



2nd Webinar

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February 15, 2022

#CARIBEWAVE
#TSUNAMIREADY

Objectives

In this webinar, the importance of the following will be emphasized:

- Exercise Updates
- Communication Methods
- Registration
- Post-exercise questionnaire
- Media (Uploading Pictures/Videos)
- CW Video

NOTE: The first webinar gave an overview of the simulated PTWC products, this will not be covered. For the presentation and recording please go to

<https://www.weather.gov/ctwp/caribewave22>.

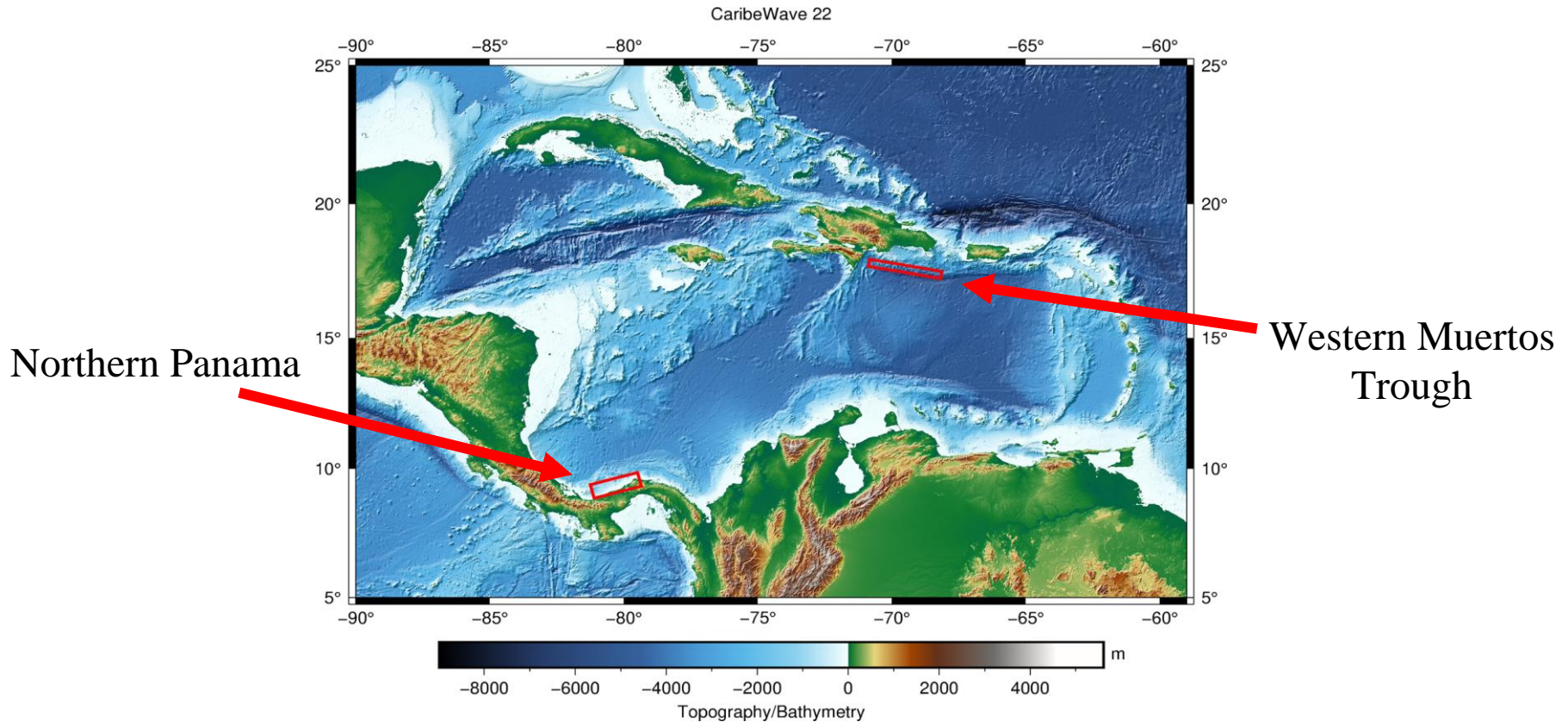
#CARIBEWAVE
#TSUNAMIREADY

Goals / Metrics

Goals	2016 Results	2017 Results	2018 Results	2019 Results	2020 Results	2021 Results	2022 Metrics
TWFP receive the dummy message	84%	95%	100%	89%	97%	97%	100%
Participation of Member States of ICG/CARIBE-EWS with designated focal warning point	100%	100%	97%	100%	92%	98%	100%
Community involvement (including agencies beyond TWFP)	73%	82%	77%	66%	38%	56%	95%
Number of participants*	332,812	679,985	643,403	793,353	4,622	333,518	+10%
Countries who participate submit exercise questionnaire	100%	100%	91%	82%	92%	95%	100%
Members State and territories are satisfied with exercise				82%	76%	96%	100%

CARIBE WAVE 22

Earthquake and Tsunami Scenarios



Scenario	Origin Time	Mw	Epicenter
Western Muertos Trough	14:00:00 UTC	8.0	17.5°N, 69.5°W
Northern Panama	March 10, 2022	8.3	9.3°N, 80.3°W

PTWC Dummy Message for CARIBE WAVE 22:

- On **March 10, 2022 at 1400 UTC**, the initial dummy message will be issued and disseminated over all its standard broadcast channels for the two scenarios.

Center	WMO ID	AWIPS ID	NWWS	GTS/WIS/WMO	GEONET CAST AMERICAS	HRIT/ EMWIN*	AISR	Fax	Email
PTWC	WECA41 PHEB	TSUCAX	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*Virtual Channel ID (VCID): “20” – EMWIN Priority [1 and 2 bulletins]

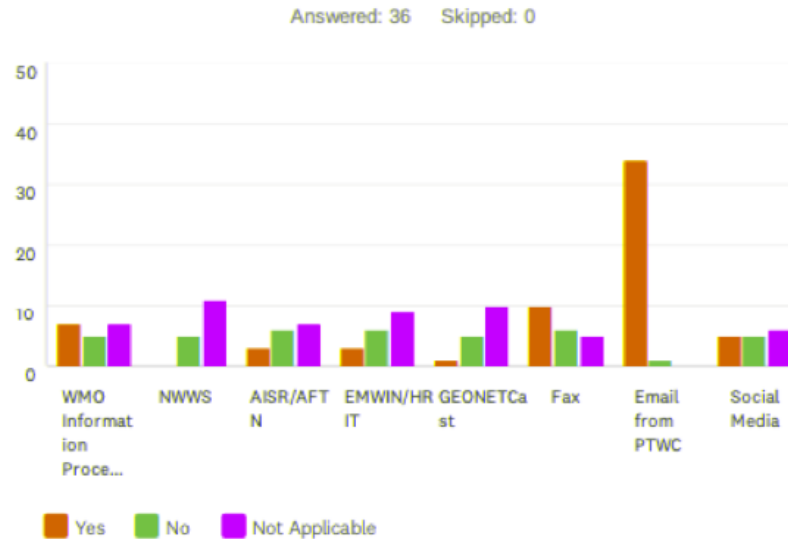
- To verify the current list as of April 2021 of officially designated UNESCO IOC CARIBE-EWS TWFP and NTWC check out:

http://www.ioc-tsunami.org/index.php?option=com_content&view=article&id=6&Itemid=22&lang=en

- **Username:** tsunami **Password:** bigwave
- For changes, email: **b.aliaga@unesco.org**

Results of Communication Portion of CARIBE WAVE 21

Q5 The PTWC issued the CARIBE WAVE 21 Dummy Message by several methods. Please check all methods through which the message was received by the TWFP/NTWC.



