

## WAR PERIOD HISTORY: HARBOR DEFENSES OF SAN DIEGO

(Editor's Note: The following report was retrieved from the archives at Cabrillo National Monument. It has been the basis for numerous published articles on the history of the military in World War II, but has only been available since the 1970s for academic research. The document has been faithfully reproduced in the form it was prepared after World War II)

Situation of Harbor Defenses of San Diego (HDS) as it existed 7 December 1941.

The mission of HDS was to protect the San Diego area against land, sea, and air attacks. Several factors had made the protection of this area of increasing importance in recent years.

The Consolidated Aircraft Company was in a state of continuing expansion, turning out patrol bombers for the U.S. Navy, and Liberator land bombers for Great Britain. The U.S. Navy Destroyer Base was being developed into a complete Repair Base and serviced all types of units except battleships for the Pacific Fleet. Some of the largest aircraft carriers called San Diego home port and were in and out of the harbor at frequent intervals. The San Diego Naval Air Station was being enlarged to provide a base of the air arm of the Pacific Fleet. The Headquarters of the Eleventh Naval District was in San Diego. A large Navy supply depot, the Naval Training Station, the Marine Base, the Naval Fuel Depot, and smaller installations were also located here. All of those required protection not only for themselves but also for the shipping which flowed in and out of the harbor to make use of them.

The terrain of the area provided some favorable features for defense, but also left some natural avenues of approach which an enemy might use in a land attack. Such attacks were likely only from the north and south because of the mountain range east of

the area. Several thousand troops at the Camp Callan CARTC (Coastal Artillery Recruit Training Center) and marines in combat training at Camp Elliott (Editor's Note: Near Camp Callan, but east of Interstate 5) provided an obstacle to any attack moving down the coast from the north. Attacks from the south must come across the International Border from Mexico. The Mexican garrison in lower California was small and could offer little resistance to an enemy landing and subsequent movement. However, it is a sparsely populated area, few roads, and small opportunities exist for living off the country. The 11th Cavalry was stationed at Camp Lockett and carried on frequent maneuvers along the border. It could delay or block any attack from Mexican territory.

Approaches from the sea were patrolled to a limited extent by U.S. Navy planes. The Coronado Islands to the south provided a screen behind which surface units might approach undetected by terrestrial observation. The La Jolla Canyon, a deep crevice in the ocean floor, made a favorable route of submarine approach from the northwest to within five miles of defended positions.

Few favorable conditions could be found which contributed to the defense against air attacks, the third part of the mission. There was no radar to provide warning of the approach of planes. Drills had been carried out with Navy ships and shore stations for report of aircraft, however, coverage provided was incidental to ship movements made for other reasons. A volunteer air raid warning service with filter center for the area was ready for the first test. Almost no plans of active defenses were available. Planes at the Naval Air Station were equipped for training and Army planes at March Field were far away and might be needed at Los Angeles.

Within the Harbor Defenses, action had been taken for carrying

out the three parts of the mission. Plans had been prepared and practiced for moving troops to threatened points within the defended area. Prior to outbreak of hostilities, these were concerned primarily with sabotage or inspired riots. Companies "D" and "F" (of the) 180th Infantry were made available to the RD Commander. They were sent to protect El Capitan Dam, San Diego's chief water supply source, and the power transformer stations serving the important parts of the city. Active and close liaison was maintained to take advantage of other troops in the San Diego area in case of attack.

The Harbor Defense had the following armament installed for repelling attacks from the sea:

Batteries White and Whistler. Two 12 inch mortar batteries of four guns each, these had been installed in 1920, were slow firing and could be easily outranged by any ship larger than a destroyer.

Batteries Calef and Wilkeson. Two 10 inch DC gun batteries of two guns each, these had been installed in 1900 and covered only a limited water area to the south. These batteries suffered from the same range limitation of the mortars.



Figure 1. During the 1935 San Diego Exposition, the U.S. Army opened Fort Rosecrans for Army Days. In dress uniforms, these soldiers demonstrated the loading operation of the 10 inch rifle at Emplacement Number 4 of Battery Calef/Wilkeson. A Base End Station is behind the chairs atop the battery.

