

Archaeological Record

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Report No. 642

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Ву

John Roberts

ARCHAEOLOGICAL RECORD

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Archaeological Record: Trac Ty Croes (G1917)

SUMMARY

A Level II Archaeological Record has been undertaken in advance of proposed alterations and developments at the Anglesey Circuit, Ty Croes. The site was formerly a Ministry of Defence (MoD) Military Camp, established in 1942 and closed during the 1970's, which was used for the test firing of anti-aircraft (AA) weapons and surface-to-air missiles (SAM). In 1997 the Anglesey Circuit (Trac Môn) was opened as a fully licensed MSA (Motor Sport Association) and ACU (Auto Cycle Union) championship racing circuit, utilising much of the land formerly used as the military camp.

The method statement for the proposed redevelopment required a Level II record of an abandoned MoD military building (PRN 15160) and a series of gun emplacements (PRN 15161). A record was also to be made of an agricultural workshop at the north end of the track, thought formerly to be an MoD building associated with the camp. The recording of PRN 15161 identified five gun emplacements associated with the firing of Thunderbird and Bloodhound SAM's, including the fittings used to anchor the base units of the missiles, whilst an abandoned road and narrow gauge railway line linked to the military camp were also identified and recorded. The military activity in this area was not dated to any specific period, but the identification of SAM emplacements suggests activity from 1959 onwards, when the infrastructure for the test firing of missiles was put in place. An anti-aircraft gun emplacement was also identified in this area and could indicate the operation of the 3.7" Vickers AA gun used between 1942 and 1959 prior to the installation of the missiles.

1 INTRODUCTION

Meyrick Estate Management Ltd has commissioned Gwynedd Archaeological Trust to undertake an archaeological record (Level II) of alterations and a new development at the Anglesey Circuit, Ty Croes, Ynys Môn. The development is centred on NGR SH 333691 and the affected area is indicated on the site plan (Figure 1). The development area contains remains of a 20th century MoD Military Camp, including gun emplacements, a transport network and redundant workshop buildings.

The proposals include plans to alter the current layout of the track as well as to extend the track length to include two adjacent fields to the east of the current site, covering an area of c.46ha. The development proposal is based on Capita Symonds Drawing No. 59168/RC/25.

An archaeological assessment was undertaken in March 2002 by The Clwyd-Powys Archaeological Trust (CPAT Report no. 426). The principal archaeology on the site was identified as that associated with the military camp, and, whilst a number of prehistoric and medieval sites were identified within the locale, there were none within the development area.

Gwynedd Archaeological Planning Service has prepared a Brief for this project (ref. D458; reproduced in Appendix). A project design was prepared conforming to the requirements specified within the Brief, and in the *Standard and Guidance for Archaeological Excavation* (Institute of Field Archaeologists, 1995, rev. 1999). The mitigation required a comprehensive record of an MoD store (PRN 15160); a series of gun emplacements and associated structures to the west of the race circuit (PRN 15161) and a possible MoD building now an agricultural building to the north of the circuit (no PRN; centred on NGR SH 332691).

A project design was subsequently produced in April 2006 by the Gwynedd Archaeological Trust in accordance with these instructions and is reproduced in the Appendix.

2 IMPACT AND MITIGATION

2.1 Impact

An inspection of the revised layout of the race circuit reveals that there will be considerable alterations to the outline of the track as well as the surrounding landscape. The track itself will be considerably longer, expanding much further southwards and westwards from the original layout. Figure 1 shows the current location of the race track as well as the proposed layout for the new track. The main entrance and the race control centre and marshalling point will remain, as will the length of track running south

then west from this point. The remainder of the track will be considerably altered, with a series of chicanes (tight serpentine curves) and long stretches of track leading the race back to the marshalling point, then eastwards following an extensive loop incorporating the entire eastern end of the site. The main access road to the circuit will be replaced.

The racetrack will affect a number of features, both from the military camp and from the current racetrack. CPAT Report No. 426 produced an extensive gazetteer of archaeological sites within the development area likely to be affected (para. 5; page 8). A modern concrete building platform of "unknown" function at the southern end of the marshalling point (PRN 15151) does not appear from the development plan to be subject to removal; two field boundaries (cloddau) and a field lynchet (PRN's 15152 to 15154 respectively) will be removed to make way for the track. The features associated with activity prior to the military camp: Llwyngwyfan marble quarry (PRN 15155) and Ffynon Gwyfan (PRN 15158) are outside the development area. Within the same vicinity as these two features are a series of military "emplacements", identified in the CPAT Report as concrete stays for masts or flagpoles (PRN's 15156 and 15157 respectively), which again are not thought to be affected by the development. A former MoD building, PRN 15160 is located to the north of these flagpole emplacements (Figure 1). It is not located within the development area but is listed as "to be demolished" in Capita Symonds Drawing No. 59168/RC/25 and is described below (para. 5.2). To the northwest of this area are a series of SAM emplacements and associated features, designated as PRN 15161 (Figure 1), most of which are to be removed either to make way for the track of for associated landscaping. These features are described below (para. 5.2). To the southwest of the SAM emplacements are an earthen boundary bank (PRN 15162) and a set of "earthworks", incorporating hollow scoops in the ground (PRN 15163). The earthen bank, according to Capita Symonds Drawing No. 59168/RC/25, will remain, whilst the so-called earthworks are located outside the development area. To the northwest of these features, located near the former military compound (now a triangularshaped enclosure; Figure 1), is a redundant military building (PRN 15164). This building is outside the development area and does not appear to be affected by the proposed scheme.

2.2 Mitigation

The comprehensive record of PRN's 15160 and 15161 and the agricultural workshop are to be conducted in approximation to the Royal Commission of Historic Monuments in England (RCHME) Level II recording and include the following elements:

- A photographic survey;
- Measured plans;
- Written description of structures;
- Contextual summary of function and setting;
- Preparation of full archive report.

3 METHODS AND TECHNIQUES

The recording of the features requested in the mitigation was undertaken on the 10th and 11th of May and completed on the 15th May. The recording was completed using digital photography and a combination of written records (with associated measurements) and digital survey using an EDM Total Station (Geodimeter Pro).

