

UNESCO

IOC TSUNAMI SECTION

*THE INTERGOVERNMENTAL COORDINATION GROUP FOR THE TSUNAMI AND
OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND
ADJACENT REGIONS-EARLY WARNING SYSTEM (ICG/CARIBE-EWS)*

JUNE 2021

S U M M A R Y

The Snapshots aim to bring the work of the IOC UNESCO REGIONAL Tsunami Early Warning System (TEWS) to a wider audience. This project of the IOC UNESCO Tsunami Section takes place within the framework of the United Nation Decade of Ocean Science for Sustainable Development and its Safe Ocean Outcome. It complements the more specialized fact sheets by highlighting actions, communities, officials, events, tsunami service providers and tsunami information centers.

The Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS) was established in 2005 and currently comprises 28 IOC Member States, 12 Territories, 7 Associate Member States of UNESCO and 1 Observer Member State. The ICG/CARIBE-EWS coordinates international tsunami warning and mitigation activities, including the issuance of timely and understandable tsunami bulletins in the Caribbean and adjacent regions.

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World Tsunami Awareness Day 2020 was observed regionally with a number of activities including a webinar and videos ([Costa Rica](#) and [Puerto Rico](#)) as part of a 30-day global campaign in association with UNDRR.



**WORLD
TSUNAMI
AWARENESS
5 NOVEMBER DAY**



World Tsunami Awareness Day 2021 will highlight Global Target F of the Sendai Framework - Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the present Framework by 2030

Alexis Carmino,
Trinidad and
Tobago 3rd place
in the
DIPECHO/CTIC
Project Tsunami
Ready Youth Visual
Art Visual Art
Competition, 2019



2017 Tourist Arrivals:
 36.7 million in South America
 26 million in the Caribbean
 11.2 million in Central America

Source:
 World Trade Organization,
 2018



CARIBE EWS supports the achievement of the 7 Global Targets of the Sendai Framework 2016 - 2022, through the development and promotion of best practices at international, regional and national levels and across various sectors, to reduce risk and losses related to tsunamis and other coastal hazards

ICG/CARIBE-EWS Group of Experts on Other Coastal Hazards, supporting the Ocean Decade Safe Ocean Outcome Protecting Life and Livelihoods from Ocean-Related Hazards



ICG/CARIBE –EWS Group of Experts on Other Coastal Hazards Meeting
 Bogotá, Colombia, 28-30 November 2018



OUR VISION AND MEMBERSHIP

*CARIBBEAN AND ADJACENT
REGIONS-EARLY WARNING SYSTEM*

“

***By 2023 all Member States
of ICG/CARIBE-EWS are
more resilient and
prepared for tsunamis
and other coastal hazards***

”



Caption: ICG/CARIBE-EWS XIV, Punta Leona,
Costa Rica, 8–11 April 2019



OFFICIALS

SILVIA CHACÓN BARRANTES: CHAIRPERSON



Dr. Silvia Chacón Barrantes, oceanographer, professor and researcher in the Physics Department of the Universidad Nacional de Costa Rica, gave the lecture "Advances in the study of tsunamis in Costa Rica".

Dr. Silvia Chacón Barrantes is a physicist who graduated from the University of Costa Rica, obtained her Master's degree in Physical Oceanography from the Center for Scientific Research and Higher Education of Ensenada (CICESE) in Ensenada, Baja California, Mexico, and completed her PhD in Coastal Geosciences at the Institute of Geophysics, Christian-Albrechts-University of Kiel (CAU-Kiel), Kiel, Germany.

In 2014 she founded the Program National Tsunami Monitoring System of Costa Rica (Sinamot) which she is the director. SINAMOT Program acts as National Tsunami Warning Center and it is in charge of developing tsunami evacuation maps.

BERNARDO ALIAGA: SECRETARIAT



From 2001 Mr. Bernardo Aliaga has been a Program Specialist at the Intergovernmental Oceanographic Commission of UNESCO and from 2005 he has been a member of the team leading the work of UNESCO in establishing a Global Early Warning System for Tsunamis. In 2005 and 2006 he made a valuable contribution to the urgent task of helping Member States to create a warning system for Tsunami in the Indian Ocean. He is currently Technical Secretary of the Intergovernmental Coordination Group for the Tsunamis and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS) and the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS). He has made significant contributions towards building capacity to respond to tsunamis in Chile, Colombia, Ecuador, Peru, Guatemala and Honduras, as well as in Haiti, Dominican Republic, Sultanate of Oman and the South China Sea region.