Battery Strong. A battery of two 8 inch guns mounted on barbette carriages, this was the only modern battery in the Harbor Defense and had been completed and proof fired in the summer of 1941. It had modern plotting room equipment and DPFs, but only one base line. The guns were not shielded and had no power equipment.

Two batteries of four 155 mm G.P.F. Guns. (These batteries were) installed in field emplacements to cover the southwest, west, and northwest approaches to the harbor.

Battery McGrath. A battery of two 3 inch guns, this had been installed in 1919 (sic) and could cover the harbor entrance channel on the east side of Fort Rosecrans.

(Editor's Note: The report failed to mention Battery Fetterman.)

The fire control equipment in all batteries except the 8 inch was old and a good part of it improvised. The 155 mm (G.P.F.) batteries had only temporary base end stations (sighting and triangulation positions).

There were eight fixed seacoast searchlights, six at Fort Rosecrans and two on North Island. All had been installed in 1920. Eight more, modern portable searchlights were available at Fort Rosecrans.

A new Harbor Defense Command Post had been completed in the spring of 1941. The other command stations were much older, and inadequately protected and concealed.

A Harbor Entrance Control Post had been established in the Old Spanish Light House (sic) at Fort Rosecrans in July 1941. It had operated since that time with an Army officer, a Navy officer, and enlisted assistants on duty twenty-four hours a day. A signal tower was operated as part of the station. Battery McGrath was designated the examination battery and was also manned twenty-four hours a day.

To repel air attacks, five positions had been prepared at Fort Rosecrans for four .50 caliber machine guns each. These were well dug in, revetted (retaining wall), and complete with connecting tunnels between pits. However, only .30 caliber machine guns were available in the Harbor Defense for installation in the positions.

Although the Harbor Defense armament was inadequate, the troops assigned were better prepared. The 19th Coast Artillery Regiment consisted of a headquarters battery, a searchlight battery, and three battalions of a headquarters battery and three lettered batteries each. Enlisted cadres for the organizations had come from the Regular Army. The remainder of the enlisted men were mostly selectees from the Middle West who had ten months training. About three-fourths of them had received all their training at Fort Rosecrans. The other one-fourth had come from the CARTC at Camp Callan, after completing basic training there.

The field officers in the Harbor Defense were Regular Army, and company grade officers were largely Coast Artillery Reserves, who had been on active duty from six to eighteen months.

The regiment had trained intensively in artillery drill, infantry drill, small arms firing and other basic military subjects. Almost all the personnel had participated in at least one seacoast artillery target practice.

War condition periods of several days each had been held at six week intervals during the year 1941. During these periods troops had lived at their gun emplacements under assumed tactical conditions, which might prevail during hostilities.

Troops were normally comfortably housed in two cantonment areas, consisting of mobilization type buildings, built in (the) winter of 1940-1941.

The outbreak of war on 7 December 1941, with the temporary impairment of the Pacific Fleet, made enemy

attacks on the Pacific Coast not only possible but to all appearances, also probable.

Troops were to their gun positions immediately. Ammunition was hauled to the battery positions and made ready for firing. Guards at the reservation gates and boundaries were increased and the general public excluded from the fort. Organizations were assigned areas of the reservation in which they were responsible for protection against paratroopers, fire, and sabotage.

Marine troops were obtained from Camp Elliott for the protection of the Naval Fuel Depot.

Batteries "H" and "I" (of the) 19th Coast Artillery were sent to Consolidated Aircraft Company for air raid protection. They had only their own limited number of .30 caliber machine guns and anti-aircraft mounts. This armament was increased by the use of some .50 caliber machine guns which were at the plant to be mounted in bombers, and by four 37 mm guns borrowed from Camp Callan. This constituted the only anti-aircraft defense until anti-aircraft units began to arrive from Texas and Georgia, a week later. The Harbor Defense troops were not completely relieved to return to Fort Rosecrans for almost a month.

