



Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS)

Tenth Session

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Executive summary

The Tenth Session of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS-X) was held in Philipsburg, Sint Maarten, from 19 to 21 May 2015, hosted by the Government of Sint Maarten. The meeting was attended by 56 participants from 19 Caribbean countries and territories and 4 organizations: Caribbean Tsunami Information Center (CTIC), Puerto Rico Seismic Network ([PRSN](#)), [UNAVCO](#), and the University of the West Indies Seismic Research Centre ([SRC](#));

The ICG recognized the Caribbean Tsunami Information Center (CTIC) essential function in the region and its potential to attract funding for preparedness projects and **acknowledged** the contribution of Barbados to host CTIC, and the continuing efforts of Venezuela and France to realize the support as promised;

The ICG encouraged Member States to have this priority addressed by the Director General during the UNESCO General Conference and **recommended** the U.S. contribution of the Caribbean Tsunami Warning Program ([CTWP](#)) be recognized as a formal component of CTIC; fulfilling parts of the ToR that the CTIC is currently unable to accomplish with its resource constraints;

The ICG recognized the efforts of the Continuously Operating Caribbean GPS Observational Network ([COCONet](#)) and the Trans-boundary, Land and Atmosphere Long-term Observational and Collaborative Network ([TLALOCNet](#)) projects to deploy continuous GPS networks and the installation of three GNSS data centres in the region, and **encouraged** GNSS network operators to contribute continuous data to COCONet and help COCONet to maintain an inventory of the existing continuous real-time GNSS stations in the region;

The ICG endorsed [NASA](#)'s and [NOAA](#)'s exploration of a GNSS-based tsunami early warning capability throughout the Caribbean and Adjacent Regions;

The ICG requested the CTWP to continue producing monthly maps and reports based on current CARIBE-EWS sea-level and seismic stations and available real-time stations in the region, and **acknowledged** the effort of Aruba for offering to host a sea-level data center for the region;

The ICG urged Member States that do not have tsunami evacuation maps to develop a preliminary tsunami evacuation map based on a fixed-height in accordance to the guidelines. It also **recommended** Member States with tsunami inundation maps and no tsunami evacuation maps to continue the efforts underway to keep working towards the development of tsunami evacuation maps;

The ICG decided that Exercise Caribe Wave 16 will have two scenarios, a Northern Hispaniola and a Northern Venezuela event and **further decided** that the exercise takes place on Thursday, 17 March 2016 and commences at 1500 UTC and 1400 UTC for the Hispaniola and Venezuelan scenarios, respectively. The **ICG also recommended** that the Task Team Caribe Wave 16 begin to consider volcanic or landslide tsunami sources as potential scenarios for future exercises;

The ICG acknowledged the scientific and technological advances that have been made since the formation of the CARIBE-EWS to better forecast tsunami impacts in real time and to present forecast information graphically; and **accepted** that the Enhanced Products do not contain alert levels and that Member States will now be fully responsible for tsunami alerts in their own countries and territories according to their Standard Operating Procedures (SOPs);

The ICG agreed with the Pacific Tsunami Warning Center (PTWC) proposed implementation schedule that begins issuance of the Enhanced Products in parallel with current products on 1 October 2015 and fully transitions to the new products on 1 March 2016, as indicated under Recommendation ICG/CARIBE-EWS-X.5;

The ICG recommended the approval of the guidelines for the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions as outlined in Appendix I of Recommendation ICG/CARIBE-EWS-X.6, for implementation on a pilot basis; it **also recommended** consultation with the US regarding the adoption of the name “Tsunami Ready” with the corresponding French, Spanish and Dutch translations and other relevant languages as the official name for the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions;

The ICG invited Member States and donor agencies to support pilot projects under the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions;

The ICG accepted Nicaragua’s offer to host and develop the Central America Tsunami Advisory Center (CATAC) as a sub-regional Tsunami Service Provider (TSP) under the guidance of the PTWS Regional Working Group for Central America Pacific Coast and within the framework of ICG/PTWS, ICG/CARIBE-EWS and TOWS-WG;

The ICG accepted the offer from Colombia to host the Eleventh Session of ICG/CARIBE-EWS in May 2016 and **acknowledged** the offer of Costa Rica to host the Twelfth Session in 2017.

Résumé exécutif

La 10e session du Groupe intergouvernemental de coordination du Système d'alerte aux tsunamis et autres risques côtiers dans la mer des Caraïbes et les régions adjacentes (GIC/CARIBE-EWS-X) s'est tenue à Philipsburg, Sint Maarten, du 19 au 21 mai 2015, à l'invitation du Gouvernement de Sint Maarten. Elle a réuni 56 participants de 19 pays et territoires des Caraïbes ainsi que quatre organisations : le Centre d'information sur les tsunamis dans les Caraïbes (CTIC), le Réseau sismique de Porto Rico (PRSN), l'UNAVCO et le Centre de recherches sismiques (SRC) de l'Université des Indes occidentales.

Le GIC a souligné le rôle essentiel du Centre d'information sur les tsunamis dans les Caraïbes (CTIC) dans la région ainsi que son aptitude à mobiliser des fonds en faveur de projets de préparation aux catastrophes, et a salué la contribution de la Barbade, qui accueille le CTIC, ainsi que les efforts continus de la France et du Venezuela en vue de concrétiser le soutien annoncé.

Le GIC a encouragé les États membres à faire en sorte que cette priorité soit abordée par la Directrice générale lors de la Conférence générale de l'UNESCO et a recommandé que la contribution des États-Unis que constitue le Programme d'alerte aux tsunamis dans les Caraïbes (CTWP) soit reconnue comme une composante officielle du CTIC, permettant de remplir certaines missions du CTIC que celui-ci n'est pas en mesure de mener à bien actuellement, faute de ressources suffisantes.

Le GIC a salué les efforts accomplis par le Réseau de stations GPS exploité en continu dans les Caraïbes (Continuously Operating Caribbean GPS Observational Network, COCONet) et le Réseau transfrontalier et collaboratif d'observation terrestre et atmosphérique à long terme (Trans-boundary, Land and Atmosphere Long-term Observational and Collaborative Network, TLALOCNet) en vue de déployer des réseaux GPS fonctionnant en continu, ainsi que l'installation de trois centres de données GNSS dans la région, et a encouragé les opérateurs du réseau GNSS à fournir au réseau COCONet des données recueillies en continu et à aider COCONet à tenir l'inventaire des stations GNSS diffusant actuellement en continu et en temps réel dans la région.

Le GIC a approuvé l'étude par la NASA et la NOAA d'un dispositif d'alerte rapide aux tsunamis exploitant le réseau GNSS dans les Caraïbes et les régions adjacentes.

