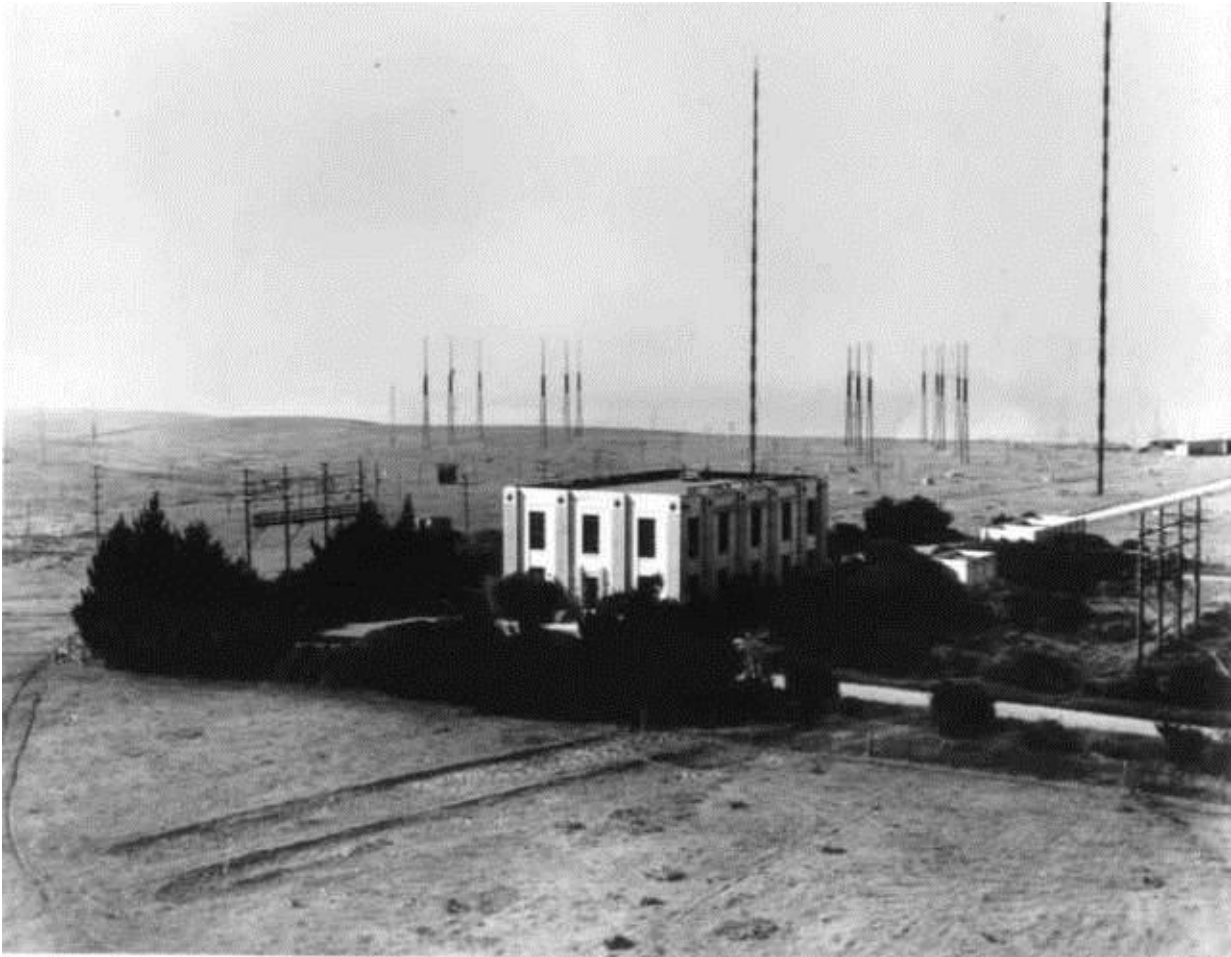

National Park Service
Cultural Landscapes Inventory
2011



Marconi/RCA Bolinas Transmitting Station
Point Reyes National Seashore



Marconi/RCA Bolinas Transmitting Station Point Reyes National Seashore

Point Reyes National Seashore 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, Point Reyes National Seashore

21 DECEMBER 2010

Date

Please return to:

Amanda Bennett
Cultural Landscapes Inventory Coordinator
National Park Service
Pacific West Regional Office
909 First Ave., Floor 5
Seattle, WA 98104

STATE OF CALIFORNIA - THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

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www.ohp.parks.ca.gov



20 May 2008

Reply To: NPS080215D

Don L Neubacher, Superintendent
Point Reyes National Seashore
Point Reyes, CA 94956

Re: Determinations of Eligibility for six properties within Point Reyes National Seashore, Point Reyes, Marin County, CA

Dear Mr. Neubacher:

Thank you for your letter of 24 April 2008, requesting my comment pursuant to the National Historic Preservation Act as amended and the implementing regulations codified at 36 CFR 800 with regards to the above undertaking. You are requesting concurrence with the NPS' determination of eligibility for six properties within Point Reyes National Seashore.

Four of the properties were determined eligible. These properties are:

- Tocaloma Bridge
- Shafter/Howard Tenant Ranches (Home Ranch, A Ranch, C Ranch, D Ranch, E Ranch, F Ranch, G Ranch, H Ranch, I Ranch, J Ranch, K Ranch, L Ranch, M Ranch, Rogers Ranch, and N Ranch), eligible under Criteria A, C, and D. The period of significance for the ranches is 1857-1956. I am presently unable to concur with the determination of eligibility under Criterion B. The association between Shafter/Howard is obviously strong but it does not seem that the association is strong enough for a Criterion B argument because these ranches were tenant ranches and Shafter and Howard never resided near or on these ranches. Instead a property like their office might better represent that association.
- Olema Valley/Lagunitas Loop Ranches Historic District, eligible under Criterion A and C. The period of significance for the district is 1856-1961.
- Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District, eligible under Criteria A, B, and C. The period of significance for the district is 1913-1959.

The following properties are not eligible:

- Paper Mill Arroyo Subdivision (Tocaloma Recreation Homes), because the district no longer retains sufficient integrity.
- AT&T Point Reyes Receiving Station, because the station does not retain sufficient integrity.

Don L Neubacher
Page 2 of 2

Thank you for considering historic properties as part of your project planning and I look forward to consultation on future projects. If you have any questions, please contact Amanda Blosser of my staff at (916) 654-9010 or e-mail at ablosser@parks.ca.gov.

Sincerely,

Susan K Shattor for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

MWD:ab

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Inventory Unit Summary & Site Plan

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, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two GPRA goals are associated with the CLI: bringing certified cultural landscapes into good condition (Goal 1a7) and increasing the number of CLI records that have complete, accurate, and reliable information (Goal 1b2B).

Scope of the CLI

The information contained within the CLI is gathered 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.

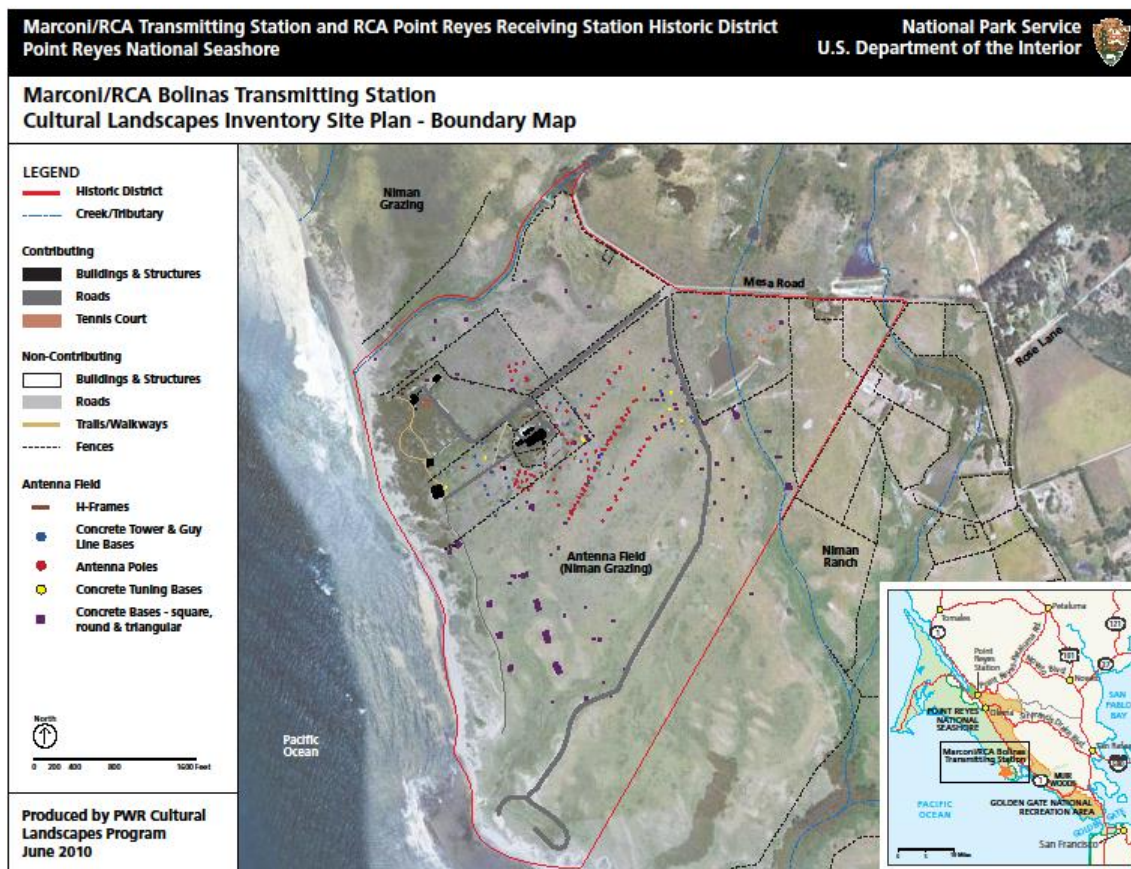
Inventory Unit Description:

The Marconi/RCA Bolinas Transmitting Station is an approximately 422-acre designed landscape that is located on the southwestern side of the Point Reyes peninsula, around two miles northwest of the city of Bolinas on Mesa Road. Located on mostly level terrain at an elevation of roughly 180 feet above sea level, the property historically associated with the station extends from Mesa Road southwest to the Pacific shore with grazing pastures to the north and south. The area for the transmitting station was selected because of its level, low vegetation, elevated topography and its isolated location away from natural and man-made atmospheric signals that could have interfered with transmission. The historic district is comprised of improvements dating from the Marconi and RCA eras, including the majority of the buildings and structures.

The RCA/Marconi Bolinas Transmitting Station is within the Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District that was previously determined eligible for the National Register of Historic Places on May 20, 2008. The Transmitting Station is significant at a national-level under Criteria A and C with a period of significance from 1913 to 1973. Under Criterion A, the district is significant for being the location of events that have greatly contributed to the development of early wireless communications systems throughout the country. Under Criterion C, the district is significant for its highly-designed Mission Revival buildings from the Marconi-era and Art Deco buildings that date from the RCA-era. The period of significance covers over half a century, beginning with the initial Marconi Corporation development of the Transmitting Station in 1913 and extending to 1973 when point-to-point radio service was discontinued due to advances in satellite-based communications. This period encompasses the major development of the roads, buildings, structures, antenna fields, and fence lines within the station property.

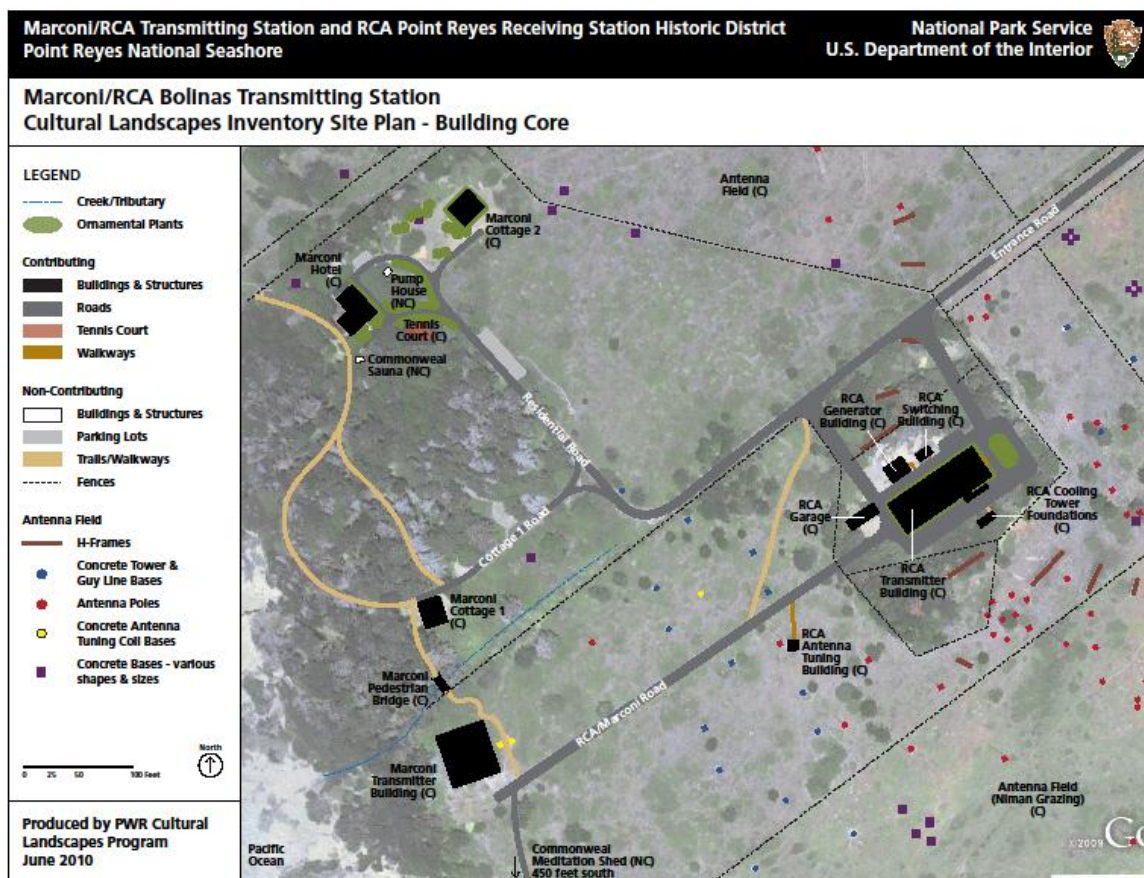
The Marconi/RCA Bolinas Transmitting Station operated without interruption as a radio transmitting station for over sixty years until its purchase by the National Park Service in 1979. It appears today much as it did during the period of significance and retains its historical integrity of location, design, setting, materials, workmanship, feeling and association. The Transmitting Station complex contains fourteen historic buildings and structures, organized in three clusters on the property. Contributing resources include the Antenna Field, Marconi Transmitter Building, Marconi Hotel, Marconi Cottage 1, Marconi Cottage 2, Marconi Tennis Court, Marconi Pedestrian Bridge, RCA Transmitter Building, RCA Garage, RCA Switching Building, RCA Cooling Tower Foundation/ Reservoirs, Marconi Cooling Tower Foundation, RCA Tuning Building, RCA Generator Building, and Historic Road Network. Non-contributing resources include the Commonweal Meditation Hut, Commonweal Pump House, and Commonweal Sauna. The historic character of the Marconi/RCA Bolinas Transmitting Station is still evident in the following landscape characteristics: natural systems and features, spatial organization, land use, buildings and structures, small scale features, circulation, vegetation, and archeological sites. Based on the evaluation of these characteristics, the cultural landscape at the Transmitting Station exhibits key patterns, relationships, and features that convey the historical significance of the station. Overall, the landscape is in fair condition.

Site Plans



Marconi/RCA Bolinas Transmitting Station Boundary. See the Supplemental Information section for a full 8.5 x 11 inch version of site plan.

Marconi/RCA Bolinas Transmitting Station
Point Reyes National Seashore



Marconi/RCA Bolinas Transmitting Station Building Core. See the Supplemental Information section for a full 8.5 x 11 inch version of site plan.

Property Level and CLI Numbers

Inventory Unit Name:	Marconi/RCA Bolinas Transmitting Station
Property Level:	Component Landscape
CLI Identification Number:	725189
Parent Cultural Landscape Inventory Name:	Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District
Parent Cultural Landscape Inventory Number:	725162

Park Information

Park Name and Alpha Code:	Point Reyes National Seashore PORE
Park Organization Code:	8530

CLI Hierarchy Description:

The Marconi/RCA Bolinas Transmitting Station is one of two component landscapes in the Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District parent landscape. The parent landscape is comprised of two separate but historically related properties, commonly referred to as the Marconi/RCA Bolinas Transmitting Station, and the RCA Point Reyes Receiving Station, both of which are now incorporated within the administrative boundaries of Point Reyes National Seashore, Marin County, California.

Both the Transmitting and Receiving Stations still contain their own core of buildings and structures surrounded by antenna fields, and stand alone as individual component landscapes. When aggregated, the two component landscapes form the larger non-contiguous parent landscape, the Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District as delineated in the May 20, 2008 Consensus Determination of Eligibility

Concurrence Status

Inventory Status: Incomplete

Completion Status Explanatory Narrative:

The Marconi/RCA Bolinas Transmitting Station Cultural Landscapes Inventory (CLI) builds off the previous consensus determination of eligibility completed by Historical Research Associates, Inc./CRCS in July 2008. Fieldwork for the CLI was conducted by Erica Owens, Amanda Bennett, and Cortney Gjesfeld from the Pacific West Region's Seattle office, and Vida Germano, Jason Biscoombe and Bob Hartzler from the Pacific West Region's Oakland office, with help from Debra Suarez and Dan Brown from Point Reyes National Seashore, in May 2010. The CLI data was compiled and completed by Amanda Bennett and Erica Owens.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	12/21/2010
National Register Concurrence:	Yes
Date of Concurrence Determination:	5/20/2008

Geographic Information & Location Map

Inventory Unit Boundary Description:

The Marconi/RCA Bolinas Transmitting Station CLI boundary follows the boundary established by the May 20, 2008 Consensus Determination of Eligibility. This boundary encompasses a 422-acre portion of the much larger property owned by Marconi/RCA during the period of significance. In 1913, the Marconi Corporation purchased 643 acres of ranch land from the Albert Ingermann family. Marconi and then RCA continued to purchase additional surrounding property through the 1920's bringing the total property at the Bolinas transmitting station to 1,049 acres.

In 1977, RCA sold the entire Bolinas property to the Trust for Public Land, who sold to the National Park Service shortly thereafter. The historic district boundary encompasses the 422 acres of the building core and entrance road as well as those portions of the antenna fields that still have antennas and remnants of historic antenna arrays (antenna foundations, guy wire foundations, T-poles, H-frames, wood poles, etc.).

State and County:

State: California
County: Marin

Size (Acres): 422 acres

Boundary UTMS:

Source	Type	Datum	Zone	Easting	Northing
GPS-Differentially Corrected	Area	NAD 83	10N	524350	4197187
GPS-Differentially Corrected	Area	NAD 83	10N	524355	4197176
GPS-Differentially Corrected	Area	NAD 83	10N	524339	4196986
GPS-Differentially Corrected	Area	NAD 83	10N	524628	4196796
GPS-Differentially Corrected	Area	NAD 83	10N	525313	4196765
GPS-Differentially Corrected	Area	NAD 83	10N	524324	4195043
GPS-Differentially Corrected	Area	NAD 83	10N	523664	4196556

Marconi/RCA Bolinas Transmitting Station
Point Reyes National Seashore

Location Map



Management Information

General Management Information

Management Category: B: Should be Preserved and Maintained

Management Category Date: 12/21/2010

Management Category Explanatory Narrative:

The Marconi/RCA Bolinas Transmitting Station meets all three criteria for Category B – Should Be Preserved and Maintained. As a component of the larger Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District, it meets National Register Criteria A and C. The historic district is compatible with the park's legislated significance "to save and preserve, for purposes of public recreation, benefit, and inspiration, a portion of the diminishing seashore of the United States that remains undeveloped," as stated in Public Law 87-657 designating Point Reyes National Seashore in 1962. Finally, the property's continued use of the buildings and grazing of the antenna fields is appropriate to its traditional use as a transmitting station.

