
National Park Service
Cultural Landscapes Inventory
2014



Radar Station B-71
Redwood National Park



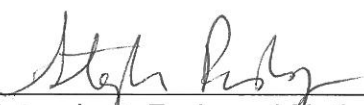
Radar Station B-71

Redwood National Park

Redwood National Park concurs with the findings of the CLI, including the management category and condition assessment as identified below:

MANAGEMENT CATEGORY: **B: Should be preserved and maintained**

CONDITION ASSESSMENT: **Fair**



Superintendent, Redwood National Park

6-14-13

Date

Please return to:

Vida Germano
Cultural Landscapes Inventory Coordinator
National Park Service
Pacific West Regional Office
Cultural Resources
333 Bush Street, Suite 500
San Francisco, CA 94104-2828

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January 7, 2014

Reply In Reference To: NPS120525A

David Louter, PhD
Chief, Cultural Resource Programs
National Park Service - Pacific West Regional
909 First Avenue, Fifth Floor
Seattle, WA 98104-1060

RE: Consensus Determination of Eligibility, Radar Station B-71 Historic District Cultural Landscape Inventory, Redwood National Park, California

Dear Dr. Louter:

Thank you for your letter dated August 21, 2013, requesting review and concurrence from the State Historic Preservation Officer (SHPO) with the findings of Cultural Landscapes Inventory (CLI) documentation of the Radar Station B-71 Historic District at Redwood National Park. The CLI identifies additional contributing resources for this district, which was listed in the National Register of Historic Places (NRHP) in 1978.

Previously identified contributors to the district's significance continue to contribute: Radar Road; Radar Station B-71 Operations Building; and Radar Station B-71 Power Building. Newly identified contributors include two machine gun nests, a water catchment system, the guard station site, and the latrine ruin site. Other existing resources do not contribute to the district's significance, including social trails, wood bollards, and an interpretive panel.

After reviewing the CLI and in accordance with 36 CFR 800.4(b) and (c), the SHPO concurs with the determinations of eligibility from the CLI, including newly identified contributors and non-contributors.

Thank you for seeking my comments and considering historic properties as part of your project planning. If you require further information, please contact Mark Beason, State Historian II, at phone 916-445-7047 or email mark.beason@parks.ca.gov.

Sincerely,

A handwritten signature in black ink that reads 'Carol Roland-Nawi, Ph.D.'.

Carol Roland-Nawi, Ph.D.
State Historic Preservation Officer

REDWOOD NATIONAL PARK
Radar Station B-71

California SHPO Consensus Determination of Eligibility

Actions Requested:

1) SHPO concurrence that the landscape characteristics as identified in the CLI contribute to the historic character of Radar Station B-71 (see the following landscape characteristic descriptions in the Analysis and Evaluation section of the CLI: natural systems and features, spatial organization, views and vistas, circulation, buildings and structures, and archeological sites):

I concur _____, I do not concur _____ that the landscape characteristics as described in the CLI contribute to the historic character of Radar Station B-71.

2) SHPO concurrence with the list of contributing and non-contributing resources to Radar Station B-71. (See tables below and the associated resource descriptions in the Analysis and Evaluation section of the CLI that document the circulation, buildings, and structures, and archeology, that contribute to the historic property):

Contributing Resources: Based on the information provided in the CLI, the following resources have been identified as contributing resources of Radar Station B-71:

Contributing Resource Name	Concur	Do not Concur
Radar Road	NRHP listed 1978.	
Radar Station B-71 Operations Building (LCS ID 007400)	NRHP listed 1978.	
Radar Station B-71 Power Building (LCS ID 007401)	NRHP listed 1978.	
Machine Gun Nests (2)		
Water Catchment system		
Guard Station site		
Latrine Ruin site		

Non-contributing Resources: Based on the information provided in the CLI, the following resources have been identified as non-contributing resources of Radar Station B-71:

Non-contributing Resource Name	Concur	Do Not Concur
Social Trails		
Bollards		
Interpretive Panel		

California State Historic Preservation Officer

Date

Please return signed form to:
Vida Germano, Cultural Landscapes Inventory Coordinator
Pacific West Regional Office
333 Bush Street, Suite 500
San Francisco, CA 94104-2828
vida_germano@nps.gov

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Inventory Unit Summary & Site Plan

The Cultural Landscapes Inventory Overview:

Purpose and Goals of the CLI

The Cultural Landscapes Inventory (CLI), a comprehensive inventory of all cultural landscapes in the national park system, is one of the most ambitious initiatives of the National Park Service (NPS) Park Cultural Landscapes Program. The CLI is an evaluated inventory of all landscapes having historical significance that are listed on or eligible for listing on the National Register of Historic Places, or are otherwise managed as cultural resources through a public planning process and in which the NPS has or plans to acquire any legal interest. The CLI identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into a national database. In addition, for landscapes that are not currently listed on the National Register and/or do not have adequate documentation; concurrence is required from the State Historic Preservation Officer or the Keeper of the National Register.

The CLI, like the List of Classified Structures, assists the NPS in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2006), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS is required to report information that respond to NPS strategic plan accomplishments, including bringing certified cultural landscapes into good condition, and increasing the number of CLI records that have complete, accurate, and reliable information.

Scope of the CLI

The information contained within the CLI is gathered primarily from existing secondary sources found in park libraries and archives and at NPS regional offices and centers, as well as through on-site reconnaissance of the existing landscape. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the site's overall significance. Documentation and analysis of the existing landscape identifies character-defining characteristics and features, and allows for an evaluation of the landscape's overall integrity and an assessment of the landscape's overall condition. The CLI also provides an illustrative site plan that indicates major features within the inventory unit. Unlike cultural landscape reports, the CLI does not provide management recommendations or treatment guidelines for the cultural landscape.

Inventory Unit Description:

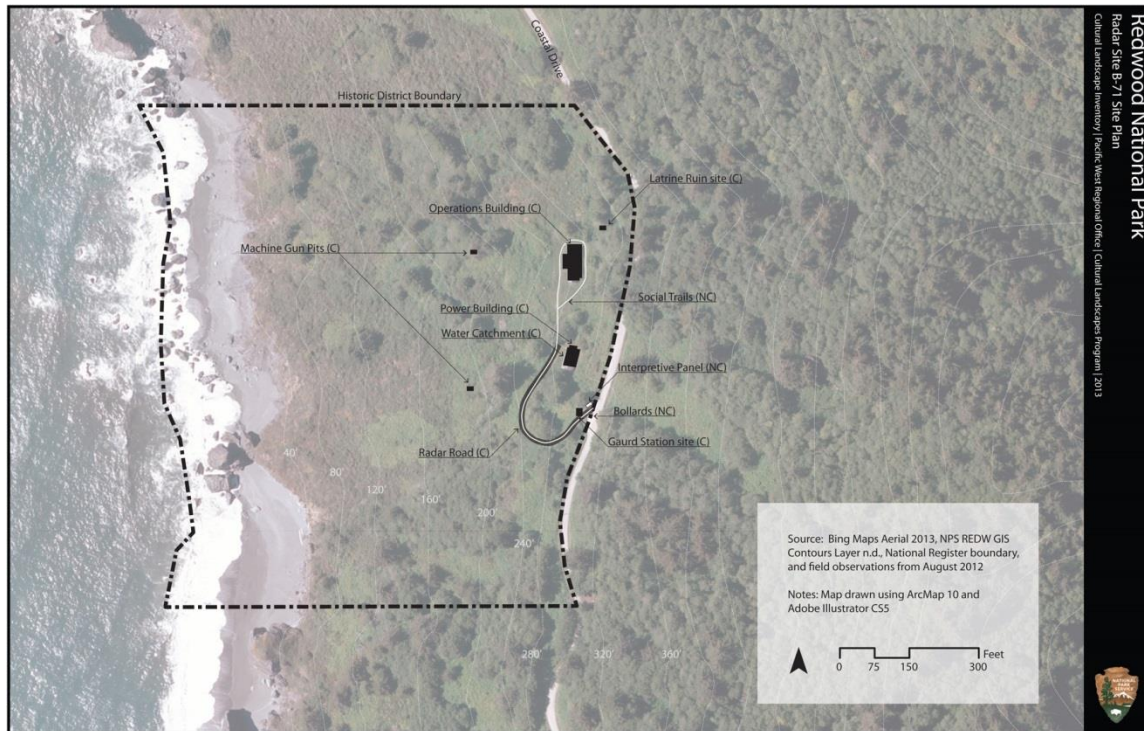
The Radar Station B-71 is a historic coastal defense site located in Redwood National Park, on the coast, approximately one mile south of the mouth of the Klamath River. The station is an excellent example of a World War II radar station that served as the coastal defense system of the United States during the war, and is listed on the National Register of Historic Places under Criteria A and C with a period of significance of 1942-44. The site was designed and constructed as part of a system of seventy-two aircraft warning stations on the Pacific Coast during World War II. Early detection of enemies during time of war was crucial in preparedness. Typical of each radar site within this system, there are two main buildings on site to power and operate the radar antenna. This radar system was developed so an object can be measured and its location can be accurately determined. Klamath was chosen because of its proximity to the coastline as well as the local architectural style, which was imitated as a form of camouflage for its use. The site is composed of several contributing buildings, structures, circulation, archeological features, and landscape characteristics including natural systems and features and spatial organization.

