

**Intergovernmental Oceanographic Commission**  
*Reports of Governing and Major Subsidiary Bodies*



**Intergovernmental Coordination  
Group for the Tsunami Early  
Warning and Mitigation System  
in the North-Eastern Atlantic,  
the Mediterranean and Connected  
Seas (ICG/NEAMTWS)**

**Nineteenth Session**  
27–29 November 2024  
Paris, France

**UNESCO**

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**UNESCO 2025**

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English only<sup>1</sup>

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<sup>1</sup> The Executive Summary is available in English, French, Russian and Spanish.



## TABLE OF CONTENTS

	page
<i>Executive Summary</i> .....	(ii)
<i>Résumé exécutif</i> .....	(v)
<i>Resumen</i> .....	(vii)
<i>Рабочее резюме</i> .....	(xi)
<b>2. OPENING THE SESSION</b> .....	<b>1</b>
<b>3. REPORTS ON ICG/NEAMTWS INTERSESSIONAL ACTIVITIES</b> .....	<b>1</b>
<b>4. IMPLEMENTATION</b> .....	<b>2</b>
<b>5. POLICY MATTERS</b> .....	<b>3</b>
<b>6. DATE AND PLACE FOR ICG/NEAMTWS-XX</b> .....	<b>3</b>
<b>7. DECISIONS AND RECOMMENDATIONS</b> .....	<b>3</b>
<b>8. ANY OTHER BUSINESS</b> .....	<b>3</b>
<b>9. CLOSURE</b> .....	<b>3</b>

### ANNEXES

- I. [DECISIONS AND RECOMMENDATIONS](#)
- II. [AGENDA](#)
- III. [LIST OF PARTICIPANTS](#)
- IV. [LIST OF ACRONYMS](#)

## ***Executive Summary***

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The Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS) held its 19<sup>th</sup> session on 27–29 November 2024, at the UNESCO-IOC Headquarters in Paris, France.

The [19th Session](#) saw strong participation, with 67 attendees, including 5 online. Representatives from 17 Member States took part, including Tunisia and Algeria after a long absence. Additionally, two international organizations —DG ECHO and the Joint Research Center (JRC) of the European Commission— were present.

The ICG/NEAMTWS:

**Welcomed** the ICG/NEAMTWS officers Mr Alessandro Amato, Italy, as the new ICG/NEAMTWS Chairperson, Mr Amr Hamouda (Egypt) and Mr Ignacio Aguirre Ayerbe (Spain) as vice Chairpersons who were elected in February at the 18<sup>th</sup> Session on 6–8 February 2024, at the UNESCO-IOC Headquarters in Paris, France.

**Recognized** the continued awareness-raising efforts nationally on tsunami hazards and preparedness by Member States during the inter-sessional period in line with, and as a contribution, to the World Tsunami Awareness Day, 5 November 2024;

**Also welcomed** the final [draft evaluation report of the NEAMWave23 Exercise](#) conducted on 6–7 November 2023;

**Expressed** its thanks to Co-Chairpersons of the Task Team and members on Tsunami Exercise for the preparation of the final draft evaluation report of the exercise;

**Further welcomed** the organization of several significant meeting events in 2024, including:

- April: "[Coastal Cities and Communities Joining Tsunami Ready](#)" (11 April 2024) and "Coastal Horizons: Pathways and Actions to Strengthen Resilience to Coastal Hazards" (27 June 2024), held during the IOC Executive Council (EC-57);
- June: [Coastal Horizons: Pathways and Actions to Strengthen Resilience to Coastal Hazards](#), 27 June 2024 at the IOC Executive Council (EC-57);
- October: [A workshop organized by the National Institute of Geophysics and Volcanology \(INGV\) on Stromboli](#), Italy (5–7 October 2024), focused on observations, modeling, hazard assessment, and forecasting. This event, attended by 80 international experts, contributed to advancing understanding of non-seismic tsunami sources and emphasized the need to enhance early warning systems for tsunamis generated by Stromboli volcano and its recommendation to further advance Stromboli volcano tsunami early warning, and interest to publish a White Paper, as well as a UNESCO-IOC Technical Series document in that order;

**Acknowledged** the participation of several ICG/NEAMTWS members at the [2nd UNESCO-IOC Global Tsunami Symposium](#) "Two Decades After 2004 Indian Ocean Tsunami: Reflection and the Way Forward" that took place in Banda Aceh in November (11–14 November 2024).

**Appreciated** the launching of two [short documentaries](#) showcasing Stromboli volcano tsunami risk and early warning, as well as Malta distant tsunami risk as a side event at the ICG/NEAMTWS XIX Session with the participation of UNESCO Permanent Delegations on the 28 November 2024;

**Noted** the [IOC Circular Letter, 3006](#) on cessation of fax transmissions of tsunami information products by Tsunami Service Providers by 31 March 2025;

**Also appreciated** the increase in number of actions submitted in response to Call for Decade actions N° [7/2024](#) in the NEAM region with reference to Challenge 6 “Increase Community Resilience to Ocean Hazards” of the United Nations Decade of Ocean Science for Sustainable Development (2021–2030);

**Further appreciated** the newly recognized UNESCO-IOC [Tsunami Ready](#) Communities in Egypt ([Alexandria](#)), France ([Cannes](#)), Greece ([Samos](#)), Italy ([Minturno](#)), Spain ([Chipiona](#)) and Türkiye ([Büyükçekmece](#)) in 2024;

**Encouraged** other countries, in particular Cyprus (Larnaca), Israel (entire coast), Malta (Marsaxlokk) and Morocco (El Jadida) to finalize their efforts to complete the Tsunami Ready Recognition process and application;

**Also encouraged** the continued progress made towards establishing UNESCO-IOC Tsunami Ready communities in Italy (Palmi, Marzamemi, Otranto and Stromboli), and in Portugal (Loule);

**Reaffirmed** the target to have a total of 25 UNESCO-IOC Tsunami Ready Recognized communities in NEAM countries by the end of 2026, thereby contributing to making 100% of tsunami-prone communities being tsunami prepared and resilient by 2030 through the implementation of the UNESCO-IOC Tsunami Ready Programme and other initiatives, as outlined in the Ocean Decade Tsunami Programme;

**Noted** the official closure of Phase I of the European Union DG-ECHO CoastWAVE project on 30 June 2024 and the external evaluation carried out, which recommends that UNESCO-IOC, for instance, support the twining of “Tsunami Ready Cities” with common characteristics in order to establish strategic partnerships at political and scientific levels and achieve a common goal of knowledge sharing and collaboration;

**Also noted** the official start of Phase II of the new CoastWAVE Project ([CoastWAVE 2.0](#)) ‘*Scaling-Up and Strengthening the Resilience of Coastal Communities in the North-Eastern Atlantic and Mediterranean Regions to the Impact of Tsunamis and Other Sea Level-Related Coastal Hazards*’ on 1 July 2024 and its kick-off workshop on 6 November 2024;

**Further welcomed** the SMART Cables initiatives in particular the Atlantic Smart CAM and the planned deployment of two Ocean Bottom Pressure Sensors by INGV, Italy in the Ionian Sea in 2025;

**Agreed** to adopt the threat levels as requested by the Task Team on Tsunami Watch Operations, which is reflected in the draft of the new Global Service Definition Document (GSDD);

**Decided** to establish the new Task Team on Governance and conduct the next NEAMWave exercise in March 2026 (NEAMWave26);

**Also recommended** to increase the availability of seismic and sea level data in the North of Africa through agreements with Member States and with the institutions in charge of the management of the monitoring networks;

**Appreciated** the contributions made by DG ECHO under the European Union Civil Protection Mechanism (UPCM) to support the development and improvement of tsunami early warning systems and preparedness in the NEAM region (CoastWAVE projects, ARISTOTLE- amongst

others), and **notes** that these efforts should be considered as a valuable contribution to the Early Warning for All (EW4All) initiative and EU Disaster Resilience Goals;

**Welcomed** the provisional offer of Italy to host the next session of ICG/NEAMTWS in 2025.



## **Résumé exécutif**

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Le Groupe intergouvernemental de coordination du Système d'alerte rapide aux tsunamis et de mitigation dans l'Atlantique du Nord-Est, la Méditerranée et les mers adjacentes (GIC/NEAMTWS) a tenu sa 19<sup>e</sup> session du 27 au 29 novembre 2024 au Siège de l'UNESCO (COI) à Paris (France).

La [19<sup>e</sup> session](#) a connu une forte participation, avec 67 participants, dont cinq en ligne. En outre, deux organismes internationaux – la Direction générale de la protection civile et des opérations d'aide humanitaire européennes (DG-ECHO) et le Centre commun de recherche (CCR) de la Commission européenne – étaient présents.

