New Forest National Park Authority

New Forest Remembers
Untold Stories of World War II

Archaeological Desk Based Assessment

Final Report

April 2013

MARITIME ARCHAEOLOGY LTD

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Authors	Stephen Fisher
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Summary of changes	

i. Abbreviations

Abbreviations used in this desk based assessment include:

AA – Anti-Aircraft

ADS – Archaeological Data Service

AHBR – Archaeology & Historic Buildings Record

ARP – Air Raid Precaution

EH – English Heritage

FONFA – Friends Of New Forest Airfields

GIS – Geographic Information System

GPS – Global Positioning System

HCC – Hampshire County Council

HER – Historic Environment Record

HLS – Higher Level Stewardship

HMS – His Majesty's Ship

LiDAR – Light Detection And Ranging

MA Ltd – Maritime Archaeology Limited

NFDC – New Forest District Council

NFNPA – New Forest National Park Authority

NMP – National Mapping Programme

NRHE – National Record of the Historic Environment

NT – National Trust

OSGB – Ordnance Survey Great Britain

PLUTO – PipeLine Under The Ocean

RAF – Royal Air Force

RCZA – Rapid Coastal Zone Assessment

RNAS – Royal Navy Air Service

SMR – Scheduled Monument Record

SOE – Special Operations Executive

UKHO – United Kingdom Hydrographic Office

USAAF – United States Army Air Force

WO – War Office

Summary

Maritime Archaeology Ltd (MA Ltd) has been commissioned by the New Forest National Park Authority (NFNPA) to undertake an archaeological desk based assessment for the New Forest Remembers – Untold Stories of World War II.

The Heritage Lottery Funded 'New Forest Remembers – Untold Stories of World War II' archaeology project was established by the NFNPA in 2012 in order to address the current lack of knowledge and understanding of the New Forest's Second World War structures and features. It was felt that a detailed investigation and an adequate assessment of this period were urgently required before individual memories of the war are lost, and a large resource becomes unavailable.

The project has been broadly divided into four phases. The first phase (data collection and assessment) will be used to inform and enhance the following three phases (phase 2: field surveys and dissemination; phase 3: memories; and phase 4: understanding and learning about wartime New Forest) over the course of the project.

The first phase, which is the subject of this report, has drawn together information about World War II installations all over the New Forest from a wide range of sources. This information has been collated into a database that lists approximately 40,000 individual records for structures and sites. The significance of these sites has been assessed relative to national and local examples and based on their frequency and state of survival.

1 Introduction

Maritime Archaeology Ltd (MA Ltd) has been commissioned by the New Forest National Park Authority (NFNPA) to conduct an archaeological desk based assessment for the New Forest Remembers – Untold Stories of World War II archaeology project.

This project has been formulated to address the need for enhanced understanding of the impact of World War II within the New Forest. Such information is urgently required at this time before individual memories and knowledge is lost. It has also generated data for other periods in the history of the New Forest that do not form part of this study. The resulting information will feed into future management, interpretation and access schemes.

Following the NFNPA specification for the New Forest Remembers – Untold Stories of World War II project, which successfully went through the Heritage Lottery Fund bidding process, four phases of work have been proposed and will be separately undertaken:

- Phase 1: Data Collection and Assessment (this report)
- Phase 2: Field Surveys and Dissemination
- Phase 3: Memories
- Phase 4: Understanding and Learning About Wartime New Forest

Elements of this desk based assessment (phase 1) include:

- A preliminary baseline assessment of the regional significance of sites recorded, and their vulnerability to erosion and decay;
- Identification of areas meriting further survey and recording and the identification of sites, structures or buildings potentially meriting protective legislation, geophysical data assessment; and
- A broad classification of World War II features and structures and considering them in relation to existing land management agreements.

This report sets out the process followed during the archaeological desk based assessment and the sources consulted. It includes an account of the background and history of the New Forest for the period under analysis and the methodology used during this phase, before presenting the results and the assessment of the regional significance of sites recorded in the study area and their vulnerability.

1.1 Project Study Area

In general terms, the project study area extends from the historical county boundary between Hampshire and Dorset in the west, and the boundary with Southampton in the east (**Figure 1**). It encompasses the entire area of the New Forest District of Hampshire as well as parts of Wiltshire within the National Park Boundary. For the purposes of this project it also includes areas now within Dorset that were within the Historic County of Hampshire during World War II prior to the local government boundary change of 1974. This includes Christchurch and the Avon Valley, but excludes Bournemouth.

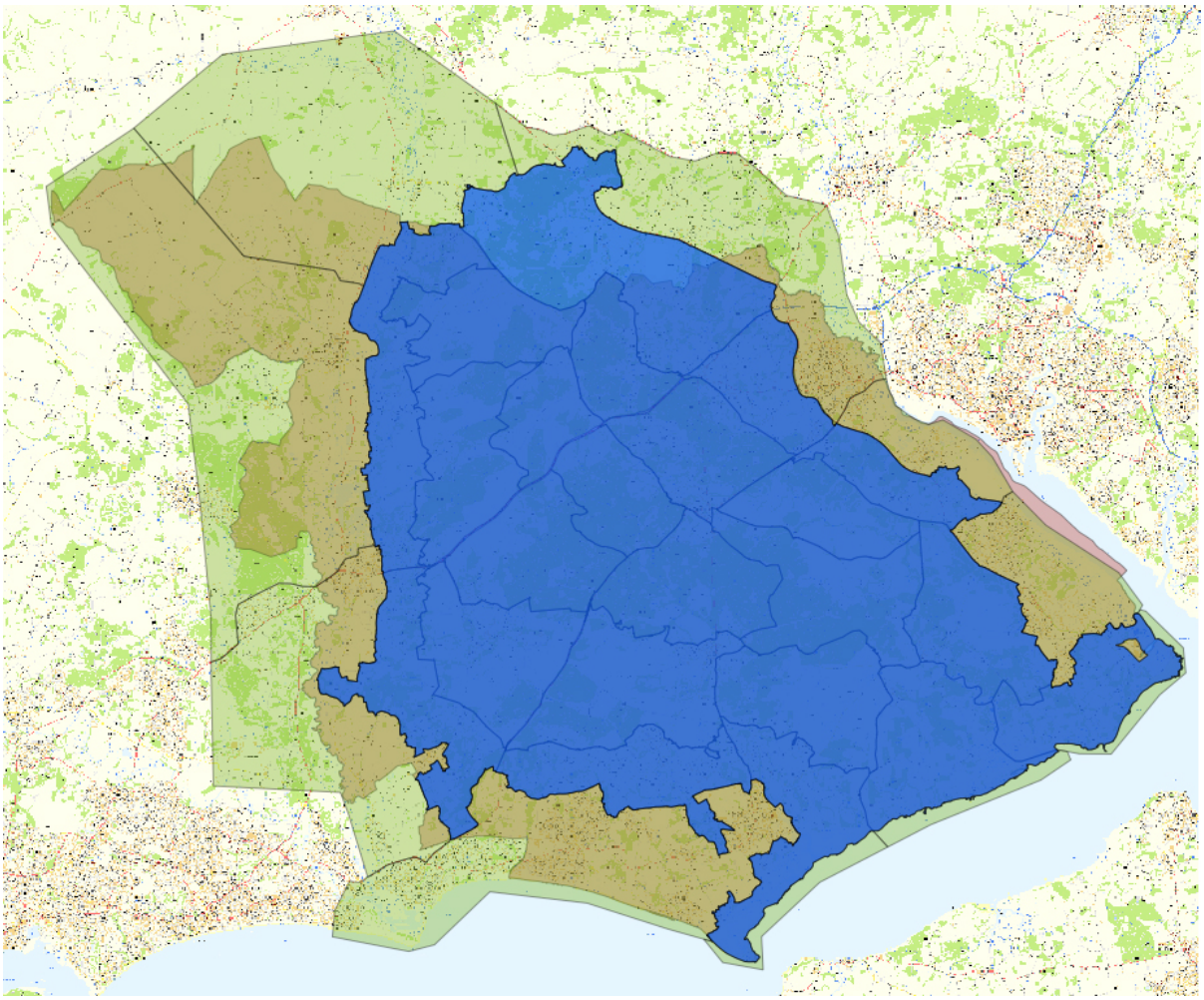


Figure 1 - The New Forest National Park (blue), the New Forest District (pink) and the agreed study area (green). Contains Ordnance Survey data © Crown copyright and database right 2013.

This extensive study area was used for the interrogation of datasets during the phase 1 desk based assessment.

1.1.1 Project Study Area Sub-units

Based on discussions with the NFNPA and guided by the Crown Land Higher Level Stewardship (HLS) zones (**Figure 2**), the following agreed management sub units were identified (Error! Reference source not found.).

These sub units are based on the HLS zones but have been extended to incorporate surrounding areas. Each HLS zone still covers its original land area (Zones 1-14). Further zones (Zones A-P) have been created to incorporate the rest of the study area. These zones use the boundary of the New Forest National Park in the first instance and the boundary of the study area in the second instance. A detailed baseline review of records within these sub-units is presented in **Section 0**.

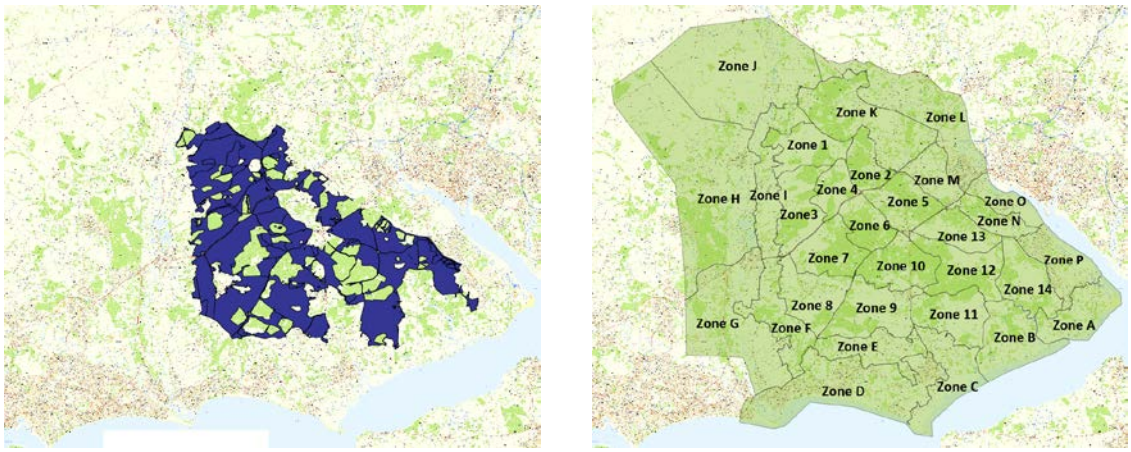


Figure 2 – The Existing Crown Land HLS zones and the agreed sub unit zones created for the project study area. Contains Ordnance Survey data © Crown copyright and database right 2013.

1.2 Aims and Objectives

The New Forest Remembers project has been established in order to address the current lack of understanding of the potential of the World War II structures and features in and around the New Forest National Park. The project also aims to improve the current lack of available interpretation, displays and information for the public and the need to inform appropriate responses to the management of the surviving information and remains.

1.2.1 Phase One Aims and Objectives

The data collection phase (phase 1) will:

- Provide enhanced archaeological records for the New Forest and the National Park, which will enable improved curatorial responses to strategic planning

and land management initiatives at a local and regional level and will provide a factual basis for responses to applications, schemes or developments.

- Provide LiDAR and NMP data relevant to all periods of history, which is compatible with the needs of other land managers, industry, researchers, the public, schools and education groups.

- Develop an overview of the range of surviving World War II features. This data is relevant for management and research, but also importantly for public interpretation and display.

- Provide an assessment of the degree and nature of threat to the identified historic assets with regard to current land management requirements such as Higher Level Stewardship Schemes (HLS), public access, the Forest Design Plan and the emerging Open Forest Design Plan (Forestry Commission) and similar land management planning documents.

- Provide a sound basis for developing management and research priorities in respect of World War II sites and to define areas of high potential with different levels of importance and under different levels of threat, based on:

    - The identification of areas or sites meriting further survey or evaluation;

    - The identification of areas or sites requiring positive management action;

    - The identification of significant historic World War II assets meriting consideration for protection by means of statutory designation (listing or scheduling);

    - The identification of areas where heritage assets may be at high risk of damage or destruction;

    - The establishment of future research priorities for the resource.

2 Methodology

2.1 Approach

MA Ltd is a Registered Organisation with the Institute for Archaeologists (IfA). MA Ltd conducts all projects and negotiations in accordance with the guidance and principles established in the IfA's *Code of Conduct* (2010) and *Code of approved practice for the regulation of contractual arrangements in archaeology* (2008). This project has been formulated according to the approach and best-practice contained in IfA *Standard and Guidance for historic environment desk-based assessment* (2011).

2.2 Sources

Primary data sources were reviewed to produce the project database of sites, features and areas of high potential that relate to a 12 year historical window: AD 1935 – 1947. These results were further analysed in order to identify areas to be investigated during phase 2 of the project.

As the majority of work was terrestrial or potentially within the intertidal zone it was suggested that the OSGB 36 datum is used for horizontal and vertical positioning. Where data received from the marine zone is recorded in WGS84 datum, as part of the desk based assessment, this will be transformed on the fly using ArcGIS inbuilt functionality. Where possible, the conversion of data between coordinate systems was minimised.

2.2.1 Archaeological Databases Consulted

The study area outlined above served to define the areas that were used to conduct searches for archaeological data. The following primary sources were consulted for information and data relating to the proposed development area. The nature of data held by these sources and its relevance to the present assessment is summarised in **Table 1**.

Table 1 – Records received from existing data sets.

Data set	Date assessed	Format received	Records
National Record of the Historic Environment (NRHE)	May 2012	GIS .shp file	77 records related to study area and period
Hampshire Archaeological & Historic Buildings Record (AHBR)	September 2012	PDF document	310 records related to study area and period. 81 records not duplicated by other databases
Wiltshire Historic Environment Record (Wiltshire HER)	May 2012	Excel Spreadsheet	No record related to study area and period
Dorset Historic Environment Record (Dorset HER)	May 2012	GIS .shp file	122 records related to study area and period
Portable Antiquities Scheme Database (PAS)	April 2012	Online database	No records related to study area and period
Defence of Britain Database (DoB)	March 2012	Online database	49 records related to study area and period not duplicated in other databases
National Heritage List for England (NHLE)	May 2012	Online Database	1 record related to study area and period not duplicated in other databases

All records were cross-referenced to ensure duplication was eliminated. Where multiple entries exist they were interrogated for maximum information. All records were compiled into the project database. All original source reference numbers were maintained with each record for ease of re-integration of data.

The Hampshire AHBR contained data drawn from the Defence of Britain Database, the Cadland Estate Woodland Survey, and 'Ashley Walk, its bombing range, landscape and history' (see **Section 2.2.5**). These resources were cross referenced to ensure their accuracy and coverage. Several other reports were also listed as sources and were consulted for further information where applicable (see **Section 2.2.5**).

2.2.2 LiDAR Data and National Mapping Programme

One of the most important and substantial data sets available to facilitate this desk based assessment was LiDAR and National Mapping Programme (NMP) data, which

has been collected by the National Park Authority before and during the early phases of the project.

The project area has complete LiDAR coverage through two datasets; one captured in 2011 by the University of Cambridge covers the Crown Land areas in the centre of the New Forest and another survey in early 2012 by Geomatics covered the extreme western, eastern and southern parts of the New Forest. These datasets were interpreted archaeologically through the National Mapping Programme (NMP). In the Crown Land areas, data was gathered throughout 2012. This data along with previously captured NMP data for zones within the project area was then made available for the assessment and analysis aspect of this desk based assessment. The breakdown of areas for which NMP data was collected is shown in **Figure 3**.The NMP datasets made available are shown in

Figure 3 – Breakdown of areas for which NMP data has been gathered. Contains Ordnance Survey data © Crown copyright and database right 2013.

Table 2**.**

MA Ltd did not review or analyse LiDAR data directly (as these were acquired as a separate piece of tendered work), but worked with the interpreted results of the surveys. As such, MA Ltd received the interpreted results in a format that was easily integrated within an ESRI ArcGIS platform.

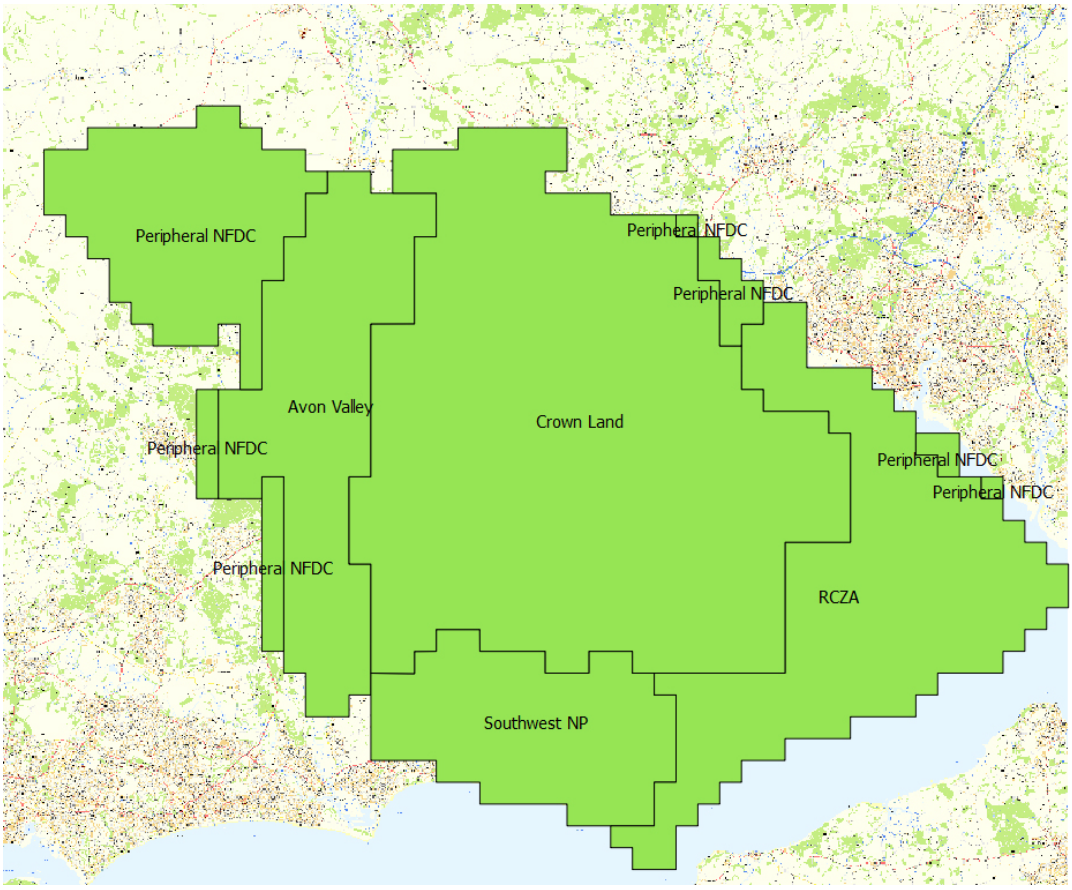


Figure 3 – Breakdown of areas for which NMP data has been gathered. Contains Ordnance Survey data © Crown copyright and database right 2013.

Table 2 - NMP Datasets used in the Desk Based Assessment

Dataset	Date made available
Hampshire Assessment of Archaeological Resource: Avon Valley	February 2012
Hampshire Assessment of Archaeological Resource: New Forest Coastal Plain	February 2012
New Forest and North West Solent Coastal Plain (incorporated into the Rapid Coastal Zone Assessment)	February 2012
New Forest Remembers: Untold Stories of World War II	April – November 2012

2.2.3 Maps and Charts

Reviews of historic maps (such as the Ordnance Survey County Series) was undertaken in the NMP. In agreement with the NFNPA, MA Ltd would undertake an additional review of a maximum of two sets of maps if they became available.

Two sets of maps were identified that would complement the NMP data. The first set comprised of RAF site maps of ten of the twelve airfields within the study area (Beaulieu, Bisterne, Calshot, Christchurch, Holmsley South, Hurn, Ibsley, Lymington, Needs Oar and Stoney Cross), obtained from the RAF Museum in London. The second was a 1943 New Forest Training Area Map provided by Richard Reeves at the New Forest Centre that identified various ranges and firing areas.

Maps provided as hard copies were digitised, generating a raster image, which was then georeferenced within GIS. This enabled the incorporation of these maps within the project GIS platform.

The level of analysis of historic map and chart data included:

- Digitisation/georeferencing in GIS of selected maps;
- Assessment of accuracy and version (a number of maps are often copies of previous surveys);
- Location of any features, sites or anomalies of World War II potential that have left physical evidence.

2.2.4 Aerial Photographs

The review of aerial photographs concentrated on collections which have not been used to inform the NMP. This included the following collections listed in **Table 3.** Initial work to determine potential access to these has been identified where possible.

After discussions with the NFNPA it was agreed that information about any collections of aerial photographs identified by the project would be passed straight to the National Park Authority so that they could obtain the images themselves and consider the viability of creating an extensive layer of imagery to serve as an extra data source.

Table 3 – Known sources of aerial photography relevant to study area and period.

Source	Notes	Work Undertaken
Forestry Commission	Known to have access to Luftwaffe Images of New Forest area.	Large number of Luftwaffe and RAF photographs obtained (but not complete coverage) and scanned to a high resolution by the NFNPA.
Imperial War Museum	The IWM hold many un-digitised photographs which are only searchable by visiting.	Luftwaffe images acquired by the NFNPA, but not complete coverage.
British Library		Availability checked through http://www.envirocheck.co.uk. No images of study period available.
Channel Coastal Observatory	Known to hold extensive aerial photographic collection related to the coast including digitised historic images (NRHE).	Online review of collection revealed no wartime photography.
National Archives & Records Administration (U.S.)	Believed to hold original and entire collection of New Forest Luftwaffe imagery.	Initial enquiries have suggested that they do not hold complete coverage. Requires visit in person (abroad).
Private Collections Several estates within the New Forest are known to keep aerial images in their collections. These include:	Pylewell Estate	No response to requests.
	Hampshire Fire Services Archive	No response to requests.
	Solent Sky	No aerial photographs in collection.
	Beaulieu Estate / Beaulieu Enterprise	Oblique photography obtained by NFNPA.

2.2.5 Research Results, Grey Literature and Publications

Other sources were used to identify sites and features of interest and to enable the World War II remains to be analysed in their full context. The primary documents reviewed for specific sites are listed in **Table 4**. Further sources referred to throughout the project are also listed in **Section 6**.

Table 4 – Grey literature and publication reviewed.

Document Name	Author	Type of document	Type of site	Document Obtained
A Recording Survey in the Woodland on the Cadland Estate, Fawley, Hampshire	Berkshire Archaeological Services	Report	Cadland Estate	MA Ltd. Library
Air Raid Shelter, Old School House	Terrain Archaeology	Building Recording	Air raid shelter	Loaned by NFNPA Feb 2012
Ashley Walk	Pasmore & Parker	Book	Test range	Project Officer's library
Ashley Walk Trials	War Office	Report	Test range	Loaned by NFNPA June 2012
BBC 'The People's War' (online)	Various	Personal Testimony		www.bbc.co.uk/history/ww2peopleswar/
CSRD Experimental Station, Millersford	War Office	Report	Test range	Loaned by NFNPA June 2012
D-Day at Lepe	Hampshire County Council	Pamphlet	Coastal site	Project Officer's library. Most content available at: www3.hants.gov.uk/countryside/lepe/lepe-history/d-day-lepe.htm
Defence Areas Project	CBA	Report	Anti-invasion defence	http://archaeologydataservice.ac.uk/archives/view/defended_cba_2005/downloads.cfm
Dorset Airfields in the Second World War	Graham Smith	Book	Airfields	Project Officer's library
Hampshire Aggregate Resource Assessment: Aerial Photography Enhancement	Cornwall Council	Report	Coast	www.english-heritage.org.uk/content/publications/publicationsNew/rczas-reports/hampshire-aggregate-resource-assessment-nmp/NF_NMP_Report_Final_2010.pdf
Hampshire Airfields in the Second World War	Robin Brooks	Book	Airfields	Project Officer's library
Lymington Harbour Protection Project	Wessex Archaeology	Walkover Survey	Coast	Loaned by NFNPA Feb 2012

Document Name	Author	Type of document	Type of site	Document Obtained
New Forest Explosives	Anthoney Pasmore (ed)	Booklet	Test range	Loaned by NFNPA June 2012
New Forest Rapid Coastal Zone Archaeological Assessment (RCZA).	Wessex Archaeology	Report	Coast	www.newforestnpa.gov.uk/downloads/file/270/coastal_heritage_project_final_report
The Holmsley Story	Leslie R White	Book	Airfield	Project Officer's library
The New Forest at War	John Leete	Book	General	Project Officer's library
UK Airfields of the Ninth: Then & Now	Roger Freeman	Book	Airfields	Project Officer's library

2.2.6 Museums and Collections

Further artefacts and information were held within Museums and Collections. Each of the following were contacted via email and/or phone to review collections. Additional internet research was undertaken if data is available online.

Table 5 - Museums and archives contacted and researched.

Museums and Collections	Assessment
Beaulieu Archive	Have provided oral history tapes for digitization and documents for scanning by NFNPA volunteers.
Daily Echo	Archives investigated by NFNPA volunteer.
Fordingbridge Museum	
Ringwood Town and Country Museum	
Red House Museum, Christchurch	Have some information related to RAF Sopley.
Ringwood Meeting House	Information regarding Auxiliary Units provided.
Salisbury and South Wiltshire Museum collections and archives	No collections related to study area and period.

Museums and Collections	Assessment
Solent Sky Museum	Visit made to assess archive. Several collections of draft texts related to New Forest airfields researched.
St Barbe Museum, Lymington	Numerous collections and artefacts related to study period in local area.
The D-Day Museum, Portsmouth	Visit made, new records related to American camps incorporated into database. Charts of Solent Berthing Plan offered.
The Imperial War Museum	Images obtained by NFNPA.
The New Forest Centre	Project partners. Have provided access to their archives, maps and images.
The New Milton & Lymington Times archive	Directed to microfiche collection at Lymington Library. Details passed to NFNPA.
Wessex Film and Sound Archive (HRO)	Limited resources. Details passed to NFNPA.
National Newspapers (online collections)	Came to light after phase 1 and will be investigated by NFNPA.

2.2.7 Assessment of War Diaries

The review of relevant information from unit war diaries and other military documents was undertaken by MA Ltd and the NFNPA nominated subcontractor Richard Reeves. Richard Reeves was commissioned to gather copies of the relevant material from the National Archives and much of the analysis was carried out by MA Ltd. Richard Reeves also undertook reviews of other material from the National Archives, including relevant information held by the Local Planning or Building Control Authority's and any Ministry of Housing and similar government files from the wartime period relevant to this study.

War diaries were assessed by the MA Ltd Project Officer, who recorded references to sites within the study area where a named location or a grid reference was given. Relevant information on the site (e.g. type, units in occupation, period of use and a short description) were recorded, as were any notable events that were identified. During World War II, Britain's Armed Forces used a mapping system known as the British Modified Military (Cassini) Grid. The six figure grid references used in the war diaries were therefore totally different to modern OSGB 36 and needed to be converted in order to incorporate them into the project database. Using a formula developed by the Royal Engineers' Mapping and Charting Establishment, these six figure grid references were converted to Eastings and Northings with an accuracy

level of + or – 200 metres (Penny, 2000). The war diary records could therefore be plotted with a reasonable level of accuracy – although they are only as accurate as the grid reference supplied in the war diary itself.

In total, 595 locations were identified in the war diaries that were researched before this desk based assessment was produced. Their locations are shown in **Figure 4**. Where possible these locations have been attached to existing monument records. Where no suitable record exists, locations have been classed as research records in the project database.

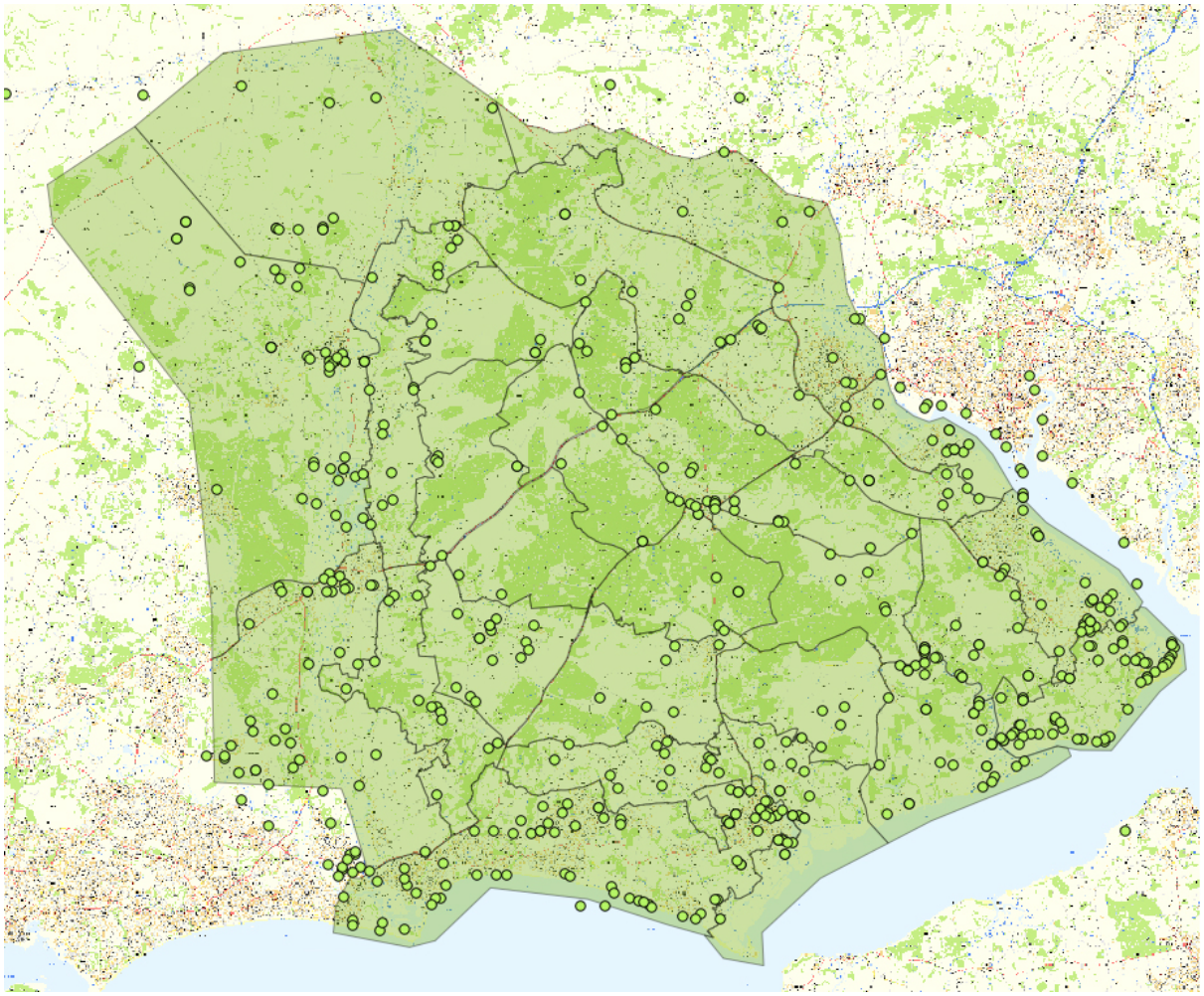


Figure 4 – Map of locations plotted from war diary research. Contains Ordnance Survey data © Crown copyright and database right 2013.

2.2.8 Assessment of Oral History Archives and Documents

After discussions with the NFNPA, MA Ltd was not responsible for this element of the project. However, on-going communication was maintained between MA Ltd and

the NFNPA to ensure an inclusive outcome as part of the proposed desk based assessment.

2.2.9 Contact with Individuals, Groups and Societies

During the project a range of organisations, societies and individuals with local knowledge of World War II were contacted, in agreement with the NFNPA. Where possible, individuals were contacted by email or by phone. If needed, a meeting was arranged. Contributions are summarised in Error! Reference source not found..

