

33rd IOC Assembly
25 June-3 July 2025



**18th session of the
Working Group on
Tsunamis and Other
Hazards related to Sea
Level Warning and
Mitigation Systems
(TOWS-WG)**
24-25 February 2025

Prof. Amr Hamouda
Chair TOWS-WG
IOC Vice-Chair

GLOBAL TSUNAMI WARNING AND MITIGATION SYSTEM

Intergovernmental Oceanographic Commission of UNESCO

2025 www.ioc-tsunami.org

144 Member States

40 Member States

NEAMTWS

North Eastern Atlantic, Mediterranean and connected seas Tsunami Warning and Mitigation System

NEAMTWS NEAM Tsunami Information Centre (IOC)

Accredited TSPs:

- CENALT**
Centre d'Alerte aux Tsunamis of France
- IPMA**
Instituto Portugues do Mar e da Atmosfera of Portugal
- INGV**
Istituto Nazionale di Geofisica e Vulcanologia of Italy
- KOERI**
Kandilli Observatory and Earthquake Research Institute of Turkey
- NOA**
National Observatory of Athens of Greece
- Planned NEAMTWS**

26 Member States

IOTWMS

Indian Ocean Tsunami Warning and Mitigation System

IOTC Indian Ocean Tsunami Information Centre (Indonesia)

- InaRTSP**
Indonesian Regional Tsunami Service Provider
- ITEWC TSP**
Indian Tsunami Early Warning Centre
- JATWC TSP**
Joint Australian Tsunami Warning Centre

46 Member States

PTWS

Pacific Tsunami Warning and Mitigation System

ITIC International Tsunami Information Centre (USA, Chile, IOC)

- NWPTAC TSP**
Northwest Pacific Tsunami Advisory Center / Japan Meteorological Agency
- PTWC TSP**
Pacific Tsunami Warning Center / NWS/NOAA of USA
- SCSTAC TSP**
South China Sea Tsunami Advisory Center / National Marine Environmental Forecasting Center of P. R. China

Services provided by the **US National Tsunami Warning Center** are outside the framework of the IOC-coordinated tsunami warning systems

CARIBE-EWS

Tsunamis and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions

CTIC Caribbean Tsunami Information Centre (Barbado)

