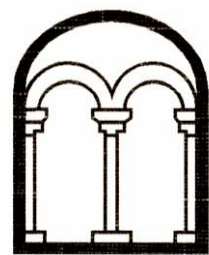


**SATELLITE INSTALLATIONS  
BEDFORD TELEPORT  
THURLEIGH AIRFIELD  
BEDFORDSHIRE**

**ARCHAEOLOGICAL OBSERVATION,  
INVESTIGATION AND RECORDING,  
ANALYSIS AND PUBLICATION**

**Albion**  
archaeology



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Prepared for:

Arqiva Ltd



## Contents

1	INTRODUCTION .....	6
1.1	Introduction.....	6
1.2	Site Location and Description.....	6
1.3	Historical Background to Thurleigh Airfield.....	6
1.4	Archaeological Background.....	7
1.4.1	<i>Known archaeological sites in the vicinity</i> .....	7
1.4.2	<i>Previous archaeological work on the airfield site</i> .....	8
2	Recent investigations .....	9
2.1	Project Methodology and Objectives.....	9
2.2	Works Description .....	9
2.3	Results.....	9
3	Discussion.....	11
4	Bibliography .....	12

## Figures

- Figure 1. Location of investigation area with Thurleigh Airfield and HER sites  
 Figure 2. Groundworks observed during all satellite installations  
 Figure 3. Plan of 2012 investigation area  
 Figure 4. Archaeological investigation areas superimposed on detail of 1944 plan  
 Figure 5. Selected photographs  
 Figure 6. Selected photographs



## **Preface**

*Every effort has been made in the preparation of this document to provide as complete a summary as possible within the terms of the method statement. All statements and opinions in this document are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.*

## **Acknowledgements**

*Albion Archaeology was commissioned to carry out the archaeological works by Alan Geach (Arqiva). The project was monitored on behalf of the Local Planning Authority by Vanessa Clarke, Bedford Borough Council Senior Archaeological and Historic Environment Team Officer (HET).*

*Fieldwork was undertaken by Mark Phillips (Project Officer) who also prepared this report with figures by Joan Lightning (CAD Technician). Mike Luke managed the project. All Albion projects are under the overall management of Drew Shotliff (Operations Manager).*

## **Version History**

<i>Version</i>	<i>Issue date</i>	<i>Reason for re-issue</i>
<i>1.0</i>	<i>19/02/2013</i>	<i>n/a</i>

## **Key Terms**

Throughout this document the following terms or abbreviations are used:

BBC	Bedford Borough Council
HER	Historic Environment Record
HET	Historic Environment Team
IfA	Institute for Archaeologists
<i>Procedures Manual</i>	<i>Procedures Manual Volume 1 Fieldwork, 2nd edn, 2001 Albion Archaeology</i>
WSI	Written Scheme of Investigation



## **Non-technical Summary**

*Archaeological observation, investigation and recording were undertaken during the construction of a new satellite dish at Bedford Teleport. The site was located in the north-west corner of Thurleigh Airfield in north-west Bedfordshire (TL3719/6107). Work was undertaken as a requirement of planning permission.*

*The site lies within an area of archaeological potential — it is close to a probable late Iron Age settlement (outside the airfield perimeter); it also contains wartime and post-war remains. Previous investigations have been undertaken on this site in advance of the construction of a number of satellite dishes in the 1990s and an additional one in 2011. These investigations recovered artefacts dating from the late Iron Age, medieval and post-medieval periods, along with evidence for the wartime use of this part of the airfield.*

*The investigation reported here recorded the location of one of the wartime concrete access roads which led to a nearby bomb store. The remains confirm the location of the road as shown on a plan of 1944. No evidence for any earlier activity was recovered. The observations confirm earlier findings that the impact of 20th-century ground disturbance associated with the activity on the site is low and that there is potential for the survival of earlier deposits, where present.*



## 1 INTRODUCTION

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### 1.1 Introduction

Planning permission was granted by Bedford Borough Council for the construction of satellite dishes at Bedford Teleport (on part of Thurleigh Airfield), Bedfordshire. As the site lies within an area of archaeological potential, Bedford Borough Council's Historic Environment Team (HET) required the implementation of a programme of archaeological works during the construction groundworks.

