United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

DRAFT

1. Name of Property

Historic name: Point Sur Light Station

Other names/site number: Point Sur State Historic Park

Name of related multiple property listing:

n/a

(Enter "N/A" if property is not part of a multiple property listing

---

2. Location

Street & number: Moro Rock and adjacent NAVFAC parcels, 23 miles south of Monterey, California

City or town: _____ State: California County: Monterey

Not For Publication: ☐ Vicinity: ☐

---

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___national ___statewide ___local

Applicable National Register Criteria:

___A ___B ___C ___D

Signature of certifying official/Title: **Date**

State or Federal agency/bureau or Tribal Government

Point Sur Light Station | Monterey California
Name of Property | County and State

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official: **Date**

Title : **State or Federal agency/bureau or Tribal Government**

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

Signature of the Keeper Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private:	
Public – Local	
Public – State	X
Public – Federal	X

Category of Property

(Check only **one** box.)

Building(s)	
District	X
Site	

Point Sur Light Station | Monterey California
Name of Property | County and State

Structure ☐

Object ☐

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
45	2	buildings
		sites
6		structures
		objects
51	2	Total

Number of contributing resources previously listed in the National Register 7

---

6. Function or Use
Historic Functions
(Enter categories from instructions.)
Transportation: water-related
Domestic: institutional housing
Defense: naval facility
Defense: arms storage
Defense: military facility

Current Functions
(Enter categories from instructions.)
Transportation: water related
Recreation and Culture: museum facility
Vacant

7. Description

Architectural Classification
(Enter categories from instructions.)
_Romanesque_____
_Renaissance_____
_Other: Lighthouse_____
_____
_Modern Industrial: Military Buildings
_____
_____

Materials: (enter categories from instructions.)
Principal exterior materials of the property: _Light Station: Sandstone, wood shake, wood, weatherboard; NAVFAC: Reinforced concrete, steel, industrial sash windows, and rolled roofing_____

Narrative Description
(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

This nomination amends the previous Point Sur Light Station District Registration form approved by the California SHPO on 11/5/90 to include the site containing the former Point Sur Naval Facility (NAVFAC): the Cold War-era SOSUS facility located west of State Highway 1 approximately one-half mile southeast of the Light Station on Moro Rock. The NAVFAC site includes an easement for an access road leading from State Highway 1 east to a pair of Redwood water storage tanks on the hillside east of the highway that provided water for the NAVFAC. Sections 1 through 6 of this nomination have updated the statistics of the new District to include the additional contributing buildings and structures of the NAVFAC. Section 7 has been amended on continuation sheets with a description of the NAVFAC site and contributing buildings. Section 8 has been amended on continuation sheets to include two additional historic contexts for the existing district.

Narrative Description

Light Station: See National Register District Registration Form dated 11-5-90

The 1990 National Register District Registration form listed the Barracks (c. 1940) located on Moro Rock as a non-contributing building. This amended National Register District Registration form changes the status of the Barracks to contributing because this is the primary resource where the first SOFAR technological experiments were conducted and supports an additional historic context for the Light Station. This historic context is the changing use of the Light Station from its early role in navigation to a combined role in navigation and technological research for military applications. The cira-1940 barracks building supports this context as its use changes from a World War II-period barracks to the location SOFAR research in 1946.

Naval Facility (NAVFAC): See Section 7 Continuation Sheets

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B. Property is associated with the lives of persons significant in our past.
- [X] C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark “x” in all the boxes that apply.)

- [ ] A. Owned by a religious institution or used for religious purposes
- [ ] B. Removed from its original location
- [ ] C. A birthplace or grave
- [ ] D. A cemetery
- [ ] E. A reconstructed building, object, or structure
- [ ] F. A commemorative property
- [ ] G. Less than 50 years old or achieving significance within the past 50 years

Areas of Significance
(Enter categories from instructions.)
Maritime History
Transportation
Architecture
Commerce
Engineering
Invention/ Science
Military

Period of Significance
Light Station: 1889 - 1940
Changing of Light Station operations to combined navigation/military/technological (SOFAR) use: 1946 – 1958
NAVFAC: 1958 - 1984

Significant Dates

Significant Person
(Complete only if Criterion B is marked above.)

Cultural Affiliation

Architect/Builder
Light Station: Unknown
NAVFAC Capehart Housing: Architect: West America Engineering Co., Inc.
NAVFAC Buildings: Unknown

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

This amended district nomination for Point Sur Light Station includes two additional periods of significance: 1946 – 1958 when SOFAR research was conducted at the Light Station in the barracks building on Moro Rock; and 1958 – 1984, which spans the operation of the Point Sur Naval Facility (NAVFAC), the last remaining intact submarine listening station on the West Coast. Following the close of World War II and at the nascent of the Cold War, both the United States and the Soviet Union worked feverishly on their respective nuclear submarine programs. The United States led the two superpowers in the development of an underwater listening system that could identify and track the movement of Soviet submarines, and thus enhance national security efforts. The first research for developing the appropriate technology began at the Point Sur Light Station on Moro Rock circa 1946, with the development of SOFAR and represents the period of significance from 1946 – 1958. When the technology (known as SOSUS) was ready for deployment, the United States Navy constructed the Point Sur Naval Facility (NAVFAC) as part of a connected worldwide network of SOSUS naval stations that could track an enemy submarine from the time it left its homeport, to any destination throughout the world. The period of significance 1958 – 1984 includes the operation of the Point Sur NAVFAC.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Please see the Point Sur Light Station District Registration Form dated 11/5/90 for previous Narrative Statement of Significance for the resources located on Moro Rock.

Please see the Section 8 Continuation Sheets for Statement of Significance for:

- The changing use of the Light Station operations to combined navigation/military/SOFAR research, 1946 – 1958; and
- The Point Sur NAVFAC, 1958 – 1984.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Light Station: See National Register District Registration Form dated 11-5-90

Naval Facility (NAVFAC):

Advisory Council on Historic Preservation. *Capehart Wherry Era Military Housing.* http://www.achp.gov/army-capehartwherry.html.

Aid, Mathew, William Burr and Thomas Blanton. "Project Azorian: The CIA's Declassified History of the *Glomar Explorer*," The National Security Archive – George Washington University: http://www.gwu.edu/~nsarchiv/nukevault/ebb305/.

Bischoff, Matt C., Historian III, California State Parks. "Point Sur's Role in the Winning of the Cold War (typed manuscript – undated).

Broad, W. J. "Anti-Sub Seabed Grid Thrown Open to Eavesdropping: Navy Opens Anti-Sub Sea Grid to Civilian Use," *New York Times*, July 2, 1996.

California State Department of Parks and Recreation. *Application for Point Sur Naval Facility Federal Surplus Property for Public Park or Recreation Purposes*, 1998.

California State Parks Central Service Center. *Point Sur State Historic Park General Plan*, California State Parks, February 2004.

Commander, Undersea Surveillance (CUS). *Origins of SOSUS*. Website: http://www.public.navy.mil/subfor/cus/Pages/sosus_origins.aspx.

Coming in From the Cold: Military Heritage in the Cold War, U.S. Department of Defense Legacy Cold War Project, 1994.

Cote, Dr. Owen, Jr. *The Third Battle: Innovation in the U.S. Navy's Silent Cold War Struggle with Soviet Submarines*. Boston, Massachusetts: MIT Security Studies Program, 2000.

Daniel, Donald C. *Anti-Submarine Warfare and Superpower Stability*. London, U.K.: The MacMillan Press, Ltd., 1986.

Department of the Navy, Naval Facilities Engineering Command. *SEABEES ASHORE: Dope Sheet Number Two*, FAC-PC-31/SAM: mer, September 3, 1970, Seabee Museum Archives, Port Hueneme, California.

Department of the Navy, Naval Facilities Engineering Command. *SEABEES ASHORE: Dope Sheet Number Three*, September 24, 1970, Seabee Museum Archives, Port Hueneme, California.

Department of the Navy, Naval Facilities Engineering Command. *Self-Help Program: request for development of a guidance package for distribution to field activities: Dope Sheet Number Three*, July 23, 1970, Seabee Museum Archives, Port Hueneme, California.

Earley, Pete. *Family of Spies: Inside the John Walker Spy Ring*. New York, N.Y.: Bantam Books, 1989.

"First 'Sofar' Station," *Science News Letter*, Vol. 52, No. 2, July 12, 1947.

Goodwin and Associates (prepared for the United States Departments of the Air Force and Navy), *Housing an Air Force and a Navy: The Wherry and Capehart Era Solutions to the Postwar Family Housing Shortage (1940 – 1962)*, June 2007.

Gregory, Carrie J. and Martyn Tagg. *Recording the Cold War: Identifying and Collecting Cold War Resource Data on Military Installations*. Washington, D.C.: Department of Defense Legacy Resource Management Program, Project 07-285, 2008.

"Harold Norton (obituary)," *Sacramento Bee*, March 22, 1977.

Hurley, Alfred F. and Robert C. Ehrhart. *Air Power and Warfare: The Proceedings of the 8th Military History Symposium, United States Air Force Academy, 18-20 October 1978*. Washington, D.C.: United States Air Force Academy, Office of Air Force History, 1979.

Integrated Undersea Surveillance System (IUSS) Site Awards History: Our Heritage: The Past and Present (chronology of undersea surveillance). http://www.iusscaa.org/history.htm.

Letter from Susan Brandt-Hawley, Brandt-Hawley Law Group, to Ruth Coleman, Director California State Park & Recreation Commission, 2010.

Letter from Jennifer M. Gates, Field Services Director, California Preservation Foundation, to Louis Nastro, Assistant to the Commission, California State Park & Recreation Commission, 2010.

Letter from John O'Neil, Chairman, Central Coast Lighthouse Keepers, to California State Parks & Recreation Commission, 2010.

Letter from Cherilyn Widell, State Historic Preservation Officer, California Office of Historic Preservation to Louis S. Wall, Cultural Resources Coordinator, Department of the Navy, 1994.

McDonald, Heather and Michelle Michael. *Design Guidelines for Department of Defense Historic Buildings and Districts*. Washington, D.C.: Department of Defense Legacy Resource Management Program, Project 07-382, 2008.

Morris, Michael R., CTOCS, USN (Retired). *Naval Facility (NAVFAC) Station History,* http://groups.msn.com/CTOSeaDogs.

Munns, David W. "121,000 Tracks," Navy League of the United States, July 2005, Website: http://www.navyleague.org/sea_power/jul_05_10.php.

"Naval Facility Point Sur: 08 JAN 1958 – 01 OCT 1984 (Command History)." Naval History and Heritage Command (Laura Waayers, Archivist, via email).

Naval Research Laboratories: http://www.nrl.navy.mil/about-nrl/history/reorganized-for-peace/.

Ocean Surveillance During the Cold War: "Sensing, Fusion, Exploitation," a Seminar with Principals. Washington, D.C.: U.S. Navy Memorial, April 15, 2010.

O'Neil, Carol, "Point Sur: On the Front Line of the Cold War," *Central Coast Lighthouse Keepers: Lighthouse Quarterly*, Spring 2010.

O'Neil, Carol, "World War to Cold War: Point Sur's Role," *Central Coast Lighthouse Keepers: Lighthouse Quarterly*, Fall 2006.

