

# RAF WEST MYNE: A SHORT-LIVED RADAR STATION OF THE 1950s IN WEST SOMERSET

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## *Summary*

A radar station of the post-war Rotor programme was constructed at West Myne on North Hill, Minehead, in the mid-1950s. It was of unusual design because of ownership by the National Trust and its site within the about to be designated Exmoor National Park. It seems unlikely that the site was ever used before advances in technology made it redundant in the early 1960s. Subsequently the site appears to have been erased from local and official memory.

## THE ROTOR PROGRAMME

Following the end of the Second World War, the radar defences of the United Kingdom were rapidly run down from a network of over 200 stations to 36 in a zone along the east and south coasts. However, rapidly worsening relations with the Soviet Union and technological developments, such as the acquisition by the Soviet Union of bomber-delivered nuclear weapons from 1949, led to a reassessment of this system in the late 1940s under the code-name 'Rotor'. The original scheme (later known as Rotor 1) called for the re-establishment of full reporting (early warning of attack) and control (of intercepting fighter aircraft) facilities from the Moray Firth to Portland Bill using upgraded Second World War equipment on existing sites. The project was given a very high priority, the GPO (General Post Office – then responsible for telephones) for example devoted almost their entire cable-laying capacity to the project

for two years (Cocroft and Thomas 2003, 86). The radar stations comprised a large concrete 'operations block' with the radar antennae mounted on gantries or on 'plinths' (small buildings housing electronics and power systems). On the east coast the operations blocks were buried underground for protection but this was not deemed necessary further west. The second phase of the Rotor project was envisaged as the replacement of the radar equipment by more modern devices that were expected to be ready for service by 1957. However, one type of experimental radar was so successful that it was hurried into production as the Type 80 which led to the adjustment of the programme.

Rotor 3 followed on from this, with the intention of covering the western approaches to Britain from 13 new radar stations using either the Type 80 or older sets removed from stations further east that were replaced by the Type 80. The whole programme was reviewed in 1956 which led to the curtailment of parts of Rotor 3 (Cocroft and Thomas 2003, 84–109). Only two of the Rotor 3 stations were in England, designed to provide Chain Home Extra Low (CHEL) cover for the approaches to Bristol and Cardiff: at Hartland Point in Devon and at West Myne on North Hill above Minehead (SS 926 485). The name Chain Home survived from the earliest 'chain' of radar stations for home defence built in the late 1930s – these had problems detecting low-flying aircraft and led to the development of Chain Home Low (CHL) and eventually Extra Low. Only CHEL continued into the 1950s. The station at Hartland Point was already in existence, providing Ground Controlled Interception (GCI, directing

fighter aircraft onto targets) facilities, so West Myne was the only new site chosen for a Rotor station in England (Dobinson 1998, 54) – it was also in an extremely contentious location.

## HISTORY OF CONSTRUCTION AND USE

The site chosen in 1953 lay on land belonging to the National Trust (although on its farm estate and not open to the public) but it also lay inside the proposed Exmoor National Park, which would have its designation confirmed on 19 October 1954. The land had previously been used for military training and was only cleared and handed back ‘in the early 1950s’ (Osborn 1983) so it is possible that the site was identified as military land during the initial search for a location and only became an issue subsequently. There had previously been a radar station on North Hill (at SS 954 475), primarily for ship detection, so presumably the technical suitability of the area was already known. The site at West Myne would have been more suited to the new early-warning role as it would have had better coverage to the west allowing aircraft to be ‘passed’ from Hartland Point for onward tracking.

Both the National Trust, as owners, and Somerset County Council, as planning authority, resisted the proposals, a situation that had arisen at several pre-war radar stations (Dobinson 2010, 170–6) forcing the Air Ministry to relocate them to less suitable (in technical terms) sites. This ceased to be a problem during the war but the Ministry was still familiar with the potential objections and how to minimise their impact. At West Myne they achieved this by concentrating on the design of the station and agreed to involve the Royal Fine Art Commission (RFAC) in the design of the buildings. A precedent for this had also been established in the 1930s when the RFAC had been invited to influence the designs of RAF airfield buildings during the ‘expansion period’ in order to make them more acceptable to objectors (Dobinson 1997).

The RFAC files survive but they contain no plans as the Air Ministry insisted that these were returned to them from all parties. No other files relating to this episode have been located in the National, National Trust or Somerset County Council archives but other files in the National archives give some details of the progress of the scheme, in which the station was code-named ‘ZEM’. The earliest mention of West Myne is in January 1953 when the radar

coverage was being extended to the west coast using mobile equipment based on existing sites. Some of this equipment was in poor condition and was to be replaced by permanent stations at the same locations ‘and at West Myne’; none of these was to be manned in peacetime and no expenditure was envisaged before 1955 (TNA AIR 8/1630, 24/1/1953). By October, all the sites were selected and ‘land clearance actions initiated’. No problems were anticipated except at West Myne (TNA AIR 8/1630, 1/10/1953).

