

IOC Circular Letter No 3041
(Available in English only)

IOC/BA/SKT/ng
23 May 2025

To : ICG/IOTWMS Tsunami National Contacts

C.c. : Official National Coordinating Bodies for liaison with the IOC
Permanent Delegates/Observer Missions to UNESCO, and
National Commissions for UNESCO in ICG/IOTWMS Member States
UNESCO Offices in Doha, Islamabad, Jakarta, New Delhi and Tehran
IOC Officers
ICG/IOTWMS Working Group Chairs and Vice-Chairs
ICG/IOTWMS Task Team IOWave25
ICG/IOTWMS Tsunami Warning Focal Points
ICG/IOTWMS National Tsunami Warning Centres

**Subject: Announcement of the Indian Ocean Tsunami Exercise (IOWave25)
on 25 September, 15 October, 25 October and 5 November 2025**

The IOC Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) at its 14th session (Banten, Indonesia, 17–19 November 2024, decided to organise an Indian Ocean Wave Exercise in 2025 (IOWave25) and established a Task Team to plan and conduct the exercise. At its most recent intersessional meeting, held online on 30 April, and after consultation with key stakeholders, the Task Team IOWave25 decided to conduct IOWave25 with four different scenarios on 25 September, 15 October, 25 October and 5 November 2025. The four scenarios will allow individual Member States to decide the type and number of exercise scenarios to participate in. This letter provides background information and details of the IOWave25 in which all ICG/IOTWMS Member States are encouraged to participate.

To date, seven IOWave exercises have been conducted (2009, 2011, 2014, 2016, 2018, 2020 and 2023). The exercises have been designed to test the receipt and dissemination of tsunami notifications along national tsunami warning chains, as well as test appropriate responses aligned with pre-established Standard Operating Procedures (SOPs). Throughout the IOWave Exercises, the engagement of coastal communities in tsunami education campaigns, preparedness measures, and evacuation drills has grown. Moreover, awareness and adoption of the UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) has increased.

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Key milestones in exercise participation were achieved during the IOWave16, where over 60,000 people participated in evacuation drills, and subsequently during the IOWave18 where the number of participants exceeded 119,000. During IOWave20 held during the Covid-19 pandemic, Member States were encouraged to update and test their Standard Operating Procedures for a pandemic situation. For the first time, a non-seismic (volcanic) scenario was tested in IOWave23 along with three (3) seismic scenarios. Twenty (20) countries participated with community level engagement in eight (8) Member States including over 45,000 people evacuating.

Objectives: IOWave25 will again simulate Indian Ocean countries being put in a tsunami threat situation. As a primary objective it will require the National Tsunami Warning Centre (NTWC) and the National and/or Provincial and/or Local Disaster Management Offices (NDMOs/PDMOs/LDMOs) in each country to implement their SOPs associated with their national tsunami warning chains. The exercise will test the preparedness for responding to tsunamis generated by seismic events (undersea earthquakes) and for the second time a non-seismic (volcanic) event. Pre-exercise training workshops for Member States will be organised in July–August 2025. This will help ensure national tsunami warning chains and associated SOPs are reviewed to help prepare Member States for IOWave25 and any future real tsunami events.

In addition to testing the SOPs and communication links at all levels of the national tsunami warning chain, another primary objective of IOWave25 is to enhance tsunami preparedness at the community level. To this end, IOWave25 will also provide an opportunity for Member States to test the UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) indicators or other related national initiatives in at-risk communities, where implemented. A self-paced training course on UNESCO-IOC Tsunami Ready is available through the Ocean Teacher Global Academy (see <https://oceanexpert.org/event/4610> for further information). An introduction to Tsunami Ready for ICG/IOTWMS Member States was provided at the 'Workshop on Tsunami Evacuation Maps, Plans, and Procedures' and UNESCO-IOC Tsunami Ready Recognition Programme held in Hyderabad, India during 15–23 April 2025 (<https://oceanexpert.net/event/4662>).