MA Ltd set up an online response form that would allow those with internet access to send information in a format directly compatible with the database. This was achieved using SurveyMonkey online software and a set of questions directly related to the fields of the database (see www.surveymonkey.com/s/2HLJBCD). Alternatively, groups were offered the opportunity to supply information directly to the project officer by email or, if more convenient, as hard copy. Information gained was used to inform the desk based assessment through the addition of any new sites or features, or pertinent information regarding existing sites, to the database.

In total 67 individual records were uploaded via the SurveyMonkey online submission form and were added to the database as appropriate. After discussions with the NFNPA it was agreed to keep the submission form available for use until the close of the project.

Table 6 – Details of organisations, societies and individuals' contributions

Organisation / Society / Individual	Contribution
Avon Valley Archaeological Society	
Beaulieu History Society	Are undertaking oral history training and interviews.
Christchurch History Society	Provided information on sites by email.
Fordingbridge Historical Society	
Friends of Hurst Castle	Contributed personal records and letters.
Friends of New Forest Airfields (FONFA)	Identified 61 sites using SurveyMonkey.
Friends of St. Barbe Musuem	
Hampshire & Isle of Wight Wildlife Trust	Information about survey work in Roydon woods

Organisation / Society / Individual	Contribution
Hampshire Field Club and Archaeological Society	
Hampshire Field Club and Archaeological Society: Archaeology Section.	
Hampshire Fire Service Archives	
Hampshire Industrial Archaeology Society	
Lower Test Valley Archaeological Study Group	Some sites identified by email, also provided a book of sketches of New Forest airfields.
Lymington & District Historical Society	
Minstead Local History Group	
New Forest Association	
New Forest Aviation group	
New Forest Centre (Lyndhurst) volunteers	
RAF Ibsley Airfield Heritage Trust	Provided information by email.
RAF Ibsley Historical Group	Provided information by email.
Southampton City Museum Archaeological Society	
The National Trust	
The New Forest History and Archaeology Group	
Waterside Heritage	
John Leete (author)	Information about military sites.
Henry Cole (local historian)	Information about Ashley Walk bombing range and Ministry of Home Security target.
Roly Errington (local historian)	Information about Ibsley airfield.
Phoebe Merrick	Information about Setley POW camp.

Organisation / Society / Individual	Contribution
Michael Mueller	Donated father's scrapbook from Setley POW Camp.
Edward Crofton	Gave access to father's Home Guard diaries.

2.3 Production of Project Database

The project database underpins all aspects of the project and is established to be able to integrate all relevant data form multiple sources provided in various formats and levels of information into a single repository. The primary aims of the project database design were as follows:

- Assimilation of varied and broad data sources into a single assessment spatially-enabled repository, and;
- Disseminating of collated records back to primary sources for reintegration to enable updates and maintenance of HER/NMR records.

2.3.1 Database Development and GIS

Concordance between the Scheduled Monument Record (SMR) / Historic Environment Records (HER) and the National Record for the Historic Environment (NRHE) was ensured from the beginning of the project. Close and continuous contact was established with the NRHE from the earliest stages of the project. The database is, where possible, compliant with the MIDAS Heritage, and the standard word-lists included in INSCRIPTION are employed. The monument categories are drawn from the English Heritage NMR Defence of Britain Thesaurus, adapted to form a three level hierarchical version (see **Appendix 1**).

To ensure the creation of a central data repository for spatial data storage and management, a PostGIS spatially enabled geodatabase was created to:

- Store a rich collection of spatial data in a centralised location;
- Apply sophisticated rules and relationships to the data;
- Define advanced geospatial relational models. This is applicable when working with the interpreted results of the LiDAR survey data;
- Maintain integrity of spatial data with a consistent, accurate database;
- Work within a multiuser access and editing environment;
- Integrate spatial data with other platforms (e.g. by opening and editing the geodatabase in PostgreSQL, QGIS, ArcGIS);

- Allow easy rebuilding of project GIS from a SQL spatially-enabled database.

Furthermore, the use of geodatabase has enabled the integration of elements such as attribute data, geographic features, satellite and aerial imagery (raster data), CAD data, surface modelling or 3D data, GPS coordinates and survey measurements, amongst others.

The initial data gathering exercise resulted in basic site data (a monument record), derived from NMP, SMR/HER, RCZA data (provide by NFNPA), documentary research by MA Ltd, or through reports as a result of stakeholder engagement. The fields required for this data include:

2.3.1.1 Monument Records

- Unique ID number;
- External ID numbers: existing HER/ NRHE/ UKHO reference numbers and SM numbers;
- Monument name (Site/type);
- Source date;
- Date from (or year);
- Date to (or year);
- Monument category concatenated from three-level hierarchical relationship (using Inscription (MIDAS) values;
    - Class name;
    - Broad term;
    - Narrow term;
- Description;
- Position (British National Grid, easting/northings);
- Copyright;
- Geometry.

2.3.1.2 Research Events (linked to monument records)

- Monument name (creates link to monument table);
- Date identified;
- Military ID;
- Source ID;
- Monument category;

- Date from;
- Date to;
- Position (British National Grid, easting/northings);
- Military grid reference;
- Description;
- Research theme;
- Research category;
- Geometry.

2.3.1.3 Field Survey Events

- Monument name (creates link to monument table);
- Name;
- Site form;
- Period;
- Monument category;
- Description;
- Photo;
- More photos;
- Other media;
- Condition;
- Extant issues;
- Issue level;
- Notes;
- Remarks;
- Position (British National Grid, easting/northings);
- Geometry.

2.3.1.4 Monument Assessment Events

- Aspects:
    - Extent of current records
    - State of survival
    - Fragility/vulnerability (based on an index from low to high)
    - Archaeological potential
    - Significance

2.4 Assessment and Analysis of Sites

The following elements were included within the assessment and analysis of the accumulated data.

2.4.1 Risk Assessment

In order to aid prioritising future surveys for phase 2, a risk assessment on World War II sites was undertaken. All archaeological sites and monuments are at risk from a wide range of factors; both natural and human. Up to a certain extent, the degree of risk to individual sites can be predicted or modelled. The *Monuments at Risk Survey* concluded that 'risk can broadly be equated with the concept of 'vulnerability' included in the criteria for the selection of nationally important monuments for scheduling' (Darvill & Fulton 1998: 218). For the purposes of this document, vulnerability is defined as a damaging process either already occurring or likely to occur.

The principal vulnerability or damaging process was identified by using a system adapted from the existing English Heritage Monument Protection Programme system (see www.eng-h.gov.uk/mpp/mppa.htm). Five generic categories were taken into account:

- Natural processes;
- Developments;
- Socio-economic activity;
- Other causes of damage, and;
- Unknown threat.

By using these categories, an assessment of the vulnerability of the World War II historic environment sites and features was obtained through a systematic approach which enabled setting benchmarks for future monitoring of change.

Furthermore, the proposed work provided an assessment of the vulnerability of World War II sites by reference to current heritage protection and policies including the National Planning Policy Framework (NPPF) (2012), the regional research strategy, local plan processes, landscape management plans and strategies, Coastal Management Plans, the Forest Design Plan (2007) and Higher Level Stewardship Environmental Stewardship Handbooks (Natural England, 2013).

An assessment of vulnerability table was developed specifically for the New Forest Remembers – Untold Stories of World War II project, based on English Heritage's condition assessment model for protected wrecks (Dunkley, 2008) and modified to emphasise and reflect World War II built heritage in the New Forest area. This table can be found in **Appendix 2**.

2.4.2 Research Potential

Work identified particular World War II research topics to which future work in the study area can be directed to best effect, where possible data has met the needs identified in the Solent Thames Research Framework, mainly:

Operational structures

- Airfields
- Army buildings
- Maritime structures
- Prisoner of war camps

Military structures

- Early warning systems
- Anti-Aircraft batteries
- Bombing decoys
- Pillboxes
- Operation *Overlord*
- Coastal defences
- Training areas
- Special Forces
- Experimental work
- Building requisition

The Home Front: Civilian structures

- Air raid shelters
- Air Raid Precaution (ARP) centres
- Evacuation camps
- Bomb damage
- Sites of commemoration
- Trade and industry
- Emergency services

2.4.3 Assessment of Significance

To assess the significance of sites and monuments identified in the database, an amended version of the 'Criteria for the assessment of archaeological significance, as set out by Scheduled Monuments, the Department for Culture Media and Sport (DCMS, 2010)' was created. Although originally written for wreck sites, this criterion is applicable to all heritage assets. The same criteria were utilised in the amended version, but the considerations in each criteria were made broader and more relevant to terrestrial sites. Reference was also made to the English Heritage Designation Guide to Military Structures (2011). The amended criteria are reproduced in **Appendix 2**.

2.4.4 Identify Sites for Fieldwork Validation and Survey

After the basic data was formatted, further assessment was required to help determine the level of survey and investigation required for phase 2 of the project for sites already recorded within the historic environment databases or newly identified through the data made available for this desk based assessment.

Prior to the full assessment some sites within the database were discounted if they were known to be unsuitable for survey. These sites would include:

- Those lost through post war quarrying;
- Bomb Craters (unless associated with another monument);
- Those lost through landscape change, coastal erosion;
- Isolated single find spots (although where clusters of these exist; areas will be highlighted as of 'higher potential' for investigation during walk-over surveys).

The database has fields to record this assessment (see **Section 2.3.1**), which include:

- Extent of current records;
- State of survival;
- Fragility/vulnerability (based on an index from low to high);
- Archaeological potential;
- Significance.

The levels of priority for recording as based on **Section 2.5.1** below will then take place.

2.5 Development of Detailed Programme and Policies for Field Survey Phase

On completion of the project database a detailed programme for field survey was developed (See Section 4). MA Ltd maintained a close liaison with the NFNPA and informed the NFNPA project manager of high priority targets when they were identified.

2.5.1 Prioritisation of Survey Areas

Prioritisation of survey areas was recommended as follows:

- Highest priority to be given to those locations that are both at risk from landscape and habitat restoration schemes, planned development and locations identified at greatest risk from natural erosion;
- Previously recorded or reported sites or features;
- Features located by aerial photographic sources;
- Potential sites located through documentary research;
- Potential sites and locations located through existing and readily available memories and oral accounts.

2.5.2 Permission and Access

Permissions for access for survey and verification (ground-truthing) in particular from the Forestry Commission and other major landowners were acquired at this stage to enable the full planning of phase 2 fieldwork. Once these were established a programme was developed around other constraints. The NFNPA provided contact details for landowners where available. Others were sourced by the MA Ltd Project Officer. A detailed list of known landowners for each site identified for further study was provided to the NFNPA separately from this report.

Much of the New Forest Enclosed Landscape has been entered into HLS agreements and thus access for monitoring can potentially take place. Some 45% of the National Park area is managed by the Forestry Commission and routine access can be arranged. Over and above this, a high percentage of the landscape, including private open common areas, belongs to public bodies such as Hampshire County Council (HCC) and the National Trust (NT). Much of the enclosed landscape is managed by large estates to which access may be possible. Outside of the National Park boundary, much of the landscape is occupied by farms. Relatively little of the landscape has been taken over by urban areas, beyond what was already in existence during the study period.

Fieldwork on open areas of commonage and within commercial forestry areas have taken account of:

- Nature conservation designations and considerations;
- Vegetation cover;
- Forestry and other commercial operations such as felling;
- Weather and survey condition.

2.5.3 Develop Survey Methods and Recording for Fieldwork (Phase 2)

MA Ltd made suggestions for developing survey methods based on the principle of an electronic pro-forma approach that is complementary to the project database and is agreed with the NFNPA and the local HER. It is understood that MA Ltd may be able to act as a consultant during phase 2.

2.6 Archiving

Archiving should follow best practice as laid out within:

- Brown, D., 2007, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*. Archaeological Archives Forum.
- IfA, 2009, *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*.

It is understood that the Archaeological Data Service (ADS) will be the body responsible for maintenance of the digital archive. MA Ltd will deliver the project archive to the NFNPA who will then liaise with the ADS.

Written copies of this report will be provided to the NFNPA and to ADS. The relevant Historic Environment Records will also be supplied with GIS files of the data collected.

3 Baseline Review

As set out in the Methodology (**Section 2**), a baseline review was conducted of the available information relating to World War II heritage, either known or potential, located within the study area that was outlined in **Section 1.2**.

The baseline chronology that has been adopted for this review is explained and introduced (**Section 3.1**), prior to a summary of the existing knowledge concerning World War II in the wider region around the study area (**Section 3.2**). This is followed by broad baseline review of the New Forest (**Section 3.3**) and a Crown Land Higher Level Stewardship sub-units detailed review (**Section 0**) of the sources of human World War II activity in the area and the resulting effect that any such activity this may potentially have had on the cultural heritage contained within the study area.

3.1 Baseline Chronology

Owing to the narrow study period (1935-1947) of the project, it was not possible to use a standard chronological sequence normally found in English Heritage or IfA guidance. Accordingly, a chronological sequence of the major phases of World War II in the European theatre was used to structure the assessment of the study period. These periods were drawn from terms and periods regularly used to describe the chronology of the Second World War. It should be noted that texts on the war (e.g. Brayley, The British Army, 1939-1945) often focus on the front line of combat operation; these terms have been amended where appropriate to concentrate on the study area instead. Specifically, the options faced by the Allied army in North West Europe in the autumn of 1944 were of little consequence to the New Forest, nor was the advance into Germany in the Spring 1945. The broad periods thus used are:

- The build-up to war in the late 1930s;
- The Phoney War (September 1939 to April 1940);
- The Fall of France, the Battle of Britain and the Blitz (May 1940 to Spring 1941);
- The Allied build-up in Britain (from 1941 to 1943);
- The Invasion of Europe (1943 to 1945);
- The Pacific War and its impact after the fall of Germany (1945);
- The end of hostilities and the reinstatement of the New Forest (from 1945 to 1950).

3.2 World War II Regional Context

The Second World War (1939-1945) was the largest and most global conflict in history. The effects of the war ranged from the Pacific to the Mediterranean and from the deserts of North Africa to the frozen steppe of Mongolia.

Although the most severe fighting took place on the Russian Front, the war in Europe is the most recorded and well known aspect of the conflict. Large scale battles took place in the early part of the war in France, Belgium and the Netherlands and, after mainland Europe fell to Germany in 1940, the English Channel remained the only barrier between German forces and Great Britain.

For a number of years, the south coast of England was the front line of the European theatre. The entire south coast was massively fortified in anticipation of a German invasion. During the Battle of Britain (1940) the coast became an aerial battleground as the German Luftwaffe attempted to gain air supremacy over the Royal Air Force (RAF). As the battle subsided, the Luftwaffe turned to night bombing and maintained the pressure on cities all across the south of England during the 'Blitz'.

Being on the front line saw a new front develop – the home Front. The impact of the war would be felt by the entire population, not just those in service. Families were often broken apart as men were drafted and children were evacuated into the countryside. The Blitz changed whole communities and many families became refugees in their own country. In the countryside, whole estates and houses were requisitioned (in extreme instances whole villages were taken over by the War Office) and many rural industries suffered as men were called away. On the other hand, the introduction of services such as the Women's Timber Corps and the Women's Land Army were able to fill many of these gaps (Brayley & McGregor, 2005:51)

In 1941, direct battle between Britain and Germany moved to the Mediterranean theatre and Britain began to build its military forces. Large swathes of land across the south were used for training and the testing of new weapons and strategies (Wakefield, 1994:25). When the United States became embroiled in the war in late 1941, they followed a strategy of 'Germany First', that is, the European theatre would take precedence over the Pacific War (Buckton, 2006:XII). In spring 1942 the first of many American forces began to arrive in Britain as part of Operation *Bolero*, the build-up towards an invasion of mainland Europe. The south coast became a marshalling yard for British, Commonwealth and American forces (Buckton, 2006:XII). In 1943 a large scale raid on Dieppe was made from south coast ports including Southampton (Ford, 2003:39). This was followed by a massive assault on Normandy in June 1944.

As the battlefront moved inland, the effect of the war slowly started to recede from the south coast, although new German 'V' weapons brought a new Blitz that required improved aerial defence (Burridge,1997:2). The last recorded air raid alert on Southampton was on 5 November 1944 (Bissell, 2001:131). The stream of supplies and replacements from the United States continued to pass through the south coast's ports on their way to Europe. Between D-Day and the end of the war, over 3.5 million personnel passed through Southampton (Peckham, 1994:36).

The impact of the war would continue to be felt for many years after the German capitulation. Troops continued to train for the Pacific War and rationing continued until 1954. Many of the military installations all along the south coast would remain in the hands of the War Office for several years to come and some still survive today.

3.2.1 Summary

In the six year global conflict of World War II, the south coast of England was on the front line of the European Theatre for four years. Places all along the coast not only witnessed, but were often vital to many of the major events of the war and places such as ports and airfields could be touched by events much further away in other theatres. The war saw a massive change in the landscape not only on the coast, where ports were built and defences constructed to repel invasion, but also further inland, where huge swathes of countryside were taken over for training and military build-up, huge estates were requisitioned for military purposes and large areas of farmland acquired for the construction of airfields.

The war had an impact on everyone in both urban and rural areas. Communities, families and industries were radically altered and the impact of the war would remain long after the cessation of hostilities.

3.3 World War II: New Forest Baseline Review

The following sections provide a broad contextual overview of World War II activity in and around the New Forest National Park and of the archaeological site types that may be expected to fall within the study area. This overview will provide to aid in the assessment of the archaeological potential of the Study Area and aid the assessment of significance of any sites contained within it. It should be noted that this overview is only concerned with activity or archaeological remains located within the intertidal and terrestrial zone of the present day.

In general, archaeological remains fall into eight main categories:

1. Defensive Structures, including;
    a. Pillboxes
    b. Anti-tank islands and obstacles

   c. Coastal defences
   d. Minefields, roadblocks etc…
2. Anti-Aircraft, including;
   a. Anti-Aircraft Batteries 1939-43
   b. Anti-Aircraft Batteries, 1944-45 Overlord build-up and anti-diver role
   c. Searchlight Batteries
   d. Decoy sites
3. Training Sites, including;
   a. Rifle Ranges
   b. Battle training areas
   c. Specialist training and conversion units
4. Military Camps and Requisitioned Houses, including;
   a. Permanent camps
   b. Temporary camps
   c. Depots and embarkation areas
5. Airfields, including;
   a. Class A airfields
   b. Advanced Landing Grounds
   c. Flying Boat bases
6. Experimental Sites, including;
   a. Testing Sites
   b. Radar
   c. PLUTO installations
7. Domestic Sites, including;
   a. Air raid shelters
   b. Recreational facilities
8. Damage and Losses, including;
   a. Crash sites
   b. Bomb craters
   c. Sites destroyed by enemy action

3.3.1 The Build-up to War

Although World War II began in 1939, the threat of war had been building in Europe ever since Adolf Hitler rose to power in 1933. Germany's military reoccupation of the Rhur in 1936 and the annexation of Austria in 1938 were sufficient cause for alarm for Britain to increase military spending. The Munich agreement of 1938, ceding areas of the Czechoslovakian Sudetenland to Germany, briefly appeased Hitler, but led many to expect war in the near future and time was well spent on preparing the country's armed forces (Brayley, 2001:3). In March 1939, Britain, France and Poland signed the Anglo-Polish agreement, formalising the intent to protect the rest of Europe from German expansion.

In the New Forest, the first signs of military preparedness began in January 1939, when the Verderers Court approved the construction of Anti-Aircraft (AA) batteries across the Crown Lands (Pasmore, 1977:162). These were most likely the Heavy Anti-Aircraft batteries built to defend Southampton and Southampton Water at Houndsdown (**MA1362**), Marchwood (**MA1364**),Yew Tree Heath (**MA0071**), Holbury (**MA1288**) and Haxland (**MA1361**). All five of these sites were already occupied when war was declared in September. In March, the court approved several applications for military manoeuvres to be held on the Crown Lands (Leete, 2004:6). Territorial Army camps were held in the New Forest each year, but in 1939, these were on a much larger scale. Up to 30,000 men were due to camp around Burley, Beaulieu and East Boldre during the summer (Leete, 2004:8).

Nationwide preparations for the outbreak of war also impacted on the New Forest. March saw the introduction of Air Raid Precautions and ARP Wardens were recruited and trained for duties in the New Forest. The entire district fell under the jurisdiction of one of seven areas in Hampshire under the command of an ARP controller. Volunteers included wardens, despatch riders and runners. A large scale exercise simulating a bombing raid was held in June, and a trial blackout was held in August. The New Forest was also earmarked as a location for evacuees from neighbouring cities and towns, including Southampton and Portsmouth. In 1939, the New Forest District was prepared for 5,814 evacuees (Leete, 2004:18).

3.3.2 The Phoney War

After Germany invaded Poland on September 1st, 1939, Britain declared war on Germany on September 3rd. Despite this official declaration, hostilities between the two countries were limited to brief border incidents in Europe or naval actions in the Atlantic. Until April 1940 there would be little direct combat, and Britain settled into a 'Phoney War' instead.

The first evacuation of Southampton and Portsmouth actually took place on September 1st and 2nd 1939, when 2,300 children moved into accommodation in the New Forest district. At around the same time, 10,000 gas masks were issued in the

district. A survey identified ten churches that could be used as mortuaries and space for up to 7,800 bodies in mass graves in cemeteries (Leete, 2004:20).

A blackout came into effect and the danger to animals by traffic travelling in near darkness meant that in September 1939, the Verderers began to request that ponies were no longer turned out on the open forest (Pasmore, 1977: 162). In order to confuse enemy spies or parachutists, a nationwide drive to remove place name signs was instigated. This included the removal of street signs, direction signs and town name signs (Leete, 2004:21). Even a small detail, such as the inscription of the town name in the brickwork of a bridge in Milford-on-Sea, was removed (Christopher Hobby, pers comm).

In December 1939, land acquisition began. The Air Ministry proposed turning land at Ashley Walk (**MA0085**) into a bombing range for aircraft based at RAF Boscombe Down in Wiltshire. The proposal was considered by the Verderers and the acquisition of 3,800 acres was approved in February 1940, although the range was not fully fenced until July (Parker, 1995:2).

More land was taken over for Anti-Aircraft batteries during this period, particularly Light Anti-Aircraft sites that varied in size from small machine gun pits to larger emplacements for groups of 40 mm Bofors Guns. These sites were usually grouped around sites that had been identified as Vulnerable Positions (VPs), such as Hurn, Lymington, Beaulieu, Fawley and Southampton. Analysis of war diary records of military units based in and around the New Forest in the period 1939-1945 indicates that many of these were occupied in the early months of 1940 (WO 166/2262).

Many buildings around the New Forest were requisitioned for military purposes. Several were taken during the Phoney War, although others would not be taken over until as late as 1944. Early requisitions included Cuffnels House in Lyndhurst and buildings on the Pylewell Estate (Leete, 2004:58). Christchurch airfield was also requisitioned by the War Office and renamed RAF Christchurch (**MA1044**) (Smith 1999:89).

The British government had first introduced limited conscription in June 1939 and expanded it in September to include all fit males between 18 and 41 (Brayley, 2001:15). The drain on men caused the government to request overseas help to cover a forestry workforce shortage. Both the Canadian Forestry Corps (CFC) and the Newfoundland Overseas Forestry Unit (NOFU) were formed to recruit men to serve in Britain (www.forestry.gov). Although primarily based in Scotland, the NOFU operated from camps in Lyndhurst, Brockenhurst and Fritham between 1939 and 1941 (www.mgl.ca).

3.3.3 The Battle of Britain and the Blitz

In April 1940, Germany invaded Denmark and Norway, finally precipitating direct conflict with British forces. A month later German forces swept through the Low Countries and France. The British Expeditionary Force (BEF) became trapped on the coast and was evacuated from Dunkirk in late May and by mid-June France was forced to surrender. When it came, the conflict in Europe was surprisingly swift and the encirclement of the BEF led to an immediate call for privately owned boats to help with the evacuation. The Lymington-Yarmouth paddle steamer *Freshwater* was commandeered to help evacuate troops from the Dunkirk beaches (www.wightlink.co.uk) and five boats were despatched from RAF Calshot (www.southernlife.org.uk).

In preparation for an immediate assault on England, the German Luftwaffe began to attack RAF airfields in an attempt to win air supremacy. As the 'Battle of Britain' developed, however, bombing switched to attacks on cities and industrial areas. In September 1940 the invasion was postponed and the massive daylight air raids of the summer began to be replaced with night bombing attacks across the south that continued throughout the winter.

With the fall of France, only the English Channel stood between Britain and German forces. The Battle of Britain began in earnest in the skies, whilst on the ground below, the army prepared for what appeared to be an inevitable ground assault. Only one airfield was operational during the summer of 1940 – RAF Christchurch – which did not have any active fighter squadrons and was instead used by the Air Ministry Research Establishment (Smith, 1999:89).

Numerous raids overflew the New Forest on their way to targets inland or along the coast. Bomb craters across the Crown Lands date from this period. Bombs also fell on urban areas such as Christchurch (Legg, 1986:50) and Southampton (Bissell, 2001:35).

On the ground, the entire south coast was alert to the dangers of invasion. Hardened defences would be required to resist an enemy amphibious assault and Britain began a process of fortification (Lowry, 2006:108). In the New Forest, this meant the construction of dozens of defensive structures along the shoreline. Concrete pillboxes were constructed along the coast between Christchurch and Milford-on-Sea, along with temporary gun positions, rocket sites, searchlight emplacements and observation stations (WO 166/10967). Anti-Tank blocks (possibly the most plentiful type of anti-invasion defence in existence today (Lowry, 1996:85)) were used at vulnerable gulley's and chines to ensure that vehicles would not be able to manoeuvre off beaches. Remains of such blocks still survive at Barton on Sea. In other coastal areas, busy boating areas were closed. In June the Beaulieu River was

'immobilised' – all pleasure craft had to be made unserviceable and in October a massive log boom was laid across the entrance to the river (Holland, 1985:164).

Further inland, more defensive points were established in order to slow any German advance, giving time for reinforcements to move to the area. These sites were usually centred on major road junctions, bridges or natural features that, if obstructed, would delay German forces. These included anti-tank islands, usually made up of bunkers, roadblocks, trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether. Such anti-tank islands were established at Totton (on the Redbridge Causeway) (**MA0038**), Beaulieu (**MA1436**), Brockenhurst (**MA1432**), Lyndhurst (**MA0036**), Christchurch (**MA1048**), Ringwood (**MA0037**), Fordingbridge (**MA0035**) and Breamore (**MA1446**). The latter four of these made up a greater defence known as the Avon Valley Stop Line (sometimes known as the Ringwood Stop Line (Leete, 2006:58)). This line ran along the River Avon from Christchurch to Salisbury and was meant to bar any crossings of the river whilst simultaneously preventing the Germans using the river as an axis of advance inland. Along its length were various tank traps, roadblocks and small underground army bases (Leete, 2006:58).

At the same time, the army quickly expanded. Most notably in the New Forest, this took the form of the Local Defence Volunteers who were officially formed in May 1940 and renamed the Home Guard in June. Although primarily made up of people unfit for regular service, Home Guard units were formed into platoons, companies and battalions in the same structure as the army. To protect against the possibility of German airborne assault, Home Guard observation posts were built all over the New Forest. Whilst many of these posts were situated in existing buildings, many were scratch built for the purpose (NRHE). Various styles, including steel guard huts and sandbag or brick bunkers are known to survive around the UK, but no extant examples have been recorded in the New Forest.

A further defence against enemy airborne invasion involved depriving them of landing areas for gliders. Large flat and open spaces were plentiful in the New Forest and provided an ideal landing area. Accordingly, anti-landing obstructions were built at Denny Lodge (**MA1087**), Beaulieu Heath (**MA0239**) and around Bratley Plain (**MA0443**). Various installations were used around the country, but aerial photography indicates that in the New Forest, the obstructions took the form of ditches and banks of earth.

As the blitz began to turn to night time attacks, new methods of interception were employed. Using ground based radar stations, Beaufighter and Blenheim aircraft could be guided towards enemy bombers. A mobile Ground Control Intercept (GCI) radar station was established at Sopley in December 1940 (**MA0004**). By 1943 this had become a permanent station with a fixed antenna (Catford, 2000). Nearby at

Sway, an Emergency Landing Ground was built for fighter aircraft that were unable to land at their own bases (**MA0130**).

To further protect the civilian population against enemy air raids, an elaborate network of deception sites were installed across the New Forest, including the construction of Starfish decoy sites. These sites were designed to simulate a city at night, using strategically placed lights and fires. Six such sites were built around Southampton in order to try and mislead German bombers and cause them to drop their bombs on unoccupied countryside instead of the city. Two such sites, SF17A at Longdown (**MA0319**) and SF17B (**MA1288**) at Denny Lodge, were built in January 1941 (Dobinson, 2000: 145).

3.3.4 The Allied Build-up in Britain

Although the main theatre of engagement moved to the Mediterranean in 1941, the risk of invasion or at least an enemy assault on the south coast was still high and defences continued to be built all along the coast. At the same time, the increasing number of troops drafted into the forces required more land upon which to train, leading to additional land reclamation in rural areas. When the United States entered the war in late 1941, it pursued a policy of defeating Germany first, and accordingly began a massive build-up of men and materiel in Great Britain. The period from 1941 to 1943 saw marked changes in the New Forest, as airfields, ports, decoy sites, test establishments and training areas opened up across the area.

In early 1941 a new range of approximately 650 acres was opened at Millersford, to the north east of Ashley Range (**MA1009**). The Armaments Research Department was engaged in the testing of static bombs and explosives and would remain in use until well after the war. By 1943 there would be numerous other ranges all over the New Forest, varying from small rifle ranges to large open areas used for tank manoeuvres, mortar fire and infantry training. The three largest ranges were at Longmans Bottom, Beaulieu Heath at Dibden Purlieu and at Acres Down. At White Moor east of Lyndhurst there was a large training range suitable for heavy weapons fire (such as mortars and anti-tank guns) (**MA0475**). Rifle ranges were dotted all around the New Forest. On the coast, Lepe is known to have been used for amphibious assault training, possibly to practice lessons learnt in the 1942 Dieppe Raid (ADM 202/69), and Marchwood was used by the Parachute Regiment to practice embarking on landing craft before the 1942 Bruneval Raid (Millar: 1975:154).

New Airfields were constructed across the New Forest in 1941 and 1942. Hurn (**MA1442**) and Ibsley (**MA1097**), both completed in 1941, were initially intended as Fighter Command stations, although both would see varied use throughout the coming years. Holmsley South (**MA0111**), Beaulieu (**MA0234**) and Stoney Cross (**MA0628**), were all completed as Class A airfields in 1942, designed to provide safe

take-off and landing facilities for every type of Allied aircraft then available or in development. All three would host a variety of aircraft from both the RAF and the USAAF during the war (Freeman, 1994:217-243).

New Heavy Anti-Aircraft positions were also established along the Solent in this period – at Bunkers Hill (**MA0064**), Sowley (**MA1360**) and Lymington (**MA0067**, **MA0134** and **MA1305**).

Military shipbuilding returned to some areas for the first time in many years. In 1941, Marchwood was used to build wooden minesweepers that were then taken to Bailey's Hard on the Beaulieu River for fitting out (**MA1450**). Bailey's Hard also constructed barges for military service and Clobb Copse (**MA1359**) was made ready to be used as a top secret building site for an experimental concrete dry dock and components of Mulberry Harbour (Holland, 1984:170).

Decoy sites of a similar type to the Starfish sites (built in 1940) were also constructed to deflect enemy attention from these new facilities. Q type decoy sites were designed to represent an airfield at night and thus direct enemy attention away from real airfields (Lowry, 1996:64). Ibsley and Hurn airfields had a number of Q type decoy sites around them, at Ashley Walk (**MA1156**), Ridley Plain (**MA0046**) and Verwood (**MA0047**). A number of other decoy sites were also established around the New Forest in this period. The 1943 Operation *Cockade*, an attempt to divert German attention towards the south coast and away from the Mediterranean and Russian theatres, had several elements. Operation *Harlequin*, an amphibious training exercise designed to appear as an invasion of France, involved the deployment of temporary Light Anti-Aircraft (LAA) battery gun sites along the south of the New Forest (WO 166/11254). Operation *Starkey,* which primarily involved heavy bombing missions across Northern France to suggest an invasion, necessitated the construction of 'Assault' QL decoy sites to represent the camps of invasion forces (**MA0057**, **MA1039**, **MA0059**). In long term preparation for the real invasion of Europe a number of naval decoy sites were built in the New Forest, in order to divert enemy attention away from Portsmouth. These QL (Quartz Light) sites were designed to mimic ports and hards at night, thus causing enemy bombers to target what were in fact empty fields. Such sites were built at East Boldre (**MA0231**), Lymington (**MA1370**), Sowley Pond (**MA1369**) and at Hythe (**MA1368**).

