

A DESCRIPTION OF THE METADATA ASSOCIATED WITH THE GIS OUTPUTS OF THE NORTH EAST RAPID COASTAL ZONE ASSESSMENT

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1. INTRODUCTION

- 1.1 This file describes the outputs of the English Heritage funded North East Rapid Coastal Zone Assessment's Aerial Photograph Mapping (APM) element of the project and the associated metadata. The aerial survey mapping component of the project was undertaken by ARS Ltd Investigators based with EH's Aerial Survey team in York.
- 1.2 The survey area consists of complete 1km squares which encompassing a strip of land from the lowest astronomical tide level (LAT) to a line 1km inland from Mean High Water Springs (MHWS), along the coast from Whitby in the south to the Anglo-Scottish border in the north. Digital maps at a nominal scale of 1:10,000 and supporting records were produced to National Mapping Programme (NMP) standards for an area of 560km² of which 402km² is inland of MHWS and the remainder falls within the inter-tidal zone between MHWS and LAT. In only mapping a narrow corridor along the coast this project deviates from the normal NMP practice of mapping whole 1:10,000 map quarter sheets. Mapping started on 1st March 2007 and was completed by 22nd July 2008 (AMIE Event No. 1453221).
- 1.3 The project mapped and recorded archaeological sites varying in date and type from prehistoric enclosures to twentieth century military remains. Records for 968 new sites, with a further 270 enhancements to existing records, were input to the National Monuments Record (NMR) database AMIE.
- 1.4 The project was also carried out in collaboration with Cambridge University's Unit for Landscape Modelling, their contribution being the loan of aerial photographs from their library (CUCAP). Other project partners included North Yorkshire County Council, North York Moors National Park, Tees Archaeology, Tyne and Wear Council, Durham County Council, Northumberland County Council, The Northumberland Coast AONB and the Durham Heritage Coast; their contribution being the loan of material from their air photo collections, provision of HER data and repositories for the project's GIS.
- 1.5 The standards adopted by the project are those of the National Mapping Programme (NMP), which are intended to produce a comprehensive record of the archaeology of England, from prehistory to modern times, through the interpretation, mapping and recording of all archaeological features visible as earthworks, cropmarks, parchmarks, soilmarks and structures on aerial photographs.
- 1.6 Dr Cinzia Bacilieri, in her role as Air Photo Team Leader, provided quality assurance for the AP mapping phase of the project. Cinzia Bacilieri, Sally Radford, Gemma Pallant (March – August 2007), Daniel Van den Toorn (November 2007 – February 2008), David Knight (April – July 2008) and Melanie Partlett (February – April 2008) carried out the air photo mapping and recording, working alongside EH's Aerial Survey team in York, supervised by Dave MacLeod (EH). Yvonne Boutwood and Matt Oakey (EH) provided training and support, offering advice on matters of interpretation, mapping, recording and NMP standards. They also carried out final NMP quality assurance checking to ensure that the work was carried out to NMP standards: approximately 5% of the work of each ARS Ltd team member was checked. They also helped with one-to-one training of new team members in all aspects of air photo interpretation, closely monitoring them until they achieved NMP standards.

1.7 The project ran for 17 months and started on 1st March 2007 and mapping and recording was completed by 22nd July 2008.

2. SCOPE OF THE SURVEY

2.1 Geographical Scope

2.1.1 The project area extends across the following authorities (from north to south): Northumberland County Council, Tyne and Wear Metropolitan Borough Council, County Durham, the unitary authorities of Hartlepool, Middlesbrough, Stockton-On-Tees, Redcar and Cleveland and North Yorkshire County Council. With the exception of Whitby, the majority of the project that runs through North Yorkshire lies almost wholly within the North York Moors National Park.

2.1.2 The aerial photographic interpretation and mapping focused on area between the lowest astronomical tide level (LAT) to a line 1km inland from Mean High Water Springs (MHWS), along the coast from Whitby in the south to the Anglo-Scottish border in the north (Figure 1).

2.1.3 The project area falls over 62 quarter 1:10 000 scale map sheets (Appendix 1) and the mapping maintained full 1km squares within the map sheets. This amounts to an area of 560km² but only 402km² covers the area inland of MHWS, and the remainder falls within the inter-tidal zone. This met the requirement of English Heritage's National Mapping Programme (NMP), using the same methodology and scope as the NMP. The project area was divided into 'blocks' to assist management of the photographic loans from the NMR photo library.

