

PH 0037052

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM**

(Type all entries - complete applicable sections)

STATE: California	
COUNTY: Marin	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE
DEC 12 1973	

1. NAME

COMMON:
Forts Baker, Barry and Cronkhite

AND/OR HISTORIC: **Lime Point Tract Reservation (Baker & Barry), Tennessee Point Military Reservation (Cronkhite)**

2. LOCATION

STREET AND NUMBER:
Forts Baker, Barry and Cronkhite *S of Sausalito*

CITY OR TOWN:
Sausalito

STATE: **California** CODE: **06** COUNTY: **Marin** CODE: **041**

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input checked="" type="checkbox"/> District <input type="checkbox"/> Site <input type="checkbox"/> Object	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Both	<input checked="" type="checkbox"/> Occupied <input checked="" type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress	Yes: <input checked="" type="checkbox"/> Restricted <input type="checkbox"/> Unrestricted <input type="checkbox"/> No
PRESENT USE (Check One or More as Appropriate)			
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input checked="" type="checkbox"/> Government <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Military <input type="checkbox"/> Museum	<input type="checkbox"/> Park <input type="checkbox"/> Private Residence <input type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input type="checkbox"/> Transportation <input type="checkbox"/> Other (Specify)

4. OWNER OF PROPERTY

OWNER'S NAME: **Department of the Army
United States Government ***

STREET AND NUMBER:

CITY OR TOWN: **Washington** STATE: **District of Columbia** CODE: **001**

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.:
County Recorder

STREET AND NUMBER:
Marin County Civic Center

CITY OR TOWN: **San Rafael** STATE: **California** CODE: **06**

6. REPRESENTATION IN EXISTING SURVEYS

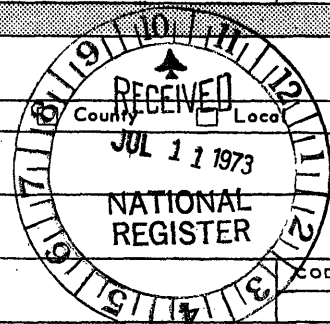
TITLE OF SURVEY:

DATE OF SURVEY: Federal State

DEPOSITORY FOR SURVEY RECORDS:

STREET AND NUMBER:

CITY OR TOWN: STATE: CODE:



STATE: **California**

COUNTY: **Marin**

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DATE: **DEC 12 1973**

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* All sites shown on 7. Description except for Batteries Spencer, Wagner, Gravelly and Kirby (map reference numbers 407, 408, 409 & 410), which are on State of California property.

INCL 1 W/INCLOSURE

5-8-74

SEE INSTRUCTIONS

7. DESCRIPTION

CONDITION	(Check One)					
	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Deteriorated	<input type="checkbox"/> Ruins	<input type="checkbox"/> Unexposed
	(Check One)			(Check One)		
	<input checked="" type="checkbox"/> Altered	<input type="checkbox"/> Unaltered	<input type="checkbox"/> Moved	<input checked="" type="checkbox"/> Original Site		

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

The 2,279 acre area of uplands and tidelands comprising Forts Baker, Barry and Cronkhite, extending west along the north side of the Golden Gate from San Francisco Bay on the east to the Pacific Ocean on the west has within its district many excellent examples of early coastal defense structures.

The three forts have contiguous interior boundaries and common roads and utility systems. The topography is hilly, rising approximately 900 feet above sea level. There is a close similarity of structure, design and materials in the cited buildings. Prior to World War I, the designs were square or nearly square structures of concrete and steel. Unless otherwise specified this is the general description of all batteries of that period. These structures were disarmed by 1949 or before.

FORT BAKER

By 1905 Fort Baker had one of the 2 or 3 best collections of modern coastal defense of the time.

Map No.

- 401. Battery Duncan Construction was completed in 1899. This battery is a one story concrete and steel structure, which was armed with (2) 8" rifled guns on non-disappearing barbette carriages. Its object was to cover the channels inside the Golden Gate. In 1917 the battery was disarmed and used as a central ammunition storage facility for all Baker-Barry armament. As of February 1973 the battery has been vacant.

- 402. Battery Cavallo was constructed in 1874 and consisted of 3 large and 6 small magazines used for powder and miscellaneous storage. It was later used with Duncan as a central ammunition storage area for all Baker-Barry armament. The building materials were brick and mortar with poured concrete floors, 24" thick walls, 4" thick oak doors and 52" magazine area walls.

