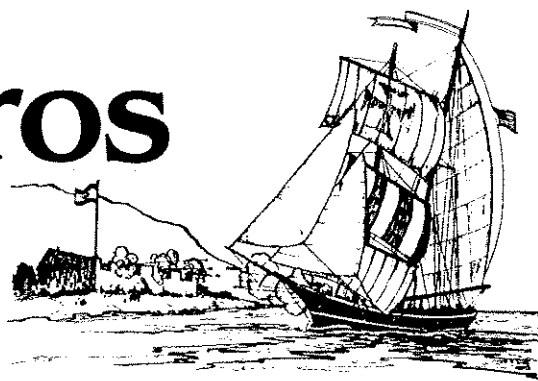


Fort Guijarros Quarterly



SUMMER 1988

VOLUME 2, NUMBER 2



FEATURED IN THIS ISSUE

**DEFENDING SAN DIEGO: THE ROLE OF FORT ROSECRANS
AND THE U.S. ARMY COAST ARTILLERY IN THE SECOND WORLD WAR**

A non-profit organization incorporated in 1981 to research and promote the heritage of San Diego's old Spanish fort and the subsequent history of Ballast Point in San Diego Bay.

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FORT GUIJARROS QUARTERLY

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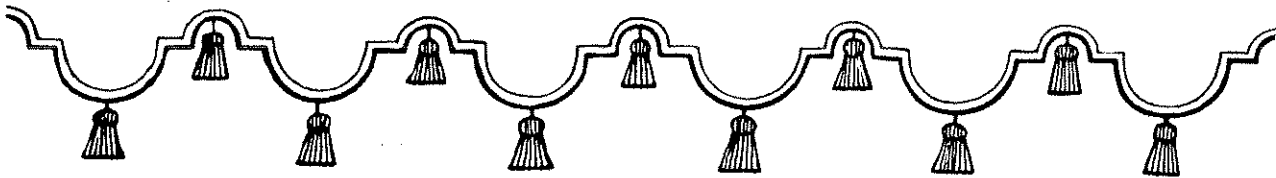
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COVER: During September of 1935, the United States Army presented exhibits at the San Diego Exposition. The Coast Artillery Corps displayed this three inch artillery piece as an example of the modernized mobile defense system at that time. Spent shell casings litter the foreground of the picture.



MEMBERSHIP INVITED TO FORT GUIJARROS FIESTA
SEPTEMBER 17, 1988

The Board of Directors of the Fort Guijarros Museum Foundation encourages all our members to mark the 17th of September on their calendars and to invite friends and relatives to the 8th Annual Fort Guijarros Fiesta. The fiesta will be held at Argonaut Hall on the U.S. Naval Submarine Base at the south end of Rosecrans Street in Point Loma.

Guests are encouraged to wear costumes that reflect one of the historical periods represented at Ballast Point. Although past years have focused upon Spanish California in the 18th century, members might wish to wear maritime theme costumes to fit in with the 1988 excavation of the 1858 to 1873 whaling station.

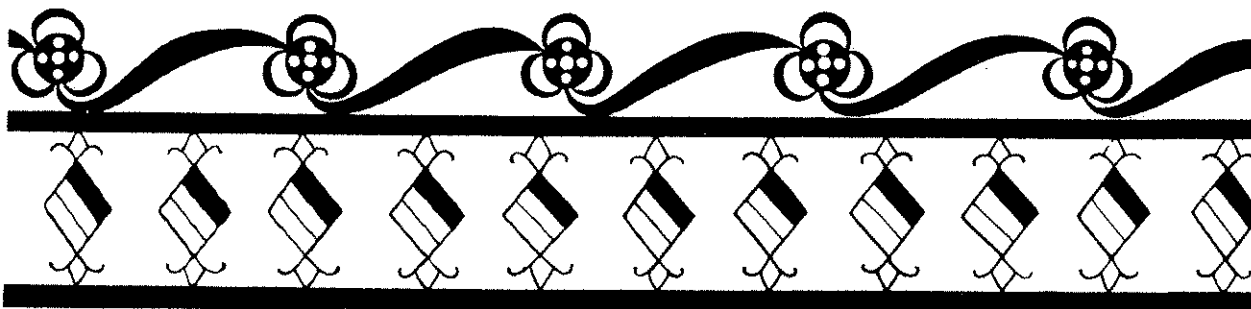
From 5:00 to 7:00 P.M., guests will be transported in vans to the excavations out on the tip of Ballast Point. There, the U.S. Navy Cannon Team will fire salutes on the Civil War vintage "Napoleon" cannon, once used by the U.S. Army at Fort Rosecrans.

Between 6:00 and 6:45 P.M., Foundation volunteers will conduct tours of the 1904 U.S. Army Fort Rosecrans buildings. These buildings now function as part of the U.S. Navy Submarine Base.

U.S. Magistrate R. Curtis McKee, Captain, U.S. Navy (ret.) will be Master of Ceremonies. At 7:00 P.M., chefs will bring in the traditional Spanish paella dinner and the meal will begin. Spanish guitar music will accompany the event.

Professor Norman Neuerberg, Ph.d., Emeritus, California State University, Dominguez Hills, will deliver a slide-illustrated keynote presentation that compares the art and architecture of Mallorca, Spain to the 18th century presidios, missions, and homes in California. Neuerberg is a California mission researcher and restoration artist who recently authored an article on Mission San Diego in the Journal of San Diego History. He is also the author of The Decoration of the California Missions, published by Bellerophon Books. The illustrations on this page are from his book and depict decorations painted on the walls within Mission San Luis Rey.

The evening will wrap up with an awards ceremony for all those who have served the Fort Guijarros Museum Foundation so faithfully in the 1987-1988 year. Guests will have chances to win door prizes throughout the evening.



U.S. ARMY FORTS AROUND SAN DIEGO BAY

by Ronald V. May
Director of Archaeology Programs

The U.S. Army military installations that existed in San Diego in 1941 were de-activated posts from World War I and earlier. Fort Rosecrans, Fort Pio Pico, Fort Emory, Camp Callan, and Camp Lockett were involved in World War II.

Fort Rosecrans

Designed in the 19th century to repel naval and marine assaults to the shores of San Diego, the fort on Point Loma was named after Brigadier General William S. Rosecrans, U.S. Army. General Rosecrans had received a "Thanks of Congress" for a signal victory at the Battle of Murfreesboro, Tennessee and was breveted Major General in 1865. General Order 134, July 22, 1899, authorized the honor.

The defense system consisted of flat trajectory artillery, harbor mine fields, and a garrison of troops. Mortars and mobile artillery were added in World War I. The Washington Naval Treaty of 1922 led to closure of Fort Rosecrans to a caretaker status.

In 1888, the bodies of eighteen soldiers that died at the 1846 Battle of San Pasqual were buried near the breakwater at Ballast Point. They were later moved up to the Bennington Monument at the top of Point Loma. War Department General Order 7 designated 8.01 acres around the monument as the Fort Rosecrans National Cemetery in 1934.

During the Great Depression, thousands of troops were billeted at Fort Rosecrans for training. Various units were assigned to demonstrate their skills and equipment at the 1935 San Diego Exposition. At that time, however, only one non-commissioned officer and twenty enlisted men occupied Fort Rosecrans (San Diego Union, October 29, 1935).

War in Europe and Southeast Asia spurred defense interests on the west coast. In March of 1935, a Japanese spy was caught with a 250 page notebook full of maps and descriptions of military installations in his possession (Daily News, March 7, 1935). Later that year, the U.S. Army Corps of Engineers began dredging the harbor and filled in the bay north of Ballast Point. Barracks were installed on the fill, and by 1940, there were 21,000 soldiers living at Fort Rosecrans (San Diego Union, October 17, 1940).

Between June of 1940 and April of 1941, sophisticated electronic facilities were developed atop Point Loma. These were under the auspices of either the U.S. Navy Radio and Sound Laboratory or the University of California Department of War Research. These expanded the Navy Radio Point Loma facility, which for sixty hours between December 7 and 9, 1941 held the distinction of being the primary communication station for the Pacific Fleet after the attack on Pearl Harbor.

