

FORTS OF WHEREVER, Number 19 in a series, FORTS OF SAN FRANCISCO, by Robert D. Zink, with information from Army records in the National Archives, personal visits or modern maps. Info from other CDSG members is credited where it appears, Glen Williford (GMW), Greg Hagge (GJH) and Dave Cameron (DAC). Note that some information on access and condition is out of date -I last visited in 1985.

I was requested to provide fire control station (FCS) data - the data provided is not complete for all stations that existed between 1900 and 1945, it is the best I can find. I list a few from 1916, apparently have complete lists for 1936 and 1945. FCS abbreviations: GB = Gun Battalion, MB = Mine Bn, ATB = AMTB Bn., el is altitude above sea level. B 3/7 S 4/6 indicates Base-end station 3rd from the right of Tactical battery 7 and splash spotter 4th from right of Tactical battery 6. FC Instruments: Base-end observer (in San Francisco defenses, generally using Depression Position Finder) is (within a structure) usually to the left of the spotter. In general, all batteries 6" or larger had a Battery Commander (BC) station of some sort after 1900, all batteries had a BC after 1920. All 6" and larger batteries had a FCS (Base-End plus Spotter) near/at the BC and another (perhaps 2000 yards away) by 1910, few batteries had more stations than that until late 1930s. Location (Loc) numbers, when given, are taken from November, 1945, Annex B to the Harbor Defense Project for San Francisco.

Even though this information is given in order from south to north, it would probably be wise to begin your tour at the Fort Mason headquarters of Golden Gate National Recreation Area, for maps, tours, operating times / days of some facilities. GGNRA is owner / operator of many of the sites described herein.

PILLAR POINT, Loc 35, is the southern-most fire control (FC) site of the San Francisco defenses. It is a peninsula on the north/west shore of Half Moon Bay, and just south of the airport. There is a prominent radio telescope (Satellite Data Injection antenna) visible for some miles. The "manhole" FC stations were buried in the hilltop where the antenna is now. Pillar Point Air Force Station is a closed area, the site manager (1985) stated that there is no indication of the stations - and they probably had to be removed in order to build the foundation for the telescope. The FCS were B7/12 S7/12 (Davis) at Elevation (El) 178 (feet), B4/13 S4/13 (Battery Construction Number) BCN 244 El 157 and B9 S9 BCN 129. Radar, SCR 296 No. 11 was on the tip of the hilltop.

North of Pillar Point, between State Highway (SH) 1 and the sea, there is a two-story FCS on an earth mound, 600 feet off the road, the soil around the structure eroded (or, as we understand, removed by owner (GJH)) to a depth of 30 feet below the top of the station. This is LITTLE DEVIL'S SLIDE, Loc 31, FCS for B2 S2 BCN 244 and Funston (Gun) Group (G5) Flank CP and OP.

A half-mile north of Little Devil's Slide is DEVIL'S SLIDE, Loc 30. The FCS and radar structures are 300 feet off the road and 100 feet up. Climbing to the stations has "minor" problems - some of the concrete steps are broken. Coming back down, your view of your foot includes, barely to the left, the waves

crashing on the beach 420 (to 315) feet down. This view can make you nervous. The FCS were B8 S8 BCN 129, at el 392, B5 S5 Davis and B8 S8 Townsley, also present was SCR 296 No. 10 at el 422. There was an antenna tower on the scr296 site, perhaps part of that radar.

When coming from the north, Devil's Slide is .7 mile south of where SH 1 comes out on the coast after going inland at San Pedro Valley (Linda Mar Blvd).

Various documents refer to Milagra, Milagra Landing and Milagra Knob FCS sites. All are covered here as Milagra Ridge.

From SH 1 in Pacifica (northernmost coastal town in San Mateo County, go uphill on Sharp Park Road to a traffic light about halfway up the hill, turn left and park at the gate to MILAGRA RIDGE Military reservation (Sweeney Ridge San Mateo County park?). The old Army road, 1/2 mile long, goes around a hill (both hills had 40mm AA batteries), across a flat area before the next hill. The projected site for 16" battery 130 was on the south part of the flat, facing southwest. Remain on the road, climbing around the west hill. 6" BCN 244 (2-6"(T2)M1 guns on BCM4, first armed in 1946), at El 570, is next to the road, on the west face of the hill. BC and B1 S1 (BCN 244), El 630, are on hilltop above the battery. SCR 2 96 No. 9 was nearby. Note that the BC/FCS entrance faces incoming gunfire! The view of the Farallon Islands and southern San Francisco is worth the walk (in good weather).

On Milagra Knob, downhill and west of BCN 244, are B6 S6 (Townsley) and B3 S3 (Davis), El 240. One has been rolled so that the doorway faces BCN 244.

Milagra cable, a connecting point for communications (to the Farallons?) was on the beach just north of Pacifica.

