



Ministry of Foreign Affairs

Regional Training Workshop on Pacific Tsunami Warning  
Center Enhanced Tsunami Products for ICG/CARIBE EWS  
31 October – 02 November, 2017  
Cartagena, Colombia

# 6.5 Tsunami Exercises: CARIBEWAVE18

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NOAA-NWS Caribbean Tsunami Warning Program

# CARIBE WAVE 2017

- 32 nations and 15 territories of the Caribbean and Adjacent Regions participated in this exercise with a total of 679,985 people engaged.
  - This represented a MS participation rate of 102% (up from 100% in 2016 and 2015, 98% in 2014, 94% in 2013, 75% in 2011).



# Objectives

## **1. To exercise and evaluate operations of the CARIBE EWS Tsunami Warning System.**

- A. Validate the issuance of tsunami products from the PTWC.
- B. Validate the receipt of tsunami products by CARIBE EWS Tsunami Warning Focal Points (TWFPs) and/or National Tsunami Warning Centers (NTWCs).

## **2. To evaluate the use of PTWC CARIBE EWS products.**

- A. Validate readiness to respond to a tsunami.
- B. Validate the operational readiness of the TWFPs/NTWCs and/or The National Disaster Management Office (NDMO).
- C. Improve operational readiness. Before the exercise, ensure appropriate tools and response plan(s) have been developed, including public education materials.
- D. Validate that the dissemination of warnings and information/advice by TWFPs, and NTWCs, to relevant in-country agencies and the public is accurate and timely.
- E. Evaluate the status of the implementation of the TsunamiReady recognition program.

# Goals/ Metrics

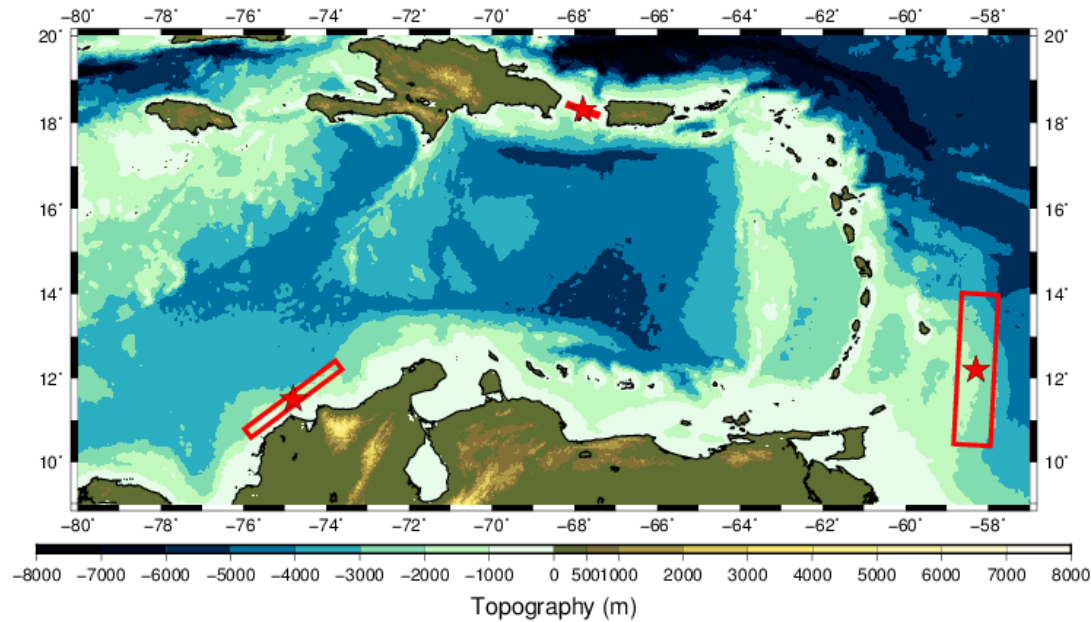
Goal	2013 Result	2014 Metric	2014 Result	2015 Metric	2015 Result	2016 Metric	2016 Result	2017 Metric	2017 Results	2018 Metric
Participation of Member States of ICG CARIBE EWS with designated focal warning point	94%	95%	98% (including two MS/Territory unofficial)	95%	100%	100%	100%	100%	100%	100%
Compliance with the timeline	Close to 100%	100%	Almost 100%	100%	Almost 100%	100%	Almost 100%	100%	Almost 100%	100%
Community involvement (beyond TWFP)	75%	75%	75%	80%	66%	85%	73%	90%	82%	95%
Number of participants	44,000	+10%	191,000	+10%	191,420	+10%	332,814	+10%	679,985	+10%
TWFP receive the dummy message	98%	100%	94%	100%	90%	100%	84%	100%	95%	100%
Countries who participate submit exercise questionnaire	90%	100%	100%	100%	91%	100%	100%	100%	100%	100%

# Exercise Manuals

- The exercise manuals are available at [www.caribewave.info](http://www.caribewave.info)
- The manual includes:
  - Tsunami and earthquake scenarios description
  - Timelines
  - PTWC dummy message and simulated exercise threat messages
  - Travel times and expected wave heights
  - The website link to post-exercise evaluation questionnaire

# CARIBE WAVE 18

## Earthquake and Tsunami Scenarios

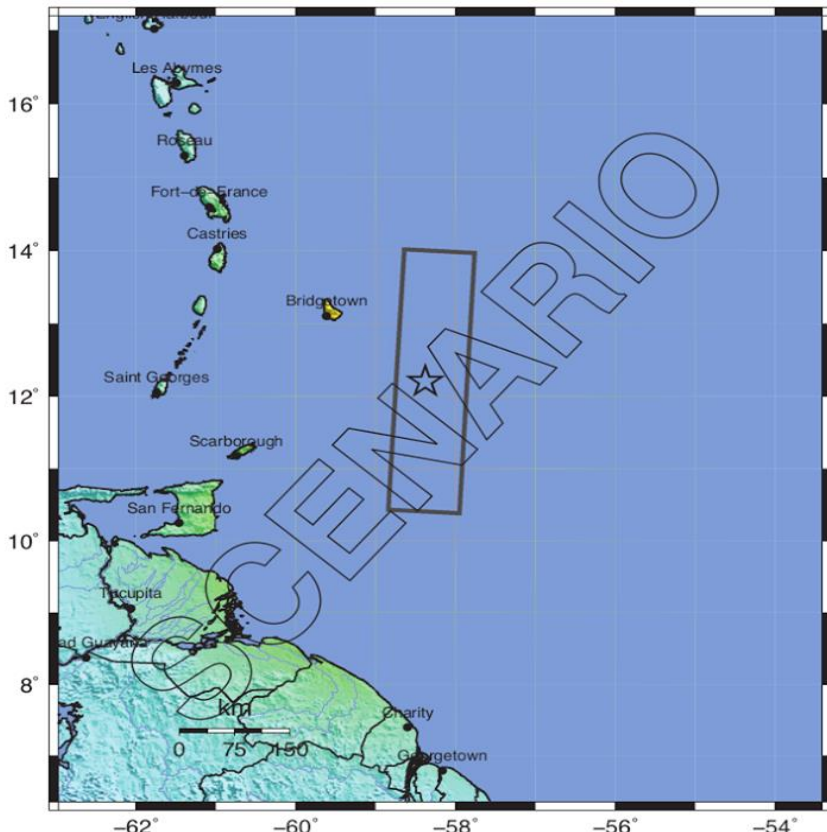


Scenario	Origin Time	Mw	Epicenter
Barbados	14:00:00 UTC March 15, 2018	8.6	12.20°, -58.30°
Colombia		8.1	11.5°, -74.8°
Puerto Rico		7.6	18.3°, -67.8°

# Earthquake Impact Scenario Barbados

## -- Earthquake Planning Scenario -- ShakeMap for Barbados Scenario

Scenario Date: Mar 15, 2018 14:00:00 UTC M 8.6 N12.21 W58.38 Depth: 20.9km



PLANNING SCENARIO ONLY — Map Version 1 Processed 2017-08-18 19:39:42 UTC

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL.(cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Worden et al. (2012)



Earthquake Shaking ● Yellow Alert

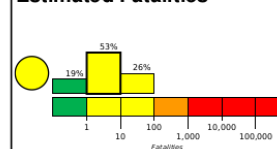


PAGER Version 1

### M 8.6, Barbados Scenario

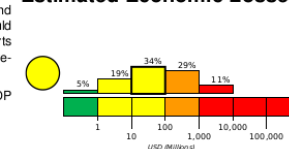
Origin Time: 2018-03-15 14:00:00 UTC (Thu 10:00:00 local)  
Location: 12.2051° N 58.3792° W Depth: 20.9 km  
FOR TSUNAMI INFORMATION, SEE: [tsunami.gov](http://tsunami.gov)

#### Estimated Fatalities



Yellow alert for shaking-related fatalities and economic losses. Some casualties and damage are possible and the impact should be relatively localized. Past yellow alerts have required a local or regional level response.

#### Estimated Economic Losses



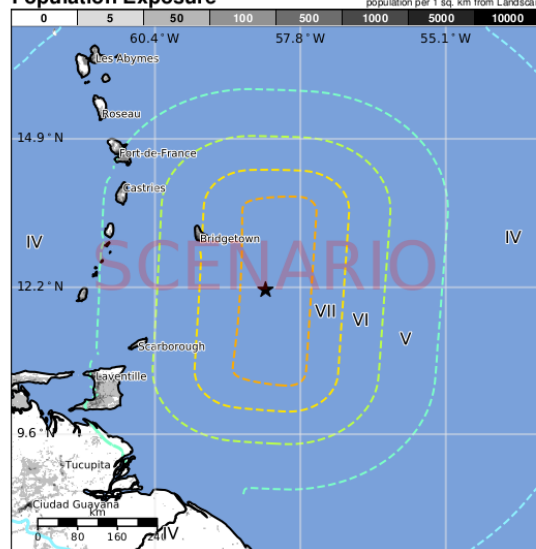
Estimated economic losses are 0-4% GDP of Barbados.

#### Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	-*	39k*	2,846k*	1,727k	150k	143k	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy

\*Estimated exposure only includes population within the map area.

#### Population Exposure



#### Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are adobe block and informal (metal, timber, GI etc.) construction.

#### Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1990-07-12	351	5.8	V(439k)	-
1988-03-10	322	6.6	VII(20k)	-
1997-04-22	315	6.6	VII(9k)	0

#### Selected City Exposure

MMI	City	Population
VII	Crane	1k
VII	Four Cross Roads	<1k
VII	Ostlins	2k
VI	Welchman Hall	<1k
VI	Bridgetown	99k
VI	Bathsheba	2k
V	Chaguanas	67k
V	Fort-de-France	90k
V	San Fernando	55k
V	Laventille	157k
IV	Georgetown	235k

bold cities appear on map.

(k = x1000)

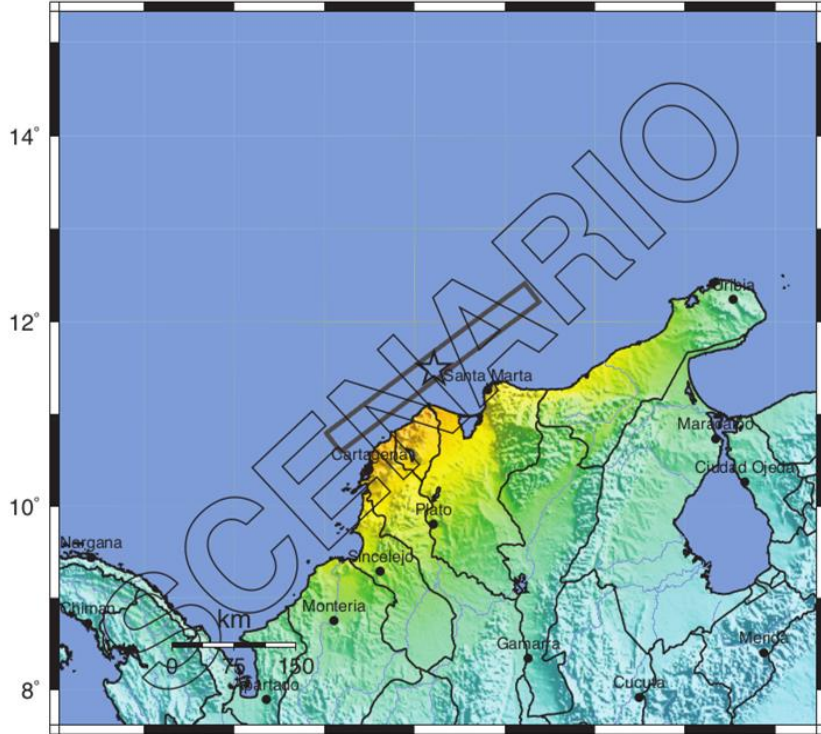
PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty. <http://earthquake.usgs.gov/data/pager/>

Event ID: uscaribewave2018.barbados.se

# Earthquake Impact Scenario Colombia

## -- Earthquake Planning Scenario -- ShakeMap for Colombia Scenario

Scenario Date: Mar 15, 2018 14:00:00 UTC M 8.1 N11.48 W74.79 Depth: 17.6km



PLANNING SCENARIO ONLY -- Map Version 1 Processed 2017-08-18 19:36:13 UTC

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL.(cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

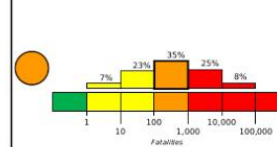
Scale based upon Worden et al. (2012)



### M 8.1, Colombia Scenario

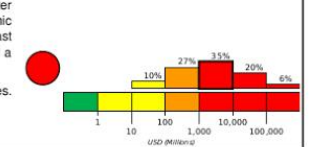
Origin Time: 2018-03-15 14:00:00 UTC (Thu 09:00:00 local)  
Location: 11.4820°N 74.7871°W Depth: 17.6 km  
FOR TSUNAMI INFORMATION, SEE: [tsunami.gov](http://tsunami.gov)

#### Estimated Fatalities



Red alert for economic losses. Extensive damage is probable and the disaster is likely widespread. Estimated economic losses are 0-1% GDP of Colombia. Past events with this alert level have required a national or international level response. Orange alert for shaking-related fatalities. Significant casualties are likely.

#### Estimated Economic Losses

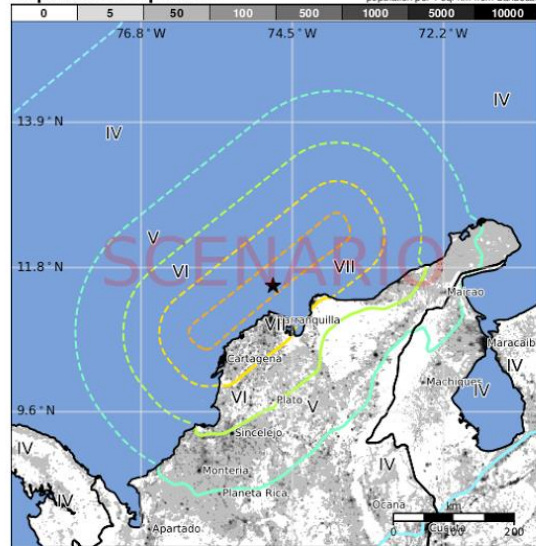


#### Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	-*	1,579k*	8,563k*	3,515k	1,169k	4,338k	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy

\*Estimated exposure only includes population within the map area.

#### Population Exposure



#### Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are mud wall with wood and ductile reinforced concrete frame construction.

#### Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1978-04-04	365	6.3	V(4k)	-

#### Selected City Exposure

MMI	City	Population
VII	Puerto Colombia	26k
VII	Juan de Acosta	9k
VII	Tubara	8k
VII	Santa Catalina	6k
VII	Galapa	20k
VII	Clemencia	9k
VII	Barranquilla	1,380k
VII	Cartagena	952k
VII	Santa Marta	432k
IV	Maracaibo	2,225k
IV	Cucuta	721k

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty. <http://earthquake.usgs.gov/data/pager/>

bold cities appear on map. (k=x1000)

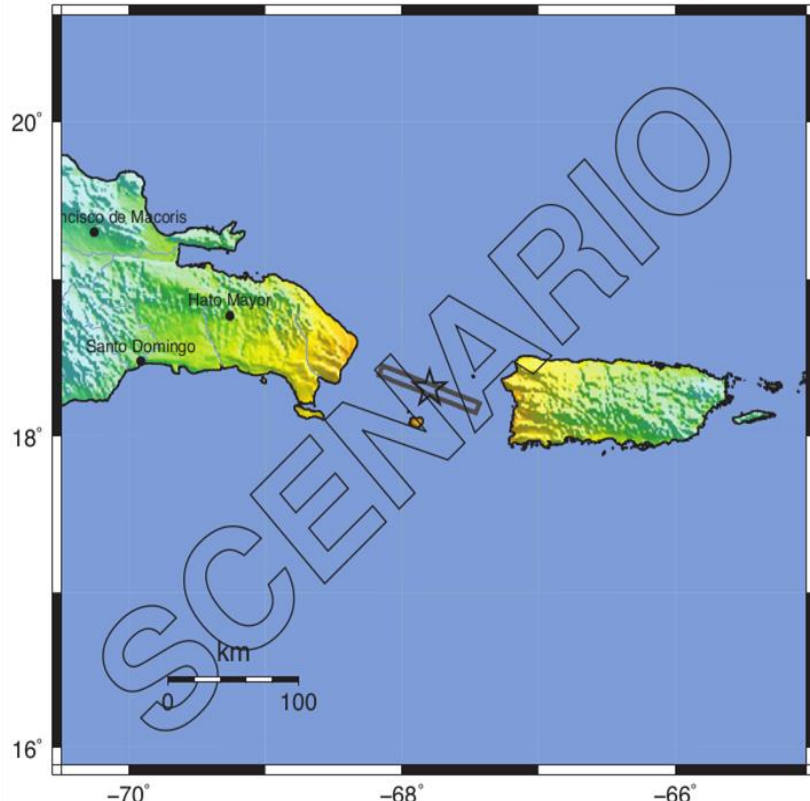
Event ID: uscaribwave2018.colombia.se



# Earthquake Impact Scenario Puerto Rico

## --- Earthquake Planning Scenario --- ShakeMap for Puerto Rico Scenario

Scenario Date: Mar 15, 2018 14:00:00 UTC M 7.6 N18.31 W67.80 Depth: 12.0km



PLANNING SCENARIO ONLY --- Map Version 1 Processed 2017-08-18 19:24:24 UTC

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL.(cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Worden et al. (2012)



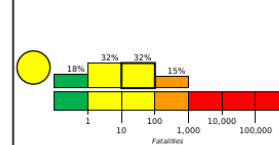
Earthquake Shaking **Orange Alert**



### M 7.6, Puerto Rico Scenario

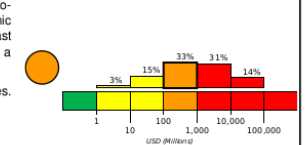
Origin Time: 2018-03-15 14:00:00 UTC (Thu 10:00:00 local)  
Location: 18.3063° N 67.7968° W Depth: 12.0 km  
FOR TSUNAMI INFORMATION, SEE: [tsunami.gov](http://tsunami.gov)

#### Estimated Fatalities



Orange alert for economic losses. Significant damage is likely and the disaster is potentially widespread. Estimated economic losses are 0-2% GDP of Puerto Rico. Past events with this alert level have required a regional or national level response.  
Yellow alert for shaking-related fatalities. Some casualties are possible.

