

International Tsunami Information Center (ITIC) Report



<https://vimeo.com/192771669>

Dr. Laura Kong
Director, ITIC, USA NOAA

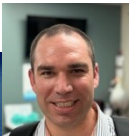
Lcdr. Matías I. Sifón
Associate Director, ITIC
Head Oceanography Dept, Chile SHOA

Christa von Hillebrandt
Deputy Director, ITIC, USA NOAA
Manager, ITIC Caribbean Office

ITIC – Who we are



- ❑ **ITIC - established 1965 (IOC-IV.6), USA agreed to host**
- ❑ **Support Member States** (Technical improve TW (timely accurate), Capacity Building, Awareness, Event / Post-Tsunami data coll)



OFFICE - US NOAA NWS

- ❑ Director – Dr. Laura Kong
- ❑ Deputy Director, ITIC Caribbean Office - Christa von Hillebrandt-Andrade
Support CTIC, CARIBE-EWS (eff Sept 1 2021, former Caribbean Tsunami Warning Prog, est. 2010)
- ❑ Scientist (Oceanographer) – [vacant 2023](#)
- ❑ Technical Information Specialist – [vacant 2015](#)
- ❑ Information Technology Specialist – Tammy Fukuji
- ❑ Admin Support Assistant – [vacant 2024](#)
- ❑ Student interns (part, full-time): 1-2 year-round, 2-4 Summer

ASSOCIATE DIRECTOR – established 1974 (IOC/ITSU-IV.1, non-USA)

- ❑ Lcdr. [Matías I. Sifón](#) (Chile, SHOA Navy), 2023 (Chile since 1998)



ITIC Mandate (1977) – Intersessional Activities

www.tsunamiwave.org

<http://itic.ioc-unesco.org/index.php>

- ❑ **Monitor, recommend improvements**
 - Events – improving warning and response
 - Tsunami Warning Decision Support Tools
- ❑ **Assist in establish/strengthen national, regional systems**
 - Capacity Building, Training
 - IOC Wave Exercises
 - UN Decade for Ocean Science for Sustainable Development
- ❑ **Information resource - preparedness / education (create, compile, share)**
 - Guides, Manuals, Best Practices, Awareness materials
- ❑ **Information resource - historical tsunamis (collect, compile, share)**
 - Database, global and regional hazard, post-event surveys



