



# Kenley Revival Community Archaeology Project 2018 Kenley Airfield London CR8

London Borough of Croydon

Archaeological Investigation Report

October 2018



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Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED  
tel 0207 410 2200 fax 0207 410 2201 email [Generalenquiries@mola.org.uk](mailto:Generalenquiries@mola.org.uk)  
Company number 7751831; Charity number 1143574

# Kenley Revival Community Archaeology Project 2018

## Kenley Airfield London CR8

Site Code KRP17  
NGR 532918 158429  
OASIS reference molas1-330264

Report on a community archaeological investigation

### Sign-off History:

Issue No.	Date:	Prepared by:	Checked/ Approved by:	Reason for Issue:
1	17-10-18	Dave Sankey	Jo Lyon, Project Manager	First issue

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Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED tel 0207 410 2200  
email [generalenquiries@mola.org.uk](mailto:generalenquiries@mola.org.uk)

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Registered office: Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED

## Summary

*This report presents the results of a community archaeological investigation with fieldwork supervised by MOLA at Kenley Airfield and forms part of the Heritage Lottery Funded Kenley Revival Project.*

*In accordance with the Written Scheme of Investigation (Bright 2018), five trenches were excavated on specific targets identified from aerial photographs (Nos. 6 – 10). A further examination of the possible line of the Parachute and Cable firing mechanism was abandoned because of the presence of decaying cement-bonded asbestos board. This work was to elucidate the form and function of the selected targets as well as recording their condition and investigating any management or conservation issues.*

*The work was undertaken by thirty, locally-recruited, volunteers and supervised by two MOLA professional archaeologists and three experienced and capable volunteers with knowledge of “conflict archaeology”. The project was supported by Corporation of London staff and Historic England staff, who assisted with delivery. It was accompanied by open days, tours for the general public and stalls and information from local societies.*

*The investigations included further work on a pair of upturned concrete sewer pipes (which were first investigated during last year’s digging season), which demonstrated that they were most likely a base for a light machine gun. In addition, Scheduled Monument Consent was obtained for investigations into the structure of the E-shaped fighter pen, which had been surveyed in 2017. A small investigation demonstrated the survival of the lower part of a path around the pen. A square concrete structure with floor below ground level may have been associated with a machine-gun range and an earlier hut base was investigated north of it.*

*In addition to these trenches, a topographic survey was extended to a depression which also appeared as a “parch mark” in dried vegetation, and two three areas of trenches, also with concrete pipe – possible gun emplacements – overlooking Whiteleaf Hill.*

*A finds review was undertaken of both 2017 and 2018 finds and a photographic record of many of the finds was made. These finds were related to their locations and contexts and so structures such as the possible flight hut, Trench 2, are reconsidered here in the light of the finds evidence. An attempted investigation of the Parachute and Cable system was abandoned due to the presence of decaying cement-bonded asbestos board. Its location was surveyed to aid future management of the site.*

*In addition to the local volunteers and open day visitors, the site hosted the City of London Open Spaces team as part of a Coulsdon Commons event. Corporation of London Staff from across London also took part in excavating and recording archaeological structures, in a model that could be emulated on other sites. The investigation has allowed local volunteers to actively participate in the interpretation, presentation, and conservation of a small part of a large complex of monuments that are of national significance, and has laid a solid basis for future work in this area.*

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# 1 Introduction

## 1.1 Site background

- 1.1.1 A community archaeological project with fieldwork supervision by MOLA, took place at Kenley Airfield and forms part of the HLF funded Kenley Revival Project by the City of London.
- 1.1.2 The airfield is located on Kenley Common which is a 56 hectare site of mainly chalk grassland, scrub and woodland lying within the London green belt. The Common lies just west of the A22 (Godstone Road) and opposite the Riddlesdown and Whyteleaf Recreation Ground. Within this larger area, the community archaeology project was confined to the area of the airfield outside of the taxiway on the north side, near Golf Road, Kenley CR8 5ES and centred on National Grid reference TQ 3290 5835.



Fig 1 Site and archaeological project location

## 1.2 Scope of the investigations

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- 1.2.1 Investigations were intended to add to those of the previous year, to revisit structures that were revealed previously and investigate new areas. They comprised targeted excavation of parts of the fighter pen Scheduled Ancient Monument, minor excavations to locate the Parachute and Cable launcher system, and investigation of the remains of surviving buildings and features identified on the ground and from historic aerial photographs.
- 1.2.2 Trenches and features were to be excavated by hand under the direction and control of a MOLA Senior Archaeologist working on behalf of the City of London but involving volunteers from the wider community. Historic England were also involved in an advisory capacity.
- 1.2.3 This project was targeted to uncover archaeological evidence of the previously existing buildings and features of the airfield dating to the period of the Second World War (and potentially earlier) through a community project, and to engage the local community by involving members of the public as volunteers, and students as trainees. It also afforded an opportunity to demonstrate the techniques of engagement and archaeological recording to Corporation of London staff *Culture Board*, within the context of All-Kenley Common activities.
- 1.2.4 The finds from 2017 and 2018 were reviewed, along with occasional finds from work on the common. They have thrown further light on structures examined in 2017, which are reviewed in the report below.
- 1.2.5 A topographic survey using high-precision Global Navigation Satellite System (GNSS) hardware and software, by MOLA Geomaticians (including GPS, GLONASS, Galileo, etc.), allowed extra features to be surveyed. They included a system of defensive trenches with associated concrete rings (gun emplacements?) and a depression that may also be seen on aerial photographs.
- 1.2.6 The resulting data and archive produced by the project will contribute to and inform wider site interpretation and management in the future.
- 1.2.7 The site was located within the RAF Kenley Airfield, which contains fighter pens that are protected as Scheduled Monuments (30903 & 30904) under the Ancient Monuments and Archaeological Areas Act 1979, amended by the National Heritage Act 1983. Targeted excavation to determine the original construction of one wing of a fighter pen was carried out under Scheduled Ancient Monument Consent and monitored by Historic England (30904 01).
- 1.2.8 Investigations were carried out in accordance with:
- The Written Scheme of Investigation (Bright 2018).
  - Standards for Archaeological Work (GLAAS, HE 2014).
  - Chartered Institute for Archaeologists Codes, Standards and Guidelines Papers (CIfA, various dates).
  - MoRPHE (English Heritage, 2008).
  - Museum of London's A research framework for London Archaeology, 2002.
- 1.2.9 Archaeological investigations were monitored by the Assistant Inspector of Ancient Monuments, Iain Bright, and the Archaeological Advisor (GLAAS) for the London Borough of Croydon, Mark Stevenson.

## 2 Topographical and historical background

### 2.1 Introduction

This section is an edited precis of the background in the WSI (Bright 2017 Section 3) and follows that presented in Heritage Conservation Plan (Wessex Archaeology 2010) and the Conservation Management Plan (Stabler Heritage 2015). It also includes information which is the outcome of map regression exercises that formed part of the community archaeology programme and the results of the 2017 investigations.

### 2.2 Topography

- 2.2.1 The majority of Kenley Common, particularly the land surrounding the airfield, lies on a broadly flat plateau at c. 170m OD. The land slopes gently towards the neighbouring valleys to the north and west of the airfield, whilst on the eastern edge is more steeply sloped. The location of the Common was instrumental in its use as an airfield, with the plateau easily enabling the construction of the RAF base, and the prominent eastern escarpment providing a natural defensive ridge.
- 2.2.2 The underlying solid geology of Kenley Common is (flint nodular-) Chalk, laid down as a sedimentary deposit during the Upper Cretaceous period. This is overlain by a deposit of Clay with Flints which dates to the Pleistocene (Stabler 2015).

### 2.3 Archaeology and History

- 2.3.1 No features or finds have been discovered on Kenley Common that date to the prehistoric period. However finds have been made in the surrounding area of material illustrative of human occupation dating back to the Mesolithic. Whilst steep valley slopes may have been difficult to cultivate, broad upland areas may have been more amenable to primitive agriculture.
- 2.3.2 This equally applies to the Roman and early-medieval periods. A single coin of Antoninus Pius (Roman Emperor AD 138 – AD 161) was found during construction work for the airfield in the 1920s, but no structural remains from these periods have been recorded.
- 2.3.3 Kenley may be derived from Old English *Coena's Leah* ("Kenele" in 1255, Room 2003, 260). Nearby Waddington is recorded in the late 9th century, in the will of Alfred the Ealdorman ("Elfred Dux", Maitland, 1921, 245) where a considerable area of land was willed to his son at *Hwætedune* (possibly, \**wheat down* "the hill where wheat is grown"). Earthworks identified during an earlier survey are thought to represent the remains of a medieval field system.
- 2.3.4 Kenley House originated as a farm, and settlement is thought to have been on the same site for 800 years. A dry earthwork may be the remains of a former pond in the woods south of Kenley House.
- 2.3.5 The whole area is dotted with chalk pits and quarries. Some marked as such on maps, other disused or filled-in chalk pits may be identified from small circular fenced copses. A large quarry was recorded in the north-east corner of the common.
- 2.3.6 The 1837 Tithe Map indicates that at this time the whole of the hill top was open farmland. The boundary of the Common as shown in the 1837 Tithe Map can be largely traced in modern boundaries. The earliest record of the farm is the 1837

Tithe Map which shows the farm complex. The Common was purchased by the City of London in the 1880s.

- 2.3.7 Kenley opened in 1917 as an aircraft acceptance park. The park prepared aircraft prior to their being sent to operational units. After the First World War the site was retained as a permanent RAF station. There was an extensive building program in the 1920s to convert the temporary air acceptance park into something more permanent.
- 2.3.8 In the 1930s, as concerns about a possible war grew, Kenley was one of several airfields that were strengthened. New buildings were built to high design standards (nationally The Royal Fine Arts Commission advised on the design of many airfield buildings) and concrete runways built. Three Air Ministry boundary stones which survive on site probably mark this period of expansion and development.

## 2.4 World War 2

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- 2.4.1 Because of ongoing construction work, Kenley was not an operational air field at the outbreak of war. The airfield became operational early in 1940. Around the edges of the airfield a series of defences had been constructed, these included anti-aircraft defences on the large terrace on the eastern edge, and the Parachute and Cable defence in the north. In 1941 a number of Blister hangars were erected around the airfield; a platform was noted during the survey on the site of one of these. A length of concrete road still leads to the site of the platform. In the woods on the western edge of the common the gun alignment range still survives.
- 2.4.2 Extensive remains of concrete footpaths and roads, relating to the airfield exist on site. Concrete blocks and areas of hard standing can also be observed.
- 2.4.3 Trenches have been identified in the woods both on the east and west sides of the airfield. The trench found to the west was a portion of a zigzag trench which is shown on aerial photographs as having once extended along much of this side of the airfield. Three features can be identified in the woods to the east, two of these were rectangular trenches measuring approximately 2m x 12m with large well preserved earthen banks to their east side. The third feature appeared to be the remains of a triangular machine-gun position, with a platform for the gun and a hollow for the crew surviving.
- 2.4.4 Within the woods to the west lie the remains of a small building and also the plinth for a fuel tank adjacent. The building appears to be a guardhouse or some similar structure as it was too small to perform a more technical role. It was directly adjacent to Hayes Lane which would again suggest a defensive role.
- 2.4.5 Towards the end of the Second World War Kenley was found to be too small to accommodate the new jet fighters that needed longer runways than could be constructed at his location. The late 1940s saw the airfield used to assess and test captured German aircraft and equipment and also as the headquarters of a reserve training squadron. The airfield eventually began to be used as a glider training school and the barracks passed to the Army.

