



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
COMMISSION OCÉANOGRAPHIQUE INTERGOUVERNEMENTALE
COMISIÓN OCEANOGRÁFICA INTERGUBERNAMENTAL
МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ
اللجنة الدولية الحكومية لعلوم المحيطات
政府间海洋学委员会

UNESCO – 7 Place de Fontenoy - 75352 Paris Cedex 07 SP, France
<http://ioc.unesco.org> - fax: +33 (0)1 45 68 58 12 - contact phone: +33 (0)1 45 68 39 83/84
E-mail: v.ryabinin@unesco.org

IOC Circular Letter No. 2703
(Available in English only)

IOC/VR/SKT/ei
15 December 2017

To: ICG/IOTWMS¹ Tsunami National Contacts
ICG/IOTWMS Tsunami Warning Focal Points
ICG/IOTWMS National Tsunami Warning Centres

Cc: ICG/IOTWMS Chair and Vice Chairs
ICG/IOTWMS Working Group Chairs and Vice Chairs
Official National Coordinating Bodies for liaison with the IOC in ICG/IOTWMS Member States
Permanent Delegates/Observer Missions to UNESCO and National Commissions for UNESCO of ICG/IOTWMS Member States

Subject: Announcement of IOTWMS Indian Ocean Tsunami Exercise (IOWave18) on 4th and 5th September 2018

At its 11th session (Putrajaya, Malaysia, April 2017), the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) decided to organise an Indian Ocean Wave Exercise (IOWave18) in 2018 and established a Task Team to plan and conduct the exercise. At its recent intersessional meeting held in Jakarta, Indonesia on 16th September, the Task Team decided to conduct the IOWave18 exercise on 4th and 5th September 2018. This letter provides details of the exercise in which all IOTWMS Member States are encouraged to participate to community level.

Exercise IOWave18 will simulate Indian Ocean countries being put in a tsunami warning situation and require the National Tsunami Warning Centre (NTWC) and the National and/or Local Disaster Management Offices (NDMO/LDMO) in each country to implement their Standard Operating Procedures (SOPs). Exercise IOWave16, held in September 2016, set a new benchmark for community participation with half of Member States (12 out of 24) undertaking evacuations. In addition to testing the SOPs and communication links at all levels of the warning chain, a primary objective of IOWave18 is to enhance tsunami preparedness at community level. To this end, Exercise IOWave 18 will also provide an opportunity for Member States to test the indicators of

¹ ICG/IOTWMS Member States include Australia, Bangladesh, Comoros, Djibouti, France, India, Indonesia, Iran, Kenya, Madagascar, Malaysia, Maldives, Mauritius, Mozambique, Myanmar, Oman, Pakistan, Seychelles, Singapore, Somalia, South Africa, Sri Lanka, Tanzania, Thailand, Timor Leste, United Arab Emirates, United Kingdom and Yemen.

Chairperson

Prof. Peter M. HAUGAN
Research Director II, Institute of Marine
Research/Geophysical Institute
University of Bergen
P.O. Box 1870 Nordnes
5817 Bergen
NORWAY

Executive Secretary

Dr Vladimir RYABININ
Intergovernmental Oceanographic
Commission — UNESCO
7 Place de Fontenoy
75352 Paris Cedex 07 SP
FRANCE

Vice-Chairpersons

Ms Monika BREUCH-MORITZ
President
Federal Maritime and Hydrographic
Agency (BSH)
Bernhard-Nocht-Str. 78
20359 Hamburg
GERMANY

Dr Alexander POSTNOV
Deputy Director
State Oceanographic Institute
ROSHYDROMET
6, Kropotkinsky Lane
119034 Moscow
RUSSIAN FEDERATION

Mr Ariel Hernan TROISI
Head, Oceanography Department
Navy Hydrographic Service
Av. Monte de Oca 2124
C1270ABV Buenos Aires
ARGENTINA

Dr Somkiat KHOKIATTIWONG
Marine Biodiversity Research Specialist
Department of Marine and Coastal
Resources
Government Compact B
Changwattana Road
Laksi
12010 Bangkok
THAILAND

Dr Ashley S. JOHNSON
Director, Oceans Research
Department of Environmental
Affairs
Foretrust Building
Martin Hammerschlagt Way
Foreshore
SW Cape 8012 Cape Town
SOUTH AFRICA

Indian Ocean Tsunami Ready (IOTR) programme in pilot communities. IOTR is a community performance-based programme that facilitates a structural and systematic approach in building tsunami preparedness through an active collaboration of the public (community), community leaders, and national and local emergency management agencies. IOTR guidelines and associated training resources on preparation of Tsunami Evacuation Maps, Plans and Procedures (TEMPP) can be downloaded from <http://www.ioc-tsunami.org/tempp-resources>.

