



UNESCO/IOC – NOAA ITIC Training Program in Hawaii (ITP-TEWS Hawaii)
TSUNAMI EARLY WARNING SYSTEMS
AND THE PACIFIC TSUNAMI WARNING CENTER (PTWC) ENHANCED PRODUCTS
TSUNAMI EVACUATION PLANNING AND UNESCO IOC TSUNAMI READY PROGRAMME
15-26 September 2025, Honolulu, Hawaii

IOC Exercises: CARIBE WAVE



Kimberly Maisonet González
ITIC-CAR

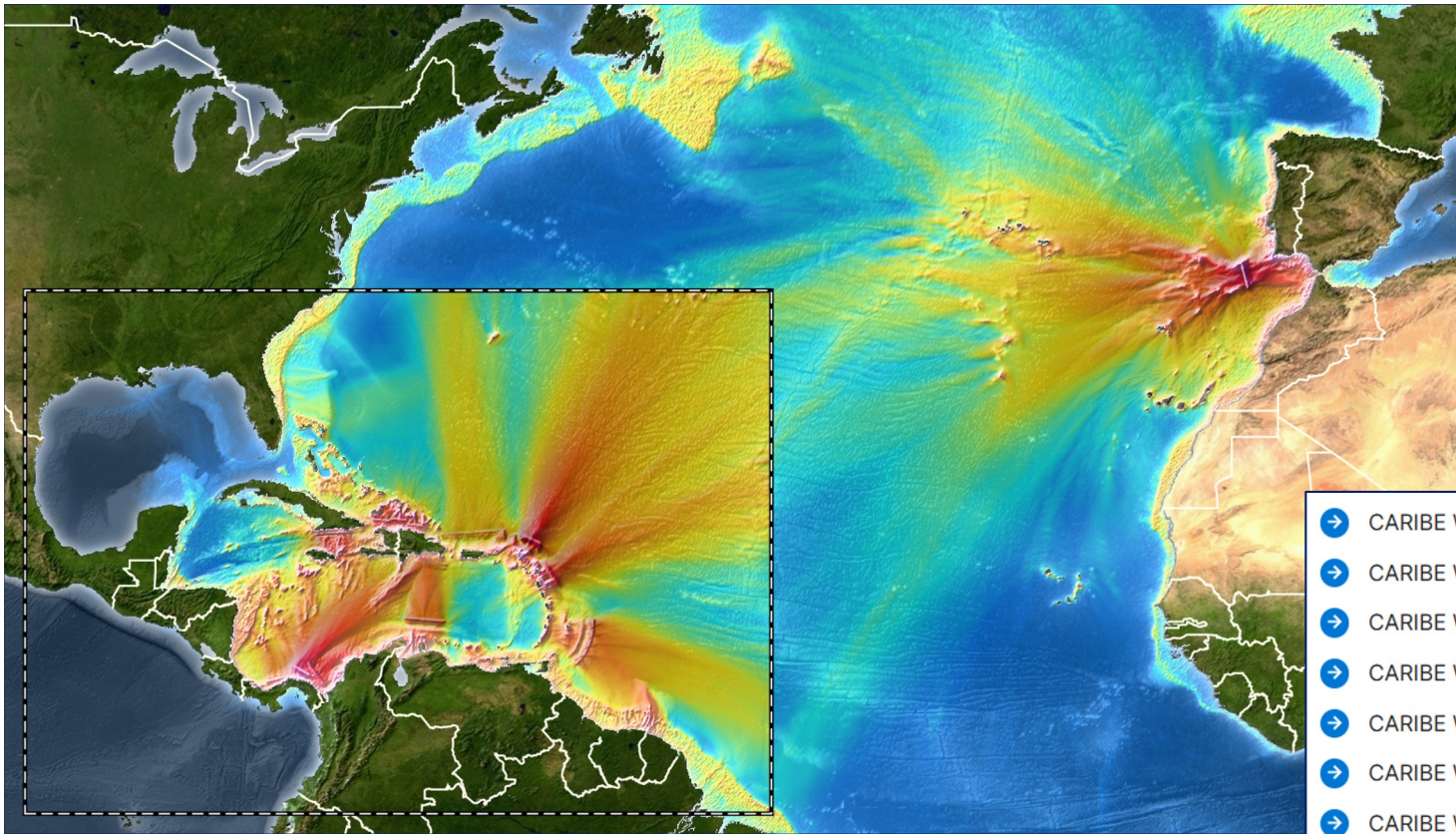


Pacific
Community
Communauté
du Pacifique



From left to right is: Honduras, Venezuela, Mexico, Puerto Rico, British Virgin Islands, Dominican Republic, Costa Rica, and Colombia.

