



unesco

Intergovernmental
Oceanographic
Commission

1 June 2023

*IOTWMS Member State Preparation Meeting for
Standard Operating Procedure Workshop*

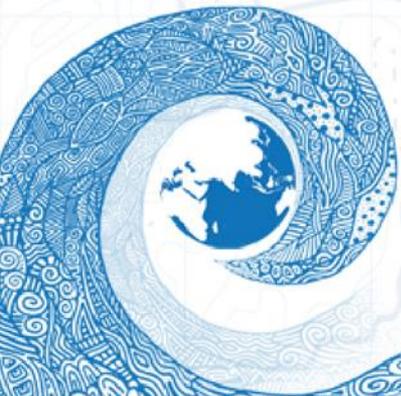


Exercise Indian Ocean Wave 2023 (IOWave23)

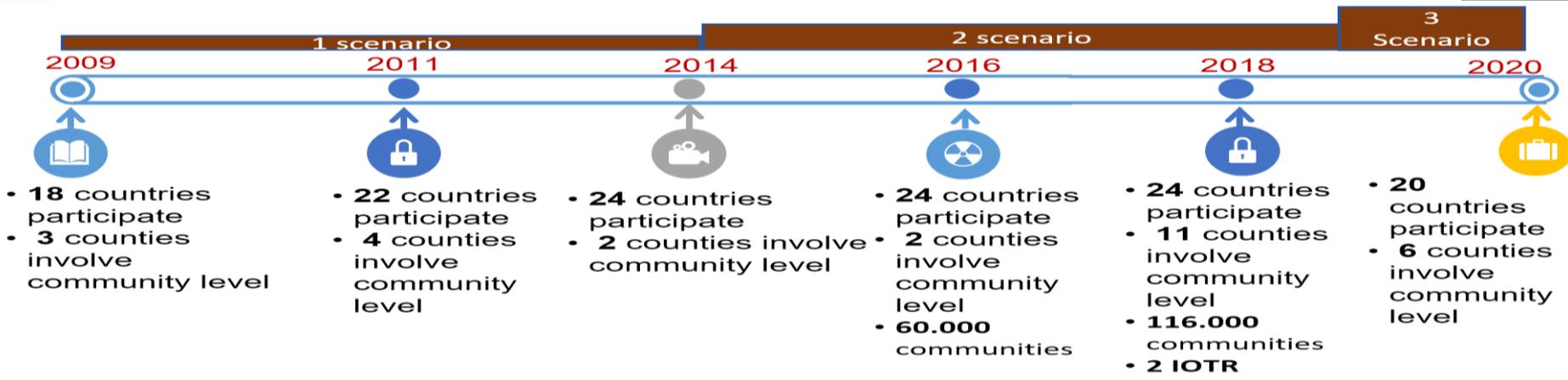
Weniza, Nora Gale, and Rick Bailey

Acknowledgements:

ICG/IOTWMS Task Team on Exercise IOWave23

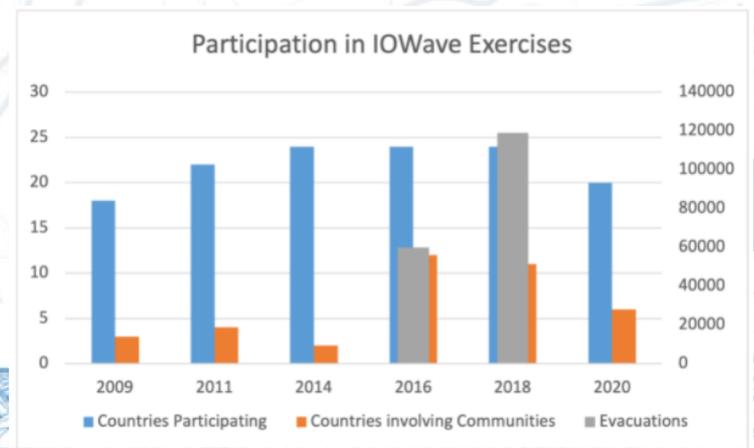


History of Indian Ocean Exercise



Evolution of Ocean Wide Exercises in the Indian Ocean

Article link:
<https://www.ecomagazine.com/in-depth/featured-stories/evolution-of-ocean-wide-exercises-in-the-indian-ocean>



IOWave23 Task Team

- **Ms. Weniza**, BMKG, Indonesia – Chair
- **Mr. Ajay Kumar**, INCOIS, India – Vice Chair
- **Ms. Kate Parkey**, Australia – Member
- **Mr. Domenic Panuccio**, Australia – Member
- **Mr. Khalid Al-Wahaibi**, Oman
- **Mr. Ameer Hyder**, Pakistan - Member
- **Mr. Tariq Ibrahim**, Pakistan - Member
- **Dr. Ali Khoshkholgh**, Iran - Member
- **Mr. Sidiq Hargo**, Indonesia - Member
- **Ms. Gloria Simangunsong**, Indonesia – Member
- **Mr. Bagus Adi Wibowo**, Indonesia – Member
- **Mr. Ardito**, IOTIC - Member