Albion Archaeology was commissioned to carry out the programme of archaeological works in accordance with the methodologies described in a Written Scheme of Investigation (Albion Archaeology 2011a), produced in response to the brief prepared by the former Bedfordshire County Council (BCC 1997).

### 1.2 Site Location and Description

Bedford Teleport is located in the north-west corner of Thurleigh Airfield (Figure 1), in north-west Bedfordshire between the villages of Thurleigh (to the south) and Riseley (to the north). It is situated to the north of an area of woodland known as Galsey Wood at OS grid reference TL3719/6107.

Topographically the site lies 2km north-east of the River Great Ouse, on the northern end of a substantial N-S ridge, at 85m OD. The land to the south and east, along the top of the ridge, is flat with gentle downward slopes to the north and west. Geologically the airfield sits on Boulder Clay which overlies Oxford Clay.

### 1.3 Historical Background to Thurleigh Airfield

Thurleigh was one of many airfields constructed in the early war years. Construction commenced in July 1941, opening as an RAF Bomber Command airfield on October 9th 1941. Like many RAF airfields it was switched to the USAAF (opening on September 7th 1942). Improvements were immediately instigated including the lengthening and completion of all 3 runways (Bowyer 1983).

The airfield was occupied by the 306th Bomb Group which only finally withdrew in December 1945. This was the longest tenure by any American combat unit of any UK base during WWII (Freeman 1992). The airfield also saw the longest continuous combat usage of all the wartime bases. The base comprised the standard 3 runways, with a technical site on the east (unusual in having 4 hangars) and bomb storage area (partly within the present investigation area), originally situated in woods to the north of the flying zone. Sixteen living and communal sites were dispersed in the countryside to the east of the airfield, north of Thurleigh village.

During 1944, plans were initiated by the Minister of Supply, Sir Stafford Cripps, to create a new research and development airfield to be known as the National Aeronautical Establishment (Bowyer 1983). Farnborough was first



considered but very long runways were envisaged which could never be built there. When Bedford (Thurleigh) was chosen the scheme was startling as it required the amalgamation of three WWII airfields. A 5-mile long concrete runway was to be built extending from Thurleigh to Little Staughton. This was to be linked by a giant taxi track to Twinwoods Farm where vast hangar maintenance facilities were erected.

The grand scheme was never completed and only commenced on a small scale. The minor road separating Thurleigh from Twinwoods was rebuilt as a “dual carriageway” within a cutting over which the taxi way would have passed. The giant runway was never built. Instead a 3,200m-long and 91m-wide main runway was constructed with three smaller runways. Its location on high ground gave unobstructed horizon for over 5 miles, making it ideal for radar research and development. On the south-west of the airfield hangars, workshops, offices, stores, laboratories etc. were constructed. To the north was the Naval Air Section with similar facilities, catapults and arrester gear. Wind tunnel facilities were constructed just north of Twinwoods from 1946 onwards and were connected by a 2-mile long concrete road, not to Thurleigh, but to the A6 at Clapham. Other major infrastructure including water and electricity supplies were also established. The wind tunnels were used during the testing of Concorde and the development of STOL and VTOL features.

RAF Thurleigh was closed in 1994 and sold to St Modwen Properties in 1997. A small museum for the 306th Bomb Group was opened in 2001 within the former airfield (for details see <http://www.306bg.co.uk>).

Much of the WWII airfield remains have been removed by the post-war development. The wartime technical site was demolished to make way for the new runway. Two of the wartime runways were retained, but seldom used; the other was abandoned. Much of the wartime taxi ways were retained including numerous saucer dispersals. Several isolated buildings remain, mainly on the periphery of the flying zone. Only part of the bomb store was retained; the rest was cleared of trees and some buildings. Many of the barrack and communal sites were situated outside the post-war establishment. Remains of these survive to a varying degree in farmers’ fields on the road to the north of Thurleigh village.

