

AN OVERVIEW OF THE TWENTIETH-CENTURY MILITARY AND CIVIL DEFENCES OF SWALE

Victor TC Smith
(With contributions from Alan Anstee)

Preamble

This overview is intended to give a general and local context for the assistance of those participating in the Defence of Swale project. From their investigations a detailed study can emerge. The project is coordinated by Kent County Council and funded by the London Array offshore wind farm, with the support of English Heritage.

CHARACTERISTICS OF THE DISTRICT

Boundaries and terrain

Swale District, which is the same as 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. It is the result of the reorganisation of council areas over the years, ending in a merger of 1974.

The district is divided by the River Swale 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 part of the district. These diminish north to 20 m or lower and the clays of the coastal hinterland, giving way to marshlands cut up with drainage channels, which border the Medway and the Swale. 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 and 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 building and repair, brickmaking and paper and cement manufacture. An important explosives industry served both the government and civilian sectors and there was the naval/industrial complex at Sheerness.

Transport links

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 Watling Street which connected London, via Canterbury, with the Kent coast. It also provided the historic spine for the evolution and development of the towns 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. Main 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. 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 1951. On both the mainland and Sheppey were also lines connecting to and serving certain of the industries.

Strategic factors

Although interrelating, the strategic significance of the district was influenced by whether on the mainland or on the Isle of Sheppey, the Swale channel between them 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 East Kent coast, from the Swale or across that channel from the Isle of Sheppey, or a combination of these 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 via main and subsidiary roads entering the district from the south. These factors were, in varying degrees, to influence the strategy of defence.

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 meant that it had to be strongly defended as well as for the 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.

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. There was also the vulnerability to the landing of small forces of the earlier-mentioned creeks connecting with the Swale between Sittingbourne and Faversham.

Attack from the sea

Before the Twentieth Century the Thames and Medway defences were regarded more as separate, and to a degree localised, entities. However, exploitation of 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, a straight 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 other periods, the defences on land were a second line behind the Royal Navy and the assumed primacy of its main battle fleets, backed by flotillas of local forces.

Attack from the air

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 itself was also effectively a route map 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 receiving point defence for these and other locations within the district, the latter came to be embraced within broader regional and national systems of active and passive air defence. A reflection of the experience 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. During the nuclear age emerged the possibility of apocalyptic destruction from the air.

HISTORICAL SUMMARY

Before the First World War

The German threat replacing that from France

As it had been during the later 19th century, in 1900 home defence focused on a perceived threat from France. Parallel with this was recognition of the rise of imperial Germany and a possible future challenge. Relations with France improved after the Entente of 1904 but planning against a French attack or invasion continued until 1908/9, to be succeeded solely upon the risk of an attack from Germany.

Until the First World War the mainland did not have defences but the district in general was host to drill halls for the army volunteers, whose role on mobilisation might be either home defence or foreign service. These were established in Sittingbourne and Faversham as well as at Sheerness. At the latter there was also, on account of the dockyard and its defences, a significant regular military and naval presence. Sheerness remained at the core of the defence of the area until the Cold War. Indeed, Sheerness and Chatham rank alongside Portsmouth and Plymouth in their importance as do, in their extent and complexity, the fortifications that grew around them.

The naval base at Sheerness and its defences

At the start of the 20th century Sheerness was a destroyer base against the rising threat of the torpedo boat. 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 extension since its origins in the later 17th century. At the opening of the 20th century it presented a distinct

and extensive footprint, consisting of basins, docks, timber yards and smithies and an array of other dockyard buildings as well as barracks. The whole facility – including the civil settlement of Blue Town - was defended by a powerful northern front of forts and batteries facing the Thames, and enclosed to landward with 18th century and later bastioned lines. At a distance, and embracing Mile Town and Marine Town, was an advanced mid-19th century defensive barrier between West Minster and Barton's Point, known as Queenborough Lines. This was to be fought by infantry forces having a moveable armament.