Le GIC/NEAMTWS :

**Souhaite la bienvenue** aux nouveaux membres du Bureau du GIC/NEAMTWS, M. Alessandro Amato (Italie), Président du GIC/NEAMTWS, ainsi que M. Amr Hamouda (Égypte) et M. Ignacio Aguirre Ayerbe (Espagne), Vice-Présidents, qui ont été élus en février à la 18<sup>e</sup> session, tenue du 6 au 8 février 2024, au Siège de l'UNESCO (COI) à Paris (France) ;

**Prend acte** des actions continues de sensibilisation et de préparation aux risques de tsunami menées à l'échelle nationale par les États membres au cours de la période intersessions, parallèlement et à titre de contribution à la Journée mondiale de sensibilisation aux tsunamis, le 5 novembre 2024 ;

**Accueille favorablement** la version finale du [projet de rapport d'évaluation de l'exercice NEAMWave23](#) mené les 6 et 7 novembre 2023 ;

**Remercie** les coprésidents et les membres de l'Équipe spéciale sur les exercices d'alerte aux tsunamis d'avoir finalisé le rapport d'évaluation de l'exercice ;

**Se félicite** de l'organisation de plusieurs réunions importantes en 2024, notamment :

- avril : « [Villes et communautés côtières rejoignant le programme Tsunami Ready](#) » (11 avril 2024) et « Horizons côtiers : voies et actions pour renforcer la résilience face aux risques côtiers » (27 juin 2024), organisées pendant la session du Conseil exécutif de la COI (EC-57) ;
- juin : « [Horizons côtiers : voies et actions pour renforcer la résilience face aux risques côtiers](#) » (27 juin 2024), pendant la session du Conseil exécutif de la COI (EC-57) ;
- octobre : [Atelier sur le Stromboli organisé par l'Institut national de géophysique et de volcanologie \(INGV\)](#), en Italie (5-7 octobre 2024), axé sur les observations, la modélisation, l'évaluation des risques et les prévisions. Cette manifestation, à laquelle ont pris part 80 experts internationaux, a permis de mieux comprendre les tsunamis d'origine non sismique et de souligner la nécessité de renforcer les systèmes d'alerte rapide pour les tsunamis générés par le volcan Stromboli. Il a également été recommandé de publier un livre blanc ainsi qu'un document de la série technique de la COI à cet égard ;

**Prend acte** de la participation de plusieurs membres du GIC/NEAMTWS au [deuxième Colloque mondial UNESCO-COI sur les tsunamis](#), intitulé « Vingt ans après le tsunami de 2004 dans l'océan Indien : Réflexion et perspectives », qui s'est tenu à Banda Aceh du 11 au 14 novembre 2024 ;

**Salue** le lancement de deux [courts documentaires](#) présentant le risque de tsunami et les dispositifs d'alerte rapide liés au volcan Stromboli, ainsi que le risque de tsunami en champ

lointain à Malte, en marge de la 19<sup>e</sup> session du GIC/NEAMTWS et avec la participation de plusieurs délégations permanentes de l'UNESCO, le 28 novembre 2024 ;

**Prend note** de la [Lettre circulaire de la COI n° 3006](#) relative à la cessation des transmissions par télécopie des produits d'information sur les tsunamis par les prestataires régionaux de services relatifs aux tsunamis d'ici au 31 mars 2025 ;

**Se félicite** de l'augmentation du nombre d'actions soumises en réponse à l'Appel à actions de la Décennie [n° 7/2024](#) dans la région de l'Atlantique du Nord-Est, de la Méditerranée et des mers adjacentes (NEAM) en ce qui concerne le défi 6, « Accroître la résilience des communautés face aux risques océaniques », de la Décennie des Nations Unies pour les sciences océaniques au service du développement durable (2021-2030) ;

**Salue** les nouvelles communautés ayant reçu la certification [Tsunami Ready](#) de la COI en Égypte ([Alexandrie](#)), en France ([Cannes](#)), en Grèce ([Samos](#)), en Italie ([Minturno](#)), en Espagne ([Chipiona](#)) et en Türkiye ([Büyükçekmece](#)) en 2024 ;

**Encourage** d'autres pays, en particulier Chypre (Larnaca), Israël (toute la côte), Malte (Marsaxlokk) et le Maroc (El Jadida) à finaliser leurs efforts pour mener à bien le processus de candidature et de certification Tsunami Ready ;

**Encourage également** la poursuite des progrès accomplis en vue de l'établissement de communautés certifiées Tsunami Ready par l'UNESCO-COI en Italie (Palmi, Marzamemi, Otranto et Stromboli) et au Portugal (Loule) ;

**Réaffirme** l'objectif de compter un total de 25 communautés certifiées Tsunami Ready par l'UNESCO-COI dans les pays de la région NEAM d'ici la fin de 2026, contribuant ainsi à ce que 100 % des communautés exposées à un risque de tsunami soient préparées et résilientes d'ici à 2030 grâce à la mise en œuvre du programme Tsunami Ready de l'UNESCO-COI et d'autres initiatives, comme indiqué dans le Programme relatif aux tsunamis de la Décennie de l'Océan ;

**Prend note également** de la clôture officielle de la phase I du projet CoastWAVE de la DG-ECHO de l'Union européenne le 30 juin 2024 ainsi que de l'évaluation externe réalisée, qui recommande que l'UNESCO-COI, par exemple, soutienne le jumelage de « villes certifiées Tsunami Ready » ayant des caractéristiques communes afin d'établir des partenariats stratégiques sur les plans politique et scientifique et d'atteindre un objectif commun de partage des connaissances et de collaboration ;

**Prend note en outre** du début officiel de la phase II du projet CoastWAVE ([CoastWAVE 2.0](#)), intitulée « Étendre et renforcer la résilience des communautés côtières de l'Atlantique du Nord-Est et de la mer Méditerranée face à l'impact des tsunamis et autres risques côtiers liés au niveau de la mer », le 1<sup>er</sup> juillet 2024, ainsi que de son atelier de lancement qui s'est tenu le 6 novembre 2024 ;

**Se félicite également** des initiatives SMART Cables, en particulier de l'Atlantic Smart CAM et du déploiement prévu de deux capteurs de pression en eaux profondes par l'INGV (Italie) dans la mer Ionienne en 2025 ;

**Adopte** les niveaux de risque recommandés par l'équipe spéciale inter-GIC sur les opérations de veille aux tsunamis, tels que définis dans le projet de nouveau document intitulé « *Tsunami watch operations: global service definition document* » (GSDD) ;

**Décide** d'établir une nouvelle équipe de travail sur la gouvernance et de réaliser le prochain exercice NEAMWave en mars 2026 (NEAMWave26) ;

**Recommande** d'accroître la disponibilité des données sismiques et des données relatives au niveau de la mer dans le nord de l'Afrique grâce à des accords avec les États membres et avec les institutions chargées de la gestion des réseaux de surveillance ;

**Salue** les contributions apportées par la DG-ECHO, dans le cadre du mécanisme de protection civile de l'Union européenne (UPCM), à l'appui du développement et de l'amélioration des systèmes d'alerte rapide et de préparation aux tsunamis dans la région NEAM (projets CoastWAVE, ARISTOTLE, entre autres), et **note** que ces efforts devraient être considérés comme une contribution précieuse à l'initiative « Alertes précoces pour tous » (EW4ALL) et aux objectifs de l'Union européenne en matière de résilience face aux catastrophes ;

**Se félicite** de l'offre provisoire de l'Italie d'accueillir la prochaine session du GIC/NEAMTWS en 2025.

## **Resumen**

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El Grupo Intergubernamental de Coordinación del Sistema de Alerta Temprana contra los Tsunamis y Atenuación de sus Efectos en el Atlántico Nororiental y el Mediterráneo y Mares Adyacentes (ICG/NEAMTWS) celebró su 19ª reunión del 27 al 29 de noviembre de 2024 en la Sede de la UNESCO-COI, en París (Francia).

La [19ª reunión](#) registró una nutrida participación, al contar con 67 asistentes, 5 de ellos en línea. El encuentro congregó a representantes de 17 Estados Miembros, entre ellos Túnez y Argelia tras una larga ausencia. Además, estuvieron presentes dos organizaciones internacionales: la Dirección General de Protección Civil y Operaciones de Ayuda Humanitaria Europeas (DG ECHO) y el Centro Común de Investigación (CCI) de la Comisión Europea.

El ICG/NEAMTWS:

**Dio la bienvenida** a los nuevos miembros de la Mesa del ICG/NEAMTWS, Sr. Alessandro Amato (Italia), Presidente del ICG/NEAMTWS, Sr. Amr Hamouda (Egipto) y Sr. Ignacio Aguirre Ayerbe (España), vicepresidentes, que fueron elegidos en febrero en la 18ª reunión, celebrada del 6 al 8 de febrero de 2024 en la Sede de la UNESCO-COI, en París (Francia);

**Reconoció** los continuos esfuerzos de sensibilización y preparación en relación con los peligros de tsunami desplegados por los Estados Miembros a escala nacional durante el periodo entre reuniones con motivo del Día Mundial de Concienciación sobre los Tsunamis, el 5 de noviembre de 2024, y como contribución a él;

**Acogió con satisfacción** la versión final del [proyecto de informe de evaluación del simulacro NEAMWave23](#) realizado los días 6 y 7 de noviembre de 2023;

**Expresó su agradecimiento** a los copresidentes y los miembros del Equipo de Trabajo sobre los simulacros de tsunami por haber preparado la versión final del proyecto de informe de evaluación del simulacro;

**Acogió con satisfacción también** la organización de varias reuniones importantes en 2024, a saber:

- abril: [“Ciudades y comunidades costeras que se unen al programa Tsunami Ready”](#) (11 de abril de 2024) y [“Horizontes costeros: vías y acciones para reforzar la resiliencia ante las amenazas costeras”](#) (27 de junio de 2024), organizadas durante la reunión del Consejo Ejecutivo de la COI (EC-57);
- junio: [“Horizontes costeros: vías y acciones para reforzar la resiliencia ante las amenazas costeras”](#), 27 de junio de 2024, durante la reunión del Consejo Ejecutivo de la COI (EC-57);
- octubre: [Taller sobre el Stromboli organizado por el Instituto Nacional de Geofísica y Vulcanología \(INGV\)](#) en Italia (5-7 de octubre de 2024), centrado en las observaciones, la modelización, la evaluación de los peligros y las previsiones. Este evento, al que asistieron 80 expertos internacionales, ayudó a comprender mejor los tsunamis de origen no sísmico y puso de relieve la necesidad de mejorar los sistemas de alerta temprana contra los tsunamis generados por el volcán Stromboli. Además, se recomendó seguir reforzando la alerta temprana contra los tsunamis para el volcán Stromboli y publicar un libro blanco, así como un documento de la serie técnica de la COI a este respecto;

**Agradeció** la participación de varios miembros del ICG/NEAMTWS en el [segundo Simposio Mundial UNESCO-COI sobre los Tsunamis](#), titulado “Dos décadas después del tsunami del

Océano Índico de 2004: reflexión y camino a seguir”, que tuvo lugar en Banda Aceh del 11 al 14 de noviembre de 2024.

