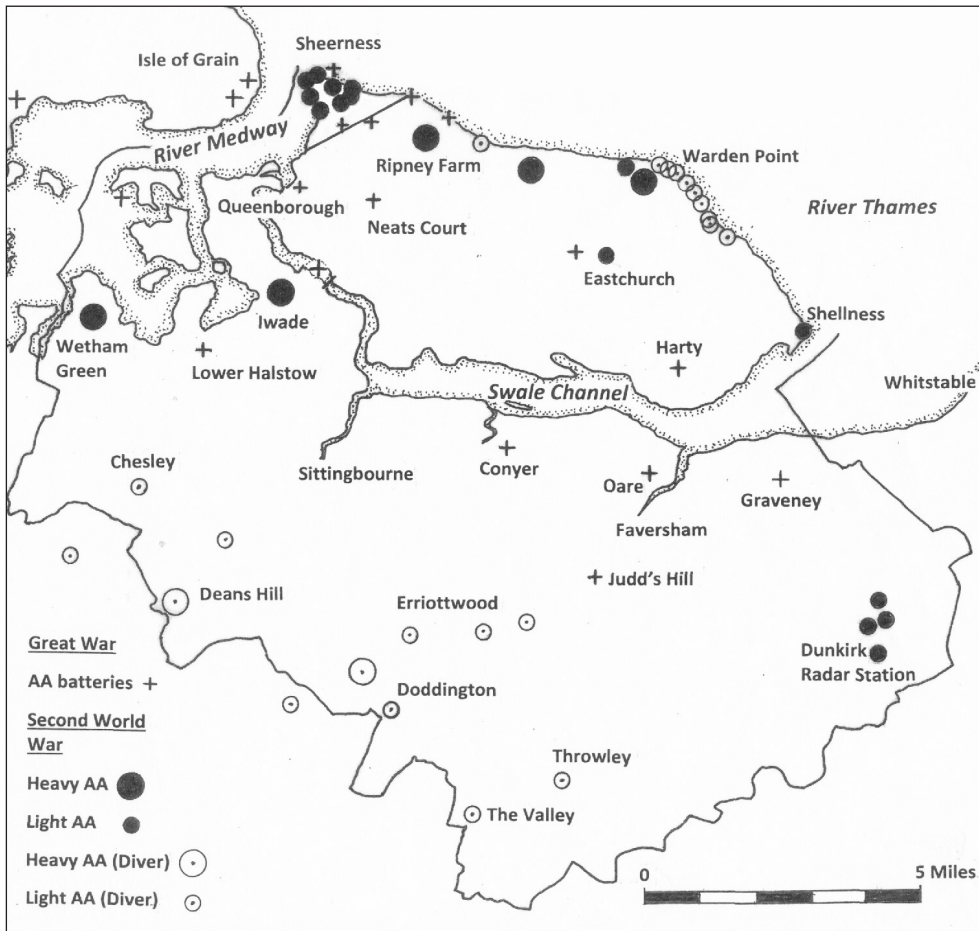


Fig. 4 Simplified map of the anti-aircraft gun batteries in Swale District during the two World Wars (Victor Smith).

long-range detection of aircraft was achieved by use of the Chain Home radar system with, in addition to the station at Dunkirk, others north of the Thames and along the south coast. Gun laying radar was also introduced.⁶⁶

Searchlights illuminated the night sky, especially along the routes which enemy aircraft might be expected take across the district. Sheerness was given special attention. These lights were, from time to time, redeployed according to the revision of the air defence strategy and it should be possible to reconstruct the layouts at different dates. Likewise the arrays of barrage balloons, of which many were based on vessels moored in the lower Thames and the estuary.⁶⁷

Another device for protection was the use of decoy sites to distract raiders from bombing their intended targets. Such methods of deception could include false structures on the ground and the employment of lights, flame and smoke emissions. Decoys for Chatham are known to have been placed within the district at Hartly

Ferry and Cleve Marshes. There may have been others, which might have left traces in the form of bomb-proof control buildings and other features. Smoke emitters could also be used at real targets to obscure them to the view of bomb-aimers.⁶⁸