## 2.5 Post-war and undated

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- 2.5.1 A mound, at the western edge of the Common is a modern construction as it is not shown in old aerial photographs, however its exact date of construction and purpose remain unclear. There exist six undated features within the site of the airfield, all of which comprise linear earthworks and earthen banks. They may relate to land management of the Common area, although they are undated.



Historic Aerial photographs supplied by Historic England, not to be reproduced without permission

*Fig 2 The study area in relation to historic aerial photographs*

## 2.6 2017 investigations

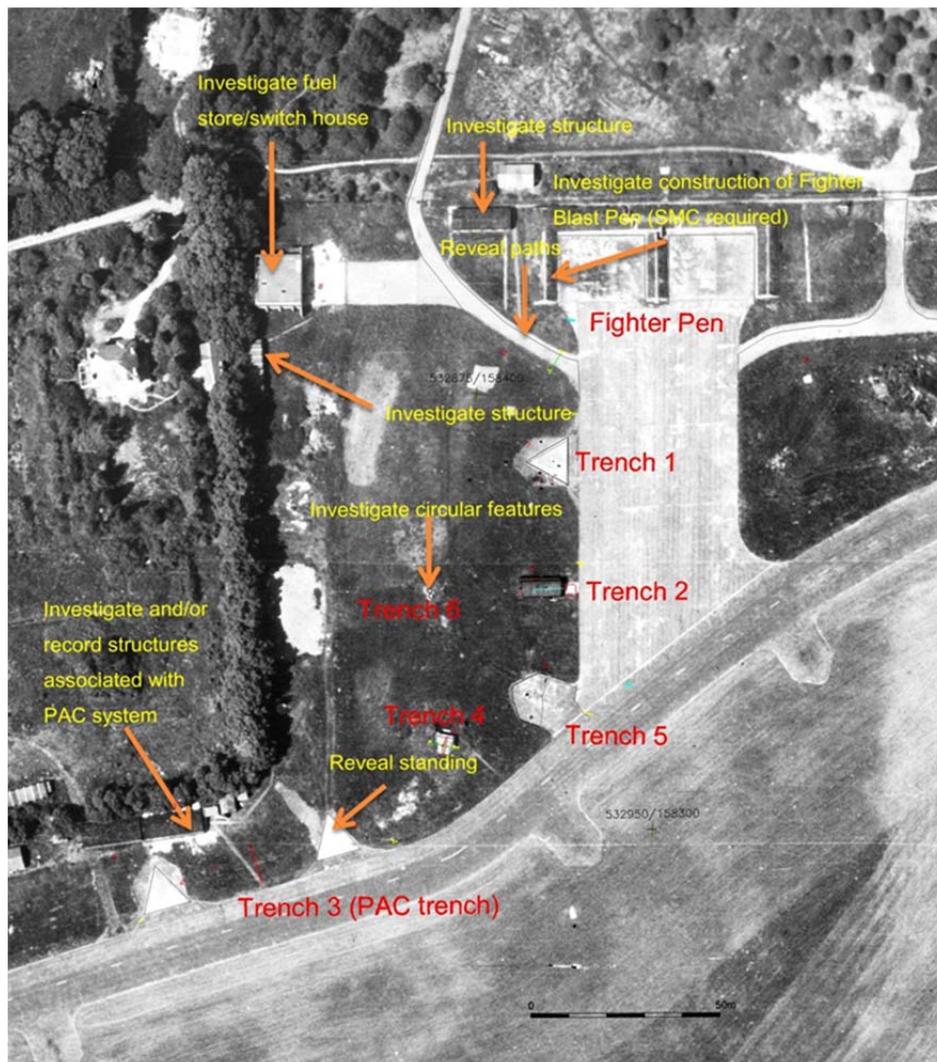
- 2.6.1 A narrow slit trench aligned across the line of a rocket-fired “Parachute and Cable” anti-aircraft system failed to find any evidence of an electrical cable from the firing mechanism. A trench designed to find a possible pillbox defence post found no structural remains but did uncover some cement-bonded asbestos board, which was reburied in-situ’.
- 2.6.2 Two phases of hard-standing dispersal areas were established, with associated tie-down (or *picketing*-) points. These lined either side of the perimeter taxiway and approaches to fighter pens. They comprised of an earlier polygonal phase made of hardcore and tarmac, with concreted-in steel tie-down loops. The second phase was triangular hard standing with similar picketing points (one at the apex of the triangle

and another towards the centre of the base of the triangle). The foundations of a possible flight hut were recorded and discussed in relation to an alternative interpretation as a small arms store. The adjacent fighter pen was surveyed and an alarming lean of the rear brick retaining wall was measured at 11° from vertical. This wall was subsequently replaced. During the course of the work two concrete rings were exposed. They were made of standard-sized sewer pipe sections and re-used in their buried location. They were initially interpreted as either light machine gun posts, deep-drop latrines or part of a Tett Turret'.

## 3 Excavation methodology

### 3.1 Field methodology

- 3.1.1 The WSI specified a number of features for potential investigation as shown in Fig 3. They included (but were not limited to) the structures associated with the parachute and cable launchers and an area of hard-standing, investigating circular concrete features and a nearby structure (a hut base), investigating the fuel store / switch house, another structure west of the fighter pen (also a hut base), investigating construction of the fighter (blast) pen and exposing a nearby path.



Historic Aerial photographs supplied by Historic England, not to be reproduced without permission

*Fig 3 Potential Areas of Investigation with 2017 trenches*

- 3.1.2 All locations were scanned with a cable-location tool (“CatScan”) to ensure there were no unrecorded services in the areas of proposed excavation.
- 3.1.3 The City of London mobilised local volunteers, provided site inductions and both asbestos and ordnance professionals. All volunteers were taught the safe use of excavation tools before digging.
- 3.1.4 Trenches were hand excavated down to the first significant archaeological deposit or structure. In the case of structural remains a small sondage was excavated down

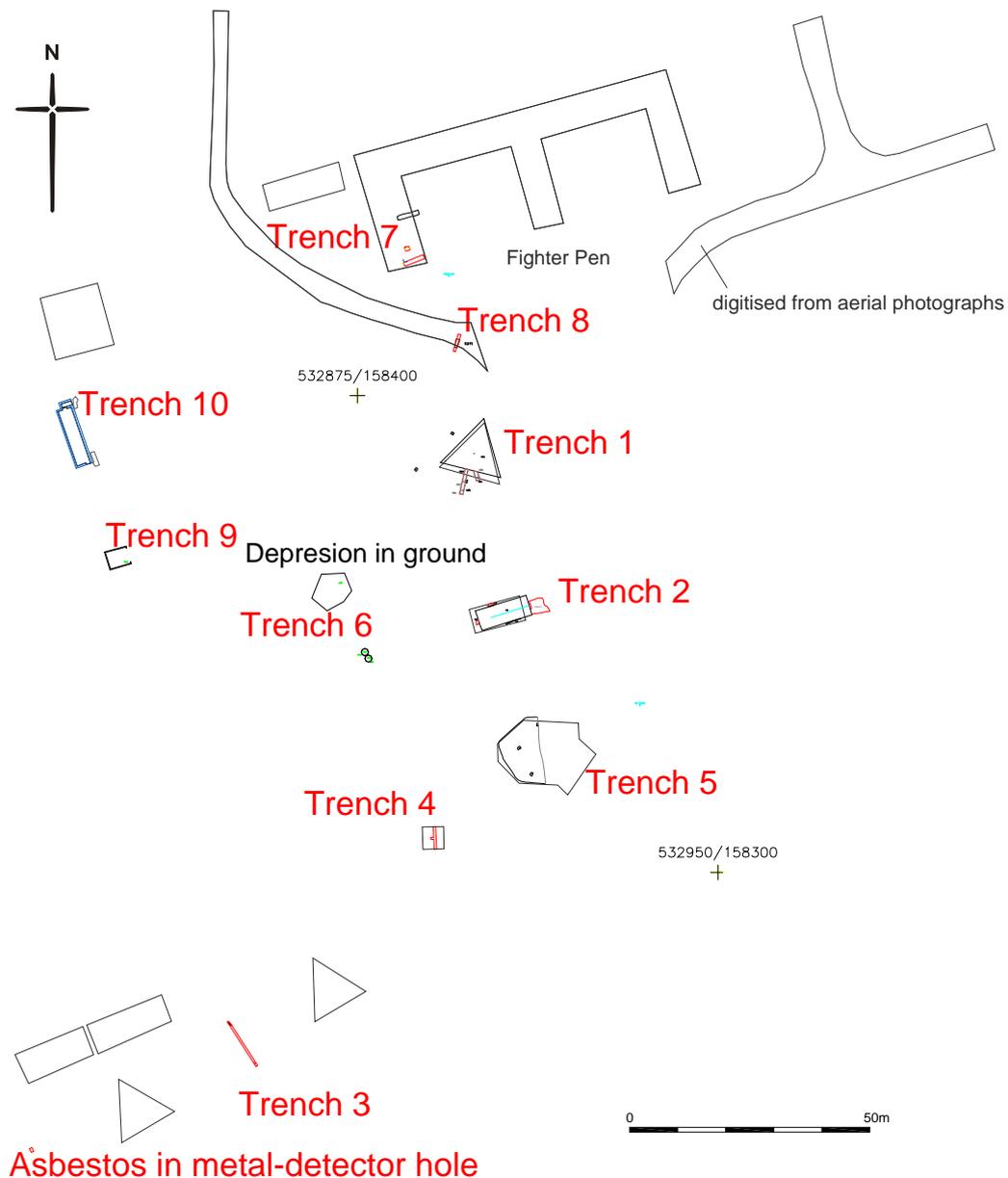
the side of the structure to determine the depth and condition below ground. Both concrete rings were emptied of their contents until concrete bases were exposed. All works were supervised by the MOLA professional team of Senior Archaeologists, with able assistance from a group of three experienced volunteers, supporting teams of local volunteers (up to 15 per day). Groups of volunteers were rotated through various tasks on site, including planning, recording and finds processing/photography as well as excavation. Training was also given on site photography for two volunteers who were using a standard "Archaeological Skills Passport".

- 3.1.5 Metal detecting over the area of Parachute and Cable system exposed deteriorating cement-bonded asbestos board. It and the adjacent areas of hard standing and structures that may have been associated with the "PAC system" were not investigated. An extra target was added, a structure within an area thought to have been a firing range
- 3.1.6 A single metal detectorist (Neil Quinn, a highly motivated and knowledgeable local historian of Kenley airfield) worked under archaeological supervision in areas outside of the Scheduled Ancient Monument but within the defined study area.
- 3.1.7 Deeper excavations were edge protected with road pins and barrier fencing, and, in the case of the concrete rings, by temporary (Heras) fencing.
- 3.1.8 All exposed archaeological remains were investigated and recorded. There were no remains that required novel or different approaches. Opportunity was provided for Historic England to assess the condition of the remains. None required conservation work or immediate reburial, although they may be reburied. All archaeological exposures were metal detected.
- 3.1.9 All trenches with significant archaeological remains were planned at appropriate scales, relative to the established baselines. Trench outlines, structural remains and base lines for section drawings were surveyed using high-resolution GNSS receivers, on Ordnance Survey National Grid co-ordinates. Photographs of remains were taken throughout and incorporated into the training exercise. Sections were recorded their baselines surveyed during the topographic survey.
- 3.1.10 All works were undertaken in accordance with the Written Scheme of Investigation and relevant Historic England/GLAAS Guidance Papers and this report forms the assessment of the data arising from the project.