Management Agreement: Lease

**Management Agreement
Explanatory Narrative:**

Commonweal, a nonprofit health and environmental research institute, holds a 50-year lease on 60 acres of the transmitting station property that encompasses the main building core and immediate adjacent property. The organization headquarters runs out of the RCA Transmitting Buildings northeast wing and they use the hotel and 2 cottages as part of their retreat center.

Other Management Agreement: Special Use Permit

**Management Agreement
Explanatory Narrative:**

William Niman holds a Special Use Permit for 5 years on 575 acres south and east of the transmitting station building core, including the antenna field. The permit allows for Niman to use the property as grazing land for his beef cattle operation.

NPS Legal Interest

Type of Interest: Fee Simple Reservation

Public Access to Site

Type of Access: Restricted

**Public Access Explanatory
Narrative:**

Portions of the Commonweal operation are restricted for use by guests of their retreat center.

Adjacent Lands Information

Do Adjacent Lands Contribute?

No

**Adjacent Lands Explanatory
Narrative:**

The adjacent ranchlands were historically part of the transmitting station operations, but there are no known contributing resources located in these pastures and fields and have therefore not been included in this CLI. However, these lands do continue to reflect the open character of the transmitting station's historic setting.

National Register Information

Existing National Register Status

National Register Landscape Documentation:

SHPO – Inadequately documented

National Register Explanatory Narrative:

The consensus determination of eligibility (DOE) for the Marconi/RCA Transmitting Station is part of the Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District, which was prepared by Historical Research Associates, Inc./CRCS and received SHPO concurrence on May 20, 2008. The two sites in the historic district are documented in the DOE as significant under Criterion A and B, at the national level of significance, for their association with twentieth century development of a worldwide radio network, and with one of the central figures in the history of wireless communications, Guglielmo Marconi. The period of significance established in the DOE is from 1913 to 1959, a time in which the Marconi Company and its successor, RCA, developed and expanded the stations, until advances in satellite-based communications gradually surpassed radio in terms of coverage and reliability.

Based on further analysis, this CLI finds the historic district to be significant under Criteria A and C, noting the distinctive characteristics of the buildings and antenna fields that qualify the site under Criteria C, and finds a lack of evidence to directly associate Guglielmo Marconi with the Transmitting Station to qualify under Criteria B. The CLI proposes a change in the period of significance for the Marconi/RCA Transmitting Station to the period of 1913-1973, which covers the initial development of the Transmitting Station through to the end of the point-to-point service, replaced by emerging satellite communications.

The 2008 DOE did not adequately document the landscape characteristics and features of the station. This CLI expands the description and provides greater details of the station's natural systems and features, spatial organization, land use, buildings and structures, small-scale features, circulation, vegetation and archeological sites.

National Register Eligibility

National Register Concurrence:	Eligible – SHPO Consensus Determination
Contributing/Individual:	Contributing
National Register Classification:	District
Significance Level:	National
Significance Criteria:	A – Associated with events significant to broad patterns of our history C – Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a

Marconi/RCA Bolinas Transmitting Station Point Reyes National Seashore

master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

Criteria Considerations:

None

Period of Significance:

1913-1973

Historic Context Theme:

Developing the American Economy

Subtheme:

Communication

Facet:

Radio

Historic Context Theme:

Expanding Science and Technology

Subtheme:

Technology (Engineering and Invention)

Facet:

Information Processing, Transmission, and Recording

Historic Context Theme:

Transforming the Environment

Subtheme:

The Industrial Revolution

Facet:

Industrial Innovations

Area of Significance Category

Communications

Industry

Statement of Significance

The following narrative is from the Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District consensus determination of eligibility originally prepared by HRA/CRCS in 2008 and updated by Christy Avery, NPS Historian, in 2011:

The Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District qualifies for listing in the National Register under Criteria A at the national level of significance, and Criteria C at the local level of significance. The district qualifies for listing under Criteria A at the national level of significance for its association with the development of twentieth century wireless communications systems. The district is significant under Criterion C at the local level of significance for its highly-designed Mission Revival and Art Deco buildings. The period of significance of the historic district begins in 1913 and ends in 1973, during which time Marconi Corporation and Radio Corporation of America (RCA) developed the stations. After 1973, point-to-point radio service was discontinued due to advances in satellite-based communications, which lead to a shift in landscape use with less emphasis on the antenna fields.

The historic district, with the Bolinas Transmitting Station and the Point Reyes Receiving Station, is associated with the twentieth century development of a worldwide radio network. Between 1913 and 1919, the Marconi Wireless Telegraph Company of America began developing a system of radio stations across the United States and around the world, and as part of that system built two of three radio stations in the Point Reyes area. These were the Bolinas transmitting station and the Marshall receiving station, built in 1913 and 1914. The company's successor, the Radio Corporation of America (RCA), expanded the Marconi Company's operations after World

Marconi/RCA Bolinas Transmitting Station Point Reyes National Seashore

War I. It continued to operate the Bolinas station but phased out the point-to-point operations at the Marshall station, and replaced it with a new receiving station on the Point Reyes Peninsula in the late 1920s and early 1930s. These changes were in response to technological advances, such as the discovery of short-wave radio propagation, as well as market conditions. RCA expanded its operations and facilities at Point Reyes into the late 1950s. Although RCA sold the stations in 1986, the new owners continued to operate them into the late 1990s, functioning as a vital communication conduit for ships at sea.

The radio stations at Point Reyes National Seashore are monuments to twentieth century wireless telegraphy from centralized earth-based transmitting and receiving stations. They reflect the evolution of wireless communications throughout this one-hundred-year period. The era began with Guglielmo Marconi's early innovations and the development of a commercial system of intercontinental transmitting and receiving stations that girdled the globe. The system allowed people to communicate by radio around the world, sending and receiving signals on land and sea. By mid-century, as radio technology evolved, the number of stations shrank, dominated by fewer and more powerful coastal stations with huge transmitters and towering antennas. During this period, the Point Reyes stations remained operational, serving as waypoints where transoceanic and ship-to-shore message traffic passed through electronic filters of the transmitting technology and also a set of human filters, the hands of the operators who transmitted information. Over the latter half of the twentieth century, a more decentralized system incorporating satellites as relay stations and a large number of microwave repeating stations replaced this earlier system.

The stations are also significant at the local level of significance under Criterion C for their highly designed Mission-revival and art deco buildings. At the Bolinas site, the Marconi Transmitter building, Cottage 1 and Cottage 2, and the hotel were built in 1913 and exemplify Mission Revival architecture, with cast-in-place reinforced concrete and shared architectural detailing, including red tile roofing and arched entries with decorative brackets. The RCA-era buildings at both locations date from the late 1920s and early 1930s, and were built in the art deco style. They include the RCA Transmitter Building, switching building, and garage at the Bolinas station, and the main receiving building, garage, utility building at the Point Reyes station. They include symmetrical facades and vertical bays defined by fluted or smooth pilasters, and glazed bricks arranged in a diamond pattern atop the pilasters in the roof parapets. The historic buildings at the receiving station site are arranged symmetrically around a circular automobile court, at the terminus of a long access road flanked with a Cypress tree alley. In general, the building typologies and construction materials were consistent with architectural trends of the Marconi and RCA eras, and were nearly identical in styles of other Marconi or RCA buildings constructed at the same time. Changes to the buildings, which included modifications to support technological advancements, took place mostly on the interior of the buildings and after the period of significance.

Both the transmitting and receiving stations possess all seven aspects of historical integrity. Although the removal of most of the antennas has impacted site integrity, their locations continue to be marked by concrete bases.

The historic district does not need to meet Criteria Consideration G, since the majority of the properties and the most important period of significance are greater than fifty years old.

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 Designed Landscape

Current and Historic Use/Function

Primary Historic Function-Major Category: Industrial/Processing/Extract

Primary Historic Function-Category: Telecommunication Facility

Primary Historic Function: Telecommunication Facility

Primary Current Function-Major Category: Government

Primary Current Function-Category: Government Office

Primary Current Historic Function: Government Office - Other

Other Current and Historic Uses/Functions

Major Category: Agriculture/Subsistence
Category: Agricultural/Field
Subcategory: Agricultural/Field
Type: Both Current and Historic

Major Category: Industrial/Processing/Extract
Category: Telecommunication Facility
Subcategory: Telecommunication Facility
Type: Both Current and Historic

Major Category: Government
Category: Government Office
Subcategory: Interpretation Facility
Type: Current

Major Category: Government
Category: Government Office
Subcategory: Multi-Use Building
Type: Current

Major Category: Domestic
Category: Hotel
Subcategory: Lodge (Inn, Cabin)
Type: Current

Marconi/RCA Bolinas Transmitting Station Point Reyes National Seashore

Major Category: Commercial/Trade
Category: Organizational
Subcategory: Organizational
Type: Current

Major Category: Health Care
Category: Health Care - Other
Subcategory: Health Care - Other
Type: Current

Current and Historic Names

Current and Historic Name	Type of Name
Marconi/RCA Bolinas Transmitting Station	Both Current and Historic
Commonweal	Both Current and Historic
Niman Ranch	Current
Ingermann Ranch	Historic
Commonweal Retreat Center	Current
Kohler House (Cottage 2)	Current
Bothin House (Cottage 1)	Current
Pacific House (Marconi Hotel)	Current

Ethnographic Information

Ethnographic Study Conducted: No

Ethnographic Explanatory Narrative:

Although no specific ethnographic study has been conducted for Point Reyes National Seashore, numerous anthropological studies associated with Coast Miwok people have been completed.

The Point Reyes National Seashore Cultural Affiliation Report examining Native American affiliation at Point Reyes concluded that the Federated Coast Miwok people have a clear, exclusive affiliation with the lands managed by Point Reyes National Seashore extending back more than 2,000 years. The Federated Coast Miwok are politically recognized by the federal government as the Federated Indians of Graton Rancheria.

Tipon, Nick L., Dowdall, Katherine M. (2006). A Cultural Heritage Survey by the Federated Indians of Graton Rancheria for the Point Reyes National Seashore, Marin County. Submitted by the Federated Indians of Graton Rancheria, Santa Rosa, California. NPS Cooperative Agreement No. 1443-CA-8530-97-017

Miller, Margaret A (2007). Themes in the History of Labor and Work in the Point Reyes Peninsula, Olema Valley, and Tomales Bay Region, 1860-1980: An Introductory Essay. Sonoma State University Department of History.

Marconi/RCA Bolinas Transmitting Station
Point Reyes National Seashore

Emberson, G., S. Thalman, et al. (1999). Point Reyes National Seashore Cultural Affiliation Report. Novato, CA, Submitted by the Federated Coast Miwok Cultural Preservation Association. NPS Cooperative Agreement No. 1443-CA-8530-97-017.

Marconi/RCA Bolinas Transmitting Station
Point Reyes National Seashore

Chronology

Year Begin	Year End	Event	Annotation
1913	1913	Purchased/Sold	Marconi Wireless Telegraph Company of America bought three parcels of ranch land near Bolinas from the Albert Ingermann family. Prior to its purchase, the lands had been grazed, creating an open landscape with little interference of radio waves. Grazing continued in the pastures even as they were developed antenna fields, which helped to maintain the open character.
1913	1914	Developed	The Marconi Company developed two sites in Marin County to expand their American wireless communications operations; a transmitting station in Bolinas, CA (within current NPS boundaries) and receiving station in Marshall, CA on Tomales Bay (outside of current NPS boundaries). Both sites included a primary operation building, a hotel, two cottages, various outbuildings and antenna fields.
1913	1914	Established	At both sites the Marconi Company established a transmitting station in Bolinas and receiving station in Marshall. Each station was designed by the J. G. White Engineering Company and included a primary operation building, a hotel, two cottages, various outbuildings and antenna fields.
1917	1918	Military Operation	World War I began and the U.S. Navy took control of the two Marconi stations in Marin County to regulate radio communication.
1920	1920	Purchased/Sold	Radio Corporation of America (RCA) purchased the two Marconi stations from Marconi Corporation.
1920	1920	Altered	Long-wave Alexanderson alternators were installed at the Bolinas Transmitting Station to expand the wireless network. An Alexanderson multiple-tuned antenna replaced the Marconi long-wave antenna and likely use many, if not all, of the 300-foot Marconi antenna masts for support.
1928	1928	Purchased/Sold	RCA expanded their West Coast operations by increasing the Bolinas transmitting station property, purchasing 120 additional acres to expand the antenna field.
1929	1929	Expanded	RCA constructed a new Art Deco RCA Transmitting Building, RCA Switching Building, RCA Garage and a cooling system, at the Bolinas site in order to accommodate the technological advancements of short-wave radio. The new complex included a formal entrance gate, circular drive, trees, plants and lawns.
1929	1931	Developed	RCA took possession of the 1,472-acre James McClure Ranch (G Ranch), through condemnation, on the north end of Point Reyes Peninsula (within current NPS boundaries) to develop a new receiving station to replace the Marshall station.
1931	1931	Altered	RCA mothballed the Alexanderson alternators and began to use the new water-cooled vacuum-tube transmitters in the new RCA Transmitter Building.

Marconi/RCA Bolinas Transmitting Station
Point Reyes National Seashore

1930	1939	Altered	In the 1930s, RCA replaced older antennas with newer types. Teletype printers replaced the Morse code communication devices.
1941	1945	Established	During World War II, the government reserved exclusive use of the RCA Bolinas Transmitting and Point Reyes Receiving Stations. They closed down the Marshall receiving station in 1943. RCA employees remained at Bolinas Station and Point Reyes Station with military presence.
1941	1945	Altered	During the war, RCA restarted the one remaining Alexanderson alternator in the Marconi Transmitter Building (the other had been sent to Hawaii during WWII).
1946	1946	Altered	RCA's Radiomarine Division moved the equipment for the ship-to-shore service (known by call sign KPH) from the Marshall station to the Point Reyes Receiving Station. The Bolinas station was used for transmitting signals for KPH out of the Marconi Transmitter Building.
1950	1959	Altered	RCA shut down the Alexanderson alternator at Bolinas and removed some of the 300-foot associated antenna masts.
1959	1959	Altered	RCA constructed an addition onto the southwest side of the RCA Transmitter Building and purchased an additional 470 acres northeast and northwest of the station.
1961	1969	Altered	RCA erected one antennas at the Transmitting Station for sending signals to Tahiti.
1962	1962	Established	Congress established Point Reyes National Seashore, while RCA retained the transmitting station as an inholding within park boundaries.
1964	1964	Expanded	RCAs Marin stations had 65 operating point-to-point circuits, with more than 45 of them serving countries in East Asia.
1973	1975	Altered	Due to advancements in satellite technology, RCA phased out the Point Reyes point-to-point system in favor of emerging satellite technology. Most physical changes were made at the Point Reyes Receiving Station.
1977	1978	Purchased/Sold	RCA, operating as RCA Globcom, sold all of the Bolinas Transmitting Station property and all but the 23-acre core of the Point Reyes Receiving Station property to the Trust for Public Land (TPL). The NPS purchased the properties from TPL in 1978 for inclusion in Point Reyes National Seashore.
1977	1979	Established	Non-profit organization Commonweal secured a 50-year lease on the majority of the buildings and property within the Bolinas building core from TPL. The NPS honored the lease after purchasing the property.
1985	1988	Purchased/Sold	RCA was purchased by General Electric (GE) then by MCI International, Inc., which operated the Bolinas Transmitting Stations and the Point Reyes Receiving Station under the Western Union International subsidiary name. MCI invested around two million dollars in the KPH operations.

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1995	1997	Purchased/Sold	MCI put KPH up for sale in 1995 and then announced the stations closure. On June 30, 1997 the last KPH message was sent. The transmitters at Bolinas were turned off and receivers at Point Reyes were abandoned, but left on to keep a symbolic watch over the airwaves.
1999	2010	Preserved	The non-profit Maritime Radio Historical Society was formed and began to document, preserve and restore the Bolinas and Point Reyes stations under agreement with the NPS. The Marin stations are the only commercial Morse code coast stations still operating in the western hemisphere, under call letters KSM. They continue to receive and transmit messages.
1999	2011	Ranched/Grazed	William Niman currently holds a special use permit for the grazing lands of the transmitting station antenna fields for his beef cattle operation. (Note: Grazing is a historic land use that has occurred since the 1800s throughout the peninsula.)

Physical History

The following narrative is from the Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District consensus determination of eligibility originally prepared by HRA/CRCS in 2008 and updated by Christy Avery, NPS Historian, in 2011 [1]:

Historic Context

In 1914, when the Bolinas transmitting station was completed, it was the first Pacific Coast radio station built by the Marconi Wireless Telegraph Company of America. It was one of many stations that would span the globe as part of the Marconi Company's operations, and one that would help fulfill the vision of company founder Guglielmo Marconi for transoceanic wireless communication. Guglielmo Marconi, born in Italy in 1874, was one of the prominent figures in the development of wireless radio technology in the late nineteenth and early twentieth centuries. Marconi benefited from the work of noted scientists such as Heinrich Hertz, Mahlon Loomis, Thomas Alva Edison, Sir Oliver Lodge, and Nikola Tesla, as well as his own experimentation with sending messages without wires. Although Marconi's claims to inventive originality are open to debate, his organizational efforts are not. Marconi successfully drove the emerging knowledge about radio waves to practical and profitable commercial use worldwide. Based upon an astute use of the patent systems of several countries, a powerful business model of leasing equipment and services—rather than selling technology and education—and a policy of exclusive communication among Marconi operators, the Marconi Company was a stunning business success.

Marconi embarked upon his commercial enterprise in 1897, when he established the Wireless Telegraph and Signaling Company in England. By that time, he had successfully transmitted signals a distance of one mile, patented his technology, and set his sights on transoceanic wireless communication. In 1899, he pressed forward with this goal when he incorporated the New Jersey-based Marconi Wireless Telegraph Company of America. Within two years, he was transmitting faint signals from Poldhu, England, to St. John, Newfoundland. He registered a patent for his famous principle of selective tuning in 1901, which improved on the work of Lodge and Tesla, who had demonstrated the principle of tuning electrical "radio" waves a decade earlier. Advancing the prospects of intercontinental transmissions, the Marconi Wireless Telegraph Company of America built a transatlantic radio facility at South Wellfleet, Massachusetts. Here, on January 18, 1903, President Theodore Roosevelt and King Edward VII exchanged the first radio message from the United States to Europe. For his work in advancing wireless—or radio—communications, Marconi won awards from many countries and received the Nobel Prize in physics in 1909 with co-recipient Carl Ferdinand Braun.

After achieving his initial goal of proving the possibility of long-distance communications, Marconi looked to the Pacific Ocean as the next gap to bridge. Until this time, the Commercial Cable Company had a monopoly in transpacific communications. The rates were high because of the costs and maintenance of a lengthy cable across the Pacific. Marconi knew that wireless transmission would be much cheaper. In 1910, Marconi took over station PH, founded by the American DeForest Wireless Telegraph Company in the Palace Hotel and later purchased by United Wireless Telegraph Company, which moved the station to Russian Hill after the earthquake and fire destroyed the Palace Hotel, and then to Hillcrest in Daly City. The Marconi Company could now concentrate on its Pacific-area operations. However, Marconi was not alone in this venture. The advent of commercial wireless long anticipated the arrival of Marconi. As the Pacific Coast center of maritime activity, San Francisco attracted a large volume of wireless business as soon as the equipment became available. The United States Lighthouse Service installed its first wireless set on the San Francisco Lightship around 1899, and soon many Pacific Coast steamers had wireless capability. The U.S. Navy built twelve coastal stations and the Army had at least nine in Alaska. Between 1900 and 1910, four wireless companies installed dozens of ship-to-shore stations along the coast from Seattle to San Diego.

