







UNESCO/IOC – NOAA ITIC Training Program in Hawaii (ITP-TEWS Hawaii)

TSUNAMI EARLY WARNING SYSTEMS

AND THE PACIFIC TSUNAMI WARNING CENTER (PTWC) ENHANCED PRODUCTS
TSUNAMI EVACUATION PLANNING AND UNESCO IOC TSUNAMI READY PROGRAMME

15-26 September 2025, Honolulu, Hawaii

2025-2026

IOC Assembly (TOWS WG), PTWS Activities

Dr. Laura Kong
Director, ITIC





<u>Approves</u> the Tsunami Ready Coalition Implementation Plan as reviewed by the UN Ocean Decade Tsunami Programme Scientific Committee (ODTP-SC) and the Task Teams on Tsunami Disaster Management and Preparedness, and Tsunami Watch Operations (TT-DMP and TT-TWO respectively) including:

- (i) The Coalition mandate and terms of reference,
- (ii) The Coalition structure, and
- (iii) The identified key Coalition Partners;

<u>Instructs</u> the regional ICGs:

- (i) to establish arrangements among Tsunami Service Providers (TSP) within each ICG to ensure that service provision is ensured at all times for the full Area of Service of the ICG;
- (ii) to develop SOPs for any volcanoes with a tsunamigenic potential affecting the Areaof Service of Tsunami Service Providers within the ICGs;
- (iii) that dissemination of the specialized TSP bulletins for the maritime community is tested in CARIBE-EWS, IOTWMS and NEAMTWS by at least one TSP either through the planned communication tests or tsunami exercises;
- (iv) that full operational implementation of TSP bulletins for the maritime community by at least one TSP in each ICG takes place in 2025;

Requests the ICG/PTWS to invite Argentina, as well as the ICG/CARIBE-EWS, to actively participate in all organizational and implementation stages of any scientific workshop carried out to assess the potential tsunamigenic risk of the Scotia Arc;

Recommends the regional ICGs:

- (i) to create relationships between National Meteorological and Hydrological Services(NMHS) and TSPs/NTWCs in order to ensure that tsunami-specific instrumentation including Tsunameters/DART® and ocean cable systems are correctly monitored and utilized for detection of meteotsunami;
- (ii) continuation of the investigation and the possibility to adopt tsunami forecasting methods, including probabilistic methodologies, toward impact-based forecasting, that could also assist post-disaster response, recovery and needs assessment processes;
- (iii) to prioritize regional Tsunami Ready workshops or summits in 2025 and conduct further workshops or summits before 2030;

Requests the IOC Member States to prioritize installation/deployment of additional coastal tide gauges and tsunami detection/observation systems in regions under high tsunami risk with priority areas with known coverage gaps (in alphabetical order: Aegean Sea, Caribbean Sea (West, North and South-East), Indian Ocean (East and North), North Africa, Philippine Sea, Solomon Sea, South China Sea, Timor Sea, and Yellow Sea), to ensure tsunami detection and verification as early as possible;

<u>Encourages</u> Member States to provide voluntary financial contributions to the IOC special account and in-kind contributions to support the Ocean Decade Tsunami Programme, the IOC Tsunami Ready Recognition Programme and the Tsunami Ready Coalition;

Requests the IOC Secretariat to:

- (i) inform Member States of the availability of the Tsunami Ready Toolkit through an IOC circular letter addressed to the Tsunami National Contacts, National Tsunami Ready Boards, and more widely by the attaching it as an appendix to the UNESCO-IOC Standard Guidelines for the Tsunami Ready Recognition Programme (IOC Manuals and guides, 74);
- (ii) disseminate the final version of the basic tsunami warning product/template for use by the radio amateurs, as a guidance;
- (iii) finalize the Tsunami Ready Coalition Implementation Plan in consultation with the Tsunami Ready Coalition Chair the Coalition Partners, 'Ambassadors' or similar namesake, and Coalition Co-Chair;
- (iv) extend invitations to the proposed Coalition Partners and 'Ambassadors' or similar namesake, and a Coalition Co-chair, and urgently address needed resources;

<u>Decides</u> to extend the tenure of the Inter-ICG TT-DMP and TT-TWO and with updated Terms of Reference for the Task Team on Tsunami Disaster Management and Preparedness as included in Annex 1.

Task Team on Tsunami Disaster Management and Preparedness (TT DMP)

Revised Terms of Reference

Facilitate in collaboration with key international stakeholders and organizations (such as UNDRR, IFRC, UNDP, WMO, etc.), or initiatives (such as the Tsunami Ready Coalition, Coastal Inundation Forecasting Initiative etc.) the exchange of experiences and information on preparedness and mitigation actions, education/awareness, and other matters related to disaster management and preparedness for tsunamis and other coastal sea level related hazards;

Promote and facilitate the implementation of Tsunami Ready Recognition Programme, and similar initiatives, as well as related capacity development efforts, specifically targeting SIDS and LDCs;

Promote preparedness to build resilient coastal communities through education and awareness products and campaigns;

Facilitate capacity development and training across ICGs to strengthen emergency response capabilities of Member States and their Disaster Management Offices;

Promote existing and encourage the development of preparedness programmes and assessment tools, and synergies with other initiatives (e.g. resilient cities, safe schools etc) that have been successful in one regional Tsunami Warning and Mitigation Systems as appropriate;

Facilitate the coordination of the TICs of the ICGs and reinforce their ability to serve as a clearinghouse for the development of educational and preparedness products, and capacity development and training;

Report to the TOWS-WG.

