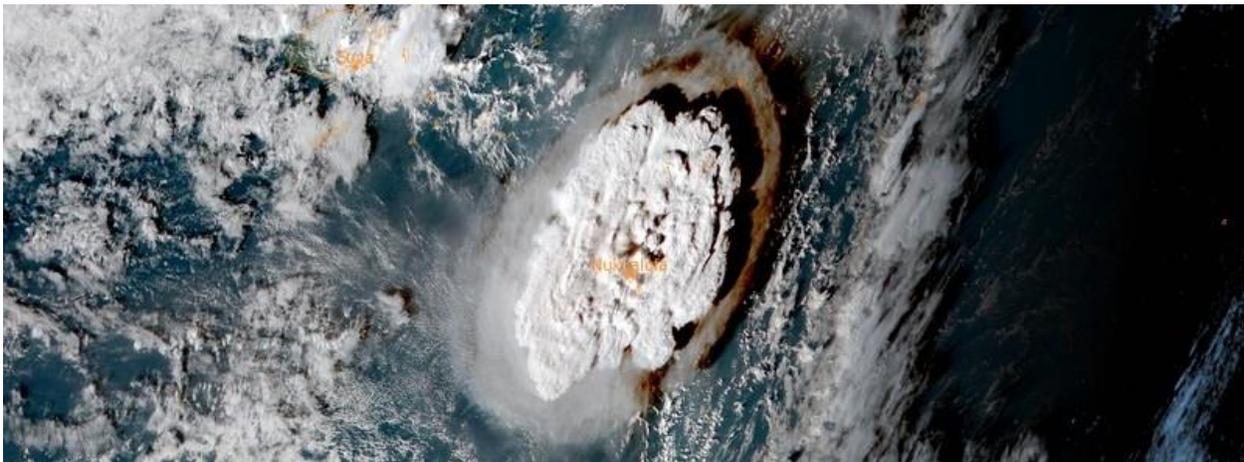


How do we respond to short notice, pre-disaster warnings?

Dave Brauer-Rieke, Region1 LDR Project Manager – January 17, 2022

Friday, January 14, 2022, the Hunga-Tonga-Hunga-Ha'apai volcano in the middle of the Pacific Ocean erupted. It sent a plume of ash more than 12 miles into the air. A second eruption followed some time later. The eruption not only sent out ash, though, but it also caused a tsunami to begin racing out in all directions. The nation of Tonga was hit by a 4-foot tsunami, and as a result of this event Tsunami Advisories went out to New Zealand, Japan, Hawaii and the U.S./Canadian west coast from California to Alaska.



Many natural disasters can be tracked or anticipated.

- Hurricanes and wildfires, for example, might be seen coming in off the ocean or moving through the forests towards inhabited communities. Evacuation notices might be minutes or days ahead of an event depending on circumstances.
- Floods caused by heavy rains or unseasonable snow melt can be anticipated in some cases. [The "Atmospheric River" floods experience in northwest Washington](#) last fall came with prolonged heavy rain weather forecasts which, depending on flood patterns in the past, may or may not have been predictive.
- A new [ShakeAlert early earthquake warning system](#) is in development in California, Washington and Oregon. It will offer seconds, or perhaps a few minutes, notice of major earthquakes. Does that help? Yes. As part of an automated system it can raise garage doors for fire or emergency response stations which might otherwise be damaged in a down position; it can trigger earthquake alarms in schools or businesses; it can send out immediate text alerts to certain cellphone apps, etc. Yes. Early warning can make a difference.

In the case of this weekend's Hunga-Tonga-Hunga-Ha'apai volcanic eruption the resulting tsunami could be tracked. Tsunami wave size, speed and force were recorded in Tonga, Japan, Hawaii and other areas on their way to Oregon, Washington and Alaska. The result was a Saturday morning [Tsunami Advisory](#) warning residents of possible waves of one to three feet in size lasting 5 to 45 seconds each. (A tsunami

advisory is more serious than a “watch” which might be issued for small waves. It is also different from a formal “warning” which might be issues for more significant waves.)

Who had or received this information and what did they actually do with it?

1. The eruption and anticipated tsunami were in the national news Saturday morning. Depending on when you read your paper or check online you may have heard before, following, or not at of about the tsunami's path.
2. Weather stations and apps carry warnings about anticipated tsunamis, just as they do heavy snows, poor air quality or heat dome warnings. If you were looking at your weather app to plan your day you may have seen this. If you live on the coast, you may have jumped to action to learn more.

More formally, government and community disaster and emergency managers would have been contacted directly. It is their job to let people who need to know know! They kick off community alerts, track the realities communities experience and begin to respond as needed. But it is impossible to reach out to everybody. Communication and action must be based in community readiness and plans. That is why if you had friends for family on the coast you may have called or texted them Saturday morning. “Do you know . . . Have you heard . . . Are you okay?” We all need to care for each other!

Here’s what actually happened in ELCA Region 1 thru our growing LDR Network.

1. John Core, of the Oregon Synod Disaster Preparedness Core Team, is a ham radio operator. He also volunteers with OEM (Oregon Emergency Management) and so a formal Tsunami Advisory was sent to him directly. The state requested his help monitoring transmission and communications in potentially affected areas. John, in turn, sent out a notice to other Oregon Synod Disaster Core Team members, our Region 1 LDR Program Manager, and the Oregon Synod bishop. *Now people knew and could spread the word or prepare to respond if needed.*
2. Our Region 1 LDR Project Manager reached out the Ray Shjerven, a retired fireman and WAVOAD representative for the SWWA Synod. Ray already knew of the Advisory and was also monitoring progress and possible needs.
3. Our Region 1 LDR Program Manager texted the bishops of the SWWA, NWWA and Alaska Synods – as well as Alan Budahl of LSS Alaska. The goal was to inform them and offer assurance that help would be available if there was need.
4. John Pyron, director of LDR-US, was also sent a text saying “heads up, but we’ve got it covered for now.”

Communication, communication, communication.

A possible tsunami, wildfire, flood or extreme weather. Image yourself, your family, your neighborhood or your church in its path. What would you want to know, when, and is there a place for your congregation in the response?