The Radar Station B-71 was originally comprised of a Power Building, Operations Building, two-stall outhouse, guard post, barracks, and three 50-caliber machine guns on anti-aircraft mounts. Of these only the Power and Operations buildings remain, which are connected by the historic road that provided access from the coastal highway. Both buildings were disguised as part of a farm, and made to look like a farmhouse and hay barn. Historically, the site included smaller ancillary structures including a guard tower, latrine, and three machine gun nests which were connected by a road that is now used as a foot trail. Historically, there was a barracks complex located one-half mile to the south that housed the men that worked at this radar station. The barracks were comprised of at least four wooden buildings, and is an archeological site associated with the radar station site.

The radar buildings and antenna field were sited to scan the open ocean using radar taking advantage of a natural flat bluff with unobstructed air space. Although the buildings were designed to blend in with the nearby farm houses, the site's lack of farm land and precarious siting at the edge of a bluff created a spatial organization that may not have blended very well with the nearby farm operations at Klamath. True land use was early enemy radar detection, and then subsequently the site became a part of coastal rescue operations. Even though there was less vegetation historically, trees and various shrubs played an important role for this site. Vegetation helped conceal the necessary equipment and in particular the radar antenna. Circulation throughout the site, both currently and historically, includes Coastal Drive, and a road that was utilized during the period of significance to access the site. Small-scale features include bollards adjacent to Coastal Drive, an interpretive panel located along the main access road, a culvert on Coastal Drive, and a large pit next to the Power Building.

The Radar Station B-71 retains all aspects of integrity, including location, design, materials, workmanship, setting, feeling, and association. The site maintains its original location. The setting has been maintained, as the land surrounding the radar site is unpopulated and the alder forest and prairie remain intact. The feeling and association of this war-era radar station is maintained through the two existing structures, the road, and ruins convey the site's significance during the war through its intact layout and design. Radar Station B-71 retains integrity of design through its spatial organization, its two key historic buildings, and the road. The antenna field has been somewhat obscured by vegetation, but maintains its overall footprint on the land. The buildings and road maintain their original design, materials, and workmanship by being preserved with no major alterations or additions. Overall, the physical condition of the site is fair due to encroaching vegetation and erosion.

Site Plan



Site plan showing the Radar Site B-71 property located in the north sector of Redwood National Park. See Appendix A for a larger version of this site plan (NPS-PWR-CL Program, 2013).

Property Level and CLI Numbers

Inventory Unit Name:	Radar Station B-71
Property Level:	Landscape
CLI Identification Number:	700006
Parent Cultural Landscape Inventory Name:	Redwood National Park
Parent Cultural Landscape Inventory Number:	700006

Park Information

Park Name and Alpha Code:	REDW
Park Organization Code:	8480

CLI Hierarchy Description

The Radar Station B-71 is a cultural landscape with no component landscapes.

Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative:

This inventory is based on the existing National Register nomination. Secondary research and fieldwork was undertaken in the summer of 2012 by regional cultural landscape staff. The CLI was prepared by Vida Germano, regional CLI Coordinator. The cultural landscape inventory is complete, and has received park and SHPO concurrence with the findings.

In the preparation of this inventory, the regional archives, park archives, and the Del Norte County Historical Society archives were reviewed for information specific to the property history of Radar Station B-71. The CLI draws from the 1978 National Register nomination and the 2005 Historic American Engineering Record. Further research is recommended to explore the historical relationship of Radar Station B-71 to the former development that was located at the intersection of Coastal Drive and Alder Camp Road (Township 13N, Range 01E, Section 20, Tract 03-131, Tract 03-123, and 03-155). This site could provide additional information on how the radar station staff lived nearby while working at Radar Station B-71. Additionally, further research into the remaining radar stations located along the West Coast could provide an in-depth context into the significance of Radar Station B-71 in relationship to other extant World War II radar stations.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	06/14/2013
National Register Concurrence:	Entered – Inadequately documented
Date of Concurrence Determination:	01/07/2014

Geographic Information & Location Map

Inventory Unit Boundary Description:

Verbal Boundary Description

The CLI boundary is the same as the National Register boundary. The eastern boundary of this property is the western edge of the dirt road along the coast which passes uphill from the station. The western boundary is the low tide margin of the Pacific Ocean. The northern boundary is an east-west line 300 feet north of the northernmost corner of the Radar Station Operations Building. The southern boundary is an east-west line 500 feet south of the southernmost corner of the Radar Station Power Building.

Justification

This boundary includes the entire radar station and all its contributing resources. The barracks are not included in the historic boundary of the historic district because the site has not been surveyed due to heavy vegetation throughout this location.

State and County:

State: California
County: Del Norte

Size (Acres): 18.2 acres

Boundary UTMS:

Source	Type	Datum	Zone	Easting	Northing
USGS Map 1:24000	Point	NAD 83	10	409702	4597408
USGS Map 1:24000	Point	NAD 83	10	410010	4597404
USGS Map 1:24000	Point	NAD 83	10	410007	4597056
USGS Map 1:24000	Point	NAD 83	10	409719	4597058

Location Map



Radar Site B-71 is located just south of Klamath River and directly west of the town of Klamath (NPS 2012).

Management Information

General Management Information

Management Category: B: Should be Preserved and Maintained

Management Category Date: 06/14/2013

Management Category Explanatory Narrative:

The Radar Station B-71 meets the two criteria for Category B – Should be Preserved and Maintained. The inventory unit meets National Register Criteria A and C. The inventory unit is compatible with the park's legislated significance.

NPS Legal Interest

Type of Interest: Fee Simple

Public Access

Type of Access: Other restrictions

Public Access Explanatory Narrative:

Access to the property has no restrictions, and is accessible by an unpaved trail from the Coastal Drive. Both buildings are restricted from public visitation, and are secured to prevent access and vandalism.

Adjacent Lands Information

Do Adjacent Lands Contribute? No

National Register Information

Existing National Register Status

National Register Landscape Documentation: Entered – Inadequately documented

National Register Explanatory Narrative:

The property was listed on the National Register on April 19, 1978. Included in the nomination are descriptions of the buildings, but not of the property as a whole. The CLI builds upon the nomination to describe the landscape characteristics that contribute to the National Register property.

National Register Eligibility

National Register Concurrence:	Eligible – SHPO Consensus Determination
Contributing/Individual:	Individual
National Register Classification:	District
Significance Level:	State
Significance Criteria:	A – Associated with events significant to broad patterns of our history C – Embodies distinctive construction, work of master, or high artistic values
Criteria Considerations:	None
Period of Significance:	1942 - 1944
Historic Context Theme: Subtheme:	Expanding Science and Technology Technology (Engineering and Invention)
Historic Context Theme: Subtheme:	Military Defense World War II
Area of Significance:	
Area of Significance Category:	Military Architecture Engineering

NRIS Information:

Alpha Code/NRIS Name (Number) 78000282

Statement of Significance

Radar Station B-71 is an excellent example of a World War II radar station that served as the coastal defense system of the United States during the war. The radar station represents United States (U.S.) development of radar technology in the first part of the twentieth century through its location, siting, design, and materials. Radar Station B-71 is historically significant for its military architecture and engineering related to detection and alert of enemy attack of the United States.

Criterion A

Radar Station B-71 is associated directly with the invention of early warning radar detection and events associated with World War II. Before this time, radar detection was not nearly as widespread along the western coast of the United States. These two facilities provided housing for enlisted men and was a part of the greater detection system in place in case of an attack on the United States. The buildings remaining serve as a reminder of this station's importance in early warning radar detection and coastal defense for the nearby town of Klamath and the west coast.

In the early twentieth century, the importance of radar and radio waves was realized with research seeing major results in the 1920s. In the United States, radar research began to truly take off in the mid 1930s with the first radar to use the idea of "pulses" completed in 1934. Upon development of radar by Great Britain's scientists in 1939, the United States worked with Great Britain in fully developing radar systems that could be used by the military. The U.S. had been working on its own radar research at the time at the Massachusetts Institute of Technology (MIT)'s Radiation Laboratory. After the time of the Pearl Harbor attack on December 7, 1941, the U.S. Navy, Signal Corps, and Army Air Corp began developing mobile radar for use by the U.S. military throughout Europe and the Pacific. The Signal Corps developed several types of radar systems, including the SCR-268, SCR-270, and SCR-271, with the SCR-270-271 being the main component of the system. Radar Station B-71 used a SCR-270B and then SCR-271 system. These radar stations would be combined with ground observation systems, and information centers under the Air Defense Command. The Aircraft Warning Service was responsible for the west coast radar network that included Radar Station B-71. The radar system was put into place in order to defend from attack by land, air or sea. By 1941, the west coast system included ten radar stations from San Diego to Seattle and 2,400 ground observer stations (for list of stations in 1944, see Christianson, HAER Documentation, 2005: 14-16). By 1942, the system included stations in Canada and Mexico (Christianson, HAER Documentation, 2005: 2-8).

Criterion C

Radar Station B-71 is significant under Criterion C for its building style and construction methods. The intention of this site was to appear as a farming operation. Because of this intention the building style and layout of the site mirrors that of the nearby farms, but adheres to the requirements to utilize the radar at this location.

To be effective, the radar stations had to be sited in specific locations. Early warning radar sites located on the coast were effective only when approximately 200 feet above sea level on a slope to ensure background radiation was reflected upward. Tops of hills were to be avoided to remove reflection and

deflection from large objects. Similarly, the bottom of slopes and cliffs were to be avoided to remove echo from the hillside. The site also needed to be accessible for movement of troops, equipment, and utilities to the site. Stations facing west, such as Radar Station B-71, were required to camouflage the antennas by the shade of trees to the east. Those facing east were to use irregular or dark colored material below the antenna to camouflage the structure's shadow without disrupting the radar signal. Due to these requirements of being out in the open with no obstructions, the radar equipment was often disguised to fit into the local area. The radar utilized at this particular site was camouflaged to look like a typical local farm, complete with a house, barn, outbuildings, fences, and pasture. However, none of these features were what they seemed to outsiders. Inside, radar equipment and an antenna were hidden from view. The camouflage used to disguise this radar station was similar to the types of disguise used throughout the coastal radar defense system used throughout the west coast of the United States (Christianson, HAER Documentation, 2005: 8-9).