Le GIC a prié le CTWP de continuer à publier chaque mois des cartes et des rapports à partir des données des stations sismiques et d'observation du niveau de la mer existantes du CARIBE-EWS et des stations en temps réel disponibles dans la région, et **a salué** les efforts d'Aruba, qui propose d'accueillir un centre de données relatives au niveau de la mer pour la région.

Le GIC a vivement encouragé les États membres qui ne disposent pas de cartes d'évacuation en cas de tsunami à élaborer une carte préliminaire d'évacuation selon une hauteur fixe, conformément aux lignes directrices. **Il a aussi recommandé** aux États membres dotés de cartes d'inondation par les tsunamis mais ne disposant pas de cartes d'évacuation en cas de tsunami de poursuivre leurs efforts en vue de parvenir à établir ces cartes d'évacuation.

Le GIC a décidé que l'exercice Caribe Wave 16 reposerait sur deux scénarios, l'un se déroulant au nord d'Hispaniola et l'autre au nord du Venezuela. Il a en outre été décidé que l'exercice aurait lieu le jeudi 17 mars 2016 et débiterait à 15:00 UTC pour Hispaniola et à 14:00 UTC pour le Venezuela. **Le GIC a également recommandé** à l'équipe spéciale chargée de superviser l'exercice Caribe Wave 16 de commencer à envisager, en tant

qu'éventuels scénarios pour de futurs exercices, des tsunamis provoqués par une éruption volcanique ou un glissement de terrain.

Le GIC a pris acte des progrès scientifiques et technologiques accomplis depuis la mise en place de CARIBE-EWS et permettant de mieux prévoir les effets des tsunamis en temps réel et de présenter ces informations sous forme de graphiques, et **a accepté** que les produits améliorés ne comportent pas de seuils d'alerte et que les États membres soient désormais les seuls responsables des alertes aux tsunamis dans leurs propres pays et territoires conformément à leurs procédures opérationnelles normalisées (SOP).

Le GIC a approuvé le calendrier de mise en œuvre proposé par le Centre d'alerte aux tsunamis dans le Pacifique (PTWC), qui prévoit que la diffusion des produits améliorés parallèlement aux produits actuels débute le 1er octobre 2015 et que la transition vers les nouveaux produits soit entièrement achevée le 1er mars 2016, comme indiqué dans la recommandation ICG/CARIBE-EWS-X.5.

Le GIC a recommandé l'approbation des directives relatives au Programme communautaire de reconnaissance des tsunamis fondée sur la performance pour les Caraïbes et les régions adjacentes, telles qu'énoncées dans l'Appendice I de la recommandation ICG/CARIBE-EWS-X.6, en vue de leur application à titre expérimental. **Il a également recommandé** de consulter les États-Unis concernant l'adoption de l'appellation « Tsunami Ready » – et des traductions correspondantes en français, en espagnol, en néerlandais et dans les autres langues concernées – comme nom officiel du Programme communautaire de reconnaissance des tsunamis fondée sur la performance pour les Caraïbes et les régions adjacentes.

Le GIC a invité les États membres et les organismes donateurs à soutenir les projets pilotes menés au titre du Programme communautaire de reconnaissance des tsunamis fondée sur la performance pour les Caraïbes et les régions adjacentes.

Le GIC a accepté l'offre du Nicaragua, qui a proposé d'accueillir et de mettre en place le Centre consultatif sur les tsunamis en Amérique centrale (CATAC) en tant que Prestataire sous-régional de services relatifs aux tsunamis (TSP), sous la supervision du groupe de travail régional du PTWS pour la côte Pacifique de l'Amérique centrale et dans le cadre du GIC/PTWS, du GIC/CARIBE-EWS et du TOWS-WG.

Le GIC a accepté l'offre de la Colombie d'accueillir la onzième session du GIC/CARIBE-EWS en mai 2016 et a pris acte de la proposition du Costa Rica d'accueillir la douzième session en 2017.

Resumen dispositivo

La 10ª reunión del Grupo Intergubernamental de Coordinación del Sistema de Alerta contra los Tsunamis y otras Amenazas Costeras en el Caribe y Regiones Adyacentes (ICG/CARIBE-EWS-X), cuyo anfitrión fue el Gobierno de Sint Maarten, tuvo lugar en Philipsburg (Sint Maarten) del 19 al 21 de mayo de 2015. A la reunión asistieron 56 participantes de 19 países y territorios del Caribe y 4 organizaciones: el Centro de Información sobre los Tsunamis en el Caribe (CTIC), la Red Sísmica de Puerto Rico ([PRSN](#)), [UNAVCO](#) y el Centro de Investigación Sísmica de la Universidad de las Indias Occidentales ([SRC](#)).

El ICG reconoció la función esencial del Centro de Información sobre los Tsunamis en el Caribe (CTIC) en la región y su potencial para captar financiación para proyectos relacionados con la preparación, y **agradeció** la contribución de Barbados para albergar el CTIC, así como los continuos esfuerzos de Venezuela y Francia para hacer efectivo el apoyo según lo prometido.

El ICG alentó a los Estados Miembros a velar por que la Directora General abordase esta prioridad en la Conferencia General de la UNESCO y **recomendó** que la contribución de los Estados Unidos de América por conducto del Programa de Alerta contra los Tsunamis en el Caribe ([CTWP](#)) se reconociera como un componente oficial del CTIC, que cubría diversos aspectos del mandato del CTIC que este no podía cumplir debido a sus limitaciones de recursos.

El ICG reconoció los esfuerzos llevados a cabo a través de los proyectos de la Red de observación continua por GPS del Caribe ([COCONet](#)) y la Red de colaboración y observación terrestre, atmosférica y transfronteriza a largo plazo ([TLALOCNet](#)) para instalar redes de GPS de funcionamiento continuo y tres centros de datos del GNSS en la región, y **alentó** a los operadores de redes del GNSS a proporcionar datos continuos a COCONet y a ayudar a esta red a llevar un inventario de las estaciones del GNSS de datos continuos y en tiempo real existentes en la región.

El ICG respaldó el estudio de la [NASA](#) y la [NOAA](#) sobre un sistema de alerta temprana contra los tsunamis para el Caribe y sus regiones adyacentes basado en el GNSS.

El ICG pidió al CTWP que siguiera elaborando mapas e informes mensuales a partir de los datos de las estaciones sísmológicas y de medición del nivel del mar de que disponía el CARIBE-EWS y de las estaciones de medición en tiempo real existentes en la región, y **agradeció** el ofrecimiento de Aruba de albergar un centro de datos sobre el nivel del mar para la región.

El ICG instó a los Estados Miembros que no disponían de mapas de evacuación en caso de tsunami a elaborar un mapa de evacuación preliminar basado en una altura fija de acuerdo con las directrices. Asimismo, el ICG **recomendó** a los Estados Miembros que disponían de mapas de inundación en caso de tsunami pero no de evacuación que siguieran trabajando para elaborar mapas de evacuación en caso de tsunami.