WMO has expressed their concern about the low numbers of TWFP/NTWCs using GTS/WIS – it is important to verify with the Met Services that they are using these systems for the receipt of tsunami messages.

Appendix E. TWC Dummy (Start of Exercise) Message

PTWC ← Center

WECA41 PHEB 191400 ← WMO ID

TSUCAX ← AWIPS ID

TEST...INITIAL DUMMY START OF EXERCISE MESSAGE...TEST
NWS PACIFIC TSUNAMI WARNING CENTER/NOAA/NWS
ISSUED AT 1400Z 10 MAR 2022

...TEST...CARIBE WAVE 22 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 22 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 WEB SITE CARIBEWAVE.INFO. THE EXERCISE PURPOSE IS TO EXERCISE AND EVALUATE THE CARIBE EWS TSUNAMI WARNING SYSTEM.

THIS IS ONLY AN EXERCISE.

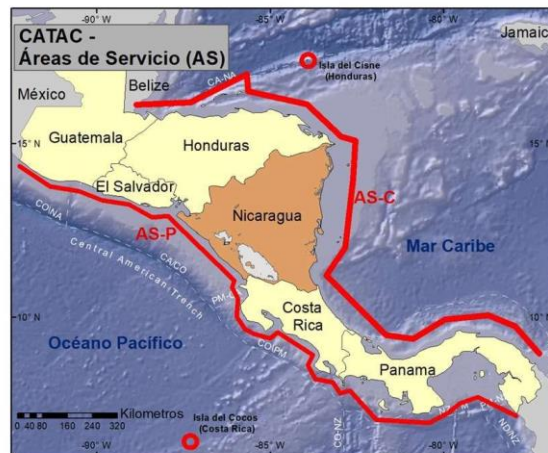
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CATAC Dummy Message

On March 10, the initial dummy message will be issued and disseminated over its standard broadcast channels.

Center	WMO ID	AWIPS ID	NWWS	GTS/WIS/WMO	GEONET CAST AMERICAS	HRIT/EMWIN*	AISR	Fax	Email
CATAC	MNMG	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Yes

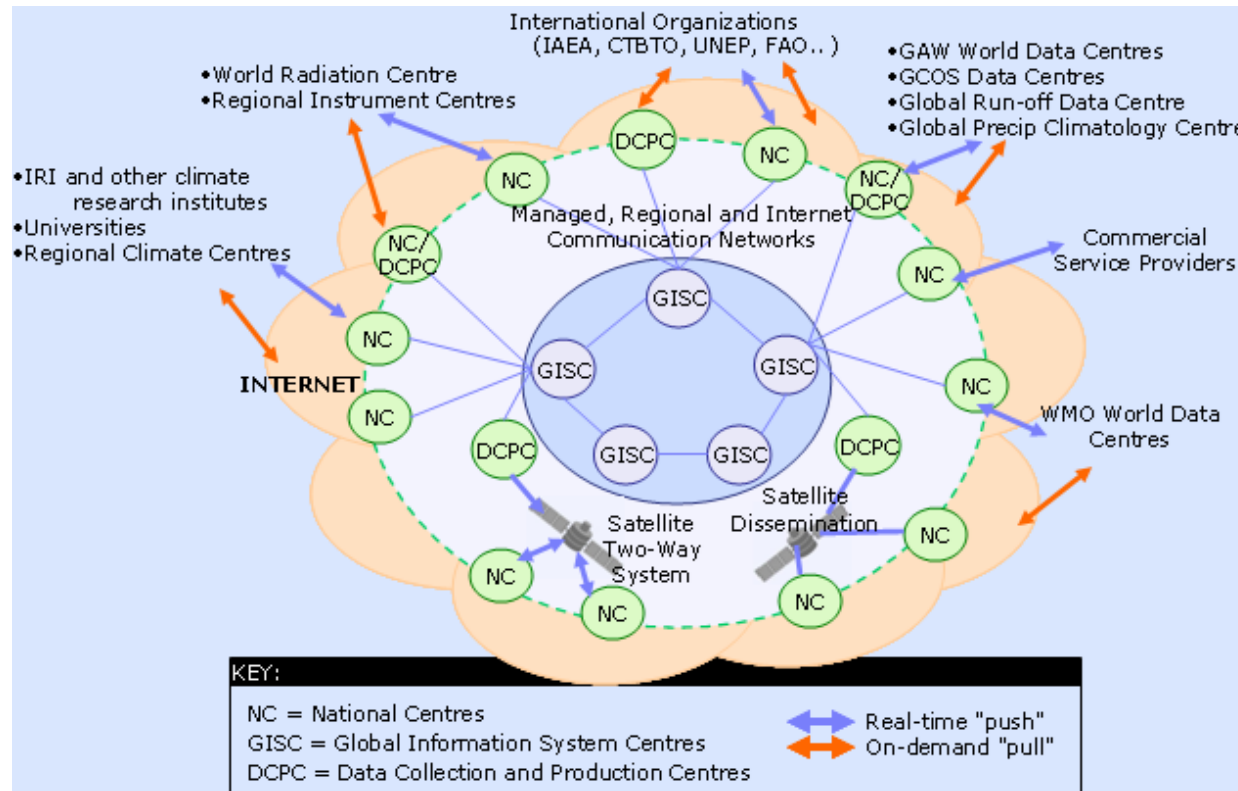
Only Central American countries and regions by agreement with the center will receive the message.



CATAC – Areas of responsibility



WMO Information System (WIS)



WMO WIS / GTS reception

- If you have direct access to GTS
 - You will receive a message with GTS header WECA41 PHEB through your GTS link.
 - CATAC
- If you **don't** have direct access to GTS
 - You can subscribe to the reception of Tsunami Warnings through a WMO Global Information System Center (GISC).
 - You will receive a message with GTS header WECA41 PHEB on your registered FTP, SFTP server or via email.

