Los Angeles Harbor Light – The Angels Gate Lighthouse

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Los Angeles Harbor Light, with its distinctive green flash, has stood at the entrance of Los Angeles Harbor for nearly 100 years. Located at the end of the two-mile federal breakwater, the tower has withstood numerous earthquakes, a tidal wave, and the impact of both curious visitors and vandals.

The lighthouse is the welcoming icon for recreational boaters, cargo carriers, and passenger ships arriving at the nation's busiest container port. Ironically, despite its high profile, L.A. Harbor Light's history has never been thoroughly researched.

Instead, legends and assumptions abound and are endlessly reprinted in popular history books and lighthouse guidebooks. This article represents the author's attempts to provide an accurate history of the lighthouse, and is a work in progress.

Establishment

1912 was a banner year for Los Angeles Harbor, as it set a record as the world's largest importer of lumber. Two years later, the opening of the Panama Canal would allow the Port to solidify its position as a critical trade stop on the West Coast – Pacific route. The first 8,500 foot section of the new federal breakwater was completed, and dredging of the Main Channel was underway, helping to set the stage for the Port's exponential growth as a deep-water port in the years following World War I.

Surprisingly, a lighthouse was not planned as part of the initial breakwater project. The terminus of the breakwater was originally to be a simple concrete platform. A temporary beacon, (fixed red), marked the end of the new breakwater. Almost immediately, vessels found it difficult to navigate around the new breakwater, and after several collisions, mariners circulated petitions calling for a proper light station.

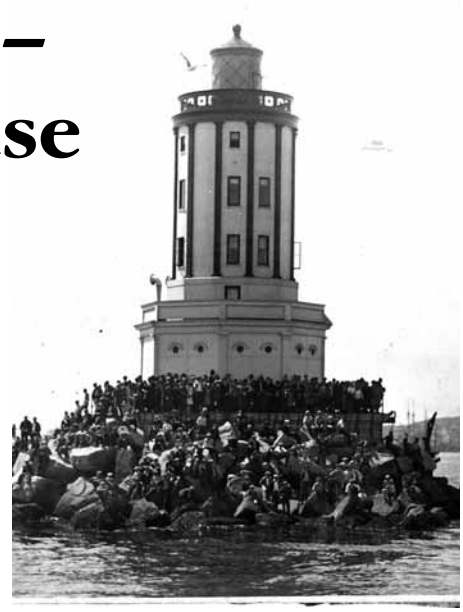
On March 4, 1911 Congress appropriated $36,000 for the "San Pedro Breakwater Light Station". Early Lighthouse Service correspondence stressed the need for the tower to withstand wave action, and the original concept of a square base was soon discarded.

The final design, by Edward L. Woodruff, boasted a structural steel framework built by Llewellyn Iron Works of Los Angeles with an octagonal base later fortified with rip-rap to help combat the pounding ocean waves. Champion Iron Works of Canton, Ohio built the iron lantern room and cast iron parapet. The fourth-order Fresnel lens was shipped from Paris by Barbier, Benard and Turenne, and it would be visible for 19 nautical miles. It would be the last fourth-order, bi-valve mercury float lens built for the U.S. Lighthouse Service.

Hello! My Name Is…

Confusion about the history of the light extends to its name. The original name as designated by the Lighthouse Service was "San Pedro Breakwater Light Station". After some bureaucratic discussion, the name was changed to "Los Angeles Harbor Light" in 1914. The new name was in recognition of the fact that the original breakwater appropriation did not include funding specifically for a light station.

The "San Pedro Breakwater Light" as it appeared in 1915. Pacific Fleet battleships are visible at left. *(Los Angeles Maritime Museum Collection)*



Los Angeles Harbor Lighthouse, circa 1925. The pilasters were painted black in 1918 to help distinguish the white tower in foggy weather. *(Los Angeles Maritime Museum Collection)*

The familiar name "Angels Gate" is a colloquial nod to Los Angeles, the "City of Angels" whose harbor entrance is known as the "Angels Gate". Today, though the official name remains "Los Angeles Harbor Light", the tower is better known to local residents and lighthouse aficionados as "Angels Gate Light".