El ICG decidió que el ejercicio Caribe Wave 16 constara de dos hipótesis, una en el norte de La Española y otra en el norte de Venezuela, y **decidió además** que el ejercicio se llevara a cabo el jueves 17 de marzo de 2016 y comenzara a las 15.00 UTC y a las 14.00 UTC, respectivamente, para las hipótesis de La Española y de Venezuela. El ICG **recomendó también** que el equipo de trabajo sobre el ejercicio Caribe Wave 16 comenzase a contemplar como posibles hipótesis para futuros ejercicios los tsunamis generados por volcanes o corrimientos de tierras.

El ICG expresó su reconocimiento por los avances científicos y tecnológicos logrados desde la creación del CARIBE-EWS para mejorar la previsión de los efectos de los tsunamis en tiempo real y presentar gráficamente la información sobre las previsiones; asimismo, el ICG **aceptó** que los productos mejorados no incluyeran niveles de alerta y que, en lo sucesivo, los Estados Miembros fueran plenamente responsables de las alertas por tsunami en sus propios países y territorios de conformidad con sus procedimientos normalizados de operaciones (SOP).

El ICG mostró su conformidad con el calendario de introducción propuesto por el Centro de Alerta contra los Tsunamis en el Pacífico ([PTWC](#)), según el cual los productos mejorados comenzarían a distribuirse el 1º de octubre de 2015 de forma paralela a los productos existentes y la transición completa a los nuevos productos se produciría el 1º de marzo de 2016, como se indicaba en la recomendación ICG/CARIBE-EWS-X.5.

El ICG recomendó la aprobación de las directrices para el programa de acreditación de la preparación comunitaria frente a los tsunamis del Caribe y sus regiones adyacentes que figuraban en el apéndice I de la recomendación ICG/CARIBE-EWS-X.6, para su aplicación experimental; el ICG **recomendó también** que se consultara con los Estados Unidos de América la adopción del nombre “Tsunami Ready”, con sus correspondientes traducciones al español, el francés, el neerlandés y otros idiomas pertinentes, como nombre oficial de dicho programa.

El ICG invitó a los Estados Miembros y a los organismos donantes a apoyar proyectos piloto en el marco del programa de acreditación de la preparación comunitaria frente a los tsunamis del Caribe y sus regiones adyacentes.

El ICG aceptó el ofrecimiento de Nicaragua de acoger y poner en marcha el Centro de Asesoramiento sobre los Tsunamis de América Central (CATAC) como proveedor subregional de servicios sobre tsunamis, bajo la orientación del Grupo de Trabajo regional del PTWS para la costa del Pacífico de América Central y dentro del marco del ICG/PTWS, el ICG/CARIBE-EWS y el TOWS-WG.

El ICG aceptó el ofrecimiento de Colombia de acoger la 11ª reunión del ICG/CARIBE-EWS en mayo de 2016 y **agradeció** el ofrecimiento de Costa Rica de acoger la 12ª reunión en 2017.

Рабочее резюме

Десятая сессия Межправительственной координационной группы по системе предупреждения о цунами и опасности других бедствий в прибрежных районах Карибского бассейна и прилегающих регионов (МКГ/КАРИБ-СРП-Х) состоялась в Филипсбурге, Синт Маартен, с 19 по 21 мая 2015 г. по приглашению Правительства Синт Маартена. На сессию собралось 56 участников из 19 стран и территорий Карибского бассейна и 4 организаций: Карибского центра информации о цунами (КЦИЦ), Сейсмической сети Пуэрто-Рико ([ССПР](#)), Консорциума [UNAVCO](#) и Центра сейсмических исследований Вест-Индского университета ([ЦСИ](#)).

МКГ отметила важные функции, выполняемые в регионе Карибским центром информации о цунами (КЦИЦ), и его способность привлекать финансирование на проекты по подготовке и **выразила** признательность Барбадосу за размещение КЦИЦ и Венесуэле и Франции за продолжение усилий по оказанию обещанной поддержки.

МКГ призвала государства-члены способствовать учету этого приоритета Генеральным директором в ходе Генеральной конференции ЮНЕСКО и **рекомендовала** признать вклад США в программу оповещения о цунами в Карибском бассейне ([CTWP](#)) в качестве официального компонента КЦИЦ, способствующего выполнению части Круга ведения, которую КЦИЦ в настоящий момент не способен выполнить в связи с ограниченностью его ресурсов.

МКГ отметила усилия проектов Непрерывно действующей сети наблюдений GPS в Карибском бассейне ([COCONet](#)) и Трансграничной сети долгосрочных наземных и атмосферных наблюдений и сотрудничества ([TLALOCNet](#)) по размещению непрерывно действующих сетей GPS и трех центров данных ГНСС в регионе и **призвала** операторов сетей ГНСС предоставлять на постоянной основе данные в COCONet и содействовать COCONet в поддержании реестра существующих непрерывно действующих в режиме реального времени станций ГНСС в регионе.

МКГ одобрила изучение силами [НАСА](#) и [НОАА](#) возможностей раннего предупреждения о цунами на основе ГНСС в Карибском и прилегающих регионах.

МКГ предложила ПОЦК продолжать работу по подготовке ежемесячных карт и докладов на основе данных действующих станций наблюдения за уровнем моря и сейсмичностью КАРИБ-СРП и действующих в режиме реального времени станций в регионе и **отметила** предложение Арубы по размещению регионального центра данных по уровню моря.

МКГ призвала государства-члены, которые еще не имеют маршрутов эвакуации при цунами, подготовить предварительные маршруты эвакуации при цунами на основе зафиксированной высоты уровня моря в соответствии с руководящими принципами. Она также **рекомендовала** государствам-членам, имеющим карты наводнения при цунами и не имеющим маршрутов эвакуации при цунами, продолжить ведущуюся работу по подготовке маршрутов эвакуации при цунами.

МКГ постановила, что учения «Карибская Волна-16» будут проводиться по двум сценариям с цунами на севере Гаити и на севере Венесуэлы, и **также постановила**, что учения пройдут во вторник 17 марта 2016 г. и начнутся в 15.00 ВКВ и 14.00 ВКВ для сценариев на Гаити и в Венесуэле соответственно. **МКГ также рекомендовала** целевой группе по учениям «Карибская Волна-16» приступить к рассмотрению вулканических или оползневых источников цунами в качестве основы для возможных сценариев будущих учений.

МКГ отметила научные и технологические достижения с момента создания КАРИБ-СРП, позволяющие лучше прогнозировать последствия цунами в реальном времени и предоставлять информацию о прогнозировании в графическом формате, и **согласилась** с тем, что усовершенствованные продукты не будут включать уровня угрозы и что отныне государства-члены будут нести полную ответственность за оповещения об угрозе цунами в своих странах и территориях в соответствии с их стандартными оперативными процедурами (СОП).