WMO WIS / GTS reception

- If you **don't** have direct access to GTS
 - Register on <https://gisc.dwd.de>
 - When registering pick your Organization or use Public
 - After Login go to Subscriptions -> Internet subscriptions
 - Click Edit Destinations and click +
 - Enter details for delivery (ftp or sftp server, or email)
 - Click Edit Subscriptions and click +
 - Choose Tsunami_warnings from the default product package drop down
 - **Do NOT tick Copy products**
 - Click Create subscription and Save

Now you are set to receive Tsunami Warnings from WIS

Having problems? Write to wis@wmo.int with subject: help Tsunami Warning

NOAA Satellite Broadcast Overview

GEONETCast Americas (GNC-A)

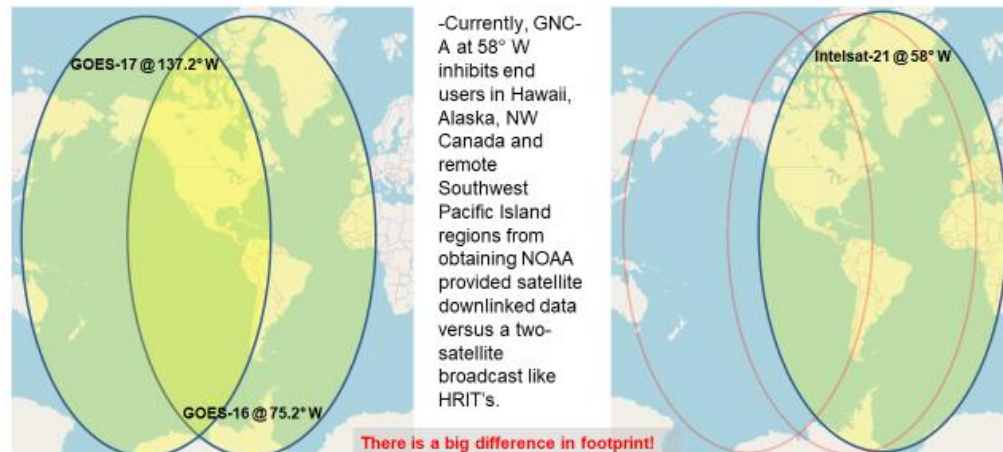
–A commercial satellite broadcast funded by NOAA to cover the America's. Data is provided to the broadcast from multiple countries/organizations. GNC-A is a part of a global satellite network to distribute earth observational data at a sustained and cost-effective manner.

High Rate Information Transmission/Emergency Managers Weather Information Network (HRIT/EMWIN)

–HRIT/EMWIN is a NOAA provided broadcast available from either GOES-R series East/West satellites. Both satellite broadcasts are limited in bandwidth, thus products available are limited or in lower resolution compared to GNC-A.

	High Rate Information Transmission/Emergency Managers Weather Information Network	GEONETCast Americas
Satellite	GOES @75.2° and 137° W	Intelsat 21 @ 58° W
Center Downlink Frequency	1694.1 MHz (L band)	4080.0 MHz (C band)
Data Rate	400 Kbps	20 Mbps
Modulation	BPSK	QPSK
Polarization	Linear	Vertical
Data Format	CCSDS/CGMS LRIT	DVB-S2

HRIT East & West versus GNC-A Footprint



Where to Find Tsunami Warning on GNC-A

—In addition to the RF antenna equipment, GNC-A users must have FAZZT Kencast client software in order ingest the broadcast

—Requires a one-time licensing fee

—Within the GNC-A broadcast, there are twelve International Services Communication Systems (ISCS) folders/channels for various product transmissions.

—Users will find all tsunami warnings, watches and advisories (WWA) within the folder labeled: **“ISCS-WARN”**

—ISCS-WARN has the highest broadcast priority

—All Tsunami WWA’s will arrive as text (TXT) files

—GNC-A users must activate this channel to receive warnings within FAZZT configuration settings.

Name
EUMETSAT
GOES-R-RGB-Composites
ISCS-GRIB2
ISCS-SURFACE
ISCS-UA
ISCS-FCAST
INPE
ISCS-WARN
ISCS-BUFR
ISCS-RADAR
GOES-R-GLM-Products
USEPA
ISCS-PIC
ISCS-ADMIN
RANET
NOAA-NESDIS
ISCS-SAT
ISCS-ANLZ-CLIMATE
IMN-CostaRica
CONAE
ISCS-GRIB1
MARN-El Salvador
NADM
CIMSS

T_WSLG31BGSF091718_C_KWBC_20210209172112_24248564-4908
T_SECA42TJSJ091716RRA_C_KWBC_20210209171711_24248564-4907-TMASJU
T_WEXX20PAAQ091714_C_KWBC_20210209171518_15991038-5544
T_WEXX20PAAQ091714_C_KWBC_20210209171518_15991038-5545-TSUAT1
T_WEXX30PAAQ091714_C_KWBC_20210209171518_15991038-5546-TSUATE
T_WEXX20PAAQ091714_C_KWBC_20210209171511_24248564-4905-TSUAT1
T_WSMC31GMMC091713_C_KWBC_20210209171511_24248564-4906
T_WWFJ40NFFN091700_C_KWBC_20210209171218_15991038-5543
T_WWFJ40NFFN091700_C_KWBC_20210209171211_24248564-4904

U.S. Atlantic, Gulf of Mexico, Canada	Example: WEXX20 PAAQ Example: WEXX20 PAAQ Example: WEXX20 PAAQ	TSUAT1	NTWC	Segmented Tsunami Warnings, Watches, and Advisories
	Example: WEXX30 PAAQ Example: WEXX30 PAAQ Example: WEXX30 PAAQ	TSUATE	NTWC	Tsunami Warnings, Watches, and Advisories
	Example: WEXX40 PAAQ Example: WEXX40 PAAQ Example: WEXX40 PAAQ	TSUSPA	NTWC	Spanish Tsunami Warnings, Watches, and Advisories
	Example: WEXX32 PAAQ	TIBATE	NTWC	Tsunami Information Statements
	Example: WEXX42 PAAQ	TIBSPA	NTWC	Spanish Tsunami Information Statements

Example from NTWC Tsunami Routine Communications Test US East & Gulf Coast received via GNC-A on February 9th, 2021 at 17:15 UTC

GNC-A Known User Community

GNC-A Points of Entry

in red are CARIBE EWS NTWC/TWFP



- | | | | |
|------------------------|--------------------|-----------------------------------|-------------------|
| • Antigua and Barbuda* | | Guatemala | INSIVUMEH |
| • Barbados* | CIMH | Honduras | COPECO |
| • Belize | NMS-Belize | Haiti | UHM |
| • Costa Rica | AEROPUERTO-JSM | Panama | SERVIR-CATHALAC |
| • Costa Rica | IMN Costa Rica | Dominican Republic | ONAMET |
| • Costa Rica | AEROPUERTO-LIBERIA | Mexico | CONAGUA-SMN |
| | | Mexico | CONAGUA-Ciudad de |
| • Cuba | INSMET | Mexico | CONAGUA-Chiapas |
| • Dominica* | | Mexico | CONAGUA-Yucatán |
| • El Salvador | MARN-Aeropuerto | Mexico | CONAGUA-Veracruz |
| | Llopango | Mexico | UNAM-ICML |
| • El Salvador | MARN-Puerto | Mexico | CENAPRED |
| | Acajutla | Mexico | UABC |
| • El Salvador | MARN-Puert | Mexico | INEGI |
| | Corsain | Mexico | AEM-CICESE |
| • El Salvador | MARN-Universidad | Mexico | UNAM |
| | de El Salvador | Puerto Rico | PRSN |
| • El Salvador | MARN-Las Mercedes | Saint Kitts and Nevis* | |
| • Grenada* | | Saint Vincent and the Grenadines* | |
- * To be installed by February 2022**