On Beaulieu estate, eleven houses were requisitioned in 1941 and 1942 for the training of secret agents of Britain's Special Operations Executive (SOE) (**MA1455** – **MA1465**). The houses, spread along the Beaulieu River and in the woods in the north of the estate were used for a variety of different purposes, such as communications and living off the land. Others were used for agents of specific nationalities. Inchmery House was used by Free French forces and later on as part of the SOE school based in Beaulieu (Cunningham, 1994:22).

At Pylewell, the country's first Battle School was established but shortly after, moved to the School of Infantry in Winchester. The estate remained in the hands of the military however, and it was later used as part of the Advanced Landing Ground at Lymington (Leete, 2004:59-63).

Exbury House (**MA0141**), along with Gilbury House (**MA1454**) and the Montagu Arms Hotel (**MA1453**), were requisitioned by the Royal Navy in May 1942 and became HMS *Mastodon*, a planning centre for amphibious landings. The author Neville Shute is known to have conducted various trials with rocket propelled gliders on the Beaulieu River whilst he was based here. (Cunningham, 1994:43). Much of the planning for the Dieppe Raid in 1942 took place at Mastodon and later it would be used in the run up to D-Day (Cunningham, 1994:10).

The Mediterranean campaign did have some impact on the New Forest, when a Prisoner of War (POW) camp was built at Setley Plain (**MA0240**). Originally home to Italian POWs, the camp would later house German soldiers as well. Although they were enemy forces, many prisoners, particularly the Italians, worked on local farms and in rural businesses. Many would settle in the area permanently after the war (Custodis, 2012:243-265).

3.3.5 The Invasion of Europe

By August 1943, the Allies had decided that the invasion of Europe would take place in the late spring of 1944. With a more precise timetable, preparation and build up became more specific to the invasion area and the most suitable areas of departure. The build-up of forces along the south coast reached its peak in the spring, and the whole south coast became a staging area for troops, aircraft and ships ready to attack France. The Solent, where the ports of Southampton and Portsmouth were offered a degree of protection by the Isle of Wight, was an assembly area for a large proportion of the fleet (Burton, 1984:37).

On June 6th, the Allied liberation of Europe began. Quickly the mass of forces on the south coast began moving over to Normandy and by August, almost all of the forces meant for Operation *Overlord* had departed England. A great number of men and material would still pass through the south coast ports over the following months as reinforcements and supplies arrived from the United States, but many of the temporary installations constructed for the invasion were closed within weeks of it taking place (Brooks, 1996:161).

In a key position alongside the Solent, the New Forest witnessed a huge build-up of troops in the year before Operation *Overlord* commenced. In 1943 and 1944, four new Advanced Landing Ground (ALG) airfields were built, several components of Mulberry Harbour were constructed along the shore and numerous units were encamped in the woodland.

Mulberry Harbour was an immense project that involved floating a prefabricated port over to Normandy as soon as the beaches were secured. The entire port was built on the south coast in hundreds of individual sections that were only brought together for the first time in France (Hartcup,1977:15-27). Dozens of ports, harbours and inlets were used to construct these elements between 1943 and 1944. In the New Forest, both Lepe and the River Beaulieu were used to build components of the harbour. At Stansore Point (**MA1357**), six giant Phoenix concrete caissons were built, whilst Clobb Copse (**MA1359**) saw the construction of numerous Beetles barges, which made up the roadway connecting the caissons to the shore. In March 1944, the concrete dry dock built at Clobb Copse was launched and floated round to Portland, where it was used throughout the war (Holland, 1984:169-171). At Marchwood, a new military port (**MA1351**) was built in November 1943 specifically to assist with Mulberry and to give extra docking space for the ever increasing number of vessels waiting in Southampton Water (Mason, 1987).

Lepe House (**MA1452**) was requisitioned in September 1943 and became the headquarters of the Force J Assault Group. Force J was responsible for the Juno designated landing area in Normandy and was primarily made up of Canadian Forces. HMS *Mastodon* was merged into the same HQ and became the control point for all landing craft involved in the Juno area during the invasion (Cunningham, 1994:28). The Beaulieu River became a marshalling point for hundreds of landing craft and the estate was expanded and barracks accommodation capable of housing more than 300 administrative staff, a cinema and a sick bay were built south-east of Exbury House (Cunningham, 1994:29).

As part of Mastodon's operations, more coastal settlements were requisitioned. In November 1943, all of the buildings at Bucklers Hard were taken over for use as a Landing Craft maintenance base and as a Motor Torpedo Boat (MTB) base (**MA1440**). The Admiralty built a new slipway and updated the hards. The site was also used for the construction of dummy landing craft that were made of scaffolding and canvas and floated on oil drums. These were taken to East Anglia as part of Operation *Fortitude* (Holland, 1984:171).

The highly experimental PLUTO (PipeLine Under the Ocean) was also laid across part of the New Forest. Storage tanks on Badminston Common (**MA1217**) were connected to a pump house that fed pipes laid directly to Lepe (**MA0020**). From here the pipeline crossed over to Thorness on the Isle of Wight, then overland to Shanklin (Slee, 2013). Eventually the pipeline would be used to pump oil directly across the Channel to Cherbourg.

Air superiority was an important aspect of the Normandy Campaign. For several years fighter sweeps had paralysed the Luftwaffe on the ground, whilst bombing raids disrupted aircraft manufacturing. This superiority allowed the Allies to deploy

fighter and ground attack cover across Normandy during the invasion. These aircraft were based on Advanced Landing Ground (ALG) airfields on the south coast that would allow them fast access to the front line in France. Four such airfields were built in the New Forest, at Lymington (**MA1316**), Winkton (**MA0140**), Bisterne (**MA0007**) and Needs Oar (**MA1331**). All four of these airfields hosted fighter bomber squadrons who, as soon as space was made available, were moved to similar airfields constructed in Normandy. The New Forest ALGs were not re-occupied and all four were vacant by the autumn of 1944 (Brooks, 1996).

Inland, the New Forest was turned into a massive storage and encampment area for men and supplies. Huge tented encampments for men and vehicles were constructed at numerous locations all around the area. These included British, Canadian and American forces, examples of which were at Mogshade (**MA0453**) and possibly at Millyford (**MA0531**). Supply camps were built at Beaulieu Station (**MA0314**), Balmer Lawn (**MA0245**) and Wootton Bridge (**MA0252**). As well as the construction of these camps the whole area around them needed to be adapted for military purposes. Bridge heights were deliberately increased, often by digging out the lower road to increase clearance. Many forest roads were widened and reinforced to cope with the extra weight of military vehicles and a one way system was put in place on many major roads. Others were closed to civilian traffic all together. Examples of widened roads can still be found at Pilley (**MA1451**) and Lepe.

The actual embarkation of troops onto ships for the invasion was mainly handled at ports, but troops did embark at Marchwood and Lepe, where special hard standing was laid to allow landing craft to beach on the shore safely (**MA1366**, **MA0026**). Temporary wharves and pier heads were also built so that vehicles could drive directly onto larger ships.

Not all land acquisition was made for military purposes. In 1941, the War Agricultural Committee drew up plans to reseed large areas of grazing land to improve the quality of the grass. Although not particularly successful, this was followed by the decision to cultivate large areas of open grazing land in 1944, so that crops and vegetables could be grown (Pasmore, 1977:167).

3.3.6 Victory in Europe and the Pacific War

As the Allies swept further into Europe, Germany launched a new offensive against Britain. The V-Weapon campaign saw 9,251 V1 flying bombs (Calder,1971: 647) and 1,403 V2 bombs (www.astronautix.com) were fired at Britain during the closing stages of the war. The vast majority were destined for London, but V1 bombs reached as far as Southampton (Bissell, 2001:131). In response, a massive operation, codenamed *Diver*, saw AA batteries deployed in lengthy lines in the south east and along the south coast of England (Lowry, 1996:61). At least three ‘Diver batteries’ are believed to have been constructed in the study area, outside Lyndhurst

(**MA0478**) and at Beaulieu (**MA0248** and **MA0249**), but there may have been others that have not yet come to light.

The advance through Europe required a constant supply of men and materiel, which was despatched from the south coast's ports through 1944 and 1945. In October 1944, Southampton held a special ceremony when the millionth American soldier to pass through the port embarked on a ship for France (Peckham, 1994:48). At the same time, POWs were brought back to England through the same docks. Many Germans would find themselves at POW camps such as Setley.

Whilst the war in Europe was drawing to an end, Allied forces were in training for operations in the Pacific theatre. The Royal Navy ran the Eastern Warfare School from Careys Manor in Brockenhurst (**MA1433**), and men were trained in jungle fighting techniques in woodland nearby – possibly in Royden Woods (**MA1435**).

3.3.7 The End of Hostilities and the Reinstatement of the Forest

The war in Europe came to an end in May 1945. In August hostilities in the Pacific also came to an end and peace was formally announced in September. The end of the war necessitated a shrinking of Britain's Armed Forces; airfields were closed, defence sites were removed and vast areas of land commandeered by the war office began to be returned. Demobilisation of Britain's 5 million strong army, navy and air force began in June 1945 and by the end of 1946, over 4 million servicemen and women had returned to civilian life (Allport, 2009:43).

In the New Forest, peace had descended almost immediately the war in Europe ended, but the reinstatement of the Crown Lands was a long process. Military activities had left airfields, slit trenches, AA batteries dotted all over the open forest. Additionally many bridges had been removed and the numerous ranges were still littered with live explosives (Pasmore, 1977:176). Initially the War Department hoped to maintain many of the training areas and establishments on the forest and even applied for an additional 5000 acres of training land in 1948 (Pasmore, 1977:177). This was withdrawn and many of the larger sites began to be reinstated in the five years after the war. Ashley Range was made safe in 1948 and Millersford was closed in approximately 1949 (Pasmore, 1977:177). The removal of many of the AA batteries around the area had begun as early as August 1944, and in the spring and summer of 1945, almost all of the remaining batteries were removed (WO 166/16686). However, a number of the larger Heavy AA positions were kept and re-designated for use as Anti-Missile defences during the early stages of the Cold War (Dobinson, 1996:459). It is likely that these batteries remained in use until 1959, when AA guns nationwide were replaced by guided missiles (Lowry, 1996:131).

Many military camps and facilities would remain in the New Forest for much longer. Although most of the Advanced Landing Grounds had ceased to be used as early as

the summer of 1944, and were usually reinstated in 1945, some of the larger airfields saw use for many years to come. Beaulieu remained an active military airfield until 1950 and in 1953 it was upgraded in expectation of reactivation. It was not closed until 1955 and the land not relinquished until 1959 (Freeman, 1994:218-219). The Ministry of Aircraft Production took control of Christchurch airfield in 1946 and remained there until 1962. The airfield was closed two years later. (Freeman, 1994:226-227). After the war, Hurn was the main airport for transatlantic flights until 1946, and remains active today as Bournemouth Airport (Smith, 1999:148).

RAF Sopley, the hugely successful radar station, was upgraded to a major installation in 1950, when it became the Sector Operations Centre for Southern England. It was substantially upgraded and continued to operate until 1974. The following year it was taken over by the Army and did not close until the MoD sold the entire site in 1993 (Catford, 2000). Marchwood became a base for 17 Port Training Regiment, Royal Engineers after the war. Today the 17 Port & Maritime Regiment, Royal Logistic Corps is still based at the site and the port handles military stores on a daily basis (Mason, 1987).

Of the many private houses and estates that had been requisitioned, some were returned to their owners sooner than others and some would never be reoccupied. Minstead Manor (**MA1431**) was in such a dilapidated condition after its occupation by the Royal Army Service Corps that it was demolished in 1950 (www.nfdc.gov.uk). HMS *Mastodon* closed in July 1945 but was commissioned as HMS *King Alfred* in January 1946 and as HMS *Hawke* in August 1946. It was not derequisitioned and returned to the Rothschild family until May 1955 (Cunningham, 1994:70-71). Avon Tyrrell (**MA1165**) was never re-occupied by Lord Manners after the war; instead he donated it to the Youth of the Nation in 1949 (www.avontyrrell.org).

Although hostilities had ended, the Ministry of Agriculture maintained a policy of increasing farmland to ease a growing food shortage. More land in the forest was enclosed in 1946 and again in 1948, bring the total amount of farmland created on the open forest since the start of the war to 1,000 acres (Pasmore, 1977:168). An even greater impact on the open forest was the implementation of the 1949 New Forest Act, which saw 2,005 acres of 'Verderers Inclosures' planted with conifers. These inclosures further reduced the open grazing land on the forest and remain on the forest today - examples of them include Longdown and Dibden inclosures (www.newforestexplorersguide.co.uk).

Today the impact of World War II on the New Forest might easily be overlooked. Most structures have been removed from the Crown Lands, leaving only their footprint on the ground. In the entire study area only Marchwood remains as an active military base. However, a great deal of information and many remains have come to light over the course of this project and may to continue to in the future.

3.4 Assessment of Records: Detailed Review Based on Sub-Units

In total, 1362 monuments related to the study period were identified within the entire study area (see **Figure 5**). The total number of each type of record is summarised in **Table 7** and a gazetteer is included in **Appendix 3**. These records were refined to those contained within the proposed sub-units priority one and priority two areas (see **Figure 6**) and are discussed on an individual basis in sections **49** to **3.4.30**.

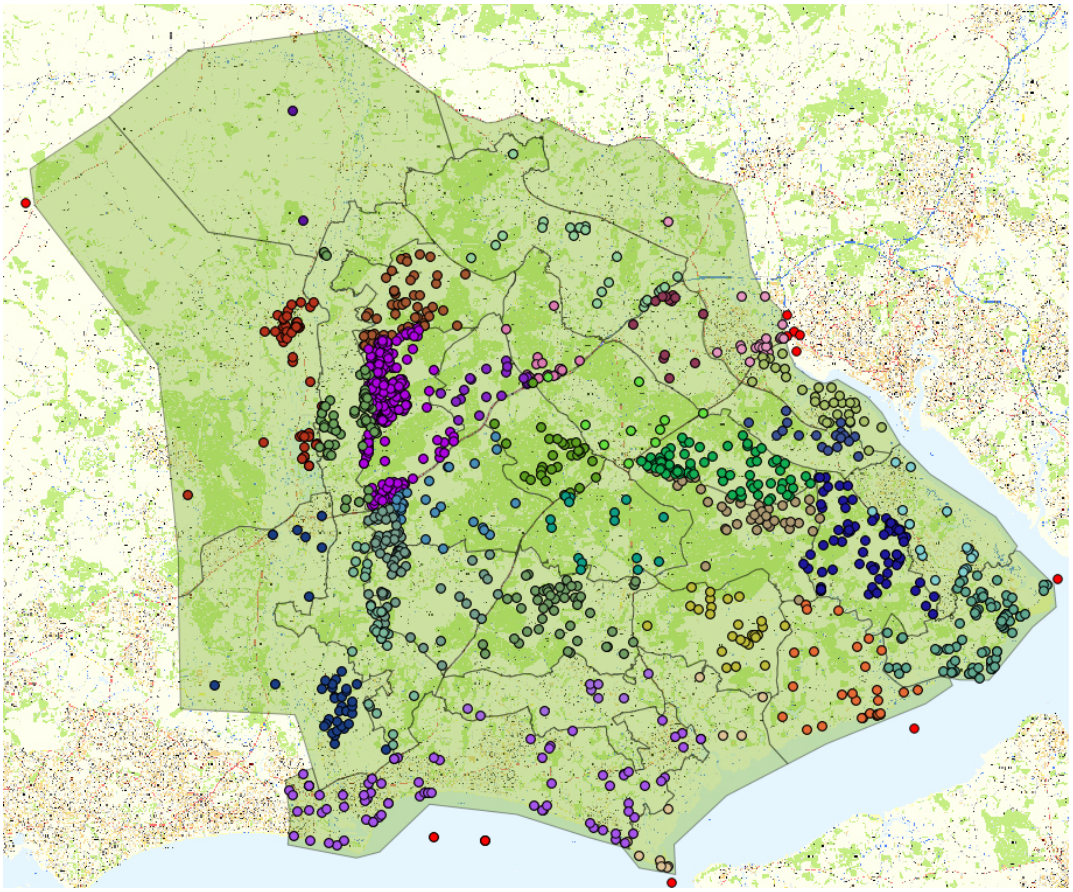


Figure 5 – Individual monuments identified within the 30 sub units. Contains Ordnance Survey data © Crown copyright and database right 2013.

Each record is briefly described and a summary assessment of its archaeological significance is then conducted, where appropriate. This assessment considers the factors set out by the Department for Culture Media and Sport (DCMS, 2010a) as described in **Section 2.4** when assessing archaeological significance and assigns each record a rating of LOW, MEDIUM or HIGH. For convenience, full descriptions of these criteria are included in **Appendix 2**. Aircraft remains have also been the subject of consideration and reference has been made to English Heritage guidance (Military Aircraft Crash Sites, 2002) where necessary.

Table 7- Total number of monuments by category

Research Category	Monuments
Defensive Structures	222
Anti-Aircraft	72
Training Sites	50
Military Camps & Requisitioned Houses	143
Airfields	72
Experimental Sites	51
Domestic Sites	122
Damage & Losses	623

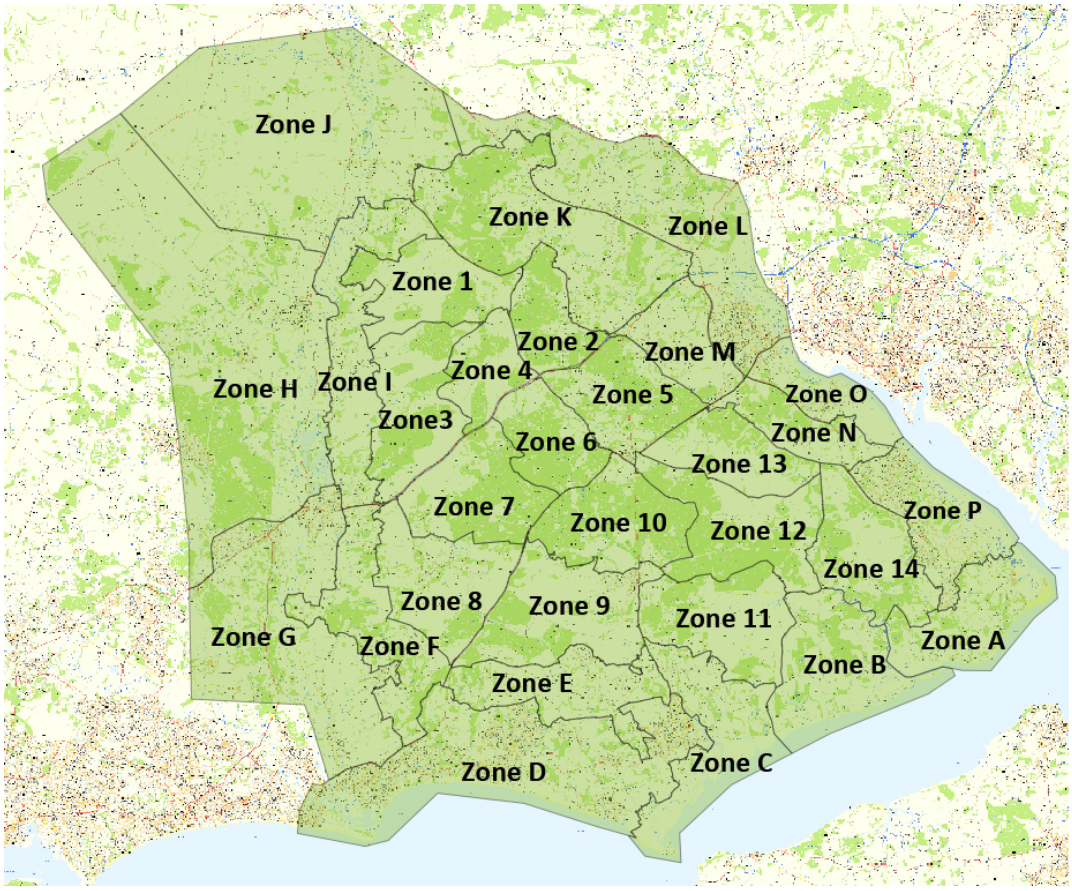


Figure 6 – Sub Units within Study Area. Contains Ordnance Survey data © Crown copyright and database right 2013.

3.4.1 Sub Unit Zone 1

Sub Unit Zone 1 encompasses HLS Zone 1 and the surrounding area and is 22.4km^2. It contains 77 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	2	
	Anti-Aircraft	6	1
	Training Sites	1	
	Military Camps & Requisitioned Houses	4	
	Airfields		
	Experimental Sites	26	12
	Domestic Sites	1	
	Damage & Losses	37	1

Amongst these monuments, the following were considered significant:

ASHLEY WALK RANGE (MA0085)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***Medium***

The government first suggested the compulsory acquisition of land for bombing practice at Ashley Walk in November 1939 and the lease was agreed in February 1940. The range was ready to use by August 1940. Ashley Walk bombing range was used by aircraft flying from the Aeroplane & Armament Experimental Establishment (A&AEE) at RAF Boscombe Down. The range consisted of several different targets (for bombing, ground attack, mock ship targets, aircraft pens and the Ministry of Home Security target) as well as domestic facilities for crew, two small grass airstrips, observation shelters and towers. The range was used extensively throughout the war, creating many bomb craters and even an aircraft crash site. Activities continued until 1946, but the range was not cleared until 1948. The vast majority of targets and facilities were removed, although the Ministry of Home Security target was covered over with an earth mound instead. Some craters were filled, but many were left open. Today one observation shelter remains, as do features associated with several others, and chalk markings cut into the ground (Parker, 2006).

Baseline Archaeological Significance

The NRHE lists 47 World War II bombing ranges in England. Although there were several others established across the entire UK, the range at Ashley Walk is possibly unique in that it was used by the A&AEE and therefore was used predominately to test weapons rather than for training purposes. Although the range covered a large area (approximately 5,000 acres) (Pasmore, 1977), the main targets and construction areas were relatively small scale structures. Many were temporary in nature (for example the air-to ground targets, likely made of scaffolding) and therefore unlikely to leave any traces on the ground. Ground markers cut into the ground and lined with chalk were left after the range closed and many are still visible from the air today. However, many of the markers were laid in concrete and although overgrown, are in better condition. The observation towers and ship target are only indicated by concrete footings that are likely to be very shallow in nature. Owing to the high level of explosives dropped here, there is a possibility of live ordnance surviving in the area. Other more permanent structures, particularly the wall targets and the Ministry of Home Security target may have left more significant remains and are discussed separately below.

Significant Feature: Ministry of Home Security Target (Submarine Pens) (MA0599)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

This large concrete 'bunker' was a test site used by the Ministry of Home Security to investigate the best construction methods for air raid shelters (Cole, 2013). For many years they were mistakenly believed to be a representation of German U-boat pens built on the French coast for the protection of submarine fleets when in harbour. In fact, this target predates the construction of the genuine U-boat pens (Cole, 2013). The target was built in September 1941 and bombed extensively throughout the war. Although several bombs detonated on the target, damage to the structure was largely superficial. Instead of demolishing it when the range was closed, it was easier to cover the structure in earth. Some of the edges of the target's concrete roof are now visible owing to subsidence (Parker, 1995). Although there are records available concerning the damage caused by bombing on the structure, no information has come to light on any attempts to demolish the target before it was covered in earth. It is therefore quite likely that the target is still well preserved under the earth in much the same state as when the range closed. No similar structures are known in the UK.

Significant Feature: Wall Targets (MA1151, MA1150, MA1152)

The wall targets were built to different specifications to test the impact of bombs and ground attack.

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

No. 1 Wall Target was made of two reinforced concrete walls joined by concrete beams. The wall was 40 feet wide and 40 feet high and sat on a large concrete laid area. It was demolished after the war and only a crop mark remains on the ground today.

No. 2 Wall Target was identical to No. 1, but sat on a far larger area of laid concrete with a 100 yard radius. This concrete base was itself surrounded by five chalk circular banks and ditches designed to help establish the range to the target. No. 2 Wall Target was removed after the war and the concrete base was lifted in 1991, but the outline of both the base and the chalk rings survive today.

No.3 Wall Target was 8 feet ten inches high, 6 feet thick and 20 feet long and was used to test both highball and upkeep bouncing bombs. Allegedly it was too difficult to demolish and instead was undermined and collapsed into a trench and survives today as a low mound (Parker, 1995). Fieldwork may be able to confirm if this was the case.

Significant Feature: Range Markings (MA0595, MA0596, MA0597, MA1030, MA1018)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

Various range markings and targets are situated around Ashley Walk, originally used as a navigational aid for pilots as they made their approaches to bombing targets. Such bombing markers are often visible at other bombing ranges (and are often the only surviving features on a range), but there are few examples of such ranges nationwide.

Several of these range markers, made of concrete or marked in chalk, are visible on modern aerial photography. Other markings that are not visible are unlikely to have grassed over (the habitat on Ashley Heath means that the chalk markings will remain), and may be hidden under surface scrub. Further investigation may be able to prove this.

Significant Feature: Shelter (MA1155)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*High*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***HIGH***

The only remaining above-ground shelter on the range is an observation hut at Ashley Cross. This shelter, built of brick with a concrete roof, is open at the rear and equipped with narrow observation slits facing towards the Fragmentation Target range. When it was built, a bricklayer arranged a V for Victory decoration into the brickwork on all three exterior walls (Parker, 1995). The structure is possibly unique, by virtue of being built of brick rather than concrete (generally a preferred material on bombing ranges). However, the brick is imported and not of local type. HLS funded conservation work was carried out on the building in 2012 (Frank Green, pers comm, March 2013).

Significant Feature: Bomb Craters (MA1160)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Ashley Walk contains the densest concentration of bomb craters in the New Forest; over 400 can be identified by historic aerial photography alone (Parker, 1995:28). The craters also come from possibly the widest range of bomb types owing to the nature of weapons testing here. Even the bouncing bombs Upkeep and Highball were dropped here (although owing to their design have left no craters) and one grand slam bomb was dropped near the submarine pens (the only grand slam bomb not dropped on Germany) leaving a crater almost 100m wide (Parker, 1995:20). It was filled in after the war and is now a marshy pond. More craters were filled in around the submarine pens and at Ashley Hole, but the majority survive as ponds and shallow depressions across the range.

AIRFIELD BOMBING DECOY Q161A (MA1156)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*High*
Overall	***MEDIUM***

Bombing Decoy Q161A was a Q type decoy site, designed to represent an airfield at night and was built to direct enemy attention away from Ibsley Airfield. It would have consisted of lighting poles arranged in a pattern similar to an airfield's landing lights, powered by a generator in a small command bunker. The site was probably abandoned in 1942 (Parker, 1995). Confusingly the site is also listed as being handed over to agriculture in 1947, leaving no features (Dobinson, 1996c:98).

Baseline Archaeological Significance

The NRHE records over 217 Q sites in England. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The bunker at Q161A was probably removed at the end of the war, but aerial photographs indicate that trenches for power cabling are visible and exposed, and previous site visits suggest that cabling and sections of concrete are occasionally visible (Parker, 1995). A site visit would firmly establish the full extent of remains.

MILLERSFORD ARMAMENTS RESEARCH CENTRE (MA1009)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

The Armaments Research Department, Millersford, was enclosed in early 1941. The department occupied a near circular area of 650 acres roughly between Deadman Bottom gulley and Millersford Plantation, to the north east of Ashley Range. Between 1941 and its closure in approximately 1949, the centre was engaged in the testing of static bombs and explosives.

The site consisted of two main areas; the administrative area close to the B3080, and the explosives testing area to the west. The administrative area was made up of garages, offices and the bomb store and magazine. The explosives area was made up of a number of pits for detonations, and a number of laboratory buildings, well protected by turf coverings, from which the explosions could be filmed and assessed (Pasmore, 1993:24).

Baseline Archaeological Significance

The removal of the Research Centre site appears to have involved the demolition of the above ground structures and filling in of the holes, pits and craters. The road network was left intact and today makes up part of the Forestry Commission car park. The hard standing bases of the buildings will quite likely remain at the eastern end of the site. In the explosives area, the protected laboratories were apparently bulldozed into heaps and owing to a mistaken belief that they were burial mounds, they were not planted when Millersford plantation was expanded (Pasmore, 1993: 26). This may mean that there are relics of the laboratories inside. There is a very low potential of live explosives in the area, owing to ordered way in which weapons were tested here.

3.4.2 Sub Unit Zone 2

Sub Unit Zone 2 encompasses HLS Zone 2 and the surrounding area and is 14.5km^2. It contains 18 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	7	
	Anti-Aircraft	1	1
	Training Sites	2	
	Military Camps & Requisitioned Houses	1	
	Airfields	5	1
	Experimental Sites		
	Domestic Sites		
	Damage & Losses	2	

Note that certain monuments and features associated with Stoney Cross (**MA0628**) fall into Zone 2, but are described in Zone 4 into which the site predominately falls. However, the sick quarters (**MA0640**), an RAF establishment 700m east of the southern tip of the runway falls entirely within Zone 2 and is described here. Amongst the other monuments in Zone 2, the following were considered significant:

BROOK SEARCHLIGHT POSITION (MA1430)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***LOW***

Searchlight positions were set up across the country throughout the war in order to illuminate enemy aircraft on bombing missions. War diary research has indicated possibly three positions around Brook Common Golf Course (WO 166/2262, WO 166/7375, WO 166/2290). One is listed as in use in 1940, another in 1941 and the third in 1942. It is possible that these all relate to the same site, which was used by different units at different times, and its exact grid reference has simply been misreported in the war diaries. Searchlight emplacements came in many different forms during the war. Some were fully mobile, fitted to the back of trucks with an internal generator. Others may have been in sandbagged emplacements, while some more permanent structures may have had a concrete base and wall along with associated buildings (Lowry, 1996).

Baseline Archaeological Significance

Based on the information currently available, it is not possible to establish whether these searchlight emplacements were one site, or if various different unit's searchlights were installed in different places at different times. A site visit might reveal some features in or around the locations given and establish whether fixed locations were established by the British Army that various different units would make use of during the war.

RAF SICK QUARTERS SITE (MA0640)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

An ancillary site of Stoney Cross airfield, the sick quarters at Castle Malwood/Stoney Cross were built to accommodate ill and injured staff. Such sites were a necessary feature of any military structure, and consisted of wards, a mortuary, an ambulance garage and nursing staff quarters. Located immediately east of this particular sick quarters, the RAF site plan refers to a HF Transmitting Station.

Baseline Archaeological Significance

Stoney Cross airfield was released by the War Ministry in 1948 and largely demolished a few years later. As with many sites around the New Forest, it is possible that this demolition was only surface deep, leaving many platforms and foundations intact. The site of the sick quarters presently lies alongside the A31, which will almost certainly have disrupted the site when it was made into a dual carriageway in the 1960s. The HF station may conceivably have been a particularly tall structure, leaving deep foundations.

3.4.3 Sub Unit Zone 3

Sub Unit Zone 3 encompasses HLS Zone 3 and the surrounding area and is 25.5km^2. It contains 265 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	3	
	Anti-Aircraft	3	2
	Training Sites		
	Military Camps & Requisitioned Houses	1	
	Airfields		
	Experimental Sites	9	
	Domestic Sites	2	1
	Damage & Losses	247	22

Amongst these monuments, the following were considered significant:

BRATLEY PLAIN ANTI-GLIDER OBSTACLES (MA0443)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Medium (presumed)*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***HIGH***

The NMP has identified this site as a decoy airfield, but the only recorded decoy in this area is at Ridley Plain (**MA0046**). It is far more likely that these ditches and banks represent Anti-Glider obstacles. In the wake of the fall of France, German invasion became a real threat to the UK. The German deployment of airborne forces had a profound effect on the outcome of fighting on mainland Europe, and would certainly be used in an invasion on the south coast. To prevent gliders from landing, areas of open land such as fields and heathland were covered with materials that would cause a glider to crash. In some instances, poles were erected into the ground, and even obsolete vehicles were used to create obstructions. In some places, banks of earth were erected to make a flat surface more irregular. This was the case at several other locations in the New Forest, including Beaulieu Heath.

