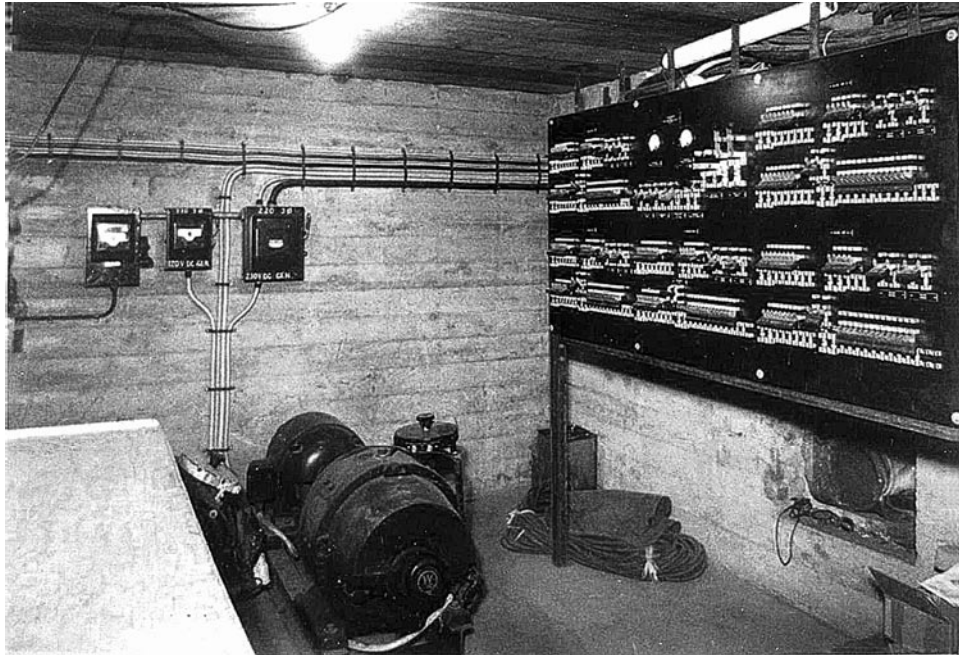




Mk33 gun director used in conjunction with the Ewa Mooring Mast Battery. The director removed from the U.S.S. *Cassin* was used with the 5-inch/38 guns. *Davis Collection*



*Davis Collection*

### Battery No.1 (Hickam Field)

The first numbered battery was located near the border of the Army Air Forces' Hickam Field and the Pearl Harbor main gate (now the Nimitz Gate), on AAF property. The site was selected on January 20, 1942, and completed by February 9 of that year.(19)

Battery No. 1 was built and initially manned by personnel from the U.S.S. *California*. Lt. Fred Purdy, USN, fire control officer onboard the *California*, was the initial battery commander. Known as "Naval Antiaircraft Shore Battery (NASB) No. 1," it was later manned by army coast artillery troops. The battery was four 5-inch/25s and one Mk19 gun director removed from the *California*.(20)

The emplacements of NASB No. 1 were a basic design, reinforced-concrete gun blocks revetted with sandbags that appeared to be placed in a circular pattern, stacked to permit firing at surface targets. A thin layer of gunite applied to the sandbags prevented them from tearing when the gunners sat on them. Capt. Cary Hall, USN, described the parapets as "a favorite roosting spot." Ready-ammunition boxes were recessed within the interior of the emplacements. A sandbagged magazine, some distance away, held reserve 5-inch ammunition.(21) The exterior walls of the emplacements were embanked with earth.

To compensate for mud around the emplacements during wet weather, crushed rock was obtained without benefit of official requisition by a battery crewmember, Boatswain's Mate 2<sup>nd</sup> Class (BM2) Dotson. After about ten loads of rock were delivered, the antiaircraft gunners had the benefit of new gravel paths throughout the battery area. Dotson and Seaman Jones appropriated barbed wire, a scarce commodity in those days, and soon the battery was encircled by coils of the defensive wire.(22)

Navy sound-powered telephones were employed at the battery, which confused one army major, who attempted to find the power source by lifting up every foot of the wire to no avail.(23) It is not known if the three other antiaircraft batteries constructed by the navy, Ewa-Mooring Mast, Puuloa, and West Loch, were also equipped with sound-powered phones, or the five subsequent batteries.

