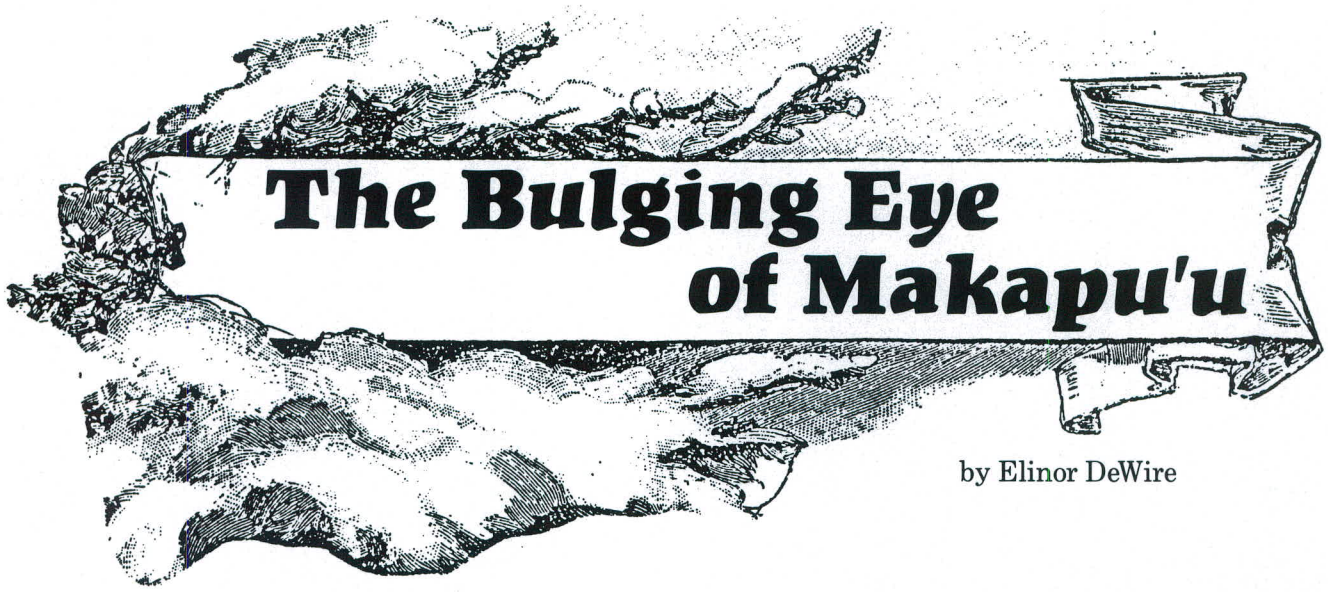




The Bulging Eye of Makapu'u

by Elinor DeWire

The sea has always isolated the Hawaiian Islands, yet their central position in the Pacific—3000 miles between the United States and Japan—links them to the rest of the world in a paradoxical way. They are remote specks of green, afloat amid Earth's deepest ocean, and the vital guideposts between East and West. It seems only fitting that the nation's largest and most magnificent beacon at Makapu'u Lighthouse should guide the way from the continental United States to its sequestered sister of the Pacific.

As if by fate, the ancient Hawaiians named this precipitous, 647-foot headland Makapu'u (pronounced Maka-poo-oou). It literally means "bulging eye" and is thought to derive from an image of a face in a nearby cave. Little did the ancients know Makapu'u was destined to fulfill its name with a sentinel whose brilliant beam would shine nearly forty miles at sea.

As Lighthouse Service Inspectors surveyed the newly acquired Hawaiian Islands in 1904, looking for suitable sites for lighthouses, they recognized Makapu'u Head's importance stating:

"All deep-sea commerce between Honolulu and Puget Sound, the Pacific Coast of the United States, Mexico and Central America, including Panama, passes Makapu'u Head..."

On June 10, 1906, Congress appropriated $60,000 for the establishment of a lighthouse at Makapu'u. Only two months later, that provision was proven necessary when the beautiful passenger liner *MANCHURIA* stranded off Makapu'u Head near Rabbit Island in low visibility conditions. Her captain blamed the costly accident on the lack of a lighthouse at Makapu'u.

Since there was no access to the point by land, most of the 1907 work at Makapu'u involved hacking out a narrow road from the south side of the headland, around its face, and up to the proposed site for the keeper's quarters 600 feet above sea level. Materials for the 46-foot, concrete lighthouse, to be built 420 feet above sea, were hauled up the face of the cliff by cable.

