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TINKHAM TALES V

Based on the Journals of Lighthouse Engineer Ralph Tinkham

Edited by Wayne Wheeler

Our Society has the good fortune to have acquired a historically valuable donation of the papers of Ralph R. Tinkham, Lighthouse Engineer. Presented by his granddaughter, Marjorie Scooros, the memoirs chronicle a fascinating career that led him far and wide as he moved up the ladder of positions within the U. S. Lighthouse Service to become Chief Engineer and, eventually held the position of Captain, Chief Engineer of the U. S. Coast Guard.

Ralph Tinkham graduated from the College of Engineering, University of Michigan in 1905. He joined the Russel Wheel and Foundry Company in 1906 as a design engineer, from which he was "loaned" to the Lighthouse Service to oversee the design and initial construction of the proposed Rock of Ages Lighthouse. Working for the firm's structural steel division, but from the Lighthouse Service 11th District offices in Detroit's Customs House, he worked on the Rock of Ages project until he resigned the firm in 1908. He then began employment with the Lighthouse Service as the Superintendent of Construction for the 11th Lighthouse District (Lakes St. Clair, Huron and Superior).

For the next 38 years Tinkham was involved with numerous lighthouse projects across North America, from the Great Lakes to Alaska—even to Panama. After his retirement in 1946, he wrote a massive tome about his experiences, laced with anecdotes.

Over several issues of *The Keeper's Log*, we will publish some of his more interesting memories as part of a series called "The Tinkham Tales." We now present installment number five.



Ralph Tinkham in the late 1920s at his desk when he was Superintendent of the 19th Lighthouse District (Hawaii, Midway, Guam and American Samoa). Note the photo of President Hoover at left. Photo courtesy of the Minnesota Historical Society, Split Rock Lighthouse.

HAWAII

It was the good fortune that my family and I resided in Hawaii for eight years during the nineteen twenties... when we arrived, Hawaii had been a territory of the United States only 22 years. The total population of the islands was only about 250,000, 70 percent living in Honolulu. The islands of Kauai and Niihau were the western most and oldest of this group, and to the west of them for over a thousand miles is a succession of small islands of coral and sand, occupied only by sea birds (turtles and harbor seals) terminating at Midway, which is a Navy base. Curiously enough, this long string of islands and Midway, at the time we were living there, was an administrative part of the City and County of Honolulu....

The Hawaiians always were a very religious people; their religious ceremonies and taboos dominated their lives. The priesthood, therefore, actually exercised more power over the people than did their kings. In fact the kings spent most of their time ... in building temples (the heiau) to various gods ... the heiau (hay-ee-ah-oo) and the shrines, in considerable number, still remain on the several islands when I explored them.

... Superstition as to the efficiency of spirits still haunting the ancient heiau was not exclusive to native Hawaiians. At Kalae, South Cape, the southern extremity of the island of Hawaii, was a lighthouse. The government reservation of several acres embraced the entire cape. Some three hundred yards inland from the light tower was the dwelling for the keeper and his family. Directly in front of the tower, toward the sea, was the well-preserved remnant of an ancient heiau, not an elaborate edifice and therefore doubtlessly ... erected to a minor god. It was enclosed by a rubble stone wall, chest high, with an entrance on the ocean side. Within this enclosure, long green grass grew luxuriantly, possibly due to the subsurface seepage from a distant spring,. For outside this enclosure, the surface of the ground for miles around was like a desert, sparsely covered with dried brown grass and weeds struggling for their bare existence. The annual rainfall was less than five inches. Water for the light station was brought by tender and pumped ashore into storage tanks.