Battery No. 1 seems to have been designed in a diamond formation, which appeared to be the style employed by marines at two locations on Johnston Atoll in World War II. "Batteries Godbold" (3-inch M3) and Lewis (90 mm) were built on Johnston Island and nearby Sand Island Annex, respectively in the formation.(24)

Battery No. 1 became the standard by which all other AA batteries were judged, after HQ, 53<sup>rd</sup> CA (AA) Brigade, at Fort Shafter ordered all AA batteries to camouflage their positions. BM2 Dotson soon showed up with truckloads of fence posts, coils of wire, rolls of chicken wire, and bundles of dyed burlap, called "garlands." The poles were erected, the chicken wire spread between them, and the garlands were woven between them as directed by an army pamphlet, "How to Camouflage for Fun and Profit." Battery No. 1 became the first AA battery in Hawaii to apply camouflage after the order was issued; soon every battery commander was ordered to take a short course in the application of camouflage by observing the methods employed at the battery.(25)

Captain Hall recalled with regards to training army personnel that were to eventually take over manning the naval AA batteries, "Our battery trained all of the Army crews that relieved the Navy crews. We would absorb an Army company [battery] mostly composed of men who had never fired a gun, and deluge our soldier allies with lectures and drills for three or four weeks. They graduated during a firing exercise at the Navy battery on Ewa Beach." (26)

The approximate battery coordinates are: 21° 20' 47" N, 157° 56' 40" W (NAD 83/WGS 84.

complex for Hickam AFB is the approximate location of the former AA gun battery.



“West Loch 1,” 5-inch/25 gun presumed to be Gun No.1. Note the sandbag revetments. *Davis Collection*



West Loch looking southeast. *Author, July 2006*

### **Battery No. 2 (West Loch)**

The second battery was built at West Loch, the farthest west of all the Pearl Harbor lochs (loch being the Scottish name for lake or an arm of the sea). Naval personnel built and initially manned the battery. The location of the West Loch AA battery has not been pinpointed; it could have been built on land cultivated by the Ewa Plantation Company, which grew sugarcane around West Loch ca. 1939.(27)

Battery No. 2 was completed on February 9, 1942, armed with four 5-inch/25s removed from the *West Virginia*

January 9, 1942, the port 5-inch AA battery having been removed earlier.(28) A photograph labeled “West Loch Director” shows what appears to be a modified Mk19 director with a vertical apparatus at-

apparatus ran from top to bottom, and appeared to be equipped with several short horizontal dipoles that protruded forward. This may have been an early radio ranging antenna (fire control radar), but this has not been confirmed.

The same photograph also depicted what appears to be a 5-inch/38 gun enclosed in a shielded to the right of the Mk19 director. The placing of the 5-inch/38 guns and a Mk 19 director at the West Loch site was a bit out of the ordinary, as the only battery reportedly armed with 5-inch/38s was the Ewa Mooring Mast battery, with one Mk19 director and four 5-inch/38s, all removed from the destroyers *Cassin*, *Downes*, and *Shaw*. The author is unaware of any sources that would account for an extra battery of 5-inch/38s built on Oahu.

On December 18, 1941, all farms adjacent to West Loch were ordered evacuated for security give two days for preparation, and the men were allowed to return to their farms during daylight until livestock could be moved and crops harvested. The farmers had only recently been relocated to the West Loch area by the Farm Security Administration (FSA), consequently, the farmers lost practically all their life savings plus considerable money borrowed from the FSA.(29)

### Battery No. 3 (Puuloa)

The third numbered antiaircraft battery was in the ancient Hawaiian sub-district of Puuloa, above the shoreline, west of the Pearl Harbor entrance channel. Battery No. 3 was completed by naval personnel in May 1942.(30) The location was ideally suited for firing at surface and aerial targets.

A photograph shows one emplacement armed with a 5-inch/25 naval AA gun and a ready service ammunition box with “USS Utah” painted on the door, possibly by survivors of the capsized *Utah* (AG-16), the former-battleship converted into a gunnery/target ship. Battery No. 3 became the firing battery for army coast artillerymen being trained on naval AA guns by navy gunners.

The battery may have been built adjacent to the Fleet Machine Gun Training School, at Fort Weaver, the site on December 8, 1941, of three batteries of 20 mm automatic weapons and .50-caliber AAMGs manned by marines. Coordinates for the southwestern edge of the present Marine Corps Puuloa Rifle Range are 21° 18’ 51” N, 157° 59’ 24” W.

Navy gunners slept under canvas near the gun battery in an area cleared of algaroba trees, as shown in a photograph. It is not known whether theater-of-operations structures were later built to house the men and the battery support functions.

A 3-inch battery, Fixed AA Battery No. 18, was built at Fort Weaver in 1927. The four M1917 3-inch AA guns on fixed M1917 carriages were arranged in the then-standard foursquare pattern. The battery was manned by Battery A, 15<sup>th</sup> CA (HD) Regiment, as an alternative assignment until August 13, 1944, when the 15<sup>th</sup> CA was inactivated. The personnel were transferred to Battery A, 53<sup>rd</sup> CA (HD) Bn; the primary assignment of the battery was to man both 16-inch 50-caliber M1919 guns of Battery Edward B. Williston at the fort.(31)

In the spring of 1941, AA detachments were formed in several seacoast batteries of the 15<sup>th</sup>, 16<sup>th</sup>, and 55<sup>th</sup> CA (HD) Regiments to man the fixed AA batteries in the harbor defenses. These detachments<sup>th</sup> CA were incorporated into the 97<sup>th</sup> CA (AA) Regiment just prior to the war and the detachments from Batteries A and C of