- 403. Battery Yates was completed in 1903. Armed with (6) 3" guns on pedestal type barbette carriages, emplacements 1 and 2 were set back 30° from the main axis of work in order to extend the field of fire, with 42' between guns. The object of Yates was to cover the area of the Bay inside the Golden Gate.

- 404. Mine Cable Tank Building was constructed in 1920. It was built of corrugated ~~asbestos~~ (roof and walls) with a steel frame. This building was used for storage and/or cleaning of mine cables. Today it is used for Reserves storage.

- 406. Baker - Barry Tunnel was built in 1918. This tunnel was built to improve access ~~between~~ Forts Baker and Barry. It is 2,363 linear feet with very narrow dimensions as it was designed for horses, carts and early motor vehicles. Today it helps service the NIKE base, although the missiles themselves are too large for passage through the tunnel.

SEE INSTRUCTIONS

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

STATE	California	
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7. Description (1) (Continuation Sheet)

(Number all entries)

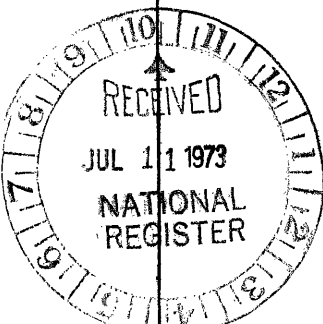
Map No.

- 407. Battery Spencer, completed in 1897, was armed with (3) 12" guns on barbette carriages. It was intended to be a 5 gun battery, but the 2 ridge positions were dropped. The battery, constructed of concrete and steel, was to cover the area of entrance into the mouth of the Bay.
- 408. Battery Wagner was completed in 1904. This was a rapid fire battery with an armament of (2) 5" guns on balanced pillar mounts. Wagner was disarmed in 1917 and made available for storage in 1932, but it remained vacant until the deployment of ground to air missiles, NIKE AJAX, in the early 1950's, at which time Wagner was used for storage of liquid propellant for the missiles. The object of this battery was to provide rapid fire against objects suited to its caliber. Battery Wagner assisted Batteries Spencer and Kirby covering the area of the Bay entrance.
- 409. Battery Gravelly was completed in 1944. Armed with 90mm. anti-aircraft guns, this battery extended the Bay area defense system to cover modern means of hostile attack.
- 410. Battery Kirby was constructed in 1900. Its armament consisted of (2) 12" guns on disappearing carriages. This structure was essentially a one story design, and because of the sheltered position of Kirby, provision was made only against direct penetration. The exceptionally thick walls of the magazine area were of concrete. This battery was to cover the area inside the Gate.

FORT BARRY

With Fort Baker, Fort Barry, by 1905 had one of the 2 or 3 best collections of coastal defense of the time.

- 501. Battery Hill was completed in 1944. It was armed with (2) 16" 50 caliber guns on barbette carriages, which were 500' apart.
- 502. Battery Rathbone-McIndoe was completed in 1905, with an armament of (4) 6" guns on pedestal type barbette carriages. The design of this battery was 1½ stories with the magazine and loading floors separated by only 6 or 7 feet, which meant that ammunition could be transported without extensive mechanical means. After World War II Battery Rathbone was divided into 2 batteries of 2 guns each. These guns aimed SE to protect against penetration into the Gate. Today the site is used by the Reserves and houses the National Defense Radio Station.



See continuation sheet 2 for additional description

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7. Description (2) (Continuation Sheet)

(Number all entries)

Map No.

503. Battery Wallace was completed in 1922. This battery was armed with (2) 12" guns on barbette carriages, with the guns being 420' apart.

504. Battery Alexander was constructed in 1905. The armament consisted of (8) 12" mortars on mortar carriages. The 4 forward pieces were dismantled in 1918 to be sent overseas, yet they were never sent. The remaining 4 back pieces were arranged in 2 sets of 2 mortars each.

505. Battery Mendell was completed in 1905. With Battery Alexander it represented the last expression of the plan proposed in 1890. It was armed with (2) 12" guns on disappearing carriages. It was planned to face SE with 3 guns, but was shifted to face SW with 2 guns. This battery was a 2 story structure on the Pacific ring of defense against Bay penetration.