UNESCO/IOC-NOAA SHOA
International Tsunami Information

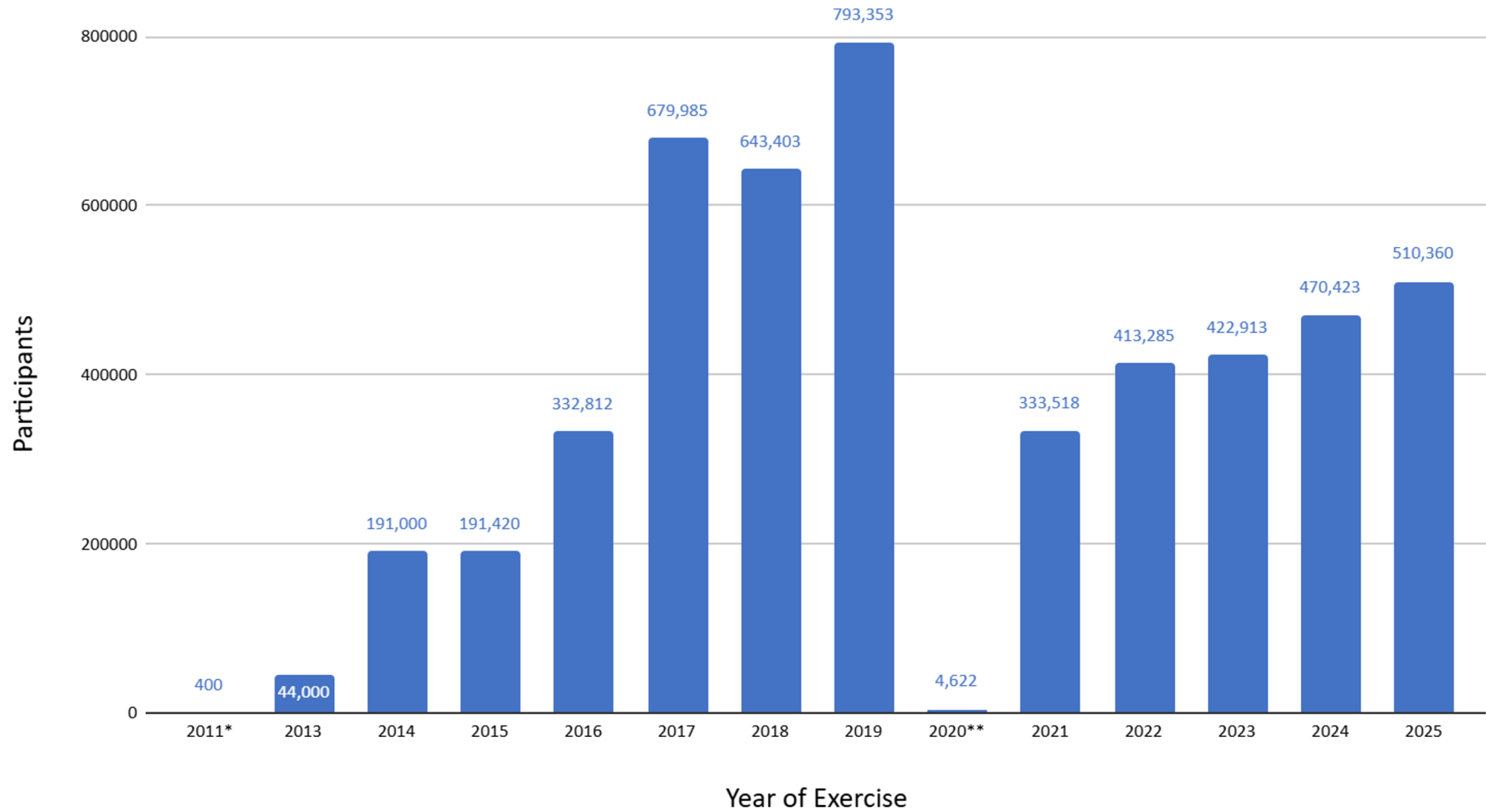


Previous Exercise Scenarios

UNESCO/IOC-NOAA SHOA
International Tsunami Information

- CARIBE WAVE 24 (Puerto Rico Trench and Panama)
- CARIBE WAVE 23 (Gulf of Honduras and Mount Pelée)
- CARIBE WAVE 22 (Western Muertos Trough & Northern Panama)
- CARIBE WAVE 21 (Jamaica and Northern Lesser Antilles)
- CARIBE WAVE 20 (Jamaica and Portugal)
- CARIBE WAVE 19 (Kick 'em Jenny volcano and Panama)
- CARIBE WAVE 18 (Barbados, Colombia and Puerto Rico)
- CARIBE WAVE 17 (Costa Rica, Cuba and Northeastern Antilles)
- CARIBE WAVE 16 (Venezuela and Northern Hispaniola)
- CARIBE WAVE 15 (SW Caribbean)
- CARIBE WAVE 14 (Portugal)
- CARIBE WAVE 13 (Aruba)
- CARIBE WAVE 11 (Virgin Islands)

CARIBE WAVE: Number of Participants



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CARIBE WAVE 2025 (MARCH 20)

CARIBE WAVE is the [annual tsunami exercise](#) of the [Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System](#) for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS) of the Oceanographic Commission (IOC) of the United Nations Educational, Scientific, and Cultural Organization (UNESCO).