#### Estimated Economic Losses

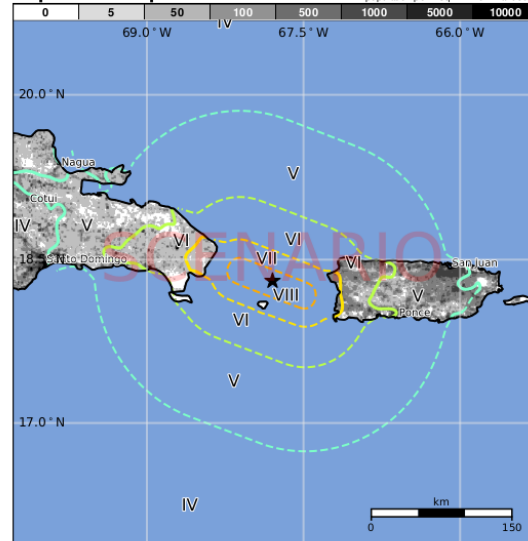


#### Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=1000)	-	-	1,031k*	7,558k	1,838k	290k	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures: None	Resistant Structures: None	Resistant Structures: None	Resistant Structures: V. Light	Resistant Structures: Light	Resistant Structures: Moderate	Resistant Structures: Mod./Heavy	Resistant Structures: Heavy	Resistant Structures: V. Heavy
	Vulnerable Structures: None	Vulnerable Structures: None	Vulnerable Structures: None	Vulnerable Structures: Light	Vulnerable Structures: Moderate	Vulnerable Structures: Mod./Heavy	Vulnerable Structures: Heavy	Vulnerable Structures: V. Heavy	Vulnerable Structures: V. Heavy

\*Estimated exposure only includes population within the map area.

#### Population Exposure



#### Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are concrete/cinder block masonry and informal (metal, timber, GI etc.) construction.

#### Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1979-03-23	140	6.6	VII(605k)	0
2003-09-22	344	6.4	IX(326k)	1
1984-06-24	169	6.7	VII(326k)	5

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

#### Selected City Exposure

MMI	City	Population
VII	Punta Cana	100k
VII	La Playa	2k
VII	Anasco	6k
VII	Stella	1k
VII	Cabo Rojo	11k
VII	Boqueron	2k
VI	La Romana	208k
VI	San Pedro de Macoris	218k
V	Santo Domingo Este	700k
V	Santo Domingo	2,202k
V	San Juan	418k

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty. <http://earthquake.usgs.gov/data/pager/>

bold cities appear on map. (k=1,000)

Event ID: uscaribewave2018.puerto.rico.sc

# PTWC PRODUCTS

# CARIBE WAVE 18

## Earthquake and Tsunami Scenarios

- The initial dummy message for the three scenarios will be issued by the CARIBE EWS Tsunami Service Provider [Pacific Tsunami Warning Center (PTWC)] on March 15, 2018 at 1400 UTC and disseminated over all its standard broadcast channels.
  - Each country and territory will choose one scenario and decide if and how to disseminate messages within its area of responsibility.
  - **By March 2, 2018**, each Member State needs to select one scenario and must inform its selection to PTWC ([charles.mccreery@noaa.gov](mailto:charles.mccreery@noaa.gov) and [cindi.preller@noaa.gov](mailto:cindi.preller@noaa.gov)) with a copy to the Caribbean Tsunami Warning Program ([christa.vonh@noaa.gov](mailto:christa.vonh@noaa.gov)). If the Member State does not inform the PTWC and CTWP, the organizers will decide for which scenario the PTWC will send the products.

## Appendix E. TWC Dummy (Start of Exercise) Messages

PTWC

Center

WECA41 PHEB 151400

WMO ID

TSUCAX

AWIPS ID

TEST...TSUNAMI EXERCISE MESSAGE NUMBER 1...TEST  
NWS PACIFIC TSUNAMI WARNING CENTER/NOAA/NWS  
ISSUED AT 1400Z 15 MAR 2018

...CARIBEWAVE 18 TSUNAMI EXERCISE MESSAGE. REFER TO PTWC MESSAGE 1 IN THE EXERCISE HANDBOOK. THIS IS AN EXERCISE ONLY...

THIS MESSAGE IS BEING USED TO START THE CARIBEWAVE 18 CARIBBEAN TSUNAMI EXERCISE. 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 PROVIDE EMERGENCY MANAGEMENT A REALISTIC SCENARIO TO TEST TSUNAMI RESPONSE PLANS.

THIS IS ONLY AN EXERCISE.

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# Start of Exercise messages will also be sent out by PTWC twitter accounts

Users with US Cellphone providers can receive Tweets as text messages,  
sending as body message:

“Follow NWS\_PTWC” to 40404 (this account is for all  
PTWC products)

“Follow NWS\_CTWP” to 40404 (this account is only for  
PTWC products for the Caribbean and Adjacent Regions)

“This is a test message for the CARIBEWAVE18 tsunami exercise  
#CaribeWave” (will be issued at 14h00 UTC to NWS\_PTWC and  
NWS\_CTWP accounts/subscribers).”

# Barbados Scenario

# Message Chronology issued by the PTWC Barbados

Date	Time (UTC)	PTWC	
		Type of Product	Transmission Method
3/15/18	1400	----- Earthquake Occurs -----	
3/15/18	1400	Dummy	NWWS, GTS, EMWIN, AISR, Fax, Email
3/15/18	1405	Tsunami Threat Message #1	Email
3/15/18	1425	Tsunami Threat Message # 2 and Graphic Enhanced Product	Email
3/15/18	1500	Tsunami Threat Message #3	Email
3/15/18	1600	Tsunami Threat Message #4	Email
3/15/18	1700	Tsunami Threat Message #5	Email
3/15/18	1800	Tsunami Threat Message #6	Email
3/15/18	1900	Tsunami Threat Message #7	Email
3/15/18	2000	Tsunami Threat Message #8	Email
3/15/18	2100	Final Tsunami Threat Message #9	Email

**PTWC Message #1**

WECA41 PHEB 151405

WMO ID

TSUCAX

AWIPS ID

TSUNAMI MESSAGE NUMBER 1

NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI

1405 UTC TUE MAR 15 2018

...TSUNAMI THREAT MESSAGE...

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

THIS IS A TEST MESSAGE. THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE UNESCO/IOC TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS AND IS MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

THIS IS A TEST MESSAGE. NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED INFORMATION.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST... PRELIMINARY EARTHQUAKE PARAMETERS ...TEST

- \* MAGNITUDE 8.3
- \* ORIGIN TIME 1400 UTC MAR 15 2018
- \* COORDINATES 12.2 NORTH 58.3 WEST
- \* DEPTH 15 KM / 9 MILES
- \* LOCATION NORTH ATLANTIC OCEAN

EVALUATION

\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 8.3 OCCURRED IN THE NORTH ATLANTIC OCEAN AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. BASED ON THE PRELIMINARY EARTHQUAKE PARAMETERS... WIDESPREAD HAZARDOUS TSUNAMI WAVES ARE POSSIBLE.

TEST... TSUNAMI THREAT FORECAST ...TEST

\* THIS IS A TEST MESSAGE. HAZARDOUS TSUNAMI WAVES FROM THIS EARTHQUAKE ARE POSSIBLE WITHIN THE NEXT THREE HOURS ALONG SOME COASTS OF

BARBADOS... SAINT VINCENT... SAINT LUCIA... TRINIDAD  
TOBAGO... MARTINIQUE... DOMINICA... GRENADA...  
GUADELOUPE... MONTERRAT... ANTIGUA... SAINT KITTS...  
BARBUDA... SINT EUSTATIUS... SABA... ANGUILLA... US VIRGIN  
IS... BR VIRGIN IS... PUERTO RICO... SINT MAARTEN...  
BONAIRE... SAINT BARTHELEMY... SAINT MARTIN... DOMINICAN  
REP... VENEZUELA... TURKS N CAICOS... ARUBA... HAITI...  
CURACAO... BAHAMAS AND CUBA

TEST... RECOMMENDED ACTIONS ...TEST

\* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR THREATENED COASTAL AREAS SHOULD TAKE ACTION TO INFORM AND INSTRUCT ANY COASTAL POPULATIONS AT RISK IN ACCORDANCE WITH THEIR OWN EVALUATION... PROCEDURES AND THE LEVEL OF THREAT.

\* THIS IS A TEST MESSAGE. PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND LOCAL AUTHORITIES.

TEST... ESTIMATED TIMES OF ARRIVAL ...TEST

\* THIS IS A TEST MESSAGE. ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE FOR PLACES WITHIN THE REGION IDENTIFIED WITH A POTENTIAL TSUNAMI THREAT. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.



LOCATION	REGION	COORDINATES		ETA (UTC)
BRIDGETOWN	BARBADOS	13.1N	59.6W	1428 03/15
KINGSTOWN	SAINT VINCENT	13.1N	61.2W	1448 03/15
CASTRIES	SAINT LUCIA	14.0N	61.0W	1452 03/15
PIRATES BAY	TRINIDAD TOBAGO	11.3N	60.6W	1459 03/15
FORT DE FRANCE	MARTINIQUE	14.6N	61.1W	1500 03/15
ROSEAU	DOMINICA	15.3N	61.4W	1500 03/15
SAINTE GEORGES	GRENADA	12.0N	61.8W	1506 03/15
BASSE TERRE	GUADELOUPE	16.0N	61.7W	1509 03/15
PLYMOUTH	MONTERRAT	16.7N	62.2W	1517 03/15
SAINTE JOHNS	ANTIGUA	17.1N	61.9W	1534 03/15
BASSETERRE	SAINT KITTS	17.3N	62.7W	1535 03/15
PALMETTO POINT	BARBUDA	17.6N	61.9W	1536 03/15
SINTE EUSTATIUS	SINTE EUSTATIUS	17.5N	63.0W	1537 03/15
SABA	SABA	17.6N	63.2W	1538 03/15
THE VALLEY	ANGUILLA	18.3N	63.1W	1543 03/15
CHRISTIANSTED	US VIRGIN IS	17.7N	64.7W	1545 03/15
ANEGADA	BR VIRGIN IS	18.8N	64.3W	1548 03/15
SAN JUAN	PUERTO RICO	18.5N	66.1W	1549 03/15
SIMPSON BAAI	SINTE MAARTEN	18.0N	63.1W	1549 03/15
ROADTOWN	BR VIRGIN IS	18.4N	64.6W	1602 03/15
MAYAGUEZ	PUERTO RICO	18.2N	67.2W	1602 03/15
ONIMA	BONAIRE	12.3N	68.3W	1604 03/15
SAINTE BARTHELEM	SAINTE BARTHELEMY	17.9N	62.8W	1607 03/15
CHARLOTTE AMALI	US VIRGIN IS	18.3N	64.9W	1607 03/15
PORT OF SPAIN	TRINIDAD TOBAGO	10.6N	61.5W	1609 03/15
BAIE LUCAS	SAINTE MARTIN	18.1N	63.0W	1609 03/15
BAIE GRAND CASE	SAINTE MARTIN	18.1N	63.1W	1613 03/15
CABO ENGANO	DOMINICAN REP	18.6N	68.3W	1615 03/15
PUERTO PLATA	DOMINICAN REP	19.8N	70.7W	1617 03/15
MAIQUETIA	VENEZUELA	10.6N	67.0W	1621 03/15
BAIE BLANCHE	SAINTE MARTIN	18.1N	63.0W	1623 03/15
GRAND TURK	TURKS N CAICOS	21.5N	71.1W	1625 03/15
CUMANA	VENEZUELA	10.5N	64.2W	1627 03/15
ORANJESTAD	ARUBA	12.5N	70.0W	1629 03/15
SANTE DOMINGO	DOMINICAN REP	18.5N	69.9W	1631 03/15
CAP HAITEN	HAITI	19.8N	72.2W	1634 03/15
WILLEMSTAD	CURACAO	12.1N	68.9W	1639 03/15
MAYAGUANA	BAHAMAS	22.3N	73.0W	1641 03/15
WEST CAICOS	TURKS N CAICOS	21.7N	72.5W	1643 03/15
JACAMEL	HAITI	18.1N	72.5W	1649 03/15
BARACOA	CUBA	20.4N	74.5W	1653 03/15
GREAT INAGUA	BAHAMAS	20.9N	73.7W	1655 03/15

TEST... POTENTIAL IMPACTS ...TEST

- \* THIS IS A TEST MESSAGE. A TSUNAMI IS A SERIES OF WAVES. THE TIME BETWEEN WAVE CRESTS CAN VARY FROM 5 MINUTES TO AN HOUR. THE HAZARD MAY PERSIST FOR MANY HOURS OR LONGER AFTER THE INITIAL WAVE.
- \* THIS IS A TEST MESSAGE. IMPACTS CAN VARY SIGNIFICANTLY FROM ONE SECTION OF COAST TO THE NEXT DUE TO LOCAL BATHYMETRY AND THE SHAPE AND ELEVATION OF THE SHORELINE.
- \* THIS IS A TEST MESSAGE. IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.
- \* THIS IS A TEST MESSAGE. PERSONS CAUGHT IN THE WATER OF A TSUNAMI MAY DROWN... BE CRUSHED BY DEBRIS IN THE WATER... OR BE SWEEPED OUT TO SEA.

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

- \* THIS IS A TEST MESSAGE. THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.
- \* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN LOWERCASE LETTERS-.
- \* THIS IS A TEST MESSAGE. FURTHER INFORMATION ABOUT THIS EVENT MAY BE FOUND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).
- \* THIS IS A TEST MESSAGE. COASTAL REGIONS OF THE US GULF COAST... US EAST COAST... AND THE MARITIME PROVINCES OF CANADA SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER MESSAGES THAT CAN BE FOUND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).

THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS TEST MESSAGE.

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NNNN

**PTWC Message #2**

ZCZC

WECA41 PHEB 151425

← WMO ID

TSUCAX

← AWIPS ID

TEST...TSUNAMI MESSAGE NUMBER 2...TEST

NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI

1425 UTC THU MAR 15 2018

...TEST TSUNAMI THREAT MESSAGE TEST...

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

THIS IS A TEST MESSAGE. THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE UNESCO/IOC TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS AND IS MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

THIS IS A TEST MESSAGE. NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED INFORMATION.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST... PRELIMINARY EARTHQUAKE PARAMETERS ...TEST

- \* MAGNITUDE 8.6
- \* ORIGIN TIME 1400 UTC MAR 15 2018
- \* COORDINATES 12.2 NORTH 58.3 WEST
- \* DEPTH 15 KM / 9 MILES
- \* LOCATION NORTH ATLANTIC OCEAN

EVALUATION

\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A REVISED MAGNITUDE OF 8.6 OCCURRED IN THE NORTH ATLANTIC OCEAN AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES HAVE BEEN OBSERVED.

\* THIS IS A TEST MESSAGE. BASED ON ALL AVAILABLE DATA... HAZARDOUS TSUNAMI WAVES ARE FORECAST FOR SOME COASTS.

TEST... TSUNAMI THREAT FORECAST...UPDATED ...TEST

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF

FRENCH GUYANE... GUYANA... SURINAME... BARBADOS... DOMINICA... GRENADA... GUADELOUPE... MARTINIQUE... SAINT LUCIA... SAINT VINCENT AND THE GRENADINES... AND TRINIDAD AND TOBAGO.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF VENEZUELA... ANTIGUA AND BARBUDA... ARUBA... CURACAO... MONTSERRAT... PUERTO RICO AND VIRGIN ISLANDS... SABA AND SAINT EUSTATIUS... AND SAINT KITTS AND NEVIS.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF

BRAZIL... COLOMBIA... DOMINICAN REPUBLIC... HAITI... ANGUILLA... BERMUDA... BONAIRE... JAMAICA... SAINT BARTHELEMY... SINT MAARTEN... AND SAINT MARTIN.

\* THIS IS A TEST MESSAGE. ACTUAL AMPLITUDES AT THE COAST MAY VARY FROM FORECAST AMPLITUDES DUE TO UNCERTAINTIES IN THE FORECAST AND LOCAL FEATURES. IN PARTICULAR MAXIMUM TSUNAMI AMPLITUDES ON ATOLLS OR SMALL ISLANDS AND AT LOCATIONS WITH FRINGING OR BARRIER REEFS WILL LIKELY BE MUCH SMALLER THAN THE FORECAST INDICATES.

\* THIS IS A TEST MESSAGE. FOR ALL OTHER AREAS COVERED BY THIS MESSAGE... THERE IS NO TSUNAMI THREAT ALTHOUGH SMALL SEA LEVEL CHANGES MAY OCCUR.

## TEST... RECOMMENDED ACTIONS ...TEST

\* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR THREATENED COASTAL AREAS SHOULD TAKE ACTION TO INFORM AND INSTRUCT ANY COASTAL POPULATIONS AT RISK IN ACCORDANCE WITH THEIR OWN EVALUATION... PROCEDURES AND THE LEVEL OF THREAT.

\* THIS IS A TEST MESSAGE. PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND LOCAL AUTHORITIES.

## TEST... ESTIMATED TIMES OF ARRIVAL ...TEST

\* THIS IS A TEST MESSAGE. ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE FOR PLACES WITHIN THREATENED REGIONS ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	REGION	COORDINATES		ETA (UTC)	
BRIDGETOWN	BARBADOS	13.1N	59.6W	1428	03/15
KINGSTOWN	SAINT VINCENT	13.1N	61.2W	1448	03/15
CASTRIES	SAINT LUCIA	14.0N	61.0W	1452	03/15
PIRATES BAY	TRINIDAD TOBAGO	11.3N	60.6W	1459	03/15
FORT DE FRANCE	MARTINIQUE	14.6N	61.1W	1500	03/15
ROSEAU	DOMINICA	15.3N	61.4W	1500	03/15
SAINT GEORGES	GRENADA	12.0N	61.8W	1506	03/15
BASSE TERRE	GUADELOUPE	16.0N	61.7W	1509	03/15
PLYMOUTH	MONTSERRAT	16.7N	62.2W	1517	03/15
SAINT JOHNS	ANTIGUA	17.1N	61.9W	1534	03/15
BASSETERRE	SAINT KITTS	17.3N	62.7W	1535	03/15
PALMETTO POINT	BARBUDA	17.6N	61.9W	1536	03/15
SINT EUSTATIUS	SINT EUSTATIUS	17.5N	63.0W	1537	03/15
SABA	SABA	17.6N	63.2W	1538	03/15
THE VALLEY	ANGUILLA	18.3N	63.1W	1543	03/15
CHRISTIANSTED	US VIRGIN IS	17.7N	64.7W	1545	03/15
ANEGADA	BR VIRGIN IS	18.8N	64.3W	1548	03/15
SAN JUAN	PUERTO RICO	18.5N	66.1W	1549	03/15
SIMPSON BAAI	SINT MAARTEN	18.0N	63.1W	1549	03/15
ROADTOWN	BR VIRGIN IS	18.4N	64.6W	1602	03/15
MAYAGUEZ	PUERTO RICO	18.2N	67.2W	1602	03/15
ONIMA	BONAIRE	12.3N	68.3W	1604	03/15
SAINT BARTHELEM	SAINT BARTHELEMY	17.9N	62.8W	1607	03/15
CHARLOTTE AMALI	US VIRGIN IS	18.3N	64.9W	1607	03/15
PORT OF SPAIN	TRINIDAD TOBAGO	10.6N	61.5W	1609	03/15
BAIE LUCAS	SAINT MARTIN	18.1N	63.0W	1609	03/15
BAIE GRAND CASE	SAINT MARTIN	18.1N	63.1W	1613	03/15
CABO ENGANO	DOMINICAN REP	18.6N	68.3W	1615	03/15
PUERTO PLATA	DOMINICAN REP	19.8N	70.7W	1617	03/15
MAIQUETIA	VENEZUELA	10.6N	67.0W	1621	03/15
BAIE BLANCHE	SAINT MARTIN	18.1N	63.0W	1623	03/15
CUMANA	VENEZUELA	10.5N	64.2W	1627	03/15
ORANJESTAD	ARUBA	12.5N	70.0W	1629	03/15
SANTO DOMINGO	DOMINICAN REP	18.5N	69.9W	1631	03/15
WILLEMSTAD	CURACAO	12.1N	68.9W	1639	03/15
JACAMEL	HAITI	18.1N	72.5W	1649	03/15
JEREMIE	HAITI	18.6N	74.1W	1705	03/15
ESSO PIER	BERMUDA	32.4N	64.7W	1706	03/15
SANTA MARTA	COLOMBIA	11.2N	74.2W	1718	03/15
CAYENNE	FRENCH GUYANE	4.9N	52.3W	1725	03/15
CARTAGENA	COLOMBIA	10.4N	75.6W	1734	03/15
BARRANQUILLA	COLOMBIA	11.1N	74.9W	1743	03/15
RIOHACHA	COLOMBIA	11.6N	72.9W	1747	03/15
MONTEGO BAY	JAMAICA	18.5N	77.9W	1751	03/15
PORT AU PRINCE	HAITI	18.5N	72.4W	1758	03/15
GEORGETOWN	GUYANA	6.8N	58.2W	1800	03/15
KINGSTON	JAMAICA	17.9N	76.9W	1803	03/15
PUNTA CARIBANA	COLOMBIA	8.6N	76.9W	1818	03/15
PARAMARIBO	SURINAME	5.9N	55.2W	1820	03/15
PUNTO FIJO	VENEZUELA	11.7N	70.2W	1856	03/15
PORLAMAR	VENEZUELA	10.9N	63.8W	1920	03/15
GOLFO VENEZUELA	VENEZUELA	11.4N	71.2W	1956	03/15
ILHA DE MARACA	BRAZIL	2.2N	50.5W	2112	03/15