About 3 miles north of Milagra, from Westmoor High School, go west on Westmoor Avenue to the reservoir then northwest 400 feet to MUSSEL ROCK, Loc 26, FC stations on the north part of the hill, off Seaview Avenue (GMW). This is NOT very near the geographic feature called Mussel Rock. The FCS were B3/13 S3/13 (BCN 244) and M4 Mines I at el 570 (originally B3 S3 Howe), separately B4/11 S4/11 (BCN 243).

THORNTON HEIGHTS was an early site planned for Battery 129 (see Fort Barry). As close as can be determined, the center of the battery would have been at the residence at 99 Seaview Ave, a Nike site post-war.

SOUTHEAST FARALLON ISLAND is located about 45,000 yards west of Thornton Heights, slightly out of range of any 16" battery. At least two FCS were planned, most likely for 16" batteries. I do not know if any were built.

FORT FUNSTON (WW I temporary batteries, II), Loc 25, is located on a bluff on the shore, between Lake Merced and the sea, a few hundred yards south of Fleishacker oo. The entrance to this unit of Golden Gate National Recreation Area is about a mile south of the Zoo and about 2 1/2 miles north of Thornton Heights. From the south end of the fort (near the GGNRA hangglider launch site) there are (or were?) parking lots and buildings from the Nike era. To the south, at the bluff, was B4 S4 (Townsley). Battery BLUFF (4-155 GPF guns) (WW II) was about 150 feet northeast of the FCS. The FCS (CP-Command Post and OP-Observation Post) of Funston Gun Group, B5 S5 (BCN 244) and GB-4

(Gun Battalion - 4?) CP-OP is 100 feet NNW of Funston Group FCS, at the bluff are entwined with boardwalks built by GGNRA. B3 S3 (Wallace) is about 200 feet north. BC and B1 S1 (Davis) is a little higher, 150 feet east and 730 feet south of Davis gun #2. SCR 296 No. 8 radar was back of BC Davis. Battery RICHMOND P. DAVIS (2-16" Mk II-1 Navy guns on Barbette Carriage (BC), Model 1919m1, casemated during construction, 1937-40), our first casemated 16" battery, is 200 to 800 feet farther north. The Plotting-Spotting-Radio room (PSR) for Battery Davis is buried in the curve of the access road west of (behind) the center of the battery, 700 feet NE of gun #1. One 3" subcaliber / excaliber gun for B Davis was mounted to the south (a few feet) of Davis gun #2 as a defense.

North of B Davis and inland from the bluff 200 yards is an AAA gun area. 500 yards north of B Davis #1 (north) gun in a landslide area is B2 S2 (BCN 243) and the location of a 1936 155 mm gun battery - a Panama mount was "about to fall down the bluff" in 1970, both were on the beach in 1985. Next to where these were is one block for a 3" M1918 "fixed" AA mount (it looks like a power plant block- GJH). 1000 feet north is B4 S4 (BCN 129) and 130 yards farther, Great Highway at the site (under the road) of Battery WALTER HOWE, 4 - 12" Mortars, M1890m1 on mortar carriages, M1896m1. Battery BRUFF, 2-5" M1900 guns on pedestal mounts, M1903, from Battery Sherwood on Fort Scott, was built 1918, abandoned about 1920, el 39 ft near B Walter Howe. This battery evidently had gun blocks, no other structures.

References in documents to GREAT HIGHWAY sites may refer to the north part of Fort Funston or to Batteries Howe & Bruff or to Sutro Heights FCS - I have not seen enough information.

As you proceed north from Fort Funston/Fleishacker Zoo area, just north of Golden Gate Park, Great Highway curves slightly left, then makes a quarter circle to the right around a wooded area - SUTRO HEIGHTS Park. At the west face of the park, west of a curved wall at the highest point of the park are two FCS - in front (west) M3 station of second mine battery (Mines II) and B2 S2 (BCN 129) to the rear & above the back of the Mines station.

From Sutro Heights, you can look straight north across the concrete foundations that were once Sutro Baths to a point with a 20-30 foot tall earthen hill - there were (pre-WW II) at least 7 FC stations projected (or in place?) on that cliff-face - I found no signs of any in 1985. On the ocean side of the baths, near their center, was Battery LOBOS (Labos in one list) (1 (or 2?) 6" Navy Mk 8 guns on Mk 10 pedestal mount.

From Sutro Heights, go north across Point Lobos Avenue onto El Camino Real (signs for U.S.S. San Francisco Memorial). The memorial was the site of a 40mm Anti-Motor Torpedo Boat (AMTB) battery. Partway along the parking lot, on your right (east) is a road going uphill. This road is the (only entrance, in 1985) pedestrian entrance to the west part of FORT MILEY (E, II), Loc 19. At the top of the hill, to your left is gun #3 (1-12" gun M1888m2 on BC, M1892) of Battery JAMES CHESTER. On your left are guns 1 & 2 of Battery Chester (1-12" M1888m1 and 1-12" M1888m1-1/2, both on Disappearing Carriages, Model DC1897.