The Harbor Defense Command Post was manned immediately and was continuously on alert until after V-J Day. By mid afternoon of 7 December 1941 all armament was ready to fire, although an attack in force would have found the Harbor Defense badly out-ranged and at serious disadvantage in fire power. Battery Point Loma, the 155 mm (G.P.F.) battery in the southwest part of Fort Rosecrans, was made the examination battery. All personnel on pass, leave, and furlough were ordered back to their units.

Field fortifications and beach defenses were strengthened and increased in number. Camouflage improvement was initiated. These processes were continuous for the period of the war.

During the period (of) 9 to 14 December 1941, the 155 mm (G.P.F.) battery in the northwest part of the reservation, was moved to Coronado Heights and named Battery Imperial. This extended the water area covered by Harbor Defense guns considerably to the south.

All batteries eight inches and below were put on constant anti-submarine alert status. During the period of the war, there were sixty-one reports of enemy submarines, unidentified surface vessels, and underwater contacts off San Diego recorded by Harbor Defenses. During 1942 and 1943, local defense ships and planes went into action twenty-eight times on the basis of such reports, and during 1943, 115 depth charges were dropped by these forces. No friendly shipping was sunk and no enemy craft were ever identified within range of the Harbor Defense guns.

Before the war, all base-end stations had been either at Fort Rosecrans or across the channel entrance. New temporary base-end structures were established at La Jolla, Hermosa, above Ocean Beach,

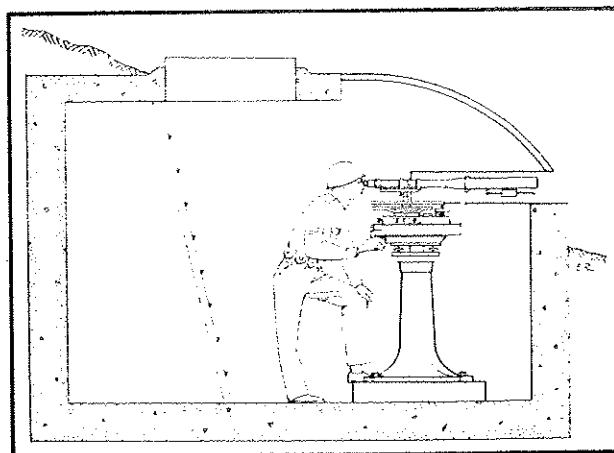


Figure 2. This cross-section of a typical base-end station is from Seacoast Fortifications of the United States, by E. R. Lewis, Pictorial Histories Publishing Company, Missoula, Montana (reprint 1988), by permission of copyright owner. Drawing by author.

Coronado Heights, and at the Mexican Border. This gave complete coverage of the coast line and adjacent water areas within naval gun range of San Diego. Communications were extended to all these points from Fort Rosecrans.

One platoon of Battery "A" (of the) 19th Coast Artillery was sent to Camp Callan CARTC to man 155 mm (G.P.F.) guns (placed) there. While thousands of troops were in the CARTC, training was not of such nature to make effective tactical manning of guns practical. This platoon remained in position for several months.

The portable searchlights were also moved to positions so as to provide illumination for all the new base-end stations.

Also in the first week of the war, the Harbor Entrance Control Post was moved into a room in the Harbor Defense Command Post structure. A completely integrated Joint Army-Navy command post was now a reality and continued as such during the period of the war.

Action was taken to press for immediate start of delayed construction in the Harbor Defense project, and for approval and start of work on the modernization program.

Panama mounts were completed for Batteries Point Loma and Imperial in January of 1942. This enabled coverage of the entire coast line and adjacent water area from south of La Jolla to below the Mexican Border by at least one battery of 155 mm (G.P.F.) guns.

Construction started immediately thereafter on new armament and base end stations. In the next two years, twenty-six new base-end stations and two new base-end command posts were completed. Portable searchlights were installed to serve these stations and a total of twenty-two searchlights were actually in position at one time. New armament installed will be enumerated individually in order of completion.

