Former Watch Office
RAF Llandwrog, Caernarfon

Archaeological Building Record: Level 2

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

Former Watch Office
RAF Llandwrog, Caernarfon

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Summary

An archaeological building record has been carried out by Gwynedd Archaeological Trust on the Watch Office of the former Second World War airfield of RAF Llandwrog, which had been built by May 1941. The building, within the technical area of the former RAF airfield site, was noted to conform within the standard range of wartime designs for RAF Watch Office structures, and to have provided the standard technical and operational facilities. It faced northwards overlooking the main airfield runways, with the main observation windows looking northwards at first floor level.

The building was built of brick with a concrete roof, approximately 1Ø metres square, of two storeys of equal height, and with the stair well providing access to the first floor on the south side. There was also an additional small tower on the south east corner of the roof. The window openings, the concrete balcony and the south facing porch were seen to be original features, although all the original metal Critalls style casement windows were replaced post war, being added after a period of disuse of the building.

Some internal modifications to the room layouts were noted, particularly on the north side of the building at ground floor level, although the original internal layout of the building could be worked out. These were carried out in the years after the airfield reopened as a civilian airport in 1975 up until fairly recent times, when the interior of the building was used as an entertainments venue. An observation tower was also added to the north east corner of the roof around the time the airport reopened.

The building was formerly part of a group of buildings within the former Technical Area of RAF Llandwrog, most of which have now been demolished, although a concrete pad to the west of the Watch Office is a remnant of one of these, and much of the former technical area is covered in buildings suited to the needs of a modern airfield.

1. Introduction

Advent Project Management Ltd commissioned Gwynedd Archaeological Trust (GAT) to complete an archaeological building record in advance of the proposed demolition of the former RAF Watch Office, located at Caernarfon Airport, Dinas Dinlle, Gwynedd (NGR SH 43635856). It is situated within the former technical area at RAF Llandwrog. The watch office building, except the watch tower on the roof, is currently not in use but dates from the Second World War (**Figure Ø1**).

Gwynedd Archaeological Planning Service (GAPS) has not prepared a mitigation brief for this project but have recommended a building record to English Heritage Understanding Historic Buildings: a guide to good recording practice (2ØØ6) Level 2 standard.

This report conforms to the guidelines specified in English Heritage 'Understanding Historic Buildings: a guide to good recording practice' (2ØØ6) Level 2 & Institute for Archaeologists 1994, rev. 2ØØ1 & 2ØØ8 Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures.

2. Specification & Project Design

Gwynedd Archaeological Planning Service (GAPS) has recommended an archaeological building record (English Heritage Understanding Historic Buildings: a guide to good recording practice (2ØØ6) Level 2) of the existing Watch Office structure in advance of demolition as part of a redevelopment of the area; to include a measured plan of the site accompanied by a high quality, detailed photographic record and basic desktop study. A brief has not been prepared for this project by GAPS.

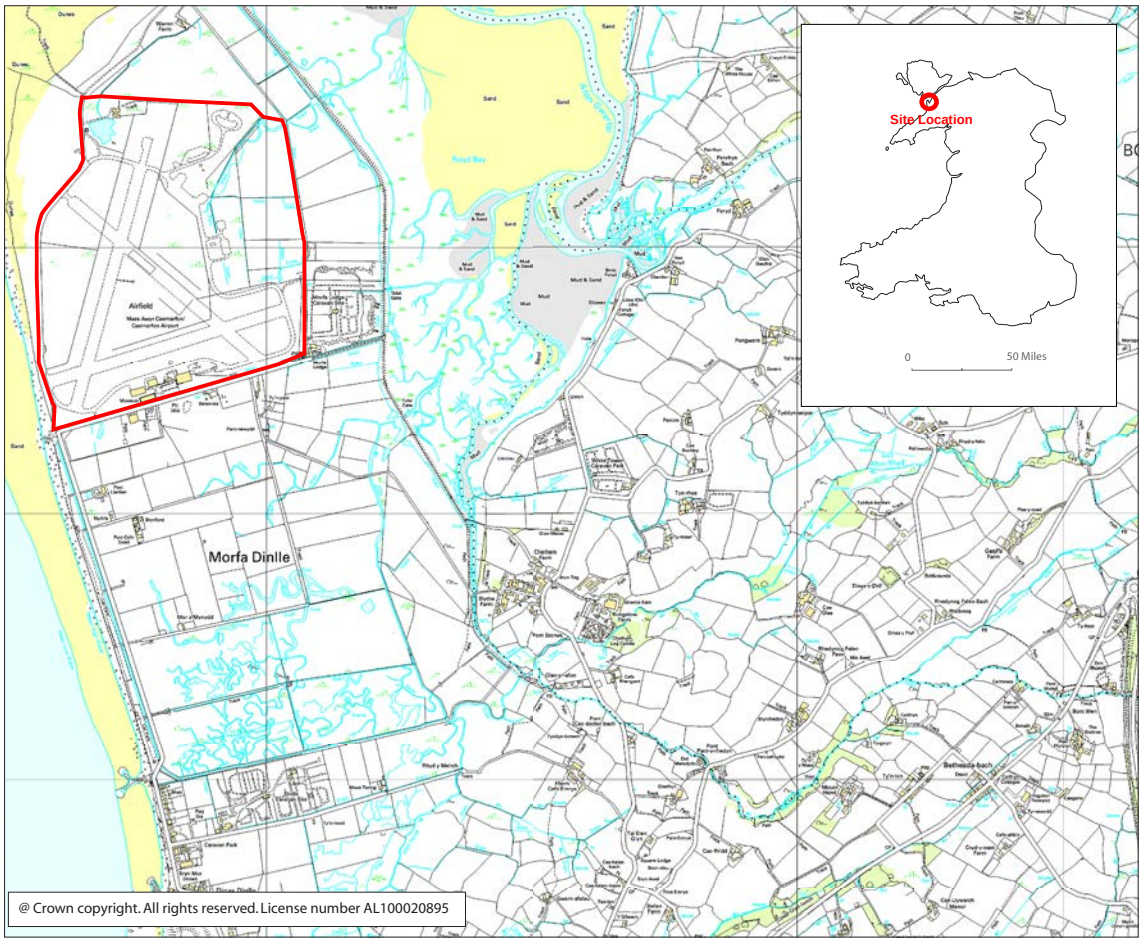
A project design for the scheme was provided by GAT (August 2Ø12; reproduced as Appendix I) which adheres to the requirements of the brief and to the requirements set out for a Level 2 survey in Understanding Historic Buildings: a guide to good recording practice (English Heritage 2ØØ6). Reference is also made in the design to the IfA Standard and Guidance for the archaeological investigation and recording of standing buildings or structures (IfA 1996 rev. 2ØØ1 and 2ØØ8).

3. Methods & Techniques

The significance, origins and development of the site are discussed with reference to the available historical sources, and a detailed external and internal description of the building was made, which included all identified archaeological features. Basic plans were produced for the ground and first floors, showing structural and architectural features of significance.

A photographic record was made recording all features, room spaces and elevations. Ground and first floor scaled plans were drawn and additionally basic measurements were taken of all rooms.

The recording was carried out on 25th and 26th September 2Ø12. The conditions were suitable for carrying out the recording.



Left:
Figure 01 - Site location base map taken from Ordnance Survey 1:10,000 series, sheet SH45 NW & NE

4. Archaeological & Historical Background

4.1 Topography

The former RAF Watch Office at Caernarfon Airport is located on Morfa Dinlle (NGR 4363958Ø4), 6km south-west of Caernarfon. The area consists of a low lying spur of land between Caernarfon bay and the Foryd estuary that formerly consisted of sand dunes, the southern portion being enclosed and improved as a result of an Act of Parliament in 18Ø6. The subsoils on the site, consisting of alluvial gleys of the Rockcliffe Series, overlie a deep natural sandy deposit (BGS 1983).