National Historic Landmark Information

National Historic Landmark Status: No

World Heritage Site Information

World Heritage Site Status: No

Chronology & Physical History

Cultural Landscape Type and Use

Cultural Landscape Type: Historic Site

Current and Historic Use/Function

Primary Historic Function-Major Category: Defense

Primary Historic Function-Category: Military Facility (Post)

Primary Current Function-Major Category: Government

Primary Current Function-Category: Government Office

Primary Current Function: Interpretation Facility

Current and Historic Names

Current and Historic Name

Radar Station B-71
Klamath River Radar Station
Trinidad Radar Station
Eureka Station
Klamath Radar Station

Type of Name

Historic and Current
Historic
Historic
Historic
Historic and Current

Ethnographic Information

Ethnographic Associated Groups: Yurok

Association Historic, Current or Both: Both Current and Historic

Ethnographic Study Conducted: Yes – Restricted Information

Chronology

Start Year of Major Event	End Year of Major Event	Major Event	Major Event Description
1940	1940	Developed	The U.S. military began production on the SCR-271 radar, which would later be established at the B-71 radar station.
1940	1940	Developed	The War Department created the Air Defense Command which would oversee all radar stations in the U.S.
1941	1941	Developed	An umbrella service of the Air Defense Command was established, called the Aircraft Warning Service, which oversaw the B-71 radar station.
1941	1942	Developed	The U.S. had warning Radar System along its borders employing the SCR-270-271 series of radars of which Radar Station B-71 would be a part.
1942	1942	Land Transfer	The War Department leased the land upon which the radar station would be established from ranchers Edward H. and Anna Chapman.
1942	1942	Built	Circa 1942, the B-71 Radar Station was built and included a Power Building, Operations Building, a latrine, and a guard post. The buildings were built by a civilian construction company and were comprised of concrete blocks and camouflaged with wood siding to make them appear like other local farmhouses in the area.
1943	1943	Operation	The B-71 Radar Station was in operation and used for radar defense in WWII with a staff of 41 enlisted men, and a National Guard unit of eight to twenty enlisted personnel and one officer.
1943	1944	Altered	The radar station's SCR-270B portable long-range radar system was replaced with a "permanent SCR-271 system."
1944	1944	Disbanded	The B-71 Radar Station was no longer used for radar defense.
1944	1944	Transferred	The radar station was converted into an emergency rescue outpost by the 4 th Air Force.
1945	1949	Land Transfer	After the war, and by 1949, ownership of the land was transferred back to original owners Edward H. and Anna Chapman.

Start Year of Major Event	End Year of Major Event	Major Event	Major Event Description
1968	1968	Land Transfer	Land ownership was transferred to the National Park Service as Redwood National Park was established.
1977	1977	Nominated	The B-71 Radar Station was nominated to be included in the National Register.
1977	1977	Vandalized	Vandalism was reported. Materials were salvaged from the barn and purportedly reused elsewhere. Slope stability was also an issue, and the site overgrown by vegetation.
1985	1985	Rehabilitated	Park staff assisted in removing asbestos insulation from radar station buildings. The Barn was reroofed (with non-historic shingles). The site was cleared of undergrowth, and some “earth work and drainage” was completed.
1988	1988	Rehabilitated	Exterior trees and shrubs that came in contact with exterior siding and overhung the roof were removed around both the operations and Power Buildings.
1988	1988	Rehabilitated	Door and window openings were rebuilt in the operations and Power Buildings.
1988	1988	Rehabilitated	The park installed a vandal proof “mothball” technique to deter further damage from vandalism in both buildings.
1988	1988	Rehabilitated	A multi-flow drainage system was installed around the Power and Operations Buildings.
1988	1988	Rehabilitated	A ditch around the perimeter of the Power Building was excavated
1988	1988	Rehabilitated	The south and east walls received board and batten siding on the Power Building.
1988	1988	Rehabilitated	Existing siding on the south and east ends of the Operations Building was reattached.

Physical History

Radar Station B-71 was constructed in 1943 and was used throughout World War II for air-defense purposes. After July 1, 1944 and until the end of the war, it was used by the military as an emergency rescue operations station. The station was part of the west coast air-defense system that spanned from Canada to Mexico, which reported to a station in Berkeley, California. While the station operated during the war, it was manned first by Company 653rd Signal Aircraft Warning to 4th Air Force and then by Squadron 411th AAF Base Unit to 4th Air Force. The station used radar equipment SCR-270B, and in December 1943 replaced this equipment with a SCR-271 set.

The War Department chose this particular location for the Klamath Radar station for unspecified reasons, but it can be inferred from the requirements for operating the type of aerial radar surveillance equipment used in the west coast, that the location was chosen, in part, because of the topography and proximity to the open ocean, the access provided by the existing road to the site, as well as nearby utilities. The land was part of the Chapman Ranch, a stock farm owned by Edward H. and Anna Chapman. The Chapmans lived in a house on their ranch just north of the radar site. The War Department leased a portion of Chapman Ranch to build the radar station, and continued to allow sheep to graze on the property while it was used as a radar station during the war (Christianson, HAER Documentation, 2005: 2).

When the radar station was constructed in 1943, the radar crew from Company 653rd Signal Aircraft Warning to 4th Air Force consisted of forty-one listed men and two officers. A National Guard unit, consisting of eight to twenty enlisted personnel and one officer, was also stationed at the radar station to provide security. In the early days of the radar station's operation, the men lived in the old Klamath Grange hall in the center of the nearby town of Klamath, roughly a three and a half mile drive to the east across the Klamath River. According to Dale Birdsall, Station Commander, First Lieutenant at Radar Station B-71 during the war, the men stationed in Klamath lived in town much like the rest of the townspeople, spending their free time at the movies, fishing, and gambling. Despite the attempts to secrecy, it was well known in town that the new farm on the coast was a working radar station, although the details of the operation were unknown. By 1944, a separate barracks had been built approximately one-half mile south of the radar station, although the men still frequented the town in their free time (Christianson, HAER Documentation, 2005: 9-10).

During the years of 1943-44, when the radar station was in full operation, the station and barracks developed areas contained a number of buildings and structures to operate the radar equipment and protect the station. The radar station site was chosen because of its distance to the other radar stations on the west coast, and because the location met the requirements of operating the radar equipment (i.e. facing west, no large objects around the station, open hillside that was not too steep). The barracks site, which housed all B-71 radar station staff, was comprised of four wooden farmhouse buildings and has since been removed. It was built about one-half mile south of the radar station so that it did not interfere with the radar detection and construction of the barracks also took advantage of a relatively large and flat location .

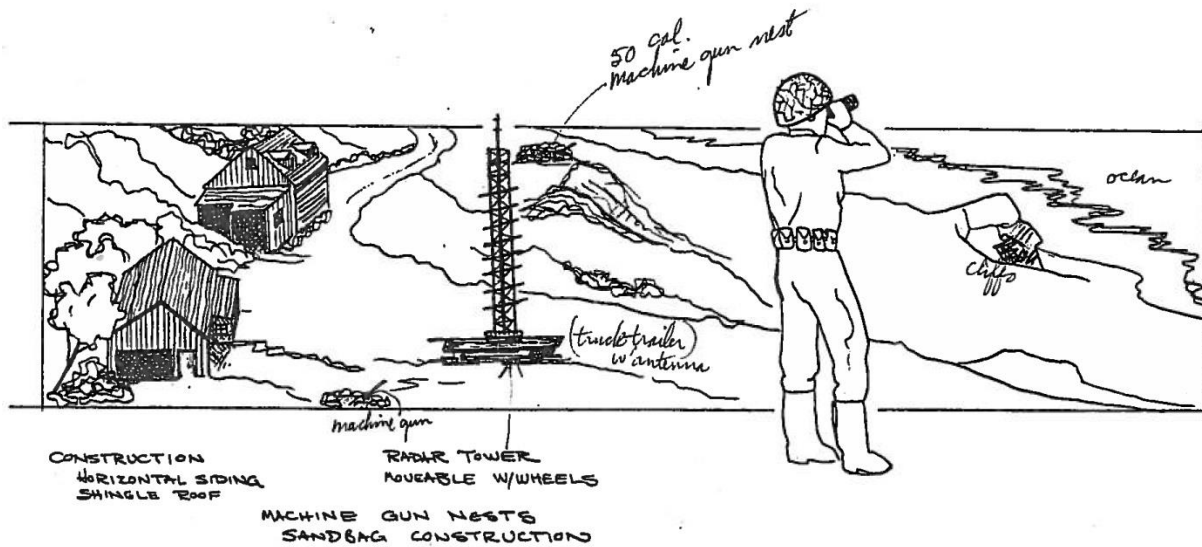
The radar site consisted of an Operations Building, Power Building, guard post, two machine gun nests, a latrine, and an underground storage tank. Also important to the site was a large, level, open area to operate the mobile radar antenna, and a large tree toward the hillside where the antenna was rolled under the tree canopy when it was not in use, to camouflage the antenna from aerial surveillance. During WWII, the SCR-270 radar system was the U.S. Army's primary device for long-distance radar detection. Its antenna was a metal structure that measured approximately 50 feet by 8 feet. It was triangular in shape and consisted of a metal grid about four feet deep. Attached to the front of the metal grid were silver-plated copper tubing protected from the frame by porcelain insulators. This entire system was attached to a trailer with wheels, and was moved out from under the tree to the open space to the west of the Power Building.