## 3.2 Site archive 2017 and 2018

Number of trench record sheets	10
Number of overall location plans	1 digital
Number of Context (SU) sheets	33
Number of photographs	161
Number of Plan sheets	12 including measured sketches and level location
Number of Sections	1

## 4 Results of the evaluation



*Trenches 6 to 10 investigated 2018*

*Fig 4 Location of all investigations in study area*

### 4.1 Trench 6, concrete rings

- 4.1.1 At the end of 2017 Community Excavations two concrete rings had been exposed, reused mass-produced sewer pipe sections made to be jointed together, 1.5m external diameter with 100mm-wide walls and an upstand internal (“male”) curved joint of half the pipe wall width and projecting c.200mm [131][132]. Both pipes were emptied and both were a little over a metre deep (1.08m and 1.06m) before a

concrete base was encountered. The full length of the sewer pipes is unknown but standard “rockers” and “butt pipe” lengths (the shorter lengths of sewer pipe for creation of, and jointing to, manholes) for similar dimensioned pipes now is 1.25m<sup>1</sup>. That is not an unreasonable assumption for the length of sewer pipe used here.

- 4.1.2 Both pipes had drains [110][117] made of extruded bricks (with holes in them) and solid bricks and a metal grate at the base of the one that was excavated [116], below [110]. The bricks may have been a temporary solution after a metal grate on top of the hole, in which they lay, failed. The centre of the southern pit [132] also had a metal fitting comprised of a circular plate fixed to the concrete floor, on which a 100mm-wide metal pipe had been fixed in an upright position, by strong metal flanges. This is thought likely to have been the fitting for an upright pedestal-mounted light machine gun (a “Stork Mounting” Lowry 2014, 41). The Stork mount held the gun at a safe distance from the operator, and it would have projected significantly beyond the sewer pipe<sup>2</sup>.



Scale is 300mm (left)

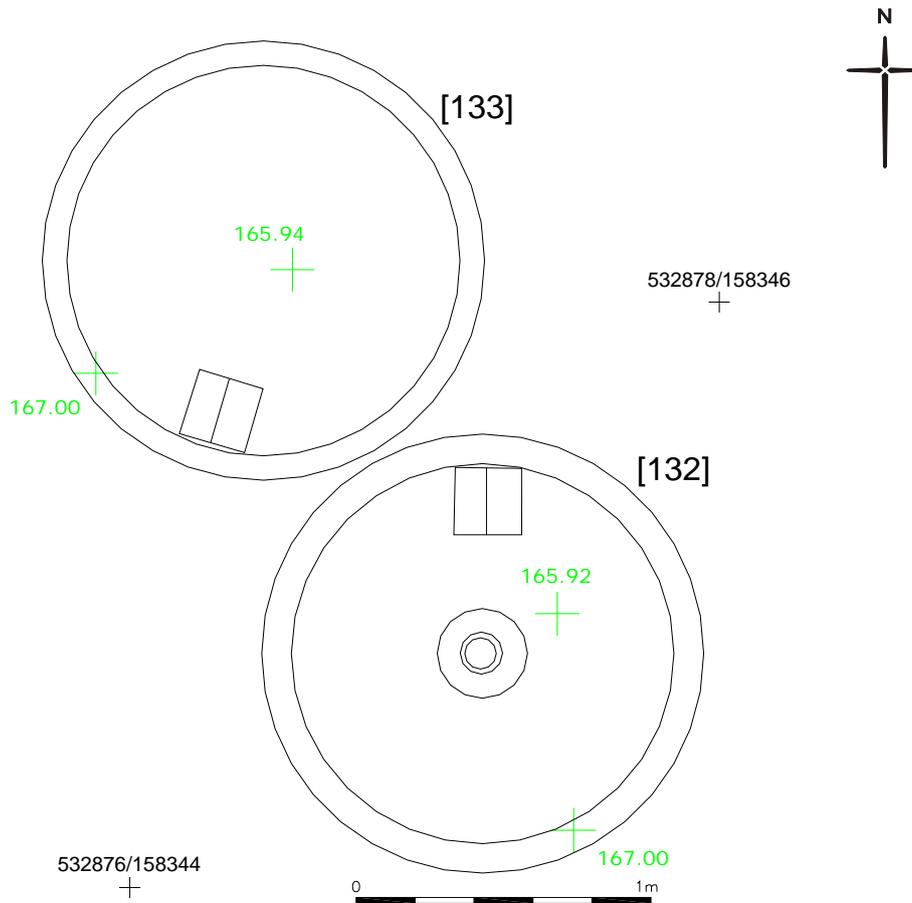
*Fig 5 Concrete rings with fitting and drains*

- 4.1.3 Both pits were filled with lumps of tarmac broken up, most likely, from areas of hard standing elsewhere on the airfield, as well as some coal ash and flints [106][107]. The southern pit had an angle-iron picket stake at the base, which may once have been associated with perimeter protection of the pits. It is considered likely that the upcast material from the hole into which they were inserted was used to make a “sandbag” surrounding wall both to protect people inside the concrete rings, and to prevent people from falling into them during the black-out. The fill of the pit without the central fitting included a whole dog, as well as bones of a possible frog and rodent and a squashed corroded bucket, a couple of fragments of white-glazed pottery and possibly a fragment of orange rubberised fabric.

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<sup>1</sup> <http://www.cpm-group.com/products/drainage/concrete-pipes/> accessed 25/09/2018

<sup>2</sup> see <http://www.sywellaerodrome.co.uk/sywell-aerodrome-magazine-2001-17-airfield-defences.php>, accessed 10.10.2018, for instance



Levels in m OD next to crosses (eg. 167.00), OS NGR co-ordinates in Easting/Northing above crosses

Fig 6 Plan of concrete rings

## 4.2 Trench 7, Fighter (blast) pen

- 4.2.1 Scheduled Ancient Monument consent was granted for specific works to investigate the construction of the fighter pen, in the north of the study area (Scheduled Monument 30904). Investigations took the form of three targeted trenches on the west arm of the fighter pen (from north to south, Trench 7a, 7b and 7c).
- 4.2.2 **Trench 7a** was positioned on the mid-point of the inner face of the west arm of the fighter pen, so as to investigate the construction of a blast wall without an internal tunnel (as occurs at the rear wall of the blast pen). It measured 4.56m E-W and 0.9m N-S and crossed the arm of the blast pen from a concrete spine which ran along the apex to gutters that surrounded the base of the wall.
- 4.2.3 On the east (in-) side of the blast wall was a low concrete retaining wall [115]. Behind which were a series of dumped deposits, the lowest [113] contained frequent chalk fragments and flint nodules and was clearly the upcast natural subsoil (Clay with Flints formed by weathering of the underlying chalk bedrock). Above it sandy clay [108] was reworked from more surface deposits. It contained fragments of pottery, including one with the insignia of the NAAFI (Navy, Army and Air Force Institutes). Above that were two surface soil layers [111][112], which reworked [108]. These upper layers had formed against the side of a concrete ridge applied to the crest of the blast wall [114], 1.6m wide and 0.63m high it was formed of a centrally

moulded spine to 167.83m OD. Surrounding the inside of the blast pen was a sloping concrete skirt [124] to a gutter [125].

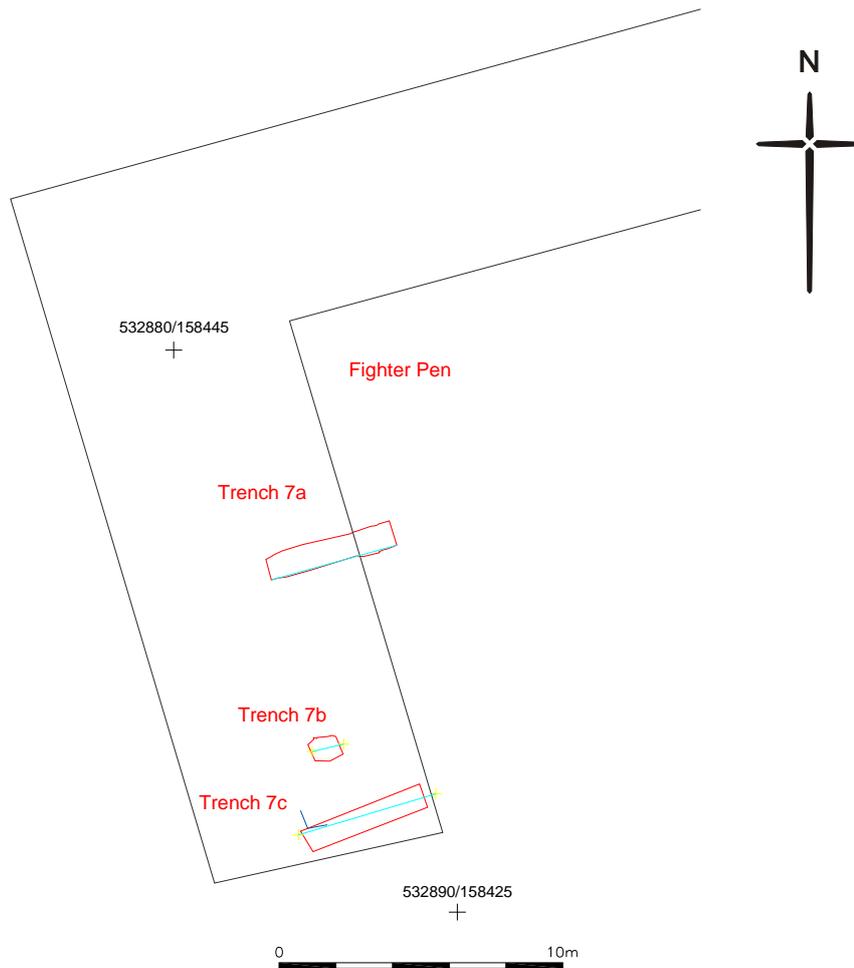


Fig 7 Trench 7 on the west arm of the fighter (blast-) pen

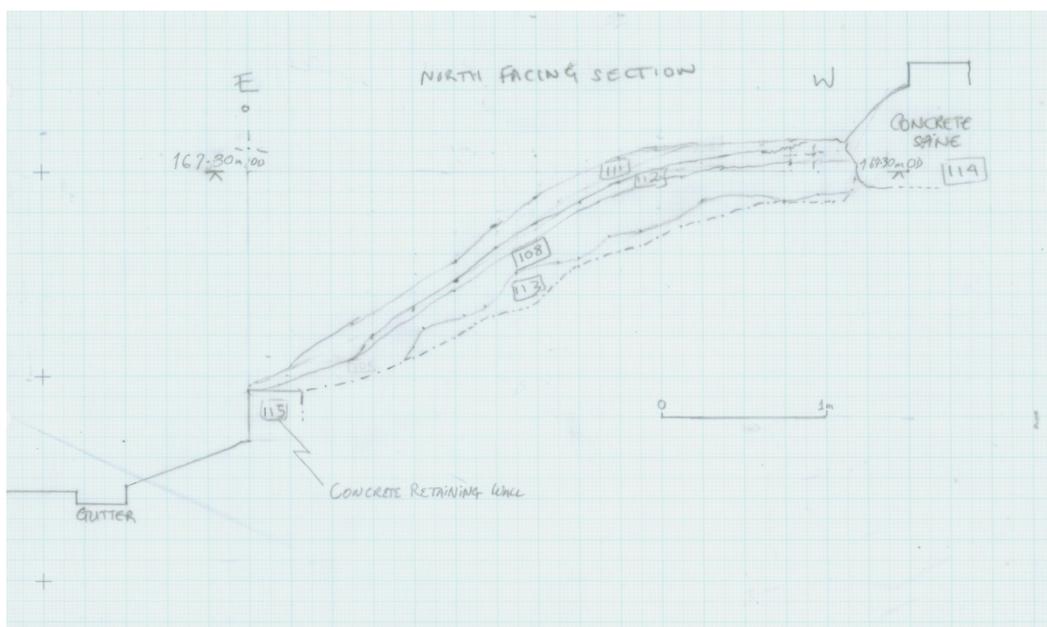


Fig 8 Section drawn by volunteers Trench 7a

4.2.4 Trench 7b was a small exposure of the end of the concrete spine [114]. It measured

1m by 0.9m and was dug to expose the base of the spine at 167.4m OD. It demonstrated that originally the concrete spine had continued further south (presumably to a solid “gable” end wall) but it had been deliberately broken through at some point in the past, to make a sloping end to the blast pen wall. The spine apex was at 167.81m OD, was 300mm wide and dropped vertically to 167.6m (west) and 167.66m OD (east), from where it splayed out a further 200mm on either side sloping to 167.49m (west) and 167.52m OD (east) where it rounded to a flat (-ish) base at 167.4m OD.