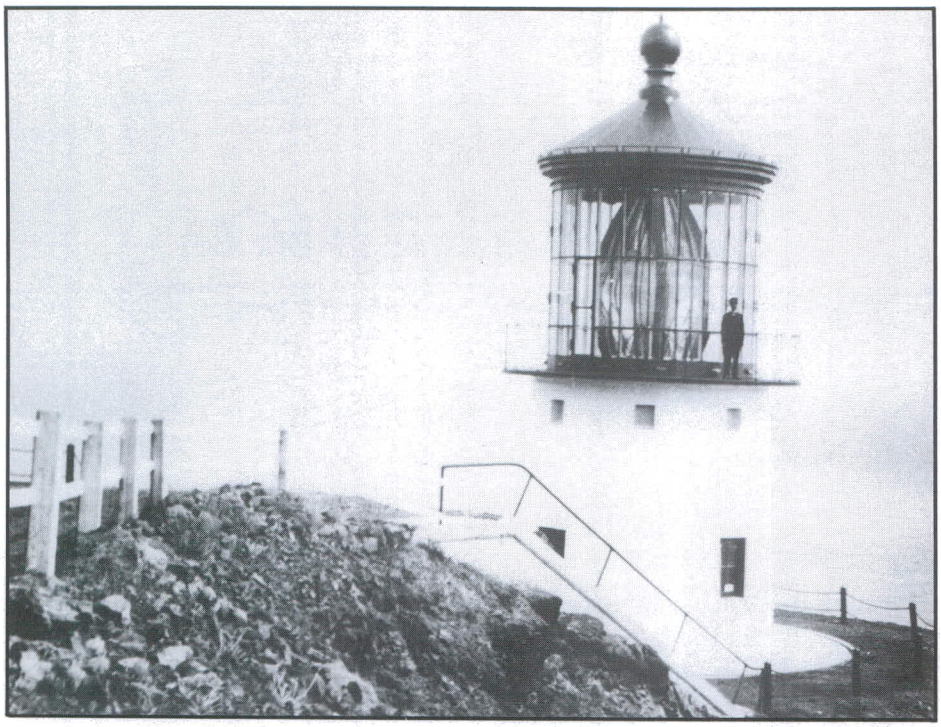
By June 1908, the station was complete except for minor additions to the oilhouse and installation of the lens and lantern. The lens, a giant, 360° catadioptric fixed type known as a hyper-radiant lens, had been designed by Messrs. Barbier of Paris, France and manufactured by Chance Brothers of England in 1887. It was stored in a warehouse until the United States purchased it for Makapu'u Lighthouse in 1909.

The glass portion of the optic measures 8¼ feet in diameter, is 11 feet high, and consists of 1140 finely polished glass prisms. It is the largest type of lighthouse lens in use and the only one of its kind still operative in the United States. The glow from its beam has been seen up to forty miles at sea and is the major landfall light for vessels approaching Hawaii from the mainland. Workmen lifted the delicate optic up Makapu'u's steep face by cable in 1909, then set it carefully in place.

Makapu'u Lighthouse's seventy-five-year career has not passed unblemished. In April 1925, an accident in the tower service room left the first assistant keeper dead and seriously injured the second assistant keeper. Makapu'u's hyper-radiant lens was, at that time, illuminated by an incandescent oil vapor lamp with three 55mm mantles. About 3:00 a.m. on April 9th, as the two keepers were about to change watch, a flash fire occurred.

The Lighthouse Bulletin of June 1, 1925 described the incident:

"A cylindrical tank containing alcohol for starting the oil vapor lamp stood upright on a small wooden stand about six feet inside of the main entrance door on the left and about two feet above the floor. The first assistant suggested to the second that he fill the alcohol lighter, and after drawing all the alcohol which would run from the faucet, it was discovered that some of it had



A Hawaiian keeper outside the lantern room of the Makapu'u lighthouse. Note the size of the lens in relation to the keeper. (Official U.S. Coast Guard photograph—date unknown.)

dripped on the floor. The first assistant lighted a match, which ignited the alcohol on the floor, and the explosion followed."

