

# LET THEM SPEAK FOR THEMSELVES

Twentieth-century Military and Civil Defence Heritage

Photo: Paul Wells



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# LET THEM SPEAK FOR THEMSELVES

## The Twentieth-century Military and Civil Defence Heritage of Up on the Downs

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## **SUMMARY**

*This document offers a summary of twentieth-century military and civil defence archaeology within the area of the Up on the Downs Landscape Partnership Scheme. This area includes the North Downs between Folkestone and Dover, as well as the coastal strip to the east of Dover as far as South Foreland.*

*As part of Up on the Downs, a volunteer project named ‘Let Them Speak for Themselves’ was undertaken between 2013 and early 2017 to survey the recent defence heritage of the area. The project title referenced the monuments of the wartime past such as pillboxes, many of which still survive in the landscape around Dover and Folkestone, and which stand in silent testimony to the calamitous conflicts of the past century. They are a common sight locally, valued heritage for some, little remarked by others, and properly understood by only a few. ‘Let Them Speak for Themselves’ sought to improve our record of this recent yet incompletely documented heritage, so that it could be better valued and protected in the future.*

*The project revealed that the defence archaeology of the Up on the Downs scheme area was of exceptional significance, yet that it was not adequately recorded, protected, maintained, presented nor understood. Much work needs to be done to remedy this situation. We also need to move beyond the listing and study of individual sites and structures, towards an understanding of them both in their spatial and historical contexts, and as part of complex networks of inter-related defensive and military systems. In other parts of Kent, particularly along the Thames Estuary, such work has been underway for many years. For the Dover and Shepway areas, work is not so well advanced. Part of the problem is that the list of sites we have is still clearly incomplete, and heavily biased towards certain types of highly visible structures such as Second World War pillboxes, which overstates their actual military or historical significance.*

*Much that once existed of this heritage has already been lost to the march of time, or misjudged ‘eyesore’ clearance campaigns. Furthermore, surviving military and civil defence structures and sites remain at risk from a wide range of threats: demolition, as well as the depredations of the weather, vegetation, or criminal damage. Thus we cannot be complacent about the fate of our surviving defence heritage even today.*

*So, much remains to be done. Firstly, we need to protect what still survives. Secondly, we need to continue to develop and refine our record of the defences of the area, making it as comprehensive and accurate as possible. Thirdly, we need to develop an understanding of the numerous sites (both those that are visible and those that have vanished from the landscape) that places them in their spatial and historical context and treats individual sites as part of inter-related military and defensive systems, and as parts of a greater historic landscape. Finally, we need to share that improved understanding with as many people as possible, both locally and further afield, through a range of mediums, both traditional and digital, and where appropriate by providing interpretation and public access to sites. This in turn will lead people to value this heritage more, which will thereby make it easier to protect and conserve for future generations.*

*As a modest contribution towards these goals, this report provides an overview of the twentieth-century military and civil defence heritage within the Up on the Downs LPS. It also provides some suggestions about how best to approach the study and curation of this heritage in the future. The combination of standing structures, visible earthworks, buried features and archival sources collectively represent a rich and diverse archaeological landscape of conflict and defence. Much good work has been done to better understand and care for this unique heritage, but much remains to be done, if our defence heritage is to have the future it merits and deserves.*



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Over sixty volunteers participated in project training and activities, and their efforts, enthusiasm and diligence represent the core of the work that was undertaken. Those regularly involved included the following (with apologies to anyone missed): Alastair Barton, Anne Biot, Thierry Biot, Pat Cocks, Sigrid Duly, Deborah Gasking, Kevin Harvey, Colin Hodges, Rhona Hodges, Christina Holstein, John Moat, Des Mullaney, Iain Neilson, Norma Pocher, Roy Smith, Brian Walters, Paul Wells and Ian Williams. Particular thanks also go to Affinity Water, for their help and support for work on the pillbox at Cherry Garden Hill.

Mark Harrison and John Guy kindly commented on the early draft of this report. Any errors that remain are certainly mine!

Andrew Richardson,  
May 2018

## **1 INTRODUCTION**

'Let Them Speak for Themselves' (LTSfT) was a sub-project of Up on the Downs (UotD, also referred to here as 'the Scheme'), a five-year Landscape Partnership Scheme (LPS) led by Dover District Council (DDC) which commenced in December 2012. The majority of funding was provided by the Heritage Lottery Fund (HLF). Canterbury Archaeological Trust (CAT) was one of several partner organisations within Up on the Downs and, along with the Project Delivery Team, had lead responsibility for delivering 'Let Them Speak for Themselves'.

The overall aim of 'Let Them Speak for Themselves' was to survey and improve the condition of the Scheme area's twentieth-century defensive heritage and to increase community involvement in its conservation and understanding. A group of volunteers was recruited to undertake research, surveys and remedial conservation work within the project area. Training and direction was provided by CAT. Many sites and records relating to the twentieth-century defence heritage of the scheme area were surveyed, leading to an enhancement of the Historic Environment Record (HER) for this area. Remedial conservation work was then undertaken at a number of selected sites. This work mainly consisted of the clearance of rubbish, litter and damaging vegetation from structures.

What was not included within the original project scope was any written summary covering the work undertaken, or providing an overview of the heritage investigated. When additional funding became available as part of the legacy phase of Up on the Downs, a proposal was made and accepted to use some of that funding to allow the creation of such a summary. This is the resulting document. It seeks to provide a concise, usable summary of the twentieth-century defences in the scheme area, and create a tangible legacy for 'Let Them Speak for Themselves'.

## **2 LET THEM SPEAK FOR THEMSELVES REPRISED**

'Let Them Speak for Themselves' was concerned with the twentieth-century military and civil defence heritage of the Up on the Downs Scheme area. The main areas of work were to research the existing dataset on this heritage, follow this up with visits to as many sites as possible and then to carry out remedial conservation work at a number of sites where this was deemed appropriate. As part of the preparations for the project, a group of volunteers was recruited and trained. These volunteers were members of the local community, mostly from Folkestone, Dover or Deal and surrounding villages, although a few came from further afield. Some had previous experience, either of defence heritage, or archaeological fieldwork. Others were new to the sector. Because the Scheme area was large, and the number of potential sites considerable, it was decided to subdivide the area into zones, based on current civil parish boundaries. This resulted in the following zones, running broadly from west to east:

- Folkestone (part of Folkestone town area)
- Capel (Capel-Le-Ferne parish)
- Hawkinge (Hawkinge parish)
- North-west (parts or whole of Lyminge, Newington and Paddlesworth parishes)
- North (parts or whole of Acrise, Barham, Denton-with-Wootton and Swingfield parishes)
- Alkham and River (Alkham and River parishes)
- Hougham (Hougham Without parish)
- Dover Centre & West (Dover town area)
- Dover East & North (parts or whole of Guston, Lydden, Temple Ewell and Whitfield parishes)
- South Foreland (parts or whole of Ringwould-with-Kingsdown, Ripple and St Margaret's-at-Cliffe parishes)

The volunteers agreed to take responsibility for specific areas, generally those in which they had the most interest or local knowledge. A total of sixty-five individual volunteers took part in the project from 2013 to early 2017, with a core of about thirty undertaking most of the work. Over 250 site records were checked, the condition of 243 assessed, and 206 sites visited. Key aims of the survey process were to obtain accurate grid references for sites, and to risk assess them for threats. A variety of threats were identified, ranging from criminal damage to erosion, but the most common problems related to graffiti, litter and encroaching vegetation leading to structural damage by roots. Remedial conservation works were carried out at 18 sites, mainly involving the clearing of litter and vegetation.



Project volunteers clearing litter and vegetation at Citadel Battery, Dover, March 2017

In addition, a programme of community engagement was undertaken to promote the project and the value of the area's twentieth-century heritage. As part of this Up on the Downs commissioned the production of a foam pill box, which appeared at a number of public events in Pencester Gardens and on the Western Heights and which proved a hit with children, parents and grandparents alike.

At the beginning of the project, the Heritage Conservation Team at Kent County Council (KCC), who manage the Historic Environment Record for the county, provided a dataset containing records of twentieth-century defence-related sites within the Scheme area. An updated dataset was subsequently provided some way through the project. These records provided the baseline dataset upon which the project focused. Some readers of this document may know of sites that were not at that time, or are still not, recorded in the Kent HER. Ideally, all identified sites will eventually be recorded in it, but this was far from the case during 'Let Them Speak for Themselves', and so this report is squarely focused on that dataset. However, a number of new sites were identified by volunteers during the course of the project, most notably by Paul Wells of the Western Heights

Preservation Society. These were included in the data returned to the Heritage Conservation team for adding to the HER, and are factored into the discussion below.



The Up on the Downs Outreach vehicle and foam pillbox promoting ‘Let Them Speak for Themselves’ at the Western Heights Open Day, 30<sup>th</sup> May 2015

The existing data in the HER relating to Kent’s twentieth-century defences had largely been built up from the results of a number of national and regional surveys conducted over the past couple of decades, notably the Defence of Britain survey that ran from 1995-2002 (see Burridge 1997 and <http://archaeologydataservice.ac.uk/archives/view/dob/index.cfm>), Kent County Council’s Defence of Kent project (see Smith and Saunders 2001; Smith 2010; 2011 and 2012), and the Rapid Coastal Zone Assessment Surveys commissioned by English Heritage, along with a range of other relevant publications (e.g. Dobinson 2000). These previous studies had created a large dataset initially comprising, for the Scheme area, some 544 individual records. However, problems with this data rapidly became apparent.

Firstly, it was clear that despite the work carried out during the earlier surveys, many sites that were known to local people (including this author) had not been identified and recorded. Secondly, many of the grid references provided appeared to be inaccurate, sometimes by a considerable margin. Thirdly, some sites could be seen to have duplicate entries. In one instance, a single Type 24 pillbox appeared three times in the HER, but never with its correct grid reference. The differing grid references, probably resulting from three separate volunteers submitting information to the Defence of Britain and/or Defence of Kent projects, had made their way into the HER and been mapped as three pillboxes, none of which were located on the site of the actual pillbox. Another cause of inaccuracy, though not one yet proven to have occurred in the Scheme area, is that some entries may have been compiled from engineers’ maps and plans of structures that were not, in the end, actually constructed (Mark Harrison, pers. comm.).

The professional staff and volunteers engaged with ‘Let Them Speak for Themselves’ set out to address some of these issues, and to create a cleaned up and enhanced dataset for the Scheme area. In the event, the task proved too great for the available project resources, but improvements were made, and together with other ongoing work by KCC’s Heritage Conservation Team and their own volunteers, the dataset for the area has now been considerably improved. Nonetheless, we still have a far from complete picture of the twentieth-century defences of this strategically vital part of

Britain. The project demonstrated, if nothing else, the scale of the task of accurately documenting this recent, but only partially understood, heritage. Much remains to be done, as the subsequent pages will show.

By the end of the project, over 650 individual site records had been identified, whilst 12 existing HER records had been demonstrated to represent duplicate entries. It is believed that more duplicates have yet to be identified. Table 1 below quantifies these records by zone and primary chronological period, and in the subsequent section, the sites are discussed by period.