A limited number of plans and photographs are available that were either created or taken during the war. The most useful of these is a 1944 Air Ministry plan detailing the layout and building types in use at that date.

## **1.4 Archaeological Background**

### **1.4.1 Known archaeological sites in the vicinity**

The continued use of this site by the Ministry of Defence over the past 50 years has allowed few opportunities for archaeological fieldwork within its perimeter. However, in farmland to the immediate north of the development site aerial photography survey has identified a complex series of enclosures (shown on Figure 1). These (HER 11765) appear to extend into the development site and, on the basis of their form, are thought to be late



prehistoric or Roman in origin. Little is currently known about prehistoric or Roman occupation of the north Bedfordshire claylands, although aerial photography is recording an increasing number of sites on this geology. At least five cropmark sites (as yet undated) are known within a 5-mile radius of the development site.

On the clay ridge around the airfield there is some evidence of Iron Age and Roman activity (HER 313, 2637, 2752).

In contrast, the valley of the Great Ouse is known to have been extensively occupied. Approximately 3km south of the site are areas of known later prehistoric and Roman occupation, characterised by ring ditches and settlement evidence (HER 576, 1786, 1797), and a villa and late Roman cemetery (Dawson 1994) at Bletsoe Grange (HER 307).

In the area surrounding the airfield there is considerable evidence for medieval settlement. The villages of Thurleigh, Bletsoe and Riseley have medieval origins and two of the former settlements have castles (HER 308 and 313). There are several shrunken or deserted settlements in the surrounding area and two settlements within the airfield itself (HER 3646 and 5207). A moated site exists nearby at Blackburn Hall (HER 309).

#### **1.4.2 Previous archaeological work on the airfield site**

Twelve satellite installations along with associated service runs were observed, investigated and recorded by Albion (then known as BCAS) during 1997 (Figure 2). The machine-dug pits for the foundations of the satellites varied from 1–5sqm. In addition to short service runs associated with individual satellites a long trench was dug from Building 195 following the access road through Gate 4 to the Riseley Road. A summary report was produced (BCAS 1997) which should be consulted for more detailed information. In July 2011 the construction of foundations for a new satellite were observed (Albion Archaeology 2011b). Evidence was recorded for the location, design and construction of WWII storage buildings and access roads.

In summary, the previous investigations have indicated that ground disturbance in this area resulting from activity associated with the World War Two airfield is quite minimal. Evidence for late Iron Age activity was located adjacent to a known HER cropmark site. The presence of medieval/post-medieval artefacts could suggest the presence in the vicinity of a previously unrecorded occupation site of this date. The next identifiable phase of activity was associated with the use of this area for the bomb store during most of 1941 (the later bomb store of a different design was located to the east, beyond the study area). Evidence for the location, design and construction of storage buildings and access roads was recorded. The accuracy of the 1944 plan of the airfield was generally confirmed, although some additional structures were identified.





## 2 RECENT INVESTIGATIONS

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### 2.1 *Project Methodology and Objectives*

A detailed methodology is provided in the Written Scheme of Investigation (Albion Archaeology 2011a). Methods employed during the project complied with the Institute for Archaeologists' *Code of Conduct and Standard and Guidance for an Archaeological Watching Brief* (2009), English Heritage's *Management of Research Projects in the Historic Environment (MoRPHE)* (2009), and Albion Archaeology's *Procedures Manual* (2001).

The project objectives were to monitor/supervise all groundworks that had the potential to reveal archaeological remains and to investigate, characterise and record any archaeological deposits encountered within them.

The broader objectives of the project were to add to the knowledge and understanding of the archaeology of Bedfordshire (more specifically the north Bedfordshire clays) and produce an archive report that fully described the archaeological works.