Fig 9 Trench 7b looking north

4.2.5 **Trench 7c** was a slot dug on the south face, or end, of the west arm of the fighter (blast-) pen, 0.85m wide and 4.5m long, to expose remains of a terminal “gable” wall believed to have been part of the original design. There was indeed a fragment of a greatly truncated wall made of the same Phorpres or Fletton bricks used elsewhere on the aerodrome.



Fig 10 The South and West sides of the original blast wall exposed

4.2.6 The terminal or gable wall had been reduced to 166.32m OD, slightly below the

level of the retaining wall surrounding the outside of the fighter pen at the edge of excavation to the north 166.69m OD, but above the level of the top of the retaining wall (that sloped) on the north side of the blast pen recorded in 2017, 166.23m OD.

- 4.2.7 The slumped earth that covered over the bricks, some of which may have been embanked from elsewhere, [121] contained a metal information plate from a German plane (discussed in “Finds” below).

### 4.3 Trench 8 Path

- 4.3.1 Trench 8 lay south of the west arm of the fighter pen. It was located to investigate whether paths that once surrounded the pen on east and west sides survived, and if so, in what condition. It measured 3.5m x 0.38m and was 0.5m deep.

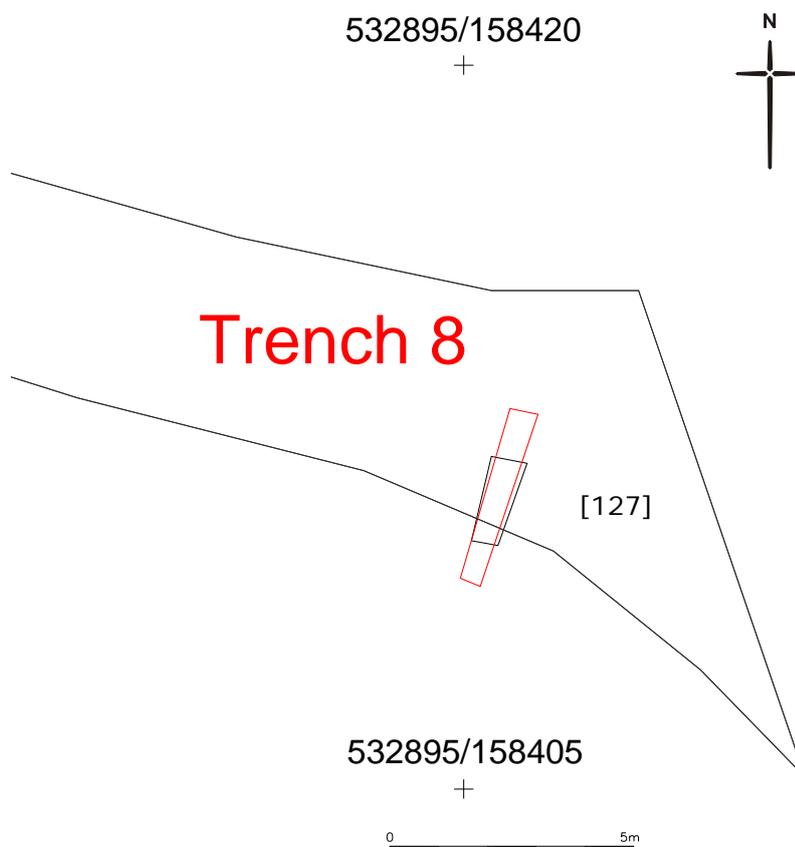


Fig 11 Trench 8 plan

- 4.3.2 In the central area of the trench was an area of hardcore/rubble including concrete and mortar fragments to 300mm diameter [127] at 165.77m OD (0.38m below ground level). This is thought to be the bedding layer for a path, though it wasn't as wide as the path recorded in aerial photographs. This area of rubble was cut into archaeologically sterile clay with flints, presumed to be the natural subsoil. However, it was excavated after an extended period of relative drought and the clay with flints proved too hard to dig into with hand tools, so it proved impossible to dig a sondage to prove it was not a dump of reworked deposits.



Fig 12 Trench 8 (foreground)

#### 4.4 Trench 9 Concrete structure (“machine-gun” range)

- 4.4.1 This structure [118][120][125] lay to the south of that identified in the WSI (which was recorded in Trench 10, below), and in an area that in plans of 1927-8 is referred to as a “machine gun range” (Guy Taylor per. comm.). It was formed of a concrete square base 4.9m x 4.1m at 165.99m OD. Around the outside of this was a 250mm (10 inches?) raised concrete edge 0.1488m (6inches) wide. On the west side there was a break 2.993m wide, where there was no raised ridge. It was filled with sand [119] and a small area only was exposed to the base. The ridge was chamfered internally and had a reinforcing iron projecting from it, which may have connected to precast concrete panels to form an enclosed box, or have anchored something flimsy, like camouflage netting.



Fig 13 Trench 9 concrete structure [118][120]

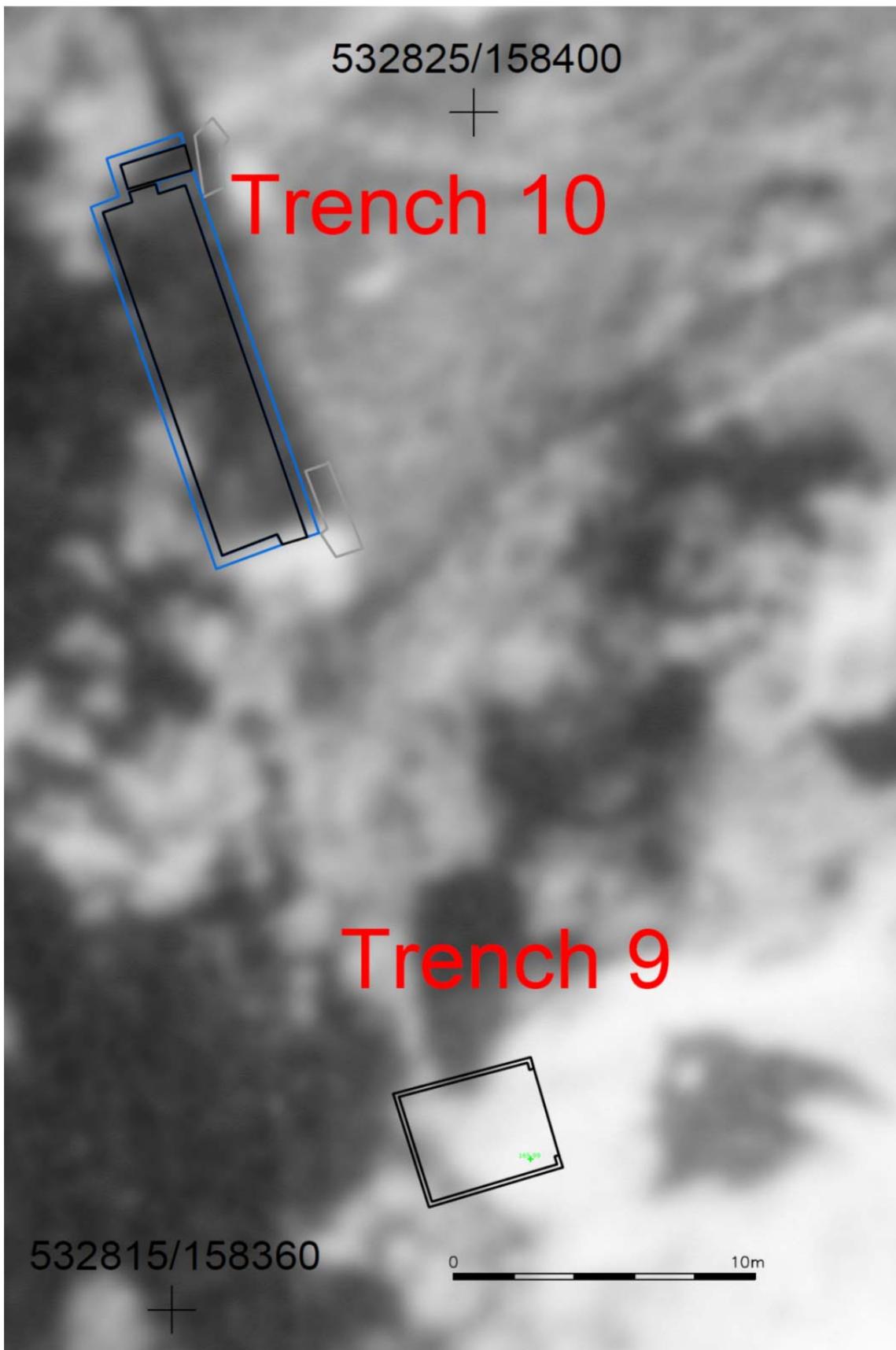


Fig 14 Trenches 9 and 10 with 1941 aerial photo

- 4.4.1 The structure was compared with aerial photos and there is a shadow of a square object to the north of Trench 9, with apparently the right dimensions. However, the photograph and survey are correctly aligned with other features, and yet these two

don't match. It is possible that the excavated remains were those of a later structure of the same size and shape, slightly offset.