Tending the Light

The lighthouse was established and the Fresnel lens began operating on March 1, 1913. John Olson was the first keeper. The first month of logbook entries reveal that the daily routine was already in motion with housekeeping and tending the lens as the primary activities.

Often the mercury float that balanced the lens required attention, as strong winds and waves shook the tower. Long days were punctuated with visits to San Pedro for mail and supplies, and the receipt of provisions from the lighthouse tenders MADRONO and SEQUOIA.

The tenders also supplied the drinking water, since it was deemed too expensive to run a pipe from San Pedro. In addition to operating the light, keeping the tower clean and preparing for inspections, the keeper

dedicated several days each month to the upkeep and repair of the gasoline-powered launch that was the keepers' primary mode of transportation.

Keepers were also responsible for maintaining four beacon lights, which often required repairs after being struck by wayward vessels, and the harbor's numerous acetylene lights.

The lighthouse filled a public relations role as well: visitors were encouraged to tour the tower Tuesdays through Fridays, from 1:00 to 4:00. This led to some grumbling from the Lighthouse Service personnel, who petitioned the Army Corps of Engineers in 1913 to extend the reservation and restrict access within 200 feet of the tower.

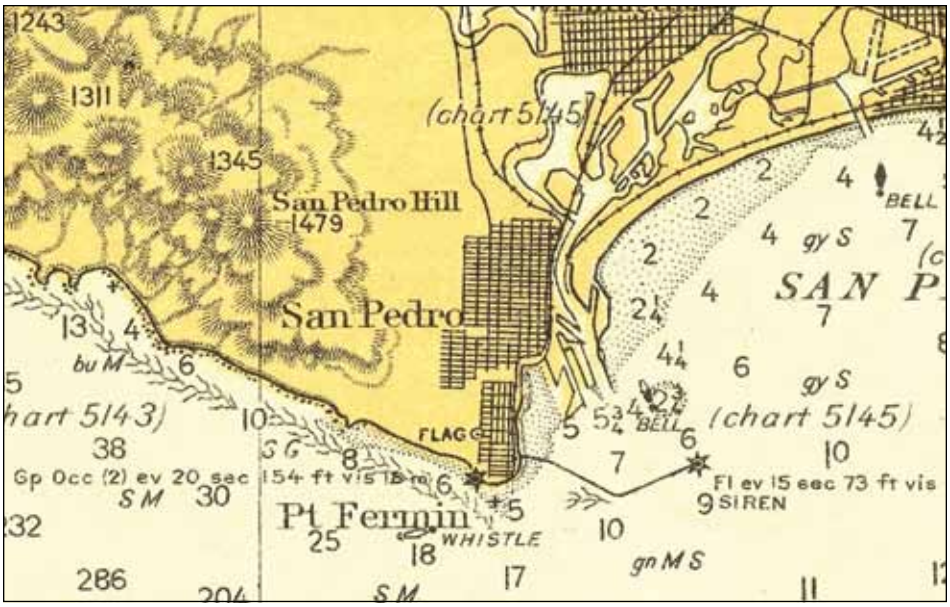
"It will be necessary to exclude the public from the immediate vicinity of the lighthouse," wrote Lighthouse Inspector H.W. Rhodes to the Commissioner of Lighthouses, "as the place is now a picnic ground and loafing place for undesirable characters, and it has been found impossible to keep them out of the lighthouse under present conditions…" The extension was granted, but the public visitation hours remained in force.

With the lighthouse just a sunny two-mile walk across the breakwater, an assignment to Angels Gate light may have appeared idyllic. In reality, it was considered one of more grueling stations the West Coast. The keeper's correspondence makes frequent comparisons to such remote dangerous West Coast assignments as St. George Reef and Mile Rocks.

Since the tower did not include accommodations for families, Angels Gate Light was known as a "bachelor station". Keepers would spend weeks at time separated from their families who lived ashore.