Emplacement No. 4 at Puuloa armed with a 5-inch 25-caliber gun. Ammunition ready box marked "USS *Utah*." Note armed naval sentry. *Davis Collection*



distance. *Davis Collection*



Gun No. 3 at Puuloa, showing tent encampment at the rear of the battery. *Davis Collection*



*Author, July 2006*

the 16<sup>th</sup> CA and Batteries E and F of the 55<sup>th</sup> CA manned the batteries at Forts DeRussy and Ruger and at Sand Island M.R.(32)

In October 1941, the 3-inch AA guns of Fixed AA Battery No. 18 were taken over by Battery G of the partially organized 97<sup>th</sup> CA (AA) Regiment. The 3-inch M1917 AA guns were soon replaced with 90 mm M1 DP guns on fixed M3 mounts. It appeared that Battery G, 97<sup>th</sup> CA, also manned the 5-inch naval guns of Battery No. 5, as reported by General Perkins in his November 18, 1943, letter to the CG, Hawaiian AA Command.(33) Before the war's end, the 90 mm guns had been replaced by 4.7-inch (120 mm) AA guns.



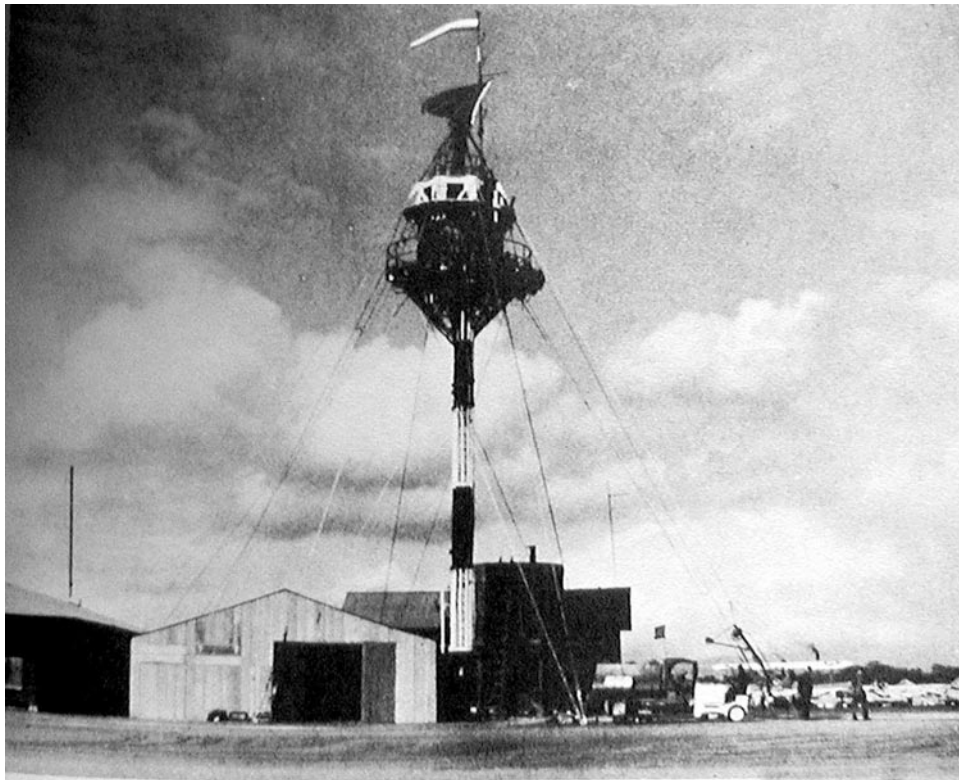
On December 12, 1943, the air defenses of the Hawaiian Department underwent reorganization, and Battery G, 97<sup>th</sup> CA (AA), was assimilated into Battery B, 754<sup>th</sup> AAA (Gun) Bn. Battery B of the 754<sup>th</sup> continued to man the 4.7-inch AA guns at Fort Weaver until the unit relocated to another battery site in the Pearl Harbor/Hickam area in 1945. The 881<sup>st</sup> AAA Battery (Gun) took over Fort Weaver's AA guns in August 1945 and manned them through December 1945, when the fort was placed in caretaking status.(34)

#### **Battery No. 4 (Ewa Mooring Mast)**

Battery No. 4 was located on the Ewa Plain near the unused navy mooring mast west of Pearl Harbor. The site became the Ewa Marine Corps Air Station (MCAS), commissioned on April 15, 1942, that eventually evolved into the Pacific Marine Corps aviation headquarters during World War II.

The battery was built on sand and limestone coral in a clearing of thorny algaroba trees, which grew profusely on the southwest and west coasts of Oahu before housing and industrial development. The SW end of the MCAS runway was approximately 2.7 miles NE of the NE tip of the adjacent Barbers Point Naval Air Station runway. The Ewa MCAS was closed down and disestablished in 1952.

The Ewa Mooring Mast Battery was built and initially manned by navy personnel. Armed with four 5-inch/38s, one from U.S.S. *Downes* and the other three from U.S.S. *Shaw*, it was equipped with  
*Cas-*  
*sin*.(35)



Ewa Mooring Mast. USMC