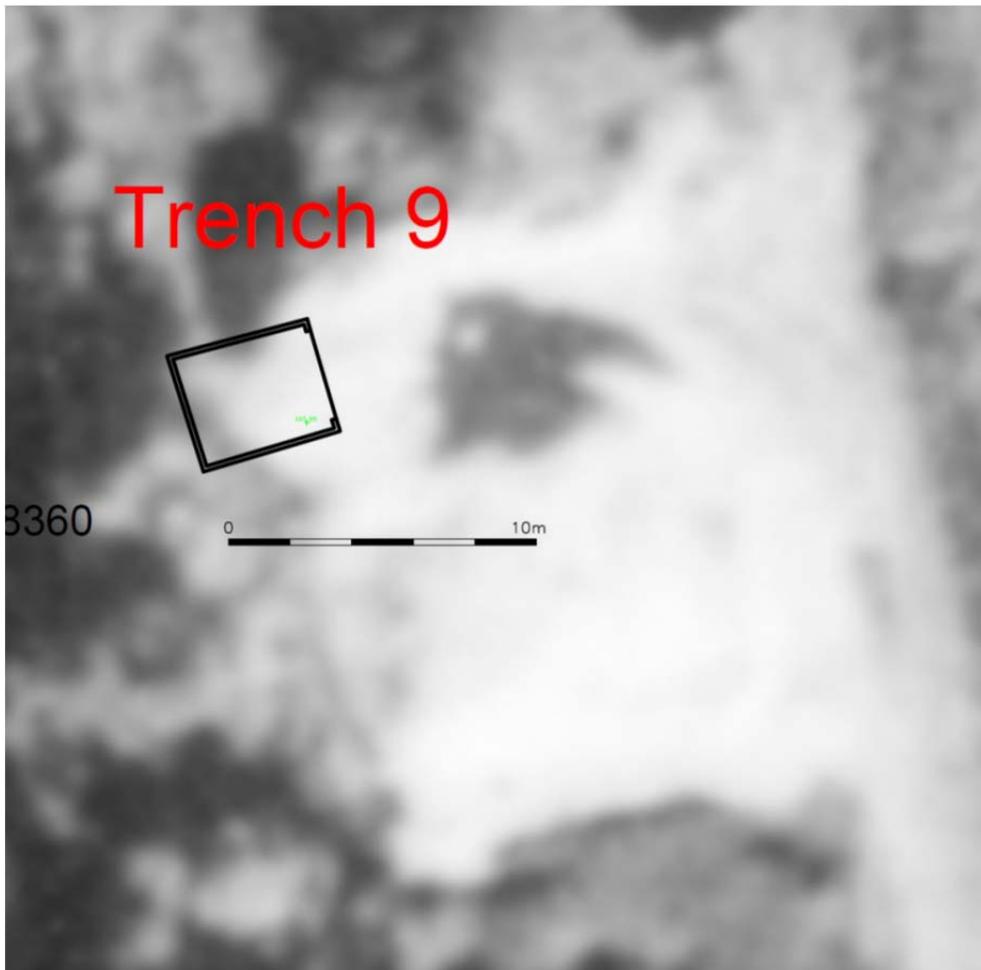


Fig 15 Trench 9 structure compared to possible “open” machine gun range?

## 4.5 Trench 10 Hut base

- 4.5.1 A structure was identified on the west perimeter for investigation. It features on site plans (eg. Air Ministry Drg No. 2818/45 reproduced “half-scale” as 2430/46). However, it is not listed in the schedule of buildings. It lies adjacent to a house immediately outside the airfield perimeter, which was occupied by the RAF during the war and which the present-day occupants informed us, had upper floors reinforced with concrete during WW2.
- 4.5.2 After it was cleared of vegetation, there emerged a hut base, with brick surround, external path and a concrete entrance area. The hut base [126] was formed a rectangle of concrete at 165.694m OD, 12.11m long and 2.88m wide (39ft 9inches x 9ft 6inches?) with two projections, considered likely to be doorways, 0.9m wide and 0.35m – 0.4m wide. The northern doorway was centrally located whilst the southern doorway was on the east end of the southern face. These doorways crossed the base of a brick wall [128], formed of Phorpres bricks laid with a stretcher and header width (alternate courses of which would give English bond). That to the north led to a possible porch, the concrete base of which [129] measured 0.83m x 2.23m at 165.75m OD which may well imply that the external door faced into the airfield at a right-angle to the door into the hut. It too was surrounded by brick walls [128]. Around the east side of the hut and joining both doors was a concrete path, two

areas of which were exposed [130]. It was 0.83m wide, and the maximum surviving level was 165.67m OD.



Fig 16 Trench 10 hut, looking north

- 4.5.3 To the north of Trench 10 was an area of relatively recent-growth woodland which obscured two potential areas of interest: 1) a fuel store / switch house (which might be relevant to the function of Trench 9 structure [118][120][125]), and 2) a “structure” which appears to be a very similar hut base to Trench 10 and which is listed as a timber “Flight Office” on Air Ministry Drg 2430/46. Although, it is apparent that they had different roofs from Aerial Photographs, and possibly different functions. The “structure” is still visible west of the fighter pen and had a similar surrounding footpath to that of Trench 10 [130].

*In 2018 large amounts of survey work was undertaken as a topographic survey after completion of normal fieldwork. The opportunity was taken, in clear open ground, of doing some survey of structures and earthworks that had been exposed by general site clearance on Kenley common and by parch marks due to the hot summer.*

## 4.6 Shallow depression north of Trench 6 concrete rings

- 4.6.1 One such was a shallow depression in the centre of the general area of investigation. It appeared in 2018 as a parch mark as well as a slight dip in the ground surface. It measured 8.6m NE–SW and 7.4m SE–NW, centred on 532869.61east 158359.17north and dropped from 166.54mOD on the outside to 166.40m OD in the centre. A 140mm drop over 4m (approx.) is not generally visible when the grass is lush and growing well. However, comparison with the 1941 Aerial photograph Show a larger light patch in this area (as well as showing there was no “Trench 2 possible flight hut” at this time and that the Trench 6 concrete rings were not visible and possibly had not been dug by that date).
- 4.6.2 If the area to the west of the depression was a machine gun range in the 1920s

(Guy Taylor pers. comm.), then it is possible that this depression is a wear mark caused by the repeated anchoring of aircraft to test their machine guns here. Equally, it may have been a gun pit for a larger calibre machine gun than those used in the subsequent concrete rings, subsequently backfilled. Its position near to the machine gun range (BUT not straight in front of it) may not be accidental, though primarily positioned for defence.

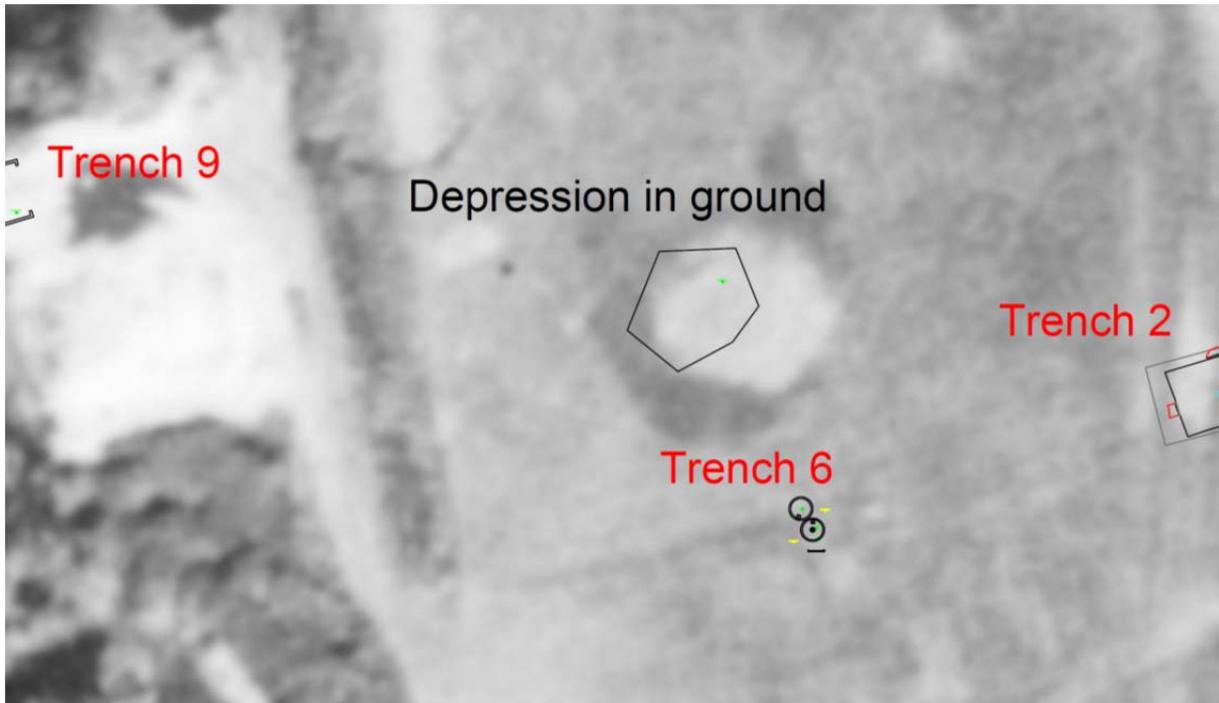


Fig 17 depression and parch mark in the centre of the study area

## 4.7 Trenches and more concrete rings

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- 4.7.1 370m across the airfield to the east were a series of defensive works overlooking the slope towards Whyteleafe. Attention was initially drawn as they too included concrete rings, as in Trench 6. However, recent clearance by Kenley Common volunteers and Rangers allowed a brief topographic survey of these to be made, both to inform the interpretation of the main study area and also to provide information for site management and conservation generally. All photos were provided by Josie Evans of Kenley Revival.



*Fig 18 Northern earthwork looking north (with Kenley Ranger Coral Farmer)*



*Fig 19 Central earthwork looking south*



*Fig 20 Southern earthwork looking south*



Profile lines indicated on north and south earthworks

Fig 21 Location of earthworks and concrete circles on 1941 aerial photograph

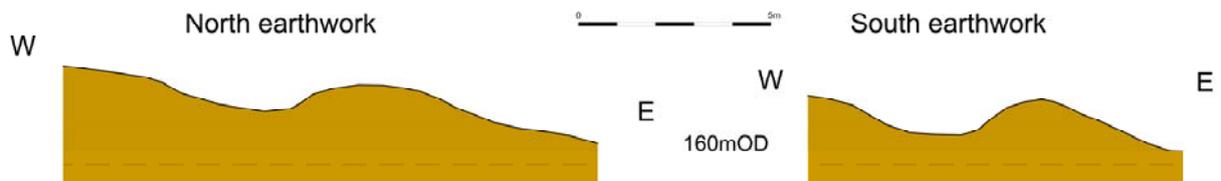


Fig 22 Profiles of northern and southern earthworks as they exist now

*Resume of 2017 work (for full detail see 2017 report) with additional notes where new information or finds information has become available.*

## 4.8 Trench 1 Triangle

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- 4.8.1 Trench 1 was located south of the Fighter Pen, north of other 2017 investigations; this trench was intended to investigate a triangular feature that appears on aerial photographs.
- 4.8.2 The concrete triangle [101] was located immediately below a covering of turf. It was an equilateral triangle of 12.9m long sides and was 0.13m thick, made with grey white cement-bonded (predominantly flint) aggregate. It was somewhat domed up to the centre at 166.46m – 166.66m OD. Two iron “anchor points”, formed of an iron bar curved into a loop 200mm across and cast into concrete blocks 450mm, and 500mm square were set laterally along the centre line of the triangle (from east to west).



*Fig 23 Trench 1 concrete triangle. Looking west along line of “tie downs”*

- 4.8.3 Investigating the side and depth of this feature exposed an earlier “version” which comprised of a polygonal shape, similar to others around the perimeter taxiway. This was made of a 100mm thick layer of hardcore and re-used building rubble [103] topped with 130mm – 140mm of tarmac to 166.59m OD. It had been set in a prepared trench [104] dug into brown subsoil [105].
- 4.8.4 A series of three more anchor points, made of curved iron bars set into concrete blocks roughly 0.5m diameter, were set around this tarmac hard standing.
- 4.8.5 Since both polygons of a similar size and shape (on their own) and concrete triangles are present on aerial photographs, it would appear likely that the triangle was a development of, or renewal of, the same structure.