Apparently life at Angels Gate was particularly challenging for the first and second assistant keepers, many of whom had only brief tenures. On November 24, 1913, just eight months after the lighthouse began operation, Keeper Olson noted in the logbook: "Second assistant keeper Hughes suspended from duty for assaulting the keeper. All keepers are instructed that in the future no distilled or malt liquors are to be brought to this station".

Assistant Keeper James H. Murray lasted one month on the job. A Los Angeles Times article of November 19, 1924 reports: "James H. Murray, assistant lighthouse keeper, was being sought yesterday by harbor police". The article explains that Murray was last seen at the Bank of San Pedro where he withdrew $100. Later, Murray was brought up on charges of dereliction of duty.



This 1916 chart published by the U.S. Department of Commerce shows the relationship of the Los Angeles Harbor Lighthouse to Point Fermin and Point Vicente. Also noted is L.A. Harbor Light's flash pattern of one flash every fifteen seconds. *(Los Angeles Maritime Museum Research Library)*

Keeper Irving Conklin tending the lens, circa 1932. The original mercury float apparatus is visible. *(U.S. Lighthouse Society photo)*

Assistant keeper William Stokes enjoyed two-week tenure at Angels Gate. According to Lighthouse Superintendent H. W. Rhodes, "Mr. Stokes, who began work July 1, 1933, is resigning July 15, 1933, for the purposes of returning east with his wife who does not like California."

In 1936, H.W. Rhodes sympathized with the keepers' plight. Writing to the Bureau of Lighthouses, Rhodes requested longer periods of leave for the keepers, as he explained :"The duties at this station are more arduous than any other three-man station in the district, and it is difficult to retain competent men who are willing to remain at the station for any length of time…each one of the present keepers has at various times requested transfer to another station…"

In spite of high turnovers of first and second assistant keepers, several of the head keepers enjoyed longer careers at Angels Gate during the period that the lighthouse was under the jurisdiction of the United States Lighthouse Service (1913-1939). Frank Weller, first assigned as assistant in 1916, retired as keeper in 1930.

Willard D. Miller was a native of Nova Scotia who enlisted in the United States Navy and was assigned to the

Keeper Willard Miller, hero of the Battle of Cienfuegos and woodworker extraordinaire. *(U.S. Naval History and Heritage Command photograph)*

USS NASHVILLE. During the Spanish-American War, his bravery at the Battle of Cienfuegos earned him the Congressional Medal of Honor. The decorated veteran joined the Lighthouse service in 1906 and was appointed keeper of Los Angeles Harbor Light in 1915.

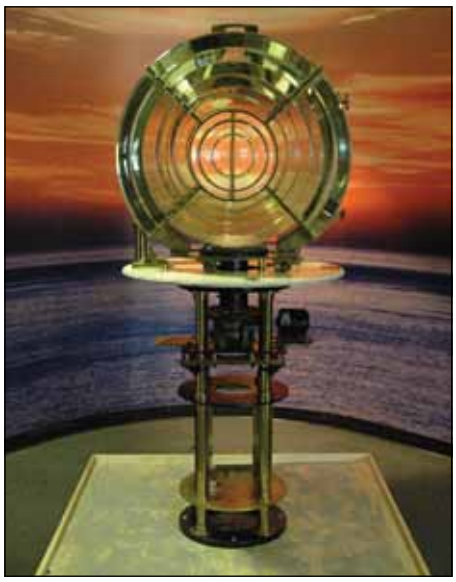
Four years later, the battleships of the US Pacific Fleet arrived at San Pedro / Long Beach, and Miller quickly found his avocation. While in port, the ship's crew would often discard pieces of wood and other materials overboard. Miller, who claimed never to have used a carving tool, immediately began transforming the discarded wood to into ornate phonographs.

He told a reporter in 1922 "Once I started whittling on that piece of oak I knew I had struck the thing I wanted to do more than anything else". Miller became renowned for his phonograph collection that included a replica of the lighthouse, and always kept a variety of records handy to entertain visitors, claiming "I can always tell by looking at 'em just what kind of piece they'd like to hear."