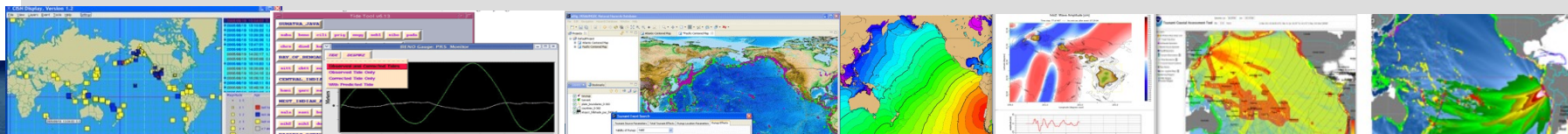


Tsunami Warning Decision Support Tools

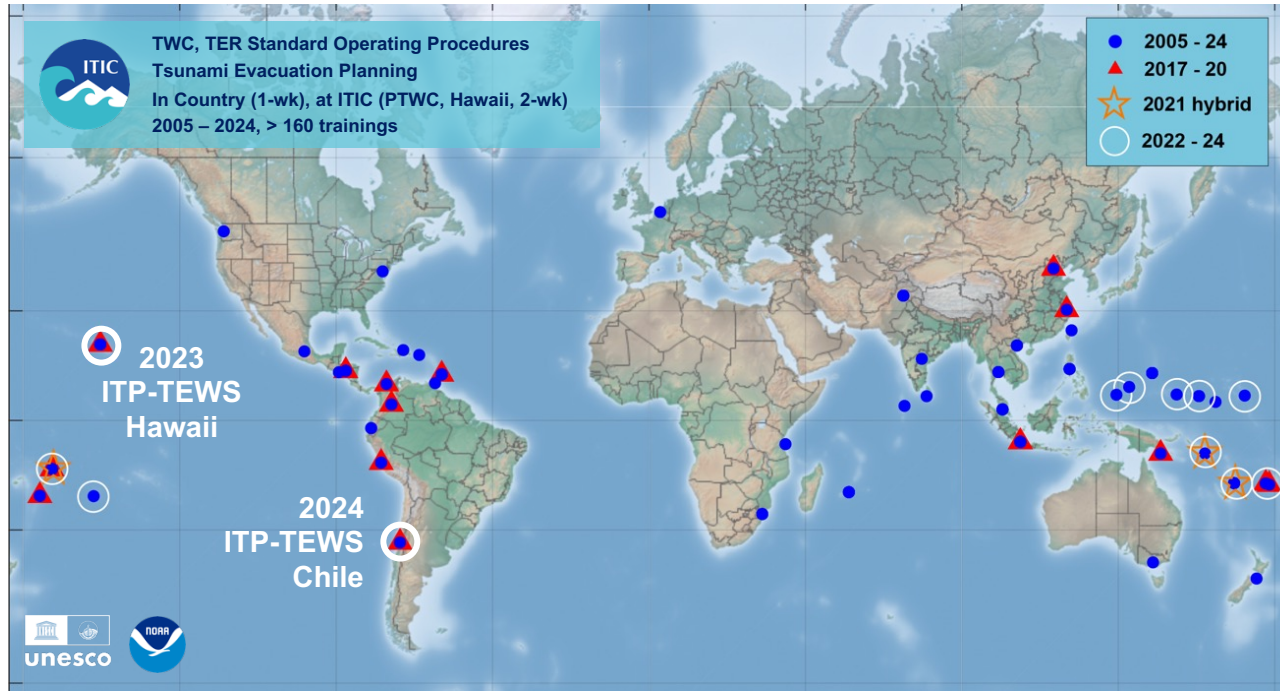


ITIC-distributed, supported

- ❑ **Tsunami Bull Board Listserv** (ITIC, 1995) **475** science/tsu/govt (2024)
ADDR FOR POSTING: tsunami_bb@list.woc.noaa.gov
- ❑ **Real time EQ Display** (CISN, USGS / NTHMP, 2005), 346+ **v3.13.227** (Aug 2024)
NO PTWC EQ Observatory message. NO registration code required so cannot track nbr users
- ❑ **Real-time Sea Level monitoring**
 - Tide Tool – TWC operations monitoring (PTWC, 2005) **v10.71**
 - IOC Sea Level Monitoring web site (IOC, 2008)
- ❑ **Tsunami Travel Time Software** (ITIC, NGDC, 2007) – **SDK4.0.1, with GUI for PC**
- ❑ **Tsunami Historical Database Online** (WDS-NCEI), **Offline** (TsuDig, NCEI, ITIC, 2009)
- ❑ **Tsunami Hazard Assessment Tools** (2017) – PMEL, ITIC
 - ❑ **ComMIT/MOST inundation modeling** => **OTGA hybrid late 2026**
 - ❑ **Tsu Coastal Assessment Tool** (TsuCAT v4.4, Aug 2024) => **PTWC messages from multiple countries, with community exercise injects, near-real time USGS earthquake ingest**



Building Resiliency: Capacity Building, Training



Importance of continual training to strengthen TWC decision-making skills:

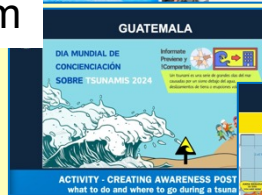
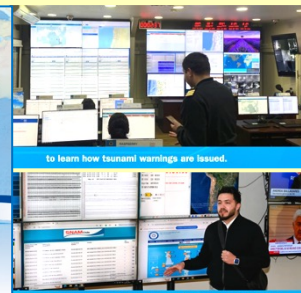
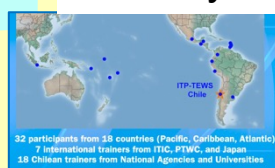
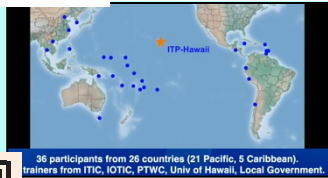
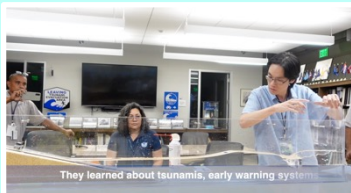
>> Tonga did well for 2022 HTHH Volcano / Tsunami

- In-Country (5) - 2009, 2010, 2015, 2019
- ITP-Hawaii (14) - 2006, 2009, 2011, 2014, 2016, 2018, 2019



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

ITIC - SHOA organized (68 participants from 26/18 countries, 44 trainers)



Video
English, 508-compliant, Spanish

English, 508-compliant



UNESCO
International Tsunami Information Center

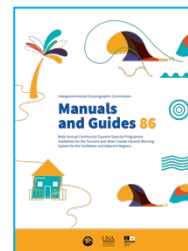
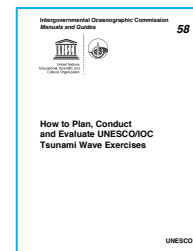
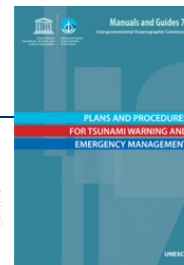
ITIC Support to PTWS – TWC Min Staff Competency

- Agenda 4.3 - details
- ITIC to develop training and conduct Pilot for PICT (2024-2026)
- Series of courses - self-paced to in-person
Pass all courses to be enroll in last course (in-person ITIC, PTWC)
- ITIC support for course development from
 - TWC subject-matter experts (contract, in-kind)
 - 2024 - 2 IOC Ocean Training Interns – Tonga, Indonesia
 - Future TBD - 1 Univ of Tokyo Ocean Alliance, IOC interns?
- If requested, assist PIC to devise national ‘assessment’ and ‘certification’ process
- Report back / Consult PICT TT Capacity Development



TWC-MS - Build on Existing

- ❑ **PTWS Country Schema**
Australia, Chile, India, NZ, USA, others
- ❑ **ITIC Standard Trainings based on IOC Manual and Guides**
 - TWC / TER SOP (MG 76);
 - Inundation Maps to Evac Planning (TEMPP, MG 82)
 - Wave Exercises (MG 58)
Multi-Annual Community Exercises (MG 86)
- ❑ **IOC Ocean Teacher Global Academy**
Tsunami Awareness, Tsunami Ready
TWC Minimum Staff Core Competencies
- ❑ **PTWC Products training videos**



Preparing for Community Tsunami Evacuations
From Inundation to Evacuation Maps, Response Plans, and Exercises ... communities knowing what to do and where to go

IOC ITIC Tsunami Evacuation Maps, Plans, and Procedures (TEMPP) Pilot
Capacity Building, Honduras and Central America, 2015-17



ITIC support to PacWave

Agenda 4.9 – PacWave details

1. Member TT
2. Enable PW24 web site
<http://www.pacwave.info/>
3. Host Post-Exercise Eval tool (Survey Monkey)
4. For PW22-PICT, host 1 Comm method listserv), serve as Observer
5. Support TT and Chair for compilation of Summary Report



<https://www.youtube.com/watch?v=HUn-UVejEys>





Intergovernmental
Oceanographic
Commission

UNESCO-IOC TSUNAMI READY RECOGNITION PROGRAMME (TRRP)

ITIC Support (TOWS WG) - Facilitate TRRP in Pacific

THE NORTH-EASTERN ATLANTIC, MEDITERRANEAN AND CONNECTED SEAS

● Recognize ○ In progress

- 1 Egypt
● Egypt
○ Alexandria
- 2 France
● Alpes-Maritimes
● Cannes
- 3 Greece
● North Aegean
● Samos
- 4 Italy
● Latina
○ Monterotondo
- 5 Spain
● Cádiz
● Chipiona
- 6 Türkiye
● Büyükçekirce

