

**Preliminary Report on Jubilee Plantation Operational Base,  
Binnegar, Wareham, Dorset**

Dr William Ward  
Coleshill Auxiliary Research Team

May 2016



## **Introduction**

Coleshill Auxiliary Research Team (CART) was contacted to provide specialist knowledge in relation to an Auxiliary Units Operational Base in Jubilee Plantation, a small wood north of Binnegar Hall, near Wareham in Dorset. The site is planned to be destroyed by quarrying activity, due to take place over the next few years. This site came to light after the initial Heritage Assessment was completed. CART was asked to provide additional input because of the relative rarity of Auxiliary Units sites. This report was based on a brief initial site visit on 18<sup>th</sup> April.

## **Auxiliary Units**

Auxiliary Units (often shortened to Aux Units) were formed in July 1940 as a branch of Military Intelligence. Their purpose was to be a pre-existing sabotage organisation, designed to operate behind the German front line following the imminently expected invasion of Great Britain. It consisted of a small regular army staff with a much larger number of hand-picked civilian volunteers serving nominally as members of the Home Guard. There was a central training Headquarters at Coleshill, near Swindon. Each area (usually a county) had its own Intelligence Officer, a captain who commanded a small training and administrative staff, together with one or two Scout Sections consisting of a dozen Regular troops under a Lieutenant who had a training role, but also an operational one. There were then 20-40 Home Guard patrols, each typically of 5-7 men, often largely from a farming or other rural background. Members of the patrol were trained in sabotage, including explosives, unarmed combat, silent movement and assassination. Patrols were each provided with an underground Operational Base (OB). The entrance and exit of the OB were disguised to make them difficult to locate. Each OB was equipped with ammunition, explosive stores and rations sufficient for two weeks operation, the estimated life expectancy for the unit. Aux Units remained in being until November 1944, being stood down at the same time as the main Home Guard.<sup>1</sup>

## **Jubilee Plantation**

This is oak woodland, heavily overgrown with rhododendron. It is believed to have been planted around 1900 based on its appearance on OS mapping between 1899 and 1902<sup>2,3</sup>. There is no definitive evidence of felling having taken place, though possibly individual trees may have been removed in the distant past. Aerial photography between 1947 and 2011 shows mature woodland with little change in character<sup>4</sup>. Though the largest trees are no more than 40cm at chest height<sup>5</sup>, it is likely that these are trees over 100 years old with restricted growth consistent with known effects of poor soil and dense planting<sup>6</sup>. The plantation was created with regular criss-cross rides visible on both maps and aerial photos. The northern edge of the wood includes Battery Bank, a historic earthwork and scheduled monument<sup>7</sup>.

## **The Operational Base**

### **Description**

The remains consist of a partly collapsed square shaft at one end, with an adjoining partial end wall attached to a collapsed 30 foot main chamber, an intact angled tunnel joining the other intact end wall and a second square shaft. The remains are thought to be orientated roughly east-west.

Photo 1: The west access shaft is 3 feet square and is built from breeze blocks. These are 9 inch deep x 18 inch long concrete blocks which have two vertical square lightening holes. There are used throughout the site. The shaft has partially collapsed with a number of the upper blocks missing or spread elsewhere on the site. The wall on the OB side of the shaft is completely collapsed. The shaft appears to open directly into the main chamber through a centrally placed doorway. The shaft is filled with soil and leaf litter until approximately 1m from the surface.

Photo 2: The main chamber is collapsed throughout its full length. At each end a breeze block wall remains, apparently largely intact. The chamber itself is an "elephant shelter", a corrugated iron curved roof structure, similar to a Nissen hut only using thicker iron sheet. The line of attachment of the roof can be seen on the end walls, although it has separated as a result of corrosion. Although the centre section cannot be seen, based on the survival of the visible end sections, it is likely that it survives in a corroded condition beneath the soil in the centre of the OB. The east end breeze block wall survives in good condition with a central doorway. A single glazed earthenware pipe can be seen set in the upper side of the southerly half of the wall. Two glazed earthenware pipes are set midway along the northerly bank of the collapsed main chamber just below ground level at an angle of approximately 60 degrees to its main axis.

Photo 3: The doorway leads from the main chamber into a short tunnel, set at an angle to the alignment of the main chamber. This is also built from breeze blocks with a concrete roof and is approximately 0.9m (3 feet) wide and 1.8 m (6 feet long). The tunnel roof is at the height of the doorway and thus is lower than the main chamber roof height. This tunnel is filled with soil and leaf litter to within approximately 0.5m of the roof.

