

Point Bonita Lighthouse

National Park Service
U.S. Department of the Interior

Marin Headlands
Golden Gate
National Recreation Area



Al Greening

Point Bonita Then...



Though the work was hard and the hours long and lonely, many lighthouse keepers, like Niles C. Frey, Point Bonita Keeper, 2nd Assistant and their wives still managed to find time to raise families.

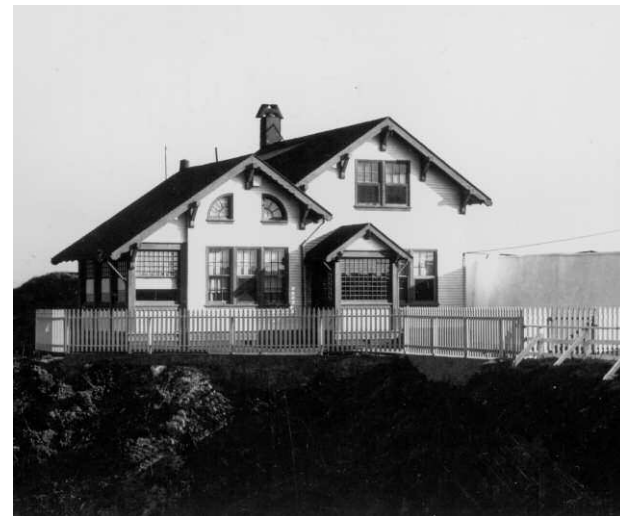
(Photo circa 1896-1900.)

With the discovery of gold in 1848, California and the world changed forever. Soon, San Francisco became the main port for gold seekers from around the globe. In 1849, the city's population leaped from 900 to 20,000!

To lead the new settlers and explorers safely through the dangerous waters of the Bay entrance, a system of lighthouses developed. Alcatraz's light showed the way for ships directly in front of the Golden Gate and Fort Point's lighthouse marked the southern edge of San Francisco Bay, but another lighthouse was needed north of the Golden Gate to make the entrance recognizable for ships sailing up the coast from the south. That lighthouse site became Point Bonita.

Point Bonita Lighthouse, the third lighthouse on the West Coast, was completed in 1855. Built upon a high ridge 300 feet above the water, there were soon complaints that thick fog frequently obscured the light beam. A new site at a lower elevation was chosen nearby at the tip of Point Bonita. Unstable rock made construction of a hand-hewn tunnel and trail to the site challenging. A new 3-room brick structure was built to support the upper half of the original lighthouse that was moved to the new site in 1877.

Despite the effectiveness of the lighthouses, over 300 boats ran aground near the Golden Gate during the gold rush years. The worst maritime disaster occurred in 1901, when the steamer *City of Rio de Janeiro* struck Point Diablo, near Point Bonita. Despite approaching in darkness and continued fog, the pilot was pressured by an influential passenger to proceed. The lives of 128 passengers were lost when the *City of Rio de Janeiro* struck rocks, quickly filled with water and sank to the bottom of the Bay. The pilot and the deceased captain were later found guilty of gross negligence and the steamship company was found responsible for the heavy loss of life due to its poorly supervised crew.