INDIAN OCEAN

● Recognize ○ In progress

- 1 India
● Bangor
● Nollasahi
● Kantiagada
● Markandi
● Prayagi
● Upasapatti
● Venkatapur (New Boxipatti)
● Jagatsinghpur
● Venkatapur
● Baghepur
● Shuypala
● Dhansharbelari
● Nollasahi
● Sahadabadi
● Balasore
● Jagamthpur
● Jaydevkasaba Pahi
● Kanyanagari
● Sahapur
● Bhadrak
● Aduvan
● Badahablisahi
● Mohanpur
● Sanakrusnapur
● Kendrapada
● Chinchuri
● Kalha
● Kantilo
● Tantapala Sasan
● Puri
● Chhotipada
● Kuntajanga
● Khalakatapana
● Narasingpatana
- 2 Indonesia
● Kabupaten Lombok Tengah
● Kuta Mandakia
● Badung Regency
● Kelurahan Tanjung Bena
● Buleleng
● Desa Pengastulan
● Malang
● Desa Tambakrejo
● Kulon Progo
● Desa Gligah
● Lekak
● Desa panggarangan
● Pangandaran
● Kota Pangandaran
● Padang City
● Kelurahan Lohang Belanti
● Kelurahan Patus
● Padang Pariaman
● Nagari Tapakih
● Gunung Kidul
● Desa Kemadang
● Ambon City
● Nagari Galala
● Nagari Hative Kacil
● Kota Banda Aceh
● Deah Glumpang
● Gempeng Jawa
● Aceh Besar
● Mon Isuan
● Lami Kruet
● Cilacap
● Sidaurip
● Bantul
● Parangtritis
● Gadingisari
● Pongasari
● Tirtohargo



Tsunami Ready Website

Tsunami Ready Viewer

October 2024

PACIFIC

● Recognize ○ In progress

- 1 Costa Rica
● Guacacate
● Orotal
● Playas del Coco
● Samara
● Tamarindo
● Playa Hermosa
● Puntarenas
● Quepos
● Uvita-Bahia
● Tavees
● Dominical, Dominicalito y Barú
● Puerto Jiménez
- 2 Ecuador
● Galapagos
● Puerto Baquerizo Moreno
- 3 El Salvador
● La Libertad
● La Libertad
● Tancitaro
- 4 Federated States of Micronesia
● Weno Municipality
● Pohnpei
● Pohnpei State
- 5 Fiji
● Cuvu District
● Navunono
● Sika
- 6 Guatemala
● Escuintla
● San Jose
● Sipacate
● Sipacate
- 7 Honduras
● Choluteca
● Cedeño
- 8 Samoa
● Lefaga
● Savaii
- 9 Palau
● Palau
- 10 Marshall Islands
● Majuro

CARIBBEAN AND ADJACENT REGIONS

● Recognize ○ In progress

- 1 Antigua and Barbuda
● St. John's
- 2 Barbados
● St. Lucy & St. Peter
● Sherrif, St. Lucy - Mullins, St. Peter
● Christ Church
● Christ Church West
● St. James Central Community
- 3 British Virgin Islands
● Commonwealth realm
● British Virgin Islands
- 4 Costa Rica
● Tamarindo
● Cahuita
- 5 Dominica
● Dominica
● Portsmouth
- 6 France
● Guadeloupe
● Deshaies
- 7 Grenada
● Grenada
● Carriacou & Petite Martinique
● St. Patrick
● St. Patrick
- 8 Haiti
● Nord-Est
● Fort-Liberté
- 9 Honduras
● Cortes
● Olinda
● Atlántida
● Tornabate/Tela
- 10 Jamaica
● St. Catherine
● Old Harbour Bay
- 11 Nicaragua
● Bluefields
● Big Corn Island
● Corn Island
- 12 Saint Kitts and Nevis
● Saint Kitts and Nevis
● Saint Kitts and Nevis
- 13 Saint Lucia
● Laborie
● Laborie District
- 14 St. Vincent and the Grenadines
● Union Island
● Union Island
● Kingstown to Argyle
● Saint George
- 15 Trinidad and Tobago
● Deep Martin
● Carenage
- 16 United Kingdom
● Long Bay Village
● Anguilla

100 (Feb 2025, IOC TSR)

TSUNAMI READY
COMMUNITIES

23 CARIBBEAN AND ADJ REGIONS

48 INDIAN OCEAN

6 NORTH-EASTERN ATLANTIC,
MEDITERRANEAN AND
CONNECTED SEAS

23 PACIFIC OCEAN

ITIC Support - Facilitate TRRP in Pacific

TRRP Implementation Status

GLOBAL OVERVIEW OF UNESCO-IOC TSUNAMI READY RECOGNIZED COMMUNITIES												
	PL	EOI	OG	TR	RV	RD	RIP	RN	RDE	TOTAL # OF COMMUNITIES	IN # MEMBER STATES	OF WHICH # ARE SIDS
CARIBE-EWS	2	2	0	4	6	4	0	0	9	23	16	10
IOTWMS	0	0	0	36	10	2	0	0	0	48	2	0
NEAMTWS	0	0	0	6	0	0	0	0	0	6	6	0
PTWS	4	2	2	5	10	0	0	0	8	23	10	5
TOTAL	6	4	2	51	26	6	0	0	17	100	34	15
										2025 FEBRUARY		



Active



Need renewal

LEGEND

PL	TR planned	TR	Initial TR recognition	RIP	TR renewal in progress
EOI	Expression of Interest	RV	TR recognition valid (incl. RN)	RN	TR renewal completed
OG	Initial TR process ongoing	RD	TR renewal due	RDE	TR renewal delayed

ITIC Support - Facilitate TRRP in Pacific

UNESCO-IOC TSUNAMI READY RECOGNITION PROGRAMME (TRRP)

NEAMTWS
○ in progress

MAJOR ACTIVITIES IN 2023+

- **ITIC – Facilitate all PTWS.**
Complete FSM (2 – Yap, Kosrae); RMI (1),
Renew Honduras, Support Solomons, Vanuatu
- **Development of a global (updating)**
Tsunami Ready Interactive Map Viewer
- **Tsunami Ready web site (support) (ongoing w/TSR)**
- **Tsunami Ready Toolkit (new, with TICs, TSR)**
- **IOC Manuals and Guides 74 (updating w/TICs, TSR)**
«Standard Guidelines for Tsunami Ready
Recognition Programme»
- **WG 3 Task Team on Tsunami Ready – Agenda 4.2**