The sources consulted for this report included the assessment report submitted by The Clwyd-Powys Archaeological Trust (CPAT Report no. 426), which gave a detailed description of the archaeological and historical background of the site. The report submitted by Explosive Ordnance Risk Management (*Ty Croes Anglesey: Historical Desktop Study* Report 0103 EGN Tycroes 01) included a brief history of the site and the types of anti-aircraft and surface-to-air missiles used. This report also included a modern aerial photograph of the site, locating all of the surviving features and a reproduced plan for the accommodation, classrooms and stores for the camp, drawn up in 1942.

A provision was made for a basic record of a series of *cloddiau* earth and stone field boundaries at the eastern end of the site (GAPS ref. D458; para. 4.1). However, these features had already been removed prior to the start of the archaeological record by Gwynedd Archaeological Trust, and no recording was undertaken.

An intermittent watching brief is to be undertaken within specific areas, including the groundworks in the area surrounding the SAM emplacements at PRN 15161 and the two fields to the east of the circuit (GAPS ref. D458; para. 4.6 - 4.7). The results of the watching brief will form the subject of a subsequent report.

4 TOPOGRAPHY

The existing circuit and assessment area occupy a broad coastal headland projecting from the southwestern edge of Ynys Môn, to the north of Aberffraw Bay. The site is *c*.2.0km west of the village of Aberffraw and occupies an area of *c*.46ha. The site stands between 20 and 40m above Ordnance Datum and is located to the north and west of a Site of Special Scientific Interest (SSSI).

5 ARCHAEOLOGICAL RESULTS

5.1 Archaeological and Historical Background

The archaeological and historical background of the site was discussed in detail in CPAT Report No. 426. It would, however, serve the specific aims of this report to describe the history of the Ty Croes military camp in general detail.

The military camp at Ty Croes was set up originally in 1942 as a school for heavy anti-aircraft (AA) gunnery. The main weapon used was the 3.7" Vickers AA gun, which fired within a range danger area of 28,000 yards out to sea from the gun emplacements. Radar and radar defeating devices were also tested at Ty Croes. (Explosive Ordnance Risk Management. *Ty Croes Anglesey: Historical Desktop Study* Report 0103 EGN Tycroes 01: 08)

The gunnery practice used target planes: radio-controlled versions of the Tiger Moth bi-plane, known as "Queen Bees", which were flown from RAF Bodorgan under the control of No.70 Group Army Cooperation Command (Sloan 1992: 70). The AA guns were located at three firing points along the coastline. The northernmost firing point was arranged as a 4-5 anti-aircraft gun battery, whilst the two remaining points were single gun firing emplacements (Explosive Ordnance Risk Management. *Ty Croes Anglesey: Historical Desktop Study* Report 0103 EGN Tycroes 01: 08).

The southernmost of these two single firing points is still visible as a rectangular concreted area and is recorded below as Feature L (para. 5.2; Figure 1). The other two firing points are outside the development area).

The location of the main infrastructure buildings was in the centre of the camp. The plans for these buildings were reproduced in the report for Explosive Ordnance Risk Management. *Ty Croes Anglesey: Historical Desktop Study* Report 0103 EGN Tycroes 01: Annexe B and they include the location of the accommodation blocks, the classrooms and the stores for the camp. None of these buildings are still standing as the area was landscaped during the construction of the Ty Croes race circuit and all that remains is a triangular shaped enclosed area north of the race track control centre (see Figure 1).

Ty Croes was subsequently used for the testing of surface-to-air missiles (SAM), with plans drawn up in 1959 for a more extensive military complex, including assembly and storage buildings for the missiles. These buildings were mainly located in the centre of the camp (and since removed). It is also likely that the majority of the outlying structures still in existence were built during this period. This would include the network of concrete roads which cross the site to the west of the racetrack as well as a series of buildings and concrete emplacements to the south of the racetrack. These include a storage area now used for racing tyres, a former MoD store (PRN 15160; described below: para. 5.2) and two concrete emplacements (PRN's 15156 and 15157; located outside the development area).

The range danger area for the remodelled camp was extended to 65,000 yards out to sea from the SAM emplacements (Explosive Ordnance Risk Management. *Ty Croes Anglesey: Historical Desktop Study* Report 0103 EGN Tycroes 01: 08.).

The SAM's tested at Ty Croes were the Thunderbird (Mks I and II), the Bloodhound and the Rapier. More limited testing was undertaken for the Blowpipe, Petrel and Skua missiles. A 105mm light artillery gun, probably the OTO-Melara Mod 56, was also trialled at the camp in the late 1960's (*ibid*.).

The camp was subsequently used for training military units in the operation of the equipment, with the final unit training completed in 1970. The camp was closed in April 1973, but saw limited military use after this when it was used as a gun target range (*ibid.*).

5.2 Results of the Archaeological Recording (Level II)

The archive is held by GAT under the project number (G1917).

Each PRN is listed separately. In the case of PRN15161 the individual features are described separately. Each entry is complimented by photographic records and relevant illustrations.

PRN15160 (Plates 1 to 10; Figure 1)

A rectangular building with a flat roof that is part of the former military complex at Ty Croes. The building measures 21.6m in length, 9.82m in width and 6.5m in height and is located at the southern end of the complex, *c*.99.0m north of the coastline. The building is aligned north to south and is built on an artificial terrace created from demolition material deposited to a height of several meters to level off the natural slope. It is surrounded by a narrow concrete path.

The structure is built from brick, which is stretcher bonded on the outside and english garden wall bonded on the inside. The walls are 0.60m thick. There are five door entrances: two on the west and east elevations and one on the north elevation. They are all the same size: 0.90m wide and 2.04m high with a concrete lintel and were presumably for personnel access. The southern elevation is partially open, allowing vehicular or machinery access into the building.

The roof is supported by seven reinforced steel joists (RSJ's) that are equidistant: 2.60m apart. Between each RSJ is a pair of circular light fittings. The RSJ's are supported by brick stanchions on the east and west elevations. Each stanchion measures 0.40m wide, 4.10m high and 0.20m deep.

