Lower Needles Point battery

A Scheduled Victorian Monument in Totland, Isle of Wight

Entry Name: Lower Needles Point battery
Scheduled Date: 18 December 1979
Last Amended: 10 November 1994
Source: Historic England
Source ID: 1009392
English Heritage Legacy ID: 22017
County: Isle of Wight
Civil Parish: Totland
Traditional County: Hampshire
Lieutenancy Area (Ceremonial County): Isle of Wight
Church of England Parish: Totland Bay Christ Church
Church of England Diocese: Portsmouth

Coordinates
Latitude: 50.663 / 50°39'46"N - Longitude: -1.5829 / 1°34'58"W
OS Eastings: 429576.382481 - OS Northings: 84894.665878 - OS Grid: SZ295848
Map-code National: GBR 67W.8MJ
Map-code Global: FRA 77KB.557

Details

The monument includes a battery and associated structures on and beneath the projecting point of the chalk ridge above the Needles Rocks at the southwestern end of the Isle of Wight.
The battery, entered via a road bridge which was previously a rolling drawbridge across a moat, has six gun emplacements, a parade ground and various service and store rooms. The original buildings are of flint and brick with granite and Portland stone dressings. Within the battery is the dry moat containing buildings which serviced the battery, and beyond the entrance is the guardroom, the magazines, the laboratory, the officers' quarters, the parade ground and gun emplacements. Outside the battery to the west is a searchlight emplacement, and a further one at the base of the cliff to the north of the battery together with four-gun emplacements. Outside the battery, c.30m to the south east of the entrance, is the site of a building which was once the master gunner's house.

Within the dry moat, which defines the eastern side of the battery, are a number of buildings and two underground rooms. One of the underground rooms is an engine room in which are two `Robey' steam boilers with drive shafts, and adjoining this room is the coal cellar. Under the engine room are two `Lister' engines which were used for generating electricity. Directly under the drawbridge is a building which houses a water storage tank which is integral with the boilers. North of the bridge is the lift shaft which links the battery to the searchlight gallery and gun emplacements at sea level 200ft below. In the lift shaft building is a `Campbell' oil engine used for driving the lift; this is one of only two remaining in existence. At the top of the lift shaft was an octagonal iron lift cage; this has been removed although the counterweights survive at the bottom of the shaft. Water pipes, power lines and signal cables run up the side of the shaft, and some of the original

woodwork is still in position. Exit from the bottom of the shaft is via a brick arched doorway to a series of tunnels and to a brick vaulted room to the east. In this room is a three-cylinder pump made by Joseph Evans and Son of Wolverhampton. The main tunnel leads north west to the emplacements, but there is a second which runs in a northerly direction downhill to tanks full of fresh water. The main access tunnel eventually leads to a gun emplacement, but before it reaches this point it divides into tunnels running east and west. Each of these side tunnels subdivide, each ending in a gun or searchlight emplacement. There are some falls of chalk from the roof of the tunnel, but on the whole, the chalk cut tunnel is in good condition. In some places the tunnel is concrete lined. The emplacements are brick lined, some have a telephone room adjoining. The square gun openings in some of the emplacements still have inward opening steel doors which are now corroded. Immediately inside the main entrance to the battery, doorways to the left lead to the magazines and shell store, and guardroom respectively. On the right is the laboratory and the Officer's quarters. The laboratory still retains features reflecting its use in filling shells and testing each batch of gunpowder supplied to the battery, so that the exact strength of each charge was known. Across the parade ground to the left is a high embankment with a sloping ramp. This forms a protective wall at the rear of the guns and acts as cover for the magazines. The ramp to the upper level leads to the battery command post which controlled the northern bank of four guns. The post commanding the remaining guns has been demolished.

To the south of the ramp is the searchlight direction station, but access to it is not possible due to the crumbling state of the cliff edge. In the parade ground is the entrance to the tunnel giving access to the searchlight emplacement, which is the furthest western point of the battery. Also situated on the parade ground was a barrack block but this has been levelled. As with other contemporary sites in this area, the Needles battery has a well-documented history. In 1858 there was an invasion scare due to the aggressive policy by the French in building up their navy. The battery was begun in 1861 in response to the 1859 Commission report on the Defences of the United Kingdom and was armed the following year. The battery, which cost six thousand nine hundred and fifty-eight pounds, was designed by Major James Edwards, Royal Engineers, and built by George Smith of Pimlico, London. Work was not completed until June 1863 and the six guns were installed in 1864.