100
TSUNAMI READY
COMMUNITIES

48 – IOTWMS
23 – PTWS
23 – CARIBE-EWS
6 – NEAMTWS

Palau, FSM, RMI
2022-2024
Fiji

HN – renew
KI, WS, SB, VU
2024-2026



Haiti (1)
Fort-Liberté

United Kingdom (2)
British Virgin Islands,
Anguilla

Saint Kitts and Nevis (1)
Saint Kitts and Nevis

Antigua and Barbuda (1)
St. John's

Barbados (1)
St. Lucy & St. Peter

Trinidad & Tobago (1)
Carenage

Grenada (2)
Carriacou & Petite Martinique,
St. Patrick

St. Vincent and the Grenadines (1)
Union Island

Jamaica (1)
Old Harbour Bay

Honduras (3)
Omoa,
Tornabe/Tela,
Cedeño

Guatemala (2)
San Jose,
Sipacate

El Salvador (2)
La Libertad,
Tamanique

Costa Rica (10)
Ostional,
Playas El Coco,
Samara,
Tamarindo,
Quepos,
Uvita-Bahia,
Playa Hermosa,
Tivives,
Puerto Jiménez

Panama (1)
Puerto Armuelles

Nicaragua (2)
Bluefields,
Corn Island

Amoa (1)
Savaia

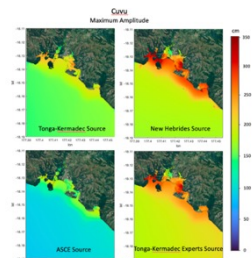
Dominical, Dominicalito y Barú

Fiji Coral Coast: Nayeveyevu and Sila Villages

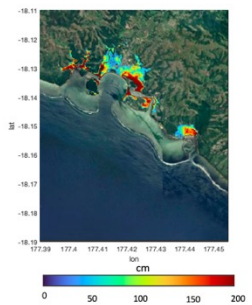


TR Recognition Ceremony: Nov 3, 2023

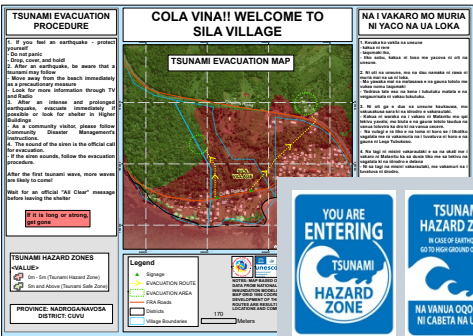
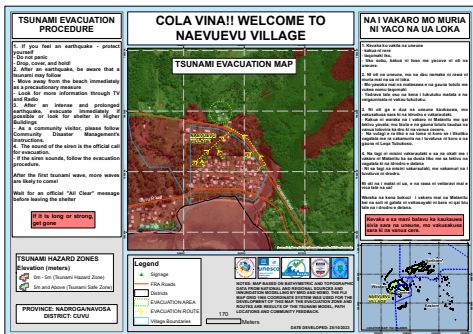
Preparedness: Hazard and Evacuation



Maximum Composite Flow Depth



Hazard Assessment: Tsunami Sources and Inundation



Community participatory
training, 18-22 Sep 2023

**GEOLOGICAL SERVICES DIVISION
SEISMOLOGY UNIT**

OFFICIAL WARNINGS

WARNING When to higher ground or to a higher ground quickly, or use local evacuation route

ADVISORY Stay out of the water and away from the beach

WATCH Do not go to the beach

INFORMATION STATEMENT When to higher ground or to a higher ground quickly, or use local evacuation route

Alerts & Warnings

Outdoor Sirens, Social Media, Telephone Notifications, Radio, Wireless Emergency Alerts and Text Messages, Television



Warning, Response, Awareness

Implementation Approach - Stakeholders
Mineral Resources Dept, National Disaster Management Office,
Ministry of Lands, Provincial Administrator, iTaukei Affairs, Plan
International, Partners in Community Development (Fiji), People
Living with Disability Organization

**Sila Village
Nadroga Province, Fiji
is Tsunami Ready**

IF YOU FEEL AN EARTHQUAKE THAT IS LONG AND STRONG, A TSUNAMI MAY FOLLOW

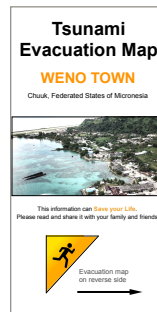
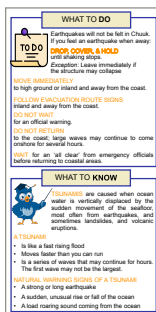
WHAT TO DO IN CASE OF A TSUNAMI

- Drop, cover & hold during an earthquake
- Move inland or to a higher ground quickly, or use local evacuation route
- Wait for official ALL CLEAR before returning to the beach

IN CASE OF STRONG OR LONG EARTHQUAKE OR ANY OFFICIAL MESSAGE, GO TO HIGHER GROUND OR FURTHER INLAND

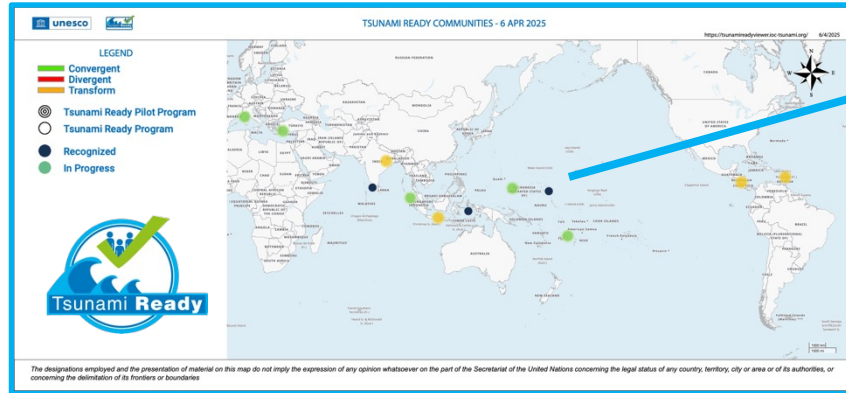
The recognition does not imply approval or promise that a community can or will perform at a certain level in case of tsunami. Tsunami Ready recognition does not mean that a community is tsunami proof. UNESCO-IOC recognizes that the community have built their capacity and implemented measures in accordance to the agreed indicators of UNESCO-IOC Tsunami Ready Programme, and that they will continue to maintain and ensure the sustainability of this preparedness level.