**Apreció** la presentación de dos [documentales cortos](#) en los que se muestra el riesgo de tsunami y los dispositivos de alerta temprana vinculados al volcán Stromboli, así como el riesgo de tsunami de campo lejano en Malta, en el marco de la 19ª reunión del ICG/NEAMTWS con la participación de varias delegaciones permanentes de la UNESCO, el 28 de noviembre de 2024;

**Tomó nota** de la [circular de la COI n° 3006](#) relativa al cese de las transmisiones por fax de productos de información sobre tsunamis por parte de los proveedores de servicios sobre tsunamis a partir del 31 de marzo de 2025;

**Se congratuló** del aumento del número de acciones presentadas en respuesta a la Convocatoria de Acciones del Decenio N° [7/2024](#) en la región del Atlántico Nororiental y el Mediterráneo y Mares Adyacentes (NEAM) en lo que respecta al desafío 6, “Aumentar la resiliencia de las comunidades ante los peligros oceánicos”, del Decenio de las Naciones Unidas de las Ciencias Oceánicas para el Desarrollo Sostenible (2021-2030);

**Felicitó** a las nuevas comunidades que habían obtenido el reconocimiento [Tsunami Ready](#) de la COI en Egipto ([Alejandría](#)), Francia ([Cannes](#)), Grecia ([Samos](#)), Italia ([Minturno](#)), España ([Chipiona](#)) y Türkiye ([Büyükçekmece](#)) en 2024;

**Alentó** a otros países, en particular a Chipre (Larnaca), Israel (toda la costa), Malta (Marsaxlokk) y Marruecos (El Jadida), a finalizar sus esfuerzos para concluir el proceso de solicitud y obtención del reconocimiento Tsunami Ready;

**Alentó también** a seguir realizando progresos en la creación de comunidades Tsunami Ready de la UNESCO-COI en Italia (Palmi, Marzamemi, Otranto y Stromboli) y Portugal (Loule);

**Reafirmó** el objetivo de contar con un total de 25 comunidades acreditadas Tsunami Ready de la UNESCO-COI en los países de la región NEAM a finales de 2026, contribuyendo así a que el 100 % de las comunidades propensas a los tsunamis estén preparadas y sean resilientes de aquí a 2030 mediante la ejecución del Programa Tsunami Ready de la UNESCO-COI y otras iniciativas, como se indica en el Programa de Tsunamis del Decenio del Océano;

**Tomó nota** de la clausura oficial de la fase I del proyecto CoastWAVE de la DG-ECHO de la Unión Europea el 30 de junio de 2024 y de la evaluación externa llevada a cabo, en la que se recomienda que la UNESCO-COI, por ejemplo, apoye el hermanamiento de “ciudades acreditadas Tsunami Ready” con características comunes a fin de forjar alianzas estratégicas en los ámbitos político y científico y de alcanzar un objetivo común de intercambio de conocimientos y colaboración;

**Tomó nota también** del inicio oficial de la fase II del nuevo proyecto CoastWAVE ([CoastWAVE 2.0](#)), “Aumento y fortalecimiento de la resiliencia de las comunidades costeras en la región del Atlántico Nororiental y el Mediterráneo ante el impacto de los tsunamis y otros peligros costeros relacionados con el nivel del mar”, el 1 de julio de 2024, y de su taller inaugural, que tuvo lugar el 6 de noviembre de 2024;

**Acogió con satisfacción además** las iniciativas SMART Cables, en particular Atlantic Smart CAM y la instalación prevista por el INGV (Italia) de dos sensores de presión en aguas profundas en el mar Jónico en 2025;

**Convino** en aprobar los niveles de amenaza solicitados por el Equipo de Trabajo sobre Operaciones de Vigilancia de los Tsunamis, que se definen en el proyecto de nuevo documento titulado “Tsunami watch operations: global service definition document” (GSDD);

**Decidió** crear el nuevo Equipo de Trabajo sobre Gobernanza y llevar a cabo el próximo simulacro NEAMWave en marzo de 2026 (NEAMWave26);

**Recomendó** que se aumentara la disponibilidad de datos sísmicos y sobre el nivel del mar en África Septentrional mediante acuerdos con los Estados Miembros y con las instituciones encargadas de la gestión de las redes de vigilancia;

**Apreció también** las contribuciones realizadas por la DG ECHO en el marco del Mecanismo de Protección Civil de la Unión Europea (UPCM) para favorecer el desarrollo y la mejora de los sistemas de alerta temprana y la preparación contra los tsunamis en la región NEAM (proyectos CoastWAVE, ARISTOTLE, entre otros), y **observó** que esos esfuerzos debían considerarse una valiosa contribución a la iniciativa “Alerta temprana para todos” (EW4All) y a los objetivos de la UE en materia de resiliencia frente a los desastres;

**Acogió con satisfacción** la oferta provisional de Italia de acoger la próxima reunión del ICG/NEAMTWS en 2025.

## Рабочее резюме

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Межправительственная координационная группа по системе раннего предупреждения о цунами и смягчения их последствий в Северо-Восточной Атлантике, Средиземном и прилегающих морях (МКГ/СПЦСВАСМ) провела свою 19-ю сессию 27-29 ноября 2024 г. в Штаб-квартире ЮНЕСКО в Париже, Франция.

В общей сложности в работе [19-й сессии](#) приняли участие 67 человек, пятеро из которых участвовали в онлайн-формате. В сессии приняли участие представители 17 государств-членов, в том числе (после долгого отсутствия) представители Туниса и Алжира. Кроме того, на сессии присутствовали представители двух международных структур – Генерального директората по вопросам защиты гражданского населения и гуманитарной помощи (DG ECHO) и Объединенного исследовательского центра (ОИЦ) Европейской комиссии.

МКГ/СПЦСВАСМ:

**приветствовала** г-на Алессандро Амато (Италия), нового председателя МКГ/СПЦСВАСМ, и двух его заместителей – г-на Амра Хамуду (Египет) и г-на Игнасио Агирре Айербе (Испания), избранных в феврале 2024 г. в ходе 18-й сессии МКГ/СПЦСВАСМ, которая прошла 6-8 февраля 2024 г. в Штаб-квартире МОК/ЮНЕСКО в Париже, Франция;

**отметила важность** продолживших предприниматься государствами-членами в межсессионный период усилий по повышению степени осведомленности населения о потенциальной опасности цунами и по обеспечению готовности к ним, по случаю проведения 5 ноября 2024 г. Всемирного дня распространения информации о проблеме цунами;

**с удовлетворением приняла к сведению** окончательный вариант [проекта отчета о проведении 6-7 ноября 2023 г. учений по проверке готовности к цунами «СВАСМ волна-23»](#);

**выразила признательность** сопредседателям и членам целевой группы по цунами за подготовку окончательного варианта отчета о проведении учений;

**с удовлетворением отметила** организацию в 2024 г. нескольких значимых мероприятий, включая:

- Апрель: совещание на тему [«Участие прибрежных городов и общин в программе сертификации готовности к цунами»](#) (11 апреля 2024 г.);
- Июнь: совещание экспертов [«Прибрежные горизонты: стратегии действий по повышению устойчивости к потенциальным опасным явлениям в прибрежной зоне»](#), организованное 27 июня 2024 г. на полях 57-й сессии Исполнительного совета МОК;
- Октябрь: [семинар-практикум для специалистов, организованный Национальным институтом геофизики и вулканологии на о. Стромболи, Италия, 5-7 октября 2024 г.](#) и посвященный научным наблюдениям, моделированию и составлению прогнозов и оценке факторов риска. Данное мероприятие, в котором приняли участие около 80 специалистов из разных стран, способствовало углублению понимания сейсмических источников происхождения цунами и необходимости модернизации системы раннего предупреждения о цунами, вызываемых деятельностью вулкана Стромболи, а также позволило сформулировать соответствующие рекомендации.



