

# AIR PHOTO MAPPING REPORT OF WW1 PRACTICE TRENCHES AT CLYNE AND FAIRWOOD COMMONS, GOWER



Clyne Common (Sunnybank) WW1 practice trenches; AP 2016 1347 – NPRN 421565



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**Royal Commission** on the Ancient  
and Historical Monuments of Wales



## Clyne and Fairwood Commons Practice Trenches

### Clyne Common:

#### Sunnybank

**County:** Swansea

**Old County:** Glamorgan

**Community:** Mumbles

**NGR:** SS6034 8976

**NPRN:** 421565

### Clyne Common

**County:** Swansea

**Old County:** Glamorgan

**Community:** Mumbles

**NGR:** SS6003 8954

**NPRN:** 421566

### Fairwood Common

**County:** Swansea

**Old County:** Glamorgan

**Community:** Upper Killay

**NGR:** SS5826 9251

**NPRN:** 421739

**SAM:** N/A

**Date of Survey:** 27.06 – 15.07.2016

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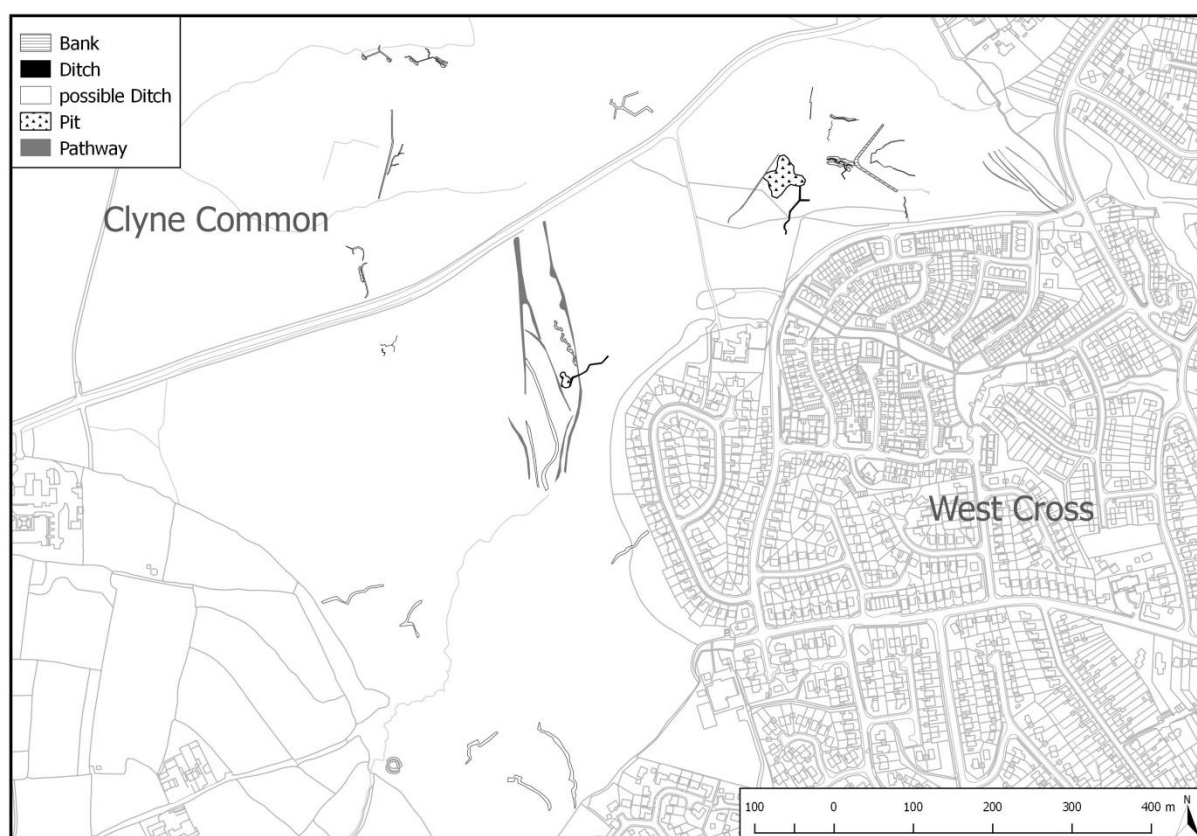
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## 1. Introduction

A previously unrecorded set of military practice trenches was identified on the south-east fringes of Clyne Common and north east of Fairwood Common bordering Upper Killay during Royal Commission aerial reconnaissance on the 14th and 17th March 2016. The main complex of trenches at Clyne Common was identified at SS 6034 8976 on a tract of the eastern common bounded to the north by the B 4436 road and to the south and east by housing at Sunnybank (NPRN 421565). A further set (NPRN 421566) of trenches and an upstanding bank breastwork survives to the south-west at SS 600 895. Possible practice trenches were also identified at a boggy area of Fairwood Common (SS 5826 9251) bounded to the north and west by the A4118, to the east by housing from Upper Killay and to the south by a pathway. A pronounced trench is also located at the east of the junction of A4118 and B4271 in the acute angle.

## 2. Site Description: Clyne Common



*Figure 1: Clyne Common possible WW1 practice trenches, overview (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206).*

The trenches identified at Clyne Common (NPRN 421565) extend across an area of some 230m square on rough common land covered in bracken and bushes. Aerial reconnaissance has shown good preservation of 'zig-zag' and crenulated trench sections, both single lines and intersections, as well as more narrow slit trenches and lines of banks and ditches. It may be that the gravel pit or quarry on the western edge of the trench complex has a military training origin.