МКГ согласилась с предлагаемым Центром предупреждения о цунами в Тихом океане ([ЦПЦТО](#)) графиком внедрения, согласно которому использование усовершенствованных продуктов начнется 1 октября 2015 г. параллельно с действующими продуктами с полным переходом на новые продукты к 1 марта 2016 г. в соответствии с рекомендацией ICG/CARIBE-EWS-X.5.

МКГ рекомендовала утвердить руководящие принципы Программы сертификации готовности общин к цунами на основе показателей эффективности для Карибского бассейна и прилегающих регионов в соответствии с приложением I к рекомендации ICG/CARIBE-EWS-X.6 для осуществления на экспериментальной основе и **также рекомендовала** провести консультации с США относительно утверждения названия «Готов к цунами» с соответствующим переводом на французский, испанский, голландский и другие актуальные языки в качестве официального названия Программы сертификации готовности общин к цунами на основе показателей эффективности для Карибского бассейна и прилегающих регионов.

МКГ предложила государствам-членам и донорским учреждениям оказать поддержку осуществлению пилотных проектов в рамках Программы сертификации готовности общин к цунами на основе показателей эффективности для Карибского бассейна и прилегающих регионов.

МКГ приняла предложение Никарагуа создать и разместить у себя Региональный консультативный центр по цунами для Центральной Америки (САТАС) в качестве субрегионального провайдера услуг по цунами (ПУЦ) под руководством Региональной рабочей группы по системе оповещения о цунами и смягчению их последствий для Тихоокеанского побережья Центральной Америки и в рамках МКГ/СПЦТО, МКГ/КАРИБ-СРП и РГ-СПЦО.

МКГ приняла предложение Колумбии принять у себя одиннадцатую сессию МКГ/КАРИБ-СРП в мае 2016 г. и **приняла к сведению** предложение Коста-Рики принять у себя двенадцатую сессию в 2017 г.

138 Discussions about the graphical products being private (only sent to TWFP/NTWC) or
public.

139 In response to a question from France, PTWC indicated that the Enhanced Products
will be sent in parallel but only to NTWC/TWFPs.

140 The **ICG adopted** Recommendation ICG/CARIBE-EWS-X.5.

6.4. REPORT OF THE TASK TEAM ON TSUNAMI RECOGNITION PROGRAMME

141 Chair Hillebrandt-Andrade recalled that at the Eighth session of the Intergovernmental
Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the
Caribbean and Adjacent Regions ([ICG/CARIBE-EWS-VIII](#)) was held in Port of Spain,
Trinidad and Tobago, from 29 April to 1 May 2013, the ICG agreed to Instructs Working
Group 4 to establish a Task Team to develop a strategy or business proposal for a
Performance Based Tsunami Recognition Programme. She indicated that through
[Recommendation ICG/CARIBE-EWS-IX.1](#), the ICG endorsed the continuation of the work of
the Task Team on Performance Based Tsunami Recognition Programme and recommended
continued implementation of the NWS NOAA-UNESCO/IOC TsunamiReady pilot project to
support the development and validation of the CARIBE-EWS Performance Based Tsunami
Community Recognition Programme.

142 Ms Alison Brome, Interim Director CTIC, on behalf of Task Team Leader, Kerry Hinds
(Barbados), presented the report of the Task Team. She recalled that TsunamiReady™ is a
US-based tsunami recognition programme implemented since June 2001 by NWS NOAA
which aims to support community leaders and emergency managers to strengthen their local
operations that entails an application, verification and renewal processes following standard
guidelines. She also recalled that a NWS NOAA-UNESCO/IOC Pilot Project was developed
in the framework of the ICG/CARIBE-EWS to explore the applicability of this concept to the
wider Caribbean region. Under this Pilot project, 2 territory-wide recognitions were delivered,
to Anguilla (2011, renewal in 2014) and British Virgin Islands (2014). Considering the above
experiences, the Eighth session of the ICG/CARIBE-EWS in 2013 established the Tsunami
Recognition Programme Task Team to advance the development of the strategy or business
proposal for a Community Performance Based Recognition Programme including the
parameters, possible metrics or performance measures, the feasibility, and potential sources
of funding for the programme. The Task Team met in November 2013 in Mayaguez, Puerto
Rico, USA, visited 2 TsunamiReady communities, interviewed emergency management
personnel and reviewed the TsunamiReady guidelines, application form and processes. The
[Task Team](#) met again in Mayaguez, Puerto Rico, the 8 and 9 April 2015, and recommended
the Tsunami Recognition Programme to be CTIC-led (technical support & coordination,
marketing etc.), considering scalability and generic parameters, and put in place a piloting of
ICG/CARIBE-EWS Recognition Programme, including standardization (information, maps,
signage/symbols) and integration of special needs and vulnerable groups.

143 The intra-session Working Group on Tsunami Recognition Programme, Chaired by
Ms Alison Brome, reported that it reviewed in detail the [proposed Guidelines](#) and
requirements developed at the Task Team Meeting held the 8 April 2015 and further adapted
it based on the input of the Intra-session Working Group. In its deliberations, the Group
considered the experiences of Anguilla (UK), British Virgin Islands and Puerto Rico (USA). It
also discussed and agreed a definition of CARIBE-EWS Recognized Community as “A
*national/territorial/local government entity or facility that has the authority and ability to adopt
the recognition guidelines within its jurisdiction*”. The Group also proposed the composition
and broad roles of the Regional Tsunami Recognition Board and National Tsunami

Recognition Board and discussed the name of the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions

144 A brief exchange on the translation of Tsunami Ready into other languages took place, the **ICG agreed** to use the official translation of UNESCO for the terms Tsunami Ready once it becomes available.

145 The **ICG adopted** Recommendation ICG/CARIBE-EWS-X.6.

6.5. CENTRAL AMERICA TSUNAMI WARNING CENTER (CATAC)

146 Ms Hillebrandt-Andrade informed the ICG that within the framework of the ICG/PTWS Regional Working Group on Tsunami Warning and Mitigation System on the Central American Pacific Coast, its Member States have conducted consultations over a proposal of Nicaragua to establish and host a Central America Tsunami Advisory Center (CATAC). Ms Hillebrandt recalled that a Recommendation on CATAC was approved at the recent Twenty-sixth session of the ICG/PTWS and was made available through the [meeting website](#).