The keeper of this light (station) at that time was a former seafaring man of English birth, whose wife was a native Hawaiian. He told of several episodes relating to this heiau, which emphasized the persistence of superstitions ... on one occasion a Japanese resident of the island, passing on the highway nearby, riding a mule and observing the rich green grass in the heiau, tethered his mule outside the reservation, climbed the fence armed with a cane knife, entered the heiau, and proceeded to cut an armful of the long grass. This he carried back and dumped outside as fodder for his mule. As he climbed back

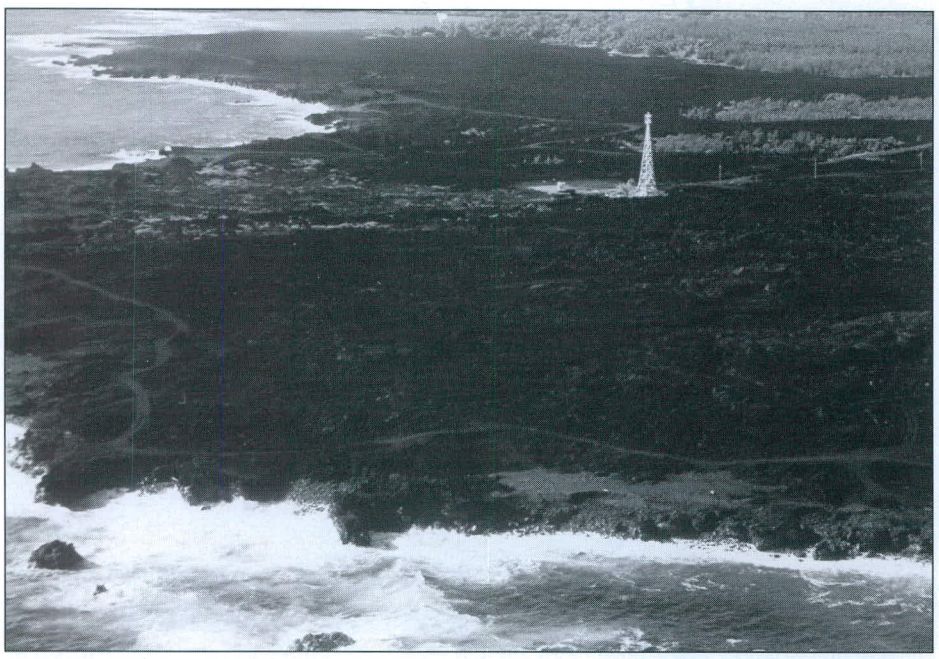
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over the fence he fell dead at the feet of the animal. The keeper, in all seriousness, believed this to be retribution for having desecrated the heiau.

At another time the same lighthouse keeper, having completed cleaning up in the tower, thoughtlessly dumped a shovel full of debris over the wall of the heiau. The same day, he suffered an attack of inflammatory rheumatism, the first he had ever experienced, so severe he took to his bed and sent his wife for a doctor. He remained bedridden for several weeks, his wife taking care of the light. After repeated visits and treatments by the doctor his malady seemed progressively worse. Then his native wife convinced him to call in a native kahuna ... as the keeper put it, he was willing to try anything. The kahuna questioned him closely concerning his actions preceding the attack, learning of the casual gesture of dumping the debris over wall of the heiau. The keeper was then ordered, to propitiate the god whose shrine he had desecrated, to proceed to the heiau unassisted, where the kahuna would offer prayers for his deliverance. Crippled as he was and unable to walk, the keeper managed, with his wife's encouragement to crawl on his stomach that three hundred yards, suffering excruciating pain, and, directed by the kahuna, dragged himself through the entrance, coming to rest on his face inside the wall. The kahuna then delivered a long incantation in his native tongue ... deposited a bit of food he brought from the house as a sacrifice, then commanded the keeper to get to his feet. Miraculously he did just that. the pain ceased, he walked back to the house, and he never suffered an attack after that.

Kalae Cape was said to be the place where Madam Pele landed to take up her home in Hawaii. She was the goddess of fire, and she lived in the fire pit of the Kilauea volcano, called halemaumau, The House of Everlasting Fire.