2.1.4 In June 2008 an additional 33K^m² were added to the initial project area of 527km² as defined by the Project Design, bringing the total area mapped to 560km². It was felt that the project area would have benefited from extra coverage of the inter-tidal and inland zones between Holy Island and the coastal hinterland. This variation increased the original project area to include two further quarter sheets (NU 03 NE and NU 13 SW) from the original 60 defined in the Project Design (Figure 2).

2.1.5 The project area overlaps with those previously mapped in recent years by three NMP projects and consequently these areas were not re-mapped.

Hadrian's Wall World Heritage Site NMP Project (Event no. 1360986)

The Hadrian's Wall WHS NMP Project covers part of the NE RCZAS in Tyne and Wear, specifically quarter sheets NZ36NE and NZ36SE. These two quarter sheets were already mapped to NMP specifications and were therefore not remapped for this project.

The Till-Tweed NMP Project (Event no. 1378874)

The Till-Tweed NMP Project covers part of the NE RCZAS in Northumberland, specifically quarter sheets NT95SE and NU05SW. These two quarter sheets were already mapped to NMP specifications and were therefore not remapped for this project.

Project Variation for Durham-Assessment of Archaeological Resource in Aggregate Areas NMP project (Event no. 1454180)

The Project Variation for the Durham Assessment Project covers part of the NE RCZAS in Durham, specifically quarter sheet NZ 44 NW. This quarter sheet was already mapped to NMP specifications and was therefore not remapped for this project.