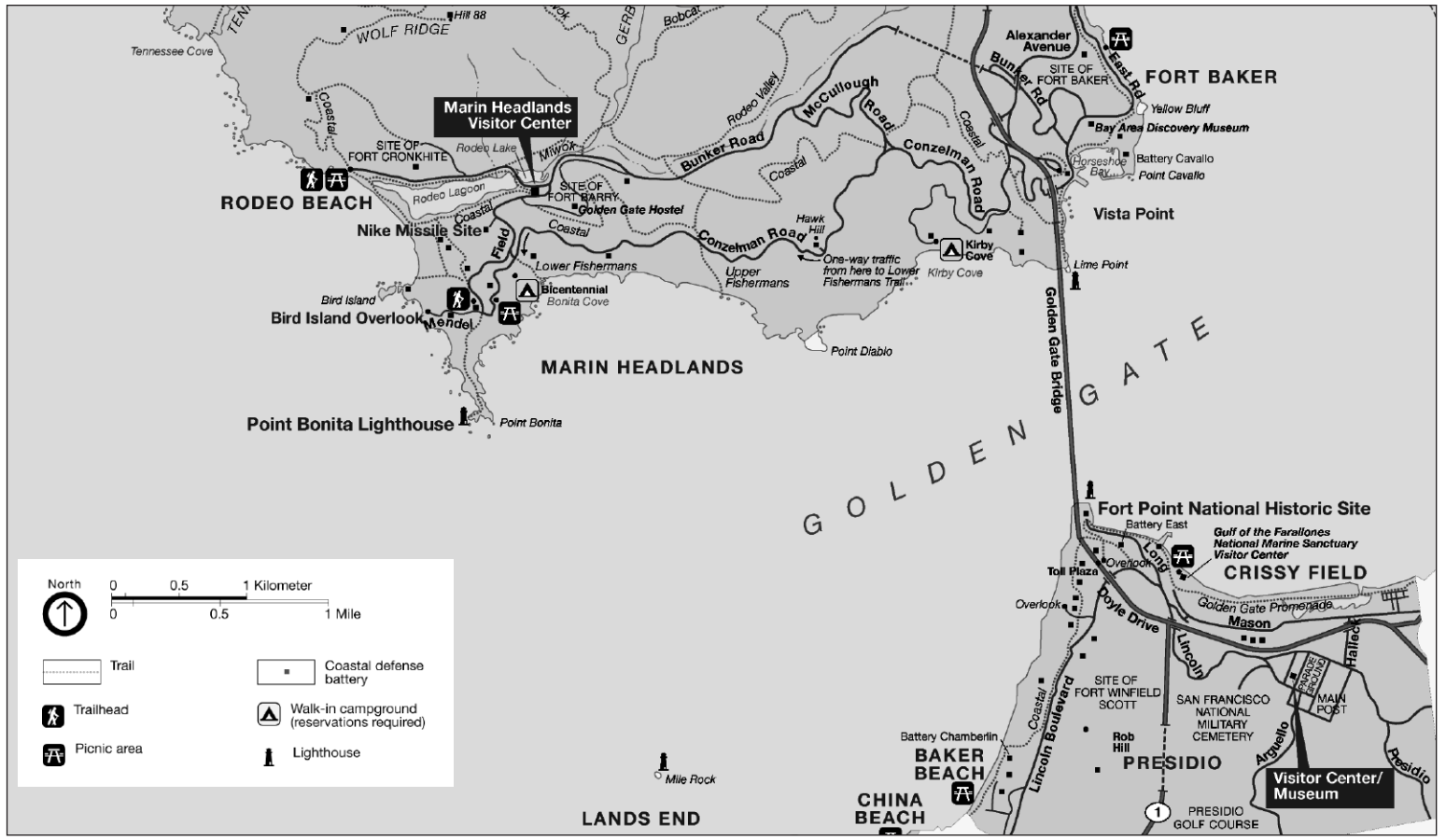


Originally built for a steam siren fog signal in 1874, this structure was converted to a residence for the lighthouse keeper in 1906, pictured here circa 1924.



SF Maritime NHP

The *City of Rio de Janeiro*, built in 1878 and shown here at anchor at Nagasaki, Japan, in 1894, belonged to the Pacific Mail Steamship Company. In 1867, the company began regular service between San Francisco and Hong Kong.



The Lighthouse Today

Point Bonita today is part of the largest urban national park in the United States, the Golden Gate National Recreation Area. A secret jewel of the Bay Area, Point Bonita is still an active lighthouse. The U.S. Coast Guard maintains the lighthouse and the National Park Service provides access to visitors.

Point Bonita Lighthouse is reached by a half-mile trail that is steep in parts. Discover Point Bonita's wild landscape, geology and fascinating history. The tunnel halfway to the lighthouse is open only during visiting hours: Saturdays, Sundays & Mondays 12:30 p.m. to 3:30 p.m.

The Lens & Fog Signal



Al Greening

The effectiveness of Point Bonita as an aid to navigation depends on two factors: visibility and acoustics. Visibility is provided by a Fresnel lens, a light system developed by French physicist Augustin Fresnel in 1822. Fresnel's system works with ground glass prisms arranged in rings around a light source. His revolutionary invention bends 70% of the outgoing bulb light and focuses it horizontally. Seven types of lenses (or "orders") were developed, each differing in size. Point Bonita's second order lens sends its beam 18 miles across the water under clear conditions.

To reduce the immense cost of constructing the Point Bonita lens, prisms were installed only on the ocean side, not on the side facing the cliffs. You may see the gap in the lens on the cliff side while hiking down the Point Bonita trail.

So that navigators can distinguish one lighthouse from another, each has its own pattern. Point Bonita's light switches on for three seconds, off for one.

In dense fog, when the light signal cannot be seen, a sound system comes into play. Originally warning cannon boomed out warnings at Point Bonita. That cannon proved ineffective and was replaced by a fog bell in just four years. Later, about 1874, the first steam siren was installed.

Today, an electric fog horn is used. Fog horns are as distinctive as light signals. Point Bonita sends out two blasts every 30 seconds. A fog sensor triggers the fog signal. The lighthouse projects a laserbeam outward. When water droplets or dirt particles reflect off the beam, the fog signal switches on or off.

Visiting Point Bonita

Directions to the Marin Headlands

From the North

- Take Hwy 101 southbound.
- Exit at second Sausalito exit, just before the Golden Gate Bridge.
- Bear right onto Alexander Avenue; proceed back under the freeway.
- Follow Alexander Avenue 0.2-miles; turn left onto Bunker Road.

From the South

- Take Hwy 101 northbound across the Golden Gate Bridge.
- Exit Alexander Avenue; bear right.
- Follow Alexander Avenue 0.2-miles; turn left onto Bunker Road.

Directions to Point Bonita

- On Bunker Road, pass through one way Baker-Barry Tunnel.
- Follow Bunker Road 3-miles; turn left on Field Road.
- Follow Field Road 0.8-miles to Point Bonita parking lot and trailhead.
- Walk the 0.5-mile trail to the lighthouse.

For more information

Marin Headlands Visitor Center
Fort Barry, Building 948
Sausalito, CA 94965

(415) 331-1540