One Sunday the lighthouse tender, *Kukui,* was moored in Hilo Harbor. I was aboard making a periodic inspection of lighthouses and buoyage. I joined the ship's captain for a motorcar trip to the Kilauea volcano, a drive of forty miles through forests of giant ferns and sub-tropical vegetation. A number of men from the crew of the *Kukui* accompanied us. We arrived at the volcano house and proceeded on foot across the floor of the main crater nearly three miles to the fire pit. The floor of the crater was as level as a mill pond ... smooth and hard as a blacktop pavement, probably centuries old. We stood along the edge of the fire pit, a few steps back from the rim but close enough to see the boiling lake of molten red lava a hundred feet below. As we watched its fountains and constantly changing currents and patterns, a sudden gust of wind blew a white sailor hat out over the fiery chasm. It had blown off the head of the old coxswain from the *Kukui.* He was a grizzled native Hawaiian who had been with the ship for many years, a reticent, kindly man, whom everyone liked, and an expert boat handler. We watched that white cloth hat sail out over the pit, buoyed up by the gigantic column of hot gas ... and toss about in its eddies. The old coxswain took a silver dollar from his pocket, held it aloft for a moment while he mumbled a pray to Madam Pele, then threw it far out into the pit. The hat continued to be tossed about in the hot gas for a few minutes, then gradually drifted toward the outside of the pit, falling lower as it neared the edge, and in a final dive landed not ten feet from the coxswain. Madam Pele had acknowledged his tribute and answered his prayer. One can wonder that some of those elder Hawaiians still fester a subconscious belief in their ancient gods?



Cape Kumukahi Light Station on the "Big Island" of Hawaii. This 125-foot-tall tower was erected in 1929 and equipped with an aero beacon lens. Photo courtesy of the U.S. Coast Guard.

Twenty-five miles southeast of Hilo is Cape Kumukahi, the southeastern most point of the Big Island and therefore of the entire archipelago, a landfall for vessels arriving from the Panama Canal. The cape is formed by a long, triangular plateau of lava. It's only a few feet above sea level and extends three miles into the Pacific. In those days this entire region was subjected to frequent, almost daily, earthquake shocks.

Because of its geographical location, it was determined that a major lighthouse on Cape Kumukahi was essential and I was assigned the project. Because the cape was so low, it required a tall tower and I designed a 125-foot-high skeleton tower. The unique feature of the tower was the foundation. I first had the lava excavation and installed a massive concrete block. On top of this was another concrete foundation block and between the two a thick layer of sand. This separation permitted earthquake shocks to be absorbed without transmitting the shocks to the tower (the tower is still in service since 1929 with no damage from earth quakes).

While I was at my desk one day in the federal building in Honolulu, a gentleman in uniform was ushered into my office. He was soon to become one of the most controversial figures in our history. This was Brigadier General William (Billy) Mitchell. At the time he was Assistant Chief of the Army Air Service, and with one star he was at his zenith, for it was soon to wane. He was soon to lose his star, be court-martialed and retired. Of course, eventually he was awarded the Congressional Medal of Honor – awarded,

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unfortunately, after his death.

He had with him a letter addressed to me from the Commissioner of Lighthouses stating that the General wished to survey the Hawaiian Islands and I was to make our facilities available to him. He wished to accompany our tender *Kukui* on its trip to the various islands supplying light stations and servicing buoys. This would allow him to land at various places not ordinarily accessible. It was a coincidence that such a voyage of the *Kukui* was about to start, and fortunate for me that I was also to accompany the tender for my semi-annual inspections.

The general had with him his bride of a few months, and this official mission was also serving them as a honeymoon. So both General and Mrs. Mitchell were invited to be guests aboard the *Kukui,* which, being one of the larger vessels in the service, was provided with comfortable upper deck quarters for official passengers, located off a spacious wardroom. These two were charming personalities and during our three weeks aboard became good friends of mine.

