

What's Happening

IN CALIFORNIA ?

BY LAWRENCE GABLE

VOL 12, NO 8 APRIL 2011

The Warnings Work

On March 11 an earthquake struck Japan. It caused a tsunami there that destroyed cities and killed many people. The tsunami also reached California, where it did damage at several harbors. The tsunami's arrival was not a surprise, though, because the government has built a system for warning people.

Japan's earthquake was the fifth most powerful quake ever recorded. It originated more than 15 miles under the sea floor. When it struck, officials in the U.S. knew about it immediately. The U.S. Geological Survey monitors earthquakes, and within minutes it alerted the California State Warning Center.

Officials were able to follow the tsunami as it moved east toward California. They use a network of buoys in the Pacific Ocean. The buoys float, but each one is connected to a sensor on the seafloor. The sensor measures the water pressure, so it recognizes a tsunami. The buoy relays the information to a satellite, which sends it to warning centers.

On March 11 the information traveled quickly. Within ten minutes the California State Warning Center knew of the tsunami. It then alerted counties along the coast. Scientists used the information to calculate when the tsunami would arrive. Communities had about eight hours to prepare for it.

The greatest damage took place in Crescent City on the northern coast. Tsunamis



have hit the city in the past because offshore ridges guide high water in that direction. It is a small city with a busy fishing port. The tsunami sped toward the coast at 500 miles per hour. The tsunami's eight-foot surges hit at about 8:00 a.m.

The tsunami did a lot of damage in Crescent City's port. Normally the tides can drop and raise the water in the harbor by eight feet in eight hours. However, the tsunami's surges did that in 20 minutes. The harbor trapped the powerful high water that pounded against docks and caused boats to break loose. Then they slammed against each other. In the end, the tsunami destroyed docks, sank 16 boats and damaged 47 others.

Despite the damage, the warning system served Crescent City well. It had given the city enough time to evacuate its residents. Many fishermen also had had time to take their boats out of the harbor and avoid damage there.

Every minute of every day the California State Warning Center is on call. It responds to both human-caused and natural events. On March 11 it warned communities about the tsunami's arrival time and size. Because of that, they were able to help their residents prepare for the worst tsunami to hit California in almost fifty years.

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BIOGRAPHY

KELLY HUSTON

ASSISTANT SECRETARY, CALIFORNIA EMERGENCY MANAGEMENT AGENCY

As Kelly Huston grew up, he developed two great interests. The first was in police work. The second was in public communications. He has been able to combine those two into one career. Now he makes sure that Californians get good information when there are emergencies.

Kelly grew up in Modesto. At age 16 he joined the explorer scouts for the Modesto Police Department. That program taught him about police work. He did office work and also went on patrol with officers. At 19 Kelly became a reserve officer and worked on the streets of Modesto.

At that time Kelly also was attending CSU Stanislaus. He took some business classes, but he did not like them. Things changed when he looked into taking communications classes. He enjoyed the classes and learned how to speak in public. He met photographers and reporters, and also worked as an intern at a TV station.

The police department had a cable TV program. It was a live call-in show about local crime. The department let Mr. Huston take it over, and the show's popularity grew. He was good at communicating, so the department made him its first public information officer ever. He was only 24 years old, but he became the department's official voice.

Mr. Huston learned quickly how to develop good relationships with reporters. Bad floods

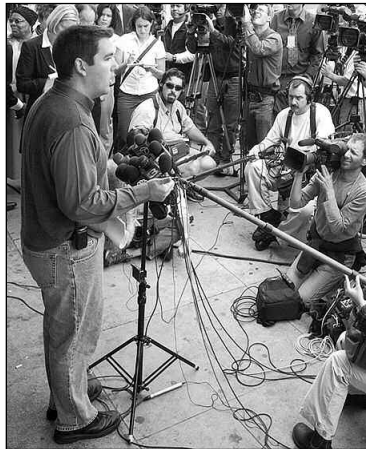
forced him to work closely with emergency services too. After the county sheriff hired him, some murders happened that received national attention. He was on the radio and TV a lot. He became

passionate about the importance of giving clear, accurate information to the public.