Участники выразили заинтересованность в публикации экспертного доклада по этой теме и технического доклада МОК;

**с удовлетворением отметила** участие нескольких членов МКГ/СПЦСВАСМ во [втором Всемирном симпозиуме МОК/ЮНЕСКО по цунами](#) на тему «Два десятилетия спустя после цунами 2004 года в Индийском океане: осмысление произошедшего и предлагаемые дальнейшие действия», который состоялся в Банда-Ачехе, Индонезия, 11-14 ноября 2024 г.;

**дала высокую оценку** организованной 28 ноября 2024 г. в качестве параллельного мероприятия 19-й сессии МКГ/СПЦСВАСМ с участием постоянных представительств при ЮНЕСКО презентации [двух короткометражных документальных фильмов](#), рассказывающих о потенциальных рисках цунами в результате деятельности вулкана Стромболи и о работе системы раннего предупреждения, а также об угрозе телецунами на Мальте;

**приняла к сведению** информацию, содержащуюся в [циркулярном письме МОК № 3006](#), о прекращении к 31 марта 2025 г. факсимильной передачи поставщиками данных слежения за цунами информационных предупреждений о цунами;

**выразила удовлетворение** увеличением в рамках [седьмого запроса предложений \(2024 г.\)](#) числа инициатив, касающихся осуществления в регионе СВАСМ деятельности, направленной на реализацию задачи 6 Десятилетия ООН, посвященного науке об океане в интересах устойчивого развития (2021-2030 гг.) («Повышение устойчивости сообществ к воздействию опасных природных явлений в океане»);

**отметила важность** получения в 2024 г. сертификатов МОК/ЮНЕСКО «[К цунами готов](#)» территориальными общинами Египта ([Александрия](#)), Франции ([Канны](#)), Греции ([Самос](#)), Италии ([Минтурно](#)), Испании ([Чипиона](#)) и Турции ([Бююкчекмедже](#));

**призвала** другие страны, в частности Кипр (Ларнака), Израиль (все прибрежные поселения), Мальту (Марсашлокк) и Марокко (Эль-Джадида), принять меры, касающиеся завершения процедуры признания готовности к цунами и представления соответствующих заявок;

**призвала также** территориальные образования Италии (Пальми, Марзамеми, Отранто и Стромболи) и Португалии (Луле) продолжить усилия по программе сертификации готовности к цунами МОК/ЮНЕСКО;

**подтвердила** цель обеспечить к концу 2026 г. сертификацию готовности к цунами в общей сложности 25 территориальных образований в регионе СВАСМ, с тем чтобы к 2030 г. 100% территорий, подверженных соответствующему риску, были готовы противостоять цунами благодаря Программе МОК/ЮНЕСКО по обеспечению готовности к цунами и другим инициативам, предусмотренным в Программе ООН по цунами в рамках Десятилетия науки об океане;

**приняла к сведению** официальное завершение 30 июня 2024 г. первой фазы проекта «Прибрежная волна», осуществляемого Европейским союзом (DG ECHO), а также результаты независимой оценки, по итогам проведения которой МОК/ЮНЕСКО было рекомендовано, в частности, поддержать идею объединения городов со схожими характеристиками в сеть «Города, готовые к цунами» в целях налаживания формального партнерского взаимодействия на политическом и научном уровнях и достижения общей цели обмена научными знаниями, а также развития сотрудничества;

**приняла к сведению также** официальное начало реализации с 1 июля 2024 г. второй фазы проекта «Прибрежная волна» («[Прибрежная волна 2.0](#)») «[Масштабирование](#)



*проекта и повышение потенциала устойчивости прибрежных населенных пунктов в регионе Северо-Восточной Атлантики и Средиземноморья к негативным последствиям цунами и других опасных природных явлений, связанных с изменением уровня моря» и проведение по этому случаю 6 ноября 2024 г. стартового рабочего совещания;*

**выразила удовлетворение** в связи с осуществлением инициатив в рамках проекта «Интеллектуальные кабели», в частности в связи с созданием платформы «Atlantic Smart CAM» и планируемым размещением в 2025 г. компанией INGV, Италия, в Ионическом море двух глубоководных датчиков давления;

**постановила** утвердить уровни угрозы в соответствии с просьбой целевой группы по наблюдению за цунами, что нашло отражение в проекте нового документа об универсальном определении услуг (ДУОУ);

**приняла решение** об учреждении новой целевой группы по организации управления и о проведении следующих учений по проверке готовности к цунами в регионе СВАСМ («СВАСМ волна-26») в марте 2026 г.;

**рекомендовала** повысить доступность сейсмических данных и данных об уровне моря в районе Северной Африки посредством заключения соглашений с государствами-членами и учреждениями, отвечающими за управление сетями наблюдений;

**высоко оценила** вклад DG ECHO в рамках Механизма Европейского союза по защите гражданского населения, связанный с поддержкой развития и совершенствования систем раннего предупреждения о цунами и обеспечения готовности к ним в регионе СВАСМ (проекты «Прибрежная волна», ARISTOTLE и др.), и **подчеркнула**, что эти усилия следует рассматривать как ценный вклад в осуществление инициативы «Заблаговременные предупреждения для всех» (инициатива ЗПДВ) и реализацию целей Европейского союза, касающихся обеспечения устойчивости к рискам стихийных бедствий;

**с удовлетворением приняла к сведению** предварительное предложение Италии провести у себя следующую сессию МКГ/СПЦСВАСМ в 2025 г.



## 1. OPENING THE SESSION

1. The Nineteenth session of the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS-XIX) was opened on Wednesday 27 November 2024 at 10:00 CET by Mr Alessandro Amato, new Chairperson of ICG/NEAMTWS. The new vice-chairpersons, Mr Ignacio Aguirre Ayerbe, and Prof Amr Hamouda welcomed the participants.

2. The Head of the Tsunami Section, Mr Bernardo Aliaga, opened the session with a [presentation](#) highlighting key tsunami events of 2024. These included exhibition side events in collaboration with UNDRR and UNDP titled 'I Survived a Tsunami,' as well as the Second UNESCO-IOC Global Tsunami Symposium held from 11–14 November 2024 in Banda Aceh, Indonesia. He also outlined plans for the inaugural Ocean Decade Tsunami Programme Conference scheduled for 2025.

3. The Head of Tsunami Section, Mr Bernardo Aliaga provided a presentation to open the session highlighting key tsunami events in 2024 including the exhibition side events with UNDRR, UNDP on “I survived a tsunami” and the second UNESCO-IOC Global Tsunami Symposium, 11–14 November 2024, Banda Aceh, Indonesia and planned first Ocean Decade Tsunami Programme conference in 2025.

4. The session continued with the organization of proceedings and the adoption of the agenda without changes. It was agreed to work overtime on Day 1 to compensate for time lost to sessional committees due to the official launch of two video documentaries in the UNESCO Cinema Room on Thursday, 28 November. In the absence of volunteers, the Chairperson requested the Secretariat to serve as the rapporteur for the ICG/NEAMTWS

5. Ms Anna von Gyldenfeldt, Head of the German Delegation, and Ms Elena Daskalaki, member of the Greek Delegation, agreed to prepare the ICG/NEAMTWS draft Decisions and Recommendations. Mr Denis Chang Seng, Technical Secretary of ICG/NEAMTWS informed the session to propose the establishment of sessional committees by end of morning of Thursday 28 November. The session then proceeded with its deliberations and presentations.

## 2. REPORTS ON ICG/NEAMTWS INTERSESSIONAL ACTIVITIES

[Report by the Chairperson of ICG/NEAMTWS](#), Alessandro Amato, INGV, Italy.

[Report by the IOC Secretariat](#), Denis Chang Seng, Programme Specialist, Technical Secretary of ICG/NEAMTWS, Tsunami Resilience Section.

Report by other ICGs chairpersons:

- [Pacific Tsunami Warning System](#), NISHIMAE Yuji.
- [Caribbean Tsunami Warning System](#), Marie- Noëlle Raveau.
- [Indian Ocean Tsunami Warning and Mitigation System](#), E. Pattabhi Rama Rao.

Reports by other Intergovernmental Organizations:

- [WebCritech of the Joint Research Centre of the European Commission](#), Daniele Gallian, JRC.
- [EU Civil Protection Mechanism & Early Warnings For All Initiative](#), Aurian Loupot, DG ECHO.

Reports by the Working Groups and Task Teams:

- [Working Group 1 – Hazard Assessment and Modelling](#) – Co-Chairs: Jorge Macías (University of Malaga, Spain) and Audrey Gailler (Commissariat à l’Energie Atomique et aux Énergies Alternatives, France). See [recommendations of Working Group 1](#).
- [Working Group 2 and 3 – Seismic, Geophysical and Sea Level Measurements and Sea Level Data Collection and Exchange, Including Offshore Tsunami Detection and Instruments](#) – Co-Chairs: Anna von Gyldenfeldt (Federal Maritime and Hydrographic Agency, Germany) and Didem Cambaz (Bogazici University Kandilli Observatory and Earthquake Research Institute, Türkiye).
- [Working Group 4 – Public Awareness, Preparedness and Mitigation](#) – Chair: Cecilia Valbonesi (Università Degli Studi di Firenze, Italy) and Raluca Partheniu (National Institute for Earth Physics, Romania). See [recommendations of Working Group 4](#).
- [Task Team on Tsunami Exercises](#) – Co-Chairs: Ceren Ozer Sözdinler (Gebze Technical University, Türkiye) and Marinos Charalampakis (Institute of Geodynamics, National Observatory of Athens, Greece). See [recommendations of TT Tsunami Exercises](#).
- [Task Team on Operations](#) – Co-Chairs: Alessio Piatanesi (Istituto Nazionale di Geofisica e Vulcanologia, Italy) and Fernando Carrilho (Instituto Português do Mar e da Atmosfera, Portugal). See [recommendations of TT Operations/Documentation](#).
- - Co-Chairs: Stefano Lorito (Istituto Nazionale di Geofisica e Vulcanologia, Italy) and Nikos Kalligeris (National Observatory of Athens, Greece)
- [Task Team on Tsunami Ready](#) – Co-Chairs: Maria Ana Baptista (Instituto Superior de Engenharia de Lisboa, Instituto Politécnico de Lisboa, Portugal) and Elena Daskalaki (National Observatory of Athens, Greece). See [recommendations of TT TTR](#).
- [Task Team on Non-Seismic Tsunami Sources](#) – Co-chairs: Rachid Omira (Instituto Português do Mar e da Atmosfera, Portugal) and Fabrizio Romano (Istituto Nazionale di Geofisica e Vulcanologia Roma, Italy) were appointed as the co-chairs for the newly established Task Team.

### 3. IMPLEMENTATION

[Report on CoastWAVE Project](#), Derya Venin, Project Coordinator, Tsunami Resilience Section.