Photo 4: The tunnel leads into the easterly access shaft. This is also 0.9m (3 feet) square and built from hollow concrete breeze blocks. It is in better condition than the west shaft although the top row of blocks is largely missing. It is also partially filled with soil and leaf litter.



Photo 1: The remains of the easterly access shaft at centre with the main chamber to the left



Photo 2: View from within the main chamber area. To the left of the central tree are loose hollow concrete blocks. To the right can be seen the curved tops of two glazed earthenware pipes that formed part of the ventilation system.



Photo 3: The diagonal tunnel seen from the main chamber



Photo 4: The westerly shaft with the tunnel entrance to the right

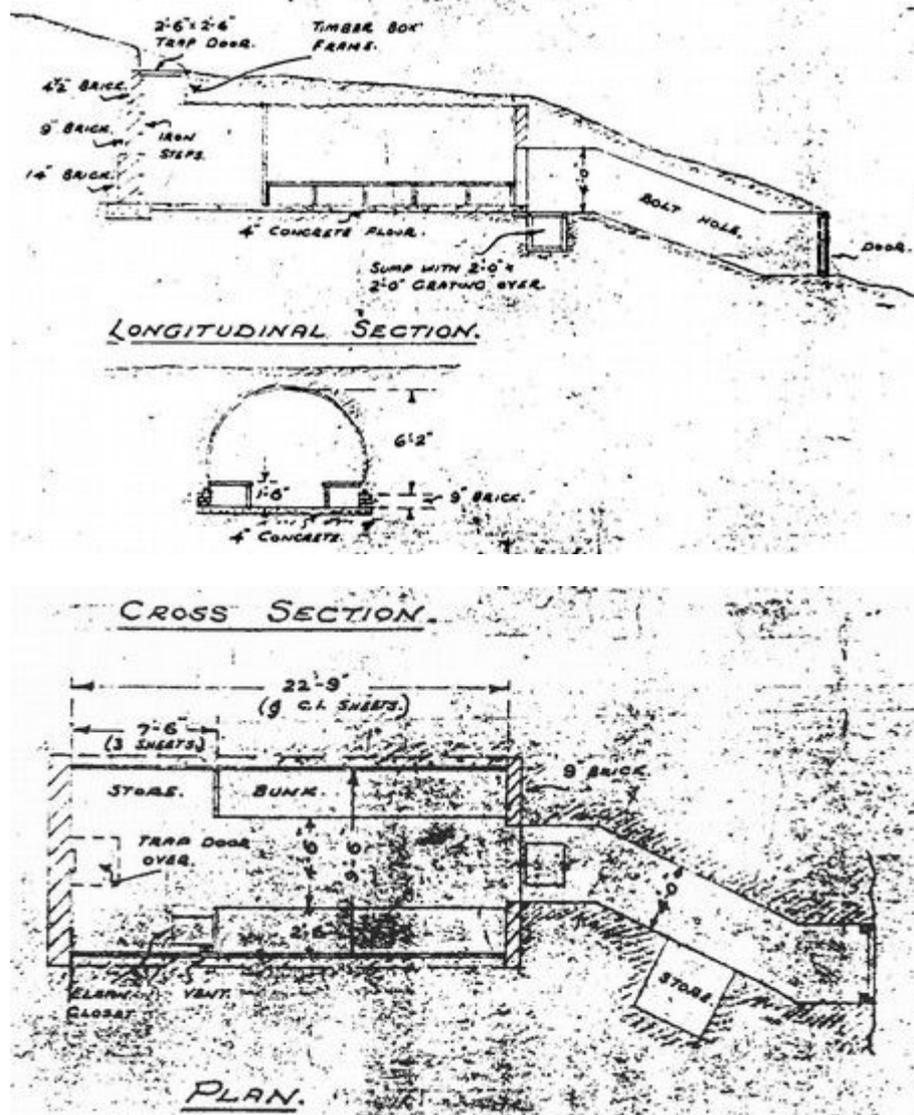
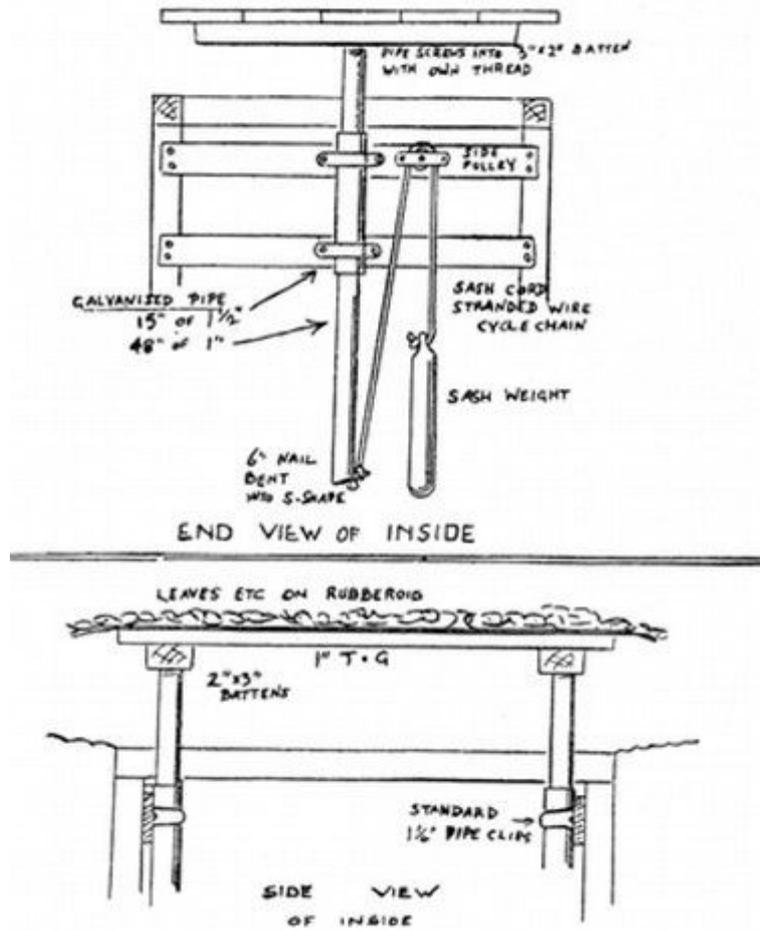