Who organizes CARIBE WAVE?

A CARIBE EWS CARIBE WAVE task team is responsible for the overall conduct of the exercise. The NOAA/UNESCO IOC International Tsunami Information Center Caribbean Office (ITIC-CAR) serves as exercise coordinator with the Caribbean Tsunami Information Center (CTIC). Regional emergency management stakeholders (CEPRENAC [Coordination Centre for the Prevention of Natural Disasters in Central America], CDEMA [Caribbean Disaster Emergency Management Agency], and EMIZA [French Inter-Ministerial for the Antilles Estate Major Zone]) also contribute to the successful conduct of the exercise.

What is the purpose of CARIBE WAVE?

The purpose of this exercise is to validate and advance tsunami preparedness efforts in the Caribbean and Adjacent Regions.

When is CARIBE WAVE 2025?

The annual Tsunami Regional Exercise, CARIBE WAVE 2025, will take place on **March 20, starting at 1500 UTC**. [You can register your exercise activity here](#).

Which scenario will be used for CARIBE WAVE 2025?

Two different scenarios will be simulated for [CARIBE WAVE 2025](#). Each participating country will select the scenario that best fits their objectives. The first scenario simulates a tsunami generated by a magnitude 8.0 earthquake located along the Enriquillo-Plantain Garden Fault Zone (EPGFZ). The second scenario is a tsunami generated by a magnitude 8.5 earthquake located approximately 270 km off the Portugal coast.

Map of the CARIBE WAVE 25 scenarios

UNESCO CARIBE EWS

Member States and Territories

Antigua and Barbuda*
Bahamas
Barbados
Brazil
Colombia
Costa Rica
Cuba
Dominica
Dominican Republic
France (Guadeloupe, Guyane, Martinique, Saint Martin, St. Barthélemy)
Grenada
Guatemala
Guyana
Haiti
Honduras
Jamaica
Mexico
Netherlands (Aruba***, Bonaire, Curaçao***, Saba, Sint Eustatius, Sint Maarten***)
Nicaragua
Panama
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Suriname
Trinidad and Tobago
United Kingdom of Great Britain & Northern Ireland (Anguilla***, Bermuda, British Virgin Islands***, Cayman Islands***, Montserrat***, Turks and Caicos)
United States (Puerto Rico and U.S. Virgin Islands)
Venezuela, Bolivarian Republic of

*not an IOC Member State
**Designations of Tsunami National Contacts and Tsunami Warning Focal Points pending
***UNESCO Associate Member States participating at IOC CARIBE EWS

Category	Participants	Participation totals for each area	Total
Individuals/Families	2,923	Antigua and Barbuda	5
Childcare and Pre-Schools	10,883	Aruba	27,890
K-12 Schools and Districts	244,848	Bahamas	0
Colleges and Universities	22,007	Barbados	502
Local Government	79,495	Belize	8
State Government	35,024	Businesses	10
Federal/National Government (Including Military)	23,636	Hotels and Other Lodgings	882
Tribes/Indigenous Peoples	24	Healthcare	86
Businesses	5,657	Senior Facilities/Communities	2
Hotels and Other Lodgings	3,233	Disability/AFN Organizations	144
Healthcare	19,901	Non-Profit Organizations	4
Senior Facilities/Communities	1,131	Neighborhood Groups	1,136
Disability/AFN Organizations	242	Preparedness Organizations	107,328
Non-Profit Organizations	4,734	Faith-based Organizations	96,182
Neighborhood Groups	1,264	Museums, Libraries, Parks, etc.	0
Preparedness Organizations	28,716	Volunteer/Service Clubs	0
Faith-based Organizations	1,029	Youth Organizations	10,614
Museums, Libraries, Parks, etc.	119	Animal Shelter/Service Providers	454
Volunteer/Service Clubs	143	Agriculture/Livestock Sector	0
Youth Organizations	380	Volunteer Radio Groups	0
Animal Shelter/Service Providers	0	Science/Engineering Organizations	0
Agriculture/Livestock Sector	180	Media Organizations	0
Volunteer Radio Groups	1,321	Other	78
Science/Engineering Organizations	724		
Media Organizations	3,491		
Other	8,617		