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Although there were a number of wireless operations along the Pacific Coast and in San Francisco, the market for wireless was still in its infancy. Shipping was expanding, creating a greater need for shore stations, and the Pacific Ocean remained without a solid point-to-point (land station-to-land station) service. More important, the Marconi Company, which began as a small venture, was gaining a virtual monopoly of the wireless business in America around the time it arrived in San Francisco. The company's monopoly was both in name recognition and organizational power. The Titanic disaster of 1912 demonstrated to the world the importance of wireless and made Marconi's wireless system—which broadcast the word of the disaster to nearby ships and the public—a household name. When it took over station PH, the Marconi Company did so by acquiring United Wireless, the station owner and Marconi's main competitor in the Pacific. The merger allowed Marconi to capitalize on United's shore-station business and to pursue his goal of bringing wireless to the Pacific region.

From the new office in San Francisco, Marconi executives continued to operate and improve the ship-to-shore operations of station KPH.[2] Their greater objective, however, was to expand the company's American operations and complete a global wireless network by making the connection between the Pacific Coast and Japan by way of Hawaii. By 1913, the company was constructing high-power stations in Belmar, New Jersey, and Carnarvon, Wales (developed by the British Marconi Company), in addition to stations in California and Hawaii. Around this same time, the Japanese government began construction of a station to connect with the Marconi system. In 1915, Marconi expanded still further, building high-power stations at Marion, Massachusetts, and Chatham on Cape Cod (also in Massachusetts) to communicate with Stavanger, Norway.

As part of its Pacific operations, the Marconi Company purchased property at four locations. Two were in Hawaii, where the receiving site would be at Koko Head, east of Honolulu, while the transmitting site would be at Kahuku, northeast of Honolulu. And two were in Marin County, California, where the receiving site would be located near the small community of Marshall on the eastern shore of Tomales Bay, while the transmitting site would be on farmland just north of Bolinas. The company constructed similar facilities at both locations. The design of the buildings and antennas in Hawaii was practically identical to those constructed in Marin County, except for the transmitting powerhouse at Kahuku, which needed to be larger in order to accommodate a steam plant for generating the tremendous amount of electricity needed to relay messages to Asia. (These facilities also bore a distinct resemblance to other Marconi facilities of the time.)

The Marconi Company selected the sites for its stations in the Point Reyes area for a number of reasons. They liked it because it was the "cleanest" site that the engineers—and evidently Marconi himself—had discovered. Their instruments measured little if any interference occurring either naturally or from competing commercial frequencies. They also liked the area because it was close to the ocean, largely undeveloped, and near the company's western headquarters in San Francisco.

In May 1913, the Marconi Wireless Telegraph Company of America bought three parcels of Bolinas ranch land, totaling 643 acres, from the Albert Ingermann family. The land overlooked the Pacific Ocean and was relatively flat and open. It included parcels for the transmitting station and support buildings, the vast antennas, and a reliable water supply. Easements for transmission lines, which would bring commercial power from Mill Valley and separate telegraph lines owned by the Marconi Company and connected to Marshall and San Francisco, stretched over the hills.

Shortly afterward, the J. G. White Engineering Company drew up plans for the buildings and began construction of the station's four major buildings: the transmitter building, a hotel, and two cottages. All were made of steel and concrete with fireproof tile roofs. Other structures included wood-frame outbuildings such as a garage cottage, and storage shacks, as well as the towering antenna masts. The station's largest structure was the transmitter building. It was two stories high, with massive reinforced concrete walls, large multi-light wood-frame windows, and a bi-level roof with tiled hipped-roof clerestory units. The concrete foundation required additional

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piers and foundations for huge motor generators, disc dischargers, and other machinery. A cooling tower with a massive concrete foundation stood west of the powerhouse overlooking the ocean bluff.

Referred to as a "commodious clubhouse" by the San Francisco Chronicle at the time it opened, the hotel served visiting technicians and dignitaries, as well as some of the operating staff as needed. The hotel was two stories high with a tile roof, eighteen sleeping rooms, a kitchen, and a common area. It featured landscaped grounds and a tennis court located nearby. The two matching concrete cottages, also with tile roofs, housed the station's chief and assistant engineers; one cottage was located adjacent to the hotel and the other closer to the powerhouse.

The Marconi antenna was an imposing structure. Located in the fields east and northeast of the huge transmitting station were nine 300-foot steel masts supporting a 2,000-foot by 600-foot rectangular antenna composed of 32 wires. Another 32-wire antenna was located at ground level, and a copper "earth plate" was buried in the ocean below the low-water level.

The isolated site proved to be a challenge for the J. G. White Engineering Company. Based in New York City, the company had the construction materials and equipment manufactured on the East Coast and sent to Bolinas via the Isthmus of Panama. No rail lines passed within twenty miles of the Bolinas site, and shipping by schooner was difficult because of the shallow bar at Bolinas. Nonetheless, with the help of twenty-horse teams and intensive labor, the engineering company managed to secure its supplies of massive steel beams, tons of concrete, and finally the operating equipment.

The Bolinas station required tremendous amounts of electricity in order to throw electromagnetic waves across the ocean. To power its 300-kilowatt transmitters, the Marconi Company bought its power from Pacific Gas & Electric; PG&E provided two 11,000-volt lines from its substation at Alto near Mill Valley, stringing the line on poles stretching across twenty miles of mountainous terrain. The establishment of this power system had the added public benefit of providing electrical service to the communities of Willow Camp (Stinson Beach) and Bolinas. (Nearby coastal towns waited up to another twenty years for electric service.) The Bolinas station, however, was the only one that received commercial power. Since the commercial line ended just north of Bolinas, the Marconi Company ran its own line the last mile to the station.

Meanwhile, the Marconi Company forged ahead with construction at its other sites. The Marshall receiving station, the sister station to the Bolinas transmitting station, was located twenty miles north, on a hillside overlooking Tomales Bay. The distance between the two stations was necessary because the great power of the transmitting facility would blur the reception of its counterpart without a sizeable separation. (The stations were connected by a landline over which station operators sent messages.) Construction began in mid-1913 and by the end of that year, the entire station was nearly completed, including the antenna masts. The structures here mirrored some at the transmitting station: an operating building, a thirty-five-room hotel, two cottages, a powerhouse, and various wood-frame outbuildings. The major structures were also built of reinforced concrete with tile roofs. The stations in Hawaii were going up around the same time and, as noted above, were practically identical to their California counterparts.

By 1914, all of these stations were finished, and on September 24th of that year, the Bolinas transmitting station began operation. The Bolinas station was one of the largest in the world at the time, along with its counterpart at Kahuku and the new Marconi station at Belmar, New Jersey. The station at Bolinas opened to great fanfare, with a ceremony inaugurating commercial transpacific wireless. President Woodrow Wilson provided a message that operators sent to Hawaii governor Lucius E. Pinkham; San Francisco mayor James Rolph of San Francisco exchanged greetings with Honolulu mayor Joseph James Fern. Other dignitaries attended the event. Among the guests were presidents of steamship lines and prominent industrialists. A similar party was going on at Kahuku. One writer, inspired by the moment, characterized the event as "a victory over place and time the like of which

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only the living generation has experienced, and it is doubtful whether our sons or yet our grandsons will witness another triumph on so gigantic a scale."[3]

In 1916, the Marconi stations (KET in California and KIE in Hawaii) began commercial radio service with Japan, opening a new era in radio communications on the Pacific Rim. The Marconi Company established service between Bolinas and Funabishi, a government owned station ten miles from Tokyo. Messages traveled about 5,400 miles between the Bolinas station and Japan, a considerable distance for the time. At one point that year, the Marshall receiving station picked up messages from Hanover, Germany, a distance of around 7,000 miles.

Advancements such as these and improvements in wireless technology kept the Marconi Company busy. It operated the facilities day and night to handle as much traffic as possible and to provide uninterrupted service. To make this possible, Marconi designed a duplex system requiring two stations at each geographic location. In California, the Marshall station received Morse code messages. To avoid interference by incoming radio waves, outgoing messages originated with Marshall operators, who sent them by landline to Bolinas where they were transmitted by spark transmission to the receiving station at Koko Head. In reverse, the transmitting station at Kahuku on the north shore of Oahu sent messages to Marshall with its mile-long land antenna. The most popular form of communication was the Marconigram, and other services such as the Week-End Letter, Cable Letter, and Press Service were available.

By 1917, Marconi had achieved his goal of spanning the Atlantic and Pacific and creating a commercial radio network that could transmit messages around the world. That year, however, the United States entered World War I and the federal government closed all private wireless stations and placed the U.S. Navy in charge of regulating radio communications. The Navy assumed control of fifty-three American Marconi stations, including those in Marin County and Hawaii, and closed twenty-eight. Although the Marconi Company was effectively out of the communications business during the war, it produced a large amount of radio equipment for the federal government. Marconi technology also aided the war effort through use of its facilities, equipment, and skilled personnel.

After the war's end in 1918, commercial radio would not be the same. The number of stations declined for example, when the Navy purchased forty-five of the coastal stations it had taken over from Marconi. Because there were so many advances made in radio during the war, however, many of the lower-power coastal stations were, or would soon be, out-of-date and scrapped. Perhaps the greatest change was that many Americans in industry and government, including Navy officials, believed that the British-owned Marconi Company should not have a monopoly over American wireless communications; that is, they believed that communications systems should be American owned. In 1919, this sentiment led to the formation of the Radio Corporation of America, and that year the Marconi Wireless Telegraph Company of America sold its stock to Radio Corporation, as it was then commonly known (the phrase "of America" was attached in very small letters for about five years, until it was incorporated into the longer name). The high-power stations at Marin, as well as those in Hawaii and New Brunswick, were part of this transfer. Marconi sold the properties at Bolinas and Marshall to RCA in March 1920; in April, his company was dissolved.

Like its predecessor, RCA was a radio communications monopoly, this time with the blessing of the U.S. government. The original merger was between the General Electric Company (GE) and Marconi Wireless, with GE having the controlling share of stock. But in order to be competitive, RCA needed a consortium of other large companies to build the patent pool. RCA approached its competitors, American Telephone and Telegraph Company (AT&T) and Westinghouse Electric Company, both of which agreed to support the Americanization of wireless communications. Another business, the United Fruit Company, joined the deal, since its fleet of banana boats relied on wireless. These companies exchanged their patents for preferred stock, and were the major shareholders of the new corporation. Together they owned more than 70 percent of RCA and almost 2,000 patents; most important was the vacuum tube.

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Although RCA began to experiment with bringing radio to a mass audience, it returned its attention to upgrading its wireless stations and expanding the wireless network. RCA engineers drew upon the company's many resources and rapidly developed and installed the latest technology in the shore stations. Two Alexanderson alternators, developed by GE during the war, were installed at Bolinas in 1920, as well as its East Coast counterparts. The company later replaced this long-wave equipment with the more efficient short-wave technology characterized in part by smaller dipole antennas.

In the 1920s, RCA was able to make these and other advancements—and dominate the international communications field—because it owned most of the important patents in radio technology. Using such new devices as vacuum tube transmitters and improved antenna design, it set speed and efficiency records in the transmission and handling of international messages. By the early 1920s, for example, the company's traffic increased from 18 to 23 million messages and increased the company's gross income by 50 percent. Its ship-to-shore operations experienced similar growth. Given RCA's powerful place in the Pacific Rim, U.S. Navy Secretary Josephus Daniels exclaimed that the United States held a stronger position in the Pacific; radio made surprise attacks "impossible"—a fateful statement.

In 1929, RCA embarked on a major expansion of its West Coast operations in response to an increased demand for communications with Asia and the South Seas. The primary goal was to expand the transpacific circuits to include China, Manchuria, Siberia, Java, French Indochina (Vietnam), Manila, New Zealand, and Australia. The new technology enabled messages to travel greater distances; the Java circuit reached an unprecedented 8,646 miles.

As part of this expansion, RCA enlarged the transmitting station at Bolinas to accommodate twenty short-wave circuits. The new circuits required a larger antenna field, for which the company purchased a 120-acre ranch directly to the south of the station in 1928. The new parcel brought the station's land holdings up to 1,049 acres. The new circuits also required the construction of a new transmitter building the following year. The building was a reinforced concrete structure, designed with an Art Deco façade. The company's name, set in large letters near the top of the building, could be seen from Mesa Road. A circuit switch house, five-bay garage, and cooling system for the transmitters stood adjacent to the new transmitter building. Roads connected the new complex with the old Marconi powerhouse. One feature of the new road system was a formal entrance gate and a circular drive in front of the new transmitter building. Trees, plants, and lawns—planted for windbreaks and to beautify the grounds—were also features of the new complex.

Meanwhile, RCA also planned the development of a new short-wave receiving station on the Point Reyes Peninsula. Company officials determined that the James McClure Ranch, a 1,472-acre parcel overlooking the Pacific Ocean, would be the perfect receiving site. Tests revealed that the site had little background interference, making it an ideal location for receiving short-wave signals. Since short-wave signals were more effective for long distance, and since the new location had superior short-wave reception, it would replace the long-wave receiving station at Marshall. RCA took possession of the McClure property in 1929 and began construction of its new receiving station. [4] RCA continued to lease the ranch operational buildings and grazing pastures to various ranchers, including Joseph Lunny Sr. in 1947, father of the current lessee, Joseph Lunny Jr.

Like its counterpart in Bolinas, the new station was a two-story, reinforced concrete structure with an Art Deco façade of fluted columns adorned with brick details. The T-shaped building required a special foundation system because it was located in an area with a high water table and sandy soil. The company's name—RCA COMMUNICATIONS, INC—appeared in large letters across the front of the building. Two white spherical fixtures stood on pillars at either side of the entrance stairs. The company also constructed a four-bay garage, and utility and storage buildings in the same architectural style nearby, and erected an antenna field that stretched from all sides of the transmitter building. A long entry road with two columns of Monterey cypress trees were

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planted along the road that led from Sir Francis Drake Highway to the station complex. The entrance road passed through a formal gateway, ending in a landscaped circle.

The new RCA plants at Bolinas and Point Reyes went into operation in 1931. RCA continued to use the Marshall Station for its marine or ship-to-shore service, station KPH until America joined World War II in 1941. (RCA had moved KPH from Hillcrest [Daly City] to Marshall in 1920). As part of the new operations, the Bolinas station mothballed its massive Alexanderson alternators and commenced sending signals through new, water-cooled vacuum-tube transmitters located in the new building. Power-switching equipment, a machine shop, storeroom, and bathroom occupied the first floor of Building 2, while the transmitters and offices were housed on the second floor. Line feeds exited the building through insulators embedded in the wall to the antenna fields. These consisted of separate broadside curtain antennas aimed at the various destinations around the Pacific. Later, there were fishbone-type antennas, so named for their distinctive shape, appearing as huge vertically mounted fish, as well as rhombics, which comprised the majority of antennas at the site. The KPH transmitters remained in Building 1 (the old Marconi powerhouse) and served as part of the ship-to-shore service. Like the Bolinas station, the Point Reyes receiving station housed on its lower floor generating equipment, battery banks, a lunchroom, locker rooms, restroom, and boiler room/distillery for pure water. The point-to-point station, with its receivers, tuning apparatus, and office, filled the second floor.

Although the Great Depression slowed profits at RCA, the corporation survived and thrived, most likely because of the dedicated leadership of its chairman. David Sarnoff. At the Marin County stations, operations under RCA continued and improved with new technology. In the 1930s, for example, older antennas were replaced with newer types for increased efficiency. And teletype with printers replaced much of the time-consuming Morse code communications. By 1936, RCA communicated with forty-seven countries out of its Marin stations, from where operators could relay messages to just about anywhere on the earth.

In 1941, America's entrance into World War II altered the course of operations for RCA. David Sarnoff, a patriot long interested in military and domestic intelligence and other government affairs, immediately pledged his company's service to the nation in a telegram to President Franklin D. Roosevelt. Roosevelt took Sarnoff up on his offer. RCA went into fulltime production toward the war effort, producing equipment and components for walkie-talkies, radar, sonar, and navigation systems such as Loran and Shoran. The corporation also made available to the war effort its coastal stations and personnel. RCA provided the Army with coded Japanese messages it received at its coastal stations, which were decoded and distributed to high military command. Sarnoff himself advised the president on strategic communications issues. General Dwight Eisenhower called on Sarnoff to create the radio infrastructure for the decisive D-Day allied assault on Normandy in 1944; Sarnoff led the rebuilding of the French Communications systems after the occupation. To facilitate his wartime service, the Army conferred upon Sarnoff the rank of colonel. He later attained the rank of brigadier general, and thereafter insisted upon being referred to as "General Sarnoff."

The war also affected the operations of RCA's Point Reyes stations. Although the government did not take over the station as it had in World War I, it did have exclusive use of them. Apparently for security reasons, the government required RCA to shut down the Marshall station, through which news of the attack on Pearl Harbor was relayed, a day after the attack. The station never reopened. At its other facilities, RCA made adjustments for the war effort. Military officials were especially concerned about the security of the stations. RCA monitored Japanese transmissions and reported daily to the Federal Bureau of Investigation (FBI) on half-inch paper tapes with inked dots and dashes. Because it considered the Point Reyes Peninsula a crucial and vulnerable setting for possible enemy attack, the Army set up a command post in the Point Reyes facility and built a barracks and cooks' shack for the Coast Guard beach patrol. At Bolinas, RCA restarted the Alexanderson alternator in Building 1. With so much high radio frequency being emitted in the antenna field, soldiers' rifles got hot to the touch.

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At war's end, David Sarnoff and his RCA were national heroes and positioned well for the new postwar economy. Sarnoff's wartime efforts won him the Medal of Merit, awarded by President Harry S. Truman, and put his company on the receiving end of lucrative government contracts. RCA was one of the top fifteen government contractors during the 1950s, and an integral part of what would become known as the military-industrial complex. The company also continued to participate in national defense activities. As part of the intelligence operations during the Cold War, RCA intercepted messages out of Russia and Eastern Europe and provided their contents to the National Security Agency and the FBI. Moreover, the company benefited from the extensive technological advances developed as part of the war effort.

The company's Point Reyes stations went back into operation after the war. In 1945, RCA's Radiomarine division moved the KPH equipment from Marshall to the Point Reyes receiving plant; the station was back on the air January 1, 1946. A year later, the company sold the Marshall property. The ship-to-shore station occupied a small corner of the receiving station's lower floor, while the point-to-point operation used the rest of the facility. The sending operation for KPH was at the Bolinas station using transmitters in the old Marconi transmitter building (Building 1) operated remotely from the receiving plant.

During the 1950s, RCA began to restore and expand its global communications network. It built a new marine transmitting station after the war at South Chatham, Massachusetts, to replace the old Marconi-era station at Marion. (The Cape Cod style brick structure housed WCC until the late 1990s, when it was still being operated by remote control from the KPH operating room at Point Reyes.) On the East Coast, point-to-point stations were located at Riverhead (the receiving site) and Rocky Point (the transmitting site, also known as "radio central"), on Long Island in New York. These eastern stations handled communications with Europe, Africa, and South America.

Meanwhile, RCA modified its stations on the Marin coastline in response to its renewed operations and to expand communications with the Pacific Rim. Certainly, the company, in part, wanted to revise modifications it had made as part of the wartime effort. It shut down the Alexanderson alternator at Bolinas, which it had returned to action for the Navy. RCA also removed some of the 300-foot antenna masts, built during the Marconi era, that were part of this system (those that remained were used by RCA's Radiomarine operation in the 1960s).

But RCA needed to enlarge its facility at Bolinas, too, in order to handle the increased traffic across the Pacific. In 1959, the company added on to the transmitter building. The cinderblock and steel addition, with a low gable roof of corrugated transite, doubled the facility's size. RCA expanded its land base as well for transmitting purposes, purchasing 470 acres of ranch land directly northeast and northwest of the station in the late 1940s and early 1950s. (It was here that the company erected one of two antennas for sending signals to Tahiti in the early 1960s; the receiving antenna was located at Point Reyes.) By 1964, RCA's Marin stations had sixty-five point-to-point circuits. More than forty of these circuits served countries in East Asia, Southeast Asia, and the South Pacific, including China, Korea, Japan, Taiwan, the Philippines, Tahiti, Australia, and New Zealand.