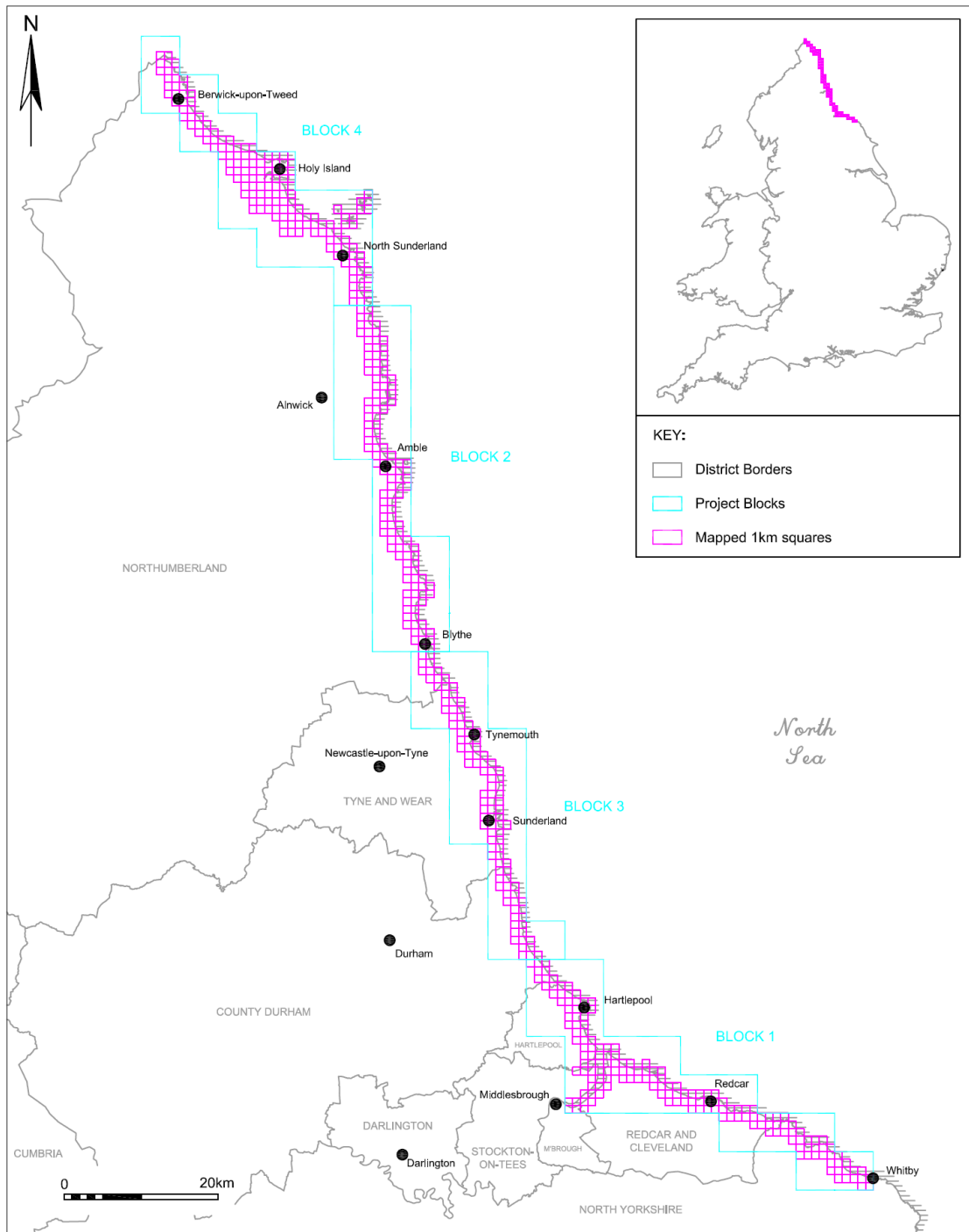


Fig. 1 OS quarter sheet map showing the 1km squares mapped.