4.2 General Background

This general background to the history of Caernarfon Airport is taken from Evans (2011) Wind Turbine Development at Caernarfon Airport (GAT Report 913), with some additional information.

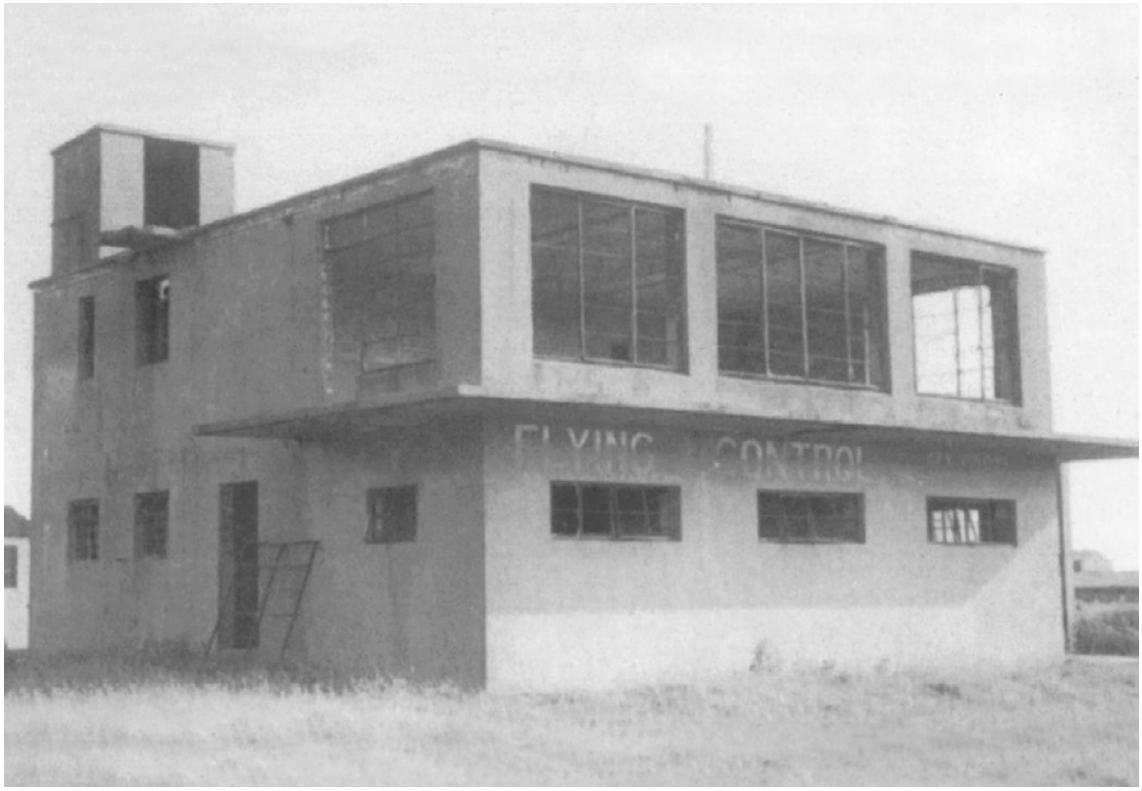
The site chosen for the RAF station at Llandwrog was on the small peninsula of Morfa Dinlle (NPRN 309961), which had formerly been a tank training ground. The airfield was very low lying, although a significant amount of levelling was probably required. The main contractor was Sir Robert McAlpine, although local builders carried out some of the work. Work began in September 1940 and was completed by May 1941 (Jones 2008, 61). This required the production of 10,000 tons of asphalt for the construction of the aerodrome surface (Chambers-Jones 2008, 187). The airfield consisted of three runways, the main east-west one being 1000m by 50m, the north west – south east one 950m by 50m, and the north east - south west one 950m by 50m. All the runways were constructed of concrete and tarmac.

The RAF station at Llandwrog was intended as a fighter station in a forward position in the event of an enemy invasion of Britain from the Irish mainland, of which there was a considerable fear in 1940 (Spencer 2002, 16). It was also an airfield that would be useful in the interception of raiders attacking the industrial north-west from bases in north-west France. The German invasion of the Soviet Union in late 1941 reduced the threat of invasion as the main German focus had turned eastwards, and Llandwrog became a training base, for observers, navigators and pilots. It had the advantage of being some distance away from the main area of enemy attacks, and with the main fighter bases being located on the east coast of Britain and required for combat duty; it provided a useful training facility.

The base was constructed in a 'dispersed' manner, with the service personnel accommodated in Nissan huts on the northern end of the main runway in order that they might be near the aircraft, whilst the trainees lived in huts on the coast road, close to the beach at Dinas Dinlle (ibid, 187). The technical, administration and hospital areas were on the south side of the runways. A dyke was constructed around the perimeter of the airfield facing the sea.

The front at Dinas Dinlle was accessible to the public for only a certain distance along the coastal road towards the airfield and sentries and barricades were placed to prevent anyone going further. The seaside was defended by coils of barbed wire which extended all the way from one end of the beach to Fort Belan, with occasional gaps. The barbed wire served to both inhibit any possible invasion and to prevent anyone straying into the mines laid along the shore, and the coastal sand dunes. Four parallel lines of close-set pits running generally north-south for some 400m may be the vestiges of a wartime minefield protecting the airfield (NPRN 408629). These were recorded during RCAHMW aerial reconnaissance (image ref: AP_2006_0452). The sand dunes were overrun with rabbits, which provided a welcome supplement to the diet of those serving on the base (ibid. 191). The airport's defences included two 'seagull trenches', one of which was built into the side of the Iron Age hill fort of Dinas Dinlle (NPRN 95309), overlooking Llandwrog Airfield (NPRN 309961) some 2.5km to the north. The trench is about 21m long, of brick construction and capped with a reinforced concrete roof 300mm thick. In plan the trench resembles an elongated 'W'. A stone-faced pill box (NPRN 27043) lies some 50m to the north-west. The main runway was west east, which caused a number of accidents during training, as an aircraft that overshot the runway could end up either in the sea or be wrecked in mountains to the east.

Llandwrog airfield was officially closed on 29th July 1945 until it re-opened for civilian use as Caernarfon Airport in 1975. However from September 1946 until late 1955 the base housed a secretive maintenance unit, known



Left:
Plate 01 -
The former RAF watch office at Llandwrog, during its period of abandonment in the late 1960's (Jones 2008, 65)

as No.277MU. Between these years the base received 9,000 tons (71,000 bombs) of enemy chemical weapons (Sloan 1998). Under 'Operation Sandcastle', the weapons were brought from Germany to a channel port, then shipped to the docks at Newport and then driven up to Llandwrog. After some form of processing, probably carried out in the large number of now demolished hangars built on the former runway (Jones 2008, 66; lower figure) they were driven to Fort Belan along a newly constructed road, where a jetty had been built. The material was eventually loaded onto a ship and dumped in a deep part of the Atlantic Ocean. It is not known why such a complex procedure involving much loading and unloading of dangerous material was required (Jones 2008, 68-9). The foundations of one of the hangars survive on a disused runway.