TT Meeting – 4 April 2023
Meeting with TSP– 12, 18, 25 April 2023

IOWave23 Exercise : Objective

Objective 1, 2, 3 survey question are to be completed with input from NTWC :

1. Validate **the dissemination by TSPs of Tsunami Bulletin Notification Messages to NTWCs** via Tsunami Warning Focal Points (TWFPs) of Indian Ocean countries and the reception by NTWCs of the TSP messages.
2. Validate **the access by NTWCs to the tsunami bulletins and other products on the TSP websites**, and the use of that information for the production of national warnings.
3. Validate **the reporting by NTWCs to the TSPs of their National Tsunami Warning Status**.

Objective 4, 5 survey question are to be completed with input from DMO and/or NTWC depending on how tsunami response role are structure in country:

4. Validate **the SOPs within countries for generating and disseminating tsunami warnings to their relevant emergency response agencies, media and the public**.
5. Validate **the SOPs within countries for the issuing of public safety messages, ordering evacuations and where possible issuing all-clear messages**.

Objective 6 survey question are to completed with input from DMO and/or NTWC :

6. Validate **the level of community awareness, preparedness and response** (including focused on Tsunami Ready Community)

Objective 7 survey question are to completed with input from NTWC :

7. Test the preparedness tsunami generated by a non-seismic (i.e., volcanic) source



Makran
Trench

Andaman
Trench

Java
Trench

Heard Island
Volcano

IOWave23 Exercise : Scenario

Scenario	1. Andaman Trench	2. Makran Trench	3. Heard Island Volcano	4. Java Trench
Date	4 October 2023 (Wednesday)	11 October 2023 (Wednesday)	18 October 2023 (Wednesday)	25 October 2023 (Wednesday)
Time	04:00 UTC	06:00 UTC	06:00 UTC	02:00 UTC
Magnitude	~M9	~M9	n/a	~M9
Depth	10 km	10 km	n/a	10 km
Latitude	7.20N	24.80N	53.10S	10.40S
Longitude	92.90E	58.20E	73.52E	112.80E
Location	Off west coast of Nicobar Islands, India	North-West Indian Ocean	Kerguelen Islands Region, Southern Ocean	South of Java, Indonesia

IOC Circular Letter 2945: Announcement of the Indian Ocean Tsunami Exercise (IOWave23) on 4, 11, 18, and 25 October 2023



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
COMMISSION Océanographique Inter-gouvernementale
COMISIÓN OCEANOGRÁFICA INTERGUBERNAMENTAL
МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ
اللجنة الدولية الحكومية لعلوم المحيطات
政府間海洋学委員会

UNESCO - 7 Place de Fontenay - 75302 Paris Cedex 07 SP, France
<http://ioc.unesco.org> - contact phone: +33 (0)1 45 88 93 18
E-mail: vyabin@unesco.org

IOC Circular Letter No 2945
(Available in English only)

IOC/VR/BA/R/Blah
4 May 2023

To : ICG/IOTWMS¹ Tsunami National Contacts

cc.: Official National Coordinating Bodies for liaison with the IOC
Permanent Delegates/Observers Missions to UNESCO and National Commissions
for UNESCO in ICG/IOTWMS Member States
UNESCO Offices in Doha, Islamabad, Jakarta, New Delhi, and Tehran
ICG/IOTWMS Chair and Vice-Chairs
ICG/IOTWMS Working Group Chairs and Vice-Chairs
ICG/IOTWMS Task Team IOWave23
ICG/IOTWMS Tsunami Warning Focal Points
ICG/IOTWMS National Tsunami Warning Centres

Subject: Announcement of the Indian Ocean Tsunami Exercise (IOWave23)
on 4, 11, 18, and 25 October 2023

The IOC Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) at its 13th session (Bali, Indonesia, 28 November–1 December 2022), decided to organise an Indian Ocean Wave Exercise in 2023 (IOWave23) and established a Task Team to plan and conduct the exercise. At its most recent intersessional meeting, held online on 4 April, and after consultation with key stakeholders, the Task Team IOWave23 decided to conduct IOWave23 with four different scenarios on 4, 11, 18, and 25 October 2023. 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 IOWave23 in which all ICG/IOTWMS Member States are encouraged to participate.