Where to Find Tsunami Warning on HRIT/EMWIN

—In addition to the RF antenna equipment, users must have software available to ingest/visualize the data

—Within the HRIT/EMWIN broadcast, there are a total of three National Weather Service provided EMWIN channels (VCID 20 -22)

—Users will find all tsunami warnings, watches and advisories (WWA) within VCID 20, as a priority 1 message

—VCID 20 priority 1 and 2 data have the highest broadcast priority

— All Tsunami WWA's will arrive as text (TXT) files wrapped within a .Irit file extension

—Will need to be unwrapped to visualize

VCID #	Product Name
0	Admin Text
1	Mesoscale Imagery
2	CMI Band 2
7	CMI Band 7
8	CMI Band 8
9	CMI Band 9
13	CMI Band 13
14	CMI Band 14
15	CMI Band 15
17	G17 CMI Band 13
20	EMWIN – High Priority
21	EMWIN - Graphics
22	EMWIN – Low Priority
24	NHC Maritime Graphics Products
25	GOES-16 Level II Products
30	DCS Admin
32	DCS Data New Format

A_SNAU01AMMC091700_C_KWIN_20210209171517_738012-2-OBSU01AU.Irit
 A_FTPA32KWBC091715_C_KWIN_20210209171504_737995-2-TAFWBCFJ.Irit
 A_UBCA90KWBC091715_C_KWIN_20210209171503_737990-2-UABA90CA.Irit
 A_FTUS80KWBC091715_C_KWIN_20210209171506_737999-2-TAFALLUS.Irit
 A_NWUS51KALY091714_C_KWIN_20210209171501_737988-2-LSRALYNY.Irit
 A_NWUS55KBYZ091714_C_KWIN_20210209171455_737979-2-LSRBVZMT.Irit
 A_FNUS76KHXX091714_C_KWIN_20210209171441_737970-2-FWSHXCXA.Irit
 A_SXMS50KWAL091714_C_KWIN_20210209171446_737972-2-MISDCPSV.Irit
 A_WEXX30PAAQ091714_C_KWIN_20210209171454_737978-1-TSUATEUS.Irit
 A_WEXX20PAAQ091714_C_KWIN_20210209171454_737977-1-TSUAT1US.Irit
 A_WEXX20PAAQ091714_C_KWIN_20210209171449_737974-1-TSUAT1US.Irit
 A_SXMS50KWAL091714_C_KWIN_20210209171436_737964-2-MISDCPSV.Irit
 A_FTFJ31NFFN091700_C_KWIN_20210209171433_737957-2-TAFJ31FJ.Irit
 A_SXMS50KWAL091713_C_KWIN_20210209171432_737954-2-MISDCPSV.Irit
 A_NWUS51KALY091714_C_KWIN_20210209171429_737949-2-LSRALYNY.Irit
 A_SXMS50KWAL091714_C_KWIN_20210209171432_737955-2-MISDCPSV.Irit
 A_SAU580KWBC091714_C_KWIN_20210209171428_737945-2-SAHOURLY.Irit
 A_SAU570KWBC091700_C_KWIN_20210209171427_737943-2-SAHOURLY.Irit
 A_SPU580KWBC091714_C_KWIN_20210209171428_737946-2-MISS80US.Irit
 A_SAU570KWBC091714_C_KWIN_20210209171427_737942-2-SAHOURLY.Irit
 A_SPU570KWBC091714_C_KWIN_20210209171427_737944-2-MISS70US.Irit
 A_SXPA50KWAL091713_C_KWIN_20210209171425_737937-2-MISA50US.Irit
 A_SXMS50KWAL091713_C_KWIN_20210209171425_737936-2-MISDCPSV.Irit

Example from a NTWC Tsunami Routine Communications Test US East & Gulf Coast received via HRIT/EMWIN on February 9th, 2021 at 17:15 UTC

Helpful Web Links and Contact Information

More GEONETCast America Broadcast Information

– <https://geonetcast.wordpress.com/>

More HRIT/EMWIN Broadcast Information

– <https://www.noaasis.noaa.gov/>

– <https://www.weather.gov/emwin/>

More information about GNC-A and EMWIN NWS product baseline

– <https://www.weather.gov/iscs/baseline>

More about Tsunami WMO Headers, AWIPS ID's and Origin

– https://ntwc.ncep.noaa.gov/?page=product_list

GNC-A and HRIT/EMWIN Broadcast POC

HRIT/EMWIN Program Manager

Ian Avruch – ian.avruch@noaa.gov

GEONETCast Americas Program Manager

Seth Clevensline – Seth.Clevensline@noaa.gov
or

Primary Email POC – GNC.Americas@noaa.gov

EMWIN and ISCS Program Manager

Robert Gillespie – Robert.Gillespie@noaa.gov
or

Primary Email - nws.emwin.support@noaa.gov

Dummy (Start of Exercise) Message

Start of exercise messages will also be sent out by PTWC twitter accounts.

“This is a test message for the CARIBEWAVE22 tsunami exercise
#CaribeWave”

(Will be issued at 14h00 UTC to NWS_PTWC and NWS_CTWP
accounts/subscribers.)

Simulated Tsunami Messages

As of **1407 UTC**, PTWC emails will be sent with all the simulated products to the designated CARIBE-EWS, TWFP and NTWC for one of the scenarios.

- By **25 February 2022**, each Member State must complete the following survey (https://www.surveymonkey.com/r/CW22_ScenarioSelection) to select the scenario their country will use for the exercise.
- Each country and territory will choose one scenario and decide if and how to disseminate messages within its area of responsibility.
- If the Member State does not inform the PTWC and ITIC-CAR, the organizers will decide for which scenario the PTWC will send the products.