At the northern end of the building is a crane, which is built from two RSJ's, *c*.7.00m long, attached by a set of wheels to the stanchion supported RSJ's (Plate 5). Each set of wheels is 4.00m long (Plate 6) and the crane is run between them via a chain link (Plate 8). There is a maintenance ladder bolted to the south-facing elevation, next to the crane (Plate 6). There is no evidence as to the power source for the crane but it is assumed to be electric, with the motor probably removed after decommissioning.

There is a large metal roller blind running the width of the building at the southern end of the building that descends from the roof via a wheel mechanism (Plate 9). The blind appears to have been used to secure the inside of the building when it wasn't in use, whilst still providing access to the partially open area for holding machines and/or vehicles. This holding area appears to always have been partially exposed to the elements, with corrugated sheeting and a low-rise brick wall providing partial shelter.

There is blue paint on the internal walls, whilst a plate bearing the number "161" is attached to the outside of the western elevation.

There is no evidence of any repair work or extension work. The building is now used as storage for materials associated with the race circuit.

There is a rectangular structure to the northwest of PRN 15160, comprising a concrete floor 40.0m long and 11.0m wide surrounded by a low earthen bank. This structure is used for the storage of racing tyres but appears to be part of the MoD compound and is linked, like PRN 15160, to a local network of concrete roads. Part of this nexus of structures is a large building, 37.0m long and 27.0m wide,

comprising two large gable ended buildings that is used as a "performance driving centre" and associated stores. The external elevations reveal evidence of alterations to windows and doors and it appears also to have been a former MoD building. To the southeast of PRN 15160 are a series of mast or flagpole emplacements (PRN's 15156 and 15157 respectively).

Located 127m to the southeast of PRN 15150 is the site of a post-medieval marble quarry (PRN 15155) and *c*.96.0m to the east of PRN 15160 is the site a well, Ffynon Gwyfan (PRN 15158). The site of a possible post-medieval building is located *c*.128.0m east of PRN 15160 in the CPAT report (Report No. 426; para. 5.4; page 10), although it is also described as "destroyed".

PRN15161 (Plates 11 to 19)

This site incorporates a variety of emplacements for AA and SAM artillery. Each identified emplacement and structure was recorded separately as individual features.

Feature A (Plate 11; Figure 2):

Mid to Late Twentieth Century gun emplacement built from concrete and breezeblock. The structure survives at foundation level and comprises a square concrete surface, 10.0m long and 10.0m wide with a set of concrete foundations to the south (Plate 12). At the centre of the square is the circular gun emplacement. It is a static emplacement built from concrete and set into the centre of the square. The circle measures 4.70m in diameter and contains a series of five metal fittings attached to the concrete forming a rough circle. These fittings surround a 0.30m wide "channel" which runs from the centre of the circle, eastwards to the road (length of channel: 5.0m; see Plate 11)).

There are two types of fittings present: a 0.16m wide circular metal fitting (Type d; cf. Feature D) and a 0.20m wide fitting (Type e; cf. Feature D), also circular. Their exact function is unclear but as the site was used for firing Thunderbird II and Bloodhound Surface to Air Missiles (SAM), the fittings were most likely anchor points for the missile base (the earlier 3.7" Anti-Aircraft Missiles and the later Rapier SAM's were transported and positioned by vehicle). This is corroborated by an inspection of available photographs for the two missiles, which show the radar controlled mounting system attached to a static base (Plates 27 to 30). The channel leading from the circle could also be identified as part of the static mount (Plate 27). The function of the concrete foundations are unclear as too little of any possible upstanding structure has survived. The only available evidence is the rectangular foundation, 6.80m long and 3.0m wide, built from breezeblock, with an internal concrete floor (Plate 12). The building is attached to the concrete square and it is assumed was part of the SAM operation.

Feature B (Plate 13; Figure 3):

Rectangular concrete surface accessed from the road by a concrete slope, 13.22m southeast of Feature A. Similar in general appearance to Feature A so it is also thought to be a SAM emplacement (Plate 13). Concrete surface measures 11.0m in length and 10.0m in width, with a 7.80m wide concrete circle in the centre. As with Feature A, there is a 0.30m wide grove leading from the centre of the circle to the edge of the square. On this feature, the channel is orientated southeast to northwest, running into an ancillary structure. The concrete square is surrounded by a dilapidated breezeblock wall.

The circle within Feature B differs from A in its size and also the style of anchor points/fittings attached to it. The circle is in fact a series of three concentric circles decreasing in size, with the centre circle containing the fittings. The outer ring contains fifteen equidistant circular fittings, each 0.05m in width. Their function is unclear. In the centre of the circle are ten anchor points/fittings. They differ in style to those in Feature A, but are similar in size.

The anchor points/fittings can be divided into three different types (see Plate 14): Type (a), which is 0.20m wide and 0.10m wide with a rectangular fitting in the centre; Type (b), which is 0.18m wide and 0.08m high with a hexagonal central fitting; Type (c), which is 0.16m wide and 0.08m high with a circular central fitting. There are three examples of Type (a), three examples of Type (b) and four of Type (c) present. Again, their precise function is unclear, but they appear to be part of the static emplacement for the SAM launcher.

The depth of the concrete square was 0.38m and it was placed upon a 0.10m thick sub-base of loose material (Plate 15). The concrete foundations comprise several slabs separated by internal partitions. They are attached to the concrete square and appear contemporary.

Feature C (Plate 16; Figure 4)

Rectangular structure built from concrete and brick with a circular concrete structure set towards the middle. The structure is in a partially demolished state, with portions of the northwestern side of the brick wall and concrete surface missing. This feature differs markedly in style and size from Features A and B: it measures 4.00m in width and 5.00m in length and is surrounded by a brick wall, four courses high (stretcher bond) and terraced into the gradient of the slope. The circular structure measures 1.90m in width, with another inner circle, 0.40m in width. Protruding from the outer circle is a series of small, equidistant iron "spikes" that have oxidised and are bent. As with the other metal fittings/anchors in the previous examples, they appear to be associated with the SAM emplacements.

