

# LIBERTY CALL

## Happy 100<sup>th</sup>!



Coast Guard archive file photo



J02 Greg Cleghorne photo

### Diamond Head Lighthouse celebrates centennial



J02 Greg Cleghorne photo

by J02 Greg Cleghorne  
HNN EDITOR

For early mariners and explorers, discovering a new land in the middle of the night often involved running aground. Luckily, times and technology have changed enough to take some of the worry out of venturing onto the trackless oceans.

Today's navigational aids come in the form of buoys, radio beacons and global positioning satellites, but rarely are they referred to as 'beautiful' or 'romantic' or inspire the enthusiastic interest that lighthouses do.

Over the Independence Day weekend, Hawaii's Diamond Head Lighthouse (DHL), listed on the National Register of Historic Places since 1980, celebrated 100 years of service to mariners. DHL stands in grand company. The first electrified lighthouse was the Statue of Liberty, erected in New York harbor in 1888. DHL originally burned a wick kerosene oil lamp, but was later renovated in 1917. Modernization included an electric generator.

For centuries, lighthouses and their keepers have guided mariners away from harm or political hardship and into welcoming harbors, ensuring both the passage of commerce and the curious traveler.

"Diamond Head lighthouse is the showpiece for our aids to navigation program in Hawaii," said Coast Guard Lt. Greg Fondran, aid to the district commander,

Rear Adm. Joseph J. McClelland, Jr., Commander, 14th Coast Guard District.

"The Coast Guard and Navy have had a great working relationship for more than 200 years," Fondran continued. "We're glad to know we're lighting and marking major waterways and channels so that our sister sea-service and all mariners can sail safely."

DHL was originally built in 1899 on the southwest side of the extinct Diamond Head volcano. Much of the Pacific region area was called the 14th U.S. Naval District. After 1939, the region was renamed the 14th Coast Guard district.

Local legend tells of one of King Kamehameha's chieftains who lit an entire village ablaze to lead the king back to shore after his canoe was blown out to sea by an evil spirit in the form of a gusting wind. Along that line, early maritime beacons were nothing more than huge bonfires on a hill.

History and mythology aside, DHL stands on a steep cliff 147 feet above sea level and its 60,000-candlepower electric light can be seen, depending on weather conditions, from a distance of more than 17 miles.

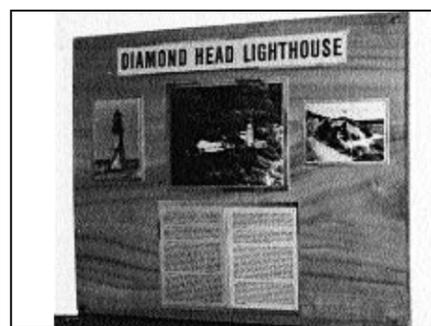
The 55-foot tall structure also has the honor of housing one of a dwindling few Fresnel (pronounced Fruh-nel) lenses. The lens and assembly stands roughly six feet tall. Enthusiasts believe these are some of the most beautifully crafted glass lenses ever made.

In this age of global positioning satellite technology, radio beacons and other high-tech navigational aids, some say the age of lighthouses has passed.

Not so, according to local Sailors.

"We don't mess around when it comes to navigating," said Quartermaster 1st Class Michael Broekhof, assigned to USS Hopper (DDG 70). "Especially when we're running 85-hundred tons of warship and we're responsible for 300 lives; we want to keep everyone off the rocks and keep everyone safe."

While many believe that electronic navigation is becoming a primary method for both piloting and long-range navigation, the reality is that there is no one system that can always be used.



J02 Greg Cleghorne photo

"We're always looking for a visual reference," Broekhof continued.

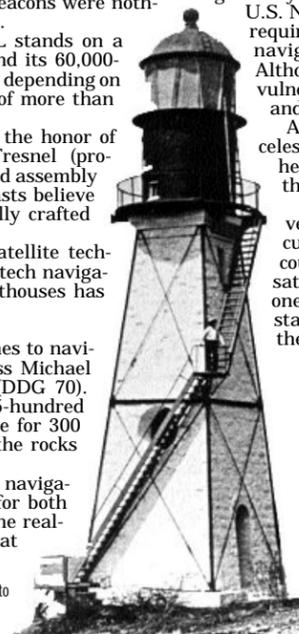
"When we're coming from the east, seeing Diamond Head [light] is really nice. It's a good feeling to know what bearing it is so we can tell ourselves, 'ok, Diamond Head bears so many degrees off the starboard bow.' We then know we're going west-north-west and headed in the right direction."

"Looking at an island with lights could be any side of any island, but Diamond Head [light] is kind of a dead giveaway."

U.S. Navy and Coast Guard quartermasters are required to know and understand that every navigational method has its limitations. Although very reliable, electronic methods are vulnerable to breakdown, malfunction, damage and atmospheric interference.

An experienced quartermaster can obtain a celestial fix - steering by the stars with a handheld sextant - within one-tenth of a mile of the ship's position.

Even with today's technological advances, vessels are still at the mercy of the ocean's currents and winds and can easily go off course. Whether it's a bonfire on a hill or a satellite in the heavens, lighthouses, like the one hundred year old Diamond Head Light, stand their ground, assisting mariners into the next millennium.



Coast Guard archive file photo

(Very top) View of Diamond Head Light from the lighthouse grounds. (Next to top) DHL sunset. At night, the beacon can be seen for more than 17 miles. (Above left) This is an inverted picture. The Fresnel lens stands more than five-feet tall and flips images seen through it. (Above right) A plaque alongside the lighthouse's spiral staircase tells DHL's history. (Left) DHL circa 1900's. Note lighthouse keeper on staircase.