Northwest of B. Chester No. 1 is B2 S2 (Wallace), southwest of Chester No. 2 is B2 S2 (Townesley) with B2 S2 (Davis) next to it.

Immediately behind Chester gun #1 is Battery Construction Number 243 (2-6" (T2)Mlguns (maybe never delivered) on BCM4. There were 4 FCS on the fort in 1916 - BCN 243 replaced the hill they were on. BC & B1 (243) is back of the battery about 200 feet.

Battery LOREN H. CALL (2-5" M1900 guns on ped mount M 1903, formerly at B. Ledyard of Ft. McDowell) was built about 1915 southeast of Chester 1 & 2 - the battery is gone, the site is near the hospital fence about 220 feet from Clement St., near 45th Street. FCS M1 (MINES III) was in front of Battery Call No. 1 site. The corps area radio station was near B. Call.

At the east end of the fort (beyond the V. A. hospital) are the mortar pits, Batteries LaRHETT LIVINGSTON (16, later 8, later 4-12" mortars, M1890m1 on MC, M1896m1 and ANTON SPRINGER 8, later 4-12" Mortars, same models. Parking MAY be available in the hospital parking area, marked for GGNRA visitors.

LANDS END, Loc 18, a leased reservation, comprised a large area downhill and north of Fort Miley and extending east to 33rd Avenue (extended line). Due north of the center of the V.A. hospital, at the base of a small (1 acre) peninsula was Battery LAND (2-90mmM1 guns on M3 fixed mounts, an AMTB battery at about 70 feet el. Battery BUCK, 40mm AMTB, was located 500 feet southwest of B. Land.

The PRESIDIO OF SAN FRANCISCO (PSF) was reserved 1850. A part of the Presidio was established as FORT WINFIELD SCOTT, Loc 16, about 1904. This article will cover all batteries on the Presidio as if Fort Scott was not a separate area/command.

From the southwest corner of PSF, 25th Avenue at El Camino del Mar (Lincoln Blvd on PSF), going north, in 300 yards take a left oblique onto Bowley Road, then in 200 yards, a left turn. A parking lot straight ahead marks the site of a 40mm AA gun battery. Curve right, go between Mine Casemate I of 1912, (in use to 1943), new double mining casemate (MC2 and MC-3) of 1943 nearby, which controlled MINES II and MINES III (still equipped), near Battery Chamberlin, and the location of Battery BAKER (2-90mm M1 guns on M3 fixed mounts). At the end of road, parking for Battery LOWELL CHAMBERLIN (4, later 2, - 6" guns: first, 4 on DC, M1903, gone in 1917; in 1920 installed (center emplacements) 2-M1900 guns on pedestal mounts, M1900; about 1977, GGNRA mounted 1-6" DC). There is a seacoast defense museum in the battery magazine structure. Return to Bowley Road, on to Lincoln Blvd going north. In 2000 feet, a trail (from B. Chamberlin) alongside the road goes downhill to B. CROSBY (2-6"M1897m1 on DC, M1898). One gun of WW II Battery SCOTT (2-40mm AMTB) was located in front of B Crosby, the other was next to Fort Point.

From Bowley Road, turn right at WW II Memorial onto Kobbe Avenue, in a few feet right onto Washington Blvd. In about 1/2 mile, left onto Compton Road, drive down the back of mortar Batteries. Originally, 16 12" mortars of Battery WILLIAM MCKINNON, the two right (east) pits were named STOTSENBURG (8, later 4 - M1890m1 mortars on MC, M1896m1. B. McKinnon had 16, later 8, later 4 of the same models. Returning toward Lincoln Blvd, at Harrison Blvd go right (rather than following the curve of Washington Blvd.) to the WW II central reserve magazine (present use?). A number of FC stations and a mining casemate were built (1904 - 1916) about 400 feet NW of McKinnon pit 1 -

some foundations are still visible, can be found by walking the ground (GJH).

Again drive toward Lincoln Blvd. Where Washington crosses Kobbe, a short road going due north passes the rear of Battery SAFFOLD (2-12" M1888m2 guns on BC, M1892). On Lincoln Blvd about 500 feet north of Washington Blvd, on your right is Battery DYNAMITE (3-12" pneumatic guns, obsolete by 1895 or so), used as Harbor entrance Command Post (HECP) and Harbor Defense Command Post (HDCP) in WW II.