ALISON BROME: SECRETARIAT

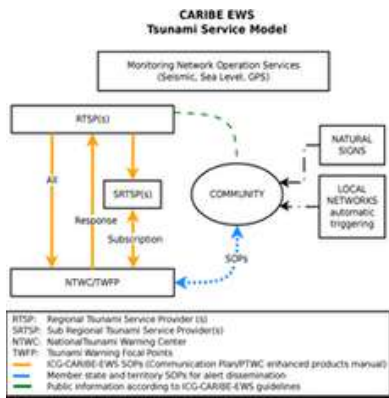


Ms. Alison Brome is the UNESCO/IOC National Professional Officer at the Caribbean Tsunami Information Centre (CTIC). As a part of the ICG/CARIBE-EWS, CTIC is a Government of Barbados-UNESCO/IOC Partnership hosted at the Coastal Zone Management Unit, Barbados.

Ms. Brome has worked with the regional tsunami mitigation programme since 2008. She served as Consultant for CTIC's establishment (2011 - 2012) and then as its Interim Director (a.i.) during various periods after its establishment in September 2013. As part of her involvement, Ms. Brome has also been actively engaged in developing pioneering tsunami public awareness and education resources, executing regional tsunami exercises and facilitating trainings for national and regional stakeholders, all in association with regional and international partners. With the adoption of the UNESCO-IOC CARIBE EWS Tsunami Ready Performance-based Community Pilot programme in 2015, Ms. Brome has played a pivotal role in its successful piloting and renewal throughout Member States and Territories.



TSUNAMI SERVICE PROVIDERS AND TSUNAMI INFORMATION CENTRE



CARIBE EWS Tsunami Service Model



Dr. Charles S. McCreery,
NOAA Pacific Tsunami Warning Center

PTWC PACIFIC TSUNAMI WARNING CENTER

In 2016 the ICG/CARIBE EWS approved the Tsunami Service Model and designated the US National Oceanic and Atmospheric Administration (NOAA) Pacific Tsunami Warning Center (PTWC) as a Regional Tsunami Service Provider (RTSP). In this role, PTWC monitors seismic and sea level activity and issues timely tsunami threat information to National Tsunami Warning Centres (NTWCs)/Tsunami Warning Focal Points (TWFPs), and other TSPs operating within the Caribbean and Adjacent Regions ocean basin. NTWCs/TWFPs may use these products to develop and issue tsunami alert information for their countries. TSPs may also issue public messages for an ocean basin and act as NTWCs providing tsunami warnings for their own countries. In this regard, for the CARIBE EWS, PTWC also serves as the NTWC for Puerto Rico and the US Virgin Islands.

CTIC CARIBBEAN TSUNAMI INFORMATION CENTER



The Caribbean Tsunami Information Centre (CTIC), serving the CARIBE EWS, is a partnership initiative between UNESCO/IOC and the Government of Barbados. CTIC serves as an information resource from which Member States, partners, the public and stakeholders at all levels can draw upon for education, outreach, technical and capacity building assistance in preparing for and responding to tsunamis. Among other activities CTIC manages post event performance surveys and supports the development, publication, and distribution of tsunami education and preparedness materials on behalf of UNESCO/IOC, CTIC also plays an active role in the roll out of the Tsunami Ready programme, annual CARIBE WAVE Exercises as well as other ICG/CARIBE EWS initiatives.



TSUNAMI READY COMMUNITIES

CORN ISLAND, NICARAGUA:

Corn Island, Nicaragua has approximately 9,355 inhabitants composed of various cultural and ethnic groups. Nicaragua is home to 19 active volcanoes. Developments (homes, commerce and fishing plants) on Corn Island have been established near the coast at sea level, thus increasing the vulnerability of about 80% of the population and infrastructure to tsunamis. Corn Island was recognized as Tsunami Ready in September 2019 through a European Commission Humanitarian Aid Department's Disaster Preparedness Programme (DIPECHO) funded initiative led by UNESCO/IOC together with national and municipal authorities. The process focused on creating awareness throughout the community, notably through the integration of key sectors and stakeholders (regional and local authorities, education, religious and community leaders, youth and commerce). In the words of Corn Island Mayor, Cleaveland Webster Terry: "the Tsunami Ready project benefited the entire population and visitors. It created consciousness, gives knowledge, and prepares us to create safety measure to face a natural risk of this magnitude."