When wheeled out for use, the antenna was connected to the Operations Building equipment via a 30 foot-long cable. The antenna when stored, could fold down flat onto the wheeled trailer, and its power and operating cables stored in the buildings on site (Christianson, HAER Documentation, 2005: 11). The SCR-270B's flexibility and mobility initially made it ideal for the secretive operation, as opposed to the fixed SCR-271 radar, which was later installed at the site.

The power and Operations Buildings were constructed of concrete block by a private contractor. The block was camouflaged with wood siding that included cut outs for windows and doors that were not actually openings into the building, as well as other wood architectural details that were used to full effect to create a farmhouse and hay barn. A vertical wood and barbed wire fence extended along the perimeter of the site, and sheep were kept on site to keep the vegetation low. Sheep were common on nearby farms, and had grazed the coastal hills for decades (Christianson, HAER Documentation, 2005: 8,11).

The operation building contained the radar equipment including a transmitter, rectifier, receiver, keyer, oscilloscope, and plotting board. This equipment was run by a crew chief, relief man, two operators, and a maintenance technician. The operations equipment was connected to the antenna and Power Buildings by cable. Inside the Power Building was an electrical generator that ran on a LeRoi gasoline engine, which was later replaced by two Caterpillar M6 diesel engines. An underground diesel gas tank was located just west of the Power Building. While this equipment was used throughout 1943-44, there is no evidence that indicates the radar station detected any enemy activity off the coast (Christianson, HAER Documentation, 2005: 12).

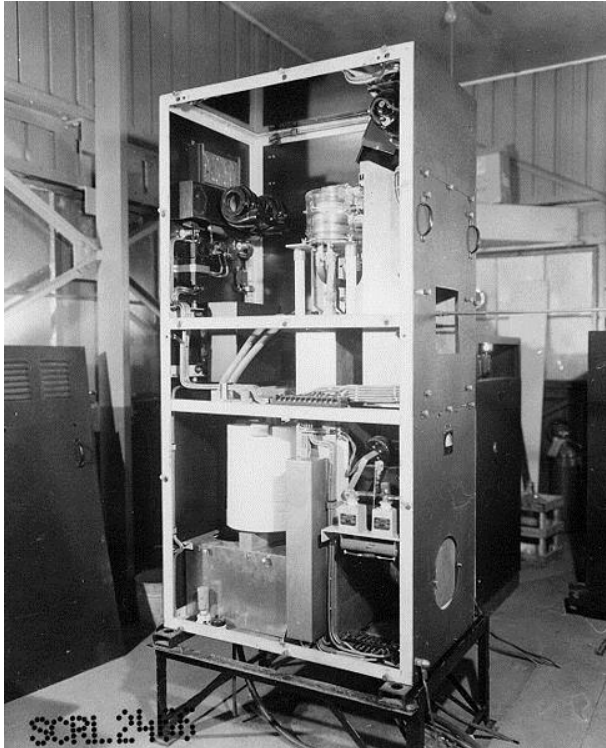
After the war ended, by 1949, the War Department ended its lease of the land with Edward H. and Anna Chapman (HAER Documentation, No. CA-332, Radar Station B-71, 2005: 12). The land continued to be grazed by sheep, and the radar buildings were left vacant for several years. In the 1960s, aerial photos show the vegetation still low around the radar station, presumably due to continued grazing of the land. When the National Park Service acquired the property in 1968, inventories of the existing conditions of the buildings were undertaken. By 1978, very significant mud flows into the buildings had been removed, vegetation around the latrine was removed (Robert Cox Memo, July 31, 1978). Because of inefficient drainage practices, mudflows and water damage are still an issue surrounding the buildings. During the 1970s and 1980s, work was done to both the power and Operations Buildings to restore missing wood siding, repair damaged wood structural members in the roof, and improve drainage around the perimeter of the buildings. By 1995, the gasoline tank has been removed from the ground (Chief, Geological Services Branch Memo, May 19, 1995). Work was undertaken in 2011 to re-roof the Power Building.



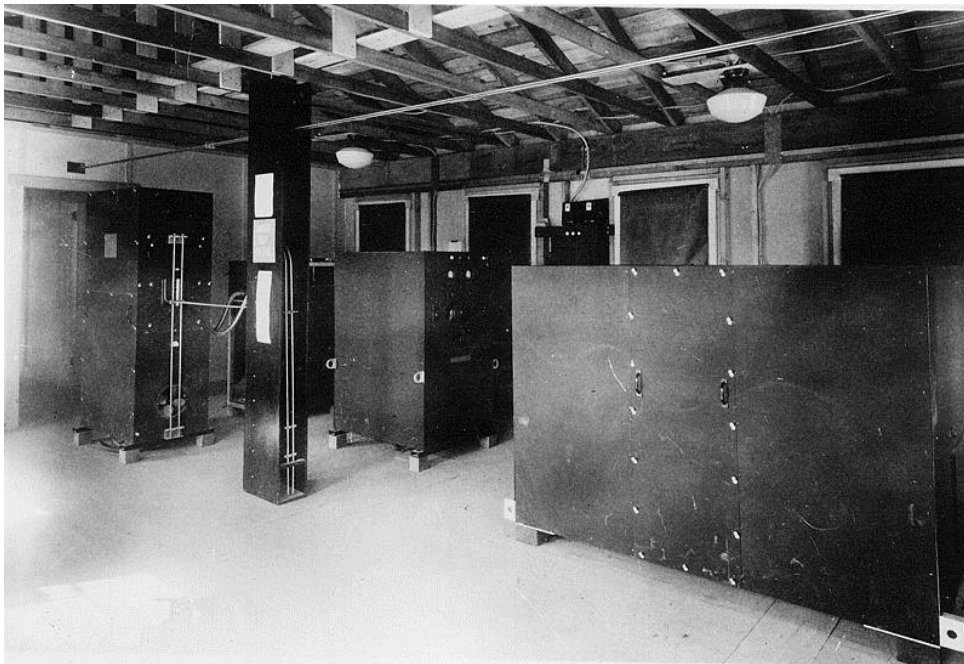
Sketch of Radar Station B-71 site as it appeared during 1943-44 (World War II Radar Station, National Register of Historic Preservation Files, Redwood National Park, Resource Management and Science, Cultural Resource Branch Chief Files. Birdsall 1985 sketch).



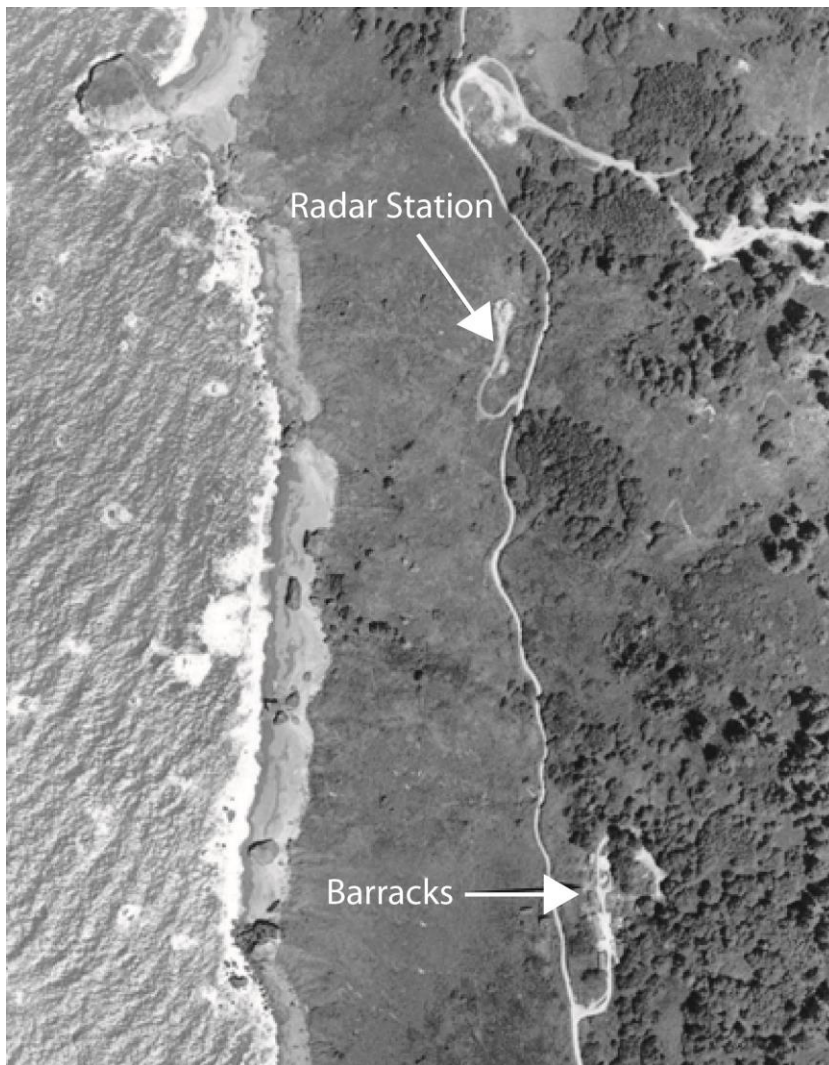
Historic photograph showing barracks located south of the radar station (Redwood National Park Museum Collection, Birdsall Collection Catalog Number REDW34248, Birdsall, 1944).