Figure 1: The standard plan for an OB provided to Royal Engineer Tunnelling Companies responsible for the construction of Aux Units OBs. (National Archives WO199/1915)

# VERTICAL LIFT O.B. DOOR

Figure 2:  
Design  
for one  
type of



concealed hatch and counterweighted lifting mechanism. This plan was provided to men who attended a training course at Coleshill House. The demonstration model for this mechanism was excavated at Coleshill House.

Table 1: Members of Wareham Patrol<sup>8</sup>

Name	Date of Birth	Occupation	Address
Sgt Sidney Paul N Williams	31/05/1907	Timber Salesman	East Cottage, Organford Manor
Pte William Ronald "Ron" Cottee	12/2/1909	Auctioneer	High St, Wareham
Pte Charles James Gover	20/10/1913	Clay miner (underground)	4 Sunnyside Ridge, Wareham
Pte Edward Ivor John Legg	20/12/1904	Farm Carter	Worgret, Wareham
Pte Leonard A Warren	05/02/1907	Gardener	The Cottage, Grange Rd, Wareham
Pte Jeffrey S Brooks	06/11/1922	Mechanical Fitter	Pound Lane, Wareham
Pte Charles Ernest Stacey	27/04/1911	Cowman	Joined Royal Navy 20/1/1944 (1939 Holme Bridge, Wareham)
Pte Leslie T Gover	19/5/1911	Clay miner (underground)	Fernside Ridge, Wareham (1939 – Orchard Cottage, Arne Road)

## Interpretation

The structure largely follows the official design of an Auxiliary Units Operational Base (Figure 1). It has entrance and exit routes, a main corrugated iron chamber and a ventilation system using glazed pipes. The use of breeze blocks in the construction was not common early in the war, but became more common in Auxiliary Units structures built from late 1941. It is likely that the two shafts would have had camouflaged hatches and possibly some form of counter weighing system to help open a heavy hatch (Figure 2).

The glazed pipes would have formed part of a ventilation system. There would have been a series of pipes at the base of the OB and others in the end walls and often centrally in the roof of the main chamber. Warm air would rise through the higher pipes, drawing fresh air in through the lower pipes. The pipes often ran a considerable distance from the OB with surface openings at the base of trees. The system was often extensive and complex with multiple pipes and sometimes condensation traps.