Civil defence

The earlier-mentioned civil defence infrastructure was enhanced and upgraded in the first 12-15 months of the war.⁶⁹ This included the multiplication of air raid warning sirens and of air raid warden posts with, for the most part, the discarding of impromptu locations for the latter in private homes and public houses in favour of purpose-built structures. There was also a proliferation of static water tanks for fire-fighting purposes. Control Centres were improved and supplemented by reserve centres to be brought into use in the event of the primary one being rendered inoperative by bombing. Rest Centres and emergency feeding centres increased in number, most usually being located in schools whose kitchens were given additional facilities. Emergency hospitals were designated on Sheppey and at Faversham. Above all, the tentative steps taken to construct air raid shelters during the Munich Crisis were succeeded by a massive programme of provision, including a proliferation of domestic Anderson and Morrison shelters, brick and concrete garden shelters and community, public and industrial shelters of varied design. Some shelters in schools were rented for use by the public outside school hours. 'Blitzmerge' arrangements were made for the reinforcement of civil defence services when needed and assembly places for the related mobile columns were designated. At numerous places on Sheppey and on the mainland were dumps of materials for the repair of roads which might come to be damaged by enemy action.⁷⁰ Medway Group civil defence (which embraced Swale) came under the Command of the Commander in Chief of Nore Command. Within Swale, the council areas embraced were Sheerness, Queenborough and Sheppey on the Isle of Sheppey and, on the mainland, Sittingbourne and Milton, Swale as well as Faversham. In time, Milton, Faversham and Swale reverted to the control of Kent County Council. Nationally from mid 1942, as the frequency and scale of air raids diminished, the civil defence services began to contract. Some of its full-time employed staff were released to fill manpower shortages in industry or the services.⁷¹

Evacuation

In 1939 Queenborough station became a railhead for the evacuation of children to Sheppey. Others had been evacuated to Sittingbourne, Swale and Faversham. By mid 1940 and because of the vulnerability of the area to air attack, this was seen as a mistake. Both indigenous children and those who had arrived in 1939 were evacuated or re-evacuated to Wales and the Midlands. Many of those in the latter had to be further re-evacuated when those areas also became more subject to air raiding.⁷²

Anti-invasion defence

As late as November 1939, the Chief of Staff assured that with air cover and the

navy at sea, 'a full scale invasion was not a serious danger'.⁷³ Such confidence began to be eroded by German occupation of Norway and Denmark in April 1940 and of Holland in early May, from which it was initially thought that an invasion might be launched. It was shredded by the allied defeat in France and the evacuation from Dunkirk in late May/early June. Sheerness had an important role both in the assembly of the small ships which were to help in the retrieval of troops from the French beaches and in receiving some of the evacuees.⁷⁴ After Dunkirk, invasion seemed likely, especially given the evidence of the build-up of an invasion fleet along the Continental coast where French, Belgian and Dutch airfields had been taken over by the Germans and from which attacks on Britain might be expected and raids were soon to come during the Battle of Britain including on Eastchurch. General Kirke had already undertaken some modest anti-invasion works but the tempo of defensive preparation dramatically increased with the vast programme initiated by General Ironside who succeeded him on 25 May.⁷⁵ This required construction of a network of anti-tank obstacles, road blocks, trench systems, minefields, barbed wire obstacles, concrete pillboxes and gun emplacements. The scheme consisted of (a) a coastal crust of defences (b) in rear of this, stop lines to delay and channel an invader into prepared battlefields and (c) where roads important to an enemy converged in towns, the creation of nodal point defences or anti-tank islands (of limited numbers initially), with lesser defended villages and hamlets. As part of the anti-invasion strategy, vulnerable and key points, such as air fields (e.g. against parachute landings) and elements of the country's infrastructure needed to be defended. Areas suitable for the landing of enemy troop-carrying aircraft and gliders were to be obstructed with various types of obstacles.⁷⁶ All of these features were, in varying degrees, provided within the district. Linked with this was surveillance of the coast and key points against the possibility of the activity of feared Fifth Columnists. Reports survive of the spotting of suspicious persons. A number were detained and questioned. Some intruders into the radar site at Dunkirk were fired upon.⁷⁷