The company's expansion in the 1960s, however, was the extent of its point-to-point operations. By 1970, advances in wireless engineering threatened RCA's historic point-to-point service. Satellite technology, developed mainly during the Cold War, became available for commercial use and the communications industry. RCA held patents on this technology and intended to become a leader in commercial satellite communications. It phased out the point-to-point system at Point Reyes in 1973 and removed all of the circuits by 1974. That year, it replaced the archaic receivers on the upper floor of the station with modern equipment for satellite communications, leaving behind the heavy copper doors and classic RCA logo imprinted on the linoleum floor. As part of this change, the company either removed the rhombic antennas or switched them over for use by KPH. Technicians installed three large satellite antennas (dishes) in the yard, as well as a modern standby power plant in a new cinderblock building. The dishes stood 33- to 44-feet high, presenting a new image of wireless communications in a landscape dominated by antenna masts. A new logo for a new age appeared on the building: RCA Americom.

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RCA's improvements brought mixed results. The satellite business went well during its first two years of operation, handling various communications, including live television feeds from around the world. However, competition soon began to outpace RCA. The company had the best technology available, but apparently mismanaged its new venture. The company's maritime radio business, on the other hand, continued to function well, adding SITOR technology and new receivers featuring digital tuning (which made finding and changing frequencies similar to operating a car radio) to its existing Morse code operation.

In the late 1970s, RCA began to downsize its operations in Marin County. The conversion to satellite communications—a decentralized system that incorporated satellites as relay stations and a large number of microwave repeating stations—meant that the company no longer needed its vast antenna fields for transmitting and receiving messages. Moreover, land use around the stations had changed in 1962 with the creation of Point Reyes National Seashore. RCA retained its Point Reyes receiving station property as an inholding within authorized park boundaries; the Bolinas station would be part of a later addition to the seashore. In 1977, with the end of the point-to-point system and the end of KPH marine service looming on the horizon, RCA sold most of its Point Reyes and all of its Bolinas properties to the Trust for Public Land, a conservation organization. One official at RCA observed that the sale reflected changes in communications technology and that transferring the land to the trust presented the "best opportunity of preserving a unique coastal area." [5]

RCA Glöbcom, RCA's subsidiary in charge of the remaining Marin facilities, retained 23 acres surrounding the Point Reyes receiving station buildings and driveway. The Trust sold the remaining land, around 1,191 acres, to the federal government in 1978. The land was now part of Point Reyes National Seashore and managed by the National Park Service. RCA leased 100 acres of KPH antenna lands from the Park Service. RCA believed that the term of the lease would be short. Company officials anticipated that they would phase out the marine service within ten years. Around this same time, Congress was going to expand the national seashore, including RCA's facility at Bolinas. The Trust purchased the property, 1,049 acres, in 1977, and as in its other transaction, resold the property to the Park Service the following year.

At Bolinas, however, a slightly different situation presented itself. Commonweal, a nonprofit health- and environmental-research organization founded in 1976, approached RCA about buying or leasing the transmitting station for its headquarters. Although Commonweal's negotiations fell through when RCA sold its holdings to the trust, the trust afterward gave Commonweal a fifty-year lease on most of the buildings and much of the property. The Park Service inherited and honored the Commonweal lease, with some amendments, when it purchased the property.

The fortunes of RCA slid downhill in the 1970s, transforming one of the nation's most successful and well-managed corporations into one of the worst. In 1985, company leaders announced the sale of RCA to General Electric, its old nemesis and "mother company." The purchase price, more than six billion dollars, made it the largest non-oil company merger in industry history. The sale became official in 1986. The new owners seemed interested in making changes in name only, renaming the facility GE Americom while retaining RCA Glöbcom. Two years later, GE sold RCA Glöbcom to MCI International, Inc., which operated the station under its subsidiary, Western Union International.

Although MCI invested approximately two million dollars in the operations at KPH, as well as in its ship-to-shore systems, the investment was not enough to return the business to its former stature. In a cost cutting move, MCI turned over operation of WCC at Chatham to Point Reyes by remote control in 1992. An operator handled Atlantic traffic in the KPH operating room, making the place a true "around-the-world-station." But business continued to shrink, especially as cellular phones replaced marine radio for ships close to shore. MCI cut back its operations further, turning off the old transmitter in Building 1 (known as BL-10), disconnecting the power to the building, and relinquishing its ownership to the National Park Service.

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MCI continued to operate KPH and WCC until 1997, but put KPH up for sale in 1995. Two years later, after attempting a merger with British Telecom, MCI announced the station's closure. On June 30, 1997, KPH sent out its last message and turned off its transmitters and receivers at Bolinas and Point Reyes. The station continued to operate using Morse code and SITOR for two more years under the ownership of Globe Wireless.

The National Park Service purchased the remaining 23 acres of the Point Reyes Receiving Station building core for inclusion in Point Reyes National Seashore on October, 29, 1999. That same year, the non-profit Maritime Radio Historical Society (MRHS) was formed with the “goals of documenting, preserving and restoring the artifacts of maritime radio history” the foundation for the preservation of the skills, traditions and culture of the professional radiotelegraphers who operated the stations during the period of significance. Their largest project to-date has been the restoration of the Bolinas and Point Reyes stations. Through an agreement with the NPS, they run the only commercial Morse code coast station still operating in the hemisphere, under call KSM. Under an agreement with Globe Wireless MRHS re-activates KPH from the original Point Reyes and Bolinas stations on its original frequencies once a year on July 12 for their annual "Night of Nights" event to “acknowledge and honor the history of Morse communications and the men and women who were part of that profession”. The MRHS volunteers and park staff continue to restore and preserve both the operational equipment and the antenna fields, while MRHS continues to receive and transmit messages through two of the last remaining in-tact coast stations in the United States. [6]

Today, William Niman currently holds a Special Use Permit for grazing on 575 acres of the antenna field. Commonweal continues to lease the Transmitting Station buildings and sixty surrounding acres for their organization headquarters, research facility, and retreat center. They mow some portions of the property that are not grazed by the Niman cattle. The southwest addition of the RCA Transmitting Building is used by the museum staff for temporary storage while the MRHS volunteers operate and help maintain the radio equipment. Park staff and MRHS volunteers maintain the antenna poles and wires in the antenna field.

The Marconi/RCA Bolinas Transmitting Station maintains its feeling and association of a coastal wireless communication station through the relationship of its intact buildings and antenna fields with its rural setting.. The relationship of the open pasture and antenna fields with the developed building core continues to reflect the long-term manipulation of the natural environment for industrial purposes.

Endnotes

[1] Much of the following narrative was originally written by D. S. (Dewey) Livingston and incorporated into the 2008 consensus determination of eligibility form. For a more detailed history of wireless transmissions at Point Reyes, see Livingston's unpublished, "Wireless Giant of the Pacific: A History of the Marconi and RCA Radio Stations on the Point Reyes Peninsula," available at the Point Reyes National Seashore Archive.

[2] A 1911 international agreement added a K to shore station call letters on the West Coast and a W to stations on the East Coast.

[3] "Trans-Pacific Wireless Station," *Wireless World* (January 1915): 664.

[4] RCA originally offered to buy 500 acres of ranch, but the McClures rejected the offer. The company responded by suing to condemn the property. The McClures lost the suit, and the entire ranch was condemned and sold to RCA.

[5] RCA Relay 37, no. 1 (January–February 1977): 10–11.

[6] Maritime Radio Historical Society website: <http://www.radiomarine.org>

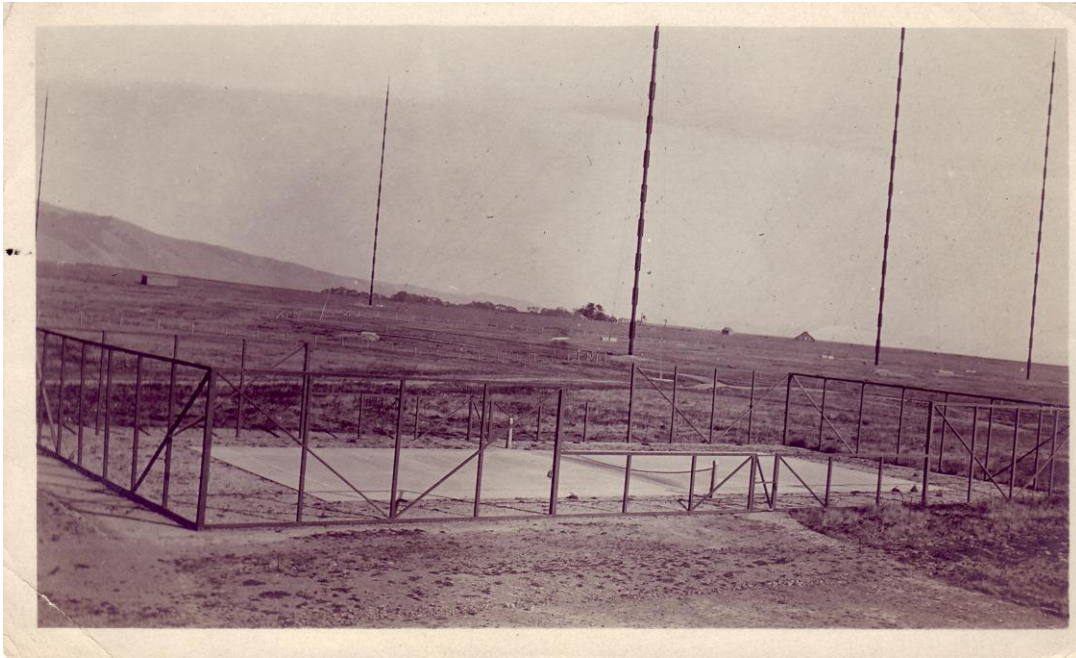


1920s photo of the Marconi Transmitting Building, looking west. (Courtesy of PORE).



Early 1900s postcard showing the Marconi Hotel, looking north. (Courtesy of Dan Brown).

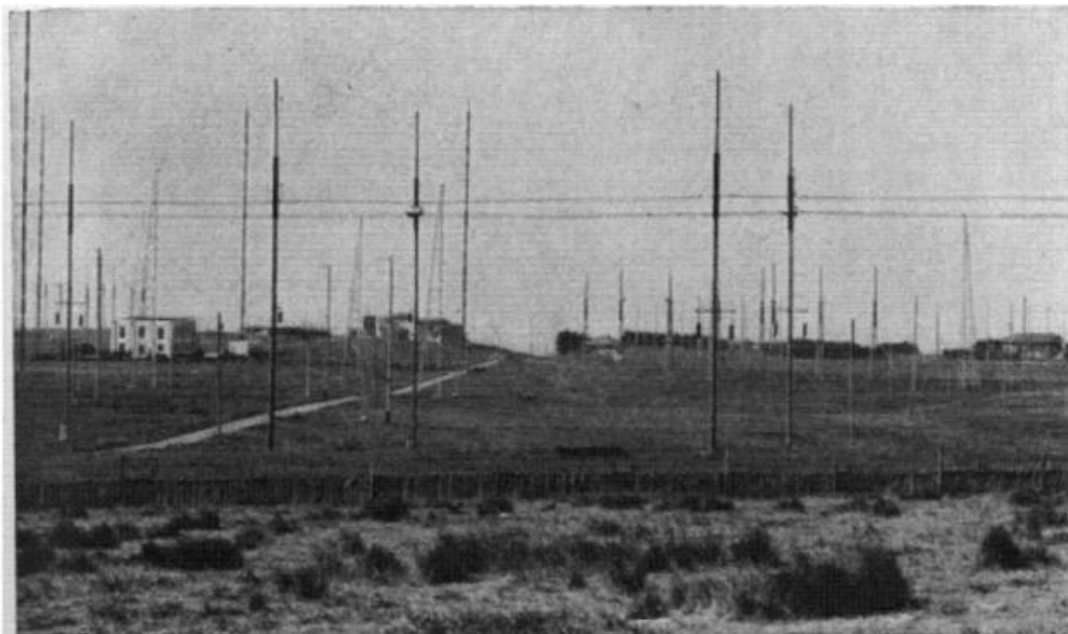
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Early 1900s postcard showing the tennis court and antenna fields, looking east. (Courtesy of Dan Brown).



1930s photo of the new RCA Transmitting Building, Switching Building (right), circular drive, and new vegetation. The Marconi Transmitting Building is in the background. Looking west. (Courtesy of PORE).



1930s view of the antenna fields and entry road. The buildings from left to right: RCA Transmitting Building, Marconi Transmitting Building, Marconi Cottage 1 and Marconi Hotel. (Courtesy of PORE).

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

The Marconi/RCA Bolinas Transmitting Station is a 422-acre historic site located in the southwestern portion of the Point Reyes Peninsula surrounded by dairy ranches. The Transmission Station together with the RCA Point Reyes Receiving Station make up the “Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District” that has been determined eligible for the National Register of Historic Places, and received concurrence by the California State Historic Preservation Office in 2008. The district is significant under Criterion A for its association with the development of 20th century wireless communications systems and Criterion C for the distinctive architectural styles of the Mission Revival Marconi-era buildings and Art Deco RCA-era buildings. The period of significance of the historic district spans from 1913 to 1973, during which the Marconi Company and its successor, Radio Corporation of America (RCA), developed and expanded the stations, until advances in satellite-based communications gradually surpassed radio in terms of coverage and reliability and ended the ship-to-shore communication services, which altered how the landscape, specifically the antenna fields, were used.

This inventory is specific to the documentation of the transmitting station, which has undergone little change since 1973 and continues to reflect its historic significance through features associated with the following and landscape characteristics: natural systems and features, spatial organization, land use, buildings and structures, circulation, small scale features, vegetation and archeological sites.

The organization and location of the site reflects the primary historic use as a wireless communications transmitting station. Natural features that influenced the development of the Point Reyes Transmitting Station include topography, climate, hydrology, and vegetation. In addition to the site’s proximity to the Pacific Ocean, the gentle slope of the natural topography and the low-growing, native vegetation made this site an ideal location for the antenna fields. The maritime climate, which is characterized by strong winds, led to the planting of trees to protect buildings and roads during the period of significance.

Important aspects of spatial organization are reflected in the location of the station that effectively utilized the natural topography and proximity to the ocean, the spatial relationship of working buildings to the surrounding antenna fields, the separate residential/hotel area, and the arrangement of the buildings, roads, and vegetation to meet utilitarian needs.

Nine buildings, five structures, and one site contribute to the transmitting station and three non-contributing buildings and structures were constructed after the period of significance. The contributing buildings were built by both the Marconi and RCA companies between 1913 and 1959, while structures associated with the antenna arrays and the road system continued to be heavily used and modified by the companies until 1973. The Marconi buildings share architectural detailing reminiscent of the Mission Revival style of architecture. The RCA industrial buildings have the same Art Deco styling as the contemporaneous buildings at the RCA Point Reyes Receiving Station.

The buildings have been adapted for new uses, such as volunteer space, office space and storage for park operations and Commonweal, however, the southwest portion of the RCA Transmitter Building still houses the functional transmitting equipment that is maintained by the non-profit Maritime Radio Historical Society. Historically, the antenna fields were grazed by the cows of local dairy ranchers which helped to maintain the vegetation in the fields, a use which continues today on the lands outside of the lands leased by Commonweal.

The circulation network at the Marconi/RCA Bolinas Transmitting Station consists of roads, driveways, walkways, and parking areas. The layout of the circulation routes within the building core is based primarily on

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utilitarian needs of getting from one point to another, loosely following a northeast/southwest grid, with most turns at ninety-degrees. Informal dirt roads within the Antenna Field provide access to the poles and frames for maintenance and follow the natural terrain of the land.

The most prominent historic non-native vegetation within the transmitting station includes the low-growing pasture grasses within the antenna fields and the ornamental vegetation planted within the building core. Since the period of significance, the vegetation within the surrounding antenna fields (outside the 60-acre property leased by Commonweal) has continued to retain their historic character of low-growing grasses through active grazing and reflect the station's historic setting. However, the fields within the 60-acre lease have been altered, in part, due to lack of grazing livestock. Ornamental trees have spread into the fields creating a much more enclosed, forested feel around the buildings and along the roads. Coastal scrub species have established in the areas beyond the building core and trees, changing the character of these portions of the historic antenna fields from low-growing grasses to woody shrubs. The majority of historic ornamental vegetation within the building core that was planted for aesthetic purposes and wind protection has been altered, added, and replaced since the period of significance. However some historic ornamental vegetation still remain within the building core.

Some archeological surveys have been completed along the bluffs, but additional potential historic archeological features are located throughout the transmitting station property. Many of these features are artifacts or ruins from the historical occupation and use of the site by Marconi and RCA from 1913 to the early 1970s, and may include buried concrete antenna bases, anchors, weights, and grounding wires; discarded insulators, stakes and electrical debris; and downed H-frames and antenna poles.

Together, the features and patterns associated with these landscape characteristics help to convey the historic character of the transmitting station.

Integrity Discussion

The Marconi/RCA Bolinas Transmitting Station retains all seven aspects of integrity, including location, design, materials, workmanship, setting, feeling, and association. The historic buildings, structures, and circulation routes are in their original location. The setting is defined by the topography and vegetation of the Point Reyes Peninsula, which in the grazed antenna fields are wide, open landscape that gently slopes westward toward the bluffs above the Pacific Ocean. However, the vegetation within the 60-acre portion leased by Commonweal has changed, with the spreading of trees among the buildings and along the top of the bluffs, as well as an increase of coastal scrub species in the antenna fields, both of which have impacted the historic setting. Historic design, materials, and workmanship are still evident in the historic buildings, structures, circulation features, and antenna fields. The architecture of the buildings has been largely unaltered. The organization of the buildings to meet utilitarian and residential needs is retained. A looped drive in front of the RCA Transmitter Building continues to provide a formal entrance to the RCA building cluster. The surrounding historic antenna fields still include functional antennas as well as the wooden H-frames that support power lines to them. In addition, numerous concrete antenna bases and guy wire supports are still in the antenna field and help to convey the historic antenna arrays and reflect changing communication technologies throughout the site's history. Together, these remaining built features and landscape patterns continue to convey the historic feeling and association of a 20th century wireless communications station.

Natural Systems and Features

Natural systems and features are defined as natural aspects that have influenced the development and physical form of the landscape. Natural systems that have significantly influenced the development of the Marconi/RCA Transmitting Station include topography, geology, climate, vegetation, and hydrology. In addition to the site's proximity to the Pacific Ocean, the gentle slope of the landscape above the coastal bluffs and the low-growing, native vegetation made this site an ideal location for the antenna fields. Along the coastline, the bluffs, which consist of sandy loam soils, are constantly eroding which may eventually affect the buildings and archeological sites along the bluffs. Other important influences on the development of the site include: a) the maritime climate, which is characterized by strong winds and led to the planting of trees to protect buildings and roads during the period of significance as well as early summer fog that extended the grazing season for the dairy ranching operation, and b) a small stream that runs between the main transmitting station cluster and the residential area, which required construction of a footbridge to cross. The natural systems (topography, climate, native vegetation, and hydrology) continue to convey the historic character of the site as a whole.

Topography & Geology

The Marconi/RCA Transmitting Station is located in one of the flatter portions of the Point Reyes Peninsula at the southern end. The development is situated at approximately 175' above sea level and the landscape slopes slightly south and southwest toward the steep coastal bluffs above the Pacific Ocean. The gentle slope of the terrain made installation of the numerous antennas feasible and provided unobstructed transmission of radio signals.

The coastal bluffs are steep slopes that drop 120' to the Pacific Ocean below. The soils in this area are classified as Cronkite-Dipsea-Centissima and being derived from sandstone and shale are highly susceptible to erosion (Evens 1993, 38). These slopes are unstable and are receding through slump blocks, mud flows, and landslides (MATEC 2004, 4). Geologic activity along the San Andreas Fault also adds to the general instability of the slopes. Historic maps show that the bluffs closest to the southwest corner of the Marconi Transmitter Building receded 225' between 1913 and 1946, within 100' of the southwest corner of the building (Radio Corp of America map, 1913-1946). They have continued to erode since and by 2007, the southwest corner was 70' from the edge of the bluff (Google Earth aerial photography). Also of concern are the historic-era dumpsites located on the eroding bluff that contain hazardous materials.