TEST... POTENTIAL IMPACTS ...TEST

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TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

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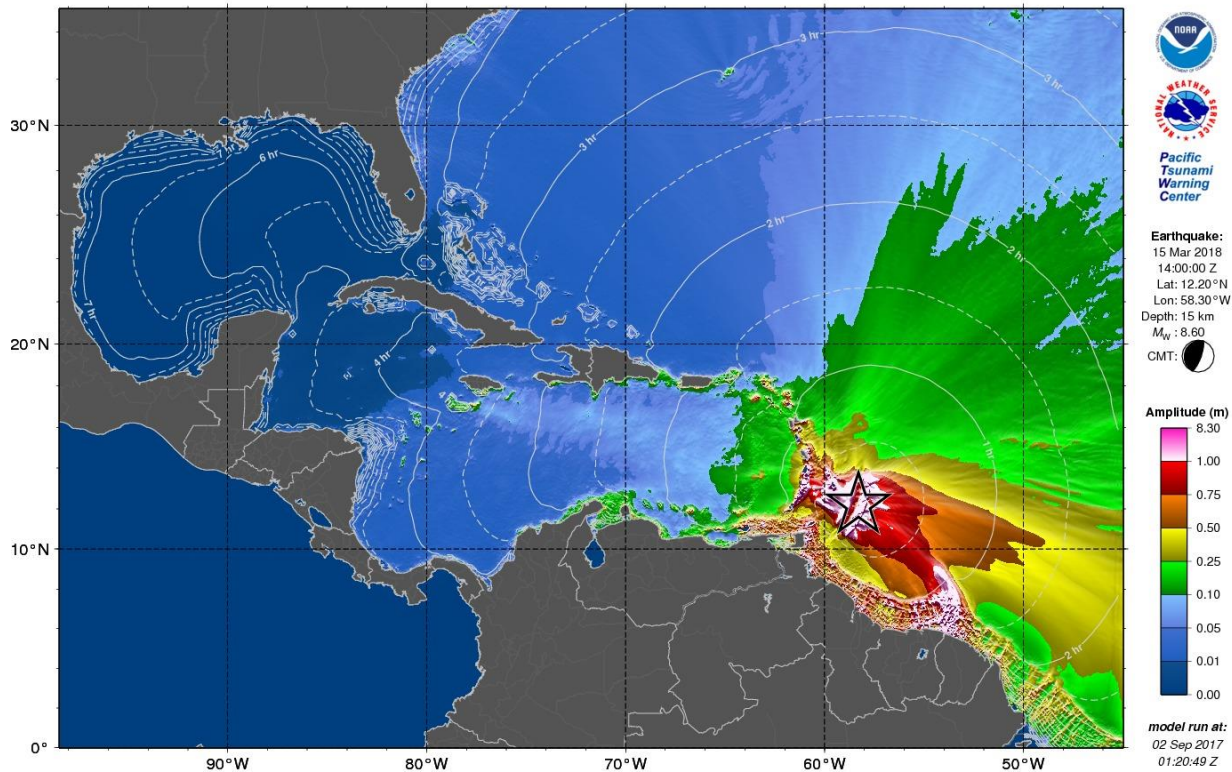
- \* THIS IS A TEST MESSAGE. THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.
- \* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN LOWERCASE LETTERS-.
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# Energy Forecast for Tsunami Wave Heights Barbados

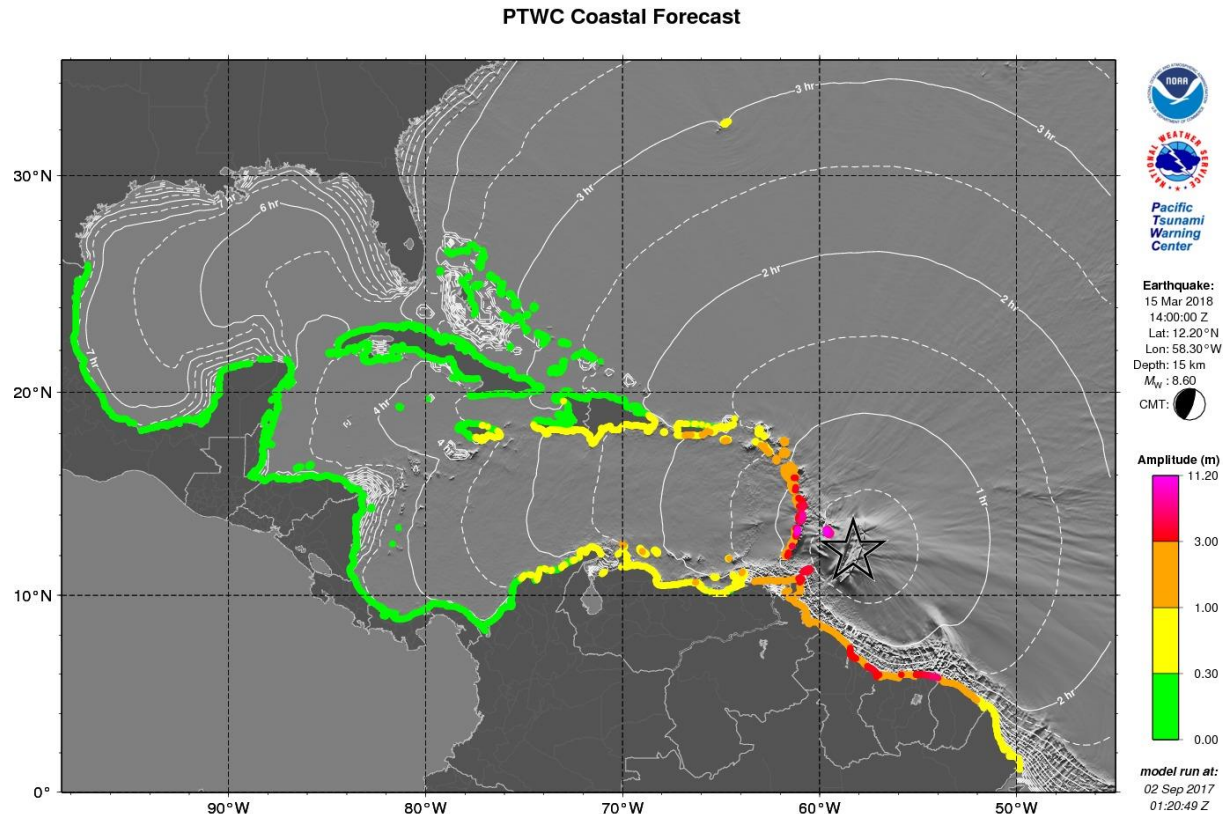
PTWC Energy Forecast



**RIFT maximum amplitude map based on the scenario for Barbados.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

# Coastal Forecast for Tsunami Wave Heights Barbados

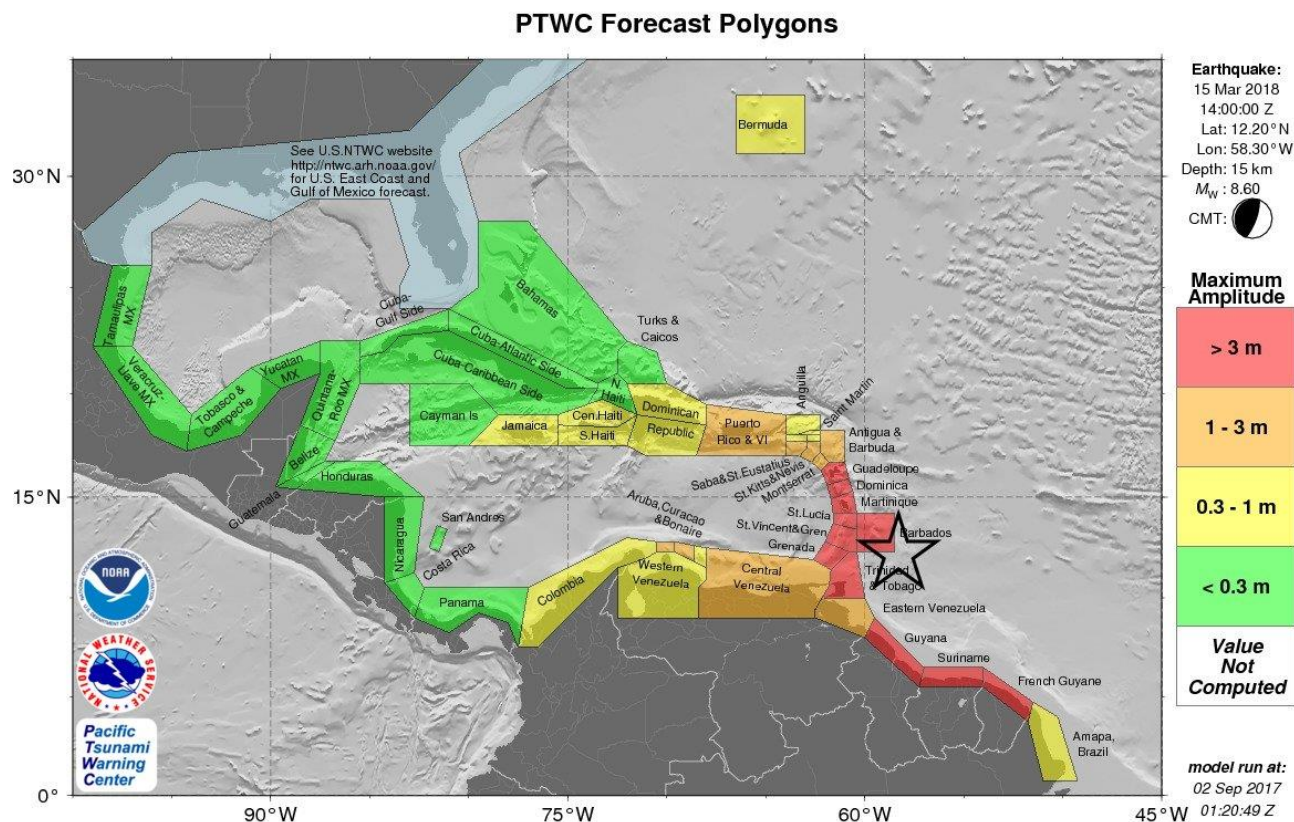


**RIFT coastal tsunami amplitude map based on the scenario for Barbados.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

# Polygons Forecast for Tsunami Wave Heights

## Barbados

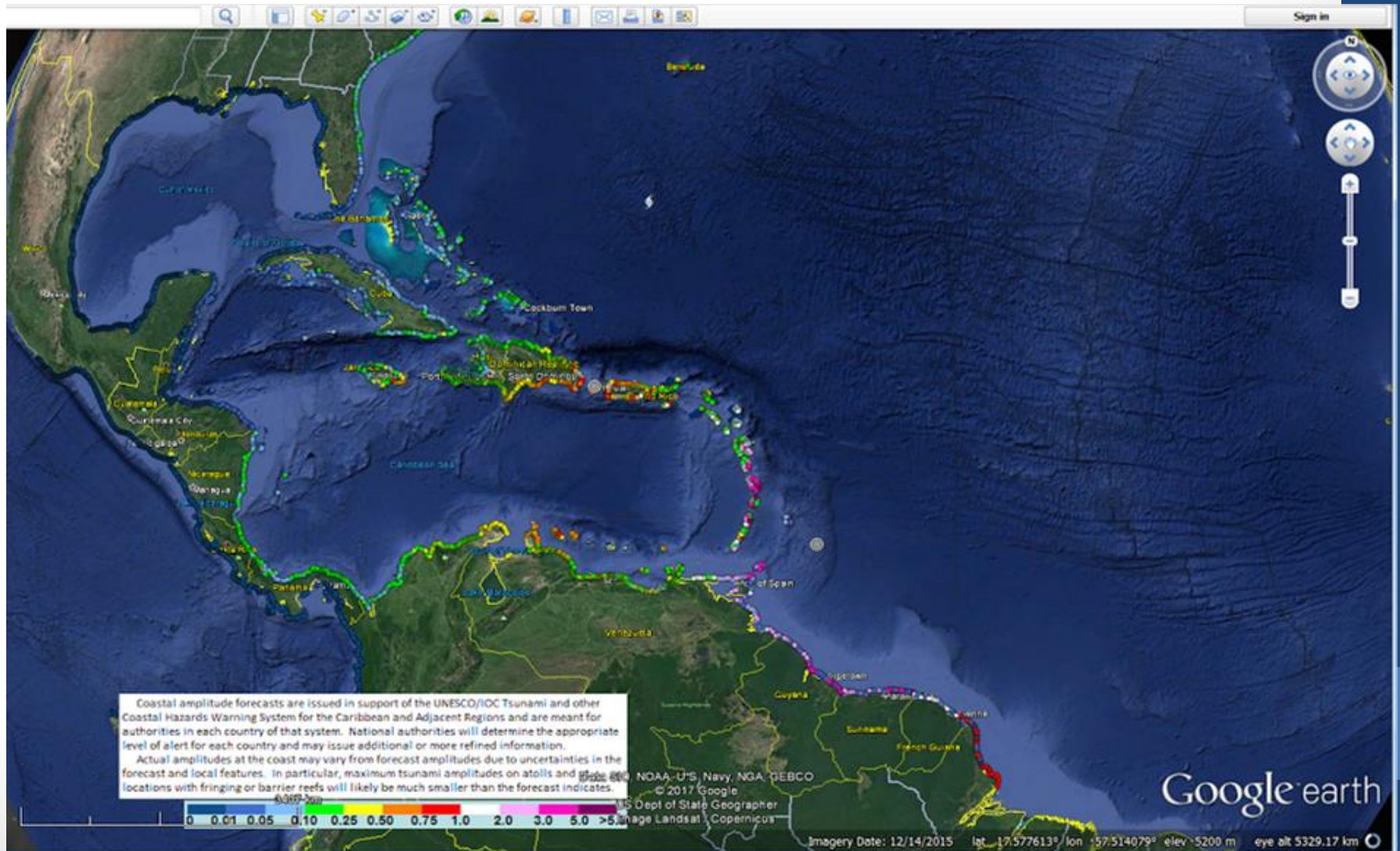


**RIFT forecast polygons for the Caribbean region on the Barbados scenario.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

# KMZ

## Barbados





# Forecast Statistics for Regional Polygons\*

## Barbados

Region Name	Coastal Forecast (meters)				Offshore Forecast (meters)				Total Points
	Maximum	Mean	Median	STD	Maximum	Mean	Median	STD	
Saint_Vincent_and_the_Grenadines	11	4.2	2.5	3	8.3	2.4	2.2	1.7	33
Barbados	11	8.2	8.2	1.5	5.8	3.4	3	1.2	21
Saint_Lucia	8.2	4.9	5.4	1.8	5.3	1.8	1.7	1	26
French_Guyane	6.5	1.3	1.3	0.6	4.1	0.97	0.65	0.84	84
Suriname	6.5	3.4	2.7	1.2	3.5	1.1	0.99	0.53	109
Grenada	5.3	2.3	1.8	1.1	4	1.5	1.3	1.1	29
Martinique	5.1	3.2	3.2	0.94	4	1.6	1.2	1	41
Trinidad_and_Tobago	4.8	2.8	2.2	0.94	5	1.4	1.3	0.62	77
Dominica	4.1	2.2	2	0.82	2.4	0.66	0.53	0.42	31
Guyana	3.9	2.8	2.8	0.48	1.7	0.94	0.91	0.25	101
Guadeloupe	3.4	1.9	1.6	0.77	3.1	0.78	0.82	0.42	73
Atlantic_Coast_of_Venezuela	2.5	2.2	2.1	0.16	1.7	0.85	0.81	0.3	82
Central_Coast_of_Venezuela	2.1	0.78	0.54	0.54	1.4	0.43	0.31	0.31	238
Saint_Kitts_and_Nevis	1.5	1.1	1.1	0.22	1	0.44	0.32	0.24	29
Antigua_and_Barbuda	1.5	1.3	1.3	0.14	1.2	0.73	0.72	0.28	28
Montserrat	1.3	1.1	1.2	0.09	0.66	0.37	0.3	0.14	11
Puerto_Rico_and_Virgin_Islands	1.2	0.62	0.62	0.28	1.1	0.29	0.24	0.18	190
Saba_and_Saint_Eustatius	1.2	0.88	0.87	0.16	0.37	0.24	0.21	0.06	8
Aruba	1.1	0.89	1	0.17	0.71	0.39	0.31	0.19	8
Curacao	1	0.65	0.56	0.2	0.49	0.2	0.2	0.08	27
Amapa_Brazil	0.97	0.91	0.95	0.07	1.1	0.32	0.26	0.21	124
Anguilla	0.94	0.85	0.86	0.08	0.92	0.6	0.6	0.17	8
Sint_Maarten	0.9	0.85	0.87	0.05	0.84	0.58	0.48	0.18	6
Saint_Barthelemy	0.83	0.79	0.79	0.03	0.83	0.67	0.73	0.18	4
Caribbean_Coast_of_Dominican_Rep	0.82	0.57	0.59	0.1	0.82	0.3	0.25	0.15	148
Jamaica	0.78	0.31	0.24	0.18	0.76	0.15	0.11	0.12	146
Saint_Martin	0.75	0.75	0.75	0	0.58	0.55	0.54	0.02	3
Atlantic_Coast_of_Dominican_Rep	0.74	0.18	0.15	0.12	0.92	0.1	0.06	0.13	129
Western_Coast_of_Venezuela	0.74	0.57	0.59	0.09	0.72	0.36	0.37	0.14	100
Bermuda	0.73	0.65	0.64	0.06	0.57	0.31	0.28	0.12	8
Caribbean_Coast_of_Haiti	0.7	0.47	0.44	0.12	0.4	0.17	0.16	0.08	89
Bonaire	0.7	0.64	0.66	0.04	0.76	0.37	0.32	0.17	15
Caribbean_Coast_of_Colombia	0.49	0.26	0.27	0.1	0.47	0.14	0.12	0.09	255
Gulf_of_Gonave_Coast_of_Haiti	0.36	0.18	0.17	0.05	0.22	0.06	0.05	0.04	140
Caribbean_Coast_of_Cuba	0.29	0.1	0.08	0.06	0.29	0.03	0.02	0.02	423
Caribbean_Coast_of_Panama	0.24	0.15	0.15	0.04	0.16	0.07	0.07	0.03	179
Caribbean_Coast_of_Costa_Rica	0.24	0.16	0.16	0.03	0.12	0.07	0.07	0.02	48
Turks_and_Caicos_Islands	0.22	0.16	0.16	0.04	0.14	0.05	0.05	0.02	46
Atlantic_Coast_of_Haiti	0.21	0.13	0.11	0.04	0.08	0.04	0.04	0.01	66
Bahamas	0.2	0.09	0.08	0.03	0.28	0.04	0.03	0.02	443
Caribbean_Coast_of_Nicaragua	0.15	0.12	0.12	0.02	0.07	0.03	0.03	0.02	139
San_Andres_and_Providencia	0.14	0.14	0.14	0	0.04	0.04	0.04	0	4
Atlantic_Coast_of_Cuba	0.12	0.05	0.06	0.03	0.06	0.02	0.02	0.01	259
Cayman_Islands	0.06	0.05	0.05	0.01	0.05	0.02	0.02	0.01	9
Quintana_Roo_Mexico	0.05	0.03	0.03	0.01	0.04	0.01	0.01	0.01	166
Belize	0.04	0.03	0.03	0	0.02	0.01	0.01	0	90
Gulf_of_Mexico_Coast_of_Cuba	0.04	0.01	0.01	0	0.01	0	0	0	122
Caribbean_Coast_of_Honduras	0.04	0.03	0.03	0	0.03	0.01	0.01	0	185
Caribbean_Coast_of_Guatemala	0.03	0.03	0.03	0	0.01	0.01	0.01	0	13
Yucatan_Mexico	0.01	0	0	0	0	0	0	0	59

\*Actual amplitudes at the coast may vary from forecast amplitudes due to uncertainties in the forecast and local features. In particular, maximum tsunami amplitudes on small islands will likely be much smaller than the forecast indicates.