O' Neil, John. Point Sur State NAVFAC Archival Material Compiled by John O'Neil, Chairman, Central Coast Lighthouse Keepers (CCLK), undated. Contains:

- *NAVFAC Point Sur Building & Structure Use Summary (Appendix 1-undated);*
- *Asbestos Survey at Naval Facility Point Sur, California (undated);*
- *Habitability Study Naval Facility Point Sur, CA (undated);*
- *Naval Facility (NAVFAC) Point Sur Preliminary Significance Statement (undated);*
- Naval Postgraduate School, Public Works Department. *Lead Based Paint Survey for Point Sur Housing*, August 8, 1996; and
- Asbestos Inspection & Control Specialties. *Initial Building Survey for Suspect Asbestos-Containing Material (ACM)*, January 8, 1990.

Captain John Parrish, *IUSS/SOSUS Dinner Speech, 50th Anniversary*, September 18, 2004.

"Peacetime Sofar," *Science News Letter*, Vol. 49, No. 21, May 25, 1946.

PAST Consultants, LLC. *Point Sur NAVFAC: Final National/California Register Evaluation*, April 2013.

Polmar Norman and Michael White. *Project Azorian: the CIA and the Raising of the K-129*. Annapolis, MD: Naval Institute Press, 2010.

Prados, John, "The Navy's Biggest Betrayal," *Naval History Magazine*, Vol. 24, No. 3, June 2010.

Record of Inspections, Point Sur Light Station. U.S. Navy inspection book for Point Sur Light Station, September 1952 to February 1960.

"Samuel N. Len (obituary)," *Sacramento Bee*, January 17, 2012.

Sharp, David. *The CIA's Greatest Covert Operation: Inside the Daring Mission to Recover a Nuclear-Armed Soviet Sub*. Kansas City, MO: University of Kansas Press, 2012.

"Sofar – the Navy's Lost and Found," *Popular Mechanics*, Vol. 92, No. 6, December 1949.

Stifler, W.W. and W.F. Saars. "Sofar," *Electronics*, June 1948.

Uribe & Associates, *Review Environmental Assessment The Disposal and Reuse of Naval Facility Centerville Beach, California and Naval Facility Point Sur, California* (1994).

U. S. Air Force. *Interim Guidance: Treatment of Cold War Historic Properties for U.S. Air Force Installations* (AFD-070828-060 Facsimile Reproduction). Washington, D.C.: United States Air Force, June 1993.

U. S. Navy, Commander, Undersea Surveillance (CUS) website: www.cus.navy.mil/NAVFAC%20point%20Sur.htm.

U. S. Navy. *1981 Master Plan for Naval Facility, Point Sur: Big Sur, California*. San Bruno, California: Department of the Navy, Western Division, Naval Facilities Engineering Command.

Weeks, Kay D. and Anne E. Grimmer. *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. Washington, D.C.: National Park Service, 1995.

Whitman, Edward C., "SOSUS: The 'Secret Weapon' of Undersea Surveillance," *Undersea Warfare*, Vol. 7, No. 2, Winter 2005.

Wilhelm, Mary Joe Kelly. *Listening for Leviathan: The Life of Captain Joseph Paul Kelly* (Smashwords Edition, 2011).

William Self Associates, *Historic Resources Assessment Naval Facility Point Sur, Monterey, California* (1993).

Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67) has been requested
_X__previously listed in the National Register
_____previously determined eligible by the National Register
_____designated a National Historic Landmark
____ recorded by Historic American Buildings Survey #_____
_____recorded by Historic American Engineering Record # _____
____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

_X__State Historic Preservation Office
_X__Other State agency
_X__Federal agency
____ Local government
____ University
____ Other
Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property _Light Station: 37 acres; NAVFAC: 38.5 acres_____

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)
Datum if other than WGS84:_____
(enter coordinates to 6 decimal places)

1. Latitude: 36.30500 Longitude: 121.898600
2. Latitude: Longitude:
3. Latitude: Longitude:
4. Latitude: Longitude:

Or
UTM References
Datum (indicated on USGS map):

☐ NAD 1927 or ☐ NAD 1983

1. Zone:	Easting:	Northing:
2. Zone:	Easting:	Northing:
3. Zone:	Easting:	Northing:
4. Zone:	Easting :	Northing:

Verbal Boundary Description (Describe the boundaries of the property.)

Point Sur Light Station

The original acquisition included 24.58 acres on and around the base of the rock outcropping known as Moro Rock; a two-acre parcel adjacent to State Highway 1; a 6.5 acre parcel to the east of the highway; and a right of way connecting the first two of these parcels. The Unit was classified in 1987 as a State Historic Park in order to recognize and protect the historic Light Station and associated structures.

Point Sur NAVFAC

The 38.54-acre parcel NAVFAC parcel is located approximately one-half mile southeast of the Light Station, bounded by State Highway One to the east; the ocean to the west, and open ranch land to the north and south. An additional parcel includes an access road leading from State Highway One east to two Redwood water storage tanks above the highway.

See the aerial photograph on the Section 10 Continuation Sheet for locations of the various parcels that comprise the NAVFAC and the Light Station.

Boundary Justification (Explain why the boundaries were selected.)

The original 24.58-acre acquisition included the area encompassing Moro Rock by the State of California in 1984 to preserve and protect a self-sufficient, late nineteenth century light station in California with the full complement of its associated facilities. In 1980, this complex was listed on the National Register of Historic Places, and it was identified as an historic district in 1990.

In 2000, the 38.54-acre NAVFAC parcel was acquired. Since acquisition and incorporation of this parcel into Point Sur State Historic Park, the historic significance of the NAVFAC site itself has become evident.

---

11. Form Prepared By

name/title: Seth A. Bergstein, Principal
organization: PAST Consultants, LLC
street & number: PO Box 721
city or town: Pacific Grove state: CA zip code: 93950
e-mail_seth@pastconultants.com
telephone: 415-515-6224
date: April 24, 2015

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.

- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Point Sur Light Station

City or Vicinity: Moro Rock and NAVFAC site, approximately 23 miles south of Monterey, California on State Highway One

County: Monterey State: California

Point Sur Light Station | Monterey California
Name of Property | County and State

Photographer: Seth Bergstein Date Photographed: May 7, 2012

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 15. Point Sur NAVFAC site and Moro Rock looking northwest.

2 of 15. Point Sur NAVFAC site looking west.

3 of 15. Redwood water storage tank site looking southeast.

4 of 15. Point Sur NAVFAC arterial road, taken from gate looking west.

5 of 15. Point Sur NAVFAC arterial road looking west at Buildings 106 and 110.

6 of 15. Point Sur NAVFAC Buildings 108, 110, 138, & 148 looking southwest.

7 of 15. Point Sur NAVFAC Buildings 105 & 107 looking northwest.

8 of 15. Point Sur NAVFAC Building 109 looking southwest.

9 of 15. Point Sur NAVFAC Building 113 looking northwest.

10 of 15. Point Sur NAVFAC Building 111 looking southwest.

11 of 15. Point Sur NAVFAC Building 100 looking northeast.

12 of 15. Point Sur NAVFAC Capehart Housing looking northwest.

13 of 15. Point Sur NAVFAC Capehart Housing detail looking northwest.

14 of 15. Point Sur NAVFAC Capehart Building 20 looking northeast.

15 of 15. Point Sur NAVFAC Capehart Buildings 3 and 4 looking southeast.

Narrative Description

Point Sur Naval Facility (NAVFAC): Site

The NAVFAC site encompasses 38.54 acres, resting on the marine terrace between Moro Rock and State Highway One, approximately one-half mile southeast of the Light Station site (**see Point Sur Site Plan, Section 10 Continuation Sheet 1**). Open ranchland in current use surrounds the site to the north and south. State Highway One forms the eastern boundary of the NAVFAC site, with the exception of the water storage tank site on the hill above and east of Highway One. A road easement through the ranchland connects the water storage site to the highway. The Pacific Ocean and Moro Rock form a natural western boundary.

The NAVFAC site's circulation patterns consist of a primary, east-west arterial road that runs from State Highway One to the site's western edge on the Pacific Ocean. The two curvilinear roads serving the Capehart housing neighborhood are at the northeast end of the site nearest to Highway One. Short access roads running from the primary arterial road branch out to various clusters of buildings organized around a specific function.

Arrangement of the NAVFAC buildings along the arterial road followed a logical design (**see NAVFAC Site Plan and Photo Location Plan, Section 10 Continuation Sheet 2**). The central core area included public works, personnel, and administration functions. Utilities buildings were located outside the main core, as were recreational and personnel functions. Lastly, the Capehart housing neighborhood, constructed several years after the base opened, is situated nearest to the highway, with the planting of a continuous row of Monterey Cypress and Monterey Pine trees to provide a windbreak and conceal the housing from the highway's view (**Photos 1 and 2**).

Site hardscape features include the road network linking the buildings, paved areas centered within the public works core, paved parking areas adjacent to the officers and enlisted quarters, concrete paths and stairs leading to and from buildings, concrete storm water swales and culverts, utility poles and fencing.

Site drainage systems include concrete swales running parallel to roads; culverts at road crossings, and buried outfall pipes running parallel to side roads, linking with the primary arterial road, and running downhill and to the ocean. Buried underground steam lines run from the Boiler House (Bldg. 111) to various buildings on the site. Sewer mains are present in the Capehart housing area (**Photos 12 - 15**) and may connect to the personnel quarters (Bldg. 104 and Bldg. 109), before running to the Sewage Treatment Plant (Bldg. 146) and outfall structures. The Capehart area also has telephone service, a central propane gas system, a central septic system and a water system. Part of the water storage and distribution system is extant and consists of two Redwood water storage tanks (Bldgs. 131 and 132) located on the hillside parcel east of Highway One (**Photo 3**).

Introduced vegetation includes the native species, Monterey Cypress and Monterey Pine, planted to

provide a windbreak for the Capehart housing and to screen other buildings. In addition, grasses have been introduced to the NAVFAC site. The non-native, African Kikuyu Grass was introduced to the site to stabilize soil and provide a quick-growing ground cover. Presently the Kikuyu Grass is overgrown extensively, covering much of the asphalt hardscape on the site.

Point Sur Naval Facility (NAVFAC): Contributing Buildings

Taken as a whole, the NAVFAC operational buildings were designed as a cohesive unit, emphasizing function, security and low visibility. Designed in a low profile, post-war industrial style, the buildings were intended to blend into the landscape, a criterion that indicated the highly secret operations that occurred within the base. With the exception of the Capehart housing, the buildings all bear the same overall architectural design characteristics and building materials. Typical design elements include: long & low-slung rectangular massing; flat or low-pitched roof lines; horizontal bands or groupings of windows; symmetrical door placement; and post-war industrial building materials, including reinforced concrete, steel windows/doors, and tar/gravel roofs. Buildings were numbered, as is typical with military installations. The following provides brief descriptions of the contributing buildings.

Buildings 1 – 24: Capehart Housing (1960)

The extant Capehart housing neighborhood consists of 21 residential buildings, in a combination of single-family and duplex structures, providing a total of 24 residential units. The houses are arranged in a circular pattern with officers' houses on a cul-de-sac located northwest of the two circular roads. Garages for each unit faced the neighboring unit to provide privacy. A tennis court (Unit 167) was set in an open grassy area to the south of the houses. The circular road network and placement of houses reflect suburban house patterning and design prevalent in contemporaneous suburban civilian designs and are a clear illustration of Capehart housing principles standardized by the Armed Forces (**Photos 12 - 15**).