Climate

The Point Reyes Peninsula is part of a marine system, which typically results in short wet winters and long dry summers. Because the peninsula physically juts out into the Pacific Ocean, it typically receives more fog than most other areas along the coast. These summer fogs provide a constant source of moisture along the coastline keeping grasses greener than areas further inland, providing an ideal climate for grazing livestock. Following heavy winter rains, strong spring winds develop that can persist until April or May. The winds coming in off the ocean create a harsh environment that has historically led to the establishment of windbreaks to protect building and roads. Non-native trees, predominantly Monterey cypress (*Cupressus macrocarpa*) and Monterey pine (*Pinus radiata*), were planted in linear windbreaks and in groupings around most of the buildings and along several roads during the period of significance.

Native Vegetation

The primary plant communities found at the transmitting station property are the coastal grassland, coastal scrub and coastal dunes. Forests are predominantly Monterey pine and Monterey cypress. These

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three communities are a mixture of native and non-native species that are the result of human activity on the land, especially the coastal grassland where historic dairy operations introduced grasses to support grazing. The coastal grassland and coastal scrub plant communities are found primarily in the antenna fields and consists of low-growing plants, which along with the gentle, sloping topography, creates the open character of the fields. Historically, the coastal grassland dominated the fields and supported historic grazing activities by local ranches among the antenna bases, which helped to maintain the open character of the landscape. However, coastal scrub is the climax community in many areas of the Point Reyes Peninsula and the vegetation will shift in the absence of burning or grazing. Presently, in areas where grazing has been eliminated at the transmitting station, the coastal grassland has begun to transition to coastal scrub with an increase in coyote brush and poison oak making the fields difficult to navigate and obscuring the concrete antenna foundations.

The plant communities within the transmitting station property are summarized below from the Point Reyes National Seashore website:

The coastal grassland (or coastal prairie) is dominated by long lived perennial bunchgrasses, such as purple needle grass (*Nasella pulchra*), California fescue (*Festuca californica*) and California oatgrass (*Danthonia californica*), all of which can stay green year round with the moisture provided in the fog belt. Ranching activities that began in the area by 1850 introduced non-native grasses, many of which are invasive. The more common, non-invasive introduced species include Italian ryegrass (*Lolium multiflorum*) and clover (*Trifolium sp.*). Invasive non-native grasses include velvet grass (*Holcus lanatus*), harding grass (*Phalaris aquatica*), and tall fescue (*Festuca arundinacea*).

Coastal scrub is one of the most widespread plant community types within the park and is found near the coastal bluffs. Predominant species in this community is coyote brush (*Baccharis pilularis*). Other common plants are California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), coffeeberry (*Rhamnus californica*), thimbleberry (*Rubus parviflorus*), yellow bush lupine (*Lupinus arboreus*), mimulus (*Mimulus aurantiacus*), salal (*Gaultheria shallon*) and blue blossom (*Ceanothus thrysiflorus*). Non-native and native grasses include sedges (*Carex spp.*) and rushes (*Juncus spp.*). Some coastal sage species are also present including California sagebrush (*Artemisia californica*) and buckwheat (*Eriogonum fasciculatum*).

Forested areas at the transmitting station are predominantly non-native Monterey cypress and Monterey pine that were planted historically and have since expanded their historic range. They are primarily located near the coastal bluffs, extending from the creek north of the Marconi Transmitter Building to just northeast of the Marconi Hotel.

Rare native species in the area include Marin checker lily (*Fritillaria affinis tristulis*) and hayfield tarplant (*Hemizonia congesta leucocephala*).

Invasive species found around the site include cape ivy (*Delairea odorata*), jubata grass, and eucalyptus (*Eucalyptus sp.*).

Hydrology

Four seasonal streams and one man made dam/stockpond are within the CLI boundary. One of the streams runs between the Marconi Transmitter Building and Cottage 1. A historic foot bridge was constructed to span the stream and connect the two areas.

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Endangered Wildlife

Over fifty species of animals at Point Reyes are listed by the state or federal government as threatened, rare, or endangered some of which may be found within the cultural landscape. See list of endangered species in the Supplemental Information section. One endangered amphibian that may be found in the area is the California red-legged frog (*Rana draytoni*) found near sheltered ponds and other water sources, such as streams. They travel over land between water sources.

Landscape Characteristic Graphics:



Bluffs above the Pacific Ocean looking northwest toward the RCA/Marconi Transmitting Station antenna fields. (PWRO 2010)



Photo showing the difference in vegetation within the antenna fields north of the entrance road. The field in the right side of photo is actively grazed and is characterized by pasture grasses, while the field in the left side of the photos is not grazed and is dominated by coastal scrub vegetation. (PWRO 2010)

Spatial Organization

Spatial organization is defined as the three-dimensional organization of physical forms and visual associations in the landscape. Historically established in 1913, the Marconi/RCA Bolinas Transmitting Station was located on the southwestern point of the Point Reyes peninsula. Organization of the site reflects the needs of a transmitting station to efficiently transmit signals unimpeded across the Pacific Ocean and to provide lodging in an area that was rather remote at the time. Important aspects of spatial organization are reflected in the location of the station that effectively utilized the natural topography and proximity to the ocean, the spatial relationship of working buildings to the surrounding antenna field, the separate residential/hotel area, the formal arrangement of the buildings, roads, and vegetation to meet utilitarian needs, and the landscape features associated with the Antenna Field (counted as a contributing site). The spatial organization of the site has not changed significantly since the period of significance and continues to convey its historic character.

The transmitting station is a 422-acre property located in an open plain along the southwest coast of the peninsula along Mesa Road. The majority of the property is dedicated to the antenna field with two small cores of buildings (one industrial core and one residential core). The industrial building core consists of two clusters of utilitarian buildings to the south and east where the station's offices, garages, repair shop, and transmitter equipment are located and a residential building cluster to the north and west where a hotel and two cottages are located. The three building clusters are organized for efficiency of pedestrian access to the buildings within each cluster, but are connected directly by a vehicular transportation system that is not bound by any physical constraints other than vegetation.

The transmitting station property is accessed from an entrance road that extends southwest from Mesa Road. The first building cluster, the RCA-era buildings, is located one-third mile down the entrance road on the southeast side. One-tenth of a mile past the RCA buildings, the road turns ninety-degrees northwest for another tenth of a mile before ending at the Marconi-era residential building cluster. A second road extends southwest of the RCA buildings to the Marconi-era Transmitting cluster near the ocean bluff.

Marconi Utility and Residential Areas

The first construction on the site was overseen by the Marconi Company in 1913, consisting of two building clusters located along the bluff overlooking the Pacific Ocean. The Marconi Transmitter Building is the last remaining utility building from this era, which historically was flanked by ancillary structures necessary for the operation of the machinery on site, such as storage buildings, cooling towers and tuning coil sheds. Only foundations of these structures can be found today. A dirt two-track road leads southeast along the bluff from the Transmitter building toward the ranch pastures. A group of Marconi-era residential buildings were constructed north of the Marconi Transmitter Building, and is accessed by a road that branches northwest off the main entrance road. Cottage 1 is closest to the Transmitter Building, located due north on the other side of a small drainage, nestled in a forest that serves as a windbreak. Further north, is the Marconi Hotel and Cottage 2. The hotel sits close to the ocean bluff, but lacks views of the ocean due to dense, mature forest that serves as a windbreak. Cottage 2 is located northeast of the hotel and closer to the antenna fields and pastureland, but is shielded by a screen of vegetation. This vegetation has grown and expanded significantly since the end of the period of significance, creating a much more enclosed and forested landscape within the residential area. A narrow dirt footpath connects the Marconi Transmitter Building, Cottage 1 and Marconi Hotel through the forest along the bluff.

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RCA Utility Area

The second phase of development occurred when RCA took control of the site in the 1920s. The spatial organization of the site was modified with the addition of a third building cluster, set back away from the ocean. Four buildings make up the RCA cluster, including the RCA Transmitter Building, RCA Switching Building, RCA Garage, and RCA Generator Building. Monterey cypress and Monterey pines surround the cluster screening most of the buildings from the entrance road. The RCA Transmitter Building is surrounded by a road on all four sides with a loop drive at the main entrance on the northeast side. The Generator and Switching Buildings are located on the northwest side and the Garage to the southwest of the RCA Transmitter Building.

Antenna Field (Contributing Site)

The antenna field surrounds the three building clusters. It is connected to the RCA Transmitter Building through H-Frames that support lines for radio signals between the buildings and the antennas. A series of historic wooden H-Frames stretch long distances from the RCA Transmitter Building connecting to antennas located throughout the property. Historically, the antennas radiated from the building core and included various arrays of antenna poles that changed over time to accommodate new technologies representing the Marconi, RCA, and MCI ownership periods. Today, these arrays are evident in the existing poles, remnant antenna foundation blocks, downed poles, wires, and other industrial artifacts throughout the fields.

The Antenna Field contains Marconi-era antenna tower bases that are listed on the LCS as “Antenna Tower Bases (LCS 46480).” The original Marconi transmitting antenna were suspended from nine 300 foot tall hollow steel towers, or masts, assembled in sections and erected on low, square, concrete bases. The masts were installed in 1913. The bottom of each mast was set into the concrete foundation, and still remains there after the towers were cut off with a torch and removed. The towers were 30” in diameter at their base. Each tower was guyed to four massive concrete anchors, each approximately 8’ x 8’, with a total of 12,500’ of steel cable. (The depth of the anchors and tower bases is undetermined.) A total of nine towers were installed. The antenna consisted of wires strung in specific patterns between the masts, which were likely modified in 1920 for the Alexanderson antenna. They antennas and masts were removed shortly after World War II. The bases and anchors remain, as well as octagonal tuning coil bases near each tower’s foundation blocks.

The antenna field changed constantly throughout the period of significance, with antennas continuously being relocated, removed, added or altered according to technological advances and desired signal locations around the world. These changes continued well after the period of significance, as made evident by the 1980s large metal aeronautical radio antenna tower that occupies the field northeast of the industrial building core that is still in use today. According to Dewey Livingston’s draft document entitled “*Wireless Giant of the Pacific*”, all of the standing antennas at the site date from the 1990s, which were the last years of KPH operations. Changes since the end of the period of significance have not overshadowed the historic antenna formations that are still evident in the wooden poles, support structures and antenna remnants. They help to convey the types of configurations that were historically used to receive wireless signals from specific locations around the Pacific Ocean.

An electrical substation is located on Mesa Road a short distance north of the Marconi/RCA Bolinas Transmitting Station entrance road. The remains of the electrical substation includes an approximately 80- by 120-foot area surrounded by a six-foot high cyclone fence. While the substation has been mostly dismantled, a number of structures remain. These features include several concrete piers, a concrete transformer pad, underground conduits with open tops and a large metal rack of sturdy pipe construction amongst other features. Since the site was abandoned, vegetation has encroached, obscuring a portion of the substation grounds (Livingston, 1998 83).

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The antenna field with its associated historic features is counted as a contributing site and includes the Marconi-era antenna tower bases that are already individually listed on the LCS,

Contributing Feature:

Antenna Field (Site)

Feature Identification Number: 152607

Type of Feature Contribution: Contributing

IDLCS Number:

LCS Structure Name: Marconi Transmitting Station Antenna Tower Bases

LCS Structure Number: BO2045

Marconi Antenna Tower Bases

Feature Identification Number: 152921

Type of Feature Contribution: Contributing

IDLCS Number: 56480

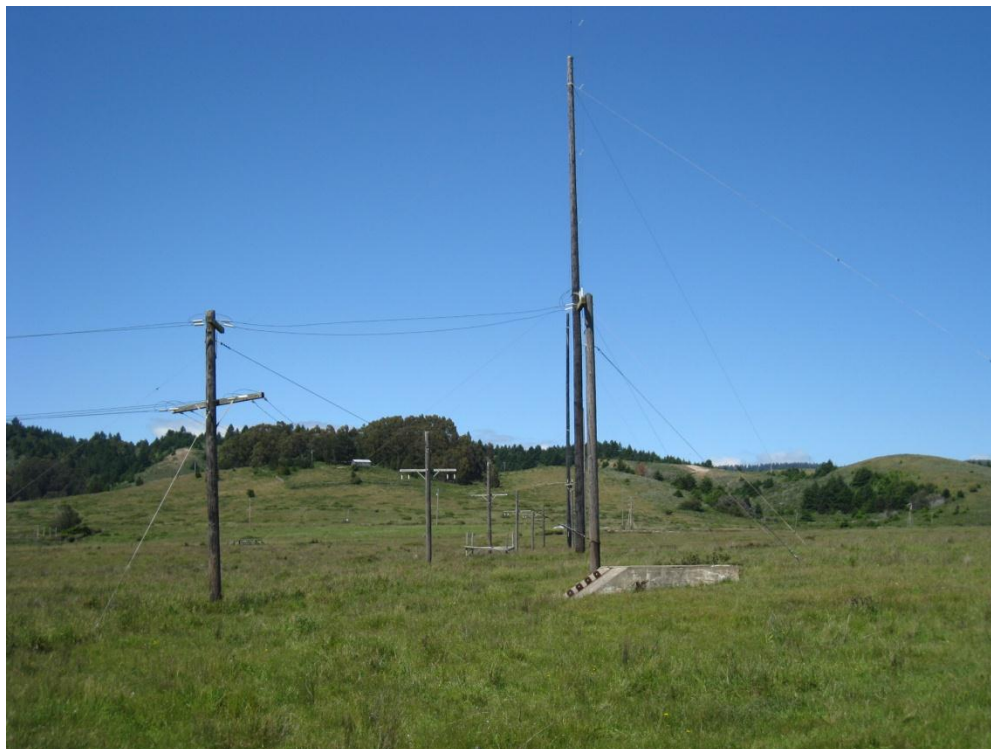
LCS Structure Name: Marconi Transmitting Station Antenna Tower Bases

LCS Structure Number: BO2045

Landscape Characteristic Graphics:



View of the Marconi/RCA Bolinas Transmitting Station building core from the entrance road, looking southwest. (PWRO 2010)



Antenna, concrete antenna base, and T-poles in the antenna field. (PWRO 2010)



H-frames located within the antenna field. (PWRO 2010)



H-frames located within the antenna field. (PWRO 2010)



H-frames, T-poles, and various other poles and concrete bases located within the antenna field. (PWRO 2010)



Concrete antenna tuning coil bases located within the antenna field. (PWRO 2010)

Land Use

Land use is defined as the principal activities in the landscape that have formed, shaped, or organized the landscape as a result of human activity. The historic landscape has been shaped by radio transmitting activities by the Marconi and RCA companies. The antenna fields were also used for grazing dairy cattle. Today, most of the land is still used for grazing, and the buildings have been adapted to new uses, such as office space and storage for Commonweal. A portion of the RCA Transmitter Building still houses the functional transmitting equipment that is maintained by the Maritime Radio Historical Society. The antenna fields still support functional antennas and their associated features. Although the site is no longer a commercial communications station, it still possesses the ability to function as such and the landscape continues to reflect its historic function through the remaining buildings and structures.

Changes in technology affected the configuration of the antennas in the field and the equipment inside the buildings, but the primary function of the site remained consistent throughout the period of significance. Starting in 1913, the Marconi Company developed the site, one station of a series of stations that were used to transmit point-to-point messages sent in Morse code around the world. In addition to utilitarian operations, the Marconi also established a hotel and two cottages on site to house employees and visitors. In 1929, RCA expanded the facilities at the station, including the RCA Transmitter Building and Switching Building. After World War II, ship-to-shore service was added and the RCA Transmitter Building was expanded in 1959 to accommodate newer ship-to-shore equipment. For a short time during World War II, the RCA Receiving Station property was also used for temporary military activity when the federal government held exclusive use of the station. By 1970s, communication technologies began to shift and in 1973, the ship-to-shore service was replaced by satellite technology. The point-to-point service continued until 1997 when the station's doors closed with its equipment still in operation. In 1999, the Maritime Radio Historical Society was formed and has worked since to maintain and repair the transmitting equipment and some of the antennas. Through their efforts, the transmitting station still retains its ability to receive messages. Today it is used for demonstrations by the historical society every weekend and for the annual "Night of Nights" event that commemorates the last official commercial Morse code message sent on July 12, 1999.

The Marconi Company purchased portions of a dairy ranch in 1913 from Albert Ingermann in order to develop their transmitting station. The grazing lands were developed with the operational and residential buildings, while the remaining open pastures were converted to antenna fields. The antenna fields continued to be used as grazing land for cattle by adjacent ranchers. The two land uses were compatible with one another as grazing was an effective way to keep the vegetation low around the antenna bases. Grazing was historically and currently excluded from industrial and residential cores by fencing that surrounds the buildings and main entrance road. The main difference in the present day is the cattle are excluded from a larger area. These fenced portions of the antenna field pastures immediately surrounding the building core are no longer grazed or mowed, which has resulted in a return of coastal scrub. Outside of this fenced area, the antenna fields are grazed, keeping most of the vegetation low to the ground, much like it would have been during the period of significance. William Niman holds a Special Use Permit for cattle grazing in the antenna field pasturelands that are not leased by Commonweal.

The historic use of the site is evident through the buildings and structures configuration, the style of the buildings, and the configurations of the antenna arrays. Although there are not nearly as many antennas on site today as compared to the period of significance, the existing antennas and numerous antenna foundations, H-frames, and T-poles continue to convey the configurations of the antenna fields during the period of significance.

Since the period of significance, some changes in land use have included the conversion of RCA communication technologies to satellite, followed later by the addition of Commonweal's non-industrial use of the site. Today, 60 acres, including a majority of the buildings are leased from the NPS to

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Commonweal. The organization uses the original 1929 northeastern side of the RCA Transmitter Building as their office headquarters, the RCA Switching Building for recreational programs, and the hotel and cottages as a retreat center. Currently, the southwestern 1959 addition of the RCA Transmitter Building and RCA Generator Building are utilized as offices and work space for the NPS and the Maritime Historical Society. These changes in use have not affected the form of the buildings. The Marconi Transmitter Building is currently unoccupied, but maintained by the NPS. Although not used as a commercial wireless transmitting today, some of the antennas have been repaired and are currently utilized, along with the RCA Transmitter Building equipment, for demonstrations by the historical society. Commonweal has added or altered some smaller buildings to the site since their occupation in 1980 such as the meditation shed, pump house and sauna. Even though some of these structures may have been present during the period of significance in other locations, the structures and their uses are non-contributing because they were added or modified after the period of significance.

Although the Marconi/RCA Transmitting Station has been inactive for several decades, the historic land uses continue to be reflected in the buildings, structures, and antenna fields, which help to convey the historical significance of the site to wireless communication operations on the west coast.

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. The contributing buildings and structures were built by both the Marconi and RCA companies between 1913 and 1973. The Marconi buildings share architectural detailing reminiscent of the Mission Revival style of architecture, including red tile roofing and arched entries with decorative brackets. The RCA buildings are built of cast-in-place reinforced concrete and have the same Art Deco styling as the contemporaneous buildings at the RCA Point Reyes Receiving Station, namely symmetrical facades with vertical bays defined by fluted or smooth pilasters, and glazed bricks arranged in a diamond pattern atop the pilasters in the roof parapets. The historic antenna bases are part of the Antenna Field which is a contributing site. See Spatial Organization for a description of these contributing resources.

Marconi Transmitter Building (Building 1) (LCS 56475, FMSS Location 43115) (Contributing)

The Marconi Transmitter Building (also referred to as Building 1) is located near the edge of a bluff overlooking the Pacific Ocean. Built between 1913 and 1914, the two-story cast concrete Transmitter Building measures approximately 85 feet by 100 feet. It is divided into two sections, resulting in a split-level roof, with the higher southeastern section rising above the lower northwestern section. Each roof level has a long hipped-roof clearstory covered with red tile, with windows that open for ventilation. On the northeast and southwest sides of the building, decorative concrete parapets with Mission Revival style detailing rise above the top of the walls. Large window openings with concrete sills are located in all walls of the building. Each opening originally contained 40 fixed lights in wooden sashes. Four loading dock openings on the northwest side of the building have been filled in with cinderblocks, the date of this change is unknown; most of the door and window openings on both floors have been covered with plywood. The building exhibits some deterioration in its historic fabric; specific problems include spalling concrete (especially around the door and window openings), and broken windows. The building was painted pale yellow in the mid-1990s, but in 2010 the paint was failing badly. Although the building is in poor condition, it possesses integrity of materials, workmanship, and design and is counted as a contributing resource.