A further set comprises an upstanding bank breastwork of four separated loops in a linear feature (NPRN 421566), surrounded by [extensive] traces of possible crenulated trenches, quarries or craters/dug-outs and trackways. Rough ground in the vicinity, consisting of heavily vegetated

common with frequent streams and boggy areas, makes precise identification of the extent of the remains difficult.

Clyne Common was used for military training in the early part of the twentieth century, and as a decoy site during the Second World War. Johnny Crawford (GGAT) has noted the following:

'Clyne Common features in two editions of The Cambrian in relation to military activity – both pre-WW1. A 31st May 1907 edition details an attack and defence exercise carried out by members of the 3rd Battalion the GVR (Glamorgan Volunteer Regiment or Reserve) on Clyne Common. A similar exercise was carried out according to a July 1909 edition of the same paper, this time by the 6th Battalion the Welsh Regiment (probably the same personnel as the GVR but re-organised as 6th Welsh in 1909 by the creation of the Territorial Force that year).

Neither report mentions trenches but it is clear that the Common was used for military activity by Volunteer and Territorial Force units before WW1 and it is reasonable to expect that it may have been used during the war, resulting in practice trenches. However, trenches were also constructed by other contemporary military units prior to the First World War, so it is not impossible that the features date to training for an earlier period of conflict.' (J Crawford, pers. Comm. 2016).

## **2.1. Trenches on Clyne Common: Sunnybank complex (NPRN 421565)**

### Sources used for AP mapping:

LiDAR 1m DTM accessed through Lle Portal

RCAHMW aerial photography, 17<sup>th</sup> March 2016

AP\_2016\_1291, AP\_2016\_1347

RCAHMW aerial photography, 14<sup>th</sup> March 2016

AP\_2016\_1136

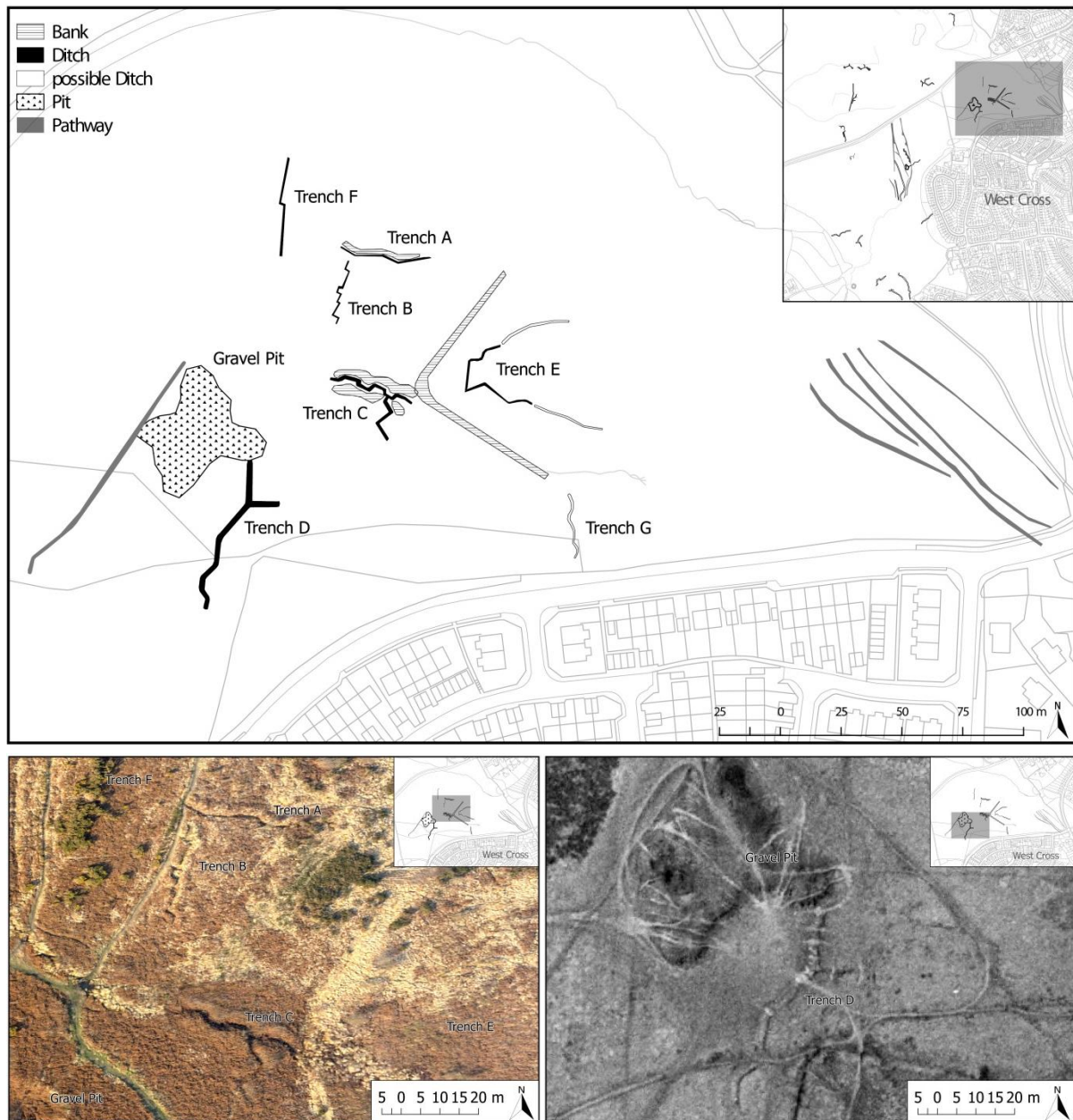
RAF Vertical aerial photographs:

Gower RAF vertical mosaic 1981

1946, 106G/UK/ 1625 Frame 4290

1946, 106G/UK/ 1625 Frame 4289

1946, 106G/UK/ 1625 Frame 4288



**Figure 2: top: Sunnybank complex (NPRN 421565) overview (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206); bottom left: Trenches A-C on RCAHMW aerial oblique (AP\_2016\_1347, 2016); bottom right: Trench D and Gravel Pit (Gower RAF vertical mosaic 1981).**

Trenches A - D and the gravel pit were examined by Johnny Crawford on a site visit. His report describes the features as follows:

#### **Trench A (Figure 2, bottom left)**

‘This was an irregular trench oriented east-west. The up-cast from the ditch was piled to the north of the feature. The trench had an average depth of between 0.4m and 0.6m and a width of approximately 1.5m; the length was estimated at approximately 35m [aerial photograph shows a length of 40m]. There was no evidence of revetment and little evidence for the creation of traverses, although there were several changes of direction which could be attempts at introducing basic a traverse [AP shows three changes of direction: four parts]. The ground slopes naturally down from

the west in this area and the base of the trench became increasingly waterlogged to the east. It was noted that the location of Trench A afforded good views of the B4436 Blackpill to Bishopston road.'

#### **Trench B (Figure 2, bottom left)**

'This was an irregular trench, oriented north-south originating close to the west terminal of Trench A; no junction was visible between Trenches A and B. Trench B had an average depth of 0.5m and a width of approximately 1m and at least three short traverses had been cut although the direction remained constant [AP shows a more complex structure with rectangular features and several changes of direction on a length of 35m]. No revetting was visible. The north terminal was clearly visible but the south terminal became obscure amongst the undergrowth. The aerial photographs suggest however that it could have joined or come close to joining Trench C at its visible western end.'

#### **Trench C (Figure 2, bottom left)**

'This was the most substantial trench on the site, consisting of a stretch of north west - south east oriented trench, approximately 40m long [AP shows same length], joined close to its south centre by a length of trench forming a 'flattened Z' shape with an approximate length of 20m [AP shows a length of 22m]. The longer trench was at least 1.5m deep in places, with up-cast on either side forming banks, although most prominently to the north; it had an average width of approximately 2m, and was waterlogged at the base. At least two traverses had been created, with the possibility of more being obscured by undergrowth. The shorter 'Z' shaped trench had an average depth of 1m and an average width of 1m. The north wall of the 'Z' trench contained an arched recess cut into the bank after the first traverse, measuring approximately 1m wide and which had a visible depth of at least 1.5m from the entrance. Material had collapsed from the roof, there being no sign of revetment but there was some evidence that the base of the recess was also cut lower than the existing floor of the trench.'

#### **Trench D (Figure 2, bottom right)**

'This was a 'Y' shaped junction of two trenches close to a footpath. One branch was visible travelling north towards the east edge of an old gravel pit (06411w) for approximately 15m, whilst another branch ran to the east for approximately 10m. A third branch to the south west visible on an aerial photograph of 1981 could not be located but it may have been obscured by the line of the modern footpath [AP mapping shows a length of 51m for this part]. Trench D had an average depth of 0.6m and a width of 1m and contained occasional changes of direction though not obvious traversing.'

#### **Old gravel pit 06411w (Figure 2, bottom right)**

'This gravel pit [AP mapping shows an extend of 50m x 23m] is shown on the 1880 First Edition OS map labelled as 'Old' suggesting it was already out of use by then. At the time of the site visit, it had evidence of having been used as a rubbish tip in the past, with domestic refuse datable to the 1940s and 1950s (glass bottle dating). According to a local dog walker, it is referred to as Gypsy's Well although the origin is unknown.'

## Additional Elements derived from AP Mapping

Air photo mapping added some possible trenches to the complex:

### Trench E



Figure 3: Trench E on aerial vertical photograph (Welch Government Tile ss6089).

This trench has several short 'zig-zag' sections (Figure 2 top, Figure 3). It can be divided into two parts. One runs north for 13m and then changes direction to the northeast for a further 15m. The second part starts at the southern end of this section and continues eastwards, 'Z' shaped for 30m. Both parts seem to continue at their ends but this cannot be confirmed from AP mapping alone. The AP mapping shows a width of 1m. This trench is located east of the complex.

### Trench F

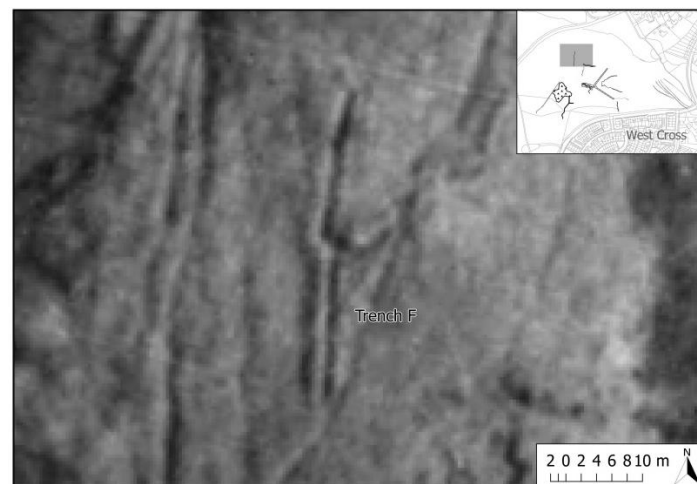


Figure 4: Trench F on RAF vertical photograph (1046, 106G/UK/ 1625 Frame 4290).