LTSfT Zone	No. of Sites	No. of sites visited	No. of identified Duplicate HER records	Pre-WWI	WWI	Inter-War	WWII	Cold War	?
Folkestone	50	24	6				48	2	
Capel	21	9	3		2		19		
Hawkinge	59				2	3	52		2
North-west	19	13					18	1	
North	7	4	1				7		
Alkham & River	9						9		
Hougham	29	6				2	24		3
Dover Centre & West	209	110		10	20	3	179		5
Dover East & North	73	28	2	15	14	8	34		2
South Foreland	166	12	0	6	12	3	142	3	
<b>TOTAL</b>	<b>651</b>	<b>206</b>	<b>12</b>	<b>31</b>	<b>50</b>	<b>19</b>	<b>533</b>	<b>6</b>	<b>12</b>

Table 1: Summary of sites by zone and period

### 3 UP ON THE DOWNS: TWENTIETH CENTURY DEFENCE HERITAGE

The twentieth-century defence heritage of the Up on the Downs scheme area comprises a wide spectrum of sites, structures and portable antiquities, collectively forming an exceptionally rich historic landscape. This record spans most of the century, from the pre-First World War period through to (and indeed beyond) the end of the Cold War. The following discussion is broken down by period (for example ‘First World War’), and then by general type (such as ‘anti-invasion defences’). Like any division of the past into discrete periods or phases, the boundaries are not always completely clear-cut. For example, the historical start and end dates of the Second World War at first glance appear clearly defined from a British point of view; Britain declared war on Germany on 3<sup>rd</sup> September 1939 and 8<sup>th</sup> May 1945 was celebrated as Victory in Europe Day, marking the allies’ acceptance of the unconditional surrender of Germany’s armed forces, although German forces in the Channel Islands only formally surrendered the following day. The war in the Pacific continued until the armistice with Japan on 14<sup>th</sup> August 1945, celebrated as VJ day, followed by Japan’s formal, unconditional surrender on 2<sup>nd</sup> September 1945. However, there is debate amongst historians about precisely when the global war should be deemed to have started, and when the subsequent Cold War can be considered to have commenced.

From the point of view of the defence heritage of south-east Kent, it is arguable that a slightly longer period than 1939 to 1945 could be applied to cover the Second World War period, with both a prelude as military defence and civil defence preparations began to be made once the prospect of war with Nazi Germany arose (the Civil Defence Service was established as early as 1935) and an aftermath as defences were wound down. More fundamentally, there is the question of initial construction, formation, deposition and primary use against subsequent abandonment, demolition, decay and re-use, the latter taking place in subsequent historic periods. Thus, dividing the past into discrete periods is always a subjective and imperfect process. However, it is also a useful and necessary one when attempting to make sense of the past. Hence the discussion below is arranged

by period, but the caveat that the boundaries between these periods can be somewhat ‘fuzzy’ should always be kept in mind.

### **Pre-First World War (1900-1914)**

At the beginning of the twentieth century, the port of Dover, being of huge strategic significance close to mainland Europe, was already a very heavily fortified and defended place. The town and its environs supported a large military and naval presence and the high ground flanking the town had been extensively remodeled with some of the most impressive fortifications to be seen anywhere in Britain, most notably on the Western Heights (including St Martin’s Battery covering Dover Harbour) and at Fort Burgoyne, protecting the north-eastern approaches to the town, not to mention Dover Castle itself. Along the coast to the west, just beyond the Scheme area, was a further very significant military presence at Shorncliffe and Hythe. This pre-existing defence infrastructure also included sites such as the Turret on Dover’s Admiralty Pier, Dover Convict and Military Prison at Langdon, and Martello Towers Nos. 1-3 overlooking East Wear Bay. Other less obvious sites include Victorian rifle butts and army and militia training sites.

Much of the nineteenth-century infrastructure in this heavily defended coastal zone would remain part of the active military and naval establishment within the area well into the twentieth century and in some cases beyond (Fort Burgoyne, along with the neighbouring Connaught Barracks, only passed out of MOD ownership after 2006). Thus, later installations, modifications and uses are often found layered onto these earlier sites. Certainly, those sites constructed in the early years of the twentieth century, in the run up to the outbreak of the First World War, can in many ways be regarded as part of the ongoing development, refinement and modernisation of what had come before.

For most of the nineteenth century, the primary potential enemy against whom these defences were raised remained England’s traditional foe, France. By the early years of the twentieth century, however, the focus of concern was increasingly turning to the threat posed by Germany, especially as a result of the rapid development of the German High Seas Fleet. This led to a series of agreements signed between Britain and the French Third Republic in April 1904 collectively known as the Entente Cordiale, which signaled a marked improvement in Anglo-French relations. Nonetheless, the potential for France to again become an enemy remained, and would have continued to feature in the thinking of military and naval planners charged with the defence of the Kent coast.

Within the scheme area, thirty-one sites can be primarily assigned to this period. These include the construction and improvement of defensive coastal artillery positions protecting Dover. Citadel Battery, situated on the ridge at the western end of Dover’s Western Heights complex, became operational in 1902, with three 9.2 inch guns (reduced to two in 1911) set in open casemates. On the other side of the town, construction of Langdon Battery, armed initially with three 9.2 inch guns, began in 1898 and it became fully operational in 1900. Supporting installations continued to be added in the years thereafter, notably a range-finding station, a battery observation post built in 1905, two searchlight positions built by 1909, and an observation post situated along the coast to the east at St Margaret’s Bay.

Both Citadel and Langdon batteries were in operation, albeit with different guns, during the First and Second World Wars. Today Citadel Battery is relatively well-preserved, on accessible public land in the ownership of Dover Town Council. The area was cleared of a large quantity of litter during the remedial conservation phase of Let Them Speak for Themselves. The site of Langdon Battery is now occupied by HM Coastguard, and little of it is visible above ground or accessible to the public. Some of the underground magazines are in use as storage by the Coastguard.



View across one of the three open casemates of Citadel Battery (Photo Paul Wells)

Further coastal artillery positions continued to be constructed in Dover Harbour itself as the port expanded, notably South Front Battery in 1902 with three 6 inch guns, though these were removed in 1909, with two being redeployed to Turret Battery on Admiralty Pier and one to the Detached Breakwater Battery (John Guy pers. comm.).

Overlooking the Harbour, on the Western Heights, the Port War Signal Station, a wireless telephony station for the Admiralty, was built in 1900-01, featuring a 150 foot mast. A few years later, in 1907, a rifle range was established in the moats between the North Entrance and North Centre bastion.

In 1909 the Duke of York's Royal Military School relocated from Chelsea to a site on the heights to the north-east of Dover, whilst the construction of Connaught Barracks, adjacent and adjoined to Fort Burgoyne, was completed by July 1913. Both sites would be used to house large numbers of troops during 1914-18, the Duke of York's RMS being evacuated to Hutton, near Brentwood in Essex, for the duration of that conflict.

Conversely, this period saw the decommissioning of some older installations, notably Shoulder of Mutton and Guildford Batteries at Dover. Overall, the period can be characterised as one of steady but not spectacular modernisation of coastal defences, mainly focused on improving the defence of Dover Harbour in line with developments in naval warfare.

### **First World War (1914-1918)**

The possibility, indeed probability, of a large-scale conflict involving most of the great European powers was something that many would have been aware of in the early years of the twentieth

century. However, its outbreak in July 1914 was not so widely foreseen, and indeed had events taken a different turn it may well have been several more years before some political incident provided the necessary spark. Given the complex system of competing alliances, and the militarism of much of the European political and social elite at the time, war probably was, unfortunately, inevitable. What certainly was not widely foreseen, except by a few far-sighted military thinkers, was the scale, severity or length of what was to be one of the most deadly conflicts in human history.

The outbreak of war immediately made Dover, Folkestone and the surrounding coastal hinterland of immense strategic value to the Allied war effort, with the need to maintain control of the Dover Strait and communications with France and Belgium paramount. This led to a great upsurge in the military and naval presence around Dover and Folkestone for the duration of the conflict, with a resultant rapid growth in associated infrastructure.

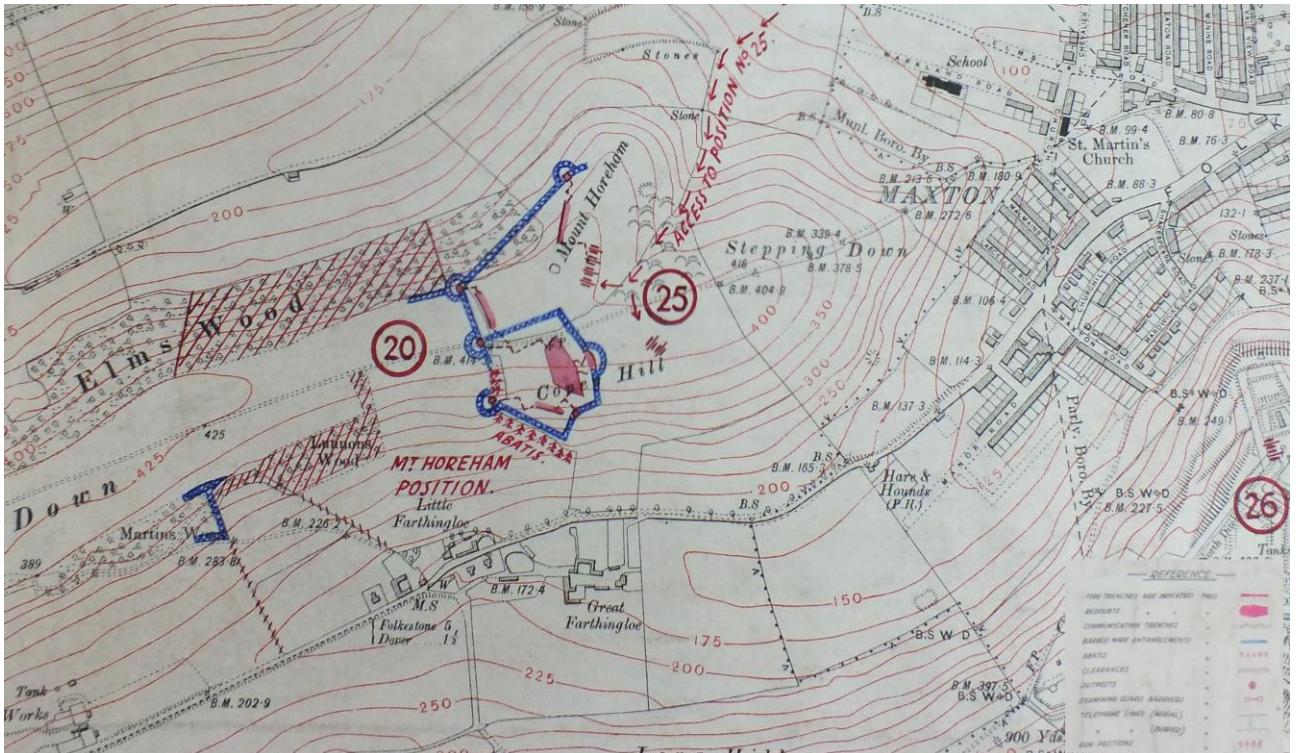
Within the scheme area some fifty sites dating primarily to the First World War are recorded in the LTSfT dataset. This figure represents only a portion of what must have originally existed, but on the other hand some records appear to be duplications. In particular, none directly relate to Dover Harbour, indicating a large gap in the record. The sites that are recorded can be broadly subdivided into three types (although some display aspects of more than one role):

- Defensive: including anti-invasion defences, harbour defences, civil defence and, as the war progressed anti-air defences
- Offensive: for projecting power across, and maintaining control of, the Dover Strait
- Logistical: for facilitating the movement of men and materials to and from France, arguably including training and medical facilities

Of the known sites, all but four are primarily defensive in nature. Of these, the majority relate to a ring of landward defences on the hills west, north and east of Dover itself. These are detailed on a map held in the Public Record Office and comprise a number of positions focused around large earthwork redoubts, each with a network of associated fire and communications trenches, field gun positions, and other defensive features such as barbed wire entanglements and abatis (a field fortification formed from sharpened tree branches).

