

Not My Fault: Tsunami Communications Test highlights North Coast Tsunami Week activities

Lori Dengler/For the Times-Standard
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I am often asked, “how will I know if a tsunami is coming, and will I need to evacuate?” The answer depends on where you are and the type of alert you receive.

Know your zone – your tsunami zone that is. Most populated areas of coastal California are not in tsunami hazard zones. They are either too high or too far away from the coast. If you are out of a tsunami zone, there is no need to evacuate for any tsunami threat.

Another question people ask is, “how high is safe from a tsunami?” There is no one elevation number. The threat depends upon the shape of the sea floor and the coastline and how close tsunami source is to you. A large tsunami hitting a flat beach may penetrate as much as a mile or two inland before it loses energy and stops. It won’t travel as far if the land is hilly, and it will not flood any inland areas if the shoreline is a steep cliff. Fortunately, the California Geological Survey (CGS) has taken all of these factors into account in modeling our tsunami threat.

CGS has taken a suite of great earthquakes around the Pacific basin and detailed measurements of ocean bottom shape and land elevation to determine the worst-case tsunami for all areas of the California coast. The resulting tsunami hazard map can be accessed online at <https://rctwg.humboldt.edu/tsunami-hazard-maps>. You can put your address in the State interactive map tool or look at community-specific maps.

The CGS maps are also the basis of the Tsunami Hazard Zone signs posted on most North Coast roads and highways. The ENTERING and LEAVING Tsunami Zone signs are placed roughly at the boundary between the hazard zone and safe areas on the CGS maps. They provide a visual clue for the maximum inundation area for the largest credible tsunami in our area.

On California’s North Coast, our greatest tsunami threat is the one coming from nearby – a magnitude 9 earthquake on the Cascadia subduction zone. Your alert will be a minute or more of ground shaking. There won’t be any question in your mind that this earthquake is lasting a very long time. It could be strong, or moderate, depending on the characteristics of the fault rupture. But it will go on for so long, you might wonder if it will ever stop.

If you live, play or work in the tsunami zone, the shaking is your warning to head to high ground. Other alert systems like the County emergency notification or the Emergency Alert System (EAS) could be inoperable due to shaking damage.

Yesterday (3/19/2022), residents of Manila practiced evacuating to the nearest high dune area in the event of a Cascadia earthquake. For the past two months, emergency professionals from county and city jurisdictions have worked with the National Weather Service and state agencies to coordinate the drill, identifying evacuation routes, and disseminating information to residents.

We couldn’t create an earthquake to trigger the drill; emergency vehicles sounded hi-lo sirens and drove through the community to signal it was underway. We reminded everyone that there would be no siren for the real event – the shaking will be the only notification to get to safety. No one will be pointing out the evacuation route to them. By practice, everyone develops a “muscle memory” of what to do on their own in a real Cascadia tsunami event.

Fortunately, our most frequent type of tsunami event is the one coming from far away. I say fortunate because distant tsunamis aren’t likely to be as large. We also have time to assess the threat and fine tune areas of danger. Emergency personnel can assist in coordinating evacuations if deemed necessary. You won’t feel any shaking but there are a number of ways to be notified

As part of our Tsunami Week activities, we will be practicing response to this distant tsunami threat. This Wednesday, March 23, Del Norte, Humboldt, and Mendocino Counties will conduct our annual Tsunami Communications Test. There are three things you need to know about this test:

- The Emergency Alert System (EAS) will be activated
- The test is for tsunamis that take hours to reach our coast, not the potentially larger tsunamis from nearby
- You don’t need to do anything

What to expect around 11 AM on Wednesday:

Watching TV? You may see a crawler that a tsunami warning has been issued for the region. A voice over will explain it is only a test. Local stations will carry the test; satellite TV and many cable stations will not. You don't need to do anything.

Listening to radio? Broadcast will be interrupted by alert tones and a voice will explain this is a test of the tsunami warning system. You don't need to do anything.

If you have signed up for county emergency notifications, you should receive a message via text, email, or telephone. Please confirm that you received the message; you don't need to do anything else.

NOAA Weather Radios will carry the test. If you have a radio with the Public Alert feature, it should automatically turn on. You don't need to do anything.

In a few areas you may hear sirens. Triggering EAS automatically activates coastal sirens. One of the purposes of the test is to see how well this works. Sirens are located in select areas near harbors and busy beaches where people congregate outside. You are unlikely to hear a siren inland or in other beach areas. You don't need to do anything.

If weather conditions permit, you may see a civil air patrol plane fly over your area with loudspeakers announcing the test is in progress. The plane could fly over your area anywhere between 11 AM and noon. You don't need to do anything.

There is always a caveat. If anything happens before the test that might confuse people as to whether it is real or not, we will cancel. What might trigger cancellation? A widely felt local earthquake, a tsunami alert bulletin from a major distant earthquake, a regional emergency such as a major fire, chemical leak, or anything else where sirens are likely to be employed. A real event always takes precedent, and efforts will be made to let you know that the test has been cancelled.

The most important thing for you to know about Wednesday's test is that it's only a test. Please don't be alarmed. Please tell everyone you know it's only a test. And remember, you don't need to do anything.

Lori Dengler is an emeritus professor of geology at Cal Poly Humboldt (formerly Humboldt State University), an expert in tsunami and earthquake hazards. The opinions

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