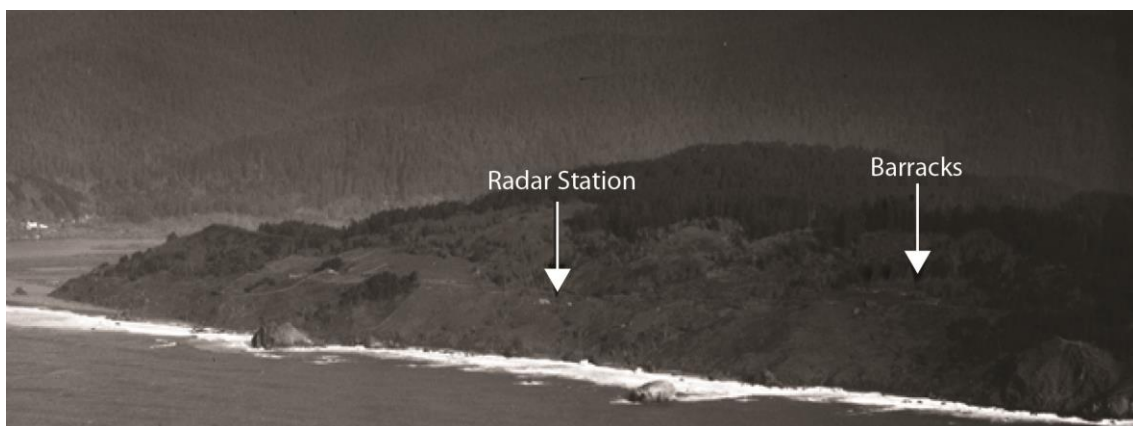
Typical non-portable transmitter from an SCR-271-D radar set, similar to what would have been inside Radar B-71's Operations Building (Wikimedia Commons, Army Air Corps photo by First Lieutenant Harold Zahl, n.d.).



Typical interior of Operations Building housing a SCR-271-D radar set, similar to what would have been inside Radar B-71's Operations Building (Wikimedia Commons, Army Air Corps photo by First Lieutenant Harold Zahl, n.d.).



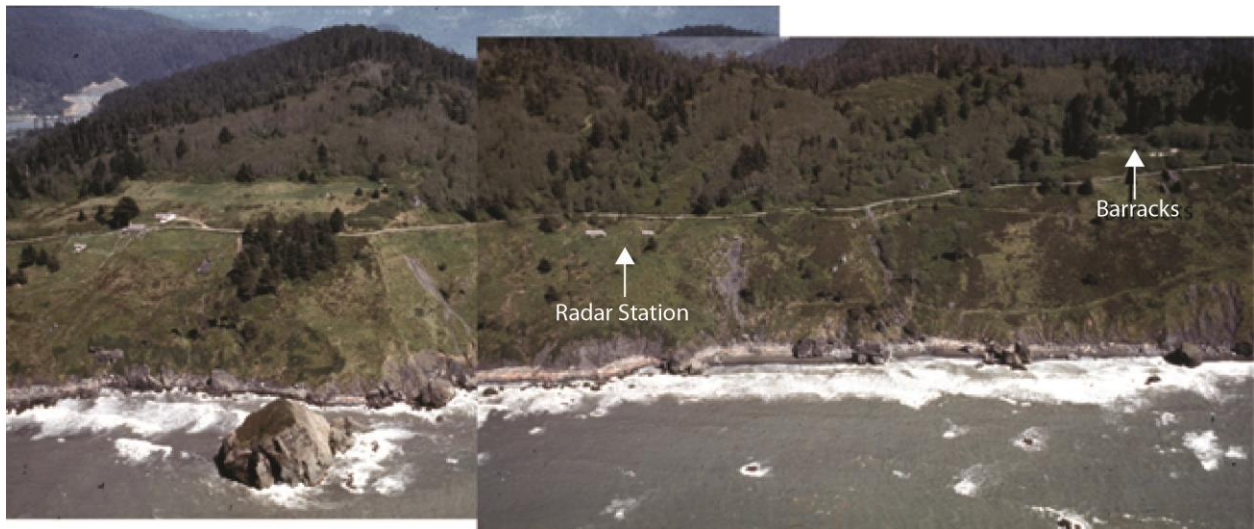
An aerial photo from 1948 shows the radar station and barracks sites, north at top (U.S. Forest Service, Image 48-HUM-CDF2-20-172, electronic copy at REDW GIS archive).



Historic site aerial photograph, 1947, looking northeast to site (Humbolt State University Archives).



Sketch of the Operations Building, dated 1964 by John M. White (*The Daily Triplicate*, April 9, 2000).



1972 aerial photo (images 7202102 and 7202103), looking east (California Division of Boating and Waterways).



Radar Station, looking northwest from Coastal Drive. Note sparse vegetation throughout site and latrine located in upper right corner (REDW Museum Collection, Maintenance Division, Buildings and Utilities, Historic Preservation Files, Catalog No. REDW33659, November 1974, photo 3a).



Radar Station, looking south. Note sparse vegetation along entire slope, and mud flow that encroached upon the Power Building, center (REDW Museum Collection, Maintenance Division, Buildings and Utilities, Historic Preservation Files, Catalog No. REDW33659 , May 18, 1978, photo 10a).



Photo of station, looking southeast, indicating location of a machine gun pit (REDW Museum Collection, Maintenance Division, Buildings and Utilities, Historic Preservation Files, Catalog No. REDW33659, May 18, 1978, photo 10b).



Photo of station, looking north, indicating location of a machine gun pit (REDW Museum Collection, Maintenance Division, Buildings and Utilities, Historic Preservation Files, Catalog No. REDW33659, May 18, 1978, photo 10c).



Photo showing remnant picket fencing on the radar station site. This section is to the west of the Power Building. (REDW Museum Collection, Maintenance Division, Buildings and Utilities, Historic Preservation Files, Catalog No. REDW33659, July 26, 1978, photo 34c1).

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

Radar Station B-71 is located along the coast just south of the mouth of the Klamath River, near the town of Klamath, California. The property was one of several radar stations up and down the west coast of the United States that served as the coastal air defense system during World War II. Presently, the site is used for interpretation of this history to visitors of Redwood National Park. The radar station site conveys its significance as a part of the World War II coastal defense system, and its military engineering during the war. Landscape characteristics that contribute to the historic site include natural systems and features, spatial organization, circulation, buildings and structures, and archeological sites.

Radar Station B-71 was chosen for its location adjacent to the ocean, along a coastal bluff that rose 200 feet above sea level, its low-lying vegetation, and minimal development in order to ensure the radar station was fully functional and had no obstructions that would block or deflect the radar signals. One reason that this location was chosen was due to the site being at the edge of a logged alder forest and prairie that was being grazed during the war, which minimized the vegetation that needed to be cleared to construct and operate the radar station. The topography and operations of the equipment dictated the spatial organization of the site. The primary access to the site was the existing Coastal Drive above the radar site, with an unpaved road that cut through the antenna field in front of the buildings. The constrained topography required that the buildings be set back into the hillside, with the barracks being constructed one-half mile to the south in a wooded area uphill from the Coastal Drive where there was enough level terrain for all the barrack buildings. This wooded area would have made the barracks more difficult to spot from Japanese aerial and sea surveys of the west coast, and was far enough away from the radar station to not interfere with the radar signals. The radar buildings were oriented with their primary facades toward the ocean with the antenna field placed between the buildings and the ocean. The mobile antenna unit was stored to the north of the buildings under the cover of trees, and was rolled out to the antenna field when in use.

The entire radar site, including buildings, antenna, and security features, including machine gun nests and a guard station, was camouflaged due to its exposed siting on the coastal bluff. The Power Building and an Operations Building, which are the two buildings that remain standing, are military structures designed to imitate the nearby vernacular-style farm houses, while the machine gun nests were camouflaged into the surrounding vegetation, and the antenna was stored out of aerial sight under tree canopy. The barracks were more secluded in the alder forest and thus were not camouflaged by architectural details on their exteriors. In addition to the two radar buildings and the road to the site, there are several ruins that are associated with the site and help inform the historic land use and spatial organization during the war. These ruins and archeological features include a latrine, guard station, and two machine gun nests. Additionally, the site historically was fenced with a wood picket fence and barbed wire, in an effort to make the radar station secure but also blend into the surrounding farm landscape.

Integrity Discussion

The radar site retains all aspects of integrity, including location, design, materials, workmanship, setting, feeling, and association. The site maintains its original location. The setting has been maintained, as the land surrounding the radar site is unpopulated and the alder forest and prairie remain intact. The feeling and association of this war-era radar station is maintained through the two existing structures, the road, and ruins and convey the site's significance during the war through its intact layout and design. Radar Station B-71 retains integrity of design through its spatial organization that is maintained through its two key historic buildings and the road. The antenna field has been somewhat obscured by vegetation, but maintains its overall footprint on the land. The buildings and road maintain their original design, materials,

and workmanship by being preserved with no major alterations or additions. The major change to the site is due to encroaching vegetation and erosion, which has caused the site footprint to become smaller through erosion, slumping, and appear visually disconnected from the coast due to tall and dense vegetation growing into the antenna field. Overall, the physical condition of the site is fair due to encroaching vegetation and erosion.