Fort Rosecrans expanded territory over all of the military reservation on Point Loma during the Second World War. The "upper cantonment" eventually involved 240,000 acres. In 1942, the U.S. Navy Small Craft Facility replaced the Department of Health Quarantine Station.

After the war, troop reductions vacated the facilities, and military research and development assumed the space. The Naval Electronics Laboratories, University of California Marine Physical Laboratory, and Scripps Institution of Oceanography used the old barracks and warehouses for research. On December 31, 1949, the U.S. Army declared Fort Rosecrans to be surplus property, and discontinued use of the property on March 12, 1959. Today, it is divided into numerous U.S. Navy commands.

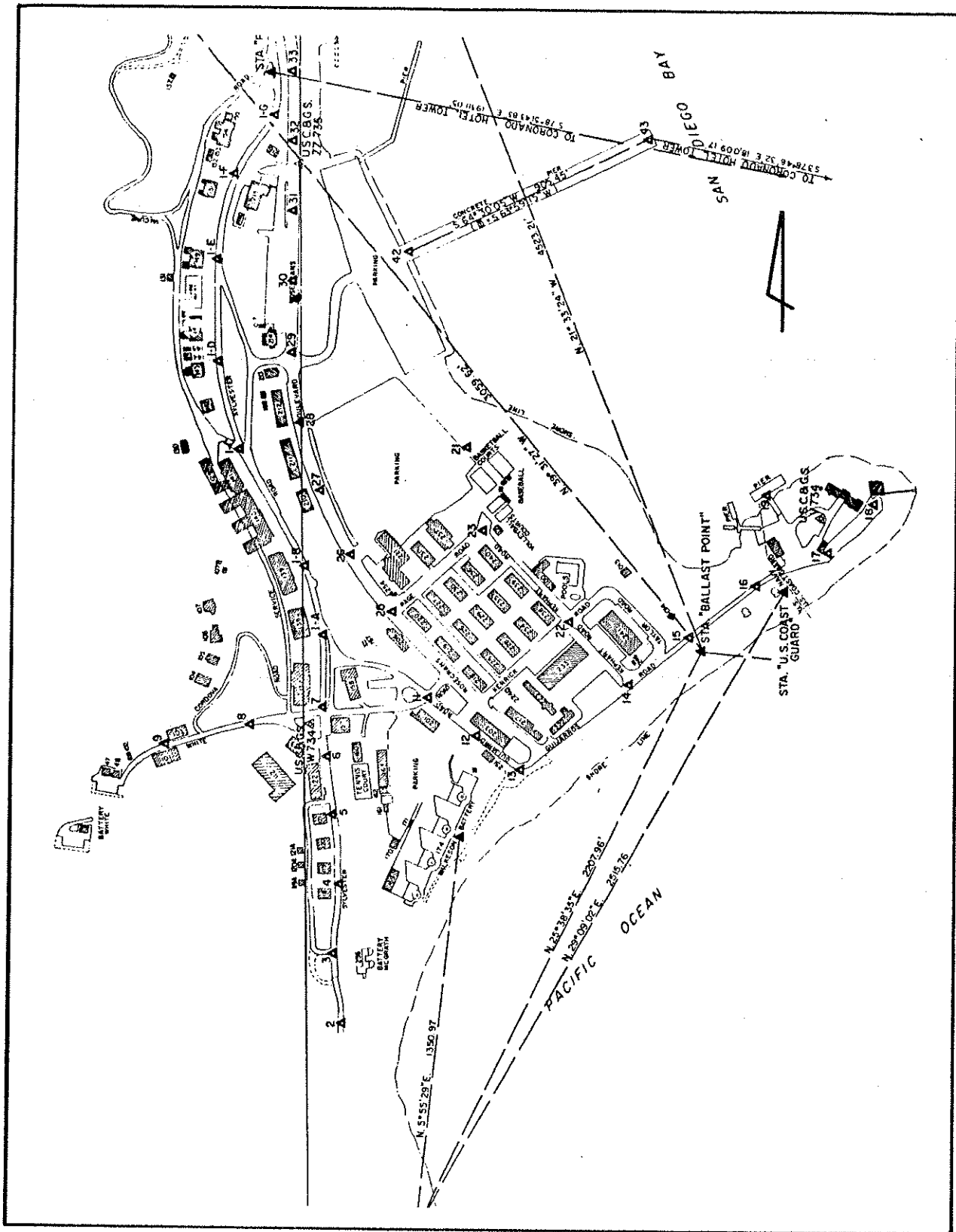


Figure 1. This plot plan illustrates the layout of facilities at the Lower Cantonment of Fort Rosecrans as they existed in World War II. A landfill operation in 1942 created the area east of Rosecrans Boulevard. Many of the buildings west of Rosecrans remain on the U.S. Naval Submarine Base today.

On July 1, 1963, 341 acres of the original 1899 Fort Rosecrans site were transferred to the Navy Public Works Center. By October of 1963, it became the U.S. Naval Submarine Support Facility and in 1982 it became U.S. Naval Submarine Base.

Fort Pio Pico

Following completion of the harbor defense system at Fort Rosecrans, the Artillery District of San Diego convinced their superiors that additional facilities were needed opposite Ballast Point on North Island. In 1906, Fort Pio Pico was established as an extension of Fort Rosecrans. This outpost consisted of one gun battery, several search-lights, and various small sand bunkers to house the troops. It was named in honor of the last Mexican Governor in California. Storm damage in 1914 inspired the U.S. Army to store the guns at that time. In World War I, searchlights were installed and Fort Pio Pico was transferred to the U.S. Army Air Corps. It has since become the North Island Naval Air Station.

Battery Meed

Installed in 1906, this twin 3 inch gun battery provided cross-fire at the entrance to San Diego Bay. After World War I, the guns were transferred to Battery McGrath at Fort Rosecrans in 1919.

Fort Emory

In order to command a wide field of fire south of San Diego, the Coast Artillery designed Fort Emory mid point along Silver Strand at Coronado Heights, just west of Imperial Beach. Named for Brigadier General William Helmsley Emory, it was dedicated on December 14, 1942. Four batteries were designed for Fort Emory, of which three were completed. The U.S. Army decommissioned Fort Emory in 1947 and the U.S. Navy is custodian of the property.

Battery Imperial

The four 155 mm G.P.F. guns from Battery Point Loma were hauled around San Diego Bay to form Battery Imperial in January of 1942. These were replaced by Battery Grant in November of 1943.

Battery Grant

Constructed between 1942 and 1943, Battery Grant was numbered #239 by the Coast Artillery. It consisted of two six inch guns in an open pit. It was atop a hill west of the highway.

Battery Cortez

In August of 1943, Battery Cortez was constructed on the Silver Strand. It was an AMTB (anti-aircraft) battery with two fixed 90 mm guns in concrete houses, two mobile 90 mm guns, two 37 mm guns with two .50 caliber machine guns mounted on each 37 mm carriage. These were anti-aircraft systems.

Battery Gatchell

Named in honor of Brigadier General George Washington Gatchell, who was commanding officer at Fort Rosecrans from 1908 to 1910, Battery Gatchell was neither completed nor dedicated. Identified in the U.S. National Archives as #134, Battery Gatchell was designed to house two 16 inch guns that would have matched Battery Ashburn at Fort Rosecrans. The work on this emplacement were cancelled in February of 1944 when the war no longer threatened American soil. It was about 1200 feet north of Grant on a hill about 30 feet high and 600 feet long.

FORT ROSECRANS, U.S. ARMY COAST ARTILLERY CORPS,
BATTERIES FROM 1902 TO 1943

Editor's Introduction

The late Col. George Ruhlen, U.S. Army (ret.) served as Commanding Officer of the San Diego Artillery District, Fort Rosecrans just prior to World War II. This article was supplemented with information from the Naval Electronic Laboratory Master Shore Station Development Plan and various materials from Record Groups 165 and 407 in the United States National Archives.

Fort Rosecrans, California

Data from Fort Record Book. Extracted by Col. George Ruhlen, U.S. Army, (ret.).

Batteries White and Whistler.