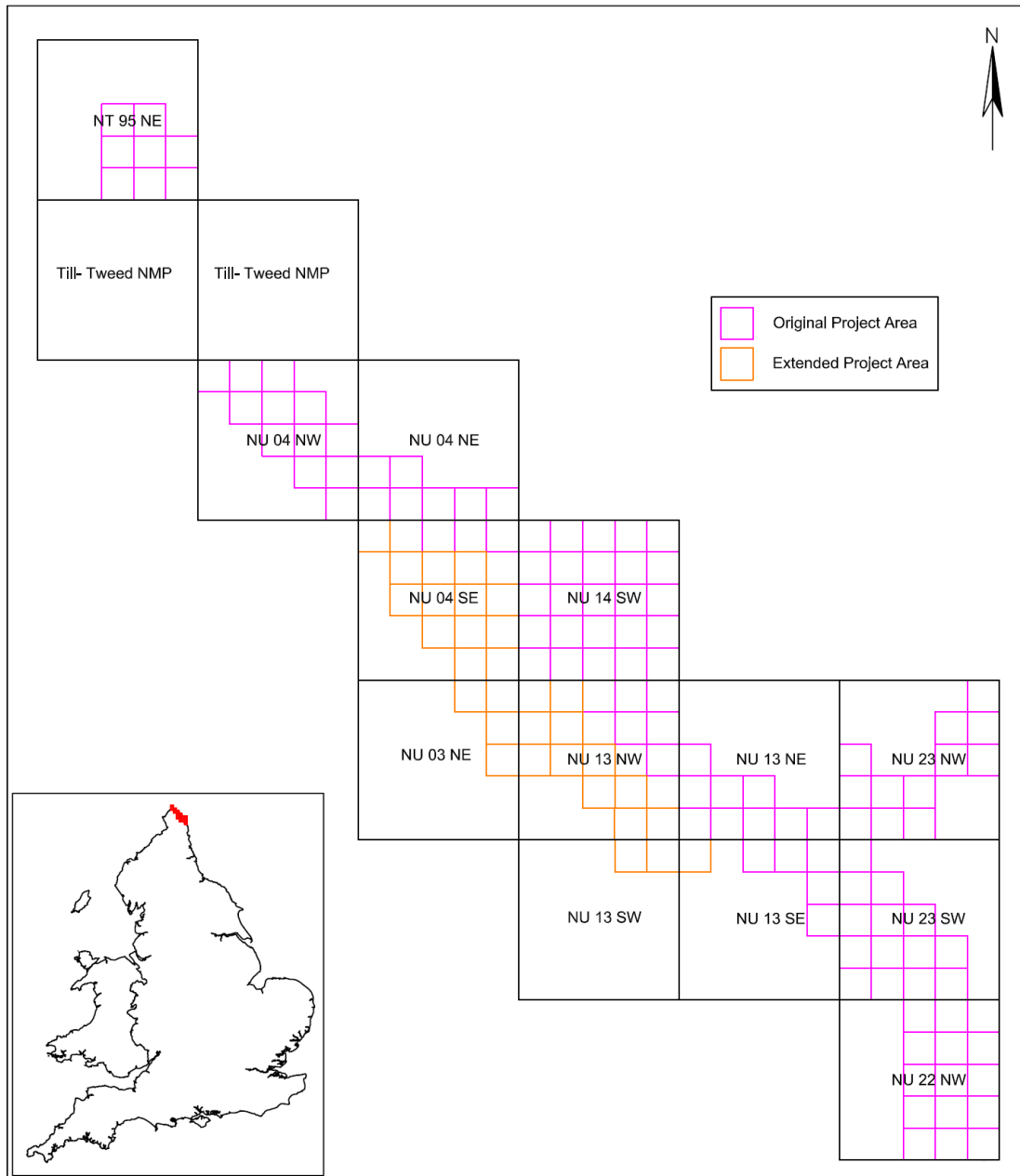


Fig. 2 Block 4 Extension Area

2.1.6 The project adheres to those standards adopted for the National Mapping Programme (NMP), which aims to increase our understanding of the historic environment. All probable and possible archaeological features visible on air photographs as cropmarks, soilmarks, parchmarks, earthworks and structures were identified, interpreted, mapped and recorded. The NMP Sphere of Interest draft report (RCHME 1997) documents the scope of the NMP; the main aspects relevant to this project are summarised below.

2.1.7 *Earthwork archaeology*

All extant earthworks identified as archaeological in origin were mapped. Available RCHME /EH ground survey plans were used to assist and enhance the air photograph interpretation and mapping. If the quality of photography was not sufficient to depict individual earthwork features the latter were mapped as an extent of area.

- 2.1.8 *Levelled archaeology*
All cropmarks, soilmarks and parchmarks identified as archaeological in origin were mapped.
Post medieval and modern field boundaries
Field boundaries that have been removed (upstanding or levelled), but are depicted on first edition Ordnance Survey or later edition maps, were generally not mapped.
However, where they occurred with newly identified field boundaries, which were not depicted by the Ordnance Survey, then some were mapped to provide a wider context for the field systems.
- 2.1.9 *Medieval and post medieval ridge and furrow*
Ridge and furrow was mapped, using a simple graphical depiction, delineating the extent of area and direction of the furrows. The difference between levelled and earthwork ridge and furrow was distinguished. The state of preservation of the latter was evaluated from the latest photography, which in the case of this project was mainly from vertical photographs.
- 2.1.10 *Industrial features and extraction*
Widespread and common small-scale (less than 2 hectares) extraction of stone resources was not mapped unless it directly impinged on archaeological features. Large-scale quarries (greater than 2 hectares) were mapped and recorded, irrespective if they were depicted on any Ordnance Survey map. Coal mining and associated features, such as tramways, were mapped and recorded. Large collieries or open cast mining complexes were mapped generally as an extent of area.
- 2.1.11 *Post Medieval and 20th Century military features*
Former Post Medieval, First and Second World War military sites and installations were mapped. Extensive military complexes and sites were outlined as an extent of area as were anti-landing obstacles and tank traps. Installations such as pill boxes and coastal gun/searchlight batteries were mapped. As many sites of this period and function were by nature short lived and transitory emphasis was placed on the identification and general extent of activity when appropriate, rather than the accurate depiction of single features such as barbed wire fences and local trackways. Significant features within outlined areas were mapped either “as seen” or schematically, according to the quality of the available photography. Where the only source was oblique imagery with poor control coastal defence sites in the inter-tidal zone, such as pillboxes, tank traps, barbed wire fences and beach scaffolding, were sketched plotted (A sentence was added to the record stating that ‘the monument was sketched because it was not possible to locate the feature due to lack of control points on the source photograph’).
- 2.1.12 *Buildings*
The foundations of buildings visible as cropmarks, soilmarks, parchmarks, earthworks, or ruined stonework were mapped, except when they were depicted on first edition Ordnance Survey or later edition maps. Standing roofed or unroofed buildings or structures were generally not recorded unless they had a particular association in the context of industrial or military remains. Medieval castles and monastic sites previously recorded and extensively surveyed and mapped by the Ordnance Survey were generally mapped as an extent of area.
- 2.1.13 *Geomorphological features or natural deposits*

Geomorphological features and natural deposits were not mapped. When such features occurred in the context of archaeological sites they were noted within the monument data text. This is in line with normal NMP methodology. Organic sediments and paleochannel fills were not mapped.

2.1.14 *Parkland, landscaped parks, gardens and country houses*

Although within the NMP sphere of interest none of these features were encountered within the project area.

2.1.15 *Maritime Features*

Ship wrecks and fish traps visible in the inter-tidal zones were mapped. If it was not possible to position these features accurately due to a lack of reference points on the source photograph, only a circle on the extent of area layer with a diameter of 100m, 500m or 1km (the radius depending on the control points on the source photograph) was drawn. The centre of this was the grid reference obtained from the source photograph.