Baseline Archaeological Significance

Aerial photography indicates that these anti-glider defences were made up of long ditches with mounds of earth piled alongside them. They are still visible as crop marks from the air today, but appear to have been levelled. Given that their construction did not involve any other materials, other features are unlikely to be identified in field survey, but further examination could inform on exact styles of

construction. The NRHE only lists one other example of anti-landing obstacles in England, although it is possible that others survive nationwide.

KING'S GARDEN MILITARY SITE (MA0442)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

A military base appears to have been built here, just south of the medieval enclosure King's Garden. No records of this site have come to light in the research for this desk based assessment, but it is purported to be a depot and possibly a surplus equipment disposal site (James Brown, pers comm, September 2012).

Baseline Archaeological Significance

The NMP data shows several rectilinear structures that survive as parch marks. As with many World War II structures around the New Forest, building foundations were likely to have only been shallow, but may have been left during post war clearance. Further investigation of the site may be able to locate these bases, and further historical research – particularly of war diary records – may shed light on its exact function.

BLACK HEATH SEARCHLIGHT POSITION (MA1019)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Two searchlight positions at Black Heath are recorded in the war diary research; one in use in 1941 as part of the Southern Indicator & Killer Belts group (WO 166/2318), and another in use in 1942 (WO 166/6099). Although the war diaries give slightly different positions for these two, it seems that in all likelihood they were on the same site and the exact position has simply been misreported in the war diaries. This is supported by the LiDAR survey, which only identifies one potential site on Black Heath. The LiDAR also suggests a large scar that may be trenching, and several other pits that may be related.

Baseline Archaeological Significance

The LiDAR survey indicates that this is most likely to be a sandbagged or concrete emplacement. Such sites could potentially have left remains below the ground after being removed. Other permanent installations such as cabling for the generator may also be present. Clustered around the site are numerous depressions that may be bomb craters, indicating that the searchlight came under attack from enemy bombers on at least one occasion.

Significant Feature: Bomb Craters

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

The National Mapping Project data lists 22 individual records that make up as many as 27 depressions on Black Heath. It is quite possible that these are bomb craters caused by enemy action against the searchlight emplacement. Survey may be able to determine if these are in fact bomb craters or quarrying associated with the searchlight, and further analysis of war diary records may be able to pinpoint an exact date of an attack.

3.4.4 Sub Unit Zone 4

Sub Unit Zone 4 encompasses HLS Zone 4 and the surrounding area and is 13.2 km^2. It contains 20 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	7	1
	Anti-Aircraft	3	3
	Training Sites		
	Military Camps & Requisitioned Houses	1	
	Airfields	1	1
	Experimental Sites		
	Domestic Sites	3	
	Damage & Losses	5	

Amongst these monuments, the following were considered significant:

STONEY CROSS AIRFIELD (MA0628)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

RAF Stoney Cross was originally conceived as a grass airstrip that would be used by Army Co-operation Command, but was upgraded to a Class A airfield during the course of its construction. The airfield was ready for service in November 1942 but had in fact housed two RAF fighter squadrons since that January. In 1943 the squadrons departed and construction work recommenced to extend the runways. In August, Airborne Forces aircraft moved in but in March 1944 they departed and the airfield was handed over to the United States Army Air Force (USAAF). The airfield was used by both fighter and bomber squadrons before it was returned to the RAF in September 1944. In the hands of Transport Command, it was used to repair army gliders recovered from Europe and later became a staging post for flights to the Far East. Flying ceased in December 1946 and the airfield was relinquished in 1948 (Freeman, 1994:240-242).

Most of the airfield's concrete runways and dispersal areas were removed in the 1960s. However dispersal areas are still in use in Ocknell campsite and much of the hardcore remains, leaving the pattern of the airfield very clear from the air.

Baseline Archaeological Significance

The specifications for Class A airfields were set out by the Air Ministry in 1942 and of the many hundreds of airfields constructed around the country, several hundred were built to a similar specification (Freeman, 1994:6). The construction of such airfields, designed to provide safe facilities for every type of Allied aircraft available or in development, was one of the largest wartime building programmes of the 20th century in the United Kingdom (Smith, 1999:77).

Despite this, such airfields rarely remain in their original condition and there are comparatively few in a state of good preservation. On the Crown Lands, two similar airfields (RAF Beaulieu and RAF Holmsley South) have similarly been extensively levelled and remodelled. Like, Holmsley South, Stoney Cross' dispersal bays are utilised in a nearby Forest Holidays campsite. These appear to be original concrete in some cases and re-laid tarmac in others.

The nature of the construction of the airfield and its ancillary buildings usually means that there is very little potential for below ground features to be identified. Most of the buildings and features had only surface level foundations and today leave little more than concrete bases. However, evidence form Beaulieu airfield (**MA0234**) indicates numerous below ground communication and services cables and hatches, which may also be present at Stoney Cross. Site visits would be required to identify these and also to assess the condition of the various dispersed sites.

Significant Feature: AA Site (MA0632, MA0633, MA0636, MA0638)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

There are several features at the south eastern end of the airfield immediately adjacent to the A31 that may represent features of an AA site. These include a possible searchlight emplacement (**MA0636**), a gun laying radar position (**MA0632**), a radio mast (**MA0633**) and foxholes (**MA0638**). These features are not recorded on the RAF maps of the airfield; further investigation may be able to more positively identify the facilities that were installed here.

3.4.5 Sub Unit Zone 5

Sub Unit Zone 5 encompasses HLS Zone 5 and the surrounding area and is 22.4km^2. It contains 10 monuments and that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	2	1
	Anti-Aircraft	1	
	Training Sites		
	Military Camps & Requisitioned Houses	1	1
	Airfields		
	Experimental Sites		
	Domestic Sites	1	
	Damage & Losses	5	

Amongst these monuments, the following were considered significant:

LYNDHURST ANTI-TANK ISLAND (MA0036)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Anti-Tank islands were defensive points, usually centred on major road junctions, bridges or natural features that, if obstructed, would delay the advance of German forces, giving time for Allied reinforcements to move to the area. These sites were usually made up of bunkers, roadblocks, trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether. War diary research indicates that there were seven roadblocks in and around Lyndhurst and Emery Down in 1941 (WO 166/1319). There is also a concrete block in the garden of Clarendon Villa on Gosport Lane that may be related.

Baseline Archaeological Significance

Road blocks came in various different types during the war. Some would have been temporary wood and barbed wire obstacles that would not necessarily leave any trace. On the other hand, more complex structures would have involved modifications to the road or the installation of concrete blocks on the verge. It is possible that the structure in Clarendon Villa is an example of this. No evidence for bunkers or pillboxes in the Lyndhurst area has come to light. Again, any such installations may have been of a temporary nature and not left any physical trace.

However, closer investigation of likely points of defence on the roads into Lyndhurst and in the area around the gun pits may reveal traces of weapons pits and trenches.

MINSTEAD MANOR (MA1431)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Low*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Low*
Potential	*Low*
Overall	***LOW***

Minstead Manor House was built in 1719 by Henry Compton, and it was significantly enlarged in 1802. War diary analysis indicates it was occupied by a Headquarters unit of Royal Canadian Engineers in 1944 (WO 166/14506). It may also have been used by the Royal Army Service Corps. After the war it was in such a dilapidated condition that it was demolished in 1950 and a new manor built in its place (www.nfdc.gov.uk).

Baseline Archaeological Significance

Although the house was pulled down in 1950, there may be other evidence of the units stationed there in the surrounding landscape. A HQ may have had temporary ancillary buildings such as Nissan huts built in the surrounding grounds (although there is no record of this) and the surrounding farm buildings may also have been used. Further investigation may be able to identify traces of the military presence in these buildings or on the estate.

3.4.6 Sub Unit Zone 6

Sub Unit Zone 6 encompasses HLS Zone 6 and the surrounding area and is 16.7km^2. It contains 31 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	1	
	Anti-Aircraft		
	Training Sites	2	2
	Military Camps & Requisitioned Houses	4	2
	Airfields		
	Experimental Sites		
	Domestic Sites		
	Damage & Losses	24	2

Amongst these monuments, the following were considered significant:

MOGSHADE HILL CAMP (MA0453)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***LOW***

Aerial photography indicates that there was a camp at Mogshade Hill from 1944. It is known that Canadian forces were encamped in this area prior to D-Day, and LiDAR survey has revealed the likely location of this camp immediately south of the A31. In the same area, war diary research has indicated the presence of a searchlight position (WO 166/2262), although a searchlight alone could not account for the level of activity indicated by the aerial photography. However, some structures from the LiDAR survey may represent the searchlight.

Baseline Archaeological Significance

If this were only a temporary staging camp in advance of D-Day, it is likely that most of the accommodation would have been tented. This may mean that there is little in the way of permanent features such as hard standing or services. However, there may be a great deal of evidence of land levelling to create suitable pitches for tents, vehicle routes and a parade area. A searchlight position may leave a more obvious feature, depending on the type of installation. As this was in all probability an accommodation camp, there is a high likelihood of finding artefacts.

ACRES DOWN & PILMORE GATE HEATH RANGE (MA0510, MA0511, MA0512 & MA0513)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low (probably)*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

LiDAR survey and aerial photography indicate a system of trackways, trenches and foxholes at Acres Down and Pilmore Gate Heath and what may be a rifle range nearby. These are likely to be of Second World War origin, although the rifle range may be one of a number built around Lyndhurst in the late part of the 19th century (Pasmore, 1977:61). Trenches and foxholes in this area would likely have been dug for training purposes as there is no defensive quality to the heath. A large number of nearby shell holes may indicate that live firing was conducted in the area. This is supported by the 1943 New Forest Training Map, which indicates that the area was one of the mortar, grenade and small arms ranges.

Baseline Archaeological Significance

The NRHE records 964 examples of World War II slit trenches (of all types), many of which have been totally removed. The vast majority of these were for genuine defensive purposes, at anti-tank islands, airfields or along the coast. Practice trenches are rarer. Training trench systems from the First World War are known to survive in Wales, Staffordshire, Northumberland and Salisbury Plain (McOmish, 2002:139). Research and fieldwork at the practice trenches on Salisbury Plain has revealed a great deal of material and personal effects (Khan, 2013:50-55). However, Second World War trenches were not as extensive and were usually a series of unconnected slit trenches and foxholes. Although not a front line location, further work may reveal information about men and units that trained here before being deployed.

MILLYFORD CAMP (MA0531)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

There was a camp at Millyford in the First World War, when foreign lumberjacks were accommodated in the area in a purpose built camp. This camp included numerous concrete based buildings and three miles of narrow gauge railway line (Pasmore, 1977:131). During its use between 1917 and 1918, 25 huts accommodated over 100 Portuguese and 200 Canadian lumberjacks (Reeves, 2008).

Baseline Archaeological Significance

NPA volunteers have recorded evidence of structures at Millyford (James Brown, pers comm, January 2013) and aerial photography from 1946 shows tracks evident

in the immediate area. However, it is less clear if these features date from World War I or World War II. An accurate survey of remaining structures may be a means by which to establish if the evidence on the ground differs from plans of the site in World War I. Further research may be able to establish if any camps were built in the area or re-used during World War II.

3.4.7 Sub Unit Zone 7

Sub Unit Zone 7 encompasses HLS Zone 7 and the surrounding area and is 24.4km^2. It contains 30 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	2	
	Anti-Aircraft	2	2
	Training Sites		
	Military Camps & Requisitioned Houses	2	
	Airfields		
	Experimental Sites		
	Domestic Sites		
	Damage & Losses	24	

Amongst these monuments, the following were considered significant:

MOGSHADE HILL ANTI-AIRCRAFT BATTERY (MA0454)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

The NMP identifies what might be an Anti-Aircraft (AA) battery at Mogshade Hill, based on period aerial photography. AA batteries were first established around the New Forest in 1939 and their number grew during the build-up towards D-Day and during deception operations. AA batteries were either heavy (usually housing four or more 3.7 inch guns) or light (using various numbers of 40 mm Bofors guns) (Lowry, 1996:48-61).

The site at Mogshade is visible on 1946 aerial photography as four equally spaced potential gun positions to the south of Mogshade Hill Camp (**MA0453**). As such it may have been built to support this camp. However, no reference has been found to this AA position in extensive war diary research or in existing databases.

Baseline Archaeological Significance

AA batteries were usually quite extensive sites that included services, magazines and accommodation. No such structures are visible near these gun pits, indicating that if it were an AA position, it may have been a very temporary deployment. It may be that any AA guns based here where a support unit of the unit based at Mogshade Camp. Further survey work may be able to reveal the true nature of these features and locate any other features that may be associated with them.

RIDLEY PLAIN BOMBING DECOY Q160A (MA0046)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Bombing Decoy Q160A was a Q type decoy site, designed to represent an airfield at night and was built to direct enemy attention away from Hurn and Holmsley South Airfields. It would have consisted of lighting poles arranged in a pattern similar to an airfield's landing lights, powered by a generator in a small command bunker (Lowry, 1996:64). The site, and its twin site Q160B (**MA0047**), were listed as being active in the summer of 1942 only (Dobinson, 1996c:98-100).

Baseline Archaeological Significance

The NRHE records over 217 Q sites in England. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The bunker at Q160A was probably removed at the end of the war and the site is recorded as being invisible in 1981 (Dobinson, 1996c:98-100). A site visit would be necessary to assess whether any features survive.

3.4.8 Sub Unit Zone 8

Sub Unit Zone 8 encompasses HLS Zone 8 and the surrounding area and is 27.1km^2. It contains 79 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	2	
	Anti-Aircraft	1	1
	Training Sites	20	1
	Military Camps & Requisitioned Houses	5	
	Airfields	3	3
	Experimental Sites		
	Domestic Sites	20	
	Damage & Losses	28	

Note that approximately 50% of the area occupied by Holmsley South airfield (**MA0111**) falls into Zone F, which is not part of the Crown Lands. However, the airfield as a whole is described here in Zone 8. Along with Holmsley, the following were considered significant in Zone 8:

WILVERLEY POST ANTI-AIRCRAFT BATTERY (MA0306)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Low*
Overall	***LOW***

The NMP identifies what might be an AA battery at Wilverley Post, based on 1946 aerial photography. AA batteries were first established around the New Forest in 1939 and their number grew during the build-up towards D-Day and during deception operations. AA batteries were either heavy (usually housing four or more 3.7 inch guns) or light (using various numbers of 40 mm Bofors guns) (Lowry, 1996:48-61).

The site at Wilverley is visible on 1946 aerial photography as several potential gun positions alongside the present A35. However, no reference to this AA position has been found in extensive war diary research or existing databases.

Baseline Archaeological Significance

AA batteries were usually quite extensive sites that included services, magazines and accommodation. No such structures are visible near these gun pits, indicating that if it were an AA position, it may have been a very temporary deployment. Further

survey work may be able to reveal the true nature of these features and locate any other features that may be associated with them.

GOATSPEN PLAIN TRAINING AREA (MA0301)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Aerial photography has shown a large number of features, including trenches, foxholes and possibly structures at Goatspen Plain. War diary research also indicates the presence of a searchlight emplacement (1942) (WO 166/6099) and a Home Guard observation post (1941) (WO 166/1319) in this location. A circular feature at the north-west end of the identified area may be a searchlight emplacement.

Training areas that allowed men to practice trench construction techniques were commonplace during the war. There is, however, no record of live firing range at Goatspen Plain on the 1943 Training Areas map.

Baseline Archaeological Significance

Definite trench systems are also visible on the photography and research and fieldwork at practice trenches has revealed a great deal of material and personal effects on Salisbury Plain in the past (Khan, 2013:50-55). Although not a front line location, further work may reveal information about men and units that trained here before being deployed. Field survey may be able to identify the searchlight emplacement and Home Guard observation post. Recent site visits have noted that the layout of some features may be representative of an organised position rather than foxholes; this may represent the observation post (James Brown, pers comm, March, 2013).

HOLMSLEY SOUTH AIRFIELD (MA0311)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

RAF Holmsley South was built over the winter of 1941 and 1942 to provide accommodation for units required for Operation *Torch* in North Africa (Brooks, 1996:156). It was completed in 1942 as a Class A airfield and first used by RAF Coastal Command. Both USAAF and RAF bombers flew patrols form the airfield in 1942 and 1943, before the station was passed to Fighter Command in the build-up to D-Day.

The airfield was handed over to the USAAF in July and used by units of IX Bomber Command until October when it was returned to the RAF. It was subsequently used by RAF Transport Command. Regular repatriation flights were flown from the airfield

in 1945 (Brooks, 1996:157) and in September of 1945 and 1946 the airfield hosted public Battle of Britain day shows. In October 1946 it was reduced to caretaker status and later returned to the New Forest (Freeman, 1994:231).

Baseline Archaeological Significance

Despite the fact that the construction of Class A airfields represents one of the largest wartime building programmes of the 20th century in the United Kingdom (Smith, 1999:77), relatively few airfields remain in their original condition or a state of good preservation. Like Stoney Cross and Beaulieu, Holmsley South has been levelled and remodelled, although like Stoney Cross, Holmsley's dispersal bays are utilised in a nearby Forest Holidays campsite. These appear to be original concrete in some cases and re-laid tarmac in others.

The nature of the construction of the airfield and its ancillary buildings means that there is usually very little potential for below ground features to be identified. Most of the buildings and features had only surface level foundations and today leave little more than concrete bases. Possible exceptions to this rule include the bomb storage area (described below). Evidence form Beaulieu airfield (**MA0234**) also indicates numerous below ground communication and services cables and hatches, which may also be present at Holmsley .Site visits may identify these and would be required to assess the condition of the various dispersed sites.

Significant Feature: Bomb Storage Area (MA1475)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*High*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Low (probably)*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

In the northern area of the airfield (around Stony Moors woodland) is the bomb storage area of the airfield. The access road to the various stores areas is still evident and several features have been identified in LiDAR survey that corresponds with the various stores and preparation areas. Further investigation of this specific area may identify elements of the various sites established here and the extent of any remains. The NRHE only records 99 known bomb stores in the country, many of which are not associated with airfields.

Significant Feature: Runway Remains

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*High*
Overall	***HIGH***

Like Beaulieu and Stoney Cross airfields, the runways at Holmsley were laid in concrete. When the airfields were returned to the New Forest, the concrete was lifted and removed, but at Holmsley, two significant sections remain at the western end (just outside of the Crown Lands) along with original perimeter track. Further investigation may reveal more about the way in which such runways were laid.

Significant Feature: Battle Headquarters (MA1474)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*High*
Overall	***HIGH***

Like most major airbases, Holsmley was equipped with a Battle Headquarters that could serve as a point to co-ordinate defence in the event that the airfield was overrun by ground forces. The Battle Headquarters at Holmsley South, located just off the northern tip of the north–south runway, has been largely (but not completely) blocked up with concrete and the cupola has been removed, but the bunker itself appears to remain below ground (Taylor & Tucknott, 2012). A site visit may be able to establish its exact condition and whether or not it is a safety concern on the open forest.

3.4.9 Sub Unit Zone 9

Sub Unit Zone 9 encompasses HLS Zone 9 and the surrounding area and is 32.3km^2. It contains 48 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	8	1
	Anti-Aircraft	2	2
	Training Sites	2	2
	Military Camps & Requisitioned Houses	7	3
	Airfields		
	Experimental Sites		
	Domestic Sites		
	Damage & Losses	29	1

Amongst these monuments, the following were considered significant:

RHINEFIELD TRAINING AREA (MA1466)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

The roughly triangular area of plain that is bordered on the west by the A35, on the north by Rhinefield Road and the south by Wilverley Inclosure and Burley Road was recorded as a large Field Firing Area on the 1943 New Forest Training Area Map. War diary research has indicated that both infantry and armoured units trained here during the war (War Diary 33 Army Tank Brigade) and photographs of tank manoeuvres have also been identified in the Imperial War Museum catalogue.

Baseline Archaeological Significance

The training area has several areas of activity identified in the National Mapping Project data. Additionally, aerial photography has identified further areas of what appear to be shell holes and trenches. Further investigation of these various areas may reveal further detail about the nature of training that took place here. Areas that may warrant specific attention include:

Significant Feature: White Moor Rifle Range (MA1376)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*High*
Overall	***HIGH***

The Training map shows a rifle range immediately east of the Field Firing Area. Additionally, a rifle butt and several chalk markings are visible on historic aerial photography and as still-visible features on modern aerial photography. Rifle ranges tended to have a distinct layout (McOmish, 2002:143). Further investigation of this site may reveal the survival of the features themselves, how typical its layout was and further evidence of the activities taking place here.

Significant Feature: Wilverley Plain Shell Holes (MA1168)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

The area of land north of Wilverley Inclosure shows evidence of numerous shell holes or foxholes and what might be trenches. However, given the use of tanks on these ranges, it is possible that some of the shell holes are in fact gun pits. Further investigation of these sites may reveal evidence of the nature of these holes and if there are trenches here.

WOOTTON BRIDGE DEPOT (MA0252)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Low*
Overall	***LOW***

Aerial photography indicates what may be a military depot or camp immediately north of Wootton Bridge. Given the proximity of a practice range at Wilverley, it seems possible that this was a depot for stores or ammunition for use in training exercises.

Baseline Archaeological Significance

As with many other depots and camps in the New Forest, it is likely that any structural remains will consist of building bases. Modern aerial photography does indicate what appears to be a concrete feature in the centre of the area. It is possible that this is also related. Further investigation may reveal the exact extent of buildings and structures in this area and whether the track on the west side (**MA0310**) is part of the site or another, unrelated, feature.

HAG HILL ANTI-AIRCRAFT BATTERY (MA0259)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Low*
Overall	***LOW***

NMP aerial photography indicates what might be an AA battery at Hag Hill, alongside Burley Road. AA batteries were first established around the New Forest in 1939 and their number grew throughout the war. AA batteries were either heavy (usually housing four or more 3.7 inch guns) or light (using various numbers of 40 mm Bofors guns) (Lowry, 1996:48-61).

The site at Burley Road is visible on 1946 Aerial Photography as several potential gun positions alongside the road. No reference to this AA position has been found in extensive war diary research, although there is a reference to a searchlight position in the immediate area (WO 166/2262) and on the Home Guard maps of Major Crofton. The battery is also referred to by Desmond Hollier, a boy who lived in Sway during World War II, who remembers that "we had three anti aircraft guns at the top of our road close by the tumulus near to Marlpit Oak, and another three in an old gravel pit on Hag Hill near to Wooton bridge" (Hollier, 2005).

Baseline Archaeological Significance

AA batteries were usually quite extensive sites that included services, magazines and accommodation. No such structures are visible near these gun pits, indicating that if it were an AA position, it may have been a very temporary deployment or an LAA position. Further survey work may be able to reveal the true nature of these features and locate any other features that may be associated with them.

MARLPIT OAK ANTI-AIRCRAFT BATTERY (MA0255)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Low*
Overall	***LOW***

NMP aerial photography indicates what might be an AA battery alongside the Bowl Barrow 800m west of Marlpit Oak crossroads. The site is visible on 1946 Aerial Photography as several potential gun positions alongside the barrow. No reference to this AA position has been found in extensive war diary research. However, it is referred to by Desmond Hollier, a boy who lived in Sway during World War II, who remembers that "we had three anti aircraft guns at the top of our road close by the tumulus near to Marlpit Oak, and another three in an old gravel pit on Hag Hill near to Wooton bridge" (Hollier, 2005)

Baseline Archaeological Significance

AA batteries were usually quite extensive sites that included services, magazines and accommodation. No such structures are visible near these gun pits, indicating that if it were an AA position, it may have been a very temporary deployment or a LAA position. Further survey work may be able to reveal the true nature of these features and locate any other features that may be associated with them.

SETLEY PLAIN POW CAMP (MA0240)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

POW camps across the country could be incredibly varied. Some were requisitioned buildings, others operated more as hostels for POWs who were believed to be unlikely to attempt escape (most notably Italians) (Thomas, 2003:4). However, Setley is described as a 'standard' style camp, one of a number nationwide built to house Italian prisoners captured in the North African campaign. It was probably constructed in late 1942 or 1943. Many 'standard' camps were built by the POWs themselves, to a standard arrangement complete with accommodation huts, garden, canteen, sewage facilities, water tower and accommodation and offices for the Allied troops garrisoning the site (Thomas, 2003:5-6). The Italian prisoners at Setley worked on surrounding farms and sawmills. The camp later housed German prisoners; although some were allowed to leave the camp, this was less prevalent than with the Italian POWs (BBC Peoples War, 2005). Exactly when Setley was closed is not known from current records, but it is believed to have still housed men in 1947. It most likely closed when all POW camps in Britain closed in July 1948 (Phoebe Merrick, pers comm, February 2013).

The camp was used to provide housing for gypsy families after the war, possibly until the 1960s. There is no record of its demolition, but modern aerial photography indicates that it has been totally cleared, leaving only building bases and the pattern of the camp.

Baseline Archaeological Significance

Setley is the only recorded 'standard' camp in the study area. The trace of the site is readily identifiable in aerial photography and suggests that many ground features survive. A survey of the site would enable a full assessment of its extent and how much it fitted the pattern of a 'standard' camp layout.

BROCKENHURST ANTI-TANK ISLAND (MA1432)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Brockenhurst is not referred to as an anti-tank island in any war diary entries, but is referred to in the papers of Major Crofton, a Home Guard officer during World War II. A map included with these papers identifies an anti-tank ditch at Latchmoor and another at the A337 bridge over the Lymington River. Various other positions are marked but unlabelled.

Baseline Archaeological Significance

Further investigation of the areas marked on the Major Crofton map may indicate if these defences were ever created or were just particular places (e.g. houses) to defend in the event of an invasion.

CAREYS MANOR (MA1433)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*Low*
Overall	***MEDIUM***

Careys Manor was built in 1888, a replacement for a much older hunting lodge that existed in the same area. It is possible that the house hosted a unit of Welsh Guards at some point during the war (www.careysmanor.com), but its main role was as a Royal Navy Eastern Warfare School. Exactly when it was requisitioned by the Royal Navy and when it was returned to its owners, and whether it was used to train Royal Navy personnel, Royal Marines, or possibly men of SOE's Force 136 (www.newforestmilitaryarchive.org.uk) is not clear from the material so far assessed.

Baseline Archaeological Significance

A site visit would be able to establish whether any historical features from the manor's service still remain, although given its new role as a luxury hotel, this may be unlikely. However, a number of period photos of the manor's interior have been obtained by the NFNPA and it might be possible to establish exactly what rooms that were taken in. As with many other requisitioned houses, ancillary buildings may have been built in the grounds and a site visit may be able to establish if this was the case.

3.4.10 Sub Unit Zone 10

Sub Unit Zone 10 encompasses HLS Zone 10 and the surrounding area and is 25.6km^2. It contains 15 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures		
	Anti-Aircraft		
	Training Sites		
	Military Camps & Requisitioned Houses	4	2
	Airfields		
	Experimental Sites		
	Domestic Sites	2	
	Damage & Losses	9	

Amongst these monuments, the following were considered significant:

BALMER LAWN HOTEL (MA1434)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

During World War II, Balmer Lawn Hotel was used as a HQ for various units based in the area. War diary research indicates that it was initially used as a HQ for a Royal Marine Division (this may have been the artillery brigade of the division (Royal Marines Museum) and was later occupied by the HQ of the 3rd Canadian Division (WO 166/10967). In Hollands Wood immediately north of the hotel, there are several features that may be ancillary parts of the HQ (**MA0244**).

Baseline Archaeological Significance

Large buildings and hotels were frequently requisitioned as HQs during the war, as they offered space and accommodation for senior officers and for various planning and administrative units. Quite often, major changes would be made to interiors to provide appropriate space. Further investigation may identify any major or minor modifications made during this period. Surveying the features in Hollands Wood might reveal if they were part of the HQ or a separate site.

BALMER LAWN DEPOT (MA0245)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Low*
Overall	***LOW***

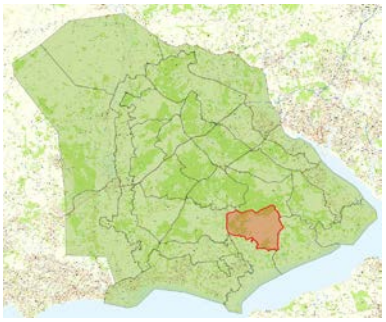
Aerial photography indicates what may be a military depot or camp at Standing Hat. Such depots may have been used for the storage of ammunition or supplies.

Baseline Archaeological Significance

As with many other depots and camps in the New Forest, it is likely that any structural remains will consist of building bases. Modern aerial photography does indicate what appears to be a concrete feature in the centre of the area. It is possible that this is also related. Further investigation may reveal the exact extent of buildings and structures in this area.

3.4.11 Sub Unit Zone 11

Sub Unit Zone 11 encompasses HLS Zone 11 and the surrounding area and is 26.9km^2. It contains 26 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	3	
	Anti-Aircraft	4	3
	Training Sites		
	Military Camps & Requisitioned Houses	8	1
	Airfields	10	7
	Experimental Sites		
	Domestic Sites		
	Damage & Losses	1	

Amongst these monuments, the following were considered significant:

BEAULIEU AIRFIELD (MA0234)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

RAF Beaulieu was a Class A airfield built and opened in 1942. It was used by RAF Coastal Command and briefly by the Second Tactical Air Force before it was handed over to the USAAF in 1944. The airfield was used by both fighter and bomber squadrons before it was occupied by the Airborne Forces Experimental Establishment, who remained there for six years. In 1953 the site was briefly upgraded in expectation of reactivation, but instead the site was closed in 1955 and the land relinquished in 1959 (Freeman, 1994:218-219).

Modern aerial photography indicates that most of Beaulieu Aerodrome's concrete runways and dispersal areas have been removed, which must have happened at an unspecified time after the airfield was closed. However, the hard-core remains, leaving the pattern of the runways very clear from the air.

Baseline Archaeological Significance

Even though several hundred Class A airfields were built during the war in one of the largest wartime building programmes of the 20th century in the United Kingdom (Smith, 1999:77), few remain in their original condition or in good preservation.

Within the New Forest Crown Lands, Stoney Cross and Holmsley South have, like Beaulieu, been extensively levelled and remodelled.

The nature of the construction of the airfield and its ancillary buildings usually means that there is very little potential for below ground features to be identified, as most buildings had only shallow concrete foundations. Possible exceptions to this rule include the bomb store and blast shelters. It is also understood that many below ground cables and other communications cabling is still in place at Beaulieu and is reachable via a network of original inspection covers and manholes (Frank Green, pers comm, March 2013). Site visits would be required to identify these and assess the condition of the various dispersed sites.

Significant Feature: Water Tower (MA1479)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*High*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High (Believed)*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

The station's water tower is still extant and in use to serve the campsite at Roundhill. Except on well preserved airfields, very few examples remain that are still functional, evidenced from the NRHE that only contains eleven entries for water towers related to airfields in the study period. After the removal of the water tower that served Stoney Cross in 2004, the example at Beaulieu is the only remaining one on the New Forest. There is a suggestion it may soon be removed and replaced (Pasmore, 2012). This may represent a last opportunity to survey the structure before it is removed.

Significant Feature: WAAF Communal Site (MA0237)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

The Women's Auxiliary Air Force (WAAF) communal site west of Beaulieu airfield was one of two such sites at Beaulieu. As well as a number of concrete foundations, two Stanton shelters built at the WAAF communal site are still extant, just outside the Crown Lands. Designed and manufactured by the Stanton Ironworks in Derbyshire, the shelters were made of prefabricated concrete, an ideal material that was tough, cheap and unlikely to deteriorate during the period of war. The shelter was made up of a series of prefabricated concrete arches laid end to end and closed off with a brick built entrance at one end and an escape hatch at the other (Stanton, 1948). Although a number of different shelters were built around Beaulieu airfield, none are marked on RAF Record Site Plans. A number of Stanton shelters survive at other sites around the New Forest, but images of these examples show that they appears to be in good condition. It is possible that wooden seating around the interior is still preserved in one or both of these examples (Ivan

Shrubb, pers comm, February 2013), but a site visit would be required to determine exactly how well preserved they are internally.