On the mainland, the coastal crust defences ran along the North Kent Coast securing, at the same time, access from the creeks of the Swale and, as in the First World War, there were defences along and immediately behind the north shore of Sheppey, especially on the high ground. There were Defended Locations at Swanley Farm, Eastchurch (two) and Queenborough as well as at Kingsferry to control the crossing of the Swale, although one report of November 1939 had suggested that the capture of Sheppey might not have been worth the enemy's effort because it had 'singularly inadequate communications with the mainland'. Later reports were less dismissive. Village defences existed at sites near Sheerness, at Halfway Houses, Minster and Eastchurch, with road blocks at numerous places. Collectively, these obstructed the road infrastructure and the routes on and off the island. One of the line of new coastal emergency anti-invasion batteries was built at Shellness near the eastern entrance of the Swale, which was blocked by a boom. The Swale was also protected by another emergency battery just outside the district at Whitstable. A concrete control post for an anti-shipping minefield stands at Shellness, presumably with the possibility of boom-smashers in mind.⁷⁸

On the mainland, Watling Street was impeded by a succession of blocking positions, of which major ones were the important nodal points of Faversham and

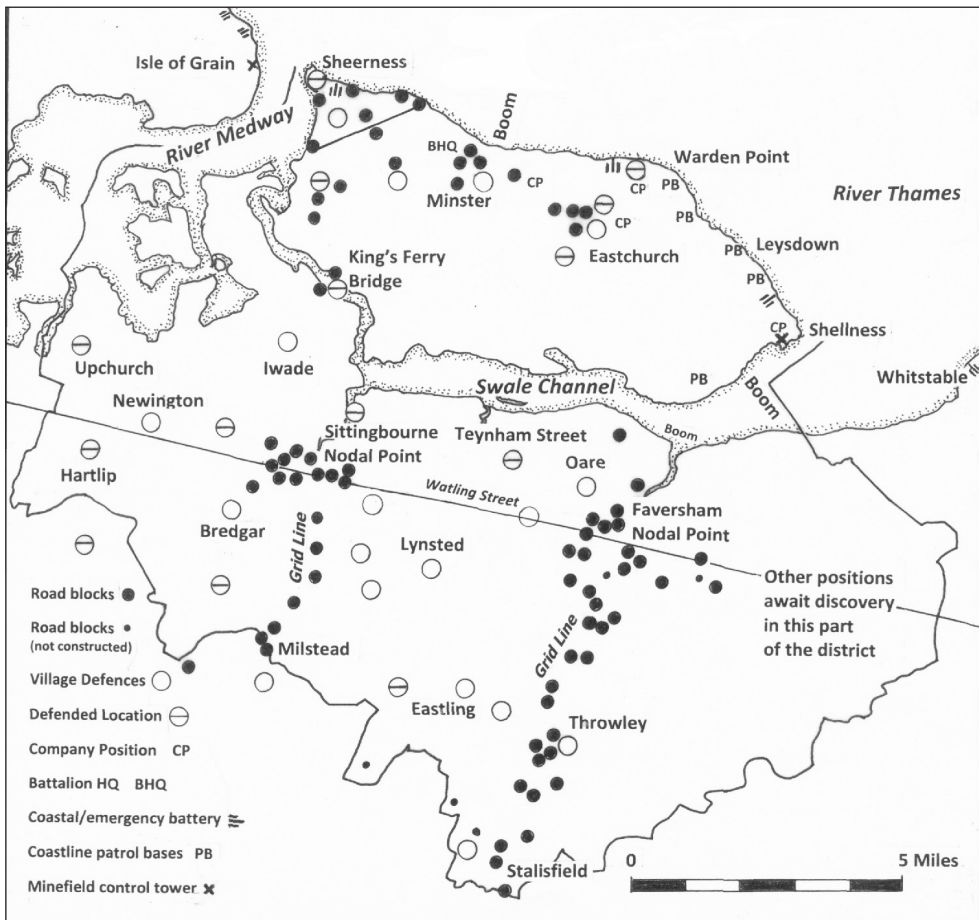


Fig. 5 Simplified map of the anti-invasion defences in Swale District during the Second World War. (Main locations only.) (Victor Smith.)