From the Dynamite Battery, a road leads left off Lincoln Blvd to the GGNRA "Fort Scott Overlook" parking area. A number of batteries can be covered in a short (3/4 mile round trip) walk from here. In order - there were 1870s gun positions at the bluff about where the parking lot is now - with the magazines intact. To the east, B. GODFREY (3-12" M1888 guns on BC, M1892), then closer to the bluff, B. BOUELLE (3-5" M1897 guns on Balanced Pillar (BP) mounts, M1896); B. MARCUS MILLER (3-10" M1888 guns on DC, M1894m1); B. CRANSTON (2-10" M1888m2 guns on DC, M1896). Across the road behind B. Godfrey are mounts for 3" M1917 AA guns. Buried under the Golden Gate Bridge tollgates is most of B. LANCASTER (3-12" #1,2 M1895 guns on DC, M1897; #3 M1895m1-1/2 gun on DC, M1896).

After you go back to your car and before you go under the toll plaza to B. Lancaster gun 1 - on Lincoln Blvd, go north to the end of the Fort Scott parade ground, turn right onto Storey Avenue. In about .2 mile, go right then circle left around Batteries HOWE (16, later 8-12" Mortars (4-M1886, 4-M1886m) on 8 - MC, M1891) and ARTHUR WAGNER (8-12" M (4-M1886, 4-M1886m) on MC1891, among the first 8 mortar batteries, construction having commenced in 1893, completed in 1895. Only the northeast corner pit (Howe pit 1?) is still visible - the interior (magazines, etc.) is in excellent condition and unaltered (GJH).

B. Lancaster #1 emplacement is open on the east side of the toll area - the "Golden Gate Bridge View Area" parking lot is close to it, off Lincoln Blvd. Downhill a few yards from the parking is B. EAST, 1870s Rodman guns overlooking Fort Point. The guns were mounted (used ?) until at least 1915.

From the tollgate area, proceed toward San Francisco on Doyle Drive/U.S. 101. A short distance east of where Park Presidio Blvd turns off Doyle Drive, cross a bridge over part of PSF. At the east end of the bridge, Batteries (in order) BALDWIN (2-3" M1898 guns on Masking Parapet (MP) mounts, M1898 (removed in highway expansion); SHERWOOD (2-5" M1900 guns on ped mount, M1903, relocated to Ft Funston), SLAUGHTER (3-8" M1888 guns on DC, M1896; and BLANEY (2-3" M1898 guns on MP, M1898) are a few yards to your right. To visit them, use Lincoln Blvd, turn off at the northwest corner of the San Francisco National Military Cemetery.

Far below the first arch of the Golden Gate Bridge is FORT POINT (Museum, etc.). The Spanish fuerte (or castillo?) on the site was atop a bluff, nearly at the elevation of Battery East. The Army Engineers cut the bluff down to what we now see, and built what is now Fort Point National Historic Site. Access is by a road off Lincoln Blvd about 1/4 mile east of the Golden Gate Bridge View Area, take a sharp turn to the left, and downhill to the edge of the bay, then west to the old fort. A second floor barracks is now open with squad room, photo gallery, not CD.

During WW II, 3" gun Batteries POINT and GATE (each 2-3" M1902 guns on pedestal mounts M 1902, from B. George Yates) were located on the barbette tier of the old fort. Several of the 3" gun blocks are still there.

Before the Golden Gate Bridge was built, the FC stations for Fort Scott were concentrated in two areas - behind Fort Point (7 secondary FCS), near the mining casemate by B Chamberlin (7 tertiary FCS), a few near B Godfrey and several near B McKinnon. By 1945, FCS were around the new mining casemate (near B. Chamberlin), and atop the bluff close to the toll plaza.

FORT MASON (CW, E) is located on Point San Jose (Black Point) on the bay, about a mile east of the easternmost point of PSF. Just east of the fort is Aquatic Park, the main maritime display area of GGNRA; on the north is the pier area of the old Fort Mason Port of Embarkation; on the west is Marina Green, which had a 40mm AMTB battery (St. Francis Yacht Club) in WW II. Near the center of the fort is the Golden Gate National Recreation Area (GGNRA) Headquarters (displays, maps, info). Fort Mason began military life as Bateria SAN JOSE, 6 guns, about 1797. In 1863, "BATTERY AT POINT JOSE" (3-15", 6-10", 6-25 pdr), now quite nicely fixed up (GJH) was installed on the brow of the hill (behind GGNRA), some archeological work was done on the battery in 1985 in connection with plans to restore the battery. Battery BURNHAM (1-8" M1888 gun on DC M 1896) is partly occupied by a garage at the north end of Franklin Street, about 200 yards northeast of GGNRA Hq. The armament is understood to have been moved to Fort Columbia, WA.

In the middle of the San Francisco-Oakland Bay Bridge is Yerba Buena (formerly Goat) Island, location of an Army Engineer post in the late 19th century and which had mining storage and assembly buildings, cable tanks, etc. until at least 1916.