Like British coastal defences generally, the north front defences at Sheerness were modernised from muzzle-loading to breech-loading guns in the 1890s and the first few years of the 20th century. This included the mounting of heavy guns (some on disappearing mountings), medium weapons and light quick-firers. Just outside the 18th century lines, Ravelin Battery was added for heavy guns. 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. Fixings for a boom defence across the entrance to the Medway were made at Garrison Point and Grain tower. Running on one side of this at Garrison Point, an installation for the ingenious wire-guided Brennan Torpedo was continued for several years. Further to the east at Barton's Point, near the northern extremity of Queenborough Lines, another and outlying battery was built for heavy and medium guns. This appears to have combined a defensive role with a training facility for Royal Navy gunners. Collectively, all this transformed the defences of Sheerness, giving their weapons up to 7 miles 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 in peacetime by the construction of permanent batteries. From 1895-1904 the battleship HMS *Sans Pareil*, armed with massive 16-in. guns, reinforced the coastal defences as guardship for Sheerness. After this, and as part of a general strategy for providing local naval patrols forces for naval and others east coast ports, that for the Greater Thames consisted of lighter and faster vessels based at Sheerness and Chatham.

There were also several 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.

The defence plans of 1904 and 1906

Defensive measures were encapsulated within defence plans of 1904 and 1906. These described a variety of 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 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 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 and so neutralise 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. Contingency plans provided for the rising ground across Sheppey to be entrenched in the same area proposed in 1860 by the Royal Commission for the Defence of the United Kingdom for the placement of a trio of artillery forts.

Across the marshes, so cut with drainage channels, the ways for an attacker were limited, known about and could be defended against. There were other plans for a line of fieldworks from Iwade, curving west to Bluebell Hill, to act as a focus and a support for a field force to block the way to an invader advancing towards Chatham and London through the mainland.

The Owen Committee

No sooner had an extensive national modernisation of the permanent coastal defences taken place than the Owen Committee of 1905 signalled a new prominence of the Admiralty in home defence planning. This followed decades of, at times 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 to expand and modernise the fleet which, they asserted, could prevent invasion in the first place. This debate continues among historians. 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 raft of recommendations for swingeing reductions in coastal artillery nationally, often carried out. 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. Moreover, many of them could also be turned to fire on the inland areas of Sheppey.

Protection against surface attack began to be supplemented by consideration of the possibility for 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. Within the district the creation of a civil airfield at Eastchurch on Sheppey in 1910, led in 1911 to the site becoming a naval 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 had been subjected to several British 'dummy' bombing raids to test the possibility of enemy air action and to help develop defensive tactics. 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 which they might also have done.

The First World War

The lead-up to the outbreak of war and the defence plan of February 1914

The pre-war defence scheme having most relevance to the First World War was one of February 1914. This was based upon but refined those of 1904 and 1906 and, for the first time, set out the air threat 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, not far from important ammunition magazines, at Port Victoria to defend the naval oil stores and at Chatham Dockyard. On the north side of the Thames were others to protect the Thames Haven oil stores.

Now it was thought that some degree the port might also be subject to the attack of submarines which had emerged as a menacing weapon of war.

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.

On the outbreak of War

Some years before war with Germany was joined in 1914, the Admiralty had become less confident about the ability of the Royal Navy to prevent invasion, a descent of 70,000 men being thought possible. For a time, confidence became further eroded when, in September, a German submarine managed to sink 3 British cruisers in under two hours. 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 of 260 vessels was created nationally. In the Thames a local force of destroyers, torpedo boats and submarines was soon supplemented by a force of battleships. Tragically, and with great loss of life, the battleship HMS Bulwark blew up in an accidental explosion, soon after arrival and mooring off Sheerness. The other battleships were soon 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 also an equally devastating explosion of the mine layer Princess Irene in the river off Sheerness, also thought to have been an accident.

The coastal defences

Initially, the land-based coastal defences of Sheerness remained substantially 'post-Owen', with adjustments to the Centre Bastion and the Indented Lines. There were now coastal watchers on bicycles to report sightings of suspected enemy vessels to the Coastguard. A major addition to the permanent defences in 1918 was Fletcher Battery at Swanley Farm on the coast north of Eastchurch, armed with guns withdrawn from Slough Fort at Allhallows. 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. It also allowed defence of the approaches to the eastern entrance of the Swale. Offshore there were controlled anti-shipping minefields, individual mines being exploded electrically from the shore. The Brennan torpedo station at Garrison Point had long been out of service. Spanning the waterway between Sheerness and Grain was a 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.