Later examination revealed blistered varnish and paint on all vertical wood surfaces. A calendar in a window recess was charred at the edges, and a letter tacked on a cupboard was completely burned. Investigators surmised the entire room had momentarily been filled with intense heat. No damage was done to the tower or lighting apparatus, but the needless death of the first assistant and injury to the second assistant spurred officials to release this warning:

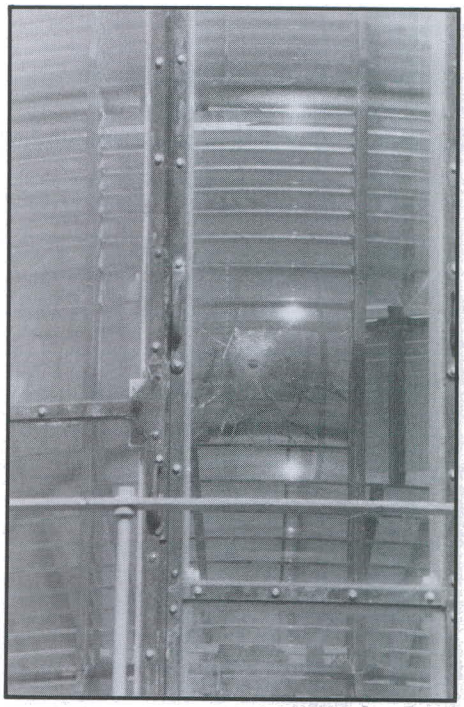
"This deplorable accident shows the necessity for the greatest caution in dealing with the many highly inflammable substances used in the work of the Lighthouse Service."

Prior to automation in 1974, Makapu'u lightkeepers and their families lived in three, cutstone, two-bedroom residences perched high on the point behind the lighthouse. A torturous gravel road, now paved, winds its way to the point. The brakes on keeper's vehicles persistently wore out because the road was so steep. Families complained of the station's remoteness, some twenty miles from Honolulu. Moving vans had difficulty negotiating the access road's sharp turns, it was almost impossible to get a doctor or a babysitter, but keeper's wives were never bothered by door to door salesmen.

Frequent rockslides imperiled walking the 3-foot-wide, serpentine trail that led from the oilhouse, along the cliff face, to the lighthouse tower. Buffeting winds continually scoured the headland, shredding laundry on the clothesline and, on one occasion, possibly carrying off the station cat who disappeared in a storm. The Makapu'u seascape, however, is unparalled, and on clear days the neighboring islands of Molokai and Lanai are visible on the horizon. In Winter months, an occasional humpback whale is sighted journeying to its breeding grounds off Maui.

In 1984, vandals shot a hole through Makapu'u's valuable lens in an attempt to put out the light. The Coast Guard repaired damage to the lantern windows and the light source, but the precious lens itself cannot be restored. Since its shattered panel faces inland and does not abberate the characteristic, the lens will serve out the remainder of its career. Unmanning has simplified and economized the operation of Makapu'u Lighthouse, but it has also left it vulnerable.

The old keeper's dwellings, now a shambles, are due to be razed in the near future. The lighthouse, however, will continue to serve the Hawaiian Islands and is fastidiously maintained by Coast Guard crews who visit the station once a month. The tower's lonely vigil is sometimes interrupted by television and movie crews, who take advantage of its remarkable seascape, but, for the most part, Makapu'u Lighthouse watches over the Windward Coast in solitude. It was the last of Hawaii's lighthouses to be unmanned, ending a long and devoted era of lighthouse keeping in our fiftieth state.



Vandals shot this bullet hole in the storm pane of the lantern room. The bullet damaged the huge hyper-radial lens, the largest lighthouse lens in the United States. (Photo by Elinor DeWire.)