In 1856, the Army picked a line connecting Angel Island - Alcatraz as the secondary line of defense for the bay. The POST AT ALCATRAZ (23 acres) is located about 2 1/2 miles east of the Golden Gate. Though most famous as a Federal prison, it was an artillery post from 1859 through 1907. The first construction, in 1853, was for batteries and a citadel. By 1865, the post mounted 85 cannon. The GGNRA tour, by boat out of Fisherman's Wharf, takes about two hours. It is understood that the tour touches on the fort only very little, sometimes not even mentioning that the sallyport used as an entrance was not built for the prison. The fort included Battery ROSECRANS (1855 -), bombproof barracks, caponiers. Work was done on the defenses until at least 1885, though the first prisoners arrived in 1877. It is rumored that there were FCS for Fort Baker, but I have seen no proof.

On Angel Island, a few hundred yards offshore from Tiburon peninsula, Marin County, is the site of POST AT ANGEL ISLAND (4) and FORT McDOWELL (E). Before 1890, when most of the island was Camp Reynolds, a number of batteries were erected. It appears that nothing remains of these batteries (RDZ, GJH), which were located on the west (Point Stuart), southwest (Pt. Knox, 3 - 8" converted rifles) and southeast (Pt. Blunt) tips of the island.

Fort McDowell had three batteries erected, all near Pt. Knox, the southwest bulge (not quite a "tip") of the island. Battery LEDYARD (2-5" M1900 guns on ped mt, M1903, weapons to

Fort Miley, B Call) is near the shore of the point, B. WALLACE (1-8" M1888 gun on DC, M1896) was a short distance uphill, B. DREW (1-8" M1888 on BC, M1892) was on the next "bulge" east, about 1/3 mile away. During WW II, 90mm AMTB B. BLUNT was erected on Pt. Blunt (BC station 400 feet uphill), 40mm AMTB batteries were erected on the shore southwest of B. Drew (B. KNOX) and on the peninsula just west of Hospital Cove (B. COVE). One source has B. Knox as 2-90mm AMTB guns, perhaps at a different date? It is understood that there was a Nike-Ajax Launch site on Mount Caroline Livermore (Army: Angel Island Peak No.2). In 1916, there was a FCS near B. Wallace, Wallace had a rangefinder station (about 1910). Recently opened trails go right by F' which has concrete walls but iron roof is gone (similar to others near B. Wagner) (GJH). There are a number of interpretive signs on battery and building sites (GJH)..

FORT BAKER (4, E) encompasses the area from the Golden Gate Bridge north and 1/2 mile east, to 1 1/2 miles west and almost two miles north (including the tunnels on the freeway). From establishment until 1904, present Fort Barry was part of Fort Baker. The first construction here was for the Fort on Lime Point, for which a shelf was blasted which is now below the Golden Gate Bridge just north of the north tower. 1870s batteries were built at Yellow Bluff on Point Cavallo (B. Cavallo), behind B. Spencer (B. Lime Ridge or Ridge, 2000 feet northwest of that north tower). Much of Fort Baker is part of GGNRA. Access to the east part of Fort Baker is from a road to Sausalito from the bridge freeway northbound. Access to the west part of the fort is from the southbound lanes of the freeway onto Conzelman Road, or by a tunnel which turns off the road to Sausalito, (see NOTE in fourth paragraph below).

From Point Cavallo, the southwest pointing tip on the east side of Horseshoe Bay, B. GEORGE YATES (6 - 3" M1902ml guns on ped mts M1902), the source of 3" guns for several WW II batteries. BC & B1 Yates are in the battery. About 100 yards north along the bluff, B. CAVALLO (1874 plan: 15" and 20" Rodman guns; 1901: 3-8" converted Rodman rifles; WW II: 2-37mm, 2-40mm mobile guns). Coincidence Rangefinder (CRF) Yates was in B. Cavallo. On a hilltop 300 yards northnorthwest, B. DUNCAN (2-8" M1888 guns on ND carriages, M1892). In 1916, FCS B1/12 were atop the hill behind B Duncan, there was a 40mm AA battery on the spot in WW II. Batteries Cavallo & Duncan are fenced to prevent access.

On the west side of Horseshoe Bay, the mine wharf is close to mine storage tunnelled into the hill. THE partly excavated site of the intended FORT ON LIME POINT (LIME POINT FORT) is at the end of land at the bridge's north tower, site of searchlight 14. In 1916, there was an FCS next to Lime Point light - it may be "under the bridge" now. There were numerous searchlights and 40mm AA guns on Fort Baker.