This trench is very thin and is dog-legged (Figure 2 top, Figure 4). It measures 43m north to south. Two 'zig-zag' sections are recognisable on the AP. This trench is located north of the complex.

## Trench G



Figure 5: Trench G on RCAHMW oblique aerial photograph 2016 (AP\_2016\_1347).

This trench is in the south east of the complex and was recognised on the modern oblique APs but is not shown on the 1946 RAF verticals like the other trenches (Figure 2 top, Figure 5). The AP mapping shows a 'zig-zag' feature for 28m, but whether it is a trench or just a pathway cannot be determined without a site visit.

## Pathways / Trackways

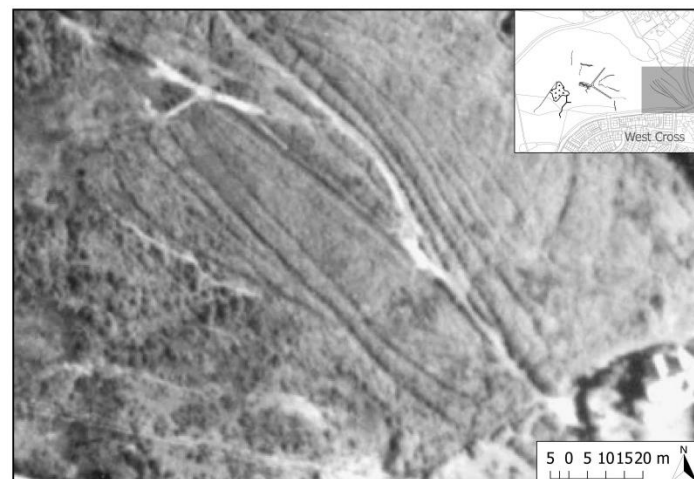


Figure 6: Pathways east of main complex on RAF vertical photograph (1946, 106G/UK/ 1625 Frame 4290).

A pathway recognisable on the RAF vertical photographs is seen running from the gravel pit in south east direction on a length of 110m (Figure 2 top).

A further complex of trackways is recognisable at the eastern end of the common (Figure 2 top, Figure 6). At least five nearly straight trackways run in a northwest – southeast direction on a length of 50 - 100m.

## 2.2. Trenches and Military Earthworks on Clyne Common (South-East) (NPRN 42566)

Sources used for AP mapping:

LiDAR 1m DSM and 2m DTM accessed through Lle Portal

RCAHMW aerial photography 17<sup>th</sup> March 2016

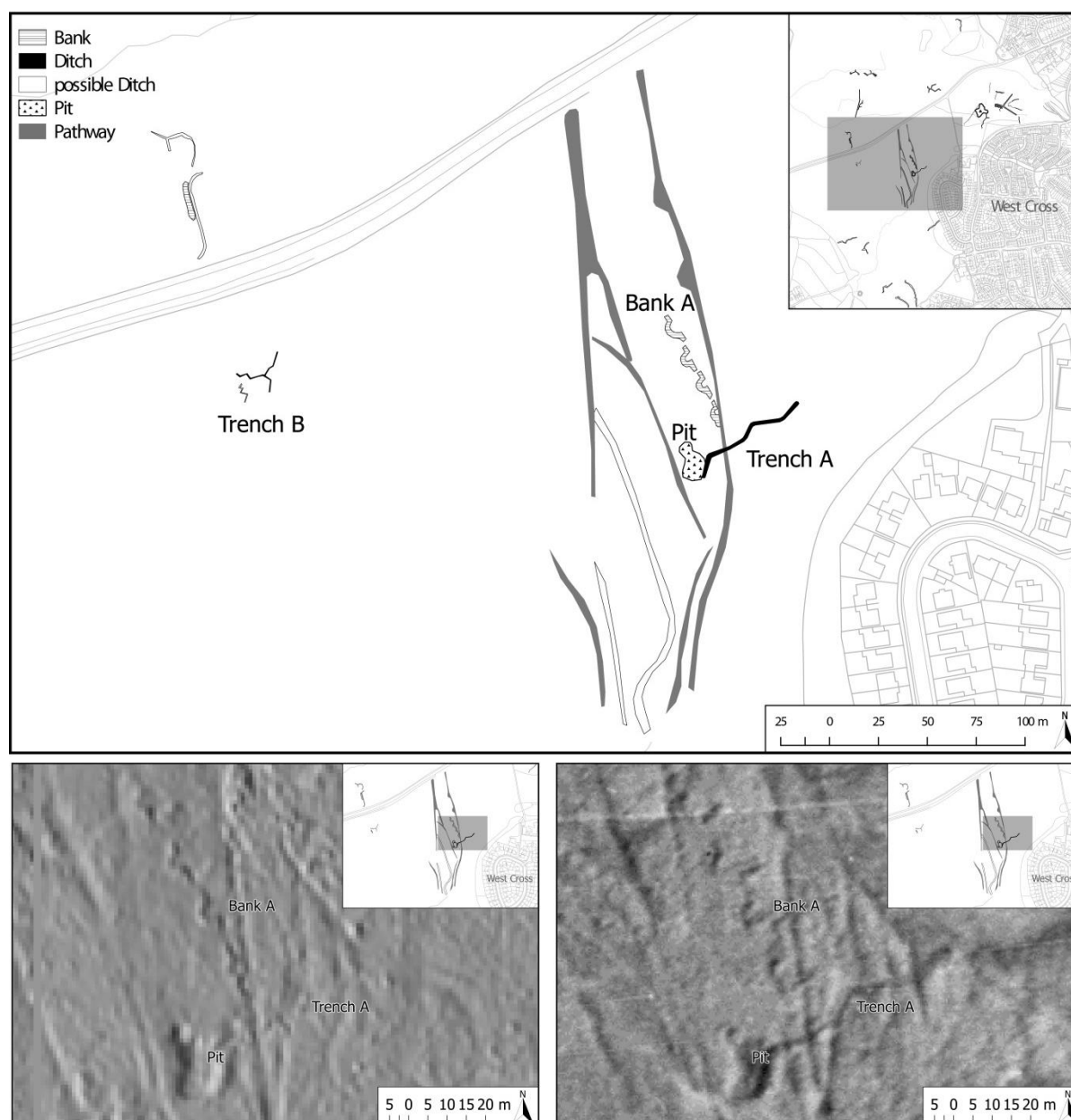
AP\_2016\_1288

AP\_2016\_1311

AP\_2016\_1340

RAF Vertical aerial photographs:

1946, 106G/UK/ 1625 Frame 4242

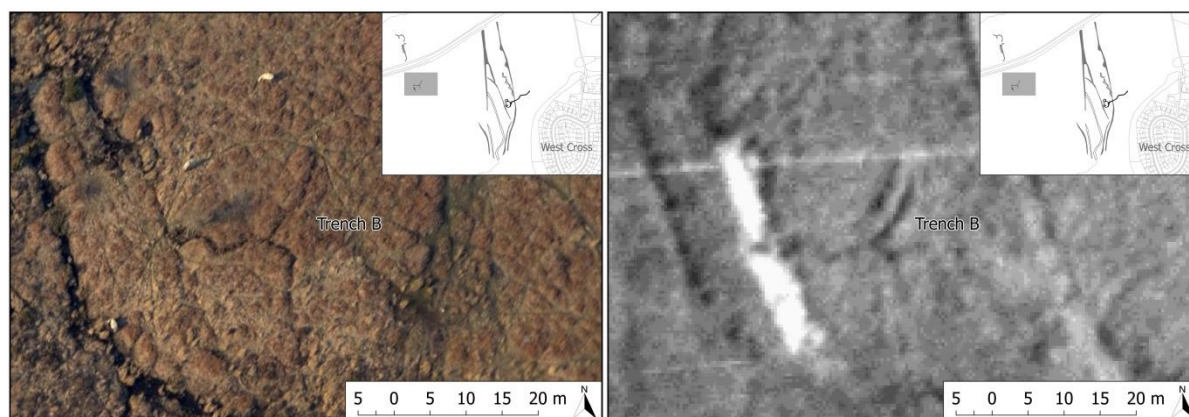


**Figure 7: top: Clyne Common (South-East, NPRN 42566) overview (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206); bottom left: Trench A, Bank A and Pit at Clyne Common (South-East), left: on LiDAR DSM 1m (accessed through Lle Portal); right: RAF aerial vertical photograph 1946 (1946, 106G/UK/ 1625 Frame 4242).**

## Trench A

This trench is visible both on the RAF vertical photographs and the Lidar 1m DSM (Figure 7). The 'zig-zag' trench section is aligned northeast – southwest and is 68m long. The AP shows a width of 1.5m but this could easily be affected by the vegetation.

## Trench B



*Figure 8: Trench B, left on RCAHMW aerial oblique photograph (AP\_2016\_1340); right on RAF vertical photograph (1946, 106G/UK/1625 Frame 4242).*

This trench lies northwest of the complex and comprises three linked parts; One runs north-eastwards on a length of 14m with two traverses, a second runs in a southerly direction with one traverse (10m long) while a third runs westwards with four traverses and a length of 17m (Figure 7 top, Figure 8).

At the southeast extent of this trench is another feature recognisable with a 'zig-zag' shape, but it is very unclear.

## Bank A

The bank recognised on the modern oblique photographs and the Lidar 1m DSM actually consists of four separated banks aligned in northwest – southeast direction (Figure 7). Each section has a U shape with extensions to both sites, ending in a right-angle. The extensions are 2 - 4m long and the banks are 2 – 2.5m wide, the opening of the U is approx. 2.5 – 3.5m.

## Trackways

The bank is surrounded by several trackways in the same direction and some from north to south with lengths of 80 – 230m (Figure 7 top). These could also be refilled trenches; further ground observation is required to clarify the character of these remains.

## Pit

On the south-western end of trench A is a small pit measuring 20m north-south by 10m (Figure 7). The pit may have a military training origin, as there is also one visible in the Sunnybank complex.