Significant Feature: Beaulieu Site No. 5 (MA0236)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

Site No. 5 is listed on the RAF plan of the airfield as an accommodation area, comprising of officers, sergeants and airmen's quarters, ablutions blocks and a fuel compound. A recent site visit indicates that several Nissan huts (most likely accommodation huts) still survive on site (James Brown, pers comm, January 2013). These are the only known examples of RAF airbase accommodation in the study area. An accurate survey of the surviving huts is strongly recommended.

Significant Feature: Beaulieu Site No. 6 (MA1473)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

Site No. 6 is listed on the RAF airfield plan as an accommodation area for officers, sergeants and airmen's quarters, complete with ablutions blocks. A recent site visit indicates that several Nissan hut concrete bases still survive on site. The area is listed for forestry operations in the near future (James Brown, pers comm, January 2013), so this may potentially represent the last opportunity to accurately survey the area before it is significantly disturbed.

Significant Feature: Beaulieu Defence Site (MA0661)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

Beaulieu Defence Site consisted of accommodation for sergeants and airmen, along with ablutions blocks, weapons stores and sentry posts. A recent site visit indicates that all of the Nissan hut concrete bases still survive on site (James Brown, pers comm, January 2013).

Significant Feature: Bomb Storage Area (MA1472)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*High*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Beaulieu airfield's bomb storage area is in the woods north of the B3055. The access road to the various stores areas is still evident and some sections appear to still be surfaced in recent aerial photography. Other features have been identified in LiDAR survey that corresponds with the various stores and preparation areas and recent conservation work has exposed walls and other remains (James Brown, pers comm, January 2013). Further investigation of this specific area may identify elements of the various sites established here and the extent of any other remains. The NRHE only records 99 known bomb stores in the country, many of which are not associated with airfields.

Significant Feature: Diver Batteries (MA0248, MA0249)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Two Diver Batteries are recorded alongside Hatchet Lane in 1946 aerial photographs. Diver Batteries were deployed in Operation *Diver*, the 1944 response to the German V1 Flying bomb. Although the vast majority of sites were deployed along the south east coast, approximately 560 Light Anti-Aircraft guns were deployed along the south coast specifically to counter the V-1 threat (Lowry, 1996:61). These batteries may potentially be such sites.

LYMINGTON ANTI-AIRCRAFT BATTERY (L3) (MA0067)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Lymington L3 AA Battery was a Heavy AA battery built just south of Beaulieu Airfield. The site was believed to be armed in 1942 (Dobinson, 1996a:410), although war diary research undertaken as part of this desk based assessment has not found any record of the battery.

Baseline Archaeological Significance

Modern aerial photography indicates that the site has been totally cleared and the land it was on is now under plough. A site visit may be able to determine if any features remain.

NAVAL COAST BOMBING DECOY 608 (MA0231)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

This site was a QL Decoy Site used as Naval Coast Bombing Decoy 608 in 1943. The decoy was one of a number built for Portsmouth Command as part of Operation *Fortitude South*, a deception scheme that sought to direct Luftwaffe attention away from genuine coastal sites building up towards Operation *Overlord*. QL sites depicted industrial areas at night and used lights, signal lamps and small furnaces (as might be found at factories or marshalling yards) to distract enemy bombers from genuine targets. Site 608 was fitted with the standard parts of a QL site (a control bunker and fittings for the lights), but it is not recorded if any electrical equipment was ever fitted (Dobinson, 2000a: 178-179).

Baseline Archaeological Significance

The NRHE records over 260 QL sites in England and thirteen such sites used by Portsmouth Command in Operation *Fortitude South*. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The features of site 608 are recorded as being invisible in 1968 (Anderton, 1999:102). A site visit would be necessary to assess whether any features survive.

ROYDON WOODS (MA1435)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

A recent survey has identified the remains of several building platforms and trenches that may be of World War II origin in Roydon Woods. The building platforms, concentrated in the north of the woods, show evidence of a camp. A camp, identified as B.8, is also shown in here on Area B Overlord Administrative Map. The trenches may be associated with the Eastern Warfare Training School based at Careys Manor, Brockenhurst (**MA1433**).

Baseline Archaeological Significance

Roydon Woods has already been surveyed and a number of likely World War II features have been identified (Entwhistle, 2012. Draft version, commissioned by NFNPA). A further feature to the west of the A337 may also be a part of this site. (James Brown, pers comm, February 2013). Further investigation may reveal more sites in the same area. However, fieldworks such as trenches and foxholes, whilst evident, are unlikely to reveal the theatre of conflict that the trenches were used for training in.

3.4.12 Sub Unit Zone 12

Sub Unit Zone 12 encompasses HLS Zone 12 and the surrounding area and is 28.4km^2. It contains 43 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Records
	Defensive Structures	6	
	Anti-Aircraft		
	Training Sites	1	
	Military Camps & Requisitioned Houses	3	2
	Airfields		
	Experimental Sites	5	
	Domestic Sites		
	Damage & Losses	28	

Amongst these monuments, the following were considered significant:

BEAULIEU ROAD / FURZEY BROW DEPOT (MA0314 & MA0315)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Low*
Overall	***LOW***

There are a number of sites and structures astride Beaulieu Road between Beaulieu Road Railway Station and Furzey Brow. These may have been set up during the build-up for D-Day and were certainly in use in the weeks before the invasion, as recalled by Basil Fulton, a doctor who on one occasion drove through the depot under armed guard (Beaulieu Road was apparently closed to civilians at the time). (Leete, 2004:31).

Baseline Archaeological Significance

Aerial photography and LiDAR survey indicate an extensive number of features along Beaulieu Road. Given the distance between the two main sites, it seems possible that there are more features in between. Further survey work could identify more aspects of this area (and help separate World War II features from other periods) that would enhance our understanding of the site's function.

3.4.13 Sub Unit Zone 13

Sub Unit Zone 13 encompasses HLS Zone 13 and the surrounding area and is 28.4km^2. It contains 77 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	1	
	Anti-Aircraft	4	3
	Training Sites	12	3
	Military Camps & Requisitioned Houses	5	
	Airfields		
	Experimental Sites	2	
	Domestic Sites	1	
	Damage & Losses	52	5

Amongst these monuments, the following were considered significant:

YEW TREE HEATH ANTI-AIRCRAFT BATTERY (S.16) (MA0071)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

Yew Tree Heath was a Heavy Anti-Aircraft (HAA) battery built on the high ground east of Beaulieu Road. War diary entries show that the site was designated S.16 and housed four 3-inch AA guns when activated in 1939 (WO 166/2262). These were replaced by 3.7 inch guns later in the war. Aerial photography indicates that the guns were arranged in concrete emplacements around a central command post, with ancillary buildings, stores and accommodation just south of the gun positions. This was a typical HAA battery layout (Lowry, 1996:49). The date of the site's clearance is not known, but it appears to be vacant in late 1946 aerial photography. However, it may have been retained as a cold War Battery in 1946 (Dobinson 1996a:459)

Baseline Archaeological Significance

A site clearance conducted by the New Forest National Park Authority indicates that several features are still extant, including concrete remains of the command post and all four gun positions. As these features were typically semi submerged when built (Lowry, 1996:52), there is potential for the survival of ammunition lockers in the gun pits and even individual rooms in the control bunker. Several features such as a large concrete patch east of the guns and a large turning track way to the west, could be surveyed further to try and identify their purpose.

BLACK DOWN TRENCHES (MA0320, MA0321, MA0322, MA0331 MA0386, MA0387, MA0388)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Aerial photos show a large number of pits and other associated disturbance on Black Down between Beaulieu Road Station and Decoy Pond Farm. They appear to be the remains of trenches, foxholes (and possible bomb craters), that may have been dug for defensive purposes, but in this location are more likely to be for training.

Baseline Archaeological Significance

Research and fieldwork at practice trenches has revealed a great deal of material and personal effects on Salisbury Plain in the past (Khan, 2013:50-55). Although not a front line location, further work at Blackdown may reveal information about men and units that trained here before being deployed. A site visit would be required to identify the features and assess their level of survival. Survey may be able to identify a particular pattern to the layout that may indicate their exact purpose.

LONGDOWN STARFISH DECOY SF17A (MA0319)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***HIGH***

Starfish Bombing Decoy SF17A was built in January 1941 to divert German bombers from Southampton. Starfish were one of the earliest types of bombing decoy and were designed to simulate a city at night, using strategically placed lights and fires. Six such sites were built around Southampton in order to try and mislead German bombers and cause them to drop their bombs on unoccupied countryside instead of the city. A sister site to SF17A, SF17B, was built at Denny Lodge in January 1941 (**MA1288**) (Dobinson, 1996c: 145).

Baseline Archaeological Significance

The NRHE records 245 Starfish sites in England. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The bunker at SF17A was probably removed at the end of the war and the site is recorded as being invisible in 1967 (Anderton, 1999:90). A site visit would be necessary to assess whether any features survive.

WHITE MOOR RANGE (MA0475)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

The area known as White Moor, alongside the Beaulieu Road east of Lyndhurst, was used by the British Army in both world wars. During World War I some areas were used for camps, whilst another section was used as a 'grenade school'. This appears to have been in near continuous use and did on occasion lead to fatal accidents (Walmsley, 2012). During World War II, the area is known to have been used for manoeuvres and several photographs of exercises have been identified by the NFNPA.

Baseline Archaeological Significance

The NMP has identified a number of bomb craters and trenches in the area; however the area does not appear as a live firing area on the 1943 map of the New Forest Training Area. It is therefore quite possible that many of the features identified date from World War I and not World War II. Further investigation of historical sources and a survey of the trenches may be able to pinpoint their construction date. The nature of the activities here means that there is a high probability of unexploded ordnance. Some mortar bombs were recently discovered at Matley Bog very close to this range (although they are probably of World War One era) and had to be disposed of by Royal Engineers (Nigel Floyd, pers comm, January 2013). Extreme caution should be exercised in any work done in this area.

Significant Feature: Diver Battery (MA0478)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

A Diver Battery is recorded on Matley Ridge in 1945 aerial photographs. Diver Batteries were deployed in Operation *Diver*, the 1944 response to the German V1 Flying bomb. Although the vast majority of sites were deployed along the south east coast, approximately 560 Light Anti-Aircraft guns were deployed along the south coast specifically to counter the V-1 threat (Lowry, 1996:61). This battery may potentially be such a site.

3.4.14 Sub Unit Zone 14

Sub Unit Zone 14 encompasses HLS Zone 14 and the surrounding area and is 28.4km^2. It contains 79 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	23	2
	Anti-Aircraft	2	2
	Training Sites		
	Military Camps & Requisitioned Houses	19	11
	Airfields		
	Experimental Sites		
	Domestic Sites	5	1
	Damage & Losses	30	

Note that four of the SOE requisitioned houses fall within Zone B, but are described here in Zone 14 along with the majority of the houses of the SOE finishing school Amongst the other monuments in Zone 14, the following were considered significant:

Amongst these monuments, the following were considered significant:

DENNY LODGE STARFISH DECOY SF17B (MA1288)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***HIGH***

Starfish Bombing Decoy SF17B was built in January 1941 to divert German bombers from Southampton. Starfish were one of the earliest types of bombing decoy and were designed to simulate a city at night, using strategically placed lights and fires. Six such sites were built around Southampton in order to try and mislead German bombers and cause them to drop their bombs on unoccupied countryside instead of the city. A sister site to SF17B, SF17A, was built at Longdown in January 1941 (**MA0319**). In 1942, a QL site (simulating camp lighting) was also established at the decoy, which remained in use between 1942 and 1943 (Dobinson, 1996c: 145).

Baseline Archaeological Significance

The NRHE records 245 Starfish sites in England. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The bunker at SF17B was probably removed at the end of the war. A survey in 1968 records six large rectangular firebreaks surviving at the site (Anderton, 1999:89). A

site visit would be necessary to assess whether these are related to the decoy and if any other features survive.

BEAULIEU HEATH ANTI GLIDER OBSTACLES (MA1087)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium (presumed)*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***LOW***

To prevent gliders from landing, areas of open land such as fields and heathland were covered with materials that would cause a glider to crash. Occasionally poles were erected into the ground, and even obsolete vehicles were used to create obstructions. In some places, banks of earth were erected to make a flat surface more irregular. This was the case at several other locations in the New Forest, including Bratley Plain (**MA0443**).

Baseline Archaeological Significance

Aerial photography indicates that these anti-glider defences were made up of long ditches with mounds of earth piled alongside them. They are still visible as crop marks from the air today, but appear to have been levelled. Given that their construction did not involve any other materials, other features are unlikely to be identified in field survey, but further examination could inform on exact styles of construction. It may identify if local, existing features (such as prehistoric burial mounds) had been incorporated into the defences.

BEAULIEU HEATH (HOLBURY) ANTI-AIRCRAFT BATTERY (S.7) (MA1363)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Low*
Overall	***LOW***

Beaulieu Heath was a Heavy AA battery built on the high ground east of Beaulieu Road. War diary entries show that the site was designated S.7 and housed four 3.7-inch AA guns when activated in 1939 (WO 166/2262). Records also show that it was equipped with A Mk II Gun Laying Radar. 1946 aerial photography indicates that the guns were arranged in concrete emplacements around a central command post, with ancillary buildings, stores and accommodation just south of the gun positions. The site was retained as a Cold War Battery in 1946 (Dobinson, 1996a:459) and appears on a 1988 map. However, it is possible that it was disarmed as early as 1959, when AA guns nationwide were replaced by guided missiles (Lowry, 1996:131). Modern Ordnance Survey mapping also indicates that the area has been used as a rubbish tip.

Baseline Archaeological Significance

A site visit in 2000 found no traces of the battery, save some of the access roads that were used by an adjacent caravan park (EH). Further investigation may be able to identify the full layout of the structure and whether there was any cold war remodelling.

BEAULIEU ANTI-TANK ISLAND (MA1436)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Anti-Tank islands were defensive points, usually centred on major road junctions, bridges or natural features that, if obstructed, would delay the advance of German forces, giving time for Allied reinforcements to move to the area. These sites were usually made up of bunkers, roadblocks, trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether. Beaulieu is recorded as a Nodal Point in war diary research (WO 166/14506) and an AT Island is also referred to in the papers of Major Crofton, a Home Guard officer during World War II. A map included in these papers identifies two steel rail roadblocks that have also been identified in war diary research (WO166/1319), five pillboxes, a row of 'Elephants Teeth' (most likely anti-tank blocks) and numerous firing positions from local buildings and a loopholed wall at Beaulieu Abbey.

Baseline Archaeological Significance

Steel rail roadblocks required holes to be dug into the tarmac which would presumably remain. However, resurfacing work may have obliterated them. Of the five bunkers identified, two are in historic listed buildings (the Dairy and the Mill, although not designated on their World War II heritage) one is inside the garage building opposite the mill, one is behind the mill and the fifth does not appear to survive (if it was ever built). The level of survival should therefore be reasonably high. Further investigation may be able to reveal further details about the defence strategy for this AT Island, evidence for the AT Blocks and possibly the remains of the fifth bunker.

Like the anti-tank island at Breamore (**MA1446**), the site at Beaulieu is extremely concentrated on a very small area and provides an excellent example of how buildings were modified and added to in order to create defensive sites. Like Breamore it should perhaps be considered of national importance and consideration should be given to both protecting, and interpreting this heritage, especially given the highly visible nature of several features alongside the road or public rights of way.

ROUGHDOWN AIR RAID SHELTER (MA1437)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Volunteer contributions have highlighted an air raid shelter at Roughdown, just off Roughdown Lane. From photographs it appears to be a surface built public shelter made of brick with a concrete roof, with some access to the interior. This shelter was probably built for the small population of Roughdown itself.

Baseline Archaeological Significance

Such shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A survey of this example may help identify the specification to which it was built and its exact condition.

SOE REQUISITIONED HOUSES

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

In January 1941, ten houses around Beaulieu were requisitioned for use by the Special Operations Executive (SOE), the forerunner of the famous spy network MI6. Another two were also taken later in the war, including Inchmery House (Holland, 1985:167), although it was not, strictly speaking, a part of the overall establishment. Beaulieu became Group B Finishing School, a location for trained men and women to learn the final skills necessary for them to operate behind the line sin occupied countries. Each house was used to train a particular type of recruit (e.g. men of different nationalities operating in different theatres) or to teach a specific skill, such as unarmed combat, radio operating or secret code (Leete, 2004:77). Although the training staff were accommodated in Palace House (Foot, 1984:66), it was not the HQ of the school. Instead a house called The Rings was used for that purpose (Cunningham, 1994:22).

Each house was given a code name and a specific function. Of the houses 10 are still extant: House in the Wood (**MA1456**), Harford House (**MA1457**), Saltmarsh (**MA1461**), Boarmans (**MA1458**), The Vineyards (**MA1459**) and Black Bridge (**MA1460**) (all within Sub-Unit 14), Clobb Gorse (**MA1462**), The Drokes (**MA1463**), Warren House (**MA1464**) and The House on the Shore (**MA1465**) (all within Sub-Unit B). The Rings (**MA1455**) was demolished shortly after the war (Beaulieu Estate).

Baseline Archaeological Significance

Beaulieu Finishing School was, for many agents, their last station before deploying overseas and it is possible many of them left via the craft of HMS *Mastodon* (Cunningham, 1994:23) or from Beaulieu airfield. Its significance is recognised by memorials and exhibitions inside the Beaulieu Estate and in literature about SOE. Although the houses used by SOE are presumed to be in good condition, on account of them being private residences, the survival of World War II features is not known. Site visits to the houses may be able to establish the extent to which any elements of the training here survives.

3.4.15 Sub Unit Zone A

Sub Unit Zone A encompasses the extent of the National Park at its most eastern extreme at Calshot and is 26.1km^2. It contains 98 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	44	3
	Anti-Aircraft	6	6
	Training Sites		
	Military Camps & Requisitioned Houses	27	6
	Airfields	1	1
	Experimental Sites	3	3
	Domestic Sites	15	3
	Damage & Losses	2	1

Amongst these monuments, the following were considered significant:

PLUTO INSTALLATION

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

PLUTO (PipeLine Under The Ocean) was an ambitious scheme to lay a fuel pipeline on the seabed between England and Normandy to supply the Allied army in the wake of D-Day. The idea was first devised in 1942 and tested in the Medway in the same year. Construction of the main cable began in 1943 and sites on mainland England and the Isle of Wight were prepared so that the main pipe could be laid across the English Channel once the French port of Cherbourg had been secured. This route was codenamed Bambi and was successfully laid in September 1944. However, the Bambi route was abandoned in October and all efforts shifted to a new pipeline route across the Dover Straits codenamed Dumbo (Searle, 1995:58).

In 1942, the main oil lines from tanker ports at the Mersey and Bristol Channel (which fed oil to the east coast) were connected to a new spur that ran south to Hamble oil terminal on the east side of Southampton Water. In 1943, a pipeline was laid across Southampton Water to Fawley and over land to Lepe, where the SOLO pipeline (**MA0020**) crossed to Thorness Bay on the Isle of Wight and fed the main reservoirs, codenamed TOTO (Searle, 1995:46).

There was a PLUTO pumping station at Fawley in the area of Badminston Common. Large tanks fed a pumphouse at Mopley pond, from where fuel was pumped to

Stone Point and across the Solent to the Isle of Wight. All evidence of the pipeline was supposedly removed after the war (combinedops.com).

Baseline Archaeological Significance

The NMP survey suggests that the large mounds of the fuel storage tanks are still extant on the edge of Badminston Common (**MA1217**). A building tentatively identified as a communications building is also still extant immediately north of the tanks at the end of Badminston Lane and is in use today as a garage (**MA1227**). The NMP project suggests that buildings are still extant in the area of the pump house at Mopley Pond (**MA1220**), although it has been suggested that these have in fact been removed, leaving only the concrete bases (Combinedops.com). These structures are discussed in more detail below. The actual pipeline was almost certainly removed after the war, owing to the value of the lead inside. However, on the Isle of Wight, the former route of the pipeline across land is indicated by distinctive marker posts. Field walking along the supposed route of the pipeline between this installation and Stone Point may be able to identify similar marker posts.

Significant Feature: Fuel Storage Tanks (MA1217)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

The RCZA (Wessex, 2009) noted extant turf covered mounds on the north east corner of Badminston Common. Although not identified as such, their location corresponds with the PLUTO storage tanks on a map of the installation produced by David Ride in 2012 (Combinedops.com). The construction of these tanks is unclear but may have taken the form of large steel containers. They were apparently 180m by 100m and 4m high and were buried under turf. Fencing created a compound around the tanks. A survey of this site may be able to determine whether or not there is any evidence of the tanks still present. As no other similar sites are known of in the UK, they would represent a highly unique aspect of the PLUTO operation.

Significant Feature: Pump House (MA1220)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

The New Forest RCZA identified extant buildings on the east side of Mopley Pond (see Wessex Archaeology, 2011). Although the buildings' purposes are not identified, their location corresponds with the PLUTO pump house on a map of the installation produced by David Ride in 2012. However, it is also recorded that these buildings were no longer extant in 2012 and that only concrete bases remain (www.combinedops.com). A site visit may be able to determine whether or not there is any evidence of the pump house still present.

PLUTO installations were often camouflaged to disguise their true purpose. Here this took the form of woodland and turf covering, but in other locations the pump house was disguised as a dwelling. In Greatstone, Kent, five such pump houses still survive today as private bungalows (www.greatstone.net) Similar pumping elements also survive at Sandown on the Isle of Wight (BBC, June 2010).

Significant Feature: Communications Building (MA1227)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

The site of Badminston Garage at the end of Badminston Lane corresponds with the PLUTO 'Radio Station' shown on a map of the installation produced by David Ride in 2012 and is described as being the same building. Its original function is unclear, but it has been suggested as being a communications centre of some sort, owing to the presence of aerial masts on its roof during the war (www.combinedops.com).

A site visit and survey of the building may be able to determine whether this is the same building and to what extent it has been modified since the war. There may be original features within the building that could reveal more about its original function.

BADMINSTON COMMON AIR RAID SHELTERS (MA1146 & MA1438)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Volunteer contributions have highlighted an air raid shelter at Badminston Common, close to another on the Cadland Estate. From photographs both appear to have been built to the same design and are surface brick built public shelters with concrete roofs, both with access to the interior.

Baseline Archaeological Significance

Such shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A survey of these examples may help identify the specification to which it was built and their exact condition.

SPRAT'S DOWN AIR RAID SHELTER (MA1439)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Volunteer contributions have highlighted what appears to be an air raid shelter alongside a public footpath on Sprat's Down near the village of Ower. From photographs it appears to be a surface built public shelter made of brick with a concrete roof. This shelter was probably built for the occupiers of neighbouring homes.

Baseline Archaeological Significance

Such shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A survey of this example may help identify the specification to which it was built and its exact condition.

HAXLAND ANTI-AIRCRAFT BATTERY (S.15) (MA1361)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Haxland AA Battery was a Heavy AA battery built north of Lepe Farm. War diary entries show that the site was designated S.15 and housed two 3-inch AA guns when activated in 1939 (WO 166/2262). These were replaced by four 3.7 inch guns later in the war. Aerial photography indicates that the guns were arranged in concrete emplacements around a central command post, with ancillary buildings, stores and accommodation just north of the gun positions. War diaries also indicate that an AA HQ was established in Lepe Farm, immediately south of the battery (WO 166/14674).

The site was retained as a Cold War Battery in 1946 (Dobinson, 1996a:459). However, it is possible that it was disarmed as early as 1959, when AA guns nationwide were replaced by guided missiles (Lowry, 1996:131).

Baseline Archaeological Significance

Modern aerial photography indicates that the Haxland site has been totally cleared and the land it was on is now under plough. However, a concrete track leading into the field from the main road may have been part of the access to the site. Further investigation of Lepe Farm may also reveal extant buildings that date from the period of its use as a HQ.

STONE POINT & LEPE BEACH

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

Stone Point is the most southerly section of the coast east of the Beaulieu River and saw extensive activity during World War II. It is possible that one of the earliest structures built there was Stone Point Battery, purportedly a coastal battery. Between 1942 and 1943 a number of LAA Bofors guns were stationed along the high ground immediately behind the coastal cliff (WO 166/11209 & WO 166/7375). Immediately behind the coastal battery a number of anti-tank defences appear to have been constructed, possibly early in the war during the invasion scare, or possibly for training purposes. Along with Stansore Point, war diary records show that Lepe was used in 1942 and again in 1943 for beach landing exercises (WO 166/7375 & ADM 202/69). In the build-up to D-Day it was also used for elements of the PLUTO pipeline; it was here that the main fuel line from the mainland crossed to the Isle of Wight. D-Day Embarkation Hard Q was built on Lepe beach (whilst Q2 was at Stansore Point) (Hampshire AHBR).

Baseline Archaeological Significance

Stone Point and Lepe Beach both saw extensive use during the war, but unlike Stansore Point immediately to the west, little remains extant today. However, excavation of the beach shingle may find more elements of the embarkation hard and the PLUTO pipeline.

Significant Feature: Stone Point Battery (MA0074)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Low*
Overall	***LOW***

There is scarce documentary evidence for Stone Point Battery. It may have first been activated in the First World War, and was certainly in use in World War II when it, along with Calshot Castle and Bungalow Battery, made up Calshot Fire Command (Coad, 1986). It has been suggested that it was armed with three 6-inch guns, although where this information was obtained is unclear (BBC H2G2). War diary research has indicated a number of coastal defence guns along the coast of the New Forest area, but Stone Point is the only known battery (aside from the defences at Hurst and Calshot Castles). It was shown as an active site in war diary records (WO 166/14506).

The NMP data for Stone Point Battery indicates an unusual layout for a coastal battery. The circular layout is more in keeping with an AA battery than a coastal site which would deploy its guns along the shore. There is scarce evidence of dedicated searchlights or magazines, which accompanied even emergency batteries that were

hastily built during the war (Lowry, 1996:100). Further investigation of this site may provide some keys to understanding its little known history.

Significant Feature: PLUTO Pipeline (MA0020)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***HIGH***

The PLUTO pipeline was designed to pump fuel from mainland England directly to Normandy after Cherbourg had been secured. This section, laid in 1943 by HMS *Persephone* and codenamed SOLO, used both a flexible steel type of pipeline named 'HAMEL' and the 3 inch lead sheathed 'HAIS' cable (Searle, 1995:36 & 46). The fuel pipes crossed the Solent to Thorness Bay on the Isle of Wight (Searle, 1989:82). Lepe is the only recorded Solent crossing point for the pipeline.

It is unclear whether there are any surviving elements of the PLUTO pipeline at Lepe, although excavation of the foreshore and intertidal area may reveal elements under the beach.

Significant Feature: Q Embarkation Hard (MA1366)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***MEDIUM***

In 1944, Lepe Beach was prepared as an embarkation point for the D-Day invasion, code named Q (Cunningham, 1994:29). Like many other such hards, beach hardening was probably laid along the shore line to allow landing craft to beach safely and for tanks and vehicles to easily drive straight onto them. For mooring purposes, bollards will probably have been installed on the shore and 'Dolphin' pier heads built in the intertidal area, allowing landing craft to be securely moored during loading. The Dolphins also supported elevated gangways for men to walk directly onto ships (www.fortgilkicker.co.uk).

Such embarkation points were laid all along the south coast of England where the shoreline permitted it. The NRHE lists 52 sites, predominately along the south coast, that were constructed in a similar manner during World War II. At Lepe, much of the waterfront appears to have been modified with modern sea defences. It is possible that many World War II features have since been obliterated. However, some elements may be visible at low tide (Cunningham, 1994:29)

Significant Feature: Light Anti-Aircraft Positions

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***LOW***

War diary research indicates the presence of a line of five single Bofors Light Anti-Aircraft positions between Lepe Farm and Stansore Point between 1942 and 1943. These appear to be positioned along the high ground immediately behind the coastal cliff (WO 166/11209 & WO 166/7375). Investigation of these five locations may reveal whether these were merely temporary deployments with little or no construction involved, or if they were more substantial locations with permanent footings and services.

STANSORE POINT

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*High*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Stansore Point was used extensively in the period 1942-1944. Along with Stone Point, war diary records show that it was used in 1942 and again in 1943 for beach landing exercises (WO 166/7375 & ADM 202/69). In December 1943 it was designated as a site from which to build and launch Phoenix caissons for Mulberry Harbour. In the final build up to D-Day it was turned into an embarkation point for troops who would take part in the Normandy Landings.

Baseline Archaeological Significance

There are several features related to both the caisson construction and the D-Day embarkation remaining at Stansore Point. As both are present in the same area, they are intermingled and hard to differentiate as being of two different purposes, in use at two different times. The NRHE lists only one other site in the country that has elements of Mulberry construction and D-Day embarkation in the same place; Stokes Bay at Gosport.

Stansore Point was surveyed in 1990 by Hampshire County Council and some elements of the features may have been broken up to provide material that could be used to protect better surviving elements of the site. (Wessex Archaeology, 2011, Appendix D:17). A fresh survey would be able to assess to what extent this has been successful.

Significant Feature: Mulberry Harbour Construction Site (MA1357).

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*High*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Six Phoenix Type B2 caissons were built at Stansore Point in the period between December 1943 and D-Day (Cunningham, 1994:20). Each caisson was a large concrete 'box' 62 metres long, 13.4 metres wide and 10.6 metres high, and weighing 6,000 tons (D-Day at Lepe). Construction of the six caissons involved 700 men employed by Wilson Lovatt & Sons Ltd. and required purpose built structures on the foreshore at Stansore Point. These included construction platforms, winches, tracks to pull the caissons across the beach and slipways on which to slide them into the water (Wessex Archaeology, 2011).

147 Phoenix caissons were towed to France after D-Day to act as breakwaters for the rest of the harbour. The vast majority of these were built in dry docks or established harbours such as Southampton and Portsmouth, so beach construction sites are relatively rare. The only other beach construction sites for Phoenix caissons were at Stokes Bay (Gosport) and on Hayling Island at the entrance to Langston Harbour (Hartcup, 1977:91). At Stokes Bay the concrete construction platforms are still in evidence. At Hayling Island only the launching slipways appear to survive.

Most elements of the construction process are still represented at Stansore Point, in a reasonable level of preservation and are well interpreted by an information board nearby. This includes the construction platforms, rolling track wall, slipways, winching gear positions and the bases of buildings and a water tower that were built to accommodate the workforce (HCC, D-Day at Lepe). However, being a foreshore site there is a risk of erosion by the sea.

Significant Feature: Q2 Embarkation Hard (MA0026)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*High*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Shortly after the completion of the Phoenix Caissons, the construction site was prepared as an embarkation point for the D-Day invasion, code named Q2. As with site Q, beach hardening was laid along the shore, bollards were installed and 'Dolphin' pier heads were built in the intertidal area, allowing landing craft to be securely moored during loading. The Dolphins also supported elevated gangways for men to walk directly onto ships (www.fortgilkicker.co.uk).

At Stansore, sections of all these elements are still in evidence and are well interpreted by an information board nearby. However, being a foreshore site there is a risk of erosion by the sea.

Such embarkation points were laid all along the south coast of England where the shoreline permitted it. Of the 52 sites listed by the NRHE that were constructed in a similar manner during World War II it is likely that only Stokes Bay in Gosport was

converted after it had been used as a Mulberry construction site. Like Stansore Point, several elements also survive there (www.fortgilkicker.co.uk).

An inland element of the embarkation hard was the roads leading to it. A map of the embarkation areas indicates that a track that leads from Stanswood Road to the shore was one of the main access routes to the hard. Although this track is shown on earlier maps, it appears from modern aerial photography to have been constructed from concrete. This may date from World War II and is worthy of closer investigation.

LEPE ANTI-AIRCRAFT BATTERY (MA1322)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

The New Forest RCZA identified a potential AA Battery east of Stone Farm (Wessex Archaeology, 2011). The site is visible on 1946 Aerial Photography as several potential gun emplacements, but no reference to this AA position has been found in extensive war diary research undertaken as part of this desk based assessment.