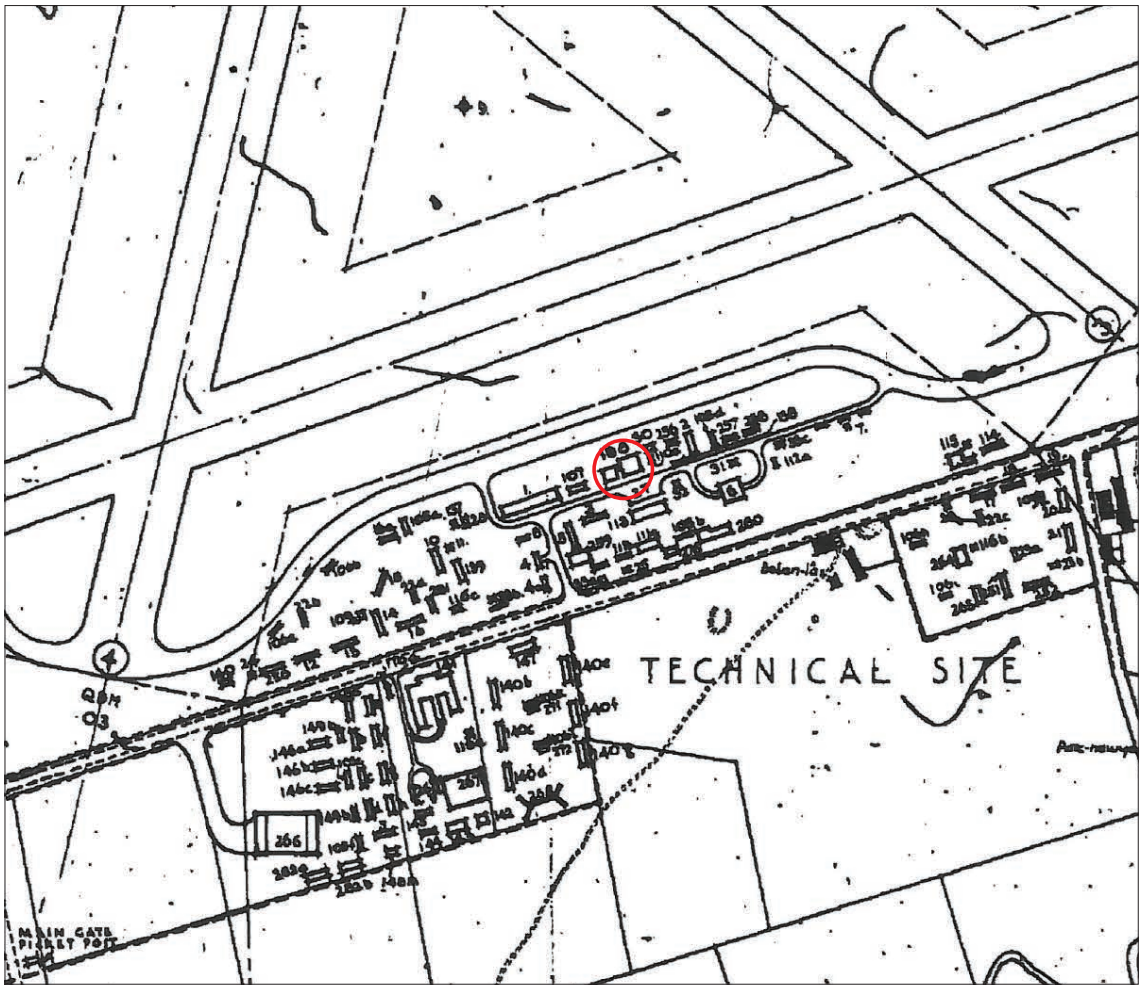
Many of the original RAF buildings survive and some have been converted to later use, including the former Watch Office in the Technical Area. At Blythe farm they have been converted to light industrial use, and further former RAF buildings form part of Parc Busnes Llandwrog. The airport is now known as Caernarfon Airport, managed by Air Caernarfon Ltd. and provides flying instruction and pleasure flights. Some infrastructure associated with a modern airport has been constructed since 1975.

4.3 The Watch Office Of RAF Llandwrog

The watch office had been built at RAF Llandwrog by May 1941 in the centre of the technical area of the airfield overlooking the main runways from the south. Watch Offices of Second World War date evolved into buildings of quite elaborate type. They were erected to a variety of designs, but were typically brick built, of two storeys and rectangular and square in plan, with a reinforced concrete roof. The ground floor would contain a teleprinter room, meteorological office, duty pilot's room and latrine. The upper floor would contain a signals office, rest room, balcony and watch office with large frontal windows (Air Ministry 1956, 47-48; Lowry 1995, 114). The Watch Office at RAF Llandwrog broadly confirms to this pattern, although later sub-divisions of some of these rooms makes this less clear to observe now.

The building was originally fitted with Crittals style casement windows, but these were replaced as part of the refurbishment of the building after the airport was opened to civilian use in 1975 (Jones 2ØØ8, 65). The internal structure of the building has changed also, with the addition of internal partitions, particularly on the ground floor in the northern half of the building (**Plate Ø1, see page Ø5**).

The building is associated with a concrete pad to the west which housed a former wartime building which contained offices for flying control (Air Ministry Plan). All the other wartime buildings (**Figure Ø2**) close to the Watch Office have been demolished since the re-opening of the airport.



Right:
Figure 02 - Detail from Air Ministry Llandwrog record site plan showing location of watch office (RAF Museum, Hendon; drawing No. L544/45)

5. Building Description

5.1 Exterior

5.1.1 Introduction

The former RAF Llandwrog Watch Office is a 10.4m square building, 4.3m high (**Figure 03**). It is of brick and concrete construction, and of two storeys in height. Its main first floor viewing windows look north over the airfield. A small porch faces south, with a small tower on the south east corner of the roof. The roof is constructed of concrete, with a bitumenised surface covering. A glass and wood viewing turret has been added on the north east corner of the roof to aid aircraft observation. The main wall surfaces of the building have been rendered, having formerly been exposed brickwork and concrete during wartime (**Plate 02**).

5.1.2 North Elevation

The north elevation contains three narrow casement windows at ground floor level, measuring 1.8m by 0.6m each in size. About 0.6m above these windows is a concrete apron, about 0.2m thick, which extends out about 1.5m from the control tower wall, acting as the base of a former balcony (**Plate 03, see page 08**).

The first floor is taken up with three large casement windows, giving a view over the airfield. At ground floor level, three courses of brickwork are visible, above which the building is fully rendered.

Left:
Plate 02 - View of watch office from the south west. Modern airport building to the right

5.1.3 Eastern Elevation

On the eastern elevation a central door at ground floor level gives access to the building, with two windows (1m by Ø.5m) to the south of it and a smaller one to the north (**Plate Ø4**).

The concrete apron/former balcony continues from the north elevation and extends for approximately 3.5m along this elevation, with a large casement viewing window above. Two windows are located at first floor level to the south.

5.1.4 South Elevation

A central porch protects the entrance to the building on the south side, and there are three ground floor windows. A tall two light window lights the stair well to the east of the entrance, covering both ground and first floors. Three windows light the first floor, two wide and one narrow (**Plate Ø5**).

Right:
Plate 03 -
View of northern elevation of watch offfice

Right:
Plate 04 -
View of eastern elevation of watch office, partly obscured by modern shelter

Far right:
Plate 05 -
View of southern elevation of watch office, with ground floor porch

5.1.5 West Elevation

The western elevation has three similar windows (1.2m by Ø.95m each in size) at ground floor level, a single similar one at first floor level, and a large observation window to the north west, subsequently converted to form an access from the stairway. The stair was built over a supporting extension to the west in the 196Øs, which contains a door and north and south facing small windows. The purpose of this extension is not clear, but it supports the metal stairs leading to the observation tower on the roof added in the 196Øs. Adjacent to the west is the concrete platform of a former wartime building. This would appear to have once been fully detached (**Plates Ø6 - Ø8**).