147 Mr Strauch reported that Nicaragua has offered to host CATAC and has consulted with a number of institutions in the Central America region including with Civil Protection organizations and with seismic and geophysical centres. He indicated that the proposal of a Central America Tsunami Warning Center was discussed at the First meeting of the Regional Working Group on Tsunami Warning and Mitigation System on the Central American Pacific Coast held in Managua, Nicaragua, from 4 to 6 November 2009([ICG/PTWS-WG-CA-I/3](#)), the Second meeting was held in San Salvador, El Salvador, from 28 to 30 September 2011([IOC/PTWS-WG-CA-II/3](#)), and the Third meeting was held in Managua, Nicaragua, the 29 and 30 September 2014 ([IOC/PTWS-WG-CA-III/3](#)).

148 Mr Strauch indicated that Nicaragua, at the Twenty-sixth session of the ICG/PTWS proposed CATAC to cover both the coasts of the Pacific and Caribbean within the framework of ICG/PTWS and ICG/CARIBE-EWS. In this context, he requested the ICG/CARIBE-EWS to support a common ICG/PTWS and ICG/CARIBE EWS Task Team on CATAC.

149 The **ICG adopted** Recommendation ICG/CARIBE-EWS-X.7.

7. PROGRAMME AND BUDGET FOR 2016-2017

150 This agenda item was introduced by the Technical Secretary, Mr Aliaga, who reported on the status of regular funding from UNESCO for the Tsunami Unit (TSU) and, in particular, for the ICG/CARIBE-EWS.

151 He indicated that out of a total US\$ 510 million approved regular budget for the entire UNESCO, the Tsunami Unit has been authorised a maximum of 254,400 USD for the biennium 2014–2015. From this amount, the ICG/CARIBE-EWS has been allocated a total of 60,000 USD, evenly distributed into three main areas of activity: Promote integrated and sustained monitoring and warning systems; educating communities at risk with respect to ocean-related hazards prevention; and contribute to develop Member States capacities for coastal hazard assessment.

152 He provided details about the spending of these amounts in 2014-2015 that are mainly to support the ICG coordination work including the meetings of its Working Groups and Task Teams. He also indicated that for 2016–2017 it is expected that IOC would obtain a

Considering that multiple trainings about and exercises using the Enhanced Products have been conducted in the region over the past few years to help prepare Member States for the implementation of these products;

Accepting that the Enhanced Products do not contain alert levels and that Member States will now be fully responsible for tsunami alerts in their own countries and territories according to their SOPs;

Agrees with the PTWC proposed implementation schedule that begins issuance of the Enhanced Products in parallel with current products on 1 October 2015 and fully transitions to the new products on 1 March 2016;

Recommends that additional training on the products be made available prior to full implementation that will at least include several webinars conducted in English, Spanish and French as well as in-person trainings, and encourages Member States and donors to support such trainings;

Recommends that during parallel issuance, all new products be disseminated exclusively by email and only to the designated TWFPs, and National Tsunami Warning Centres (NTWC) and then when fully implemented only the main text product and its derivatives such as an SMS, Facebook, or Twitter statement be distributed more widely via the internet, GTS, AISR/AFTN, and IOC distribution lists, etc.;

Also recommends that during the overlap period PTWC generates and sends some sample products by email to the TWFPs and NTWCs, not as an exercise but as a way to aid in preparing for full implementation since the likelihood of having real events during the overlap period is small;

Further recommends that in consideration of some TWFP and NTWC internet bandwidth limitations for email, the main text product be sent separately, and that the graphical and statistical products be divided as necessary in emails to minimize their size.

Recommendation ICG/CARIBE-EWS-X.6

Preparedness, Readiness, Resilience and Tsunami Recognition Programme

The Intergovernmental Coordination Group for the for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS),

Taking into account the needs for tsunami preparedness, monitoring and response to tsunami hazard along the coastal regions, the Tsunami Recognition Programme Guidelines to be followed by Member States within the Caribbean and Adjacent Regions,

Recommends the approval of the guidelines for the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions as outlined in Appendix I for implementation on a pilot basis;

Decides that the Task Team continue its work on the development of the strategy for a Performance Based Recognition Programme as required by the ICG;

Recommends consultation with the US regarding the adoption of the name “Tsunami Ready” with the corresponding French, Spanish and Dutch translations and other relevant

languages as the official name for the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions;

Requests through the Secretariat, that Working Group 4 conducts a survey of Member States to evaluate the national implementation of the tsunami awareness programmes in alignment with the provisions of the Regional Tsunami Public Awareness and Education Strategy; and **further requests** that the survey be included within the Caribe Wave survey subsequently;

Recognizing the important role the media within the tsunami early warning system, **requests** that Working Group 3 develop a regional Tsunami Media Guide;

Requests that Working Group 3 produce a resource guide on communication and technologies for use by communities in the dissemination of tsunami information alerts, in support of the guideline requirements;

Noting the requirements of the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions, **requests** that Working Group 4 develops a technical guideline on how to plan and implement community tsunami exercises;

Further requests that Working Group 4 prepares guidelines for the public display of tsunami information including maps, signs and symbols to ensure a level of standardisation in support of the guideline requirements;

Invites Member States and donor agencies to support pilot projects under the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions.

APPENDIX I

Proposed Guidelines for CARIBE-EWS Community Recognition

Guidelines for designation are given in the following table. Each guideline is fully discussed following the table. The guidelines are based Preparedness, Mitigation and Response Categories.

	Completed
PREPAREDNESS	
Prep-1. Produce easily understood tsunami evacuation maps as determined to be appropriate by local authorities in collaboration with communities.	
Prep-2. Develop and distribute outreach and public education materials	
Prep-3. Hold at least three outreach or educational activities <u>annually</u>	
Prep-4: Conduct an annual tsunami community exercise.	

	Completed
MITIGATION	
Mit-1. Have designated and mapped tsunami hazard zones.	
Mit-2. Have a public display of tsunami information	
RESPONSE	
Resp-1. Address tsunami hazards in the community's emergency operations plan (EOP).	
Resp-2. Commit to supporting the emergency operations center (EOC) during a tsunami incident if an EOC is opened and activated.	
Resp-3. Have redundant and reliable means for a 24-hour warning point (and EOC if activated) <u>to receive</u> official tsunami watch, advisory, and warning alerts	
Resp-4. Have redundant and reliable means for 24-hour warning point and/or EOC <u>to disseminate</u> official tsunami watch, advisory, and warning alerts to the public.	

CARIBE-EWS PROPOSED GUIDELINES - FOUNDATION

The Guidelines in this document will be required for recognition for the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions. Until this date, the 2001 US TsunamiReady Guidelines were used for U.S., while a Pilot Project adapted these for the CARIBE-EWS for joint recognition by NOAA/NWS and UNESCO.

Coastal communities seeking CARIBE-EWS recognition should meet all elements. The specific actions required to meet each element will vary among communities depending on the types of tsunami hazards and related vulnerability and as determined by the local, state, national or regional TsunamiReady Board (composed of warning and disaster management national/regional experts as identified by the CARIBE-EWS).