AA batteries were first established around the New Forest in 1939 and their number grew during the build-up towards D-Day and during deception operations. AA batteries were either heavy (usually housing four or more 3.7 inch guns) or light (using various numbers of 40 mm Bofors guns) (Lowry, 1996:48-61).

Baseline Archaeological Significance

AA batteries were usually quite extensive sites that included services, magazines and accommodation. No such structures are visible near these gun pits, indicating that if it were an AA position, it may have been a very temporary deployment. It may be that any AA guns based here where a support the embarkation hards at Stone and Stansore Points. Further survey work may be able to reveal the true nature of these features and locate any other features that may be associated with them.

RAF CALSHOT (MA1354)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

RAF Calshot first opened as Calshot Naval Air Station in 1913 and became Royal Naval Air Station (RNAS) Calshot in 1914. Seaplanes and flying boats used the spit as a base for flying from Southampton Water. Originally a training station, its role expanded to include the protection of shipping along the south coast during the war. A massive building programme in 1917 saw the first hangers built on the spit, including the Sunderland Hanger that is still in use

today as part of Calshot activities Centre (www.transportheritage.com).

Between the wars, Calshot was renamed as RAF Calshot and used as the main base for Schneider Cup races in 1929 and 1931 (Lewis, 2011). T. E. Lawrence (Lawrence of Arabia) was also based here during the 1929 event. During World War II, Calshot was used as a maintenance and repair centre for flying boats and a training centre for RAF launches. Five of the station's tender boats took part in the Dunkirk evacuation (www.southernlife.org). From 1942 it was also used as a base for Air-Sea Rescue high speed launches (www.transportheritage.com).

After the war, operation squadrons were based at RAF Calshot until 1961, when the station was closed (www.transportheritage.com).

Baseline Archaeological Significance

The Hampshire Aggregate Landscape Enhancement Project (2009) digitally plotted the RAF station from period aerial photographs, which has identified three buildings that correspond with buildings still extant on the spit. To this must be added the three aircraft hangers. Their condition is not known, but the ancillary buildings are used for dwellings, classrooms and offices. There is a large activities centre including climbing walls and a velodrome in the Sunderland Hanger, and boat storage in the remaining two hangers. All three hangers are Grade II listed buildings. As well used buildings, their condition is presumably assessed regularly and their construction will be well recorded. Additional site visits may identify other elements of the station identified on the RAF plan.

Significant Feature Short Sunderland Wreck (MA0142)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium (presumed)*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*High*
Overall	***MEDIUM***

The NRHE records a wreck site immediately east of Calshot Spit. This has been identified as the site of a submerged Sunderland Flying Boat, believed to have been lost in 1944. This is most likely the wreck of a Sunderland that sank at its mooring in 1950. Of approximately 777 built, only one Sunderland remains airworthy today. A further six are still intact, and six wrecks are recorded in the NRHE. The Calshot wreck was last described as intact, but upside down and minus its tail section (www.calshotdivers.com). It may be this wreck was the source of a propeller that was salvaged in 2010 (Wessex Archaeology, 2010:33). Further investigation of the wreck could determine if it is the aircraft from 1950 or if it is another wreck from the war period.

CALSHOT CASTLE (MA1170)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Low*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

Calshot Castle is a Henrician Device Fort built in 1540 to defend the approach to Southampton Water. It was supplemented by a battery in the 19th century and in the late 1800s became the base for a boom defence that protected Southampton Water. The defence consisted of hulks, laid end to end and moored to Dolphins in the centre of the channel. (Saunders, 1989:198). In World War II it was armed with two 12-pounder QF guns on its roof and was part of Calshot Fire Command, along with Bungalow Battery on the other side of Southampton Water, and Stone Point Battery near Lepe (Coad, 1986:18)

Baseline Archaeological Significance

Calshot Castle's roof was significantly altered in the last 200 years to accommodate new guns. There is still a gun mounted there today. Survey of this weapon may identify its calibre and whether it is an original World War II piece. Calshot Castle is a Scheduled Ancient Monument and a Grade II listed building.

EAGLEHURST CAMP (MA1187)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

Eaglehurst camp was first built during World War I as an ancillary site of RNAS Calshot, built to accommodate the ground staff and aircraft crews based there. The site was modified in World War II with the addition of defensive trenches and camouflage on the building's roofs (Hampshire Aggregate Resource Assessment, 2010:38). The camp was connected to RAF Calshot by a light railway (also built in World War I) and by 1940, the camp accommodated 500 trainee airmen (Frame, 2007:38).

Eaglehurst camp continued to be used as part of RAF Calshot until the 1950s. In the 1960s it was briefly used as temporary accommodation for displaced persons from the island of Tristan da Cunha.

Baseline Archaeological Significance

Exactly when Eaglehurst Camp was demolished is not clear from the records so far assessed. However, several buildings of the camp are known to be extant; the present day St George's Hall is the former camp church, the officer's married quarters are a private residence and three quarters on Castle Lane are used as accommodation for staff at Calshot Activities Centre. Accurate survey of the

buildings around the married quarters may reveal if any are original structures and further investigation of the main camp area may identify the extent to which building footings and trenches survive. A related pillbox on the coast is discussed below.

Significant Feature: Hillhead Pillbox (MA1096)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

The Hampshire AHBR records an unusual pillbox on the shore at Hillhead. Photographs of the pillbox suggest that it is more likely to be a generator bunker and the RAF site plan of Calshot records an engine room on this site. Only one loophole appears to be a firing position (the rest may be vents) and the doors and windows are too large and numerous to be protected firing positions. Accurate survey and the removal of the undergrowth around the site may enable a more detailed assessment of its features. From this it may be possible to determine its actual purpose.

EXBURY HOUSE (MA0141)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low - Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Exbury House, was requisitioned by the Royal Navy in May 1942, and designated HMS *Mastodon* a few months later. The house was significantly modified for its new role as a Royal Navy amphibious landing planning HQ. The ground floor was converted to offices, messes and stores, while space upstairs was made into accommodation and a sick bay (Cunningham, 1994:11). In late 1943, HMS *Mastadon* expanded to cover several other sites, including Buckler's Hard (**MA1440**) and Lepe. To accommodate the ever growing staff, a number of ancillary buildings were constructed in the grounds, including a guard house, barracks capable of housing 300 personnel, a cinema, storerooms, a dentists and a sick bay. Landowner contributions have also identified an extant Nissen hut that may have been used as a NAAFI on the grounds (**MA1470**). A large tented encampment also existed on the grounds (Cunningham, 199:29). In 1944 the nursery was made into a HQ for G Force (the force attacking Gold Beach in Normandy). The tents were removed after D-Day, but HMS *Mastodon* remained active until July 1945. After it was closed, it was commissioned as HMS *King Alfred* in January 1946 and as HMS *Hawke* in August 1946. It was finally derequisitioned in May 1955 and returned to the Rothschild family (Cunningham, 1994:70-71).

Baseline Archaeological Significance

The extensive modifications to Exbury House may have left interior evidence, although Edmund de Rothschild believes there to be little. Equally, the locations of

the various ancillary buildings (now removed) are not certain (Leete, 2004:87). An accurate survey of the site and further historical research may be able to pinpoint these locations.

LOWER EXBURY AA POSITION

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***HIGH***

War diary records and landowner contributions have highlighted a number of sites at Lower Exbury, adjacent to the mouth of the Beaulieu River. The tether of a Barrage Balloon is evident (**MA1468**), along with a Bofors AA gun pit (**MA1467**) and a concrete pit that may be a gun position or tank pit (**MA1471**). War diary entries indicate at least two LAA positions in the area (WO 166/7375). They also indicate two searchlight emplacements from different periods; 1942 (WO 166/6099) and 1944 (WO 166/14674), that may have occupied the same site. A beach defence light is also listed very close to the Bofors gun pit (WO 166/14506).

Baseline Archaeological Significance

Reports from the landowner indicate that several of these features are still extant. Further investigation may be able to reveal other features indicated in the war diary. The presence of the Bofors gun pit may present an opportunity to fully survey and assess their construction, which may aid in the identification of the dozens of similar sites listed in the New Forest in war diary records.

WHITEFIELD ROUGH CAMP (MA1320)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

Aerial photography from 1946 indicates what might be a World War II camp at Whitefield Rough alongside the Dark Water River. The photography indicates numerous building concentrated alongside Lepe Road. The camp is close to the embarkation point at Lepe and may be related to that in some way, although it does not appear on a map of staging areas. It has been suggested that it was an accommodation camp for the Mulberry construction workers (Berkshire Archaeological Services, 2008:99).

Baseline Archaeological Significance

Further investigation may indicate what the site was used for and when it was in use. Field walking may identify similar structures in the same area.

BLACKFIELD ANTI-AIRCRAFT BATTERY (MA1518)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

The New Forest RCZA identified a potential AA Battery in Fields Heath at Blackfield (Wessex Archaeology, 2011). The site is visible on 1946 Aerial Photography as several potential gun emplacements.

War diary research undertaken as part of this desk based assessment has identified a number of Light AA positions in the immediate surrounding area (WO 166/11209, WO 166/7375), but as these entries refer only to single gun positions, it is unlikely that they refer to this site. However, it is significant that this site is very close to the 'Vulnerable Position' of Fawley Petrol Centre, an area designated for increased AA defence in war diaries (WO 166/1319).

Baseline Archaeological Significance

AA batteries were usually quite extensive sites that included services, magazines and accommodation. Further survey work may be able to identify these features and establish the relationship with surrounding trenches (**MA1225**) and buildings (**MA1222**, **MA1223**, **MA1224** and **MA1519**).

3.4.16 Sub Unit Zone B

Sub Unit Zone B encompasses the south east coast of the National Park around Beaulieu and is 33.2km^2. It contains 29 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	2	
	Anti-Aircraft	4	4
	Training Sites		
	Military Camps & Requisitioned Houses	9	1
	Airfields	1	1
	Experimental Sites	1	
	Domestic Sites	6	1
	Damage & Losses	6	

Amongst these monuments, the following were considered significant:

BUNKER'S HILL ANTI-AIRCRAFT BATTERY (BEAULIEU 33) (MA1305)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Medium*
Overall	***Medium***

Bunker's Hill AA Battery was a Heavy AA battery built alongside Hatchet Lane. War diary entries show that the site was designated as Beaulieu 33 or S.33 and housed four 3.7 inch guns when activated in 1942 (WO 166/7375). They also record that in 1944, the battery was bombed and four personnel were killed. This documentation includes photographs and plans of the camp (HO 192/852). Further war diary records show that the site was scheduled to be cleared and levelled off on 4 August 1945 using 5 men and a bulldozer. The war diary suggests that the holdfasts for the guns were still in place. Whether these were removed is not clear and they may remain at the site (WO 166/16686).

Baseline Archaeological Significance

Modern aerial photography indicates that the Bunker's Hill site has been totally cleared and much of the land it was on is now under plough. However, further survey may be able to identify material remains of the battery and identify other features shown on the plans and photographs, including the bomb craters.

BUCKLER'S HARD (MA1440)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Low*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Medium*
Overall	***MEDIUM***

Royal Navy personnel first began to arrive at the 18th century boatyard of Buckler's Hard in the winter of 1940. A temporary Nissan hut camp was established in the grounds and the men employed there worked on dumb barges, modifying them for military service. At various times throughout the following three years, houses were requisitioned for military use, but in November 1943 the entire village was requisitioned and turned into a repair and maintenance base for landing craft. Shortly after, the whole site was taken under control of HMS *Mastodon*, based in Exbury House (Cunningham, 1994:8,28).

Buckler's Hard waterfront was extensively modified with the addition of a concrete slipway and motorised winch, and a crane on one of the quays (Holland, 1984:165). Numerous buildings that appear to be of a military nature also appear on period photographs. It was used not only for the maintenance of landing craft attached to the units of HMS *Mastodon*, but also for servicing and maintaining Motor Torpedo Boats and the construction of dummy ships used in Operation *Quicksilver* (Cunnigham, 1994:25:36).

Baseline Archaeological Significance

The World War II slipway was surveyed in 2012 (Wessex Archaeology, 2012) as part of a project commissioned by the NFNPA. Most of the remaining features were in a generally good condition, although there was some damage to the steel rails. Little trace remains of the numerous huts, but one shed (currently used to store canoes), corresponds with the site of a shed in period photography. A survey of this feature and further research may ascertain if it is a World War II structure.

CLOBB COPSE BOATYARD (MA1359)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

In 1941 the bank of the Beaulieu River at Clobb Copse was made ready to be used as a top secret building basin for an experimental concrete dry dock. The dry dock was launched in March 1944 and floated round to Portland, where it was used throughout the war. (Holland, 1984:169-171) In 1943 the site was extended whilst the dry dock was still being constructed to create space for the construction of concrete 'Beetle' barges; components of Mulberry Harbour that made up the roadway connecting the caissons to the shore. The existing oyster bed was cleaned out and given a concrete bottom. The dock was

then sealed with timber gates constructed behind a steel coffer dam. Upon completion of the dock, the coffer dam was removed at low tide (Hartcup, 1977:87). More than fifty Beetles were built in Clobb Copse in the build-up to D-Day. Finally, six much larger 'Intermediate Pontoons' were built in the basin in the final months before the invasion (Cunningham, 1994:21-22).

Baseline Archaeological Significance

470 Beetles were built in advance of D-Day. It would appear that there were only four construction sites, the others being London, Marchwood and Southsea. There is little or no evidence of these three sites, potentially leaving Cobb Copse as the only remaining extant site of Beetle construction in World War II. Clobb Copse was also unique in that construction took place in a basin, whereas it was done directly on the waterfront at Southsea and Marchwood, and in established docks in London.

An accurate survey of the basin at Clobb Copse would help establish the way in which the site was prepared for its role and the extent of the features associated with it.

NEEDS OAR ADVANCED LANDING GROUND (MA1331)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Needs Oar ALG was constructed in the summer of 1943 in preparation for the invasion of mainland Europe. It was occupied by RAF British and Commonwealth squadrons flying Hawker Typhoons. Four such squadrons with a total of some 150 aircraft were based here in the build-up to D-Day, along with over 900 ground crew. During the spring and summer of 1944, it is estimated that the airfield was so busy that aircraft took off or landed every 45 seconds. As with many of the ALGs along the south coast, the airfield was totally vacant by July and would not be used as an airfield again. The Royal Navy used the site as a depot until 1946, at which point it was returned to the Beaulieu Estate (Brooks, 1996:164).

Baseline Archaeological Significance

ALGs were not designed as anything more than temporary airfields with tented accommodation. The landing strip was made of steel mesh pinned to the ground with large stakes that could be removed when the airfield was closed. As such they leave little evidence of their past on the ground. At Needs Oar, this evidence takes the form of field boundaries along a former perimeter track and traces of dispersal areas identifiable in LiDAR survey. However, at least one present day building corresponds with the location of a small arms store at the north end of the airfield. Several buildings around Rolf Farm at the southern end may also be World War II structures. Further investigation may be able to determine if these are original airfield buildings.

NEEDS OAR ANTI-AIRCRAFT BATTERY (MA1441)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

War diary research undertaken as part of this desk based assessment has indicated the presence of a Heavy AA Battery, designated S.101, immediately west of Needs Oar Airfield in late 1944 (WO 166/14674). Aerial photographs from the Beaulieu Estate also show this AA battery. It appears to consist of 8 gun pits circled around a central command bunker and another, well camouflaged, building (most likely a magazine). What may be two GL Radars are nearby. There also appears to be a line of tented accommodation running north-south alongside the battery. It is difficult to ascertain if the guns are HAA or LAA. However, the airfield is active in all the photographs, indicating that they date from between summer 1943 and summer 1944. A further war diary record indicates that S.101 was an Overlord Battery and was scheduled for clearance by five men with a bulldozer on 4 August 1945, by which time all holdfasts and hutting would have been removed (WO 166/16686).

Baseline Archaeological Significance

The removal of the site with a bulldozer and the subsequent return to crop of the field may explain why no trace of the battery was identified in the RCZA (Wessex Archaeology, 2011). The site was clearly a temporary type (based on its classification as an Overlord Battery). Field walking may identify the site of the accommodation or the gun pits.

NAVAL COAST BOMBING DECOY 606 (MA1369)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

This site was a QL Decoy Site used as Naval Coast Bombing Decoy 606 in 1943. The decoy was one of a number built for Portsmouth Command as part of Operation *Fortitude South*, a deception scheme that aimed to direct Luftwaffe attention away from genuine coastal sites building up towards Operation *Overlord*. QL sites were used to represent industrial areas at night and used lights, signal lamps and small furnaces (as might be found at factories or marshalling yards) to distract enemy bombers from genuine targets. Site 606 was fitted with the standard parts of A QL site (a control bunker and fittings for the lights), but it is not recorded if any electrical equipment was ever fitted (Dobinson, 2000a:178-179). It has been suggested that the site involved shining lights onto

water to simulate a coastal location (Pasmore, 2012), but this is not clear from the NRHE.

Baseline Archaeological Significance

The NRHE records over 260 QL sites in England and thirteen such sites used by Portsmouth Command in Operation *Fortitude South*. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The features of site 606 are recorded as being invisible in 1968 (Anderton, 1999:102). However, it has been suggested that a mound of rubble and a building platform may still be evident (Pasmore, 2012). A site visit would be necessary to assess the accuracy of this.

SOWLEY ANTI-AIRCRAFT BATTERY (BEAULIEU 32) (MA1360)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Sowley AA Battery was a Heavy AA battery built alongside Sowley Marsh. The site at Sowley is visible on 1946 aerial photography as four or five potential gun positions with ancillary buildings nearby. It is believed the battery was active in 1942 and armed with four 3.7 inch guns (Dobinson, 1996a) No reference has been found to this AA position in extensive war diary research undertaken as part of this desk based assessment, although a searchlight position is identified in the area (WO 166/2262).

Baseline Archaeological Significance

AA batteries were usually quite extensive sites that included services, magazines and accommodation. Further survey work may be able to reveal the true nature of these features and locate any other features that may be associated with them.

3.4.17 Sub Unit Zone C

Sub Unit Zone C encompasses the most southerly section of coast of the National Park at Hurst and is 30.5km^2. It contains 11 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	5	1
	Anti-Aircraft	2	1
	Training Sites		
	Military Camps & Requisitioned Houses		
	Airfields	1	1
	Experimental Sites		
	Domestic Sites	1	
	Damage & Losses	2	

Amongst these monuments, the following were considered significant:

LYMINGTON ADVANCED LANDING GROUND (MA1316)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Lymington ALG was constructed in the summer of 1943 in preparation for the invasion of mainland Europe. However, it was not occupied until April 1944 when three US squadrons of the 50th Fighter Group arrived. These squadrons were equipped with Thunderbolt fighters and flew numerous missions over the D-Day period, before they departed to an airfield in France on June 24th. After that only a small holding party remained at the airfield and little flying took place before the site was broken down in spring 1945 (Freeman, 1994:238-239). There is some suggestion that the airfield was a prototype for construction methods for the airfields that would be built in France, but this is not confirmed.

Baseline Archaeological Significance

ALGs were not designed as anything more than temporary airfields. The landing strip was made of steel mesh pinned to the ground with large stakes that could be removed when the airfield was closed. As such they leave little evidence of their past on the ground. At Lymington, this evidence takes the form of a crop mark of one of the perimeter tracks, and a blister hanger that is still in use as a farm store. This was apparently renovated (Leete, 2004:68), but a survey of this site may be warranted to assess its condition (Freeman, 1994:239).

NAVAL COAST BOMBING DECOY 609 (MA1370)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

This site was a QL Decoy Site used as Naval Coast Bombing Decoy 609 in 1943. The decoy was one of a number built for Portsmouth Command as part of Operation *Fortitude South*, a deception scheme that aimed to direct Luftwaffe attention away from genuine coastal sites building up towards Operation *Overlord*. QL sites were used to represent industrial areas at night and used lights, signal lamps and small furnaces (as might be found at factories or marshalling yards) to distract enemy bombers from genuine targets. Site 609 was fitted with the standard parts of A QL site (a control bunker and fittings for the lights), but it is not recorded if any electrical equipment was ever fitted (Dobinson, 2000a:178-179). It has been suggested that the site involved shining lights onto water to simulate a coastal location (Pasmore, 2012), but this is not clear from the NRHE data.

Baseline Archaeological Significance

The NRHE records over 260 QL sites in England and thirteen such sites used by Portsmouth Command in Operation *Fortitude South*. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The features of site 609 are recorded as being invisible in 1968 (Anderton, 1999:102). A site visit would be necessary to confirm the accuracy of this.

HURST CASTLE (MA1088)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Hurst Castle is a Henrician Device Fort built in 1540 to defend the Needles Passage. In the 1860s it was extensively modified to include massive concrete batteries on either side of the original round tower, which make up the bulk of the fort today (Fisher, 2011:10). The site was still in the hands of the War Department at the outbreak of World War II and quickly reoccupied by the Royal Artillery. Two new gun positions and a lookout tower were built on the roof of the western casemates (James, 1986:108). A searchlight emplacement was built onto the front of the west casemates, to join another built in the late 19th century (James, 1986:85)

Several other earlier features were reused in the same period. Two of the Victorian casemates in the west wing were converted into a theatre in order to provide

entertainment for the garrison that was quite cut off from the nearest settlement. A NAAFI bar was set up in another casemate, and an oven and kitchen in another.

Baseline Archaeological Significance

The World War II additions to Hurst Castle are still extant and are believed to be in reasonable condition (Coad, 1985:30). The Bread oven space has recently been refurnished by volunteers and several elements of the NAAFI bar are still intact (James Brown, pers comm, March 2013). A full survey of the World War II features exclusively would be able to establish their exact condition. Hurst is already a Scheduled Ancient Monument.

3.4.18 Sub Unit Zone D

Sub Unit Zone D encompasses the land south of the National Park between Lymington and Christchurch and is 74.7km^2. It contains 72 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	41	24
	Anti-Aircraft	3	1
	Training Sites		
	Military Camps & Requisitioned Houses	7	1
	Airfields	2	2
	Experimental Sites	4	
	Domestic Sites	8	1
	Damage & Losses	6	

Amongst these monuments, the following were considered significant:

CHRISTCHURCH AIRFIELD (MA1044)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***LOW***

Christchurch Airfield was first opened in 1932 as a private and commercial airfield. The airfield was requisitioned in 1939 and became RAF Christchurch. The Air Ministry Research Establishment moved onto the airfield and it was put to use testing new aircraft. Only three fighter aircraft were deployed at the site during the Battle of Britain (Smith, 1999:89). At the same time a Ministry of Aircraft Production factory, managed by Airspeed Ltd was built at the north end of the airfield (Smith, 1999:93).

In October 1943 work began to upgrade the airfield to an Advanced Landing Ground. This necessitated lengthening the runway (the River Mude had to be piped underground to allow this) and laying a landing strip made of steel mesh pinned to the ground with large stakes that could be removed when the airfield was closed. (Freeman, 1994:224) The airfield was occupied by three squadrons of American fighter aircraft. The proximity of residential housing posed a problem for the pilots and there were two crashes that destroyed three local bungalows and killed 14 people (Freeman, 1994:224-226).

In March 1945 the airfield returned to RAF control and was used by RAF Transport Command. In January 1946 RAF Christchurch was closed and the airfield was

passed to the Ministry of Aircraft Production. They vacated in 1962 and the airfield was closed two years later. Most of the land was bought by developers and is now occupied by housing (Freeman, 1994:226-227).

Baseline Archaeological Significance

There is little left of the original airfield today, but one of the large hangers of the Air Ministry Research Establishment appears to remain in an industrial estate at the north east end of the airfield. A site visit may identify other buildings from the same period that are still extant.

Significant Feature: Airspeed Factory (MA1508)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium (presumed)*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*Medium*
Overall	***HIGH***

Airspeed Ltd. were brought in to manage a Ministry of Aircraft Production factory in in 1940. The factory was built at the north end of the airfield and used to build Airspeed Oxford training aircraft. In 1941 the company began work on the air assault Horsa glider. Over 3,600 Horsas were built nationwide – 695 at Christchurch. Christchurch was significant as it was the only place where entire gliders were assembled and test flown from one location.

Airspeed continued making aircraft after the war until 1962. Several of their hangers and ancillary buildings may still be extant at an industrial estate that now occupies the site. A site visit may be able to confirm if this is the case.

Significant Feature: Pillboxes (MA0213 & MA0214)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

There are two pillboxes recorded at Medford on the site of the airfield in the Dorset HER. Their type and condition are not recorded, but modern aerial photography suggests at least one is still extant. A site visit would be required to assess their condition.

CHRISTCHURCH ANTI-TANK ISLAND (MA1048)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Anti-Tank islands were defensive points, usually centred on major road junctions, bridges or natural features that, if obstructed, would delay the advance of German forces, giving time for Allied reinforcements to move to the area. These sites were usually made up of bunkers , roadblocks , trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether. The anti-tank island at Christchurch was centred on the mouth of the River Avon. War diary research undertaken as part of this desk based assessment indicates that there were five roadblocks and five railblocks in and around the Avon Valley at Christchurch in 1941 (WO 166/1319 & WO 166/14506). There are also six pillboxes listed in the Dorset HER in the area around the anti-tank island. Thirty one anti-tank blocks can still be found alongside the railway line.

Baseline Archaeological Significance

The monuments associated with Christchurch anti-tank island that appear to still be extant represent a diverse and concentrated collection. Road blocks came in various different types during the war. Some would have been temporary wood and barbed wire obstacles that would not necessarily leave any trace. On the other hand, more complex structures would have involved modifications to the road or the installation of concrete blocks on the verge. Site visits to the road and railblock locations may determine if any features survive. Four pillboxes and a line of anti-tank blocks are still extant and are discussed below:

Significant Feature: Type FW3/22 Pillbox (MA0041)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

The Type 22 or FW3/22 pillbox was the most common standard pillbox. It was a hexagonal single storey pillbox with concrete walls approximately 1 foot thick. Each wall had a single embrasure, except the side facing away from the expected direction of attack, where a door provided access to the pillbox interior (Lowry, 1996:82).

Modern aerial photography suggests that this pillbox is still extant alongside a line of the anti-tank blocks (**MA0040**). A site visit would be required to assess its condition.

Significant Feature: Anti-Tank Blocks (MA0040)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Anti-Tank blocks were built in massive quantities during the war and today are possibly the most prevalent surviving type of anti-invasion defence (Lowry, 1996:85). The most popular design was the anti-tank cube, a solid block of concrete approximately 1.07m or 1.5m square. It has been suggested that blocks laid side to side may predate 1941; post 1941 blocks being laid corner to corner. 31 blocks are listed here. Modern aerial photography suggests this line is still extant and may be made up of cubes. English Heritage have recently begun listing groups of anti-tank blocks, and a large group such as this one may warrant similar protection (Medway Council, 2012). The Dorset Historic Towns Project survey of Christchurch records that the blocks in Christchurch have been scheduled (2011:52), but there is no record in the NRHE. A site visit would be able to assess their condition and if all 31 are still present.

Significant Feature: Pillbox (MA0212)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***MEDIUM***

There is a pillbox recorded at Knap Mill Avenue on the River Avon in the Dorset HER. Its type and condition are not recorded. A site visit would be required to assess its condition.

Significant Feature: Pillbox (MA1073)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***MEDIUM***

There is a pillbox recorded at on the River Stour in the Dorset HER. Its type and condition are not recorded. A site visit would be required to assess its condition.

Significant Feature: Pillbox (MA1075)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***MEDIUM***

There is a pillbox recorded alongside the railway line just east of the River Stour in the Dorset HER. Its type and condition are not recorded A site visit would be required to assess its type condition.

Significant Feature: Pillbox (MA1056)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***MEDIUM***

There is a pillbox recorded alongside Tuckton Bridge on the River Stour in the Dorset HER. Its type and condition are not recorded A site visit would be required to assess its type and condition.

Significant Feature: Pillbox (MA0212)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

There is a pillbox recorded at Convent Meadow on the River Avon in the Dorset HER. Its type and condition are not recorded but modern aerial photography suggests it is still extant and may be a Type F3/22. A site visit would be required to assess its condition.

HIGHCLIFFE COASTAL DEFENCES

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Three pillboxes that date from approximately 1940 have been identified along the shore at Highcliffe (one in the NRHE and two in the Dorest HER) and war diary research undertaken as part of this desk based assessment indicates a coastal gun site immediately to the east in 1941 (WO 166/774). Further records suggest two beach defence lights in position nearby in 1944 (WO 166/14506). Nearby

Chewton Bunny has no records of defences, but given the ease with which vehicles can advance off the beach at the chine, it seems likely that some anti-tank defences were deployed there. It is possible that the three pillboxes referred to in two different datasets are in fact just one or two pillboxes whose positions have been misreported in different databases, creating the illusion of three separate structures along the cliff.

Baseline Archaeological Significance

These pillboxes represent a close group of coastal defences that served as the basis for a variety of uses over the course of the war. Initially emergency measures in the event of an invasion, the pillboxes were strengthened through the addition of a coastal battery and several years later were further equipped with specific searchlight positions. A site visit would be required to identify any possible features at Chewton Bunny. Further research may be able to establish the exact number of pillboxes at Highcliffe during the war. Known features are discussed below:

Significant Feature: Type FW3/22 Pillbox (MA0039)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***MEDIUM***

The Type 22 or FW3/22 pillbox was the most common standard pillbox. It was a hexagonal single storey pillbox with concrete walls approximately 1 foot thick. Each wall had a single embrasure, except the side facing away from the expected direction of attack, where a door provided access to the pillbox interior (Lowry, 1996:82).

Modern aerial photography suggests that this pillbox has slipped significantly down the cliff face at High Cliff). A site visit would be required to assess its condition.

Significant Feature: Pillbox (MA1050)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***MEDIUM***

There is a pillbox recorded on the cliff at High Cliff in the Dorset HER. Its type and condition are not recorded.

Modern aerial photography suggests that this pillbox may have been removed. A site visit would be required to assess its condition.

Significant Feature: Pillbox (MA0220)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***MEDIUM***

There is a pillbox recorded on the cliff at High Cliff in the Dorset HER. Its type and condition are not recorded.

Modern aerial photography suggests that this pillbox may have been removed. A site visit would be required to assess its condition.

Significant Feature: Coast Battery

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***MEDIUM***

This coast battery was probably more properly a Beach Defence Battery, designed to provide flanking fire across the beach in the event of an enemy landing, rather than fire out to sea. The installation and type of gun used in beach defences was varied (Lowry, 1996:95). A site visit would be required to see if the position can still be located.

Significant Feature: Beach Defence Lights

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Low*
Potential	*Low*
Overall	***MEDIUM***

The installation and type of searchlight used in beach defences was varied. A site visit would be required to see if the two positions listed in war diary records can still be located.

BARTON CLIFF CAMP / ANTI-AIRCRAFT BATTERY (MA0099)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Historical aerial photography indicates what might be a camp on the cliff tops at Barton Cliff. However, war diary research undertaken as part of this desk based assessment indicates that a Heavy AA battery was established in this area in 1944 (designated S.205) (WO 166/14674).

Baseline Archaeological Significance

Modern aerial photography indicates that a large area

of this site is now occupied by a golf course. However, a substantial amount of concrete remains in an area that may represent a battery command post. A site visit may be able to determine if this is a period feature and if any other features remain that can more positively identify this site.

LYMINGTON ANTI-AIRCRAFT BATTERY (L1) (MA0133)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Lymington L1 AA Battery was a Heavy AA battery built north of Keyhaven. The site is visible on 1946 Aerial Photography as four potential gun positions with ancillary buildings nearby. Although the site was supposedly unarmed in 1942 (Dobinson, 1996a:410), war diary research undertaken as part of this desk based assessment indicates that the site was active in 1944 (WO 166/14674) and may have been of later construction than other batteries in the study area.

Baseline Archaeological Significance

Modern aerial photography indicates that the site has been totally cleared and the land it was on is now under plough. A site visit may be able to determine if any features remain.

HINTON ADMIRAL PILLBOX (MA0199)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

The Dorset HER records a pillbox built into the road bridge over the railway line at this location. Its type and condition are not recorded. It also records another pillbox on the other side of the railway line (**MA0200**), although this may be a double record.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox. It would also be necessary to more closely inspect the site of the second pillbox to see if there is any evidence of one.

