

ICG/IOTWMS WG-2

Tsunami Detection, Warning and Dissemination Work Program 2023-2025

Progress Reports

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**Regional Working Group for the North-West Indian Ocean
Online Meeting of the ICG/IOTWMS - May 30, 2023**

Working Group -2 : work program

1. Publish, advertise, and implement the updated IOTWMS TSP Service Definition Document (Version 5) and request the TSPs to conform to it (Secretariat, TSPs);
2. Update the NTWC User Guide in accordance with the updates to the TSP Service Definition Document (Secretariat, TSPs);
3. Maintain the NTWC User Guide and TSP Service Definition Document (Secretariat, TSPs);
4. Implement further the TOWS-WG request on TSP messages for the maritime community and Secretariat to obtain contacts for NAVAREA operators (TSPs, Secretariat);
5. Provide training subject to resources including:
 - a) Awareness on tsunamis generated by non-seismic and complex sources
 - b) An additional one-day session on Tsunami Warning Centre and Seismic Network Operations as part of all future Standard Operating Procedure (SOP) training (Dr Karyono with support from TSPs, Secretariat);
 - c) Support to increase the capacity for analyzing real time seismic and sea level data for tsunami threat (TSPs, Secretariat);
 - d) On job trainings for the Indian Ocean Member States (Secretariat and IOTIC to assist the TSPs);
 - e) Capacity support for NTWCs in tsunami modeling to support generation of threat forecast (Secretariat, IOTIC, TSPs);

Working Group -2 : work Program (cont)

6. Identify sea level observations that are not available on the IOC sea level station monitoring facility and update the IOC on the data feeds (NTWCs, TSPs);
7. The Secretariat to work with the IOC Sea Level Facility to identify reliable tide gauge stations with fast transmission rates (Secretariat);
8. Assist the Secretariat in maintaining the database of seismic and sea-level reporting stations for the IOTWMS (Secretariat, WG-2 members);
9. Determine the work required for the optimal seismic and sea level network coverage and identify instrumentation gaps for more accurate and timely tsunami warnings in the Indian Ocean region noting the work of the PTWS (Secretariat, Karyono, Robert, JP)
10. Contribute to the conduct of ocean-wide exercise (IOWave23) and 6 monthly IOTWMS Communication Tests and prepare reports of each test in conjunction with the Secretariat (TSPs, NTWCs; Secretariat);
11. Encourage the NTWCs of Member States to increase the frequency of table top or similar tsunami warning exercises to review and test SOPs and reduce the potential for complacency among countries that have not experienced a recent tsunami event (NTWCs);

Working Group -2 : work program (Cont..)

12. TSP Australia to share the outcomes of the Australian warning system currently in development with respect to multi-hazard early warning approach or system for mutual benefits (to be led by Robert Greenwood) and take this up for wider consideration across all ICGs (TT TWO representatives from Indian Ocean);
13. Assist WG-3 with the SOP training workshops on IOC-UNESCO Tsunami Ready Recognition Programme (TSPs);
14. Establish a work mechanism between NTWCs and TSPs to solve communication issues (i.e. non-receipt of messages) and re-examine the need for fax (TSPs, Secretariat);
15. Consider having the TSPs send an SMS/email notification whenever there are tsunami product updates (ex. Tide gauge observations). – *Currently already done.*
16. Encourage NTWCs to conduct a risk assessment of upstream tsunami warning including dissemination of tsunami warnings, reliable resources, etc. (for example, SWOT analysis: strengths, weaknesses, opportunities, threats) (TSP Australia, Secretariat);

Working Group -2 : work program (Cont..)

17. In regard to tsunamis generated by non-seismic and complex sources (e.g. volcanoes, landslides, splay-faulting, meteotsunami, onshore earthquakes, mud volcanos):
 - a) Extend the TSP services to include tsunamis generated by non-seismic and complex sources (TSPs);
 - b) Investigate methods of detection and threat assessment of non-seismic and complex source tsunami events in coordination with TOWS-WG TTTWO,
 - c) Prepare an atlas of known sources, and
 - d) Conduct an online workshop on non-seismic and complex source tsunami events (JP, Mohammad, Ameer, Robert, Secretariat);
18. Share information on possible new tsunami-detection technologies such as pressure sensors attached to undersea communications cables (WG-2 members);
19. Assist NTWCs with their implementing Common Alerting Protocol (CAP), mobile applications and social media including WRS-TSP Indonesia for effective dissemination of national tsunami warning information (Australia, India, Indonesia, NTWC representative – to be confirmed);
20. Review and support operationalizing the comprehensive system developed by TSP India for archiving and auto generating KPIs for the IOTWMS (TSPs);
21. Request Member States to review TSP bulletin dissemination details annually and advise of updates (Secretariat).

Thank you