Interestingly, several sections of woodland are shown cross-hatched to indicate clearance for fields of fire. The potential impact of such clearance on the woodland is obvious, although some substantial trees that would appear to predate 1914-18 are present in these areas of woodland, along with many ancient woodland indicator species, suggesting that if such clearance actually took place it was not total.

That the defences shown on the map were actually constructed as planned is confirmed both by an aerial photograph of the Swingfield Redoubt and by visible surviving earthworks, for example on Whinless Down. In these cases, what is observed corresponds closely with the details recorded on the map, suggesting that it represents actual rather than planned construction. In that case, comprehensive mapping and recording of the different elements of the system would probably result in a considerable number of additional monument records, over and above those already in the Historic Environment Record.



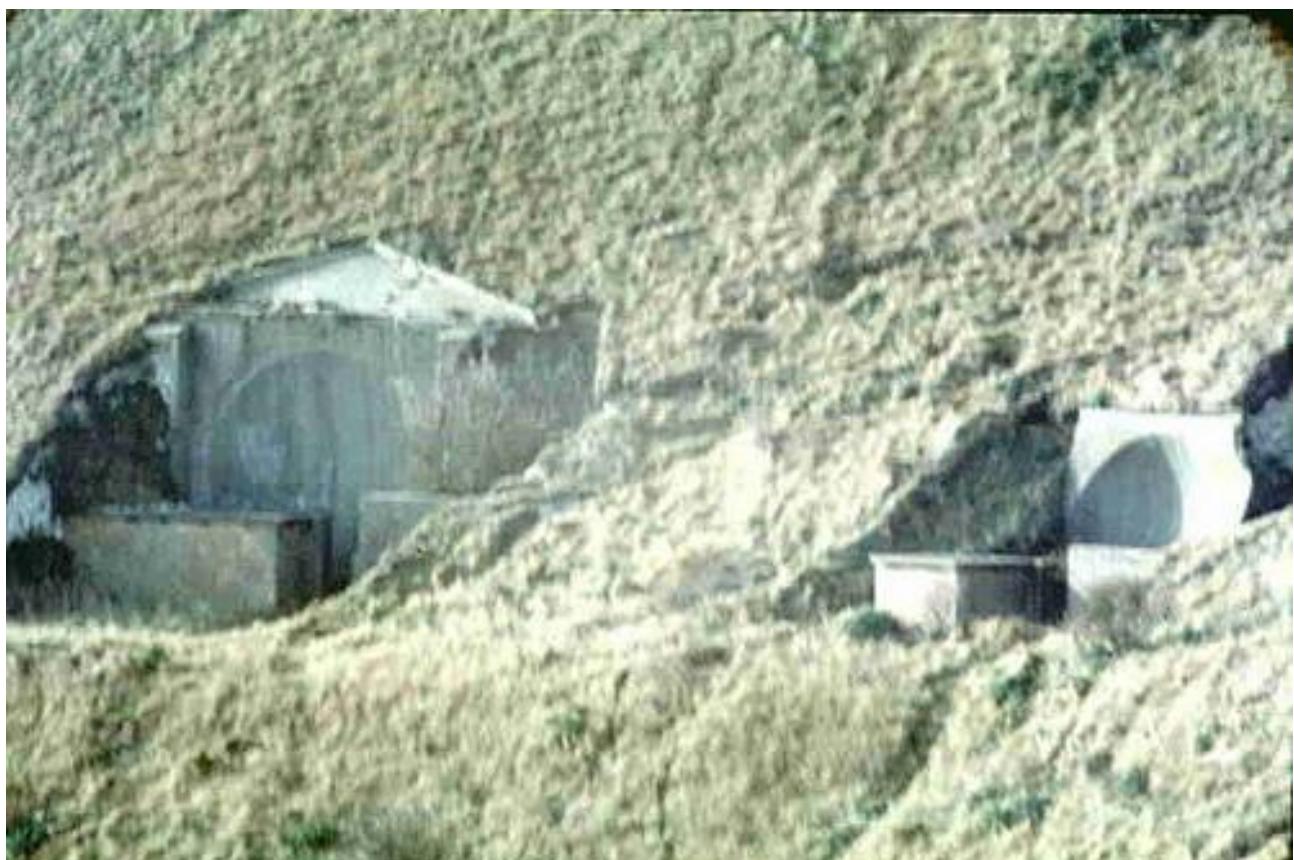
Detail of map of the landward defences of Dover during the First World War (© National Archives)

In addition to the newly constructed earthwork redoubts and their associated defences, further defensive works, including slit trenches and pillboxes, were added to the existing fortifications on the Western Heights and at Fort Burgoyne, which themselves formed part of the landward defences of Dover during the war. Many identified First World War trench systems in Britain were practice trenches, used to train troops for trench warfare. These often featured sections of opposed trenches, with an intervening ‘no man’s land’, allowing troops to stage mock battles. A local example of these is visible as a distinct cropmark at Barham Downs, just north of the scheme area. However, the defences around Dover were not for practice; they represented an attempt to defend that vital port against a landward assault that could have come from any direction. Although a German land invasion of Britain never became a realistic prospect during the First World War (in contrast to the situation in 1940) that may not have been so apparent at the time. Certainly, no responsible planner, charged with the security of this vital port, would have neglected the landward approaches. Indeed, the real threat was probably a German raid-in-force aimed at causing maximum damage and disruption at Dover, rather than an attempt to permanently seize it. As the British raid on Zeebrugge in April 1918 (itself partly launched from Dover) demonstrated, a frontal attack from the sea against a heavily defended port was a very dangerous undertaking indeed. Dover’s port defences, including many heavy guns, would certainly have provided a serious deterrent to such a venture, even assuming a German naval force could have survived the Channel crossing. A more likely prospect probably would have been a covert landing of an assault force some distance away, which would then make its way inland to assault the town and port from the landward side. It is probably just such a threat that the network of redoubts around Dover was designed to defend against. Thankfully, no such assault was ever launched.

Other defensive sites would have included coastal artillery, although the only relevant entry in the HER appears to be a gun turret located north of Cliff Road, to the east of the Port of Dover. However, the pre-existing battery at Langdon had its older 9.2 inch guns replaced by two 6 inch guns (with a third added for a short period in 1942). No doubt other modifications would have been made during the war to these sites. Presumably there would have been a range of installations related to civil defence, but none seem to be apparent in the HER for the Scheme area.

One new aspect of warfare that emerged during the conflict was war in the air. This manifested in the creation of aerodromes and air stations, as well as anti-aircraft (AA) defences. Within the scheme area possible examples of First World War AA gun positions are recorded at Great Farthingloe and Little Farthingloe, situated on high ground to the west of Dover, although neither are confirmed as such. At Drop Redoubt, on the Western Heights, the probable site of a First World War searchlight emplacement has been identified (Paul Wells, pers. comm.). At Fort Burgoyne the mountings for two 6pdr AA guns are still extant (John Guy pers. comm.). These sites must represent only a fraction of the anti-aircraft defences that must have existed around Dover during 1914-18.

As the threat from the air intensified during the course of the war, with frequent raids by German Zeppelins and fixed wing bombers becoming a grim reality, efforts began to be made to find ways of detecting incoming aircraft and thus provide some early warning of a raid, as well as a bearing towards which defensive fighters could be directed. In the days before radar, British efforts focused on acoustic methods, using a variety of mobile and fixed sound detection equipment to hear a distant aircraft. The development of this technology, which began with experiments on the Western Front to detect the sound of artillery fire, is comprehensively detailed by Scarth (2014). By 1916, a range of acoustic detection devices was being tested around the Kent coast and as part of this network a pair of concrete sound mirrors was constructed set into a south-east facing slope of Fan Hole, at South Foreland. The site is usually referred to as Fan Bay. Both mirrors have a diameter of 15 feet, although one has a larger superstructure. The smaller one was certainly constructed during the First World War, probably in 1916. It is thought to be, along with a similar mirror at Joss Gap, North Foreland, the first purpose-built concrete sound mirror constructed. The date of construction of the second mirror is not known. It is usually described as dating to the 1920s, but in fact could have been built at any time between 1917 and 1923, when larger mirrors became standard (Jon Barker, pers. comm.).



The sound mirrors at Fan Bay, photographed in the 1970s before their burial as 'eyesores'

Although essentially experimental, the mirror(s) at Fan Bay, in conjunction with the mirror at Joss Gap, were considered part of the anti-aircraft defences of Dover, under the overall command of Major Boreham of the Royal Garrison Artillery (Scarth 2014, 25). They were certainly used operationally, for instance being recorded as having detected an incoming air raid on the night of 1<sup>st</sup>-2<sup>nd</sup> October 1917 (*ibid*, 22).

Both mirrors at Fan Bay were deliberately buried in the early 1970s as part of Kent County Council's 'eyesore' clearance programme. However, the National Trust undertook the re-excavation of the mirrors in 2012 and they have recently been scheduled (Scheduled Monument 1442235), reflecting the recognition of their heritage significance. Today, they are amongst the most visible remnants of Dover's First World War heritage.

The Scheme area also includes the sites of three operational air fields dating to the First World War, as well as the Seaplane tender facility at Dover Harbour. RNAS (Royal Naval Air Station) Capel is arguably the only site of that period that can be considered to have an offensive role, flying airships on maritime patrols across the Dover Strait, primarily in an anti-submarine role. The station is situated just east of Capel-Le-Ferne, a very short distance from the cliff top, making it an ideal place from which to launch airships across the channel. This base became operational in May 1915, and continued in use until August 1920, latterly as a Royal Air Force station (RAF Folkestone) following the merging of the army's Royal Flying Corps and the Royal Naval Air Service on 1<sup>st</sup> April 1918.

The station itself was focused around three (with a possible fourth perhaps never completed) large airship hangers, connected by concrete roadways and with a range of ancillary structures. The house at nearby Abbots Land Farm is believed to have served as officers' quarters. The large field immediately north of the buildings was used as a landing field.