**PTWC Message #9**

ZCZC

WECA41 PHEB 152100

← WMO ID

TSUCAX

← AWIPS ID

TEST...TSUNAMI MESSAGE NUMBER 9...TEST

NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI

2100 UTC THU MAR 15 2018

...TEST FINAL TSUNAMI THREAT MESSAGE TEST...

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

THIS IS A TEST MESSAGE. THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE UNESCO/IOC TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS AND IS MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

THIS IS A TEST MESSAGE. NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED INFORMATION.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST... PRELIMINARY EARTHQUAKE PARAMETERS ...TEST

\* MAGNITUDE 8.6  
\* ORIGIN TIME 1400 UTC MAR 15 2018  
\* COORDINATES 12.2 NORTH 58.3 WEST  
\* DEPTH 15 KM / 9 MILES  
\* LOCATION NORTH ATLANTIC OCEAN

EVALUATION

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\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A MAGNITUDE OF 8.6 OCCURRED IN THE NORTH ATLANTIC OCEAN AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. BASED ON ALL AVAILABLE DATA... THE TSUNAMI THREAT FROM THIS EARTHQUAKE HAS PASSED AND THERE IS NO FURTHER THREAT.

TEST... TSUNAMI THREAT FORECAST...UPDATED ...TEST

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THE TSUNAMI THREAT HAS NOW LARGELY PASSED.

TEST... RECOMMENDED ACTIONS ...TEST

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\* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR ANY IMPACTED COASTAL AREAS SHOULD MONITOR CONDITIONS AT THE COAST TO DETERMINE IF AND WHEN IT IS SAFE TO RESUME NORMAL ACTIVITIES.

\* THIS IS A TEST MESSAGE. PERSONS LOCATED NEAR IMPACTED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM LOCAL AUTHORITIES.

\* THIS IS A TEST MESSAGE. REMAIN OBSERVANT AND EXERCISE NORMAL CAUTION NEAR THE SEA.

TEST... POTENTIAL IMPACTS ...TEST

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\* THIS IS A TEST MESSAGE. MINOR SEA LEVEL FLUCTUATIONS UP TO 30 CM ABOVE AND BELOW THE NORMAL TIDE MAY OCCUR IN COASTAL AREAS NEAR THE EARTHQUAKE OVER THE NEXT FEW HOURS.... AND CONTINUING FOR UP TO SEVERAL HOURS.

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

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\* THIS IS A TEST MESSAGE. THIS WILL BE THE FINAL STATEMENT ISSUED FOR THIS EVENT UNLESS NEW INFORMATION IS RECEIVED OR THE SITUATION CHANGES.

\* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN LOWERCASE LETTERS-.

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\* THIS IS A TEST MESSAGE. COASTAL REGIONS OF THE US GULF COAST... US EAST COAST... AND THE MARITIME PROVINCES OF CANADA SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER MESSAGES THAT CAN BE FOUND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).

THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS TEST MESSAGE.

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# Colombia Scenario

# Message Chronology issued by the PTWC Colombia

Date	Time (UTC)	PTWC	
		Type of Product	Transmission Method
3/15/18	1400	----- Earthquake Occurs -----	
3/15/18	1400	Dummy	NWWS, GTS, EMWIN, AISR, Fax, Email
3/15/18	1405	Tsunami Threat Message #1	Email
3/15/18	1425	Tsunami Threat Message # 2 and Graphic Enhanced Product	Email
3/15/18	1500	Tsunami Threat Message #3	Email
3/15/18	1600	Tsunami Threat Message #4	Email
3/15/18	1700	Tsunami Threat Message #5	Email
3/15/18	1800	Tsunami Threat Message #6	Email
3/15/18	1900	Tsunami Threat Message #7	Email
3/15/18	2000	Tsunami Threat Message #8	Email
3/15/18	2100	Final Tsunami Threat Message #9	Email

**PTWC Message #1**

ZCZC

WECA41 PHEB 151405

WMO ID

TSUCAX

AWIPS ID

TEST...TSUNAMI MESSAGE NUMBER 1...TEST

NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI

1405 UTC THU MAR 15 2018

TEST TSUNAMI THREAT MESSAGE TEST

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

THIS IS A TEST MESSAGE. THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE UNESCO/IOC TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS AND IS MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

THIS IS A TEST MESSAGE. NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED INFORMATION.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST... PRELIMINARY EARTHQUAKE PARAMETERS ...TEST

- \* MAGNITUDE 8.1
- \* ORIGIN TIME 1400 UTC MAR 15 2018
- \* COORDINATES 11.5 NORTH 74.8 WEST
- \* DEPTH 15 KM / 9 MILES
- \* LOCATION NEAR THE NORTH COAST OF COLOMBIA

EVALUATION

\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 8.1 OCCURRED NEAR THE NORTH COAST OF COLOMBIA AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. BASED ON THE PRELIMINARY EARTHQUAKE PARAMETERS... WIDESPREAD HAZARDOUS TSUNAMI WAVES ARE POSSIBLE.

TEST... TSUNAMI THREAT FORECAST ...TEST

\* THIS IS A TEST MESSAGE. HAZARDOUS TSUNAMI WAVES FROM THIS EARTHQUAKE ARE POSSIBLE WITHIN THE NEXT THREE HOURS ALONG SOME COASTS OF  
COLOMBIA... PANAMA... HAITI... ARUBA... SAN ANDRES PROVID... BONAIRE... DOMINICAN REP... CUBA... COSTA RICA... JAMAICA... CURACAO... PUERTO RICO... US VIRGIN IS... CAYMAN ISLANDS... BAHAMAS... VENEZUELA... TURKS N CAICOS... SABA... SAINT KITTS... MONTSERRAT... SINT EUSTATIUS... GUADELOUPE... DOMINICA... BR VIRGIN IS... SAINT LUCIA... SINT MAARTEN... SAINT VINCENT... MARTINIQUE... NICARAGUA... ANGUILLA... GRENADA... SAINT MARTIN... BARBADOS... SAINT BARTHELEMY... ANTIGUA... MEXICO... HONDURAS AND BARBUDA

TEST... RECOMMENDED ACTIONS ...TEST

\* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR THREATENED COASTAL AREAS SHOULD TAKE ACTION TO INFORM AND INSTRUCT ANY COASTAL POPULATIONS AT RISK IN ACCORDANCE WITH THEIR OWN EVALUATION... PROCEDURES AND THE LEVEL OF THREAT.

\* THIS IS A TEST MESSAGE. PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND LOCAL AUTHORITIES.

TEST... ESTIMATED TIMES OF ARRIVAL ...TEST

\* THIS IS A TEST MESSAGE. ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE FOR PLACES WITHIN THE REGION IDENTIFIED WITH A POTENTIAL TSUNAMI THREAT. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	REGION	COORDINATES		ETA (UTC)	
SANTA MARTA	COLOMBIA	11.2N	74.2W	1415	03/15
CARTAGENA	COLOMBIA	10.4N	75.6W	1429	03/15
BARRANQUILLA	COLOMBIA	11.1N	74.9W	1434	03/15
ALIGANDI	PANAMA	9.2N	78.0W	1453	03/15
PUERTO CARRETO	PANAMA	8.8N	77.6W	1459	03/15
JACAMEL	HAITI	18.1N	72.5W	1507	03/15
ORANJESTAD	ARUBA	12.5N	70.0W	1510	03/15
PUERTO OBALDIA	PANAMA	8.7N	77.4W	1510	03/15
RIOHACHA	COLOMBIA	11.6N	72.9W	1513	03/15
PUNTA CARIBANA	COLOMBIA	8.6N	76.9W	1514	03/15
SAN ANDRES	SAN ANDRES PROVI	13.4N	81.4W	1515	03/15
PROVIDENCIA	SAN ANDRES PROVI	12.6N	81.7W	1516	03/15
ONIMA	BONAIRE	12.3N	68.3W	1520	03/15
JEREMIE	HAITI	18.6N	74.1W	1527	03/15
SANTO DOMINGO	DOMINICAN REP	18.5N	69.9W	1529	03/15
SANTIAGO D CUBA	CUBA	19.9N	75.8W	1534	03/15
PUERTO LIMON	COSTA RICA	10.0N	83.0W	1536	03/15
COLON	PANAMA	9.4N	79.9W	1537	03/15
KINGSTON	JAMAICA	17.9N	76.9W	1540	03/15
WILLEMSTAD	CURACAO	12.1N	68.9W	1544	03/15
MAYAGUEZ	PUERTO RICO	18.2N	67.2W	1546	03/15
BOCAS DEL TORO	PANAMA	9.4N	82.2W	1550	03/15
BARACOA	CUBA	20.4N	74.5W	1550	03/15
CHRISTIANSTED	US VIRGIN IS	17.7N	64.7W	1552	03/15
CABO ENGANO	DOMINICAN REP	18.6N	68.3W	1552	03/15
CAYMAN BRAC	CAYMAN ISLANDS	19.7N	79.9W	1552	03/15
GREAT INAGUA	BAHAMAS	20.9N	73.7W	1556	03/15
MAIQUETIA	VENEZUELA	10.6N	67.0W	1557	03/15
GRAND CAYMAN	CAYMAN ISLANDS	19.3N	81.3W	1601	03/15
CAP HAITEN	HAITI	19.8N	72.2W	1601	03/15
MONTEGO BAY	JAMAICA	18.5N	77.9W	1605	03/15
SAN JUAN	PUERTO RICO	18.5N	66.1W	1605	03/15
WEST CAICOS	TURKS N CAICOS	21.7N	72.5W	1606	03/15
GIBARA	CUBA	21.1N	76.1W	1609	03/15
MAYAGUANA	BAHAMAS	22.3N	73.0W	1610	03/15
PUERTO PLATA	DOMINICAN REP	19.8N	70.7W	1612	03/15
SABA	SABA	17.6N	63.2W	1613	03/15
BASSETERRE	SAINT KITTS	17.3N	62.7W	1615	03/15
PLYMOUTH	MONTSEERRAT	16.7N	62.2W	1616	03/15
SINT EUSTATIUS	SINT EUSTATIUS	17.5N	63.0W	1618	03/15
BASSE TERRE	GUADELOUPE	16.0N	61.7W	1618	03/15
CHARLOTTE AMALI	US VIRGIN IS	18.3N	64.9W	1618	03/15
ROSEAU	DOMINICA	15.3N	61.4W	1620	03/15
GRAND TURK	TURKS N CAICOS	21.5N	71.1W	1620	03/15
CIENFUEGOS	CUBA	22.0N	80.5W	1620	03/15
ROADTOWN	BR VIRGIN IS	18.4N	64.6W	1622	03/15
CASTRIES	SAINT LUCIA	14.0N	61.0W	1622	03/15
SIMPSON BAAI	SINT MAARTEN	18.0N	63.1W	1623	03/15
KINGSTOWN	SAINT VINCENT	13.1N	61.2W	1623	03/15
FORT DE FRANCE	MARTINIQUE	14.6N	61.1W	1626	03/15
ANEGADA	BR VIRGIN IS	18.8N	64.3W	1627	03/15
PUNTA GORDA	NICARAGUA	11.4N	83.8W	1629	03/15
LONG ISLAND	BAHAMAS	23.3N	75.1W	1629	03/15
CUMANA	VENEZUELA	10.5N	64.2W	1629	03/15
SAN SALVADOR	BAHAMAS	24.1N	74.5W	1630	03/15
PORT AU PRINCE	HAITI	18.5N	72.4W	1630	03/15
THE VALLEY	ANGUILLA	18.3N	63.1W	1630	03/15
SAINT GEORGES	GRENADA	12.0N	61.8W	1633	03/15
EXUMA	BAHAMAS	23.6N	75.9W	1639	03/15
CROOKED ISLAND	BAHAMAS	22.7N	74.1W	1644	03/15
BAIE LUCAS	SAINT MARTIN	18.1N	63.0W	1645	03/15
BAIE GRAND CASE	SAINT MARTIN	18.1N	63.1W	1648	03/15
CAT ISLAND	BAHAMAS	24.4N	75.5W	1648	03/15
BRIDGETOWN	BARBADOS	13.1N	59.6W	1649	03/15
SAINT BARTHELEM	SAINT BARTHELEMY	17.9N	62.8W	1649	03/15
SAINT JOHNS	ANTIGUA	17.1N	61.9W	1655	03/15
COZUMEL	MEXICO	20.5N	87.0W	1656	03/15
PUERTO CORTES	HONDURAS	15.9N	88.0W	1656	03/15
ELEUTHERA ISLAN	BAHAMAS	25.2N	76.1W	1656	03/15
PALMETTO POINT	BARBUDA	17.6N	61.9W	1658	03/15
BAIE BLANCHE	SAINT MARTIN	18.1N	63.0W	1703	03/15

TEST... POTENTIAL IMPACTS ...TEST

\* THIS IS A TEST MESSAGE. A TSUNAMI IS A SERIES OF WAVES. THE TIME BETWEEN WAVE CRESTS CAN VARY FROM 5 MINUTES TO AN HOUR. THE HAZARD MAY PERSIST FOR MANY HOURS OR LONGER AFTER THE INITIAL WAVE.

\* THIS IS A TEST MESSAGE. IMPACTS CAN VARY SIGNIFICANTLY FROM ONE SECTION OF COAST TO THE NEXT DUE TO LOCAL BATHYMETRY AND THE SHAPE AND ELEVATION OF THE SHORELINE.

\* THIS IS A TEST MESSAGE. IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.

\* THIS IS A TEST MESSAGE. PERSONS CAUGHT IN THE WATER OF A TSUNAMI MAY DROWN... BE CRUSHED BY DEBRIS IN THE WATER... OR BE SWEEPED OUT TO SEA.

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

\* THIS IS A TEST MESSAGE. THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.

\* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN LOWERCASE LETTERS-.

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PTWC Message #2

ZCZC  
WECA41 PHEB 151425  
TSUCAX

← WMO ID

← AWIPS ID

TEST...TSUNAMI MESSAGE NUMBER 2...TEST  
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI  
1425 UTC THU MAR 15 2018

TEST TSUNAMI THREAT MESSAGE TEST

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

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\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST...PRELIMINARY EARTHQUAKE PARAMETERS...TEST

- \* MAGNITUDE 8.1
- \* ORIGIN TIME 1400 UTC MAR 15 2018
- \* COORDINATES 11.5 NORTH 74.8 WEST
- \* DEPTH 15 KM / 9 MILES
- \* LOCATION NEAR THE NORTH COAST OF COLOMBIA

TEST... EVALUATION ...TEST

\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 8.1 OCCURRED NEAR THE NORTH COAST OF COLOMBIA AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES HAVE BEEN OBSERVED.

\* THIS IS A TEST MESSAGE. BASED ON ALL AVAILABLE DATA... HAZARDOUS TSUNAMI WAVES ARE FORECAST FOR SOME COASTS.

TEST... TSUNAMI THREAT FORECAST...UPDATED ...TEST

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF COLOMBIA.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF

DOMINICAN REPUBLIC... HAITI... NICARAGUA... PANAMA... JAMAICA... AND SAN ANDRES AND PROVIDENCIA.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF

COSTA RICA... CUBA... VENEZUELA... ANTIGUA AND BARBUDA... ARUBA... BAHAMAS... BONAIRE... CAYMAN ISLANDS... CURACAO... DOMINICA... GRENADA... GUADELOUPE... MARTINIQUE... MONTERRAT... PUERTO RICO AND VIRGIN ISLANDS... SABA AND SAINT EUSTATIUS... SAINT KITTS AND NEVIS... SAINT LUCIA... AND SAINT VINCENT AND THE GRENADINES.

\* THIS IS A TEST MESSAGE. ACTUAL AMPLITUDES AT THE COAST MAY VARY FROM FORECAST AMPLITUDES DUE TO UNCERTAINTIES IN THE FORECAST AND LOCAL FEATURES. IN PARTICULAR MAXIMUM TSUNAMI AMPLITUDES ON ATOLLS OR SMALL ISLANDS AND AT LOCATIONS WITH FRINGING OR BARRIER REEFS WILL LIKELY BE MUCH SMALLER THAN THE FORECAST INDICATES.

\* THIS IS A TEST MESSAGE. FOR ALL OTHER AREAS COVERED BY THIS MESSAGE... THERE IS NO TSUNAMI THREAT ALTHOUGH SMALL SEA LEVEL CHANGES MAY OCCUR.