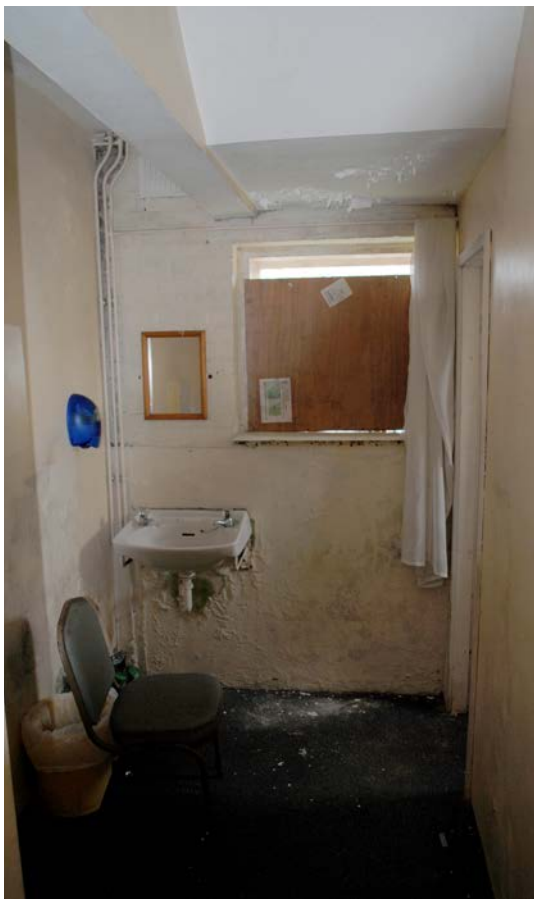
Left:
Plate 06 - View of western elevation of watch office, taken from the south west, with the concrete pad of a former RAF building

Left:
Plate 08 - View of western elevation of watch office

Far left:
Plate 07 - View of extension and roof access stairs on western side of the watch office

Right:
Plate 09 -
View looking up the stairs leading to the first floor, taken from the west

Far right:
Plate 11 -
View of ladies WC, taken from the west



Far right:
Plate 10 -
View down hallway, taken from the south

5.2 Interior

5.2.1 Ground Floor (Figure 04)

5.2.1.2 Stairwell (Room Ø1)

The stairwell is entered directly from the south entrance, and extends to the full height of the building. There are 13 concrete treads (each Ø.25m by Ø.17m high). A single window 2.5m high and Ø.5m wide crossing both ground and 1st floor level lights the stair well on the south side. The well is 5.2m high, the full height of the building and extends to a depth of 5.2m. The wall is rendered to handrail level and is exposed brick above. It is rendered on the north side (**Plate Ø9**).

5.2.1.3 Hall (Room Ø2)

The hall extends northwards of the stair well, with rooms 3-8 accessed off it. It is without distinguishing features, and all surfaces are rendered. Some modification to the wall around cupboard (4) can be seen, suggesting that this was the original entrance to the room(s) to the east of the hall, and the adjacent WC room doors are later additions. The room is 6.2m long on 1.7m wide, and the height is 2.6m, which is the height of all ground floor rooms (**Plate 10**).

5.2.1.4 Ladies WC (Room Ø3)

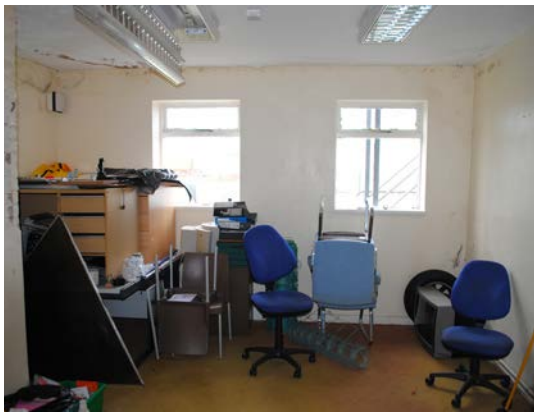
A ladies WC with the cubicle to the south is located under the stairs (1). It is lit by windows on the south & within the cubicle to the east. An alcove is created by walls in the north-west corner of the room. All porcelain & other fittings within the room are modern. The room is 3.6m x 2.6m (**Plate 11**).

5.2.1.5 Cupboard (Room Ø4)

A two shelf cupboard, created from recent changes to the walling between the Ladies WC (3) & Gents WC (6). It has no other distinguishing features. The cupboard is 1.36m by Ø.79m (**Plate 12**).

Far left:
Plate 12 - View of cupboard, taken from the south west

Left:
Plate 15 - View of gents WC, taken from the west. Later inserted cubicle to the right.



Far left:
Plate 13 - View of office, taken from the east

Left:
Plate 14 - View of office, taken from the south west

5.2.1.6 Office (Room Ø5)

A former office room accessed off the west side of the hall (2). It has two casement windows on the west side of the building, and two smaller casement windows on the south. One of the latter, 2.4m by 1.2m, is within a brick cupboard area in the south-east corner of the room, with a door Ø.9m wide giving access to this. It is one co-urse of brickwork thick. The room is 4.6m by 4.3m (**Plates 13 & 14**).

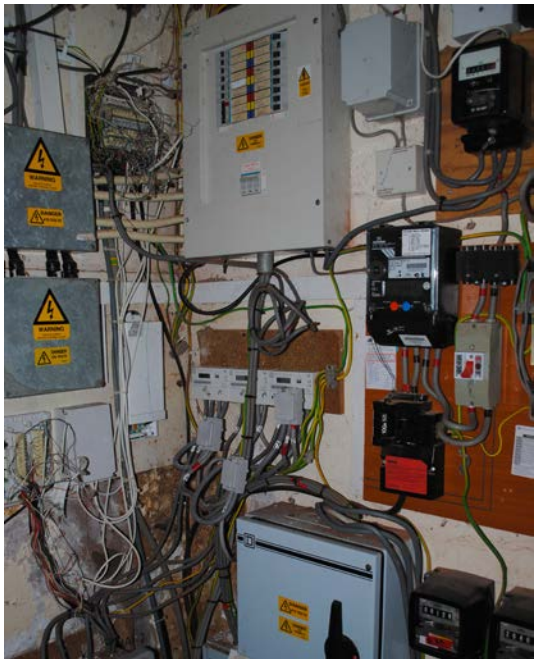
5.2.1.7 Gents WC (Room Ø6)

A gents WC, with the urinal within an alcove equivalent and a mirror image of that seen in the Ladies WC (3), created as part of post war conversions to the building. There is a window on the east side wall partially obscured by the modern cubicle wall. All the internal fittings are of modern date and without great significance. The room is 3.6m by 1.65m (**Plate 15**).

Right:
Plate 16 -
View from the east into partitioned office

Far right:
Plate 17 -
View from the west looking into room 7A

Right:
Plate 18 -
View of room 7A, taken from the east



Far right:
Plate 19 -
View of store room 8B, taken from the west

5.2.1.8 Office (Room Ø7)

An office room, with a single casement window on the west side of the building, subsequently divided in half by a partition wall (creating rooms 7a and 7b), with a doorway within it to the south of the partition. This means that it is only the inner of the two rooms that is lit. The rooms are plastered and boarded, and no features of interest were noted. The room, prior to partitioning, was 4.8m by 2.35m (**Plates 16 - 18**)

5.2.1.9 Store Room (Room Ø8)

A store room, with no light, has recently been partitioned with a board partition and a central door (rooms 8a and 8b). From the inner room (8b) a door opens out onto the east side of the building. The inner room now houses the electricity meter, otherwise there are no identifiable features with the exception of shelf fittings. The room, prior to the sub division was 3.93m by 2.4m (**Plate 19**).