Dates and Scenarios: IOWave25 will comprise four scenarios with simulated tsunami waves travelling across the Indian Ocean basin. Member States are invited to participate in one or more events, which will be run in real-time:

- Scenario 1 starting at 01:00 UTC on Thursday 25 September 2025: Magnitude 9.0 earthquake in Sunda Strait, Indonesia.
- Scenario 2 starting at 06:00 UTC on Wednesday 15 October 2025: Magnitude 9.0 earthquake in the Makran trench off the coast of Pakistan.
- Scenario 3 starting at 15:00 UTC (eruption at 14:00 UTC) on Saturday 25 October 2025: Tsunami generated by volcanic eruption at Fani Maore in the Mozambique Channel between Madagascar and the eastern coast of Africa.
- Scenario 4 starting at 03:00 UTC on Wednesday 5 November 2025: Magnitude 9.2 earthquake in Northern Sumatra, Indonesia.

Specifics: The IOTWMS Tsunami Service Providers (TSPs) of Australia, India, and Indonesia will provide IOWave25 bulletins and detailed tsunami threat advice on their password-protected websites. Notification messages will be sent to the national Tsunami Warning Focal Points (TWFPs) as threat information is updated during the events. The *IOWave25 Exercise Manual* will be distributed by email in June 2025 with further details of the exercise scenarios and post-exercise evaluation to the designated National Contact for IOWave25. For your information, the guiding principles for the conduct of the exercise are provided in Annex 1. A checklist of activities to enable Member States to prepare for the exercise is provided in Annex 2.

Nomination of National Contact for IOWave25: To ensure that the commitment of participating Member States is fully coordinated, we seek your nomination of a National Contact for IOWave25 with whom the IOC Secretariat will communicate about planning and the conduct of the exercise,

including distribution of the *IOWave25 Exercise Manual*, via email. The designated National Contact for IOWave25 will be expected to confirm the accuracy of existing tsunami warning arrangements within your country, including the identification of operational points of contact for receipt and dissemination of tsunami warnings downstream from the NTWC. The designated National Contact for IOWave25 will also be responsible for coordinating input to the post-exercise evaluation, details of which will be circulated as part of the *IOWave25 Exercise Manual*.

I would be grateful if you could please provide the details of your National Contact for IOWave25 by 15 June 2025 to the UNESCO-IOC ICG/IOTWMS Secretariat by email: iotwms@unesco.org.

I would also encourage you to disseminate copies of this letter to the appropriate organisations and authorities within your country.

I would like to thank you in advance for your Member State's participation and contributions to this important initiative to help prepare Indian Ocean communities for the next tsunami threat.

With the assurances of my highest consideration, I remain,

Yours sincerely,

[signature]

Vidar Helgesen
Executive Secretary

Enclosures:

Annex 1 – Guiding Principles for IOWave25 Exercise

Annex 2 – Checklist of activities to enable Member States' preparation for IOWave25 Exercise

Annex 1: Guiding Principles for IOWave25 Exercise

1. The exercise will simulate each IOTWMS Member State being placed in a tsunami threat situation and require the National Tsunami Warning Centre (NTWC) and the National and/or Provincial and/or Local Disaster Management Office (NDMO/PDMO/LDMO) to implement their Standard Operating Procedures (SOPs).
 2. Member States are encouraged to conduct the exercise to community level to test SOPs and communications at all levels of the national tsunami warning chain. To enhance community preparedness at community level, Member States are also encouraged to test the indicators of UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) or similar national initiatives in communities, where implemented. However, it is recommended to only conduct the exercise to the level prepared for, which at a minimum should include testing the SOPs and operational lines of communication at the NTWC and DMOs.
 3. The four exercise scenarios are:
 - Scenario 1 starting at 01:00 UTC on Thursday 25 September 2025: Magnitude 9.0 earthquake in Sunda Strait, Indonesia. The simulated tsunami will take approximately 0 hours to travel from its source to Indonesia; 2.5 hours to travel to Australia; 3.0 hours to travel to Timor-Leste; and 4.0 hours to travel to Sri Lanka.
 - Scenario 2 starting at 06:00 UTC on Wednesday 15 October 2025: Magnitude 9.0 earthquake in the Makran trench off the coast of Pakistan. The simulated tsunami will take approximately 0 hours to travel from its source to Iran & Pakistan; 0.5 hours to travel to Oman; 1.0-hour travel to United Arab Emirates; and 2.0 hours to travel to India.
 - Scenario 3 starting at 15:00 UTC (eruption at 14:00 UTC) on Saturday 25 October 2025: Tsunami generated by volcanic eruption at Fani Maore in the Mozambique Channel between Madagascar and the eastern coast of Africa. The simulated tsunami will take approximately 0 hour to travel to Comoros, Mayotte (France), and Madagascar; 0.5 hours to travel to Seychelles; 1.0 hour to travel to Mozambique & Tanzania; and 2.0 hours to travel to Kenya, Mauritius, and Somalia.
 - Scenario 4 starting at 03:00 UTC on Wednesday 5 November 2025: Magnitude 9.2 earthquake in Northern Sumatra, Indonesia. The simulated tsunami will take approximately 0 hour to travel from its source to Indonesia; 0.5 hours to travel to India; 1.0 hour to travel to Thailand & Myanmar, and 2.0 hours to travel to Sri Lanka.
- * Note that the expected arrival times have been approximated to the nearest 0.5 hour (30 minutes). Therefore, a time of 0 hour can be interpreted as less than 15 minutes.*
4. Exercise bulletins and detailed tsunami threat advice will be generated in real-time by the IOTWMS Tsunami Service Providers (TSPs) (Australia, India, Indonesia) and made available on their password-protected websites. Notification Messages will be sent to the national Tsunami Warning Focal Points (TWFPs) by the TSPs as the information is updated during the events.
 5. All Member States are strongly encouraged to participate to the extent possible in their country, particularly for the scenario that is "near-field" for them. Note that it may be very worthwhile to participate in multiple scenarios, if possible, because SOP issues identified for one scenario can be corrected and exercised again in a subsequent scenario, and because the tsunami arrival times will vary for each scenario requiring potentially different