The difference in size and style between this example and the other emplacements suggests it was used for a different SAM emplacement. As to its date in conjunction with the other emplacements, it is difficult to tell as all the structures are post-World War II and use twentieth century materials.

Feature D (Plate 17; Figure 5)

A square concrete emplacement located southwest of Feature C. The concrete surface is flat and measures 34.4m in length and 36.6m in width and is surrounded by a breezeblock wall, 0.30m wide (the breezeblock wall is partly demolished; see Plate 17). As with Features A and B, the structure comprises an outer square/rectangular structure with an internal circular structure set into the concrete.

The circular structure measures 4.00m in diameter and has nine metal fittings attached to it forming a rough circle (Plate 18). These fittings surround a 0.30m wide "channel" which runs from the centre of the circle, southwestwards to the breezeblock wall (length of channel: 5.0m). The size and shape of the fittings/anchor, match those in Features A and B, with Types (a), (b), (d) and (e) present. (For their location and orientation, cf. Figure 5).

There are no attached concrete foundations, but overall, this feature matches A and B quite closely in design. It is most likely a Thunderbird/Bloodhound SAM emplacement.

Feature E (Plate 19; Figure 6)

A square concrete emplacement located southwest of Feature D. The concrete surface is flat and measures 35.3m in length and 33.5m in width and is surrounded by a breezeblock wall, 0.30m wide (the breezeblock wall is partly demolished; see Plate 19). As with Features A, B and D, the structure comprises an outer square/rectangular structure with an internal circular structure set into the concrete.

The circular structure measures 4.00m in diameter and has metal fittings attached to it forming a rough circle (Plate 19). These fittings surround a 0.30m wide "channel" which runs from the centre of the circle, southeastwards to the breezeblock wall (length of channel: 5.0m). Not all of the fittings are visible but they include Type (a).

There are no attached concrete foundations, but overall, this feature matches A and B quite closely in design. It is most likely a Thunderbird/Bloodhound SAM emplacement.

Feature F (Plate 21)

Two concrete platforms associated with the military buildings at the western end of the site. The concrete platforms both measure 22.5m in width and 6.0m in length. There are no apparent fittings/anchors attached to the surface and there is no indication as to their specific function, but they are most likely part of the concrete surface visible to the north that provides access to the various military buildings and have become separated as part of the general degradation of the military complex.

A larger concreted area is also visible, c.25.0m to the south (Feature G).

Feature G (Plate 22)

Concreted area, 14.2m by 14.2m in size. This feature is located south of the military buildings and north of the SAM emplacements (Features A to E). It appears to be a storage area with several groups of iron fittings set into the ground suggesting the location of a former upstanding shelter. There are a series of circular markings across the concrete, which could either represent the storage of barrels

during the military complex period, or alternatively, the storage of tyres whilst the site has operated as a racing circuit.

Feature H (Plate 23; Figure 7)

A concrete pad located north of the SAM emplacements. The feature comprises a concrete surface, 6.1m in length and 2.9m in width, with two inset metal rails, 1.8m apart running the length of the pad. The rails are both 0.03m wide. Adjacent to the pad, at the southeasern end of the feature, is a concrete square, 1.5m by 1.6m in size. Set into the concrete are two wooden posts, that have been broken into stumps.

The function of the concrete pad and posts is unclear: the metal rails don't appear to be part of a longer network of rails, linked to the military buildings (as with Feature I; below), but could represent an isolated feature supporting heavy machinery.

Although the feature was located on a high point with extensive views of Malltraeth Bay and the Bodorgan Estate, it did not appear to be an AA or SAM emplacement.

Feature I (Plate 24)

A square concrete platform approached by a narrow gauge railway. Located towards the western end of the site, c.114m east of the coastline. The concrete platform measures 7.6m wide by 14.3m long. A concrete road, 6.0m wide, is attached to the northern end of the square and continues northeastwards for a distance of 169m into the military compound. A narrow gauge railway, 0.65m wide, is set into the concrete square and then continues northwards for a distance of c.58m into the military compound. The road and railway were presumably used for the transportation of matériel within the compound.

Feature J (Plate 25)

A redundant stretch of road is visible, partially exposed, running from the road now used by the racetrack for access across the area west of the racetrack. It appears that the road currently in use was originally part of the transport network for the military complex and has been adopted by the racetrack since its inception.

The redundant piece of road measures 6.0m in width and c.15m in length. Its orientation suggests it continues from the current road northwards to Feature I. It therefore linked the concrete square to the SAM emplacements. The remaining length of the road is disguised by an overburden of topsoil.

Feature K (Plate 26; Figure 8)

A rectangular feature located *c*.5m north of a large concreted area. The feature is partially hidden by overgrowth/overburden, but appears to be a redundant building, built from breezeblock, 28m in length and 3.7m in width. The breezeblock wall stands several courses high but is mostly demolished, whilst the outside of the building is defined by a concrete edge. The building is divided in half by a concrete partition and is accessed by a flight of concrete steps. The floor of the structure was disguised by overburden.

Feature L

Large concreted area *c*.3.00m south of Feature K and 20.0m west of Feature A (Plate 11). The feature is rectangular in shape, 23m long and 18m wide, accessed by two curvilinear concrete roads. Set into the concrete are a series of anchor points, with four groups of pairs, 0.60m apart and forming a cruciform shape. Their exact function is unclear, but the concreted area itself was used as a firing point. The shape and orientation of this firing point differs from Features A to E but it can be seen as one of three firing points running northwards up the coastline located *c*.300m apart (Source: aerial photograph of site reproduced in Explosive Ordnance Risk Management. *Ty Croes Anglesey: Historical Desktop Study* Report 0103 EGN Tycroes 01). The other two firing points are located outside the study area. It appears that these three firing points were part of the earlier anti-aircraft artillery, whilst Features A to E represent the latter surface-to-air missile battery. The two firing points were arranged in a typical anti-aircraft

Agricultural Workshop at NGR 338691 (Plates 31 to 34; Figure 1)