Communities with plausible local tsunami threats should include efforts that enable individuals at risk for tsunami inundation to take self-protective actions, in addition to strategies for all coastal communities that address regional and distant tsunamis. Determination of the range of plausible local, regional, and distant tsunami threats in a particular community rests with the designated Board who will be in close communication with tsunami experts, Tsunami Service Providers, Tsunami Warning Centres and emergency managers, universities, or consultants.

- PREPAREDNESS (PREP)
 - **Prep-1. Produce easily understood tsunami evacuation maps as determined to be appropriate by local authorities** in collaboration with communities that depict tsunami evacuation routes and assembly areas (see

Mit-1). Maps should be based on tsunami hazard zone mapping and in accordance with the community's emergency operations plan. Maps should be made available via appropriate print and/or digital media. These maps should follow standards as developed by the CARIBE-EWS. *Note: for communities that do not have inundation mapping, a "baseline tsunami hazard zone" can be prepared and, where observed, is approved to meet this guideline.*

- **Prep-2. Development and distribution of outreach and public education materials** that include, where appropriate, tsunami evacuation maps, evacuation routes, safety tips, and information about when and how to respond to warnings (including natural warnings for regions with a local tsunami threat). They should be tailored to meet local information needs and be based on location-specific tsunami threats. All schools within the community requesting recognition should receive a copy of the materials. Distribution should use three or more wide-reaching diverse methods, including, but not limited to:

- Brochures and flyers distributed at public venues and/or bulk mailed to local residents and businesses
- Newspaper inserts
- Public utility/service industry bill safety notices
- Local faith-based and civic organization bulletins/mailings
- Local radio and television
- Billboard, roadside, highway, or educational signs
- Historical markers and interpretative signs
- Websites/Social media
- Bulk email

Possible physical locations for distribution of materials include:

- Schools
- Visitor centers and local tourist businesses (e.g., restaurants, bars)
- Hotels, motels, and campgrounds
- Public libraries
- Community centers
- Recreation centers
- Kiosks or information centers (e.g., malls, stores, etc.)
- Child care centers
- Banks
- Utility companies
- Health centres
- Ports of entry

- **Prep-3. Hold at least three outreach or education activities annually** to educate community residents, businesses, and visitors, with an emphasis on those in the tsunami hazard zone, on tsunami hazards, evacuation routes, how warning information will be received (including natural warnings for regions with

a local tsunami threat), safety, and response. These activities may be multi-hazard as long as they include tsunamis in the content. The number of activities required for a given community is to be determined by the Board but will generally include three activities, where at least one is a community-wide event.

Acceptable activities include, but are not limited to:

- Leveraging of national, state, and regional campaigns through use of social media.
 - Multi-hazard events or presentations.
 - Booths at community events and county fairs.
 - Community tsunami safety workshops, town hall, or similar public meetings.
 - Presentations or workshops for faith-based organizations, community or civic groups.
 - Local public safety campaigns, such as “Tsunami Preparedness” week/month.
 - Media workshops
 - Local business workshops to help them develop response and business continuity plans.
 - Information for business owners for employee training, outreach, or education that targets high-occupancy businesses in tsunami hazard zones (e.g., hotels, restaurants, fisheries, industrial sites).
 - Door-to-door safety campaigns targeted to residents and businesses living or working in the community’s tsunami hazard zone.
- **Prep-4. Conduct an annual tsunami community exercise.** The exercise can focus solely on the tsunami hazard or can be a multi-hazard exercises that also address the tsunami hazard. The exercises could be tabletop, functional, or full-scale. The exercise should include a communications test. An effort should be made for the schools within the mapped evacuation zone to participate by conducting an evacuation drill. These exercises can be conducted as part of a multi-hazard drill (for example, combined with a fire, hurricane, volcano exercise).
- **MITIGATION (MIT)**
 - **Mit-1. Have designated and mapped tsunami hazard zones.** The primary source for mapping potential tsunami hazard zones is inundation modeling, which illustrates expected areas to be flooded by the tsunami. If models are unavailable, other acceptable sources include guidance from tsunami experts from technical agencies, universities, or consultants. These modeling and mapping efforts should follow standards as developed by CARIBE-EWS. *Note: for communities with no modeling a “baseline tsunami zone” can be used and, where observed, is approved to meet this requirement. SLOSH or other storm surge modeling is also approved for use for this purpose.*
 - **Mit-2. Have a public display of tsunami information and response that identifies for example: (1) tsunami danger area and/or hazard zone (entering and leaving signs), evacuation routes, and assembly area; and (2) provides tsunami response education (go to high ground).** Signage

should be implemented according to national and local policies and as determined to be appropriate by authorities, the Board, and with possible assistance from partners. These signs should follow standards as developed by the CARIBE-EWS. Wherever possible, signage should comply with specifications aimed at standardization so that all coastal communities eventually will have identical signage. Continuity of signage benefits domestic residents and international visitors. Multi-hazard signs and displays that include the tsunami hazard are adequate for this item.

- RESPONSE (RESP)

- **Resp–1. Address tsunami hazards in the community’s emergency operations plan (EOP).** If a community-level plan does not exist, other acceptable plans include a countywide EOP or a state or local comprehensive emergency management plan. To meet this requirement, plans should:
 - Identify tsunami as a hazard and provide a risk assessment
 - Present tsunami-hazard profile, including source locations, extent of inundation, run-up or height that a wave reaches above sea level, previous tsunami occurrences, and likelihood of future tsunamis
 - Describe community vulnerability, including areas exposed to inundation and an impact summary of the resident population and specific sub-populations of people expected to be affected (e.g., individuals with access and functional needs, visitors, seasonal workers), businesses, infrastructure, and critical facilities
 - Detail 24-hour warning point procedures relating to tsunamis
 - Specify emergency operations center activation criteria, staffing expectations
 - Specify tsunami criteria and procedures for the activation of the public warning system in its area of responsibility
 - ◆ Criteria and procedures for siren activation, cable television override, and/or local activation in accordance with Emergency Alert System plans, warning fan-out procedures, and communication to functional and access needs populations
 - Provide contact information for all jurisdictional agencies and response partners, including the TWFP, NTWC, Tsunami National Contact, Regional Tsunami Service Providers
 - Include evacuation plans for tsunamis, roles of community entities/agencies, tsunami hazard zone maps with evacuation routes, and protocols for access and functional needs populations
 - Include procedures for updating information and determining when to advise it is safe for (1) emergency response personnel to enter the evacuated zones, and (2) when it is safe for the public to return to homes and businesses in the evacuated zone(s)
 - Include procedures for providing security for the evacuated zone(s)
 - Include procedures for reporting tsunami impacts in the community
 - Include schools and critical facilities in the emergency operations plan and encourage schools and critical facilities to include in their emergency response plans. a tsunami