506. NIKE Administration Site 88 was built in 1955, and this site remains operational.**

507. NIKE Launcher Site 88 was constructed in 1955. This site remains operational.**

508. Battery Smith-Guthrie was completed in 1904 and was armed with (4) 6" guns on pedestal type barbette carriages. Like Battery Rathbone this structure was a 1½ story design. Following World War I this battery was divided into 2 batteries of 2 guns each. The object of Smith-Guthrie was to prevent entrance of hostile ships through the Golden Gate.

509. Battery O'Rorke was completed in 1905 and armed with (4) 3" guns on pedestal type barbette carriages, which were 29' apart. This battery supported Battery Guthrie.

FORT CRONKHITE

601. Battery Townsley was completed in 1940 and armed with (2) caliber 50 guns (16") with a range from 115 to 126 miles.

602. NIKE Control Site 88 was constructed in 1955 and remains operational. This site of 20 to 30 buildings houses the control computers.**

**Although the description of the NIKE Administration, launcher and control sites (Items 506, 507 & 602) cannot be described due to their top secret classification, it is generally felt that this is a modern day missile facility which is active and effective as a defense of the Bay Area and has taken the place of the above mentioned historical items. These sites will have future historical value.



SIGNIFICANCE

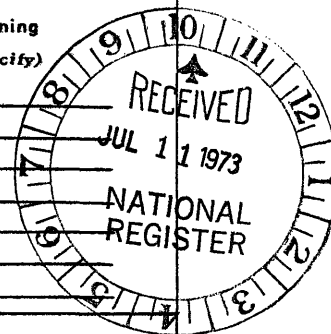
PERIOD (Check One or More as Appropriate)

- Pre-Columbian | 16th Century | 18th Century | 20th Century
 15th Century | 17th Century | 19th Century

SPECIFIC DATE(S) (If Applicable and Known)

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Aboriginal | <input type="checkbox"/> Education | <input type="checkbox"/> Political | <input type="checkbox"/> Urban Planning |
| <input type="checkbox"/> Prehistoric | <input type="checkbox"/> Engineering | <input type="checkbox"/> Religion/Philosophy | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Historic | <input type="checkbox"/> Industry | <input type="checkbox"/> Science | _____ |
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Invention | <input type="checkbox"/> Sculpture | _____ |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Social/Humanitarian | _____ |
| <input type="checkbox"/> Art | <input type="checkbox"/> Literature | <input type="checkbox"/> Theater | _____ |
| <input type="checkbox"/> Commerce | <input checked="" type="checkbox"/> Military | <input type="checkbox"/> Transportation | _____ |
| <input type="checkbox"/> Communications | <input type="checkbox"/> Music | | _____ |
| <input type="checkbox"/> Conservation | | | _____ |



STATEMENT OF SIGNIFICANCE

Forts Baker, Barry and Cronkhite, comprising an area of 2,279 acres in Marin County is nominated as a historic district. This area is unique in that there are standing many of our earliest coastal defense artillery batteries, significant in tracing the development of the American defense system.

This land, strategically located in Marin County, commands early observation of the Bay entrance. In 1866 Forts Baker and Barry were acquired by purchase to be used for military defense. Fort Cronkhite was acquired in the same manner in 1914, being legally considered a portion of Fort Barry until officially designated as Fort Cronkhite in 1937. The fortifications proposed for construction on this land were to augment those at the Presidio of San Francisco, in order to prevent successful passage of hostile ships through the Golden Gate into the San Francisco Bay.

At the time of these purchases, relations between the United States and Spain were deteriorating. The American government believed a stronger coastal defense system was needed to protect U.S. ports from hostile attack. Growing out of the Endicott Board's review of our defenses, a period of battery and defense building began on this land. The first phase of building, called the Endicott period (1890-1910) witnessed the expanded construction of batteries. These emplacements were constructed from the westernmost tip of the land east to the Bay, in a system of one battery backing up the next one, which offered complete protection from outside the Gate to inside the Bay. Upon completion of the main phase of battery building, ancillary structures were erected, observation posts and garrison buildings.

By 1905 President Theodore Roosevelt felt a review of all battery building was needed, and in 1906 Secretary of War William Howard Taft submitted his findings. The recommendations suggested in this report consisted mainly of modernizing the fortifications with searchlight equipment and fire control. With improvements in expanded communication techniques, the army was able to coordinate the batteries by relaying data from observation posts situated around the harbor mouth to the various battery fire control centers, each which housed a primitive mechanical computer, in order to coordinate the direction and range of fire. Other than searchlights and fire control, little change was

SEE INSTRUCTIONS

See continuation sheets

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8. Significance (1) (Continuation Sheet)

(Number all entries)

initiated in the pre World War I period.