English	iTaukei (Fijian)
• Tsunami Hazard Zone	• Na Vanua ogo e rawa ni cabeta na Ualoka
• Tsunami Evacuation Route	• Na sala mo ni muria kina i drodro ni Ualoka
• Tsunami Safe Zone	• Nai drodro ni Ualoka
• Wait for Official All Clear	• Waraka me soli nai vakaro ni veisukayaki



UNESCO IOC Tsunami Ready

1. Facilitated by TICs
2. Web site: PTWS, CARIBE-EWS, IOTWMS, NEAMTWS
3. Global Tsunami Ready Interactive Map Viewer



www.tsunamiready.org

unesco Tsunami Programme

Who we are Expertise Impact Governance Events

Majuro, Marshall Islands

In 2024, Majuro, Marshall Islands received recognition as Tsunami Ready under the Tsunami Ready Recognition Programme being developed by UNESCO-IOC.

ITIC

Fulfillment of Indicators

ASSESSMENT (ASSESS)

- Hazard map 1
- Hazard map 2
- Tsunami Hazard Assessment and Modeling

PREPAREDNESS (PREP)

- Tsunami Information
- Outreach resources
- Tsunami brochure
- Tsunami activity 1
- Tsunami activity 2
- Tsunami activity 3
- Tsunami Exercise 1
- Tsunami Exercise 2

RESPONSE (RESP)

- Response plan 1
- Response plan 2
- Response plan 3

TRI RECOGNITION

- Application

unesco Tsunami Programme

Tsunami Ready

What is Tsunami Ready?

The UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) is an international community-based effort to bolster risk prevention and mitigation across global coastal zones.

It aims to build tsunami resilience through awareness and preparedness strategies that will protect life, livelihoods and property from tsunamis.

It's aimed at:

- Communities at risk: Voluntary of coastal communities around the world to be recognized as being struck by tsunamis.
- Warning and emergency management agencies: National and local authorities play a key role in preparing communities for and reach.
- Government authorities: National and local authorities should include tsunami risk reduction in their development and disaster management plans and agencies.
- Community leaders and the public: Individuals with a strong influence over the general population should help get their message across.

Methodology

This voluntary, performance-based community recognition programme is a collaborative effort to meet a standard level of tsunami preparedness.

12 indicators have been conceived to provide a consistent evaluation standard. All must be met to gain the recognition, which is renewable every four years.

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Assessment

Tsunami hazard zones are mapped and designated.

The number of people at risk in the tsunami hazard zone is estimated.

Economic, infrastructural, political, and social resources are identified.

ITIC

Preparedness

Easily understood tsunami evacuation maps are approved.

Tsunami information including signage is publicly displayed.

Outreach and public awareness and education resources are available and distributed.

Outreach or educational activities are held at least three times a year.

A community tsunami exercise is conducted at least every two years.

ITIC

Response

A community tsunami emergency response plan is approved.

The capacity to manage emergency response operations

ITIC

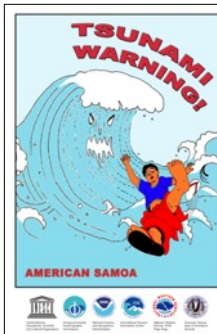
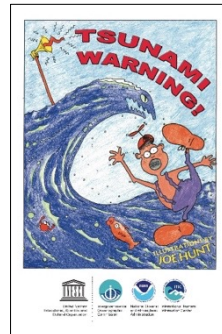
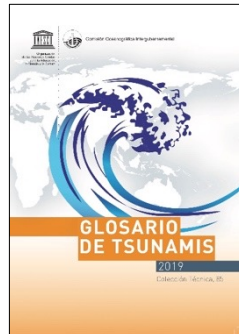
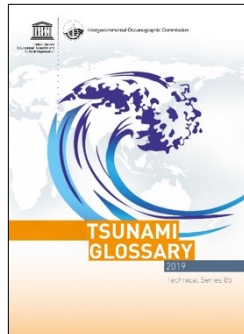


IOC - ITIC Awareness materials **update** (some hard copy stock)

http://itic.ioc-unesco.org/index.php?option=com_content&view=category&layout=blog&id=1075&Itemid=1075



- ❑ **Tsunami Glossary 2019** (5 UN languages) => **updated 2025 (TOWS-WG-XVI)**
- ❑ **Tsunami Warning! Comic**
Amer Samoa (en) (IOC/INF1223) and English (update 2020)
- ❑ **Tsunami Great Waves, Surviving Tsunamis Lessons Learned** (1960, 2010 Chile)
Where the First Wave Arrives in Minutes (2004, 2006 Indonesia)
Tsunamis on the Move, Sensing a Tsunami
- ❑ **Tsunami Safety flyer – BRAILLE, Large Format – ITIC-CAR Caribbean 2024**