These each had four 12 inch mortars. Battery White is located in the ravine west of the post. They were both built between 1915 and 1916. The mortars were not installed until 1920. One was named to honor Colonel John Vassar White, Coast Artillery Corps. Battery Whistler is on top of a ridge near the upper gate. It was named to honor Colonel John Garland Nelson Whistler, Coast Artillery Corps. The mortars were scrapped in 1942, but the pits remained in use as storage areas.

Battery Ashburn. Two 16 inch guns in concrete casemates (enclosed bunkers below the ground surface) are on top of the ridge north of the 1853 lighthouse. Battery Ashburn was named after Major General Thomas Quinn Ashburn, U.S. Army, who had been an artillery officer. Installed in 1943, these guns were proof-fired in July of 1944. They were the largest guns ever installed in San Diego. After the Korean War, these guns were cut up for scrap and the bunkers used for storage.

Battery Strong. Two 8 inch guns

with barbette (elevated, rotating) carriages were on the west ridge, north of the Fort Rosecrans National Cemetery. They were named for Major General Frederick Smith Strong, U.S. Army, a former artillery officer who had organized the 40th Division at Camp Kearny, California in 1917 and commanded it in France in World War I. The emplacement at Battery Strong was completed in 1937, and the guns were installed in April of 1941. The guns were open mounts without shields.

Battery Humphreys. Two 6 inch guns with barbette carriages were installed on the east side of the Peninsula in July of 1943 to replace Battery Point Loma. It was named for Colonel Charles Humphreys, Coast Artillery Corps, among the first commanding officers of Fort Rosecrans.

Battery McGrath. Originally installed were two 5 inch guns on Balanced Pillar Mounts (rotating and elevating from a pivot on a pillar for swift aim) in a concrete casemated battery. It was constructed in 1900 to the north and contemporary with Battery Wilkeson. Battery McGrath was named after Major Hugh Jocelyn McGrath, Major Engineer Volunteers (Captain 4th Cavalry), who received the Medal of Honor for action at Noveleta, Philippine Islands on October 8, 1898, but died on November 7, 1898. The guns were removed on September 23, 1917 to be used in France in World War I and replaced by two 3 inch guns on barbette mounts shipped from Battery Meed across San Diego Bay from Fort Pio Pico (North Island) and installed on February 28, 1919.

Battery Fetterman. Two 3 inch guns on Balanced Pillar Mounts, Model 1898, were installed in a concrete casemate emplacement located just

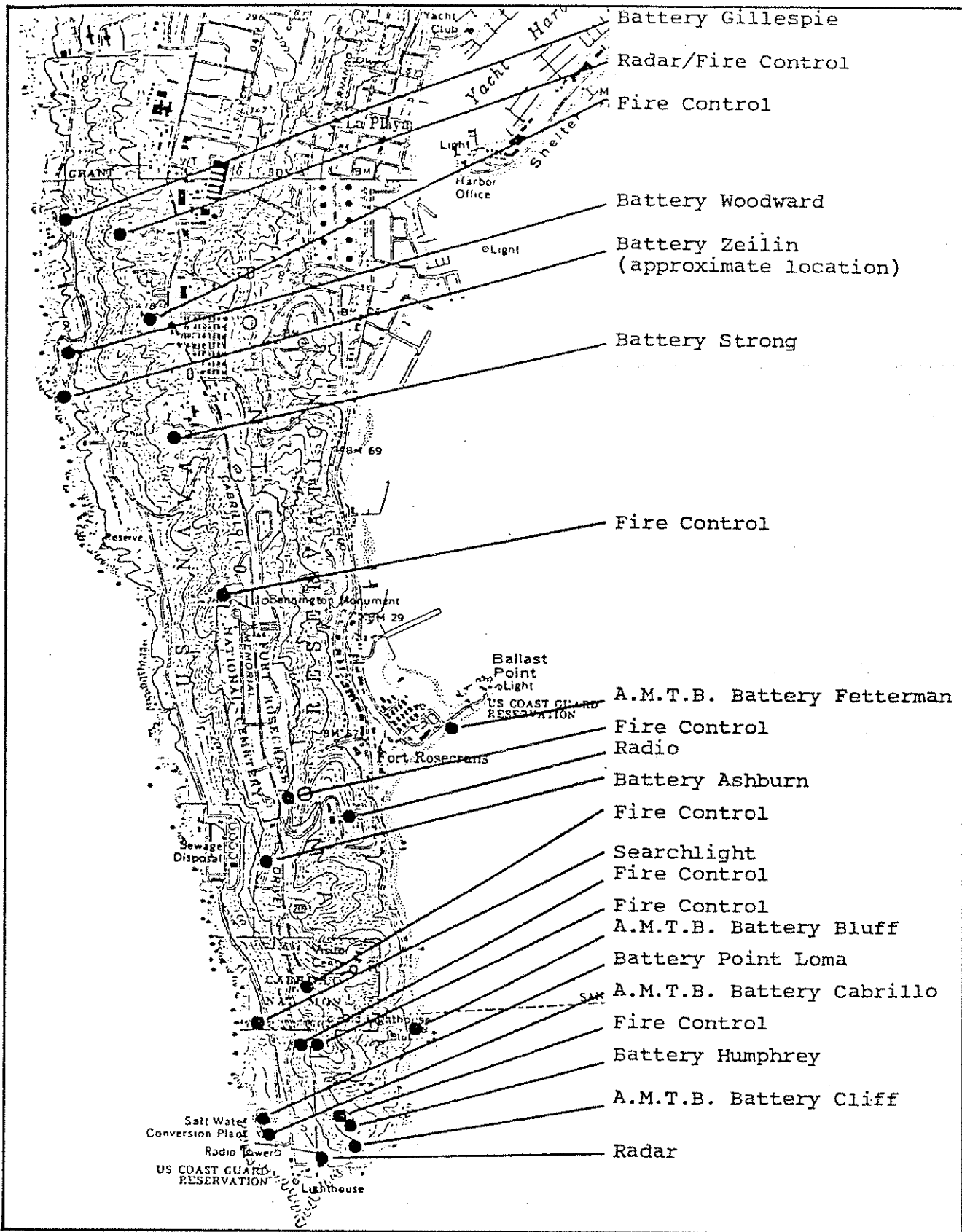


Figure 1. Artillery batteries and fire control structures constructed at Fort Rosecrans 1930-1945.

east of Battery Wilkeson. This battery was named for Brevet Lieutenant Colonel William Judd Fetterman, Captain of the 27th Infantry, who was killed December 21, 1866, in action with Sioux Indians near Fort Phil Kearny, Dakota (Wyoming). This battery was declared obsolete in 1942, the guns removed, and the emplacement demolished. Pieces of Battery Fetterman form the sea wall along the south side of Ballast Point.

Battery Wilkeson. Battery Wilkeson was named for Brevet Lieutenant Colonel and 1st Lieutenant Bayard Wilkeson, 4th Artillery, who was killed July 1, 1863 at the Battle of Gettysburg. The four gun emplacements of Battery Wilkeson were constructed by the U.S. Army Corps of Engineers between 1898 and June of 1899. Lt. Patterson brought the first garrison of Battery B, 3rd Artillery, from the San Diego Barracks in downtown San Diego February 2, 1898 to stay in the old 1873 barracks at Ballast Point/Point Loma. Battery Wilkeson was turned over to Lt. Patterson on February 13, 1900. In 1902, four 10 inch guns were installed on disappearing carriages. Upon firing, the gun's recoil swung them down behind the battery.

In 1915, an administrative change divided the command of this battery and emplacements Nos. 1 and 2 retained the name Wilkeson, but Nos. 2 and 3 were named Battery Calef. This honor was in given to Colonel John Haskell Calef, 3rd Artillery, who died January 4, 1912. During World War II, these guns were deemed vulnerable to aerial bombing and in 1942 the artillery was scrapped.

Battery Zeilin. Two 7 inch U.S. Navy guns were installed on the west side of Point Loma. This battery was installed in the late 1930s and was replaced in 1943 by Battery Woodward.