Intergovernmental Oceanographic Commission
Technical Series

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EXERCISE CARIBE WAVE

A Caribbean and Adjacent Region Tsunami Warning Exercise

General Guidelines



Intergovernmental Oceanographic Commission
Technical Series

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EXERCISE CARIBE WAVE 25

A Caribbean and Adjacent Region Tsunami Warning Exercise

20 March 2025
(Jamaica and Portugal Scenarios)

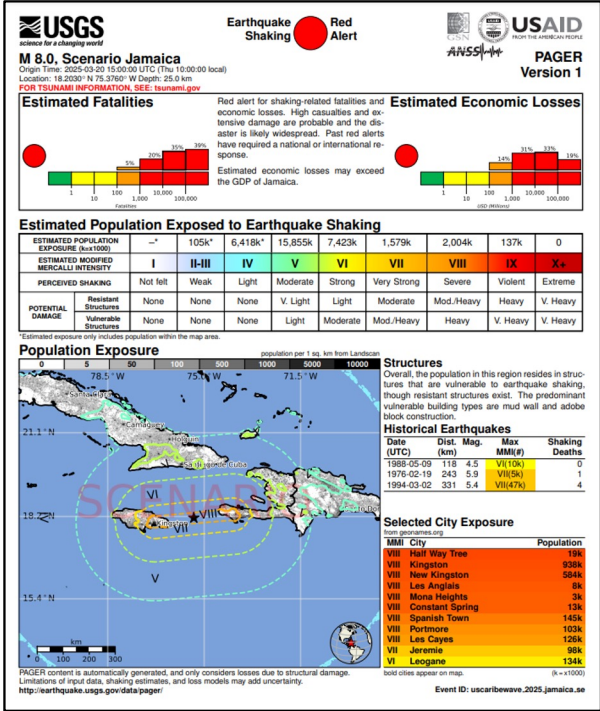
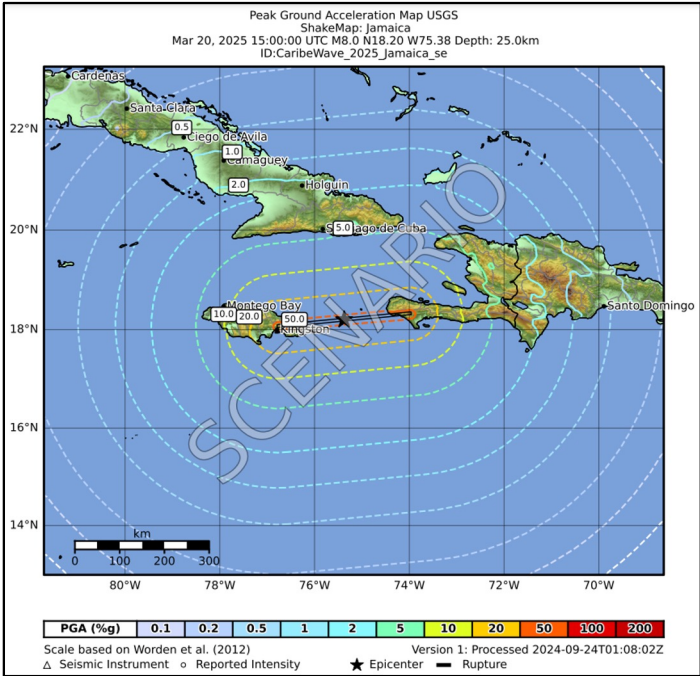
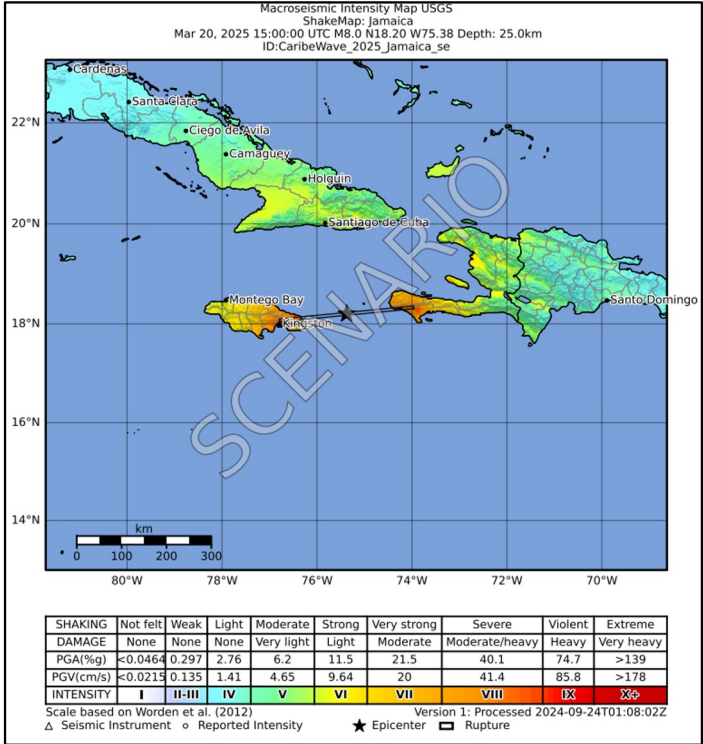
Volume 1 Participant's Handbook