Reports from Tsunami Service Providers (TSPs), National Tsunami Warning Centres and Organizations

#### Tsunami Service Providers (TSPs)

- [CENALT, France](#)
- [INGV, Italy](#)
- [IPMA, Portugal](#)
- [KOERI, Türkiye](#)
- [NOA, Greece](#)

#### National Tsunami Warning Centres and Organizations

- [IGN, Spain](#)
- [Marine Hazards Mitigation Center \(MHMC\), NIOF, Egypt](#)
- [NEIP, Romania](#)

- [National Oceanography Centre, UK](#)
- [Norwegian Directorate for Civil Protection, Norway](#)
- [Reports on other major Projects Related to NEAMTWS \(EU\)](#), EPOS, GeoInquire, GTM, NEAM-COMMITMENT: NEAM Collaboration for Improved tsunami risk mitigation and management, Dr Stefano Lorito, INGV, Italy.
- [Tsunami Ready Programme Implementation](#), Elene Daskalaki, Co-chair of TT on Tsunami Ready.
- [Report on NEAMWave23 Exercise, Co-chair on Tsunami Exercise](#), Ceren Ozer Sözdinler (Gebze Technical University, Türkiye) and Marinos Charalampakis (Institute of Geodynamics, National Observatory of Athens, Greece).
- [Reports on World Tsunami Awareness Day \(WTAD\)](#), Partheniu Raluca (National Institute for Earth Physics, Romania) and Cecilia Valbonesi (UnitelmaSapienza University of Rome and for the Istituto Nazionale di Geofisica e Vulcanologia in Rome, Italy).

#### 4. POLICY MATTERS

- [Reports on Ocean Decade, Ocean Decade Tsunami Programme Scientific Committee and ODTP Related Submitted Actions \(Call 7\) and Early Warning for All and DRR Process](#), Programme Specialist, Technical Secretary of ICG/NEAMTWS, Tsunami Resilience Section.
- [Report on the Second UNESCO-IOC Global Tsunami Symposium, Banda Aceh, November 11–14, 2024](#), Alessandro Amato, Chairperson of ICG/NEAMTWS.
- [Maritime Products](#), Helene Hebert, CENALT.
- [Report on of the Steering Committee Meeting on Governance and Reorganization](#), Ignacio Aguirre Ayerbe, New Task Team Co-Chair on Governance.
- [Summary Report of the Report of the Seventeenth Meeting of the Working Group on Tsunamis and Other Hazards related to Sea Level Warning and Mitigation Systems \(TOWS-WG-XVII\), 22–23 February 2024, Sendai, Japan.](#)

#### 5. DATE AND PLACE FOR ICG/NEAMTWS-XX

6. The ICG/NEAMTWS-XIX welcomed the provisional offer of Italy to host the ICG/NEAMTWS-XX session in 2025.

#### 6. DECISIONS AND RECOMMENDATIONS

7. The Decisions and Recommendations of the ICG/NEAMTWS XIX session are included in Annex I.

#### 7. ANY OTHER BUSINESS

8. No other business was discussed.

#### 8. CLOSURE

9. The meeting was closed on Friday, 29 November at 17:30 CET.



ANNEX I

**DECISIONS AND RECOMMENDATIONS**

Paris, France, 27–29 November 2024

**Decision ICG/NEAMTWS-XIX.1**

The Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS),

**Having met** in Paris, France for its 19<sup>th</sup> Session on 27–29 November 2024,

**Having reviewed** the progress made in the implementation of the NEAMTWS,

**Thanks** the Chairpersons of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions, the Indian Ocean and the Pacific Tsunami Warning System for exchanging and sharing recent developments in the Caribbean, Indian Ocean and Pacific and **agrees** to continue exchanging information between the ICGs as appropriate;

**Appreciates** the participation of the ICG/NEAMTWS chairperson in other ICGs;

**Recognizes** the continued awareness-raising efforts nationally on tsunami hazards and preparedness by Member States during the inter-sessional period in line with, and as a contribution, to the World Tsunami Awareness Day, 5 November 2024;

**Welcomes** the final draft evaluation report of the NEAMWave23 Exercise conducted on 6-7 November 2023;

**Expresses** its thanks to Co-Chairpersons of the Task Team and members on Tsunami Exercise for the preparation of the final draft evaluation report of the exercise;

**Appreciates** the organization of the side events on [Coastal Cities and Communities Joining Tsunami Ready](#), 11th April 2024, and [Coastal Horizons: Pathways and Actions to Strengthen Resilience to Coastal Hazards](#), 27 June 2024 at the IOC Executive Council (EC-57);

**Also appreciates** the organization of the [international workshop](#) organized by the National Institute of Geophysics and Volcanology (INGV), Italy on *Stromboli: Observations, Modeling, Hazard Assessment, and Forecasting* with the participation of eighty international experts from 5-7 October 2024 as a contribution to the topic on non-seismic tsunami sources;

**Welcomes** the recommendations to further advance Stromboli volcano tsunami early warning, and interest to publish a White Paper, as well as a UNESCO-IOC Technical Series document in that order;

**Further appreciates** the organization and participation of ICG/NEAMTWS and its members in several meetings since the ICG/NEAMTWS XVIII Session, 5-7 February 2024 in particular:

- [2nd UNESCO-IOC Global Tsunami Symposium](#) “Two Decades After 2004 Indian Ocean Tsunami: Reflection and the Way Forward”, Banda Aceh, 11-14 November 2024;

- The meetings of the Tsunami Service Providers in Athens, Greece, on 6-7 June 2024, and in Rome, Italy, on 30 September – 1 October 2024;
- [Official launching meeting of the new CoastWAVE 2.0 Project](#), 6<sup>th</sup> November 2024 (online);
- The meeting of the Tsunami Service Provider Meetings, Athens, Greece and Rome, Italy, 30th September 2024;
- Participation of Technical Secretary in the [IODE-GOOS Data Management and Sharing Workshop](#) with the purpose to establish optimized collaboration between IODE and GOOS, and to develop an integrated view of the data landscape and lay the ground for the development of an integrated, efficient, future facing, and FAIR data landscape between GOOS and IODE and across GOOS OCG, BioEco, BGC data and tsunami;

**Notes** the efforts of the Technical Secretary in enhancing the monitoring and tracking tool of the Working Groups' (WGs) and Task Teams' (TTs) work plans;

**Also notes** the Tsunami Resilience Section coordination efforts to engage in the [Early Warning For All Stakeholder Forum](#), 2-3 June 2025 and [Eighth Global Platform for Disaster Risk Reduction \(GP2025\)](#), 4-6 June 2025, Geneva;

**Appreciates** the launching of two short documentaries showcasing Stromboli volcano tsunami risk and early warning, as well as Malta distant tsunami risk as a side event at the ICG/NEAMTWS XIX Session with the participation of UNESCO Permanent Delegations on the 28 November 2024;

**Further notes** the advice of the TT on TR to the ICG to establish the role of the National Tsunami Ready Focal Point (NTRFP). This will be further discussed during the next SC meeting;

**Welcomes** the update of ICG/NEAMTWS Working Groups and Task Teams members as per [IOC Circular Letter, 2997](#) request;

**Notes** the progress made by the Task Team on Documentation on preparing the new Tsunami Operational User Guide (OUG);

**Takes note** of the Decisions and Recommendations of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems ([TOWS-WG XVII](#)) and its Task Team Seventeenth Meeting in Sendai, Japan, 19-23 February 2024; hosted at the [International Research Institute of Disaster Science \(IRIDeS\)](#), Tohoku University;

**Also notes** the [IOC Circular Letter, 3006](#) on cessation of fax transmissions of tsunami information products by Tsunami Service Providers by 31 March 2025;

**Also appreciates** the increase in number of actions submitted (Ocean Decade Call 7) in the NEAM region to be endorsed on Ocean Decade with reference to Challenge 6 "Increase Community Resilience to Ocean Hazards";

**Further appreciates** the newly recognized UNESCO-IOC Tsunami Ready Communities in Egypt ([Alexandria](#)), France ([Cannes](#)), Greece ([Samos](#)), Italy ([Minturno](#)), Spain ([Chipiona](#)) and Türkiye ([Büyükçekmece](#)) in 2024;

**Encourages** other countries, in particular Cyprus (Larnaca), Israel (entire coast), Malta (Marsaxlokk) and Morocco (El Jadida) to finalize their efforts to complete the TRR process and application;



**Also encourages** the continued progress made towards establishing UNESCO-IOC Tsunami Ready communities ongoing communities in Italy (Palmi, Marzamemi, Otranto and Stromboli), and in Portugal (Loule);

**Reaffirms** the target to have a total of 25 UNESCO-IOC Tsunami Ready Recognized communities in NEAM countries by the end of 2026, further contributing to making 100% of communities at risk of tsunami prepared for and resilient to tsunami by 2030 through the implementation of the UNESCO-IOC Tsunami Ready Programme and other initiatives, as stated by the Ocean Decade Tsunami Programme;

**Welcomes** the initiative to prepare a new Tsunami Ready Tool kit prepared by TICs to assist Member States in implementing the Tsunami Ready Recognition Programme as per TOWS Task Team on Disaster Management and Preparedness' Decisions and Recommendations;

**Also welcomes** the OTGA Tsunami Awareness and Tsunami Ready courses by the ITIC and IOTIC as a key contribution to building capacity for implementation of the Tsunami Ready Recognition Programme globally;

**Notes** the official closure of the European Union DG-ECHO CoastWAVE Project Phase I on 30 June 2024 and external evaluation conducted;

**Also notes** the external evaluation completed for CoastWAVE Project Phase I and requests the ICG Secretariat to share the document with the ICG/NEAMTWS MS;

**Further notes** its recommendations to UNESCO:

- to support the twining of “Tsunami Ready Cities” with shared characteristics to establish strategic partnerships at the policy and scientific levels and achieve a common goal of knowledge sharing and collaboration.
- should facilitate pairing of partnering institutions to conduct research collaboration, share and analyze scientific data, and conduct tours to understudy other countries with advanced observatory systems and models. Currently, there is no platform for countries, cities, and municipalities to share their experiences