TEST... RECOMMENDED ACTIONS ...TEST

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TEST... ESTIMATED TIMES OF ARRIVAL ...TEST

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LOCATION	REGION	COORDINATES		ETA (UTC)	
SANTA MARTA	COLOMBIA	11.2N	74.2W	1415	03/15
CARTAGENA	COLOMBIA	10.4N	75.6W	1429	03/15
BARRANQUILLA	COLOMBIA	11.1N	74.9W	1434	03/15
ALIGANDI	PANAMA	9.2N	78.0W	1453	03/15
PUERTO CARRETO	PANAMA	8.8N	77.6W	1459	03/15
JACAMEL	HAITI	18.1N	72.5W	1507	03/15
ORANJESTAD	ARUBA	12.5N	70.0W	1510	03/15
PUERTO OBALDIA	PANAMA	8.7N	77.4W	1510	03/15
RIOHACHA	COLOMBIA	11.6N	72.9W	1513	03/15
PUNTA CARIBANA	COLOMBIA	8.6N	76.9W	1514	03/15
SAN ANDRES	SAN ANDRES PROVI	13.4N	81.4W	1515	03/15
PROVIDENCIA	SAN ANDRES PROVI	12.6N	81.7W	1516	03/15
ONIMA	BONAIRE	12.3N	68.3W	1520	03/15
JEREMIE	HAITI	18.6N	74.1W	1527	03/15
SANTO DOMINGO	DOMINICAN REP	18.5N	69.9W	1529	03/15
SANTIAGO D CUBA	CUBA	19.9N	75.8W	1534	03/15
PUERTO LIMON	COSTA RICA	10.0N	83.0W	1536	03/15
COLON	PANAMA	9.4N	79.9W	1537	03/15
KINGSTON	JAMAICA	17.9N	76.9W	1540	03/15
WILLEMSTAD	CURACAO	12.1N	68.9W	1544	03/15
MAYAGUEZ	PUERTO RICO	18.2N	67.2W	1546	03/15
BOCAS DEL TORO	PANAMA	9.4N	82.2W	1550	03/15
CHRISTIANSTED	US VIRGIN IS	17.7N	64.7W	1552	03/15
CABO ENGANO	DOMINICAN REP	18.6N	68.3W	1552	03/15
CAYMAN BRAC	CAYMAN ISLANDS	19.7N	79.9W	1552	03/15
GREAT INAGUA	BAHAMAS	20.9N	73.7W	1556	03/15
GRAND CAYMAN	CAYMAN ISLANDS	19.3N	81.3W	1601	03/15
CAP HAITEN	HAITI	19.8N	72.2W	1601	03/15
MONTEGO BAY	JAMAICA	18.5N	77.9W	1605	03/15
SAN JUAN	PUERTO RICO	18.5N	66.1W	1605	03/15
MAYAGUANA	BAHAMAS	22.3N	73.0W	1610	03/15

PUERTO PLATA	DOMINICAN REP	19.8N	70.7W	1612	03/15
SABA	SABA	17.6N	63.2W	1613	03/15
BASSETERRE	SAINT KITTS	17.3N	62.7W	1615	03/15
PLYMOUTH	MONTSEERRAT	16.7N	62.2W	1616	03/15
SINT EUSTATIUS	SINT EUSTATIUS	17.5N	63.0W	1618	03/15
BASSE TERRE	GUADELOUPE	16.0N	61.7W	1618	03/15
CHARLOTTE AMALI	US VIRGIN IS	18.3N	64.9W	1618	03/15
ROSEAU	DOMINICA	15.3N	61.4W	1620	03/15
CIENFUEGOS	CUBA	22.0N	80.5W	1620	03/15
ROADTOWN	BR VIRGIN IS	18.4N	64.6W	1622	03/15
CASTRIES	SAINT LUCIA	14.0N	61.0W	1622	03/15
KINGSTOWN	SAINT VINCENT	13.1N	61.2W	1623	03/15
FORT DE FRANCE	MARTINIQUE	14.6N	61.1W	1626	03/15
ANEGADA	BR VIRGIN IS	18.8N	64.3W	1627	03/15
PUNTA GORDA	NICARAGUA	11.4N	83.8W	1629	03/15
LONG ISLAND	BAHAMAS	23.3N	75.1W	1629	03/15
SAN SALVADOR	BAHAMAS	24.1N	74.5W	1630	03/15
PORT AU PRINCE	HAITI	18.5N	72.4W	1630	03/15
SAINT GEORGES	GRENADA	12.0N	61.8W	1633	03/15
EXUMA	BAHAMAS	23.6N	75.9W	1639	03/15
CROOKED ISLAND	BAHAMAS	22.7N	74.1W	1644	03/15
CAT ISLAND	BAHAMAS	24.4N	75.5W	1648	03/15
SAINT JOHNS	ANTIGUA	17.1N	61.9W	1655	03/15
ELEUTHERA ISLAN	BAHAMAS	25.2N	76.1W	1656	03/15
PALMETTO POINT	BARBUDA	17.6N	61.9W	1658	03/15
ANDROS ISLAND	BAHAMAS	25.0N	77.9W	1705	03/15
NASSAU	BAHAMAS	25.1N	77.4W	1717	03/15
FREEPORT	BAHAMAS	26.5N	78.8W	1729	03/15
PUNTO FIJO	VENEZUELA	11.7N	70.2W	1730	03/15
ABACO ISLAND	BAHAMAS	26.6N	77.1W	1734	03/15
BIMINI	BAHAMAS	25.8N	79.3W	1742	03/15
GOLFO VENEZUELA	VENEZUELA	11.4N	71.2W	1829	03/15
SANTA CRZ D SUR	CUBA	20.7N	78.0W	1846	03/15
PUERTO CABEZAS	NICARAGUA	14.0N	83.4W	2005	03/15
NUEVA GERONA	CUBA	21.9N	82.8W	2011	03/15

TEST... POTENTIAL IMPACTS ...TEST

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- \* THIS IS A TEST MESSAGE. A TSUNAMI IS A SERIES OF WAVES. THE TIME BETWEEN WAVE CRESTS CAN VARY FROM 5 MINUTES TO AN HOUR. THE HAZARD MAY PERSIST FOR MANY HOURS OR LONGER AFTER THE INITIAL WAVE.
- \* THIS IS A TEST MESSAGE. IMPACTS CAN VARY SIGNIFICANTLY FROM ONE SECTION OF COAST TO THE NEXT DUE TO LOCAL BATHYMETRY AND THE SHAPE AND ELEVATION OF THE SHORELINE.
- \* THIS IS A TEST MESSAGE. IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.
- \* THIS IS A TEST MESSAGE. PERSONS CAUGHT IN THE WATER OF A TSUNAMI MAY DROWN... BE CRUSHED BY DEBRIS IN THE WATER... OR BE SWEEPED OUT TO SEA.

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

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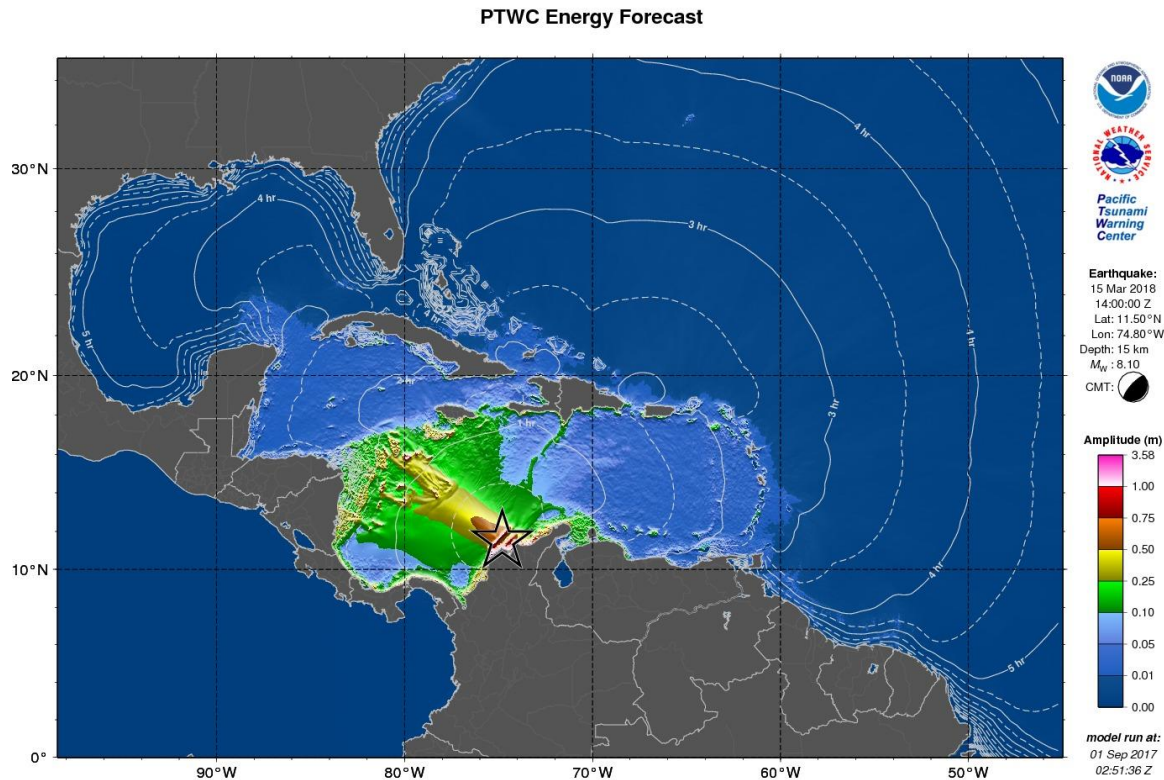
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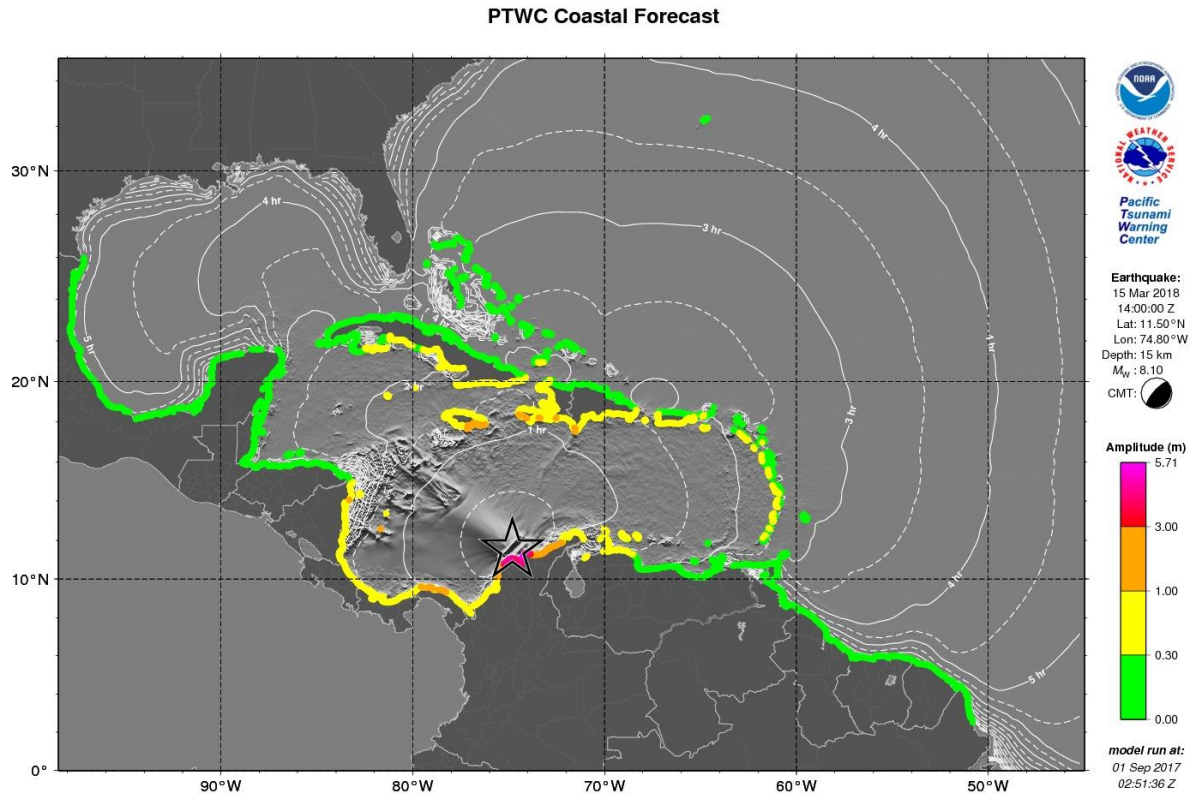
# Energy Forecast for Tsunami Wave Heights Colombia



**RIFT maximum amplitude map for the scenario for Colombia.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

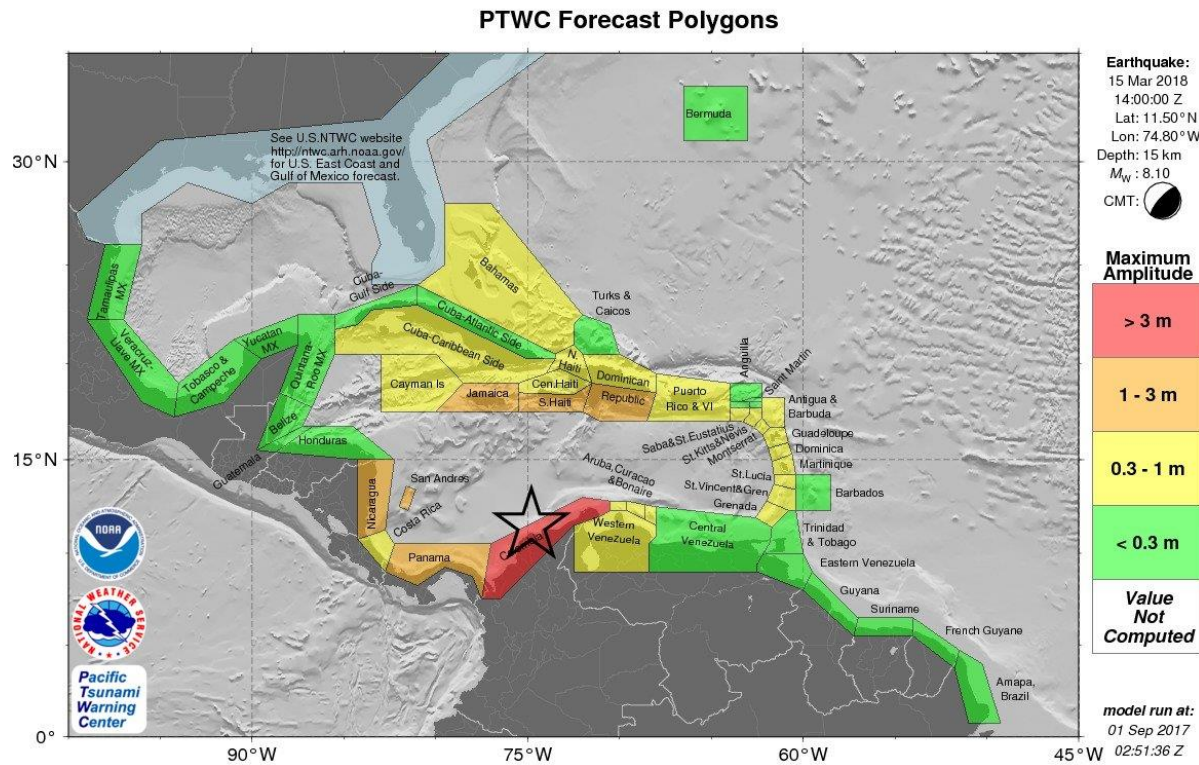
# Coastal Forecast for Tsunami Wave Heights Colombia



**RIFT coastal tsunami amplitude map for the scenario for Colombia.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami.

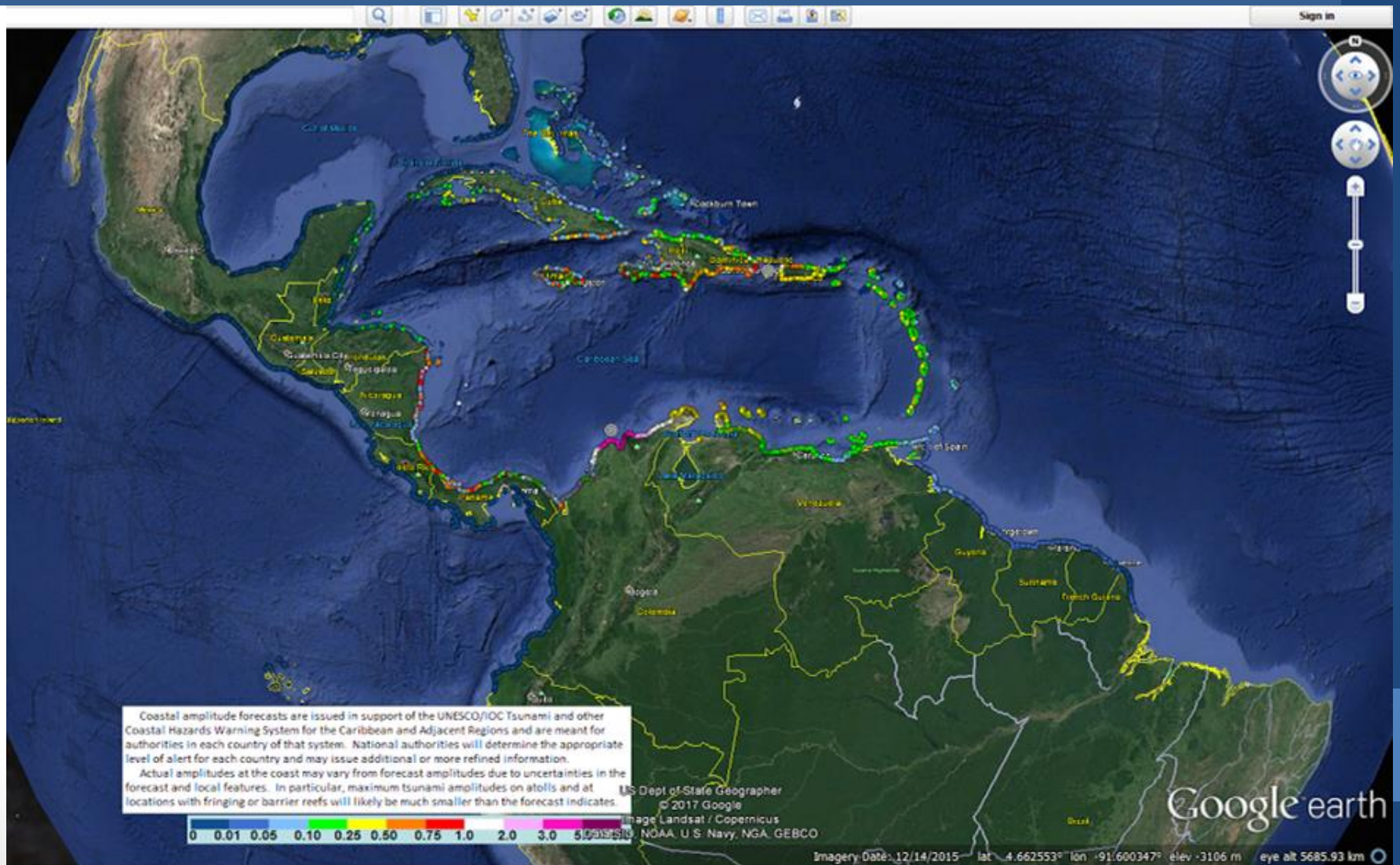
# Polygons Forecast for Tsunami Wave Heights Colombia



**RIFT forecast polygons for the Caribbean region on the Colombia scenario.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

# KMZ Colombia



# Forecast Statistics for Regional Polygons\*

## Colombia

Region Name	Coastal Forecast (meters)				Offshore Forecast (meters)				Total Points
	Maximum	Mean	Median	STD	Maximum	Mean	Median	STD	
Caribbean Coast of Colombia	5.7	1.8	1	1.4	3.6	0.89	0.61	0.67	255
Caribbean Coast of Haiti	1.4	0.85	0.83	0.15	0.69	0.34	0.32	0.12	89
Caribbean Coast of Dominican Republic	1.3	0.65	0.62	0.18	0.88	0.3	0.28	0.13	148
Jamaica	1.3	0.72	0.65	0.23	0.78	0.3	0.28	0.14	146
Caribbean Coast of Panama	1.2	0.82	0.8	0.15	0.99	0.47	0.47	0.18	179
Caribbean Coast of Nicaragua	1	0.73	0.73	0.11	0.56	0.28	0.28	0.11	139
San Andres and Providencia	1	0.95	0.95	0.09	0.34	0.32	0.32	0.02	4
Caribbean Coast of Costa Rica	0.85	0.71	0.72	0.08	0.71	0.45	0.47	0.1	48
Caribbean Coast of Cuba	0.77	0.37	0.35	0.13	0.4	0.1	0.1	0.06	423
Western Coast of Venezuela	0.73	0.37	0.35	0.12	0.3	0.14	0.14	0.05	100
Gulf of Gonave Coast of Haiti	0.69	0.45	0.44	0.09	0.47	0.16	0.14	0.08	140
Puerto Rico and Virgin Islands	0.59	0.28	0.31	0.13	0.34	0.12	0.11	0.06	190
Aruba	0.55	0.47	0.46	0.07	0.36	0.21	0.17	0.07	8
Saint Vincent and the Grenadines	0.51	0.31	0.32	0.06	0.2	0.11	0.11	0.03	33
Curacao	0.49	0.37	0.37	0.06	0.3	0.14	0.13	0.04	27
Bonaire	0.49	0.37	0.38	0.05	0.3	0.18	0.17	0.05	15
Martinique	0.47	0.27	0.25	0.09	0.17	0.1	0.09	0.03	41
Saint Lucia	0.47	0.28	0.3	0.1	0.2	0.11	0.1	0.04	26
Saint Kitts and Nevis	0.45	0.3	0.31	0.09	0.24	0.12	0.11	0.05	29
Cayman Islands	0.42	0.34	0.34	0.03	0.21	0.15	0.14	0.03	9
Bahamas	0.41	0.05	0.02	0.07	0.29	0.02	0.01	0.04	443
Atlantic Coast of Haiti	0.41	0.26	0.26	0.07	0.21	0.09	0.08	0.03	66
Montserrat	0.41	0.28	0.26	0.06	0.16	0.1	0.08	0.04	11
Guadeloupe	0.39	0.21	0.2	0.08	0.16	0.09	0.08	0.03	73
Dominica	0.39	0.25	0.26	0.07	0.17	0.08	0.07	0.03	31
Saba and Saint Eustatius	0.36	0.24	0.22	0.05	0.19	0.08	0.06	0.05	8
Atlantic Coast of Dominican Republic	0.34	0.11	0.09	0.06	0.36	0.06	0.04	0.06	129
Grenada	0.32	0.21	0.23	0.08	0.19	0.08	0.07	0.04	29
Antigua and Barbuda	0.3	0.15	0.09	0.08	0.13	0.08	0.08	0.03	28
Central Coast of Venezuela	0.29	0.17	0.15	0.06	0.22	0.07	0.06	0.03	238
Anguilla	0.29	0.22	0.23	0.06	0.17	0.12	0.12	0.03	8
Caribbean Coast of Honduras	0.26	0.16	0.16	0.05	0.3	0.08	0.07	0.05	185
Atlantic Coast of Cuba	0.25	0.06	0.05	0.06	0.15	0.02	0.01	0.02	259
Belize	0.24	0.15	0.15	0.03	0.16	0.04	0.03	0.03	90
Sint Maarten	0.23	0.22	0.22	0.01	0.13	0.11	0.11	0.02	6
Gulf of Mexico Coast of Cuba	0.22	0.04	0.03	0.04	0.05	0.01	0.01	0.01	122
Saint Barthelemy	0.22	0.15	0.14	0.05	0.12	0.1	0.11	0.01	4
Quintana Roo Mexico	0.22	0.14	0.17	0.07	0.22	0.06	0.07	0.04	166
Saint Martin	0.22	0.22	0.22	0	0.13	0.12	0.12	0.01	3
Turks and Caicos Islands	0.13	0.06	0.06	0.02	0.06	0.03	0.03	0.01	46
Barbados	0.13	0.1	0.1	0.02	0.09	0.04	0.04	0.02	21
Caribbean Coast of Guatemala	0.12	0.11	0.12	0.01	0.12	0.04	0.04	0.03	13
Trinidad and Tobago	0.11	0.07	0.08	0.03	0.07	0.03	0.03	0.01	77
Yucatan Mexico	0.07	0.02	0	0.03	0.02	0	0	0	59
Atlantic Coast of Venezuela	0.06	0.05	0.04	0.01	0.02	0.01	0.01	0	82
Bermuda	0.06	0.05	0.05	0	0.05	0.03	0.03	0.01	8
Guyana	0.05	0.04	0.04	0.01	0.02	0.01	0.01	0	101
Suriname	0.03	0.03	0.03	0	0.02	0.01	0.01	0	109
French Guyane	0.03	0.01	0.01	0	0.01	0	0	0	84

\*Actual amplitudes at the coast may vary from forecast amplitudes due to uncertainties in the forecast and local features. In particular, maximum tsunami amplitudes on small islands will likely be much smaller than the forecast indicates.