caribewave.org

International Tsunami Information

USGS - ShakeMap and Pager



UNESCO/IOC-NOAA SHOA
International Tsunami Information

Webinars

- 2 Virtual Webinars

- ☐ January
- ☐ February

- 3 Languages

- ☐ English, Spanish, French

UNESCO/IOC-NOAA SHOA
International Tsunami Information





1st Webinar

Christa G. von Hillebrandt-Andrade
Manager, ITIC Caribbean Office
ICG CARIBE-EWS WG III Chair

Kimberly Maisonet González
Student Contractor
ITIC Caribbean Office

#CARIBEWAVE
#TSUNAMIREADY

21 January 2025

PTWC - Text and Graphical Products

ANNEX III. PTWC DUMMY (START OF EXERCISE) MESSAGES

PTWC

WECA41 PHEB 201500
TSUCAX

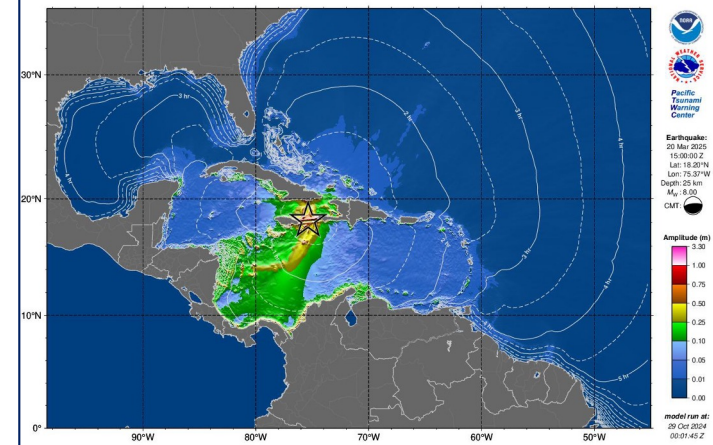
TEST...INITIAL DUMMY START OF EXERCISE MESSAGE...TEST
NWS PACIFIC TSUNAMI WARNING CENTER/NOAA/NWS
ISSUED AT 1500Z 20 MAR 2025

...TEST... CARIBE WAVE 25 TSUNAMI EXERCISE DUMMY MESSAGE.
REFER TO THE EXERCISE HANDBOOK. THIS IS AN EXERCISE ONLY. TEST...

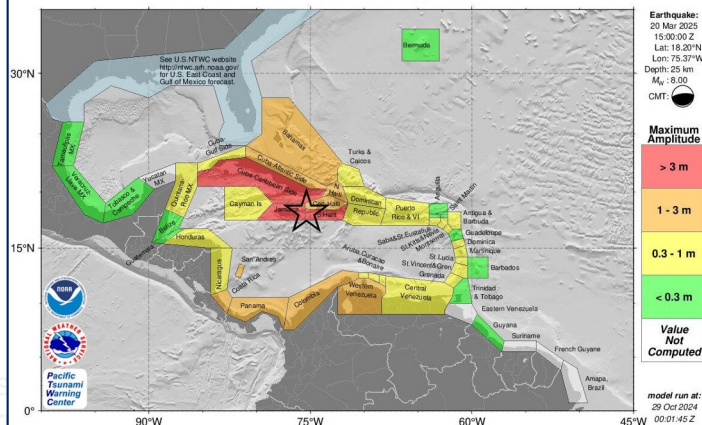
THIS MESSAGE IS BEING USED TO START THE CARIBE WAVE 25
TSUNAMI EXERCISE AND TEST COMMUNICATIONS WITH UNESCO IOC CARIBE
EWS NTWCS AND TWFPs. THIS WILL BE THE ONLY EXERCISE MESSAGE
BROADCAST FROM THE PACIFIC TSUNAMI WARNING CENTER EXCLUDING
SPECIAL EMAIL MESSAGES DISCUSSED IN THE HANDBOOK. THE HANDBOOK
IS AVAILABLE AT THE WEBSITE CARIBEWAVE.ORG. THE EXERCISE
PURPOSE IS TO EXERCISE AND EVALUATE THE CARIBE EWS TSUNAMI
WARNING SYSTEM.
\$\$