### 2.3. Circular Ditched Earthwork south of Clyne Common; uncertain

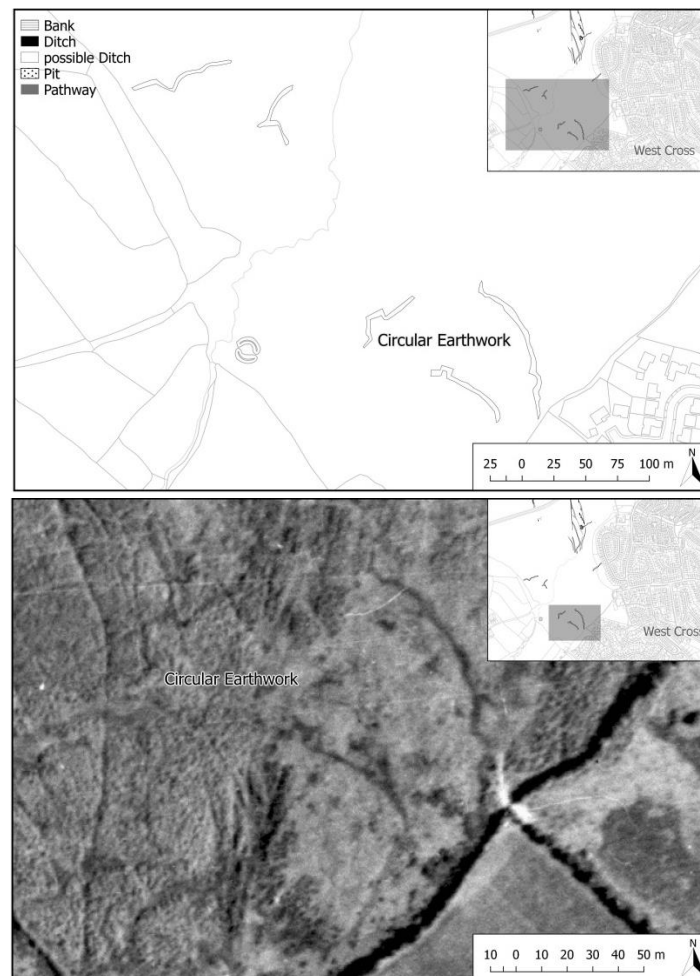
Sources used for AP mapping:

LiDAR 1m DTM accessed through Lle Portal

Welch Government Tiles ss6089, ss6088, ss5989, ss5988

RAF Vertical aerial photographs:

1946, 106G/UK/ 1625 Frame 4242



**Figure 9: Circular Earthwork south of Clyne Common, top: overview (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206); bottom on RAF aerial oblique photograph (1946, 106G/UK/ 1625 Frame 4242).**

A fragmentary circular earthwork of uncertain character and date is recognisable on the AP mapping in the south tip of the Clyne Common. It is 130m in diameter and the remaining parts are 160m and 60m long. The short western part has a crenulation. Within the circular Earthwork is another element of 70m with a further crenulation at its northwest end.

### 3. Trenches and Military Earthworks on Fairwood Common/ Upper Killay (NPRN: 421739)

Sources used for AP mapping:

LiDAR 2m DTM accessed through Lle Portal

RCAHMW aerial photography 17<sup>th</sup> March 2016  
AP\_2016\_1317

Welch Government Tiles ss5892, ss5793, ss5792

RAF Vertical aerial photographs:  
1946, 106G/UK/ 1625 Frame 5275  
1946, 106G/UK/ 1625 Frame 5274  
1946, 106G/UK/ 1419 Frame 3242  
1946, 106G/UK/ 1419 Frame 3241

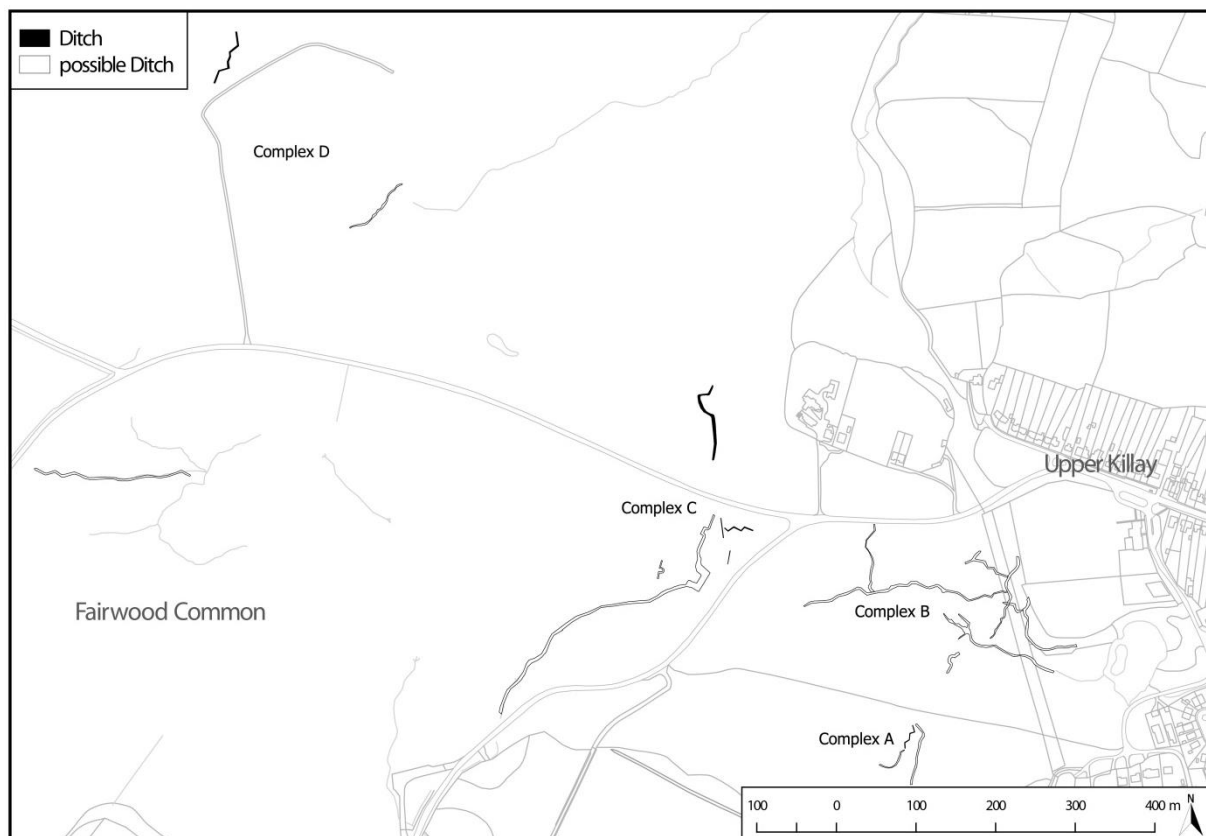


Figure 10: possible WW1 practice Trenches at Fairwood Common (North, NPRN: 421739) (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206).