Natural Systems and Features

Natural systems and features are defined as natural aspects that have influenced the development and physical form of the landscape. Among other aspects, it can include climate, geology, hydrology, soils, and native vegetation. Natural systems and features that have significantly influenced the development of the Radar Station B-71 are the topography and hydrology.

With the local coastal climate being temperate, 40-60 degrees year round, the temperature was not a major consideration in the development of the radar station. The area's precipitation, however, had a major influence on the development of the site. Rain in this region is around 33 inches a year, with most of it falling from November through March. The relatively large amount of rain, compared to other sites along the west coast, posed challenges in maintaining level ground free of vegetation for use in wheeling out the radar antenna from its storage location against the hillside. The soil slumps during periods of heavy rain, and vegetation grows thickly throughout the site. These factors were mitigated during construction, as the entire site was cleared and leveled for construction of both radar buildings, and vegetation was maintained after construction by active grazing throughout the site.

The site was selected specifically for its location on an isolated coastal bluff with no large topographical obstructions to the ocean, as well as for the lack of heavy vegetation in the area that could interfere with radar signals. The site's gentle slopes at roughly 200 feet above sea level were the necessary topography for using radar with minimal reflection or deflection of radar signals. Additionally, the location is at the transition between alder forest and coastal prairie, which had been both logged and grazed by local land owners. The minimal vegetation along the coastal slopes was necessary to avoid radar signal interference. The denser alder forest to the east of the radar site provided enough cover to camouflage the off-site barracks built to house the men that worked at the radar station. Given the lack of vegetation at the radar site, efforts were made to disguise the site to look like a local ranch, complete with buildings that were constructed to look like farm buildings and the antenna field that was a fenced pasture with grazing sheep.

Since the site was abandoned, mudslides have occurred after periods of heavy rain, as evidenced from historic aerials and photos of the site after the war. Upon the NPS acquisition of the land, grazing was discontinued, and vegetation has since encroached upon the radar site, and has been cleared around the buildings by manual brush removal methods. Dense shrubs and trees now dominate this radar station.



Natural Systems and Features #1: View looking south from north edge of antenna field, Power Building to the left and ocean to the right (PWR CL Program 2011).



Natural Systems and Features #2: View looking north with the leveled bench used for the antenna field in the foreground, to the left of the Operations Building. The alder forest, located along the upper slopes of the hill, is visible in the background (PWR CL Program 2011).

Spatial Organization

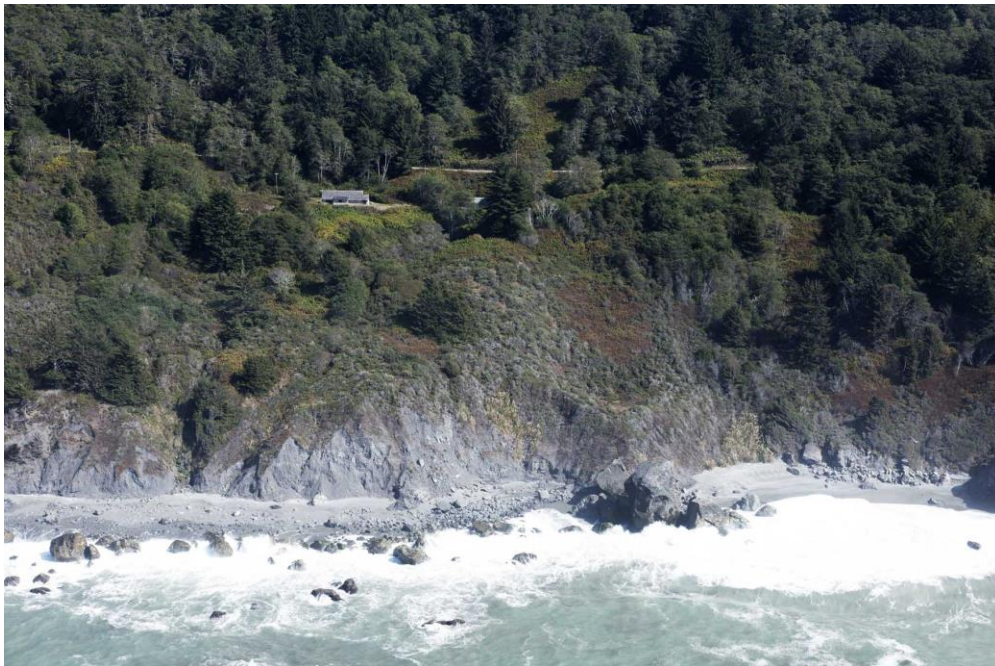
Spatial organization is defined as the three-dimensional organization of physical forms and visual association in the landscape. Radar Station B-71 was organized in way that was needed to both operate the radar equipment effectively, and disguise the site as a local ranch. The location of the site took advantage of the natural topography and vegetation patterns, in an effort to be as minimally intrusive on the landscape as possible. The radar station was connected by the existing Coastal Drive to the military barracks that housed the men that worked on the station, located a half mile south of the radar station.

Radar Station B-71 is sited on the coastal hillside at roughly 200 feet above sea level and with their primary facades facing north. The site was chosen on a gentle uphill location due to its access to the adjacent Coastal Drive, and the topographic conditions in the area. Behind the site (east) was the cut bench of the road that was followed by a low-grade cut slope and then the summit of the hill. This topography minimized the reflection of radar signals that could bounce back from the hillside to the radar equipment. Below the site is a rolling slope that ends at the shoreline of the Pacific Ocean. During the war, this slope had minimal vegetation, which enabled the radar equipment to work more effectively without any objects that might deflect or reflect the radar signal. The radar faced west, sending signals over the open ocean, in an effort to detect enemy aircraft off of the west coast.

The site development is set on a narrow level bench oriented north to south that was constructed between Coastal Drive and an old road alignment. On this bench, two primary buildings were constructed just a few yards away from each other. Space to the north and south of the buildings was cleared and used for storage. A mobile antenna was stored on the level land just north of the Operations Building, under a tree that served as camouflaged from aerial surveillance. A small wood latrine was built near this location, near the cut of the slope. To the south of the Power Building, and underground fuel storage tank connected directly to the generators inside the building. An underground water catchment was installed just to the west of the Power Building. A small wooden guard station was located about 270 feet southeast of the Power Building, on the elevation above the radar buildings, at the intersection coastal Drive and the entrance road to the radar station (Radar Road). Two machine guns were placed at the north and south of the western edge of the cut bench, facing the ocean, in an effort to protect the radar station. Surrounding the entire development was a wooden picket fence and barbed wire, both to secure the perimeter of the radar station, as well as to delineate pastures in an effort to disguise the radar station as an active ranch.



Spatial Organization #1: View to north from Coastal Drive located above the radar station. The top of the operation building is seen in the center, with the ocean in the horizon (PWR CL Program, 2011).



Spatial Organization #2: Oblique aerial of radar station (image 200900587), view toward east (Copyright © 2009 Kenneth & Gabrielle Adelman, California Coastal Records Project, www.californiacoastline.org).

Circulation

Circulation is defined as spaces and features which constitute systems of movement within a landscape. Circulation features Radar Station B-71 include Coastal Drive and radar road, as well as informal pedestrian circulation through the site.

In order to access the site one must either hike or drive along Coastal Drive to the site. It is a narrow, unpaved road roughly 15 feet wide allowing for one way traffic. An unpaved shoulder and pullout is adjacent to the site to allow for parking and access. Coastal Drive used to continue through the park for a significant distance and used for travel throughout the area. Recently, a 3-mile section of Coastal Drive south of the radar station was closed vehicle traffic and can now only be used by pedestrians and bicycles. The Radar Station can still be accessed by vehicles from the north via Klamath Beach Road to Coastal Drive and from the south via Alder Camp Road to Coastal Drive. V-ditches are located along the cut slope, which collects water that is channeled under the roadbed through metal pipe culverts to the fill bank.

Radar Road (Contributing)

An established path originally ran alongside just west of the remaining buildings but it is now more overgrown. The road width varies throughout the site but remains between 15-19 feet wide at its cut bench, with no more than three feet of cleared road bed used for a footpath.

Social Trails (Non-contributing)

These unofficial paths are at various places throughout the site, but predominantly surround the buildings with access to the viewing windows. There is also another predominant social path among a bluff overlooking the ocean measuring roughly a foot in width and made from cleared vegetation and compressed soil.

Contributing Features:

Feature: Radar Road

Type of Feature Contribution: Contributing

IDLCS Number: TBD

LCS Structure Name: Historic Road

Non-contributing Features:

Feature: Social trails



Contributing Radar Road looking south from half way up the road (PWR CL Program, 2012).



Non-contributing social trail connecting the radar road to the Power Building (PWR CL Program, 2012).

Buildings and Structures

Buildings are defined as those features that are built primarily for sheltering any form of human activity. Structures are defined as features constructed for purposes other than sheltering human activities. There are two contributing buildings: the Power Building and the Operations Building. Non-contributing structures were added by the NPS to facilitate visitation to the site, including bollards at the Radar Road intersection with Coastal Drive and an interpretive panel explaining the historic use of the site.

Radar Station B-71 Operations Building (Contributing)

The Operations Building is made of an unknown type (or types) concrete block with a wood façade used to camouflage it as a barn. The building measures 22 feet by 70 feet, and features a wood shingled gable roof, vertical board and batten siding, and a false barn door. The interior is divided into seven rooms.