Several incidents during that voyage of the *Kukui* are of interest. One was a visit to the islands of Kauai and Niihau. A new light, fighter plane from the Schofield Army Air Field was placed on board the *Kukui* at Honolulu. When we reached Waimea, Kauai, the plane was transported ashore on two of the ship's small boats , which had been lashed together. A local vacant field had been approved by the General as an air strip and a young Lieutenant, of the Army Air Service, had accompanied us to fly the plane. Unfortunately, in a trial take-off from the field, the young Lieutenant was unable to clear the fence at the end and damaged the plane sufficiently to cancel any flights over the islands. The plane was returned to Oahu, and the General thereafter made his investigations via automobile and the *Kukui*'s boats.

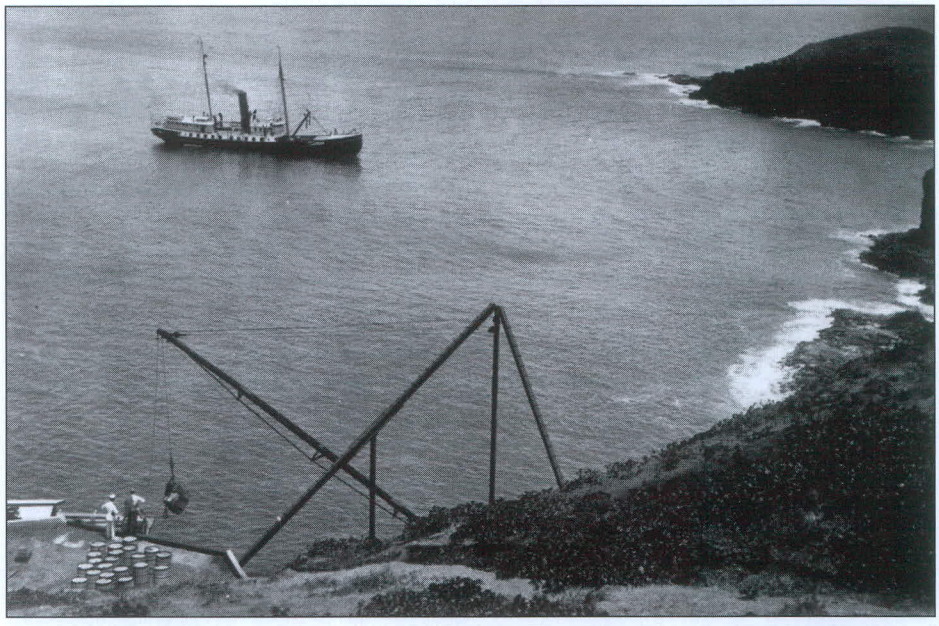
During our eight years in Hawaii we occupied three different domiciles, all in Honolulu. The first year we rented a furnished bungalow in the central part of the city. The second year we rented an unfurnished house in the Kaimuki district, mountain ward of Diamond Head. We began accumulating new furniture because all our effects, save a piano, were destroyed in a warehouse fire in New Orleans in 1922. The third year the Bureau of Lighthouses set aside the dwelling on the Diamond Head Lighthouse reservation as an official residence for the district superintendent. It was here that we resided for the next six years. The reservation was situated on a high bluff above the sea on the ocean side of Diamond Head Road. Along this boulevard in both directions were the spacious homes and gardens of many prominent families; some were the winter homes of people from the states, as were those of the Deerings (the International Harvester people) and of Barbara Hutton, the Woolworth heiress.

The Diamond Head house was set in a spacious, landscaped area of about one acre. The grounds were embellished with many species of indigenous shrubs and flowering trees, including 42 varieties of hibiscus.

After an addition and interior alterations had been completed, the home was a comfortable seven room bungalow. A paved terrace was on the ocean side off the living room. It was furnished with lounge chairs and a hammock and shaded by two spreading trees. From here we could look out over the Pacific and watch the breakers on the outer reef. At night the silvery light of the moon illuminated the surf. At the foot of the bluff, reached by a trail below the terrace, was a coral sand beach, and beyond it a wide coral reef with natural pools for bathing. At the far eastern end of the grounds was a garage, facing the street, and behind it the light station tower.



