



North Berwick

**Royal Observer Corps  
Nuclear Monitoring Post  
North Berwick Law**

North Berwick Environment and Heritage Trust  
Heritage Guide

During the Cold War (1947–1991), if a nuclear attack was anticipated, volunteers from the Royal Observer Corps staffed small underground monitoring posts, or ‘bunkers’, across Britain where they would report any bomb bursts, calculate their distance from ground zero and measure fallout radiation.



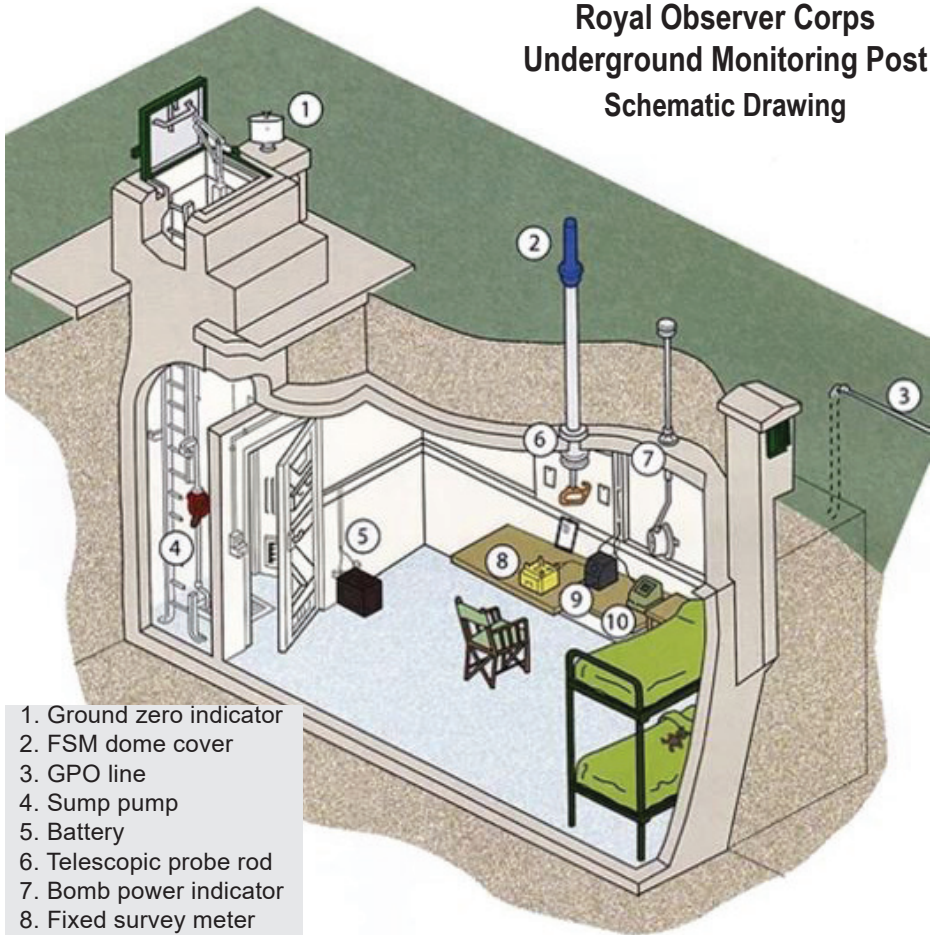
From 1957 onwards, 1,560 posts were constructed, all with the same uniform design and contents. Observers would descend the 15ft entry shaft by ladder into two small rooms: a small chemical toilet cupboard and a larger 15ft x 7ft room. In the larger room, Observers would operate the monitoring and communications equipment. The environment was cool and damp, and relatively dark with only a 6-watt bulb light for illumination. In the case of an attack it was anticipated they might have to stay there for up to 21 days.

**Ground Zero Indicator (GZI)** Mounted to the bunker roof, this would record the bearing and altitude of explosions. Working like a pinhole camera, it recorded the explosion’s flash, showing both the bearing and elevation from the horizon.

**Bomb Power Indicator (BPI)** Provided that the distance from ground zero is known, the power of a nuclear weapon can be calculated from the peak pressure produced by the blast wave. The Bomb Power Indicator was designed to record this pressure.

**Fixed Survey Meter (FSM)** The meter was mounted outside through a hole in the ceiling and protected by a plastic dome. It measured radiation due to fallout caused by the nuclear explosion.

## Royal Observer Corps Underground Monitoring Post Schematic Drawing



1. Ground zero indicator
2. FSM dome cover
3. GPO line
4. Sump pump
5. Battery
6. Telescopic probe rod
7. Bomb power indicator
8. Fixed survey meter
9. Teletalk
10. Carrier warning system

***'Forewarned is forearmed: inside the hidden world of the Royal Observer . . .' (from Sarah Harper, 'Nuclear War Games in Your Own Backyard?', NMS blog)***

By triangulating the results from Ground Zero Indicators from at least three bunker locations, it was possible to calculate the coordinates of the bomb and whether it was a ground- or air-burst.

Bomb Power Indicators at each bunker recorded the pressure caused by the explosion. By calculating a series of readings at different posts, the magnitude of the explosion could be calculated.

Ground explosions reduced the destructive power of a bomb as energy was transferred into the ground. However, they led to more radiation fallout with contaminated particles sucked up into the atmosphere. The destructive power of air explosions was greater, but less material became radioactive. The Fixed Survey Meter measured surface radiation.

During the Cold War, the Royal Observer Corps was part of the United Kingdom Warning and Monitoring Organisation. Following a nuclear attack, the Corps would plot radiation fallout levels and provide basic meteorological information. The specialist equipment provided would allow Observers to report real-time information about the power and location of nuclear bomb explosions to the Group Headquarters, for North Berwick in Edinburgh, for transmission on to Regional Centres.

Communication between posts and Headquarters was important and required devices like the Teletalk, a hands-off telephone, to link the posts together using existing telephone lines. Additionally, each post had a Carrier Wave Warning System – a loudspeaker that was always on – to warn of imminent attacks and fallout radiation, and to give the all-clear.

East Lothian had monitoring posts at Aberlady, Dunbar, Garvald and Humbie as well as the one at North Berwick. The post on the Law was decommissioned in 1991 and the entrance hatch welded closed.