- **Resp–2. Commit to supporting the emergency operations center (EOC) during tsunami incidents if an EOC is opened and activated.** Ensure that the EOC can execute tsunami warning functions (public notifications) based on predetermined guidelines related to CARIBE EWS tsunami information and/or tsunami incidents.
 - Has 24-hour operations or plan to activate an EOC for tsunami incidents in accordance with the EOP
 - Has warning reception and dissemination capability
 - Has the ability and authority to activate the public warning system in its area of responsibility
 - Maintains the ability to communicate within and across jurisdictions; Maintains established communication links with Tsunami Warning Centers to relay real-time weather and flood reports to support the warning decision making process
- **Resp–3. Have redundant and reliable means for a 24-hour warning point (and EOC if activated) to receive official tsunami watch, advisory, and warning alerts** from CARIBE-EWS Tsunami Service Providers, National Tsunami Warning Centers/Tsunami Warning Focal Points, or other officially recognized agencies such as local emergency management agencies. Alerts must be able to reach the 24-hour warning point by at least three of the following:
 - Public Alert Radio Systems, like Radio Digital Signals (RDS), NOAA Weather Radio (NWR) receiver
 - National/Territorial warning call out tree system (documented in writing with backup indicated)
 - Instant messaging programs available via the Internet used by operational personnel to share critical warning decision expertise and other significant information
 - Emergency Management Weather Information Network (EMWIN) receiver: Device that receives satellite feed and/or VHF radio transmission of NWS (Tsunami Service Provider) products
 - National/Territorial telecommunications system: California Integrated Seismic Network (CISN) Display Program
 - Amateur Radio transceiver: Potential communications directly to National Tsunami Warning Center or Tsunami Warning Focal Point
 - Alerts provided through a third-party provider: Typically received via phone, email and/or a texting service to a smartphone, tablet, or computer
 - Local Radio: Emergency Alert System, LP1/LP2
 - Active Internet monitoring capability, including social media such as Facebook and Twitter
 - Direct email from CARIBE EWS Tsunami Service Provider or National Tsunami Warning Center or Tsunami Warning Focal Point
 - Direct fax from CARIBE EWS Tsunami Service Provider or National Tsunami Warning Center or Tsunami Warning Focal Point

- Text message or direct pager message from CARIBE EWS Tsunami Service Provider or National Tsunami Warning Center or Tsunami Warning Focal Point
 - Coast Guard (CG) broadcasts: warning point monitoring of CG marine channels
 - Other communications channel (e.g., active participation in a state-run warning network, two-way, local emergency responder radio network, etc.), please explain.
- **Resp-4. Have redundant and reliable means for 24-hour warning point and/or EOC to disseminate official tsunami watch, advisory, and warning alerts to the public.** Alerts must be able to be disseminated from the 24-hour Warning Point and/or EOC through at least three of the following methods:
- Emergency Alert System (EAS) message initiation and broadcast
 - Cable television audio/video overrides
 - Local flood warning systems ideally with no single point of failure
 - Plan for siren/megaphone notification on emergency vehicles
 - Outdoor warning sirens
 - Other local alert broadcast system
 - Local pager/texting system
 - Amateur radio operator network (ham radio)
 - Telephone mass notification system
 - Call out tree
 - Coordinated jurisdiction-wide radio network
 - For counties, parishes, islands, boroughs, etc., a countywide communications network that ensures the flow of information between all cities and towns within its borders, including acting as the surrogate warning point and/or EOC for communities without those capabilities
 - Social media usage (Twitter, Facebook, etc.)
 - Lifeguards on beaches and on patrol
 - Other, please explain

All response requirements should recognize that during a local tsunami event, initial response would be performed primarily by at-risk individuals. Individuals in local tsunamis, including emergency personnel, will need to take personal responsibility for evacuating after recognizing the natural warnings or environmental cues of a possible or imminent tsunami (e.g., ground shaking from an earthquake, unusual rapid rise or fall of a shoreline). Official communications and warnings may be difficult to perform given the potential for infrastructure and telecommunication damage from the preceding earthquake and the limited time between the generation and arrival of the first wave in the tsunami.

GLOSSARY OF TERMS

TERM	DEFINITION
24 Hour Warning Point (WP)†	A communication facility at a state or local level, operating 24 hours a day, which has the capability to receive NWS alerts and warnings, plus has the authority and ability to activate the public warning systems in its area of responsibility.
Boards (ICG Regional and National/Territorial)	<p>The ICG Regional Tsunami Recognition Board should be comprised as follows:</p> <ul style="list-style-type: none"> • *ICG/CARIBE EWS Chair • CDEMA/ CEPREDENAC/EMEZA • UNESCO/IOC Representative • Manager, CTWP • GROUP4 CHAIR • Tsunami National Contact (NON-VOTING Member) • Director, CTIC <p>*Chair, Regional Tsunami Recognition Programme Board</p> <p>The Regional Board shall be convened when the nomination is nation-wide.</p> <p>The National Tsunami Recognition Programme Board should be comprised of:</p> <ul style="list-style-type: none"> • *Director, National Disaster Management Organization • Tsunami National Contact • Tsunami Warning Focal Point (TWFP) • Director, CTIC • Local Seismic Networks/technical or scientific community • Community Representative [Non-Voting Member] <p>*Chair, National Tsunami Recognition Programme Board</p> <p>This Board shall be convened when the nomination is presented on a phased approach, comprised of individual communities over a specific period of time.</p>
CARIBE-EWS Recognized Community	A national/territorial/local government entity that has the authority and ability to adopt the recognition guidelines within its jurisdiction.
The term “local government” means	<p>a. A county, parish, borough, municipality, city, town, township, local public authority, indigenous groups, intrastate district, council of governments, regional or interstate government entity, or agency or instrumentality of a local government.</p>

TERM	DEFINITION
	b. A national or territorial government would seek recognition under the CARIBE EWS Board. For local governments a National/Territorial Board would be established to provide recognition.
The term “facility” for a community includes but is not limited to	Universities, colleges, military installations, state/national parks, power plants/utilities, major transportation centers (i.e., airports, harbors, ports, railroad stations and other large transit complexes), theme parks/entertainment complexes, corporate business complexes, factories and large event venues (i.e., stadiums, arenas, race tracks, convention centers and other venues that temporarily host large gatherings of people). For local governments a National/Territorial Board would be established to provide recognition.
Communications/Dispatch Centre	Agency or interagency dispatch centers, 911 call centers, emergency control or command dispatch centers, or other facility and staff who handle emergency calls from the public and communication with emergency management/response personnel. This centre may act as a 24-hour warning point.
Critical Facilities	<p>A critical facility provides services and functions essential to a community, especially during and after a tsunami. Examples of critical facilities requiring special consideration include:</p> <ul style="list-style-type: none"> • Police stations, fire stations, critical vehicle and equipment storage facilities, and emergency operations centers needed for tsunami response activities before, during, and after a tsunami • Medical facilities, including hospitals, nursing homes, blood banks, and health care facilities (including those storing vital medical records) likely to have occupants who may not be sufficiently mobile to avoid injury or death during a tsunami • Schools and day care centers, especially if designated as shelters or evacuation centers • Power generating stations and other public and private utility facilities vital to maintaining or restoring normal services to tsunami-hit areas • Drinking water and wastewater treatment plants • Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic, and/or water-reactive materials
Emergency Operations Center (EOC)	The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility, a permanently established facility or located at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g.,