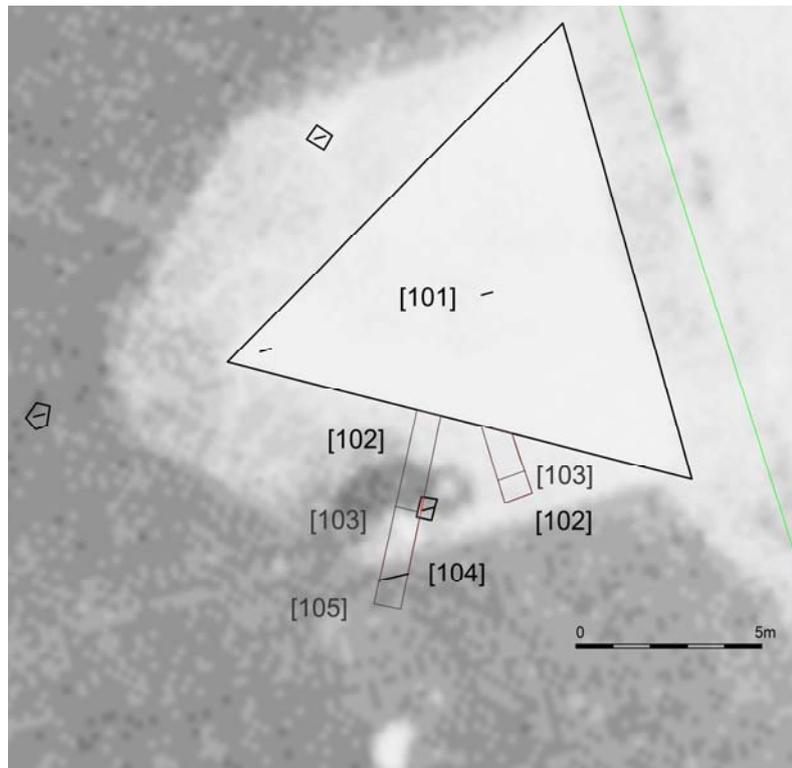


Fig 24 Trench 1 with aerial photograph rectified to concrete triangle

## 4.9 Trench 2 Possible Flight Hut

- 4.9.1 Trench 2 targeted hut foundations south of Trench 1. **Finds recovered in 2017 included thin metal plates, and in 2018 a large horse shoe was found 2m from the west end of the hut.** The remains consisted of an east-west aligned rectangular concrete floor 11.09m x 4.79m, at 167.19m OD. There was a 15mm fine concrete screed [201] laid on a rougher concrete base [202], between 90mm and 130mm thick. This had been cast on brick footings [203] which stepped out 100mm, with one course visible at the south side.



Fig 25 Flight hut foundations, looking North West (lower concrete visible in west sondage)

- 4.9.2 A small area excavated on the west side of the concrete floor exposed a second offset of poured-concrete at 166.98m OD, dug into subsoil at (roughly) 166.9m OD. Another on the north side showed two courses of brick laid directly onto earth. The

bricks used were soft yellow “Phorpres” frogged bricks of standard sizes, set in brittle cement-based mortar. From mortar applied to the top of them, it would appear that they supported the hut superstructure directly.

- 4.9.3 An irregular area of concrete, less than 100mm thick, lay on the east side of the trench. It was 3.6m east–west and 3.1m north–south and is thought to have provided hard standing for access to the hut’s doors (facing onto the concrete access to the fighter pen to the north).

## 4.10 Trench 3 Parachute and Cable

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- 4.10.1 Trench 3 was located between two of the triangular concrete areas adjacent to the perimeter taxiway. It targeted the possible route of the cable firing mechanism of the “Parachute and Cable launchers” which was controlled by an electrical circuit.

- 4.10.2 The trench was 11.1m long, 0.4m wide and 0.3m deep. It exposed only mixed soil, building rubble and slate. No evidence of the firing mechanism was found and it was not thought to have been deeply buried (if it was buried at all, it may have lain on the surface). Some angle-iron lay obliquely across the north end of the trench (solid line in **Error! Reference source not found.**). It is assumed to have been dumped in post-WW2 clearance.

## 4.11 Trench 4 Possible pillbox

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- 4.11.1 Trench 4 lay towards the south of the project area, 15m north of the perimeter taxiway. It targeted a feature identifiable on aerial photographs as projecting above the ground (it had a shadow). On this location a trench measuring 4.74m long (north–south) was dug, 0.5m wide and 0.36m deep, with a 0.6m long extension, 0.4m wide and 0.2m deep.

- 4.11.2 The ground level sloped from 167.79m OD to 167.65m OD south to north. Below modern turf mixed soil and redeposited clay with flints was exposed, as was a piece of cement-bonded asbestos board. No structures were observed and the asbestos was reburied where it lay.

## 4.12 Trench 5 “Concrete area”?

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- 4.12.1 Trench 5 was located at the junction of the perimeter taxiway and the concrete approach to the (scheduled) Fighter Pen. It was identified as a possible concrete area, forming an irregular hexagon. Of the shape identified from aerial photographs, only half was excavated. The exposed area measured 14m north–south x 8.6m east–west and was only 0.2m deep, except for a small 0.5m wide sondage at the north edge which was 0.5m deep.

- 4.12.2 On removal of the turf, it became apparent that this was an “earlier” hardstanding area for aircraft. It was made in a similar way to the polygonal area in Trench 1 with a rubble base covered with tarmac (300mm thick), dug into the local subsoil. Three concreted in anchor points, or “tie-downs”, were recorded, all of a similar construction to those reported above

## 4.13 Fighter pen condition survey

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- 4.13.1 The fighter pen (Scheduled Monument 30904) centred at TQ 32918 58429, is the subject of proposed conservation works. A limited condition survey conforming to Level 1 of Historic England’s Guide to Good Recording Practice (HE2016, 25). This comprised a measured sketch plan, a targeted levels survey, and a photographic record, showing some main features of the pens, as well as some conservation

issues. The following description is derived from those records.

- 4.13.2 The pen was formed of an inverted U-shape in plan (north to “top”) revetted earth wall (originally an E-shape but the central blast wall has been removed. It was 65m wide (externally) with a single doorway on the outside (north) centred on 25.7m from the west edge and 0.9m wide. The width may be compared to that of the digitised aerial photographs (67.3m) which might reflect operational constraints, or the “corners” may have eroded. The doorway gave access to a tunnel that ran laterally along the rear earth wall. The arms were 25.8m long externally, and the west arm 9.2m wide (east arm was too vegetated to measure). Between the arms was a yard 51.8m wide. Two doorways gave access to the tunnel referred to earlier, both centred 20.3m from the internal sides of the “U”. Neither doorway aligned with the doorway on the outside, and it is thought that they gave access to pens separated by a central earth bank, that was subsequently removed.
- 4.13.3 Around the internal edge of the pen was a gully, formed of a 600mm-wide concrete berm sloping away from the bank, down to a 240mm-wide linear depression and a 490mm-wide concreted area to the large slabs of concrete that had been cast to form the floor of the pen. At either end of the gully was a manhole (to a rainwater trap?) 700mm square on the east side and 500mm x 600mm on the west.
- 4.13.4 The centre of the fighter pen concrete standing, was at 166.08m OD, the top of the manhole cover on the east side was 166.01m OD and the base of the gully channel in the north-east corner 165.96m OD. The door of the eastern doorway was at 166.06m OD, and the berm adjacent to it rose from 166.04m to 166.24m OD. That had been cast against a short revetment concrete wall to 166.46m OD. And the top of the doorway was at 168.16m OD.
- 4.13.5 The top of the earth wall was at 168.67m OD, where it covered the tunnel between doorways, but fell to 167.93 west of the tunnel. The outer door floor fell from 166.0m OD at the threshold to 165.3m OD externally. The floor of the doorway was made of concrete grooved diagonally so that water wouldn’t collect in the grooves, but drain down to the side and away. An external revetment wall of Phorpres bricks, built somewhat erratically with some bricks laid on edge, was at 166.23m OD at the top (0.93m high from ground level). Some bricks were in a fragile condition and the whole wall slopes outwards as a result of pressure from the (slumping) earth bank.



Fig 26 Sloping back (north) wall of fighter pen – subsequently replaced

## 4.14 The finds

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- 4.14.1 Finds were of metalwork collected according to their location. They include some (safe) .303 rifle rounds and metalwork thought to be discarded aircraft parts. A finds review was conducted with the help of Roy Stephenson from the Museum of London and this report reflects that and information by Guy Taylor, Neil Quinn and Vince Gardiner.



- 4.14.2 A fragment of a NAAFI cup from the dumps forming the upper deposits of the West arm of the fighter pen in the study area [108].



- 4.14.3 Data Plate from German aircraft found in the slumped earth at the end of the west arm of the fighter pen [121]. Information from Vince Gardiner: The top line of text, although in poor condition, reads says '[VOLKSWA]GENWERK Gm[bh]' indicating that it was a product of the Volkswagen company... ..had contracts for repairing aircraft and manufacturing parts for them. The symbol on the left side of the plate is their logo as it appeared during the Nazi era. According to VW's history web page the company had contracts to repair Junkers Ju88 bombers and produce aircraft parts including fuel tanks and wing sections<sup>3</sup>. Although the data plate is very scarred and corroded, it is possible to see that there were three words, each next to a panel where numbers could be stamped. The top one says 'Serie' (serial number), the middle 'Zeichng' referring to the type of aircraft, while the bottom one appears to read 'Herst.Nr' (manufacturers number). The panel next to 'Serie' is almost totally illegible although possibly 'W W' there. The panel beside 'Herst Nr' says '0 36' with a possible '5' towards the right end. The middle panel '8.88' with a possible '5' further to the right and a possible small stamp saying '545' at the far right end'. The '8.88' signifies that it came from a Ju88.

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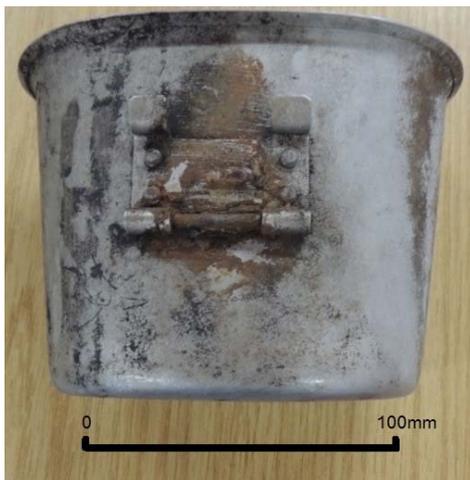
<sup>3</sup> [https://www.volkswagenag.com/en/group/history/chronicle/1937\\_1945.html](https://www.volkswagenag.com/en/group/history/chronicle/1937_1945.html) accessed 16/08/2018



4.14.4 Metal tags. Found near Trench 2 Possible Flight Hut (scale is 200mm). These were a series of small corroded square metal plates with a hole punctured in one corner. They could have hung from hooks on a board or attached to equipment. One plate possibly read “U/S” or “unserviceable” (broken, not available) in RAF slang.



4.14.5 Horse shoe found 2m west of Trench 2 Possible Flight Hut.



4.14.6 American M1910 Aluminium canteen cup. These were made to fit over the bottom of a canteen, in aluminium treated so as not to be reflective.