3. SOURCES

3.1 Air Photographs

- 3.1.1 All readily available air photographs were consulted, which effectively means those held in seven main collections. The National Monuments Record (NMR) was the prime source. A search for photographs identified 4066 specialist obliques and 14,227 vertical prints for the project area. For the purposes of mapping the area was divided into four blocks to facilitate loans from the NMRC library. Additionally, 484 specialist oblique and 427 vertical prints were consulted from the Photograph Library of Cambridge University Collection of Air Photographs (CUCAP), administered by the Unit for Landscape Modelling (ULM). AP Collections of North Yorkshire County Council, North York Moors National Park, Tees Archaeology, Tyne and Wear County Archaeology and Durham HER were also consulted but only a handful of these latter photographs were used for the project.
- 3.1.2 The vertical photographs held by the NMR comprise mainly RAF and Ordnance Survey sorties with some Meridian Airmaps Limited photographs, which together range in date from 1940 to 1999. The specialist oblique photographs range in date from 1940 to 2006, which includes specialist military photographs and those from recent reconnaissance. The CUCAP collection's holding for this project were quantified using the online catalogue (www-arcis.geog.cam.ac.uk). The ULM then kindly loaned the relevant photographs on a quarter sheet by quarter sheet basis. Yvonne Boutwood (EH) and Sally Radford (ARS Ltd) administered the loan liaison between the project and ULM.
- 3.1.3 Other forms of remote sensing imagery (e.g. lidar) were not used during the mapping phase of the project. Lidar data tiles in JPEG format for the whole NMP project area were provided by the Environment Agency. However, a review of a sample area suggested that because a proportion of the data was collected at high tide lidar was of limited use in identifying features in the inter-tidal zone. Where the tide was low, the resolution was too low to show small discrete features like wrecks but showed major features. Consequently it was not felt that this was the most appropriate project in which

to test the potential of this data to its fullest. This is not to say that lidar data does not have a contribution to make to future coastal or inland archaeological surveys.

3.2 Monument data

- 3.2.1 The National Monuments Record database AMIE was consulted as was the relevant HER data for each quarter sheet during the course of transcription and recording. This process was assisted by the output from EH's GIS Data which facilitates graphic representation of the records with attached summary data. Where possible, concordance between HER datasets and AMIE was made.

4 METHODOLOGY AND RECORDING

4.1 Mapping Methods

- 4.1.1 Mapping methods were in accordance with practices developed for the National Mapping Programme (NMP). All air photographs were examined under magnification and stereoscopically where possible. Oblique and vertical photographs were scanned at a suitable resolution, normally between 350-400dpi, and rectified using appropriate software (AERIAL 5.29). Ordnance Survey NTF (Block 1 and 3) and MasterMap (Block 2 and 4) 1:2,500 maps were used for control and as a base for mapping in AutoDesk Map 2004 and AutoDesk Map 3D 2007. Where appropriate, topographic information was derived from Ordnance Survey Land-Form PROFILE (5m vertical interval, scale 1:10,000) and the height data used to create Digital Terrain Models to improve the accuracy of the photo rectification.
- 4.1.2 Accuracy for the Ordnance Survey map is in the range of $\pm 2.8\text{m}$ and rectification of photographs is normally within $\pm 2\text{m}$. The latter mismatch may increase up to $\pm 4\text{m}$ in the inter-tidal areas where the lack of control points on the available source photograph makes a more accurate rectification impossible. When it was not possible to position maritime features accurately due to a lack of reference points on the source photograph, only a circle on the extent of area layer with a diameter of 100m, 500m or 1km (the radius depending on the control points on the source photograph) was drawn. The centre of this was the grid reference obtained from the source photograph.
- 4.1.3 Rectified images were output from AERIAL in uncompressed TIF format at a resolution of 300dpi and a scale of 1:10,000. A World file (.TFW) was created alongside each TIFF file and the control information was retained in the AERIAL RDA file (RDA).
- 4.1.4 The Ordnance Survey First Edition and later mapping was routinely consulted as an aid to the interpretation and mapping. Reports of previous archaeological investigations in the project area were consulted, where they were published and readily available.

4.2 Recording Practice

- 4.2.1 All mapped features were recorded in the English Heritage National Monuments Record database, AMIE. The monument types and evidence terms used for this project are listed in Appendix 4 and 5. This was routinely consulted and data from EH's GIS was downloaded for use in the AutoDesk Map environment. New records were created or

existing monument records were amended following NMR Heritage Datasets: Monument Recording Guidelines.

4.3 Copyright

- 4.3.1 Copyright of the aerial survey mapping and associated AMIE records produced by the project resides with EH. Licence to use the data has been extended to ARS Ltd and the project partners.