Marconi Hotel (LCS 56476, FMSS Location 90313) (Contributing)

The Marconi Company built this hotel between 1913 and 1914 to house technicians and visitors to the station, which at the time remained isolated from the larger San Francisco Bay area communities. The two-story cast concrete hotel has an ell-shaped plan created by a gable roof wing that extends from the rear of the main hipped-roof section that has a deep eave and thin fascia. The exterior is covered with smooth stucco, painted in a terra-cotta color, which may not be the original color. There is a full-length one-story open porch on the front (southeast) wall, with five bays defined by broad concrete columns. Low concrete walls fill the bays between the columns, except for the center bay which contains the opening for stairs, providing access to the main entrance from the porch. A wooden trellis has been attached to the wall above this entrance to support climbing vines. Each wall segment between the columns contains three recessed panels, with a wide panel in the center flanked on either side by a narrow panel. Five evenly spaced window openings with concrete sills, each with a one-over-one-light double-hung aluminum sash, are located in the second story above the porch. The sides and rear walls also contain single window openings, symmetrically placed along the first and second stories. On the northeast side a brick chimney extends the full two stories and projects above the roof. The entrance to the basement is located adjacent to the chimney. Another entrance is located on the rear (northwest) wall of

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the wing, centered within the wall and accessed by concrete steps with a low concrete wall on each side. Modifications to the hotel include the installation of aluminum sash in the original window openings, the construction of a fire escape on the southwest side of the building, and the addition of a shed-roof dormer in the northeast side of the roof of the rear wing. Despite these modifications, the architectural design of the building has not been substantially altered, and it possesses sufficient integrity to be counted as a contributing building within the historic district.

Marconi Cottage 1 (LCS 56477, FMSS Location 90314) (Contributing)

Marconi Cottage 1 is located approximately 200' north of the Transmitter Building, across a gully. It is accessed from a spur road that extends southwest from the main paved access road. Cottage 1 is a one-story, rectangular building with a hipped roof with deep eave and a thin fascia. The exterior of the cast concrete structure has a smooth, stucco finish painted white and the roof is covered with red tile; the top of a red brick chimney, with a metal spark arrester, extends above the roofline at the rear of the building. The window openings (which occur singly and in pairs) have concrete sills containing one-over-one light double-hung windows with wooden sash. The front of the cottage faces southwest toward the ocean. It has a recessed, open porch that extends the length of the building. Square concrete columns support the roof, and divide the sides of the porch into two bays on the entrance side and one bay on the opposite side, and the front into five bays. Low concrete walls fill the bays between the columns, the exception being the northwestern-most bay on the front of the building that accommodates the entrance to the porch. Each wall segment between the columns contains three recessed panels, with a wide panel in the center flanked on either side by a narrow panel. On the rear (northeast) of the building, a recessed entrance is offset left (south) of center. Concrete steps, flanked on either side by a concrete wall, lead to the arched opening. Stairs to the basement are located to the right of the rear porch. With the exception of some modern replacement doors, this building possesses integrity of materials, workmanship and design and contributes to the integrity of the historic district.

Marconi Cottage 2 (LCS 56478, FMSS Location 90315) (Contributing)

Cottage 2 lies northeast of the access road, opposite the hotel. This building is nearly identical to Cottage 1, with the exception that its original wooden window sash has been replaced with aluminum sash. The front of the building is oriented to the southeast, opening onto a gravel access drive that extends to the building from the main road. This cottage is counted as a contributing building.

Marconi Hotel Tennis Court (LCS 56479, FMSS Location TBD) (Contributing)

The tennis court is located adjacent to the southeast corner of the building, within a grove of Monterey cypress trees. Built around 1914, the court was originally fenced. The abandoned court consists of a concrete slab with concrete net posts. The court was originally in the open, but over the years trees and shrubs have grown up around it, and by 2010 the court was completely covered with soil and duff, and the concrete posts are deteriorating. Although it is no longer functional, it retains enough of its historic fabric to convey its original use, and is counted as a contributing structure.

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Marconi Pedestrian Bridge (LCS TBD, FMSS Location TBD) (Contributing)

This concrete bridge lies over the gully separating Cottage 1 from Building 1, the original Transmitter Building. The bridge is 54" wide and 11' long, and is approx. 35" thick. The date of construction is unknown, but its exposed twisted square-section reinforcing bars are typical of the historic period, as is the deterioration of the same iron reinforcing bars on the bottom, due to rusting and expansion of the metal. Despite the corrosion, the bridge is still sound and in fair condition. The galvanized railing supports bolted to the top of the bridge along with the wooden railings are replacements.

RCA Transmitter Building (LCS 56481, FMSS Location 90312) (Contributing)

A second transmitter building (Building 2) was built in 1929-31. It is a 2-story cast concrete structure, 60' wide and 95' long, with a flat parapet roof. It was constructed in an Art Deco motif, with clean, straight lines, symmetrical façade, and wide fluted pilasters on all sides and at the corners. It is painted white. All the pilasters have a diamond-shaped design at the top, constructed of red bricks set diagonally in the concrete pilasters. Wide concrete steps lead to the entrance, and lanterns grace both sides of the front doors. The windows are double hung and fixed wooden sash, 12-light on the first floor and 20-light on the top. One-foot-tall metal letters spelling "RCA COMMUNICATIONS INC" are fixed to the top of the front façade. Originally the power supply equipment was on the first floor, and the transmitters were on the second. The offices were at the front of the building. The building is now leased to Commonweal, and all the equipment has been removed and spaces converted to offices, consultation spaces and public areas. However the glass insulators for the antenna leads are still in place at the top of the side walls, adding a sparkling accent to the building on sunny days.

In 1959 RCA extended the building by another 100 feet, with the addition of a two-story concrete block structure a low gable roof attached to the rear of the 1929 building. This addition (Building 2a) housed a new generation of transmission equipment, which is still in place. Without ornamentation, this plain building has paired one-over-one double-hung wooden sash windows on both floors, and two rows of clear, fixed, Lucite windows at the top, with holes in the center of each pane where the antenna leads leave the building. Members of the Maritime Radio Historical Society keep much of the equipment in this building in working order, although it is no longer used commercially.

RCA Switching Building (LCS 56483, FMSS Location 90644) (Contributing)

This concrete utility building (Building 9) housed the central switch and transformers which channeled electrical feeds from a substation on nearby Mesa Road to the transmitters in Building 2. It was built northwest of the RCA Transmitter Building in 1929-30 in the same Art Deco motif as the other RCA buildings. The cast concrete structure is painted white and has a parapet roof and fluted pilasters with the brick diamond ornamentation common to the other cast concrete structures at this location. It is 14' by 26' and has a door on the southeast side. It has no exterior windows in the walls, but it does have a glass skylight in the roof. The building is now used a recreation space, specifically for table tennis.

RCA Garage (LCS 56482, FMSS Location 90642) (Contributing)

This cast concrete utility building, 24' x 66', originally had seven bays divided by plain pilasters topped with the brick diamond ornamentation. Five bays were originally vehicle bays (one divider has been removed resulting in four vehicle bays), one bay was probably used for administration, and the last bay on

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the northeast end was open and once contained a gas pump. The building has vacant window openings on the back, opposite the bay entrances. The roof has collapsed, and the concrete structure is cracking.

RCA Cooling Tower Foundations/Reservoirs (2) (LCS 56484, FMSS Location TBD) (Contributing)

There were originally two metal cooling towers on the southeast side of Building 2. The towers cooled and recycled water used to cool the transmitters in Building 2. Both cooling towers are gone, but the substantial concrete foundations/basements remain. The foundations are approximately 20' x 20', and 5' deep, with small extensions on two opposing diagonal corners for valves and stairs. One foundation has been completely covered with wooden decking and serves as a contemporary picnic area. The other is covered with a wooden framework and a shallow corrugated metal roof.

RCA Antenna Tuning Building (LCS TBD, FMSS Location TBD) (Contributing)

This remaining tuning building (Building 42) is representative of the structures used to house devices to “tune” the transmission antennas to specific frequencies. This simple wooden frame building with a shallow gable-roof is approximately 12' x 15', and 13' high at the peak. There is a door on the north side and vents immediately under the roof peak front and rear. The roof is covered with asphalt composition shingles, and the exterior walls with rigid siding, perhaps asbestos-based. The tuning building is immediately adjacent to a wooden antenna pole. During the historic period there were several antenna tuning buildings located in the antenna field. This is the only one left in its original location and configuration. A horizontal board fence encloses an area that is approximately 10' x 10' and measures 5' tall behind the tuning building. The fence was reconstructed in-kind by the PORE preservation crew in March 2008. The wood posts extend approximately 3' above the boards and are strung with three strands of barbed wire.

RCA Generator Building (LCS TBD, FMSS Location TBD) (Contributing)

The precise construction date for this metal building is unknown, but a former RCA manager places the construction at approximately the same time RCA constructed Building 2a, the addition to Transmitter Building 2, in 1959. The structure, built entirely of sheet metal with widely spaced corrugations, was assembled on a concrete foundation, and housed the emergency generation equipment to supply electricity to the station's transmitters. The building is rectangular, 27' x 45', with a shallow metal gable roof approx. 20' high, and is sited just northwest of Building 2a. On the southeast side, facing Building 2a, there is a single nine-light metal window and the original intake vent for the generators. On the southwest side there are double doors and the exhaust louvers for the diesel generators. The northwest side has three sets of six-light metal windows placed high on the wall. The northeast side has a single entry door and a single nine-light metal window. There is a 6' x 15' concrete pad on the southeast side. The structure is used today as a workshop/utility building.

Marconi Cooling Tower Foundation (Contributing)

Ruins located southeast of the Marconi Transmitter Building are from the cooling station that cooled and recycled water used to cool the transmitters in Marconi Transmitter Building. The cooling structure ruin is a square concrete basin with foundation piers which supported the superstructure. The ruins are located near an ocean bluff that is receding due to weathering, and the concrete structure was reported to be

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cracking as early as 1998. This structure was determined eligible in the 2008 DOE by the California SHPO. During a 2010 site visit, the site of the structure was completely overgrown with vegetation, and inaccessible for survey.

Commonweal Meditation Hut (Non-Contributing)

This wooden frame structure is sited near a bluff overlooking the Pacific Ocean. It is managed by Commonweal as a meditation space. The building's origin and original location are unknown, but in both appearance and dimensions, approximately 12' x 11' x 13' tall, it suggests a former life as a tuning or rigging shed in the transmitting station antenna field. Wood shingles cover the roof and all walls; there is a single door and four small windows. Based on a small opening at the peak of the roof, Maritime Radio Historical Society members conjecture the hut may have originally been used as a rigger's shack for greasing cable. Historic photos show similar outbuildings, but this specific structure has not been identified in any of them, furthering the belief that this building was moved to its current location. Because it was likely moved and significantly modified for its current use, this structure no longer has integrity and does not contribute.

Commonweal Pump House (Non-Contributing)

This contemporary wooden frame utility building is 9' x 12', 10' tall at the roof ridge. It has plywood siding and asphalt composition 3-tab shingles on the roof. There a single door on the front. The Pump House is located in the island of vegetation between the Marconi Hotel and Cottage 2.

Commonweal Sauna (Non-Contributing)

The contemporary wooden frame sauna structure is composed of a small plywood sauna building with vertical battens under a larger gable shingled roof sheltering a shaded shower on one side of the sauna, and partially sheltering a sitting area on the other. The sauna heater and stove pipe project from the rear of the sauna structure. The roof is missing several shingles.

Contributing Features:

Marconi Transmitter Building

Feature Identification Number: 152625

Type of Feature Contribution: Contributing

LCS Structure Name: Marconi Transmitting Station Transmitter Building

LCS Structure Number: 56475

Marconi Hotel

Feature Identification Number: 152611

Type of Feature Contribution: Contributing

LCS Structure Name: Marconi Transmitting Station Hotel

LCS Structure Number: 56476

Marconi Cottage 1

Feature Identification Number: 152613

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Type of Feature Contribution: Contributing
LCS Structure Name: Marconi Transmitting Station Cottage 1
LCS Structure Number: 56477

Marconi Cottage 2
Feature Identification Number: 152615
Type of Feature Contribution: Contributing
LCS Structure Name: Marconi Transmitting Station Cottage 2
LCS Structure Number: 56478

Marconi Tennis Court
Feature Identification Number: 152619
Type of Feature Contribution: Contributing
LCS Structure Name: Marconi Transmitting Station Tennis Court
LCS Structure Number: 56479

Marconi Pedestrian Bridge
Feature Identification Number: 152621
Type of Feature Contribution: Contributing

RCA Transmitter Building
Feature Identification Number: 152627
Type of Feature Contribution: Contributing
LCS Structure Name: RCA Transmitting Station Transmitter Building
LCS Structure Number: 56481

RCA Switching Building
Feature Identification Number: 152629
Type of Feature Contribution: Contributing
LCS Structure Name: RCA Transmitting Station Switching Building
LCS Structure Number: 56483

RCA Garage
Feature Identification Number: 152631
Type of Feature Contribution: Contributing
LCS Structure Name: RCA Transmitting Station Garage
LCS Structure Number: 56482

RCA Cooling Tower Foundations/Reservoirs
Feature Identification Number: 152661
Type of Feature Contribution: Contributing
LCS Structure Name: RCA Transmitting Station Cooling Tower Foundation/Reservoir (2)
LCS Structure Number: 56484

RCA Antenna Tuning Building
Feature Identification Number: 152663
Type of Feature Contribution: Contributing

RCA Generator Building
Feature Identification Number: 152665

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Type of Feature Contribution: Contributing

Marconi Cooling Tower Foundation

Feature Identification Number: 152667

Type of Feature Contribution: Contributing

Non-Contributing Features

Commonweal Meditation Hut

Feature Identification Number: 152685

Type of Feature Contribution: Non Contributing

Commonweal Pump House

Feature Identification Number: 152687

Type of Feature Contribution: Non Contributing

Commonweal Sauna

Feature Identification Number: 152683

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Marconi Transmitter Building, looking northwest. (PWRO 2010)



Marconi Hotel, looking northwest. (PWRO 2010)



Marconi Cottage 1, looking north. (PWRO 2010)



Marconi Cottage 2, looking northeast. (PWRO 2010)



Marconi Antenna Tower guy wire base. (PWRO 2010)



The Marconi Tennis Court is largely covered with forest duff, but the concrete net posts can be seen at the right and left center. (PWRO 2010)



Marconi Pedestrian Bridge, looking northwest. (PWRO 2010)



RCA Transmitter Building, looking southwest. (PWRO 2010)



RCA Switching Building, looking west. (PWRO 2010)



RCA Garage, looking west. (PWRO 2010)



The southwest Cooling Tower Foundation/Reservoir, the northeast reservoir is under the deck seen in the foreground. (PWRO 2010)



RCA Antenna Tuning Building, looking southwest. (PWRO 2010)



RCA Generator Building, looking northeast. (PWRO 2010)

Circulation

Circulation is defined as spaces and features which constitute systems of movement within a landscape. The circulation network at the Marconi/RCA Transmitting Station consists of a roads, driveways, walkways, trails, and parking lots. The layout of these circulation routes within and to the building cores is based primarily upon utilitarian needs of getting from one point to another. Informal dirt roads within the Antenna Field provide access to the poles and frames for maintenance and follow the natural terrain of the land.

Historic Road Network (Contributing)

The Historic Road Network consists of the entrance road, utility area roads, residential area roads, antenna field road, a road along the bluff, and several road traces.

Entrance Road: The primary access to the Marconi/RCA Transmitting Station is the entrance road which extends southwest for a half-mile from Mesa Road. This road dates to early in the period of significance as can be seen in historic maps and photos. The straight, 15' wide road is paved with asphalt up to the second driveway leading southeast toward the RCA Transmitter Building. Portions of the asphalt paving are cracked and potholed. Beyond the second driveway the entrance road has a gravel surface, which continues until it turns northwest to the hotel and cabins. The road used to continue further southwest than it does now, providing access to the RCA Transmitter Building. This remnant section of road is described below under "Road Traces."

Utility Area Roads: Two driveways lead southeast from the entrance road to the RCA Transmitter Building. The first driveway begins two-thirds of a mile from Mesa Road and the second is 300' beyond. Both are paved with asphalt with 6" cement curbing. The northeastern driveway is around 12' wide and the southwestern one 10' wide. The first, northeast driveway terminates at the oval loop drive in front of the RCA Transmitter Building and the second, southwest driveway terminates at the back of the building. The island at the center of the loop is approximately 40' x 70' with a 6" curb around it. The entire area around the RCA Transmitter Building is paved, providing access around its perimeter, access to other buildings in the building core, as well as parking. On the northwest and southeast sides of the building, the pavement is approximately 15' wide with 6" curbs. On the southwestern side, a small portion of the road is obstructed by a non-historic wooden ADA ramp and deck. On the southwest of the RCA Transmitter Building, the open paved area is used for parking. All of these roads, driveways and parking areas were constructed within the period of significance.

Branching southwest off the western end of the parking area behind the RCA Transmitter Building is the RCA/Marconi Road, leading toward the 1913 Marconi Transmitter Building on the bluff. The straight, mostly gravel road has weathered and missing patches of asphalt in numerous places, indicating it was paved at one time, and vegetation growing in patches in the middle of the roadbed. It is 8' wide with no curbing. The road cuts through the Antenna Field, flanked by poles and antenna foundations on both sides. The road is clearly established in a circa 1930 photos of the station and was most likely constructed at the same time as the other RCA roads or earlier, replacing the original portion of the Entrance Road that once extended to the Marconi Transmitter Building and Marconi Cottage 1.

Residential Area Roads: The Entrance Road turns 90 degrees northwest providing access to the cluster of Marconi-era residential buildings. The gravel Residential Road extends one-tenth of a mile and terminates at the driveways for the Marconi Hotel and Cottage 2. Just after the turn from the Entrance Road, is a Y-intersection for a road that leads southwest 400', accessing Cottage 1. The gravel road terminates at a parking space along the northern side of the cottage. An additional parking area is located off the road to the east of the cottage.

Continuing along the Residential Road approximately 400' beyond the Cottage 1 turnoff, a short angled road spurs off providing access to the Marconi Hotel. At the corner of the building, a Y in the gravel road leads southwest to the hotel entrance or northeast along the side of the building and loops back toward the Residential Road and Cottage 2. On the northeast side of the loop drive, a gravel driveway extends 140' northeast to Cottage 2. The roads accessing the hotel and cottages all date to the period of significance with minor changes in alignment over time. Plans and photos from the period of significance up to as recently as the 1980s indicate that the roads once encircled around the perimeters of both the hotel and Cottage 2 in a grid-like fashion, forming a larger loop. The roads extending behind both of the buildings have since been abandoned, filling in with vegetation, leaving only traces of the former road grades. Although segments of the residential area roads have been lost, the roads that remain are the primary historic roads and are in their original alignments and are surfaced with historically compatible materials.

Antenna Field Road: Branching off the entrance road, just 100' southwest of Mesa Road, is a dirt two-track road providing access to the Antenna Field and cattle pastures. The road extends one mile southwest, terminating at the bluff where a concentration of concrete counterweights have been dumped. This road is more heavily used than the Bluff Road leading southeast from the Marconi Transmitter Building and is also used for antenna maintenance, cattle access and recreation. This road retains its historic alignment from the period of significance as seen in 1942 aerial photos.

Bluff Road: A narrow dirt road branches off the RCA/Marconi Road at the Marconi Transmitter Building, heading southeast along the bluff for a half-mile. The 6' wide road appears minimally used by vehicles today and is likely used more as a pedestrian route. A fence and gate cross the road just one-tenth of a mile southeast of the Marconi Transmitter Building, preventing cattle in the Antenna Fields from entering the developed building core. Traces of road beyond the current terminus, as well as historic maps, indicate that the road once joined the Antenna Field road near the southeastern border of the property. Bluff erosion may be the cause of abandonment. This road currently serves as an entry to the Antenna Field for antenna maintenance and access to grazing lands among the antennas.

