

Agenda 2.2. Report of the meeting of TOWS-WG Task Team Tsunami Watch Operations (22-23 Feb 2021)

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TOWS-WG TTTWO Report

- **Task Team on Tsunami Watch Operations**
- Meeting held online during 22 – 23 February 2020
- IOTWMS Attendance: Mohammad Mokhtari and E. Pattabhi Rama Rao (as TTTWO Members); Rick Bailey and Karyono (as Observers) and Nora Gale (as IOC/TSU Secretariat)
- Purpose: coordination amongst 4 ocean basins on tsunami detection, warning and dissemination
- Highlights
 - Development of KPIs with in the broader framework of Multi Hazard Early Warning System related KPIs for the Sendai Monitoring process
 - Planning for the Ocean Decade
 - Local Source Tsunami SOPs'
 - Handling of Tsunamis from non-seismic sources and non-subduction zone earthquakes
 - NTCW Competency Framework
 - Products for the Maritime Community

TTTWO Recommendations (Feb 2021)

No	TT TWO Recommendations
1	Local source tsunami standard operating procedures should be included as an important component of the UNESCO-IOC Tsunami Ready programme.
2	Develop standardized trainings that can be delivered online or in person, in particular through the Ocean Teacher Global Academy (OTGA).
3	<p>TOWS WG propose a comprehensive Tsunami Programme under the UN Decade of Ocean Science for Sustainable Development (2021-2030) dedicated to achieving transformational advances in tsunami detection, measurement and forecasting, including tsunamis generated by non-seismic sources. The TTTWO recommends the Tsunami Programme include five focus areas related to tsunami warning capability:</p> <ol style="list-style-type: none"><li>1. Expansion of existing observational systems including seismometers, coastal tide gauges, and deep ocean tsunameters to fill identified gaps.<li>2. Develop and implement new technologies to address observational gaps that cannot be covered by existing networks. This would include the widespread deployment of scientific instrumentation on deep-ocean telecommunications cables as developed by the ITU/WMO/UNESCO-IOC Joint Task Force (JTF) SMART Subsea Cables, and GNSS-based applications including both ground motion and atmospheric perturbation detection.<li>3. Gain full access to real-time or near real-time, appropriately calibrated and sampled, sea level, seismic, and GNSS data from existing instruments as well as the relevant tools to utilize these data for the rapid detection and accurate forecasting of tsunamis from all source mechanisms.<li>4. Increase access and collection of coastal topographic and bathymetric data, in collaboration with SEABED 2030, as well as high performance computational capabilities to enable more comprehensive tsunami and other coastal hazard forecasts to better advise community response. <p>Ensure all National Tsunami Warning Centers have access to data, tools and communication platforms, protocols and competencies to timely and effectively warn coastal and maritime</p>

TTTWO Recommendations (Feb 2021)

No	TT TWO Recommendations
4	In the light of an event impacting two ICGs, in particular the PTWS and the CARIBE-EWS, it is recommended to discuss this issue first within those ICGs.
5	Review the GSDD at each TTTWO meeting with a view to publish a new version every 3 years, when necessary.
6	In regard to the next Tsunami Symposium, incorporate more diversity in the organizing committee by inclusion of all regions; consider a venue that can accommodate a hybrid meeting that would enable the most people to successfully participate and engage; and explore funding opportunities.

TTTWO Actions (Feb 2021)

Action 1: The 2022 edition of the Tsunami Glossary should include Tsunami Ready, sea level monitoring and data sampling, and atypically generated tsunamis (i.e. landslides, volcanic eruptions) including graphics and their associated waveforms and periods. Furthermore, out-of-date terminology may require revision (i.e. tsunami intensity).

Action 2: Prepare the final report on atypical tsunami sources for presentation the 2022 TTTWO meeting.

Action 3: Update the Global Service Definition Document (GSDD) during the inter-sessional period and submit for approval at the 2022 TOWS-WG meeting.

Action 4: Consider methods and recommendations for routine calibration and testing of sea level gauges that are used for tsunami detection noting that regular calibrating is more difficult in remote regions.

Thank you

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