A system of permanent buried Fire Control Communication cables was also started at this time. In a little over two years, the permanent

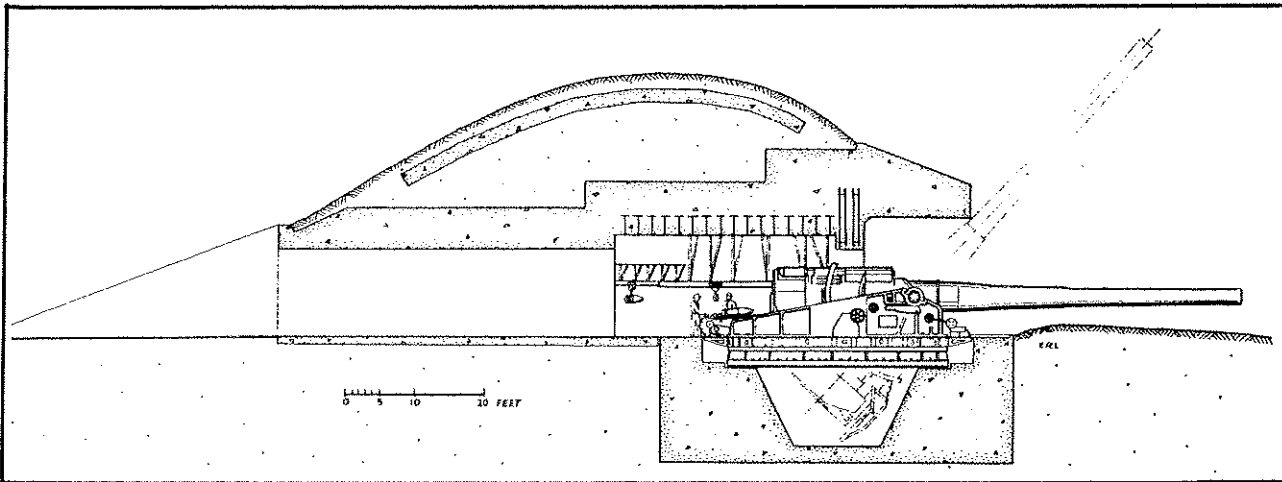


Figure 3. This cross-section of Battery Richmond P. Davis, San Francisco, 1937-1940, was the model for all World War II heavy-caliber seacoast batteries built in California. The steel-reinforced concrete overhead structure protected the 16 inch gun battery from aerial attack. By the time Battery Ashburn was completed at Fort Rosecrans in July, 1943, substantial improvements had been developed. From Seacoast Fortifications of the United States, by E. R. Lewis, Pictorial Histories Publishing Company, Missoula, Montana (reprint 1988), by permission of copyright owner. Drawing by author.

communication cables called for in the modernization process were all in and working.

The 262nd Coast Artillery Battalion, consisting of a Headquarters Battery and two lettered batteries, was activated at this Harbor Defense, 1 May 1942.

The 77th Chemical Smoke Generator Company was activated at Fort Rosecrans (on) 16 April 1942. These colored troops established the smoke generator defense of the San Diego area. They moved to temporary barracks in San Diego (on) 17 August 1942.

Prior to the war, the U.S. Marine Corps had mounted three 5 inch guns near Battery Point Loma for training purposes. When the 155 mm (G.P.F.) battery emplacement was moved from the northwest (sic) corner of Fort Rosecrans to Coronado Heights, 9-14 December 1941, no armament was left in this area. Request was then made to move these three 5 inch guns to the old 155 mm (G.P.F.) emplacement and use them as interim Harbor Defense armament until the modernization battery in that area could be built. This request was approved and in June 1942 the move was completed and the manning of the battery taken over by Harbor Defense troops. The battery was named Gillespie and provided an addition to the defense against submarines and light surface units for well over a year.

The Harbor Defense also obtained the loan of two 7 inch Navy guns from the U.S. Marine Corps. The emplacement of these was completed in July 1942 and the battery named Zeilin. This battery strengthened the density of the defense to the west although not extending the range. It was manned for over a year.

Battery Humphrey's emplacement, the first of the modernization batteries, was also completed in July (of) 1942. The 6 inch guns and carriages were not available and two 155 mm (G.P.F.) guns were borrowed from Camp Callan to install beside the gun platforms. The battery thus

constituted became the examination battery and effectively covered the entire outer channel approaches.