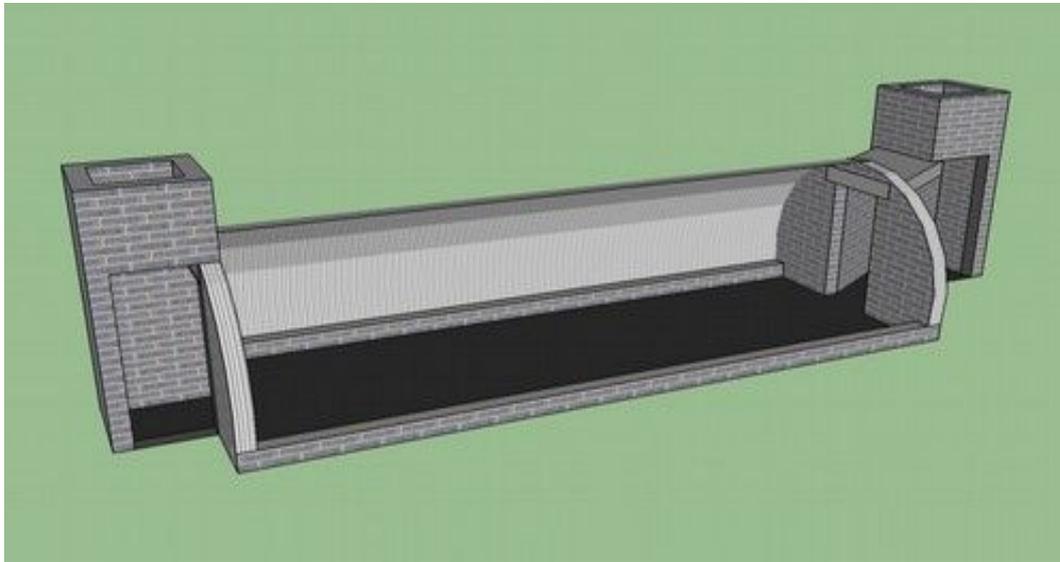
The location in an established woodland close to frequently used pathways is normal for Auxiliary Units structures. This allowed men to approach the OB without creating an obvious track to the site or following an unusual and thus suspicious route.

No firm identification of the users of this OB has been possible. The most likely candidate is the Wareham patrol. The OB shares common constructional features with the OBs belonging to the Langton Matravers and Creech patrols, both of which have two vertical access shafts rather than a longer horizontal escape exit tunnel. These two patrols form part of the Purbeck group of patrols, as does Wareham. The known members of Wareham patrol live both north and south of the Binnegar site, whereas the members of other patrols live further afield.

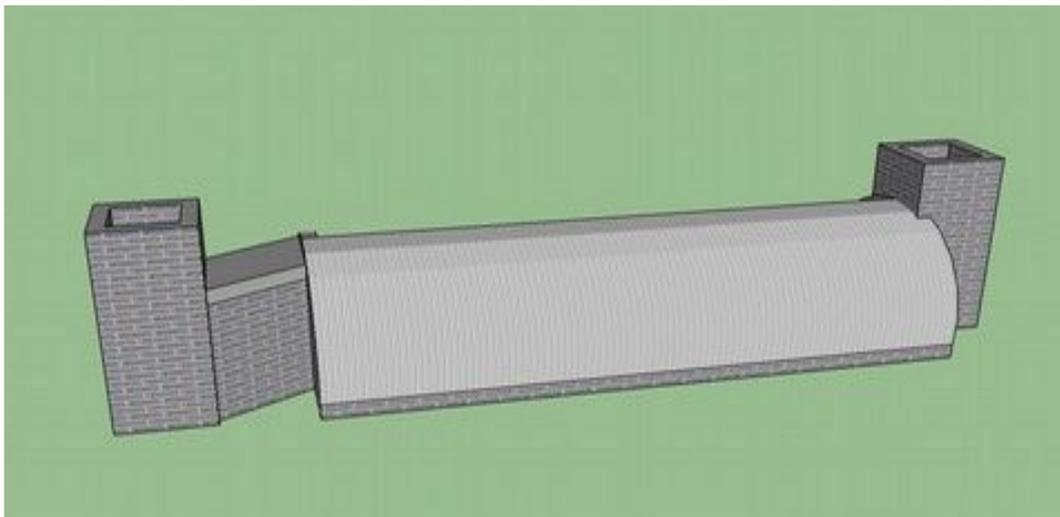
Other alternatives would be that it is an OB for another local patrol or else one of the Scout Sections. Some patrols had to abandon one OB and had a second built. This might happen if an OB was discovered, or if other military activity made its use impossible. This happened to the Long Bredy patrol, when a U.S. army camp was built in the same wood. Binnegar Hall, a short distance south of Jubilee plantation was used as a US Army headquarters. The 1947 aerial photos of the area possibly show the remains of a small Nissen hut encampment to the north of Jubilee Plantation. If this was used by the same unit, Traffic between the sites would have made it difficult to use the OB.