AWIPS ID
NWWS
GTS
EMWIN
AISR
Email

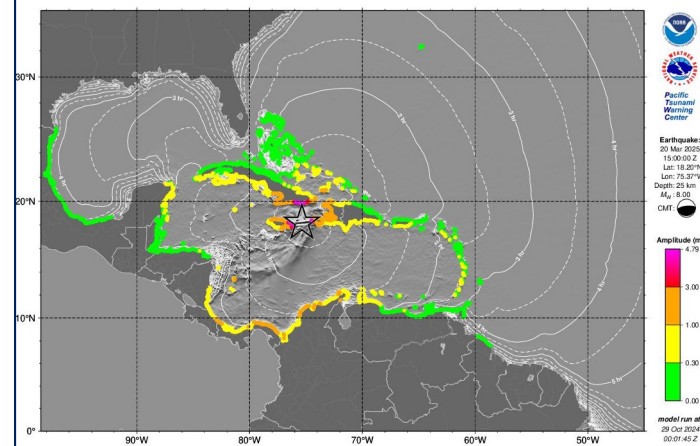
PTWC Energy Forecast



PTWC Forecast Polygons



PTWC Coastal Forecast



Products

CATAC MESSAGES ENGLISH:

Dummy Message:

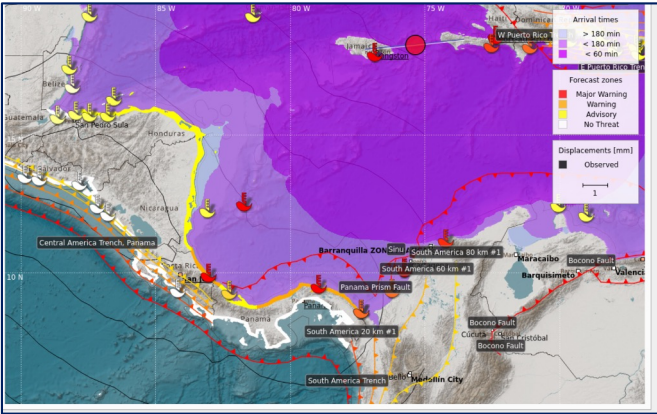
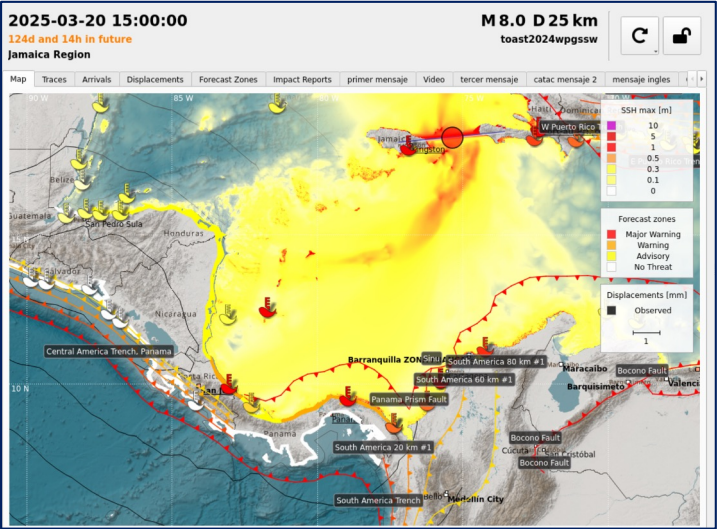
;This is just a test message sent by CATAC in support of Exercise CaribeWave 25!

Central America Tsunami Advisory Center (CATAC)

XXXXXXXX THIS IS AN EXERCISE XXXXXXXXXXXX THIS IS AN EXERCISE
XXXXXXXXXXXXXXXXXXXX

Notice: This is a kick-off message for exercise Caribe Wave 2025 for Central American countries, such as for Central American countries in support of the Intergovernmental Oceanographic Commission (IOC), of UNESCO and the ICG/CARIBE-EWS.

Issued: 2025-03-20 09:00 Central American Time:
2025-03-20 10:00 Panama Time
2025-03-20 15:00 Time (UTC)



Volcano Observatory Notice for Tsunami Threat (VONUT)

Annex V. OSVM VONUT Messages

VONUT Message #1

TEST...VONUT NUMBER 1...TEST

...THIS MESSAGE IS FOR THE CARIBEWAVE23 EXERCISE ONLY...

TEST...VOLCANO OBSERVATORY NOTICE FOR TSUNAMI THREAT ...TEST

TEST...VONUT...TEST

(2) TEST... Issued: 20230323/1330Z

(3) TEST... Volcano: Pelée 360120

(4) TEST... Current Aviation Colour Code: red

(5) TEST... Previous Aviation Colour Code : Orange

(6) TEST... Source: Volcanological and Seismological
Observatory of Martinique (OVSM)



CARIBE WAVE 2025 Hot-Wash



Antonio Aguilar
CARIBE WAVE Chair, FUNVISIS, Venezuela

Gisela Báez-Sánchez
CARIBE WAVE Vice Chair, Puerto Rico Seismic Network, USA

Prepared by:
Christa G. von Hillebrandt-Andrade
Manager, ITC Caribbean Office
ICG CARIBE EWS WG III Chair

Kimberly Maisonet Gonzalez
Student Contractee
ITC Caribbean Office

April 1, 2025

CARIBE WAVE 25 Evaluation

Introduction and Background

ONLINE QUESTIONNAIRE AVAILABLE UNTIL 4 April 2025.