Another structure of the modernization program was added in August with the completion of the bomb-proof transmitter station. This housed both Army and Navy radio transmitters for the combined Harbor Defense Command Post-Harbor Entrance Control Post.

Until August 1942, all officers and men for operating the Harbor Defense Headquarters and command post had come from the 19th Coast Artillery Regiment. All that time a Harbor Defense Headquarters and Headquarters Battery was authorized, which made possible the dividing of the two headquarters. An Harbor Entrance Command Post section was included in the new battery and it became possible to adequately man that station.

In the fall of 1942, the mortar batteries and the 10 inch batteries were declared obsolete and scrapped. Since sufficient new armament was not yet completed which could be manned, Battery "F" (of the) Coast Artillery was deactivated, 1 October 1942.

The first of the AMTB armament was received in October with the arrival of eight 37 mm guns. Modification and emplacement of these units was started immediately. The following months six mobile 90 mm guns were received for the AMTB defense. These were emplaced in previously selected positions at Fort Rosecrans, North Island, and on the Silver Strand. The battery at North Island was moved to Ballast Point a few months later at the request of the U.S. Navy. Improvised methods and means of fire control were devised and personnel trained in them.

The War Department in December officially designated the Coronado Heights area Fort Emory. Battery "H" (of the) 19th Coast Artillery had been moved to that post to man the new AMTB Armament and anti-aircraft machine guns, so the garrison consisted of two lettered batteries

and the 3rd Battalion Headquarters Battery.

The first radar in the Harbor Defense went on the air 17 February 1943. This was an SCR-296-A and was installed not far from Battery Strong's Base-end Command Station and for use by that battery. This radar was on the air in time to track the battleship task group which simulated bombardment of Point Loma as a part of their training for the Aleutian counter-invasion. Together with a similar Navy set at the Radar Laboratory complete track of the ship's movements was obtained, although because of fog they were invisible for only a short time. It was the first use of radar in such a joint Army-Navy problem.

The radio receiver room addition to the Harbor Defense Command Post-Harbor Entrance Control Post was also completed in February 1943. The radio communication project for this joint installation was now complete.

On 25 February 1943, the 281st Coast Artillery Battalion was activated, consisting of a headquarters battery, and two lettered batteries. The battalion was trained at Harbor Defenses of San Diego and part of the officers and men were furnished from this garrison. After firing target practices, the battalion departed for the South Pacific area (on) 18 May 1943.

The first target practice to be fired in the Harbor Defenses of San Diego using radar fire control for position finding and spotting occurred 18 May 1943. The radar first on the air in January was used with Battery Gillespie for the practice. Results compared favorably with these which had previously been obtained by visual methods.

Mounting of the 6 inch guns and carriages at Battery Humphreys was completed in July 1943 and were proof fired the same month. This was the first modernization project battery to be completed in the Harbor Defense. The 155 mm (G.P.F.) guns which had served for a year and now removed and this battery also

replaced Battery Point Loma in the tactical plan of the Harbor Defense.

In the same month the plotting-switchboard for Battery Ashburn, the 16 inch battery at Fort Rosecrans was completed. The Fort Rosecrans fire control switchboard was now moved from the old Battery White to its new location. With the addition of new equipment this became the largest installation of its kind on the west coast.

The mounting of the fixed 90 mm AMTB armament was completed in August. The three AMTB batteries were named Cortez, Fetterman, and Cabrillo and were located on the Silver Strand, Ballast Point, and in front of old Battery Point Loma respectively. A complete battery consisted of two fixed 90 mm guns in gun houses, two mobile 90 mm guns, and two 37 mm guns with two .50 caliber machine guns mounted on each 37 mm carriage. Three positions of two 37 mm (guns) which were separated somewhat from the 90 mm units were called Batteries Channel, Bluff, and Cliff, the first two being on the east side of Fort Rosecrans and the third just above the Point Loma Light House. The M9 Directors arrived, were issued, and by the end of September all the AMTB batteries had fired target practice with their new guns and fire control equipment.