By 1914 those guns mounted in the 1880's and 1890's were no longer considered full-powered. Although dominance of fort over ship was threatened by the advance of the modern navy and naval equipment, land fortifications still held the upperhand since they had greater steadiness and fire control techniques, and most importantly no weight limitations. Yet with the advance of the navy, capitalized with the new Queen Elizabeth Class English ships, which could outrange many of our coastal weapons, drastic revision of our fortifications was needed.

During the period between the two World Wars (1918-1941) the fortifications at Forts Baker, Barry and Cronkhite were continually modified to keep abreast of the increased range and fire power of naval ships.

In World War II (1941-1945) these fortifications were again modernized with anti-aircraft defense systems and defense against motor torpedo boats. New batteries were built at this time supplied with these modern installations, supplemented with the appropriate ancillary facilities, including searchlights.

From World War II until the present, batteries of ground to air missiles were provided on these three forts to defend the San Francisco Bay area against hostile aircraft. There are two of these NIKE Missile sites, both built in 1955, one still being operational today.

Of all the batteries built for coastal defense, only two have been destroyed. There remain fifteen fortifications in good structural condition, now all disarmed. These batteries span five systems of defense against attack. The equipment ranged from smoothbore muzzle-loading guns to rifled, breakloading guns, including emplacements for 155mm. anti-motor torpedo boat and 90mm. anti-aircraft guns.

The batteries, many built almost a century ago, stand in good structural condition, which testifies to the toughness of their high-quality concrete and steel materials. These emplacements are not only monuments to the age of coastal artillery, but they stand firmly in their place in the broader evolution of both San Francisco defense and the growth of our national defense system. It is proposed that this area should be maintained in a manner that will preserve the most significant examples of its historic value.



9. MAJOR BIBLIOGRAPHICAL REFERENCES

Lewis, Raymond Emanuel, Seacoast Fortifications of the U.S., Smithsonian Institute Press, 1970

Lewis, Raymond Emanuel, "A History of San Francisco Harbor Defense Installations, Forts Baker, Barry and Cronkhite" Division of Beaches and Parks, State of California, 1970

Fort Record Books, Forts Baker, Barry and Cronkhite

Historical Record of Engineer Property, Forts Baker, Barry and Cronkhite

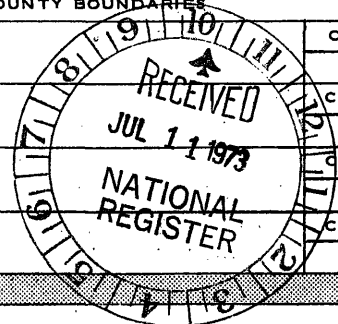
10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			O R	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES		
CORNER	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	
	Degrees Minutes Seconds	Degrees Minutes Seconds		Degrees Minutes Seconds	Degrees Minutes Seconds	
NW	40 ° 14 '49.18"	125 ° 53 '17.8"		° ' "	° ' "	
NE	40 ° 18 '34.28"	125 ° 53 '20.49"		° ' "	° ' "	
SE	40 ° 18 '33.51"	125 ° 55 '11.90"		° ' "	° ' "	
SW	40 ° 14 '48.41"	125 ° 55 '09.19"		° ' "	° ' "	

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: **2,279**

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE



NO WORK SEE INSTRUCTIONS

11. FORM PREPARED BY

NAME AND TITLE: **Thomas Lile, Architect**

ORGANIZATION: **Thomas Lile A.I.A. and Associates** DATE: **March 26, 1973**

STREET AND NUMBER: **145 Natoma Street**

CITY OR TOWN: **San Francisco** STATE: **California** CODE: **06**

12. STATE LIAISON OFFICER CERTIFICATION NATIONAL REGISTER VERIFICATION

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National State Local

Name: [Signature]

Title: Director, Parks and Recreation

State: State of California

Date: 2 April 1973

I hereby certify that this property is included in the National Register.

[Signature]
Associate Director, Professional Services

Date: DEC 12 1973

ATTEST:

[Signature]
Keeper of The National Register

Date: 11-9-73

see attached letter for DOD certificate