RNAS airship SSZ29, landed in the field behind Abbots Land Farm, Capel-Le-Ferne (© National Archives)

In operational service Capel was a Class C airship station, with sub-stations at Godmersham Park, Wittersham and Boulogne-sur-Mer. It operated a new sea-scout class of non-rigid airships (the SS

type for 'submarine scout') as well as a variety of older ex-army types. In August 1916 an improved version of the SS, the SSZ, was test flown from Capel. The SSZ had been designed and built by the engineering section at Capel and although they were censured by the Admiralty for unauthorised modifications, the new design was an improvement and was put into full production. SSZ1 went on to sink UB-103 with depth charges in September 1918. A total of 77 SSZs were eventually produced, serving with the US Navy and France as well as the RNAS and RAF. Capel is said to be the place where the term 'blimp', as a slang term for a small non-rigid airship, originated; on 5<sup>th</sup> December 1915 the station commander, A.D. Cunningham, flipped the envelope of the SS.12 with his fingers during an inspection, which produced a sound that he pronounced as 'blimp', and from then onwards the word stuck (Meager 1970, 32).

One of the airship hangars remained standing perhaps as late as the 1960s according to local testimony, and the sunken concrete base of one remained open until the late 1970s (the author remembers playing in it as a child) before being infilled. There is very little to see above ground on the site today, although the concrete roads are still in use by the mobile-home park that now occupies much of the site. The potential for surviving sub-surface remains at the site is, however, considerable. Apart from the buried concrete base referred to above, the remains of a second hanger show as a clear cropmark on an aerial photograph of 2007. This appears to show the position of multiple concrete bases for the hanger's timber super-structure. In the woodland a short distance to the north, large concrete blocks are present just inside the wood. These almost certainly relate to the air station, possibly being mooring blocks.



One of several large concrete blocks probably associated with RNAS Capel, just inside Dawkins Wood, Capel-Le-Ferne

Inland from Capel to the north-west lies the site of Hawkinge aerodrome. Now largely covered in modern housing, it is now the home of the Battle of Britain Museum, and is best remembered for its

role during the Second World War (for which see below). However, it had its origins as a pre-First World War private air strip, which was taken over by the Royal Flying Corps following the outbreak of hostilities. It was initially known as RFC Folkestone, but from 29<sup>th</sup> December 1916 became officially designated RFC Hawkinge, and RAF Hawkinge from 1<sup>st</sup> April 1918. In the latter stages of the war it functioned as an Aircraft Acceptance Park, a role it maintained until May 1919.

In the HER, Hawkinge and its supporting installations and features is represented by nearly sixty individual records, the majority of which date to the Second World War use of the site. Since it came into military use during the First World War the main entry is assigned to this period for the purposes of calculating the number of records per period. In addition, the former gymnasium, which was demolished as part of the recent residential development of the site, is believed to have been built at some point between 1918 and 1920. Today, there is little remaining above ground that can be dated to the First World War use of the site.

Guston Aerodrome (RNAS/RAF Dover) was located immediately north-east of Fort Burgoyne, but does not appear in the Kent Historic Environment Record. It operated as an RNAS Home Defence Station (1914-17) and Flying School (1915-18), and as a Marine Operations Station until 1919, latterly under the RAF.

The other main First World War air base within the Scheme area lies on the other side of Dover, at Swingate. Sometimes known as St Margaret's aerodrome, this originated as a civilian landing ground, with Mr Rolls (later of Rolls Royce fame) building a hangar there in 1909. At the outbreak of war it was taken over by the Royal Flying Corps (RFC) and served primarily as a transit aerodrome, as the last stop for aircraft about to cross the channel. Very little survives above ground at the site today, apart from some hut bases, but a bronze plaque commemorates the fact that the RFC contingent of the British Expeditionary Force (BEF) flew from there to France between 13<sup>th</sup> and 15<sup>th</sup> August 1914. Thereafter, a number of training and coastal defence squadrons operated a diverse range of aircraft types from the base. The air base closed in 1920, although part of the site was retained for storage and part was later used for a Chain Home radar station (see below). Like RNAS Capel, although there is a little to see at the site today; only the hangar bases survive above ground. Considerable buried archaeology relating to its First World War use will survive below ground, both in terms of structures and material culture.

Swingate aerodrome is a site arguably best placed in the logistical category, since its role was primarily transit and training, rather than a defensive or offensive one. This general category appears to be drastically under-recorded in the HER data for the Up on the Downs area. Dover's role in the transit of troops and materials to and from the Western Front was not as great as that of the purpose-built Port Richborough to the north, or that of Folkestone Harbour to the west. Indeed, the major landslide in the Warren on 19<sup>th</sup> December 1915 caused considerable damage to the Folkestone to Dover railway line, which did not re-open until 1919. Nonetheless, local pre-war facilities and barracks, including the Duke of York's Royal Military School, were used for both the local garrison and to house troops in transit and the logistical and support infrastructure of the area must have been considerable. Along with evidence of civil defence measures, this seems hardly represented in the HER, probably because much of it was fairly ephemeral. Nonetheless, even a tented or huttet camp (such as the huttet transit camp located in a field just east of Dover Castle) will leave an archaeological trace in the form of refuse pits and portable antiquities, so identifying such sites and getting them recorded is worthwhile. In this regard, a watching brief by Archaeology South East on the site of a First World War transit camp at the White Cliffs Visitor Centre at Langdon revealed a refuse deposit containing domestic glassware, pottery, metalwork and animal bones (Archaeology South-East 2012). This hints at the archaeological footprint left by these short-lived camps.

Overall, the HER data for the First World War within the Scheme area appears partial and incomplete. It certainly reflects only a portion, and perhaps a minor portion, of what once existed, and what is recorded is very heavily dominated by fixed landward defences, which do not represent the full picture of military, naval and air operations during 1914-18. Even those sites that are recorded are far from fully documented or understood, and few offer any significant on-site interpretation. In local memory and imagination, despite the current focus on commemoration of the 100<sup>th</sup> anniversary of the conflict, the First World War continues to be eclipsed and (sometimes literally) overlain by the much more extensive and visible remains of the Second World War. Once we have passed the 100<sup>th</sup> anniversary of the end of the war in November 1918 we must take care not to forget or neglect the archaeological record of that conflict; it still has much to teach us, and if what survives is not valued and recorded, still more will be lost to the passage of time.

### **Inter-war (1918-1939)**

For much of the period between the two world wars, Britain's defence establishment was in decline. A state and population exhausted by the human and financial cost of the 'Great War' (for obvious reasons it wouldn't be widely referred to as the First World War until the outbreak of the Second) had little desire to support continued investment in the armed forces. Furthermore, the industrial scale and horror of the war had induced in some the rather idealistic belief that humanity would never again resort to armed conflict. H.G. Wells coined the term 'the War that will end War' in his book of that title (Wells 1914), leading to the widespread use of the phrase 'the War to end all Wars', although not everyone at the time was so optimistic. Nonetheless, pacifism became a fairly widespread political ideal among some in post-war Britain, and certainly there were very few votes to be found in proposals for high military spending. Britain was still an Imperial super-power, and thus had no choice but to continue to maintain significant armed forces. But the international *zeitgeist* was for disarmament and, via the League of Nations, strict treaty controls on the size and capability of national armed forces, even those of the victors (best exemplified by the Washington Naval Treaty of 1922).

As a result, the story of Britain's armed forces for most of the inter-war period was frequently one of under-resourcing, and struggles to secure necessary funding, equipment and personnel. The impact of this would have been felt in the military and naval establishment in the Scheme area. This is reflected in the small number of sites that can be assigned to this period in the HER, the dataset provided for LTSfT containing only sixteen such records. Indeed, for most of the inter-war period, up until the later 1930s, almost no sign of investment in defence infrastructure within the scheme area is detectable within the sites recorded in the Kent HER. Three records actually relate to war memorials, rather than defence or civil defence sites, namely the People of Dover memorial erected in 1924, a war memorial in Hougham churchyard and the Dover Patrol memorial at St Margaret's Bay.

Much existing infrastructure of course remained in use, albeit at a generally lower level of intensity. Examples include most of the established barracks and fixed coastal defences, and RAF Hawkinge. At Hawkinge facilities built in the interwar period (mostly the 1930s) probably included the Officers' Mess, armoury, and possibly the Operations Block (the latter preserved as part of the Battle of Britain museum). However, there was little investment in the establishment of completely new installations before the mid-1930s.

One local exception to this picture was the continuing development of an anti-aircraft early warning system based on acoustic detection, building on the pioneering work carried out during the latter stages of the war. The main installations connected with this work in the 1920s and 30s were located west of the Scheme area, at Hythe and on Romney Marsh. As was mentioned above, it is possible that the second mirror at Fan Bay was constructed as late as 1923, but in addition a single free-standing concrete sound mirror with a 20 foot dish was constructed above Abbots Cliff in the

summer of 1928, along with an operator's hut. This mirror functioned as the eastern point of the 'Hythe system' providing bearings to target aircraft that could be triangulated with bearings from the mirrors at Hythe and Denge. It played an active part in the experiments and exercises carried out to develop and test the system until 1935. It was still in active service in September 1935, when this very exposed position suffered considerable storm damage; a request to construct a new operator's hut from the wreckage of the old one gives some indication of the limited resources being allocated to the project at this time (Scarth 2014, 194). The Abbots Cliff mirror was probably abandoned at some point in 1936, as by this time it had been superseded by larger mirrors at the other sites in the Hythe system (*ibid*, 236).



Abbots Cliff sound mirror in experimental use at some point between 1928 and 1936 (© National Archives)

At the time of writing, the mirror at Abbots Cliff still stands upright, although it has been partially undermined at one corner, and there is little sign of the associated operator's hut that once stood beside it. By the time of its abandonment, although experiments would continue at Hythe for a little longer, the RAF was fast losing interest in acoustic methods of early warning. This was due to increasing doubts about the ability of the system to provide timely information about the approach of modern mono-plane bombers, but also because of the much more promising results that were being produced by the rapidly developing technology of radar. However, the system developed to pass information received from the acoustic receivers to central fighter controllers would prove invaluable in the effective use of radar as an early warning system. In this sense, although acoustic detection proved to be a technological cul-de-sac, the efforts of those involved in it were not wasted, and made a crucial contribution to the defence of the nation in the coming conflict. The remaining sound mirrors, such as that at Abbots Cliff, remain as a monument to that scientific endeavor.

By the mid-1930s, the defence of the nation, in particular against the growing threat posed by bomber aircraft, was again becoming a government priority. Thus, as the possibility and then probability of war with Nazi Germany became apparent, south-east Kent began to see growing

investment in defence infrastructure. A clear example of this is the Chain Home radar installation at Swingate, which originally featured four lattice masts, of which two survive today, along with four wooden masts. These, as part of a network of similar sites around the coast, played a pivotal role during the Second World War, in particular helping deliver the RAF's victory over the Luftwaffe during the Battle of Britain. Perhaps as a result they are usually described as Second World War installations. In fact, the network, including Swingate, was established from 1936 onwards, as part of the effort to seriously bolster home air defence, and so this radar station should be seen in the context of increased defence investment in the run up to the outbreak of the Second World War. Like many of the sites discussed here, there will be substantial levelled or sub-surface archaeology (probably including the bases of the two demolished masts). However, this site remains in MOD ownership and public access is unlikely in the near future. The masts are listed structures, but may need to be demolished in future if they become unsafe, which they certainly will without maintenance and conservation work.

Within the Scheme area, increased investment is also demonstrated by a number of records and structures relating to the Old Park Barracks at Whitfield, which was established in 1938 when the War Department purchased the Old Park mansion and estate. This was probably part of the government's plans for reform of the army and preparation for the possible deployment of a new, mechanised, British Expeditionary Force. Construction was underway by December 1938, and comprised a number of H-plan barrack blocks, other accommodation blocks and a married quarters, Sergeants' and Warrant Officers' messes, a guard house, a gymnasium and a rifle range.