The single-family Capehart house is a California Ranch design with a garage at the far end of the house. Houses were sited so that garage elevations faced each other on adjacent lots to provide privacy. The primary elevation contains an entrance door flanked by aluminum picture windows with sliding transoms on one side and narrow aluminum sliders on the other. Rear elevations have more numerous window openings and a screen door opening out to the back yard. The buildings are wood-framed with stucco wall finishes and have narrowly-pitched gable roofs with tar-and-gravel roofing. Minimalist exterior decoration consists of porch light fixtures in a Colonial Revival style (**Photo 14**).

The duplex Capehart house style is a California Ranch design expressed as a symmetrical, mirror-image composition with the garage as the common wall for added privacy. The primary elevation contains an entrance door flanked by aluminum picture windows with sliding transoms on one side and narrow aluminum sliders on the other. Rear elevations have more numerous window openings and a screen door opening out to the back yard. Window types and arrangement are similar to the single-family designs. The buildings are wood-framed with stucco wall finishes and have narrowly-pitched gable

roofs with tar-and-gravel roofing. Minimalist exterior decoration consists of porch light fixtures in a Colonial Revival style.

Building 100: Administration (1957)

A 2,628 square-foot reinforced concrete structure with concrete-block walls, Building 100 housed the administrative offices for the facility. The building has a shallow-pitched gable roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of paired, steel industrial sash windows with operable center panes and concrete window sills. Recessed steel doors are centered on the north and west elevations (**Photo 11**).

Building 102: Chief Petty Officer Club (1957)

A 486 square-foot reinforced concrete structure with concrete-block walls, Building 102 was used by the base Chief and for gatherings and parties. The building has a shallow-pitched shed roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. A flat-roofed wing to the north housed the restrooms. Minimal fenestration (to maintain privacy) consists of fixed sash windows with concrete window sills. A steel door with sidelight is present on the west elevation. Paired steel doors access the north wing

Building 103: Galley (1957)

A 3,675 square-foot, reinforced concrete structure with concrete-block walls, Building 103 provided food for the base. The daily menu included a main entrée, sandwiches, a salad bar, beverage bar, and dessert bar. The building has a shallow-pitched gable roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of grouped, steel industrial sash windows with tilting lower panes and concrete window sills. Entry is through paired sliding glass doors in a flat-roofed entry addition on the west elevation. An additional entrance with steel door is present on the north elevation.

Building 104: Bachelor Officer's Quarters (1957)

A 4,144 square-foot, concrete-block structure, Building 104 provided housing for five single officers and contained a lounge, kitchenette, laundry, bathrooms and a rear patio for entertaining. The building has a shallow-pitched gable roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of single and grouped steel industrial sash windows with operable center panes and concrete sills. Entry is through a single steel door centered in the west elevation and paired steel doors with wire glass in the north end of the east elevation.

Building 105: Theater (1957)

A 1,940 square-foot, reinforced concrete frame structure with concrete-block walls, Building 105 served as a gathering and training facility and showed recent movies and visual entertainment. The building has a shallow-pitched gable roof with wood fascia boards and metal flashing. A recessed primary entrance with paired steel doors is in the south elevation. Additional single-door exits are located on the north, east and west elevations. The building has no windows (**Photo 7**).

Building 106: Supply (1957)

A 2,758 square-foot reinforced concrete frame structure with concrete-block walls, Building 106 housed the supply for the facility. The building has a shallow-pitched gable roof with concrete rafters; and wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of paired, steel industrial sash windows with operable center panes and concrete window sills. Three pairs steel doors access a loading dock on the west elevation.

Building 107: Club (1957)

A 4,219 square-foot, reinforced concrete frame structure with concrete-block walls, Building 107 housed the Exchange Retail Store in the southern section, the enlisted men's mess in the northern section and the Club Oasis, a bar and gathering place for enlisted personnel in the middle section. The building has a shallow-pitched gable roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of grouped, steel industrial sash windows with operable center panes and concrete window sills, located on the northern 3 bays of the building. The remaining sections do not have windows. Entry to the club is north of the Naval Exchange through a shallow, gable-roofed portal on the east elevation. A utility room entrance with steel door is present on the west elevation (**Photo 7**).

Building 108: Garage (1957)

A 1,994 square-foot reinforced concrete structure with concrete-block walls, Building 108 housed the vehicular maintenance repair facility. The building has a shallow-pitched gable roof with concrete rafters; and wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of two, steel industrial sash windows located in a flat-roofed entrance bay to the south of the primary structure. Four steel roll-up doors serve four separate repair bays on the west elevation. The east elevation is windowless and contains a single steel door centered in the façade (**Photo 6**).

Building 109: Bachelor's Enlisted Quarters (1957)

An 11,979 square-foot, two-story reinforced concrete frame structure with concrete-block walls, Building 109 provided housing for enlisted personnel. The building contained twenty-four 2-person rooms, two single-occupancy rooms (in the single-story bays to the south), a television room, recreation room, two laundry rooms and head. The building has a shallow-pitched gable roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of grouped,

steel industrial sash windows with tilting lower panes and concrete window sills. The primary entrance is through paired aluminum doors in the third southern bay of the east elevation. Additional single-door exits exist on the west and south elevations. The north elevation has an exit from the second floor and down a set of concrete steps to the parking lot east of the building (**Photo 8**).

Building 110: Public Works Shop (1957)

A 4,439 square-foot reinforced concrete structure with concrete-block walls, Building 110 was the public works shop. The building has a shallow-pitched gable roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. Fenestration consists of grouped, steel industrial sash windows with operable center panes and concrete window sills on the west elevation and steel slider windows at the roof/wall junction on the east elevation. Paired steel doors are located on the east elevation. A rectangular entrance bay for utilities protrudes from the west elevation (**Photo 5**).

Building 111: Boiler House (1957)

A 1,188 square-foot reinforced concrete structure with concrete-block walls, Building 111 was the heating plant. The building has a shallow-pitched gable roof with concrete rafters, wood fascia boards covered with metal flashing and roofed with tar and gravel. Two large boiler stacks penetrate the center of the roof. Fenestration consists of paired, steel industrial sash windows with operable center panes and concrete sills on the north, south and east elevations. The west elevation has two steel roll-up doors and a single steel industrial sash window. Single-door entries are set on the southwest corner and centered in the east elevation. The building has louvered vents on the north, south and east elevations (**Photo 10**).

Building 113: Bunker (1957)

A 100 square-foot, concrete and concrete-block structure, Building 113 stored small arms and munitions. The structure has a concrete block wall, with a concrete slab and the bulk of the structure constructed into the sand dune. A single entry door is centered in the west elevation (**Photo 9**).

Building 131/132: Redwood Water Storage Tanks (1957)

Two 100,000-gallon redwood storage tanks provided the water supply for the facility. The tanks rest on concrete foundations and are constructed of unpainted vertical Redwood boards wrapped in steel cabling with a steel tie-back system. The tanks have a conical roof finished with rolled roofing. A small, shed-roofed structure is adjacent to and north of the tanks. A chain-link fence surrounds the site. A paved access road leads from the tank site to State Highway One (**Photo 3**).

Building 138: Dispatch/Security (1957)

A 30 square-foot concrete-block structure, the Dispatch/Security building provided communications for

the public works operations of the facility. The building has a shallow-pitched, wood-framed shed roof with metal flashing, windows on the south and east elevations and a single entry on the north elevation.

Building 146: Sewage Treatment Plant (1962)

A 275 square-foot concrete-block structure with cement plaster finish, Building 146 provided wastewater and industrial waste treatment for the facility. The L-shaped building has a flat, wood-framed roof with wood fascia boards covered with metal flashing. One wing appears to have had a standing-seam roof repair. Entrances are located on the east elevation, with single wood doors. Window openings with metal slider windows are located on the north, south and west elevations.

Building 148: Storage Shed (1962)

A 456 square-foot concrete-block structure, Building 148 provided storage for the public works operations. The building has a shallow-pitched shed roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. A steel roll-up door is the only opening on the north elevation. The door opens onto a concrete loading dock that runs the length of the north elevation. The building has no windows. A wing to the east with a single entry and no windows is likely an addition to the original structure.

Building 162: Gate/Sentry House (1961)

A 36 square-foot, reinforced concrete block structure with concrete bond-beam, Building 162 served as a bus shelter for the Capehart housing neighborhood. The building has a shallow-pitched shed roof with wood fascia boards flashed at the edges and roofed with tar and gravel. It is open to the west side, facing the entrance to the Capehart neighborhood.

Building 165: Gate/Sentry House (1970)

A 30 square-foot, wood-framed structure, Building 165 served as the gate sentry's shelter. The building has a shallow-pitched shed roof with plywood fascia boards and exposed rafters, finished with tar and gravel. Fenestration consists of fixed, sash windows on the east and west elevations. Entry faced the access driveway on the south elevation. Horizontal V-groove siding finishes the walls.

Building 168: Public Works Housing Maintenance (1975)

A 600 square-foot, concrete-block structure, Building 168 served as a maintenance and public works building for the Capehart neighborhood. The building has a shallow-pitched gable roof with wood fascia boards and edge flashing. The building contains a roll-up door and two single metal doors in the south elevation. A single-pane window is located on the east, west and south elevations.

Building 169: Storage Shed (1977)

A 180 square-foot concrete-block structure, Building 169 provided storage for hazardous and flammable materials. The building has a flat roof, a single entry in he east façade and no windows. The exterior block is finished with cement plaster.

Paint Shed (1970)

A 450 square-foot concrete-block structure, the Paint Shed provided additional storage for the public works operations. The building has a shallow-pitched shed roof with wood fascia boards covered with metal flashing and roofed with tar and gravel. Paired steel doors on the west elevation provide the only opening into the building. The building has no windows. Four open concrete-block storage bays run to the south of the shed.

See the Section 10 Continuation Sheets for a site plan showing the NAVFAC site plan and photograph locations

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Point Sur Light Station
Name of Property
Monterey California
County and State
Name of multiple listing (if applicable)

Section number 7 Page 1

Narrative Statement of Significance

Point Sur Light Station Additional Historic Contexts:

- Changing of Light Station Operations (SOFAR): 1946 - 1958
- Point Sur Naval Facility (NAVFAC): 1958 – 1984

Following the United States' victory in World War II and the beginnings of the Cold War, the role of Point Sur Light Station began to shift, from its early use in navigation, to a combined use of navigation and military research for submarine defense. The building on Moro Rock where this research occurred was the circa-1945 barracks building (**Historic Photograph 1**).

The Cold War (1946 – 1991) received its name because it never was a conflict of direct military action. Rather, the world's great superpowers, the United States and the Soviet Union, waged this war primarily through the formation of military coalitions, such as NATO (1949) and the Warsaw Pact (1955), espionage, the fighting of proxy wars, and the intensive buildup of conventional and nuclear armaments. The United States considered the spread of communism to be a substantial and direct threat to its democratic political and ideological systems. With the successful detonation of the first Soviet atomic bomb in 1949, the greatest threat to the United States became its destruction by the use of enemy nuclear weapons.[1] As the Cold War progressed, three delivery systems for nuclear weapons were constantly being developed, maintained and advanced: land-based bombers, land-based missiles and submarines. These offensive weapons systems were known as the Strategic Triad. The two sides raced to develop technological advancements in both the offensive delivery and the homeland's defense of nuclear weapons.