The complexes identified in the northeast of Fairwood Common (NPRN 421739) extend over an area of 500m east - west by 400 m north - south on rough common land covered in bracken and bushes, with a boggy part in the east crossed by a drainage system to a small pond, Pwll Mawr (at Upper Killay; SS 585 924). RAF vertical photographs from 1946 shows the pond on common land. In modern

times this area has become separated from the common area and the land to the north of the pond has become farmland. Some of the features recognisable on the RAF photographs are now covered by woodland and farmland.

Modern and historic aerial photographs show a number of 'zig-zag' ditch sections together with longer angular ditches crossing the common to the west of Upper Killay and Pwll Mawr. The wider remains at Complex B are similar in layout to a complex of backfilled WW1 trenches. Among these, two distinct sections mapped from air photos probably result from military training (Complexes A and C). However, it is currently impossible to ascertain where probable or certain military trenches stop, and drainage ditches serving the Pwll Mawr pond at Upper Killay begin.

### 3.1. Complex A

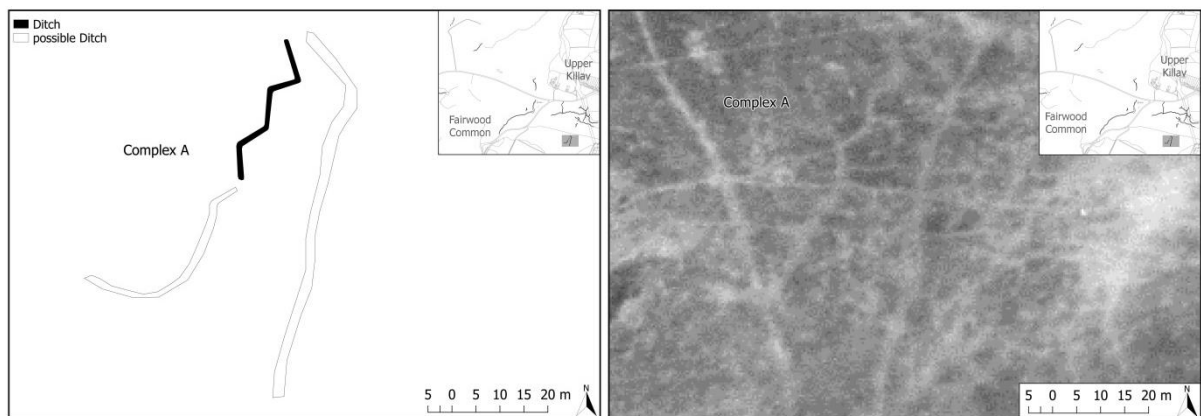


Figure 11: Complex A, left: OS vectormap (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206); right: on RAF oblique aerial photograph (1946, 106G/UK/ 1419 Frame 3241).

A pronounced ditch appears to be a refilled 'zig-zag' trench and is shown on modern AP mapping and on the RAF photographs from 1946. It has four angles and runs from NNE to SSW. It seems to continue straight on a length of 27m before it turns westwards for further 15m.

15m to the east of the trench runs a further ditch measuring 80m from north to south. After 65m it turns northwest nearly touching trench A.

### 3.2. Complex B

#### Ditches west of Pwll Mawr pond, Upper Killay

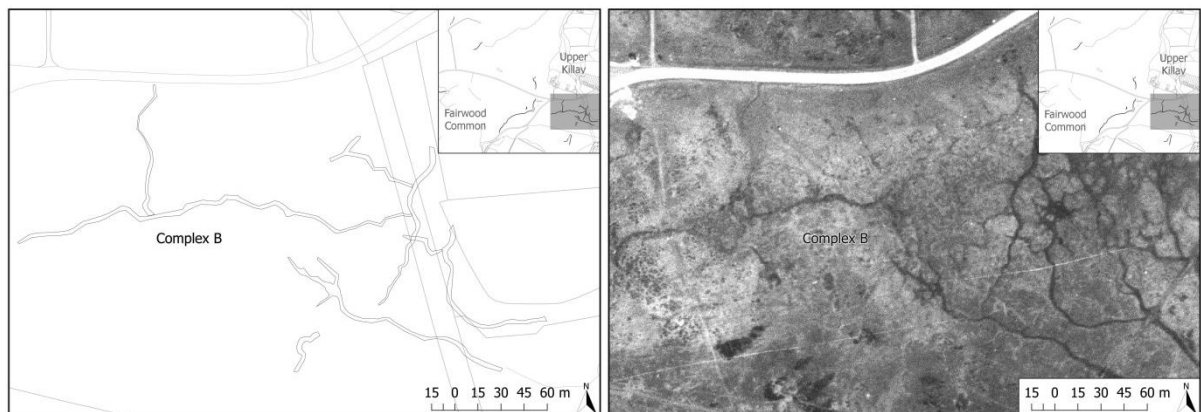
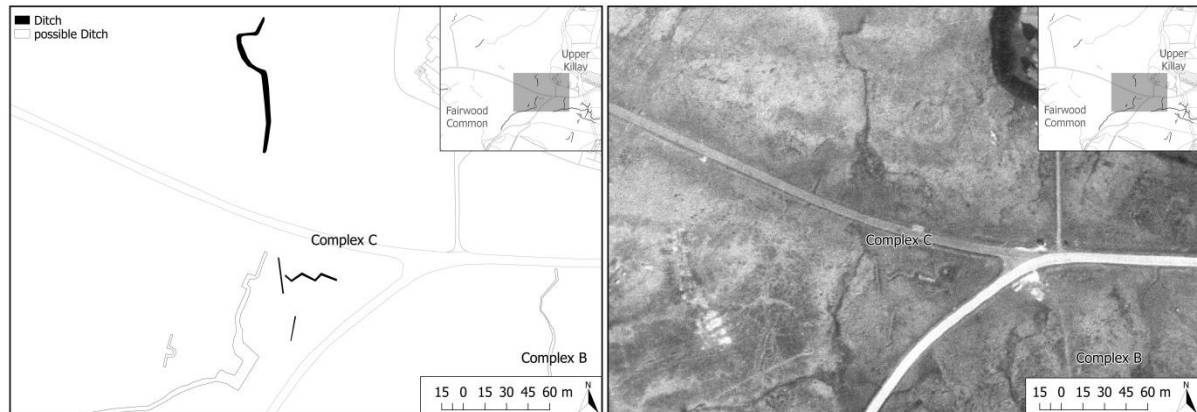