UNESCO/IOC-NOAA

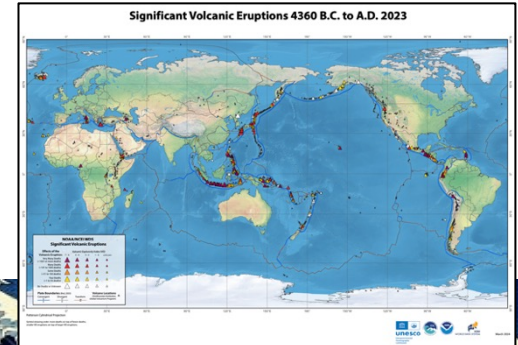
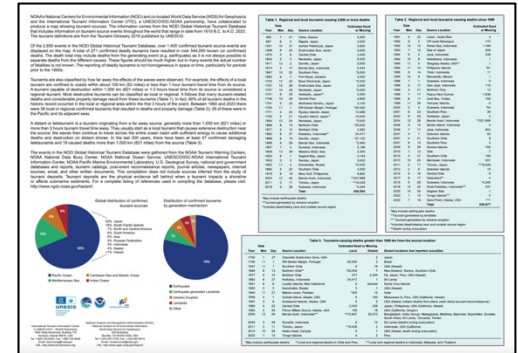
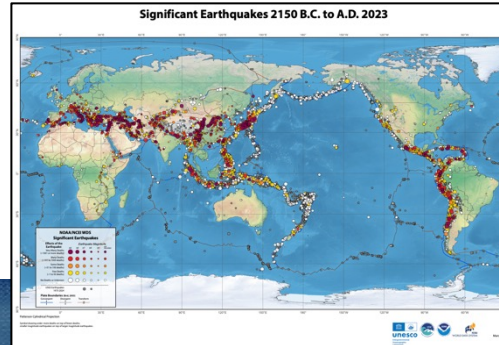
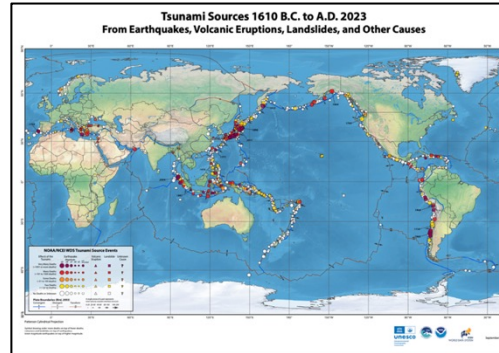
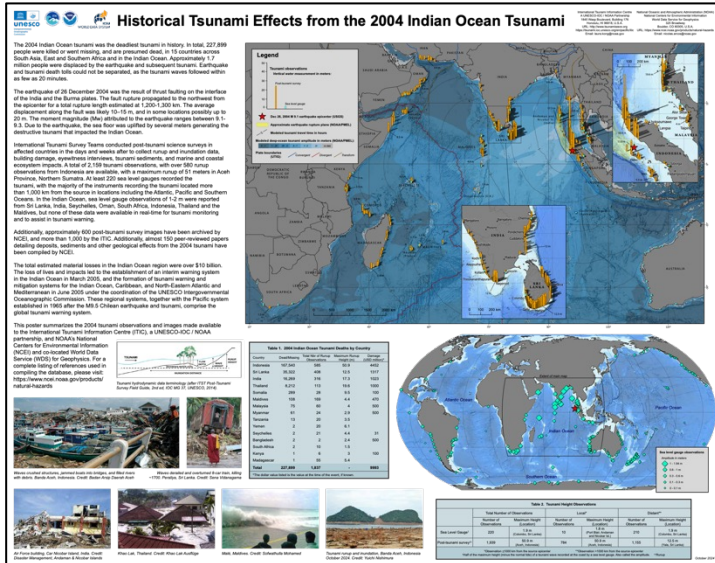
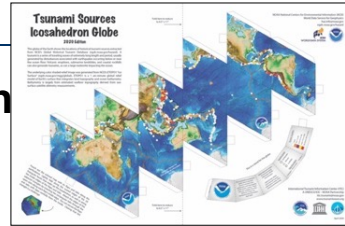
International Tsunami Information Center



ITIC - NCEI Tsunami Posters (some hard copy stock)

hard copy: email itic.tsunami@noaa.gov. digital at <https://www.ncei.noaa.gov/products/natural-hazards/tsunamis-earthquakes-volcanoes/tsunamis/posters>

- ❑ **Global Tsunami Sources 1610 B.C. to A.D. 2023** – poster, icosahedron
- ❑ **Significant Earthquakes 2150 B.C. to A.D. 2023**
- ❑ **Significant Volcanic Eruptions 4360 B.C. to A.D. 2023**
- ❑ **2004 Historical Tsunami Effects**



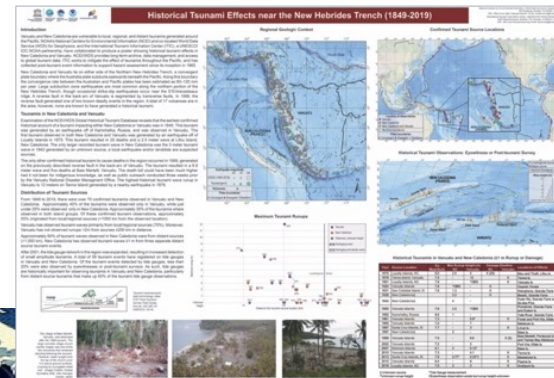
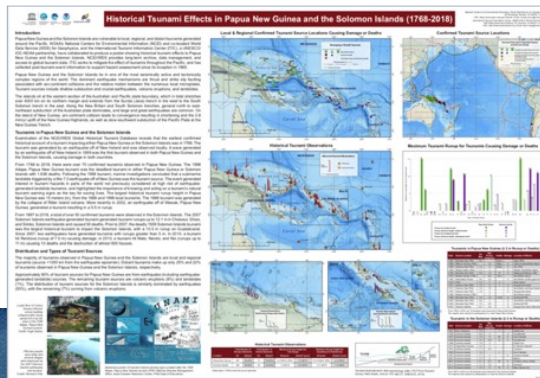
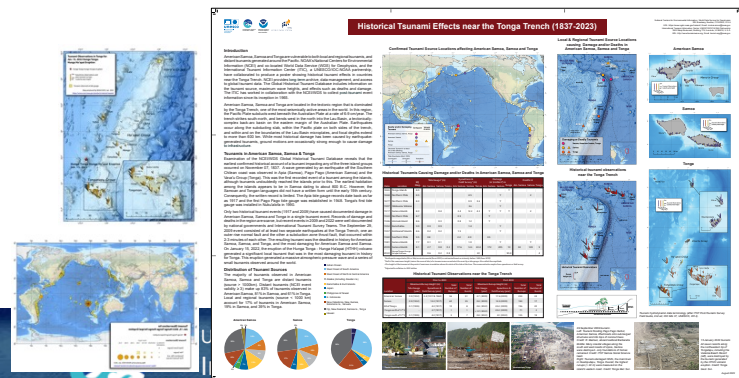
ITIC - NCEI Tsunami Posters (some hard copy stock)

http://itic.ioc-unesco.org/index.php?option=com_content&view=category&layout=blog&id=1075&Itemid=1075