**PTWC Message #9**

ZCZC  
WECA41 PHEB 152100  
TSUCAX



TEST...TSUNAMI MESSAGE NUMBER 9...TEST  
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI  
2100 UTC THU MAR 15 2018

TEST FINAL TSUNAMI THREAT MESSAGE TEST

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

THIS IS A TEST MESSAGE. THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE UNESCO/IOC TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS AND IS MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

THIS IS A TEST MESSAGE. NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED INFORMATION.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST... PRELIMINARY EARTHQUAKE PARAMETERS ...TEST

- \* MAGNITUDE 8.1
- \* ORIGIN TIME 1400 UTC MAR 15 2018
- \* COORDINATES 11.5 NORTH 74.8 WEST
- \* DEPTH 15 KM / 9 MILES
- \* LOCATION NEAR THE NORTH COAST OF COLOMBIA

TEST... EVALUATION ...TEST

\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 8.1 OCCURRED NEAR THE NORTH COAST OF COLOMBIA AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. BASED ON ALL AVAILABLE DATA... THE TSUNAMI THREAT FROM THIS EARTHQUAKE HAS PASSED AND THERE IS NO FURTHER THREAT.

TEST... TSUNAMI THREAT FORECAST...UPDATED ...TEST

\* THIS IS A TEST MESSAGE. THE TSUNAMI THREAT HAS NOW LARGELY PASSED.

TEST... RECOMMENDED ACTIONS ...TEST

\* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR ANY IMPACTED COASTAL AREAS SHOULD MONITOR CONDITIONS AT THE COAST TO DETERMINE IF AND WHEN IT IS SAFE TO RESUME NORMAL ACTIVITIES.

\* THIS IS A TEST MESSAGE. PERSONS LOCATED NEAR IMPACTED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM LOCAL AUTHORITIES.

\* THIS IS A TEST MESSAGE. REMAIN OBSERVANT AND EXERCISE NORMAL CAUTION NEAR THE SEA.

TEST... POTENTIAL IMPACTS ...TEST

\* THIS IS A TEST MESSAGE. MINOR SEA LEVEL FLUCTUATIONS UP TO 30 CM ABOVE AND BELOW THE NORMAL TIDE MAY OCCUR IN COASTAL AREAS NEAR THE EARTHQUAKE OVER THE NEXT FEW HOURS.... AND CONTINUING FOR UP TO SEVERAL HOURS.

TEST... TSUNAMI OBSERVATIONS ...TEST

\* THIS IS A TEST MESSAGE. THE FOLLOWING ARE TSUNAMI WAVE OBSERVATIONS FROM COASTAL AND/OR DEEP-OCEAN SEA LEVEL GAUGES AT THE INDICATED LOCATIONS. THE MAXIMUM TSUNAMI HEIGHT IS MEASURED WITH RESPECT TO THE NORMAL TIDE LEVEL.



GAUGE LOCATION	COORDINATES		MEASURE (UTC)	TSUNAMI HEIGHT	PERIOD (MIN)
	LAT	LON			
PUERTO MORELOS MX	21.4N	86.8W	1726	0.18M/	0.6FT 18
ISLA MUJERES	21.2N	86.7W	1727	0.17M/	0.5FT 28
CEIBA CABOTAGE HN	15.8N	86.8W	1722	0.09M/	0.3FT 20
CARRIE BOW CAY BH	16.8N	88.1W	1710	0.15M/	0.5FT 22
PUERTO CORTES HN	15.8N	88.0W	1706	0.13M/	0.4FT 26
PUERTO MORELOS MX	20.9N	86.9W	1700	0.21M/	0.7FT 22
BRIDGEPORT BB	13.1N	59.6W	1656	0.12M/	0.4FT 24
GANTERS BAY ST LUCI	14.0N	61.0W	1654	0.34M/	1.1FT 28
UTILA ISLAND HN	16.1N	86.9W	1654	0.14M/	0.4FT 14
LE ROBERT MARTINIQU	14.7N	60.9W	1649	0.13M/	0.4FT 18
SAINT MARTIN FR	18.1N	63.1W	1646	0.22M/	0.7FT 24
DESIRADE GUADELOUPE	16.3N	61.1W	1649	0.13M/	0.4FT 26
PRICKLEY BAY GD	12.0N	61.8W	1645	0.21M/	0.7FT 22
POINT A PITRE GP	16.2N	61.5W	1643	0.13M/	0.4FT 22
ROATAN ISLAND HN	16.3N	86.5W	1643	0.11M/	0.4FT 26
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1639	0.25M/	0.8FT 16
CALLIAQUA VC	13.1N	61.2W	1636	0.34M/	1.1FT 22
FORT DE FRANCE MQ	14.6N	61.1W	1636	0.47M/	1.5FT 26
ROSEAU DM	15.3N	61.4W	1630	0.36M/	1.2FT 22
LE PRECHEUR MARTINI	14.8N	61.2W	1627	0.31M/	1.0FT 18
DESHAIES GUADELOUPE	16.3N	61.8W	1631	0.32M/	1.0FT 28
BASSETERRE KN	17.3N	62.7W	1629	0.22M/	0.7FT 24
SAN JUAN PR	18.5N	66.1W	1618	0.13M/	0.4FT 26
CAP HAITIEN HT	19.8N	72.2W	1611	0.13M/	0.4FT 28
ARECIBO PR	18.5N	66.7W	1609	0.13M/	0.4FT 28
GEORGE TOWN CY	19.3N	81.4W	1603	0.25M/	0.8FT 22
ESPERANZA VIEQUES P	18.1N	65.5W	1603	0.39M/	1.3FT 16
AGUADILLA PR	18.5N	67.2W	1601	0.29M/	1.0FT 28
PORT SAN ANDRES DO	18.4N	69.6W	1607	0.61M/	2.0FT 22
LIMETREE VI	17.7N	64.8W	1606	0.36M/	1.2FT 28
ST CROIX VI	17.7N	64.7W	1600	0.24M/	0.8FT 16
CAJA DE MUERTOS PR	17.9N	66.5W	1600	0.47M/	1.5FT 18
MAGUEYES ISLAND PR	18.0N	67.0W	1555	0.48M/	1.6FT 20
YABUCOA PR	18.1N	65.8W	1553	0.38M/	1.2FT 24
MAYAGUEZ PR	18.2N	67.2W	1558	0.31M/	1.0FT 26
PORT ROYAL JM	17.9N	76.8W	1549	1.04M/	3.4FT 18
PUNTA CANA DO	18.5N	68.4W	1551	0.40M/	1.3FT 26
LIMON CR	10.0N	83.0W	1542	0.75M/	2.5FT 26
MONA ISLAND PR	18.1N	67.9W	1545	0.34M/	1.1FT 26
BARAHONA DO	18.2N	71.1W	1536	0.82M/	2.7FT 20
BULLEN BAY CURACAO	12.2N	69.0W	1531	0.41M/	1.3FT 22
SAN ANDRES CO	12.6N	81.7W	1529	0.92M/	3.0FT 22
DART 42407	15.3N	68.2W	1521	0.05M/	0.1FT 16
SAPZURRO CO	8.7N	77.4W	1521	0.67M/	2.2FT 24
PUERTO ESTRELLA CO	12.4N	71.3W	1523	0.73M/	2.4FT 14
JACMEL HT	18.2N	72.5W	1524	1.11M/	3.6FT 20
EL PORVENIR PA	9.6N	78.9W	1513	1.00M/	3.3FT 24
COVENAS CO	9.4N	76.2W	1510	0.82M/	2.7FT 22
SANTA MARTA CO	11.2N	74.2W	1420	5.40M/	17.7FT 16

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

\* THIS IS A TEST MESSAGE. THIS WILL BE THE FINAL STATEMENT ISSUED FOR THIS EVENT UNLESS NEW INFORMATION IS RECEIVED OR THE SITUATION CHANGES.

\* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT EARTHQUAKE.USGS.GOV/EARTHQUAKES -ALL IN LOWERCASE LETTERS-.

\* THIS IS A TEST MESSAGE. FURTHER INFORMATION ABOUT THIS EVENT MAY BE FOUND AT WWW.TSUNAMI.GOV.

\* THIS IS A TEST MESSAGE. COASTAL REGIONS OF THE US GULF COAST... US EAST COAST... AND THE MARITIME PROVINCES OF CANADA SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER MESSAGES THAT CAN BE FOUND AT WWW.TSUNAMI.GOV.

THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS TEST MESSAGE.

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NNNN

# Puerto Rico Scenario

# Message Chronology issued by the PTWC Puerto Rico

Date	Time (UTC)	PTWC	
		Type of Product	Transmission Method
3/15/18	1400	----- Earthquake Occurs -----	
3/15/18	1400	Dummy	NWWS, GTS, EMWIN, AISR, Fax, Email
3/15/18	1405	Tsunami Threat Message #1	Email
3/15/18	1425	Tsunami Threat Message # 2 and Graphic Enhanced Product	Email
3/15/18	1500	Tsunami Threat Message #3	Email
3/15/18	1600	Tsunami Threat Message #4	Email
3/15/18	1700	Tsunami Threat Message #5	Email
3/15/18	1800	Tsunami Threat Message #6	Email
3/15/18	1900	Tsunami Threat Message #7	Email
3/15/18	2000	Tsunami Threat Message #8	Email
3/15/18	2100	Final Tsunami Threat Message #9	Email

**PTWC Message #1**

ZCZC

WECA41 PHEB 151405

WMO ID

TSUCAX

AWIPS ID

TEST...TSUNAMI MESSAGE NUMBER 1...TEST

NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI

1405 UTC THU MAR 15 2018

...TEST TSUNAMI THREAT MESSAGE TEST...

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

THIS IS A TEST MESSAGE. THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE UNESCO/IOC TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS AND IS MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

THIS IS A TEST MESSAGE. NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED INFORMATION.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST... PRELIMINARY EARTHQUAKE PARAMETERS ...TEST

\* MAGNITUDE 7.6  
\* ORIGIN TIME 1400 UTC MAR 15 2018  
\* COORDINATES 18.3 NORTH 67.8 WEST  
\* DEPTH 10 KM / 6 MILES  
\* LOCATION MONA PASSAGE

TEST... EVALUATION ...TEST

\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 7.6 OCCURRED IN THE MONA PASSAGE AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. BASED ON THE PRELIMINARY EARTHQUAKE PARAMETERS... HAZARDOUS TSUNAMI WAVES ARE POSSIBLE FOR COASTS LOCATED WITHIN 1000 KM OF THE EARTHQUAKE EPICENTER.

TEST... TSUNAMI THREAT FORECAST ...TEST

\* THIS IS A TEST MESSAGE. HAZARDOUS TSUNAMI WAVES FROM THIS EARTHQUAKE ARE POSSIBLE WITHIN 1000 KM OF THE EPICENTER ALONG THE COASTS OF

PUERTO RICO... DOMINICAN REP... US VIRGIN IS... BR VIRGIN IS... TURKS N CAICOS... HAITI... SABA... BONAIRE... SINT MAARTEN... SAINT KITTS... BAHAMAS... ANGUILLA... SINT EUSTATIUS... ARUBA... MONTERRAT... CUBA... GUADELOUPE... DOMINICA... SAINT LUCIA... BARBUDA... SAINT MARTIN... MARTINIQUE... VENEZUELA... ANTIGUA... SAINT BARTHELEMY... CURACAO... SAINT VINCENT... GRENADA... JAMAICA AND COLOMBIA

TEST... RECOMMENDED ACTIONS ...TEST

\* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR THREATENED COASTAL AREAS SHOULD TAKE ACTION TO INFORM AND INSTRUCT ANY COASTAL POPULATIONS AT RISK IN ACCORDANCE WITH THEIR OWN EVALUATION... PROCEDURES AND THE LEVEL OF THREAT.

\* THIS IS A TEST MESSAGE. PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND LOCAL AUTHORITIES.

TEST... ESTIMATED TIMES OF ARRIVAL ...TEST

\* THIS IS A TEST MESSAGE. ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE FOR PLACES WITHIN THE REGION IDENTIFIED WITH A POTENTIAL TSUNAMI THREAT. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	REGION	COORDINATES		ETA (UTC)
MAYAGUEZ	PUERTO RICO	18.2N	67.2W	1414 03/15
CABO ENGANO	DOMINICAN REP	18.6N	68.3W	1426 03/15
SAN JUAN	PUERTO RICO	18.5N	66.1W	1428 03/15
SANTO DOMINGO	DOMINICAN REP	18.5N	69.9W	1437 03/15
PUERTO PLATA	DOMINICAN REP	19.8N	70.7W	1442 03/15
CHRISTIANSTED	US VIRGIN IS	17.7N	64.7W	1442 03/15
ANEGADA	BR VIRGIN IS	18.8N	64.3W	1453 03/15
GRAND TURK	TURKS N CAICOS	21.5N	71.1W	1454 03/15
JACAMEL	HAITI	18.1N	72.5W	1458 03/15
CAP HAITEN	HAITI	19.8N	72.2W	1459 03/15
SABA	SABA	17.6N	63.2W	1503 03/15
ONIMA	BONAIRE	12.3N	68.3W	1504 03/15
SIMPSON BAAI	SINT MAARTEN	18.0N	63.1W	1508 03/15
WEST CAICOS	TURKS N CAICOS	21.7N	72.5W	1509 03/15
BASSETERRE	SAINT KITTS	17.3N	62.7W	1509 03/15
MAYAGUANA	BAHAMAS	22.3N	73.0W	1509 03/15
THE VALLEY	ANGUILLA	18.3N	63.1W	1510 03/15
SINT EUSTATIUS	SINT EUSTATIUS	17.5N	63.0W	1510 03/15
ORANJESTAD	ARUBA	12.5N	70.0W	1512 03/15
PLYMOUTH	MONTserrat	16.7N	62.2W	1512 03/15
BARACOA	CUBA	20.4N	74.5W	1518 03/15
BASSE TERRE	GUADELOUPE	16.0N	61.7W	1519 03/15
GREAT INAGUA	BAHAMAS	20.9N	73.7W	1519 03/15
CHARLOTTE AMALI	US VIRGIN IS	18.3N	64.9W	1522 03/15
ROSEAU	DOMINICA	15.3N	61.4W	1522 03/15
SAN SALVADOR	BAHAMAS	24.1N	74.5W	1525 03/15
CASTRIES	SAINT LUCIA	14.0N	61.0W	1530 03/15
JEREMIE	HAITI	18.6N	74.1W	1530 03/15
PALMETTO POINT	BARBUDA	17.6N	61.9W	1530 03/15
BAIE LUCAS	SAINT MARTIN	18.1N	63.0W	1531 03/15
FORT DE FRANCE	MARTINIQUE	14.6N	61.1W	1532 03/15
BAIE GRAND CASE	SAINT MARTIN	18.1N	63.1W	1532 03/15
SANTIAGO D CUBA	CUBA	19.9N	75.8W	1533 03/15
LONG ISLAND	BAHAMAS	23.3N	75.1W	1534 03/15
MAIQUETIA	VENEZUELA	10.6N	67.0W	1535 03/15
GIBARA	CUBA	21.1N	76.1W	1536 03/15
SAINT JOHNS	ANTIGUA	17.1N	61.9W	1536 03/15
SAINT BARTHELEM	SAINT BARTHELEMY	17.9N	62.8W	1536 03/15
WILLEMSTAD	CURACAO	12.1N	68.9W	1537 03/15
KINGSTOWN	SAINT VINCENT	13.1N	61.2W	1538 03/15
CROOKED ISLAND	BAHAMAS	22.7N	74.1W	1544 03/15
BAIE BLANCHE	SAINT MARTIN	18.1N	63.0W	1547 03/15
SAINT GEORGES	GRENADA	12.0N	61.8W	1556 03/15
CUMANA	VENEZUELA	10.5N	64.2W	1559 03/15
ROADTOWN	BR VIRGIN IS	18.4N	64.6W	1608 03/15
KINGSTON	JAMAICA	17.9N	76.9W	1614 03/15
RIOHACHA	COLOMBIA	11.6N	72.9W	1617 03/15
PORT AU PRINCE	HAITI	18.5N	72.4W	1623 03/15
PUNTO FIJO	VENEZUELA	11.7N	70.2W	1737 03/15
GOLFO VENEZUELA	VENEZUELA	11.4N	71.2W	1836 03/15
FORLAMAR	VENEZUELA	10.9N	63.8W	1919 03/15

TEST... POTENTIAL IMPACTS ...TEST

\* THIS IS A TEST MESSAGE. A TSUNAMI IS A SERIES OF WAVES. THE TIME BETWEEN WAVE CRESTS CAN VARY FROM 5 MINUTES TO AN HOUR. THE HAZARD MAY PERSIST FOR MANY HOURS OR LONGER AFTER THE INITIAL WAVE.

\* THIS IS A TEST MESSAGE. IMPACTS CAN VARY SIGNIFICANTLY FROM ONE SECTION OF COAST TO THE NEXT DUE TO LOCAL BATHYMETRY AND THE SHAPE AND ELEVATION OF THE SHORELINE.

\* THIS IS A TEST MESSAGE. IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.

\* THIS IS A TEST MESSAGE. PERSONS CAUGHT IN THE WATER OF A TSUNAMI MAY DROWN... BE CRUSHED BY DEBRIS IN THE WATER... OR BE SWEEPED OUT TO SEA.

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

\* THIS IS A TEST MESSAGE. THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.

\* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN LOWERCASE LETTERS-.

\* THIS IS A TEST MESSAGE. FURTHER INFORMATION ABOUT THIS EVENT MAY BE FOUND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).

\* THIS IS A TEST MESSAGE. COASTAL REGIONS OF THE US GULF COAST... US EAST COAST... AND THE MARITIME PROVINCES OF CANADA SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER MESSAGES THAT CAN BE FOUND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).

THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS TEST MESSAGE.

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NNNN

**PTWC Message #2**

ZCZC  
WECA41 PHEB 151425  
TSUCAX

← WMO ID

← AWIPS ID

TEST...TSUNAMI MESSAGE NUMBER 2...TEST  
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI  
1425 UTC THU MAR 15 2018

...TEST TSUNAMI THREAT MESSAGE TEST...

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

THIS IS A TEST MESSAGE. THIS MESSAGE IS ISSUED FOR INFORMATION ONLY IN SUPPORT OF THE UNESCO/IOC TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS AND IS MEANT FOR NATIONAL AUTHORITIES IN EACH COUNTRY OF THAT SYSTEM.

THIS IS A TEST MESSAGE. NATIONAL AUTHORITIES WILL DETERMINE THE APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED INFORMATION.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

TEST... PRELIMINARY EARTHQUAKE  
PARAMETERS ...TEST

-----  
\* MAGNITUDE 7.6  
\* ORIGIN TIME 1400 UTC MAR 15 2018  
\* COORDINATES 18.3 NORTH 67.8 WEST  
\* DEPTH 10 KM / 6 MILES  
\* LOCATION MONA PASSAGE

TEST... EVALUATION ...TEST

-----  
\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 7.6 OCCURRED IN THE MONA PASSAGE AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES HAVE BEEN OBSERVED.

\* THIS IS A TEST MESSAGE. BASED ON ALL AVAILABLE DATA... HAZARDOUS TSUNAMI WAVES ARE FORECAST FOR SOME COASTS.

TEST... TSUNAMI THREAT FORECAST ...TEST

-----  
\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF

PUERTO RICO AND VIRGIN ISLANDS.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF

DOMINICAN REPUBLIC.

\* THIS IS A TEST MESSAGE. TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF

COLOMBIA... VENEZUELA... ANGUILLA... ARUBA... BONAIRE... CURACAO... GRENADA... AND SAINT VINCENT AND THE GRENADINES.

\* THIS IS A TEST MESSAGE. ACTUAL AMPLITUDES AT THE COAST MAY VARY FROM FORECAST AMPLITUDES DUE TO UNCERTAINTIES IN THE FORECAST AND LOCAL FEATURES. IN PARTICULAR MAXIMUM TSUNAMI AMPLITUDES ON ATOLLS OR SMALL ISLANDS AND AT LOCATIONS WITH FRINGING OR BARRIER REEFS WILL LIKELY BE MUCH SMALLER THAN THE FORECAST INDICATES.

\* THIS IS A TEST MESSAGE. FOR ALL OTHER AREAS COVERED BY THIS MESSAGE... THERE IS NO TSUNAMI THREAT ALTHOUGH SMALL SEA LEVEL CHANGES MAY OCCUR.

TEST... RECOMMENDED ACTIONS ...TEST

- \* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR THREATENED COASTAL AREAS SHOULD TAKE ACTION TO INFORM AND INSTRUCT ANY COASTAL POPULATIONS AT RISK IN ACCORDANCE WITH THEIR OWN EVALUATION... PROCEDURES AND THE LEVEL OF THREAT.
- \* THIS IS A TEST MESSAGE. PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND LOCAL AUTHORITIES.

TEST... ESTIMATED TIMES OF ARRIVAL ...TEST

\* THIS IS A TEST MESSAGE. ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE FOR PLACES WITHIN THREATENED REGIONS ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	REGION	COORDINATES		ETA (UTC)
MAYAGUEZ	PUERTO RICO	18.2N	67.2W	1414 03/15
CABO ENGANO	DOMINICAN REP	18.6N	68.3W	1426 03/15
SAN JUAN	PUERTO RICO	18.5N	66.1W	1428 03/15
SANTO DOMINGO	DOMINICAN REP	18.5N	69.9W	1437 03/15
PUERTO PLATA	DOMINICAN REP	19.8N	70.7W	1442 03/15
CHRISTIANSTED	US VIRGIN IS	17.7N	64.7W	1442 03/15
ANEGADA	BR VIRGIN IS	18.8N	64.3W	1453 03/15
ONIMA	BONAIRE	12.3N	68.3W	1504 03/15
THE VALLEY	ANGUILLA	18.3N	63.1W	1510 03/15
ORANJESTAD	ARUBA	12.5N	70.0W	1512 03/15
CHARLOTTE AMALI	US VIRGIN IS	18.3N	64.9W	1522 03/15
WILLEMSTAD	CURACAO	12.1N	68.9W	1537 03/15
KINGSTOWN	SAINT VINCENT	13.1N	61.2W	1538 03/15
SANTA MARTA	COLOMBIA	11.2N	74.2W	1548 03/15
SAINT GEORGES	GRENADA	12.0N	61.8W	1556 03/15
CARTAGENA	COLOMBIA	10.4N	75.6W	1604 03/15
ROADTOWN	BR VIRGIN IS	18.4N	64.6W	1608 03/15
BARRANQUILLA	COLOMBIA	11.1N	74.9W	1612 03/15
RIOHACHA	COLOMBIA	11.6N	72.9W	1617 03/15
PUNTA CARIBANA	COLOMBIA	8.6N	76.9W	1647 03/15
PUNTO FIJO	VENEZUELA	11.7N	70.2W	1737 03/15
GOLFO VENEZUELA	VENEZUELA	11.4N	71.2W	1836 03/15

TEST... POTENTIAL IMPACTS ...TEST

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- \* THIS IS A TEST MESSAGE. IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.
- \* THIS IS A TEST MESSAGE. PERSONS CAUGHT IN THE WATER OF A TSUNAMI MAY DROWN... BE CRUSHED BY DEBRIS IN THE WATER... OR BE SWEEPED OUT TO SEA.

TEST... TSUNAMI OBSERVATIONS ...TEST

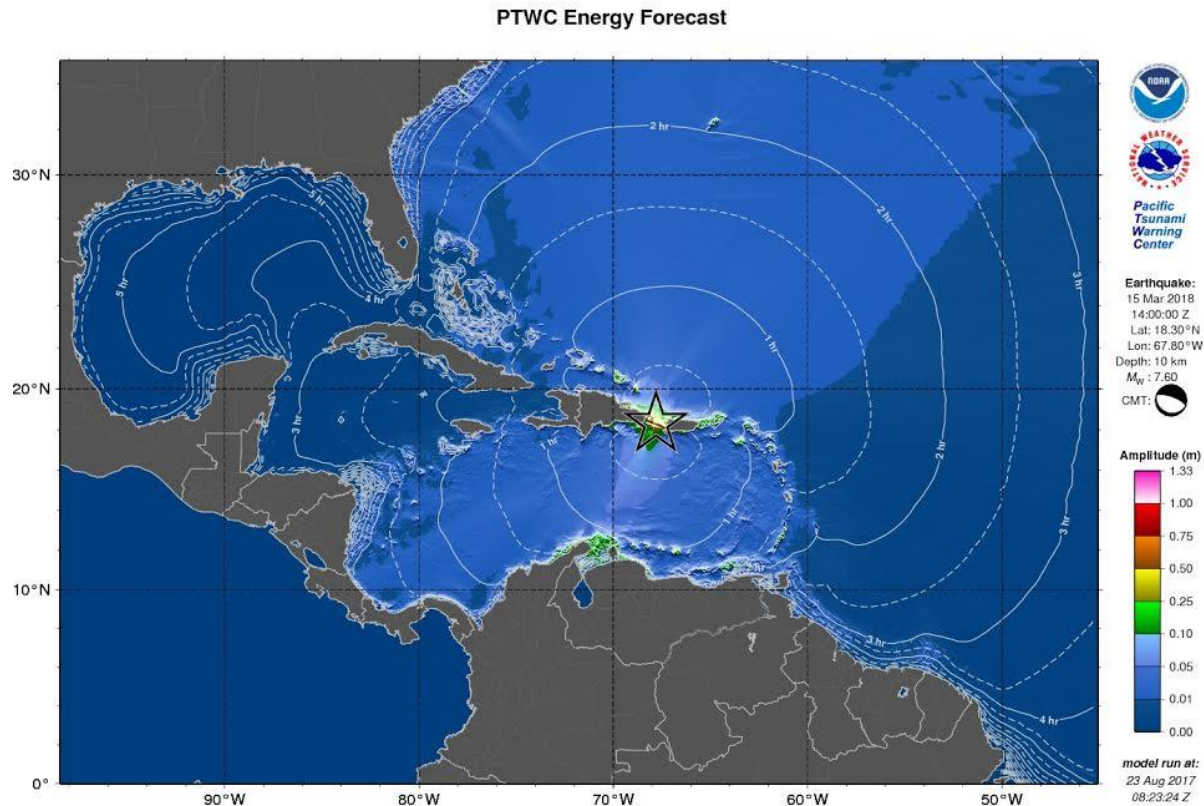
\* THIS IS A TEST MESSAGE. THE FOLLOWING ARE TSUNAMI WAVE OBSERVATIONS FROM COASTAL AND/OR DEEP-OCEAN SEA LEVEL GAUGES AT THE INDICATED LOCATIONS. THE MAXIMUM TSUNAMI HEIGHT IS MEASURED WITH RESPECT TO THE NORMAL TIDE LEVEL.

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

- \* THIS IS A TEST MESSAGE. THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.
- \* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN LOWERCASE LETTERS-.
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# Energy Forecast for Tsunami Wave Heights Puerto Rico

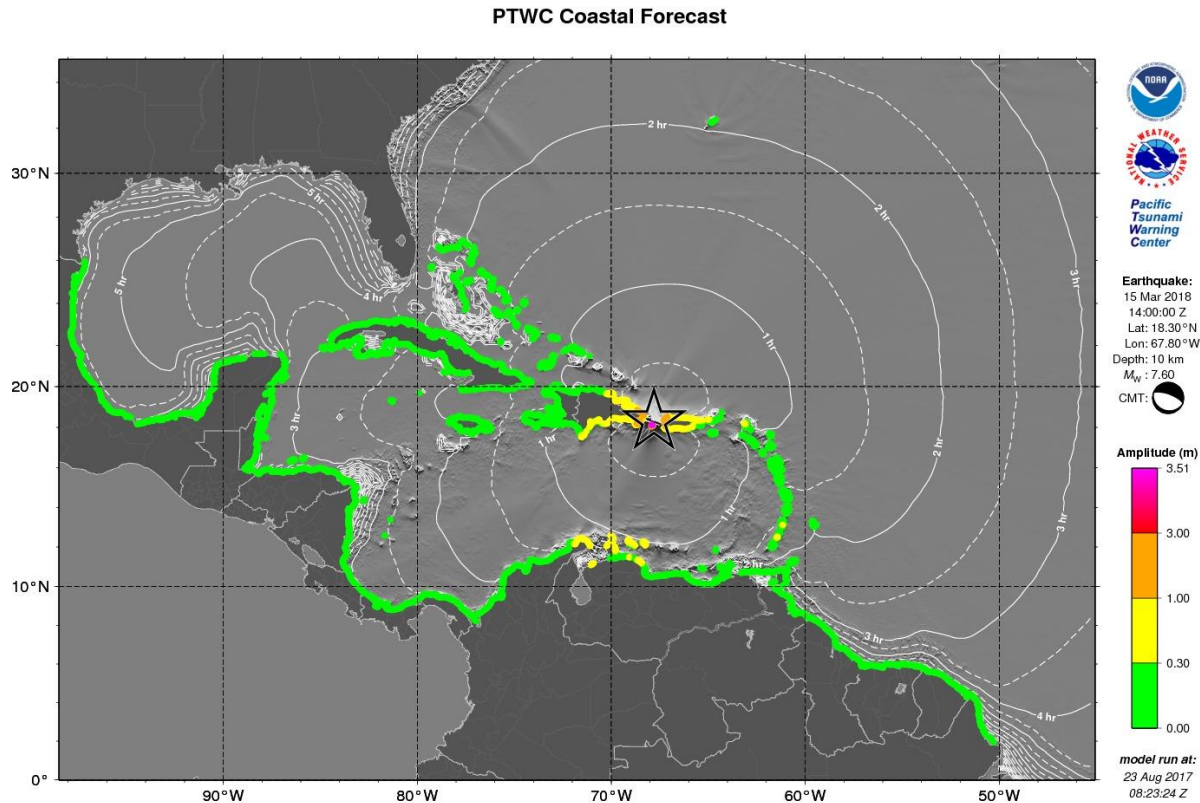


**RIFT maximum amplitude map for the scenario for Puerto Rico.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.



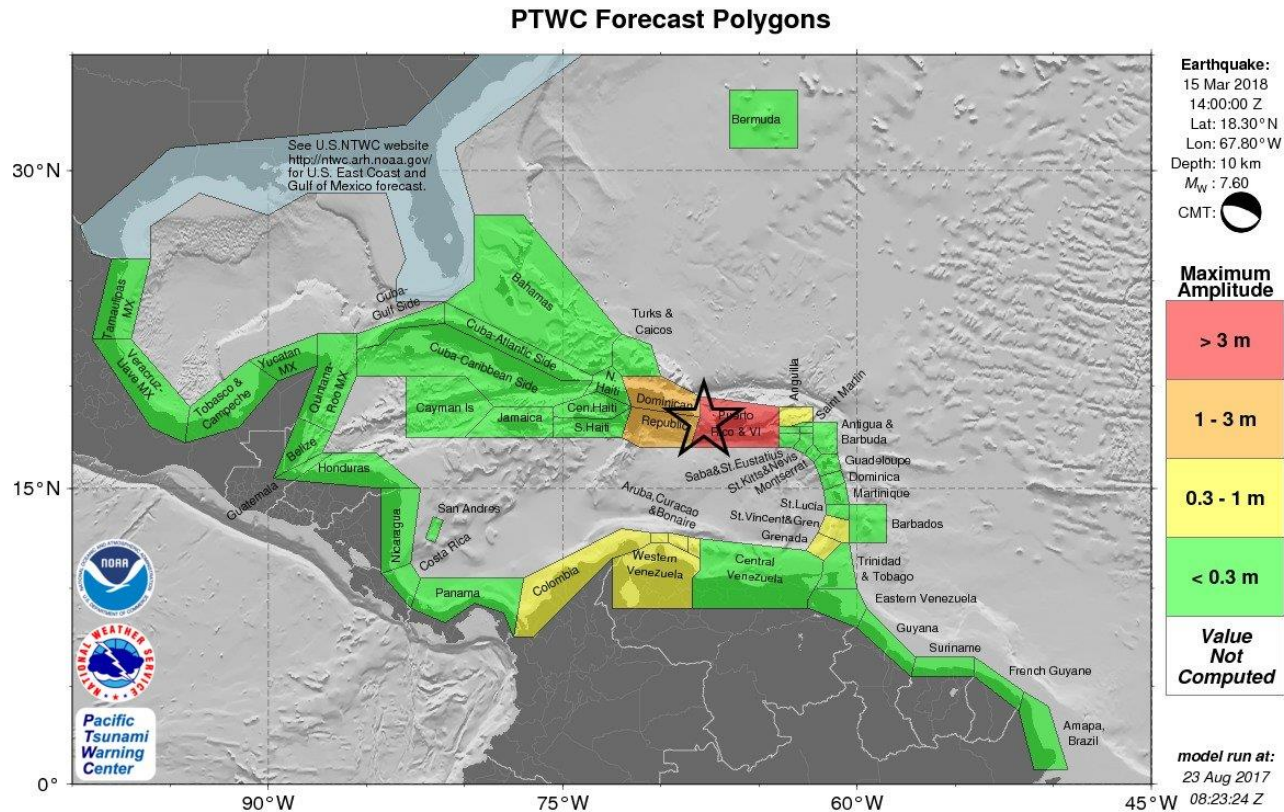
# Coastal Forecast for Tsunami Wave Heights Puerto Rico



**RIFT coastal tsunami amplitude map for the scenario for Puerto Rico.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami.