## Provisional Reconstruction

The drawings represent the possible layout of the OB as determined from a brief assessment of the currently visible remains, with internal details extrapolated from the design of other similar OBs. The ventilation system has been omitted for clarity. The current soil level of the surrounding woodland is approximately at the level of the top of the shafts.



Cutaway seen from south side



View from north side with main chamber elephant shelter shown intact.

## **Suggested Further Investigation**

The site is currently at risk of total destruction due to planned quarrying works. A structure in this condition would be unlikely to be scheduled by Heritage England, since other, better examples of this type of structure exist and similar structures in this condition have not been scheduled. The site is close to the edge of the planned extraction area and might be preserved if the company chose to protect the site, possibly without preventing the extraction from the remainder of the area.

If the site is to be destroyed then a full archaeological assessment and recording is recommended. The ventilation system, made up of glazed pipes could potentially extend 5m from the edge of the visible site. In order to record this, a formal geophysical survey could be undertaken of the surrounding area. This would record the distribution of the system and guide excavation. This would require rhododendron clearance but it is suggested the mature trees be left in situ as they may be relevant to interpretation, since the ventilation pipe outlets were frequently placed at the base of mature trees. This clearance should be undertaken by hand or low ground pressure machinery to avoid damage to the pipe system within this area, which is only just below the surface. This type of geophysical survey has not been reported from other OB sites. Therefore a complete excavation of the ventilation system would provide verification of the geophysical survey findings and support the application of the technique in a non-destructive manner elsewhere.

Formal archaeological excavation and recording of the site is likely to provide additional information about the site and is recommended if the OB is to be destroyed. Very few Aux Units sites have had formal archaeological investigation<sup>9, 10, 11, 12</sup> and only one other totally excavated<sup>13</sup>. Excavation, recording and reporting of the site could therefore be of National significance.

Excavation at other sites<sup>14, 15</sup> at the base of collapsed access shafts has uncovered the remains of the counter-balance mechanisms. The main chamber of this OB appears to have partially collapsed. This is likely to have aided preservation of any surviving interior contents. This is very likely to include the ventilation system, but possibly also additional dividing walls, bunk beds or storage facilities such as shelves and hooks. The partially collapsed nature makes excavation of the main chamber potentially hazardous and this should be supervised by an archaeologist with expertise in this type of work due to the risk of further collapse. Parts of the site might require temporary shoring during excavation.

The risk of finding live Explosive Ordnance within Aux Units OBs is very low. There was a formal collection programme in 1944 for each patrol's stores explosives and munitions<sup>16</sup>. Although there are well documented occurrences of the collected stores not being taken back into military custody, none have been recorded surviving in OBs<sup>17</sup>. It appears to have been common practice

for small amounts of explosive training stores to have been retained for personal use, particularly for tree clearance on farms, but these were normally held by patrol members on their own property<sup>18</sup>. However there are no known records of dangerous ordnance being discovered within OBs in the post war period. Personnel involved in any excavation should be briefed on the appearance of Aux Units explosive equipment in order that any such find can be promptly recognised should it occur and should be dealt with by contacting the police and EOD disposal team after immediate site evacuation. Some units had a separate store for explosives built some distance from the main OB. This was typically similar in construction to the Anderson air raid shelter with a single entrance shaft. Any such find during site clearance or quarrying should be carefully investigated for explosive ordnance by trained personnel.