Road Traces: The Entrance Road historically extended all the way to the Marconi Transmitter Building; however, it now ends where it turns northwest toward the residential area. Traces of the reminder of the entrance are still detectable in the landscape, but are completely overgrown with vegetation. This road was once a straight continuation of the entrance road to the Marconi Transmitter Building, running along the southeastern edge of a small drainage. The road is now abandoned and covered with vegetation. It appears as though a row of trees were planted in its former location in the 1980s.

Remains of an asphalt parking/turnaround area located on southeastern side of the Marconi Transmitter Building are also present today, largely obscured by vegetation. This area had a number of small ancillary buildings and structures early in the period of significance that are no longer present.

Non-Historic Roads (Non-Contributing)

A smaller parking area located near the northeast corner of the RCA Transmitter Building, northeast of the Switching Building, is a contemporary addition to the RCA road network. It has a gravel and grass surface and is demarcated by large peeled logs, roughly twelve-to-eighteen inches in diameter. This parking area was most likely added to by Commonwealth to accommodate parking for their employees and visitors.

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Along the Residential Road toward the hotel, a grass and gravel parking strip has been added southeast of the junction that splits toward the hotel or Cottage 2 that accommodates perpendicular parking. It is on the northeast side of the road and appears to be added in the late-1990s or early 2000s based on aerial photos of the area, also to provide parking for Commonwealth guests and visitors.

Pedestrian Network (Contributing)

A series of walkways are found around the RCA building cluster dating to the original construction period in 1929 or the later addition to the RCA Transmitter Building in 1959. The walkways served primarily utilitarian purposes to provide designated places for pedestrians to walk or formal entrances into buildings. With the absence of sidewalks, these concrete walkways typically lead from building doors to the asphalt or gravel roads where pedestrians then used the road network.

The RCA Transmitter Building has a short walkway or landing in front of the primary entrance (northeast façade) of the building. It is approximately eight-feet wide and constructed of concrete to match the steps leading up to the front door. Historic photos indicate that the walkway dates to the period of significance.

Numerous short, narrow walkways can be found leading from the roads to the various building entrances in the RCA building cluster. A short 3' wide walkway leads from the road northwest of the RCA Transmitter Building to the center of the RCA Switching Building. The surface is currently degraded concrete. Next door, a similar style 3' wide, concrete walkway leads from the same road to the northeast entry door of the RCA Generator Building. On the opposite side of the driveway from the Generator Building, a 3' wide concrete walkway leads southeast from the road to the northwest entrance of the RCA Transmitter Building 1959 addition. Further southwest, a 4' wide walkway leads due south from the RCA/Marconi Road to the RCA Tuning Building. The walk is concrete with degraded edges, partially obscured by soil and grass. According to historic photos, these walkways were all constructed during the period of significance, typically in conjunction with the construction of their associated building either in 1929 or 1959.

Non-Historic Pedestrian Routes (Non-Contributing)

An approximately 3' wide pedestrian pathway leads from the southwest side of the Marconi Hotel south toward Cottage 1 through a pine forest. The curvilinear, woodchip surfaced path splits at a Y-intersection about halfway between the hotel and cottage into two paths that access the east and west sides of Cottage 1. The western path splits at another Y-intersection just north of the cottage with a smaller trail leading west toward the bluff overlooking the Pacific Ocean. These trails were most likely added by Commonwealth for use by their guests and visitors, as there is no evidence of these trail alignments found in historic photos or maps.

Continuing south, an approximately 3' wide, wood chip surfaced pedestrian pathway leads south along the southwestern porch of Cottage 1 toward the Marconi Transmitter Building. The curvilinear path responds to the topography heading downhill from the cottage toward a historic concrete bridge that crosses a seasonal drainage. Continuing uphill on the other side, a series of wood steps are inset into the slope near the northeast corner of the Marconi Transmitter Building. The path becomes a more undefined dirt trail along the east side of the transmitter building, connecting with the RCA/Marconi Road. The presence of the historic concrete bridge between the buildings implies that a pedestrian path existed during the historic period. However, a 1956 site plan showing a straight pathway between the two

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buildings indicates that it has most likely been altered since the period of significance providing a gentler grade for Commonwealth visitors.

A narrow trail from the Entrance Road to the Marconi/RCA Road can be found at a break in the hedges on the south side of the intersection of the Entrance Road and the southwestern driveway to the RCA Transmitter Building. The curvilinear footpath has a dirt and grass surface and is approximately 1.5' wide. A 6' wide corridor is kept clear of the thick vegetation along the path. It is primarily used as a public beach access route for local residents and visitors. There is no evidence of this trail in historic photos, aerial photos or site plans during the period of significance.

On the southeast side of the 1929 RCA Transmitter Building, a narrow pathway leads from the road to the RCA Cooling Tower Ruins. A 3' wide dirt path, lined with buried vertical boards ends at a contemporary deck constructed on top of one of the sunken concrete reservoirs that once served as the foundation for the RCA Cooling Towers. While there was likely a pathway of some form leading to the cooling towers during their time of use, the path there today was likely a more recent addition installed at the time of deck construction for use by the Commonwealth staff and guests after the period of significance.

Contributing Features:

Marconi/RCA Transmitting Station Historic Road Network
Feature Identification Number: 152699
Type of Feature Contribution: Contributing

Marconi/RCA Transmitting Station Historic Pedestrian Network
Feature Identification Number: 152701
Type of Feature Contribution: Contributing

Non-Contributing Features:

Marconi/RCA Transmitting Station Non-Historic Roads and Pedestrian Routes
Feature Identification Number: 152703
Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Entrance Road to the Marconi/RCA Transmitting Station, looking southwest. (PWRO 2010)



Loop Drive in front of the RCA Transmitter Building, looking southeast. (PWRO 2010)



RCA/Marconi Road heading southwest toward the Marconi Transmitter Building. (PWRO 2010)



Hotel Loop Drive on the left and Driveway to Cottage 2 on the right. (PWRO 2010)



Concrete pathway to the RCA Antenna Tuning Building. (PWRO 2010)



Walkway to RCA Transmitter Buildings main northeast entrance. (PWRO 2010)

Small Scale Features

Small scale features are the elements that provide detail and diversity for both functional needs and aesthetic concerns in the landscape. Small-scale features at the RCA Transmitting Station historically consisted of a concrete bench near the loop drive, as well as fences and signs throughout the site. The bench still remains and is a historic feature that contributes to the setting of the historic district. Fences were historically used to keep cattle out of the main building core and to contain grazing lands. A chain link fence was constructed at an unknown date around the RCA buildings, but may have been built during World War II. Since the period of significance, fencelines have been replaced, removed, and added to support changing uses and operational needs at the site. As a result of continual modification, fences are not considered contributing features, but in general, they have always played an important utilitarian role in managing the site. Newer directional signs have been added after the period of significance as well and are not historic.

Concrete Bench (Historic)

A concrete bench located at the southeast end of the loop drive appears to be historic. Photos of the area from circa 1930 show a concrete bench in the same location, with a similar size and form. The bench measures 6' long, 2' wide, and 2' high. It is set on a concrete pad with a short concrete walkway leading up to it from the loop drive.

Chain Link Fence (Undetermined)

A 10-foot tall chain link fence, with barbed wire along the portions of the top, encloses the main utility area where the RCA buildings are located. It has not been confirmed when the fence was installed. This fence seems to have replaced an early barbed wire fence that appears in the same general location in circa 1930s photos of the site.

Fences and Gates (Non-Contributing, Compatible)

Fences were important utilitarian structures used to exclude cattle from sensitive areas of the RCA Transmitting Station and, as a result, were constantly being altered and updated to meet changing needs throughout the period of significance and beyond. Historic photos show fences were installed along property lines and roads. Other fences may have been used to divide the antenna fields into pastures, but they do not appear in historic photos or maps. Many fences exist on the property today, but the majority were constructed after the period of significance by Commonwealth and ranchers who lease the grazing lands.

A variety of fence styles are found throughout the site, but the most typical are 4' high constructed with wood posts or metal stakes and strung with page wire or four strands of barbed wire. Occasionally, horizontal boards are added for support near gates and corners. Portions of existing fences may be historic or follow historic fencelines, but because fences were often repaired and moved to support changes in the antenna fields up until the station's closure in 1997 and to support Commonwealth's mission to the present, it is difficult to determine if the materials are original or not. As a result, they are not counted as contributing features.

Gates are found throughout the site, and like the fences, are difficult to date, but likely were replaced or added as fencelines changed. They are found along the fencelines to provide access within the antenna fields and pastures. They are constructed of vertical wood boards supported by horizontal boards and angled board.

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Miscellaneous Features (Non-Contributing)

Several small scale features have been added to the site since the period of significance by Commonwealth and NPS, in support of their use of the site. These include log curbs used to define a parking area near the RCA Transmitter Building, directional signs, a wooden footbridge, outdoor furniture, such as tables, chairs, and benches, and wood bollards along the entrance road. None of these features contribute to the historic character of the site.

Contributing Features:

Marconi/RCA Concrete Bench
Feature Identification Number: 152705
Type of Feature Contribution: Contributing

Undetermined Features:

Marconi/RCA Chain Link Fence
Feature Identification Number: 152709
Type of Feature Contribution: Undetermined

Non-Contributing Features:

Marconi/RCA Fences and Gates
Feature Identification Number: 152711
Type of Feature Contribution: Non Contributing

Marconi/RCA Miscellaneous Features
Feature Identification Number: 152717
Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Concrete bench southeast of the RCA Transmitter Building loop drive. (PWRO 2010)



Chain link fence northwest of the RCA Generator and Switching Buildings. (PWRO 2010)

Vegetation

The vegetation section documents human manipulated vegetation: deciduous and evergreen trees, shrubs, vines, ground covers and herbaceous plants, and plant communities. Of all the landscape characteristics, Vegetation has undergone the greatest change although some remnants of historic plantings still remain. Remaining ornamental vegetation planted during the period of significance includes a line of Monterey cypress and Monterey pine trees around the perimeter of the RCA buildings and the lawn planted in the oval-shaped island in front of the RCA Transmitter Building. Based on size and age of the plants, it is also likely that within the vicinity of the Marconi Hotel, the date palm, several Monterey cypress, and the clipped leptospermum hedges along the entry road are also historic, but historic photos have not yet been found to confirm this.

The greatest changes to ornamental vegetation at the transmitting station include: 1) the spreading of Monterey cypress and Monterey pine beyond their original plantings that has lead to a much more enclosed, forested feel around the buildings and along the roads, 2) the loss of small-leaved evergreen shrubs in front of the RCA Transmitter Building and replacement with incompatible vegetation, and 3) the implementation of contemporary, California perennial and native garden style plantings around the Marconi Hotel and cottages.

These changes are mostly contained within the 60-acre portion leased by Commonwealth while the remaining 362-acres are still predominantly grazed lands in the antenna fields which continue to reflect their historic character. Grasses in the surrounding antenna fields are managed by the ranchers who historically and currently use the area to graze dairy cows. The pasture grass and coastal scrub species that are present today are discussed in more detail in the Natural Systems and Features section.

Ornamental Plantings

RCA Building Cluster

Historic photos reveal in the vicinity of the RCA-era buildings, a similar style and plant palette was used as found at the RCA Receiving Station. Landscaping around the RCA Transmitter Building was formal and symmetrical with an oval-shaped plant bed in front of the building's main entrance and evergreen shrubs and hedges symmetrical placed around the perimeter of the building. In general, the character of the plantings reflected the stream-lined appearance of the Art Deco buildings.

Historic photos from circa 1930 show that evergreen shrubs were established symmetrically around the RCA Transmitter Building. Two tall, narrow yew trees (*Taxus fastigiata*) flanked either side of the front door and a young evergreen hedge extended from the yews along the front wall. Photos from the 1980s reveal that by that time, the foundation plants had been removed and were replaced with the current vegetation. Today, two pittosporum shrubs are planted on either side of the front door with an Tasmanian tree fern (*Dicksonia antarctica*), sword ferns (*Polystichum Munitum*), lady ferns (*Athyrium filix-femina*), and spearmint (*Mentha spicata*) planted beside them in a nonsymmetrical pattern. These plantings are not compatible with the historic character of the site because they do not reflect the more stream-lined, formal planting style implemented during the period of significance.

Similar to the turnaround located at the RCA Point Reyes Receiving Station, the turnaround in front of the RCA Transmitter Building is an oval-shaped plant bed that was historically planted with lawn and trimmed shrubs according to a 1930s photo. The shrubs were planted at the ends of the long axis of the oval, framing the front entrance of the RCA Transmitter Building. Lawn is still maintained in the turnaround, but the shrubs have been removed.

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Privet and acacia are maintained as clipped hedges around portions of the loop drive perimeter. It is unknown if these are historic or not, but are compatible with the formal character of the clipped evergreen shrubs typically planted around the RCA-era buildings.

Marconi Transmitter Building (Building 1)

Historic photos do not show any ornamental shrubs or trees planted around the Marconi Transmitter Building. However, a historic photo and the 1913 Marconi site plan show that Boston ivy (*Parthenocissus triuspida*) grew on the building itself. The land around this building was predominantly flat, mowed grasses. Today, it is surrounded by a variety of native and non-native trees and shrubs that have naturally spread into the area such as Monterey pine, coyote brush (*Baccharis pilularis*), Himalayan blackberry (*Rubus discolor*), thistle (*Cirsium* sp.), acacia (*Acacia* sp.), young Monterey cypress (*Cupressus macrocarpa*), and horsetail (*Equisetum* sp.). This vegetation does not reflect the open character of the mowed grasses around the building during the period of significance.

Marconi Residential Area

Historic images of the Marconi Hotel and cottages are limited, but a very early photo of the hotel, an aerial photo from 1942, and the age of vegetation provide clues to the historic character of the area.

Marconi Hotel

Early photos of the Marconi Hotel dating close to its completion in 1914 show a very simple landscape installation. A single row of a single, unidentified shrub was planted along the foundation below the front porch. The lawn in front was more rectilinear than it is today. Today the lawn has rounded corners.

Photos from the 1980s show that the date palm existed by that time and it is very likely that this was planted during the period of significance. These 1980s photos also reveal that the evergreen shrubs along the northeastern wall of the hotel did not exist at that time and have since been added. The ornamental vegetation along the southwest side of the hotel porch was removed to add a staircase. Based on plant species and size, most plants at the front entrance appear to have been planted since Commonwealth began using the site in 1980. Today, the plantings at the front of the hotel is informal with perennials lining the walkway and the front of the porch, lawn planted on either side of the walkway, and a climbing rose arching over the main entrance.

Examples of species found in this garden include: rosemary (*Rosmarinus officinalis*), trumpet flower (*Distictis* sp.), rock rose (*Cistus* sp.), climbing rose and wild rose (*Rosa* spp.), bush germander (*Teucrium fruticans*), foxglove (*Digitalis purpurea*), mint (*Mentha* sp.), lamb's ears (*Stachys byzantina*), and the native sword fern. Plants growing on the backside of the hotel include: Boston ivy (*Parthenocissus tricuspidata*), hebe (*Hebe* sp.), camellia (*Camellia* sp.), Pride of Madeira (*Echium fastuosum*), and coast silktassel (*Garrya elliptica*).

Loop Between Hotel and Cottage 2

Between the hotel and Cottage 2 is a looped road that encompasses an irregularly-shaped island planted with mature trees, shrubs, and trimmed hedges. Monterey cypress grow in the middle of the island, acacia are planted along the western edge, a tall, clipped leptospermum hedge is maintained along the southern edge (and on the opposite side of the road too), and a dense row of a pine, possibly Swiss mountain pine (*Pinus mugo uncinata*), line the eastern edge. Comparison of historic and contemporary photos and aerials reveal the Swiss mountain pines were added in the 1980s, probably at the same time the same species were planted around Cottage 2. The acacia along the western edge have also been added since the early 1980s. It is difficult to pinpoint the age of the clipped leptospermum hedge on the southern edge, but based on their size, trunk diameter, and species, it is very likely that these date to the period of significance. The trunk diameter of some Monterey cypress trees in the

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middle suggest that they may also be old enough to have been planted during the period of significance. A 1942 aerial photo clearly shows vegetation growing within the island, but not clear enough to distinguish hedges from trees.

Cottage 1

Like the vegetation at the hotel, the perennials around Cottage 1 are likely not historic, but added by Commonwealth since the 1980s. Examples of vegetation planted along the foundation of the cottage include a mixture of native and non-native species: *Watsonia*, sword fern, calla lily, privet (*Ligustrum* sp.), rushes (*Juncus* sp.), and roses. Foundation plantings along the walls of the cottage may have historically existed, however, based on the amount of modifications and additions of vegetation within the property since the 1980s, it is likely that any pre-existing foundation plantings have undergone extensive modification as well.

Cottage 2

Like the vegetation at the hotel and Cottage 1, vegetation at Cottage 2 is likely not historic. Photographs of Cottage 2 from the 1980s suggest that most existing vegetation, except for lawn and the calla lilies near the porch, has been planted since that time. Today, the exterior of the residence is lined with foundation planting and plant beds have been created within the lawn, including species such as leptospermum (*Leptospermum* sp.), marguerites (*Chrysanthemum frutescens*), *Grevillia* sp., *Watsonia*, red hot poker (*Kniphofia* sp.), roses, and calla lilies. Around the perimeter of the yard, trees and shrubs, including Swiss mountain pine, have been planted and provide a privacy screen.

Windbreaks

Trees, predominantly Monterey cypress and Monterey pine, were planted in rows and groupings to provide shelter to the buildings from strong seasonal winds. Since the period of significance, these trees have spread beyond their original plantings and as a result, tree coverage has expanded significantly throughout the site. This has resulted in significant decrease of open space between the utilitarian and residential areas of the station.

Along the outer perimeter of the cluster of RCA buildings, historic photos show that straight lines of trees, as well as shrubs were planted in a rectangle around the building core, including Monterey cypress, Monterey pine, and other shrubs. This perimeter planting provided shelter from wind, but also defined the RCA developed area and added to the formal character of the planting plan. Photos from 1949 show tall Monterey pines near the northeast and southeast corners of the perimeter, and lower-growing shrubs in between. Although the intent behind the planting plan is unknown, the result was that the shorter shrubs between the trees did not interfere with antenna wires and also created an opening through which the RCA Transmitter Building could be seen from the main entrance road. Many of these Monterey pine still remain, although they have spread well beyond their original perimeter line and many are failing with Pitch canker, an incurable fungal disease.

Trees were also planted along the tops of the coastal bluffs to provide wind protection for residential area. These trees have expanded significantly. In a 1947 aerial photo, it appears that there was a clear line of site between Cottage 1 and the Marconi Hotel. Today, this view is completely obstructed by pine and cypress. The seasonal creek south of Cottage 1 has filled in with trees and shrubs since the period of significance, including Douglas fir (*Psuedotsuga menziesii*), Monterey pine, California bay (*Umbellularia californica*), coffee berry (*Rhamnus californica*), calla lily (*Zantedeschia aethiopica*), and sword fern (*Polystichum munitum*).

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Swiss mountain pine trees were planted sometime in the early to mid 1980s along the entrance road. They are found on the north and south sides of the road, evenly spaced. They extend beyond the road's current terminus and continue along the road trace that continues southwest toward the Marconi Transmitter Building.

Landscape Characteristic Graphics:



Historic Loop Drive with oval lawn at center. Historically, this oval island had shrubs planted at the long ends of the oval. The age of the clipped hedges beyond the Loop Drive is unknown. Monterey pine in the back likely date to the period of significance based on historic photos. (PWRO 2010)



The vegetation at the entrance to the RCA Transmitter Building is non-historic. (PWRO 2010)



Trees and shrubs have grown into the natural drainage between the Marconi Transmitter Building and Cottage 1 since the period of significance. (PWRO 2010)



Pines have been planted throughout the site since the 1980s. This photo shows the pines lining both sides of the entrance road, looking northeast (taken near the turn into the residential area). (PWRO 2010)



The date palm and the clipped leptospermum hedges at the Marconi Hotel likely date to the period of significance. (PWRO 2010)



The ornamental flowers and shrubs in front of the hotel are not historic. (PWRO 2010)

Archeology

Archeological sites inventoried in the CLI include the location of ruins, traces, or deposited artifacts in the landscape that are associated with the period of significance and are evidenced by the presence of either surface or subsurface features. The CLI takes every precaution not to disclose the location of sensitive archeological sites to preserve the resources.