West of the bridge freeway, overlooking the Golden Gate, are (from the hilltop nearest the bridge) B. SPENCER (3-12" M1888 guns on BC, M1892; gun #3 was located to primarily fire into San Francisco Bay). Behind B. Spencer is RIDGE Battery (or Battery LIME RIDGE ?)(1870s). In front of B. Spencer, with a good view of the bridge, were two FCS - AA Group II and B1 S1 Spencer (1936). 1100 feet west of B. Spencer, on a road going downhill,

is B. ORLANDO WAGNER (2-5" guns, M1897 on Balanced Pillar Mount, M1896) with two 1916 FCS above it. That road downhill leads to Kirby Beach, site at various times of B. GRAVELLY BEACH (1870s, mostly buried under B. Kirby), B. KIRBY (2-12" M1895 guns on DC, M1897), B. KIRBY JUNIOR (WW II temp 2-3" M1902m1 guns on ped mts, 1902), B. KIRBY BEACH (2-3" M1902m1 guns on ped mt 1902 ex Yates, removed when B. Gravelly was complete), B. GRAVELLY (2-90mm M1 guns on M3 fixed mts, el 49 ft). There were 1916 FCS near B. Kirby. NOTE conflicting documentation: B. Kirby Junior and Kirby Beach MAY be two names for the same battery; Kirby Beach MAY be the same AMTB battery as Gravelly.

Returning to the upper road, above B. Wagner, drive north and west - a side road right goes into the valley along the north boundary of the fort, past the old balloon hangar. At the main road in the valley, a right turn leads to the "Cronkhite" tunnel [NOTE: closed for work, summer, 1992, to be reopened at unknown date (GJH)] back to the Sausalito road, a left turn leads toward Fort Cronkhite and a route to some of west Fort Barry. Not taking the side road leads uphill to the entrance of B. 129 plotting room (PSR-129), inset into a saddle in the ridge, thence to the rear entrances to Battery Construction Number 129 (erroneously "Battery Hill" in NPS brochures) (2-16" Mk II Navy guns on barbette carriages, in tunnels, not mounted, trunnion elevations to be 820.67 feet), and a path uphill to BC - 129 (and some Nike radar foundations) on top of the battery. The view towards west Fort Barry, the sea and the sunset is (in good weather) worth the effort.

FORT BARRY (E, I, II), Loc 9, is immediately west of Fort Baker, stretching to the top of bluffs overlooking the sea. The eastern half of Fort Barry is bisected by a ridge that begins near the freeway through Fort Baker. The boundary between the forts is marked by Battery 129, part of FORT BARRY - the boundary between forts (straight north from Point Diablo) runs a few feet east of the center of gun #2 casemate. From the battery, the roads runs west downhill (fairly steep) to the remainder of Fort Barry. Proceeding down the hill, in about a mile, Batteries McIndoe, then Rathbone [SAMUEL RATHBONE (4, later 2, - 6" M1900 guns on pedestal mounts, M1900 and JAMES F MCINDOE (created 1922) 2 of the former Rathbone guns)] are on your left, overlooking the entrance to the Golden Gate. FCS in the area are BC Rathbone & McIndoe on their batteries, B1 McIndoe 200 yards east of the battery, B1 Rathbone 200 yards west of the battery. About 1/3 mile west, doors in the hillside next to the road indicate magazines for AA guns on the hilltop to the left.

Keeping to the left at road junctions, cross the rear of Battery ELMER J. WALLACE (2 - 12" M1895m1A4 guns on BC, M1917, casemated WW II). From the battery, looking east uphill shows B1 S1 Wallace near AA Battery #2 gun pits, also BC Wallace at el 328 feet, about 100 ft higher than the 12" battery.

Looking out the front of B. Wallace casemates, Battery MENDELL (2-12" M1895 guns on DC, M1897) is clearly in view. Driving to B. Mendell, the mining casemate for MINES - I (MC-I) is near the battery. A number of FCS are in front of and west of the battery: B2 S2 Chamberlin el 229 ft (burned out 1992, the other two are deteriorating(GJH)), B1 S1 Smith and M4 MINES (South) at el 225 ft. On the base of Point Bonita, just south

and left of B. Mendell are at least 12 FCS. Between 1936 and 1945, there were GB2 Bn OP - CP, SCR-296 radar No. 5, Barry (gun) Group OP - CP, M1 station MINES I and MB (Mine Battalion)-1 OP-CP, B2 S2 Livingston, B5 S5 Wallace, BC & B1 S1 Alexander, B2 S2 Chester, B2 S2 Springer, and a Mine Plotting Room in 1936. Halfway out Point Bonita, out of use by 1945 were B2 S2 Chamberlin, B4 S4 Mendell, and B2 S2 Crosby. On the tip of the point, near the lighthouse, were BC and B1 S1 Alexander, a 1936 station for Mendell, and one station in use in 1946, CB-10 (whatever that was). Battery BONITA, 2-40mm AMTB, was located on the shore, 1/4 mile east of B. Mendell.