This agricultural workshop (described in GAPS Design Brief as a "possible military building"; Ref. D458) is located towards the northeastern end of the site. The workshop comprises a single storey rectangular building, 39.0m long, 9.40m wide and 6.5m high. The roof is pitched with two gabled ends

and is constructed from corrugated panels as are the north, west and south elevations. The main access is through a large opening on the west elevation (Plate 31). There is a 0.60m wide door opening on the south elevation (Plate 32), a 3.0m wide opening at the top end of the east elevation (now blocked) and a 2.5m wide opening at the bottom end of the east elevation (Plate 33). There are two windows on the south elevation, six on the east elevation and one on the north elevation (Plate 34). There is evidence of alteration work on the east elevation as there were originally five windows all extant at the same height, c.1.0m below the roof line (Plate 33). These heights have since been altered to suit a variety of purposes, whilst the sixth window was created by partially blocking a doorway. The brick bonding style used on this elevation is "english garden wall" (*i.e.* a row of header bricks followed by three rows of stretcher bricks). The large blocked up entrance at the top end of this elevation appears to have formerly been an entrance for vehicles/machinery.

6 CONCLUSION

A total of fourteen features were inspected and recorded: this included the former MoD building (PRN 15160), the gun emplacements (PRN 15160) and the agricultural building thought to be a former MoD building.

The former MoD building at the southern end of the study area (PRN 15160) was a partially derelict building that contained a redundant transporter crane for moving heavy machinery and stores. It was a mid to late 20th century structure built from reinforced steel joists, concrete and brick and formed part of the daily operation of the military camp.

This building was one of several former MoD structures within the area, including a concrete surface used to house racing tyres and a building now used as a "performance driving centre". To the southeast of the MoD building are several emplacements for flagpoles or masts (PRN 15156 and 15157 respectively) located near the coastline, whilst a former well (PRN 15158) and a marble quarry (PRN 15155) are located to the east of the MoD building. According to Capita Symonds Drawing No. 59168/RC/25 all of these features are outside the development area and will not be affected by the revised layout.

The series of gun emplacements at the western end of the study area (PRN 15161) gave an invaluable insight into the operation of the military camp as an artillery training school. Features A to E represented a series of former surface-to-air missile emplacements that were used to fire mainly Thunderbird and Bloodhound missiles. Plates 27 to 30 give a good indication as to how they would have looked in operation, whilst Plate 27, in particular, matches very closely the distribution of anchor points and fittings for the static base of the SAM launcher that was identified in Features A, B, D & E. Feature C differed in design but generally fitted the model of a SAM emplacement. Overall, these features represented activity from the 1960's and early 1970's, when the military camp was redesigned and fitted for testing missiles.

Feature L, on the other hand, appeared to represent the earlier phase of activity associated with the testing of anti-aircraft artillery, prior to the remodelling of the camp. This does not mean to say that the firing point at Feature L went out of use after the introduction of missile testing, but that its orientation and design, as well as its association with two other firing points spaced equidistantly along the coast, were part of the pre-missile phase.

The other features recorded as part of PRN 15161 included several concrete platforms, a redundant stretch of road and a rectangular building located next to Feature L. Overall, these features represented the general operation of the camp and were part of the transportation and storage network.

It appears from the project design for the redevelopment of the race circuit that it would involve the removal or alteration of the majority of these features as part of either the building of the track or the landscaping of the surrounding area.

The agricultural building at the northern end of the site has been previously interpreted as a former MoD building (GAPS deign brief D458). The materials used in its construction are all indicative of mid to late twentieth century building activity, through the use of concrete, brick, steel and corrugated sheeting. The large entrances on both the west and east facing elevations indicate the use of large machinery and/or vehicles, whilst the alterations to the windows on the east elevation show that the

structure has gone through at least one phase of alteration work. There was no indication as to its specific function or its precise date.

This structure is to be removed as part of the planned redevelopment of the site.

7 SOURCES CONSTULTED

- Egniol Asbestos Survey: Former MoD Store Anglesey Race Track. Report Number TC00103SN
- Explosive Ordnance Risk Management. Ty Croes Anglesey: Historical Desktop Study. Publisher: Planit EOD Ltd. (0103 EGN Tycroes 01)
- Hankinson R and Silvester, R, 2002, Proposed reconfiguration of the Anglesey Circuit: Archaeological assessment and desk-top study *Clwyd-Powys Archaeological Trust Report No.* **426**

Sloan, R., 1991. Wings of War over Gwynedd. Aviation in Gwynedd during World War II. Llanrwst

Sloan, R 'Anglesey Airfields During the Second World War', Anglesey Antiquarian Society and Field

Club. Transactions 1995. pp.57-74.

http://www.braw.co.uk (Information and Images on Thunderbird and Bloodhound Surface-to-Air Missiles)

Appendix I

DESIGN BRIEF FOR ARCHAEOLOGICAL MITIGATION

Gwynedd Archaeological Planning Service

Site: Anglesey Racing Circuit, Bodorgan Estate, Ynys Môn

Applicant/Company: Bodorgan Properties Ltd, Bodorgan Estate Office

Date: 28 October 2005

National Grid Reference: 233300, 369100

Planning reference: 10C33H

This design brief is only valid for six months after the above date. After this period Gwynedd Archaeological Planning Service should be contacted.

It is recommended that the contractor appointed to carry out the archaeological assessment visits the site of the proposed development and consults the Regional Historic Environment Record (HER) for north-west Wales before completing their specification. Gwynedd Archaeological Planning Service cannot guarantee the inclusion of all relevant information in the design brief.

1.0 Site Location and Description

- 1.1. For the purposes of this brief the site comprises a c.46 Hectare plot on which a car racing circuit currently stands.
- 1.2. The proposals include plans to alter the current layout of the track as well as extend the track length to include two adjacent fields to the east of the current site (see Capita Symonds Drawing No. 59168/RC/25).
- 1.3. The current extent of the track lies within the confines of Ty Croes Army Camp.
- 1.4. The site is situated at Llangwyfan on the West coast of Ynys Môn.

