

Washington State Tsunami Program Update





Wayfinding and Vertical Evacuation

Current Local Jurisdiction VES Projects

- City of Westport – breaking ground this summer

Supporting VES BRIC Grant Applications

- City of Ocean Shores and City of Long Beach

Wayfinding and Signage

- 2 pedestrian evacuation walk maps
- Tsunami sign consultations for the cities of Poulsbo and Port Orchard (inner coast)
- Hoping to fund a project with FY26 grant to design VES signage and redesign current “Washington Geology” educational signage





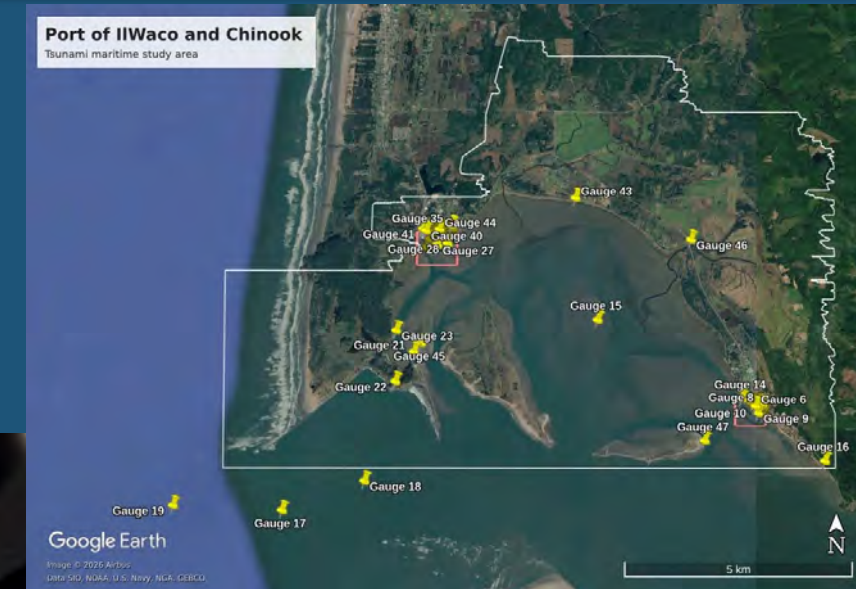
Maritime

Tsunami Maritime Strategy

- Ports of Ilwaco and Chinook (outer coast)
- First strategy to include a recovery section

Maritime partnerships

- Attended the 2026 National Harbor Safety Conference in Seattle and connected with local and national maritime partners
- Attending Puget Sound Harbor Safety Committee meetings
- Continued coordination with the USCG and USACE





Education and Outreach

Washington State is
Tsunami Country



USVI Tsunami Program

MES Lightning Brief

NTHMP Annual Meeting | May 2026

FY 2024–2025 Accomplishments & FY 2026 Priorities

Regina Browne

Deputy Director, Planning & Preparedness

Virgin Islands Territorial Emergency Management Agency

Serving St. Thomas · St. John · St. Croix

Active NTHMP Grantee · TsunamiReady Territory

FY25 Program Snapshot

\$542,154 approved · 8 active tasks · Sept 2025 – Aug 2026

3

Islands
Participating

1,500

Students
Reached

27%

Survey Participation
Increase

93%

Alert Level
Effectiveness

2,000

Emergency
Whistles Distributed

- ✓ Alfred the Leathery Turtle PSA launched — jingle, radio, TV, and social media
- ✓ TsunamiReady Renewal Ceremonies completed — St. Thomas, St. Croix, and St. John (March 2025)
- ✓ Alerting & Response Timeline document completed — visually maps agency responsibilities
- ✓ Collaborative meeting with Puerto Rico Seismic Network & ITIC to strengthen regional capabilities

Alfred the Leathery Turtle — Outreach & Education

Music Jingle

New catchy tsunami safety jingle developed — distributed across radio, TV, and social media to enhance message retention

PSA Campaign

PSAs distributed across multiple media channels; age-appropriate messaging tailored to children, adults, and visitors

Tsunami Awareness & Preparedness Survey — Phase 1

Oct 28 – Dec 30, 2024 · Multi-island · Multilingual: English, Spanish, Haitian Creole · 27% participation increase

Phase 2 Now Underway

Building on Phase 1 findings — expanded scope, deeper community engagement, and refined demographic targeting

QR Code & Digital Access

VITEMA tablet teams deployed to community centers, local markets, and public spaces; QR codes for instant survey participation

2,000 Emergency Whistles

Strategically distributed with attached tsunami response instructions for culturally relevant community engagement

CaribeWave 2026 & TsunamiReady Program

CaribeWave 2026

March 19, 2026 · Kick 'em Jenny Submarine Volcano Scenario

Scenario

Kick 'em Jenny volcanic eruption → Caribbean-wide tsunami warning activation

Islands

All three islands participated: St. Croix, St. Thomas, and St. John

Schools

DOE coordination through Director Jaschen; student drills conducted

911 TFP

Dispatchers activated Tsunami Focal Point protocols — first time USVI-wide

TsunamiZone

21,526 participants registered on TsunamiReady.gov as of April 8, 2026

After-Action

Inter-agency communication gaps identified; corrective actions in progress

TsunamiReady Renewals

March 2025 — All Three Islands

St. Thomas ✓ Renewed

St. Croix ✓ Renewed

St. John ✓ Renewed

4 new organizations recruited as Tsunami Ready Supporters

Alert Level Education

- ▶ Simplified materials developed: Advisory · Watch · Warning
- ▶ Concrete action steps for each alert category
- ▶ 93% effectiveness rate in concept testing with target audiences
- ▶ School-based presentations → 1,500 students across 8 schools

HMGP Tsunami Education Program & 911 Dispatcher TFP Training

HMGP Procurement Journey

1

Rounds 1 & 2

No responsive bids received — solicitation re-issued

2

Round 3 RFP

Competitive solicitation issued; evaluation completed

3

Contractor Selected

J-7 Engineering, Inc. — lowest responsive bidder

4

BAFO Negotiated

Final pricing agreed; Justification Letter submitted to DPP

5

DPP Submitted

Vendor registration completed

6

Pending Award

Awaiting FEMA/VITEMA authorization to proceed

911 Dispatcher TFP Training

TFP Quick Reference Cards

Step-by-step protocol cards for 911 dispatchers covering PTWC/NWS alert procedures

In-Person Training Delivered

All VITEMA 911 dispatch staff trained on Tsunami Focal Point activation protocol

CaribeWave 2026 Integration

Protocols activated in real-time during the March 19 exercise — first USVI-wide TFP activation

Regional Model Practice

Card template shared with Caribbean partners as a replicable model for island dispatchers

Historic First for the Territory

First-ever standardized tsunami dispatch protocol across all three U.S. Virgin Islands

Community Resilience: CERCA Center & Tsunami Walk Series

CERCA Center

Caribbean Environmental Resilience & Community Action Center

Partner

CARICOOS — Caribbean Integrated Coastal Ocean Observing System

Funding

~\$18,950 total · 4-milestone spending plan package submitted

Features

Real-time ocean data displays, public education hub, community engagement space

Status

Procurement package submitted — pending approval to proceed

NTHMP Alignment

Public Education & Outreach / Risk Communication

Tsunami Walk Series — Year 2

Building on Year 1 success across St. Croix communities

- ▶ Self-guided route maps updated with new signage locations
- ▶ Wayfinding signs planned for key evacuation corridors
- ▶ School and community group participation expanded
- ▶ Integrated with TsunamiReady renewal activities
- ▶ Documentation supports FY25 public education task deliverables

FY 2026 Priorities

Estimated Request: ~\$610,000

Hazard Science

Probabilistic Tsunami Hazard Analysis (PTHA) update

Digital Elevation Model (DEM) refinement

USVI Felt Earthquake Catalog — ongoing documentation

Inundation modeling updates for all three islands

Warning & Response

EMWIN operationalization at VITEMA EOC

Tsunami evacuation signage installation

Expand TFP training to additional territorial agencies

CaribeWave 2027 planning kickoff

Public Education

HMGP Education Program — full implementation begins

CERCA Center activation with CARICOOS

Tsunami Walk Year 3 — expansion to St. Thomas

School curriculum integration with USVI DOE

Contact Information

VITEMA — Planning & Preparedness

Regina Browne

Deputy Director of Planning & Preparedness

Virgin Islands Territorial Emergency Management Agency

✉ Regina.browne@vitema.vi.gov

OCOVI / CARICOOS

Roy Watlington

Project Director, OCOVI

Board Member, Caribbean Coastal Ocean Observing System (CARICOOS)
USVI Science Representative

✉ rawatlington@gmail.com

Thank you for your continued partnership in protecting Caribbean communities.