The front (west) elevation of the Operations Building measures approximately 70 feet long and overlooks the Pacific Ocean. About 31 feet from the south corner of the front elevation is an entrance room extending out about 9 feet, 3 inches. The room itself is about 22 feet long. The shed roof covering this extension slopes downward from the main roof and has a slight overhang with eaves. As with the main roof, bargeboards delineate the north and south sides. The space between the concrete block walls of the extension and its shed roof has vertical wood siding. There is a doorway on the south wall of the extension with quoin-like detailing along the western edge, and a window on the west wall. Like the other openings on the building, the window has been filled with black-painted plywood with a narrow vent, and the doorway has been secured with a plywood door padlocked for security purposes. When the NPS acquired the Operations Building, it had a dilapidated lean-to attached to the south wall of the entrance room. The park subsequently removed the lean-to since it was determined to not be from the World War II era of use; no trace of it remains.

The other notable feature of the front elevation of the Operations Building is a square opening with a pipe through it at the base of the wall underneath the double windows at the north end. The front elevation has no existing siding; instead, the concrete block wall construction has been left exposed along the entire facade. The only exception is underneath the double windows located at the south end where vertical board and batten siding fills the space under the windows.

Both the Power Building and the Operations Building historically used board and batten siding to mask the concrete block construction. The front elevations of both buildings are missing their siding, leaving the concrete block construction exposed. The other walls have either reconstructed or original siding, which was attached to the concrete block by thick furring strips.

The greater length of the front elevation in comparison with that of the rear (70 feet as opposed to nearly 61 feet) is due to the additional room situated at the southeast corner of the building. Measuring 9 feet 1/2 inch by 13 feet 1/2 inch, the room does not extend the entire length of the south wall. The additional room has a separate side gable roof from that covering the main building. While the pitch of the roofs is identical, creating a continuous slope on the front elevation, the additional room has a lower ridgeline. Both the additional room and the main building have concrete block walls that extend up to the ceiling beams, with a board and batten type siding consisting of wider boards alternating with thinner but thicker strips filling in the gable ends. Bargeboards delineate the gables of the roof, much as their use in the extension's shed roof, and there is a vent at the peak of the gable of the main building. The southeast corner of the Operations Building reveals that horizontal furring strips attached to the concrete block walls provided the anchor for the vertical wood siding. The furring strips cause the siding to protrude several inches from the actual 1 foot by 9 inch thick concrete block wall, especially when compared with the siding on the gable ends, which was attached directly to the framing. In order to mask the resulting discrepancy

between the two, a horizontal board was placed at a 45-degree angle at the point of transition. The remnants of siding remaining on the east edge of the extension, south gable end of the main building, and the southern end of the rear (east) wall are deteriorating from moisture.

The rear (east) elevation of the Operations Building is uninterrupted by extensions but does contain three "windows." Two false windows, located immediately adjacent to one another at the extreme southern end of the wall, were created simply from openings in the remaining siding. A short distance north of these false windows is an actual window cut into the concrete block wall that has since been closed in with black-painted plywood. The north elevation of the Operations Building is perhaps the most interesting architecturally. Two columns of concrete block flank the central portion of this elevation, which has been slightly inset, revealing the concrete pad on which the building sits. This inset portion features two real windows and a doorway. Unlike the rest of the building, the siding used on the first story is set horizontally. The gable's vertical siding extends lower than that on the south elevation as well. A thin, horizontal board was placed at the gable end, somewhat reminiscent of framing for a hayloft. To further disguise the building's original purpose, the gable peak protrudes slightly beyond the end of the roof to simulate where a pulley would have been located.

Radar Station B-71 Power Building (Contributing)

The Power Building is made of an unknown type (or types) concrete block with a wood façade that is used to camouflage the building as a farmhouse. The building measures 38 feet by 22 feet with no windows. The wood shingled gable roof has two false dormer windows. The walls are clad with vertical board and batten siding, and feature false windows. Much of this exterior treatment is missing.

The Power Building measures approximately 38 feet along its front elevation and 22 feet wide with an approximately 14 feet by 15 feet addition on the north end, has been disguised as a farmhouse. Two false dormer windows on the front (west) elevation overlook the sea. The dormers have wood siding and shingled front gabled roofs with bargeboards on the front and eaves on the sides, mimicking the form of the side gables of the main roof. The dormer windows have no functional purpose aside from camouflage, as evidenced by the fact that the shingled roof covering the building can be seen intact through the glass windows. Another camouflaging technique used in both the Power Building and the Operations Building is the board and batten siding that masks the concrete block construction. The front elevations of both buildings are missing their siding, leaving the concrete block construction exposed. The other walls, however, have either reconstructed or original siding, which was attached to the concrete block by thick furring strips.

On the south and north gable ends of the Power Building, the concrete block walls and siding do not extend to the gable. This is indicated by changes in the siding. The furring strips caused the siding to protrude several inches from the actual 1 foot, 9 inches thick concrete block wall, especially when compared with the siding on the gable ends, which was attached directly to the framing. In order to mask the resulting in a discrepancy between the two, a horizontal board was placed at a 45-degree angle at the point of transition.

The south wall features two false "windows" at each end that are merely openings in the siding and not in the concrete block wall. Wood trim delineates the two window openings. Just above the horizontal board that marks the transition from concrete block wall to the framing of the gable are three vent holes. Bounded by metal flashing, the holes are not evenly spaced, and their original purpose is unknown, although it can be deduced that given the equipment housed inside, some sort of ventilation would have been necessary. A square vent is also located at the peak of the gable on both the south and north walls and

was probably also for ventilation purposes, given the building has no real windows. As with the dormer windows, bargeboards delineate the gables.

The east wall features a doorway at the south end that Redwood National and State Parks personnel sealed with a plywood door painted black. A site plan for the Power Building indicates that in April 1983, park personnel decided not to reconstruct a shed roof over this door since it was probably an addition. Also along the east wall are three false windows trimmed in wood, like the rest of the false windows on the building. Since the east wall faces the slope that drops down from Coastal Drive, it has experienced both moisture and mud damage from rainy conditions, natural springs, and the natural flow of water across the site. Moisture damage can be seen near the doorway at the southeast corner where the siding has begun to rot. The north wall features an addition extending across nearly three-quarters of its length. The date of this addition is unknown, although the National Register nomination speculates it is post-war. The addition features a shed roof supported by two wood posts that extend beyond its walls, creating an overhang. As with the main structure, the addition's roof is wood shingled and the walls are of board and batten siding. Two doorways, one on the north wall and one on the east wall, provide access to the addition's interior. The remaining quarter of the north wall not covered by the addition has a false window. The north concrete block wall is cracked, which is possibly due to subsidence based on hydraulic action of site drainage.

Bollards (Non-contributing)

Square, wooden bollards are located at the top of the site entrance adjacent to Coastal Drive. There are currently six of them and measure approximately 1 foot tall and 8 inches in width, and prevent vehicles from driving the radar road to the Power Building. These were added by the NPS after the period of significance.

Interpretive Panel (Non-contributing)

A single interpretive panel is located at the pullout on Coastal Drive road. It is a single frame measuring about 3 feet tall and 2 feet wide. This was added by the NPS after the period of significance.

Contributing Features:

Feature: Radar Station B-71 Operations Building

Type of Feature Contribution: Contributing

IDLCS Number: 007400

LCS Structure Name: Radar Station B-71 Operations Building

Feature: Radar Station B-71 Power Building

Type of Feature Contribution: Contributing

IDLCS Number: 007401

LCS Structure Name: Radar Station B-71 Power-Supply Building

Non-Contributing Features:

Feature: Bollards

Feature: Interpretive Panel



Operations Building, looking southeast (PWR, CL Program, 2012).



Power Building, looking southeast (PWR, CL Program, 2012).



Non-contributing interpretive panel at site entrance. Coastal Drive pictured to the right (PWR, CL Program, 2012).



Non-contributing bollards located at entrance to site, looking southwest (PWR CL Program, 2012).

Archeological Sites

Archeological sites are the location ruins, traces, or deposited artifacts in the landscape, and are evidenced by the presence of either surface or subsurface features. There are many features of the radar site that are now ruins or archeological features. These features are important in conveying the spatial organization of the historic site as well as adding to our understanding of how the site was used during the war. Important to conveying the significance of the radar station are the two machine gun nest locations and the water catchment system, the guard station site, and latrine ruin site. Further information is needed to understand how the two-track road through the property, and associated barracks site, located a few hundred feet south of the radar station, may yield more information about how the radar station was used.

Machine Gun Nests (2)

There are two depressions in the ground that mark the location of the machine gun nests. These nests were built of sandbags and camouflaged. They held anti-aircraft machine guns. The machine gun nests contribute to the historic district.

Water Catchment System

A water catchment system is located underground. A large water catchment pit is located to the west of the Power Building, just to the east of the road. It measures roughly five feet by five feet, and four feet deep. The water catchment system contributes to the historic district.

Guard Station site

The guard station was located to the north, at an undetermined distance, of the radar road intersection with Coastal Drive at the same elevation as Coastal Drive. The wood building is gone, but a depression marks the location of this building that was used during the period of significance by the National Guard to identify visitors to the site upon entrance from the Coastal Drive entrance. The guard station site contributes to the historic district.

Latrine Ruin site

The latrine was located to the northeast of the Operations Building. The location where the wooden building once stood is now completely engulfed in vegetation. The latrine ruin site contributes to the historic district.

Two-Track Road

The current Radar Road that connects to Coastal Drive utilizes portions of a preexisting road that was in use before the current Coastal Drive was constructed. Portions of this road were in evidence to the north end of the radar site during inventory work in the 1970s. This portion of the road may have been used by the military during the war, but more research is needed to determine where the remaining portion of the road is located and how it was used during the period of significance.