Consultation with the RFAC began in February 1954 when Air Ministry plans and photographs of existing sites were passed to the Commission by the National Trust (TNA BP 2/117, all quotes below are from this file, unless otherwise acknowledged). There had evidently been earlier consultation with the County Council who were apparently keen on gabled buildings to reflect the local vernacular. The National Trust thought the proposed buildings were too high and there were subsequently suspicions by the County Council that the building had been deliberately planned to be unacceptable in an attempt to preclude a gabled design. It is not clear which building this was, Dobinson (1998, 68) believed it to be the main R11 operations block but a letter from the Air Ministry (29/3/1954) states that they were ‘providing the smaller buildings with pitched roofs and the two large buildings (the main technical block and the stand-by set building) with flat roofs screened by low parapets.’ (The stand-by set building housed emergency generators.) These proposals were rejected by the National Trust who pointed out that as the buildings were on a hill, it was the overall height of them that needed consideration rather than their appearance at close quarters (NT letter to Air Ministry, 13/4/1954). A meeting was convened between the National Trust, the Air Ministry and the RFAC on 28 April which concluded that ‘The new design for the R11 was considered satisfactory but it was strongly urged that the intake transformer house and sub-station should be combined with this.’ The Air Ministry thought that this could be achieved but that ‘the stand-by set might have to remain a separate building’, although this would also be considered. It was agreed that ‘the foundation blocks for the gantry should be sunk, which would lower the structure 3 or 4 feet but it would not be possible to sink the building between these blocks. The plinth structure would be treated on similar lines.’

A visit to the site in May by National Trust staff led to the suggestion that the buildings should be

'pushed downhill' but without the plans it is of course not possible to know if the structures as built were in this downhill position or whether this change was not possible. The RFAC minutes simply record the agreement of a design with 'a flat roof ... on the welfare block' and a simplification in plan of the main building (minutes 12 May 1954). All parties were agreed on the solution by 31 May but in June the National Trust expressed concern that 'a second group of buildings is contemplated east of Selworthy Beacon, apparently on North Hill and adjacent to land owned by the Trust. This is also an important site.' It is not clear what these proposals were but there is no further mention of them.

The quarterly reports of the Rotor project (TNA 8/2032) give brief notes of progress and suggest that the Ministry was happy that West Myne would not be delayed by the discussions. Tenders had been received for all sites by April 1954, most contracts let by June and good progress was reported in October. This progress was maintained into 1955, and by June of that year West Myne was one of several that was complete and awaiting the installation of technical equipment. This had not been accomplished by the January report of 1956 but by April the site had been handed over to the RAF.

The hand-over from the Ministry of Supply had taken place at a meeting (minutes in TNA AIR 8/11323) at the site on 22 March which discussed a report on the equipment testing ('Report on AIS inspection of installation of equipment to contract 6WT/35098/CB14(a) at Site ZEM'). The VHF communications equipment had been tested and was working and the testing of the radar (one Type 14, Mark 7 Head and one Type 13, Mark 7 Head) had been completed on 12 March 1956. It had, however, not been possible to complete the repainting (an indication, as noted above, that this was reused equipment) of the antennae due to bad weather. The minutes of the meeting also state that all GPO services were installed apart from the stand-by generator (which was due in four weeks). The testing report was discussed including the need for a new telephone exchange and problems with the mains electricity supply. The local electricity board had confirmed that it could guarantee a stable supply if phoned when needed. At the end of the meeting the RAF formally accepted the site from the Ministry of Supply.

No records appear to survive of the use of the site and it is not known which unit was assigned to staff it when needed. The site may well have never been

operated as further changes of the overall plans for UK air defence were already underway, the '1958 plan', so called from its proposed implementation date (Dobinson 1998, 71). The rapidly growing threat of intercontinental ballistic missiles, rather than radar-detectable bombers, together with technical improvements giving wider coverage, meant that fewer radar stations would be needed. This was clearly being considered in a report of 29 October 1957 entitled 'Fighter command – deployment of control and reporting system, non-operational flying units and supporting units' which has a chart attached showing 'present, and planned future deployment' which includes as number 39: 'West Myne, CHEL, see note 1'. Note 1 indicates that 'The Air Staff are now examining the need for C.H.E.L. Stations. 16 Stations are retained for the long term in addition to C.H.E.L. facilities at other sites pending Air Staff decision.' (TNA AIR 9/2033). No immediate action seems to have been taken and the site at West Myne was still listed as operational in 1958 and 1960 but not in 1962 (TNA AIR 8/2033) suggesting a closure date sometime in 1961. A local informant suggests it lingered until 1964 (below) and it is possible that this discrepancy is not due to imperfect memory as the site may have been placed on a care and maintenance basis while its future was considered. Clearly the National Trust would have wanted it removed if no longer required while the Air Ministry would want to avoid the expense of demolition.