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 these mainly being reserve battalions of the Rifle Brigade and the King's Royal Rifle Corps. Larger numbers were available on call from elsewhere, as part of defensive strategy for local forces to meet an initial attack, to be followed by deployment of a Central Force to deliver a devastating counter-blow once the enemy's intentions became known.

Beginning soon after the outbreak of war, the earlier planning for the anti-invasion defences of Sheppey was implemented. As incrementally extended, these fieldworks stretched the entire length of the island from Sheerness to Shellness. These were 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 started in late 1914 or very early 1915 at the latest and it is thought that works to the west of this would have been started at about the same time. The fieldworks were also designed and built by Royal Engineer Fortress Companies, with infantry initially from the Royal West Kent Regiment providing the labour. These troops were from the recently (1908) formed Territorial Force.

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 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 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 well—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 as a tactical communication. In 1916 Sheppey became a restricted military area, with passes required to move on and off the island. So visible and assertive 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.'

The second line south of the Swale, running south and then south-west to Detling, had layouts and components similar to Sheppey but more substantial and with reinforcement of rectangular and oval concrete pillboxes in a number of places. There were, however, differences. Command and control of the battle would have been exercised via four buildings/groups of buildings selected to act as Brigade headquarters, one of which at least 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 these facilities. 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 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. 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.

Possibly because these works lacked the permanent defences that Sheppey 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 including one heavy howitzer.

Naval defences

Meanwhile the naval defences against riverine incursion whether by submarines or surface craft were improved with, in the estuary and beyond, anti-submarine and torpedo nets (including indicator nets) and minefields. There was also intensive daily sweeping of enemy mines in the estuary to maintain clear channels, a force of minesweeping trawlers having been earmarked for this purpose pre-war. 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. A German attack on the Thames and Medway would have been a risky undertaking.

Air defence

Likewise, air defences were strengthened. This involved the ringing of the military defences 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, at Harty Hill and on HMS Blazer at Kingferry. Along the south side of the Swale other batteries were added at Lower Halstow, Conyer, Oare and at Graveney. Similarly, further batteries were provided at Grain, Allhallows, Chatham Dockyard. However, the situation remained in some degree dynamic, with some guns disappearing and others appearing. Added to the land-based guns were many others on naval vessels in the estuary.

Just as AA gun protection from the ground evolved, so did defence by aircraft. Even before the outbreak of war, seaplanes 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 and 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. 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 which could spot and signal the presence of surfaced submarines threatening ships or convoys in the estuary. 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 having been earmarked nationally for this purpose.

Absorption into the London Air Defence Area (LADA)

As the air defence systems generally evolved and strengthened, so the local ones became extended and absorbed into the concentric rings of the London Air Defence Area (LADA), consisting of 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. 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

Wartime air activity reports for Nore Command show that the airspace of the Thames estuary was entered, crossed and recrossed by enemy airships and bomber aircraft on countless occasions, sometimes in a dance of death with interceptor aircraft and shaken by the burst of shells fired from the ground. 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 Margate, as well as elsewhere. Bombing of Chatham Dockyard in 1917 proved lethal to 136 sailors and other bombs fell on 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. But bombing was, at times, a painful experience and a salutary dress-rehearsal for that which was to come later, when more powerful and faster bombers delivering more destructive payloads were used.

Civil defence

Air raids presented a danger to soldier and civilian alike. On Sheppey the Commanding Royal Engineer at Sheerness was charged with liaising with the civil authorities as procedures were evolved for notifying the start of an alert or a raid, lowering or eliminating visible lights at night and giving an all-clear. Discussions also took place about providing military, naval and civilian populations with air raid shelters, chiefly at or close to the military assets likely to be attacked. There were counterpart preparations for mainland communities, including designation of cellars for shelter. There will have been first aid parties standing by for dealing with the casualties of air raids. All of this offers considerable scope for research and for historical synthesis.