TERM	DEFINITION
	fire, law enforcement, medical services), by jurisdiction (e.g., federal, state, regional, tribal, city, county), or by some combination thereof.
Distant Tsunami (Also referred to as a tele-tsunami)	A tsunami originating from a faraway source, generally more than 1,000 km/621 miles or 3 or more hours tsunami travel time from its source to the area impacted. What may be a distant tsunami in one location can be a local tsunami for another location. A distant tsunami may also be referred to as a “far-field” tsunami hazard. The most common distant threats are from dangerous and unpredictable currents resulting in possible significant harbor and shoreline damage.
Emergency Operations Plan (EOP)	<p>A document maintained by various jurisdictional levels setting procedures for responding to a wide variety of potential hazards. It should include the following:</p> <ul style="list-style-type: none"> a. Describe how people and property will be protected b. Detail who is responsible for carrying out specific actions c. Identify the personnel, equipment, facilities, supplies, and other resources available d. Outline how all actions will be coordinated
Emergency Management/Response Personnel	Includes federal, state, territorial, tribal, sub-state regional, and local governments, nongovernmental organizations (NGOs), private sector organizations, critical infrastructure owners and operators, and all other organizations and individuals who assume an emergency management role.
Incident	An occurrence, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wildland and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.
Inundation	The horizontal distance inland that a tsunami penetrates, generally measured perpendicularly to the shoreline.
Local Tsunami	A tsunami generated from a nearby source with less than 1 hour tsunami travel time from its source to the area impacted. What may be a local tsunami in one location can be a regional or distant tsunami for another location. A local tsunami may also be referred to as a “near-field” tsunami hazard. A local tsunami includes tsunamigenic influences due to tectonics in the source zone such as uplift, subsidence, landslides, and strong shaking. It is the focus of major destruction.

TERM	DEFINITION
Regional Tsunami	A tsunami generated from a regional source, generally between 100 km/62 miles and 1,000 km/621 miles away or between 1 and 3 hours tsunami travel time from its source to the area impacted. What may be a regional tsunami in one location can be a local tsunami for another location. Regional tsunami also occasionally have very limited and localized effects outside the region. In comparison with a local tsunami, it gives a little more time for authorities to respond than the case of local earthquakes.
Tsunami	A tsunami is a series of waves that can cause dangerous fluctuations of water along shorelines, and are generated by earthquakes, volcanic eruptions, or landslides that cause a large scale and rapid displacement of the water. Tsunamis can last minutes, hours, or even days. Tsunami is a Japanese word meaning harbor wave. Tsunamis are often incorrectly called tidal waves; they have no relation to the daily ocean tides.
Tsunami Evacuation Map	A graphical representation of coastal areas that outlines the hazard zones and designates limits beyond which people must be evacuated to avoid harm from tsunami waves. Evacuation routes and assembly areas are generally designated to ensure efficient movement of people out of the evacuation area and to areas of safety. Tsunami evacuation maps should be based on tsunami inundation model outputs or the best available science.
Tsunami Evacuation Zone	Evacuation zones are much larger in surface area than hazard/inundation zones. There is a margin of error in estimation of the hazard/inundation zone. Some areas may not be flooded by tsunami activity but those areas may be isolated by flood waters. This essentially cuts these areas off from other areas. As such, people in those areas are requested to evacuate to prevent them from requiring rescue by first responders
Tsunami Hazard Zone (aka Tsunami Inundation Zone)	The area expected to be flooded or inundated by water in coastal areas. Hazard is synonymous with inundation in this sense, even though there are instances where simple inundation (flooding) may not necessarily be hazardous.
Tsunami Information Centres	Centres which provide education, outreach, technical and capacity building assistance to Member States and public in preventing, preparing, and mitigating measures for tsunamis. Among other activities, the centers manage post event performance surveys, serve as a resource for the development, publication, and distribution of tsunami education and preparedness materials and information on tsunami occurrences, and may support risk assessment and mitigation activities.

TERM	DEFINITION
Tsunami Service Provider (TSP)	Centre that monitors seismic and sea level activity and issues timely tsunami threat information within an ICG framework to National Tsunami Warning Centres/Tsunami Warning Focal Points and other TSPs operating within an ocean basin. The NTWCs/TWFPs may use these products to develop and issue tsunami warning for their countries. TSPs may also issue Public messages for an ocean basin and act as National Tsunami Warning Centres providing tsunami warnings for their own countries.
Tsunami Source	Point or area of tsunami origin, usually the site of an earthquake, volcanic eruption, or landslide that caused a large scale and rapid displacement of the water resulting in a tsunami. A comet or meteorite impacting the ocean may also be considered a tsunami source.
Tsunami Warning Centre	Facilities that have responsibility to detect, forecast, and issue tsunami alerts.

Recommendation ICG/CARIBE-EWS-X.7

Central American Tsunami Advisory Center (CATAC)

The Intergovernmental Coordination Group for the for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS),

Recalling that the Intergovernmental Oceanographic Commission (IOC) adopted Resolution [EC-XLI.6](#), for Member States around regional seas, as appropriate, actively promote the development, establishment and sustained operation of national and sub-regional Tsunami Warning and Mitigation Systems within the framework of the ICG/PTWS and ICG/CARIBE EWS,

Remembering that the six countries of Central America and the Coordination Centre for the Prevention of Natural Disasters in Central America (CEPREDENAC) during a meeting held in Managua, Nicaragua on 3 September 2003 decided to start the process for a Regional Tsunami Warning System, and requested IOC/ITSU assistance for its development,

Further remembering that the Nineteenth session of the ICG/PTWS decided to assist the Central American countries in this process and established the Central America Subregional Working Group (CA-WG) for this purpose,

Further recalling that the [ICG/PTWS-XXV.1](#) recommended to determine whether El Salvador or Nicaragua (or both countries in cooperation) could establish an interim Tsunami Warning Centre for disseminating warnings to all Central American countries and the Implementation of a Technical Committee for the development of a Regional Tsunami Warning and Mitigation System,

Recognizing that Nicaragua, El Salvador and Costa Rica, already operate National Tsunami Warning Systems,