Diamond Head Light Station tower as it looked shortly after completion in 1899. It was constructed on coral rock and was the last primary lighthouse erected by the Hawaiian government. The lantern was transferred to the new tower, built in 1917. U.S. Coast Guard photo.



The lighthouse tender *Kukui* hove to off the Kilauea Point Light Station dock on the Island of Kauai. Her cargo boat is delivering supplies. Note the net on the stiff-legged boom bringing supplies aboard the station. U.S. Lighthouse Society collection.

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It was my conversion of this light from an oil vapor lamp, requiring the daily attendance of a keeper, to a wholly automatic, clock-controlled, electric installation, that made the dwelling and reservation available for conversion into the official residence of the district superintendent. The electrical equipment was serviced, as necessary, once or twice a year by personnel from local lighthouse depot.

Numerous interesting episodes highlighted the day-to-day life at the Diamond Head home. One day in my office in Honolulu, I received the military aide to General Summerall, at the time he was the Commanding General of the Hawaiian Department of the Army. The young officer stated that night target practice for the motor battery in the Diamond Head carter was scheduled for the next night, and the general would appreciate the privilege of observing the results from the vantage point of the Diamond Head lighthouse tower. The privilege was granted and the next night, not long after dinner, the general's limousine drove up. He and Mrs. Summerall, and two guests and the aide were ushered into the living room. We socialized while waiting for the target practice to start.

When the starting time arrived, a half an hour later, all of us proceeded to the tower and climbed to the top. This afforded a view encompassing the shoreline as far as Pearl Harbor and Barbers Point to the west, and Koko Head to the east. An Army tug was approaching from Honolulu Harbor, towing a target barge at the end of a quarter-mile cable, some three miles offshore. The tug passed Diamond Head, continued on to Koko Head, made a wide turn and came back, passed us again, made another wide turn in the vicinity of Honolulu Harbor and came back toward our position. This all took considerable time and one could see that the general was becoming impatient for it was long past the time that firing was to have begun. After the second round trip the general sent the aide to the nearby searchlight station, which had been illuminating the target the entire time, with instructions to telephone the colonel in command of the mortar battery to learn the reason for the delay. Incidentally, that officer was ignorant of the fact that the general was going to observe this performance that night. Just as the aid returned to the lighthouse, and the tug passed some three miles out, there came the boom of the mortar and a brief moment later a dummy shell completely demolished the target. The general was known as a strict disciplinarian and I often wondered just what conversation he had with the colonel in charge of the mortar battery after that night.



The new Diamond Head Light Station, constructed in 1917. The 55-foot-high tower has the lantern room from the original lighthouse in which a 3rd order Fresnel lens was installed. The structure was constructed on the base of the original tower and the design, more or less, mirrors the original tower. The characteristic was a double occulting light every 10 seconds with a red sector to warn mariners of a nearby reef. Photo by Jim Wolfrum.

The offices of the Lighthouse Service were located in the federal building in Honolulu. It was an attractive structure of Spanish architecture, having an imposing patio and colonnade. It contained all the federal offices and courts of the territory except for the military and territorial government. The building was located on one side of the central plaza, facing the Iolani Palace.

Four blocks away on the waterfront of the harbor, was pier four, owned by the government and designated for use by the Lighthouse Service. Our tender *Kukui* was moored here when in port, as well as a power boat used to service aids to navigation in Honolulu and Pearl Harbors. Buoys and other aids to navigation equipment were stored here. When I took charge of the district it was a small pier in poor condition. One of my first projects after assuming command of the district was to replace this facility. I designed and had constructed a large concrete pier and a large reinforced concrete warehouse , which housed carpenter, electrical and machine shops. To augment the area for buoy storage, I had a pier constructed at Sand Island, directly across the harbor from pier 4 [this eventually became the Coast Guard base for the 14th Coast Guard District]