ASHLEY PILLBOX (MA1377)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

The Defence of Britain database records a pillbox here at this location. Its condition and type are not known.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

TADDIFORD PILLBOX (MA1378)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

A pillbox is visible on modern aerial photography at this location behind Barton Cliff. Its condition and type are not known.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

BRAXTON PILLBOX (MA1093)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

The Hampshire AHBR records a pillbox at this location, alongside Milford Road. Its condition and type are not recorded, but it may have been built into a barn.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

WHITE HOUSE PILLBOX (MA1379)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

A pillbox has been built into the side of the White House on the beach front at Milford-on-Sea. Its condition and type are not known. However, it may be related to a war diary entry describing a gun position in the vicinity (WO 166/1319)

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

EVERTON GRANGE PILLBOXES (MA1094, MA1386 & MA1399)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

The Hampshire AHBR and Defence of Britain database records three pillboxes alongside Milford Road at Everton. Its condition and type are not recorded.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

BASHLEY PILLBOX (MA1400)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

The Defence of Britain database records a pillbox at this location, alongside Milford Road. Its condition and type are not recorded.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

HORDLE PILLBOX (MA1398)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

The Defence of Britain database records a pillbox at this location, alongside Milford Road. Its condition and type are not recorded.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

LYMINGTON PILLBOX (MA1425)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***MEDIUM***

The Defence of Britain database records a pillbox here. Its condition and type are not known.

Baseline Archaeological Significance

Owing to the current lack of records or archaeological information, a site visit would be able to establish the type and condition of the pillbox.

3.4.19 Sub Unit Zone E

Sub Unit Zone E covers the area of the National Park between Lymington and Holmsley and is 23.9km^2. It contains 9 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	1	
	Anti-Aircraft	1	1
	Training Sites		
	Military Camps & Requisitioned Houses	4	
	Airfields	1	1
	Experimental Sites		
	Domestic Sites		
	Damage & Losses	2	

Amongst these monuments, the following were considered significant:

SWAY EMERGENCY LANDING GROUND (MA0130)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Emergency Landing Grounds (ELGs) were set up early in the war, primarily during the Battle of Britain, to provide a reasonably safe area for fighter aircraft to touch down in an emergency, either as a result of battle damage, lack of fuel or injury to the pilot.

Sway ELG was opened in the summer of 1940. There are no records yet identified of emergency landings at the airfield, but it was used as a dispersal site for aircraft of the Air Ministry Research Establishment at RAF Christchurch (MA1044). The site was bombed in a Luftwaffe raid in April 1941. (Smith, 1999:91). A number of the circular features identified in the fields may therefore be bomb craters. The airfield is understood to have closed in 1941.

Baseline Archaeological Significance

Emergency Landing Grounds were little more than grass landing strips with hutted or tented accommodation for ground crews. As such, they are unlikely to leave much evidence on the ground. However, a site visit and field walking may provide an opportunity to learn more about this site and they was in which its various elements (workshops, accommodation etc…) were constructed and may identify artefacts from the period.

LYMINGTON ANTI-AIRCRAFT BATTERY (L2) (MA0134)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

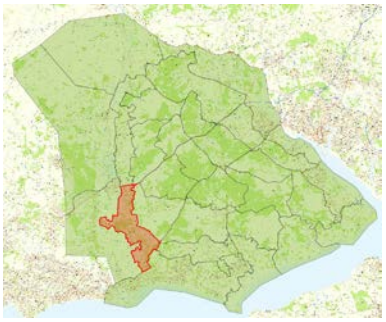
Lymington L2 AA Battery was a Heavy AA battery built just south of Mount Pleasant. The site is visible on 1946 Aerial Photography as four potential gun positions with ancillary buildings nearby. Although the site was supposedly unarmed in 1942 (Dobinson, 1996a:410), war diary research undertaken as part of this desk based assessment indicates that the site was active in 1942 (WO 166/7392).

Baseline Archaeological Significance

Modern aerial photography indicates that the site has been totally cleared and the land it was on is now under plough. A site visit may be able to determine if any features remain.

3.4.20 Sub Unit Zone F

Sub Unit Zone F encompasses the south west corner of the National Park and is 27.2km^2. It contains 33 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures		
	Anti-Aircraft	2	
	Training Sites	9	5
	Military Camps & Requisitioned Houses	4	2
	Airfields	3	
	Experimental Sites		
	Domestic Sites	7	
	Damage & Losses	8	

Amongst these monuments, the following were considered significant:

AVON TYRRELL CAMP (MA1165)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Avon Tyrrell House was requisitioned in World War II and occupied by the US 114 Signal Radio Intelligence Company, a support group of the 12th US Army Group, whose role was to intercept and record enemy radio transmissions (www.usarmygermany.com). Exactly when they arrived at and left Tyrrell House is uncertain from the records so far examined, but it is known that a number of ancillary buildings were constructed around the house (**MA1166**). These remained for some time after the war but have since been demolished (www.avontyrrell.org).

War diary research undertaken as part of this desk based assessment also indicates that the house and its grounds were used as a Battle School by HQ 47 Division (WO 166/10967). This may however be a mistake in the war diary entry, as there was no American or British 47 Division active in World War II.

Aerial photography has indicated a possible searchlight emplacement in the grounds of the house (**MA0383**), although extensive war diary research has not found any reference to this installation.

The 1943 New Forest Training Areas map shows a rifle range immediately east of Avon Tyrrell House. A survey conducted in 2010 found a number of pits and banks in

the same area (**MA1162**, **MA1163**, **MA1164**), which may be related (Berkshire Archaeological Services, 2010, 2010).

Avon Tyrrell was never re-occupied by the family that owned it after World War II. Instead, Lord Manners donated it to the Youth of the Nation in 1949. It has since become an activity centre and the house and grounds have been extensively modified (www.avontyrrell.org).

Baseline Archaeological Significance

A survey of the grounds conducted in 2010 was able to identify the concrete bases of the Nissan huts and other accommodation built in the grounds, although they were substantially overgrown (Berkshire Archaeological Services, 2010).

A site visit may be able to identify the possible searchlight position and determine if it is likely to have been one. However, as with much of the estate, its location may have been substantially altered in recent years.

A site visit may be able to identify the rifle range east of the main house. New Forest Training Areas map shows a rifle range immediately east of Avon Tyrrell House. The earth banks have been integrated into a cycle track and have been damaged as a result. However, a survey of their exact location an arrangement may be able to determine if they were part of a rifle range.

BISTERNE COMMON (MA0455 & MA0456)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

A number of features were identified in historical aerial photography of Bisterne Common. The NMP identified what appear to be two features enclosed by separate rings of barbed wire. A number of bomb craters and/or foxholes are also located in and around each ring of barbed wire.

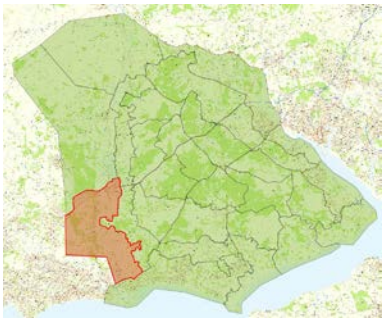
Bisterne Common, although falling within the New Forest Training Area as indicated on the 1943 map, was not classed as a live firing range. This might imply that the craters were caused by aircraft bombs and may have been an attack on installations enclosed in the barbed wire. A more likely possibility is that these are training areas used to practice attacks on enemy strongpoints or installations.

Baseline Archaeological Significance

A number of the craters are still visible on modern aerial photography and may not have been filled since the war. Closer inspection of these features may be able to determine if they were foxholes, bomb craters or shell craters. Further documentary research may be able to determine the nature of activities here.

3.4.21 Sub Unit Zone G

Sub Unit Zone G encompasses the land east of the National Park between Christchurch and Ringwood and is 68.2km^2. It contains 39 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	3	2
	Anti-Aircraft	4	1
	Training Sites		
	Military Camps & Requisitioned Houses	2	
	Airfields	28	3
	Experimental Sites		
	Domestic Sites	1	
	Damage & Losses	1	

It should be noted that several of the Auxiliary Unit bases in this section fall into neighbouring sub units, but are described in this area (where most are believed to remain) in order to keep them grouped together. Amongst the other monuments, the following were considered significant:

WINKTON ADVANCED LANDING GROUND (MA0140)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Winkton ALG was constructed in the summer of 1943 in preparation for the invasion of mainland Europe. However, it was not occupied until April 1944 when three US squadrons of the 404th Fighter Group arrived. These squadrons were equipped with Thunderbolt fighters and after a month of training began their first fighter sweeps over mainland Europe (Freeman, 1994:246-247). The squadrons departed for France on June 19th, after which no further use was made of the airfield (Brooks, 1996:164). It was derequisitioned in the late summer and handed back to the local farms in 1945, even before No.5018 Airfield Construction Squadron had finished reinstating the site. There is next to no evidence of the site on the ground today (Freeman, 1994:246-247).

Baseline Archaeological Significance

ALGs were not designed as anything more than temporary airfields. The landing strip was made of steel mesh pinned to the ground with large stakes that could be removed when the airfield was closed. As such they leave little evidence of their past

on the ground. At Winkton, all features appear to have been removed in their entirety. There is no RAF site plan of the airfield, which makes it difficult to assess whether any present day buildings can trace their lineage back to the airfield.

BISTERNE ADVANCED LANDING GROUND (MA0092)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Bisterne ALG was constructed in the spring and summer of 1943 in preparation for the invasion of mainland Europe. However, it was not occupied until March 1944 when three US squadrons of the 50th Fighter Group arrived. These squadrons were equipped with Thunderbolt fighters and flew numerous missions over the D-Day period, before all of them departed to France. The airfield had experienced numerous problems during its brief career – the runways regularly broke up during landing and the east west runway was eventually abandoned. The airfield was totally vacant by the end of June and was returned to arable in the late summer of 1944 (Freeman, 1994:238-239).

Baseline Archaeological Significance

ALGs were not designed as anything more than temporary airfields. The landing strip was made of steel mesh pinned to the ground with large stakes that could be removed when the airfield was closed. As such they leave little evidence of their past on the ground. However, hard-core was used at Bisterne to counter the problem of the disintegrating runway and this proved harder to remove. Eventually the runway tracking, hard-core and other elements were simply piled in a long bank on the east side of the main runway (Freeman, 1994:239). Modern aerial photography suggests that this bank is still extant and may contain fragments of the materials used to construct such airfields.

RAF HURN (MA1442)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*High*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Construction of an airfield at Hurn first began in the winter of 1940. Hurn was originally specified as a Fighter Command airfield but was first used by the Telecommunications Research Establishment in November 1941 (Smith, 1999:130).The airfield was extended in 1942 (becoming to all intents and purposes a Class A airfield) and was subsequently occupied by various RAF Transport Command units operating in support of the British Army's Airborne Forces (Freeman, 1994:232). In this period both Eisenhower and Churchill flew from the airfield (Levesley, 2012).

In the build-up to D-Day, numerous tactical fighter squadrons moved into Hurn; often up to six squadrons were operating from the airfield at the same time. In August 1944 the airfield was handed over to the USAAF, who flew bomber aircraft from the airfield for the month, before moving to France. In October, the airfield was returned to the RAF but, unusually for a tarmac airfield, was closed in November and handed to the Ministry of Civil Aviation (Smith, 1999:146).

Post war, the airfield became the main airport for transatlantic flights until Heathrow opened in 1946. However, the airfield remained in operation and in 1969 became Bournemouth Airport (Smith, 1999:148).

Baseline Archaeological Significance

Bournemouth Airport is still an active airport today and has therefore been extensively modified since its wartime role. However, its runway arrangement remains unaltered and many of the original dispersal bays are still extant on the perimeter track. Site visits would be required to assess how many other structures may have a wartime origin, but this would be extremely difficult to do at an active international airport.

RAF SOPLEY (MA0004)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

RAF Sopley was a Ground Control Intercept (GCI) radar station, established at Sopley (on land requisitioned from the estate of Lord Manners) in December 1940. The first installation was a mobile unit designed to be set up in 12 hours and capable of operating 24 hours a day. The CGI station was designed to identify enemy bombers and guide both searchlights and night fighter interceptors towards them. RAF Sopley served the night fighter squadrons based at RAF Middle Wallop and RAF Hurn throughout the war. The antenna arrangement at Sopley was so successful that its style was used at several other GCI stations, and Sopley achieved one of the highest success rates of intercepts of any GCI station in the war (Catford, 2000).

In 1941 the installation was upgraded to an 'intermediate transportable' type and in 1943 Sopley was made into a permanent station with a fixed antenna (Catford, 2000). The construction took place in an adjacent field and consisted of large brick buildings for operations rooms and equipment. A permanent Type 7 radar antenna was built alongside it. This station operated until the end of the war (Catford, 2000).

In 1950 Sopley became the Sector Operations Centre for Southern England. It was substantially upgraded and in 1954 a new centre was opened in the field originally occupied by the mobile radar station. This consisted of a large building built above a two-storey below ground bunker. An accommodation base was built almost a mile to

the east at Bransgore (**MA1477**) (although before this was ready, personnel were accommodated at RAF Ibsley). The base continued to operate until it was closed by the RAF in 1974. The following year it was taken over by the Army and used as a signals establishment and HQ. The MoD sold the entire site in 1993 (Catford, 2000).

Baseline Archaeological Significance

Several features of all three phases of RAF Sopley's life are still extant. In the early mobile station area (1940-1943) are three concrete buildings. These may however date from the 1950 expansion of the site, rather than the 'mobile' phase. On the other side of the road the 1943 site still has several buildings and a large concrete footing, possibly the antenna base. The 1950s installation is still present, including the below ground bunker and the building above it. To the east, the entire accommodation area seems to be intact and in use as a business park.

Although most of these structures are of the post war era, their lineage to an original GCI station makes them particularly significant to the evolution of radar technology in the UK. A survey to assess their condition and future options is highly recommended.

RINGWOOD ANTI-TANK ISLAND (MA0037)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Anti-Tank Islands were defensive points, usually centred on major road junctions, bridges or natural features that, if obstructed, would delay the advance of German forces, giving time for Allied reinforcements to move to the area. These sites were usually made up of bunkers, roadblocks, trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether. The anti-tank island at Ringwood was centred on the River Avon crossing. War diary research undertaken as part of this desk based assessment indicates that there were two roadblocks and five railblocks in and around the Avon Valley at Ringwood in 1941 (WO 166/1319 & WO 166/14506).

Baseline Archaeological Significance

Road blocks came in various different types during the war. Some would have been temporary wood and barbed wire obstacles that would not necessarily leave any trace. On the other hand, more complex structures would have involved modifications to the road or the installation of concrete blocks on the verge. Site visits to the road and railblock locations may determine if any features survive. One feature are still extant and are discussed below:

Significant Feature: Section Post (MA1380)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Section posts were essentially reinforced trenches, which may have begun life as a normal trench and been strengthened with concrete at a later date. The trench had a concrete and turf covered roof supported by concrete columns. The gaps between the columns served as firing ports. Although listed in the NMR Thesauri, there are no entries for Section Posts in the NRHE. Only one Section Post is known to have been listed; as a Grade II building in West Somerset (The National Heritage List for England).

AUXILIARY UNIT BASES

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*High*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Auxiliary Units were secretly recruited men who would, in the event of a German invasion, operate as resistance fighters behind enemy lines. Typically, Auxiliary Units were recruited from professions of those who knew how to live off the land (such as gamekeepers or, in the New Forest, Agisters and keepers) and trained to carry out acts of sabotage. Their existence was not publicly known during the war and has only very recently started to become clear (BBC, June 2010).

Auxiliary Units were organised into patrols who would operate in an area local to them. Each patrol had one or several bases from which they could operate. These could be bases for supplies, or accommodation in the event that they could no longer live at home (BBC, June 2010).

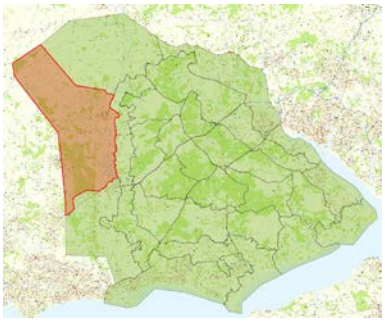
Although many such bases were constructed during the war, the whereabouts of the vast majority are unknown. In 1966 an Auxiliary Base was discovered during building works in the grounds of Avon Castle near Ringwood. The site was demolished shortly after its discovery (Ringwood and Fordingbridge Journal, 1966). Other bases are understood to have existed in the grounds of Somerley House (Sub-Unit I), in the vicinity of Hangersley Hill (Sub-Unit H), in the vicinity of Three Tree Hill near Moyles Court (Sub-Unit H) and near Burley (demolished, Sub-Unit 8) (CART, 2013).

Baseline Archaeological Significance

The exact location of these bases is unknown and unlikely to be positively identified. Any attempts to find them must at this stage be based upon field walking in these locations and looking for features (such as entrances, chimneys and air vents) that might indicate a base buried below.

3.4.22 Sub Unit Zone H

Sub Unit Zone H encompasses the north west extent of the National Park and is 133.1km^2. It contains 55 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	33	23
	Anti-Aircraft	1	1
	Training Sites		
	Military Camps & Requisitioned Houses	1	
	Airfields	2	2
	Experimental Sites		
	Domestic Sites	15	
	Damage & Losses	3	

Amongst these monuments, the following were considered significant:

AIRFIELD BOMBING DECOY Q160B (MA0047)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Bombing Decoy Q160B was a Q type decoy site, designed to represent an airfield at night and was built to direct enemy attention away from Hurn and Ibsley airfields. It would have consisted of lighting poles arranged in a pattern similar to an airfield's landing lights, powered by a generator in a small command bunker. The site, and its twin site Q160A (**MA0046**) were probably in use in 1942 (Dobinson, 1996c:98).

Baseline Archaeological Significance

The NRHE records over 217 Q sites in England. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The bunker at Q160B was recorded as being extant in 1981 (Anderton, 1999:86) and modern aerial photography indicates what might be the same bunker just west of Moors Valley Golf Course. A site visit would firmly establish the location and full extent of the remains.

RAF IBSLEY (MA0113)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***HIGH***

Construction of an airfield at Ibsley first began in 1940. The airfield was originally meant to act as a satellite station of RAF Middle Wallop but eventually became a Fighter Command station in its own right – it became the only fighter base with concrete runways in the entire Avon Valley. Ibsley was pressed into service in February 1941 (even though construction would last another eight months) and was home to 19 different RAF fighter squadrons for the next three years (Freeman, 1994:234). At some point it was used as a location for the film *First of the Few* (released in September 1942), and the actor David Niven filmed several scenes there (Leete, 2004:32).

USAAF units began to arrive in 1942, but the airfield did not become an exclusive US base until 1944. Ibsley was used by American Close Support squadrons between April and July, but upon their departure, it was returned to the RAF. Thereafter it was used by RAF Training Command, then RAF Transport Command. It was formally closed in 1947 (Brooks, 1996:155).

Ibsley's dispersed sites were used in the early 1950s to accommodate personnel from RAF Sopley (Catford, 2000). At the same time Lord Normanton, the landowner, turned Ibsley into a motor racing venue. Notable racer John Surtees may have made his racing debut at the circuit. The circuit closed in 1955 and the runways were lifted in the 1960s. Shortly afterwards, the entire site became an aggregate quarry. The great pits have now been flooded and are owned by the local water authority and used as a nature reserve and activities centre (Freeman, 1994:235).

Baseline Archaeological Significance

Very little of the actual airfield remains today and the outlines of the runways (visible at all other concrete runway sites in the New Forest area) are not discernible. However, there are several structures still extant, including the only remaining example of a World War II control tower in the study area. Modern aerial photography suggests that many of the dispersed sites are still extant and may, in some instances, be occupied by original buildings. Several air raid shelters built at the north and south ends of the runways still survive, as does a Battle Headquarters on the heathland immediately east of the airfield. Site visits to all of these features, and the dispersed sites, is highly recommended.

Significant Feature: Ibsley Control Tower (MA0010)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

The control tower is the only surviving such structure in the study area. Control towers structures were essential for all busy airfields. The structure at Ibsley is a Type 518/40 'Watch Office with Meteorological Section' and is similar to approximately 50 that were built during the war. However, this is believed to be the only example in England with entirely concrete floors and walls that still stands today. The tower has been well researched by the RAF Ibsley Airfield Heritage Trust and although presently in a state of disrepair, has the potential to be refurbished and reopened.

Significant Feature: Ibsley Battle Headquarters (MA0115)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

Like most major airbases, Ibsley was equipped with a Battle Headquarters that could serve as a point to co-ordinate defence in the event that the airfield was overrun by ground forces. The Battle Headquarters at Ibsley is located on the hill to the east of the Control Tower and is still accessible. Unusually it consists of two shelters with cupolas giving views of the surrounding countryside. The HQ is also protected by a trench that, according to LiDAR survey may surround the entire hilltop.

An accurate survey of this unique HQ would ensure that it is well recorded in the future. Further fieldwork may be able to determine the exact extent of the trenching around it and other possible defensive features.

Significant Feature: Southern Stanton Shelters (MA0013, MA0015 & MA1443)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*High*
Overall	***HIGH***

There are perhaps up to three Stanton Shelters on Ellingham Drove. Designed and manufactured by the Stanton Ironworks in Derbyshire, the shelters were made of prefabricated concrete, an ideal material that was tough, cheap and unlikely to deteriorate during the period of war. The shelter was made up of a series of prefabricated concrete arches laid end to end and closed off with a brick built entrance at one end and an escape hatch at the other (Stanton, 1948). This shelter has already been visited by NFNPA staff, but a further inspection and survey would be able to record the features exact design and any variations to the original pattern that might be evident.

Significant Feature: Public Air Raid Shelter (MA1444)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

A large Public Air Raid shelter on Ellingham Drove is close to a group of Stanton shelters at this point. It has already been visited by the NFNPA but further investigation may be able to reveal exactly what specification it was built to. Further research may be able to identify why so many air raid shelters were built in this location.

Significant Feature: Northern Air raid Shelters (MA0009, MA1113, MA0024 & MA0018)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Low*
Potential	*High*
Overall	***HIGH***

There are four, possibly more, air raid Shelters on Mockbeggar Lane. Several appear to be Stanton Shelters; others may be larger public shelters. Further investigation may be able to reveal exactly what specification these shelters were built to. Further research may be able to identify why so many air raid shelters were built in this location.

Significant Feature: Ibsley Blast Shelters (MA1445)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

A number of Blast Shelters survive in Cherry Orchard and Moyles Court School, alongside remains of several buildings immediately south of the Control Tower. The Blast Shelters appear to be open tops shelters built to RAF specification 2360/41. This site has already been visited by the NFNPA, but a further inspection and survey would be able to record the structures more fully and advise on potential access to the site in the future.

Significant Feature: Ibsley Communal Site No. 1 (MA0139)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***HIGH***

A number of buildings remain extant in this area on the site of buildings recorded from period photography. A number of Blast Shelters are also recorded in the area. A site visit would be able to establish whether any of the buildings to originate from the airfield and whether any other remains can be identified.

Significant Feature: Ibsley Communal Site No. 4 (MA0107)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Medium*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***HIGH***

A number of buildings remain extant in this area on the site of buildings recorded from period photography. A site visit would be able to establish whether any of the buildings to originate from the airfield and whether any other remains can be identified.

FORDINGBRIDGE ANTI-TANK ISLAND (MA0035)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Anti-Tank islands were defensive points, usually centred on major road junctions, bridges or natural features that, if obstructed, would delay the advance of German forces, giving time for Allied reinforcements to move to the area. These sites were usually made up of bunkers , roadblocks , trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether. The anti-tank Island at Fordingbridge was centred on the River Avon crossing. The Defence of Britain Database lists 30 individual elements to this anti-tank island, including one fortified house, one mined bridge, 15 pillboxes, eight roadblocks, four section posts and one unspecified defence work. War diary research undertaken as part of this desk based assessment indicates that there were five railblocks and one roadblock in and around the Avon Valley at Fordingbridge in 1941 (WO 166/1319 & WO 166/14506) It is possible that some of the roadblocks in the Defence of Britain database are railblocks.

Baseline Archaeological Significance

Fordingbridge anti-tank island represents an incredibly dense collection of well recorded features. Of the 15 pillboxes listed in the defence of Britain database four are recorded as removed, seven as good, fair or extant and four as unknown. Even the seven extant structures represent the densest group of pillboxes still remaining at an anti-tank island in the study area. The significance of this would obviously increase if other examples whose condition is currently unknown prove to be intact. Additionally at least one of the section posts is extant and one is unknown. Road blocks came in various different types during the war. Some would have been temporary wood and barbed wire obstacles that would not necessarily leave any trace. On the other hand, more complex structures would have involved modifications to the road or the installation of concrete blocks on the verge.

Site visits features whose condition is presently unknown would enable an accurate picture of the condition of the entire defensive area to be created. Features known to still be extant are discussed below:

Significant Feature: Type FW3/22 Pillbox (MA1387, MA1388, MA1389, MA1390, MA1391, MA1392, & MA1402)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

The Type 22 or FW3/22 pillbox was the most common standard pillbox. It was a hexagonal single storey pillbox with concrete walls approximately 1 foot thick. Each wall had a single embrasure, except the side facing away from the expected direction of attack, where a door provided access to the pillbox interior (Lowry, 1996:82). Seven separate FW3/22 Pillboxes are listed as still extant at Fordingbridge. Site visits would be required to assess their condition.

Significant Feature: Section Post (MA1415 & MA1414)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Section posts were essentially reinforced trenches, which may have begun life as a normal trench and been strengthened with concrete at a later date. The trench had a concrete and turf covered roof supported by concrete columns. The gaps between the columns served as firing ports. Although listed in the NMR Thesauri, there are no entries for Section Posts in the NRHE. Only one Section Post is known to have been listed as a Grade II building in England (British Listed buildings).

Significant Feature: Mined Bridge (MA1385)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Across the entire country, many bridges were mined so that, in the event of an invasion, their use could be denied to the enemy should the British Army have to withdraw from the surrounding area. Bridges were rigged with explosives and connected to a detonator by wires. Although the explosives will have been removed from Fordingbridge, it is possible that the holes into which explosives would have been inserted may remain in the arches. A site visit and closer inspection would reveal this.

Significant Feature: Fortified House (MA1384)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Parsonage Cottage on Green Lane is recorded as being fortified in World War II. A pillbox appears to have been built into the house with internal access to a square room with embrasures facing outside. The pillbox was last recorded to have had the embrasures bricked up and in use as a larder. Further investigation may be able to determine its condition.

3.4.23 Sub Unit Zone I

Sub Unit Zone I encompasses the land west of the National Park between Ringwood and Fordingbridge and is 83.8km^2. It contains 68 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	8	3
	Anti-Aircraft	3	
	Training Sites		
	Military Camps & Requisitioned Houses	5	
	Airfields	8	1
	Experimental Sites	1	
	Domestic Sites	5	
	Damage & Losses	38	

Amongst these monuments, the following were considered significant:

IBSLEY DF STATION (MA0081)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

The remains of a Direction Finding (DF) station are located on Ibsley Common, approximately 1.5 miles north east of Ibsley Airfield. DF stations were an advanced form of radio direction finding – a means of locating aircraft radio transmissions by identifying the direction from which they are strongest.

Baseline Archaeological Significance

The site at Ibsley appears to consist of a blast wall upon which the main building would have stood. Further east are the remains of a bunker and a building base that may have served as accommodation. The NRHE has thirty records of DF stations in England, but not all of them appear to survive. The remains of one site have been identified in Scotland (James Brown, pers comm, February, 2012). The site at Ibsley would therefore appear to be quite rare. An accurate survey would be important in order to record the design to which this station may have been built to.

BREAMORE ANTI-TANK ISLAND (MA1446)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*High*
Overall	***HIGH***

Anti-Tank Islands were defensive points, usually centred on major road junctions, bridges or natural features that, if obstructed, would delay the advance of German forces, giving time for Allied reinforcements to move to the area. These sites were usually made up of bunkers , roadblocks , trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether.

The anti-tank island at Breamore is extremely concentrated on a very small area around the road bridges over the River Avon between Breamore and Woodgreen. The Defence of Britain Database lists four individual elements; three pillboxes and one roadblock. The roadblock is also referred to in war diary research conducted as part of this desk based assessment.

Baseline Archaeological Significance

The anti-tank island at Breamore was investigated as part of the Defence Areas Project (a follow up element of the Defence of Britain project). The report noted that the site provides an excellent example of how buildings were modified and added to in order to create defensive sites and that the three pillboxes remain in first rate condition (the location of the roadblock is no longer discernible). It concludes that the anti-tank island should be considered of national importance and consideration should be given to both protecting, and interpreting this heritage (Defence Areas Project: Defence Area 45, 2009).

Significant Feature: Type 26 Pillbox (MA1091)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

The northernmost Type 26 pillbox is an independent building that appears to cover the western approach to the bridges. Type 26 pillboxes are square constructions – this particular example still has a blast wall protecting the entrance, and wooden shelving inside. Its condition was described as excellent in a 2003 site visit (Defence Areas Project: Defence Area 45, 2009). A further site visit will be able to ascertain if this is still the case.

Significant Feature: Type 26 Pillbox (MA1089)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

This Type 26 pillbox has been built against the main mill building and appears to have been camouflaged with matching brickwork and a pitched roof. It would also appear to be designed to cover the western approach to the bridges. Access would appear to be from within the barn and its interior condition is not recorded (Defence Areas Project: Defence Area 45, 2009). A further site visit would be able to more accurately survey the pillbox and its condition.

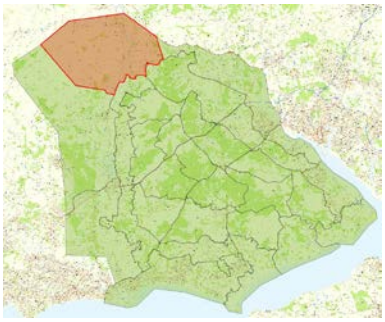
Significant Feature: Type Pillbox (MA1090)

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*High*
Overall	***HIGH***

This pillbox has been built inside a brick shed to cover the eastern approach to the bridges. Access is from within the shed barn and its interior condition was recorded as good in 2003 (Defence Areas Project: Defence Area 45, 2009). A further site visit would be able to more accurately survey the pillbox and its condition. It might also provide an opportunity to assess exactly how the shed was modified for this role.

3.4.24 Sub Unit Zone J

Sub Unit Zone J encompasses the land north west of the National Park including parts of Wiltshire and Dorset and is 102.6.5km^2. It contains 2 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures		
	Anti-Aircraft	1	1
	Training Sites		
	Military Camps & Requisitioned Houses	1	1
	Airfields		
	Experimental Sites		
	Domestic Sites		
	Damage & Losses		

Amongst these monuments, the following were considered significant:

BREAMORE HOUSE (MA1447)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Low*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

Breamore House was requisitioned during the war and used by both British and American units. The estate served as a meeting post for mounted Home Guard units and later, as a HQ for the the US 3rd Army. During this period, it is notable for being occupied by General Patton. It is recorded by Lord Hulse, the present owner, that the main hall was used as a meeting and map room, and that a nearby field was used as a landing strip for light aircraft. The house was handed back to the Hulse family in 1947 (Leete, 2004:121-126).

Baseline Archaeological Significance

Breamore falls outside of the NMP coverage for the Avon Valley area, and so the house and its grounds have not been assessed on historical maps, photos or by LiDAR survey. A site visit may be able to identify further features associated with an Army HQ, such as temporary accommodation, or fixtures and fittings inside the house itself.

CLEARBURY DOWN STARFISH DECOY SF53B (MA0051)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

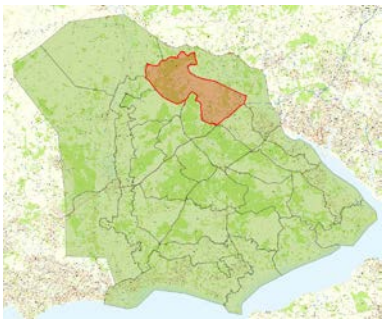
Starfish Bombing Decoy SF53B was built in January 1941 to divert German bombers from Salisbury. Starfish were one of the earliest types of bombing decoy and were designed to simulate a city at night, using strategically placed lights and fires. It is believed to have been in use in March 1942. (Dobinson, 1996c: 154).