**Notes** the official start of the new CoastWAVE Project Phase II (CoastWAVE 2.0) '*Scaling-Up and Strengthening the Resilience of Coastal Communities in the North-Eastern Atlantic and Mediterranean Regions to the Impact of Tsunamis and Other Sea Level-Related Coastal Hazards*' on 1 July 2024 and its kick-off workshop on 6 November 2024;

**Encourages** Member States through Tsunami National Contacts (TNCs) and Tsunami Warning Focal Points (TWFPs) to support and foster the implementation of the UNESCO-IOC Tsunami Ready Recognition Programme (TRRP) and to submit a potential list of communities at tsunami risk to join the UNESCO-IOC TRRP, and to initiate the recognition process where applicable through their Tsunami National Contact (TNC) in line with IOC Circular Letter, [2896](#);

**Also notes** the utilization of multi-purpose sea level monitoring stations in support of MHEWS to enhance data coverage and reduce costs, in particular in Italy and Türkiye;

**Welcomes** the foundation of the Global Tsunami Model Association (GTM);

**Also welcomes** the SMART Cables initiatives in particular the Atlantic Smart CAM and the planned deployment of two Ocean Bottom Pressure Sensors by INGV, Italy in the Ionian Sea in 2025;

**Acknowledges** the progress report on the Thematic Core Service (TCS) Tsunami within EPOS — The European Plate Observing System;

**Agrees** to adopt the threat levels according to the request by the TT-TWO which is reflected in the draft of the new Global Service Definition Document (GSDD);

**Requests** the Co-Chairs of the Working Groups and the Task Teams to prepare, in consultation with the members of their respective Working Groups or Task Teams, a plan of action for the current inter-sessional period, and to submit it to the IOC Secretariat no later than the end of January 2025;

**Appreciates** the development of a new UNESCO-IOC Tsunami Resilience Section website hosting NEAMTIC and **encourages** its timely completion and content improvement;

**Accepts** additional recommendations of Working Groups and Task Teams as outlined in Annex 1 to this decisions;

**Decides to:**

- i. continue the Task Team on Documentation according to the Terms of Reference in [Appendix 2](#);
- ii. continue the Task Team on Tsunami Exercises according to the revised Terms of Reference in [Appendix 3](#) and revise the name to Task Team on NEAMWave Exercises;
- iii. continue the activities of the Task Team on Operations according to the Terms of Reference in [Appendix 4](#);
- iv. continue the activities of the Task Team on Tsunami Ready according to the Terms of Reference in [Appendix 5](#);
- v. continue the activities of the Task Team on Non-Seismic Tsunamis according to the Terms of Reference in [Appendix 6](#);
- vi. establish the new Task Team on Governance - the Terms of Reference will be established by next SC meeting;
- vii. continue the activities of the Steering Committee during the intersessional period according to the Terms of Reference in [Appendix 7](#);
- viii. conduct the next NEAMWave exercise in March 2026 (NEAMWave26). The exercise scenarios would be created through collaboration between TSPs and NTWCs, with one or more single or joint scenarios proposed to meet the specific needs of the Member States.

**Recommends:**

- i. TSPs, NTWCs, WGs, TTs and Member States to provide key documents and reports to the IOC Secretariat at least one month before the next ICG/NEAMTWS Session;

**Also recommends:**

- i. that each TSP continues to provide alert-level information based on their best practices, including decision matrices, scenario databases or other methods, these methodologies need to be documented in the NEAMTWS Operational Users Guide;
- ii. that all sea-level data should be made available to the TSPs and NTWCs using bilateral agreements, between TSPs/NTWCs, whenever possible;

- iii. to increase the availability of seismic and sea level data in the North of Africa through agreements with Member States and with the institutions in charge of the management of the monitoring networks;
- iv. to increase sea level sampling rate (towards a 1s resolution) and to reduce the real time data latency to 1 minute or less;
- v. that Member States should encourage the active involvement of their national Civil Protection Authorities (CPAs);
- vi. the Executive Secretary to contact Member States who have not provided Tsunami Forecast Points (TFPs) and remind them to urgently do so;
- vii. a final draft of the OUG at the ICG/NEAMTWS XX session;

**Welcomes** the continued progress of the investigation and the possibility to adopt tsunami forecasting methods by TSPs which represent an improvement over the Decision Matrices presently in use with a view to reducing uncertainty and false alarms, particularly the forecasting methods which consider tsunami numerical modeling and uncertainty quantification (e.g., the Probabilistic Tsunami Forecasting (PTF), pre-calculated scenario databases, etc.);

**Notes** CAT-INGV (Centro Allerta Tsunami - Istituto Nazionale di Geofisica e Vulcanologia, Italy) TSP ongoing progress towards implementing a PTF based Decision Matrix, and requires that the methodology implemented is documented in the updated NEAMTWS Operational User Guide and that TSP subscribers are informed accordingly;

**Acknowledges** and thanks the Joint Research Center (JRC) of the European Commission with gratitude for its contributions during the last 15 years to the implementation of the IOC's tsunami programme and noted with satisfaction the continued interest of JRC in this regard in the ICG's future activities;

**Invites** the Secretariat to collect from Member States their feedback and preferences among the 4 scenarios prospected by JRC for the future of the WebCritech applications, communicating them back to JRC by the end of January 2025;

**Encourages TSPs** and NTWCs to contact respective NAVAREA operators in order to understand the characteristics and expectations of maritime products provision;

**Appreciates** the contributions made by DG ECHO under the European Union Civil Protection Mechanism (UPCM) to support the development and improvement of tsunami early warning systems and preparedness in the NEAM region (such as CoastWAVE projects, ARISTOTLE-ENHSP, NEAMCOMMITMENT project amongst others), and **notes** that these efforts, as well as those of the ICG should be considered as a valuable contribution to the Early Warning for All (EW4All) initiative and EU Disaster Resilience Goals;

**Welcomes** the new members of the WGs and TTs and suggests to further discuss the topic of the mechanism of the membership in the new TT on Governance;

**Welcomes** the new co-chairs of the new Task Team on Governance Ignacio Aguirre Ayerbe (IHCantabria, Spain) and Musavver Didem Cambaz (KOERI, Türkiye).

**Welcomes** the provisional offer of Italy to host the ICG/NEAMTWS-XX session;

**Appendix 1 to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

**Terms of References for Working Groups 2 and 3 on Seismic  
and Sea Level Measurements**

**Mandate**

The working group will be responsible for:

- i. Defining, based on existing organizations and functions, detection transnational networks, like seismic, geophysical and sea-level/marine networks as part of early warning tsunami detection instruments;
- ii. Providing recommendations on the data processing and analysis;
- iii. Providing a list of possible sea level stations for the NEAMTWS.

**Appendix 2 to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

**Terms of Reference of the ICG/NEAMTWS Task Team on Documentation**

**Mandate**

The Task Team will:

- i. Coordinate inputs from Tsunami Service Providers (TSPs), Working Groups and the Task Team on Operations and the Technical Secretariat to produce the NEAMTWS Strategy and Operational User Guide (OUG);
- ii. Report to ICG/NEAMTWS Steering Committee in March/April 2024 and subsequent ICG/NEAMTWS session.

**Modus operandi**

The Task Team will mainly work by correspondence but will meet by teleconference as required.

**Membership**

- The ICG/NEAMTWS Officers;
- All TSP representatives;
- Co-Chairpersons of existing NEAMTWS Task Teams and Working Groups;
- Co-Chairpersons of the Task Team will be appointed by the ICG/NEAMTWS Chairperson in consultation with Vice-Chairpersons for a one-year term;
- Reappointed, if needed, on a rotational basis.

### **Appendix 3 to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

#### **Terms of Reference of the ICG/NEAMTWS Task Team on Tsunami Exercise**

##### **Mandate**

The Task Team will:

- i. Collaborate with TSPs and NTWCs for the preparation of exercise scenarios
- ii. Support the ICG/NEAMTWS Secretariat to finalize NEAMWave23 Evaluation report;
- iii. Work on the preparations of the next NEAMWave exercise, in cooperation with the exercise team;
- iv. Update the NEAMWave Exercise Manual and online forms for subscription and evaluation, in collaboration with the ICG/NEAMTWS Secretariat;
- v. Support the ICG/NEAMTWS Secretariat in the organization of online meetings for exercise preparation.

### **Appendix 4 to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

#### **Terms of Reference of the ICG/NEAMTWS Task Team on Operations**

##### **Mandate**

- i. The Task Team on Operations will facilitate improvements and harmonization of operational implementation of warning centres/systems through:
- ii. Continue to improve the Performance Monitoring Framework for NEAMTWS upstream components, based on the functions-requirements defined in the approved accreditation procedure and performance indicators developed for Communication Test Exercises;
- iii. Advice on the modalities of operation, interoperability, methods and standards for the development and issuance of warnings, such as methods and reporting of magnitudes, and requirements in terms of coordination and operation of NEAMTWS;
- iv. Foster and propose a technical solution for real-time data exchange among TSPs and possible new CTSPs;
- v. Evaluate the recommendations made by the inter-ICG/TOWS Working Group on Tsunami Operation for possible implementation by ICG/NEAMTWS;
- vi. Advice on arrangements for redundancy and back-up arrangements;
- vii. Support the Task Team on Documentation;
- viii. Continue the assessment of the Global Service Definition Document and investigate its adaptability by the NEAMTWS and report progress to ICG/NEAMTWS-XVIII.

##### **Modus operandi**

The Task Team will mainly work by correspondence and if required, another one in preparation for the next ICG meeting.