Young Artist standing in front of his mural of the Tsunami Evacuation Map, Corn Island, Nicaragua

UNION ISLAND, ST. VINCENT AND THE GRENADINES:

Union Island, St. Vincent and the Grenadines, was recognized as Tsunami Ready in 2020 under a DIPECHO funded project implemented by UNESCO/IOC, national and community authorities in association with partners. Union Island's population is approximately 2096. It is at risk of tsunamis generated by earthquakes, sub-aerial and submarine landslides, and in particular underwater volcanic eruptions from 'Kick 'em Jenny' located 39.8 km south. The factors, coupled with Union Island's limited flat land, has made it crucial for the community to understand the natural warning signs of a tsunami, and where to go in the case of necessary evacuation. A key success of this project was the leadership provided by national and community stakeholders towards the finalization of the tsunami evacuation map. "The National Emergency Management Organisation (NEMO) coordinated with the Union Island District Disaster Committee and the community of Union Island to develop and enhance capacities for tsunami warning communication as well as inundation and evacuation mapping for that island," emphasized Ms. Michelle Forbes, Director, NEMO.

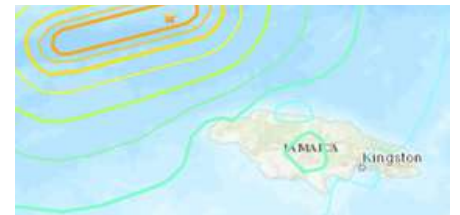


Tsunami Mapping Workshop Union Island, St. Vincent and the Grenadines



TSUNAMI EVENTS

JAMAICA 2020:



On 28 January 2020 a magnitude 7.7 Mw struck on the north side of the Cayman Trough, north of Jamaica and west of the southern tip of Cuba at 2:10 p.m. local time (UTC-5). This event was one of the strongest on record for the Caribbean with shaking felt in many surrounding countries. In response, RTSP PTWC issued 5 messages including a tsunami threat message. A small tsunami of 0.11M/0.4 feet was recorded at George Town, Cayman Islands, and PTWC issued a final threat message indicating that the tsunami threat had passed 2 hours 38 minutes after the occurrence of the earthquake. Several national authorities consulted their respective national protocols and standard operating procedures and those in the Cayman Islands advised residents to move away from the coastlines. Individual institutions and agencies across CARIBE EWS Member States also initiated evacuation from buildings where deemed necessary, however this event did not meet the criteria for formal evaluation by the CTIC. Although no loss of life was reported, some damage to infrastructure and buildings was recorded in various Member States. The event underscored the need for sustaining the focus of CARIBE EWS on tsunami preparedness, in particular regarding natural warning signs and initiatives such as the Tsunami Ready programme and CARIBE WAVE Exercises, which empower populations to take effective action to save lives in the event of a short fuse tsunami event.

BRITISH VIRGIN ISLANDS AND US VIRGIN ISLANDS:



Although the Virgin Islands have not recently been affected by tsunamis, the Islands nonetheless have a history of tsunami activity. Approximately 10 tsunamis with wave heights between 6 and 60 feet have occurred in the Caribbean since 1530. Of these, the most notable tsunami to strike the Virgin Islands was the 1867 tsunami which affected the United States Virgin Islands and Tortola in the British Virgin Islands. On the afternoon of November 18, 1867, a magnitude 7.5 earthquake occurred in the Anegada trough, located between the US Virgin Islands of St. Croix, and St. Thomas. The earthquake consisted of two shocks, separated by ten minutes. These shocks generated two tsunami waves that were recorded at several Island locations across the eastern Caribbean region, most notably on the Islands of St. Thomas and St. Croix.



UPCOMING FEATURES

The upcoming snapshot will focus on CARIBE WAVE Exercises particularly in the context of the COVID-19 pandemic as well as additional Tsunami Ready communities, regional tsunami service providers and advancements of the CARBE EWS regarding non-earthquake sourced tsunamis.

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