The situation in the months approaching the outbreak of war in September 1939 presents, then, a very different one to that of twenty years earlier. This is to be expected of course, but means that from a historical and archaeological perspective, we cannot treat the inter-war period as homogenous. Neither, in terms of military activity and its associated infrastructure, can we treat the Armistice of 11<sup>th</sup> November 1918, nor the British declaration of war against Germany of 3<sup>rd</sup> September 1939, as complete watersheds. Indeed, arguably the First World War only officially ended on 10<sup>th</sup> January 1920 when the Treaty of Versailles came into effect, whilst the British Victory Medal issued to all those mobilised for the conflict bears the legend 'The Great War for Civilisation 1914-1919'. In any case, whichever precise start and end dates for the inter-war period are adopted, like most historical dates they don't precisely correspond with the archaeological record. If this were to be fully investigated it would likely reveal a wind-down of conflict and defence related sites and material into 1920, followed by an increasingly steep upsurge from the mid-1930s onwards. Thus, although the inter-war period is understandably eclipsed by what came before and after, it remains important in understanding the archaeology and history of conflict and defence in the twentieth century, and the relatively few remaining structures and sites that can be assigned to this period locally merit being valued and protected as much as the remains of the World Wars.

## **Second World War (1939-1945)**

Without doubt the Second World War saw the greatest expansion of defence and civil defence infrastructure across the landscape of the Scheme area. As well as the sheer number of recorded sites compared to earlier and later periods, the record for these years is characterised by considerable diversity, and by an incredible rapidity of technological development. This was war on a scale that had not been seen before, and one whose impact would be far more pervasive than previous conflicts, even than the First World War. In terms of south-east Kent, and the scheme area, far more action would also take place on and above the landscape than previously. Although Kent had experienced air attacks in the earlier war, and some sharp naval actions had taken place in the Channel, the intensity of air and naval action would surpass anything seen before. Added to this, after the fall of France the area fell within the range of land-based heavy artillery, the only part of the British Isles to be so affected. Dover, Folkestone, and the rural landscape behind the White

Cliffs became, literally, part of the front line against Nazi Germany, and earned the appellation ‘Hellfire Corner’ as a result.

This means that for the Second World War period, the scheme area is home to some of the richest defence heritage in the country, and indeed much is of international significance, with some unique sites. Furthermore, the vast majority (nearly 82%) of the recorded twentieth-century defence heritage of the area dates to the years 1939-45, with some 533 site records. Some of these may be duplicate records, but on the other hand it is likely that much has been lost without record or awaits discovery. This will be especially true of non-structural features such as barbed wire defences, slit trenches and weapon pits. However, in contrast to earlier periods, the availability of contemporary, or near contemporary, aerial photographs covering the whole area (notably those produced by Luftwaffe reconnaissance flights and by the 1946 RAF aerial survey of the nation) means that the dataset does include large numbers of sites that are no longer extant, or that only exist as subsurface features. This means the dataset for the Second World War is a far better representation of what actually existed than is the case for the First World War.

A rapid assessment of the 533 records in the LTSfT dataset for this period has been carried out for this overview. As a result, the sites have been subdivided into a number of broad categories, namely:

- Anti-invasion and security
- Anti-aircraft (AA)
- Airfield
- Civil defence
- Coastal artillery (both offensive and defensive)
- Infrastructure
- Observation and detection
- Other
- War damage
- Crash sites

In most cases, it is relatively straightforward to assign sites to a category, however in some cases it is not so simple. For example, a slit trench could be classed as an anti-invasion defensive position, or it could have been intended to provide shelter from air attack or artillery bombardment. It is not always clear which is the case, especially during a rapid and broad assessment such as this. Decisions have also had to be made as to how to classify ancillary structures and features. In general, if the primary function of the complex to which the ancillary structure belongs is clear, then it has been assigned to that category. For instance, ancillary buildings that are clearly associated with a coastal artillery battery (even if their precise function is unknown) have been categorised under ‘coastal artillery’. The results produced by this approach are presented in Table 2 below, which shows numbers of records in the project dataset by zone and by category. These numbers should be treated with some caution; as has been said, categorising the different sites is a somewhat subjective process, some duplicates may be present, and of course the Historic Environment Record, from which the base data was drawn, is being continually updated and improved. Thus, the precise numbers given below are far less important than the general picture they provide.

LTSFT Zone	Anti-Invasion & Security	Anti-Aircraft	Airfield	Civil Defence	Coastal Artillery	Infrastructure	Observation & Early Warning	Other	War Damage	Crash Sites
Folkestone	39				3	1	2	1		2
Capel	7	1			1	3	3			4
Hawkinge	34	1	9							8
North West	9					3				6
North	3			1		1				2
Alkham & River	4	1		1				1		2
Hougham	1	2			7	4	2	1	3	4
Dover Centre & West	112	10		10	6	22	6	1	10	4
Dover East & North	17	3		3	1	5			3	2
South Foreland	42	11		1	42	24	3	4	11	5
<b>TOTAL</b>	<b>268</b>	<b>29</b>	<b>9</b>	<b>16</b>	<b>60</b>	<b>62</b>	<b>16</b>	<b>8</b>	<b>27</b>	<b>39</b>

Table 2: Second World War records by zone and category

Unlike for other periods of the twentieth century, Second World War sites have been identified across every single part of the Up on the Downs area. However, the distribution of recorded sites is highly uneven. Most are concentrated towards the coast, and in and around Dover, although RAF Hawkinge provides a significant inland focus of sites. Interestingly, the only category of site that is at all evenly distributed across the scheme is aircraft crash sites, with a slight focus towards Hawkinge, reflecting the rather different nature of this class of remains.

#### *Anti-invasion and security*

By far the single largest category of Second World War sites recorded in the scheme area is that which relates to anti-invasion defences and security. A total of 268 records within the dataset for the project can be categorised under this heading, representing slightly over half of all recorded Second World War records for the area. The category includes a wide range of different types of structure and feature. Many relate to anti-invasion defences, constructed in response to the very real threat of an enemy invasion by sea and by air. These began to be constructed on a large scale following the Fall of France in May/June 1940, when the prospect of a German invasion (the thankfully never launched ‘Operation Sea Lion’) suddenly became a very real prospect.

Some sites in this category were more to do with internal security measures, such as roadblocks controlling access into Dover, or perimeter defences of key sites such as RAF Hawkinge or coastal artillery batteries, than the specific threat of a full-scale invasion. It would take a more detailed analysis than is possible here to distinguish between the two, and of course some sites effectively played a dual defensive role in this regard. However, the main anti-invasion defences are represented by a line along the Downland scarp overlooking Folkestone, and then a ring of landward defences drawn tightly around Dover, as well as the southern end of a stop line extending towards Canterbury. These anti-invasion defences began to be constructed in earnest from June 1940, but only a fraction are likely to have been in place by the time the real prospect of an invasion had subsided (forces earmarked for Sea Lion were released for other fronts by Hitler on 12<sup>th</sup> October 1940, and the operation was never a serious prospect thereafter). Nonetheless, anti-invasion defences continued to be constructed and developed in east Kent for a long time thereafter, perhaps as late as 1943 (Mark Harrison, pers. comm.).

The category includes a wide range of sites that have been identified and constitutes a mix of extant standing remains and earthworks, documentary sources, and historic aerial photographs. It is clear that, despite the very rich dataset, the picture remains incomplete. Nonetheless, we have a far better idea of the extent of Second World War defences than for the First. Within the Scheme area records include:

- Anti-tank defences (13 records, including blocks, cubes, cylinders, ditches and an anti-tank roadblock)
- Auxiliary bases (3 sites)
- Barbed wire entanglements (10 sites)
- Beach defences (1 site)
- Defence works/earthworks (9 sites, including a crenellated trench, infantry position and other earthworks)
- Slit trenches (19 sites, some of which may relate to air raid shelter rather than defence)
- Field gun positions and emplacements (14 sites)
- Machine gun posts (8 sites, including weapons pits and both HMG and LMG positions)
- Spigot mortar positions (12 sites)
- Minefields (2 sites)
- Petroleum warfare (8 sites, including ‘fougas’ roadside flame traps)
- Pillboxes (161 sites)
- Roadblocks (8 sites)

Many of these sites have left little or no visible trace in the landscape (indeed, a few may never have actually been constructed), although archaeologically detectable buried remains are likely to be present at most. Others remain as prominent features in the landscape today, for example the anti-tank ditch that runs below the crest of the North Downs scarp overlooking Folkestone, the scar of which is often assumed to be a natural feature by many who see it.

Some classes of site are very clearly under-represented, for example barbed wire entanglements, beach defences, trench positions, and minefields. All would have been far more common elements of the defences than is reflected in the HER. Every beach will have been provided with some form of beach defences, and many minefields will have been laid; for instance a soldier was killed at Farthingloe Farm, near Dover, when he stepped on a mine after returning from leave, but no record of the minefield exists in the HER. In contrast, pillboxes of various types appear to be very considerably over-represented, both in the dataset and in the public imagination. It is easy to understand why, many survive as standing structures, clearly visible in the landscape, and many local people remember exploring them during their youth. However, they formed only one element in a complex defensive network; for every pillbox there is likely to have been a number of slit trenches, weapon pits and barbed wire entanglements, and this is often evident if detailed survey is made of the ground surrounding a pillbox. So, if the dataset in the HER was truly representative of the anti-invasion defences constructed during the war, we should expect pillboxes to form a minority of the recorded defences, rather than over 60% as they do now. The latter figure clearly underlines the incomplete state of the record.

The pillboxes found in the scheme area are of a variety of types. Most were designs approved by the Directorate of Fortifications and Works (FW3) which issued seven Basic Designs, Types 22-28, during June and July 1940. The most common found in the Scheme area are the Type 22 and Type 24 designs, with 42 and 34 identified or probable examples respectively. The Type 22 (properly FW3/22) were a regular hexagonal shape in plan, whereas the Type 24 (FW3/24) was an irregular hexagonal shape with one longer wall at the rear. A thicker-walled version of the latter was designed to accommodate the firing of light machine guns (LMGs). Both FW3/22 and FW3/24 were built in large numbers across the scheme area, although Type 24 appears to be absent from the defences around Hawkinge, whereas Type 22 is almost absent to the east of Dover.



Type 24 pill box, robbed of its external bricks, at Little Farthingloe Farm, Dover

Less common designs include five recorded examples of Type 23 pillboxes, which are rectangular with an open annex containing a mount for an anti-aircraft gun, and single examples each of Types 26 and 28. The latter type was designed to house a 2pdr anti-tank or 6pdr Hotchkiss gun. All were constructed of concrete, using either brick, wood or corrugated iron shuttering. Many examples that were originally brick shuttered have lost most of the external brick shuttering, which has been robbed down to ground level, probably in the post-war period.