4.14.7 Exhaust? Found in near surface deposits in Trench 3, the PAC trench.



- 4.14.8 Warning panel. It reads “WARNING AIRCRAFT MUST NOT BE FLOWN WITHOUT GUNS OR FABRIC PATCH OVER TUNNEL” . Metal-detected surface find.
- 4.14.9 Other finds include a knife and fork (found separately), a Metropolitan Police button, a Bakelite switch, .303-calibre cartridge case, pottery fragments, a purse with coins from 1928 and 1950s (found mostly as surface finds by metal detecting) and the near complete skeleton of a dog (?), apparently buried in the backfilled weapon pit [107], which also contained a bucket.

## 4.15 The site as a whole

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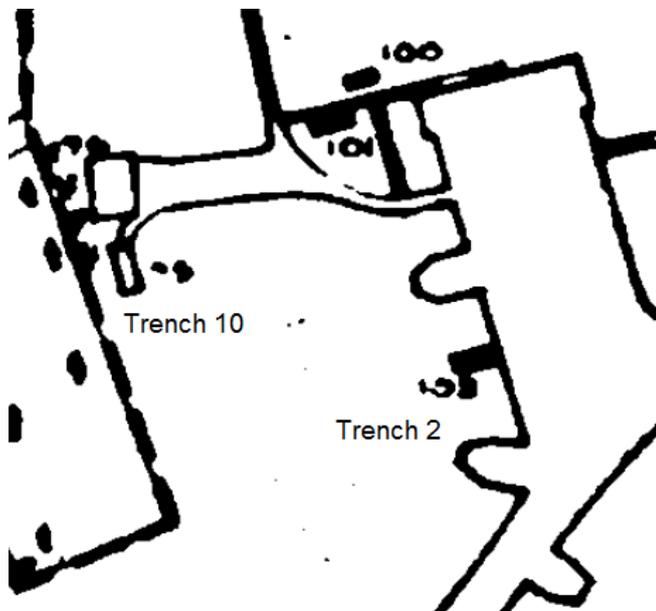
- 4.15.1 This community archaeology investigation has provided a unique insight into the operation of a small corner of a very large site of national importance. Although concentrating on one study area, as many of the types of structures excavated are reproduced across the airfield, it helps interpret the airfield as a whole. The concrete rings (repurposed sewer pipes) were positively identified as small-calibre machine gun posts. They have been identified elsewhere as anti-aircraft defences<sup>4</sup>. However, the other two pairs of concrete pipes at Kenley also appear to cover the slopes toward Whiteleaf and may have been intended to provide ground fire in support of earthwork trenches in addition to any potential Anti-Aircraft function. At the time of the Battle of Britain, Kenley’s anti-aircraft defences consisted of four 40mm Bofors guns supported by WW1-vintage Lewis machine guns and two elderly 3-inch guns (Flint, 1985, 55).
- 4.15.2 A variety of gun emplacements surrounded the site and 20mm Hispano-Suiza Anti Aircraft gun pits are recorded as being present in 1941<sup>5</sup>. However they were located located ‘near the gate’. A two-man crewed 20mm Hispano-Suiza gun pit photographed on the perimeter of RAF Mildenhall is a far larger sandbagged structure.
- 4.15.3 The concrete rings are not visible in a 1941 Aerial Photograph, but only one pair (of three pairs) can be seen in a 1944 AP. While features can sometimes be seen on APs, the effects of camouflage, the altitude from which they were taken, and even the photographic grain mean they cannot be relied on when attempting to date features on the ground.
- 4.15.4 Sewer pipes were widely used as a prefabricated construction material for many purposes. For instance, at the Lensbury Club, the author recorded sewer pipes horizontally laid and covered with earth (with substantial blast doors) to form air-raid shelters (MOLAS 2000).

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<sup>4</sup> see, for example RAF Friston which closely resembles those excavated at Kenley <http://www.pillbox.org.uk/blog/245386/> , accessed 10.08.2018

<sup>5</sup> <https://internationalbcc.co.uk/memories/a-seven-year-scratch-memories-of-a-world-war-ii-pilot-arthur-john-jack-ball-dfc/> Accessed 10.08.2018

- 4.15.5 Taking both 2017 and 2018 investigations, there is a wealth of huts to interpret. Essentially, however, huts could be converted to several uses throughout their lives so a designation at a particular time does not mean that it retained that function. The Trench 2 hut is depicted on the Kenley Record Site Plan (AM Drg 2430/46), with a rather illegible key number that could either be 102, Small-Arms Ammunition store, a Nissen Hut, or 103, Flight Office, a Timber Hut. However, a series of tags or tallies found nearby may relate to this building and imply that it was more of a general equipment store used by ground crew to maintain aircraft than a store for ammunition. The ground plan is of different dimensions to those of a Nissan hut, which were mass-produced of standardised components. The Trench 2 hut is not visible on an Aerial Photograph of 1941 (unlike concrete rings, huts look consistently visible with no attempts to camouflage them) but is clearly visible on photographs taken in 1944.
- 4.15.6 The horseshoe found nearby could have been cast by a working horse at any point before the site before it became an airfield or possibly later during construction work in World War Two, or even have been used in games of “horseshoes” (quoits). Whilst the trench 10 hut is clearly visible on 1941 aerial photographs, it is not listed on the Site Plan (see above). The Structure west of the fighter pen is both visible on 1941 aerial photographs and is listed as a “Flight Office” also, with a nearby “Drying room” (100).



Although tempting to read the Trench 2 hut as 102, next in sequence to 103, no 103 could be identified elsewhere on this plan. Were the Trench 10 hut and the Trench 2 huts original no.s 102 and 103 on the site plan “Schedule of Buildings”?

*Fig 27 Extract from Kenley Record Site Plan (AM Drg 2430/46)*

- 4.15.7 The discovery of a German information plate is significant. Several plates have been found at Kenley over the years<sup>6</sup>. It is POSSIBLE that they were collected over a

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<sup>6</sup>For reports of other data plates see <https://forum.keypublishing.com/archive/index.php/t-33728.html> (scroll down to find a post by ‘Lewis’ dated 23<sup>rd</sup> October 2005)  
<https://forum.keypublishing.com/archive/index.php/t-108146.html> (scroll down to find a post by ‘Tangmere 1940’ dated 13<sup>th</sup> April 2011)

period of time by Air Ministry scientists (AI2g) who evaluated German equipment (and possibly where it was made, to inform bombing raids). They occupied hangars at Kenley from 1945 (Flint 1985, 146) and may have brought a collection of such plates with them, collected earlier in the war.

- 4.15.8 There are two obvious sources for an American style canteen (water bottle) cup; It could have been deposited during World War One, when American Air Force mechanics were trained at Kenley or it could be from the Second World War when an American fighter squadron was based there. However, it was found in the tarmac of a hard-stand picketing area [102] and would have been of considerable age if it was accidentally incorporated into the rubble that was bound by tarmac (There are cups which the author uses daily which are more than double that age). The USAAF 308th Pursuit Squadron were present in 1942 but that is too late for the context in which the cup was found, unless it was buried in a subsequently dug feature which was not identified during the 2017 works. Both explanations for the cup's presence are plausible. Perhaps a keen student of militaria would be able to distinguish the age of the cup on stylistic grounds, such as the type of fittings or the treatment of the cup edge?

## 5 Archaeological potential

### 5.1 Answering original research aims

5.1.1 Original Research Aims and Objectives . (*Bright 2016, 10*) were answered as follows:

5.1.2 *To actively encourage the involvement of the local community in investigating, interpreting and managing their historic environment.*

The Kenley Revival Project team actively recruited 30 volunteers in 2018 (55 overall) who supported the archaeological project throughout its duration. For the recruitment process they used social media (Twitter and Facebook), Eventbrite, e-newsletters, posters on site and the website (kenleyrevival.org). There were no reserved places for stakeholders, everybody had the same chance to participate.

5.1.3 *To educate and promote a greater understanding within the local communities of their local heritage and in particular that of Kenley Airfield. Potential exists for specialist training in military and conflict archaeology.*

Volunteers investigated 5 different features in 2018 including the scheduled fighter (blast) pen. They also had opportunities for finds processing and recording and took part in map regression exercises and had many informal opportunities to compare and pass on information. That was also true of the Weekend of free guided tours and with society stalls to visit (both years). In addition, a further 30 volunteers from across the City of London Open Spaces Teams (and Tower Bridge) got an opportunity to experience the same activities for one day. There were several positive responses from this, particularly from people working at Hampstead Heath. So Kenley also proved to be a useful demonstration site for the potential for archaeology to enrich public participation in City of London Green Spaces.

5.1.4 *To offer opportunities for volunteers of all levels to gain practical experience of archaeological field work, including building recording and all manner of field techniques.*

Volunteers took part in various levels of excavation and recording. All were trained in physical aspects of excavation and everyone had archaeological stratigraphy, and stratigraphical recording, demonstrated to them. Volunteers assisted in recording sections, plans, filling out context sheets and simple surveying.

5.1.5 *To highlight the importance of the heritage to local communities and lay the foundations for the beneficial utilisation of their heritage resource for the future.*

Most of the volunteers were local, and some are regular visitors to the site. There was a steady stream of “walk-in” visitors and neighbours came over to enquire about activities. Information from neighbours has been used in this report. There is undoubtedly potential for a regular “diary” of events which use the heritage as a resource for fun and education.

5.1.6 *To establish the nature, date, purpose and state of preservation of the buried features, interpreted from historical research, cartographic evidence and other visual observations.*

The investigations have led to a far-greater understanding of buried features and structures, as well as of the construction and subsequent history of structures that were assumed to be already –relatively– well understood. The “structure” on the western perimeter of the site, is clearly a hut. Phorpres bricks (of which it was partly made) were available from before the creation of the Aircraft Acceptance Park in 1917, up to and including WW2. The structure to the south of it, with shallow concrete sides and a concrete floor below modern ground level, may well have housed equipment, or even an electricity transformer of some sort. Its purpose is still not understood. The fighter (blast) pen, which might previously have been

considered well understood, proved revelatory in NOT having a central spine wall and instead having merely a concrete spine on the apex of an earth bank. The concrete rings, which were only exposed in 2017, were found to be an anti-aircraft light-machine gun position and are likely to have been inserted in a later phase of the war, when the immediate threat had receded. Their construction may have coincided with that of the Trench 2 hut, excavated in 2017.

- 5.1.7 *To undertake an assessment of the archaeological potential of the site, the condition of any surviving archaeology and the establish impacts from past and future land-use.*

The airfield has considerable potential of the engagement of the public in archaeological research with reminiscence and documentary research, to answer questions as to the use and chronology of structures more fully as well as laying using these as a resource in public performance as well as interpretation displays or booklets. Structures vary in their condition (2017 investigations showed some had been removed). Those that were exposed in 2017 had suffered some degree of weathering and long-term conservation may be enhanced by appropriate covering. Some covering of the lower walls of the fighter pen (for instance) has actually aided preservation of the monument as a whole. General mowing regimes and keeping monuments below grass has aided their preservation.

- 5.1.8 *To record and preserve the archaeology before it suffers any further damage and highlight the importance of the heritage to local communities.*

Local volunteers undertook recording exercises on individual structures and were involved in consideration of their interpretation, and were tasked with considering the wider historic significance of the airfield on a landscape and regional scale, through map discussions.