Irving David Conklin was another keeper who brought his talents to the lighthouse. An accomplished photographer, Conklin served at Point Reyes, Alcatraz and Angel Island before reporting for duty at Angels Gate in 1931. While Conklin's photographs help to document lighthouse life, his love of a good sea story is a mixed gift to historians who must now sort through tall tales. Conklin was a favorite subject for newspaper reporters who were assigned to the harbor on a regular basis and needed to fill column space.

He especially enjoyed re-telling his version of why the Angels Gate Lighthouse has a southeasterly tilt. At times, he blamed one violent storm that caused the tower to lean. At other times, it was a battleship that collided with the lighthouse, frightening the keepers. While these stories are certainly riveting, they are unsubstantiated, and unfortunately have found their way into print in endless repetitions.

There are a few plausible reasons why the tower does indeed have a slight tilt, though none are as fascinating as Conklin's stories. First, the breakwater was originally finished with a concrete slab, and no further construction was planned. During the lighthouse' design phase, Lighthouse Service correspondence bemoans the fact that the slab is out of plumb.



The original Fresnel lens is now on exhibit at the L.A. Maritime Museum. *(Photo by Tom Budar)*

Almost immediately after its establishment, the lighthouse was vulnerable to shaking due to high winds and waves, not to mention the occasional earthquake. It was not uncommon for the storms to be so severe that mercury spilled from the base of the lens. (Problems with the mercury float mechanism persisted until 1935 when the mercury float was removed and replaced by a ball-bearing drive powered by an electric motor.)

With the 1920s bonanza of oil drilling came a new threat to the tower's stability, that of subsidence. By the mid-1930s, this phenomenon of a sinking sea floor was prevalent in Los Angeles Harbor, especially in areas encompassed by the Wilmington Oil Fields. Nearby businesses such as the Fellows and Stewart Shipyard were forced to relocate. Subsidence is one more factor that possibly contributed to the tower's lean, and warrants further study.

While there is no documentation of a battleship hitting the tower, there was one incident of a battleship colliding with the breakwater. Though the tower was undamaged, this mishap may have given birth to the myth that persists today. On October 23, 1925, the battleship OKLAHOMA, returning from battle practice, struck the breakwater while entering Los Angeles harbor. The OKLAHOMA's official deck log makes no mention of this event and the Los Angeles Times reported "only superficial damage to her bow". The Navy later blamed a jammed rudder as the cause of the collision.

World War II and Beyond

Photographs of the lighthouse from World War II show an exterior observation catwalk resembling an odd-shaped bonnet. Contrary to popular belief, the catwalk was not constructed as a wartime security measure, as its plans were actually drawn in the summer of 1941, months before the Japanese attack on Pearl Harbor.

Once war was declared, the harbor was almost exclusively devoted to wartime activity. Anti-submarine nets were installed at the breakwater's entrance, and access to the harbor was limited to individuals bearing a government-issued identification card. Unlike its neighbor Point Fermin, whose Fresnel lens was removed during World War II, the Angels Gate Light continued to operate throughout the war. The exterior catwalk was finally removed in 1957.

The postwar years brought an easing of duties for keepers. Perhaps the most harrowing experience was a May, 1960 tidal wave that destroyed the lighthouse dock, footbridge, and workboat.

But the experience of keepers like Darryl Smalley seem to be more the norm. Smalley, assigned to the lighthouse in the late 1960s, recalls slow-paced days in which he built a boat in his spare time, socialized, and adopted a dog. The various lighted buoys were by now controlled via an electrical

Ninety-eight years of salt air, sun, and storms have taken their toll on the tower. (Photo by Marifrances Trivelli)

switch, and no longer required the keepers to set off in a small launch. In 1973, the Coast Guard automated the lighthouse, which meant the end of keepers in residence.