BEYOND "IT CAN'T HAPPEN HERE"

Building US East Coast Tsunami Hazard Awareness

SOCIAL MEDIA STRATEGY



Ed Fratto
Executive Director
Northeast States Emergency Consortium (NESEC)

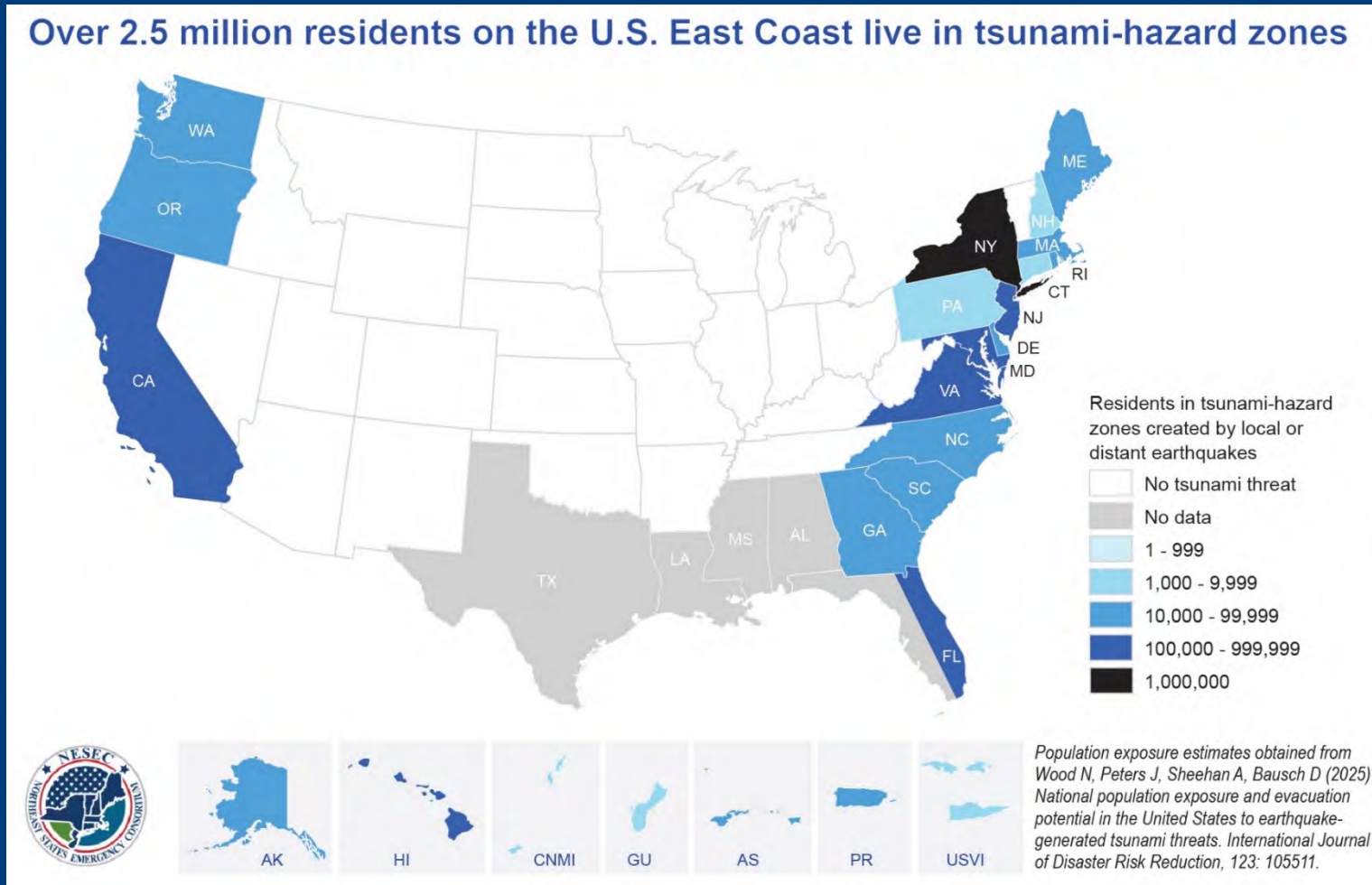
The Awareness Barrier isn't about the Science It's a MINDSET



...THAT IT CAN'T HAPPEN HERE

Social Media Pillar 1: The Scale of the Issue

2.5M Residents Live in Tsunami Hazard Zones



Social Media Pillar 2: Rare Doesn't Mean It Can't Happen

1929 Grand Banks Tsunami Damage



27* Dead in Newfoundland Tidal Wave

Wireless Report Brings News Of Great Disaster

Women and Children Among Drowned—Building Swept
Away—Communication Cut Off — Steamer Daisy
Rendering Assistance