Dear CARIBE-EWS Tsunami National Contact/National Tsunami Warning Center/Tsunami Warning Focal Point:

The CARIBE WAVE 25 exercise took place on March 20, 2025. The main objectives of the exercise were for Members States/Territories to exercise and evaluate communications with the Regional Tsunami Service Provider and their tsunami procedures and programs.

It was left up to each country to decide at what scale the exercise would be carried out. But, it was recommended to at least validate the receipt of the messages distributed by the Pacific Tsunami Warning Center (PTWC), and in the case of Central America, by the Central America Tsunami Advisory Center (a candidate Tsunami Service Provider).

Questions on the status of the implementation of the Tsunami Ready and TsunamiReady® programs are included in this questionnaire. At the end of the questionnaire, there is space for countries to comment on any additional activity or observation.

It should take around 25 minutes to complete.

Every officially designated Tsunami National Contact, National Tsunami Warning Center, or Tsunami Warning Focal Point for the Member States and Territories within the UNESCO ICG CARIBE-EWS framework is kindly requested to complete this form by April 4, 2025, even if the participation was limited to the PTWC/CATAC-TWFP/NTWC communications test component.

Only one questionnaire should be completed for each MS/Territory.

Thank you for your participation.

If you have any questions or problems, please contact:

Christa von Hillebrandt-Andrade, ITC-CAR Manager (christa.vonh@noaa.gov)

Evaluation

Intergovernmental Oceanographic Commission
Technical Series

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EXERCISE CARIBE WAVE 24 A Caribbean and Adjacent Region Tsunami Warning Exercise

21 March 2024
(Puerto Rico Trench and Panama
Scenarios)

Volume 2

Summary Report

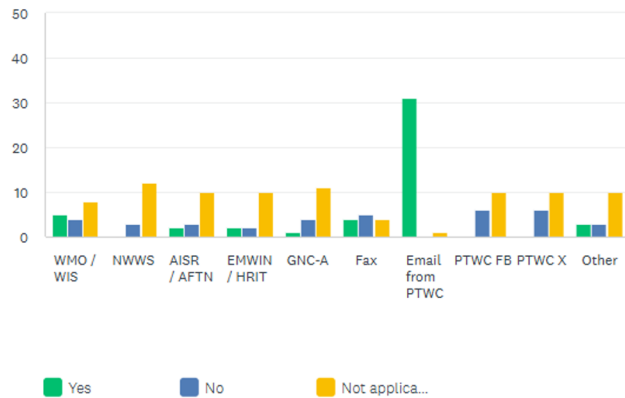
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International Tsunami Information

UNESCO 2025

Results

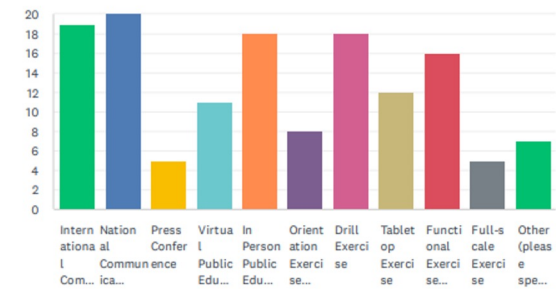
The PTWC issued the CARIBE WAVE 25 Dummy Message by several methods. Please check all methods through which the message was received by the TWFP/NTWC.

Answered: 32 Skipped: 0



Q16 What type of activities did people participate in for CARIBE WAVE 25?

Answered: 32 Skipped: 0



ANSWER CHOICES	RESPONSES
International Communication Test Portion (PTWC-TWFP/NTWC)	59.38% 19
National Communication Test Portion	62.50% 20
Press Conference	15.63% 5
Virtual Public Education and Awareness Activities	34.38% 11
In Person Public Education and Awareness Activities	56.25% 18
Orientation Exercise (Seminar)	25.00% 8
Drill Exercise	56.25% 18
Tabletop Exercise	37.50% 12
Functional Exercise (Test of Emergency Response Plans)	50.00% 16
Full-scale Exercise	15.63% 5
Other (please specify):	21.88% 7
Total Respondents: 32	