The civilian presence

Although some left, civilians remained present in the defended ports of the Thames and Medway but, at or near the present of 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 to guard against the possibility of foreign agents using car headlights to signal the location of bombing targets.

Should things go wrong – evacuation and the Emergency Committees

In addition to military defence, extensive and detailed arrangements were put in place by local Emergency Committees such as those at Sittingbourne, Faversham and Sheerness to prepare civilian populations for the effects of invasion and clearing them from the area of this potential front. Evacuation routes that did not impinge on the military priorities were identified for the population,

their livestock and machinery. Members of the community were found to organise evacuation, collect and requisition provisions and other portable assets and to carry out acts of sabotage that denied 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.

Although not directly related to home defence, Voluntary Aid Detachment (VAD) hospitals were established in the district as well as camps for prisoners of war.

The interwar years

Against France

After 1918 the possibility of Britain having to face a new European war did not seem likely for some years. With the defeat of Germany and the restrictions placed on her military capacity by the Treaty of Versailles in 1919, a North Sea threat ceased to be a strategic consideration. 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 the next most powerful in Europe.

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-orientation of air defence

Re-orientation against France was also the focus for air defence, although progress with 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. Even more so, 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. Observer posts were to report incoming aircraft which were to be engaged either by guns where in place 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. The airfields at Throwley and Sheerness had been abandoned but Eastchurch was retained for flight training and Leysdown continued as an emergency landing ground.

The General Strike

Like Chatham, the naval base at Sheerness may have contributed resources to the maintenance of port operations elsewhere during the General Strike of 1926. Then, and 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.

Against Germany

Further reorientation of the defences

Some consideration was given in the later 1920s and opening of the 1930s to the possibility of replacing coastal artillery with the use of air bombers to defend against the attack of seaborne raiders or invaders. However, by 1932 this thinking had been set aside. Planning against a theoretical attack from the French continued into the first few years of the 1930s, attack distances to Sheerness from France being quoted in defence plans as late as 1934. This, it should be emphasised, was not on account of the possibility that the French coast might one day be occupied by another state hostile to Britain and 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. This further emphasised the importance of the role of Sheerness and the Medway as a possible base for fleet operations, both naval bases receiving a new lease of life. The vulnerability of Sheerness and the Swale and the consequential 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 or so 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 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.

Air defence

The same reorientation applied to air defence, with national plans now 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. Within this, Swale was to be partly within an intended aircraft fighting zone and partly within an outer artillery zone. Naturally, the naval base at Sheerness was again given a special focus for defence. A strategical 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. Some land purchases and construction of anti-aircraft batteries at named locations had 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. However, fixed sound mirrors were soon seen as a technological blind alley, to be 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 being upgraded and others added. The airfield at Eastchurch continued to be used 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 and the first of the air raid shelters which proliferated during the Second World War were constructed.

Civil defence

Indeed, civil defence had become more prepared, having been incrementally developed since the issue of guidelines 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. The remaining part of the district had some, but 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. This included the first of the civil defence control centres, warden posts, first aid, rescue and gas decontamination posts, war mortuaries, emergency feeding centres and air raid sirens. Another map of the same year sets out curfew zones for the district and restricted coastal areas.

The Second World War

The first half of the war

As in the First World War, the Thames – 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 home 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 bombardment by cruisers and battleships. The navy had been activated in the days before war. Indeed, it was action at sea that characterised the first 6 months of the war, the dispatch of the British Expeditionary Force to join their French allies acting as a blocking force to impede any attempted German 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 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.

The constant throughout the war was the need to escort convoys assembled off Sheerness by warships joining them from Sheerness. There was also the need to carry out continuous minesweeping operations against contact, acoustic and magnetic mines, often dropped into the Thames estuary by German aircraft. On a single day in August 1940 some 50 mines were dropped into the river between Southend and Sheppey. Sheerness and Queenborough with its pier became a base for minesweeper operations. There was also 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 bombing and strafing of British vessels in the Thames and its estuary. The 7-mile long Sheppey-Shoeburyness boom defence was operated by the Royal Navy, 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. It should also be noted that 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 incursion.