2.0 Archaeological Background

- 2.1 The archaeological and historical background of the site has been examined in an archaeological assessment carried out in June 2001 by Clwyd Powys Archaeological Trust (CPAT) (report no. 426).
- 2.2 The results of this study form the basis for this programme to mitigate the impact of the proposed development.
- 2.3 Historically the major influence within the study area has been Ty Croes Army Camp, which developed during the 1940s. The military relics of this period of use are scattered across the development site.

- 2.4 Gun emplacements, a narrow gauge railway, bunkers and buildings were identified within the archaeological assessment.
- 2.5 Little research has been undertaken to investigate the development of the military site, its significance, or its period of use.
- 2.6 The wider landscape has a rich history with many major prehistoric and medieval sites located along the coast. The Neolithic chambered cairn of Barclodiad Y Gawres on the adjacent headland and the important medieval settlement of Aberffraw lie within 2km of the study area.
- 2.7 Documentation:

English Heritage 2000 Twentieth-Century Military Sites – Current approaches to their recording and conservation. English Heritage Publishing Dept. Wiltshire.

 Hankinson, R. & Silvester, R. J. 2002 Proposed Reconfiguration of the Anglesey Circuit, Anglesey: Assessment Report. Clwyd Powys Archaeological Trust. Report 426.1 (unpublished report, copy held in the Regional Historic Environment Record for north-west Wales).

Lowry, B. (ed.) 1995 20th Century Defences in Britain. Council for British Archaeology, York.

3.0 The nature of the development and archaeological requirements

- 3.1 The proposals comprise plans to reconfigure the layout of the Anglesey Circuit at Llangwyfan, Ynys Môn.
- 3.2 This is a *design brief* for a programme of archaeological works to **mitigate** the impact of the development to be undertaken following planning consent, according to guidelines set out in Welsh national planning guidance (*Planning Policy Guidance Wales 1996*) and Welsh Office Circular 60/96 (*Planning and the Historic Environment: Archaeology*). This programme of archaeological works will comprise a programme of recording and watching brief.
- 3.3 This *design brief* should be used by the archaeological contractor as the basis for the preparation of a detailed written archaeological *specification*. The specification must be submitted to the Gwynedd Archaeological Planning Service for approval before the work commences.
- 3.4 The *specification* should contain, as a minimum, the following elements:
- Non-technical summary.
- Details of the proposed works as precisely as is reasonably possible, indicating clearly on a plan their location and extent.
- A research design which sets out the site specific objectives of the archaeological works.
- Reference to the relevant legislation.
- Health and Safety considerations.
- Monitoring procedures.
- Field methodology.
- Methods of recording, including the collection and disposal strategy for artefacts and ecofacts.

- Arrangement for immediate conservation of artefacts.
- Post-fieldwork methodology.
- The level and grade of all key project staff.
- Details of all specialists.
- A timetable for the proposed works including contingency costs (if appropriate).
- The intended method of publication.
- Archive deposition.

4.0 Mitigation detail

4.1 The programme of archaeological works to **mitigate** the impact of the development will consist of two parts: recording and watching brief.

Recording

A comprehensive photographic recording must be made of several structures prior to demolition including:

- The ministry of defence store (PRN 15160) and associated features to the south of the circuit.
- Ty Croes military emplacements and associated structures (PRN 15161) to the west of the circuit.
- Possible military building, currently an agricultural workshop, (Previously unrecorded and has therefore not been assigned a PRN) to the north of the circuit (NGR 233280, 369100).

This record should be approximate to the Royal Commission of Historic Monuments in England (RCHME) Level 2 and should include the following elements:

- A Photographic Survey
- Measured plans
- Written description of structures
- Contextual summary of function and setting
- Preparation of full archive report

A basic record must also be made of other structures at the site that form an integral part of the landscape character of the area:

• 3 Clawdd field boundaries to the east of the development are to be removed.

Watching brief

The intermittent watching brief will consist of the following:

- Intermittent observation of non-archaeological excavation works within the specified areas (see 4.6 - 4.8).
- A drawn, written and photographic record of any archaeological structures and deposits that may be revealed.
- Preparation of full archive report.

- 4.2 The monitoring of works is to be undertaken in a manner that allows for the immediate cessation of development for the recording of archaeological evidence. Agreement must be reached between the archaeologist and developer in order that this is achieved.
- 4.3 Recording methodology should be in accordance with Institute of Field Archaeologists guidance (see general requirements below). Recording will comprise appropriate plans, elevation and photographs.
- 4.4 The archaeological contractor will ensure that sufficient resource is made available for a post-excavation programme to result in an archive report.
- 4.5 The report should specifically include the following:
 - a) a copy of the design brief and agreed specification,
 - b) a location plan,
 - c) all located sites plotted on an appropriately scaled plan of the development,
 - d) a gazetteer of all located sites, including full dimensional and descriptive detail, a full bibliography of sources consulted.
- 4.6 Particular attention must be paid to groundworks in the area adjacent to the railway, gun emplacements and military platforms (PRN 15161) at the western end of the racing circuit (NGR 232900, 368600).
- 4.7 Major ground works in the two adjacent fields to the east of the circuit should be subject to intermittent monitoring. The assessment identifies a possibility that medieval or prehistoric remains may come to light.

5.0 General requirements

- 5.1 The archaeological recording and watching brief must be undertaken by an appropriately qualified individual or organisation, fully experienced in work of this character.
- 5.2 Details, including the name, qualifications and experience of the project director and all other key project personnel (including specialist staff) should be communicated to the Gwynedd Archaeological Planning Service and all written work attributed to an author(s).
- 5.3 Contractors and subcontractors are expected to conform to standard professional guidelines. The following are of particular relevance in this instance:-
- English Heritage's 1991 Management of Archaeological Projects (MAP2).
- The Institute of Field Archaeologists 1985 (revised 1997) Code of Conduct.
- The Institute of Field Archaeologists 1990 (revised 1997) <u>Code of Approved</u> <u>Practice for the Regulation of Contractual Arrangements in Field Archaeology</u>.
- The Institute of Field Archaeologists 1994 (revised 1999) <u>Standard and Guidance</u> for Archaeological Watching Briefs.
- The Institute of Field Archaeologists 1996 (revised 1999) <u>Standard and Guidance</u> for the Archaeological Investigation and Recording of Standing Buildings or <u>Structures</u>.