**CARIBE WAVE 22 Scenarios by Member State/Territory
As of 14-February-2022**

Western Muertos Trough	Northern Panama
Aruba	Belize
Barbados	Cayman Islands
Bermuda	Costa Rica
Brazil	Guatemala
British Virgin Islands*	Honduras
France	Mexico
Guyana	Nicaragua
Haiti	Panama
Netherlands (Bonaire, Sint Eustatius, Saba)	
Puerto Rico*	
US Virgin Islands*	

*PTWC has prepared the corresponding simulated domestic products

DEADLINE TO SELECT A SCENARIO: FRIDAY, February 25, 2022

Message Chronology issued by the PTWC Western Muertos Trough

Date	Time (UTC)	PTWC	
		Type of Product	Transmission Method
3/10/22	1400	- - - - E a r t h q u a k e O c c u r s - - - -	
3/10/22	1400	Dummy	NWWS, GTS, EMWIN, AISR, Fax, Email
3/10/22	1407	Initial Tsunami Threat Message #1	Email
3/10/22	1430	Tsunami Threat Message #2 with Forecast and Graphical Enhanced Products	Email
3/10/22	1500	Tsunami Threat Message #3 Supplement with Observations	Email
3/10/22	1600	Tsunami Threat Message #4 Supplement with Observations	Email
3/10/22	1700	Tsunami Threat Message #5 Supplement with Observations	Email
3/10/22	1800	Tsunami Threat Message #6 Supplement with Observations	Email
3/10/22	1900	Tsunami Threat Message #7 Supplement with Observations	Email
3/10/22	2000	Final Tsunami Threat Message #8	Email

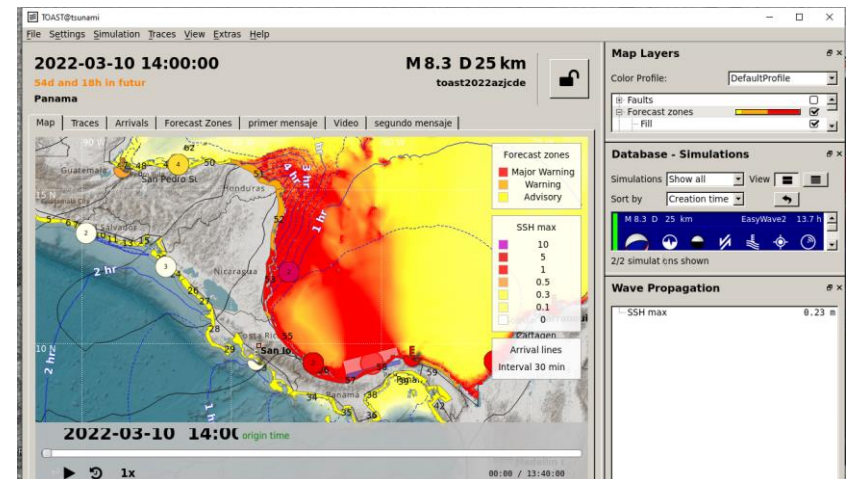
Message Chronology issued by the PTWC Northern Panama

Date	Time (UTC)	PTWC	
		Type of Product	Transmission Method
3/11/22	1400	----- Earthquake Occurs -----	
3/10/22	1400	Dummy	NWWS, GTS, EMWIN, AISR, Fax, Email
3/10/22	1407	Initial Tsunami Threat Message #1	Email
3/10/22	1430	Tsunami Threat Message #2 with Forecast and Graphical Enhanced Products	Email
3/10/22	1500	Tsunami Threat Message #3 Supplement with Observations	Email
3/10/22	1600	Tsunami Threat Message #4 Supplement with Observations	Email
3/10/22	1700	Tsunami Threat Message #5 Supplement with Observations	Email
3/10/22	1800	Tsunami Threat Message #6 Supplement with Observations	Email
3/10/22	1900	Tsunami Threat Message #7 Supplement with Observations	Email
3/10/22	2000	Final Tsunami Threat Message #8	Email

CATAC Simulated Messages

The Central America Tsunami Advisory Center (CATAC) will send the simulated products as of **1407 UTC** for the Northern Panama scenario to Central American countries and regions by agreement with the center.

1. Text message in Spanish: email
2. Text message in English: WMO/GTS
3. Graphic products: email, Telegram, CATAC webpage



Graphical products:

1. Predicted amplitudes at Sea Gauges
2. Predicted amplitudes at coastal zones
3. Tsunami propagation movie

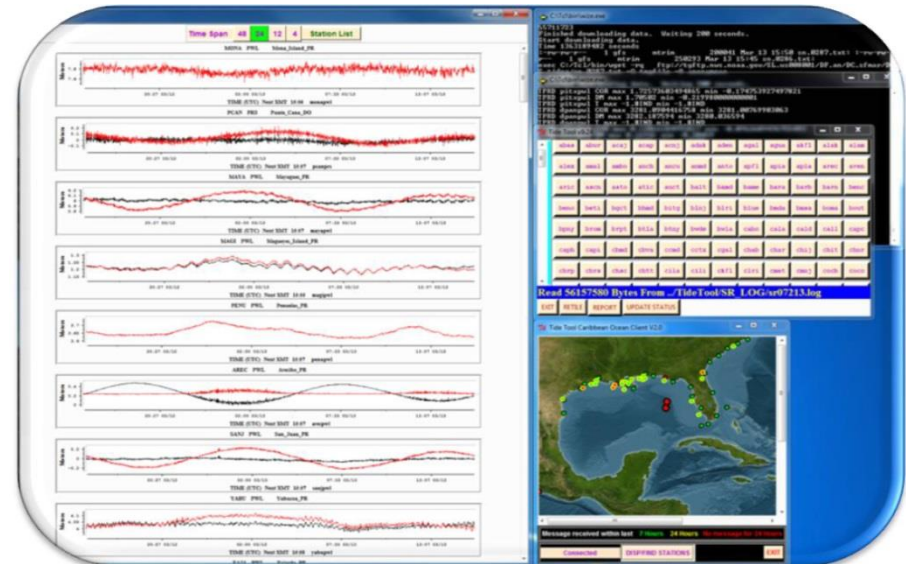
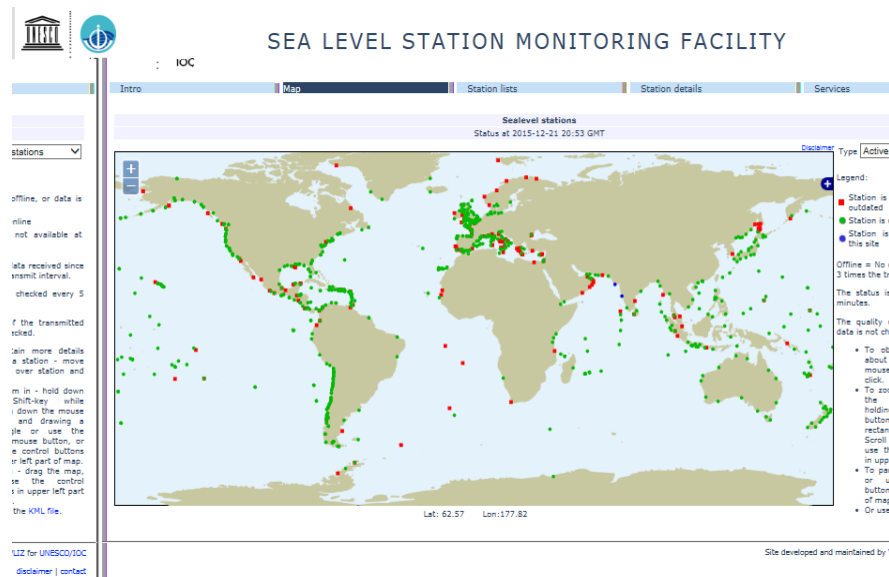


Sea Level Monitoring

As good practice for the exercise, corresponding authorities are encouraged to check out sea level readings in real time on the IOC Sea Level Monitoring Facility and Tide Tool which can also be run with the earthquake parameters.