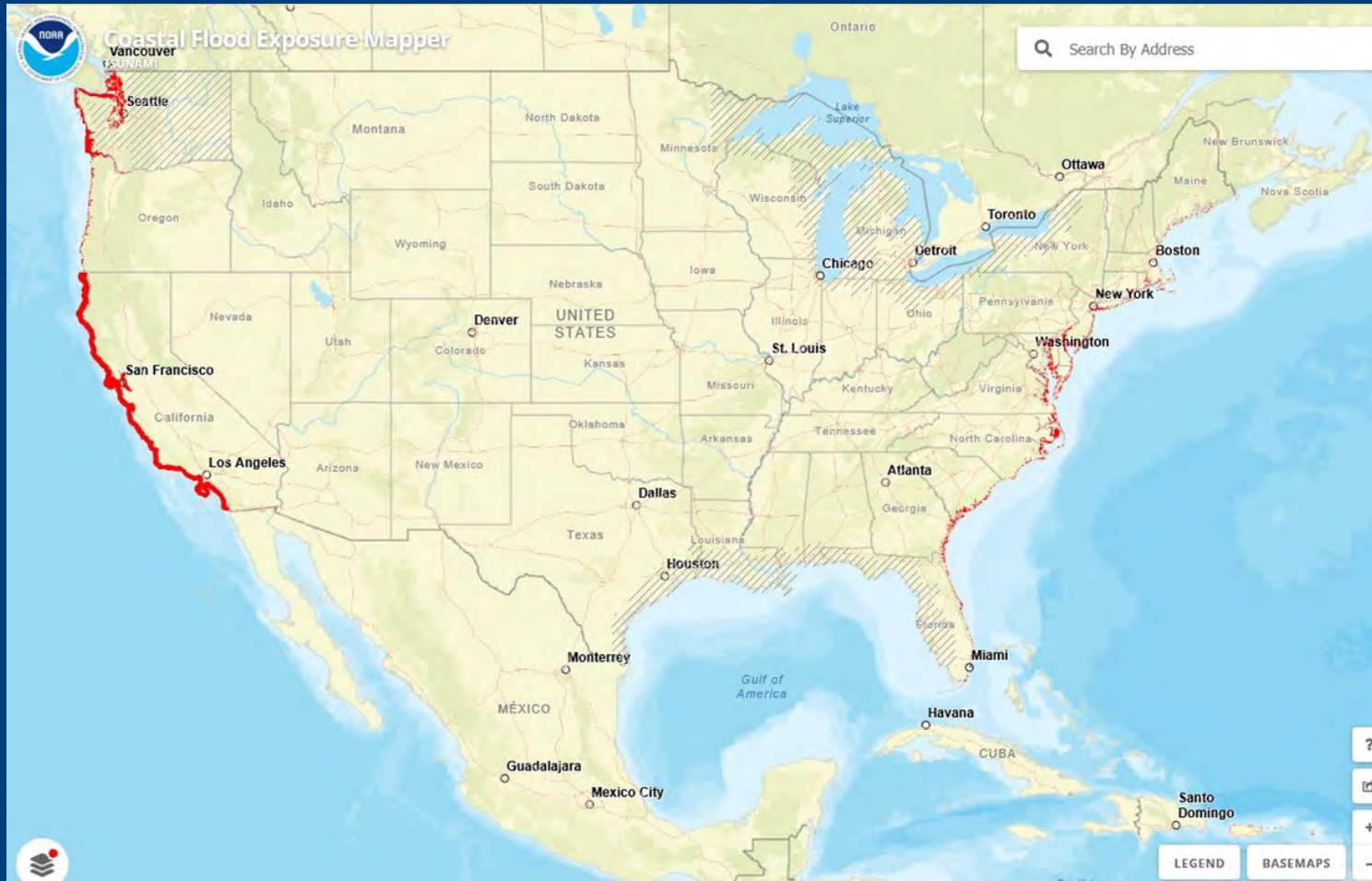


The earthquake that shook the Atlantic seaboard recently caused this tidal wave to break on the New England coast. This is probably the only photograph which was taken of the huge wave that swept over the Newfoundland coast.



Social Media Pillar 3: Public Messaging

Do You Live in a Tsunami Hazard Zone?



CLICK HERE TO FIND OUT ?

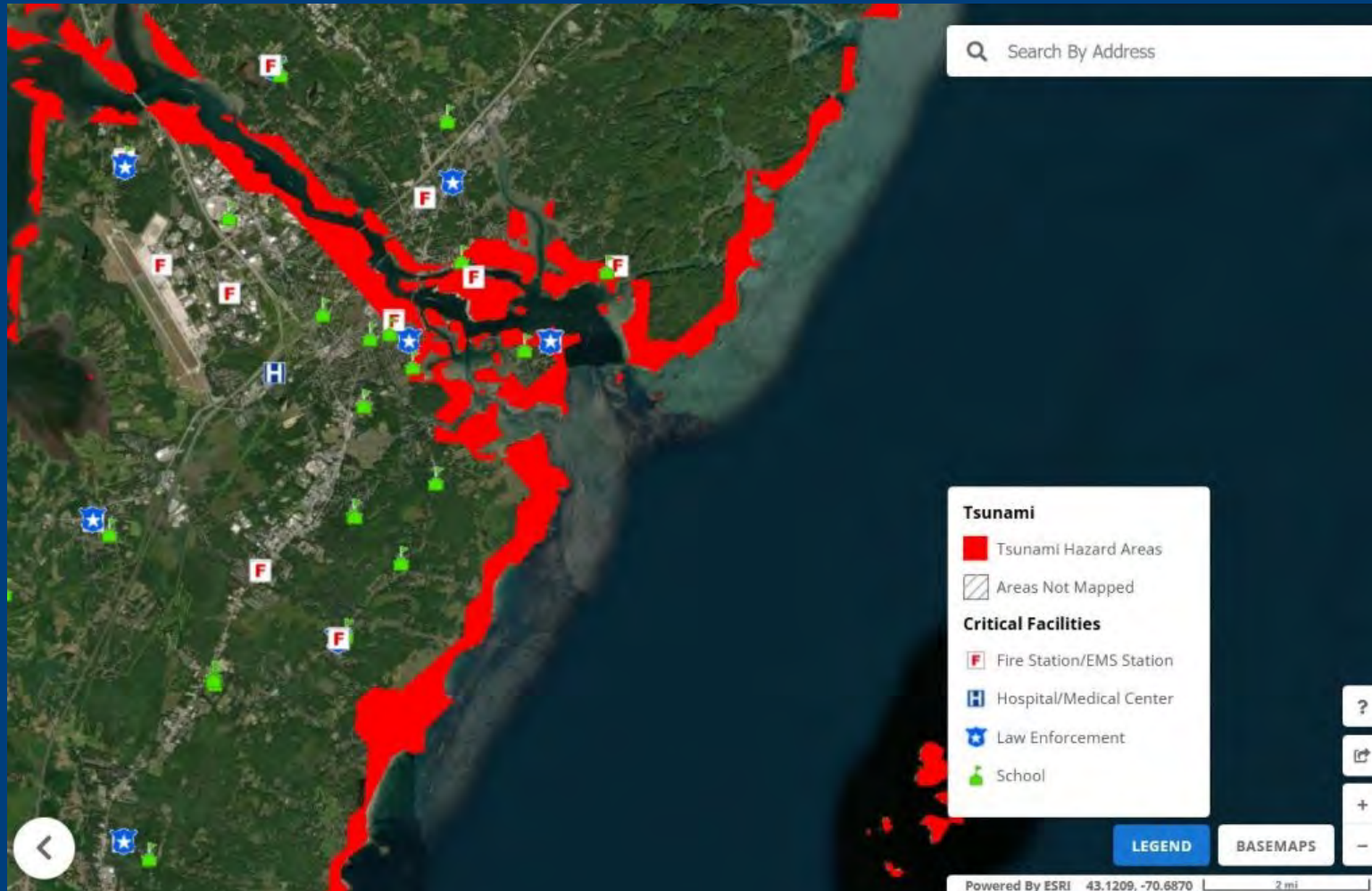
Social Media Pillar 4: Public Officials Messaging

If NOAA Issues a Tsunami Warning Tonight ...IS YOUR COMMUNITY READY?



Social Media Pillar 5: Awareness Action

NESEC's FREE Map your Tsunami Risk

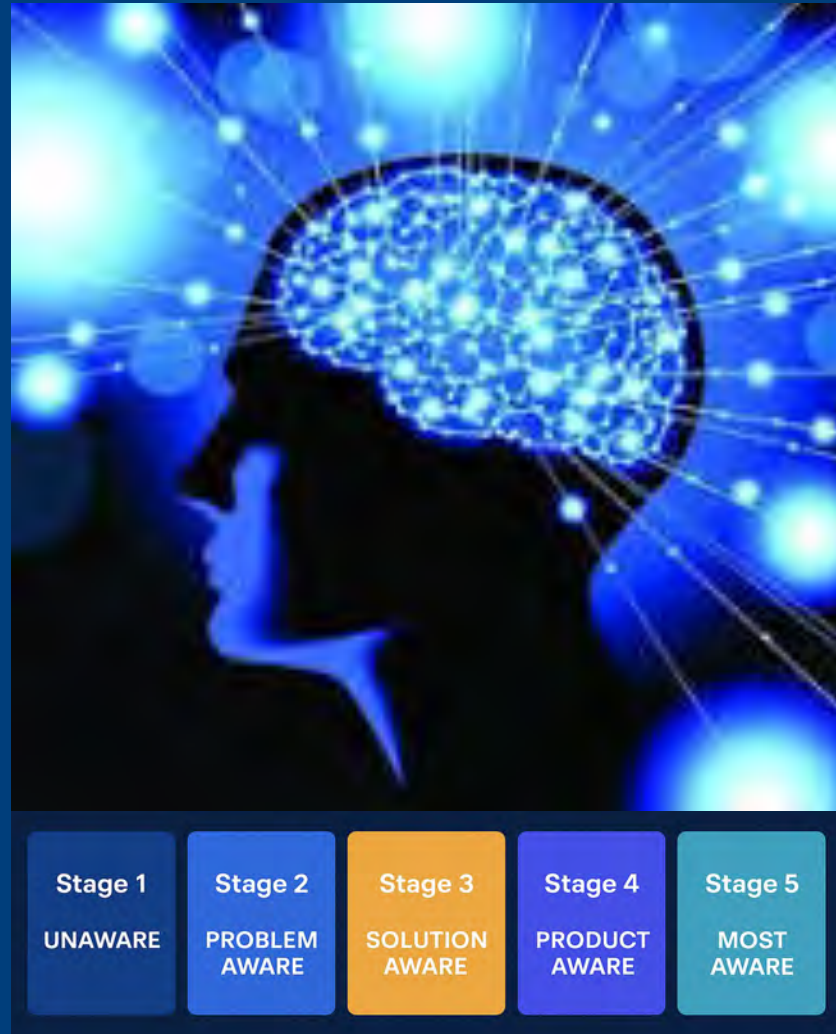


Social Media Pillar 6: Awareness Action

Tsunami Ready



We are Not Raising Alarm We are Raising Awareness and Awareness is the First Step to Readiness



