New buoy set in place as winter swells roll in

The device off Hanalei gauges wave heights, temperature and other data in real time

By Sarah Zoellick

A new buoy off Kauai gathers wave data in real time and has drawn 3,000 views since Oct. 2.

A regional ocean observation network has installed its first-ever wave detection buoy off Kauai just in time for the winter wave season that rolled in during the weekend.

The bright yellow buoy, moored three nautical miles off Hana­lei in more than 700 feet of water, is ideally suited to gauge Hawaii’s winter swells, which typically move in from the northwest.

The buoy is the northernmost buoy monitored by an entity called the Pacific Islands Ocean Observing System, or PacIOOS, a cooperative effort between the National Oceanic and Atmospheric Administration and the University of Hawaii's School of Ocean and Earth Science and Technology. It is also the westernmost buoy in the main Hawaiian Islands.

The buoy is the 12th to be set up in the Pacific and the eighth installed around the main islands. Others are located around Guam and the Marshall Islands; in Kaneohe Bay and Wai-me­a Bay, and off Barbers Point and MokapuPoint on Oahu; off Pau-wela, Maui; Kaumalapau Harbor, Lanai; and Hilo.

"We definitely wanted to have one that was further west and north," said Heather Kerkering, PacIOOS director, in a telephone interview Monday.

Since the buoy started streaming real-time wave height, direction, period and water temperature data Oct. 2, its link on PacIOOS's website has drawn about 3,000 views.

"I think people were definitely interested in seeing it," Kerkering said, noting that the first big swell of the season likely helped boost its popularity.

By comparison, Kerkering said the buoy in Wai-mea Bay, the website's most popular, received 5,000 clicks during that time.

"We know, too, that the majority of surf companies that provide wave data online are gathering all the data from our buoys," she said, noting that the information is free because PacIOOS is federally funded.
While all of PacIOOS' buoys collect wave data in real time, Kerkering said, many were installed for specific purposes.

The buoy off Lanai, for example, helps officials determine whether it's safe for ships, such as those that carry oil to the island from Oahu, to enter the harbor, she said.

Buoy locations are determined through collaboration with state and government agencies and fishing, boating and ocean recreation groups.

PacIOOS, based at UH-Manoa, is part of a nationwide system of more than 50 buoys run by the U.S. Integrated Ocean Observing System, Kerkering said. The Pacific system began with a Hawaii pilot program in 2007.

The buoys benefit short-term forecasting and help with long-term efforts to compare data in different regions and to determine how conditions change, she said.

The Kauai buoy had been in the works for a while, but Kerkering said factors such as buying and shipping it to Hawaii, finding a vessel capable of taking it to the installation point, and waiting for suitable weather conditions all came together in time for Hawaii's world-famous winter swells.

———

On the Net:

All of the Pacific Islands Ocean Observing System's streaming wave data can be found online at oos.soest.hawaii.edu/pacioos/wavebuoy.

RELATED STORIES

Copyright (c) Honolulu Star-Advertiser