ITIC – NCEI posters Regional Historical Tsunami Effects

- Caribbean, Central America, Mexico (update 2022, EN SP)
- Historical Tsunamis Effects near the Tonga Trench update with HTHH Oct 2022 (2023) - printed
- Papua New Guinea/Solomons (2019) - printed
- Vanuatu / New Caledonia, New Hebrides (2021)
- South America (draft 2025)



ITIC Director – supporting IOC TSR and PTWS

- ❑ Tsunami Ready – TR Coalition Chair (TRC)
- ❑ UN Ocean Decade Scientific Comm – as TRC Chair
- ❑ UN Ocean Decade Conf – Barcelona, April 2024, TR Session
- ❑ 2nd Global Tsunami Symposium, 20th Anniv of 2004 IO Tsunami
- ❑ IOTWMS and PTWS Tsunami Preparedness Capacity Assessment Workshop, Bangkok, Sep 2024 (Agenda 4.14) – ICG Chair nominated
- ❑ IOC Group of Expert for Capacity Development – member representing tsunami - IOC TSR Head nominated
- ❑ IOC OceanTeacher Global Academy – Steering Group, ITIC is OTGA Specialized Training Center
- ❑ SMART Cable – advocate
JTF SMART Science & Society co-chair (with/Jerome Aucan, SPC)
NC-VN Tamtam SMART - ITIC lead TWC SOP capacity building

ITIC Information Services – support IOC TSR and PTWS

- ❑ **Host Tsunami Bulletin Board listserv (may not always be timely)**
- ❑ **Host PTWS, CARIBE TWFP-NTWC, TNC backup - 2 email listserv**
- ❑ **Tsunami web sites**
 - Jun 2024. All TSU sites 'offline move' to UNESCO server (fr IODE)
 - Apr 2025. Continue to transition to UNESCO 'tsunami' – Tammy, Laura
 - ITIC responsible - General info, incl awareness, ITIC activities
 - PTWS activities – support Technical Secretary
 - Actions – Need to
 - Move materials fr Legacy to New (could go to new US ITIC site)
 - Check all current pages correct, incl images – some are not
 - Populate with document links (on OE)



ITIC web site (legacy) – some links work, most don't

https://legacy.itic.ioc-unesco.org/legacy.itic.ioc-unesco.org/index324a.html?option=com_content&view=featured&Itemid=2441

UNESCO IOC ITIC Tsunami NOAA US Tsunami NOAA
International Tsunami Information Center

You are here: Home

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American Samoa Info

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Earthquake Monitors

Sea Level Monitors

Research Meetings

Tools & Products

Library

ITST Tsunami Survey

Marine Ports Guide

Vertical Evac Guide

Intergovernmental System Pacific (PTWS)

Tsunamis on the move

Tsunami Awareness Poster - English, Spanish, Chinese, Japanese, Korean, Portuguese, Singalese and French.

NEWS FEATURE

Tsunami Safety Rules in Braille

Risk Reduction and Head of UNDRR (2018-2024). In that spirit and upon the request of the government of Saint Lucia, the International Tsunami Information Center Caribbean Office (ITIC-CAR) has developed an English/Spanish Braille translation of the Tsunami Safety Rules flyer of the Caribbean Tsunami Information Center. This is the first time Tsunami information has been made available in Braille. The priority is to distribute to the visually impaired community in the Caribbean, but also share globally. The package includes a Braille Tsunami Safety Rules 5 page booklet, a printed transcription, the original color printed flyer and ITIC-CAR contact information. Saint Lucia requested these materials as part of the implementation of the UNESCO/IOC Tsunami Ready Recognition Programme in this Small Island Developing State in the Caribbean. According to CCB Eye Care Caribbean, blindness in the Caribbean is estimated at 1% according to a 2020 population analysis (<https://www.eyecarecaribbean.com/site/ecc/education-for-all-caribbean/caribbean-situation-analysis/3/>). Mrs. Freeman of the

Quick Links

Current Warnings

Most Recent Tsunami

facebook

youtube

viniso

Resources

UNESCO IOC Tsunami Ready

Preparing communities to

UNESCO IOC ITIC Tsunami NOAA US Tsunami NOAA

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Hawaii Information

Hawaii Tsunamis

Videos

Hawaii Safety Information

Hawaii Tsunami Awareness Month

Hawaii Earthquake and Sea Level Monitoring

Hawaii Tsunami Travel Time Maps

Hawaii Tsunami Observations

Hawaii Tsunami Evacuation Zone Maps

Hawaii Tsunami Warnings, 1986, 1994

Hawaii Historical Tsunami Photo Project - Only

Hawaii Tsunami Warnings

Tsunami Warnings can be

Hawaii Historical Tsunami Photos

Hawaii Tsunami Kids

Get Tsunami Ready Now!

Apt in Tsunami Awareness Month in Hawaii

Annually, Country, State, and Federal partners, along with the private sector such as the Pacific Tsunami Museum, team up for month of awareness events on tsunamis. In 2018, the Kaneohe School District Bilingual Center as contributing Hawaiian language materials.

Tsunami Facts is a statewide brochure, customized by County, and in multiple languages. The facts are the most common outreach questions asked to the City & County of Honolulu, Department of Emergency Management. Languages cover the non-English speaking population, ages 5 and older who speak a language other than English at home in Hawaii (U.S. Census Bureau, Hawaii Department of Business, Economic Development, and Tourism, 2010). Further information on Tsunamis in the Islands, check out the ITIC Tsunami Website.