- The Institute of Field Archaeologists 1999 <u>Standard and Guidance for the</u> <u>Collection, Documentation, Conservation and Research of Archaeological</u> <u>Materials</u>.
- Museum and Galleries Commission 1994 <u>Standards in the Museum Care of</u> <u>Archaeological Collections.</u>
- United Kingdom Institute for Conservation 1990 <u>Guidelines for the Preparation of Excavation Archives for long-term storage.</u>
- 5.4 Many people in North Wales speak Welsh as their first language, and many of the archive and documentary references are in Welsh. Contractors should therefore give due consideration to their ability to understand and converse in Welsh.
- 5.5 Care must taken in the siting of offices and other support structures in order to minimise the impact on the environment. Extreme care must also be taken in the structure and maintenance of spoil heaps for the same reasons and to facilitate a high quality reinstatement. This is particularly important in relation to pasture land.
- 5.6 The archaeological contractor must satisfy themselves that all constraints to groundworks have been identified, including the siting of live services, Tree Preservation Orders and public footpaths. Gwynedd Archaeological Planning Service bears no responsibility for the inclusion or exclusion of such information within this brief.
- 5.7 Any changes to the specifications that the archaeological contractor may wish to make after approval by this office should be communicated to Gwynedd Archaeological Planning Service and approved.
- 5.8 Care must be taken in dealing with human remains and the appropriate environmental health regulations followed. Gwynedd Archaeological Planning Service and the local Coroner must be informed immediately human remains are discovered.
- 5.9 Arrangements for the long-term storage and deposition of all artefacts must be agreed with the landowner and Gwynedd Archaeological Planning Service before the commencement of investigation.
- 5.10 The involvement of Gwynedd Archaeological Planning Service should be acknowledged in any report or publication generated by this project.
- 5.11 A full archive including plans, photographs, written material and any other material resulting from the project should be prepared in accordance with standard guidance. All plans, photographs and descriptions should be labelled, cross-referenced and lodged in an appropriate place (to be agreed with Gwynedd Archaeological Planning Service) within six months of the completion of the project.
- 5.12 Two copies of the bound report must be sent to the address below, one copy marked for the attention of the Development Control Archaeologist, the other for attention of the HER Officer, who will deposit the copy in the HER.

6.0 Curatorial monitoring

6.1 The project will be monitored by the development control archaeologist at Gwynedd Archaeological Planning Service to ensure the fulfilment of the brief and specifications. The development control archaeologist will normally inspect site works and review the progress of excavation reports and archive preparation. The archaeological contractor must inform Gwynedd Archaeological Planning Service in writing of the proposed start dates for the project.

7.0 Glossary of terms

7.1 Archaeological Contractor

A professionally qualified individual or an organisation containing professionally qualified archaeological staff, able to offer an appropriate and satisfactory treatment of the archaeological resource, retained by the developer to carry out archaeological work either prior to the submission of a planning application or as a requirement of the planning process.

7.2 Archaeological Curator

A person, or organisation, responsible for the conservation and management of archaeological evidence by virtue of official or statutory duties. In northwest Wales the archaeological advisor to the Local Planning Authorities is the development control archaeologist, who works to the Welsh Archaeological Trust's Curators' Code of Practice.

7.3 Archive

An ordered collection of all documents and artefacts from an archaeological project, which at the conclusion of the work should be deposited at a public repository, such as the local museum.

7.4 Brief

The Association of County Archaeological Officers (1993) defines a *brief* as an outline framework of the planning and archaeological situation which has to be addressed, together with an indication of the scope of works that will be required.

7.5 Historic environment Record (HER)

A documentary record of known sites in a given area. In north-west Wales the HER is curated by the curatorial division of the Gwynedd Archaeological Trust.

7.6 Specification

The Association of County Archaeological Officers (1993) defines a *specification* as a schedule of works outlined in sufficient detail to be quantifiable, implemented and monitored.

7.7 Watching brief

A formal programme of observation during non-archaeological excavation works in order to identity, investigate and record any archaeological remains which may be present, in accordance with the Archaeological Standards.

Further information

- 8.0 This document outlines best practice expected of an archaeological assessment but cannot fully anticipate the conditions that will be encountered as work progresses. If requirements of the brief cannot be met they should only be excluded or altered after gaining written approval of the Gwynedd Archaeological Planning Service.
- 8.1 Further details or clarification of any aspects of the brief may be obtained from the Development Control Archaeologist at the address below.

Ashley Batten Development Control Archaeologist

Gwynedd Archaeological Planning Service <u>Craig Beuno</u> Ffordd Y Garth Bangor <u>Gwynedd LL57 2RT</u>

Telephone: 01248 370926 <u>Fax: 01248 370925</u>

APPENDIX II

TRAC PROJECT, TY CROES

PROJECT DESIGN FOR ARCHAEOLOGICAL RECORDING AND WATCHING BRIEF (G1917)

20 April, 2006

1. INTRODUCTION

It is proposed to undertake alterations and new development at the Anglesey Circuit, Ty Croes. Planning permission for the project included the requirement for an archaeological programme of work, to be undertaken in accordance with a Brief written by Gwynedd Archaeological Planning Service (ref. D458). This project design outlines the archaeological mitigation to be undertaken in advance of and during construction works, and adheres to the conditions set out in the Brief. The design has been requested by Meyrick Estate Management Ltd and has been drawn up by Gwynedd Archaeological Trust.

2. BACKGROUND

An initial assessment has been undertaken of the proposed development area by Clwyd Powys Archaeological Trust (Report No. 426). The principal archaeology on the site is that associated with the establishment of an Army Camp during the 1940's. The area around the camp contains a number of prehistoric and medieval sites of national significance, though none have been identified within the development area.

3. REQUIREMENTS OF THE BRIEF

The requirements specified within the brief are for a photographic record of three structures to Level 2, and an intermittent watching brief.