There is also a small risk of uncovering crates of phosphorus grenades buried in the vicinity. These grenades contained phosphorus within a glass bottle covered by oil and sealed by a crown cork. They were a standard issue to Auxiliary Units. On breaking, the phosphorus ignites in air releasing copious white smoke and is capable of causing serious burns. Recognised as dangerous during the war, instructions were issued that they should be buried underground within their wooden crates. On top of the crate should be an enamel sign that details the contents. It appears that the location of such burials was not infrequently lost even during the war and they continue to be uncovered up to the present day.

## CART

Coleshill Auxiliary Research Team was set up in 2009 to investigate and record the history of the Auxiliary Units. It has a voluntary membership and presents its findings on an extensive website. This currently has information on over three quarters of the known Aux Units patrols. It has cooperated with archaeological investigations with the National Trust at Coleshill House and provided information and reports for other Auxiliary Units sites to the National Trust, English Heritage, CADW, Forestry Commission Wales and county archaeologists.

CART is able to supply a team of interested volunteers to support any planned excavation, who come with a range of expertise including previous archaeological excavation and recording experience, together with detailed knowledge of Aux Units history and structures.

## References

- <sup>1</sup> [www.coleshillhouse.com](http://www.coleshillhouse.com)
- <sup>2</sup> Binnegar Quarry Southern Extension: Cultural Heritage Assessment June 2015  
<http://countyplanning.dorsetforyou.com/ATRIUMutilities/fileextractor?type=docman&keyVal=20276>
- <sup>3</sup> Objection letter highlighting the presence of a British Resistance Bunker – an alternate name for an Auxiliary Units Operational Base  
<http://countyplanning.dorsetforyou.com/ATRIUMutilities/representations?mrpld=39583>
- <sup>4</sup> Dorset Explorer 3.0 aerial photography series  
<http://explorer.geowessex.com/>
- <sup>5</sup> Ecological Assessment Proposed Mineral Extraction: Land at Binnegar, Wareham Dorset  
[file:///C:/Documents%20and%20Settings/User/My%20Documents/Downloads/Ecological%20Assessment%20\(Text\).pdf](file:///C:/Documents%20and%20Settings/User/My%20Documents/Downloads/Ecological%20Assessment%20(Text).pdf)
- <sup>6</sup> Estimating the age of trees  
<http://www.wdvt.org.uk/pdf/Estimating-the-age-of-trees.pdf>
- <sup>7</sup> Binnegar Quarry Southern Extension: Cultural Heritage Assessment June 2015  
<http://countyplanning.dorsetforyou.com/ATRIUMutilities/fileextractor?type=docman&keyVal=20276>
- <sup>8</sup> National Archives WO 199/3390, 199/3391, with additional information from 1939 Register and Ancestry.co.uk
- <sup>9</sup> Archaeological Evaluation by Trial Trench: Auxiliary Units Hideout Beeleigh Mill, Abby Turning, Maldon  
[http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-439-1/dissemination/pdf/essexcou1-23237\\_1.pdf](http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-439-1/dissemination/pdf/essexcou1-23237_1.pdf)
- <sup>10</sup>  
<http://www.coleshillhouse.com/specialdutiesbranch/norwich-special-duties-zero-station.php>
- <sup>11</sup> Coleshill Uncovered Interim Report March 2011  
<http://www.coleshillhouse.com/CART-Files/Coleshill%20Uncovered%20Interim%20Report%20Issue%201.pdf>
- <sup>12</sup> Coleshill Uncovered Season 1 fieldwork report July 2011  
[http://www.coleshillhouse.com/CART-Files/Coleshill%20Uncovered%20-%20July\\_2011\\_fieldwork\\_report\\_v1.0\\_\\_Jan\\_2012\\_.pdf](http://www.coleshillhouse.com/CART-Files/Coleshill%20Uncovered%20-%20July_2011_fieldwork_report_v1.0__Jan_2012_.pdf)
- <sup>13</sup> <http://www.coleshillhouse.com/warning-camp-auxiliary-unit.php>
- <sup>14</sup>  
<http://www.coleshillhouse.com/specialdutiesbranch/norwich-special-duties-zero-station.php>
- <sup>15</sup> <http://www.coleshillhouse.com/specialdutiesbranch/golding-3-special-duties-out-station-at-hemyock.php>
- <sup>16</sup> National Archives WO199/937
- <sup>17</sup> The Last Ditch, David Lampe, Cassell 1968
- <sup>18</sup> With Britain in Mortal Danger, John Warwicker, Cerebus, 2002