IOC Sea Level Monitoring Facility
<http://www.ioc-sealevelmonitoring.org/>

Tide Tool
stuart.weinstein@noaa.gov



Member State Participation

The *TsunamiZone* Registration

Member States establish their own national task teams to determine the scope of their national participation and testing.

Home TsunamiZone Regions Other Languages Contact Us Search Login

The **TsunamiZone**

Register Here Know Your Zone Who is Participating? How to Participate? Resources News & Events Partners & Sponsors

Alert Status from tsunami.gov **No Tsunami Warning, Advisory, Watch, or Threat**

WELCOME TO THE TSUNAMIZONE!

Everyone, everywhere should know how to be prepared for tsunamis and what to do to be safe. This is true for people who live or work near the ocean, but also for anyone who may visit someday. Are you in the Zone?

TsunamiZone.org provides [suggestions](#) and [resources](#) for your family or organization to "[know your zone](#)" and to [learn](#) how to be safe.

Be counted among people and organizations worldwide by [registering](#) your 2022 tsunami preparedness activities!

[ESPAÑOL](#)
[FRANÇAIS](#)

2021-22 OFFICIAL ACTIVITIES

November 5
[World Tsunami Awareness Day](#)

March 10, 2022
[CARIBE WAVE 2022](#)

March 2022
[Lantex 2022](#)
[Pacifex 2022](#)

March 21 – 25, 2022
[California's Tsunami Preparedness Week](#)

Ongoing activities:
[Visit the Virtual Fair](#) hosted by the Redwood Coast Tsunami Work Group to learn about earthquake and tsunami hazards of California's North Coast.

[View Other TsunamiZone Videos and Resources](#)

TWFP and NTWC should register on TsunamiZone to be part of the statistical count. Independent of registering, they will receive the simulated bulletins from PTWC.

WELCOME TO THE TSUNAMIZONE!


Everyone, everywhere should know how to be prepared for tsunamis and what to do to be safe. This is true for people who live or work near the ocean, but also for anyone who may visit someday. Are you in the Zone?

TsunamiZone.org provides [suggestions](#) and [resources](#) for your family or organization to "[know your zone](#)" and to [learn](#) how to be safe.

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[FRANÇAIS](#)



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2021-22 OFFICIAL ACTIVITIES

November 5
[World Tsunami Awareness Day](#)

March 10, 2022
CARIBE WAVE 2022

March 2022
Lantex 2022
Pacifex 2022

March 21 – 25, 2022
[California's Tsunami Preparedness Week](#)

Ongoing activities:
[Visit the Virtual Fair](#) hosted by the Redwood Coast Tsunami Work Group to learn about earthquake and tsunami hazards of California's North Coast.

<https://www.tsunamizone.org/>
Countries can keep track of registration by clicking on « Who is Participating »

PARTICIPATION TOTALS

9,461 participants are registered in the 2022 TsunamiZone (as of 02/14/2022 3:25 AM PST).

Category	Participants	Participation totals for each area	Total
Individuals/Families	44	Anguilla	0
Childcare and Pre-Schools	43	Antigua and Barbuda	0
K-12 Schools and Districts	1,314	Aruba	852
Colleges and Universities	0	Bahamas	0
Local Government	5,987	Barbados	101
State Government	730	Belize	0
Federal/National Government (Including Military)	162	Bermuda	13
Tribes/Indigenous Peoples	0	Bonaire	0
Businesses	0	Brazil	0
Hotels and Other Lodgings	0	British Virgin Islands	0
Healthcare	286	Cayman Islands	3
Senior Facilities/Communities	0	Colombia	0
Disability/AFN Organizations	0	Costa Rica	0
Non-Profit Organizations	130	Cuba	0
Neighborhood Groups	0	Curacao	0
Preparedness Organizations	470	Dominica	0
Faith-based Organizations	0	Dominican Republic	0
Museums, Libraries, Parks, etc.	0	France	0
Volunteer/Service Clubs	0	Grenada	0
Youth Organizations	0	Guadeloupe	30
Animal Shelter/Service Providers	0	Guatemala	0
Agriculture/Livestock Sector	0	Guyana	0
Volunteer Radio Groups	231	Guyane	0
Science/Engineering Organizations	50	Haiti	0
Media Organizations	0	Honduras	0
Other	14		

**As of 14 Feb 2022,
9,461 participants
have registered on the
website.**

Tsunami Zone Representative:
Jason Ballmann

Media Arrangements

- UPRM PRSN Tsunami Media Guide (English and Spanish) and Tsunami Program Portal:

<http://www.prsn.uprm.edu/mediakit/>

<https://redsismica.uprm.edu/english/tsunami/>

- UWI Seismic Research Center Tsunami and other Coastal Hazards WS Media Information Kit:

<http://www.uwiseismic.com>

- Handbook sample press release, which can be adapted as necessary.
- The use of the #CARIBEWAVE and #TSUNAMIREADY hashtags are encouraged to be used before and during the exercise.

CW Videos/Photos Sharing

Ways to share your exercise pictures/videos:

1. Tsunami Zone Website

(<https://www.tsunamizone.org/share/>)