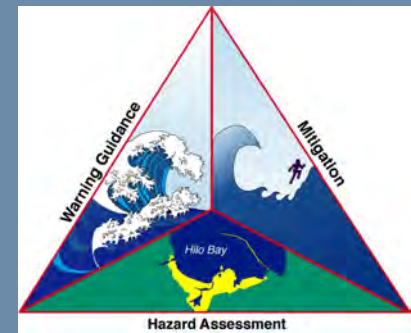
END



The California Tsunami Program

MES Partner Brief

NTHMP Annual Meeting 2026



TSUNAMI PROGRAM

Statewide tsunami planning and preparedness for California's coast



Tsunami Informational Kiosks and Signage

City of Oxnard California Tsunami Evacuation Routes

Familiarize yourself with evacuation routes, landmarks, and flood areas. Plan secondary routes as backup.

Mandalay Beach

- TSUNAMI FLOODING ZONE
- BEACH AREA (FLOODING ZONE)
- TSUNAMI EVACUATION ROUTE
- POSSIBLE CLOSURE DUE TO FLOODING
- LANDMARKS
- NAVY BASE AREA
- RESTRICTED GATE (NAVY BASE)

Tsunami Alert and Warning

Always consider a strong earthquake the first sign a tsunami is possible and get to higher ground immediately. If you are on the beach or in the red area shown on this map and feel shaking, or if you receive an alert on your phone, television, or radio, follow the evacuation routes to leave the area.

- MOVE** to higher ground (100+ feet) or inland beyond the Tsunami Inundation Zone.
- FOLLOW** directions from public safety personnel. **DO NOT CALL 911.**
- STAY AWAY** from coastal areas—stay tuned to local radio, public safety, and media channels.

Get connected

VC ALERT
EMERGENCY NOTIFICATION SYSTEM

VC Alert delivers emergency messages in English/Spanish within Ventura County. To register, visit ReadyVenturaCounty.org or scan the QR code. Wireless Emergency Alerts may be sent to all cellular phones within a cell tower range. One or both alert systems may be activated if a tsunami is foreseen.

For more information, visit tsunami.gov or readyventuracounty.org/tsunami

City of Oxnard California Rutas de evacuación en caso de tsunami

Familiarícese con las rutas de evacuación, los puntos de referencia y las zonas inundables. Planifique rutas alternativas.

Parque de playa 'olotkoy

- ZONA DE INUNDACIÓN DE TSUNAMI
- ÁREA DE PLAYA (ZONA DE INUNDACIÓN)
- RUTA DE EVACUACIÓN EN CASO DE TSUNAMI
- POSIBLE CIERRE POR INUNDACIONES
- PUNTOS DE REFERENCIA
- ÁREA DE LA BASE NAVAL
- PUERTA RESTRINGIDA (BASE NAVAL)

Alerta y aviso de tsunami

Considere siempre un fuerte terremoto como la primera señal de que un tsunami es posible y diríjase de inmediato a terreno elevado. Si se encuentra en la playa o en el área roja mostrada en este mapa y siente un temblor, o si recibe una alerta en su teléfono, televisión o radio, siga las rutas de evacuación para salir del área.

- DIRÍJASE** a terreno más alto (más de 100 pies) o tierra adentro, más allá de la zona de inundación del tsunami.
- SIGA** las instrucciones del personal de seguridad pública. **NO LLAME AL 911.**
- MANTÉNGASE ALEJADO** de las zonas costeras: permanezca atento a la radio local, la seguridad pública y los canales de los medios de comunicación.

Conéctese

VC ALERT
EMERGENCY NOTIFICATION SYSTEM

VC Alert envía mensajes de emergencia en inglés y español en el condado de Ventura. Para registrarse, visite ReadyVenturaCounty.org o escanee el código QR. Las alertas de emergencia inalámbricas se pueden enviar a todos los teléfonos celulares dentro del alcance de una torre de teléfonos celulares. Si se prevé un tsunami, se pueden activar uno o ambos sistemas de alerta.

Para obtener más información, visite tsunami.gov o readyventuracounty.org/tsunami

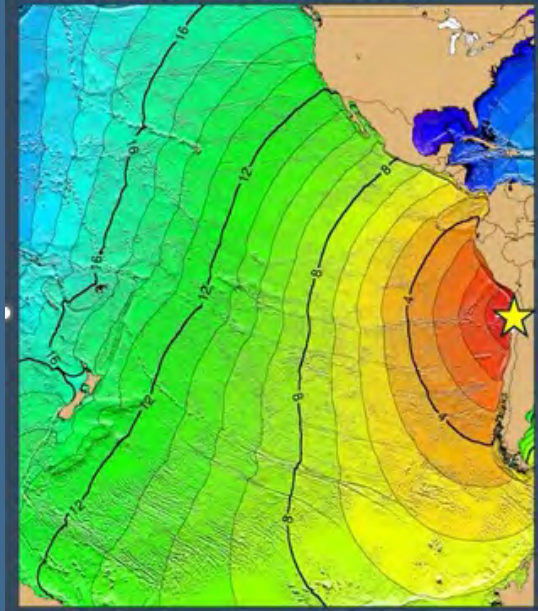


Exercises

2026 CA Tsunami Playbook Communications Exercise

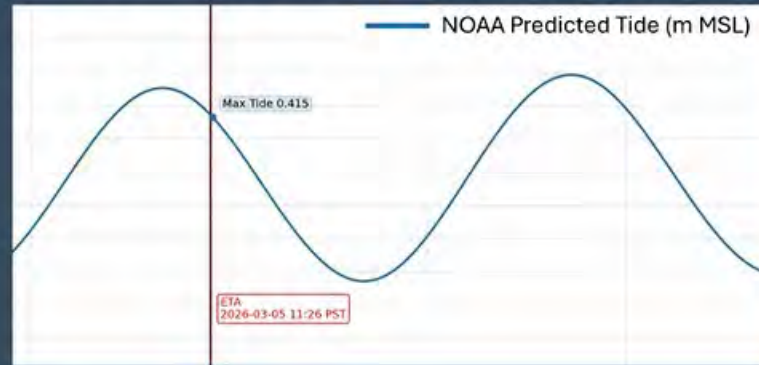
State Coordination Call #2

Tsunami Travel Times



Tsunami Arrival Times and Tides

Imperial Beach (example plot)



For some coastal locations in California, tsunami arrival will occur **near high tide, which means that tsunami total-water levels will be higher than if the tsunami arrived at a lower tide.**

As we've observed in the recent past, a tsunami riding on top of high tide can have the potential to impact or flood more coastal or inland areas.

Refer to [Box.com](https://www.box.com) for a full list of forecast arrival times and tide information.

Tsunami Arrival Time
2026-03-05 11:26 PST

*****Exercise, Exercise, Exercise*****

Shortest Tsunami Travel Time is ~12 hours to southern California.