In a line stretching northwest from Battery Wallace are Batteries ALEXANDER (8, later 4-12" mortars, M1890m1 on mortar carriages, M 1896m1), HAMILTON A. SMITH (created 1922, 2-6" M1900 guns on pedestal mounts, M1900), EDWIN GUTHRIE (4, later 2 -6" M1900 guns on pedestal mounts, M1900) and PATRICK O'RORKE (4 -3" M1903 guns on ped mts, M1903). B. O'Rorke and Guthrie have BC and B1 station on top, BC Smith is atop the battery. There was a Mine Casemate back of Smith-Guthrie in 1936, and a buried radio station north of Alexander, on the rear of the hill. The top of the bluff in front of these batteries had searchlights, 40mm AA guns and other facilities.

The north end of the Baker-Barry boundary is denoted by roads up the hill toward B 129, toward Cronkhite Tunnel, and toward the west (Fort Cronkhite and most of Fort Barry), junct near the old balloon hangar. Following this road west from that junction, and keeping to the left, leads past a Nike launcher site, passing between B. Alexander and Wallace.

From Fort Barry batteries, proceed downhill and north, over a road crossing the east end of Rodeo Lagoon, onto FORT CRONKHITE (II), Loc 8, formerly (in part) Tennessee Point Military Recervation.

From the Rodeo Lagoon bridge, keeping to the right leads a short distance up a triangular canyon to the Townsley Reserve Magazine (storage for 16" rounds additional to what the battery could safely hold) dug into the hill. The fort's QM reservoir is atop the hill. From the bridge, the main road leads about 1/2 mile to a Visitor Center at the beach, with displays, some artillery photos. In 1985, the road was closed to vehicles beyond this Visitor Center. From the center, walk uphill on the road, in about 1/4 mile, pass Battery Townsley PSR, dug into the hill to seaward of the road. Around the next "U" curve, a dirt road, more or less level for a 1/2 mile or so, leads to Tennessee Point - location for a 155mm battery (prewar), B2 S2 Rathbone-McIndoe (1945) el 223 ft, B3 S3 243, B2/3 S2/3 Guthrie, M2 Mines I, CB 7 & 8.

Proceeding uphill on the paved road, cross in front of, then cross the rear of Battery TOWNSLEY (2-16" Navy Mk II-1 on BCM2), el about 360 feet, the first casemated 16" battery to fire. Beyond B. Townsley, the road climbs Wolf Ridge for several miles. At 530 to 640 feet, FCS are B1/8 S1/8 129 el. 530; B4 S4 Davis el. 533, a 12 ft square box blt 1941, with DPF and Az inst; Gun Group 1 (telephone booths in back room) CP-OP, El 583 blt 1941. BC Townsley el 605, uses an Az Inst on pier, with a portable pedestal for BC telescope; GB-1 CP-OP is just west of BC Townsley; B1 S1 Townsley el 663, an old square box. SCR-296 No.

4 is 1000 ft west of BC Townsley. The next few hilltops going east have AA guns or controls. 1/4 mile east on the ridge at el 850 ft was an SCR-682 surveillance radar.

A half mile up the coast from Tennessee Point is Elk Valley, site of several FCS in 1936. By 1945, two were unused, M4 MINES - I was located on the northwest face of the valley at el 160 ft. Somewhere on the fort was (briefly?) a temporary battery of two 3" guns from B. Yates of Ft Baker.

Because of rough terrain, there are no roads leading directly up the coast from Fort Cronkhite. Return to the freeway system via the tunnel to Sausalito Road, take US 101 north about 4 miles to SH 1 (called Shoreline Highway on some maps) northbound. About 5 or 6 miles off US 101, follow signs for "Muir Beach Overlook", which is parking for FRANK VALLEY FC site, Loc 7, 600 feet off the highway. GGNRA has partly dismantled several of the structures, had (1985) an informative sign. From south to north, the stations are M3 MINES-I; B4 S4 Wallace; in front of that, B2 S2 Smith, and on a hilltop to the rear, B5 S5 243. All stations are at el 480, 485 or 490 ft.

About 3 miles north of Frank Valley, Rocky Point is shown on some FC lists but nothing specific is listed. It may have been used as a "datum point" for instrument alignment.

About 3 miles (3 1/2? by road) north on SH 1 from Frank Valley is HILL 640 Military Reservation. In spring, 1985, the "buried" FCS were visible in silhouette when you are about a mile away - but no closer. There is parking room for a couple of cars at the rear left (east) corner of the 4 acre property. SCR 293 No. 3 was atop the hill (el 600 ft). Going downhill, southwest, in order were B3 S3 129, el 580; B6 S6 243 el 568; B3 S3 Townsley el 558; B6 S6 Davis el 526 and a Fire Control switchboard and repeater station, el 518, southeast of FC Davis. The road is at el 350 feet. Several of these stations were fairly large, having two or three rooms besides the observing room.