In the early years following the end of World War II, the ability to keep the sea safe for the transport of men and material was of paramount importance. The United States Navy recognized that the growing strength of the Soviet submarine force posed the greatest threat to American security. Fleet Admiral Chester W. Nimitz became Chief of Naval Operations (CNO) in December of 1945. Although the Soviet Union had not developed submarines with a nuclear strike capability yet, Nimitz recognized the importance of anti-submarine warfare (ASW) to keep shipping lanes open. Nimitz knew that the Soviets had captured a number of advanced German U-boats at the end of World War II and feared that the Russians would quickly develop a fleet of advanced submarines using the German technology. In June 1946, Nimitz initiated Project Girder, a program that prioritized submarine detection and anti-submarine warfare. Following the Soviet Union's successful development of nuclear weapons in 1949, it became clear that submarines posed a substantial threat to United States security. A submarine could travel undetected to within sight of United States shores and launch its nuclear weapons from such close distances as to prevent early warning of the incoming threat. By the 1950s it became clear that Nimitz was correct: the Soviet Union was developing its submarine fleet rapidly. Anti-submarine warfare

[1] Goodwin and Associates, *Housing an Air Force and a Navy: The Wherry and Capehart Era Solutions to the Postwar Family Housing Shortage (1940 – 1962)*, June 2007, 16.

technology became the U.S. Navy's research and development priority.[2]

SOFAR: The First Development in Underwater Sound Surveillance

The study of underwater acoustics was underway prior to World War II. In 1937 Lehigh University professor Maurice Ewing discovered that explosive charges buried at great ocean depths were perceptible on-board his ocean vessel. Ewing determined that underwater sound could travel at great distances with minimal attenuation. At roughly the same time, the invention of the bathythermograph by scientists at the Massachusetts Institute of Technology (MIT) and the Woods Hole Oceanographic Institution made it possible to measure the variation of both ocean temperature and underwater sound velocity with depth. These experiments led to the understanding of the *Deep Sound Channel*, an underwater phenomenon that enables the propagation of sound over long horizontal distances. Underwater sound speeds are higher near the ocean surface, as the water is warmer. With increasing depth, sound velocity decreases to a minimum until pressure effects take over and cause sound velocities to again increase with depth. The Deep Sound Channel is the underwater layer where the sound velocity is at its minimum. Sound rays entering the channel from both above and below the Deep Sound Channel's axis become refracted back, causing them to weave along the channel's axis. These sounds become trapped in this deep ocean layer and can travel long horizontal distances.

In 1944, Ewing and his colleagues further proved their theories of sound propagation in the Deep Sound Channel by confirming the location of explosive charges dropped into the channel by the *USS Buckley*. The team postulated that a system of underwater hydrophones placed along the channel could be connected to listening stations that could triangulate the sound's location. The earliest system was known as SOFAR (Sound Fixing And Ranging). The system worked in the following manner: a downed pilot would drop an explosive charge into the Deep Sound Channel where its sound would travel thousands of miles and be picked up by a system of hydrophones mounted to the sea floor and triangulated to give the pilot's location. By the end of World War II, SOFAR had been fully developed for air-sea rescue.[3]

By 1946, SOFAR was the buzzword in popular scientific journals. The journal *Science News Letter* stated that SOFAR "will save lives of civilians ditched or wrecked on across-the-ocean trips by locating exactly the position of the plane or life raft."[4] In 1947, the same journal announced the development of the first SOFAR network to be constructed on the West Coast, noting that the first SOFAR receiving station will be located in Monterey, California.[5] A recording device was first installed on the Monterey pier in May of 1946.[6] In 1949, *Popular Mechanics* published a detailed article on SOFAR, describing the

[2] Hurley, Alfred F. and Robert C. Ehrhart, *Air Power and Warfare: The Proceedings of the 8th Military History Symposium, United States Air Force Academy, 18-20 October 1978*, 250.
[3] Whitman, Edward C., "SOSUS: The 'Secret Weapon' of Undersea Surveillance," *Undersea Warfare*, Vol. 7, No. 2, Winter 2005, 3.
[4] "Peacetime SOFAR," *Science News Letter*, Vol. 49, No. 21, May 25, 1946.
[5] "First SOFAR Station," *Science News Letter*, Vol. 52, No. 2, July 12, 1947.
[6] Snodgrass, F. E. "Wave Recorders". *Coastal Engineering Proceedings*, [S.l.], n. 1, p. 7, May. 2010. ISSN 2156-1028. Available at: https://journals.tdl.org/icce/index.php/icce/article/view/910

development and methodology of the system to a lay audience. The article indicates that Point Sur became the location of the first SOFAR listening station:

> Under exhaustive tests by the Navy since first announced in 1946, the Pacific SOFAR network has now been set up and is expected to be in full operation next year. Stations are located at Kaneohe Bay in the Hawaiian Islands and at Point Arena and Point Sur along the California coast. …Originally, for example, it was decided to put one of the monitoring stations at Monterey, California. But a deep and twisting submarine canyon just offshore made it impossible to find a suitable location for the hydrophones. So the station was moved south to Point Sur.[7]

To keep these early experiments covert, the circa-1945 barracks building was chosen to install the earliest SOFAR "gram writers," which contained a rotating drum with a stylus to record the oceanographic sound waves. This small building (**Historic Photo 1**) was the only vacant building on Moro Rock at this time. In 2000, historian Jeff Norman interviewed U.S. Coast Guardsman Ted Turgeon, who was stationed at Pt. Sur in 1947, to discuss these early experiments. Ted Turgeon indicated that U.C. Berkeley had installed underwater hydrophones offshore which were connected to a listening device in the concrete barracks building just behind his own quarters, and that he was responsible for changing the graph paper that recorded data from the hydrophones.[8] The concrete building now serves as the Point Sur State Historic Park Visitor's Center.

Early in 1949, the Naval Research Laboratory reported submarine detection ranges of 10-15 NM in tests using SOFAR hydrophones off Point Sur, California. By the end of the year, ranges of several hundred miles had been achieved. That same year a SOFAR station was established at Bermuda by Dr. Maurice Ewing, a world-famous oceanographer and one of the great contributors to our knowledge of underwater sound.[9] But, perhaps the most important outcome of the SOFAR experimentation at Point Sur was the development of the original Wentz curve for ocean acoustics. Wentz curves are plots of the ambient noise spectra for different levels of shipping traffic, or sea conditions (or wind speeds). These early advancements in undersea sound ranging would lead to the exploration of SOFAR for the detection of enemy submarine movements.

Following this early development, a group of top academic scientists know as the Committee on Undersea Warfare (CUW) was formed to study the possibility of expanding SOFAR into a system of undersea surveillance, explicitly designed to track the movements of enemy submarines. Out of the earliest CUW meetings developed Project Hartwell, a series of technical meetings of the nation's top

---

[7] "SOFAR – the Navy's Lost and Found," *Popular Mechanics*, Vol. 92, No. 6, December 1949. When the SOFAR system was ready for operation, the United States Navy released articles to the popular scientific journals promoting SOFAR technology and applications. According to Snodgrass (p. 79), this move occurred in April 1947.

[8] Norman, Jeff. Notes from interview with Ted Turgeon. April 10, 2000. *The Jeff Norman Collection*. California History Room, Monterey Public Library. Inspection reports prior to construction of the NAVFAC call the circa-1945 concrete building the "SOFAR Building."

[9] Commander, Undersea Surveillance (CUS), *Origins of SOSUS*, www.public.navy.mil/subfor/cus/Pages/sosus_origins.aspx.

scientists and naval officials designed to take SOFAR to the next level. The Hartwell Committee sought American talent to develop the technology for a successful undersea surveillance program. Dr. Marvin Kelly, president of Bell Telephone Laboratories, took the lead in assisting the United States government. In 1950, Dr. Kelly met with Admiral C.B. Momsen, Assistant Chief of Naval Operations, Admiral Solberg, Chief of Naval Research and Dr. Julius Stratton, provost of MIT to discuss the problem. The Hartwell Committee postulated that the existing SOFAR system could be expanded to support the passive detection of submarines at long ranges regardless of depth.[10] The result was the development of SOSUS, which would necessitate the construction of a series of naval facilities or "NAVFACs" to serve as the receiving and analyses hubs of a worldwide anti-submarine surveillance system.

The Development of SOSUS

International developments placed new urgency on the Project Hartwell findings by 1950. First, the Soviet Union exploded its first nuclear weapon in 1949. Second, the outbreak of the Korean War in 1950 caused the United States to increase defense spending significantly, and continue this priority in defense spending throughout the Cold War. The Hartwell Committee was tasked with prioritizing anti-submarine warfare (ASW), initially to protect ships bearing men and material for the Korean conflict from enemy submarines. However, the committee quickly concluded that Soviet submarine technology was advancing rapidly and that the submarine, with its ability to travel in complete secrecy and surface at will, posed the greatest threat to National Security once the enemy had developed the means to make it a nuclear weapons carrier.[11]

In 1950 the Office of Naval Research initiated a highly secret and collaborative project, known as "Jezebel," again employing the technical services of Dr. Kelly and Bell Telephone Laboratories. Jezebel worked on the development of undersea listening arrays adapted to the recently invented sound spectrograph, a tool for analyzing speech sounds. Titled LOFAR (Low Frequency Analysis and Recording), the device was designed to analyze low-frequency underwater signals in near-real time. Together, LOFAR and the spectrograph "generated a frequency-versus-time representation of an incoming sound bite on which the time history of its spectral content was indicated by the blackening of specially-sensitized paper by an electrostatic stylus (called a 'gram writer') that swept repeatedly along the frequency axis. In this way, the presence of distinctive submarine sound signatures could be discerned against the ocean background in the composite signal picked up by an array."[12]

In the coming months it became evident that a submarine's sound spectrum produced low-frequency sounds that could be detected using the developing technology. In May 1951, Jezebel developed its first LOFAR scheme for undersea detection, consisting of the LOFAR spectrum analyzer connected to a series of underwater hydrophones, cables, delay lines and networks for triangulating the location of the undersea noise. In collaboration with the British government, the first LOFAR deep-water array was

[10] Commander, Undersea Surveillance (CUS), *Origins of SOSUS.*
[11] Cote, Jr., Owen, *The Third Battle: Innovation in the U.S. Navy's Silent Cold War Struggle with Soviet Submarines*, 2000, www.navy.mil/navydata/cno/n87/history/cold-war-asw.html.
[12] Whitman, Edward C., 4.

installed at Eleuthera Island in the Bahamas.