## **Membership**

- The ICG Officers;
- All TSP Representatives;
- NTWC, TWFP and CPA Representatives;
- Co-Chairpersons of existing NEAMTWS Task Teams and Working Groups;

Co-Chairpersons of the Task Team will be appointed by the ICG/NEAMTWS Officers and will be reappointed on a rotational basis every year.

## **Appendix 5 to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

### **Terms of Reference of the ICG/NEAMTWS Task Team on Tsunami Ready**

#### **Mandate**

- i. The Task Team on Tsunami Ready Team will:
- ii. Promote the Tsunami Ready Programme in the NEAM region and encourage Member States to join the programme;
- iii. Coordinate and foster cooperation among NEAM countries and other regions worldwide on the Tsunami Ready Programme in place, as well as exchange knowledge, experiences and best practices;
- iv. Provide advice on the procedures to achieve a Tsunami Ready recognition;
- v. Adapt the standards in NEAM region according to the IOC UNESCO Tsunami Ready guidelines;
- vi. Report to and have a strong interaction with the ICG/NEAMTWS/WG4.

#### **Modus operandi**

The Task Team on Tsunami Ready will mainly work by correspondence. Online meetings will be scheduled as required and agreed.

#### **Membership**

Nominated experts by Member States according to IOC Circular Letter, [2821](#). The list of experts can be updated by Member States, if needed;

- WG 4 members on request to join the Task Team of Tsunami Ready through their respective Tsunami National Contacts; Steering Committee members.

## **Appendix 6 to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

### **Terms of Reference of the ICG/NEAMTWS Task Team on Non-Seismic Tsunamis**

- i. To explore potential approaches to assess hazard, monitor, and to warn for non-seismic tsunamis (e.g., volcanoes, landslides including earthquake-induced landslides, meteotsunamis).
- ii. Identify critical areas in the NEAM region which may serve as test cases to guide future risk management measures.

## **Modus operandi**

The Task Team on Non-seismic tsunami will mainly work by correspondence. Online meetings will be scheduled as required and agreed.

## **Membership**

The Task Team will be composed of:

- All TSP Representatives;
- NTCW Representatives;
- CPA Representatives of TSP/NTWC countries
- Co-Chairpersons of existing NEAMTWS Task Teams and Working Groups.

## **Appendix 7 to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

### **Terms of Reference of the ICG/NEAMTWS Steering Committee**

#### **Mandate**

The Steering Committee shall coordinate and integrate the work of ICG/NEAMTWS in the intersessional periods, as implemented through the various Working Groups and Task Teams, including but not limited to:

Monitor performance and interoperability of the NEAMTWS and report to ICG/NEAMTWS;

- i. Implement decisions and recommendations of the ICG and provide strategic advice on the implementation of the NEAMTWS;
- ii. Identify relevant funding sources taking account of the resource implications of approved activities;
- iii. Facilitate implementation at the level of the ICG of relevant resolutions, decisions and recommendations of the IOC governing bodies;
- iv. Evaluate the feasibility of implementation of the recommendations of the Working Group on Tsunamis and Other Hazards related to Sea-Level Warning and Mitigation Systems (TOWS-WG) in NEAMTWS;
- v. Develop and maintain the NEAMTWS Implementation Plan and Interim Operations Users Guide;
- vi. Examine continuing compliance of Tsunami Service Providers (TSPs) with the adopted operational and organizational function and requirements;
- vii. Implement the procedures as adopted and the Terms of References (ToRs) for the accreditation of Candidate Tsunami Service Providers (CTSPs);
- viii. Nominate accreditation teams, foster the accreditation process during the coming year;
- ix. Liaise with the Steering Committees of equivalent structures of other ICGs;
- x. Consider the potential re-organization of Working Groups and Task Teams structure;
- xi. Promote increased awareness of NEAMTWS.

#### **Modus operandi**

The Steering Committee will mainly work by correspondence, but hold a coordination meeting prior to each ICG session. Other meetings will be held as needed.

#### **Membership**

- The ICG/NEAMTWS Officers (Chairperson and two Vice-Chairpersons);
- The Co-Chairpersons of ICG/NEAMTWS Working Groups and Task Teams;
- Representatives of TSPs
- Representatives to TOWS Task Team on Disaster Management and Preparedness (TT-DMP) and Task Team on Tsunami Watch Operations (TT-TWO)
- Members of the Ocean Decade Tsunami Programme: Scientific Committee and Tsunami Coalition.



**Annex I to Decisions and Recommendations ICG/NEAMTWS-XIX.1**

**Recommendations of Working Group 1 on Hazard Assessment and Modelling, Working Group 2 and 3 on Seismic, Geophysical and Sea level Measurements and the Task Team on Non-Seismic Tsunami Sources**

**Recommendations:**

- i. To organise workshops and/or webinars as applicable on non-seismic tsunami with a focus on volcanic processes as a preliminary step.
- ii. To develop future bulletin formats including tsunami from non-seismic sources.
- iii. In view of the TSP-IOT (Tsunami Service Providers Interoperability Tool) that will be developed in the framework of the EPOS-ON project, we recommend that the forecast points information (coordinates, names and country) will be updated and made available in order to be included in the TSP-IOT. This is also aligned with the sensors information that WG2/3 started to collect in the NEAM region.

**General Recommendations:**

- i. WG1 acknowledges the recommendations of the last ICG/NEAMTWS -XVIII with a special emphasis on the guidelines within the CoastWAVE 2.0 Project.
- ii. The WG2/3 acknowledges the ongoing challenge of low availability of near real time data for coastal hazard monitoring along some coastlines including the North African and Eastern Mediterranean within the NEAM region. This may be due to the sparsity of tide gauge stations but may also be attributable to tide gauges that are operated for other purposes. The WG recommends densifying networks with low costs and low maintenance devices and simultaneously working with the EuroGOOS Tide Gauge Task Team and their data tools to promote data sharing and identify true monitoring gaps in the region.
- iii. Requests from NTWCs information about instrumentation, projects as well as data availability and restrictions on use or share.
- iv. To estimate the part of deterministic/probabilistic to include in tsunami hazard maps and how this would be valuable to users and Member States.
- v. To propose standards and guidelines to elaborate flooding maps for evacuation maps in connection with CoastWave2.0 project, with a special emphasis on how to use the PTHA products to sharpen information to be provided.
- vi. To interact with and exploit the synergies between the WG and the GTM.
- vii. To leverage in other projects results as a way to achieve WG goals.
- viii. To foster collaboration with the Thematic Core Service (TCS) Tsunami (EPOS)
- ix. To include non-seismic sources in all discussion, modelling, hazard and risk assessment, and early warning.
- x. To explore the potential of machine learning techniques and AI approaches in Early Warning.
- xi. To find a mechanism to promote WG activities during the intersessional period.

**Recommendations of Working Group 4 on Public Awareness,  
Preparedness and Mitigation**

**Recommendations:**

- i. Contribute to the development and update of the NEAMTIC products (web pages, news, press releases, photos, videos, multimedia and social media) of Member States and TSPs, translate and release them to NEAM countries and increase public awareness.
- ii. Update NEAMTIC website noting that at the moment, there is quite a poor visibility and accessibility on NEAMTIC/ICG-NEAMTWS website (old site is not working anymore, but the new one is not complete) regarding documents, flyers, booklets, posters, procedures, etc.
- iii. Cooperate with Task Team on Tsunami Ready and CoastWAVE 2 project for improving tsunamis awareness and response to tsunami.
- iv. Continue studies to better understand risk perception (both for tourists and locals).
- v. Collect and compare results of risk perceptions studies from Member States for creating future surveys and risk communication strategies.
- vi. Analyse multiple means to improve tsunami risk communication.
- vii. Prepare and share educational / informative packages regarding tsunamis for schools, in different languages.

**Recommendations of the Task Team on Tsunami Ready**

**Recommendations:**

- i. Strengthen the promotion of the TRRP among key stakeholders in the NEAM region by organizing an annual event (online workshop) for the promotion and explanation of the TRRP in NEAM region, for a wide audience including TNCs, especially representatives of municipalities from NEAM countries at risk, civil protection officials from all levels, and institutions that can provide support to meet all TRRP requirements.
- ii. Organise annual coordination meetings between TT-TR, WG4, and NEAMTWS Technical Secretariat.
- iii. Translate [IOC Manuals and Guides, 74](#) and tsunami-related brochures into other languages.
- iv. Identify critical points and suggest modifications to MG74 for a better adaptation to the NEAM region.
- v. The ICG to centralize the TRRP information and resources on the NEAMTIC portal. Additionally, enhancing the online presence of Tsunami Ready activities and resources is necessary.
- vi. Continue promoting TR activities during the next intersessional period.

**Welcomes** the new TT members.

**Acknowledges** the progress made in developing a TR toolkit and looks forward to its presentation at the upcoming TOWs meeting.

**Advises** the ICG to establish the role of the Tsunami Ready Focal Point and to issue a Circular Letter (CL) to the Member States via official channels, requesting nominations for this position.