Left:
Plate 22 - View of office room 10, from the west

Far left:
Plate 23 - View of office room 10, from the east

Left:
Plate 21 - View down corridor, taken from the west

Far left:
Plate 20 - View down corridor, taken from the east

5.2.1.1Ø Corridor (Room Ø9)

A corridor runs east-west, accessed at its eastern end from the hall (2). Its wartime state appears to have originally been a wider, long east-west room running along the entire north side of the building. It was subsequently divided up with partitions on the north and east side, creating a number of new offices and rooms (1Ø-12). The walls on the north and east side of the corridor are modern stud partition walls. The room is currently 6.Ø5m long and 1.2m wide (**Plates 2Ø & 21**).

5.2.1.11 Office Room (Room 1Ø)

This room was created out of the former long east-west ground floor room on the north side of the building. It has two narrow windows (1.95m by Ø.6m) on the north side of the room, and two (Ø.98m by Ø.6m) on the east side wall. The width of the room (3.28m) seems to represent the original width of the wartime long room. The room is currently used for storage and no other features of interest were noted. The room is 4.1m long (**Plate 22 & 23**).

Right:
Plate 25 - View of office room 12, taken from the east

Far right:
Plate 26 - View of office room 12, taken from the west

Right:
Plate 24 - View of store room 11, taken from the south

Far right:
Plate 27 - View of extension room 13, taken from the east

5.2.1.12 Store Room (Room 11)

A room divided off by modern partition walls to the south and west, with one long narrow window (2m by Ø.6m) runs along the entire north wall of the room. Otherwise there are no features of interest. The room is 2m by 1.97m (**Plate 24**).

5.2.1.13 Office (Room 12)

A room divided by modern partitions to the west of room (11), enclosed by a modern partition to the south & east, with the door to the east of the south partition, and three window lights in the partitions. A single window (2.2m by Ø.6m) lights the room to the north and one (1.1m by Ø.6m) in the original wall to the west of the room. There were no other features of note (**Plates 25 & 26**).

5.2.1.14 Extension (Room 13)

An irregularly shaped extension was added to the west of the building in 1968. It supports the stairs leading to the observation tower on the roof (21). Internally, a pair of doors is located to the north, a single door to the west, and a window to the south. This latter window forms part of a strange hatch like structure. A doorway leads into this area from the western end of the corridor (9), which would appear to be an original feature. The room is 3.4m long and 1.76m wide (**Plate 27**).

Far left:
Plate 29 -
View of landing steps, taken from the north; scale 1x1m

Left:
Plate 30 -
View along hall room 15, taken from the east

Left:
Plate 31 -
View along hall room 15, taken from the west

Far left:
Plate 28 -
View looking down stairs from landing room 14, taken from the east

5.2.2 First Floor (Figure 05)

5.2.2.1 Landing (Room 14)

A very small half landing where the stairs turn 180º. It is lit by a single casement window in the east wall (Ø.84m by Ø.5m). The east wall is exposed brick above the wooden handrail level and plastered below. The landing is 1.9m by Ø.85m, and the height is 2.96m to the ceiling (**Plates 28 & 29**).

5.2.2.2 Hall (Room 15)

The upper landing of the stairs after the return heading westwards, enters (17) at its western end. It has a door into the kitchen on its north side (19), and to a small cupboard to the south (16). There is a small teak handrail on the southern side for the two steps beyond the half-landing (14). The hallway was 5.5m long and Ø.9m wide. All rooms on the first floor are 2.6m high, indicating that both storeys are of the same height (**Plates 30 & 31**)

5.2.2.3 Cupboard (Room 16)

A very small cupboard is located in the space above the stairs to the south of the hall (15), with a modern door and frame. A small window, Ø.7m wide, lights the cupboard on the southern side. The brickwork of the wall, concrete window lintel and concrete roof are undecorated within the cupboard, indicating the wartime utilitarian appearance of the wider building. The cupboard is 1.3m by 1.Ø7m (**Plate 32**).

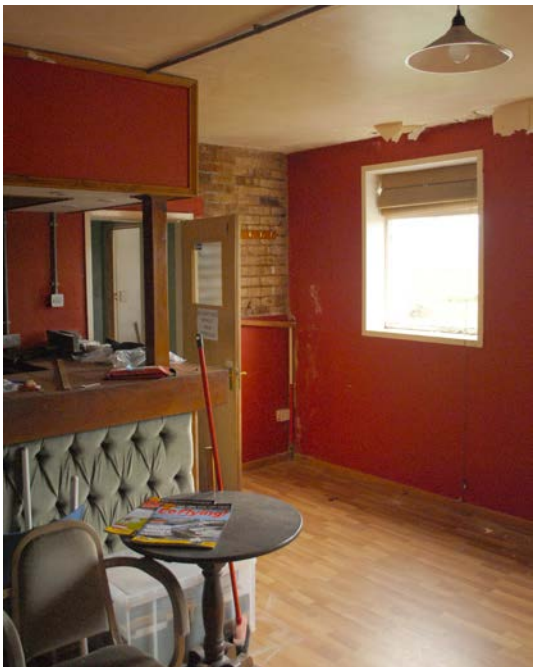
5.2.2.4 Bar (Room 17)

The room has two casement windows in the south wall (1.8m x 1.3m) and one in the west wall. The north wall of the room appears to be part of the original build, & some of the brickwork is exposed. A wide opening (1.6m x 2m) has been cut into it to provide access to the main Watch Office Room (18), with a rolled steel joist (RSJ) lintel inserted for support, as it is a load bearing wall. A bar area has been inserted into this room in recent times. The room is 4.93m long and 4.4m wide (**Plates 33 - 38**).

Right:
Plate 32 - View looking into cupboard 16, taken from the south

Far right:
Plate 33 - View of bar room 17, taken from the north

Right:
Plate 34 - View of modern bar structure inserted into bar room 17, taken from the west



Far right:
Plate 35 - View of modern bar structure inserted into bar room 17, taken from the south

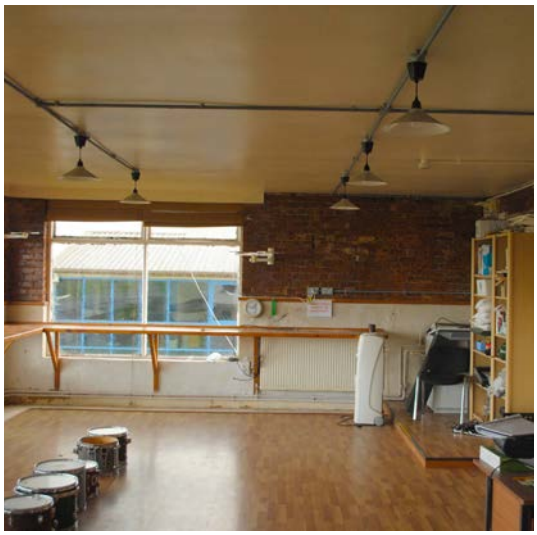
Left:
Plate 36 -
View of internal face of south wall of bar room 17, taken from the north

Left:
Plate 38 -
View of sliding door into watch office room 18, showing recent RSJ supporting beam, taken from the south

Far left:
Plate 37 -
View from the north east of bar room 17

Right:
Plate 39 -
View of main watch office observation room 18, taken from the south west