Mention, again, of the *Kukui* prompts an explanation of its name. All lighthouse tenders in the service were christened with botanical names, either trees, shrubs or flowers. Usually these names were selected from plants indigenous to the district in which the tender was based. For example: *Cedar, Hemlock* and *Fern* were names of tenders stationed in Alaska. The Washington and Oregon tenders were named, *Heather, Rose* and *Manzanita.* So the *Kukui,* constructed for service in the Hawaiian Islands was named after kukui, a nut bearing tree of Hawaii. Kukui is also the Hawaiian name for 'light', which made it doubly appropriate for lighthouse use. The nuts, being rich with inflammable oil, were used by the ancient Hawaiians as torches to provide artificial light.

One morning as the stenographer entered my private office to take dictation, I noticed that she was extremely nervous ... she was a young woman in her twenties, only recently employed ... she had been in Honolulu only three weeks, having come from a civil service position in Washington, D.C., attracted to the glamour of the Islands. So were many

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young women at that time, some of whom, that distance away from the restricting influence of home, were inclined to be a bit wild and indulge themselves in all the pleasures their exotic surroundings afforded. From her facial appearance I was inclined to the opinion that the young woman had been up most of the preceding night at some beach party. When the dictation was completed and she started to leave the room, she turned at the door and came back to the desk In an agitated voice she exclaimed that she was frightened to death, that she hadn't slept all night from worry. Asked what had so upset her, she declared that she was sure that she had leprosy, and thrusting her hands across the desk, called to attention that they were covered with numerous small white blisters.

At this declaration I could not restrain my laughter, much to the young woman's astonishment. Then I explained to her that if, in the three weeks she had been in Honolulu, she had contracted leprosy, she would have no indication of it for at least seven years ... I added that the appearance of her hands indicated that she might have been indulging in eating too much pineapple. Still looking at her hands, she admitted that she had been eating a whole pineapple every night before going to bed ... the immense relief on receiving this information was reflected in her face, and with a profound thanks she left the room with a sprightly step.

The fear of leprosy was not unusual among those newly arriving in the Islands. A new chief clerk in my office, recently arriving from Portland, OR, would touch nothing in a public place. He even placed the tail of his suit coat between his finger and the elevator button. Because of the presence of lepers in the Islands at that time, even though most of them were confined to the leper settlement of Kalaupapa on Molokai Island, the uninformed newcomer was inclined to be apprehensive.

The fact that one of the most important lighthouses in the Hawaiian Islands is situated on Kahiu Point, Molokai, adjacent to the Kalaupapa leper settlement, afforded me a friendly acquaintance with the superintendent of that institution, a position he had held for 26 years. I learned the facts about leprosy from him shortly after my arrival in the islands. Inspections of the Molokai Lighthouse were required twice a year and the only approach was via a boat landing at Kalaupapa, thence through the village. The old superintendent always met me at the landing and escorted me through the village, usually after we went to his residence for lunch.

After lunch on the occasion of my first visit, the superintendent gave me a pedestrian tour of the village – public places, general store, auditorium, etc. The village was situated at the foot of the 2,000 foot high Pali which separated the main portion of Molokai Island from this peninsula. There was a narrow, dangerous trail down from the top of the Pali, but it was guarded to prevent people coming or going.

The requirements of the settlement were furnished entirely by ship. All the usual village services were done by resident lepers. There were no [obvious] lepers in attendance; other local residents included physicians, nurses and missionaries.

Although ordinary precautions were observed by non-lepers to avoid unnecessary exposure to contamination, I learned that leprosy is not contagious in the usual sense. The superintendent who had been there for 26 years, in daily contact with the lepers, said he had more fear of tuberculosis and other communicable infections than he did of leprosy. When we entered his residence, the first thing he did, and suggested I do, was wash our hands with antiseptic soap. Lepers were prohibited from entering the homes of non-lepers, and vice versa.