The third most common type in the scheme area is a square or rectangular brick shuttered pillbox with a large overhanging concrete roof. Popularly known by many today as 'Dover Quads' or 'Dover Squares', at the time of their construction they were known as Pagoda pillboxes (John Guy, pers. comm.) and appear to represent a response by the local garrison to the need to defend Dover against landward attack, prior to the introduction of Ministry approved pillbox designs. It has also been suggested that they originated as earthwork defence posts constructed in June 1940, based on designs for sangars and blockhouses used by the army in colonial settings, before being replaced by the concrete brick-shuttered examples that we see today (Hibbs 2014). The twenty-seven recorded, twenty-four of which survive as standing structures, are all located on high ground to the west of Dover, behind Shakespeare Cliff, around the Western Heights, and overlooking Maxton, Farthingloe and Elms Vale. At Little Farthingloe Farm are two unfinished examples without roofs, both of which were cleared of vegetation as part of LTSfT. From this point north a series of Type 24 pillboxes is found, and no more of Pagoda types appear to have been built.

The unofficial Pagoda design certainly did not catch on. Their wide embrasures combined with their overhanging roofs and lack of internal ricochet walls meant that if attacked they would have become 'bullet traps', even with the addition of the concrete sills which some retain. On the other hand, they were well-sited to observe the valleys they overlook, and their thick overhanging roofs

would have offered reasonable protection from falling shot or air attack. It is interesting that those built were not replaced by Ministry approved designs such as the Type 24, so either they were considered to have a useful defensive role, or they were supplanted by earthwork defences such as slit trenches. A particularly well-preserved example in woodland at Little Farthingloe bears traces of camouflage paint and the letter A by the door, which implies that it was not immediately abandoned following construction and had some operational use.



Pagoda pillbox at Little Farthingloe Farm prior to the clearance of vegetation by project volunteers. Note painted letter 'A' to the left of the door and traces of camouflage paint

In addition to the pagodas and Type 22 and 24 pillboxes, a small number of more unusual designs is present in the scheme area, including Picket-Hamilton Forts for the defence of RAF Hawkinge (four are recorded in the HER, but it is likely no more than three existed; John Guy pers. comm.). A pillbox-like structure constructed on the roof of Martello Tower No. 3 is actually an XDO post for a controlled minefield laid on the approaches to Folkestone Harbour (John Guy pers. comm.).

An unusual pillbox was inserted into the top of a Bronze Age barrow on Cherry Garden Hill, overlooking Cheriton. This pillbox, an irregular heptagon in plan, is well preserved and features a rear extension covering the entrance, with no windows in the rear wall, and a large external vertical shaft at the front, connected to the interior by a small sloping shaft, that probably functioned as a grenade trap. Interior shelves provided mounts for light machine guns. This pillbox, along with the Bronze Age barrow, and immediate surroundings, were cleared and opened up to public access as part of the project, in collaboration with Affinity Water.



View of the Cherry Garden Hill pillbox, cut into a Bronze Age burial mound, showing the rear extension covering the entrance.

In addition, thirty-seven records of pillboxes within the project dataset have not been assigned to a type. Many of these are known only from aerial photographs, whilst some probably relate to duplicate records of extant pillboxes. Further detailed work would be needed to assign these to specific types, where possible.

Pillboxes of whatever type may have proved of limited use had significant German forces got ashore. The German army had little real difficulty circumventing or defeating much more substantial fixed defences in the Netherlands, Belgium and France in 1940, and it is doubtful any of the British pillboxes would have presented a significant obstacle to them. Indeed, against modern weapons they may well have been very vulnerable and many soldiers would probably have preferred sandbagged earthwork positions such as trenches and weapon pits. They were supplanted and eventually replaced by such defences as the war went on and their limited usefulness was recognised. Nonetheless, many remain and they are perhaps the most widely recognised remnant of the twentieth-century defences in the landscape of the Up on the Downs area today.

#### *Anti-aircraft (AA)*

Twenty-nine records in the project dataset relate to anti-air warfare. Most (25) of these are the sites of anti-aircraft artillery (AA). These include fixed heavy anti-aircraft (HAA) batteries such as those at Farthingloe and Wanstone, which each deployed four 3.7inch guns at the heart of substantial complexes comprising elements such as magazines, command posts and gun stores in addition to the gun positions themselves. A range of other batteries and gun positons is recorded, including those operating lighter (LAA) guns such as Bofors. One site, at Wallett's Court, West Cliffe, was that of a UP Rocket Projector Battery (often referred to as a Z battery). These launched rockets trailing a cable as an innovative but not notably successful anti-aircraft weapon.



Project volunteers visiting one of the positions for a 3.7 inch AA gun at the site of the Farthingloe Heavy Anti-aircraft battery

Also under this heading are four sites relating to the deployment of tethered barrage balloons. Again, more such sites existed within the Scheme area than are recorded in the HER.

#### *Airfield*

As noted above, RAF Hawkinge came into use during the First World War and remained in active service during the interwar period, with a marked increase in investment in its infrastructure during the 1930s as the prospect of war with Nazi Germany grew. Investment continued during the Second World War, including the development of extensive defences in depth around its perimeter, particularly in response to the perceived threat of an airborne enemy landing (a very real prospect if the Germans had launched an invasion). Those defences are referenced under ‘Anti-invasion and security’ above.

In addition, the HER dataset contains nine records of structures and features relating to RAF Hawkinge that primarily or wholly date to the Second World War. These include the remains of a number of buildings on the main airfield, most notably ‘B’ Flight Dispersal Hut which now forms part of the Battle of Britain Museum. However, most of the airfield is now covered by modern residential development, leaving few visible remains of the closest RAF fighter station to France during the Battle of Britain.

Rather more remains of the airfield’s Dispersal Site which was situated 1.5km to the north in what is now Reinden Wood. Surviving features include air-raid and blast shelters, a decontamination block, and a range of other structures. The site is still an MOD training area with limited public

access, but if this were to change then collectively it represents a significant potential heritage tourism asset if properly interpreted and presented, in conjunction with what remains of the main airfield and the Battle of Britain Museum to the south.

#### *Civil defence*

Sixteen records within the project dataset relate to civil defence. These include ten air-raid shelters in Dover, Selsted and Kingsdown, a figure that can only represent a very small proportion of the number actually built (especially if one were to include civilian Anderson shelters, some remains of which will survive, though usually as infilled sub-surface features). Many of the schools in and around Dover had their own air-raid shelters. Although generally described as Second World War shelters, it is possible that some may date to the immediate pre-war period.

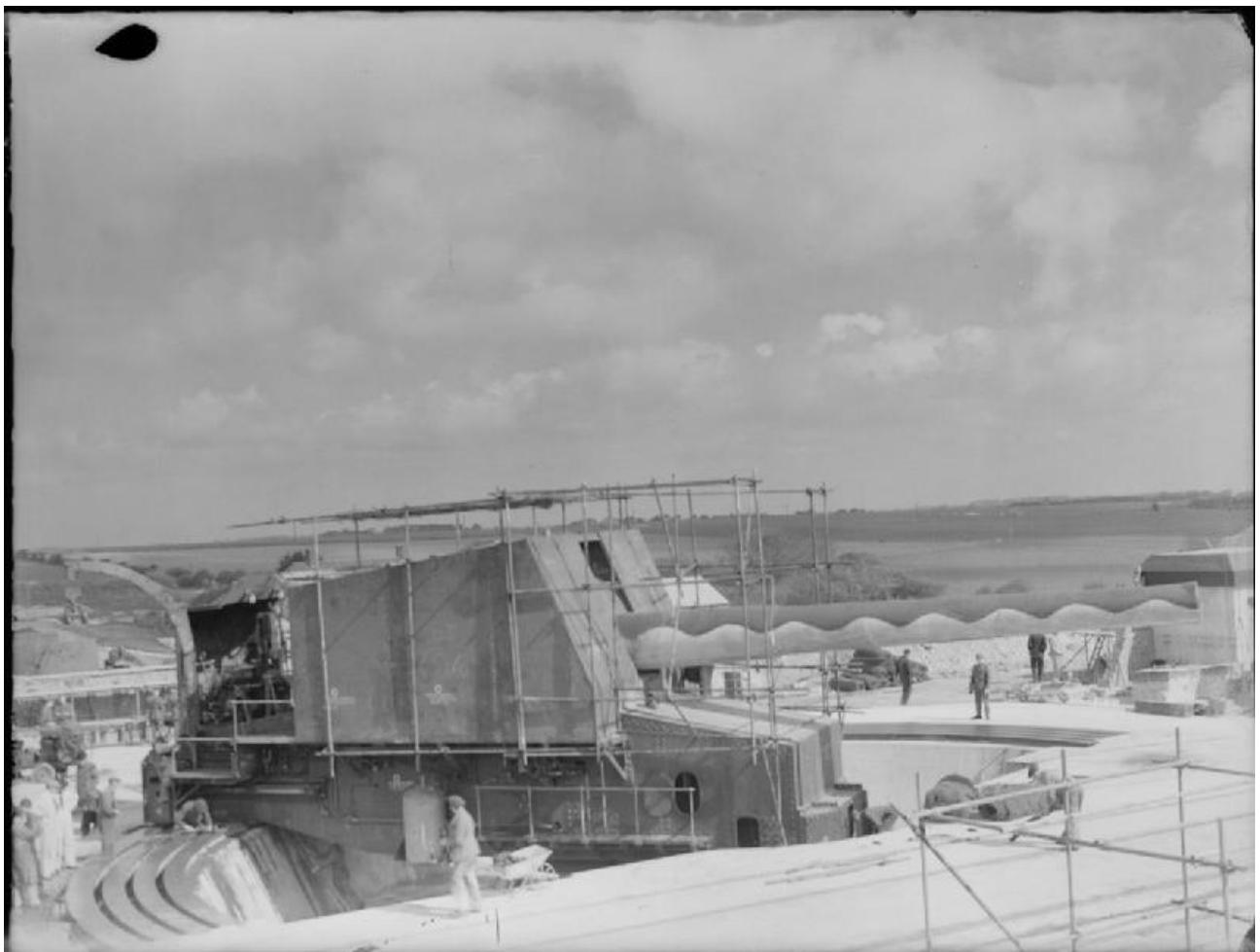
Other records include three ARP (Air Raid Precautions) posts. Those at Lewisham Road, River and Elms Vale junction in Dover no longer survive, but one at Dover Priory Station does survive, as do two others not recorded in the HER (John Guy pers. comm.). Others must have existed within the Scheme area.

This category also includes two decontamination posts, and a fire-watch post. As a whole though, Second World War civil defence in the scheme area would appear to be very significantly under-represented in the HER.

#### *Coastal artillery*

Some sixty records have been categorised under the general heading of coastal artillery. Most of these records (37) relate directly to gun batteries, or in some cases dummy batteries. A number of other records relate to associated structures, namely deep shelters (3), engine rooms (2), fire control positions (1), guardrooms (1), magazines (8), and a range of other facilities including plotting rooms, range finders and rectifier rooms. Since multiple batteries are present in the scheme area, most of which would have been supported by a multiplicity of ancillary buildings and positions, it would once again appear that the dataset in the HER is incomplete, with some battery positions comprehensively surveyed and each element given a separate record, whilst others are recorded in more generic fashion. Further detailed surveys of these sites would appear to be necessary.