# Polygons Forecast for Tsunami Wave Heights Puerto Rico

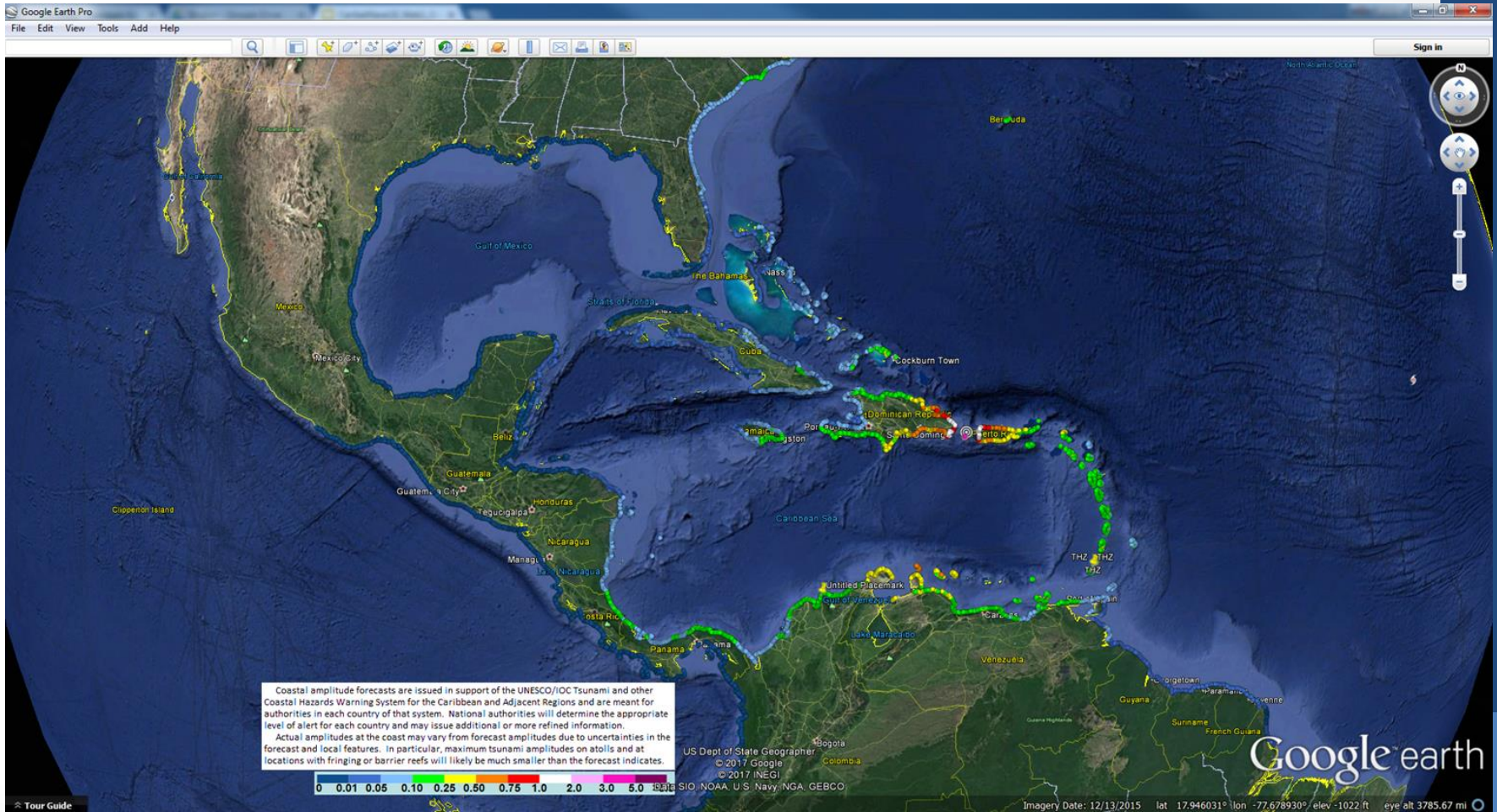


**RIFT forecast polygons for the Caribbean region on the Puerto Rico scenario.**

During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

# KMZ

## Puerto Rico



# Forecast Statistics for Regional Polygons\*

## Puerto Rico

Region Name	Coastal Forecast (meters)				Offshore Forecast (meters)				Total Points
	Maximum	Mean	Median	STD	Maximum	Mean	Median	STD	
Puerto_Rico_and_Virgin_Islands	3.5	0.59	0.42	0.56	1.3	0.3	0.23	0.24	190
Atlantic_Coast_of_Dominican_Republic	1.5	0.48	0.4	0.34	1.3	0.27	0.2	0.24	129
Caribbean_Coast_of_Dominican_Republic	1.3	0.49	0.41	0.27	1	0.24	0.19	0.18	148
Curacao	0.62	0.39	0.36	0.13	0.36	0.14	0.13	0.06	27
Aruba	0.61	0.53	0.54	0.06	0.38	0.24	0.22	0.09	8
Caribbean_Coast_of_Colombia	0.49	0.16	0.14	0.09	0.3	0.09	0.08	0.06	255
Western_Coast_of_Venezuela	0.45	0.28	0.26	0.06	0.39	0.19	0.19	0.07	100
Bonaire	0.43	0.36	0.35	0.06	0.52	0.23	0.18	0.12	15
Grenada	0.33	0.2	0.22	0.09	0.22	0.1	0.07	0.05	29
Saint_Vincent_and_the_Grenadines	0.32	0.22	0.22	0.05	0.19	0.09	0.08	0.04	33
Anguilla	0.31	0.28	0.29	0.03	0.31	0.18	0.17	0.06	8
Turks_and_Caicos_Islands	0.27	0.16	0.15	0.06	0.15	0.07	0.07	0.03	46
Central_Coast_of_Venezuela	0.26	0.15	0.14	0.05	0.2	0.08	0.08	0.04	238
Saint_Kitts_and_Nevis	0.26	0.2	0.19	0.04	0.18	0.08	0.07	0.04	29
Saba_and_Saint_Eustatius	0.22	0.18	0.16	0.03	0.07	0.05	0.05	0.01	8
Saint_Lucia	0.22	0.16	0.17	0.04	0.11	0.06	0.06	0.02	26
Antigua_and_Barbuda	0.21	0.12	0.1	0.05	0.17	0.08	0.09	0.04	28
Caribbean_Coast_of_Haiti	0.21	0.14	0.14	0.03	0.11	0.05	0.05	0.02	89
Montserrat	0.21	0.17	0.16	0.03	0.1	0.06	0.05	0.02	11
Bermuda	0.21	0.2	0.2	0.01	0.23	0.13	0.12	0.06	8
Guadeloupe	0.2	0.15	0.15	0.03	0.12	0.06	0.05	0.02	73
Sint_Maarten	0.19	0.18	0.18	0.01	0.13	0.1	0.09	0.02	6
Saint_Martin	0.19	0.19	0.19	0	0.15	0.12	0.13	0.02	3
Saint_Barthlemy	0.18	0.14	0.14	0.02	0.11	0.1	0.1	0.01	4
Martinique	0.18	0.14	0.15	0.03	0.16	0.07	0.06	0.03	41
Atlantic_Coast_of_Haiti	0.17	0.11	0.11	0.04	0.1	0.04	0.04	0.02	66
Caribbean_Coast_of_Costa_Rica	0.17	0.12	0.11	0.02	0.13	0.08	0.07	0.02	48
Dominica	0.17	0.14	0.14	0.02	0.14	0.04	0.04	0.02	31
Jamaica	0.16	0.08	0.06	0.04	0.19	0.04	0.03	0.02	146
Caribbean_Coast_of_Panama	0.16	0.1	0.1	0.03	0.12	0.06	0.06	0.03	179
Atlantic_Coast_of_Cuba	0.12	0.04	0.05	0.03	0.05	0.01	0.01	0.01	259
Bahamas	0.11	0.05	0.05	0.02	0.13	0.03	0.02	0.02	443
Barbados	0.11	0.08	0.08	0.02	0.06	0.03	0.03	0.01	21
Caribbean_Coast_of_Nicaragua	0.1	0.07	0.07	0.01	0.06	0.02	0.02	0.01	139
Trinidad_and_Tobago	0.09	0.07	0.07	0.02	0.09	0.04	0.04	0.01	77
Caribbean_Coast_of_Cuba	0.09	0.03	0.03	0.02	0.06	0.01	0.01	0.01	423
Gulf_of_Gonave_Coast_of_Haiti	0.07	0.05	0.05	0.01	0.06	0.02	0.01	0.01	140
Atlantic_Coast_of_Venezuela	0.06	0.05	0.05	0	0.05	0.01	0.01	0.01	82
San_Andres_and_Providencia	0.05	0.05	0.05	0	0.02	0.02	0.02	0	4
Guyana	0.04	0.03	0.03	0.01	0.03	0.01	0.01	0.01	101
Suriname	0.03	0.02	0.02	0	0.03	0.01	0.01	0	109
French_Guyane	0.03	0.01	0.01	0	0.03	0.01	0	0	84
Cayman_Islands	0.03	0.02	0.03	0	0.02	0.01	0.01	0	9
Quintana_Roo_Mexico	0.02	0.01	0.01	0	0.02	0	0	0	166
Gulf_of_Mexico_Coast_of_Cuba	0.02	0	0	0	0.01	0	0	0	122
Caribbean_Coast_of_Honduras	0.01	0.01	0.01	0	0.01	0	0	0	185
Belize	0.01	0.01	0.01	0	0.01	0	0	0	90
Amapa_Brazil	0.01	0.01	0.01	0	0.01	0	0	0	83

\*Actual amplitudes at the coast may vary from forecast amplitudes due to uncertainties in the forecast and local features. In particular, maximum tsunami amplitudes on small islands will likely be much smaller than the forecast indicates.

**PTWC Message #9**

ZCZC  
WECA41 PHEB 152100 **WMO ID**  
TSUCAX **AWIPS ID**

TEST...TSUNAMI MESSAGE NUMBER 9...TEST  
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI  
2100 UTC THU MAR 15 2018  
**TEST FINAL TSUNAMI THREAT MESSAGE TEST**

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

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\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

**TEST... PRELIMINARY EARTHQUAKE PARAMETERS ...TEST**

\* MAGNITUDE 7.6  
\* ORIGIN TIME 1400 UTC MAR 15 2018  
\* COORDINATES 18.3 NORTH 67.8 WEST  
\* DEPTH 10 KM / 6 MILES  
\* LOCATION MONA PASSAGE

TEST... EVALUATION ...TEST

\* THIS IS A TEST MESSAGE. AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 7.6 OCCURRED IN THE MONA PASSAGE AT 1400 UTC ON THURSDAY MARCH 15 2018.

\* THIS IS A TEST MESSAGE. BASED ON ALL AVAILABLE DATA... THE TSUNAMI THREAT FROM THIS EARTHQUAKE HAS PASSED AND THERE IS NO FURTHER THREAT.

TEST... TSUNAMI THREAT FORECAST...UPDATED ...TEST

**\* THIS IS A TEST MESSAGE. THE TSUNAMI THREAT HAS NOW LARGELY PASSED.**

TEST... RECOMMENDED ACTIONS ...TEST

\* THIS IS A TEST MESSAGE. GOVERNMENT AGENCIES RESPONSIBLE FOR ANY IMPACTED COASTAL AREAS SHOULD MONITOR CONDITIONS AT THE COAST TO DETERMINE IF AND WHEN IT IS SAFE TO RESUME NORMAL ACTIVITIES.

\* THIS IS A TEST MESSAGE. PERSONS LOCATED NEAR IMPACTED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM LOCAL AUTHORITIES.

\* THIS IS A TEST MESSAGE. REMAIN OBSERVANT AND EXERCISE NORMAL CAUTION NEAR THE SEA.

TEST... POTENTIAL IMPACTS ...TEST

\* THIS IS A TEST MESSAGE. MINOR SEA LEVEL FLUCTUATIONS UP TO 30 CM ABOVE AND BELOW THE NORMAL TIDE MAY OCCUR IN COASTAL AREAS NEAR THE EARTHQUAKE OVER THE NEXT FEW HOURS.... AND CONTINUING FOR UP TO SEVERAL HOURS.

TEST... NEXT UPDATE AND ADDITIONAL INFORMATION ...TEST

-----  
\* THIS IS A TEST MESSAGE. THIS WILL BE THE FINAL STATEMENT  
ISSUED FOR THIS EVENT UNLESS NEW INFORMATION IS RECEIVED OR  
THE SITUATION CHANGES.

\* THIS IS A TEST MESSAGE. AUTHORITATIVE INFORMATION ABOUT THE  
EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON  
THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN  
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MAY BE FOUND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).

\* THIS IS A TEST MESSAGE. COASTAL REGIONS OF THE US GULF  
COAST... US EAST COAST... AND THE MARITIME PROVINCES OF  
CANADA SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER  
MESSAGES THAT CAN BE FOUND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).

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MESSAGE.

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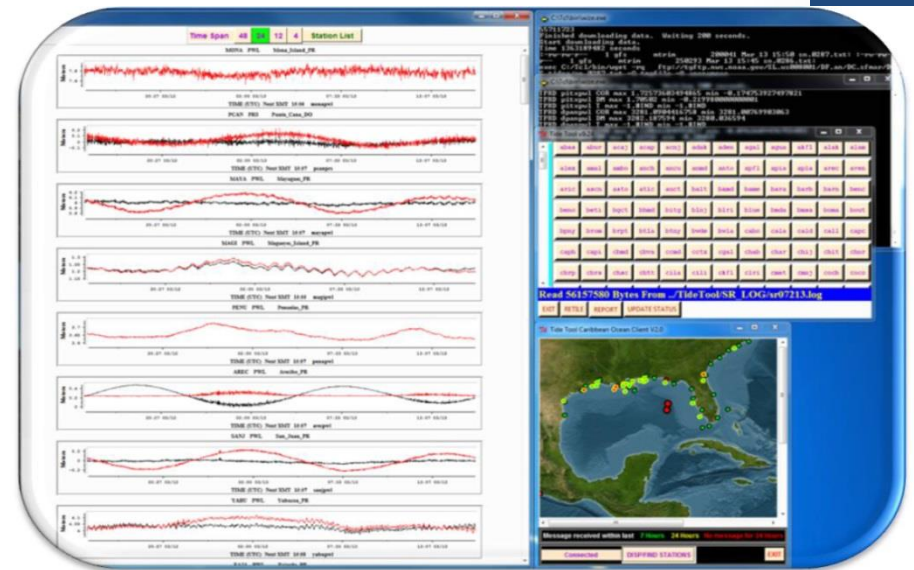
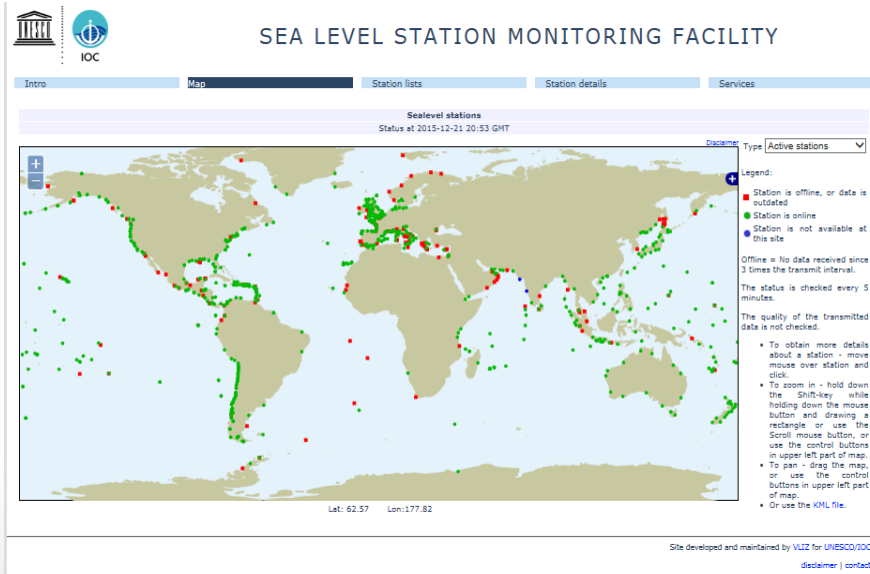
NNNN

# Sea Level Monitoring

As good practice, during 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](mailto: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

California  
Tsunami Preparedness Week  
March 27-31, 2017

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

**WELCOME TO THE TSUNAMIZONE!**

[ESPAÑOL](#) | [FRANÇAIS](#)

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 2017 tsunami preparedness activities!

**2017 OFFICIAL ACTIVITIES**

- March 19-25  
Puerto Rico, U.S. Virgin Islands  
**CARIBE WAVE 2017 (March 21),  
LANTEX17 (March 22)**
- March 26 - April 1  
Alaska
- March 27-31  
[California](#)
- March 29  
PACIFEX exercise
- April  
Hawaii
- April 2-8  
Guam
- April 12-15  
Washington
- September 24-30  
American Samoa
- October  
Oregon & Washington
- November 5  
World Tsunami Awareness Day

Over 820,000 participants registered

Thank you for participating!  
Please share about your activities!

The PTWC will send via email all the simulated enhanced products (text and graphical) to the designated TWFP and NTWC (no need to register to receive them **but if registered, you will be part of the statistical count of who is participating**). To verify the current list 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](http://www.ioc-tsunami.org/index.php?option=com_content&view=article&id=6&Itemid=22&lang=en)

Username: tsunami pwd: bigwave



# The TsunamiZone

California  
Tsunami Preparedness Week  
March 27-31, 2017

[Register Here!](#)[Know Your Zone](#)[Who is Participating?](#)[How to Participate](#)[Resources](#)[News & Events](#)[Partners & Sponsors](#)

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## 2017 OFFICIAL ACTIVITIES

**March 19-25**  
[Puerto Rico, U.S. Virgin Islands, CARIBE WAVE 2017](#) (March 21),  
[LANTEX17](#) (March 22)

**March 26 - April 1**  
Alaska

**March 27-31**  
[California](#)

**March 29**  
PACIFEX exercise

**April**  
Hawaii

**April 2-8**  
Guam

**April 12-15**  
Washington

**September 24-30**  
American Samoa

**October**  
Oregon & Washington

**November 5**  
World Tsunami Awareness Day

Over 820,000 participants registered

Thank you for participating!  
Please share about your activities!



Countries can keep track of registration by clicking on « Who is Participating »



## PARTICIPATION TOTALS

Click on a category name to see a list of who is participating. Click on a region name to see details of participation totals by area.

These totals are current as of 08/11/2017 10:25 AM PST.

Category	Participants	Participation totals for each area	Total
<b>Total:</b>	<b>821,385</b>	<b>California</b>	<b>141390</b>
<a href="#">Individuals/Families</a>	1,469	<a href="#">North Coast</a>	1930
<a href="#">Childcare and Pre-Schools</a>	5,063	<a href="#">Shasta Cascade</a>	10
<a href="#">K-12 Schools and Districts</a>	137,010	<a href="#">Bay Area</a>	2318
<a href="#">Colleges and Universities</a>	100,355	<a href="#">Delta Sierra</a>	130
<a href="#">Local Government</a>	104,072	<a href="#">Inyo-Mono</a>	0
<a href="#">State Government</a>	48,115	<a href="#">Central Valley South</a>	7
<a href="#">Federal Government (Including Military)</a>	147,023	<a href="#">Central Coast</a>	60579
<a href="#">Tribes</a>	0	<a href="#">Southern California Coast</a>	14845
<a href="#">Businesses</a>	1,731	<a href="#">Inland Southern California</a>	4
<a href="#">Hotels and Other Lodgings</a>	543	<a href="#">San Diego</a>	61567
<a href="#">Healthcare</a>	6,399	<a href="#">Other Areas</a>	0
<a href="#">Senior Facilities/Communities</a>	250	<b>Caribbean</b>	<b>679918</b>
<a href="#">Disability/AFN Organizations</a>	446	<a href="#">Anquilla</a>	1250
<a href="#">Non-Profit Organizations</a>	2,393	<a href="#">Antigua and Barbuda</a>	5000
<a href="#">Neighborhood Groups</a>	78	<a href="#">Aruba</a>	9407
<a href="#">Preparedness Organizations</a>	25,640	<a href="#">Bahamas</a>	5
<a href="#">Faith-based Organizations</a>	14,175	<a href="#">Barbados</a>	305
<a href="#">Museums, Libraries, Parks, etc.</a>	270	<a href="#">Belize</a>	6
<a href="#">Volunteer/Service Clubs</a>	801	<a href="#">Bermuda</a>	160
<a href="#">Youth Organizations</a>	0	<a href="#">Bonaire</a>	20
<a href="#">Animal Shelter/Service Providers</a>	0	<a href="#">Brazil</a>	10
<a href="#">Agriculture/Livestock</a>	50	<a href="#">British Virgin Islands</a>	7113
<a href="#">Volunteer Radio Groups</a>	363	<a href="#">Cayman Islands</a>	30000
<a href="#">Science/Engineering Organizations</a>	389	<a href="#">Colombia</a>	40
<a href="#">Media Organizations</a>	135	<a href="#">Costa Rica</a>	50
<a href="#">Other</a>	224,615	<a href="#">Cuba</a>	1000
		<a href="#">Curacao</a>	143

# Media Arrangements

- PRSN Tsunami Media Guide (English and Spanish)  
<http://www.prsn.uprm.edu/mediakit/>
- Seismic Research Unit Tsunami and other Coastal Hazards WS Media Information Kit  
<http://www.uwiseismic.com>
- Handbook sample press release, which can be adapted as necessary.
- Social media; **#CaribeWave**

# 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 18 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 18**” and “**Exercise.**”

# Procedure 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.

# 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 18 and 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/CaribeWave18>
  - The deadline for completing the evaluation is April 4, 2018.
    - # questions (64 questions in 2017, and 83 questions in 2016), # pages, should take no more than # minutes.

# Resources

- IOC Manuals “[How to plan, conduct and evaluate tsunami exercises](#)” and “[Module on Tsunami Exercise](#)” which will also be useful resources.
- CARIBE WAVE 2011, 2013, 2014, 2015, 2016 and 2017 Handbooks
- CARIBE WAVE 2013, 2014, 2015, 2016 and 2017 Final and Media Report.
- PTWC Communications Plan for the Caribbean
- Available at [www.caribewave.info](http://www.caribewave.info)
- Questions on the exercise can be addressed to the members of the CARIBE WAVE 18 Task Team

# Additional Info

- Additional materials will be added to CTWP ([www.caribewave.info](http://www.caribewave.info)) and PRSN websites.
- Send links of other national pages to [christa.vonh@noaa.gov](mailto:christa.vonh@noaa.gov) to include on CTWP and PRSN websites
- This presentation is available on CTWP website



# CARIBE WAVE 18 Task Team

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# Timeline

ACTION	DUE DATE
Draft Circulated among ICG CARIBE EWS TNC/TWFP	Aug 2017
Deadline for Comments	Sep 2017
Final Exercise Handbook Available Online	Oct 2017
Circular Letter Issued by IOC to MS	Nov 2017
1 <sup>st</sup> Webinar CW	23 - Jan- 2018 -English 24 - Jan- 2018 -Spanish 25 - Jan- 2018 –French
2 <sup>nd</sup> Webinar CW	27- Feb- 2018 -English 28- Feb- 2018 -Spanish 1- Mar- 2018 –French
<b>Countries Indicate Selected Scenario</b>	
Exercise	15-Mar-2018
Exercise Evaluation Due	4-Apr-2018
<b>Draft Final CARIBE WAVE Caribe 18 Report</b>	



United Nations  
Educational, Scientific and  
Cultural Organization



Intergovernmental  
Oceanographic  
Commission



National Oceanic  
and Atmospheric  
Administration



International  
Tsunami Information  
Center



CTIC  
Caribbean Tsunami  
Information Centre  
ctic.inc-unesco.org



Ministry of Foreign Affairs

Regional Training Workshop on Pacific Tsunami Warning  
Center Enhanced Tsunami Products for ICG/CARIBE EWS  
31 October – 02 November, 2017  
Cartagena, Colombia

# Thank You

Christa von Hillebrandt-Andrade  
NOAA-NWS Caribbean Tsunami Warning Program