While archeological sites and associated features at the Marconi/RCA Bolinas Transmitting Station site may be potentially eligible for listing on the National Register of Historic Places under Criterion D for their potential to reveal archeological information important to history, the evaluation of these features is outside the scope of this Cultural Landscape Inventory (CLI). In the future, archeological resources should be evaluated for National Register eligibility under Criterion D by a trained archeologist. Within the historic district are historic archeological sites that may yield additional information related to location, use and sequence of construction in antenna fields and their associated features and may also answer questions about the social and economic conditions at the site during the period of significance.

Documented Archeological Sites

At the Marconi/RCA Bolinas Transmitting Station site there are many archeological resources within the boundaries of the cultural landscape. Two small prehistoric shell midden sites have been recorded in the area, although there may be additional prehistoric sites in the locale that are undocumented.

Several documented archeological features that date to the historic period also remain in the area. These features are principally located along 15 acres of contiguous coastal terrace that ranges from 100 to 150 feet in elevation. In 1985, a total of 13 debris areas were discovered in this location through a series of investigations. The debris areas were exposed as a result of coastal erosion and appeared to contain radio-related artifacts, although additional testing was needed to confirm the findings. In 2003, MACTEC Engineering and Consulting, Inc. undertook an archeological survey, testing and evaluation of Debris Areas 1, 2, and 6 and concluded that all three of these debris areas appeared to be eligible for the National Register for their association with Marconi/RCA development at the site. Notably, these debris areas contained a large variety of important, intact, radio-related artifacts as well as a variety of domestic artifacts that represented the home lives of radio workers and their families.

In June 2004, the NPS consulted with the California SHPO in regard to the eligibility of these features and a proposed environmental remediation cleanup at the Marconi/RCA maritime radio transmitting facility, which would involve removing the deposits associated with 13 debris areas. In a July 2004 correspondence to staff at Point Reyes, the SHPO indicated that they needed additional information before they would concur with the National Register eligibility Debris Areas 1, 2, and 6 (Archeological Treatment Plan and Evaluation Report for Debris Areas at the Bolinas Transmitting Station, Marin County, California, MACTEC, 2004, 4). While these debris features may provide additional information about the Marconi/RCA Bolinas Transmitting Station, their eligibility for the National Register under Criterion D has not been determined.

Potential Archeological Sites

Numerous undocumented archeological features are scattered across the Marconi/RCA Bolinas Transmitting Station site. The larger antenna fields surrounding the primary building cluster contain a number of features that may have the potential to yield additional information in the future, many of which are associated with the

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historical use of the site by the Marconi Wireless Telegraph Company of America and later by Radio Corporation of America (RCA). Buried concrete antenna bases, anchors, weights, and grounding wires; discarded insulators, stakes and electrical debris; downed H-frames and antenna poles, as well as various trenches, are located throughout the site illustrating the historical development or evolution of radio communications equipment through time (Livingston, 1998, 82). Today, many downed features are lying on the surface and are subject to vandalism, theft, and structural deterioration by exposure to elements and should be documented as archeological features before they are lost. (It should be noted that the above ground, intact resources are described in Spatial Organization section as landscape elements of the contributing Antenna Field Site.)

Condition

Condition Assessment and Impacts

Condition Assessment: Fair

Assessment Date: 7/1/2010

Condition Assessment Explanatory Narrative:

Through the analysis and evaluation of landscape characteristics and features, it has been determined that the Marconi/RCA Transmitting Station is in “fair” condition. The landscape shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the landscape characteristics will cause the inventory unit to degrade to poor condition.

Impacts

Type of Impact: Exposure to Elements
External or Internal: Internal
Impact Description: Exposure to elements has resulted in negative impacts to historic built features at the site. Several features, including the Marconi Transmitting Station Building (Building 1), the RCA Transmitting Station Garage and the concrete posts associated with the tennis court are deteriorating due to exposure to elements. Concrete antenna bases and metal equipment are also deteriorating as a result of exposure to wind, fog and rain. Of great concern are the wood cross members on the antenna poles, T-poles and H-frames, where bolts have rusted and have split the wood. In some cases the cross members and/or metal fasteners have detached and either fallen to the ground or are dangling.

Type of Impact: Vegetation/Invasive Plants
External or Internal: Internal
Impact Description: In several locations, small plants and woody vegetation are encroaching upon buildings and structures, and mature trees at the site. The vegetation is promoting deterioration of historic features such as foundation pads and antenna bases by allowing plants to grow on them, introducing moisture and producing cracks from roots, etc. Furthermore, the vegetation is obscuring the visibility of historic features, making it difficult to find them on the ground.

Type of Impact: Structural Deterioration
External or Internal: Internal
Impact Description: The walls of the RCA Transmitting Station Garage are cracking

and the roof has collapsed. Also, the Marconi Transmitting Station Transmitter Building exhibits some structural deterioration, including spalling concrete around the door and window openings. Additionally, there are broken windows, which, allow moisture to enter the building.

Type of Impact:
External or Internal:
Impact Description:

Vegetation
Internal
The areas adjacent to the core fenced property are no longer grazed, which has allowed vegetation such as poison oak and coyote brush to encroach, changing the historic character of these once open areas.

Type of Impact:
External or Internal:
Impact Description:

Vandalism/Theft
Internal
Unattended buildings such as the Marconi Transmitter Building are susceptible to vandalism.

Type of Impact:
External or Internal:
Impact Description:

Pests/Diseases
Internal
Pests and diseases are causing dieback in pine trees at the site, causing harm to potentially significant trees that contribute to the historic character of the station grounds.

Type of Impact:
External or Internal:
Impact Description:

Erosion
Internal
The bluff adjacent to the site is threatened by coastal erosion typical of this area. The rapidly receding bluff is located approximately 60 feet from the Marconi Transmitting Station Transmitter Building.

Type of Impact:
External or Internal:
Impact Description:

Fire
Internal
Tree limbs and associated woody vegetation in close proximity to active antennas may cause risk of fire if limbs fall on live wires. Understory plants, such as acacia, grow up into live wires and can also cause fires.

Stabilization Measures

The following stabilization measures have been identified for the Marconi/RCA Transmitting Station:

1. Stabilize the bluff adjacent to the site that is threatened by coastal erosion. The rapidly receding bluff is located approximately 60 feet from the Marconi Transmitter Building (Building 1).

According to Dewey Livingston's draft document entitled "*Wireless Giant of the Pacific*", the erosion was likely caused in part by the installation of thirty two ground cables that were buried in the cliff face in 1914. Grazing may have also contributed to the erosion problem as the animals established a network of paths along the slopes, creating a series of benches and ramps along the slopes.

It is unknown if any reasonable action can be taken to stabilize the cliff, although efforts should be taken to slow erosion to prevent the loss of historic built features at the site in the future. According to historical sources, the cliff edge was originally covered by low grasses; however, at an unknown date, Monterey cypress trees and ice plant were introduced to portions of the cliff edge and mesa top. While intended to stabilize the slopes, these introduced plants may increase erosion rates by being pulled off the unstable substrate by their weight (Archeological Treatment Plan and Evaluation Report for Debris Areas at the Bolinas Transmitting Station, Marin County, California, MACTEC, 2004, 4).

2. In several locations, small plants and woody vegetation are encroaching upon historic features by allowing plants to grow on them, introducing moisture and producing cracks from roots, etc. Furthermore, the vegetation is obscuring their visibility, making it difficult to find and maintain features on the ground. In order to stabilize these features, remove vegetation such as ice plant, aster, coyote brush and poison oak from concrete building foundation pads, antenna bases, walkways, and the tennis court pad.
3. As a result of cattle grazing in the fields, many historic antenna guy wires have loosened or become detached when cattle rub against them. These guy wires should be stabilized to ensure that these character-defining structures do not fall over. It has been suggested that placing a sleeve over the wires will prevent further damage and might discourage cattle from rubbing against them.
4. Also, the Marconi Transmitter Building exhibits some structural deterioration, including spalling concrete around the door and window openings. Patch and repair spalling areas. Broken windows are present, which allows moisture to enter the building. Cover broken windows with plywood until broken window panes can be replaced.

Treatment

Treatment

Approved Treatment: Undetermined

Approved Treatment Description Narrative:

Point Reyes National Seashore has contracted with Architectural Resources Group, Inc. (ARG) to complete a Cultural Landscapes Report (CLR) for the Marconi/RCA Bolinas Transmitting Station. Upon completion, the findings of the CLR will become the approved treatment document.

An updated Point Reyes National Seashore General Management Plan and Environmental Impact Statement (GMP/EIS) is nearing completion. The GMP will provide management guidance for the Point Reyes National Seashore, including the Marconi/RCA Bolinas Transmitting Station.

Bibliography and Supplemental Information

Bibliography

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MATEC Engineering and Consulting, Inc. Archeological Treatment Plan and Evaluation Report for Debris Areas at the Bolinas Transmitting Station, Marin County, California. Prepared for the National Park Service on behalf of General Electric Corporation Environmental Programs. May 24, 2004. (Located on file at Point Reyes National Seashore)

Marine Radio Historical Society Website: www.marineradio.org

National Park Service. *Final Fire Management Plan, Environmental Impact Statement, Point Reyes National Seashore and North District of Golden Gate National Recreation Area*. Department of the Interior, National Park Service, 2004.

National Park Service. *Marconi/RCA Bolinas Transmitting Station and RCA Point Reyes Receiving Station Historic District National Register of Historic Places Nomination*. Point Reyes National Seashore, Department of Interior, National Park Service, 2008.

National Park Service. *Point Reyes National Seashore General Management Plan*. Point Reyes National Seashore, Department of Interior, National Park Service, 1980.

National Park Service. *Point Reyes National Seashore General Management Plan*. Point Reyes National Seashore, Department of Interior, National Park Service, 1980.

Radio Corp of America. Approximate Map of Bolinas Station, 1913 – 1946. (Located in the Point Reyes National Seashore archives.)

Point Reyes Website: www.nps.gov/pore

Supplemental Information

Title: Full-sized Site Plans

Description:

Full-sized, 8.5x11 versions of the site plans are available from the regional CLI coordinator or the cultural resources manager at the park.

Title: Threatened & Endangered Animal Species of Point Reyes

Description:

A list of Threatened & Endangered Animal Species of Point Reyes is available from the regional CLI coordinator or the cultural resources manager at the park.



Marconi/RCA Bolinas Transmitting Station Cultural Landscapes Inventory Site Plan - Boundary Map

LEGEND

- Historic District
- - - Creek/Tributary

Contributing

- Buildings & Structures
- Roads
- Tennis Court

Non-Contributing

- Buildings & Structures
- Roads
- Trails/Walkways
- - - Fences

Antenna Field

- H-Frames
- Concrete Tower & Guy Line Bases
- Antenna Poles
- Concrete Tuning Bases
- Concrete Bases - square, round & triangular



0 200 400 800 1600 Feet

Produced by PWR Cultural
Landscapes Program
June 2010





Marconi/RCA Bolinas Transmitting Station Cultural Landscapes Inventory Site Plan - Building Core

LEGEND

- Creek/Tributary
- Ornamental Plants

Contributing

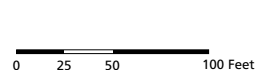
- Buildings & Structures
- Roads
- Tennis Court
- Walkways

Non-Contributing

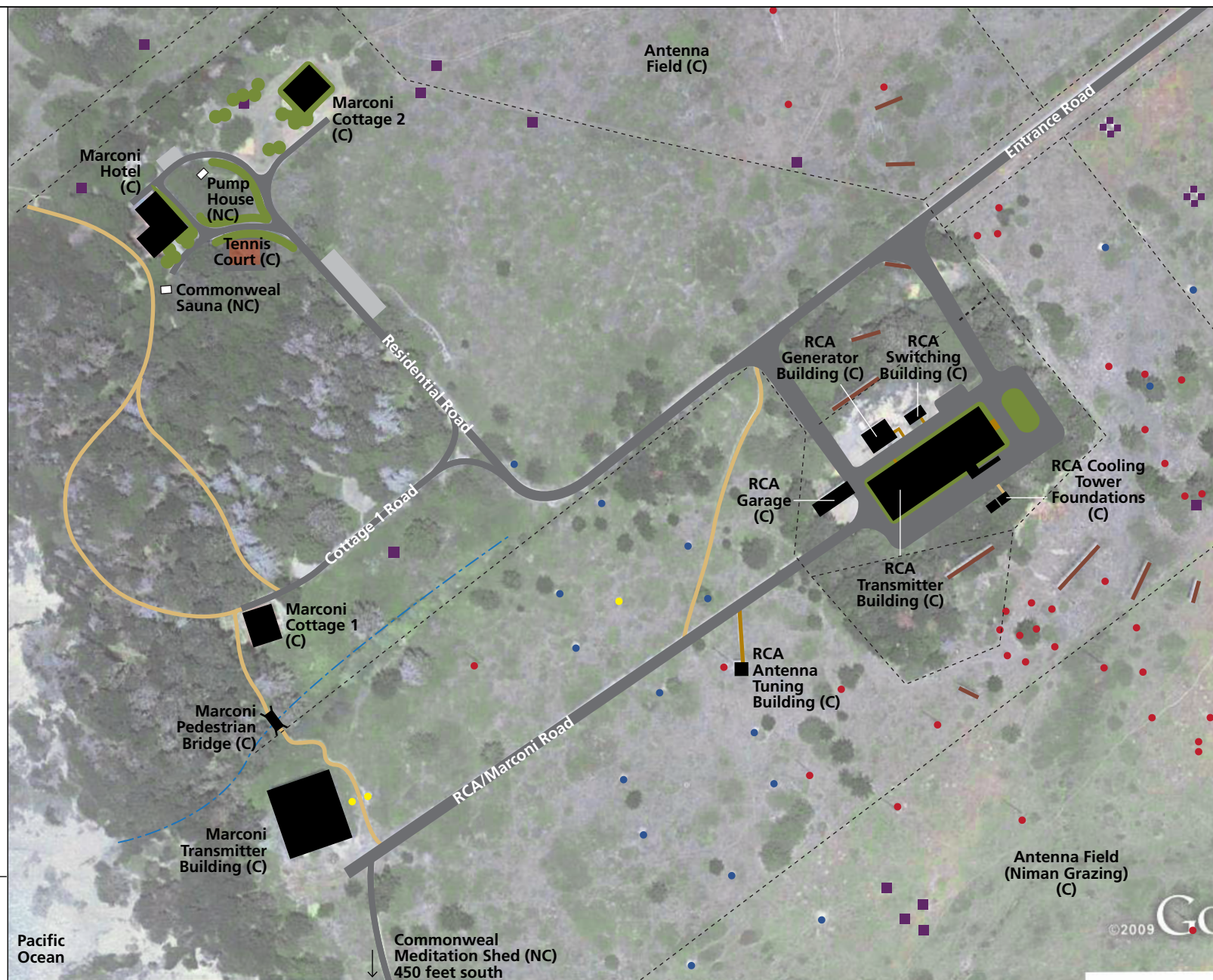
- Buildings & Structures
- Parking Lots
- Trails/Walkways
- Fences

Antenna Field

- H-Frames
- Concrete Tower & Guy Line Bases
- Antenna Poles
- Concrete Antenna Tuning Coil Bases
- Concrete Bases - various shapes & sizes



Produced by PWR Cultural
Landscapes Program
June 2010



Threatened & Endangered Animal Species of Point Reyes

	Genus/Species	Common Name	Federal Status	State Status
Invertebrates	<i>Syncaris pacifica</i>	California Freshwater Shrimp	E	E
	<i>Speyeria zerene myrtleae</i>	Myrtle's Silverspot	E	
	<i>Haliotes cracherodii</i>	Black abalone	C	
Fish	<i>Eucyclogobius newberry</i>	Tidewater Goby	E	
	<i>Gasterosteus aculeatus williamsoni</i>	Threespine Stickleback	E	
	<i>Oncorhynchus kisutch</i>	Coho salmon	T	
	<i>Oncorhynchus mykiss</i>	Steelhead	T	
	<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	T	
	<i>Oncorhynchus tshawytscha</i>	Chinook salmon	T	
	<i>Acipenser medirostris</i>	Green sturgeon	T	
Reptiles	<i>Caretta caretta</i>	Loggerhead sea turtle	T	
	<i>Dermochelys coriacea</i>	Leatherback sea turtle	E	
	<i>Chelonia mydas</i>	Green sea turtle	T	
	<i>Clemmys marmorata marmorata</i>	Western Pond Turtle		SC
Amphibians	<i>Rana draytoni</i>	California Red-legged Frog	T	
Mammals	<i>Aplodontia rufa phaea</i>	Point Reyes Mountain Beaver		SC
	<i>Zapus trinotatus orarius</i>	Point Reyes Jumping Mouse		SC
	<i>Reithrodontomys raviventris</i>	Salt-marsh harvest mouse	E	E
	<i>Arborimus pomo</i>	Red tree vole		SC
	<i>Myotis subulatus leibii</i>	Small-footed bat		SC
	<i>Corynorhinus townsendii</i>	Townsend's Western Big-eared Bat		SC
	<i>Myotis evotis</i>	Long-eared bat		SC
	<i>Myotis thysanodes</i>	Fringed myotis		SC
	<i>Myotis volunas</i>	Long-legged bat		SC
	<i>Myotis yumanensis</i>	Yuma myotis		SC
	<i>Arctocephalus townsendi</i>	Guadalupe Fur Seal	T	
	<i>Eumetopias jubatus</i>	Steller Sea Lion	T	
	<i>Callorhinus ursinus</i>	Northern fur seal		SC
cont. on next page	<i>Balaenoptera borealis</i>	Sei Whale	E	

	Genus/Species	Common Name	Federal Status	State Status
Mammals cont.	<i>Balaenoptera musculus</i>	Blue Whale	E	
	<i>Balaenoptera physalus</i>	Finback Whale	E	
	<i>Eschrichtius robustus</i>	Gray Whale	D	
	<i>Megaptera novaeangliae</i>	Humpback whale	E	
	<i>Physeter catodon</i>	Sperm whale	E	
	<i>Enhydra lutris nereis</i>	Southern Sea Otter	T	
Birds	<i>Agelaius tricolor</i>	Tricolored Blackbird		SC
	<i>Brachyramphus marmoratus</i>	Marbled Murrelet	T	
	<i>Buteo swainsoni</i>	Swainson's hawk		T
	<i>Branta canadensis</i>	Aleutian Canada Goose	D	
	<i>Buteo regalis</i>	Ferruginous Hawk		SC
	<i>Charadrius alexandrinus nivosus</i>	Western Snowy Plover	T	
	<i>Diomedea albatrus</i>	Short-tailed Albatross	E	
	<i>Falco peregrinus anatum</i>	American Peregrine Falcon	D	
	<i>Geothlypis trichas sinuosa</i>	Saltmarsh Common Yellowthroat		SC
	<i>Grus canadensis tabida</i>	Greater Sandhill Crane		T
	<i>Haliaeetus leucocephalus</i>	Bald Eagle	D	
	<i>Oceanodroma homochroa</i>	Ashy storm-petrel		SC
	<i>Pelecanus occidentalis</i>	Brown Pelican	E	E
	<i>Rallus longirostris obsoletus</i>	California Clapper Rail	E	
	<i>Sterna antillarum</i>	Least Tern	E	E
	<i>Strix occidentalis</i>	Northern Spotted Owl	T	
	<i>Empidonax traillii</i>	Willow flycatcher	E	

Status Code:

E = Endangered

T = Threatened

SC = Species of Concern

C = Candidate

D = Delisted

This list is for educational purposes only.

Last updated 8/29/07. Changes will be made as we discover new information about threatened and endangered species. Check our web site periodically for updated lists.