## THE SITE

RAF West Myne was so short-lived and so secret that its very existence has been doubted – confusion with the Second World War radar station on North Hill being assumed. The site itself was certainly cleared sometime in the 1960s as the area is visible as rough grazing on Ordnance Survey aerial photographs taken in 1970 (SRO A/AGA). There is very little visible on the site today – only a few remains of concrete foundations on a large levelled area suggest the presence of any buildings but the existence of a concrete approach road is suggestive. The site also appears to have disappeared from local memory, it was not mentioned by Osborn (1983) who noted the existence of the road to the site but believed it to be wartime, and no records appear to survive with the National Trust (Martin Papworth, pers. comm.). Only one source has been located that gives good evidence of the appearance of the site: a set of



*Fig. 1: Detail from RAF aerial photograph of 1 September 1958 (RAF 58 2555 0118) showing RAF West Myne from the north. English Heritage (NMR) RAF Photography.*

Ministry of Defence oblique aerial photographs (now in the National Monuments Record, RAF 58 2555 0118-9) taken on 1 September 1958 which show the site clearly from the sea (Fig. 1). To the left (east) is the radar antenna for the Type 14 set on its steel gantry above the plinth (a small building). To the right is the antenna for the Type 13 height-finding radar mounted directly on a plinth. On a lower level (perhaps the lower level requested by the National Trust, above), in front of the Type 13, is the modified R11 operations block with another building, probably the stand-by set building to the lower right (north-west). The access road enters the site from the rough ground to the rear and splits to reach the R11 from either end. A further building seen to the left of the R11 is an agricultural structure that predates the radar station and still survives on the site.

The Exmoor survey by the Royal Commission on the Historical Monuments of England (now part of English Heritage) visited the site in 1998 unaware of its true nature. They recorded the existence of 'a building compound, part of a Cold War military installation' (NMR site SS 94 NW 122) that had been pointed out by a local farmer who further informed

the investigators that it was in use from 1953 to 1964. The farmer described a building complex and also two masts on the northern edge of Bratton Ball (NMR site SS 94 NW 154; note that since 1998 this record has become confused in the NMR with a nearby Royal Observer Corps site). These masts were for VHF communications from RAF West Myne (transmitter at SS 9426 4739, receiver at SS 9450 4731, Bob Jenner, pers. comm.). At the main location indicated by the farmer (SS 92678 48471) 'in a field of improved pasture are several small areas of concrete, just visible poking through the turf' (NMR site SS 94 NW 122); this grid reference is that of the main Type 14 radar antenna. The investigators seem not to have noticed the large flat area to the north-west, where the R11 block was situated, and where concrete foundations were also visible when visited independently by the author in the same year.

## CONCLUSION

The story of RAF West Myne provides several examples of the difficulties of Cold War archaeology. The site was very short-lived as the changing nature

of the threat and advances in technology overtook those of official building programmes. The site was secret both to hinder enemy countermeasures but also in view of the growing public protest against nuclear war and this means that little survives in public records and local sources are confused by myth. However, the story of RAF West Myne also typifies the problems faced by the military and government in trying to react to both the current threat and to their best guess of the future in such times of rapid technological advance. The familiar (to most people in the 1950s) high explosive bombing of the Second World War had led, only 15 years later, to the threat of total annihilation by hydrogen bombs arriving by untrackable rockets from space.

### Acknowledgements

My interest in RAF West Myne was initiated by a phone call from Roger Thomas of English Heritage in 1998 and subsequently stimulated by the refusal of several people to believe that the site had ever existed. Bob Jenner generously shared his wide knowledge of Cold War radar while he was also searching for details of the site – there are further technical details resulting from his work on the Subterranea Britannica website ([http://www.subbrit.org.uk/rgs/sites/w/west\\_myne/index.html](http://www.subbrit.org.uk/rgs/sites/w/west_myne/index.html)). Krystyna Truscoe, then of Somerset County Council, located the 1958 aerial photographs in the National Monuments Record. I am grateful to them and to David Hunt for many valuable discussions and his comments on this paper. Any mistakes, and there will always be some in a subject relating to military secrets, are mine.

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\*Copies of these reports (and of the others in the series) have been deposited in the Society's library.