Barracks Site (outside of the historic district boundary)

The remains of the barracks are located in dense vegetation a few hundred feet south of the radar station. The barracks site needs to be evaluated by an archeologist to determine its significance and integrity in association with the radar site. The barracks site, while outside of the boundary of Radar Station B-71, is important in understanding where the military working at the radar site was housed, and may in the future add to our understanding of how the radar station operated during the war. Since this site is outside of the historic district, it does not have contributing or non-contributing status.

Condition

Condition Assessment and Impacts

Condition Assessment: Fair

Assessment Date: 07/18/2012

Condition Assessment Explanatory Narrative:

Through the analysis and evaluation of landscape characteristics and features, it has been determined that the Radar Station B-71 is in "Fair" condition. The landscape shows clear evidence of change from historic photographs, and significant change over the last thirty years, including vegetation growth and landslides. The buildings and site are in fair condition but will face increasing changes and needed stabilization due to topography and vegetation change. Site drainage must continue to be maintained to minimize water damage and erosion. Vegetation trimming must be maintained throughout the site to preserve the contributing features of the radar station and to allow safe site access.

Impacts:

Type of Impact: Exposure to the Elements

External or Internal: Internal

Impact Description: Due to damage from the elements, the exterior wood cladding remains on only a small portion of the buildings to indicate the way they were originally designed. Care should be taken to maintain this remaining cladding and ensuring it is repaired as needed.

Type of Impact: Erosion

External or Internal: Internal

Impact Description: Both of the buildings have seen damage from slumping soil, which has caused cracking building foundations and damage to structural walls.

Type of Impact: Erosion

External or Internal: Internal

Impact Description: Erosion is occurring on the site due to ineffective channeling of water away from buildings. Incised channels have cut across the footpath and have caused the soil to slump along the path.

Type of Impact: Improper Drainage

External or Internal: Both Internal and External

Impact Description: The drainage around the Power Building is channeled along the foundation piers of the north porch to an open trench that runs across the footpath and outfalls down slope. Standing water between the Power Building and Operations Building is channeled from a culvert on Coastal Drive above the site and pools between the two causing slick, muddy conditions on the footpath.

Type of Impact: Vegetation/Invasive Plants

External or Internal: Both Internal and External

Impact Description: Vegetation is encroaching on the prairie landscape around the buildings. This is obscuring views that demonstrate the original use of the site. An arborist should assess the health of the trees near the buildings to ensure they are not a risk to damage the buildings.

Type of Impact: Deferred Maintenance

External or Internal: Internal

Impact Description: There is an open hole, measuring roughly three feet by three feet by two feet deep, that is located at the west elevation of the Power Building. This hole might part of be the former underground water catchment system. This open hole should be backfilled or fenced off as it is a safety hazard

Type of Impact: Vandalism

External or Internal: Both Internal and External

Impact Description: Occasionally there is graffiti on the walls of the buildings and people try to pry open the buildings' doors.

Stabilization Measures:

General Landscape Areas

- Repair/fill depressions and holes in the ground to prevent risk of injury to site users.
- Monitor the cut banks for movement to help understand the risk associated with landslides at the site. Develop appropriate mitigation for those risks.

Buildings

- Consider allowing continuous access to buildings via open doors in order to allow adequate air circulation and prevent prying off of windows and graffiti/vandalism.
- Re-establish flue cap to retain air flow/minimize water intrusion on the Operations Building.

Vegetation

- Increase frequency of mowing in order to allow access entire historic site throughout the year.
- Maintain mowing at the western hillside of the site's buildings in order to preserve direct view of coastline from the antenna field.
- Have a certified arborist assess the health of the trees that are located nearby the Power Building and Operations Building and provide recommendations on removal if the trees are assessed as a hazard.

Drainage

- The pooling of water between the Power Building and Operations Building should be addressed.
- The erosion to the footpath and at the north elevation of the Power Building should be addressed.

Treatment

Approved Treatment:	Preservation
Approved Treatment Document:	General Management Plan
Approved Landscape Treatment Document Date:	04/06/2000
Approved Landscape Treatment Explanatory Narrative:	Pages 47-48 of the General Management Plan indicate that Radar Station B-71 will be preserved and interpreted for the public.

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Supplement Information

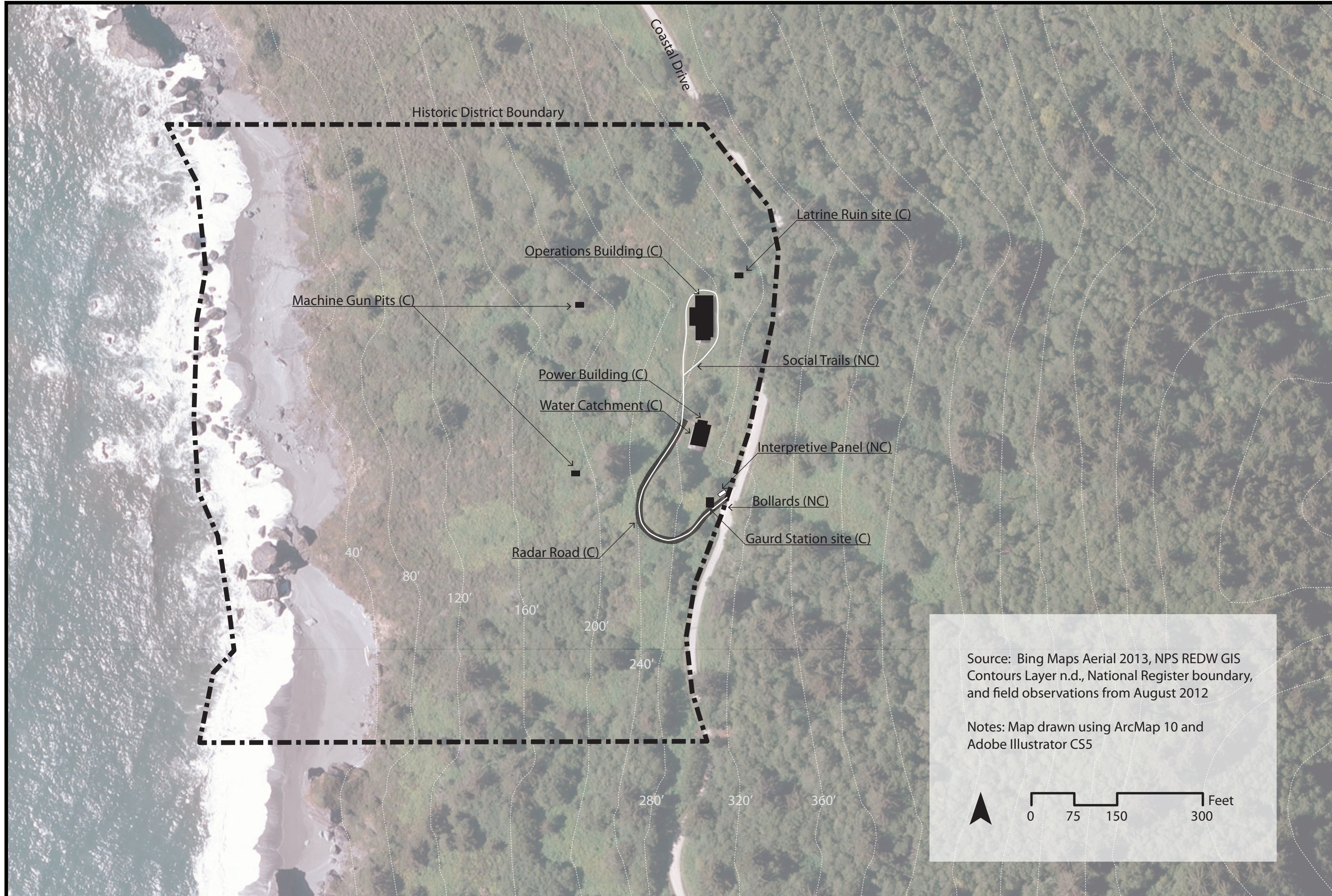
Appendix A: Large-format Site Plan

Appendix B: Section of USGS quadrangle map showing historic property boundary

Redwood National Park

Radar Site B-71 Site Plan

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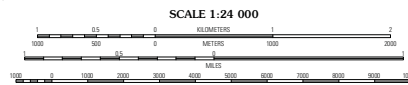
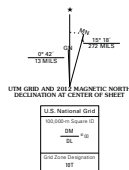
REQUA QUADRANGLE
CALIFORNIA-DEL NORTE CO.
7.5-MINUTE SERIES



UTM boundary points:
A. 10N 409702 4597408
B. 10N 410010 4597404
C. 10N 410007 4597056
D. 10N 409719 4597058

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1 000-meter grid, Universal Transverse Mercator, Zone 10T
10 000-foot ticks: California Coordinate System of 1983
(zone 1)

Imagery:.....NAP, June 2010
Roads:.....©2006-2011 TomTom
Roads within US Forest Service Lands:.....FS Topo Data
with limited Forest Service updates, 2009
Names:.....©2011
Hydrography:.....National Hydrography Dataset, 2010
Contours:.....National Elevation Dataset, 1999
Boundaries:.....Census, BWC, BIC, USGS, 1972 - 2010



CONTOUR INTERVAL 40 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.1



ROAD CLASSIFICATION			
Interstate Route	State Route	Local Road	4WD
US Route	State Route	Local Road	4WD
Ramp	Interstate Route	State Route	State Route
FS Primary Route	FS Route	FS Passenger Road	FS High Clearance Road

Check with local Forest Service unit
for current travel conditions and restrictions.

REQUA, CA
2012