### 2.2 *Works Description*

Archaeological observation of the groundworks took place between 23rd October and 13th December 2012. The overall number of machining days was small but was spread over a longer period as a result of delays caused by technical issues. Within this period the site was attended on four occasions and all groundworks with the potential to uncover archaeological remains were closely monitored by an archaeologist.

The works comprised removal of the topsoil and turf layer followed by the excavation of a pit to take a concrete foundation slab for the satellite (Figure 5, Images A and B). Excavation was carried out using a flat-edged bucket. The topsoil and turf were reserved to be reinstated above the foundations for ecological reasons.

### 2.3 *Results (Figure 3)*

The trench was square, measuring 6.8m long on each side. The formation depth was over 1m deep; however, archaeological observations were discontinued at 0.35m below the ground surface when undisturbed geological deposits were identified.

The topsoil was very dark grey clay loam with occasional small stones up to 0.15m thick. Due to weather conditions at the time of investigation the topsoil layer was completely saturated with water pooling on the ground surface in places.

A modern service was located close to, and parallel with, the east side of the trench (Figure 6, Image D). It consisted of a single cut containing ducting for power cables serving the two existing satellites at the northern end of the site.



A concrete surface *c.* 0.1–0.15m thick was found in the north-west corner of the trench. Its upper surface lay just below the ground surface and it was covered by a thin layer of turf at the north edge of the trench. The layer extended beyond the limit of excavation to the north and west and its southern edge was aligned approximately NE-SW.

A layer of subsoil beneath the topsoil consisted of a mid to dark grey brown silty clay up to 0.2m thick. This was a mixed layer which included darker pockets of topsoil and some modern debris associated with 20th-century use of the site. The debris included some fragments of metal and asbestos (removed during remediation work by specialist contractors). The majority of the modern debris was situated along the south edge of the concrete road. The central and east part of the trench contained some pockets of reddish burnt clay and charcoal which, although undated, appear to be modern due to the absence of any overlying subsoil layer that might indicate they formed part of an earlier phase of activity (Figure 6, Image C).

Undisturbed geological strata were found at a depth of 0.35m below the ground surface (Figure 6, Image D). They comprised light grey brown or yellowish silty clay, representing the upper interface of the Boulder Clay.



### 3 DISCUSSION

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The concrete surface found in the north-west corner of the trench was the remains of an access road leading to a bomb store formerly located to the south-west of the trench. The bomb stores and associated network of access tracks are shown on a plan of 1944 and they clearly correspond with the track revealed in the trench (Figure 4). Here, as in previous investigations, the roads generally consisted of a relatively thin, single layer of concrete, except within the bomb store buildings where it was considerably thicker.

Areas of disturbed ground adjacent to the concrete access road contained 20th-century debris. It is not clear whether the deposit of this material was related to the construction of the road or occurred at a later date, perhaps during demolition or clearance work. Detailed investigation of the relationship was precluded by the presence of asbestos. The concrete and the ground beneath it were removed as part of specialist remediation works.

Examination of the undisturbed geological strata showed no evidence for earlier features and no earlier artefacts were recovered from the excavated spoil.

The results of the investigation demonstrated the presence of the wartime access road which survived below a thin build-up of turf. In the area examined the impact of the 1940s construction was comparatively low and, although no earlier features were found, this does demonstrate the potential for their survival.



