

EXERCISE CARIBE WAVE 18

A Caribbean and Adjacent Regions Tsunami Warning Exercise

15 March 2018

**(Barbados, Colombia and Puerto Rico
Scenarios)**

Volume 1

Participant Handbook

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UNESCO IOC Intergovernmental Coordination Group for the Tsunami and the
other Coastal Hazard Warning System for the Caribbean and Adjacent Regions



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NOTE: The United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Intergovernmental Oceanographic Commission (IOC) pattern the contents of this handbook after the CARIBE WAVE 2011, 2013, 2014, 2015, 2016 and 2017 Exercises. Each of these exercises has a handbook published as IOC Technical Series. These CARIBE WAVE exercises followed the Pacific Wave exercises which commenced in 2008 with manual published by the Intergovernmental Oceanographic Commission (*Exercise Pacific Wave 08: A Pacific-wide Tsunami Warning and Communication Exercise, 28-30 October 2008*, [IOC Technical Series, 82](#), Paris, UNESCO 2008). The UNESCO *How to Plan, Conduct and Evaluate Tsunami Wave Exercises*, [IOC Manuals and Guides, 58 rev.](#), Paris, UNESCO 2013 (English and Spanish) is another important reference.

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Summary

The Intergovernmental Coordination Group for Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS) of the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Intergovernmental Oceanographic Commission (IOC), the U.S. National Oceanic and Atmospheric Administration (NOAA), and the Caribbean Regional Emergency Management Stakeholders (CEPREDENAC, CDEMA, and EMIZ) will be conducting a tsunami exercise on March 15, 2018. The purpose of this exercise is to advance tsunami preparedness efforts in the Caribbean Region, based on Puerto Rico, Colombia and Barbados scenarios.

Three exercise scenarios have been planned. The first scenario described in this handbook simulates a tsunami generated by a magnitude 8.6 earthquake located off the eastern coast of Barbados. The second scenario is a tsunami generated by a magnitude 8.1 earthquake located off the Caribbean coast of Colombia. The third scenario is a tsunami generated by a magnitude 7.6 earthquake located off the western coast of Puerto Rico. The initial dummy message for the three scenarios will be issued by the CARIBE EWS Tsunami Service Provider Atlantic Ocean (U.S. Pacific Tsunami Warning Center (PTWC)) on March 15, 2018 at 1400 UTC and disseminated over all its standard broadcast channels. The dummy message is issued to test communications between the PTWC with Tsunami Warning Focal Points (TWFPs) and National Tsunami Warning Centers (NTWCs), and to start the exercise. As of 1405 UTC the PTWC will only send by emails the simulated tsunami products to officially designated TWFPs and NTWCs. Each country and territory will choose one scenario and decide if and how to disseminate messages within its area of responsibility.

The manual includes the tsunami and earthquake scenarios information, timelines, and the PTWC dummy message and simulated exercise threat messages. High levels of vulnerability and risk to life and livelihoods from tsunamis along the Caribbean coast should provide a strong incentive for countries and local jurisdictions to prepare for a tsunami and participate in this exercise.

1. BACKGROUND

1.1 EXERCISE JUSTIFICATION AND FRAMEWORK

This tsunami exercise is being conducted to assist tsunami preparedness efforts throughout the Caribbean region. Recent tsunamis, such as those in the Indian Ocean (2004), Samoa (2009), Haiti (2010), Chile (2010, 2014, 2015), and Japan (2011), attest to the importance of proper planning for tsunami response.

Historical tsunami records from sources such as the NOAA National Centers for Environmental Information (NCEI) show that over 105 tsunamis have been observed in the Caribbean over the past 500 years (Figure 1). These represent approximately 7-10% of the world's oceanic tsunamis. Earthquake, landslide, and volcanic tsunami sources have all impacted the region. According to NCEI, in the past 500 years 4,561 people have lost their lives to tsunamis in the Caribbean and Adjacent Regions. Since the most recent devastating tsunami of 1946, there has been an explosive population growth and influx of tourists along the Caribbean and Western Atlantic coasts increasing the tsunami vulnerability of the region (von Hillebrandt-Andrade, 2013). In addition to tsunamis, the region also has a long history of destructive earthquakes. Historical records show that major earthquakes have struck the Caribbean region many times during the past 500 years. Within the region there are multiple fault segments and submarine features that could be the source of earthquake and landslide generated tsunamis (Figure 2). The perimeter of the Caribbean plate is bordered by no fewer than four major plates (North America, South America, Nazca, and Cocos). Subduction occurs along the eastern and northeastern Atlantic margins of the Caribbean plate. Normal, transform thrust and strike slip faulting characterize northern South America, eastern Central America, the Cayman Ridge and Trench and the northern plate boundary (Benz et al, 2011). In addition to the local and regional sources, the region is also threatened by tele-tsunamis/trans-Atlantic tsunamis, like that of 1755 from Lisbon. With nearly 160 million people (Caribbean, Central America and Northern South America) now living in this region and a major earthquake occurring about every 50 years, the question is not if another major tsunami will happen, but when it happens will the region be prepared for the impact. The risk of earthquakes generating tsunamis in the Caribbean is real and should be taken seriously.