The keepers of the Molokai Light Station, situated on the extremity of the peninsula, beyond the leper colony, were all native Hawaiians and non-lepers who had no fear of their neighbors, although the regulations required them to have no contact with the village people. Their mail was sent out through the village post office and all mail was fumigated before leaving the island. At the time I was in Hawaii there were some 400 lepers in the colony [That number has drastically diminished and the area was added to the National Park System in 1980 as Kalaupapa National Historical Park. For more information go to www.nps.gov/kala/].



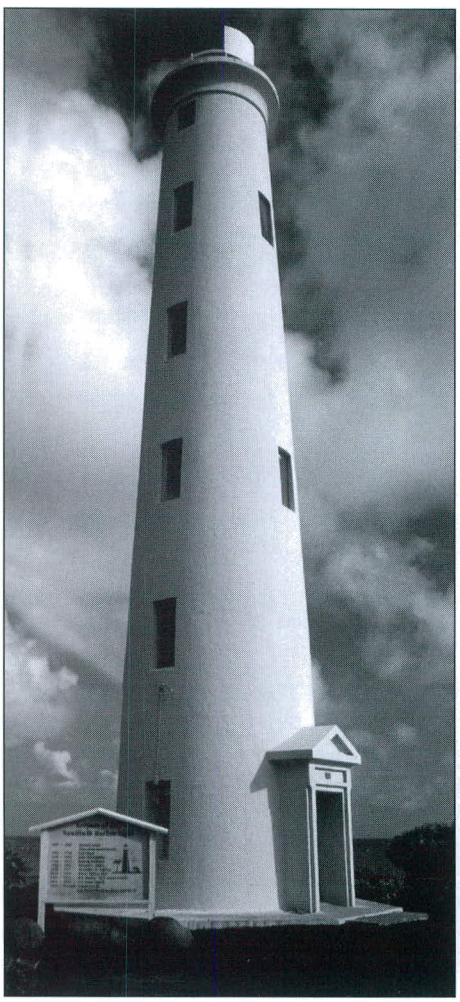
The 138-foot-high Molokai Light Station tower on the Island of Molokai. Constructed in 1909, it was fitted with a 2nd order Fresnel lens, which was removed in recent years. Photo by Jim Wolfrum.

Right – All that remains of the Barbers Point Light Station on Oahu is the decapitated tower. The station was established in 1888. The present 72-foot-high tower was constructed in 1933. Today a modern optic provides the light. Photo by Tom Higashi.

Below right – The Makapuu Point Light Station tower is all that remains of the picturesque station that was established in 1909. It's situated on the edge of a steep bluff some 420 feet above the water. The optic is the only hyper radiant (or hyper-radial) lens in the United States. It is the largest Fresnel type lens ever constructed. It's 8-1/2 feet in diameter, stands 22 feet high and weighs ten tons. Note the keeper standing on the gallery deck. U.S. Lighthouse Society photo.

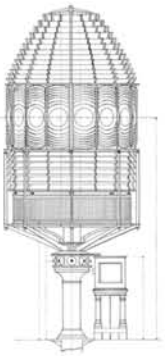
Below left – Nawiliwili Harbor Lighthouse on the Island of Kauai has also lost its "head." The station was established in 1908, although the present tower dates to 1932.







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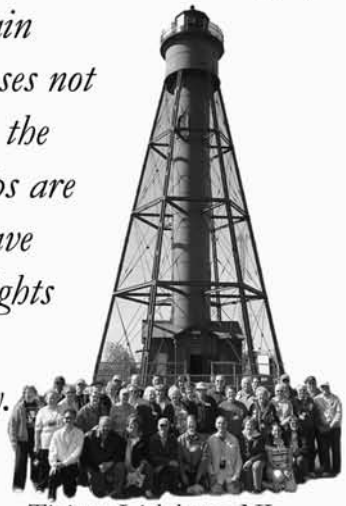
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