- 5.1.9 *To accumulate sufficient data to produce an informed report of the archaeology of the site, including recommendations for further works and inform on future conservation and management of the site.*

Sufficient information was retrieved to inform aspects of the archaeology of Kenley airfield. Some of this information may be limited to informing conservation choices (the path surrounding the fighter pen having been reduced to lower bedding hard-core, at some point in the past, for instance). Others raise new questions (why were concrete rings light machine gun emplacements considered necessary in the later, offensive stage of WW2?). Information as to the state of surrounding walls on the scheduled fighter pen, as well as its construction, should aid decisions on future conservation. There are also choice to be made, of what can be displayed and how (avoiding the creation of unnecessary hazards for visitors to the airfield)

## 5.2 General discussion of potential

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- 5.2.1 The archaeological investigations have demonstrated the potential for buried remains to be exposed, investigated, better understood within the wider development of the airfield, and displayed.
- 5.2.2 The ease of access to the site with options for able-bodied and for disabled, for all members of the local community, whatever their educational or cultural background or age, indicates the site has potential for wider community engagement (although elderly, parents with young children and disabled will need transport up the hill).
- 5.2.3 There are numerous structures of interest across the site, some of which attract attention by visitors from curious locals to enthusiasts from wider areas.
- 5.2.4 Arguably, the greatest potential is in marrying informal reminiscence with oral history approaches and historical research, alongside archaeological investigations and a landscape-scale interpretation of the site.

## 5.3 Significance

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- 5.3.1 The archaeological remains of the airfield are of national significance, playing the role it did in historical events pivotal to the course of World War 2.

## 5.4 New research aims

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- 5.4.1 The specific research aim that arises from both 2017 and 2018 investigations is to relate the various defensive structures and features of the airfield to each other, to determine the changing strategies and priorities and, as far as practical which units manned them. This will require a greater integration of archaeological and historical research.

## 5.5 Assessment of the investigation

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- 5.5.1 The primary significance to the data is in stimulation of enquiry and the use of Kenley Airfield as a monument for and by the local community.
- 5.5.2 The Heritage 2020, National Heritage Framework has Public Engagement as a theme, and includes: *The historic environment sector in England has a good track record in public engagement.... we need to find new ways to enthuse a wider range of individuals, groups and communities to participate in the historic environment and, increasingly to take a lead in its management. We need to encourage more dialogue and shared understanding between the varied interest groups in our communities and encourage people to take more direct action in caring for their historic environment. We must inspire teachers and community leaders to see the potential of the historic environment on their doorsteps for learning, skills development, and improved wellbeing.* (Historic Environment Forum 2015, **5.5**, 11-12). Both 2017 and 2018 archaeological investigations at Kenley have laid a solid foundation to engage a core group of individuals from the local community in active participation in the management and care of historic structures on Kenley airfield. In addition, one volunteer in 2018 was also an active Thames Foreshore volunteer and was able to add to their “skills passport” in archaeology. A further volunteer was inspired to start compiling their own skills passport. It is an aspiration that such enthusiastic volunteers will be able to participate in a regular range of activities that their interest and expertise flourishes and that they may act as ambassadors for heritage in the community.
- 5.5.3 The 2015 Greater London Historic Environment Research Strategy set out research priorities, including, *Post-medieval defensive sites and structures: A survey to create an inventory of post-medieval defences, organised by date, type and function, could provide a basis for future thematic study and amplify developer-funded work. The survey should extend up to and include structures associated with World War II and the Cold War, and is particularly suitable for community and local society involvement.* (Museum of London 2015 **RP15**, 38) On the face of it, the archaeological aspects of the Kenley Revival Project precisely address this research priority.
- 5.5.4 The 2002 “Research Framework for London Archaeology” poses the following objective • *Establishing how well the various defence systems around London from the 16th century to the beginning of the 20th century survive, and considering their influence and effect on Londoners both practically, and psychologically as reflections of power and political security* (Museum of London 2002, **L5**, 71). You can hardly have a more significant moment in the history of Londoners, nor a more acute psychological or physical effect on the capital, than that of the Battle of Britain and the Blitz, and Kenley played a pivotal role in them. Given the physical and

psychological trauma of the Blitz on the civilian population, the subsequent history of the airfield was of profound importance to the feeling – and the reality – of security of Londoners. A state that would only be challenged by the emergence of rocket-engined terror weapons towards the end of the war.

- 5.5.5 Whilst a small community investigation, of short duration can, only aspire to add details to the fringes of this framework objective, nonetheless, its contribution should not be underestimated in a field of study that has been noteworthy for its fragmentary and partial nature (c.f. the successful exception of Aggregates levy-funded RAF Hornchurch Project, <http://www.rafhornchurch.thehumanjourney.net>)
- 5.5.6 Nationally, airfield defence evolved as a response to the perceived threat, from the “expansion period” pre-WW2 through the experience of Blitzkrieg tactics on continental Europe through to the newly-formed RAF Regiment taking over ground defence from 1942 (Oliver 2002). Ground defence of airfields may be divided between May–June 1940, when simple weapon pit and gun emplacements were brought in. June–September saw the creation of pillboxes, in consort with wider national defences. September 1940– saw defences against the perceived threat of parachute troops (a threat realised in the invasion of Crete in 1941). From autumn 1941, it has been said that static defences were abandoned, in favour battle headquarters, spigot mortars, barbed-wire and mobile forces, a trend that was consolidated from 1942, when the RAF Regiment took over (Dobinson 2000, 47–61).
- 5.5.7 An unforeseen consequence of the 2018 investigation was, as a result of a visit from regular archaeological volunteer and Shakespeare actor Suzanne Marie Taylor, she is to take part in two performances of a one-woman show based on the experiences of Lillias Barr, Assistant Section Officer of the Kenley Women's Auxiliary Air Force, in 1940.

## 6 Conclusions

- 6.1.1 The archaeological investigations at Kenley Airfield 2017 were enabled by the participation of local volunteers, and skilled archaeologist volunteers from further afield in London and well as professional archaeologists, curators and City of London staff with overall responsibility for the management of the site. The co-operation of such a diverse group directly responds to a major theme of Heritage 2020, National Heritage Framework, the strategy document *that sets out the shared strategic priorities for organisations working together to maximise the public benefit of the historic environment in England* (Historic Environment Forum 2015, 1.5, 2), which *defines five themes through which collaborative action can bring the fullest range of resources to bear on the tasks that have been identified as of greatest urgency to sustain and promote the historic environment of England, encourage access and broaden knowledge for a variety of audiences* (ibid, 1.7).
- 6.1.2 The activities undertaken have investigated the form and function, as well as the physical condition and some of the conservation and management requirements of a series of structures on the airfield. It has answered real academic inquiries on the nature of preserved remains and their historical functions, and it has raised new lines of inquiry for the futures.
- 6.1.3 The contributors to the archaeological inquiry left with a determination to pursue further work. It is to be hoped that this can be integrated into the other activities of the Kenley Revival Project as a seamless strand on a project with multiple aspects to enable *people to connect with, and take ownership of, a vital part of British history* so that *Kenley will also become a nationally significant heritage resource* (Kenley Revival website <http://www.kenleyrevival.org/>).
- 6.1.4 The project archive will be made available via the Museum of London Archaeological Archive, and digital copies of records and drawings will be stored with the Kenley Revival Archive. A summary of the results will be stored in the national "OASIS Report Form" (below) and summaries sent to London Archaeologist and Post-Medieval Archaeology. The resources generated, including this report, may be used to inform "blog posts", websites and leaflets about the site by the Kenley Revival Project, and, in the longer term, information signs around the site.

## 7 Acknowledgements

- 7.1.1 The author would like to thank the Heritage Lottery Fund, Kenley Revival Project and Marie Rose (Project Manager) for commissioning this work and for her kind support on site, as well as organising Ordnance Professional supervision. Also, Josie Evans (Community Archaeology Project, City of London Events) and Charlotte Islin (Learning and Volunteer Officer) facilitated site work enormously, and provided us with the materials to do the job. Iain Bright (Historic England, Assistant Inspector of Ancient Monuments) wrote the Written Scheme of Investigation and regularly attended site and took a detailed interest in the work. Jane Sidell (Inspector of Ancient Monuments) excavated half of one of the concrete ring gun pits, as well as being an instrumental presence on the archaeological side of Kenley Revival administratively. Odette Nelson, Janita Drew and Guy Taylor provided expert volunteer supervision, played an enormous role in teaching archaeological skills. MOLA Geomaticians Catherine Drew and Mark Burch provided control survey information and Catherine digitised the location of potential targets after rectifying and geolocating Aerial Photographs. I am enormously indebted to Neil Quinn, who not only provided metal detecting but is a notable local historian, Vince Gardiner and Guy Taylor again, for researching finds, colleagues Tony Mackinder and Paul Thrale for useful comments, and (principally) local volunteers who contributed so much to the success of the Community Archaeology event (too numerous to mention by name). Jo Lyon was the MOLA Project Manager and Portia Askew co-supervised the site.

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## 9 OASIS archaeological report form

OASIS ID: molas1-330264

### Project details

Project name	RAF KENLEY - COMMUNITY ARCHAEOLOGY PROJECT (2018)
Short description of the project	Volunteers investigated and recorded: 2 concrete rings = Light AA-gun emplacement, Scheduled Fighter (blast) pen with surrounding path, a concrete structure (possibly for plant - a
Project dates	Start: 16-07-2018 End: 27-07-2018
Any associated project reference codes	KRP17 - Sitecode
Type of project	Research project
Site status	Scheduled Monument (SM)
Current Land use	Other 15 - Other
Monument type	AIR DEFENSE SITE Modern
Monument type	FIGHTER PEN Modern
Monument type	ROYAL AIR FORCE BASE Modern
Monument type	AIRFIELD BUILDING Modern
Significant Finds	POTTERY Modern
Significant Finds	METAL TAGS Modern
Significant Finds	COINS Modern
Significant Finds	AIRCRAFT COMPONENT Modern
Significant Finds	CUP Modern

### Project location

Country	England
Site location	GREATER LONDON CROYDON COULSDON RAF Kenley community excavation project (2018)
Postcode	CR8
Study area	49285 Square metres
Site coordinates	TQ 32918 58429 51.308913008025 -0.092809547075 51 18 32 N 000 05 34 W Point
Height OD / Depth	Min: 165.77m Max: 165.77m

### Project creators

Name of Organisation	MOLA
Project brief originator	Historic England
Project design originator	Historic England
Project director/manager	Jo Lyon
Project supervisor	David Sankey
Type of sponsor/funding body	Heritage Lottery Funding
Name of sponsor/funding body	Kenley Revival project

**OASIS ID: molas1-330264 cot'd**

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**Project archives**

Physical Archive recipient	Museum of London Archaeological Archive
Physical Contents	"Metal"
Digital Archive recipient	Museum of London Archaeological Archive
Digital Contents	"Ceramics","Metal","Stratigraphic","Survey"
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	Museum of London Archaeological Archive
Paper Contents	"Metal"
Paper Media available	"Context sheet","Manuscript","Map","Photograph","Section","Survey","Unpublished Text"

**Project bibliography 1**

Publication type	A forthcoming report
Title	Kenley Revival Community Archaeology Project 2018
Author(s)/Editor(s)	Sankey, D.
Date	2018
Issuer or publisher	MOLA
Place of issue or publication	London
Description	A4 report
Entered by	david sankey (DSankey@mola.org.uk)
Entered on	6 October 2018