Battery Gillespie. Three 5 inch U.S. Navy guns were installed on the west side of Point Loma in June of

1942. The actual emplacement had been installed in the late 1930s. The guns had been used for training by the United States Marine Corps, but were transferred to the Coast Artillery during World War II. It was replaced in 1943 by Battery Woodward.

Battery Woodward. Two 6 inch guns were installed in November of 1943 on the west side of Point Loma. These replaced Batteries Zeilin and Gillespie.

Battery Point Loma. Two batteries of four 155 mm G.P.F. guns were located on Point Loma on the west side of Fort Rosecrans. They had been under construction in the 1930s, but were not activated until 1941. One was placed on the southwest and the other on the northwest part of the reservation. These were replaced by Battery Humphreys in 1943. The guns were then transferred to Coronado Heights, Fort Emory, which had been established on December 14, 1942.

AMT Batteries. Three AMT batteries were installed with 90 mm guns. Battery Fetterman was installed near the tip of Ballast Point (It is not to be confused with the two 3 inch guns installed in 1900 east of Battery Wilkeson.) Battery Cabrillo was installed in front of Battery Point Loma. The third battery location was not identified. Each battery contained two 90 mm guns in emplacements, two mobile 90 mm guns, and two 37 mm guns with two .50 caliber machine guns.

37 mm position. Three positions with 37 mm guns were installed on Point Loma. On the east side were "Channel" and "Bluff". Just above the Point Loma Lighthouse was "Cliff".

All the batteries in the San Diego Artillery District in World War II were manned by the 19th Coast Artillery.

BATTERY POINT LOMA

by

Howard Overton
Cabrillo National Monument

This is the story of a little known part of San Diego and America's history. It happened on Point Loma, on property now part of Cabrillo National Monument. The tale will involve events that led up to the construction of Battery Point Loma, how the guns were fired, and what life was like in those early months of World War II. It is also an assessment of what time and the elements have done to it since its construction.

What is a battery? A battery can be two things. A battery, if named, such as Battery Point Loma, consists of one to four guns mounted to direct fire at a point. (1) If it is an alphabetic designation, such as Battery E, it was a group of men adequate to fire the number of guns assigned to it. So a battery can be a group of men and/or a number of guns.

December 7, 1941 was a dark day in the history of the United States. The Japanese attack on Pearl Harbor had thrown the nation into turmoil. An attack, or possibly an invasion, of the west coast by the Japanese was expected. (2)

Much planning was done in the middle 1930s to improve the harbor defenses that would defend the port of San Diego, but, on December 7, 1941, only one gun battery was in position to effectively repel the expected attack. That was Battery Point Loma. All other gun batteries were either pointed in the wrong direction, not yet ready to be manned, or were outmoded and useless. Battery Point Loma was the lead defensive position in the San Diego Harbor Defenses from December 7, 1941 until April 1942 when other gun positions came into service.

In the 1930s, Fort Rosecrans, though technically still a U.S. Army

base, had been virtually closed down. A reporter visiting the base in 1935 found a commissioned officer, eighteen enlisted men, and a dog named Bozo. (3) The United States, however, began to respond to trouble in Europe and the western Pacific. An article in the October 12, 1940 issue of the San Diego Union reported 18,525 officers and men stationed at Fort Rosecrans. (4) Not all of those men belonged to coastal artillery, which was the normal type of unit stationed on Point Loma. Fort Rosecrans served as a basic training center for the U.S. Army. About 15,000 of the men were draftees with regular Army instructors. This build-up was the largest force of men to have been stationed at Fort Rosecrans up to that time. (5)

Army planners were assigned to improve coastal defenses on the west coast as a precautionary measure against increased tension, stimulated by Japanese aggression in the Far East. The War Department received a detailed plan to improve the harbor defenses of San Diego as early as 1936. At that time, the main batteries of Fort Rosecrans were Gillespie, Calef, Wilkeson, McGrath, Fetterman, White, and Whistler. (6) The latter two were mortar batteries of limited range and slow firing. All of these guns were on the east facing slope of Point Loma and were aimed to the south toward Mexico.

Prior to Pearl Harbor, Battery McGrath served as the "examination battery" for all the batteries on the east side. At the time, it mounted two three inch guns on barbette mounts and was slightly elevated above Ballast Point. Battery McGrath had the best troops assigned to man its guns. When an alien ship entered the harbor with unknown intentions, the Harbor Defense Command Post

required it to stop and anchor within firing range of the examination battery, for examination, until officials cleared it for entry or ordered it to leave. (7)

A Harbor Entrance Control Post was established at the Old Point Loma Light House in July of 1941. It operated with an Army officer, Navy officer, and enlisted assistants on duty twenty-four hours a day. Battery McGrath was also manned around the clock. (8)

155 Millimeter G.P.F. Artillery

Included in the 1936 plans were two batteries of 155 millimeter "G.P.F." guns, one at Imperial Beach and one on Point Loma. The latter was located 300 yards north of the New Point Loma Light on the west side. Another gun position, Battery Strong was to be completed in April, 1942. Strong consisted of two 8 inch guns that were mounted on the west side of the peninsula with a field of fire directed to the west. (9)

The term 155 mm G.P.F means one hundred fifty-five millimeter Grand Puissance, Filloux. It was a U.S. Army mobile artillery designed by Captain Filloux of the French Army and sold to America in 1917. The shells fired by the gun measured 155 mm or 6.1 inches in diameter. After World War I, this piece was the standard heavy support weapon of the field artillery and could also be used by coastal artillery as mobile armament. They were a readily available piece of artillery prior to World War II. Hauled by vehicle, the 155 mm G.P.F. was quickly emplaced on a concrete pad with a steel track called the "Panama Mount." (10) This type of mount was first developed in Panama and the name stuck.

During service of the gun, no talking was permitted except for orders, reports, and instructions. The guns were loaded, elevated or depressed, swiveled left or right and halted, troops ordered to stand fast, take cover, ready, fire, and cease fire. (11)

Target practice was taken against towed objects at sea. Targets were towed from right to left. Each gun was manned by a "gun squad" of eleven enlisted men. Each man had a specific place to stand and specific duties related to that position. Odd numbered positions stood on the right of the gun and even numbered on the left. (12)

The gun was aimed through the use of an observation post. This post for Battery Point Loma was located above the battery on a hill to the east. There was a 45,000 yard field of view from that location. (13) Observations were taken of targets and then communicated to a plotting room. Every fifteen seconds a time interval, or T.I., bell would ring. At the bell, a reading of the location of the target was given to the plotting room, and they would compute the settings for the gun. After two T.I readings, a third point could then be theoretically advanced to where the ship would be located. The proper settings would then be

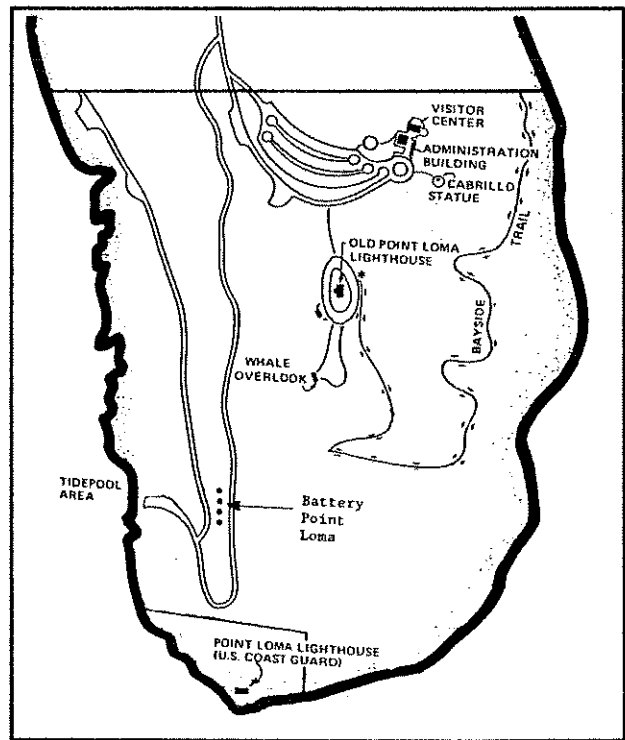


Figure 1. Cabrillo National Monument, showing position of Battery Point Loma.

communicated by telephone to the gun. At the third T.I. bell, the gun would be fired. (14)

A great many variables needed to be figured into the computation. Coastal artillery fired at moving targets. Factors that affected the flight of the projectile included air density, wind speed and direction, rotation of the earth, weight of the projectile, and amount of propelling charge. Hitting the target, of course, depended on the target approaching in a straight line. In time of a heated battle, few ships sailed in a direct line. (15)

Panama gun mount construction began on Point Loma in March of 1941. Each consisted of a massive cylindrical block of reinforced concrete, ten feet in diameter. The wheels of the 155 mm G.P.F rested and turned around this center cylinder. Outside was a circular ring of reinforced concrete with an outside diameter of thirty-eight and one half feet. On top of this ring was a circular steel rail embedded in the concrete. The gun trails rode on this outer rail. The gun was maneuvered from the trails. (16) The Panama mount went through several modifications over the years. Those at Battery Point Loma had a continuous outer ring that allowed the gun to rest on it and be fired in any direction.