Right:
Plate 40 -
View of watch office room 18, taken from the west

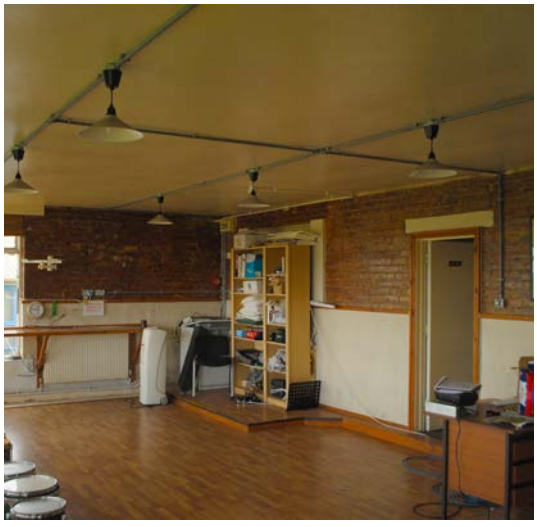


Far right:
Plate 43 -
View of watch office room 18, taken from the east

5.2.2.5 Watch Office (Room 18)

The main Watch Office room, covering northern half of the 1st floor of the building, has in recent times been used as a room for entertainments. The original brickwork is exposed above dado level (1.3m) around the room. Three large observation window openings fill the length of the north side of the room with two brick intervening pillars at one third intervals. Two observation windows of similar size are located at the north ends of the east and west sides of this room. An original doorway leads into the modern kitchen (19) on the south side. The south wall has been punctured by two openings; one from the bar area in (17) has already been

Left:
Plate 42 - View of main watch office observation room 18, taken from the north east



Left:
Plate 44 - View of watch office 18, with sliding door entrance to bar 17. Taken from the east north east

Far left:
Plate 41 - View of watch office 18 showing entrance into kitchen 19 (original doorway) and modern serving hatch. Taken from the north west

discussed. Another, now hidden by modern cupboards, would appear to be a serving hatch from the kitchen (19). This recent change to the building is supported with an RSJ lintel (2.6m by 1.1m). The room is 1Ø.Ø4m by 5.8m wide (**Plates 39 - 44**).

5.2.2.6 Kitchen (Room 19)

A modern fitted kitchen is located between the hallway (15) and Watch Office (18), and is currently accessed from an original door in the south wall off (18), and also from the hallway north wall. There is a casement window in the east wall of the room. The wall to the west, separating this room from the bar (17) would appear to be an original wartime brick partition wall, in which there are no openings. There is a small brick stub wall in the south wall adjacent to the doorway into the hall (15). The room is 5.2m long by 2.2m wide (**Plates 45 & 46**).

Right:
Plate 45 -
View of modern fitted kitchen room 19, taken from the south west

Far right:
Plate 46 -
View of kitchen room 19, taken from the north east

Right:
Plate 47 -
View of small enclosed tower room 20 on south east corner of roof, taken from the north west

Far right:
Plate 48 -
View of observation tower on the north east corner, taken from the west

5.2.3 Roof (Figure 03)

5.2.3.1 Small Enclosed Tower (Room 2Ø)

A small shed size structure on the south east corner of the roof, formerly contained a water tank. It had a door on the north side, and a single light window on the south (**Plate 47**).

5.2.3.2 Observation Tower (Room 21)

This tower was added to the Watch Office in 1978, & does not form part of the wartime structure. It is located on the north east side of the roof and is of timber and glass construction. It is six sided, with a straight section to the south at the rear, within which the entrance doorway is located (**Plate 48**).

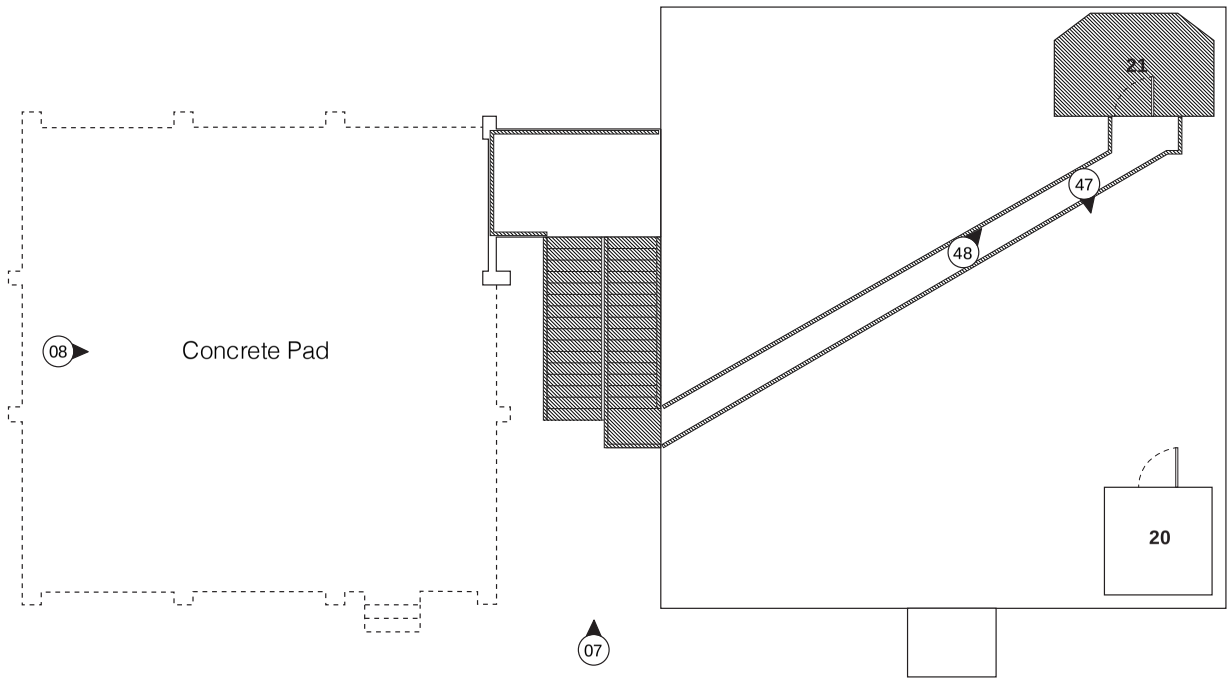
6. Conclusion

An archaeological building record has been completed on the Watch Office of the former Second World War airfield of RAF Llandwrog, which had been built by May 1941. The building, within the technical area of the former RAF airfield site, was built to a design within the standard range of wartime RAF Watch Office structures, and to have provided the standard technical and operational facilities. It faced northwards overlooking the main airfield runways, with the main observation windows at first floor level.

The building was approximately 1Ø metres square, of two storeys of equal height, with the stair well providing access to the first floor on the south side. There was also an additional small tower on the south east corner of the roof. The window openings, the concrete balcony and the south facing porch were seen to be original features, although all the metal Critalls style casement windows were replaced post-war, being added after a period of disuse of the building.

The wartime Watch Office building was once the central element of the Technical Area of the flying field, located south of the main runways. Most of the former surrounding buildings, which would have served a variety of functions, were demolished during the redevelopment of the site as a modern airfield and more recently. A concrete pad to the west of the Watch Office formed the base of the former flying control building. The Watch Office represents an isolated survival of a wartime structure in the core technical area, although there are many surviving buildings in the dispersed areas of the airfield.

Some internal modifications to the room layouts were noted, particularly on the north side of the building at ground floor level, although the original internal layout of the building could be worked out. These were carried out in the years after the airfield reopened as a civilian airport in 1975 up until fairly recent times, when the interior of the building was used as an entertainments venue. An observation tower was also added to the north east corner of the roof at the time the airport reopened.