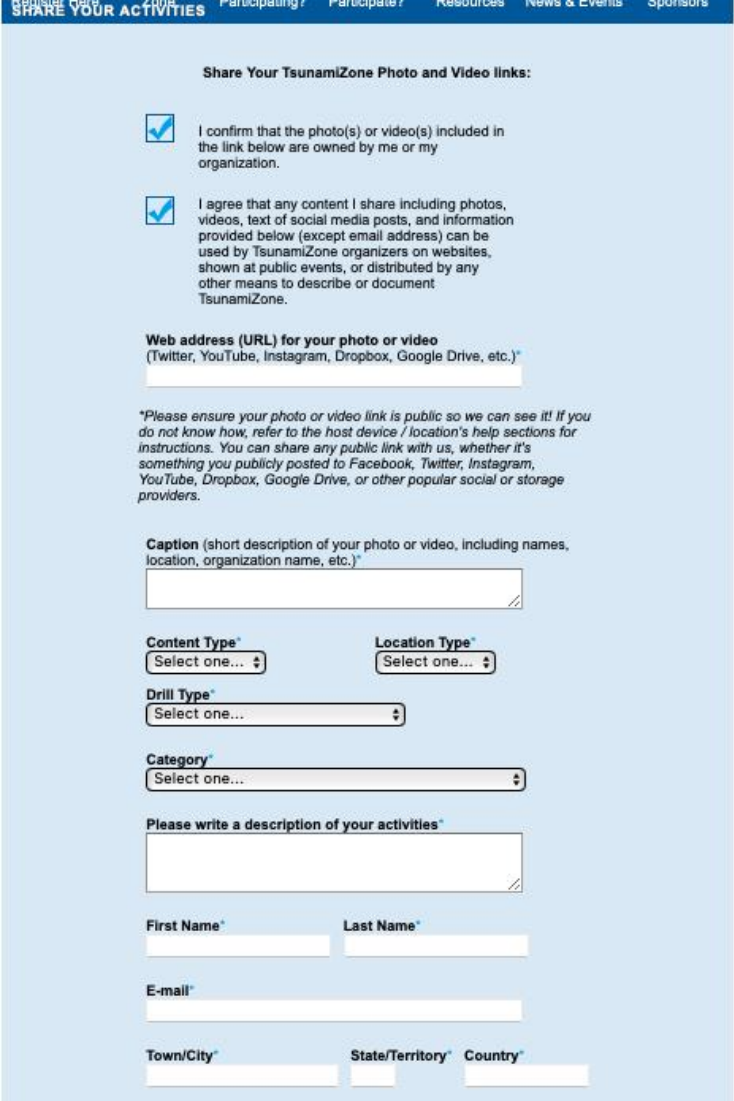
- Only accepts website or/and social media links

2. Post-Exercise Questionnaire (available after the exercise).

- Accepts website or/and social media links

3. Email

- To christa.vonh@noaa.gov and
stephanie.soto@noaa.gov



SHARE YOUR ACTIVITIES

Share Your TsunamiZone Photo and Video links:

I confirm that the photo(s) or video(s) included in the link below are owned by me or my organization.

I agree that any content I share including photos, videos, text of social media posts, and information provided below (except email address) can be used by TsunamiZone organizers on websites, shown at public events, or distributed by any other means to describe or document TsunamiZone.

Web address (URL) for your photo or video
(Twitter, YouTube, Instagram, Dropbox, Google Drive, etc.)*

**Please ensure your photo or video link is public so we can see it! If you do not know how, refer to the host device / location's help sections for instructions. You can share any public link with us, whether it's something you publicly posted to Facebook, Twitter, Instagram, YouTube, Dropbox, Google Drive, or other popular social or storage providers.*

Caption (short description of your photo or video, including names, location, organization name, etc.)*

Content Type* Location Type*

Drill Type*

Category*

Please write a description of your activities*

First Name* Last Name*

E-mail*

Town/City* State/Territory* Country*

Actions in Case of a Real Event

- In the case of a real event occurring during the exercise, the PTWC will issue the corresponding messages for the event. Such messages will be given full priority and a decision will be made by the PTWC whether to issue the **CARIBE WAVE 22** dummy messages and to send email messages to corresponding recipients.
- In the case of smaller earthquakes, PTWC will issue the corresponding Tsunami Information Statement and the exercise will not be disrupted.
- All documentation and correspondence relating to this exercise is to be clearly identified as “**CARIBE WAVE 22**” and “**Exercise.**”

Procedures for False Alarm

- Any time disaster response exercises are conducted; the potential exists for the public or media to interpret the event as real.
- Procedures should be set up by all participating entities to address public or media concerns involving this exercise in case of misinterpretation by media or the public.
- Recommended text in case of false alarm:

“There is NO TSUNAMI threat for [location]. We are aware of an erroneous tsunami [alert level] for our area. Please disregard; we have not issued a tsunami [alert level]. The annual CARIBE WAVE tsunami exercise is underway and communication systems are being tested. [Name of agency] is reviewing this incident.”

Post-Exercise Evaluation Form

- Each CARIBE-EWS member state and territory is requested to provide feedback on the exercise.
 - This feedback will assist the ICG/CARIBE-EWS in the evaluation of CARIBE WAVE 22, the development of subsequent exercises, and help response agencies document lessons learned.
 - To facilitate feedback, the online evaluation survey can be accessed at the following link: <https://www.surveymonkey.com/r/CaribeWave22>
 - The deadline for completing the evaluation is 31 March 2022.
 - This questionnaire includes feedback on PTWC, CATAC, Risk Knowledge and SOPs, Tsunami Ready
 - It contains 34 questions, 11 pages, and should take no more than 15 minutes.

Post-Exercise Evaluation Form Questionnaire

5. The PTWC issued the CARIBE WAVE 22 **Dummy Message** by several methods. Please check all methods through which the message was received by the TWFP/NTWC.

	Yes	No	Not Applicable
WMO Information Process (e.g., GTS, WIS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NWWS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AISR/AFTN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EMWIN/HRIT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GEONETCast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Email from PTWC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social Media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. The PTWC issued the CARIBE WAVE 22 **Dummy Message** by several methods. Please indicate the time at which the message was received by the TWFP/NTWC in the different systems.

	Hour	Minutes	Time Zone
WMO Information Process (e.g., GTS, WIS)	<input type="text"/>	<input type="text"/>	<input type="text"/>
AISR/AFTN	<input type="text"/>	<input type="text"/>	<input type="text"/>
EMWIN/HRIT	<input type="text"/>	<input type="text"/>	<input type="text"/>
GEONETCast	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fax	<input type="text"/>	<input type="text"/>	<input type="text"/>
Email from PTWC	<input type="text"/>	<input type="text"/>	<input type="text"/>
Social Media	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other means	<input type="text"/>	<input type="text"/>	<input type="text"/>

Post-Exercise Evaluation Form Questionnaire

22. Is your country implementing the Community Performance Based Tsunami Recognition Program (TsunamiReady® or Tsunami Ready)?

- Yes
 No

Comments:

23. Is your country interested in implementing the Community Performance Based Tsunami Recognition Program (TsunamiReady® or Tsunami Ready)?

- Yes
 No

Comments:

24. What is the target number of Tsunami Ready communities in your country/territory for TsunamiReady® or Tsunami Ready recognition?

Communities

Comments:

25. How many communities have been recognized in your country/territory for TsunamiReady® or Tsunami Ready?

Communities

Comments:

Resources

- **NEW:** 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. <https://www.weather.gov/ctwp/caribewave22>
- **NEW:** 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 through 2022 Handbooks - <https://www.weather.gov/ctwp/caribewave22>
- CARIBE WAVE 2013 through 2021 Final and Media Report - <https://www.weather.gov/ctwp/caribewave22>
- PTWC Communications Plan for the Caribbean - <https://www.weather.gov/ctwp/caribewave22>
- Questions on the exercise can be addressed to the members of the CARIBE WAVE 22 Task Team.