All the gun positions were covered with a camouflage netting. This consisted of chicken wire with cloth interwoven to give the impression of dense brush. It was supported by wooden poles and spread out over a wide area to appear from sea as merely a gentle rise. Sometimes the muzzle blast would blow the netting away, but generally it remained in place. Work could continue in sandbagged trenches and beneath the covered gun positions on a routine basis with no activity exposed outside the camouflage. (17)

Battery Point Loma was manned by Battery E of the 19th Coast Artillery. The basic unit of men in the coastal artillery was the

battery, whereas the basic infantry unit was the platoon. The strategy was to organize all the individuals under one commander. Harbor defense units such as the 19th Coast Artillery were organized into batteries, battalions, and regiments. Battery E in December of 1941 consisted of 150 men. Battery E was to be a tactical fire delivery unit manning the four 155 mm G.P.F. guns of Battery Point Loma. They were commanded by one officer. (18) This installation was to defend the west side of Point Loma. From May 20, 1941 until April of 1942, it was the only battery pointing to the west.

A Model 1918, 155 mm G.P.F. was used in Battery Point Loma. These guns were made in America. Each gun weighed 25,905 pounds and fired a 100 pound projectile propelled by twenty-five pounds of propellant powder. Intended to hit shipping, the maximum range was 24,075 yards or 14.2 miles. (19) This was the largest piece of field artillery available before World War II. Similar batteries were mounted with these guns in Los Angeles, San Francisco, and throughout the Pacific. Modifications were made during World War II, but the gun remained essentially the same as it had been originally conceived in World War I. (20)

The harbor defense plan prepared on August 21, 1936 called for the construction of Battery Point Loma. Four gun platforms, one magazine for propelling charges, one magazine for projectiles, and a storeroom were designed to be cast in concrete. The estimated cost for completion of the battery position and accessories was \$44,720. (21)

On August 17, 1940, Colonel Peter H. Ottosen, Commanding Officer of Fort Rosecrans, recommended construction of Battery Point Loma as soon as possible. He noted that the defenses of Fort Rosecrans were entirely without means of effective fire against the types of ships normally used in maritime raids. Ten days later, the Commanding General of

the Fourth Army requested \$44,700 from Washington for the Point Loma 155 mm G.P.F battery. (22)

The War Department in Washington disagreed with Col. Ottosen's request. The 1936 plans were for six inch fixed sea coast batteries. Col. Ottosen replied that he needed both six inch and 155 mm G.P.F. guns on platforms. Failing his initial request, Ottosen recommended that at least the platforms be constructed at a cost of \$6000. This was accomplished on December 7, 1940. (23)

In March of 1941, Col. Ottosen reported that the plans for the gun mounts he had received called for only 180 degree traverse. He urged a full 360 degree traverse to defend the area. This modification was approved on March 8, 1941 and the contract for \$7935 was awarded thirteen days later. The actual cost with hired labor was \$7166. Col. Ottosen then moved guns and sights from storage areas elsewhere at Fort Rosecrans and installed them on the mounts. (24)

The slow process of design and approval for construction was delayed by technical review, comment, redesign, and competitive bidding. As the war in Europe and the Pacific dominated the news media in 1941, this red tape probably appeared unreasonably slow.

Battery Point Loma consisted of four mounts stretching in an approximate North-South line. The northernmost was Number 1 and the mounts were numbered up to Number 4 at the south. They were spaced ninety feet apart from center to center. (25) Battery Point Loma assumed the role of Examination Battery on December 7, 1941, relieving Battery McGrath. (26)

Emplaced then at Battery Point Loma was a heavy field artillery piece mounted on a concrete base firing a 100 pound projectile 14.2 miles. This was thought to be an effective defensive position in 1941. The guns could direct their fire to the west where the enemy would be

presumed to attack. This strategy was devised for World War I, over twenty years before the assault on Pearl Harbor. The United States was many years behind technological developments in warfare.

The Japanese had improved their offensive strategies and artillery in China. The attack, if it ever came, would have been by air and not sea. Ships carrying aircraft would position much further than 14.2 miles west. The planes could fire directly down on those uncovered positions, taking them out quickly. The U.S. Army had anti-aircraft positions also, but those too were outdated. These were water-cooled .30 caliber machine guns and would have been inadequate against the Japanese Zero fighter. But the attack against San Diego never came.

George H. McGlothlin
Battery E, 19th Coast Artillery

George H. McGlothlin enlisted in the U.S. Army on August 3, 1939 at the Baltimore, Maryland Recruiting Station. He then transferred to Fort Slocum, New York which was a processing center for U.S. Army personnel going overseas. Following six months training, he was put on the U.S. Army Transport Grant and shipped south through the Panama Canal, then north to San Francisco. The ship off-loaded men and supplies in California, Midway, and Guam. McGlothlin arrived in the Philippines on October 27, 1939 and was assigned to a Coastal Artillery unit. Following six weeks of training in Corregidor, he was assigned to Battery G, 59th Coast Artillery on the island of Caballo at Fort Hughes. He was assigned to work at various times on 14", 12", and 75 mm gun crews. Two years later, McGlothlin completed his overseas duty and was transferred to Fort Rosecrans in San Diego, California. He joined the men of Battery E, was promoted to the rank of Corporal, and assigned as an observer for Battery Point Loma. (27)

December 7, 1941

Corporal McGlothlin was lying in his bunk on Sunday, December 7, 1941, and it was almost time to go to lunch. About 11:00 or 11:30 AM, Battery E received a message that Pearl Harbor had been bombed. Ammunition was immediately hauled to the battery positions and made ready for firing. Guards were increased at all posts. By 2:00 PM that afternoon, the four 155 mm G.P.F. guns at Battery Point Loma were being manned on a twenty-four hour basis. Activity at Battery Point Loma was particularly hectic the first week of World War II. Corporal McGlothlin would later recall in a 1986 oral history that many doubts ran through his mind in the first six months of World War II. Was the United States

really that weak, and what would happen next? (28)

The temporary impairment of the Pacific Fleet made enemy attack on the Pacific Coast not only possible but, to all appearances, also probable. The entire west coast defense forces anticipated an attack and were put on alert.

The guns at Battery Point Loma were more heavily sandbagged. Holes were dug in the ground and covered with a half piece of culvert pipe and then recovered with soil. Canvas cots were placed in these bunkers and the men slept next to their guns.