NOT TO SCALE

Post War Alteration

Figure 03: Vertical Plan Former RAF Llandwrog Watch Office/ Control Tower & Adjecent War Time Structure (Concrete Pad)

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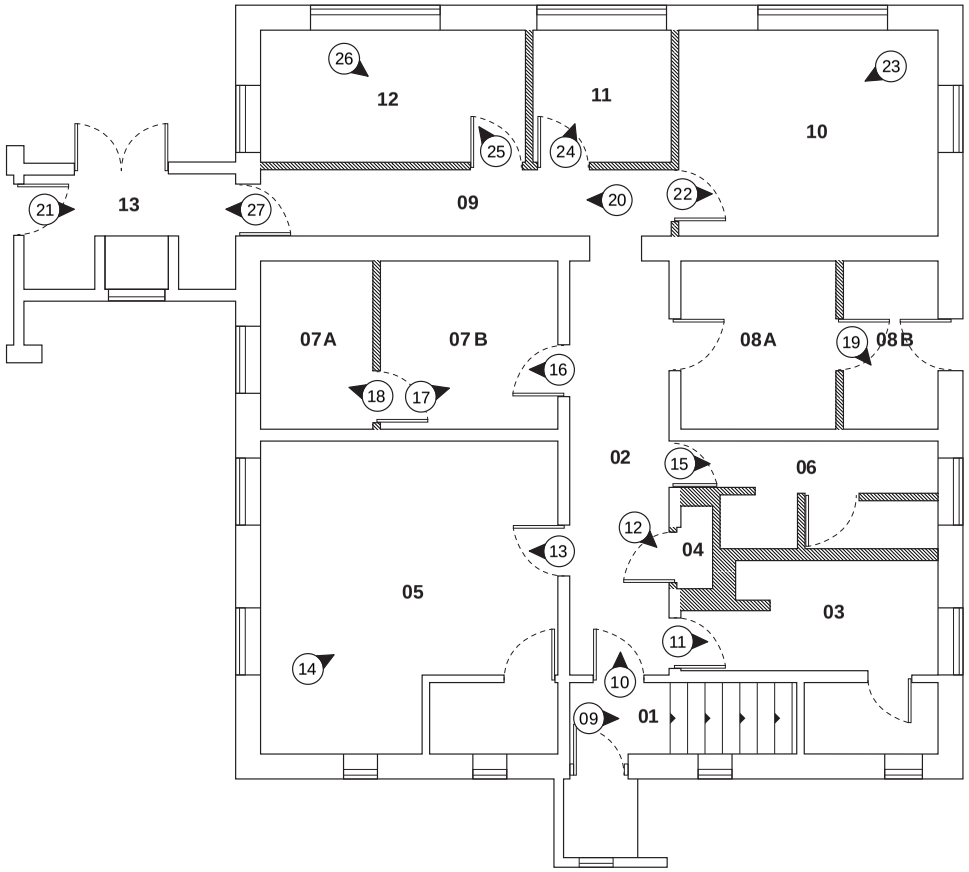

01 Stairwell
02 Hall
03 Ladies WC
04 Cupboard
05 Office
06 Gents WC
07A Second Office
07B Second Office
08A Store Room
08A Store Room
09 Corridor
10 Store Room
11 Store Room
12 Third Office
13 Extension

0 2m

Post War Alteration

Figure 04: Ground Floor Plan Of Former RAF Llandwrog Watch Office/ Control Tower

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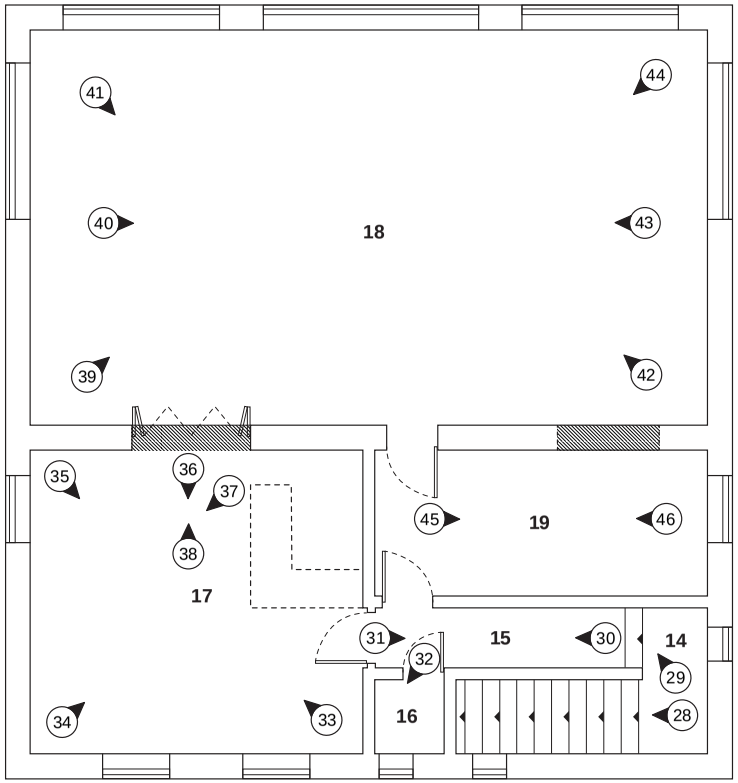
Gwynedd Archaeological Trust



14 Landing
15 Hall
16 Cupboard
17 Bar
18 Watch Office
19 Kitchen

0 2m

Post War Alteration

Figure 05: First Floor Plan Of Former RAF Llandwrog Watch Office/ Control Tower

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

7. References

7.1 Primary Sources

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Appendix I

Reproduction of Gwynedd Archaeological Trust project design for undertaking a Level 2 building record of the former watch office, Caernarfon Airfield (August 2012)

1.0 Project Background

Gwynedd Archaeological Trust (GAT) has been asked by Advent Project Management Ltd to provide a cost and project design for carrying out an archaeological building record (English Heritage Level 2) in advance of the proposed demolition of a former Watch Office, located at Caernarfon Airport, Dinas Dinlle, Gwynedd (NGR SH 43635856). 15m square, (and is located) within the former technical area at RAF Llandwrog (Spencer 2ØØ2). The watch office is currently not in use but dates from the wartime use of the site part of the technical area of RAF Llandwrog" (GAT Report 913: Ø8).

Gwynedd Archaeological Planning Service (GAPS) has not prepared a mitigation brief for this project but have recommended a building record to English Heritage Level 2 standard. It is recommended that the content of this design is approved by GAPS.

This design conforms to the guidelines specified in English Heritage 'Understanding Historic Buildings: a guide to good recording practice' (2ØØ6) Level 2 & Institute for Archaeologists 1994, rev. 2ØØ1 & 2ØØ8 Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures. See para. 4 for proposed methodology.

2.0 Background

GAT completed an archaeological assessment of Caernarfon Airport in advance of a proposed wind turbine (Evans, R. 2Ø11 GAT Report 913).

Below is an extract from that report, summarising the background to the RAF airfield that preceded the current commercial airport:

The site chosen for the RAF station at Llandwrog was on the small peninsula of Morfa Dinlle (NPRN 3Ø9961), which had formerly been a tank training ground. The airfield was very low lying, although a significant amount of levelling was probably required. The main contractor was Sir Robert McAlpine, although local builders carried out some of the work. Work began in September 194Ø and was completed by May 1941 (Jones 2ØØ8, 61). This required the production of 1Ø,ØØØ tons of asphalt for the construction of the aerodrome surface (Chambers-Jones 2ØØ8, 187). The airfield consisted of three runways, the main east-west one being 1ØØm by 5Øm, the north west – south east one 95Øm by 5Øm, and the north east - south west one 95Øm by 5Øm. All the runways were constructed of concrete and tarmac.

