

# Isle of Wight Industrial Archaeology Society

## Report

### Survey of woodland between Fort Victoria and Cliff End Battery

Requested by Countryside Services, Isle of Wight Council

#### Overview

The survey covered the woodland area from the western side of Fort Victoria to the original eastern extremity of Cliff End Battery, along a line north of the military track. There are two different terrains along this stretch. At the longer, eastern section the ground has slumped in a gradual progress towards the shoreline, whereas the western section has a sharper cliff fall.

We found no visible structures in the eastern section. However it's just possible the continual slumping of the land could have completely hidden a feature or the entrance to an underground facility. There is some exposed pipework, perhaps with other buried items, around 337 897. This may have served a searchlight or some other emplacement long since collapsed onto the foreshore. It might be useful to try and trace any items back to their source using metal detectors. It is unlikely there was ever any fort-associated defence features within the sloping woodland because it offers no clear view of shipping. There are no features shown on maps covering this section. It is perhaps surprising there is not at least one minor WW2 defence post within the eastern section, as the terrain would seem ideal for a landing party.

At the western section the cliff fall is steeper. Along the edge there were four structures:

World War 2 Defended Lookout

World War 2 Machine Gun Post

Two Position Finding Cells, collapsed, probably late 19<sup>th</sup> century.

This report covers a description of these features. Emphasis is given to a record of the position finding cells because their original arrangement may be unique, and their precarious location at the cliff edge could mean they will not be with us for much longer.

Survey team:

Roger Hewitt   Rob Martin   Dave Moore

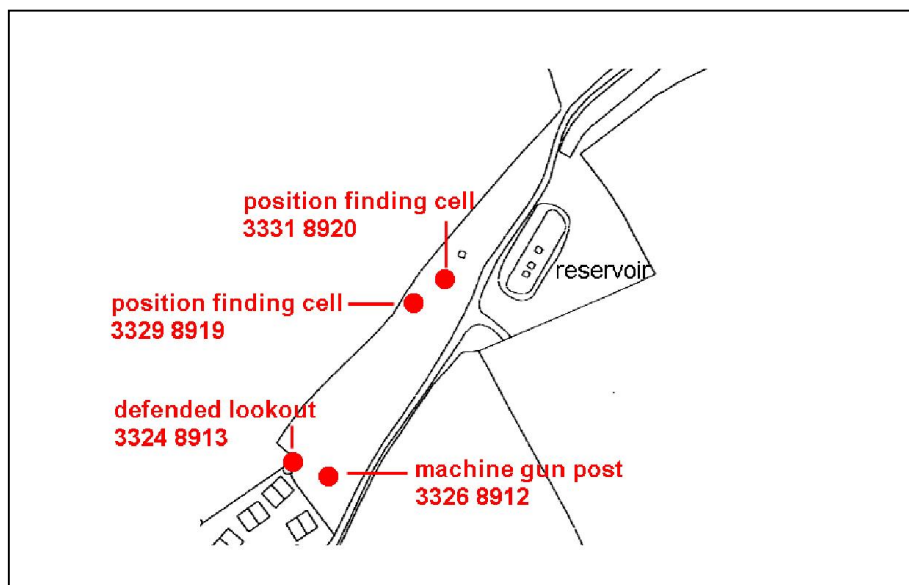
June 2007

### Area Surveyed



Circled area worthy of metal detecting

### Location of structures



**World War 2 Defended Lookout 3324 8913**

Essentially this is a lookout above a pillbox. Six sided, with the lower section having a firing window in each side. There are some minor cracks and superficial damage but it is generally in good condition. Construction is by rendered preformed concrete sections, probably reinforced. The floor supporting the lookout is reinforced concrete.

It is no longer possible to access the inside but some features could be reasonably determined.

The top lookout section is around a metre high, so the lookout would presumably be sitting down. There is no cover for the lookout as part of the structure. There is a small hatch in the lookout floor against the W wall. It looks a little small for access so it might have been for communication. Another larger hatch at the base of the gunner's SW wall is the entrance. The external entrance is now overgrown. A brief clearance revealed it has been bricked up. There are ladder fixings on the wall so the lookout could have entered by this means. The walls are 2.2m wide. The top of the external entrance is 3.6m from the top of the tower. The absolute base cannot be determined.



Western view



Internal entrance at base of gunner's section



Lookout section showing hatch against W wall



Eastern wall

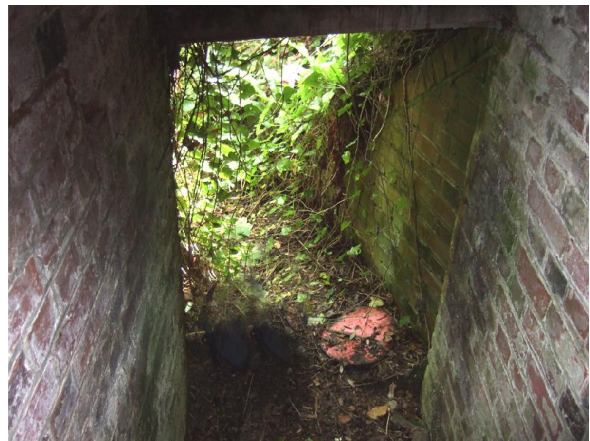
## World War 2 Machine Gun Post 3326 8912

A standard arrow shaped design, mostly sunk below ground level. Brick built with a concrete gun platform. Although overgrown, it is in good condition. The heavy gauge corrugated iron roof has slipped down at the front, obscuring the firing window, but this should be easy to rectify.