In 2005 Governor Schwarzenegger offered him a job in Sacramento. In 2008 Mr. Huston started working for the office of Emergency Management Services. That office works directly with emergency offices in each of the 58 counties. When there are emergencies, Mr. Huston gives information to the public through news organizations.

When the earthquake in Japan caused the tsunami, Mr. Huston knew about it right away. He went to the office and stayed there for about 18 hours straight. Other than that, not much changed for him. He and others in the agency are always prepared for emergencies. They gathered information from counties on the coast and then followed their plan.

Kelly Huston has met important people, including California's governors and President Obama. He has been on TV a lot too. All of that certainly is interesting and exciting. However, the real pleasure for him comes from serving the public. In an emergency the people of California can count on him for help.



"People make important decisions based on the information we give them."

Background Information

The magnitude of the earthquake that caused the tsunami was measured at 9.0. The high water traveled about 5,000 miles.

Hawaii, Alaska, Oregon, and Washington all were under tsunami warning too.

Tsunamis happen when one plate under the sea floor moves under another plate. That lifts the upper plate, which generates a hump on the water surface. The wave comes from that and travels in both directions. The wave closest to shore causes the most damage.

When tsunamis are still offshore, the height of the wave may be only a few feet tall. However, it is perhaps a hundred miles long. As it approaches the coast, the front of the wave slows down, but the back is still moving in at a high velocity.

Crescent City is in Del Norte County, twenty miles south of the Oregon border. It has 7,600 residents.

On March 21 the U.S. Coast Guard opened much of the harbor at Crescent City to normal boat traffic. It could take more than 18 months of work to fix Crescent City's harbor. Port leaders were in the middle of designing a \$20 million harbor overhaul when the tsunami hit.

Since 1933 approximately 35 tsunamis have hit Crescent City. The worst one came in 1964. It did damage across 29 city blocks, nearly destroyed the downtown and killed 11 people.

Damage to Crescent City's port hurts the local economy. Fishermen brought in \$17.6 million worth of seafood in 2009. That is considerably more than Eureka, which is the second largest fishing port on California's northern coast.

The National Oceanic and Atmospheric Administration has built the warning system in the Pacific Ocean. The system has 39 stations that consist of a buoy and sensor, and they stretch from the western Pacific to the Atlantic Ocean.

In 2010 the California State Warning Center answered almost 150,000 calls.

In Santa Cruz the tsunami damaged a number of boats and docks. The narrow shape of the harbor trapped the high water, much like in Crescent City. Officials estimate the damage there at \$26 million.

Topics for Discussion and Writing

Pre-reading:

- Describe pictures that you have seen of the tsunami in Japan.

Comprehension:

- How does the California State Warning Center get information about tsunamis?

Beyond the Text:

- Where do people go when they have to evacuate?
- What do you think are some human-caused emergencies that the Warning Center responds to?
- How do warnings finally reach people in communities?

Vocabulary

Article-specific: earthquake; tsunami; buoy; sensor; offshore; surge; tide; dock; to evacuate

High-use: harbor; system; to alert; to originate; to monitor; network; to relay; resident

Sources

Mail Tribune (Medford) March 20, 2011

Press Democrat (Santa Rosa) March 20, 2011

Seattle Times March 12, 2011

San Jose Mercury News March 11, 2011

California Emergency Management Agency
www.calema.ca.gov

National Oceanic and Atmospheric Administration
www.noaa.gov

CA Curricular Standards (4–12)

English - Language Arts

Reading 1.0 Vocabulary Development

2.0 Comprehension (Informational Materials)

Writing 1.0 Writing Strategies

2.0 Writing Applications

ELD—Intermediate and Advanced

Reading Vocabulary Development / Comprehension

Writing Strategies and Applications

Listening and Speaking

Science

4.5; 6.1; 6.2