The RAF station at Llandwrog was intended as a fighter station in a forward position in the event of an enemy invasion of Britain from the Irish mainland, of which there was a considerable fear in 194Ø (Spencer 2ØØ2, 16). It was also an airfield that would be useful in the interception of raiders attacking the industrial north-west from bases in north-west France. The German invasion of the Soviet Union in late 1941 reduced the threat of invasion as the main German focus had turned eastwards, and Llandwrog became a training base, for observers, navigators and pilots. It had the advantage of being some distance away from the main area of enemy attacks, and with the main fighter bases being located on the east coast of Britain and required for combat duty; it provided a useful training facility.

The base was constructed in a 'dispersed' manner, with the service personnel accommodated in Nissan huts on the northern end of the main runway in order that they might be near the aircraft, whilst the trainees lived in huts on the coast road, close to the beach at Dinas Dinlle (ibid, 187). The technical, administration and hospital areas were on the south side of the runways (Fig. 4). A dyke was constructed around the perimeter of the airfield facing the sea.

The front at Dinas Dinlle was accessible to the public for only a certain distance along the coastal road towards the airfield and sentries and barricades were placed to prevent anyone going further. The seaside was defended by coils of barbed wire which extended all the way from one end of the beach to Fort Belan, with occasional gaps. The barbed wire served to both inhibit any possible invasion and to prevent anyone straying into the mines laid along the shore, and the coastal sand dunes. Four parallel lines of close-set

pits running generally north-south for some 4ØØm may be the vestiges of a wartime minefield protecting the airfield (NPRN 4Ø8629). These were recorded during RCAHMW aerial reconnaissance (image ref: AP_2ØØ6_Ø452).The sand dunes were overrun with rabbits, which provided a welcome supplement to the diet of those serving on the base (ibid. 191). The airport's defences included two 'seagull trenches', one of which was built into the side of the Iron Age hill fort of Dinas Dinlle (NPRN 953Ø9), overlooking Llandwrog Airfield (NPRN 3Ø9961) some 2.5km to the north. The trench is about 21m long, of brick construction and capped with a reinforced concrete roof 3ØØmm thick. In plan the trench resembles an elongated 'W'. A stone-faced pill box (NPRN 27Ø423) lies some 5Øm to the north-west.

The main runway was west east, which caused a number of accidents during training, as an aircraft that overshot the runway could end up either in the sea or be wrecked in the mountains to the east.

Llandwrog airfield was officially closed on 29th July 1945 until it re-opened for civilian use as Caernarfon Airport in 1975. However from September 1946 until late 1955 the base housed a secretive maintenance unit, known as No.277MU. Between these years the base received 9,ØØØ tons (71,ØØØ bombs) of enemy chemical weapons (Sloan 1998). Under 'Operation Sandcastle', the weapons were brought from Germany to a channel port, then shipped to the docks at Newport and then driven up to Llandwrog. After some (currently unknown) form of processing, probably carried out in the large number of now demolished hangars built on the former runway (Jones 2Ø8, 66; lower figure) they were driven to Fort Belan along a newly constructed road, where a jetty had been built. The material was eventually loaded onto a ship and dumped in a deep part of the Atlantic Ocean. It is not known why such a complex procedure involving much loading and unloading of dangerous material was required (Jones 2Ø8, 68-9). The foundations of one of the hangars survive on a disused runway (Feature 2), close to the proposed development (Fig. 5). Many of the original RAF buildings survive and some have been converted to later use.

At Blythe farm they have been converted to light industrial use, and further former RAF buildings form part of Parc Busnes Llandwrog. The airport is now known as Caernarfon Airport, managed by Caernarfon Airport Ltd. and provides flying instruction and pleasure flights.

3.0 Requirements

3.1 Building Record: Level 2

The requirements are for an archaeological building record of the upstanding watch tower prior to demolition. GAPS have requested that the building record be roughly commensurate with the English Heritage 'Understanding Historic Buildings: a guide to good recording practice' (2ØØ6) Level 2.

This is a descriptive record, made in circumstances similar to those of Level 1 but when more information is needed. It may be made of a building which is judged not to require any fuller record, or it may serve to gather data for a wider project. Both the exterior and the interior will be viewed, described and photographed. The record will present conclusions regarding the building's development and use, but will not discuss in detail the evidence on which these conclusions are based. A plan and sometimes other drawings may be made but the drawn record will normally not be comprehensive and may be tailored to the scope of a wider project.

A Level 2 record will typically consist of the following English Heritage 'Understanding Historic Buildings: a guide to good recording practice' (2ØØ6) requirements:

- drawings sometimes 1, sometimes one or more of 2–7
- photography 1, 2, 4
- written record 1–3, 6

4.0 Method Statement

4.1 Building Record: English Heritage Level 2

4.1.1 Written Account

A written account of the upstanding structural remains will be completed and will utilise a range of available resources (including GAT Report 913) to discuss the building's significance, origins, development and use.

4.1.2 Site Drawings

The drawings will include plans of the existing floor and room spaces recording the form and location of architectural / structural features of historic significance.

Note: the client will provide site plans.

4.1.3 Photographs

Photographs will be detailed and record all features, room spaces and elevations to illustrate the building's appearance and structure and to support an historical analysis. Each image will be labeled with the subject, orientation and the date taken, and cross-referenced to a digital file. Digital images will be presented in the report as a hard copy and a CD-ROM will be included as an archive to accompany the report.

A Digital SLR set to maximum resolution will be used throughout.

4.2 Processing data, illustration, report & archiving

Following completion of the record as outlined above, a report will be produced incorporating the following:

- Non-technical summary
- Introduction
- Specification and Project Design
- Methods and techniques
- Archaeological Background
- Description of the watch office, including: a location plan, a plan illustrating the location and direction of any photographs or drawings, full dimensional and descriptive detail
- Summary and conclusions
- Bibliography of sources consulted
- An archive compact disc

Illustrations, including plans and photographs, will be incorporated within the report.

4.3 Archive

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled and cross-referenced, and lodged in an appropriate place (to be decided in consultation with the regional Historic Environment Record) within six months of the completion of the project. A CD-ROM copy will also be produced.

5.0 Staff

The project will be supervised by John Roberts, Senior Archaeologist. The work will be carried out by fully trained Project Archaeologists who are experienced in building survey. (Full CV's are available upon request).

6.0 Health & Safety

The Trust subscribes to the SCAUM (Standing Conference of Archaeological Unit Managers) Health and Safety Policy as defined in Health and Safety in Field Archaeology (1999).

Note: GAT will require all available information relating asbestos risk prior to undertaking the work.

7.0 Insurance

Liability Insurance - Aviva Policy
24765101CHC/000045

Employers' Liability: Limit of Indemnity
£10m in any one occurrence
Public Liability: Limit of Indemnity
£5m in any one occurrence
Hire-in Plant Insurance: £50,000.00 any one item;
£250,000.00 any one claim

The current period expires 21/06/13

Professional Indemnity Insurance – RSA
Insurance Plc P8531NAECE/1028

Limit of Indemnity £5,000,000 any one claim

The current period expires 22/07/13

8.0 Bibliography

English Heritage 'Understanding
Historic Buildings: a guide to good
recording practice' (2006) Level 2
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of Standing Buildings or Structures.

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