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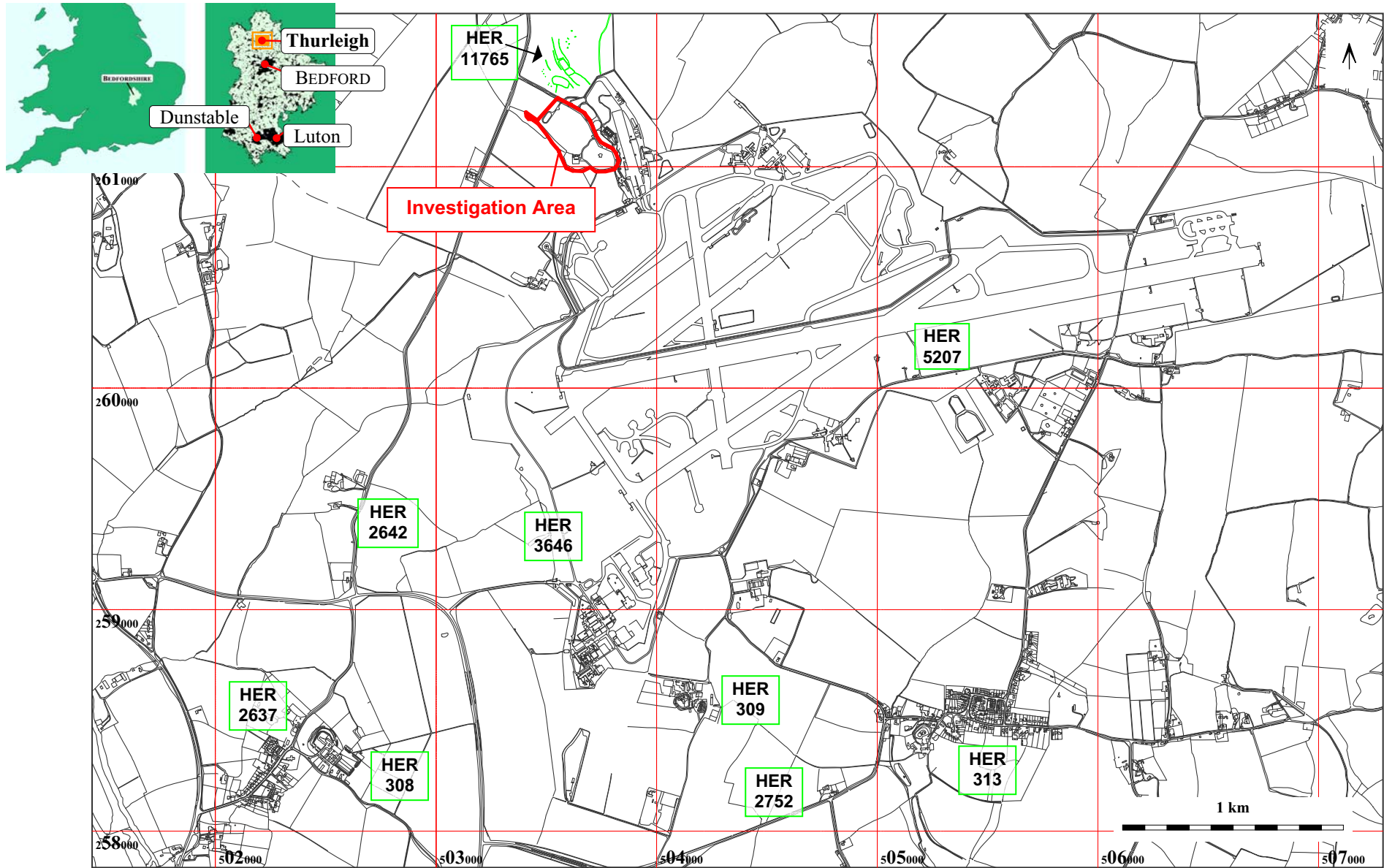
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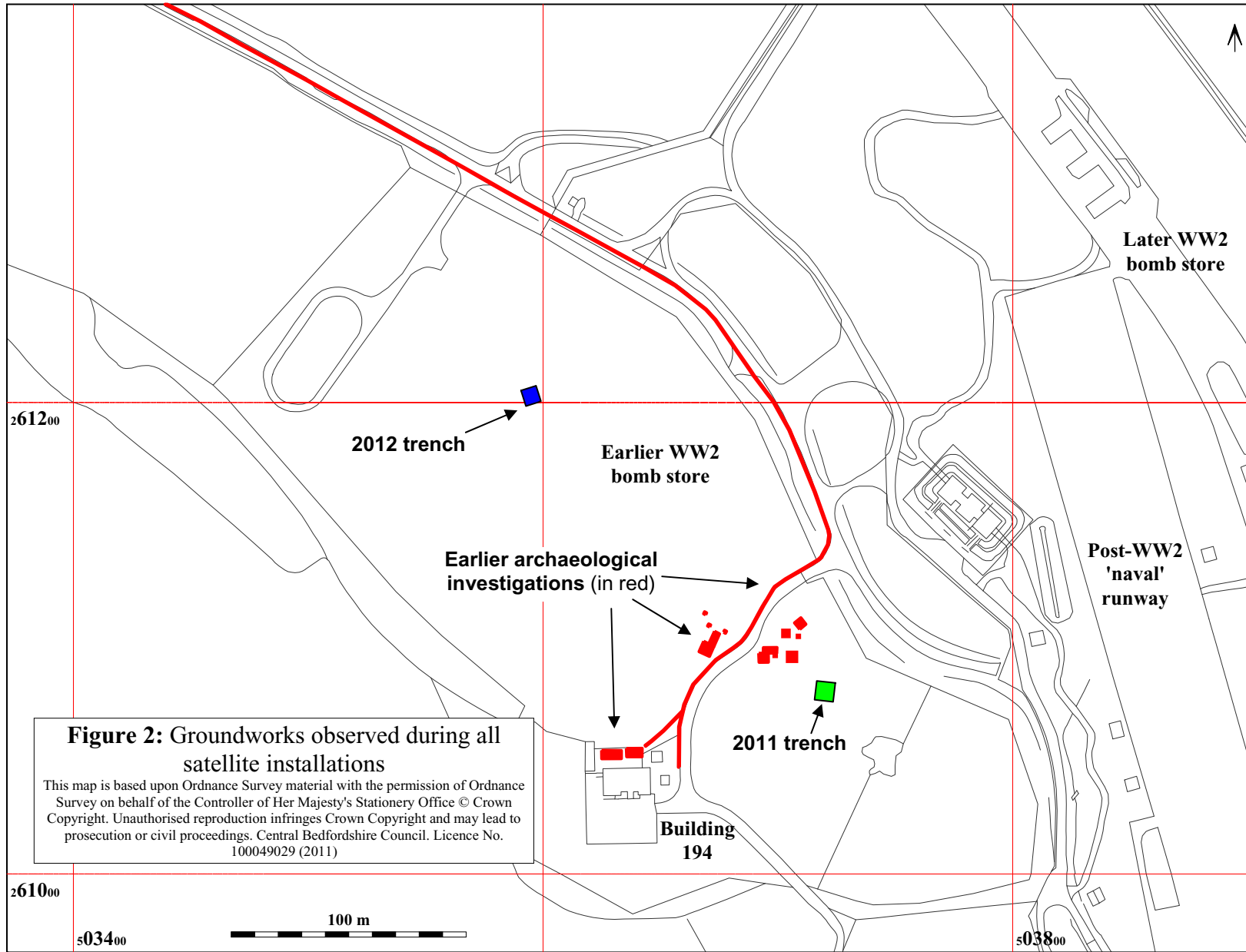
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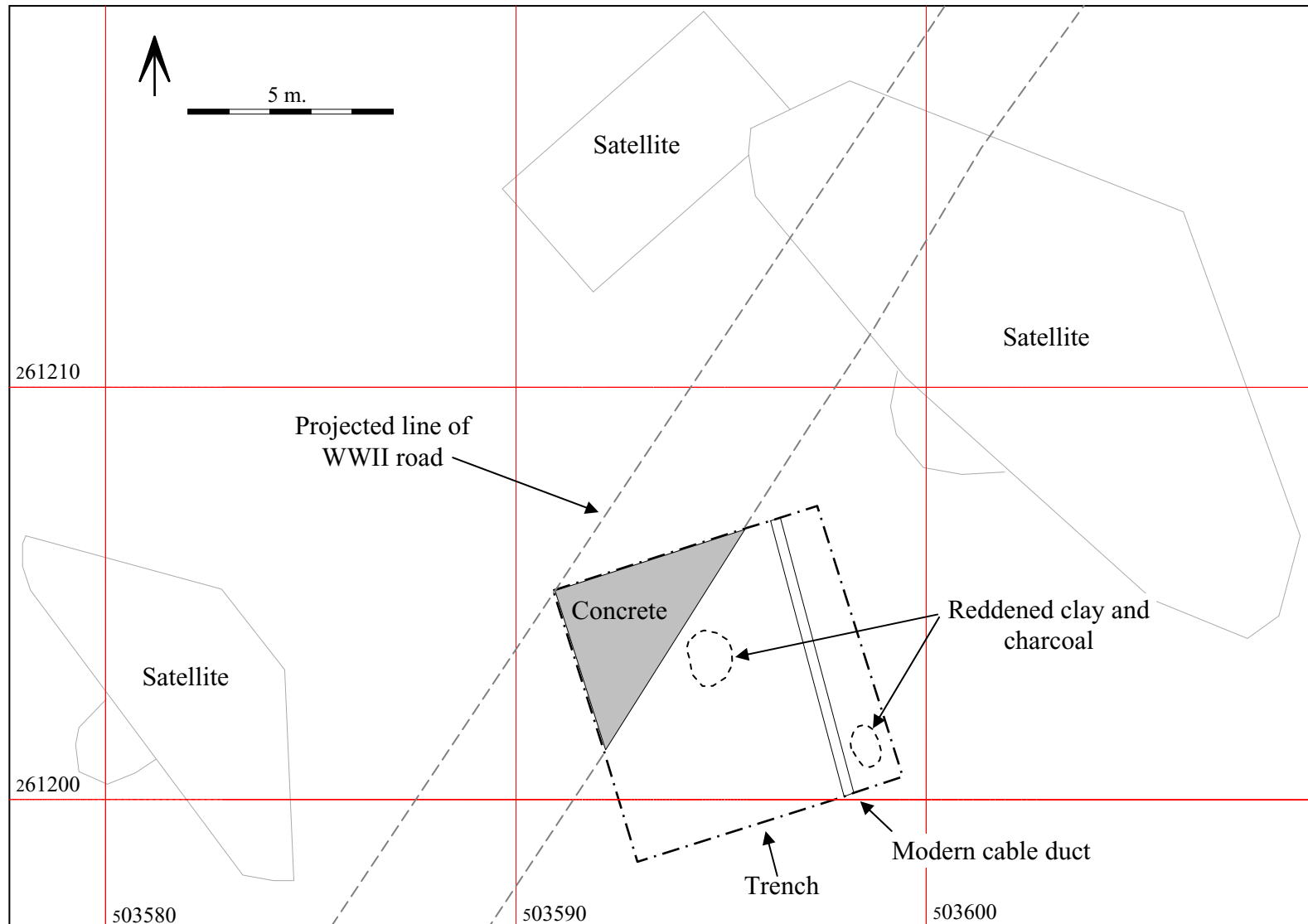