A covered passage leads to an internal space 1.8m wide and 1.55m deep. It would only accommodate the gunner. There is some evidence of fixings in the brickwork on either side of the gun platform. These suggest a framework to support the ammunition belt, as required for the Vickers machine gun, although it doesn't rule out use of the Lewis barrel gun. The firing window is 90cm wide.



Entrance



Passage



Gun platform with firing window above

**Position Finding Cells 3329 8919 & 3331 8920**

These are identical structures, both in a heavily dilapidated and overgrown condition, leaving some aspects of their design a little unclear. The western cell is in slightly better condition.

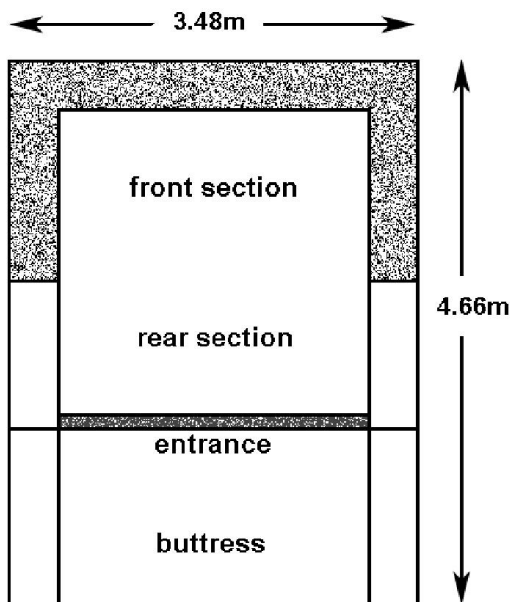


Rear view of the cells. Both have overgrown walls on the left. Only the western cell (left) has one complete side reasonably intact.



Girder (left) running off the end of the rear section into space, above the lower front section (centre). Flue outlet (right) for a stove.

**Basic Plan View**



The walls are substantial 46cm brickwork, including a cavity with airbricks. The design has distinctly different front (seaward) and rear sections.

The rear has buttresses rising to roof level; thereafter walls supported sloping iron girders that extended beyond the supporting wall of the rear section to run the full length of the building, over the lower front section. Cross members carried a concrete roof. The roof is now collapsed to the floor in both cells. Fixings on the inside of the walls suggest a timber or metal framed rear entrance.

The front has the brickwork continuing at waist level, topped with a concrete surround, above which is now open space. The roof appears to have had no permanent structural support at the front.

There is evidence for a tap water supply and a flue outlet for a stove. Height from foundations to the highest point is 2.53m

The cavity wall implies a need to control temperature and, perhaps, humidity, so there must have been some sort of shuttering or window framing at the front. Fortunately there are two existing examples of position finding cells at the Needles Battery. One of these shows a similar design.



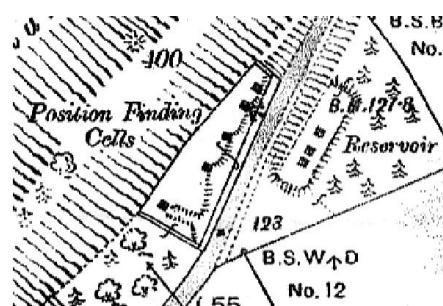
The Needles example, at left, is an extension and has a side passage leading to a rear entrance, whereas the Cliff End example, at right, was simply faced with the rear entrance. Otherwise the basic design is not dissimilar.



One significant difference between the two designs is the manner in which the front framework is incorporated. At the Needles the window framework is a permanent fixture. The Cliff End cells have no evidence of similar fittings. The concrete surround, at left, shows no sign of ever having framework sitting directly on it. The only evidence of fittings are occasional slots on the inside, like the two shown. This may indicate a requirement to remove the whole upper front section at times, giving a clear 180-degree view.

This report does not cover details of the way in which position finding cells operated: a visit to the Needles Battery will give a good insight. The cells were appropriately built to house scientific instruments and charts. The occupants plotted the position of enemy ships and predicted the point at which they would be within firing range. The central equipment was the rangefinder, a stereoscopic device. The location of these cells by Cliff End Battery may support the view that this battery would have coordinated the action at Warden Point and Fort Victoria.

The lack of any research evidence means the Cliff End cells cannot be precisely dated. There are five cells shown on the 1908 OS map, at right. It is the eastern three that have fallen into the undercliff. Position finding cells are said to have originated from the late 1870s, presumably through the development of longer range guns. The earliest possible date for the Cliff End cells is probably around 1885, and they may well be later. One of the girders carries the maker's name, Dorman Long. This company was established in 1875 but their early work was confined to shipbuilding. The Needles cells were built in 1901.



It is the number and layout of the Cliff End cells that makes them particularly intriguing. Most coastal defences of the period incorporated one or two position finding cells. If they are anything like the Needles examples, there need only be one cell to cover a particular direction. Two cells may even be spaced some distance apart. Yet here we have five cells grouped closely together; all apparently facing the same way. Moreover, all this intense position finding activity is overlooking a passage narrow enough to make ships an easy visual target. Enquiries have been made with a number of interested parties, yet nobody has an explanation for this arrangement. Fort Victoria has a history of experimental features and perhaps these cells are another example. The layout might also imply a training facility.

