

The Tsunami Warning, Education, and Research Amendments Act of 2025

Sponsored by Rep. Suzanne Bonamici (D-OR) and Rep. Darrell Issa (R-CA)

The Tsunami Warning, Research, and Education Act of 2025 strengthens tsunami research, detection, and warning systems, improves response and resiliency efforts, and better protects communities vulnerable to a tsunami. The National Oceanic and Atmospheric Administration (NOAA) Tsunami Program was established to better prepare for the effects of tsunamis nationwide. NOAA established two tsunami warning facilities with the primary purpose of protecting people and property. The Tsunami Warning and Education Act (TWEA) was enacted to refocus efforts on reducing tsunami vulnerability of coastal communities by directing NOAA to expand outreach and education programs and enhance federal, state, and international collaboration for tsunami detection, alerts, and outreach. TWEA was first passed in Congress in 2006 and was reauthorized in 2017 with the new title, Tsunami Warning, Education, and Research Act. The authorization expired at the end of FY23. This bill reauthorizes the program through FY2030.

Additionally, the bill improves upon existing law by:

1. Updating and advancing tsunami detection, forecasting, and warnings to increase community preparedness by enhancing cooperative efforts among agencies, coordinating future efforts between tsunami warning and earthquake warning systems, and assessing existing tsunami warning system effectiveness;
2. Enhances community-based tsunami hazard mitigation and preparedness by updating regional and hazard risk assessment activities; and
3. Modernizes tsunami research efforts to consider the advancement of R&D and requires NOAA to report such efforts in a Research and Development plan at least every three years, to improve tsunami detection and forecasting capabilities.

Section-by-Section Summary

Section 1. Short Title.

“The Tsunami Warning, Research, and Education Act of 2025.”

Section 2(b). Expansion of Purposes of Tsunami Warning, Education, and Research Act.

Expands purposes to include the timeliness of accurate forecasts and warnings, and to ensure data and metadata are managed for the benefit of research, education, and mitigation activities.

Section 2(c). Modification of Tsunami Forecasting and Warning Program.

Updates components to include industry and scientific best practices, advanced forecasting capabilities models for increasing community preparedness, support for data and metadata access, and updates to geographical information systems that have been affected or outdated due to a tsunami event. Also updates cooperative efforts among agencies to provide reliable and real-time capabilities for seismic evaluation, consider R&D advancements between agencies’ warning systems, and incorporate tsunami notifications in earthquake warning systems.

Section 2(c)(4). Tsunami Warning Alert Level Evaluation.

Streamlines the Tsunami Warning System and establishes the Tsunami Warning Alert Level Evaluation to assess the existing tsunami warning system to increase its effectiveness. Updates Tsunami Warning Center responsibilities, coordination across the National Weather Service, and standardizes operating procedures to include reporting requirements. This section directs a review of NOAA Weather Radio Coverage for populated areas at risk of tsunami.

Section 2(c)(8). Use of IPAWS to Deliver Tsunami Alerts.

Directs NOAA, in consultation with the Federal Emergency Management Agency (FEMA) and the Federal Communications Commission (FCC) to clarify and document their coordinated decision-making to use the Integrated Public Alert and Warning System (IPAWS) to deliver tsunami alerts to the Emergency Alert System.

Section 2(d). Modification of National Tsunami Hazard Mitigation Program.

Adds to program components to include various regional and hazard risk assessments, including inundation impact, debris impact on critical infrastructure, and digital elevation models, and incorporates behavioral science into resilience efforts. Expands authorized activities to include grant program for community preparedness efforts.

Section 2(e). Modification of Tsunami Research Program.

Updates responsibilities to include developing a data portal for advancing R&D, developing decision support tools, and leveraging research opportunities. Also requires NOAA and the Interagency Council for Advancing Meteorological Services to develop a research and development plan to improve tsunami detection and forecasting capabilities, no more than every three years.

Section 2(f). Modification of Global Tsunami Warning and Mitigation Network.

Makes technical changes.

Section 2(g). Modification of Tsunami Science and Technology Advisory Panel.

Makes technical changes.

Section 8(h). Authorization of Appropriations.

Authorizes appropriations to be made for fiscal years 2026 through 2030 at \$32,000,000, with no less than 27 percent for State-level activities under the tsunami hazard mitigation program and no less than 8 percent for the tsunami research program.