Exercise IOWave18 will comprise two scenarios on successive days, one in the north western Indian Ocean off the coast of Iran and the other in the eastern Indian Ocean off the west coast of northern Sumatra. The first scenario will commence at 0600 hrs UTC on 4th September and will simulate a magnitude 9.0 earthquake off the coast of Iran. The second scenario will commence at 0300 hrs on 5th September and will simulate a magnitude 9.3 earthquake off the west coast of Northern Sumatra. Both scenarios will generate simulated tsunami waves travelling across the Indian Ocean basin.

Member States are invited to participate in either or both events, which will run in real time. The IOTWMS Tsunami Service Providers (TSP) of Australia, India and Indonesia will provide exercise bulletins and detailed tsunami threat advice on their password-protected websites, and will send notification messages to the Tsunami Warning Focal Points (TWFP) as data is updated during the events. The IOWave18 Exercise Manual will be distributed by the end of March 2018 with further details of the exercise scenarios and the exercise evaluation to be conducted afterwards. For your information, guiding principles for the planning and conduct of the exercise are provided in Annex 1 and a checklist of activities to enable Member States to prepare for IOWave18 is provided in Annex 2.

In order to ensure that the commitment of participating Member States is fully coordinated, we seek your nomination of a National Contact for Exercise IOWave18 with whom we will communicate about planning for the conduct of the exercise. The designated National Contact 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 will also be responsible for coordinating input to the exercise evaluation, details of which will be circulated as part of the IOWave18 Exercise Manual.

I would be grateful if you could provide the details of your National Contact for Exercise IOWave18 by 28 February 2018 to the ICG/IOTWMS Secretariat by email to iotwms@unesco.org. I would also encourage you to disseminate copies of this letter to the appropriate organizations and authorities within your country.

Yours sincerely,

[signed]

Vladimir Ryabinin
Executive Secretary

Enclosures:

Annex 1 Guiding Principles for IOWave18

Annex 2 Checklist of activities to enable Member States' preparation for IOWave18

ANNEX 1: GUIDING PRINCIPLES FOR IOWAVE18

1. The simulation exercise will place each IOTWMS Member State in a tsunami warning situation and will require the National Tsunami Warning Centre (NTWC) and the National and/or Local Disaster Management Office (NDMO/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 warning chain. In order to enhance community preparedness at community level, Member States are also encouraged to test the indicators of Indian Ocean Tsunami Ready (IOTR) programme in pilot communities. 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 DMO.
3. The two exercise scenarios are:
 - Scenario 1 starting at 0600 UTC on Tuesday 4th September 2018: Magnitude 9.0 earthquake in the Makran Trench off the coast of Iran. The simulated tsunami will take approximately 11 hours to travel from its source to the western coast of Australia.
 - Scenario 2 starting at 0300 UTC on Wednesday 5th September 2018: Magnitude 9.3 earthquake off the west coast of Northern Sumatra. The simulated tsunami will take approximately 8 hours to travel from its source to the coasts of Iran and Pakistan, and 11 hours to travel to the southern coast of South Africa.
4. Exercise bulletins and detailed tsunami threat advice will be generated in real time by the IOTWMS Tsunami Service Providers (TSPs India, Indonesia and Australia) and made available on their password-protected websites. Notification Messages will be sent to the national Tsunami Warning Focal Points (TWFP) by the TSPs as the data 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 both scenarios if possible, because SOP issues identified on the first day can be corrected and exercised again on the second day, and because the tsunami arrival times will vary for each scenario.
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 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; and
 - Media response (if applicable).

ANNEX 2: Checklist of activities to enable Member States' preparation for IOWave18

No	Activity	Timeline
1	Circular Letter from IOC	December 2017
2	Set up IOWave18 National Coordination Committee involving NTWC, LDMOs, NDMOs, and all other important stakeholders including private industry participants	January 2018
3	Decide on level of participation and identify communities for evacuation (where applicable)	February 2018
4	Assign agency roles including exercise controller, key participants, and observers	February 2018
5	Nominate a National Exercise Contact for IOTWMS	February 2018
6	Share IOWave18 in-country participation plans with the Secretariat	February 2018
7	Issue of Exercise IOWave18 Manual by the Secretariat	March 2018
8	Secure funding and support for community activities	Ongoing
9	Develop a National IOWave18 Manual to plan/guide activities including those at community level	May 2018
10	Address indicators of Indian Ocean Tsunami Ready (where appropriate)	Ongoing
11	IOC-UNESCO Pre-IOWave18 Standard Operating Procedures Workshop	June 2018
12	Organise and hold pre-exercise national workshop(s) and meeting(s) with key stakeholders including media	July 2018
13	Ensure Standard Operating Procedures are in place and up-to-date	August 2018
14	Prepare a media press release	One week before the exercise
15	Participate in Exercise IOWave18	4 – 5 September 2018
16	Hold post-exercise hot and cold debriefs	After the exercise
17	Complete the IOTWMS online post-exercise evaluation	30 September 2018
18	Revise and improve SOPs in accordance with lessons learnt during the exercise	After the exercise
19	IOC-UNESCO Post-IOWave18 Lessons Learnt Workshop	November 2018

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