4.4 Project Dissemination

- 4.4.1 Copies of the AutoDesk Map drawing files were supplied to ARS Ltd. These were incorporated within the wider RCZA project results and converted to ESRI shape files for distribution to the HER's. All AMIE records were supplied in Portable Document Format (.pdf). This project also used Oracle Discoverer Plus Version 9.0.4.45.04 to output the AMIE record data in Excel spreadsheet format. The Excel data is supplied in an edited form as well as being combined into a Microsoft Access database front end for ease of querying and outputting of data associated with the project (see Appendix I for further details).

Appendix I: GIS data

The data output from the GIS comprises aerial survey data and associated records supplied as ESRI shape (.shp) files, Microsoft Excel (.xls) files and Microsoft Access (.mdb) files.

ESRI shape files

The shape files (and their associated .dbf, .sbn, .sbx and .shx files) are located in //GIS/Shapefiles

Both polygon and line data is supplied.

Extended records associated with the ESRI shape files

The extended records associated with the above data are contained in //GIS/Database/Exceltables

This folder contains:

Concordance.xls – data which informs of relationships between NMR numbers and other ID numbers such as HER numbers, Listed Building numbers and Defense of Britain project numbers.

Descriptive term.xls – all monument types (see Appendix IV) associated with each site

Long text.xls – long descriptive text for each site as well as OS quarter sheet information

Period.xls – all periods associated with each site

References.xls – all references associated with each site

These various tables have been combined into a Microsoft Access database. Within the database is the information from the Excel table as outlined above and three forms (found under the “Forms” tab on the database screen). Opening the form “Front-end) will display a form which incorporates the data from the tables into an easily viewable and printable page which contains all the data associated with each site. Two buttons then provide quick links to the references and concordance information associated with the site displayed on the form. The Access database can be found in //GIS/Database.

Appendix II: 1:10000 map sheets

Filename	Block (order of mapping)	Archive Parent Collection EHCO1/094 AF00230	Author	Date of completion
NZ 81 SE	1	MD002083	Gemma Pallant	13/09/2007
NZ 81 SW	1	MD002084	Sally Radford	23/03/2007
NZ 81 NW	1	MD002085	Sally Radford	13/09/2007
NZ 71 NE	1	MD002086	Sally Radford	14/09/2007
NZ 71 NW	1	MD002087	Gemma Pallant /Cinzia Bacilieri	04/04/2007
NZ 72 SW	1	MD002088	Gemma Pallant /Cinzia Bacilieri	17/09/2007
NZ 62 NW	1	MD002091	Sally Radford	04/09/2007
NZ 62 SW	1	MD002090	Sally Radford	12/09/2007
NZ 62 SE	1	MD002089	Cinzia Bacilieri	12/09/2007
NZ 52 NW	1	MD002095	Sally Radford	05/10/2007
NZ 52 SW	1	MD002094	Sally Radford	03/10/2007
NZ 52 SE	1	MD002093	Cinzia Bacilieri	15/10/2007
NZ 52 NE	1	MD002093	Cinzia Bacilieri	16/10/2007
NZ 43 SE	1	MD002098	Sally Radford	07/11/2007
NZ 53 SW	1	MD002096	Sally Radford	08/11/2007
NZ 43 NE	1	MD002099	Cinzia Bacilieri	30/11/2007
NZ 53 NW	1	MD002097	Cinzia Bacilieri	03/12/2007
NZ 44 SW	3A	MD002101	Daniel Van Den Toorn	05/12/2007
NZ 44 SE	3A	MD002100	Daniel Van Den Toorn	05/12/2007
NZ 45 SW	3A	MD002103	Daniel Van Den Toorn	18/12/2007
NZ 46 SW	3A	MD002239	Daniel Van Den Toorn	03/01/2008
NZ 35 NE	3A	MD002105	Sally Radford	03/01/2008
NZ 45 NW	3A	MD002104	Sally Radford	02/01/2008
NZ 37 SE	3B	MD002108	Sally Radford	15/02/2008
NZ 37 SW	3B	MD002109	Sally Radford	10/02/2008
NZ 37 NE	3B	MD002110	Sally Radford /Daniel Van Den Toorn	14/02/2008
NZ 37 NW	3B	MD002111	Sally Radford /Daniel Van Den Toorn	19/02/2008
NZ 46 NW	3B	MD002106	Sally Radford /Daniel Van Den Toorn	19/02/2008
NZ 28 SE	2	MD002113	Melanie Partlett /Cinzia Bacilieri	28/04/2008
NZ 28 NE	2	MD002115	Sally Radford	13/03/2008
NZ 38 NW	2	MD002114	Sally Radford	17/03/2008
NZ 38 SW	2	MD002112	Melanie Partlett /Cinzia Bacilieri	29/04/2008
NZ 29 SE	2	MD002117	Melanie Partlett /Cinzia Bacilieri	08/05/2008
NZ 39 SW	2	MD002116	Melanie Partlett /Cinzia Bacilieri	08/05/2008
NZ 29 NE	2	MD002118	Sally Radford	08/04/2008
NU 20 NW	2	MD002343	Sally Radford	17/04/2008
NU 20 NE	2	MD002120	Sally Radford	18/04/2008
NU 21 NW	2	MD002124	David Knight	16/07/2008
NU 21 NE	2	MD002122	David Knight	16/07/2008
NU 20 SE	2	MD002119	Cinzia Bacilieri	23/04/2008