4. METHOD STATEMENT

4.1 Photographic Record

A photographic record will be undertaken of the ministry of defence store (PRN 15160), the Military emplacements west of the circuit (PRN 15161) and an agricultural workshop located at NGR SH 332691. This will involve a photographic record of all principal elevations and selected features of particular interest. Landscape features will be photographed from relevant angles, to record both detail and context. The photographs will be dated and indexed, and related to a basic site plan which might be taken from a published OS map as appropriate. It is anticipated that digital photographs will form the principal record, though this may be supplemented by film photography in certain instances. A measured plan will be drawn up showing principal openings and other features, and a written description of each of the structures will be compiled to accompany the photographic record.

4.2 Watching brief

An archaeologist will be present during all significant periods of earth and hardcore moving which have the potential for revealing archaeological remains. The watching brief is to be undertaken in a manner that allows for the immediate cessation of development for the recording of archaeological evidence. This will involve close liaison between the archaeologist and the site agent and machine operators.

All stripped areas will be examined and potential archaeological sites identified; these will then be cleaned by hand trowelling or hoeing. If the features revealed can be understood and recorded with no

further work required, then they will be photographed, described and located on OS 1:2500 plans. However if any of the features are too complex to allow this, then recommendations will be made for further work, which would be in addition to the work undertaken for the watching brief. A continuous context numbering system will be used, with each context recorded on standard *pro-forma* sheets. Sections will be drawn if relevant.

4.2 Environmental samples

Relevant archaeological deposits will be sampled by taking bulk samples (a minimum of 10litres and maximum of 30 litres) for flotation of charred plant remains. Bulk samples will be taken from waterlogged depoists for macroscopic plant remains. Other bulk samples, for example from middens, may be taken for small animal bones and small artefacts.

4.3 Human remains

Any finds of human remains will be left *in-situ*, covered and protected, and the coroner informed. If removal is necessary it will take place under appropriate regulations and with due regard for health and safety issues.

4.4 Small finds

The vast majority of finds recovered from archaeological excavations comprise pottery fragments, bone, environmental and charcoal samples, and non-valuable metal items such as nails. Often many of these finds become unstable (ie they begin to disintegrate) when removed from the ground. All finds are the property of the land owner, however, it is Trust policy to recommend that all finds are donated to an appropriate museum where they can receive specialist treatment and study. At the very least the Trust would request access to the finds for a reasonable period to allow for study and publication. All finds would be treated according to advice provided within *First Aid for Finds* (Rescue 1999). Initial identification will be undertaken by Trust staff, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff, ARCUS at Sheffield and BUFAU at Birmingham.

4.5 Processing data, illustration, report and archiving

Following completion of the watching brief 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 structures
- Description of the results of the watching brief
- Summary and conclusions
- Bibliography of sources consulted.

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

4.6 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 Sites and Monuments Record) within six months of the completion of the project. All digital data will be written to CD-ROM and stored with the paper archive.

5. STAFF

The project will be supervised by Andrew Davidson, Principal Archaeologist at the Trust, who has worked in various aspects of British archaeology for 18 years, and who has been responsible for managing all contract work at the Trust for the past five years, including archaeological programmes for major road contracts, pipeline construction and new development sites. The work will be carried out by fully trained Project Archaeologists who are experienced in conducting watching briefs and working with contractors and earth moving machinery. (Full cv's are available upon request).

6. HEALTH AND 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).

7. INSURANCE

The Trust holds public liability insurance with an indemnity limit of £2,500,000 through Russell, Scanlon Limited Insurance Brokers, Wellington Circus, Nottingham NG1 5AJ (policy 01 1017386 COM), and Professional Indemnity Insurance for £2,000,000 per claim (policy No. 59A/SA11818791).





















Plate 1: PRN 15160: East Facing Elevation





Plate 3: PRN 15160: North Facing Elevation





Plate 5: PRN 15160: Transporter Crane



Plate 6: PRN 15160: Transporter Crane (Detail of West Elevation)



Plate 7: PRN 15160: Transporter Crane (Detail: East Elevation)



Plate 8: PRN 15160: Transporter Crane (Detail: Crane from Below)



Plate 9: PRN 15160: Roller Blind and RSJ Roof Supports





Plate 11: PRN 15161: Feature A (View West with Feature L in the Distance)





Plate 13: PRN 15161: Feature B (View South)



Plate 14: PRN 15161: Feature B (Detail of Anchor Points/Fittings for SAM Static Emplacements)



Plate 15: PRN 15161: Feature B (View North of Section Exposing Concrete Base)





Plate 17: PRN 15161: Feature D (View South: Note 0.30m wide, 5.00m long channel between the photographic ranging rods)



Plate 18: PRN 15161: Feature D (View South Detailing Anchor Points/Fittings for SAM Static Emplacements)



Plate 19: PRN 15161: Feature E





Plate 21: PRN 15161: Feature F Concrete Surface (Note the Military Compound Buildings in the Background)



Plate 22: PRN 15161: Feature G Large Concrete Surface



Plate 23: PRN 15161: Feature H (View East)





Plate 25: PRN 15161: Feature J Redundant Road Surface



Plate 26: PRN 15161: Feature K Redundant Building



Plate 27:

Thunderbird II missile emplacement. Note how the missile base is anchored to the ground; specifically, the fittings either side of the artilleryman that match those from the gun emplacements at Ty Croes (PRN 15161) (Image courtesy of: www.braw.co.uk)



Plate 28: A battery of Bloodhound II missiles. A similar battery would have been visible at Ty Croes during the 1960's. (Image courtesy of: www.braw.co.uk)



Plate 29: A photograph of a Bloodhound Missile II Missile. The missile is 7.75m in length. (Image courtesy of: www.braw.co.uk)



Plate 30: A close-up of the static emplacement for the Bloodhound II Missile. Note how it is anchored into the ground on a concrete base. (Image courtesy of: www.braw.co.uk)



Plate 31: Agricultural Building (West Facing Elevation)





Plate 33: Agricultural Building (East Facing Elevation)





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GWYNEDD ARCHAEOLOGICAL TRUST

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