To date six IOWave exercises have been conducted (2009, 2011, 2014, 2016, 2018 and 2020). The exercises have been designed to test the receipt and dissemination of tsunami notifications along national tsunami warning systems, 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

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

Chairperson

Mr Anel Henani TROIB
Technical Secretary
Navy Hydrographic Service
Av. Mirouze de Dix 2144
C13100BY Buenos Aires
ARJ02070-00
FRANCE

Executive Secretary

Dr Vladimir RYABININ
International Hydrographic
Commission – UNESCO
7 Place de Fontenay
75302 Paris Cedex 07 SP
FRANCE

Vice-Chairpersons

Dr Marie-Alexandrine SICRE
Directrice de Recherche
Centre national de la recherche scientifique
91191
3 rue Michel Ange
75008 Paris
FRANCE

Dr Alexander PROKOY

Assistant to the President
National Research Center "Kuchubato Institute"
Akademika Kaluzhskiy ul. 1
123182 Moscow
RUSSIAN FEDERATION

Dr Frederico Antonio SARAVIA NOGUEIRA

Navy Captain (Ret) Directorate
of Hydrography and Navigation
Rua Barão de Jequié S/N
24050-000 Natal
RN, Brazil

Dr Saravasa Kumar TUMMALA

Director
India National Centre for Ocean
Information Services (INCOIS)
Project Naga (B0), Nizampet (B2)
Hyderabad 500095
INDIA

Dr Karin HILM

Directeur de Recherche
Institut National de Recherche
Halieutique (INRH)
20, Boulevard 248 Abderrahmane
Aïcha
20180 Constantine
ALGERIE

The Circular Letter requests all Tsunami National Contacts to nominate one **National Contact to IOWave23**.

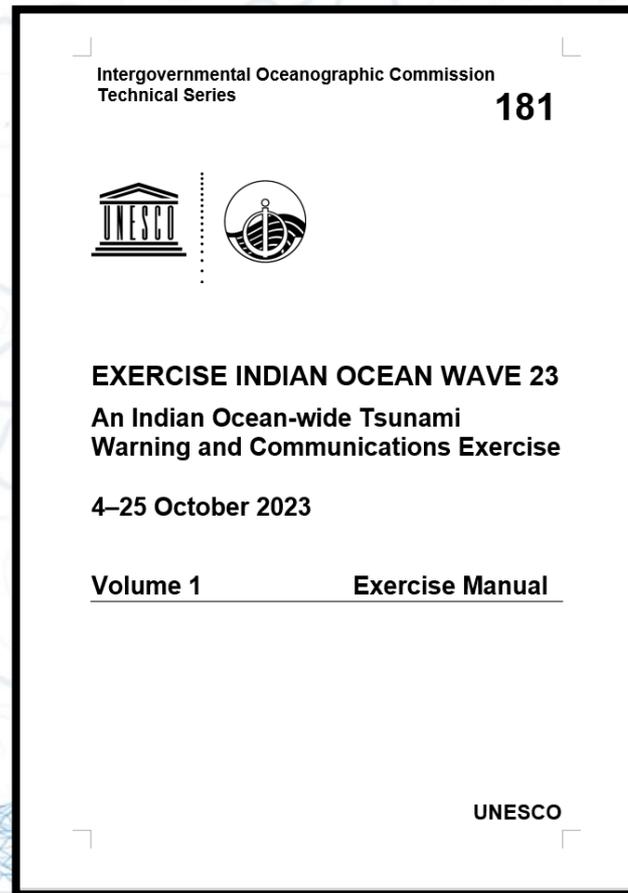
To date nominations have been received from **India, Iran, Kenya, Madagascar, Myanmar, Mauritius, Oman, and UAE**.

Please ensure the ICG/IOTWMS Secretariat (iotwms@unesco.org) receives your nomination at the earliest.

IOWave23 Exercise : Manual & Supplements

- The IOWave23 Exercise **Manual and supplements are under preparation.**
- The manual will provide an **overview and the supplements will contain all TSP bulletins and products.**
- The Task Team anticipates these will be **completed by the end of June.**
- All information and documents will **be made available on the exercise website:**

<https://oceanexpert.org/event/3916>



Post-Exercise Activities

- Post-exercise evaluation (online using Alchemer survey platform)

Objective 1: Validate the 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.

Scenario 2: **Makran Trench** (06:00 UTC, 11 October 2023)

To be completed with input from the National Tsunami Warning Centre (NTWC).

1(a) Name of NTWC (organisational name):

1(b) For each of the four notification message delivery mediums was the information received in a timely manner for you to carry out your warning response SOPs?

	GTS	Fax	Email	SMS
TSP Australia	-- Please Select --			
TSP India	-- Please Select --			
TSP Indonesia	-- Please Select --			

Comments

Back Next

11%

- National debriefs
- Improvements to **national tsunami warning chains and SOPs** based on lessons learnt during the exercise.
- **Post-exercise workshop** for IOTWMS Member States in conjunction with **World Tsunami Awareness Day 2023 (Nov 2023)**
- Publication of Exercise Report by the IOWave23 Task Team.

Thank you.



Weniza, Nora Gale, and Rick Bailey

Acknowledgements:

ICG/IOTWMS Task Team on Exercise IOWave23