<b>Recommendations of the Task Team on Tsunami Exercises</b>
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- i. To reschedule the next NEAMWave tsunami exercise and plan for its execution in 2026 (NEAMWave26), considering the timeline for Tsunami Ready activities within the CoastWAVE Project Phase 2.0, and facilitating the implementation of full-scale Phase B exercises by the project Member States;
- ii. To organize the NEAMWave exercise with a more flexible schedule, featuring one or two scenarios per week (based on the total number of scenarios), rather than condensing all scenarios into consecutive days;
- iii. To develop exercise scenarios through collaboration between TSPs and NTWCs, ensuring that the messages are tailored to address the specific needs of the Member States;
- iv. TSPs to co-operate and prepare one or more joint exercise scenarios and make the exercise more challenging in such a way that they can disseminate different alert messages for the same joint exercise scenario;
- v. To revise and enhance the online tools (subscription and evaluation) to make them more user-friendly. The subscription process should be streamlined to more effectively capture participant numbers, and simplified by explicitly requesting "new" contact details for the exercise when necessary and allowing the registration of new participants beyond the current subscribers to TSPs' services;
- vi. To base the statistics and assessment of participation in the exercise solely on the evaluation forms, rather than the subscription forms;
- vii. To investigate the potential for further testing of the use of Galileo EWS for message dissemination. NEAMWave Exercise Manual should be updated to illustrate the termination of fax message dissemination, while other dissemination methods like SMSs, CAP-TSU or automated phone calls should be explored, in order to evaluate the effectiveness and feasibility of non-internet-based methods, as alternative dissemination ways of sharing information. Moreover, TSPs to consider the live streaming of their activities during the exercise through an online platform;
- viii. To organize NEAMWave Preparation Meeting(s) between the TT-TE Exercise Team and targeted participant groups, like TSPs, TWFPs, CPAs etc. prior to the exercise for explaining the details of exercise scenarios and discussing on the progress of NEAMWave activities;
- ix. To organize online meetings with ERCC for discussing about the best practices in the implementation of Phase C, such as definition of minimum criteria for implementing Phase C, keeping the contact list of the national contact points up to date, etc;
- x. TNCs of Member States to encourage Civil Protection Authorities in their country to participate in future NEAMWave exercises;
- xi. Simplifying the NEAMWave Final Evaluation Reports to improve efficiency and make them more user-friendly;
- xii. Limiting the content and length of TSPs Final Evaluation Reports to specific bullet points, including a summary of exercise performance, along with suggestions and recommendations;
- xiii. To change the name of Task Team on Tsunami Exercise to Task Team on NEAMWave Exercise (TT-NEAMWave), following the practice in other ICGs.

<p style="text-align: center;"><b>Recommendations of the Task Team on Operations and the Task Team on Documentation</b></p>
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- i. To emphasize in all possible ways the need to receive seismic and sea level data from the North African Coast to reduce the seismic and sea level observational gap to the South Mediterranean Sea
- i. To organise a TSP/NTWC meeting in January in Lisbon to discuss operational tsunami forecasting methods.
- ii. To prepare a template for the implementation of the threat levels in the TSP messages until December for consideration and feedback of the WG4 which agreed – feedback will be provided until March in written form and discussed during an online meeting.
- iii. To organize another TSP/NTWC meeting in Istanbul in May towards finalization of the OUG.

## ANNEX II

### AGENDA

- 1. OPENING**
- 2. ORGANIZATION OF THE SESSION**
  - 2.1 Adoption of the agenda
  - 2.2 Designation of the rapporteur
  - 2.3 Conduct of the session, timetable and documentation
  - 2.4 Establishment of sessional committees and WGs
- 3. REPORTS ON ICG/NEAMTWS INTERSESSIONAL ACTIVITIES**
  - 3.1 Report by the Chairperson
  - 3.2 Report by IOC Secretariat
  - 3.3 Reports by other ICGs
  - 3.4 Reports by other Intergovernmental Organizations (JRC etc.)
  - 3.5 Reports by the Working Groups and Task Teams
- 4. IMPLEMENTATION**
  - 4.1 Report on CoastWAVE Project 2.0
  - 4.2 Reports from Tsunami Service Providers and National Tsunami Warning Centres
  - 4.3 Reports from Civil Protection Agencies
  - 4.4 Reports on other major Projects Related to NEAMTWS
  - 4.5 Reports on UNESCO/IOC Tsunami Ready Programme Implementation
  - 4.6 Report on NEAMWave23 Exercise Evaluation
  - 4.7 Reports on the World Tsunami Awareness Day (WTAD, 5 November)
- 5. POLICY MATTERS**
  - 5.1 Review of TOWS-WG /IOC-EC-57 Decisions and Recommendations
  - 5.2 Reports on Ocean Decade, Ocean Decade Tsunami Programme and Research Development and Implementation Plan
  - 5.3 Early Warning for All and DRR Process
  - 5.4 Report on the Second Global Tsunami Symposium
  - 5.5 Governance and Reorganization
  - 5.6 Maritime Products
- 6. PROGRAMME FOR 2025**
  - 6.1 Activities scheduled for 2025
  - 6.2 Establishment of intersessional working groups and TTs
- 7. DATE AND PLACE FOR ICG/NEAMTWS-XX**
- 8. ANY OTHER BUSINESS**
- 9. ADOPTION OF DECISIONS AND RECOMMENDATIONS**
- 10. CLOSING**



ANNEX III

LIST OF PARTICIPANTS

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ANNEX V

**LIST OF ACRONYMS**

<b>AGITHAR</b>	Accelerating Global science In Tsunami Hazard And Risk analysis
<b>ANPC</b>	Autoridade Nacional de Proteccao Civil
<b>CATAC</b>	Central America Tsunami Advisory Center
<b>CAP</b>	Common Alert Protocol
<b>CARIBE-EWS</b>	Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions
<b>CEA</b>	Commissariat à l'énergie atomique et aux énergies alternatives (France)
<b>CAT</b>	Centro Allerta Tsunami (INGV-Italy)
<b>CENALT</b>	CENtre d'Alerte aux Tsunamis, France
<b>COP</b>	Conference of the Parties
<b>CPA</b>	Civil Protection Authority
<b>cTCS</b>	Candidate Thematic Core Service on Tsunami
<b>CTE</b>	Communication Test Exercise
<b>EC-DG-DEFIS</b>	Directorate General for Defense, Industry and Space
<b>EU-DG-ECHO</b>	Directorate-General of the European Commission's Humanitarian Aid Office
<b>EGU</b>	European Geoscience Union
<b>ENC</b>	Elections Nominations Committee
<b>EPOS</b>	European Plate Observing System
<b>ERCC</b>	Emergency Response and Coordination Center
<b>EWSS</b>	Galileo Emergency Warning Satellite Service
<b>EW4ALL</b>	Early Warnings for All
<b>GFZ</b>	German Research Centre for Geosciences
<b>GSDD</b>	Global Service Definition Document
<b>GNSS</b>	Global Navigation Satellite System
<b>GTM</b>	Global Tsunami Model
<b>GTS</b>	Global Telecommunication System
<b>GPS</b>	Global Positioning System
<b>HTHH</b>	Hunga Tonga Hunga Ha'apai
<b>ICG</b>	Intergovernmental Coordination Group
<b>ICERI</b>	International Conference of Education, Research and Innovation
<b>PTWS</b>	Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System

<b>IGN</b>	National Geographic Institute (Spain)
<b>INGV</b>	Istituto Nazionale di Geofisica e Vulcanologia (Italy)
<b>IPMA</b>	Instituto Português do Mar e da Atmosfera (Portugal)
<b>IOT</b>	Inter-Operability Tool
<b>IOC</b>	Intergovernmental Oceanographic Commission (UNESCO)
<b>JCB</b>	Joint Collaborative Board
<b>JRC</b>	Joint Research Centre
<b>JICA</b>	Japan International Cooperation Agency
<b>KOERI</b>	Kandilli Observatory and Earthquake Research (Türkiye)
<b>LDS</b>	Least Developed States
<b>METU</b>	Middle East Technical University, Türkiye
<b>MHEWS</b>	Multi-Hazard Early Warning Systems
<b>MOU</b>	Memorandum of Understanding
<b>NIOF</b>	National Institute of Oceanography and Fisheries, Egypt
<b>NEAMTWS</b>	Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas
<b>NEAMTIC</b>	Tsunami Information Centre for the North-Eastern Atlantic, the Mediterranean and Connected Seas
<b>NIEP</b>	National Institute for Earth Physics, Romania
<b>NOA</b>	National Observatory of Athens, Greece
<b>NTWC</b>	National Tsunami Warning Centre
<b>NTRB</b>	National Tsunami Ready Board
<b>ODTP</b>	Ocean Decade Tsunami Programme
<b>OUG</b>	Operational Users Guide
<b>PTHA</b>	Probability Tsunami Hazard Assessment
<b>PTWC</b>	Pacific Tsunami Warning Centre
<b>QZSS</b>	Quasi-Zenith Satellite System
<b>SMART</b>	Science Monitoring and Reliable Communications
<b>SOPs</b>	Standard Operating Procedures
<b>SIDS</b>	Small Island Developing States
<b>TEWS</b>	Tsunami Early Warning System
<b>TEMPP</b>	Tsunami Evacuation Maps, Plans, and Procedures
<b>TNC</b>	Tsunami National Contact
<b>ToR</b>	Terms of Reference
<b>TOWS-WG</b>	Working Group on Tsunamis and Other Hazards related to Sea-Level Warning and Mitigation Systems
<b>TRRP</b>	Tsunami Ready Recognition Programme

<b>TSP</b>	Tsunami Service Provider
<b>TSR</b>	Tsunami Service Recipient
<b>TSUMAPS</b>	TSUnami hazard MAPS in the NEAM Region
<b>TT</b>	Task Team
<b>TTL</b>	Tsunami Threat Levels
<b>TGV</b>	Tsunamis Generated by Volcanos
<b>TWFP</b>	Tsunami Warning Focal Point
<b>TT-DMP</b>	Task Team on Disaster Management and Preparedness
<b>TT-TWO</b>	Task Team on Tsunami Watch Operations
<b>TT-FOO</b>	Task Team on Forecasting from Ocean Observations
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNDRR</b>	United Nations Office for Disaster Risk Reduction
<b>WG</b>	Working Group
<b>WMO</b>	World Meteorological Organization
<b>WTAD</b>	World Tsunami Awareness Day