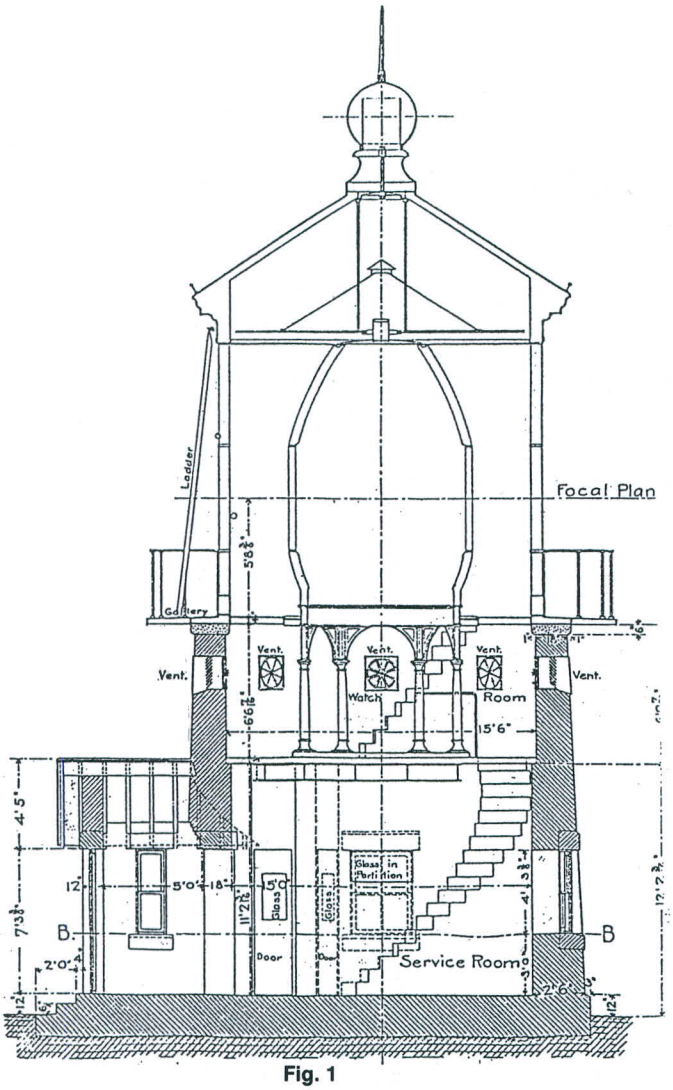
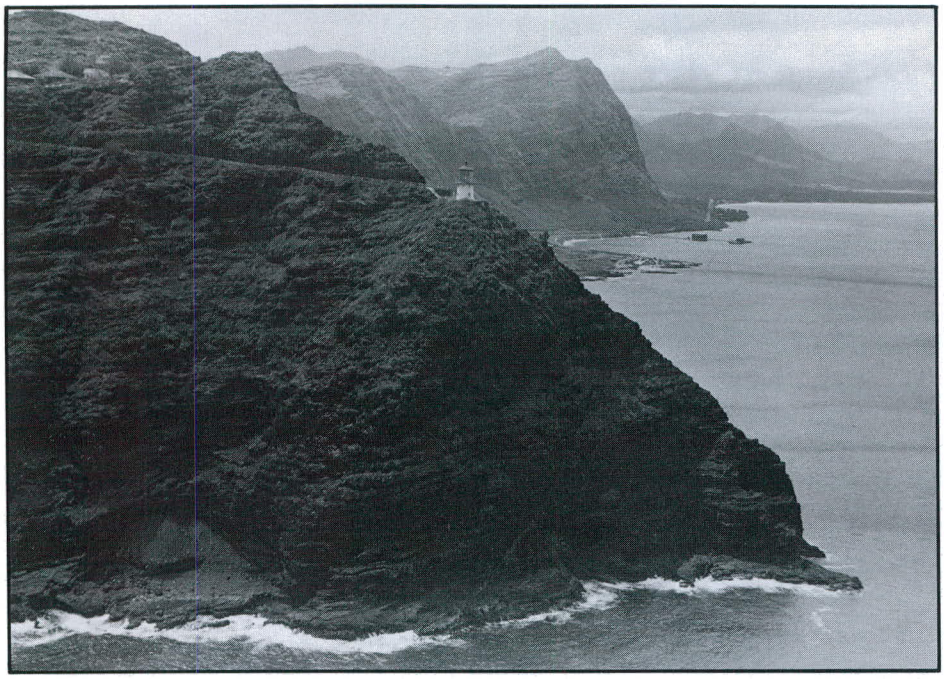


Fig. 1
Sectional Elevation on Line AA.



Makapu'u Point Light Station perched precariously on the eastern end of Oahu Island. The stone keeper's quarters can barely be seen in the upper left corner.
(Official U.S. Coast Guard photograph—date unknown.)

Makapu'u Keeper Dies of Burns 1925



ALEXANDER D. TOOMEY

The Lighthouse Service regrets to report the death of Alexander D. Toomey, first assistant keeper, Makapuu Light Station, Hawaii, on April 9, due to burns from an explosion of alcohol at the lighthouse. Mr. Toomey has been connected with the Lighthouse Service since July 1, 1908. He was a loyal and faithful employee and was one of the most competent keepers in the nineteenth district, having just been recommended for promotion to principal keeper at Kilauea Point Light Station, one of the important stations in the district.

His courageous sense of duty was shown after the explosion. When he was taken from the light station to the hospital following his injury, he refused to permit his wife to accompany him and insisted that she remain at the lighthouse, which would necessarily be without a keeper for a considerable time, while Keeper Akana took the two injured assistants to Honolulu. After having called his wife and children about him and with them repeated the Lord's Prayer, his last words to his wife were, "Stand by the light and keep it burning." These words were made the text of an eloquent sermon delivered by the Reverend Akana, of Kawaiahao Church, Honolulu, at the funeral of Mr. Toomey on April 11.