The representatives to the Inter-ICG Task Team on Disaster Management and Preparedness shall be nominated by their respective ICG Chairpersons. The membership shall consist of two representatives from each ICG, one of which may represent the ICG's Tsunami Information Centre. The IOC Chair will appoint the Chair of the Task Team. (CURRENT CHAIR: Dr. Harkunti Rahayu, Indonesia)

Global Calendar: 2025-2026

- 1st Conference of the Ocean Decade Tsunami Programme (ODTP). Building Resilient Coasts: Accelerating Actions to ODTP Challenge 6, 10-11 Nov 2025, Hyderabad, India; Registration on this website International Tsunami Symposium 2025 Indian National Centre for Ocean Information Services
- 32nd International Tsunami Symposium, 12-14 Nov 2025, Hyderabad, India
 - To report on and document the achievements in Tsunami Science
 - To identify the challenges and gaps in early warning system and work still needs to do
 - To enhance interdisciplinary collaboration, especially for non-seismic tsunami source detection and tsunami forecasting
 - To enhance tsunami detection and warning systems through the latest technological advancements like high- performance computing and AI/ML
 - To promote global tsunami preparedness through UNESCO-IOC Tsunami Ready Recognition Programme and similar programmes/projects
 - To leverage on Ocean Decade Tsunami Programme for improving Tsunami Services
- 19th session of the Working Group on Tsunamis and Other Hazards related to Sea Level
 Warning and Mitigation Systems (TOWS-WG), Paris, France, Feb 2026

Global Calendar: 2025-2025

□ World Tsunami Awareness Day 2025

- 5th November, 2025
- To achieve the goal of the Sendai Framework of reducing disaster losses by promoting resilience building measures that protect lives, livelihoods, and economies from the devastating impacts of tsunamis from all : Invest in Tsunami Preparedness". sources, including volcanos, the theme of World Tsunami Awareness Day 2025, on 5 November, will be "Be Tsunami Ready: Invest in Tsunami Preparedness:
- We call on national and local governments, finance ministries, development banks, insurers, and private investors to commit multiyear financing for tsunami preparedness and multi-hazard early warning systems.

Pacific (PTWS)

□ Exercise Pacific Wave 2026

- Live Communication Test, 05 Nov 00:00UTC
- September November 2026
- National & Regional Exercises
- Encourages Member States to exercise the use of VHF/HF radio communication and maintain redundancy to support national emergency and potential regional cooperation

□ Tsunami Risk Assessments (WG1)

- Develop and promote best practice tsunami risk assessment material, programmes, standards, and tools for understanding tsunami risk, to support emergency management and early warning
- □ Improve best practice for assessing risk of local source and non-seismic tsunami sources.

□ Tsunami Detection, Warning and Dissemination (WG-2)

- Regional Working Groups facilitate the compilation and reporting of historical data existing in their respective regions concerning events currently unavailable in the Global Tsunami Database, with support on request of the International Tsunami Information Centre (ITIC) as part of its Mandate and Functions (IOC.X.23, 1977),
- Request member states to adopt standard event reporting within their National Reports to the ICG according to the template in WG2 report to the ICG/PTWS XXXI,
- PICT to support the Geodetic Tsunami Early Warning Systems Oceania (GeTEWS) initiative in the southwest Pacific
- Member States to incorporate SMART capability into new subsea telecom cable projects, prioritizing deployment in high-risk tsunami zones and provide open access data for monitoring and forecasting and encourages its open access for DRR research purposes,

□ PTWC Product Changes and Addition of Maritime Products

- Communication test with Pacific NAVAREA Coordinators PacWave24
- To implement the products in 2025 following the next meeting of the Worldwide Navigational Warning System in September 2025.

□ Common Alerting Protocol (CAP)

CAP implementation globally represents significant milestone in Early Warnings for All (EW4All) initiative. CAP considered as bridge connecting "observations, monitoring, analysis and forecasting" to "warning dissemination and communication". WMO provide any assistance required in this regard

■ NTWC Minimum Staff Competency Training Course (TWC-MSC)

 ITIC Pilot training targeted at PICT with WG2 and PICT WG Task Team on Capacity Development in 2026. PTWS share w/TOWS for global harmonization

□ Tsunami Ready

- Encourages member states to continue to share outcomes and progression towards '100% Tsunami Ready' with WG3.
- Encourages Member States to consider working with the ICG/PTWS WG3 Task Team on Tsunami Ready to contribute to a pilot of the PTWS Tsunami Ready Equivalency Guidance, in order to report back on the feasibility and usability of the approach,
- Actively support the implementation activities of the Tsunami Ready Coalition.
- Member States to send UNESCO-IOC Letters of Intent to implement UNESCO-IOC Tsunami Ready Recognition Programme and increase number of communities recognized UNESCO-IOC Tsunami Ready towards 100% tsunami-at risk communities.