Indeed, it is no overstatement to say that the Second World War coastal artillery sites within the scheme area, situated primarily on cliff top positions flanking Dover, as far east as South Foreland, collectively form an internationally significant heritage asset (see Richardson 2017). A range of batteries, mounting guns in a variety of calibres, were in use during the war. Some, such as Western Heights Battery (occupying the site of the 1870s era St Martin's Battery), overlooking the Western Docks, utilised modified positions of earlier date. Others, such as the Royal Marine heavy guns Winnie and Pooh at St Margaret's, occupied newly constructed emergency positions. The apex of the coastal artillery in this period, not just for the area but arguably for the entire British Empire, were the western and eastern coastal artillery fortresses, operated respectively by 520 and 540 Coast Regiments, Royal Artillery, and consisting of seven inter-linked batteries, mounting two to four heavy guns each. These came into service during 1941-2 and represent the largest concentration of new coastal batteries built on the British Coast during the Second World War. With the exception of Citadel Battery, all (Capel, Lydden Spout and Hougham to the west of Dover, Fan Bay, Wanstone and South Foreland to the east) were completely new installations.



One of two 15 inch former battleship guns, named 'Clem', at Wanstone Battery, operated by 540 Coast Regiment, Royal Artillery (© National Archives)

Several of the gun batteries, notably those operated by 519 Coast Regiment, Royal Artillery had a traditional coastal and harbour defence role. However, the guns of 520 and 540 Coast Regiments, along with the emergency batteries mounting the 14 inch guns 'Winnie' and 'Pooh', operated by the Royal Marines, had a primarily offensive role, namely the interdiction of enemy shipping in the Channel. Thus these batteries, unlike so many twentieth-century defence heritage sites in Britain, were engaged in a prolonged shooting war. In September 1944, as troops of the 3<sup>rd</sup> Canadian Infantry Division approached the positions of the opposing German heavy batteries, the 15 inch guns 'Jane' and 'Clem' at Wanstone fired on the German gun positions. In order to hit such distant targets, they were super-charged (with a double load of charge) to extend their range. These ex-battleship main guns were supported by guns ranging in calibre from 6 inch at Lydden Spout and Fan Bay, to 8 inch at Capel and Hougham and 9.2 inch at Citadel and South Foreland. Thus the fortresses could engage a wide range of surface targets with guns of an appropriate size and range. All were radar guided, and thus capable of engaging targets at night, or in low visibility, as happened when South Foreland battery engaged (albeit without success) the German battleships *Scharnhorst* and *Gneisenau*, and the heavy cruiser *Prinz Eugen*, during the famous 'Channel Dash' of 12<sup>th</sup> February 1942.

The western and eastern artillery fortresses operated by 520 and 540 regiments represented not only the state of the art in terms of Second World War coastal artillery, they also represent the ultimate expression of several hundred years of coastal artillery around the British coast, starting with the artillery fortresses of Henry VIII (exemplified by the nearby forts at Deal, Walmer and Sandgate).

The condition of the coastal batteries today is varied. At some, such as ‘Winnie’ and ‘Pooh’, Fan Bay, or Hougham, there is little surviving above ground, although the deep shelter at Fan Bay has recently been cleared by the National Trust and opened for guided visits. Others, most notably Wanstone and Lydden Spout, both recently acquired by the National Trust, are in a remarkably well-preserved state, and it is to be hoped that work will commence in the near future to open these sites to visitors. Certainly, the coastal artillery sites of the coast either side of Dover should be regarded as some of the area’s most significant heritage assets.

### *Infrastructure*

This heading includes sixty-two records that cover a wide range of structures and features. Some relate directly to defence or civil defence transport, support or storage infrastructure, including an AA ordnance depot, fuel tanks, military railway lines, REME depot, reservoirs and emergency water supplies. A large number of records relate to military buildings, complexes or earthworks whose function remains unclear. Many such sites are primarily known from aerial photographs, and were first recorded during the Rapid Coastal Zone Assessment Survey commissioned by English Heritage. Ground-truthing of some has revealed surviving remains, such as those for a group of probable military buildings at Maxton. Further desk-based research and fieldwork would hopefully allow the nature and role of many of these sites to be established, and they should be a priority for further study.

### *Observation and early warning*

Fifteen records in the project dataset relate to various forms of observation or early warning. Two thirds of these are observation posts (OPs), mostly relating to the coastal artillery batteries, used for visual identification of targets, obtaining bearings to target and reporting on fall of shot. These would have been part of the command and control system of the coastal guns Fortress System, and would have fed positional data about enemy shipping to fire control, as well as reporting on the fall of shot. The category also includes two searchlight positions, one part of Lydden Spout Battery and another at St Margaret’s-at-Cliffe. These were intended for illuminating enemy surface targets rather than for use against aircraft. Many other searchlights, including for targeting night-time aerial intruders, must have been present in the scheme area, working in conjunction with both coastal and anti-aircraft artillery.

In addition, a probable Royal Observer Corps post and shelter of Second World War date has been identified at Drop Redoubt (Paul Wells, pers. comm.).

Also included under this heading are two radar stations and a camp established for the RAF Swingate Chain Home radar station. A number of smaller radar stations existed within the Scheme area, but these are not individually recorded in the HER. These include Chain Home Low (CHL) sets, used for the coastal artillery, such as that constructed within the curtilage of South Foreland Lighthouse (arguably in contravention of the Geneva Convention) and Chain Home Extra Low (CHEL) sets, whilst some of the AA batteries utilised Gun Laying radar (GL). Radar jamming sets would also have been present. Some sets were deployed in caravans rather than on fixed sites (John Guy pers. comm.).

### *Other*

A small number of sites in the dataset relate to a range of other functions and activities. These include the Royal Marines’ Underground Hospital at Townsend Farm, St Margaret’s at Cliffe. This seems to be the only discrete record in the scheme area that relates to a medical facility, although many more existed, usually within larger complexes, such as the small hospital in the deep shelters of coastal artillery sites such as Fan Bay.

Under this category are also a number of sites that relate to training, namely practice trenches and a rifle range at St Margaret's-at-Cliffe.

A prisoner of war (POW) camp is recorded as having existed at St Radigund's Camp, although its precise location is not currently known, with four possible sites suggested.

Finally, two rather more unusual sites include the Oboe station at Kingsdown, used to assist with the navigation and targeting of RAF bombers over Germany, and the Capel 'Y-station', involved in top secret signals intelligence, located at Abbots Cliff House.

#### *War damage*

Being subjected for most of the war both to attack from the air and to shelling from German heavy batteries on the French coast, there is no doubt that Dover, Folkestone and the wider scheme area suffered very considerable war damage, resulting in many civilian and military casualties, and the whole or partial destruction of many buildings. In terms of the HER, war damage is recorded in the form of a number of bomb or shell craters, around Dover and South Foreland. Many of these have been identified from the 1946 aerial photographic survey, but some remain as significant, partially infilled, features in the landscape today. All of the latter are situated in rural locations, mainly on the Downs around Dover, and therefore for the most part represent shells or bombs that fell wide of their target. The HER contains twenty-seven such records, but if compared to the published map of shells and bombs in and around Dover, it can be seen that this represents only a small percentage of the total number which fell.

It is almost certain that unexploded ordnance remains in the area, although the recorded crater sites should be those where the ordnance detonated as intended. A number of shells are said to have fallen but not exploded; these are believed to be embedded at depths of around 3m.

#### *Crash sites*

The HER dataset includes thirty-nine records of military aircraft crash sites dating to the Second World War. Most of these date to the period of the Battle of Britain. Types include the main RAF fighters employed during that action, Supermarine Spitfires (sixteen Mark Is and a single Mark II), Hawker Hurricanes (eleven Mark Is), and two Boulton Paul Defiants. German aircraft include six Messerschmitt Bf109Es, and a single Messerschmitt Bf110C. In addition an Avro Lancaster I crashed on landing at Hawkinge on 9<sup>th</sup> July 1943.

The locations of some of these crash sites have been identified, and some were excavated during the 1970s and 80s by the Battle of Britain Museum. Others remain only approximately located with a four figure grid reference. How much survives at a site will depend on the nature of the crash, specifically the angle and speed of descent. Some of these sites will retain archaeological potential, but it must be remembered that some are war graves. None should be investigated except under very controlled archaeological conditions and with the permission and support of the RAF and Ministry of Defence. However, none in the area have been investigated to modern archaeological standards and it is also possible that even those sites previously excavated retain further archaeological potential.

#### *In conclusion: the Second World War heritage of Up on the Downs*

Despite the large number and diverse range of recorded sites dating to the Second World War (compared with other periods of the twentieth century), it is clear that only a percentage of what actually existed has been recorded in the Historic Environment Record. Whilst this is inevitably the

case, it may be that only a minority of what actually existed has thus far been recorded, which underlines the need for further study of the archaeology of this important period, particularly given the high profile role played by this part of Kent during these years.

### **Cold War (1945-1989)**

The Cold War is the term used to describe the state of geopolitical tension that existed for much of the post-war period between the United States and the Soviet Union, and their respective power blocs. The precise dates of the Cold War are somewhat debatable, although many historians would date the start from 1947 and the instigation of Truman Doctrine, wherein the US pledged to aid nations threatened by communist expansion, down to either 1989 and the collapse of the communist regimes in eastern Europe, or 1991 and the collapse of the Soviet Union. For the purposes of this report, the period 1945 to 1989 will be considered.

In 1946 the RAF carried out a major aerial photographic survey of Britain. This valuable resource captured much of the extensive Second World War defence infrastructure still existing at that time. Much, especially in terms of anti-invasion defences, had effectively ceased operational use well before the end of the war. But some sites did continue in operation into the post-war period, notably the radar installation at Swingate, and RAF Hawkinge. The latter periodically played host to RAF squadrons, including 234 Squadron flying the Mustang IV, into the autumn of 1945. Thereafter, Hawkinge became the Home Command Gliding Centre, teaching Air Cadets to fly gliders, as well as, from the 1950s until 1960, a Woman's Officer Cadet Training Unit. The coastal artillery fortresses were kept operational on a care and maintenance basis, with occasional practice firing, until the disbandment of the Coastal Artillery in 1956.

Of course, there remained a significant military presence in the area, notably around Dover, throughout the Cold War and indeed beyond. This is not really reflected in the HER, partly because much of this involved the continued use of existing facilities. For instance, in December 1958 the Royal Engineers Junior Leaders relocated from the rather cramped Malta Barracks in Aldershot to Old Park Barracks at Whitfield, where they remained until the closure of the barracks in 1992. Other facilities were certainly in use during and following the Cold War period, for reserve as well as regular forces, and some facilities will have been newly constructed during the period at sites such as Connaught Barracks, which remained operational into the twenty-first century.

Despite this, only six sites in the HER dataset provided for LTSfT can be primarily assigned to this long period. These include the site of a 1950s 'Rotor' underground radar station at the Droveway, St Margaret's-at-Cliffe, along with a camp for its personnel. However, the type of site most readily associated with the Cold War, and the pervasive threat of nuclear attack which characterised much of the period, is the Royal Observer Corps (ROC) Underground Monitoring Post. Within the scheme area, these are present at Copt Point, Crete Road West, Lyminge and Swingate. These posts were constructed across the country from the late 1950s until 1968, with some remaining in operational use until 1991. Their purpose was to provide information to the Government on the location and size of nuclear blasts, and the direction of any resulting fallout, in the event of a nuclear attack. For this they contained a range of monitoring and communication equipment, as well as facilities to allow a team of ROC volunteers to survive for several weeks following an attack. Most consisted of an underground chamber accessed via a 14 foot shaft, with the access hatch and ventilation and monitoring equipment being the only parts visible above ground.

