

White House Proposes to Cut Tsunami Warning System

Paul Rogers, Bay Area News Group, 2-28-12

Less than a year after surging waves from a Japanese earthquake battered the California coast, causing \$58 million in damage and wrecking the Santa Cruz and Crescent City harbors, the Obama administration is moving to reduce funding for the nation's tsunami warning and preparedness programs.

The White House's proposed 2013 budget would cut \$4.6 million from NOAA, the National Oceanic and Atmospheric Administration, for tsunami programs that were expanded after the 2004 Indian Ocean tsunami that killed at least 230,000 people.

Among the proposed cuts: a reduction of \$1 million for America's network of 39 high-tech buoys in the Pacific and Atlantic oceans. The buoys confirm if tsunamis are heading toward the U.S. and provide crucial details such as the height of the waves and when they'll hit land. Some of the nation's top tsunami scientists say the proposed cuts are too risky.

"Given how little money it is and the concerns about human life, this is a poor place to cut," said John Orcutt, a professor of geophysics at the Scripps Institution of Oceanography in La Jolla.

"It's just like large earthquakes," he said. "The half-life of attention is measured in shorter and shorter periods of time. Our memory isn't very long."

The proposed budget also would cut by nearly half the National Tsunami Hazard Mitigation Program, an NOAA initiative that has helped California and other coastal states coordinate tsunami warning systems, educate the public on evacuation routes and generate detailed computer models showing which coastal towns are most threatened.

NOAA officials say the cuts aren't sacrificing public safety. For one, they say the buoy system will still operate despite chances it will take longer for NOAA crews to repair broken buoys at sea. And the outreach programs already have created computer risk maps, paid for thousands of coastal warning signs and funded materials for schools and civic groups, said Susan Buchanan, an NOAA spokeswoman.

"People are more aware of tsunamis and better prepared to respond to them," she said. "The program was successful."

Orcutt said NOAA should trim from other areas, such as its satellite programs that are behind schedule. Meanwhile, critics are sounding the alarm.

"This is like a homeowner trying to economize by disconnecting the smoke detector," said Jeff Ruch, president of Public Employees for Environmental Responsibility, a nonprofit group that has raised the issue.

The buoy program, created in 1996, is of particular note.

Congress expanded it from six buoys to 39 after the 2004 Indian Ocean tsunami. The buoys, which cost about \$400,000 each, are tethered to the ocean floor. They measure water pressure changes and seafloor movement, and send instant details about tsunamis to satellites. The data is used by NOAA's tsunami warning centers in Honolulu and Alaska to fine-tune tsunami alerts.

On March 11, after the magnitude 9.0 earthquake off Japan, the buoys helped provide precise predictions -- to

the centimeter -- of the size of the waves, along with direction and arrival time on the West Coast. Because of the data, areas were evacuated, including the Santa Cruz waterfront.

Today, however, 10 of the 39 buoys are inoperable, and that number could climb if \$1 million is cut from the \$11 million annual budget to operate the buoy system. NOAA says it will strive to keep no more than 11 out of service at a time.

Jane Hollingsworth, NOAA's tsunami program manager, said that because many of the buoys are in remote locations such as the South Pacific and rugged Alaskan coast, NOAA is looking to conserve resources by working with Australia, Russia and Japan to maintain and repair U.S. buoys. She said seismic instruments first alert scientists to the risk of a tsunami. "The initial warning is based on seismic data, which has nothing to do with these buoys," she said.

Yet, NOAA leaders have said in the past that the buoys, known as DART -- for Deep-Ocean Assessment and Reporting of Tsunamis -- are vital. "The DART network serves as the cornerstone to the U.S. tsunami warning system," NOAA said in a March 2008 news release.

A 2009 research paper by NOAA scientists Lujun Chang, Chris Chamberlain and Vasily Titov said the buoys are NOAA's "primary source" of information for tsunami warning and forecast because, unlike seismic data or computer models, the buoys provide direct measurement and confirmation of tsunami waves.

After the 2004 tsunami that devastated Indonesia and other countries -- killing more people than the Hiroshima and Nagasaki atomic bombs combined -- Congress passed a law in 2006 to increase funding for tsunami buoys, research and preparedness. But that funding, \$40 million a year for seven years, runs out Oct. 1. Although some reports say Sen. Daniel Inouye, D-Hawaii, may be working to reauthorize the law, no new bill has been introduced.

In recent years, California received about \$1 million a year of the outreach money. The money paid for computer models showing how far inland waves could go, emergency drills, 3,200 warning signs from San Diego to Oregon and other materials. If Congress approves the Obama proposal, it would reduce the outreach program's current national budget from about \$10 million to \$6 million.

But more drills, evacuation plans and computer maps are needed, said Jim Goltz, the earthquake and tsunami manager for the California Emergency Management Agency from 2007 until December. "Preparedness and public education is perishable," Goltz said. "People need to be reminded. It's just like earthquakes."