The garrison at Fort Rosecrans perfected gun and close order drill. Every man learned the duties of each gun position through classes and practical instruction. Officers gave the men updates on the progress of

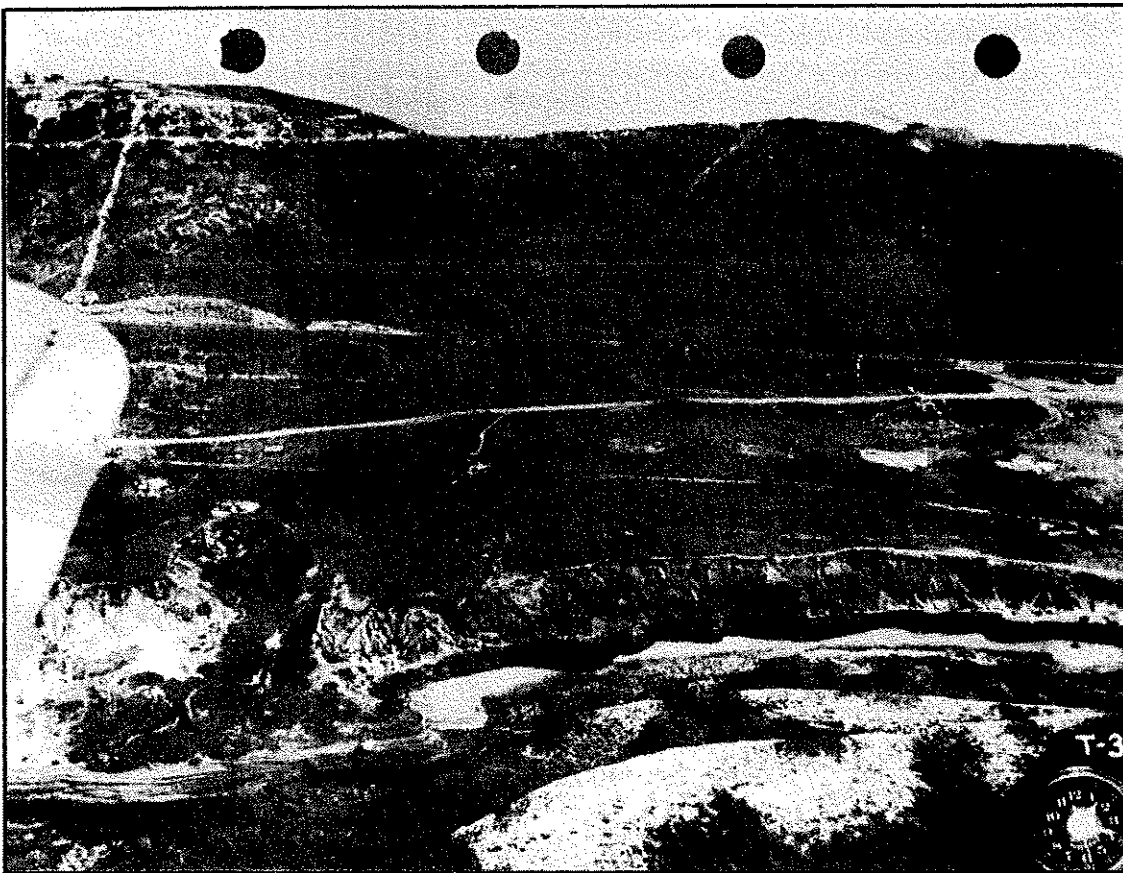


Figure 2. Battery Point Loma is shown here heavily camouflaged. You can see it if you look carefully between the two roadways. The obvious circles below are not the Battery. In the upper right of the photograph, construction on Battery Humphrey is just being started. This dates the picture to January or February 1942. Photo courtesy of the Naval Ocean Systems Center.

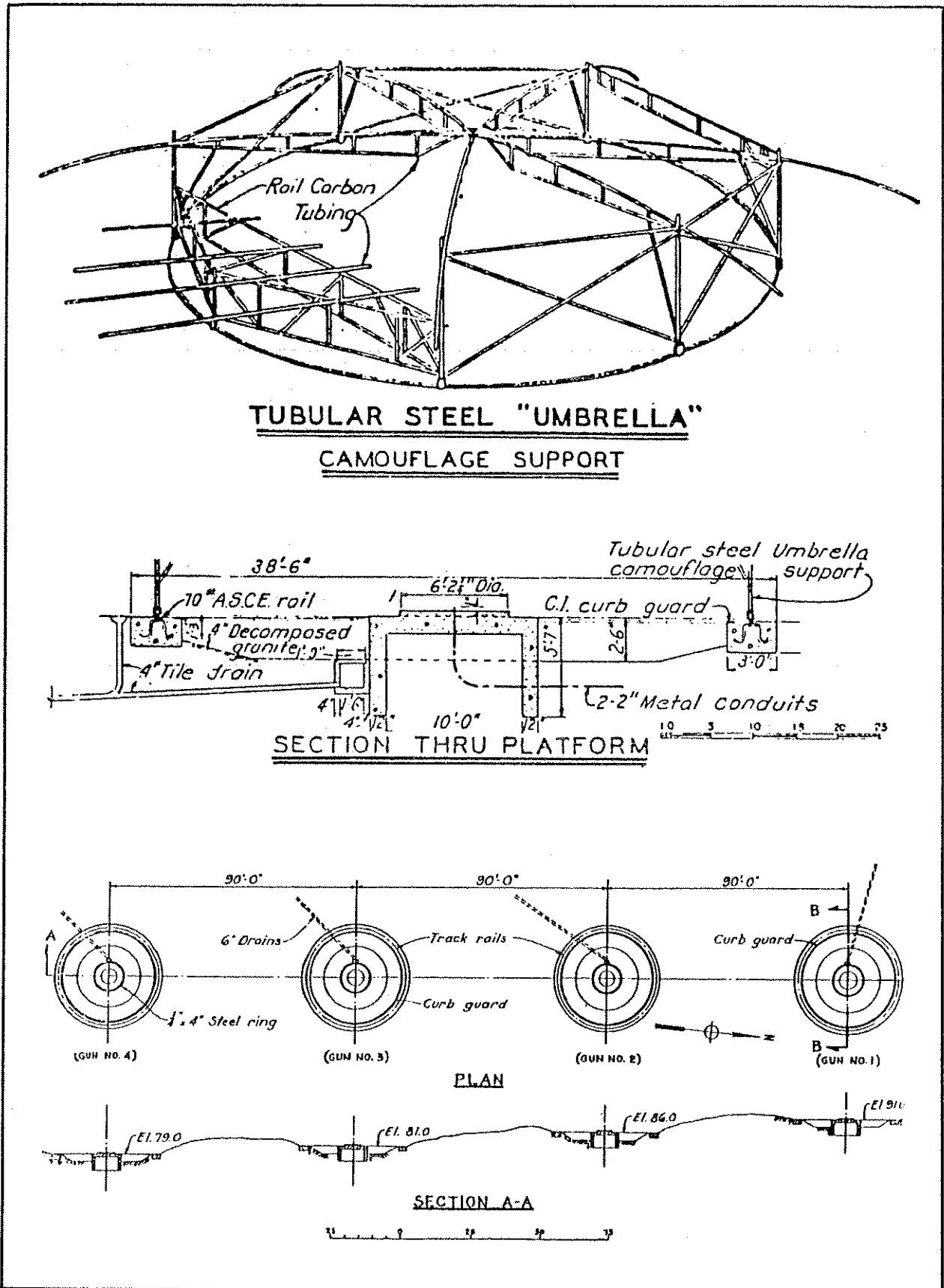


Figure 3. Overall plan and details of 155 mm gun emplacements.

the war. The Fort Rosecrans Cannon Report, a newspaper issued by the U.S. Army, gave local information that was not classified. The men played volleyball and baseball, but were not allowed to go into other areas of the fort. This insured security against foreign intelligence gathering.

The day at Battery Point Loma was divided into two twelve hour shifts. Each would alternate one week on days and then one week on nights. There were also four men in each of two twelve hour shifts at the observation stations. During the day shift, twelve men were posted at each of the 155 mm G.P.F. guns. They would sleep in the barracks with clean sheets and have access to warm showers. The night shift manned the guns continuously, but on a reduced staff. Five men would stand watch at each gun, while the others slept in the bunkers. Night shifts changed every two hours. Those awake could quickly arouse the sleepers if San Diego were under attack. Meals were trucked to the emplacements, which were otherwise isolated from Fort Rosecrans.