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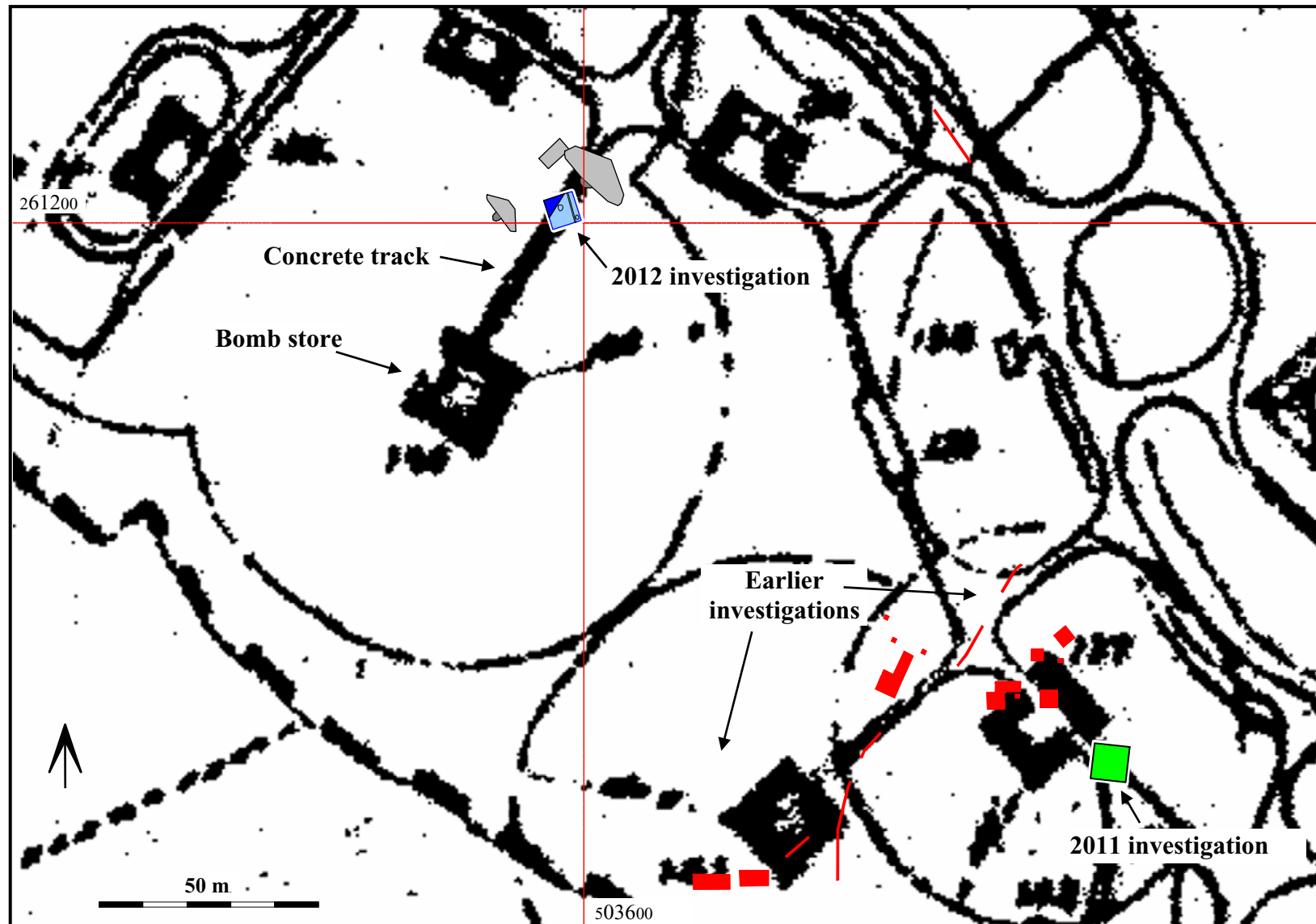
**Figure 1: Location of investigation area with Thurleigh Airfield and HER sites**

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**Figure 3:** Plan of 2012 investigation area



**Figure 4:** Archaeological investigation areas superimposed on detail of 1944 plan





**Image A:** Showing site at start of ground works (looking north)



**Image B:** General view of trench (looking east)

**Figure 5:** Selected photographs



**Image C:** View of trench looking north-west  
(Shows area of burnt clay and charcoal just in front of 1m scale, linear cut for modern ducting and water-filled depression where concrete road has been removed)



**Image D:** View of trench looking east

**Figure 6:** Selected photographs