Sittingbourne. These were joined by road blocks along two grid lines, reaching out to the south of the district as far as Stalisfield, Milstead and beyond.⁷⁹ A map of anti-invasion defences (to which additional sites will need to be added as they are discovered) is at Fig. 5. There is anecdotal evidence that as part of the defences one, at least, of the First World War trenches was re-dug, for example at Parsonage Farm, Stockbury.⁸⁰ As with Sheppey, there was a multiplicity of Defensive Locations and points of resistance covering subsidiary and connecting roads, their junctions and villages on either side of the Watling Street including Upchurch, Hartlip, Bobbing, Bredgar, Doddington, Teynham, Oare, Newington, Iwade, Borden, Newbury, Bapchild, Newnham, Eastling, Town Place, Norton Ash, Luddenham Court and elsewhere.⁸¹ These defences will have included road blocks, fougasses (improvised explosive devices and flame projectors) and positions for small arms and, perhaps in some cases, light artillery. Both on the mainland and on the Isle of Sheppey, there were blocks to deter movement along railway lines.

Under the 12 Corps plans to defeat invasion, the Home Guard was to have had a vital part in the first line defence of the country. They were to man the points of resistance to restrict and prevent enemy road movements. The Home Guard were not to be entirely static but were to harass the enemy, fighting to the last man, without thought of surrender, and so provide the conditions for counter-attack by the field army.

Soon however, there was a lesser emphasis on stop lines and the earlier-mentioned grid lines were left incomplete, and then dispensed with. Defence concentrated on the two nodal points which, by February 1941, were to be made powerful enough to withstand a prolonged siege. With the availability of increased military resources, defence was to depend more and more on the use of strong mobile forces, partly using the nodal points as tactical pivots for counter-attacking. This vigorous approach was exemplified in the arrival of the energetic General Montgomery as the Commander of 12 Corps in April 1941.⁸² In the event of invading forces occupying territory there was also a covert army of Home Guard partisans whose task was to commit sabotage behind enemy lines, secret hides for them having been established in the district. Fieldwork will be certain to discover more evidence of the infrastructure of anti-invasion defence.

Triumvirates

Under invasion conditions some communities were to be administered by Triumvirates of civil, police and military authorities. Within the district these were formed at Sheerness, Queenborough, Eastchurch, Upchurch, Newington, Teynham, Lynsted and at Boughton-under-Blean, as well as at the nodal points of Faversham and Sittingbourne.⁸³

Throughout the war the defences were improved or amended. An armoured train became designated for the district as part of the arrangements for a counter-attack. Chemical weapons were available to anti-invasion forces. Exercises were held to test the arrangements for defence. A third emplacement was added to Fletcher Battery in 1941 and, on the cliffs close to the defunct sound mirror at Warden Point, a combined coast defence/Chain Home Low radar station was built to detect surface targets in the estuary and low-flying aircraft, especially minelayers.⁸⁴ East End House, nearby, was a Fire Command Post for the coastal artillery. By 1941/2 new offshore anti-aircraft forts positioned in the estuary (still visible at a distance from the shore) provided not only gun defence against mine laying aircraft but also enhanced general gun defence across the estuary and facilitated important additional radar cover.⁸⁵

D-Day and V-weapons

Eastchurch airfield had varied employment during the remainder of the war, being used intermittently for air defence of the estuarial approaches to London, for testing the 3-squadron mobile airfield system, as a base for air cover for the Dieppe Raid of August 1942, for air gunnery practice against towed targets and to support the D-Day landings of June, 1944.⁸⁶

In preparation for D-Day, military training and accommodation camps were established at various places in the district. In the several days before and immediately after D-Day, convoys totalling over 300 ships left the Thames laden with thousands of troops and vast amounts of military supplies and vehicles destined for France.⁸⁷ Moreover, as the allied armies advanced inland, the river continued to be a supply base for them.

