

Introduction

Site building 2-328, known as the Area 2 Gun Turret, consists of an above-ground moveable naval gun turret and a circular, partially-underground concrete bunker. Along with several other structures in the vicinity, the turret and nearby buildings functioned as shelters for the instruments, detectors, and power and communications devices used to record data from atmospheric nuclear tests.

Site Building 2-328: The Area 2 Gun Turret

Gun Turret

The turret is a U.S. Navy Mark 9, originally fielded with three eight-inch, 55-caliber naval rifles. Only 12 ships carried this particular design, and they were all built in the early 1930s. While the majority of those ships were destroyed during World War II, it is believed that this turret came from the USS Louisville cruiser, which was still in service at the end of the war.

In January 1957, the turret from the Mare Island Navy Shipyard was obtained by the Nevada Test Site, now known as the Nevada National Security Site. It traveled by ship to the Naval Construction Battalion base at Port Hueneme, California, and then by truck to Area 2 in the Yucca Flat valley to be used in the construction of Building 2-328.

Building 2-328

Building 2-328 was originally constructed for use in the Operation Plumbbob series of nuclear tests. It was used to observe and diagnose three of Operation Plumbbob's above-ground atomic tests: Shasta, Diablo and Whitney. Each of these tests deployed a nuclear device atop a 500-foot tower less than a mile away from the gun turret.

The turret was given a lead-lined collimating tube to restrict the detection of emitted radiations to a given area of interest. Coupled with the ability to elevate and rotate 360 degrees, the turret was intended to focus on each device as it was detonated atop its tower. Light from the detonation shone on the collimator and reached sensitive detectors housed within the turret. That light was converted to electronic signals, which were



The Area 2 Gun Turret at the Nevada National Security Site.

collected and processed within the nearby 2-300 bunker complex. Prior to Operation Plumbbob, atmospheric testing required a number of special purpose bunkers to house detector stations and were often mounted on the towers themselves. Wiring from those detectors had to be buried in trenches 20 feet wide by 20 feet deep, and were often a mile or more in length

depending on the yield of the device. Those cables could sometimes be reused, but the devices attached to the towers themselves could not. By constructing this reusable observation platform inside the gun turret, the Site realized a significant cost savings: It could participate in multiple tower tests with a single bunker complex for both observation and recording.



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