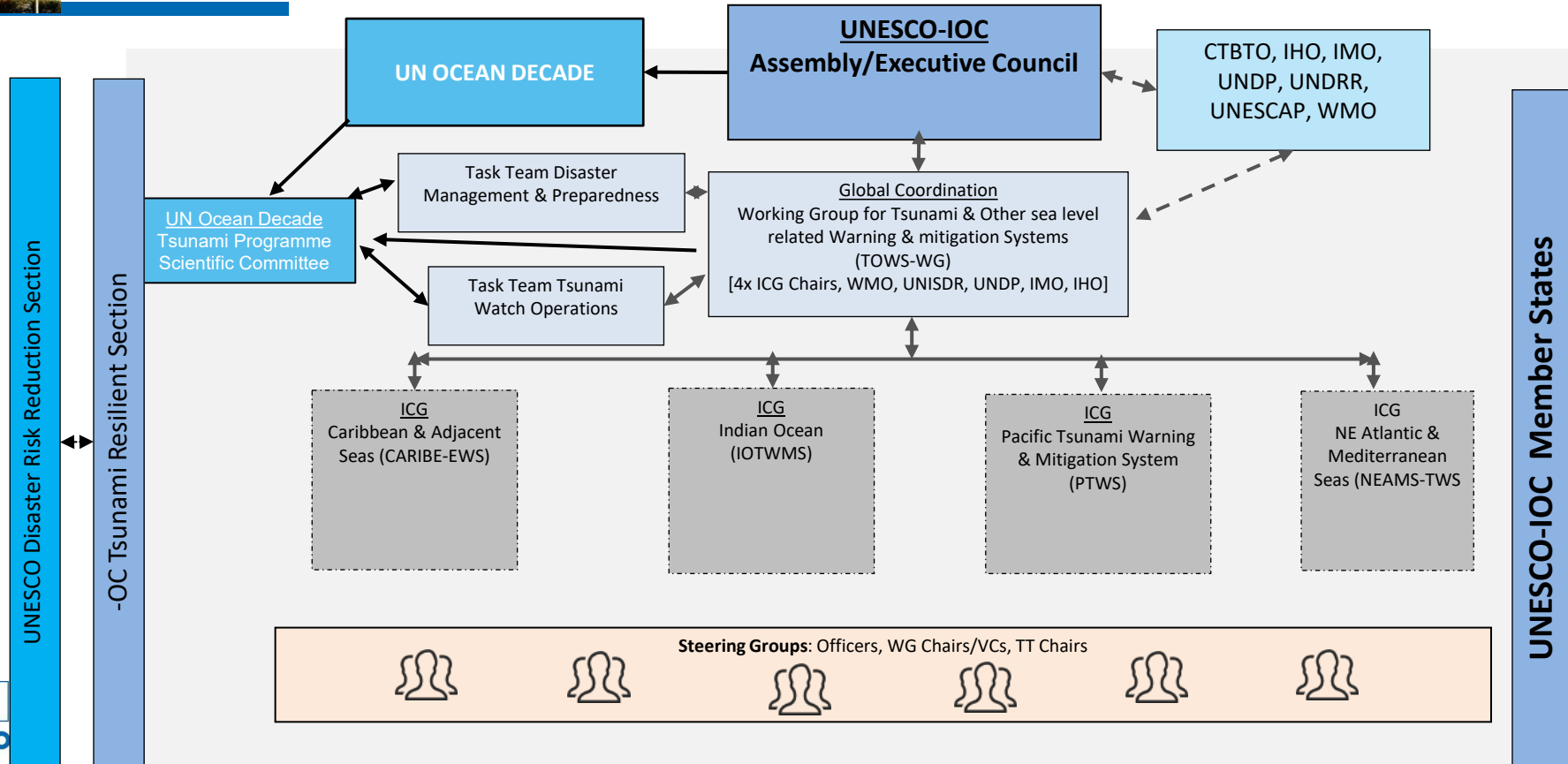
32 Member States

- PTWC TSP**
Pacific Tsunami Warning Center / NWS/NOAA of USA
- Planned TSP** PTWS, CARIBE-EWS

Service provided by the **InaTEWS** Indonesian Tsunami Early Warning System at the BMKG, outside the framework of the IOC-coordinated tsunami warning systems

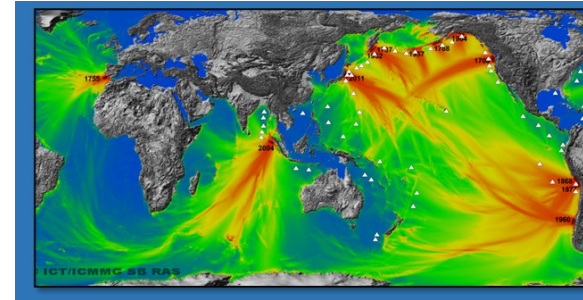
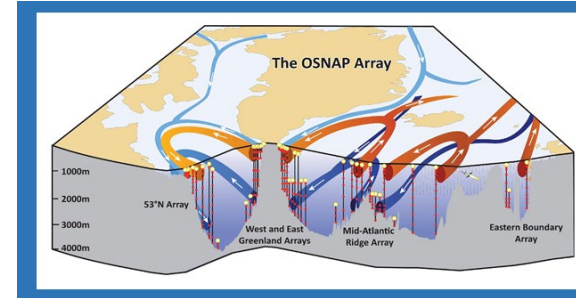


Governance



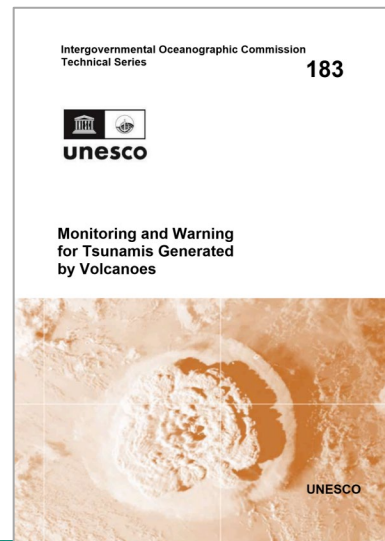
Appreciation

- Coordination of the Wave exercises PacWave 24 (September to November 2024), the CARIBEWAVE 24 (21 March 2024), the NEAMWave 23 (6–7 November 2023) and the IOWave23 (4-25 October 2023);
- The continuous engagement of the TT-TWO in developing specialized TSP bulletins for the maritime community in consultation with the International Hydrographic Organisation (IHO) Sub-Committee on the World-Wide Navigational Warning Service (WWNWS-SC);
- The ongoing project of the Atlantic CAM Science Monitoring And Reliable Telecommunications (SMART) Subsea cable off Portugal, TAM TAM SMART cable between New Caledonia and Vanuatu, undersea cable installations being deployed and planned by Indonesia and India, the deployment of the Western Ionian Sea Infrastructure in 2023 in the Mediterranean.