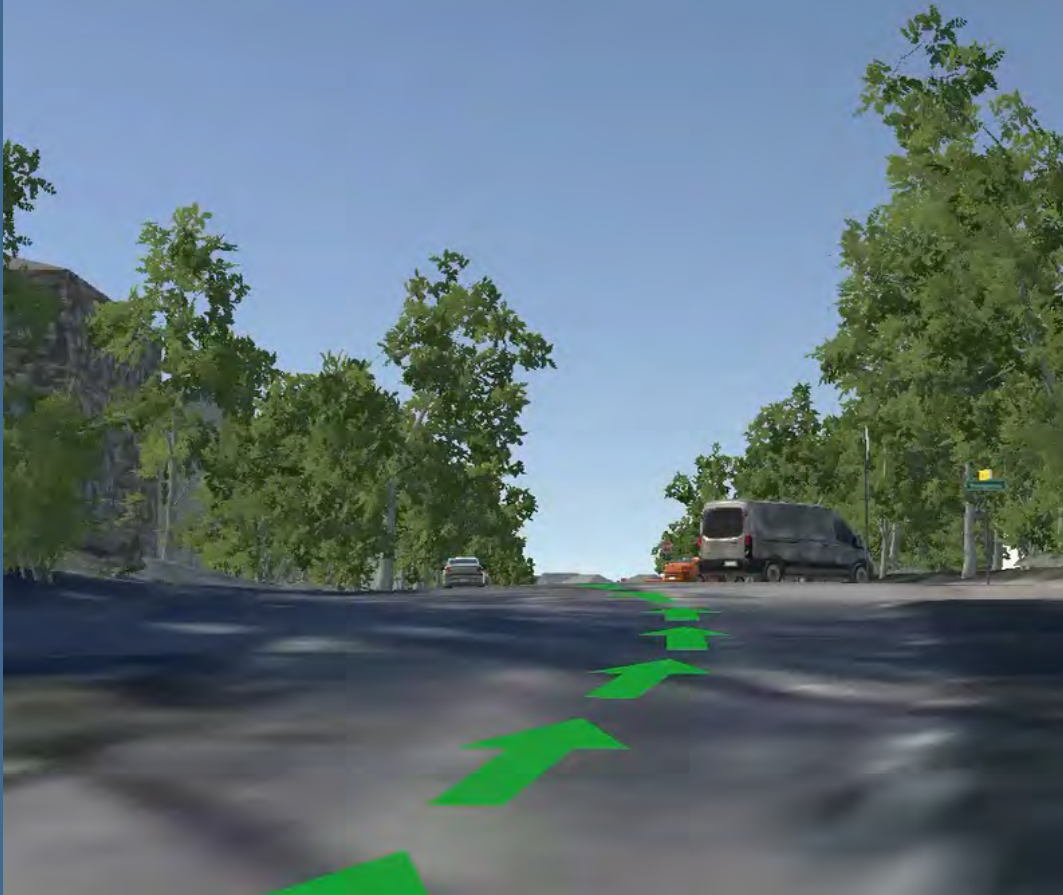
Earliest Tsunami Arrival Time is approx. midnight PST tomorrow.



Virtual Reality for Tsunami Preparedness Training

DANGER: You are currently in the Tsunami Hazard Zone

Follow the Evacuation Route



SAFE: You are out of the Tsunami Hazard Zone



Virtual Reality for Tsunami Preparedness Training

Tsunami Water Level

Time Since Earthquake (Minutes)	Tsunami Elevation (m)
45.0	0.0
50.0	5.0
60.0	-5.0
70.0	5.0
75.0	0.0

Time Since Earthquake: 46:09

DANGER: You are currently in the Tsunami Hazard Zone
Make Your Way to the Nearest Road

Speed: 0.0 mph
DEM Elevation: 1.6 m

Transport Mode [Tab]
Running ▾

Restart Tsunami
Pause Tsunami
Close Game



Alaska MES Partner Brief

2025 geohazard events, tsunami preparedness accomplishments, challenges, and 2026 priorities

For the May 2026 NTHMP Managers Meeting

Prepared by Mike Lucio
Geologic Hazards Coordinator
Alaska Division of Homeland Security & Emergency Management

Alaska's 2025 experience reinforced that tsunami preparedness cannot exist in a silo.



2025 Operational Context

Alaska experienced an active and operationally significant geohazard year.

Core message

Several seismic and tsunami-related events reinforced the need for sustained tsunami preparedness, warning coordination, community outreach, and interagency collaboration.

Operating environment

Alaska's size, remoteness, transportation constraints, severe weather, and overlapping geohazards continue to shape preparedness work and community support.

Partner-supported work

Preparedness advanced through cooperation with the Alaska Earthquake Center, DGGs, National Tsunami Warning Center, NWS, and local coastal communities.

Major statewide response demands, especially Typhoon Halong, affected staff capacity and reinforced the need for flexible, resilient emergency management systems.



Major 2025 Events

July 16



Sand Point Earthquake

Reinforced local and regional seismic risk for Aleutian and Alaska Peninsula communities.

July 30



Kamchatka Earthquake

Reminder of distant-source tsunami exposure and need for warning coordination and public education.

Aug. 10



Tracy Arm Landslide

Highlighted localized, rapid-onset landslide-generated tsunami risk in Southeast Alaska.

Together, these events underscored readiness, evacuation planning, hazard communication, and scientific-emergency management coordination.



Tsunami Preparedness Accomplishments

TsunamiReady support

Continued support for NWS TsunamiReady participation across coastal communities, including evacuation planning, education, signage, outreach materials, and community preparedness activities.

Ketchikan Tsunami Workshop

In late August 2025, Alaska convened emergency managers, scientific partners, local officials, and response stakeholders to strengthen operational understanding of tsunami hazards, alerting, evacuation planning, and response.

Community travel & outreach

Direct engagement in Ouzinkie, Unalaska, and Yakutat supported preparedness, tsunami inundation mapping, hazard awareness, and trust-building in remote coastal communities.

Direct outreach remains one of the most valuable ways to improve local preparedness and practical use of tsunami planning products.

Challenges & Lessons Learned

Typhoon Halong, October 2025

- Not directly tsunami-related, but pushed statewide response capabilities to the limit.
- Required significant staff time, logistics coordination, planning support, and interagency engagement.
- Wind-driven water damage echoed the damage potential of long-duration inundation events.

Layered Risk Environment

- Coastal communities face earthquakes, tsunamis, landslides, coastal storms, erosion, infrastructure vulnerabilities, and transportation limits.
- Geography, remote communities, travel costs, weather windows, and limited staff complicate field work.
- Landslide-generated tsunamis remain challenging to communicate due to rapid onset and limited warning.



2026 Priorities

- Successfully complete the Seismic Tsunami Operations Workshop for the Western Aleutian region.
- Continue supporting TsunamiReady participation and community preparedness efforts.
- Expand community engagement, evacuation planning, and outreach materials.
- Support tsunami inundation mapping, technical publications, and community-facing planning products.
- Integrate tsunami preparedness with geohazard planning and broader statewide resilience initiatives.
- Apply Typhoon Halong lessons to improve operational readiness, continuity, and coordination.
- Improve communication around landslide-generated tsunamis and other low-warning geohazard scenarios.



Closing focus

Translate science, warning information, mapping products, and partner expertise into practical preparedness actions that improve resilience for Alaska communities.