Air defence

Air attack was considered a greater probability and more immediate prospect than invasion. This resulted in vigorous 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. There were, intermittently, spitfire interceptors based there. Indeed, although in a vulnerable location, fighters based there were well-placed to intercept enemy aircraft approaching London. Leysdown continued as a range for bombing practice and Throwley was, in theory, an emergency landing ground but it may not have actually been much used for that purpose.

Parallel with this was completion of the network of anti-aircraft guns. Within the district these covered the strategically vital Sheerness naval base but 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 equipments to protect localised vulnerable points. During this period the district had heavy batteries at Wetham Green, Iwade, Scrapsgate and Bell Farm, with light batteries at Sheerness and Eastchurch, with other sites to be identified. Further guns defended searchlight sites.

Although fixed sound locators were no longer used, mobile ones were and the earlier-introduced system of ground-based observers was strengthened and better organised. Strategic 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, often leaving a distinctive structural signature at the anti-aircraft battery sites at which it was provided.

Searchlights illuminated the sky, especially of 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.

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 Harty 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 in an attempt to obscure them to the view of bomb-aimers.

Civil defence

The earlier mentioned civil defence infrastructure was enhanced and upgraded in the first 12-15 months of the war. This included the multiplication of air raid warden posts with, for the most part, the discarding of impromptu locations in private homes and public houses in favour of purpose-built structures. 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. Emergency feeding centres also increased in number, most usually being located in schools whose kitchens were given additional facilities. 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.

Administratively, Medway Group civil defence came under the Command of the Commander in Chief of Nore Command. Within Swale, the council areas included 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 control of Kent County Council.

Evacuation

In 1939 Queenborough station became a designated 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 to have been a mistake and 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 that area also became more subject to air raiding.

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.' 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 in the assembly of the small ships which were to help in the retrieval of troops from the French beaches. After Dunkirk invasion then seemed not only possible but 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. 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 25th May. This required construction of a network of anti-tank obstacles, trench systems, minefields, barbed wire obstacles, concrete pillboxes and gun emplacements. It 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, with lesser defended villages and hamlets. As part of the anti-invasion strategy, there was also the need to defend vulnerable and key points, such as air fields (e.g. against parachute landings) and elements of the country's infrastructure. Areas suitable for the landing of enemy troop-carrying aircraft and gliders were to be obstructed with various types of obstacles. All of these features were, in varying degrees, provided within the district. Linked with this was special security and surveillance of the coast and of key points against the possibility of the activity of feared 5th Columnists. Numerous reports survive of the spotting of suspicious persons and a number were detained and questioned.

On the mainland the coastal crust defences ran west from Graveney securing, at the same time, access from the creeks from the Swale (perhaps including small boom defences) 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 Localities at Swanley Farm, Eastchurch and Queenborough as well as at Kingsferry to control the crossing of the Swale. Vulnerable Point Defences existed at Sheerness, Halfway Houses and Minster, with road blocks at numerous places. Collectively, these obstructed the road infrastructure and the routes on and off the island. Barge-mounted torpedoes were deployed at Sheerness and one of the line of new coastal emergency anti-invasion batteries was built at Shellness near the eastern entrance of the Swale. The latter was also protected by another emergency battery just outside the district at Whitstable. A concrete control post for an anti-shipping minefield also stands at Shellness. 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 Sittingbourne, which might have had more than one circuit of defences. These

were joined inland by a large arc of road blocks along two grid lines, reaching out as far as Stalisfield and Ringlestone. As with Sheppey, there were a multiplicity of points of resistance covering subsidiary and connecting roads, their junctions and villages on either side of the Watling Street. Defended Localities existed at Upchurch, Hartlip, Bobbing, Bredgar, Doddington, Teynham and Oare, with Vulnerable Point defences at Newington, Iwade, Borden, Newbury, Bapchild, Newnham, Eastling, Town Place, Norton Ash, Luddenham Court and elsewhere. In varying degrees, these defences will have included road blocks, fougasses (improvised explosive devices and flame projectors) and a variety of positions for small arms and light artillery. Both on the mainland and on the Isle of Sheppey, there were blocks to deter movement along railway lines. By this period there was a lesser emphasis on stop lines and more upon the use of strong mobile forces using nodal points as tactical pivots for counter-attacking.