Open Connection

Action

Refresh

Edit

Search

Search

File Name

Size

Modified

about_ITIC

about_itic.zip

10.6 MB

1/23/25, 10:22 AM

about_warnings

about_warnings.html

13.7 KB

1/23/25, 10:23 AM

current_warnings

current_warnings.zip

11.7 KB

1/23/25, 10:24 AM

earthquake_monitors

earthquake_monitors.zip

4.2 KB

1/23/25, 10:24 AM

global_system

global_system.zip

5.9 MB

1/23/25, 10:25 AM

Hawaii_Information

ITIC_Training

ITIC_training.html

12.1 KB

1/23/25, 10:25 AM

ITIC_Training_2005-2024_ITIC_notice_notation.png

2.9 MB

1/23/25, 10:50 AM

ITIC_TrainingSummary_2005-2024.pdf

1.9 MB

1/23/25, 10:50 AM

ITIC Static Website 2024 - HAWAII INFORMATION

For more information, e-mail: itic.tsunami@noaa.gov, laura.kong@noaa.gov

Please download what you are interested in, then unzip file to unpack folder and files. To view summary locally (no internet needed), click on 'xxx.html' in the folder. This opens in your web browser for browsing and access to the different topics and files. The actual files are also in the folder

Hawaii Information - all folders and topics for download can be found on this server.

https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/

Also clickable from file: [Hawaii_Information_ITICStaticWebsite_oct2024_ftp.pdf](https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/)

Topics

- Hawaii Information (ALL Pages)
 - International and Hawaii's event videos (~10.3 GB)
https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/Hawaii_Information_Web_Pages.zip
 - Hawaii's event videos only (~4.6 GB)
https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/Hawaii_Information_Web_Pages_hawaiionly.zip
 - No videos, YouTube links only (~1.3 GB)
https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/Hawaii_Information_Web_Pages_youtubeonly.zip
- Hawaii Tsunamis (~286 MB)
https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/hawaii_tsunamis.zip
- Hawaii Tsunami Travel Time Maps (~27 MB)
https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/hawaii_tsunami_travel_time_maps.zip
- Hawaii Tsunami Observations (~26 MB)
https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/hawaii_tsunami_observations.zip
- Hawaii Tsunami Kids (~447 MB)
https://ftp.soest.hawaii.edu/ptwc/ITIC_website/Hawaii_Information/hawaii_tsunami_kids.zip

SCHOOL OF OCEAN AND EARTH SCIENCE AND TECHNOLOGY
UNIVERSITY OF HAWAII

SOEST Web file storage

Name	Size
Parent Directory	
Hawaii_Information_Web_Pages.zip	9.6G
Hawaii_Information_Web_Pages_hawaiionly.zip	4.3G
Hawaii_Information_Web_Pages_youtubeonly.zip	1.2G

➤ Some/most materials offline html /downloadable –
Contact ITIC (itic.tsunami@noaa.gov)

ITIC web sites – transitioning (to UNESCO, USA)

The screenshot shows the ITIC website homepage with a navigation menu on the left, a main content area with a featured article titled "Tsunamis on the move", and a sidebar with various links and resources. The website is branded with the ITIC logo and the UNESCO IOC NOAA logo.

The screenshot shows the UNESCO Pacific Ocean page, which features a header with the UNESCO logo and the Pacific Ocean title. The main content area includes a section titled "Pacific Wave" and a "News & stories" section. The page is branded with the UNESCO logo.

The screenshot shows the ITIC website homepage, which features a header with the ITIC logo and the International Tsunami Information Centre title. The main content area includes a section titled "International Tsunami Information Centre" and a "Role of ITIC" section. The page is branded with the ITIC logo.

UNESCO

The screenshot shows the NOAA National Weather Service U.S. Tsunami Warning System page, which features a header with the NOAA logo and the U.S. Tsunami Warning System title. The main content area includes a section titled "No Tsunami Warning, Advisory, Watch, or Threat" and a "Recent Events" section. The page is branded with the NOAA logo.

USA

The screenshot shows the NOAA National Weather Service U.S. Tsunami Warning System page, which features a header with the NOAA logo and the U.S. Tsunami Warning System title. The main content area includes a section titled "No Tsunami Warning, Advisory, Watch, or Threat" and a "Recent Events" section. The page is branded with the NOAA logo.

UNESCO/IOC-NOAA
International Tsunami Information Center

New Event Page

ITIC Mandate – 2025-2026 Work plan

- ❑ **Monitor, recommend improvements**
 - Events – improving warning and response – faster, more accurate
 - Tsunami Warning Decision Support Tools (TsuCAT hazard assessment, exer)
- ❑ **Assist in establish/strengthen national, regional systems**
 - Capacity Development, TEWS-SOP-TEMPP Training
 - IOC Wave Exercises – regional event info sharing, downstream TER
 - UN Decade for Ocean Science for Sustainable Dev–
100% sources detect (forecast for local tsu), Resilient prepared communities
- ❑ **Information resource - preparedness / education (create, compile, share)**
 - IOC Man & Guides, Best Practices, Hist Tsunami Effects, Awareness materials
- ❑ **Information resource - historical tsunamis (collect, compile, share)**
 - Global database (WDS/NCEI, Novosibirsk), Post-event surveys



ITIC Work plan – Resource Challenges - Help Welcome !

- ❑ **Staff** - currently 2 (Hawaii), 1 (Puerto Rico), 1 part-time (Chile)
3 Hawaii vacant but due to US budget all may not be filled
 - ❑ **Funding** - US, Chile provide office and person support,
but no project or activity support, e.g., no funding for training,
technical visits, Tsunami Ready, etc
 - ❑ **Time** – Not enough due to no staff to be get ahead on Work plan
 - ❑ **Solutions simple**
 - More Staff (MS detail/second, Interns (ex, IOC Ocean Training, U/Tokyo Ocean Alliance), Students – (few mon -1 yr; remote OK)
 - More Funding (conduct in-country training visits, provide awareness materials- design, print)
 - Do less – what to not do or delay?
- (ex. Since 2015, ITIC Newsletter stopped (est 1970), Library DB no update)





unesco

Intergovernmental
Oceanographic
Commission



Thirty-first Session
Intergovernmental Coordination Group for the
Pacific Tsunami Warning Mitigation System (ICG/PTWS-XXX)
7-11 April 2025
Beijing, China

Thank You

Muchas Gracias

Dr. Laura Kong

Director, ITIC, USA NOAA

Lcdr. Matías I. Sifón

Associate Director, ITIC
Head Oceanography Dept, Chile SHOA

Christa von Hillebrandt

Deputy Director, ITIC, USA NOAA
Manager, ITIC Caribbean Office



UNESCO-IOC NOAA SHOA
International Tsunami Information Center