Battery E remained at constant alert for six months. The vigil relaxed as the war situation became better understood, and off duty soldiers were given four hours each week to drive into San Diego for recreation. They were required to eat before departure, due to food shortages in restaurants at that time. San Diego swarmed with tens of thousands of Army, Navy, and Marine personnel in the war years. However, Corporal McGlothlin reported that San Diego did not run out of beer. (29)

From December 7, 1941 until April of 1942, when Battery Strong was emplaced, Battery Point Loma was the primary effective gun position available to fire to the west to protect the entrance to San Diego Harbor. Battery Humphrey, immediately above and to the east of Battery Point Loma, was completed in July of 1942. Although it was to have been armed with six inch guns,

they were not available, and two 155 mm G.P.F. guns from Camp Callan, south of Torrey Pines, were borrowed and installed. Battery Humphrey then was given the honor of Examination Battery for Fort Rosecrans. The six inch guns were finally installed in Battery Humphrey in July of 1943 and Battery Point Loma was dismantled. (30)

The men of Battery E were scattered throughout the various campaigns of World War II after the guns were removed. Corporal McGlothlin volunteered for paratrooper duty and departed for Fort Benning, Georgia in February of 1943. He then was shipped to Casablanca, and he fought in North Africa, Europe, and under the command of General Gavin of the 82nd Airborne Division and met the Russian Army at the Elbe River.

No battle ever came to Battery Point Loma or the shores of San Diego. During the period of World War II, there were sixty-one reports of enemy submarines, unidentified surface vessels, and underwater contacts off San Diego recorded by the harbor defenses. No friendly shipping was sunk, and no enemy craft were ever identified within range of the Coast Artillery of Fort Rosecrans. There were several instances where whales received machine gun fire from troops who had never seen whales before. (31)

Historian Jason Marmor has said that Battery Point Loma "is a reminder of a time when the West Coast of the United States prepared to repel an enemy attack or invasion on its shores. This obsolete defensive installation remains in stark contrast to the specter of remote controlled global warfare in the atomic age." (25) Although the guns are gone, the site has been visited by thousands of Americans since World War II and the 1950s, when Cabrillo National Monument received the west side of Point Loma to the sea. The sandbagged trenches and steel bunkers were, unfortunately, detonated by the

government and bladed over in the early 1960s in fear of visitors injuring themselves. In the mid 1980s, Cabrillo National Monument uncovered and stabilized the Number 4 position for interpretation. (33)

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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,

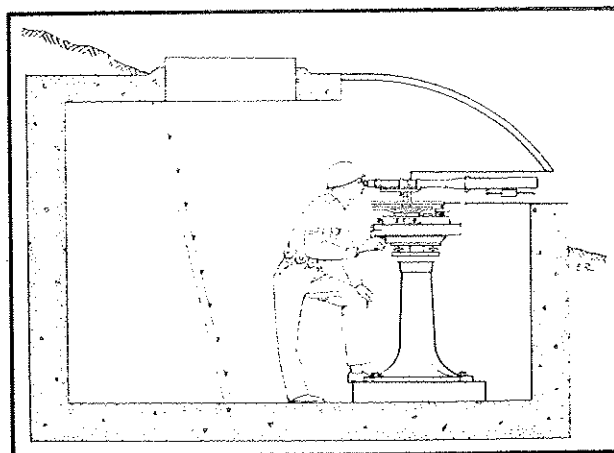


Figure 2. This cross-section of a typical base-end station is from Seacoast Fortifications of the United States, by E. R. Lewis, Pictorial Histories Publishing Company, Missoula, Montana (reprint 1988), by permission of copyright owner. Drawing by author.

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

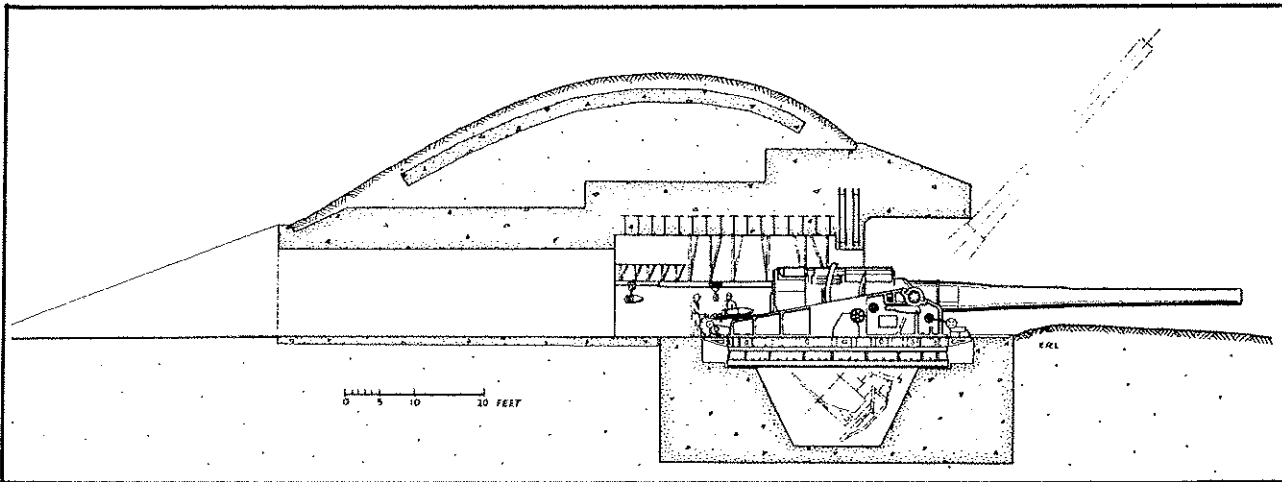


Figure 3. This cross-section of Battery Richmond P. Davis, San Francisco, 1937-1940, was the model for all World War II heavy-caliber seacoast batteries built in California. The steel-reinforced concrete overhead structure protected the 16 inch gun battery from aerial attack. By the time Battery Ashburn 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.

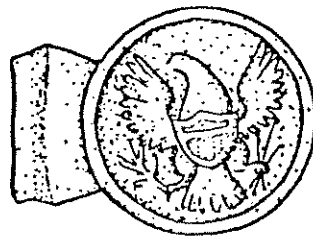
The first target practice to be fired in the Harbor Defenses of San Diego using radar fire control for position finding and spotting occurred 18 May 1943. The radar first on the air in January was used with Battery Gillespie for the practice. Results compared favorably with these which had previously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



BALLAST POINT FIELD REPORT

Ronald V. May
Director of Archaeology Programs

Since the first weekend in June of 1988, the Fort Guijarros Museum Foundation archaeological team has been investigating the site of a 19th century whaling station. The field strategy was explained in Volume 2, Number 1 of the Fort Guijarros Quarterly. The Progress of the crew in July and early August can be measured in large quantities of earth moved, scientific measurements, and vast quantities of artifacts recovered.

Field Progress

The four crews exposed an undulating surface of cobble-strewn beach that was deposited by surf action pushing sand up to form an elevated mound at the tip of Ballast Point. Layers of cultural material have been revealed below the surface that had been covered by an asphalt parking lot. United States currency, glass bottles, and electrical parts have revealed that the asphalt sealed the surface between the Depression and World War II.

The cultural layer below the asphalt is a complicated deposit of charcoal-ash and unknown organic material that has stained the beach sand from black to light gray. Some areas appear to be a dense and hard shell midden with low frequencies of chione clam, oyster shell, and fragments of pismo clam. Other areas lack the shell, but are loose and organic like potter's soil. Another has a thick layer of porous frothy black material that may prove to have been skimmed off cauldrons of boiling whale oil.

The lower portions of the dig area near the water line contain evidence of boat repair and hardware workshops. Lead-based red paint is ever present in the sand, on the

cobbles, and splattered on the artifacts. Other colors include white, green, and blue. Fragments of alcoholic glass containers, medicine bottles, ceramic dishes, and rusted metal have been recovered between the cobbles.

The elevated mound contains layers of kitchen midden, an organic sand layer, and the frothy black material. A line of redwood embedded into the soil that may have been a wall or fence. On one side is orangish-colored soil. On the other is a dense hard shell midden. Nearby is an old cast iron drain pipe that runs under the current walkway and emptied into the bay.