Preparedness beyond silos



International Tsunami Information Center (ITIC) Updates

Christa von Hillebrandt-Andrade

Deputy Director
Manager ITIC Caribbean Office

Laura Kong

Director

Tammy Fukuji

Information Technology Specialist



NTHMP Meeting
Seattle
May 12-14, 2026

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service

ITIC Engages at Many Levels

“Be Aware,
Be Prepared”



INTERNATIONAL TSUNAMI INFORMATION CENTER

Engaging between and with National Programs/Centers, PTWC, State and Territories and Communities



US Pacific and Caribbean Islands
National Tsunami Hazard Mitigation Program

PTWC: Detection, Analysis & Forecasting

sensors DETECT	analytics ANALYZE	models FORECAST
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International Tsunami Information Center (ITIC, ITIC-CAR)

MATERIALS	TSUNAMIREADY SUPPORT	ACTIVITIES
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Tsunami Warning Decision Support Tools

ITIC-distributed, supported



Tsunami Bulletin Board Listserv

(ITIC, 1995) 449 science/tsu/govt (2026)

Real time EQ Display (CISN)

(USGS / NTHMP, 2005)

Real-time Sea Level monitoring

- Tide Tool – TWC operations monitoring (PTWC and ITIC, 2005)
- IOC Sea Level Monitoring website (IOC, 2008)

Tsunami Travel Time Software

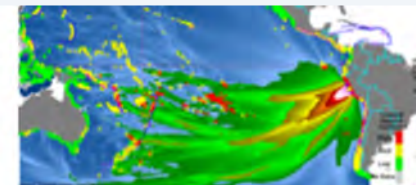
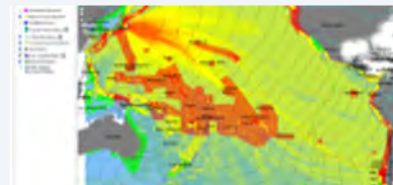
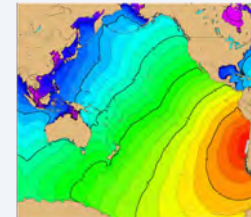
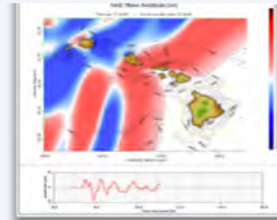
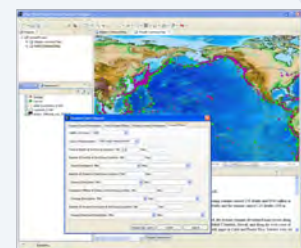
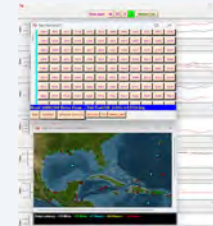
(ITIC, NGDC, 2007)

Tsunami Historical Database Online

(WDS-NCEI)

Tsunami Coastal Assessment Tool

(TsuCAT, 2017)



Training – Online and Hybrid Approach



ITIC is a UNESCO/IOC OTGA Specialized Training Center for Tsunamis

- ❑ **Self-paced, independent, no trainer interaction**
 - ❑ Existing
 - ❑ Tsunami Awareness (2024)
 - ❑ Tsunami Ready (2025)
 - ❑ **Hybrid and/or In-person**
 - ❑ In-Progress (2024-2027)
 - ❑ Tsunami Warning Center Minimum Staff Competencies

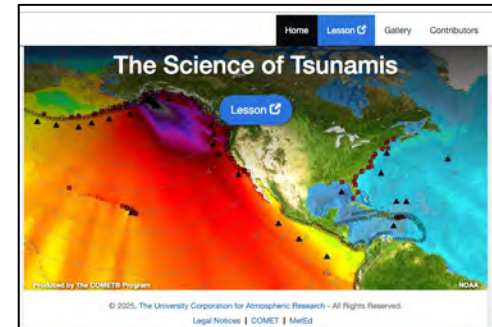
US MetEd / COMET platform

- ❑ Update existing module: “The Science of Tsunamis” – Live Feb 2026
- ❑ New Module - International NTWC Decision-making: “Communicating Threats and Impacts during Tsunami Events” – Complete Q2 2026

NDPTC AWR-217 Tsunami Awareness (v4, 2024)



<https://classroom.oceanteacher.org/>



<https://www.comet.ucar.edu/course-info-science-tsunamis>

ITIC Training Programme (ITP-TEWS) – End-2-End, 2 wks

Hawai'i, September 2025 (31 participants from 22 countries, 25 trainers)



Next Course

Chile

August 10-21, 2026

Interest in US Course?



IOC - ITIC Awareness Materials Update

Current status of awareness resources and hard copy stock



Tsunami Glossary 2019 (w/ UNESCO-IOC)

New version (5 UN languages) to be released 2026

Tsunami Great Waves (w/ UNESCO-IOC)

Lessons Learned (1960, 2010 Chile)

Tsunamis on the Move (w/ UNESCO-IOC)

Sensing a Tsunami Awareness Material

Tsunami Warning! (w/ UNESCO-IOC, 1993)

PRSN Spanish (2006), Samoan (2019), English (2020 Update)

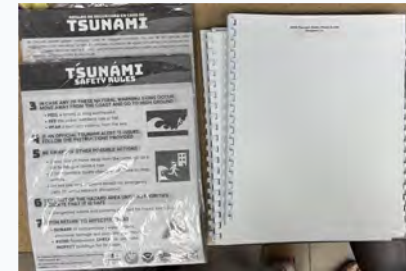
First Wave in Minutes (w/ UNESCO-IOC)

Surviving Tsunamis (2004, 2006 Indonesia)

Safety Rules – UPDATED (CTIC)

Braille, Large Format (ITIC-CAR 2024, 2025)

STICKERS:



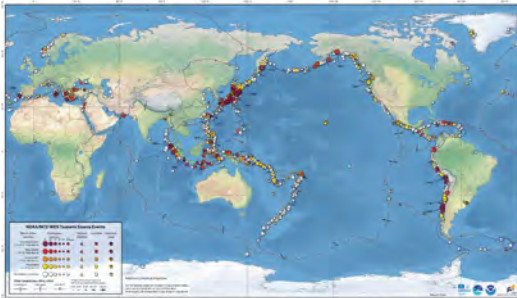
IOC - ITIC Awareness Materials



Global Posters *Updated in 2026 with NCEI*

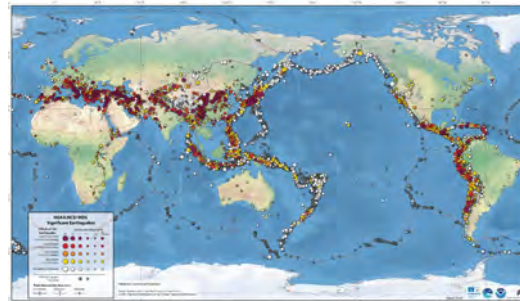
Tsunami Sources

Tsunami Sources 1610 B.C. to A.D. 2026
From Earthquakes, Volcanic Eruptions, Landslides, and Other Causes



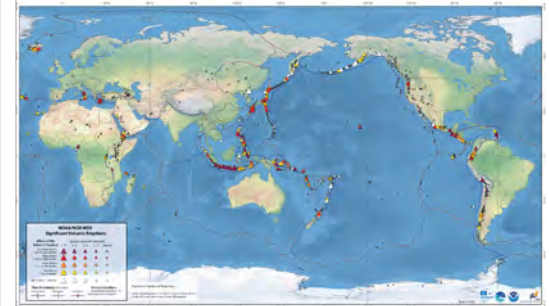
Significant Earthquakes

Significant Earthquakes 2150 B.C. to A.D. 2026



Significant Volcanic Eruptions

Significant Volcanic Eruptions 4360 B.C. to A.D. 2026



Greater inclusion of Blind, Visually Impaired and Deaf



Inclusive Museum Activities

Visually impaired inclusive education activity at the EcoExploratorio Museum.



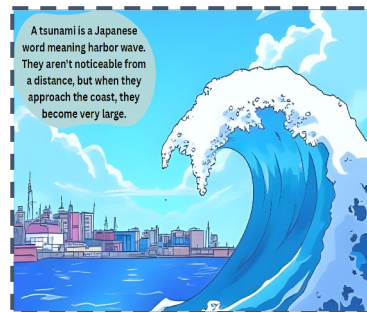
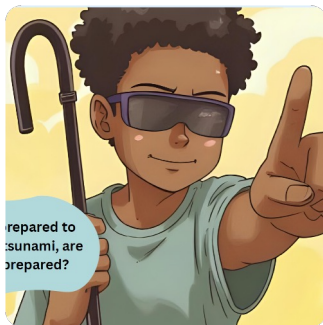
Tori and Teo Video

Earthquakes and tsunamis coverage in English/Spanish with sign language.