In 1952, the Navy put the new LOFAR technology to the test at Eleuthera Island. Captain Joseph P. Kelly (no relation to Dr. Marvin Kelly of Bell Laboratories) became project manager of Jezebel. He assigned a U.S. submarine to perform detectable maneuvers offshore of Eleuthera to determine if the movements were detectable using the new LOFAR system. LOFAR gram writers plotted the submarine's maneuvers accurately. The long-awaited technological breakthrough in submarine detection had finally occurred. [13]

Project Michael, was another collaborative project initiated by the Office of Naval Research and a prestigious academic institution in 1950. In collaboration with Columbia University, Project Michael studied the general phenomenology of low-frequency underwater sound. Both the Woods Hole Oceanographic Institution (Massachusetts) and the Scripps Institute of Oceanography (California) assisted in focusing on establishing a solid understanding of long-range sound transmission. The products of projects Jezebel and Michael were brought together for design, engineering and deployment of the broad-area surveillance system initiated in Project Hartwell. These projects formed the scientific basis for the next generation of submarine detection: SOSUS (Sound Surveillance System), which made long-range undersea surveillance possible early in the postwar era. In time the highly classified SOSUS system was given the unclassified name Project Caesar.[14]

A passive defense system, SOSUS, could detect radiated acoustic power of less than one watt at ranges of several hundred kilometers, and was completely undetectable by the submarines being tracked. Skilled military operators employing LOFAR "gram writers" could both detect and differentiate a submarine from other ocean noises, and identify specific vessel types which made the sounds. SOSUS provided early warning of hostile submarines entering the North Atlantic and Eastern Pacific, and generated accurate target information for patrol aircraft, surface ships and friendly submarines. The system's key technical characteristic of broad frequency coverage enabled it to adapt to the changing technology of Soviet submarines, proving equally effective when deep-running nuclear-powered submarines were introduced after 1958. The system's technology was the mainstay of anti-submarine

[13] Morris, Michael R., CTOCS, USN (Retired), *Naval Facility (NAVFAC) Station History*, http://groups.msn.com/CTOSeaDogs, 4. Captain Joseph Kelly (1915-1988) became known as "the father of SOSUS." After serving in the Navy during World War II, Kelly worked as an engineer for the Westinghouse Electric Corporation, one of the primary companies sought by the United States government to develop its ASW system. At the start of the Korean War, Kelly was recalled by the Navy and worked tirelessly in the effort to develop SOSUS and maintain its edge over the developing Soviet submarine technology. He remained in the Navy until 1973. A posthumous tribute to Joseph Kelly, held at AT&T Bell Laboratories on April 15, 1989 notes, "For some forty years, a generation of dedicated Navy personnel and civilian contractors have worked tirelessly to keep apace of an increasingly sophisticated submarine threat." Quoted from a self-published biography of Joseph Kelly: *Listening for Leviathan: The life of Captain Joseph Paul Kelly, the United States Navy's Father of Project Caesar & SOSUS*, written by Kelly's daughter, Dr. Mary Joe Kelly Wilhelm, 2011. This document notes that Kelly accumulated a vast archive on SOSUS during his 20-year career developing and managing the SOSUS network.

[14] Wilhelm, Dr. Mary Joe Kelly, *Listening for Leviathan: The life of Captain Joseph Paul Kelly, the United States Navy's Father of Project Caesar & SOSUS* (Smashwords Edition), 2011, 31.

warfare during the Cold War, and led to the development of a system of defensive naval facilities (NAVFACs) spread around the coastlines of the United States and its western allies. At the height of the Cold War, over thirty SOSUS bases worldwide maintained an undersea web of ocean listening devices as the fist line of defense against Soviet submarine warfare.

Development of the Worldwide NAVFAC System

With the effectiveness of SOSUS confirmed, the United States Navy's Bureau of Ships (BUSHIPS) with Joseph Kelly in command contracted with Bell Laboratories to initiate construction of Phase One of the NAVFAC program. Nine stations were constructed to cover the Atlantic Ocean: Ramey Air Force Base (Puerto Rico), San Salvador (British West Indies), Grand Turks Island (British West Indies), Shelburne, Nova Scotia (Canada), Bermuda (two locations: north and south), Nantucket Island (Massachusetts), Cape May (New Jersey), and Cape Hatteras (North Carolina). All bases were operational by the end of 1955.

Each facility consisted of a small naval station that provided the nexus for a bank of LOFAR gram writers housed in a structure located on the shoreline. Buried offshore cables, hundreds of miles in length, connected the ocean floor-mounted hydrophones to the building containing the LOFAR gram writers. Sounds transmitted by passing enemy submarines would be picked up by the hydrophones and carried by the sound cables to the naval facility for processing and identification. As time passed during the Cold War, individual "signatures" of countless
Soviet submarines and surface vessels were developed, enabling the LOFAR analyzers to differentiate the ships based on their unique sound signature.[15]

Establishment of the worldwide NAVFAC system became the highest priority for the United States Navy. Joe Kelly and his team received the green light for every supply or manpower requisition that came to mind. The target was the construction of one NAVFAC base per month, until the system was fully operational.[16]

Phase Two included the construction of 12 additional stations between 1955 and 1959: Antigua (British West Indies), Cape Hatteras (second array – North Carolina), Barbados (British West Indies), Eleuthera (British West Indies), San Nicolas Island (California), Point Sur (California), Centerville Beach (California), Coos Bay (Oregon), Pacific Beach (two arrays – Washington), Argentia, Newfoundland (Canada), Shelburne, Nova Scotia (second array – Canada).

Phase Three was designed to close the north and south "corners" of the East and West coast systems. Additional cables and arrays terminated at existing NAVFACs in Eleuthera, Newfoundland and

[15] Wilhelm, Dr. Mary Joe Kelly, 33.
[16] Morris, 5. Please see Appendix B for a timeline of SOSUS and NAVFAC base development, prepared by the Integrated Undersea Surveillance System (IUSS).

Bermuda. This phase was completed in the early 1960s.[17] The United States Navy gave construction of the NAVFAC system the highest National Security priority and enabled rapid construction and operational placement of each base to occur relatively quickly. Constructed as part of Phase Two, the Point Sur Naval Facility (NAVFAC) became an integral station in the West Coast SOSUS network.

Construction of the Point Sur NAVFAC

As discussed above, the Point Sur Light Station site was already the location of early radar and SOFAR experiments on Moro Rock in 1946. Point Sur provided the ideal location for these experiments: it was remote, yet accessible on State Highway One and its position jutting into Pacific Ocean offered a 270-degree view of the surrounding shoreline.[18]

Construction of the NAVFAC Operational Buildings

United States Navy, Commander, Undersea Surveillance (CUS) provides a concise description of the Point Sur NAVFAC and its efficient operation:

> Naval Facility Point Sur, California was commissioned 8 January 1958. During its twenty-six years of operation, it provided continuous support to Undersea Surveillance. Located twenty-five miles south of Monterey, California along scenic Highway 1, the facility was manned by ten officers, ninety-six enlisted and 18 civilians. The command was awarded the Meritorious Unit Commendation in 1969, The Efficiency "E" in both 1977 and 1983, and was also rated as the top Naval Facility in 1983 by COSP, achieving the systems first "clean sweep" of operations, maintenance, and efficiency awards given by the task group commander. NAVFAC Point Sur was decommissioned 1 October 1984 upon remoting to NAVFAC Centerville Beach."[19]

Constructed in 1957 and commissioned in January 1958, the Point Sur NAVFAC was a large self-contained and self-sufficient entity, with a full complement of support and recreational facilities for its isolated personnel. Ostensibly an ocean research facility, its real mission was submarine surveillance, and its construction was predicated on a high level of security. As noted in the Point Sur State Historic Park General Plan: "Its architectural design was indebted to a post-war industrial and military aesthetic. Buildings at the base were designed in a low profile, flat-roofed style, which were particularly suited to blend into the surrounding landscape, with minimal details."[20]

Buildings were laid out along a central axis, an arterial roadway that linked the station to its primary

[17] Wilhelm, Dr. Mary Joe Kelly, *Listening for Leviathan*. Appendix E summarizes the various phases of NAVFAC base construction.
[18] O'Neil, Carol, "World War to Cold War: Point Sur's Role," *Central Coast Lighthouse Keepers: Lighthouse Quarterly*, Fall 2006, 1.
[19] United States Navy, Commander, Undersea Surveillance (CUS), www.cus.navy.mil/NAVFAC%20point%20Sur.htm.
[20] *PSSHPGP*, 2-37.

access point on State Highway One. Buildings were grouped in logical arrangements off of this axis, based on their function. Security and administration buildings were located nearest to the Highway One entrance; personnel buildings clustered north of the axis, including housing for enlisted personnel and recreation buildings; officer's quarters were located apart from and south of the axis to maintain separation of officers and enlisted personnel; public works buildings were set in a logical cluster south of the axis and away from where personnel lived; the high-security SOSUS operations were placed at the end of the axis, adjacent to the ocean, and connecting to the hydrophones placed on the sea bottom (**Historic Photo 2**).

At the Point Sur NAVFAC buildings were organized into five basic sectors: Administration (Bldg. 100, 165); Personnel (Bldg. 102, 103, 104, 105, 107, 109); Operations (Bldg. 113 and Bldg. 114 Naval Research Center – not in the Scope of Work for this evaluation); Public Works (Bldg. 106, 108, 110, 111, 138, 148, 166 – demolished in 2003, 169); Utilities (Bldg. 146 & 2 redwood water storage tanks east of Highway 1); and Housing (the Capehart housing neighborhood, Bldg. 1 thru 24, Bldg. 168). Two recreational facilities, consisting of Quonset buildings (Bldg. 144 Bowling Alley and Bldg. 145 Gym), were demolished in 2003. A tennis court, identified as Bldg. 167, remains adjacent to the cul-de-sac within the Capehart housing neighborhood. A covered pool was present on the site; its location has not been verified (**see NAVFAC Photo Location Plan, Section 10 Continuation Sheet 2**).[21]

Additional historic photographs of the NAVFAC site appear as Historic Photos 3 through 5 at the end of this section.

The NAVFAC was operational by 1958 and contained housing designed primarily for single naval personnel. Like so many military bases constructed during the Cold War era, the NAVFAC lacked sufficient housing for military personnel and their families. Several key pieces of federal legislation would lead to an ambitious military housing construction campaign in the 1950s, with a representative example of military housing constructed on the Point Sur NAVFAC.

Military Housing Planning and Development

Housing for military families in the post-World War II era was a significant problem as America was building up its peacetime fighting force to confront the threats of the Cold War. Increasing dependence on new technological capabilities to address Soviet expansion in a nuclear era required highly trained and skilled technical experts, especially within the framework of the NAVFAC mission. An unprecedented family housing shortage affected Navy morale and impacted personnel retention rates. The uniformed services actively sought to address the family housing shortage through construction programs that provided dwellings that were on a par with those found in the civilian market.

[21] Telephone correspondence with Lee Otter, former Watch Officer, Point Sur NAVFAC, June 27, 2012.

In 1949, Secretary of Defense Louis A. Johnson noted:

> Rather than be separated from their families because of lack of government quarters and scarcity of adequate rental housing at their place of assignment, many of the service personnel have accepted disgraceful living conditions in shacks, trailer camps and overcrowded buildings, many at extortionate rents. It cannot be expected that competent individuals will long endure such conditions... There is nothing more vital or pressing in the interest of morale and the security of America than proper housing for our Armed Forces.

In response to the family housing need, Senator Kenneth Wherry introduced a successful bill in Congress on March 5, 1949 to provide for construction of family housing "on or around military installations." Wherry Housing provided for developers to obtain low interest loans insured by the FHA on leased land from the Army. The military had to ensure the installations where the Wherry housing was constructed would be designated permanent bases. The developers, called "sponsors" would build, own, and maintain the housing, giving rent priority to military families. At the end of a forty year period the "sponsors" were to turn the housing over to the government.

Wherry housing saw the construction of 264 projects involving all three military services.[22] However, problems within the program were common, particularly the small size, poor quality of construction, and a continuing shortfall of units produced.

Congress enacted a second bill, the Capehart Housing Act in 1955, to expedite the construction of needed military housing. Sponsored by Senator Homer E. Capehart, with backing by Senator Kenneth Wherry, the Capehart Housing Act provided a more comprehensive solution to the military housing shortage. Capehart housing addressed the problems associated with the Wherry projects, including size and quality of construction. It also moved toward more single-family and duplex type housing while introducing concepts from contemporary civilian planning principles, like integration of the housing neighborhood into existing facilities, preservation of the environment and privacy, all of which are clearly expressed in the Point Sur NAVFAC Capehart housing.