From Hill 640, drive north on SH 1 along Bolinas Lagoon, to about 4 miles past Stinson Beach, turn sharp left onto Bolinas Road, follow it to Mesa Road. In a few miles, a number of radio towers will be noted, near the ocean. After a section of road with many curves, there is a section going straight for over 1/2 mile, ending in a junction of 4 roads, about 3600 feet to the shoreline. Look north uphill, at a small modern house which has one FCS visible next to it - the others are behind the house (farther uphill). BOLINAS FCS were B8 S8 Davis el 411; B5 S5 Townsley (with FC swbd and repeater station) el 392 and B5 S5 129 el 379. Return to SH 1.

From the north tip of Bolinas Lagoon, proceed north on SH 1 10 1/2 miles to Olema, then a mile to the Point Reyes National Seashore Bear Valley Visitor Center and Park Headquarters. There is very little (that I could find) remaining at WILDCAT FCS site, also referred to as WILDCAT RANCH site. If you decide to hike, carry water, have food/snack, proper footwear & clothing. Get latest weather, trail maps & other info from the Bear Valley Ranger station. Note that "our" Wildcat Military reservation is NOT the park's Wildcat Group Campground - which is about a half mile south and 540 feet lower. Wildcat Military reservation (no signs) is about a 6 mile hike from Bear Valley (the nearest point

one may drive to). There are no facilities on the most direct route, which is, in essence, the "closest to the coast" route to Wildcat Group Camp but not going all the way. Hike Bear Valley Trail about 3.2 miles, then left onto Glen Trail for 2 miles, then Coast Trail for .5 mile. In that last 1/2 mile, Coast Trail descends steeply for about 1/3 circle around a hill, with another hill visible lower & toward the ocean (going in elevation from 800 to 550 feet), about 1/2 mile north of the NPS Wildcat Campground. The hill or knoll toward the sea (1050 feet horizontally), el 540 feet, is Wildcat MR. There was B7 S7 Townsley el 546, B7 S7 129 el 543, a FC switchboard, SCR 296 No. 1, about el 543. All I found was what appeared to be the foundation and lower part of walls of the radar transmitter building, near the rear of the area, and some very thick brush. The underbrush on the part of the knoll where the base-end stations were could have hidden a buried station (or even a small battery) - but I think I would have found some indications. NPS will not allow any machete work there. It is possible that the buildings were intentionally bulldozed.

The northernmost San Francisco FC site was the location for SCR 682 radar No. 1. The radar was on POINT REYES Headland, about 600 yards east of Point Reyes Lighthouse (for tourists, worth the trip for the view). In 1985, parking was permitted about 1/4 mile east of the Visitor Center and stairway down to the lighthouse. A steel tower with a modern radar antenna, about 2/3 of the way from parking to stairway, seems to mark the site, 250 feet off the road, 90 feet higher, at el 600 feet.

M O V I N G ?

Please make sure the Membership & Finance Committee Chairman (see front for address) has your new address in time for the next mailing. REMAILING IS VERY EXPENSIVE!

TYPEWRITER RIBBON/COMPUTER CARTRIDGE

Some material submitted is printed very light (see Feb 93, pages 7 & 11). Please submit your material such that lines or text are about as dark as what you see published. On the editor's Deskjet 500, "Letter Quality" and "bold" are far too dark, "DRAFT" is about right (and is what you see here). On most dot-matrix printers, draft is far too light.

Photograph Captions for Summer 1993 CDSG Journal

- Front Cover:* Two 12 inch M1890 MI on Mortar Carriage M1896 MI at Battery Way (built 1910), Fort Mills, Corregidor Island, Philippines. Taken on Nov. 17, 1987 by Terry McGovern.
- Inside Cover:* Range Section, Coast Artillery Corp. Date and Location Unknown. (National Archives, Still Pictures Collection, No. SC-91553)
- Inside Back:* Battery Heileman (1899) [10 inch DC], Fort San Jacinto, Galveston, TX. Taken on Sept 20, 1900. (National Archives, Still Picture Collection, No. 77-F-91-54-26).
- Back Cover:* Battery Hogan (1898) [4.7 inch Armstrong], Fort San Jacinto, Galveston, TX. Taken on Sept, 21, 1900. (National Archives, Still Picture Collection, No. 77-F-91-54-43).

DEADLINES - There is no specific deadline that guarantees publication in the next issue since material must frequently be held over for production or space reasons. Every effort will be made to publish time-sensitive news ASAP. However, it is very difficult to incorporate material received less than 8 weeks before the scheduled publication date.

Thus: 'deadline' for November issue = September 15, 1993
 " " February/1994 = December 15, 1993

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