Diego and the Invisible Waves

Booklet in text and Braille.
Approved by ITIC &
UNESCO/IOC CARIBE-EWS.



TORI AND TEO
SPANISH ASL VIDEO

ITIC Website: New Resources



tsunami.gov



Tsunami.gov

Link to overview of ITIC and information on the exercises

- tsunamiwave.org

Education & Awareness



Regional & Teacher Portals

- iticcar.org (Caribbean)
- tsunamiteacher.org (Training)
- hawaiiitsunami.org (Regional)
- amsamoatsunami.org (Regional)

Youth Engagement



Hawaii Tsunami Kids

Provides targeted educational resources designed for young audiences.

- hawaiiitsunamikids.org



Engaging with Hawai'i, Guam, CNMI & American Samoa



Core Advisory & Programs

- State Tsu Advisor (Laura Kong)
- Tsunami Exercises
- Create Awareness Materials & Participate in Events
- TsunamiReady



Hawaii Tsunami Awareness Month (April)

Cancelled in 2026 due to weather

- Fair with PTWC at Windward Mall
- Hosted 4th Graders at ITIC

hawaiiitsunamikids.org





Engaging with Puerto Rico and the USVI



Puerto Rico and USVI - 2025-2027

- TsunamiReady® - 50 TR Communities and 21 TR Supporters – celebrating 20 years in PR
- CARIBE WAVE 26
 - 246,719 in PR and USVI of 613,000 Caribbean Wide per TsunamiZone.org
- CARIBE WAVE 27 - March 11
- Awareness and Education Materials incl Blind and Visually Impaired + Deaf
- Annual Trainings for Warning Focal Points
- USGS 2025 Seismic Hazard Model



Generated using AI



Ken Graham: Be Ready!





Thank you!

Christa von Hillebrandt-Andrade

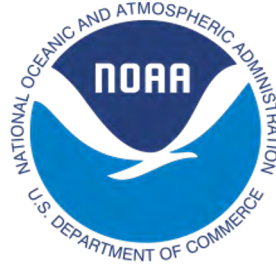
Deputy Director
Manager ITIC Caribbean Office

Dr. Laura Kong

Director

Tammy Fukuji

Information Technology Specialist



AMERICAN SAMOA TSUNAMI PROGRAM WRITTEN PARTNER BRIEFS FY 24 & 25 PROJECTS



NTHMP Annual Meeting
May 12-14, 2026 – Seattle, WA

ACCOMPLISHMENTS

YEAR 2025

Tsunami Education, Outreach, and Exercises

Through NTHMP, the American Samoa Tsunami Program conducts community outreach, facilitates training, participates in tsunami evacuation drills, and provides recommendations to improve future exercises.

- Coordinated and delivered 18 community outreach activities alongside implementing and evaluating 9 tsunami drills for schools, government agencies, private sectors, and villages.
- Collaborated with 2 low-lying schools to design and install tsunami evacuation maps, enabling students, staff, and visitors to quickly identify assembly points and safe zones.
- Collaborated with village mayors to conduct site visits and develop 4 tsunami evacuation maps.

YEAR 2026

Tsunami Education, Outreach, and Exercises

- Coordinated and delivered 3 community outreach activities alongside implementing and evaluating 6 tsunami drills for schools and private sectors.
- Collaborated with 2 low-lying schools to design and install tsunami evacuation maps, enabling students, staff, and visitors to quickly identify assembly points and safe zones.
- Collaborated with village mayors to conduct site visits and develop 5 tsunami evacuation maps.

CHALLENGES

- ❑ Some of the challenges that we face are shipping of siren supplies due to delays and geographic location.
- ❑ Procurement related delays are decreasing as we adjust our approach.

Updates from the BC Ministry of Emergency Management and Climate Readiness (EMCR).

1. BC Tsunami preparedness week took place between April 12-18, 2026
 - A key activity during the week is the [High Ground Hike](#) which is a community led event to help educate coastal residents about BC's tsunami risk and provide an opportunity to practice local evacuate routes to high ground.
 - 29 High Ground Hike events involving different communities and First Nations in BC have been planned to be held in 2026 and a number of these took place during tsunami preparedness week
2. EMCR is leading planning for a Provincial tsunami exercise known as Exercise Luuwaay Taaydala or EX LUTA for short
 - The exercise is taking place on November 5th, 2026
 - EMCR is working with other Provincial Ministries and the Canadian Federal Government in support of the exercise
 - The NTWC has also been involved as staff attended an exercise workshop back in March
3. EMCR participated in Pacifex on May 5th
 - The exercise was also a good learning opportunity for us in the lead up to EX LUTA

Also sharing a couple of tsunami resources from BC

- [PreparedBC](#) is BC's emergency preparedness resource
- [ClimateReadyBC](#) is BC's resource to help the public and communities understand disaster and climate risks and to find funding and supports to make communities more resilient

Thanks for

Robert A. L. White (he/him) | Seismic Specialist
Disaster Resilience Division
Ministry of Emergency Management and Climate Readiness
Phone: 250-419-8691 | Robert.White@gov.bc.ca

Acknowledging the WSÁNEĆ and Lekwungen-speaking peoples, whose traditional territory I am grateful to work, live and play on

Follow PreparedBC: [Facebook](#) | [X](#) | [Instagram](#)

Follow EmergencyInfoBC: [X](#)

**GUAM HOMELAND SECURITY/
OFFICE OF CIVIL DEFENSE**

**Stephen Cahill
Guam MES, NTHMP**

NTHMP Summer Meeting
May 2026



New Inundation Modeling for Northwest Guam

- Successfully procured & executed Neowave Inundation Study for North/South Tumon Bay & Hagatna Bay, NorthWestern Shores of Guam (NA24)
- Successfully procured Agat (Hagat) Coastline to be completed this year (NA25)



Outreach

- Hotel partnerships



Outreach

- Schools



Tsunami Signage Distribution

Distributing Tsunami Signage from warehouse to village mayors;
Working in coordination for positioning around the island



Inter-Island Partnership

CNMI visits; met new
NTHMP MES
Representative



AHAWS Network

- 24 of 24 Operational Sirens



Tropical Weather Services

- Review of tsunami modeling for Guam and site visit with Dr. Cheung for next modeling initiative
- Coordination trip to Saipan
- Review of Tsunami Warning, Research and Education Act Amendment and presentation for Annual Meeting
- Develop presentation on the Nankai Trough tsunami threat to the Marianas and Micronesia for Annual Meeting
- Developed scenario for Tsunami Exercise and met with PTWC and ITIC
- Reviewed several technical studies to update previous and new information papers on tsunami issues threatening Guam





THANK YOU!





Puerto Rico Tsunami Program: Educational & Outreach Achievements

Grant Award Number: NA25NWS467G0019

Community Recognition & Support

- **TsunamiReady® Renewals:** Successfully renewed recognitions for 3 communities. The evacuation maps and plans have been updated for the other 9 communities that have to renew their recognition in this FY 25-26.
- **Supporter Program Success:** Camuy Health Services was newly recognized.

Renewals completed for Costa Salud Health Center and Hotel Villa Cofresí.

The Capitol is in process of getting the recognition as TsunamiReady Supporter.