All four ROC posts in the scheme area survive in relatively good condition. The post at Copt Point was built in 1961 but was abandoned due to fears that the erosion of the nearby cliff would expose it, making it useless in the event of nuclear attack. It was replaced in 1968 by the post on Crete Road West. Although the nature of these posts makes it impossible to provide public access to their interior except on a very limited, pre-arranged basis, it is possible to provide above ground

interpretation, as recently at a similar post at Victory Wood, near Whitstable as part of the Forgotten Frontline project.

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Top of the access and ventilation shaft of the Royal Observer Corps Underground Monitoring Post at Crete Road West, near Folkestone

Given the continued presence of regular and reserve forces in and around Dover and Folkestone throughout the Cold War, these very few records are an under-representation of the single longest period in the defence history of the twentieth century. One important Cold War installation in the scheme area, though it doesn't appear as a discrete record in the HER dataset provided for LTSfT, is Dumpy Level, a bunker system within the layers of tunnels and rooms under Dover Castle intended to act as a regional seat of government in the event of nuclear war. This facility, in which exercises were carried out during the 1962 Cuban missile crisis, was capable of housing 300 government and military personnel for a prolonged period. Today it forms part of the underground tours run by English Heritage, who now own and manage Dover Castle.

The Cold War era was also a period that saw the greatest erosion of earlier defence heritage. Much of the Second World War anti-invasion defences were necessarily removed in the latter stages of the war and in the immediate post-war period. This was followed by a period of continued loss through a variety of factors, including robbing for building materials and deliberate demolition in the following decades. This culminated in Kent County Council's now notorious 'Eyesore Clearance' program of the 1970s, which deliberately sought to erase signs of the Second World War from the landscape. This had a particularly damaging impact along the cliff top from Langdon to South Foreland, and we are lucky that anything survived this period. Indeed, had it not proven cheaper to leave structures such as pillboxes standing rather than demolish them, it is likely that the visible evidence of much more of Kent's defence heritage would have been erased. There was some opposition to the clearance programme, including from a younger John Guy and Keith Parfitt, with

some buildings being saved as a result. The sorry story of ‘Eyesore Clearance’ merits a study in its own right, with great potential still for documentary research and oral history. According to John Guy, some farmers and landowners accepted money to demolish structures, but did not actually carry out the work, for which we must all be thankful.

### **‘Post-Cold War’ (1989 to present day)**

Depending on your point of view the Cold War ended in either 1989 or 1991. When it comes to the discussion of defence heritage, the Cold War is usually the last period considered, yet it ended nearly three decades ago. Thus it seems appropriate to make mention of the fact that there is a ‘post-Cold War’ defence heritage. As far as the scheme area is concerned in this regard, it is worth noting that Connaught Barracks at Dover remained an operational army base until 2006, at which time it was home to the 1<sup>st</sup> Battalion of the Parachute Regiment. When the barracks closed in March of that year, perhaps for the first time in over a millennium, Dover could no longer be described as a garrison town.

Despite this, occasional military and naval activity is likely to continue, if only on a visiting basis. Large parts of the scheme area remain in the ownership of the Ministry of Defence, for use as training areas. And in times of crisis, it should come as no surprise to see the sudden reappearance of the armed forces in the Dover area, as happened with the temporary setting up of a Rapier surface to air missile (SAM) battery in the fields behind Dover Castle in the wake of the 9/11 attacks. Indeed, it may be that the winding down of the British defence establishment following the collapse of the Soviet Union and the so-called ‘peace dividend’ is a phase that has now passed, and that with the current threat of a resurgent and aggressive Russia under Vladimir Putin, we may be entering the early stages of a new strengthening of our defences. Whether this will ultimately have any effect locally in terms of new defence infrastructure, only time will tell. A permanent return to the days of Dover hosting a large military and naval infrastructure seems unlikely, given the nature of modern warfare. However, temporary deployments in times of heightened tensions could arise, especially if there is a need to secure control of the communication links with the Continent. We can only hope that the current state of heightened tension between NATO and Putin’s Russia never result in an armed confrontation between the two, but given the turbulent state of global politics today, it would be unwise to regard Britain, or Kent’s, defence history to be at an end. After all, as the philosopher George Santayana said (in a quote usually wrongly attributed to Plato) “only the dead have seen the end of war”.

## **4 SIGNIFICANCE**

The evaluation of significance in the context of heritage is necessarily a somewhat subjective exercise, and there are many ways to approach it (see for example English Heritage’s Conservation Principles 2008 or Kerr 2013). When considering the significance of the military archaeology of the coastal area around Dover and Folkestone, particularly during the great conflicts of the first half of the twentieth century, the associations of this local archaeology with globally significant events come into play. In this regard, the Dover District Heritage Strategy considers the significance of Dover’s Second World War heritage in the following terms:

*“The District of Dover contains a wealth of defences of Second World War date. Large concentrations of such defences are focussed on the town itself as well as on the cliffs immediately to the east and west of Dover. Dover’s position on the Channel Coast and only a short distance from France meant that it was at the centre of East Kent’s ‘Hellfire Corner’. The early twentieth century was one of rapid technological advance – telephony, radio and radar brought new means of communication, long-range detection and directing gun-fire; whilst cross-Channel guns, powerful battle tanks and flying rockets brought new threats to military and civilian targets. All of these technological changes are represented to a greater or lesser extent in the range of surviving Second*

*World War heritage assets surviving in the District. These assets are valuable on their own, but together as a group are of outstanding significance.”*

Dover Heritage Strategy 2013, 3.366, 130

Outstanding is the highest significance rating used in the Dover Heritage Strategy equating to:

*“Cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity.”*

English Heritage 2008

The Dover Heritage Strategy goes on to say that:

*“There are a number of significant historic assets in the District that have a group value as part of an extensive military landscape that should be identified and measures put in place to protect, enhance and interpret them.”*

Dover Heritage Strategy 2013, 3.377, 133

These comments serve to emphasise the recognised significance of Dover's twentieth-century defence heritage, most of which is concentrated in the Up on the Downs Scheme area and they would similarly apply to the Shepway parts of the area. To date, though, much of this heritage still hasn't received the levels of protection or recognition that its significance merits. In particular, there is much surviving infrastructure at sites that are arguably of global importance, given their role in the defence of Britain during the Second World War. Such remains merit some level of statutory protection as listed sites and/or scheduled monuments.

Collectively, the twentieth-century defence heritage of the coastal zone between Folkestone and Dover represents one of the richest historic military landscapes anywhere. In particular, the role of the area in the First and especially Second World War merits a very high rating of significance for the surviving defence heritage. Indeed, set against the multitude of Second World War remains that can be found across the nation's landscape, the sites in the Scheme area, some of which directly engaged enemy-held territory from British soil, must be regarded as being in the top tier. Therefore, these sites are collectively rated as being of **exceptional significance**.

## 5 THE FUTURE OF OUR DEFENCE HERITAGE

Despite this exceptional significance, it remains the case that this important heritage is not adequately recorded, protected, maintained, presented or understood. Reasonable steps by public bodies, local authorities, conservation organisations and indeed the local community to remedy this state of affairs should therefore be encouraged as a matter of urgency.

As part of this, we need to move beyond the listing and study of individual sites and structures, towards an understanding of them both in their spatial and historical contexts, and as part of complex networks of inter-related defensive and military systems. In other parts of Kent, particularly along the Thames Estuary, such work has been underway for many years by people such as Victor Smith, Mark Harrison and others. For the Dover and Shepway areas, work is not so well advanced, despite the efforts and expert local knowledge of people such as John Guy, Gordon Wise, Jon Barker, and Jon Iveson. Part of the problem is that the list of sites we have is still clearly incomplete, and heavily biased towards certain types of highly visible structures such as Second World War pillboxes, which overstates their actual military significance.

Furthermore, much that once existed has already been lost to the march of time, or misjudged ‘eyesore’ clearance campaigns. There is now a widespread recognition of the heritage value of the recent military past, although the demolition of Connaught Barracks shows that not all defence sites are benefitting from that view. And indeed, it was only a few years ago that the author was asked, during the renovation of Dover Priory Station, if the ARP wardens’ post that overlooks it should be preserved, or could be safely demolished since it was not felt to be in keeping with the new look of the station. Thankfully the decision was made to preserve it, but it demonstrates that we cannot be complacent about the fate of our surviving defence heritage even today.

So, much remains to be done if we are to properly conserve, interpret and present the area’s rich twentieth-century defence heritage. In summary, we need to:

- **Firstly, protect what still survives: from demolition; from criminal damage and anti-social behaviour; and where possible from natural forces.**
- **Secondly, continue to develop and refine our record of the defences of the area, making it as comprehensive and accurate as possible.**
- **Thirdly, develop an understanding of the numerous sites (both those that are visible and those that have vanished from the landscape) that places them in their spatial and historical contexts and treats individual sites as part of inter-related military and defensive systems, and as parts of a greater historic landscape.**
- **Finally, share that improved understanding with as many people as possible, both locally and further afield, through a range of mediums, both traditional and digital, and where appropriate by providing interpretation and public access to sites. This in turn will lead people to value this heritage more, which will thereby make it easier to protect and conserve for future generations.**

All of that is easier said than done. Resources, especially in terms of cash funding, are limited and those that have been made available to date have proved inadequate, given the number and scale of defence sites present in the landscape around Dover and Folkestone. The truth is that, in the short to medium term, we are unlikely to be able to document, conserve, study and interpret all of the recent defence heritage in the area. A more realistic approach, and a beneficial one, would be to support detailed work on key sites (such as the coastal artillery sites now under National Trust ownership), or on sample areas of wider defence schemes such as Dover’s First and Second World War landward defences (which largely occupy the same ground). For example, very detailed survey, combining original documentary research, analysis of historic aerial photography, and fine-scale field survey, of the type employed in the Seasalter and Whitstable area by Mark Harrison with ‘The Forgotten Frontline’, could be applied to sample transects through linear defences such as those that surround Dover. This fine-scale approach could include a wide range of archaeological field survey techniques, including geophysics, evaluation trenching, and controlled metal detector survey. Portable antiquities data is largely lacking for this period, as the Portable Antiquities Scheme tends to focus on older material, and yet the detritus of war litters the Up on the Downs landscape in the form of spent ammunition, military dress fittings and a host of other materials. We are also rapidly running out of time (indeed, we almost have) to capture unrecorded oral histories that relate to the Second World War, or early stages of the Cold War. Put together with standing structures, buried features and archival sources, it is clear that we have only begun to appreciate the rich archaeological landscape of conflict and defence that exists across the Up on the Downs Scheme area, and the rest of east Kent. Much good work has been done, for the most part by small numbers of dedicated and passionate volunteers. Much more remains to be done, if our defence heritage is to have the future it merits and deserves.

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RAF- Royal Air Force

RFC- Royal Flying Corps

RNAS- Royal Naval Air Service/Station

ROC- Royal Observer Corps

SAM- Surface to Air Missile

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