Figure 12: Complex B, left: OS vectormap (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206); right: on RAF oblique aerial photograph (1946, 106G/UK/ 1419 Frame 3242).

This complex consists of wide-spreading remains of 'zig-zag' and angular shaped ditches of different lengths from 30 – 250m recognised on modern oblique APs and more on RAF photographs from 1946. The interpretation for this complex is very uncertain as the features merge with drainage ditches serving the pond at Upper Killay. Further assessment is required on the ground.

One feature south of the complex has a slight U shape with ditches extending on both sides.

### 3.3. Complex C



**Figure 13: Complex C, left: OS vectormap (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206); right: on RAF oblique aerial photograph (1946, 106G/UK/ 1419 Frame 3242).**

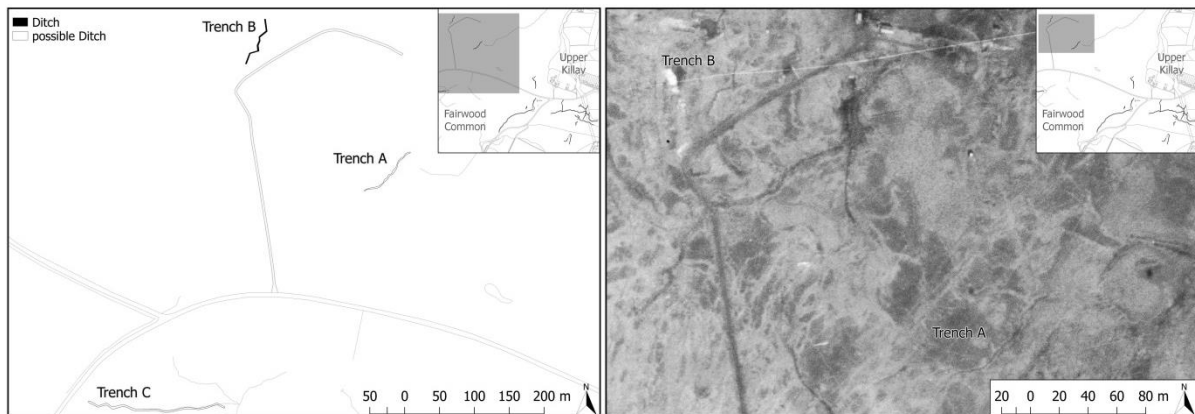
This complex in the east corner of the junction of the A4118 and B4271 consists of one definite 'zig-zag' trench, very likely to be a WW1 practice trench. It is 45m long has 5 'zig-zag' sections and runs from east to west. It is best seen on the modern oblique AP and the RAF vertical from 1946. It forms a T-junction at its west end with a straight trench of 25m. Slightly to the south is a similar straight trench of 18m. As there is only a two meter LiDAR data available for this area of Gower, these trenches cannot be identified on the LiDAR.

A longer uncertain feature runs west from the 'zig-zag' trench for a length of 400m. Two potential rectangular/ crenulated structures, one 6 x 15m, with a second 20 x 26m, may have been defensive elements.

A further more definite trench north of the B4271 runs north to south, with a potential crenulated section at its north end. It is 120m long and can be seen well on the RAF photographs from 1946 and also less clearly on modern vertical photographs.

### 3.4. Complex D

#### Fairwood Common North – uncertain Earthworks



**Figure 14: Complex D, left: OS vectormap (@ Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022206); right: on RAF oblique aerial photograph (1946, 106G/UK/ 1419 Frame 3242).**

This Complex describes two potential angular ditch sections further away from the main complexes, north of the B4271. They are in an area of former coal mining close to Three Crosses Colliery (NPRN 80417) so the interpretation is more questionable.

Trench A is visible on the RAF photographs from 1946 and slightly visible on modern vertical photographs. It runs from northeast to southwest for 90m.

Trench B is the most north-westerly ditch of those recognised. It is zig-zag and runs for 80m from northeast to northwest. It is also visible on the RAF photographs from 1946 but is hardly recognisable on the modern verticals.

Trench C is southwest of trench 1 and 2, is 200m long and runs from east to west. The western part has slightly zig-zag features but the eastern part seems to join a drainage.

The linear features in Complex D do not seem as well defined as more certain military earthworks in the other areas, and must remain highly uncertain.