Video on PTWC Graphical Tsunami Forecast Products for the CARIBE-EWS



UNESCO IOC / NOAA
International Tsunami Information Center
Tsunami Training Video, September 2021

Pacific Tsunami Warning Center (PTWC) Graphical Tsunami Forecast Products for the CARIBE-EWS

Dr. Charles “Chip” McCreery
Director, PTWC



Video link: <https://vimeo.com/showcase/8956022>

To request password, email: christa.vonh@noaa.gov

COVID Considerations

- Note that social/physical distancing and quarantine/lock down measure may still be in effect.
- It is encouraged that MS consider on-line/virtual events or activities to engage the public.
- Participation by the public does not need to be a full tsunami walk, encourage people to check their emergency plan/tsunami route/supplies and register on tsunamizone.org
- Note the CARIBE EWS guidance for Tsunamis:
 - http://www.ioc-tsunami.org/index.php?option=com_oe&task=viewDocumentRecord&docID=26796

UNESCO/IOC

ICG/CARIBE EWS

Tsunami Services and Evacuation/Sheltering Considering Physical Distancing Practices

Context

The current COVID-19 response has required changes in workloads, work venues as well as physical distancing practices worldwide. This may create ambiguity or confusion with regards to warning services and tsunami response actions, like evacuation, and the implementation of national response plans. This document clarifies the status of the regional tsunami services, as well as suggests best practices for local and national actions.

Regional Tsunami Services

The Pacific Tsunami Warning Center, as the UNESCO IOC CARIBE EWS Tsunami Service Provider (TSP), continues to operate 24 x 7 to provide tsunami services to the Caribbean and Adjacent Regions according to the [CARIBE EWS Users Guide](#).

In the case that operations were affected, a communication will be issued to its stakeholders, including the CARIBE EWS Tsunami Warning Focal Points (TWFP) and National Tsunami Warning Centers (NTWC). In such circumstances alternative arrangements for regional warning services would be put in place as much as feasible.

Coordination is also maintained with the Caribbean Tsunami Warning Program (CTWP), the Caribbean Tsunami Information Center (CTIC) and the Central American Tsunami Advisory Centre (CATAC).

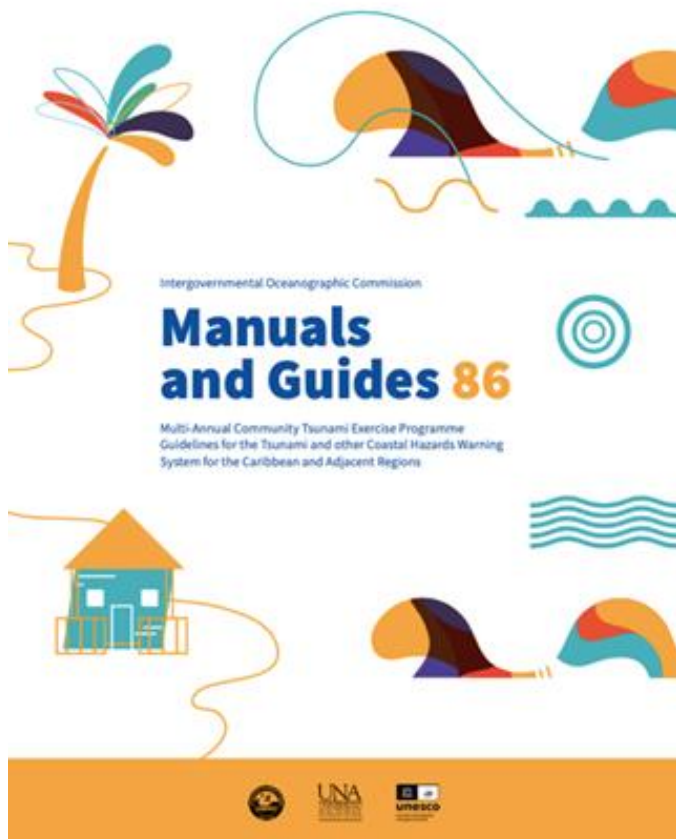
It is important to reiterate that each country is solely responsible for the safety of its own population from tsunami hazards. The country's NTWC or Emergency Management Agency (EMA) is the authority for issuing a tsunami warning for any or all of its coasts, as the CARIBE EWS TSP information is only advisory.

It is also important to recall that for the case of local tsunamis the natural tsunami warning signals should be the trigger for immediate self-evacuation. Persons along low-lying coasts should self-evacuate and not wait for their National Tsunami Warning Center to issue a tsunami warning.

National and Local Tsunami Services and Evacuation/Sheltering Best Practices during COVID-19

1. 24/7 arrangements of the national agencies to provide timely warnings to the local and national authorities, media and the public, when their action is required.
2. When the NTWC and/or the Emergency Management Agency issues a tsunami warning, the desired action for the public is to evacuate from at-risk locations.
3. The public needs to continue to use natural warning signs for tsunamis as cues for response, i.e. if people are near the coast and experience any of a tsunami's natural warning signs, they should quickly leave at-risk locations and move inland or to higher ground. The natural tsunami warning signs are strong or long ground shaking (from an earthquake), a sudden change of the sea level or a loud roar from the sea (from a tsunami).
4. Immediate life-safety is the priority when evacuations are directed. It is important that the public understands that **AN EVACUATION ORDER TAKES PRIORITY OVER THE STAY-AT-HOME**

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



- This guide is recommended for Member States to consider CARIBE WAVE Exercises.
- Provides community leaders to conduct and evaluate a tsunami evacuation exercise with a methodology and tools.
- It is particularly relevant for bodies that would be directly exposed to the effects of a tsunami such as local government, schools, associations, and businesses.
- This guide aims to encourage a shared culture of exercises to develop between the municipal authorities tasked with ensuring the safety of those living in their area and community leaders – stakeholders in the social and economic life of the area.
- Posted on <https://www.weather.gov/ctwp/caribewave22>

Additional Info

- Additional materials will be added to ITIC-CAR (www.caribewave.org).
- Send links of other national pages to christa.vonh@noaa.gov to include on ITIC-CAR.
- This presentation is available on ITIC-CAR website (<https://www.weather.gov/ctwp/caribewave22>).
- CARIBE WAVE video

#CARIBEWAVE
#TSUNAMIREADY

CARIBE WAVE 22 Task Team

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Timeline

ACTION	TIMELINE
Handbook Draft Circulated among ICG CARIBE EWS TNC/TWFP and TT CARIBE WAVE 22	✓ December 2021
Deadline for Comments	✓ December 2021
Circular Letter Issued by IOC to MS	✓ January 2022
Exercise Handbook Available Online	✓ January 2022
1st Webinar CW (Overview, PTWC Products)	✓18 January 2022 – English ✓19 January 2022 – Spanish ✓20 January 2022 - French
2nd Webinar CW (Update, Communication Methods, Registration, Questionnaire, Uploading Pictures/Videos)	15 February 2022 - English 16 February 2022 - Spanish 17 February 2022 - French
Countries Indicate Selected Scenario	25 February 2022
Exercise	10 March 2022
Exercise Evaluation Due	31 March 2022
Final Draft Caribe Wave 22 Report 13 April 2022	

Questions, Comments

Thank you for participating

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