From June 1944, the complexion of air defence changed as Britain became subjected to the V1 flying bomb offensive, mostly aimed at London. This was reacted to not only by reorientation of interceptor aircraft to shoot them down (including some based at RAF Detling) but by the transfer of barrage balloons closer to the capital and by the mass Diver deployment of anti-aircraft guns into new defensive barriers, consisting of the Coastal, Kentish and Thames estuary Box systems.⁸⁸ This involved the relocation of selected existing anti-aircraft weapons and the provision of many new ones. Within the Diver Box, some existing batteries (including the offshore forts) were redesignated for the purpose, added to which was a profusion of light anti-aircraft guns, particularly on the north coast of Sheppey, and especially in a concentration at Warden Point. Within the district were some sites on the fringe of the Kentish gun belt.⁸⁹ There was no defence against the V2 rocket offensive other than by the overrunning and elimination of their launching sites by advancing allied forces.

Even before D-Day, the improbability of having to face a German invasion led to some of the coastal and other military defences being either abandoned or relegated to lesser preparedness. This began with the national *Floodtide* orders of 1943. Under the *Neaptide* orders of September 1944 many of the coastal defences were placed into care and maintenance. By November 1944 there was a further reduction and, from January and February 1945 some batteries began to be abandoned.⁹⁰ Prisoner of War camps might have been established in the district for Germans taken captive in France after D- Day, as well as in earlier phases of the war.

Official figures for bombing of the district were as follows:

High explosive bombs dropped 1,978	Flying bombs 39
Oil bombs 31	V2s n/a
Incendiary bombs 20,113	Mines 73
Killed by bombing 58	Properties totally destroyed 96
Injured and admitted into hospital 86	Properties severely damaged 226
Others injured 200	Other properties damaged 9,095 ⁹¹

There were also instances of strafing attack. Remarkably, the potential for serious and disruptive attacks on the dockyard and the naval base at Sheerness was little exploited.

POSTWAR

The district came to incorporate both military and civil defences during the period from 1946-1989/90 which became known as the 'Cold War'. The naval bases at Sheerness and Chatham remained important into the first half of the Cold War.

Sheerness was recognised as a target for an attack by the Soviets, its albeit reduced coastal artillery armament being maintained (as was that of its partner at Grain in the Hoo Peninsula). The Home Guard was reactivated for a time, with units being formed in the district. The Sheppey/Shoeburyness boom was also renewed. A fear in 1950 was of a Russian freighter loaded with an atomic bomb being sailed into the Thames before hostilities and detonated at a predetermined time. Later it was thought that a high-yield air-dropped bomb might be exploded in the waters of the estuary to create a tidal wave and a massive cloud of radioactive fallout.⁹²

In 1956 the government announced that the coast artillery component of the British Army was to be abolished. For the future it was considered that a threat from the sea could be defended against by the air force and the navy, with other types of artillery brought in, according to the need of the time, for seaward defence. The coastal defences were disarmed.⁹³ Although the possibility of invasion was recognised, it was also understood that any such war could, after opening moves, rapidly come to be fought with the use of nuclear weapons, whether delivered by bombers or strategic missiles. Sheerness was a possible target. For the reinforcement and re-supply of NATO forces opposing any Soviet land offensive on the Continent, Sheerness was one of the convoy collection and departure points. A command centre for this purpose was established in the magazines of Garrison Point Fort and used until at least the later 1970s/early 80s, and perhaps beyond, although the naval base itself had been discontinued in 1960.⁹⁴ There was, for a time, a small associated flotilla of auxiliary vessels. Elements of the Home Service Force (1985-92) might have been designated for the protection of the facilities at Sheerness. Any suitable jetty or landing stage reachable by a road or track in southern England was earmarked as a re-supply port for British forces on the Continent, should the usual main ports have been destroyed. About this period electronic warfare detection measures were placed across the Thames.⁹⁵