Appreciation

- The number of Member States and communities joining the UNESCO-IOC Tsunami Ready Recognition Programme, with 100 communities from 31 countries already recognized, of which 15 are SIDS;
- Publication of the Reports “*Monitoring and Warning for Tsunamis Generated by Volcanoes*. 2024. Paris, UNESCO. ([IOC Technical Series No.183](#)) and “*Meteotsunamis: definition, detection and alerting services investigation*”.2025. Paris, UNESCO. ([IOC Technical Series No.200](#)), and the Summary Statement from the 2nd UNESCO-IOC Global Tsunami Symposium on Two Decades After 2004 Indian Ocean Tsunami: Reflection and Way Forward, Banda Aceh, 11–14 November 2024. Paris. UNESCO ([IOC Brochure 2025-1](#))
- Launch of the UNESCO-IOC Tsunami Awareness and Tsunami Ready online trainings through the [Ocean Teacher Global Academy](#) (OTGA) platform.



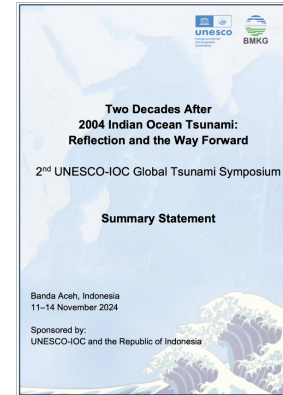
Anniversay 2004 Indian Ocean Tsunami



- The Tsunami: Sea Change for Resilience, exhibition prepared in partnership with the United Nations Office for Disaster Risk Reduction (UNDRR) and Nautilus, featuring portraits by Matt Porteous and inspiring stories together with artworks, to commemorate the 20th anniversary of the 2004 Indian Ocean Tsunami;
- The organization of the 20th Anniversary of the 2004 Indian Ocean Tsunami Commemoration Event at the UNESCO Headquarters on 26 November 2024 to reflect on resilience, honour those affected, and reaffirm our commitment to disaster preparedness;

Appreciation to Indonesia's Government

- Appreciation expressed to the Government of Indonesia for having successfully co-hosted and organised the 2nd UNESCO-IOC Global Tsunami Symposium on Two Decades After 2004 Indian Ocean Tsunami: Reflection and Way Forward, Banda Aceh, 11–14 November 2024;



Recommendation to TT

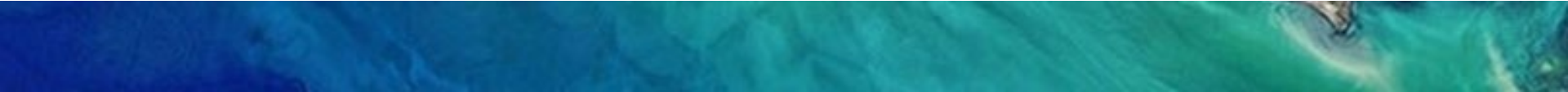


The Group instructed the TT-DMP to:

- Prepare a guideline for inclusive Standard Operating Procedures (SOP) building on the development of inclusive SOP and inclusive warning tools for disabled children in Indonesia and the Caribbean;

The Group instructed the TT-TWO to:

- Include tsunamis generated by the submarine and subaerial landslides in its work programme and engage with the landslide hazard and early-warning scientific and operational community to address the requirements of the first objective of the ODTP to develop the warning systems' capability to issue actionable and timely tsunami warnings for tsunamis from all identified sources to 100 percent of coasts at risk;
- Develop in collaboration with the WMO a global CAP template for TSPs to facilitate dissemination of bulletins from TSPs to NTWCs, between TSPs of different basins, and for public TSP bulletins, to be presented and approved by the TOWS-WG at its next session;



Recommendation to the IOC Member States

- **The Group recommended** Member States to invest more in offshore seismic and sea-level detection and observation instrumentation, such as Tsunameter/DART®/GPS buoys/cabled systems (e.g. SMART Cables), where possible, with multi-hazard observational capabilities, serving the needs of earthquake seismology, meteorology and oceanography;
- **The Group further recommended** the IOC Assembly at its 33rd session in 2025 to **encourage** 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.



Tsunami Ready: Scaling up

IOC decided at EC-57 the establishment of an **International Tsunami Ready Coalition.**

The Implementation Plan of the Tsunami Ready Coalition has been discussed at TOWS-WG





unesco

Intergovernmental
Oceanographic
Commission

THANK YOU 