TSUNAMIREADY SUPPORTERS AGENCIES IN PUERTO RICO

COSTA SALUD HEALTH CENTER	ZONA NMEAD AGUADILLA	MARINA CABO ROJO
SUPERMERCADOS ECONO	DEPTO. FAMILIA REGIONAL	ESC. JOSÉ DE DIEGO
ESTANCIA LA JAMACA	DEPTO. FAMILIA AGUADILLA (1 & 2)	AUTORIDAD DE PUERTOS SJ
HOTEL VILLA COFRESI	DEPTO. FAMILIA RINCÓN	CAMUY HEALTH CENTER
HOSPICIO SAN FRANCISCO	AAA AGUADILLA	RESCATANDO VIDAS
TRIBUNAL SUPREMO SAN JUAN	ZONA NMEAD MAYAGÜEZ	
TITI MILLY CUIDO CUÁNICA	ZONA NMEAD ARECIBO	
	TRIBUNAL SUPREMO AGUADILLA	



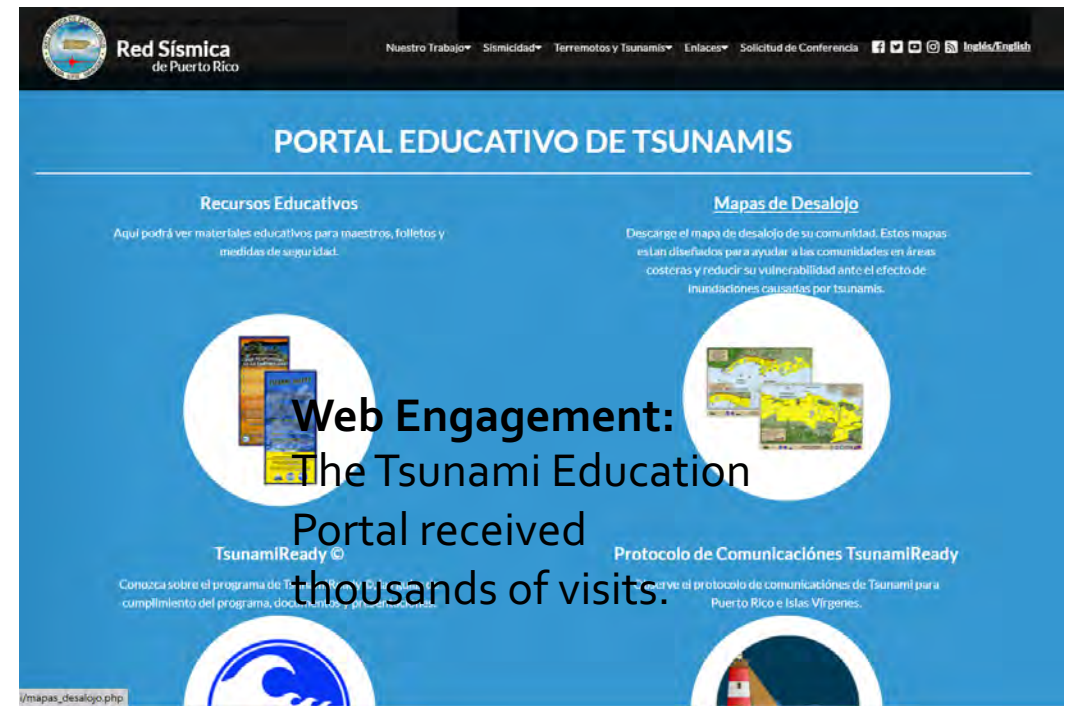
DISTRITO DEL CAPITOLIO

EN PROCESO

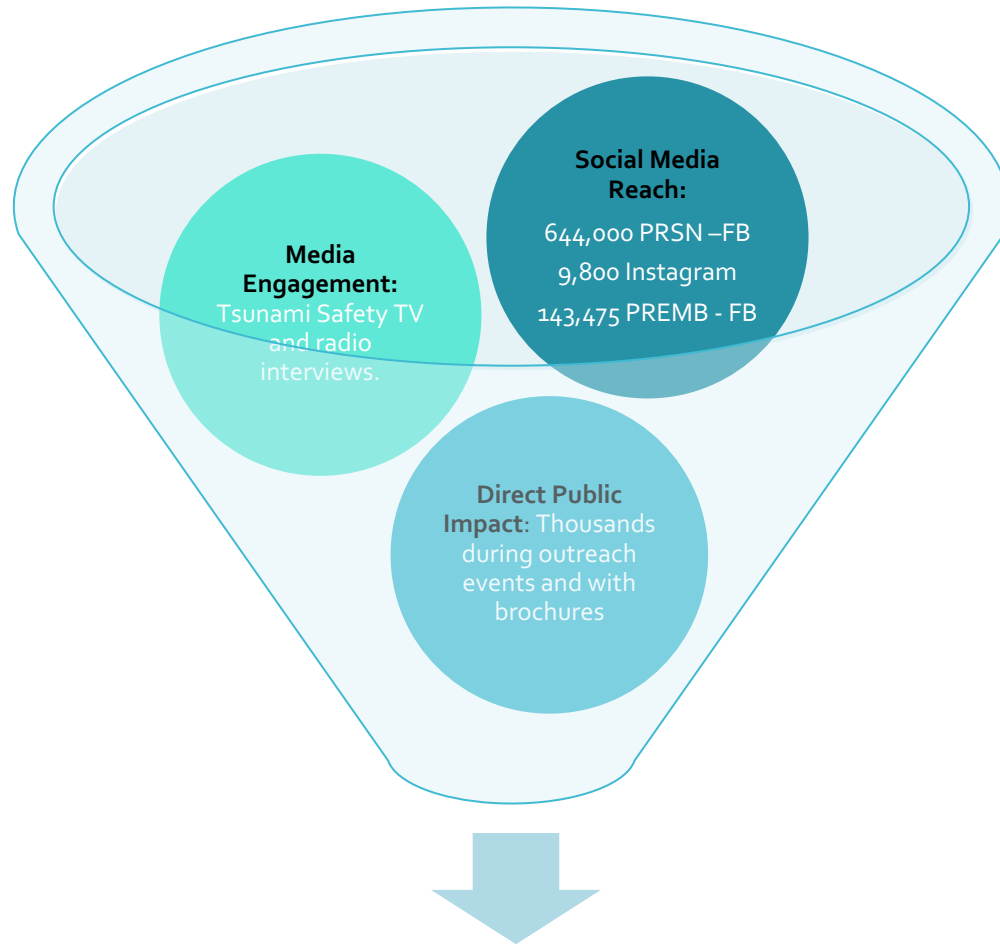
Digital Outreach & Specialized Training



Online Education: Tsunami educational materials and modules are maintained and kept updated through the PRSN website.



Public Impact & Media Presence



Getting Communities Ready

- **World Tsunami Awareness Day:** Educational videos reached a total of 45,262 views across Facebook and Instagram.

Innovative Educational Initiatives

Non-Conventional Signage: Pilot project in process in Villa del Carmen (Ponce) -24 signs using thermoplastic paint material on streets.

TsunamiReady Tier 2: Evaluation of strategies in Aguadilla to include vertical evacuation structures.

Tsunami preparedness for tourists and visitors: A pilot plan to impact a community with a high number of tourists, businesses and recreational activities.



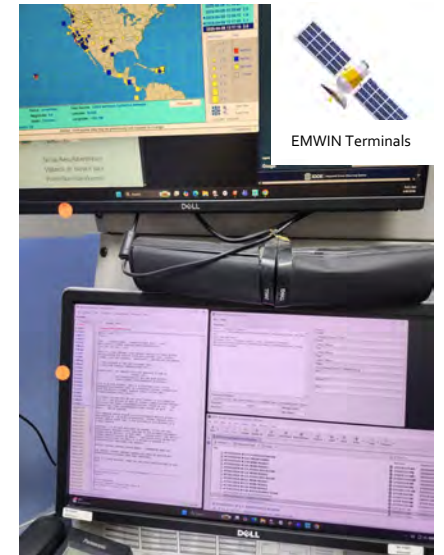
Exercises & Warning Infrastructure



220,338
(2026)



96% of the 137
operational



95% of the
54 alive

Challenges

- Frequent changes of municipalities directors.
- Lack of municipal funds to maintain the sirens and replace computers for EMWIN. No satellite internet for tsunami alerting.
- Paperwork and delays in purchases or administrative requirements.