All around the area east, west, and south of the wooden wall and pipe feature is the loose organic soil. Laced with thousands of cobbles, this deposit has yielded white clay pipe fragments, one glazed tan pipe fragment, hand-wrought bronze and copper spikes and tacks, and glass from the 1860 to 1880 period. It has also included some artifacts from the 1920s that undoubtedly were churned down through active use of the beach area.

Interpretations From Artifacts

Of interest are the types of activities represented by the yields. Unlike the whaling deposit atop the ruins of Fort Guijarros, this soil lacks the wide range of saw-cut mammal bones, bird bones, and fish bones. Not too many marine shells were encountered, none in clusters, and none associated with cooking pits. No whale bones have been exposed as yet. This indicates that this was not a kitchen or food butchering area.

In the two pits excavated down to sterile beach sand (the bottom of the

artifact layer), personal items such as buttons, pipe fragments, and garment clips mixed among charcoal ash indicate prolonged work periods around an operation that burned wood. Fragments of flat metal, rusted lumps, and a few ammunition casings may reveal the nature of that operation. One bullet casing was from a .45-70, a rifle capable of stopping a buffalo. A few fragments of window glass and alcohol bottles were also present.

The black frothy material revealed in the lawn area south of the current excavation is intriguing. Recent re-exposure of two test pits dug by Brian Smith in the summer of 1987 reveal patches or piles of this material about 20cm below the surface. Some of the material seems to include charred fragments of bone, others appear to be a light weight slag. Samples will be saved to be chemically analyzed to ascertain if this was a by-product of boiled whale oil that had been skimmed-off and dumped on the beach.

Documentation Strategy

Once all the parking lot asphalt and fill sand had been removed, the teams plotted each surface artifact with small flags. Each plot was entered in a unit sketch sheet, depth measurements were taken, and the object bagged with a corresponding number from the plot sheet. These plots will later be analyzed for areal dispersal of artifact classes, differences in times of deposition, and variations in activities over the site.

Fred Buchanan and Todd Caffo of Andie McKee's team have contour mapped the southwest quarter of the area. This was done at 10cm levels to capture the drop of a pit in that area. A more general topographic map will be used for the balance of the site. The plots of the artifacts over these contour maps will make more sense with these maps.

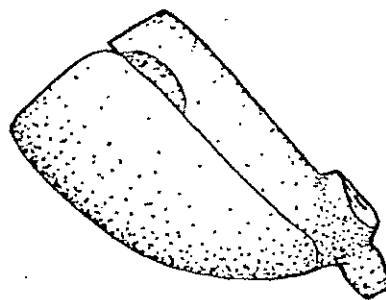
The strategy has been to leave one meter balks between each two by two meter unit. This enabled recording of the north, south, west, and east wall profiles. Drawings of cross-sections can then be extrapolated for the entire length and width dimensions of the deposit.

Photodocumentation

In addition to photographing the general progress of the crew in the daily excavations, documentation of the wall profiles and other features are being recorded. Mike Nabholz has used both color slide and black and white 35mm film to record significant features. Don Lyons has followed up with a video camera. At the end of each day, the director and each crew chief explain to the assembled crew and the video camera the accomplishments and interpretations of the day's work.

Projections

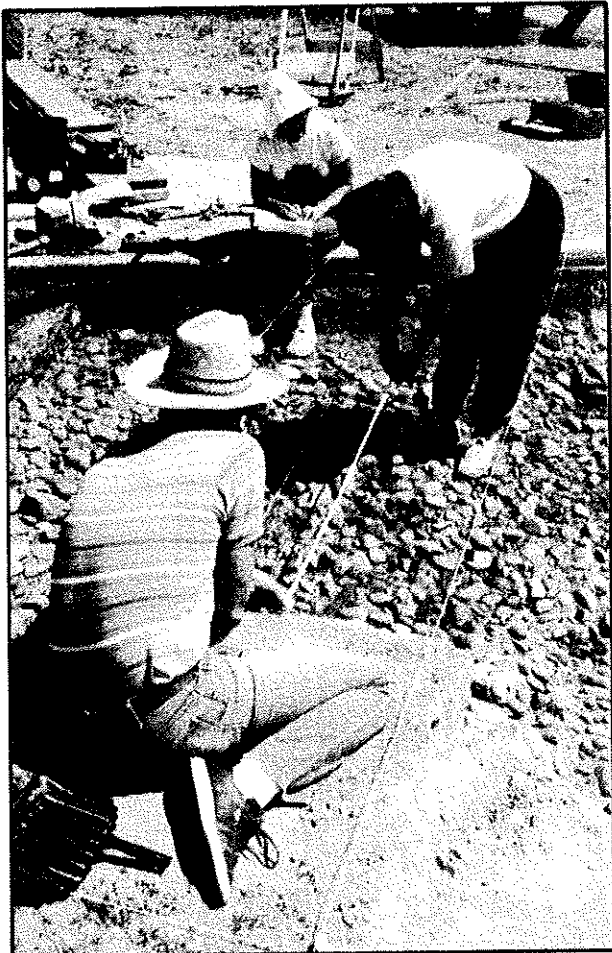
Much work remains to be done this summer. By the time the Fort Guijarros Fiesta rolls around on September 17, 1988 large areas of the site will have been opened and documented. The field work is not anticipated to be completed until late September or early October. At that time, enough information will be available to advise the U.S. Navy on the importance of the deposits for their planning purposes.



BALLAST POINT
EXCAVATION
PHOTO ALBUM

Photographs by
Mike Nabholz

Excavation units
laid out in the
parking lot reveal
the two by two
meter test units
with the one meter
balks in between.
In the foreground
are Gil Boggs
(left) and Angie
Burnell.

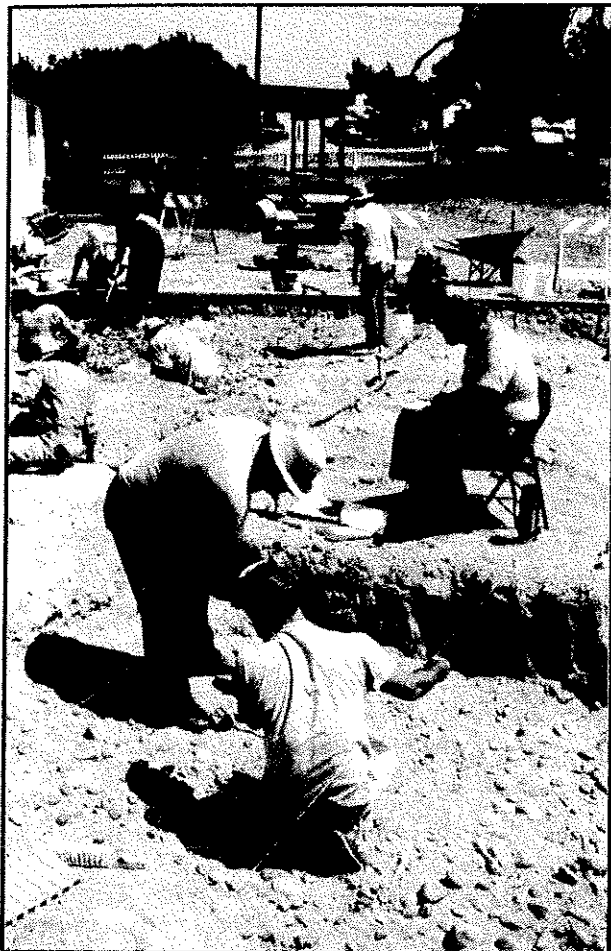


Crew chief Andie McKee (middle) and
Alan Riedinger measure artifact
positions while Arlene Riedinger
records them.

Ann Peter (top) and Carol Fuller
trowel the dark, cobble-filled
organic soil which yielded tobacco
pipe fragments and bronze spikes.



Crew chief Don Lyons (in chair) records measurements while David Comden (right) and Vernon Montoya plot artifact positions.



Volunteer crew members pour buckets of recently excavated soil through box screens and then pick out the artifacts that are revealed.

Patty Fay (left) and Crew Chief Jim Royle measure the wall profile of one of Brian Smith's 1987 test units. This test unit is on the eastern edge of this summer's excavation.