Oversight was an important aspect of the Capehart program's implementation. Base Commanders provided basic information to sponsors on their specific housing needs and were generally involved in the preliminary design and site selection for the proposed housing. For U.S. Navy projects, the Navy Bureau of Yards and Docks (BYD) acted as construction managers, consulting with the Federal Housing Administration (FHA) as the latter's guidelines were employed in the program. BYD also provided project oversight, applying program criteria and department policies and instructions for Capehart proposals.

The Capehart designs adopted standardized plans and materials to keep construction costs down, particularly given the sheer number of housing units required at the height of construction. Uniformity

[22] Advisory Council on Historic Preservation Website, http://www.achp.gov/army-capehartwherry.html.

of exterior design in either single-family or duplex arrangements characterized the neighborhoods; as did the use of inexpensive, commonly available materials. Houses possessed minimal architectural detail and ornament. Typical neighborhoods have both single-family and duplex housing types that were the reflection of contemporaneous civilian suburban neighborhood design with regards to the street layout, placement of lots and landscaping.[23]

As constructed in the 1950s and 1960s, Wherry and Capehart housing and their neighborhoods reflected their mid-century suburban planning principles and construction materials through their historic character-defining features, such as street layout and lot placement; simplified massing and roof form; common construction materials like cinder block, concrete, plywood and asphalt roof shingles; simplified fenestration using aluminum or steel slider and/or casement windows; and minimal architectural detail.

Construction of the NAVFAC Capehart Housing Neighborhood

The Point Sur NAVFAC provided on-site military housing in the form of one bachelor enlisted quarters (Bldg. 109), and one bachelor officer's quarters (Bldg. 104), sufficient for the basic operation of the post. When the NAVFAC was initially constructed, accompanied married personnel, and civilian staff had to live off base and commute for duty from the Monterey Peninsula or Big Sur areas. The area where the Capehart housing neighborhood would be constructed was vacant (**Historic Photo 3**). Constructed in 1960, the Point Sur NAVFAC's Capehart housing neighborhood is an intact representation of typical, standardized Capehart designs (**Historic Photo 4**).

Point Sur NAVFAC housing and that at NAVFAC Centerville, California were produced by the same sponsor/architect team. The sponsor/contractor for the two bases was the James E. Roberts Co., and Aloha Construction Co. & Associates. The architects came from the West America Engineering Co., Inc.[24]

---

[23] Goodwin and Associates, *Housing an Air Force and a Navy*, 3.

[24] The principal source for information on the builders for Wherry and Capehart era military housing in the Navy is *Housing An Air Force and A Navy: The Wherry And Capehart Solutions to The Postwar Family Housing Shortage (1949-1962*). The extensive study identifies the sponsor/architect team cited above, but has no biographical information on any of them. Biographical information appears below.

Research to date on the sponsor/contractor teams for the Point Sur NAVFAC has not produced biographical information on James E. Roberts, the sponsor. The contractor, Aloha Construction Co., was a subsidiary of the Len Co., owned by Sam N. Len out of Los Angeles. Len built Capehart housing for the Naval Ammunition Depot, Lualualei Quarters in Hawaii and at Lemoore Naval Air Station in California, as well as at Point Sur and Centerville. A native of Kingston, New York, Samuel Len moved to Los Angeles after service in the Army Air Corps in World War II. He then established a decades-long career in residential, commercial and industrial real estate development. He moved the family firm to Sacramento in the 1980s (Samuel N. Len obituary *Sacramento Bee*, January 17, 2012).

[33] (Continued) The West America Engineering Company, responsible for the architectural design of the Point Sur NAVFAC Capehart housing neighborhood was led by Harold P. Norton. The firm was "a financial management firm responsible for building construction." Norton was described as "a colorful figure" in State service. He worked for the California Department

The Decline of SOSUS

Beginning in 1967 disgruntled United States Navy officer John Walker began selling classified naval information to the Soviet Union. Beginning his career as a radioman, Walker qualified for submarine school and upon successful completion, was assigned to the submarine *Razorback* serving in the Pacific. During this assignment Walker received top secret cryptographic clearance and found himself on the *Andrew Jackson*, one of the earliest nuclear, Polaris-missile carrying submarines. He achieved the rank of Chief Petty Officer and qualified for maintenance of cryptographic equipment in 1963. However by 1967, Chief Warrant Officer Walker was disgruntled with the United States' politics regarding the Cold War and life in the Navy. He began selling information to the Soviets in 1967 and enlisted his friend and Senior Chief Petty Officer Jerry Whitworth to join him.[25]

For the next 18 years, the Walker-Whitworth spy ring sold numerous classified documents to the Soviet Union. Although it is not certain exactly which documents were the most damaging to United States' national security, it is clear that the Walker-Whitworth spy ring revealed numerous secrets related to the SOSUS system. Starting in the 1970s and continuing into the 1980s, the Soviet Union embarked on a submarine-quieting program that compromised the effectiveness of SOSUS. By the time Walker and Whitworth were arrested in 1985, the Soviet Union had devoted considerable cost and effort to beat SOSUS. It also changed its methodology of submarine deployment, choosing to no longer deploy vessels to the East Coast of the United States. Less than a decade later, the Soviet Union collapsed.[26]

Changes in Soviet submarine deployment tactics and advances in satellite tracking technology, combined with the effects of the Walker-Whitworth spy ring led to decommissioning and closure of the system of NAVFAC bases. Modernization of the system using computer technology also led to the reduction in the number of necessary facilities required to keep SOSUS operational. Closing of the facilities began in 1976, with a steady rate of closure continuing into the 1980s. The Point Sur NAVFAC was decommissioned in 1984.

The SOSUS technology remains valuable in both civilian and military contexts. In 1993, the Navy reduced the level of secrecy of SOSUS, which allowed for civilian use. Present scientific applications of the system include the study of migrating whales and listening to the eruption of underwater volcanoes.[27] Currently, SOSUS is being used to track vessels plying ocean waters again: merchant vessels. Considered a potential vehicle for terrorist exploitation, the sound signatures of over 121,000 merchant vessels are being developed using SOSUS technology in much the same manner as Soviet submarines were identified and tracked during the Cold War.[28]

---

of Public Works for two decades before forming a private practice. He joined the West America Engineering Company sometime around 1953 (Harold Norton obituary, *Sacramento Bee*, March 22, 1977).

[25] Prados, John, "The Navy's Biggest Betrayal," *Naval History Magazine*, Vol. 24, No. 3, June 2010.

[26] Morris, 7.

[27] Broad, William, "Anti-Sub Seabed Grid Thrown Open to Research Uses," *New York Times,* July 2, 1996.

[28] Munns, David W., "121,000 Tracks," Navy League of the United States, July 2005, http://www.navyleague.org/sea_power/jul_05_10.php.

Point Sur NAVFAC and the Importance of SOSUS

The Point Sur NAVFAC was a vital cog in an intricate network of SOSUS bases on the coastlines of the United States and its Cold War allies. For over 25 years, the facility played a key role in defending the United States West Coast from Soviet nuclear attack by submarines. The Point Sur NAVFAC also played a crucial role in historic events and received three Meritorious Unit Commendations (MUCs). In April 1968 movement of the Soviet Union surface and air assets to the North Pacific suggested a search operation was underway. United States intelligence confirmed that the Soviet Golf II Class strategic missile submarine K-129 sank in the North Pacific. At a time when the gathering of intelligence about top-secret enemy weaponry was of paramount importance, the location and study of this submarine became a high priority for the United States.

The American SOSUS network in the North Pacific was tasked with reviewing its recent recordings in hopes of finding some evidence of the sunken vessel. The Point Sur NAVFAC was the first to identify the event and its location, north of Hawaii, by isolating a sonic signature on its low frequency array (LOFAR) recordings of an undersea implosion that occurred on March 8, 1968. By using five separate bearing lines isolated at the Point Sur NAVFAC, Naval Intelligence was able to determine the location in which the Soviet submarine sank.[29]

Over the next several years, the CIA launched "Project Azorian," a Herculean effort to retrieve the Soviet submarine. It became one of the most extensive American maritime intelligence recovery efforts of the Cold War.[30] It is probable that the Point Sur NAVFAC was awarded its first Meritorious Unit Commendation (MUC) in 1969 for its part in the initial discovery of the submarine's location.[31]

The Point Sur NAVFAC received two additional Meritorious Unit Commendations in 1970 and 1971. The exact nature of these commendations remains classified. Conversations with former naval personnel who served at the base have not revealed any details of these two awards. The official language for these two MUCs reads: "NAVFAC Point Sur awarded Meritorious Unit Commendation, in

[29] Sources that specifically list the Point Sur NAVFAC as the first base to locate the sunken Soviet submarine K-129 are difficult to find; not surprising, given the classified nature of this operation. A Wikipedia entry, located at http://en.wikipedia.org/wiki/Project_Azorian, lists the following information, but without citation: "Naval Facility (NAVFAC) Point Sur, south of Monterey, California, was able to isolate a sonic signature on its low frequency array (LOFAR) recordings of an implosion event that had occurred on March 8, 1968 (for which they received a Meritorious Unit Commendation in 1969). Using NAVFAC Point Sur's date and time of the event, NAVFAC Adak and the U.S. West Coast NAVFAC were also able to isolate the acoustic event. With five SOSUS lines-of-bearing, Naval Intelligence was able to localize the site of the K-129 wreck."

[30] Mathew Aid, William Burr and Thomas Blanton, "Project Azorian: The CIA's Declassified History of the *Glomar Explorer*," The National Security Archive – George Washington University, website: http://www.gwu.edu/~nsarchiv/nukevault/ebb305/.

[31] Official descriptions of the MUCs received by the Point Sur NAVFAC remain classified. However, given the timing of the 1968 discovery of the Soviet K-129 submarine and the 1969 MUC awarded to Point Sur, coordinated with the historical evidence, it is clear that the Point Sur NAVFAC played a critical role in locating the sunken Soviet submarine.

concert with other Pacific naval facilities, for undersea surveillance operations that made significant contributions to national defense." [32]

Captain John Parrish, who served as Commander Oceanographic Systems Pacific (COSP) and was intricately involved with the SOSUS system for over 25 years, provides an insightful summary of the role of SOSUS in maintaining national security during the Cold War:

> I believe that those of us who were a part of IUSS (Integrated Undersea Surveillance System) in the 80s were the front line warriors of the Cold War. Every day we encountered the enemy and kept him at bay. We often had more exposure to the enemy in one week (sometimes in one day) than most others in the Navy had in a 20-year career. We could take pride in knowing that every day we were directly contributing to the preservation of our country and the protection of our citizens. After the Cold War was over and our intelligence community debriefed many of the top admirals of the Soviet navy, the common comment was, "We just couldn't beat SOSUS." [33]

The Point Sur NAVFAC played a continuous and vital role on the frontline of the Cold War from its commissioning in 1958 until its closure in 1984. It remains one of the last surviving examples of an intact SOSUS base and serves as a reminder of the importance of United States' technological advancement in combating and defeating the Soviet Union during the Cold War.