Barracks accommodation was provided for one officer, two NCOs and 21 men. The original armament was six 7 inch Armstrong rifled breech-loading guns firing shells weighing 110lb. Due to problems with this initial armament, by 1869 it was decided to install two 9 inch and four 7 inch rifled muzzle-loaders (RML), and in 1873 it was decided to emplace six 9 inch RML guns not needed at nearby Hurst Castle. By the 1880's breech-loading quick-firing guns were introduced to counter the new menace of torpedo-boats. Searchlights were also developed in the 1880's, and the Needles Passage was used for their trials. In 1890 the lift shaft was sunk from the bottom of the ditch to tunnels in the northern base of the cliff where five cave positions were excavated for searchlights or quick-firing guns. A new armoured searchlight emplacement was built between 1898 and 1899 at the most westerly point of the land, and this was used by an observer to control the minefields defending the Needles Passage.

Power to work the searchlights came from engine rooms built in the ditch. The first to be built was the underground engine room, but problems with heat led

to the construction of a new engine room in the ditch itself.
In 1908 a fire command post was built in front of the gun positions at the west end of the battery. From here all the guns defending Needles Passage could be directed in daylight. Two position finder cells were built over the magazines after 1890.
During the First World War responsibility for manning all the guns defending the Needles Passage was shared between two regular companies of Royal Garrison Artillery, with a Volunteer Royal Engineer regiment manning the searchlights.
In 1939 an anti-aircraft gun was mounted on top of the magazines to combat German aircraft which laid mines at night in the Needles Passage, and then machine gunned the coastal batteries. A cannon was also set up on the western edge of the cliffs to prevent low-level air attacks on the lighthouse. The cone-shaped mounting for this can still be seen from the fire command post. In January 1944 a radar set was installed in the fire command post to provide radar coverage for all the guns covering the Needles Passage. The power for the radar was provided by the two Lister engines installed in a room next to the engine room in the ditch.
In both World Wars, Lower Needles Point battery served as the area fire command post. In 1940 an extra room was added to house naval staff while the brick tower of the Port War Signal Station was being built.

All lighting at the Needles was provided by oil lamps and candles until the summer of 1941, when electricity was provided by two generators in the engine room. After the war the guns were put into care and maintenance and the garrison dissolved. The searchlights were removed in 1945 and the radar in 1950. In 1951 the engine room was condemned, and the fire command post put out of service in 1953. The headland saw service again in 1956 for the development of rocket research, but abandoned in 1971 when Britain abandoned her rocket research programme.
Excluded from the scheduling is the Port War Signal Station which was built in 1940, but the gun emplacement which lies under it and on which it was built is included. The garage which was built against the Royal Engineers' offices in 1970 is excluded, but the ground underneath is included. The modern surfaces in the toilet block, which is built against the guardroom, is excluded from the scheduling. All other modern surfaces, fixtures and fittings are excluded from the scheduling, although the ground beneath them and the fabric against which they are fixed is included.

Source: Historic England

Reasons for Scheduling
The Lower Needles Point battery is a well-known and well-preserved example of its class with documentary evidence dating from its mid-19th century use through to the First and Second World Wars and beyond. In addition to the original battery and associated works, machinery dating to the late 19th and early to mid-20th centuries also survives. The Campbell oil engine, which dates to 1900-1920 is very rare; similarly, there are very few Lister twin cylinder direct coupled generating sets remaining. The combination of these components, the documentary records for their use, and their survival in situ, makes this a site of particular interest in the study of 19th and 20th century coastal fortifications.

Source: Historic England

Sources

Books and journals

Cantwell, A, Sprack, P, The Needles Batteries Isle of Wight, (1981), 2-12
Cantwell, A, Sprack, P, The Needles Batteries Isle of Wight, (1981), 12-19

Source: Historic England