Air defence of Sheerness and of the district was supported by the continued use of the radar station at Dunkirk and the other stations of the Chain Home system and, until the demise of Anti-Aircraft Command in 1955, gun batteries, which included an extant new one at Capel Farm on Sheppey.⁹⁶ Fighter protection was provided from airfields elsewhere. The Royal Observer Corps was reactivated post-war, with new surface observation posts being built in the early 1950s, later succeeded by underground radiation monitoring posts, an arrangement discontinued after the end of the Cold War in 1990.⁹⁷

Civil defence had been reactivated from 1948 with a revival of the wartime organisation of control centres, warden and first aid posts, rescue and emergency feeding and rest centres. Sometimes this involved re-use of wartime structures, where remaining, but there was a small amount of new building. Overall, however, this was all on a smaller scale than in the Second World War and public air raid shelters for civilians hardly featured. There is voluminous information about actual and planned infrastructure and modifications to it.⁹⁸ After government expenditure cuts, the Civil Defence Corps was discontinued in 1968, a limited emergency communications network being retained. A revival of civil defence in the later 1970s and 80s was faltering, its only substantial achievement being an upgraded communications network. Included might have been involvement of the RAYNET group of radio amateurs. By then, under an 'all-risks' strategy,

emergency communications were as much about responding to civil contingencies in peace as war planning.⁹⁹

A potential blast from the past?

A threat from the Second World War remains in the form of the wreck of the *SS Richard Montgomery*, just offshore of Sheerness, and which is still laden with part of its cargo of shells and bombs. Its situation is monitored and its location is subject to restriction of navigation.

DISCUSSION

This report is the result of the examination of a broad range of documentary and other sources as well as of some field investigation. In this short space the vast amount of information discovered can only be summarised. As with earlier research of other districts, the purpose of the report is to reveal and to trace the evolution of the themes of home defence encountered in Swale in the 20th century. Swale had a strategic identity whose defensive signature was, in the 20th century, written upon it as never before. From modest beginnings in the 16th century, by the 17th Sheerness itself, its naval base and defences, with its nearby counterpart upstream at Chatham, had become important to the security of the nation, both being enlarged and elaborated upon in successive centuries. The 20th century brought very extensive anti-invasion provision in the coastal hinterland, some urban centres and the countryside, supplemented by burgeoning arrangements for military and civil defence against air attack. Indeed, pre-Second World War, governmental assumptions were that air attack in a future war would be catastrophic in its scope and effects on populations and that many parts of the country might have to face something like a total war, in which soldier, civilian and communities were, on a large scale, expected to be more or less collectively in the front-line of conflict. British landscapes and towns, including of the Swale district, became militarised, often visibly so.

This text outlines the overall scope of the defences across Swale district, of which many sites have been found in contemporary documents and/or from the location of physical remains. These sites are in the process of being logged in the Kent Historic Environment Record. Yet there is considerable scope for further work. This might focus on continued research into papers in the War Office (WO), Admiralty (Adm), Air Ministry (AIR) and Home Office (HO) papers at the National Archives, civil defence and council papers at the Kent History and Library Centre as well as other documentary sources. This would be used to guide an extensive examination of the ground, both physically and through the use of LIDAR and aerial photographic evidence (including Second World War German intelligence images) to more completely establish the extent of defensive provision and the survival of structures, perhaps suggesting the possibilities for conservation and public access.

Coastal and riverine defences have far from reached the end of their investigatory and survey possibilities, not least in the need to record the First World War Fletcher Battery on Sheppey. Ideas for the continued study of the ground defences of the First

World War have been set out by the writers elsewhere.¹⁰⁰ Anti-invasion defences of the Second World War offer large potential for mapping and an increased understanding of the pattern of provision. So too, air defences, whether active (by aircraft and guns) or passive (civil defence). The varied and changing character of defences also offers scope for archaeological investigation. The results from all of this could be promoted and embraced within a range of educational and public engagement outputs. There is a huge opportunity for the voluntary sector to carry forward a journey of discovery to make this possible.

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- 30 See the map in Victor Smith, *op. cit.* (see note 2), 151.
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- 32 Victor Smith, *op. cit.* (see note 19), 85-86; Alan Anstee, *pers. comm.* 2019.
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