Evaluation of National Register Significance

The Point Sur NAVFAC is significant under *NR Criterion A* for its association with the development of the SOSUS network, a defensive Cold War anti-submarine warfare (ASW) system vital to the protection of the United States from Soviet submarine nuclear attack. At the onset of the Cold War, it became clear to top United States military officials that the Soviet Union was developing an ambitious submarine fleet. When the Soviet Union demonstrated nuclear capability by detonating their first atomic bomb in 1949, the submarine became one of the United States' greatest threats. The following describes the effectiveness of the United States SOSUS network:

> By 1962, the Navy had perfected SOSUS to the point that a Soviet submarine could not leave its home port on the Barents Sea or the Sea of Okhotsk and head for deep water without being detected by SOSUS ears. By the mid-sixties, the U.S. Navy had so thoroughly bugged the continental shelf that it was impossible for a foreign submarine to approach the U.S. coast without each mile of its voyage being carefully tracked by SOSUS. The hydrophones, later enhanced by computers, worked so well that SOSUS operators could tell from the sound of

[32] In an email correspondence between Kent Seavey and Jack Holdzkom, August 1, 2012, Mr. Holdzkom provided the same MUC language. He also noted, "I believe it would be inappropriate to this project to discuss further details of those (MUC) awards." Mr. Holdzkom served at the Point Sur NAVFAC from September 1971 through January 1975 as Operations Department Leading Chief and Senior Chief of Command.
[33] Captain John Parrish, *IUSS/SOSUS Dinner Speech, 50th Anniversary*, September 18, 2004.

propeller wash not only the location of a submarine but also its type.[34]

When the SOSUS technology was ready for deployment, the United States Navy embarked on an extensive construction program of underwater hydrophones, thousands of miles of transmission cables, associated infrastructure, and the network of naval facilities that processed and interpreted the sound information gathered by a given SOSUS array. Each NAVFAC fulfilled a critical role in obtaining, processing and tracking the movement of enemy submarines. The monitoring of all submarine movements worldwide was a formidable task and each NAVFAC provided around-the-clock surveillance of its given SOSUS array.

The Point Sur NAVFAC was an integral cog in a series of NAVFACs placed up and down the east and west coasts of the United States and along key coastal locations of other western countries. Part of phase two of the NAVFAC construction campaign, the Point Sur NAVFAC was a vital base in the West Coast SOSUS system. Bases constructed along the West Coast were located on San Nicolas Island, Point Sur, and Centerville Beach (all in California); Coos Bay, Oregon; and at Pacific Beach and Whidbey Island, Washington. All California NAVFACs have been closed and the bases either demolished or in an advanced state of decay. Operational from 1957 to 1984, NAVFAC San Nicolas Island, located in the Channel Islands off of the Santa Barbara Coast, was part of larger United States Navy facility. While the naval facility is now closed, San Nicolas Island remains an active United States Navy base and the disposition of the NAVFAC buildings is uncertain. Part of Centerville Naval Station and the Eureka Airport, NAVFAC Centerville Beach (1958 - 1993) contains some extant buildings, but not a complete facility. The Point Sur NAVFAC is the only virtually intact example of a West Coast NAVFAC. It was constructed as a standalone facility and not part of a larger naval base, giving the Point Sur NAVAC particular importance in interpretation as an intact SOSUS base. It is also the only complete standalone facility in the United States in public ownership and thus possesses the ability to be interpreted to the public.

Point Sur was also the location of earlier experiments in underwater sound transmission. Experiments in the development of SOFAR, the predecessor of SOSUS, occurred on Moro Rock, reportedly in the present Visitor's Center. When the SOFAR technology was ready for deployment for locating downed pilots at sea, Point Sur was the location of the first SOFAR base, as part of a network of locations designed to serve the West Coast of the United States.

The Point Sur NAVFAC is considered an exceptional historic resource, based on the definition presented in the 1993 document, *Interim Guidance*, because it possesses "exceptional historic importance to the Nation" and is an "outstanding example of technological or scientific achievement."[35] During its 26 years of operation, the Point Sur NAVFAC tracked, identified and monitored Soviet submarine movements, protecting the United States from Soviet nuclear submarine attack throughout the Cold War. For its integral role in the SOSUS system and protection of the United States, the facility

[34] Earley, Pete, *Family of Spies: Inside the John Walker Spy Ring*, 1989, 59.
[35] U.S. Air Force, *Interim Guidance Treatment of Cold War Historic Properties for U.S. Air Force Installations* (AFD 070828-060), 1993, 3.

won three Meritorious Unit Commendations (MUCs) in 1969, 1970 and 1971. While the exact nature of operations leading to these awards remains classified, the official language for each award reads, "NAVFAC Point Sur awarded Meritorious Unit Commendation, in concert with other Pacific naval facilities, for undersea surveillance operations that made significant contributions to national defense." [36] Details of the 1969 MUC remain classified; however, it is likely that Point Sur was the first NAVFAC to locate the sunken Soviet K-129 submarine.[37] Requiring a Herculean effort in technological development and logistics, the location and partial recovery of K-129 was a significant event in Cold War espionage that involved the SOSUS network and the Point Sur NAVFAC. The story of Project Azorian has been chronicled in several recent books.[38] The Point Sur NAVFAC was likely awarded its 1969 Meritorious Unit Commendation for its role in this historic event.

The Point Sur NAVFAC is significant under *NR Criterion C* because it embodies the distinctive characteristics of a type, period, or method of construction. The facility achieves this significance on two levels: the design of the operational facility itself; and the design of the Capehart housing neighborhood. Taken as a whole, the operational buildings are designed in a cohesive, unified post-war architectural style that emphasized secrecy, utilitarianism and minimal architectural detail. The buildings exhibit low-slung horizontal lines, with flat or nearly flat roofs, and common construction materials of reinforced concrete, concrete block, and steel windows and doors. The buildings were intended to blend into the surrounding landscape and be less visible, thus communicating architecturally the highly secretive nature of the operations going on within the base. These features and the construction materials employed make the overall architectural design of the Point Sur NAVFAC a distinctive example of a type (top-secret military facility), period (Cold War military architecture) and method (common post-war industrial materials) of construction.

The Capehart housing neighborhood also qualifies the Point Sur NAVFAC under *NR Criterion C*. It is an intact example of a housing development that followed the design guidelines and features that developed under the Capehart housing program at the height of its activity between 1960 and 1962. It possesses all the salient features of the program from its California Ranch Style single-family and duplex housing and planned neighborhood design to its informal natural landscape setting of Cypress trees, which still screens the neighborhood and affords privacy from both the NAVFAC installation, and State Highway One.

The Capehart military housing component is significant in the context of the nationwide construction campaign to provide livable housing for service members and their families during the Cold War. It remains as a physical expression of, and response to Secretary of Defense Louis A. Johnson's 1949 pronouncement that "there can be nothing more vital and pressing in the interest of morale and the security of America than proper housing of our armed services."

---

[36] Appeals for release of classified information regarding the three MUCs are ongoing.
[37] See footnotes 41 and 43.
[38] Book titles and documents related to Project Azorian can be found here: Mathew Aid, William Burr and Thomas Blanton, "Project Azorian: The CIA's Declassified History of the *Glomar Explorer*," The National Security Archive – George Washington University, website: http://www.gwu.edu/~nsarchiv/nukevault/ebb305/.

The Navy has identified only one in-service housing facility on the West Coast, the Catalina Heights neighborhood at Naval Base Ventura County, as a collection of Capehart program dwellings that collectively convey the principles of postwar suburbanization adapted to a military context. The intact Capehart neighborhood at Point Sur also clearly conveys these principles; and as part of a California State Parks historic unit, its significance as a key component of America's military response to the Cold War is available for interpretation to the general public.

Period of Significance

The period of significance for the Point Sur NAVFAC spans the operational years of the facility, 1958 to 1984.

Evaluation of Historic Integrity

For a district to maintain historic integrity it must possess enough of its contributing elements and character-defining features to communicate the district's historic significance. For the Point Sur NAVFAC all extant site features and buildings contribute to the historic significance of the district, because these buildings and features were part of the base's functional daily operations. Although several buildings have been removed (Bldgs. 144, 145, and 166) and associated communications infrastructure has been removed, the site is largely intact.

The following summarizes the seven aspects of historic integrity for the Point Sur NAVFAC as a potential historic district:

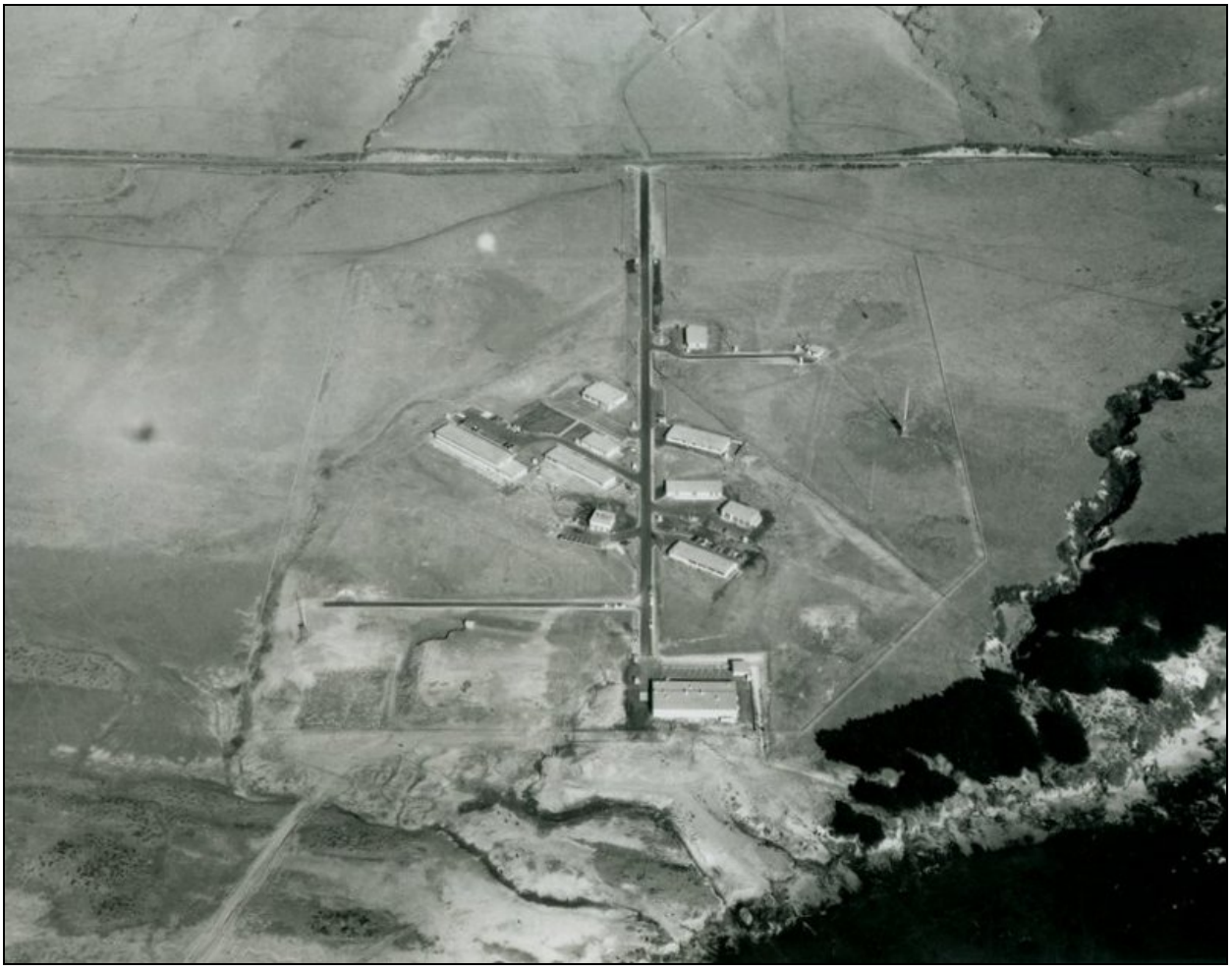
- ***Setting:*** The Point Sur NAVFAC remains in its original coastal setting on the bluff west of State Highway One and immediately east of Moro Rock and the Point Sur Light Station, with minimal alteration to the district. In addition, the Capehart housing neighborhood maintains its original setting, including the layout of streets, houses and the Monterey Cypress/Monterey Pine windbreak. The Point Sur NAVFAC maintains integrity of setting.
- ***Location:*** None of the extant buildings on the facility have been moved from their original locations. The Point Sur NAVFAC retains integrity of location.
- ***Design:*** Individual buildings of the NAFVAC operational facility maintain their original postwar minimalist industrial design, form, massing and materials. The Capehart housing neighborhood maintains its original arrangement of houses; and form, massing and materials of individual houses. The Point Sur NAVFAC possesses integrity of design.
- ***Workmanship:*** As revealed by the retention of historic construction materials and methods, such as reinforced concrete, concrete block, steel industrial sash windows and roofing materials, individual operational buildings retain integrity of workmanship. The common construction materials used in the standardized plans for the Capehart housing neighborhood remain on the buildings. The Point Sur NAVFAC retains integrity of workmanship.

