Orford (Gedgrave) Royal Observer Corps (ROC) Visual Observation Post (Orlit B) and Underground Protected Monitoring Post (Bunker)

1. Background

During WW2 the ROC organisation which dates back to 1925, identified, tracked and plotted all aircraft flights across the UK. The Chain Home Radar network identified incoming enemy aircraft but visual ROC posts spread across the UK were used to monitor their subsequent movements. These were essential parts of the Dowding network and had a hierarchical command and control organisation (Local, Group, Sector, HQ) resulting in the efficient dispatch of fighter aircraft to engage the intruders. The UK fighter defence network was tested to the full during the 'Battle of Britain' in September 1940 and proved to be very resilient and effective.

2. Transition to the Cold War period

Following the end of WW2 the Soviet Union's expanding military capacity and known nuclear capability was becoming of increasing concern to the UK and NATO countries in general. In view of this increasing threat the UK government developed an ongoing plan to improve its radar capability, enhance its command, control and ROC infrastructure. This was known as the ROTOR plan. Starting in 1951 running to 1955 around 400 above ground pre cast concrete panelled observation structures were manufactured by Orlit Ltd and installed around the UK. The Type A was at ground level, the type B was raised off the ground on four 1.8m legs with a ladder for access. The structure was split into two sections. The entrance door led into the smaller roofed section which was used as a store and shelter. There was a sliding door that led to the open top observation section where the post tracking instrument was

Orlit B Type ROC observation Post Constructed 1951-1955

©Buckden Local History Society

located and chart on top of a wooden mounting. The main purpose of the observation post was to provide warnings of low flying enemy aircraft who may be

Post Instrument plotter, with Mickelthwait height adjuster attachment, used to plot aircraft

©ROC Association

able to fly under the RAF's radar coverage at the time. Observers were provided with high quality naval binoculars and a post instrument plotter. Observation posts were typically around 8 miles apart and were organised in local groups of 3 or 4 linked by telephone lines to a Group centre. During this period Orlit Ltd also produced pre-fabricated concrete houses designed by Czech architect Erwin Katona. Unfortunately, over time, condensation often resulted in degradation of the high alumina cement structure. Repair was often considered uneconomic so most examples have now been demolished.

3. Going Underground

International tensions increased during the 1950's and there was a real concern that nuclear weapons may be used by the Soviet Union. The ROC was given the responsibility of reporting nuclear bursts and monitoring nuclear fallout by the government. The existing observation posts were not designed to provide any protection from a nuclear explosion. In 1956 a prototype underground observation bunker was designed and built in Farnham and was approved as the standard design. This design was to replace the existing network of observation posts. A major undertaking commenced to construct 1563 underground observer posts in the following 4 years from 1957 to 1961 across the UK. Clusters of about 50 bunkers were linked to a Group reporting centre by telephone lines. The telephone line was often provided by means of overhead poles which were unlikely to survive a nearby nuclear explosion! VHF radio transceivers were supplied to some bunkers as backup. Group centres were connected to one of 6 Area centres which were connected to HQ at Bentley Priory. Bunkers were usually situated next to an existing ROC post. Bunker construction required a 2.8m deep hole to be excavated and a tanked

reinforced concrete chamber was cast ranging from 20 to 30cm in thickness. An earth mound was compacted over the chamber with an access shaft and hatch, a ventilation shaft with louvered vent and 2 pipes protruding from the mound. The pipes were used for detectors connected to instruments in the bunker.

ROC Underground monitoring post Constructed 1957-1961

©New Forest & Hampshire Wartime Association

1. The first instrument was an ionising radiation meter measuring roentgens/hour
2. The second meter was a pressure gauge measuring blast from the bomb detonation.
3. The third was a Ground Zero Indicator. (GZI) It was a pinhole camera with 4 holes one at each cardinal compass point. Photographic paper was placed in front of each pin hole. In the event of a nuclear burst, the image of the fireball would be projected through one or more pin holes. From this, bearings and elevation of the burst could be calculated. Only problem was that the GZI was located outside the bunker hatch and someone would have to venture outside to retrieve the sheets of photographic paper following a nuclear detonation!

The bunkers were very basic with a chemical toilet, 12v battery power supply, 3 weeks supply of food and water, 2 bunk beds a table and 2 chairs to support 3 observers. A petrol generator was provided to charge the battery, not sure how this was going to work following a nuclear event! Observation staff were all local volunteers who were paid a retainer of between £5 and £12 pa. A uniform was

provided as well as travelling expenses. Regular exercises were carried out at various levels to maintain effectiveness of the organisation which numbered 25,000 at its peak. Bunker construction costs varied from £1000 to £5000 per bunker depending on location.

4. The 1968 Defence Review

The government in 1968 decided that the threat of nuclear attack had lessened and that defence spending cuts were needed. They reduced the number of bunkers that would remain operational from 1563 to 877 (The Orford bunker closed in 1968)

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Map showing the ROC bunkers in the immediate area, bunker locations in red closed in 1968 and bunkers in green remained operational until their final closure in 1991.

These bunkers would report to No 4 Group HQ Colchester which in turn would report to UK Warning and Monitoring Organisation Metropolitan Sector HQ Horsham.

Following the 1968 Defence Review, the ROC organisation was greatly slimmed down and carried on with a similar role to before but spread more thinly. Their communication network was modernised and VHF radios were far more widely used. However, in an increasingly agile world the ROC organisation was finally stood down in 1991. Thankfully none of this was ever put to the test in reality! The Bunker sites were either returned to original landowners or sold by tender, some becoming mobile phone mast sites. Several of the larger sites have been restored and are now ‘secret bunker’ museums.