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 would have been established in the district and their sites remain to be found.

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.

Second half of the war

Throughout the war the defences were improved and amended. As part of this, 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. By 1941/2 new offshore anti-aircraft forts were built in the estuary (still visible at a distance from the shore) to provide not only gun defence against mine laying aircraft and to enhance general gun defence across the estuary but to facilitate important additional radar cover.

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 trialling 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.

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 many thousands of troops and vast amounts of military supplies and vehicles destined for France. 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 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. This involved both the relocation of existing weapons and the provision of many new ones. The district was within the Thames estuary DIVER Box, some existing batteries (including the offshore forts)

being 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. There may also have been sites on the fringe of the Kentish gun belt. 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 defences being either abandoned or relegated to lesser preparedness. 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
Oil bombs 31
Incendiary bombs 20,113
Flying bombs 39
V2s
Mines 73
Killed by bombing 58
Injured and admitted into hospital 86
Others injured 200
Properties totally destroyed 96
Properties severely damaged 226
Other properties damaged 9095

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

The Cold War

The district came to incorporate both military and civil defences during the period from 1946-1989/90 which is 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 a raiding by the Soviet Navy, its albeit reduced armament being maintained (as its partner at Grain in the Hoo Peninsula) until the ending of the coast artillery component of the British Army in 1956. Before that the Home Guard had been reactivated for a time, with units being formed in the district. The Sheppey/Shoeburyness boom was also renewed. One fear was of a Russian freighter loaded with an atomic bomb being sailed into the Thames before hostilities and, thus pre-positioned, to be exploded at a predetermined time.

After the discontinuation of coastal artillery, there was a return to the thinking of the later 1920s, that raiding or invasion could be countered by defending aircraft. Although the possibility of invasion was recognised (and, indeed, the Soviet government had printed occupation currency), 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, of course, a target and there was a scheme to evacuate civilians from there to East Sheppey, a measure of doubtful effectiveness.

For the reinforcement and re-supply of NATO forces opposing any Soviet land offensive on the Continent, Sheerness was designated as a convoy collection and departure point. A command centre for this purpose was established in the magazines of Garrison Point Fort. This was used until at least the later 1970s or early 80s and perhaps beyond, although the naval base itself had been discontinued in 1960. There was a small flotilla of auxiliary vessels for harbour protection. These

were provided with light weapons. There is information that Russian special forces had been trained to raid and disable port facilities at Sheerness, still an important strategic asset even after it had ceased to be a naval base. Elements of the Home Service Force (1985-92) might have been designated for its protection. It is now known that any suitable jetty or landing stage reachable by a road or track in southern England was held in reserve for use as a re-supply port for British forces on the Continent, should the usual main ports have been destroyed. It would be possible to identify candidates within the district. About this period electronic warfare measures were placed across the Thames and information about them might be traceable.

Air defence of Sheerness and of the district relied on the continued use of the radar station at Dunkirk and the other stations of the Chain Home system, with fighter protection being 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. This arrangement was discontinued after the end of the Cold War in 1990, leaving field evidence to be found.

Civil defence formed part of a national organisation. It was 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. The Civil Defence Corps and the civil defence infrastructure were abandoned after government expenditure cuts 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, for which evidence should be sought. 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 about war planning.

The new world of international terrorism and the future

Military and civil defence in a recognisable historical sense no longer exist. However, based on designated coordinating staff in offices and the action of the armed and other services activated by central government, the district – as all others - is embraced within the generality of contingency planning against international terrorism. However unlikely, the latter could, nationally, take the form of explosive, chemical, radiological and biological as well as cyber-attack. Purely theoretically, there are potential infrastructural targets within Swale, with broader geographical vulnerabilities that could affect the district.

What seems certain about the future is its uncertainty. A range of possible future global tensions relating to the effects of climate change, competition for essential resources and geopolitical differences (even a renewed 'Cold War') may yet introduce external threats which will require further contingency planning as well as command and control functions and facilities.

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.