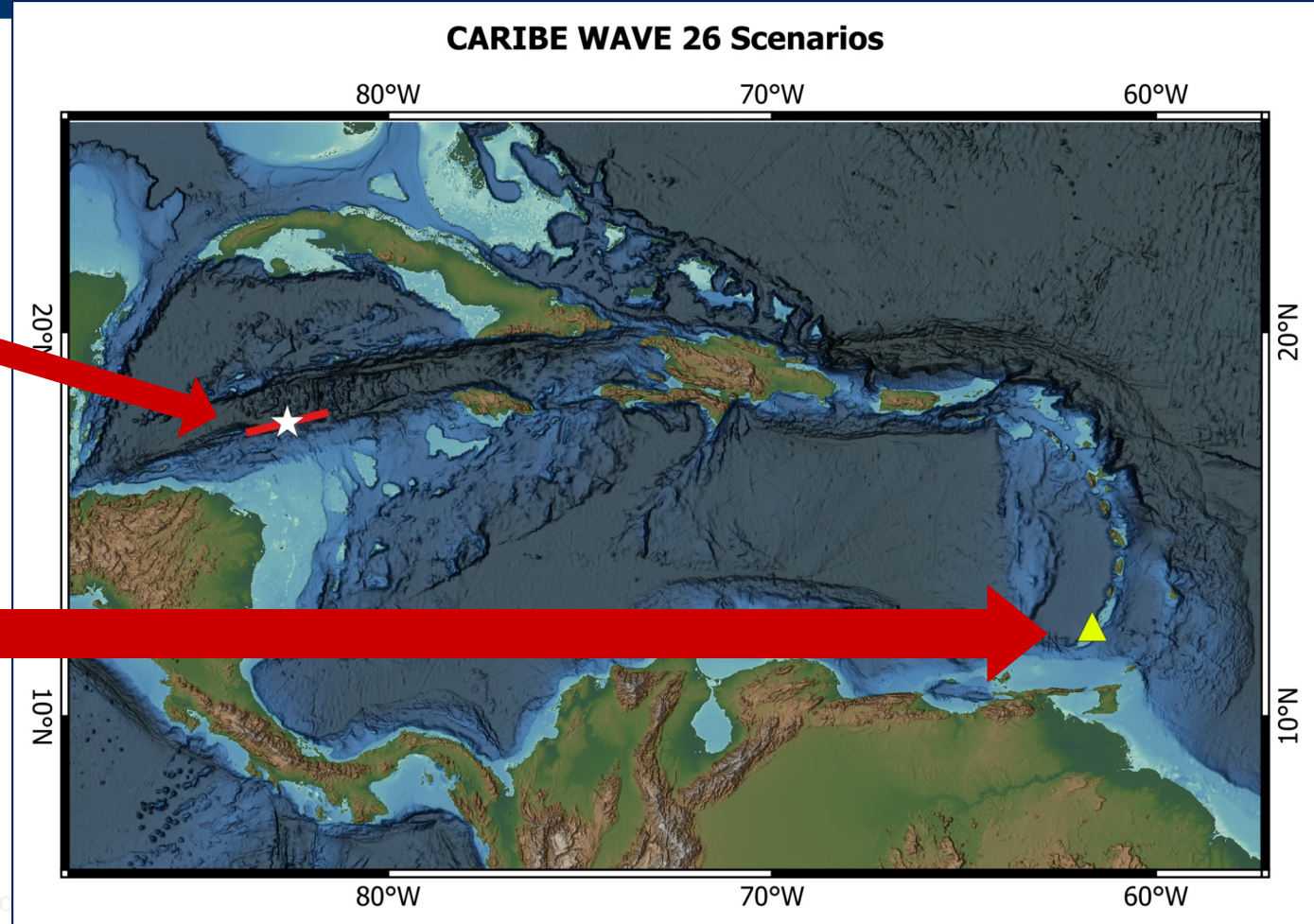
UNESCO/IOC-N
International

Activities and Social media



CARIBE WAVE 26

- March 19, 2025
- Scenarios:
 - Cayman Islands
 - Kick 'em Jenny



Resources available at caribewave.org

- Manual and Guides 86: Multi-Annual Community Tsunami Exercise Programme Guidelines for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions.
- PTWC Enhanced Products and Staging for the Caribbean and Pacific, English
- IOC Manuals “How to plan, conduct and evaluate tsunami exercises” and “Module on Tsunami Exercise” are useful resources.
- CARIBE WAVE 2011 - 2025 Handbook
- CARIBE WAVE 2011 - 2024 Final Reports
- PTWC Communications Plan and Users Guide for the Caribbean
- TsunamiZone registration guide

UNESCO/IOC-NOAA SHOA
International Tsunami Information



<https://doi.org/10.1785/0120220095>



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15-26 September 2025, Honolulu, Hawaii

Thank You



Kimberly Maisonet González
ITIC-CAR



Pacific
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Communauté
du Pacifique