Filename	Block (order of mapping)	Archive Parent Collection EHCO1/094 AF00230	Author	Date of completion
NU 22 SW	2	MD002125	David Knight	16/07/2008
NU 22 SE	2	MD002126	David Knight	16/07/2008
NU 21 SE	2	MD002123	Sally Radford	13/05/2008
NU 21 SW	2	MD002121	Sally Radford	01/05/2008
NU 22 NW	4	MD002127	David Knight	21/05/2008
NU 13 SE	4	MD002129	Sally Radford	19/05/2008
NU 23 SW	4	MD002128	Sally Radford	20/05/2008
NU 14 SW	4	MD002133	David Knight	23/05/2008
NU 13 NW	4	MD002132	Sally Radford	20/06/2008
NU 04 SE	4	MD002134	David Knight	24/06/2008
NU 04 NE	4	MD002135	David Knight	28/05/2008
NU 13 NE	4	MD002131	Cinzia Bacilieri	26/06/2008
NT 95 NE	4	MD002139	Cinzia Bacilieri	30/05/2008
NU 04 NW	4	MD002136	Sally Radford	02/06/2008
NU 03 NE	4	MD002351	David Knight	23/06/2008
NU 13 SW	4	MD002350	Cinzia Bacilieri	09/07/2008

No archaeological features were mapped and recorded in quarter sheets NU 23 NW and NZ 46 NW.

Additional maps from existing NMP projects:

NZ 44 NW	3	Mapped as part of Project Variation for Durham-Assessment of Archaeological Resource in Aggregate Areas NMP project (Event no. 1454180)
NZ 36 SE	3	Mapped as part of Hadrian's Wall World Heritage Site NMP Project (Event no. 1360986)
NZ 36 NE	3	Mapped as part of Hadrian's Wall World Heritage Site NMP Project (Event no. 1360986)
NT 96 SE	4	Mapped as part of The Till-Tweed NMP Project (Event no. 1378874)
NU 05 SW	4	Mapped as part of The Till-Tweed NMP Project (Event no. 1378874)

Appendix III: Monument Data Table

The Monument Data table, which is attached to the ESRI shape files in a .dbf format, consists of five fields that were input directly through AutoDesk Map 2007. The content of these fields follows those that are entered in the National Monuments Record Database AMIE.

FIELD NAME	FIELD CONTENT	Sample data
MONARCH	AMIE Unique Identifier (UID)	1462945
PERIOD	Date of features (EH Thesaurus)	SECOND WORLD WAR
TYPE	Monument type (EH Thesaurus)	AIR RAID SHELTER
EVIDENCE	Form of remains (EH Thesaurus)	STRUCTURE
PHOTO	NMR or other reference for the photograph from which the feature was mapped and the date of photography	RAF 106G/UK/873 6181 1-OCT-1945

The AMIE Unique Identifier is the common number that can be used to match data from the ESRI shape files and the contents of the Excel spreadsheets that were output from Oracle Discoverer Plus.

The labelling of the AMIE UID in the Excel data tables varies. It is usually labelled Monument UID, although occasionally it is labelled HOB UID. In the Microsoft Access database form “Front-End” all instances have been changed to “NMR number” for clarity. It is this number which links the various datasets (shape files, excel files and access database) together.