- ***Materials:*** The construction materials used for both the operational buildings and the Capehart housing neighborhood are extant on the buildings. Because of this, the Point Sur NAVFAC retains integrity of materials.
- ***Feeling:*** The location, building layout, and design aesthetic of the operational buildings and the Capehart housing neighborhood exist for each of the individual buildings of the potential district. The Point Sur NAVFAC retains enough of its historic character-defining features to give it integrity of feeling.
- ***Association:*** Because the extant individual buildings and relationship to other buildings and are the same as they were historically; and nearly all of the site's character-defining features are present, the Point Sur NAVFAC retains integrity of association.

Please see the historic photographs starting on the next Continuation Sheet.

Historic Photographs

Historic Photo 1. First location of SOFAR experiments occurred on Moro Rock, located in the circa-1945 concrete barracks building to the left and indicated by an arrow. This building is presently the park's visitor center (*Courtesy: Central Coast Lighthouse Keepers*).

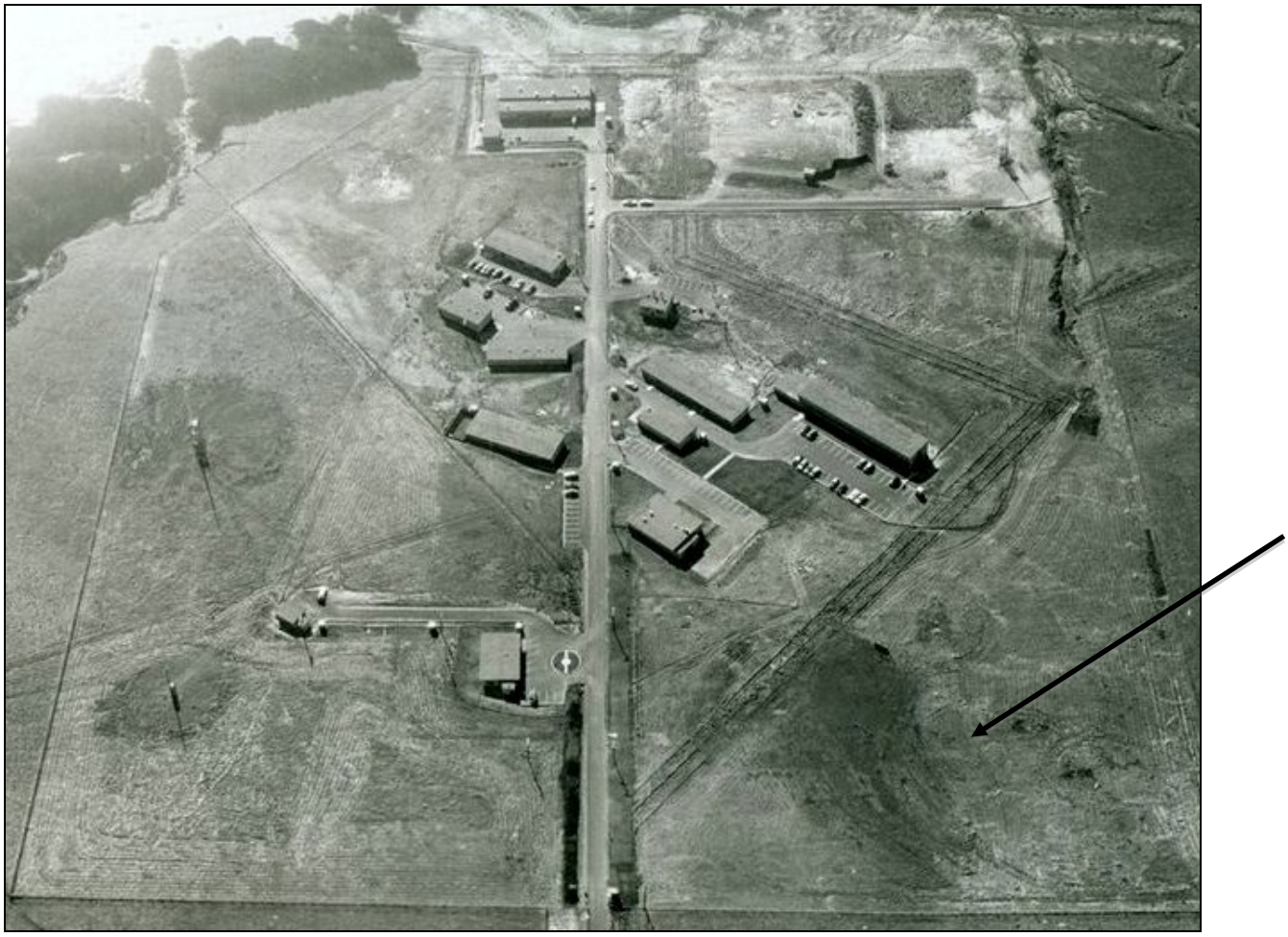


Historic Photo 2. Circa 1958 view of the NAVFAC, looking east, with State Highway One located at the top of the image. Note the grouping of buildings around the arterial road or central axis leading from the highway to the ocean (*Courtesy: California State Parks*).

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Point Sur Light Station
Name of Property
Monterey California
County and State
Name of multiple listing (if applicable)



Historic Photo 3. Circa 1958 view of the NAVFAC, looking west, before construction of the Capehart housing neighborhood. The neighborhood was constructed in the area shown by an arrow (*Courtesy: California State Parks*).

Historic Photo 4. Circa 1960 view of the Point Sur light station, with Moro Rock in the foreground and the NAVFAC seen behind. The Capehart housing neighborhood (arrow) is complete, without the Monterey *Pine/*Cypress windbreak at the top center of the image and shown by an arrow. (*Courtesy: Point Sur State Historic Park General Plan*, February 2004).

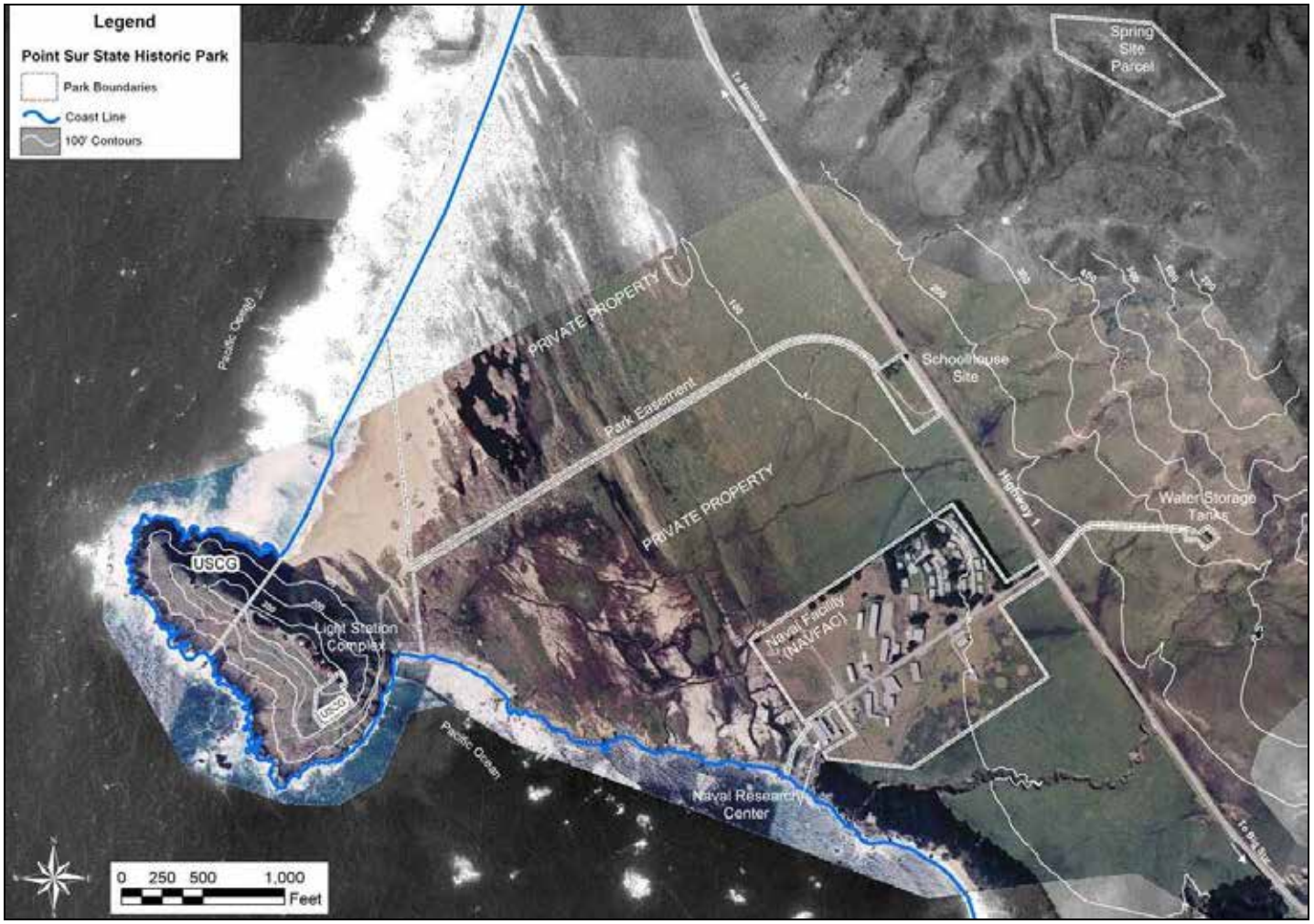
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Point Sur Light Station
Name of Property
Monterey California
County and State
Name of multiple listing (if applicable)

Section number 10 Page 1

Point Sur National Register District Site Plan



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Point Sur Light Station
Name of Property
Monterey California
County and State
Name of multiple listing (if applicable)

Section number 10 Page 2

NAVFAC Site Plan and Photo Location Plan