Baseline Archaeological Significance

The NRHE records 245 Starfish sites in England. There are no examples of complete sites, although occasionally the control bunker may be extant remains. Cleabury Down falls outside of the NMP area for the Avon Valley and so the area has not been assessed on historical maps, photos or by LiDAR survey. It is believed that the site was clear of remains in 1970 (Anderton, 1999:87) and modern aerial photography suggests that nothing appears to survive, however a site visit to Clearbury Down may be warranted in order to confirm this.

3.4.25 Sub Unit Zone K

Sub Unit Zone K encompasses the north east area of the National Park and is 52.7km^2. It contains 23 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	5	1
	Anti-Aircraft	3	3
	Training Sites		
	Military Camps & Requisitioned Houses	1	
	Airfields		
	Experimental Sites		
	Domestic Sites	2	1
	Damage & Losses	12	

Amongst these monuments, the following were considered significant:

BOMBING DECOY ASQL CADNAM A (MA0057)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

This site was an 'Assault' QL Decoy Site, one of a number built for Operation *Starkey,* a component of the larger Operation *Cockade*; a deception scheme that aimed to divert German attention away from the Mediterranean theatre and the Eastern Front. ASQL sites used lighting displays to depict camps, marshalling areas and convoys. ASQL Cadnam A was one of several established around Southampton (including Cadnam B (**MA1039**) and Cadnam C (**MA0059**) and was in use between August and September 1943. (Dobinson, 2000a:185-190).

Baseline Archaeological Significance

The NRHE records 21 ASQL sites in England and six such sites used around Southampton. There are no examples of complete sites, although occasionally the control bunker may be extant remains. No records exist of the condition of Cadnam A. A site visit would be necessary to assess the survival of any features.

BOMBING DECOY ASQL CADNAM B (MA1039)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Along with Cadnam A (**MA0057**) Cadnam C (**MA0059**), this site was an 'Assault' QL Decoy Site, one of a number built for Operation *Starkey*. ASQL Cadnam B was one of several established around Southampton and was in use between August and September 1943. (Dobinson, 2000a:185-190).

Baseline Archaeological Significance

The NRHE records 21 ASQL sites in England and six such sites used around Southampton. There are no examples of complete sites, although occasionally the control bunker may be extant remains. No records exist of the condition of Cadnam B. A site visit would be necessary to assess the survival of any features. It is of note that in war diary records, Cadnam B is listed at a different position to that given by the NMP and NRHE. In papers dated to July 1943, the position of Cadnam B is shown as approximately 429100, 116100 (ADM 179/272).

BOMBING DECOY ASQL CADNAM C (MA0059)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Along with Cadnam A (**MA0057**) Cadnam B (**MA1039**), this site was an 'Assault' QL Decoy Site, one of a number built for Operation *Starkey*. ASQL Cadnam C was one of several established around Southampton and was in use between August and September 1943. (Dobinson, 2000a:185-190).

Baseline Archaeological Significance

The NRHE records 21 ASQL sites in England and six such sites used around Southampton. There are no examples of complete sites, although occasionally the control bunker may be extant remains. No records exist of the condition of Cadnam C. A site visit would be necessary to assess the survival of any features.

PLAITFORD COMMON FOXHOLES (MA1032)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low (presumed)*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Aerial photography has shown a large number of possible foxholes at Plaitford Common.Training areas that allowed men to practice defensive fieldwork construction techniques were commonplace during the war. There is, however, no record of live firing range at Plaitford Common on the 1943 Training Areas map.

Baseline Archaeological Significance

The fact that Plaitford Common has not been substantially disturbed since the war may mean that these features are still visible. A site visit may be able to determine whether these are definitely foxholes, or possibly structures related to the Decoy Cadnam A (**MA0057**).

HOLMERE DEPOT (MA0620)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*Medium*
Rarity	*Low*
Documentation	*Low*
Group Value	*Low*
Survival/Condition	*Unknown*
Fragility/Vulnerability	*Low*
Diversity	*Medium*
Potential	*Low*
Overall	***LOW***

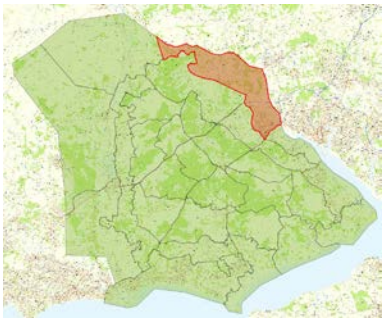
Aerial photography indicates a depot here during World War II. Earlier OS maps show a small brickworks at this site, so it is possible that the depot was built during the study period. Subsequent maps and modern aerial photography shows that this is still a depot or small industrial estate of some kind.

Baseline Archaeological Significance

A site visit and survey of the extant buildings may be able to determine if they are original buildings or more modern additions. Further research may be necessary to establish what work was done at Holmere and when the depot was built.

3.4.26 Sub Unit Zone L

Sub Unit Zone L encompasses the land north east of the National Park between Romsey and Totton and is 56.8km^2. It contains 25 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	6	3
	Anti-Aircraft	1	
	Training Sites	1	
	Military Camps & Requisitioned Houses	2	
	Airfields		
	Experimental Sites		
	Domestic Sites	13	8
	Damage & Losses	2	

Amongst these monuments, the following were considered significant:

TOTTON ANTI-TANK ISLAND (MA0038)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Low*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Anti-Tank islands were defensive points, usually centred on major road junctions, bridges or natural features that, if obstructed, would delay the advance of German forces, giving time for Allied reinforcements to move to the area. These sites were usually made up of bunkers, roadblocks, trenches and, in the event of a withdrawal being necessary, explosives that could be used to demolish a bridge or road altogether. War diary research indicates that a railblock on the railway causeway at Totton/Redbridge (WO 166/14506). The Defence of Britain database shows four pillboxes defending the causeway, two of which may be extant on the Southampton side of the river (**MA1428** and **MA1429**), although they were last recorded in 1996.

Baseline Archaeological Significance

Anti-Tank islands were usually substantial defensive zones made up of pillboxes, roadblocks and anti-tank defences. The four pillboxes so far identified may have been supported by other features that have not yet been identified at Redbridge Causeway, but given its location near Southampton, it seems possible that such elements will have existed around, as well as on the causeway during the war.

Further war diary research and site visits to likely locations on either side of the River Test may be able to identify such features.

TOTTON AIR RAID SHELTERS

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

NMP data shows a large number of (presumably) public air raid shelters in Totton and Eling on, identified on World War II aerial photography. Based on their length, many of them were probably 50 person shelters, built for the population of Totton.

Baseline Archaeological Significance

Many of these shelters will probably have been totally removed, including a group upon which a superstore has been built (**MA1195**) However, some positions on verges alongside roads or on estates which may have been housed during the war, there is more potential to identify extant remains. These include a group alongside Maynard Road (**MA1196**), alongside Winsor Road (**MA1198**), possible Anderson shelters alongside Rumbridge Road (**MA0032**), features at Bartram Road (**MA1201** and **MA1200**) and in back gardens on School Road (**MA1199**). Smaller shelters made of brick, or semi sunken shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A site visit along public roads may be able to identify more examples.

MILL LANE AIR RAID SHELTER (MA1424)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

The Defence of Britain database indicates an air raid shelter at this location. From the description given it appears to be in good condition and be made of brick with a concrete base and roof.

Baseline Archaeological Significance

Such shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A survey of this example may help identify the specification to which it was built and its exact condition.

3.4.27 Sub Unit Zone M

Sub Unit Zone M encompasses the extent of the National Park immediately west of Totton and is 16.4km^2. It contains 14 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	3	
	Anti-Aircraft		
	Training Sites		
	Military Camps & Requisitioned Houses	4	1
	Airfields		
	Experimental Sites		
	Domestic Sites	1	
	Damage & Losses	6	

Amongst these monuments, the following were considered significant:

HMS SAFEGUARD (MA0808)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Loperwood Manor, built in approximately 1860, was requisitioned by the Royal Navy during World War II and became a rest and recuperation centre known as HMS *Safeguard* (www.liverpoolmuseums.org.uk), presumably along with the large house on Tatchbury Mount. The men who were sent here to convalesce were Royal Navy ratings serving as gun crews on defensively equipped merchant ships (DEMS). It is believed that during their time there, ratings were often sent to man an RN AA gun at Catchcold Tower in Southampton. The Defence of Britain database records that both buildings were demolished in the 1970s, presumably along with the footings of ancillary buildings believed to have been built in the grounds.

Baseline Archaeological Significance

Tatchbury Mount is now the site of an extensive NHS mental hospital and the grounds have changed considerably. However, the ground around Tatchbury Mount itself is relatively undisturbed. Further historical investigation may be able to reveal a plan of the site during the war and a site visit may be able to identify any remains.

3.4.28 Sub Unit Zone N

Sub Unit Zone A encompasses the extent of the National Park immediately west of Marchwood and is 13.8km^2. It contains 19 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures		
	Anti-Aircraft	5	3
	Training Sites		
	Military Camps & Requisitioned Houses	3	
	Airfields		
	Experimental Sites		
	Domestic Sites	2	2
	Damage & Losses	9	

Amongst these monuments, the following were considered significant:

VEAL'S FARM (MA1242 AND MA0016)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Two features are recorded at Veal's Farm; a barrage balloon site and military camp in the RCZA and a 'Z Battery' AA position in the NRHE. War diary research also indicates a Z Battery at this location (WO 166/7375). Z Batteries were rocket batteries, each launcher being capable of launching a 3 inch unguided rockets up to 22,000 feet in the air. Launchers may be sited either individually or in a large group (Lowry, 1996:61). The New Forest Hampshire Aggregate Resource Assessment also notes what appears to be a baseball diamond in the field south of the railway line, which may indicate the presence of an American unit at some point during the war (Trevarthen, 2010:40)

Baseline Archaeological Significance

The NRHE records only 27 examples of Z Batteries in England, although more would have presumably been deployed nationwide. The unit at Veal's Farm would appear to be a large deployment based on the size of the site. The war diary also indicates that 60 launchers and a HQ were based here (WO 166/7375). It is possible that a Barrage Balloon site was also established here as the layout identified in aerial photography matches the typical layout of a barrage balloon base (a ring of cylindrical tethering blocks) (Lowry, 1996:63). A site visit and field walking, plus

exploration of Round Copse, may be able to find evidence of these installations. Further research may be able to identify records of barrage balloons here.

NAVAL COAST BOMBING DECOY 610 (MA0056)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Medium*
Group Value	*Low*
Survival/Condition	*Low (Probably)*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

This site was a QL Decoy Site used as Naval Coast Bombing Decoy 610 in 1943. The decoy was one of a number built for Portsmouth Command as part of Operation *Fortitude South*, a deception scheme that aimed to direct Luftwaffe attention away from genuine coastal sites building up towards Operation *Overlord*. QL sites were used to represent industrial areas at night and used lights, signal lamps and small furnaces (as might be found at factories or marshalling yards) to distract enemy bombers from genuine targets. Site 610 was fitted with the standard parts of a QL site (a control bunker and fittings for the lights), but it is not recorded if any electrical equipment was ever fitted (Dobinson, 2000a:178-179).

Baseline Archaeological Significance

The NRHE records over 260 QL sites in England and thirteen such sites used by Portsmouth Command in Operation *Fortitude South*. There are no examples of complete sites, although occasionally the control bunker may be extant remains. The features of site 610 are recorded as being invisible in 1964 (Anderton, 1999:89). A site visit would be necessary to assess the accuracy of this.

ASHURST AIR RAID SHELTER (MA1448)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Volunteer contributions have highlighted what may be an air raid shelter alongside the A35 at Ashurst Railway Station, apparently made of brick with a concrete roof.

Baseline Archaeological Significance

Such shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A survey of this example may help identify the specification to which it was built and its exact condition.

MARCHWOOD AIR RAID SHELTER (MA1382)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Volunteer contributions have highlighted what may be an air raid shelter alongside Main Road in Marchwood, possibly made of brick with a concrete roof. This shelter was probably built for the occupiers of neighbouring homes.

Baseline Archaeological Significance

Such shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A survey of this example may help identify the specification to which it was built and its exact condition.

3.4.29 Sub Unit Zone O

Sub Unit Zone O encompasses the land alongside Southampton Water around Marchwood and is 13.2km^2. It contains 30 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	1	1
	Anti-Aircraft	8	2
	Training Sites		
	Military Camps & Requisitioned Houses	1	1
	Airfields	5	
	Experimental Sites		
	Domestic Sites	9	1
	Damage & Losses	6	

Amongst these monuments, the following were considered significant:

MARCHWOOD AA BATTERY (S.8) (MA1364)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Marchwood AA Battery was a Heavy AA battery. War diary entries show that the site was designated S.8 and housed four 3.7-inch AA guns when activated in 1939 (WO 166/2262). It is also believed to have been equipped with 4.5 inch guns in 1942, and retained as a Cold War battery in 1946 (Dobinson, 1996a:459). The site is visible on 1946 Aerial Photography as four potential gun positions with ancillary buildings nearby.

Baseline Archaeological Significance

Modern aerial photography indicates that most of the site has been totally cleared and the land it was on is now under playing fields. However, some elements in the surrounding woods may still survive, and the site of the central control bunker appears to still be occupied by a large mound. A site visit may be able to determine if any features remain.

HOUNSDOWN ANTI-AIRCRAFT BATTERY (S.9) (MA1362)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Low*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Low*
Overall	***MEDIUM***

Hounsdown AA Battery was a Heavy AA battery. War diary entries show that the site was designated S.9 and housed four 3.7-inch AA guns when activated in 1939 (WO 166/2262). The site is visible on 1946 Aerial Photography as four potential gun positions with ancillary buildings nearby. It is also believed to have been retained as a Cold War HQ battery in 1946 (Dobinson, 1996a:459).

Baseline Archaeological Significance

Modern aerial photography indicates that the site has been totally cleared and the land it was on is now under school playing fields. A site visit may be able to determine if any features remain.

MARCHWOOD MILITARY PORT (MA1351)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

During World War II, Marchwood became a base for the newly formed No. 1 Port and Inland Water Transport Repair Depot, Royal Engineers. The unit's responsibilities included the construction of Mulberry Harbour components; particularly the floating spans (Mason, 1987). Wharves, warehouses and a railhead were built, and No. 6 Port Construction and Repair Group, Royal Engineers constructed the main 160m long jetty between November 1943 and April 1944. Wates Group Ltd. construction firm, who had been employed to build elements of Mulberry, also built a slipway and other facilities. Part of the waterfront was also roofed over so that Mulberry construction could continue in bad weather (Hartcup, 1977:79). After the war the port became a base for 17 Port Training Regiment, Royal Engineers, later the 17 Port Regiment, Royal Corps of Transport and today the 17 Port & Maritime Regiment, Royal Logistic Corps (Mason, 1987).

Baseline Archaeological Significance

Marchwood was substantially modernised in the 1980s (www.ports.org.uk) and little of the features identified in World War II images are visible today. However, the original jetty is still in use (but now one of three at Marchwood), and what appear to be World War II era building may remain extant (particularly on Baynes Lane). A site visit may be able to identify other features, such as barrage balloon bases and other buildings that have not been built over. Field walking on the (apparently undisturbed) waterfront at Cracknore Hard, alongside the original jetty may also identify other features related to the construction of Mulberry. However, access to such sites may

be restricted, or indeed impossible, owing to the fat that the port is still an active MoD site.

MULBERRY BEETLES (MA1352)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Medium*
Documentation	*High*
Group Value	*High*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*Medium*
Potential	*Medium*
Overall	***HIGH***

On the waterfront between Hythe and Marchwood are 39 Mulberry Harbour Beetles that were placed here at some point in the 1950s and 1960s to form a breakwater for land reclamation behind them (Burgess, 2012:19). Land reclamation here first began in the 1930s, when the Dredging and Construction Company (DCC) began to use dredgings from Southampton Water to reclaim the marshes between Hythe and Marchwood. A major reclamation took place between the late 1940s and the 1960s; in three stages, blocks of and were enclosed with breakwaters and filled. The Beetles were most likely laid between 1955 and 1962, the earliest most likely being laid roughly north – south to block of the second phase of refill. These Beetles are now buried under the reclaimed land, but 39 others are exposed and survive along the new waterfront, where they were beached and scuttled, before being filled with gravel to ensure they remained in place (Burgess, 2012:10-13).

Baseline Archaeological Significance

The Beetles were surveyed in 2012 (Burgess) and 39 were successfully located. The historical investigation also identified the likely presence of a second breakwater of Beetles underneath the now reclaimed land. Although these Beetles were probably never deployed to France (Burgess, 2012:13), as the largest gathered collection of surviving Beetles anywhere in the world, the site is highly significant. Although this is tempered by the fact they are not in situ (i.e. not part of a harbour) Burgess concludes that the site is irreplaceable and worthy of wider public knowledge and access (Burgess, 2012:27). A site visit to the inland Beetles may be able to determine if there is any evidence of them.

PUMPFIELD FARM GUN EMPLACEMENT (MA0366)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

A possible gun site is identified here, on a low mound alongside the railway line. It may have been a defensive position guarding the railway, or an isolated AA position.

Baseline Archaeological Significance

Modern aerial photography indicates that the mound is still extant. A site visit may uncover further evidence of a gun position here.

ELING AIR RAID SHELTER (MA1381)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Volunteer contributions have highlighted what may be an air raid shelter alongside Eling Hill in Marchwood. From photographs it appears to be a surface built public shelter made of brick with a concrete roof. This shelter was probably built for the occupiers of neighbouring homes.

Baseline Archaeological Significance

Such shelters have survived nationwide due to their adaptability to a number of uses. As such they are frequently found in gardens, parks, schools factories and other places with high concentrations of people, although they are often totally unrecognised as World War II structures. Their numbers nationwide are therefore unknown. A survey of this example may help identify the specification to which it was built and its exact condition.

3.4.30 Sub Unit Zone P

Sub Unit Zone P encompasses the land alongside Southampton Water around Hythe and Fawley and is 25km^2. It contains 18 monuments that can be broken down as follows:

Location	Research Category	Monuments	Significant Monuments
	Defensive Structures	3	
	Anti-Aircraft	2	1
	Training Sites		
	Military Camps & Requisitioned Houses	7	
	Airfields	1	
	Experimental Sites		
	Domestic Sites	3	1
	Damage & Losses	2	

Amongst these monuments, the following were considered significant:

BOMBING DECOY OIL QF P10 (MA1368)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*High*
Documentation	*Medium*
Group Value	*Medium*
Survival/Condition	*Medium*
Fragility/Vulnerability	*High*
Diversity	*Medium*
Potential	*Medium*
Overall	***MEDIUM***

This site was an Oil QF Decoy Site, one of a number of P series decoys designed to draw attention away from England's oil refineries. P10 was designed to draw attention away from Fawley and used a system of brick and clay lined pools to burn oil within, simulating the glow of an oil refinery at night. (Dobinson, 2000a:147-149).

Baseline Archaeological Significance

The NRHE records 9 Oil QF sites in England. There are no examples of complete sites, although occasionally the control bunker may be extant remains. Aerial photography form the 1950s indicates that nothing of P10 remains (Anderton, 1999:89), although some features appear in the NMP data. Its location on the shore in what appears to be land undisturbed by agriculture of industry means that a site visit may be able to locate features associated with the site and is highly advisable.

BUTTSASH SHELTER (MA1449)

Baseline Description

Criteria (DCMS, 2011)	Archaeological Significance
Period	*High*
Rarity	*Low*
Documentation	*Low*
Group Value	*Medium*
Survival/Condition	*High*
Fragility/Vulnerability	*Medium*
Diversity	*High*
Potential	*Medium*
Overall	***MEDIUM***

Volunteer contributions have highlighted what may be an air raid shelter or a gun position alongside Fawley Road in Buttsash near Hardley. It appears to be a surface brick-built structure with a concrete roof. One end is open. It may be an air raid shelter with a missing rear wall, but a large embrasure on the opposite wall suggests that it may be a gun position of some description.

Baseline Archaeological Significance

As the exact function of this shelter is unclear, a site visit and survey is highly recommended to assess its exact purpose and condition. Should it be an active defence site rather than a passive defence, there may prove to be other features in the area built to support it that field walking may identify.

3.5 Baseline Assessment: Summary

This desk based assessment has identified 1362 monuments related to the study period and study area. Of these, 214 separate monuments on 117 sites were selected for baseline assessment incorporating a total of identified in the project database.

These sites include 32 pillboxes, 14 bombing decoys and 11 airbases. Although all focussed on the study period of 1935 to 1947, the total window of active military service of these sites is 80 years; from 1913 (RNAS Calshot) to 1993 (RAF Sopley).

The survival of these sites ranges from those that probably leave little, if any, trace on the ground (in particular the AA batteries), to those that remain in almost their full form, or with minor modifications; in particular the pillboxes and the Second World War modifications to sites like Hurst.

4 Recommendations for Further Work

4.1 Survey Recommendations

Maritime Archaeology Ltd recommends that all of the sites identified in the Baseline Assessment (**Section 0**), and any others that come to light in the near future as a result of further research or oral testimony (see **section 4.1.4** and **section 4.1.5**), are visited within the next year. This will provide an opportunity to fully assess their condition and inform any considerations that are made to protecting them in the future.

4.1.1 Aims and Objectives of Field Survey

Field survey should abide by the principles set out in Standard and Guidance for Archaeological Field Evaluation, Institute for Archaeologists (IfA, 2008). With regard to the assessment of World War II remains, the Defence Areas Project (ADS, 2009) includes a brief methodology that outlines the assessment of sites. This included; obtaining photographic records, recording unusual features and, where possible, locate features identified through documentary sources. However, the New Forest Remembers: Untold Stories of World War II project has the potential to record more information than this in phase 2 of the project.

Sites will be located on the ground using hand-held TopCon devices that will access the project database. Once located, each site visit should aim, at a minimum, to:

- Locate and identify all known features of a site in order to best establish its extent;
- Assess the condition of the site relative to the condition given in this report;
- Search for additional features of a site that may not have been recorded;
- Use the TopCon devices to accurately record the features and dimensions of each site for easy reintegration into the database;
- Assess the site's suitability for further investigation and conservation requirements.

A suitable guide to the principal features of the World War II sites identified in this desk based assessment can be found in 20th Century Defences in Britain (Lowry, 1996). Where possible, this guide should be used in order to;

- Properly identify sites where the identity is uncertain;

- Locate other possible features in the surrounding area that may not yet have been identified.

For example, at Christchurch Anti-Tank Island (**MA1048**) an effort should be made to identify the type and orientation of the anti-tank blocks (**MA0040**) to ascertain when they were most likely to have been put into position. When visiting pillboxes, the field of fire and likely expected direction of attack (based on the position of the entrance) should be noted so that the overall strategy behind a network of defences can be ascertained. The total number of anti-tank blocks should be recorded to see if any have been lost since the last survey.

Site visits should also aim to make wider searches of the immediate area in order to identify other possible features (within the capabilities of the surveyors). When visiting an anti-tank island for instance, many unrecorded features may still be extant. Anti-tank blocks may be found within hedgerows, loopholes may be found within walls and demolition holes may have been cut into specific features. Soldiers have often been known to make carvings in walls or trees when stationed in an area for some time and these may survive in many of the locations (especially at camps and airfields). At airfields, the dispersed sites may cover a wider area than both the NMP and RAF maps have identified and new features may come to light. This will especially be the case with blast shelters, which were not recorded on the RAF maps, and may have been misidentified as modern structures in the NMP if they are still extant. Thus there is still the opportunity for the known record of a site to be expanded with further investigation.

Consideration should also been given to the safety of a site during its visit. The Battle HQ at Holmsley South (**MA0111**) appears from recent photography to be accessible, but flooded. As this is on open Crown Land and in close proximity to a campsite, it may represent a danger to members of the public. Equally, site surveyors should not attempt any dangerous activity when visiting sites (e.g. climbing into said Battle HQ, or wading into deep waters to inspect the underside of bridges).

4.1.2 High Priority Locations

Irrespective of the significance of the sites identified in the Baseline Assessment, several should be considered as a higher priority for a site visit than others owing to the threat of natural processes or modern development in their area. Although after 70 years the effects of natural processes are unlikely to change any of the sites significantly more than others in the coming years, a few sites should be considered for assessment sooner than others in order to avoid the risk of sudden landscape changes. A number of sites may also be at risk from modern intervention and should therefore be visited at the earliest opportunity.

Sites that may potential be at more risk from natural processes than others include coastal sites. The pillbox (or pillboxes) at Highcliffe (**MA0039**, **MA0220**, **MA1050**) are evidently slipping down the rapidly eroding cliff face. A sudden change in the coastline here may bury them completely. Likewise, strong storms may disturb elements of the coastal features at Stone Point (**MA0062** and **MA0020**) and Stansore Point (**MA0026** and **MA1357**).

Sites on the Crown Land are less at risk from modern intervention as there is less development there. However it should be noted that forestry operations have the potential to do a great deal of damage to sites. If forestry operations are planned for an area in which monuments have been identified, it is highly recommended that the site is visited immediately, irrespective of season. A particular site, the water tower at Beaulieu (**MA1479**), has been identified as requiring replacement, and should also be prioritised. Off the Crown Land, sites will be at risk from modern development such as construction. Again, where this is identified, site survey should be prioritised. However, it should be noted that some sites in private ownership (such as air raid shelters in gardens) are at risk from sudden development that will be difficult to predict. In all instances, consideration should be given to the Fragility/Vulnerability rating given to a site in the detailed review of sites (**Section 0**).

4.1.3 Most Appropriate Times to Visit Monuments

The New Forest is a diverse and active place, and site visits will need to be timed carefully to fit into the many events or natural elements that could interfere with survey. On the Crown Land these include:

- The growth of cover, particularly in wooded areas, during the summer;
- Pony drifts, which normally take place between August and November;
- Forestry operations, particularly timber felling, which is carried out in the wooded inclosures;
- Deer culls and drag hunts;
- Conservation issues, such as the ground-nesting bird season;
- Public events, such as organised bicycle rides, which may affect accessibility to specific locations on certain days.

On private estates and land outside of the Crown Lands, visiting period will further need to be scheduled around farm work – in particular crops and game hunting. A recommended survey schedule has been attached to the list of landowners that has been provided to the NFNPA.

4.1.4 Potential Sites Located Through Documentary Research

To date, the war diary research has located nearly 600 sites around the New Forest. Of these, only a few can be seen to refer to sites that have already been identified in existing databases. The majority are not related to any previously known monuments or structures, but a great many are likely to relate to landscape features that have been identified by the NMP. In particular these war diary records support the identification of many sites such as searchlights and AA positions. In a great many more locations, war diary records indicate the presence of a site that may have left no identifiable trace at all on the ground and has not been identified in the NMP. Such sites provide an opportunity for ground-truthing to see if any physical features remain that have not been brought to light by NMP analysis. Examples include the searchlight position at Brook (**MA1430**) and the dozens of Home Guard observation posts listed in war diary records around the New Forest. These may have left remains that have been misinterpreted as modern features, or material such as scrap metal on the forest floor or items that were accidentally lost by operatives on site. Other war diary entries have the potential to enhance our understanding of known sites within the New Forest. For example, the listings of numerous road and rail blocks at various anti-tank islands allows for a record of a feature that may have left absolutely no trace today and would otherwise be missed from the assessment of that site.

The war diaries therefore represent an important opportunity to enhance the known record of sites in and around the New Forest. Of the collections so far gathered by Richard Reeves, only a small percentage have so far been assessed and added to the database. Further time and attention should be given to the war diary records throughout the project in order that more unknown sites can be identified. They have the potential to identify sites such as tented camps, further requisitioned houses and ammunition stockpiles. They can also enhance our understanding of known sites by, for example, telling us what was happening at training ranges or which AA batteries shot down German aircraft.

The NFNPA has indicated a willingness to continue with war diary research alongside the next stage of the project. Sites that are identified in the war diary records should be immediately added to the list of sites for further investigation if they appear to warrant it. If there is still an opportunity to do so in phase 2 of the New Forest Remembers – Untold stories of World War II project, time should be allowed to incorporate them into the list of sites proposed in this report. If they are identified too late for phase 2, they should still be noted so that any subsequent fieldwork has a record of the site and can act on it accordingly in the future.

4.1.5 Potential Sites Located Through Memories and Oral Accounts

Oral testimonies and private recollections have the potential to both enhance our understanding of existing sites and identify new sites in the study area. A number of

sites in and around the Forest have been identified in the recollections of individuals on the BBC Peoples War website. Other sites may have come to light in oral recordings done by the NFNPA Education and Outreach Officer so far.

Recollections that relate to known sites, such as airfields, camps and requisitioned houses have the potential to enhance the significance of a site, if for instance, events of an important nature occurred there. Conversely, the identification of new sites should be treated with caution. Memories of a period 70 years ago may not be reliable, and in a landscape such as the New Forest, where many areas of open heathland or thick woodland look similar, there is a danger that the location of a specific site may be mistaken. When looking for remains in a landscape like the New Forest, an inaccuracy of even a few hundred meters can make the task impossible. However, if the memory of a site can be tied to landscape features identified in the NMP, further investigation is highly recommended. This is the case with sites **MA0255** and **MA0259**, two AA batteries identified by Desmond Hollier (on the BBC Peoples War website) that are evident in the NMP survey. Neither of the batteries are identified in war diary research or in existing databases and were it not for Desmond Hollier's testimony, it might be easy to assume that the site was misidentified in the survey or was a dummy site.

Should any new sites be identified through oral testimonies, they should immediately be assessed against the project database. Should the site be related to a known feature, the site should be considered for further investigation, within phase 2 of the project if feasible. Should it not exist in the database, the site may still warrant further investigation, but with lower priority.

One specific exception to this is the identification of sites related to Auxiliary Units. No records of the specific sites in which the Auxiliary Unit bases were constructed has yet come to light and so the recollections of individuals associated with them is likely to be the only way in which they are identified. Any such identification of a site above what is already known should be acted on with a high priority.

4.1.6 Opportunities for Further Research

There is the potential to expand upon the social history of the New Forest through further historical research. Although this would not necessarily enhance the understanding of specific sites, it would enrich the overall knowledge of the impact of the war on the local residents and the way of life in the area.

Records such as those maintained by New Forest District Council (pertaining to the three war-era districts in the study area; Ringwood & Fordingbridge Rural District; New Forest Rural District and Lymington District), Verderer's Court minutes and as yet unidentified Forestry Commission records may contain further information about particular events referred to by authors such as Leete (2004) and Pasmore (1974).

Such work could greatly add to what is already known about particular events and aid understanding of as yet uncovered topics. These topics could include the impact of increased farming in the area and the effect of pony removal on the ecology of the Crown Lands. The story of the large number of people who moved into the New Forest is also of interest. These include evacuee children and their impact on the rural communities that housed them, the increased number of women in countryside industries (particularly Land Girls and Lumber Jills), the large influx of personnel for construction projects (particularly Mulberry and accommodation camps) and the impact of Italian and German POWs living and working in the area.

5 Conclusions

World War II has clearly left its mark on the New Forest; 1362 individual sites of interest have been identified and this project has demonstrated the potential to find many more. The variety of sites found within the study area cover the entire period of World War II and almost every aspect of Britain's contribution to the war. They range from hastily established AA batteries constructed in the build-up to war, to embarkation hards built specifically for the liberation of Europe. They include airfields that were put to use by the four principal Royal Air Force Commands of World War II; airfields were tailor made for Fighter Command and Bomber Command and went on to be used by both Coastal Command and Transport Command. To these must be added airfields tailor made for D-Day and one hastily constructed for emergency landings in the early days of the war. Training ranges, built for both the Royal Air Force and the army were established across the Crown Lands and used extensively for training and the testing of new weapons. In requisitioned houses across the study area, spies were trained and secret operations were planned. Many sites became so established that they continued to see use for many years, and even decades, after the war was over.

This wealth of sites and the sheer variety of those that remain represent not only a fascinating episode in the history of the New Forest, but an important part of Britain's history as well. Rather than being seen as a blip in the area's natural history, these sites deserve to be recognised as an integral part of the New Forest's heritage. The prevalence of so many sites within and around one National Park that represent almost every aspect of Britain's contribution to the war, provides an opportunity for a structured system of protection and interpretation for the park as a whole, as well as for individual sites.

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