responses.

6. Due care should be taken not to inadvertently alarm the public.
7. Participating Member States are requested to share information following the exercise regarding the procedures applied and the lessons learned, via the Exercise Evaluation (details to be provided in the *IOWave25 Exercise Manual*). The outcomes and performance measures to be reported will include:
 - Dissemination by TSPs of Tsunami Bulletin Notification Messages to NTWCs via TWFPs of Indian Ocean countries and the reception by NTWCs of the TSP messages;
 - Access by NTWCs to the tsunami bulletins and other products on the TSP websites, and the use of that information in the production of national warnings;
 - Reporting by NTWCs to the TSPs of their National Tsunami Warning status;
 - Validate the SOPs for generating and disseminating tsunami warnings to emergency response agencies, media, and the public;
 - Validate the SOPs for issuing of public safety messages, ordering evacuations and where possible issuing all-clear messages;
 - Validate the level of community awareness, preparedness, and response;
 - Media response (if applicable).

**Annex 2: Checklist of activities to enable Member States' preparation
for IOWave25 Exercise**

No	Activity	Timeline
1	Announcement by IOC Circular Letter	May 2025
2	Nominate a National Contact for IOWave25	June 2025
3	Set up IOWave25 Exercise National Coordination Committee involving NTWC, LDMOs, NDMOs, and all other important stakeholders including private industry participants	Ongoing
4	Assign agency roles including exercise controller, key participants, and observers	Ongoing
5	Decide on level of participation and identify communities for evacuation (where applicable)	Ongoing
6	Secure funding and support for community activities	Ongoing
7	Address indicators of UNESCO-IOC Tsunami Ready Recognition Programme or similar national initiative (where appropriate)	Ongoing
8	Issue of IOWave25 Exercise Manual by the Secretariat	June 2025
9	Develop a National IOWave25 Exercise Manual to plan/guide activities, including those at community level	June–July 2025
10	UNESCO-IOC Standard Operating Procedure (SOP) Training Workshops (online)	July–August 2025
11	Organise and hold pre-exercise national workshop(s) and meeting(s) with key stakeholders including media	August–September 2025
12	Ensure Standard Operating Procedures are in place and up to date	August–September 2025
13	Share IOWave25 Exercise in-country participation plans with the ICG/IOTWMS Secretariat	September 2025
14	Prepare a media press release	One week before the exercise
15	Participate in IOWave25 Exercise	25 September 15 October 25 October 05 November
16	Hold post-exercise hot and cold debriefs	After the Exercise
17	Complete the IOWave25 online post-exercise evaluation	After the Exercise
18	Revise and improve SOPs in accordance with lessons learnt during the Exercise	After the Exercise
19	IOC-UNESCO Post-IOWave25 Exercise Lessons Learnt Workshop (online)	December 2025

Note: This checklist is intended to serve only as a broad reference and is not all-inclusive.