Appendix IV: Monument types used in the project

AIR RAID SHELTER
AIRCRAFT OBSTRUCTION
AIRFIELD
ALUM QUARRY
ANDERSON SHELTER
ANTI AIRCRAFT BATTERY
ANTI BOAT LANDING OBSTACLE
ANTI SUBMARINE DEFENCE
ANTI TANK DITCH
ARMY CAMP
ARMY CAMP/PRISONER OF WAR CAMP
ARTILLERY FORT
BANK (EARTHWORK)
BARBED WIRE OBSTRUCTION
BARRAGE BALLOON SITE
BATTERY
BEACH DEFENCE
BEACH DEFENCE BATTERY
BELL PIT
BLAST WALL
BOMB CRATER
BOMBING DECOY
BOMBING RANGE MARKER
BOUNDARY BANK
BREASTWORK
BUILDING
BUILDING PLATFORM
CAIRN
CASTLE
CASTLE
CHAPEL
CIRCULAR ENCLOSURE
COAL MINING SITE
COAST ARTILLERY SEARCHLIGHT
COASTAL BATTERY
COLLIERY
COMMAND POST
CROPMARK
CURVILINEAR ENCLOSURE
DEFENCE OBSTRUCTION
DITCH
DITCHED ENCLOSURE
DOUBLE DITCHED ENCLOSURE
DOVECOTE
EMERGENCY WATER SUPPLY
ENCLOSURE
EXTRACTICVE PIT
FARMSTEAD
FIELD BOUNDARY

FILTER BED
FIRING RANGE
FISHPOND
FLOOD DEFENCES
FORT
FORTIFICATION
GATE
GRANARY
GUN EMPLACEMENT
HEAVY ANTI AIRCARFT BATTERY
HILLFORT
HOLLOW WAY
HOSPITALLERS PRECEPTORY
IRONSTONE MINE
IRONSTONE WORKINGS
LIME KILN
LIME WORKS
LIMESTONE QUARRY
LINEAR FEATURE
LONG BARROW
MAGAZINE
MILITARY AIRFIELD
MILITARY BUILDING
MILITARY CAMP
MILITARY DEPOT
MILITARY HEADQUARTERS
MILITARY ROAD
MINEFIELD
MOAT
NARROW RIDGE AND FURROW
NISSEN HUT
OBSERVATION POST
OFFICERS QUARTERS
OPEN CAST MINE
ORDNANCE STORE
PATH
PILLBOX
PIT
PIT ALIGNMENT
PLATFORM
PLOUGH HEADLAND
POND
PRACTICE TRENCH
PRIORY
QUARRY
RADAR STATION
RADIO TELEGRAPHY STATION
RAILWAY
RECTILINEAR ENCLOSURE
RIDGE AND FURROW

ROAD BLOCK
ROUND BARROW
ROUND HOUSE (DOMESTIC)
ROYAL OBSERVER CORPS SITE
SALTERN
SALTERN MOUND*
SAND PIT
SEAPLANE BASE
SEARCHLIGHT BATTERY
SETTLING PIT
SHRUNKEN VILLAGE
SIGNAL STATION
SLIPWAY
SLIT TRENCH
SOUND MIRROR

SPOIL HEAP
SQUARE ENCLOSURE
STRUCTURE
SUMMERHOUSE
TANK TRAP
TOWER
TOWN DEFENCES
TRACKWAY
TRENCH
UNDERGROUND MONITORING POST
WALL
WATER TANK
WEAPONS PIT
WINDMILL
WRECK

* Not in AMIE Thesaurus. Recorded in AMIE as SALT WORK.

Appendix V: Evidence Terms used in the project

EVIDENCE Term	EXPLANATION
EARTHWORK	Monument existing as an upstanding earthwork
CROPMARK	Monument visible as a mark in standing crops, parchmarks or soilmarks Cropmark monument that was visible as cropmarks but has been built over
LEVELLED EARTHWORK	Earthwork has been levelled Earthwork monument that has been built over
STRUCTURE	Structure or building still extant Structure or building no longer in situ due to coastal erosion (e.g. a pillbox that is now at the bottom of a cliff) Structure or building may have been covered by sand Structure has been demolished but some remains are visible Structure or building has been demolished and no surface features are visible
DEMOLISHED BUILDING, RUINED BUILDING	Building is demolished but foundations and ground plan are visible
DESTROYED MONUMENT	Monument has been quarried away Earthwork or cropmark monument lost due to coastal erosion
MOVED STRUCTURE*	Structure or building has been moved from a position where it was originally recorded

* New AMIE term introduced for RCZAS: it relates to features recorded prior to this project from ground inspection but moved from their original position due to coastal erosion or human activities.