The 1980s bestowed a dubious honor upon Angels Gate lighthouse. In 1987 it was the first lighthouse in California to transition to solar power. Amid media fanfare, solar panels were installed along the lantern deck railing, and the original Fresnel lens was dismantled and stored in a Coast Guard warehouse. (The lens is currently displayed at the Los Angeles Maritime Museum.) Charlie Ashmore, who helped install the new, 30-pound plastic lens: "It will mean less work, and will be cheaper for the government".

Just over two years later, however, after numerous complaints from mariners that the new light was too dim, the Coast Guard installed a larger lens with a 1,000-watt bulb powered by a generator. Today, the lens is a Vega rotating beacon, and the Los Angeles Harbor Light is once again "off the grid", relying on solar panels to operate the lens. Coast Guard personnel inspect the lens once every three months, for them a welcome change from the days of full-time keepers.

Rehabilitation

Removal of full-time personnel meant that the tower was vulnerable to vandalism and the daily assaults of sun and salt water. (The last major repairs to the tower were completed in the 1990s). Today, little evidence of that care remains. Though the lighthouse is officially off-limits to the public, vandals still traverse the breakwater and leave graffiti alongside the deteriorating steel, cracked plaster, and broken windows.

In 2009, the Cabrillo Beach Boosters, a San Pedro-based nonprofit organization, was awarded a $1.8 million mitigation grant from the Port of Los Angeles to rehabilitate the tower. The award is especially timely since the tower will celebrate its centennial in 2013. With the help of the community, the Boosters are working to ensure that Los Angeles Harbor Light will continue to be a welcoming presence for at least another 100 years.

Marifrances Trivelli is the director of the Los Angeles Maritime Museum in San Pedro, California. She earned an M.A. in history from the University of Connecticut and has published numerous articles in maritime journals. During the restoration of the Angels Gate Lighthouse lens in 2009, Trivelli became concerned at the lack of reliable information pertaining to the history of the lighthouse, and embarked on a research project to help set the record straight. A version of this article was published in "The Keeper's Log" United States Lighthouse Society, February 2010. She looks forward to expanding the article as new information is uncovered.

Notes on Sources

Statistics on the modern-day Port of Los Angeles were generated by US Department of Transportation, Research and Technology Administration "America's Container Ports: Freight Hubs that Connect Our nation to Global Markets", June 2009. Accessed online December 11, 2010, http://www.bts.gov/publications/americas_container_ports/2009/pdf/entire.pdf

For an overview of the growth of LA Harbor in the early 20th century, see Charles Queenan "The Port of Los Angeles: Wilderness to World Port", Los Angeles Harbor Department, 1983.

All references to keeper's logbooks, architectural drawings, and official Lighthouse Service Correspondence are in the National Archives Record Group 26. The earliest known published mention of the name "Angels Gate" in reference to the lighthouse can be found in the Annual Report of the Los Angeles Harbor Department, 1913.

Researchers interested in Los Angeles Harbor Light should approach its National Register Nomination information with caution. The narrative includes numerous errors as well as a re-telling of the mythological battleship collision.

Biographical information for Willard Miller was provided by the Naval History and Heritage Command, and from the Arlington National Cemetery website.

Irving Conklin's photos are in the collection of the US Lighthouse Society. The author wishes to extend thanks to Jeff Gales, Director of the US Lighthouse Society, for his assistance in accessing the collection, and to lighthouse consultant James Woodward for his expertise regarding the challenges of mercury floats.

More information on subsidence in Los Angeles and Long Beach harbors is found in James Gilluly and U.S. Grant: Subsidence in the Long Beach Harbor Area, California, published in the 1949 bulletin of the Geological Society of America, Vol. 60 No. 3

The career of the USS OKLAHOMA (BB-37) is chronicled in the Dictionary of American Naval Fighting Ships, Volume V. Published by the Office of the Chief of Naval Operations, 1970 The deck logs are in the Old Military and Civil Branch, National Archives and Records Administration.

A copy of Coast Guard drawings delineating the 1957 removal of the catwalk are in the Los Angeles Maritime Museum Collection. The author interviewed former keeper Darryl Smalley in September, 2010. Notes on file at the Los Angeles Maritime Museum.