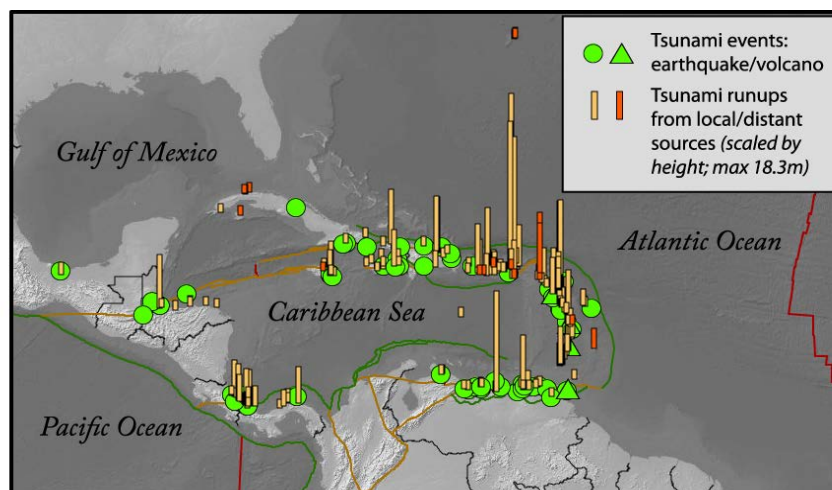


Figure 1. Map of tsunami run-ups in the Caribbean 1493-2013 (National Centers for Environmental Information, <http://www.ngdc.noaa.gov/hazards/tsu.shtml>). Artist: Jessee Varner; originally published in von Hillebrandt-Andrade, 2013.

Tsunami services for the Caribbean and Adjacent Regions within the UNESCO IOC CARIBE EWS framework are currently provided by the PTWC in Honolulu. On March 1st, 2016, the tsunami products for CARIBE EWS have been implemented. The PTWC issues tsunami products approximately two to ten minutes after an earthquake's occurrence. As of 2016 the

PTWC international products include tsunami information and threat messages (no longer watch messages). Primary recipients of the PTWC messages include TWFPs and NTWCs. These agencies are responsible to issue the corresponding warning messages within their area of responsibility according to established protocols.

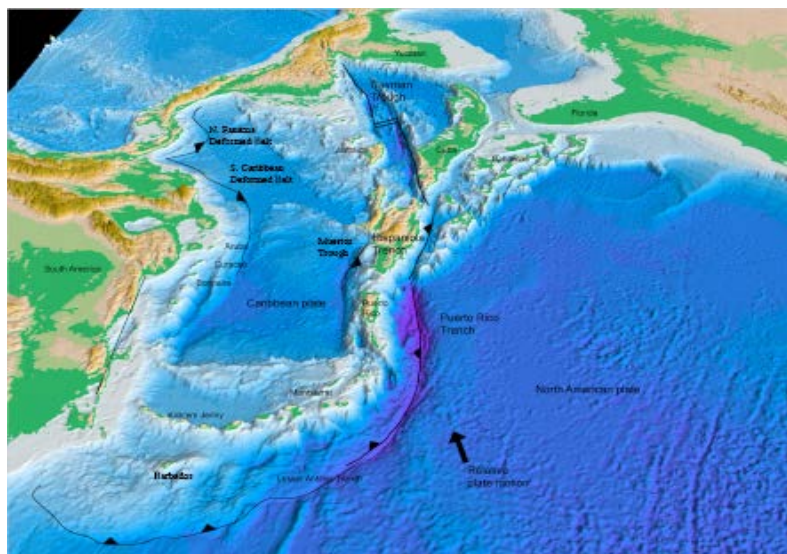


Figure 2. Major Tectonic features in the Caribbean (ten Brink et al., 2008).

1.2 EXERCISE EARTHQUAKE AND TSUNAMI SCENARIO

This exercise will provide simulated tsunami threat messages from the PTWC based on a hypothetical magnitude; a Mw 8.6 earthquake located on Barbados, a Mw 8.1 earthquake located along the coast of Colombia and a Mw 7.6 located off the Caribbean coast of Puerto Rico (Figure 3). In order to understand the chosen hypothetical scenarios, let us look at a brief description of Caribbean tectonics concerning the three scenario regions with details of these areas and their justification.

1.2.1 General Caribbean Tectonics

Extensive diversity and complexity of tectonic regimes characterizes the perimeter of the Caribbean plate, involving no fewer than four major plates (North America, South America, Nazca, and Cocos). Northern and southern boundaries of the Caribbean are mostly characterized by strike-slip motion, whereas subduction zones occur at both eastern and western boundaries. Intermediate and deep earthquakes, Wadati-Benioff zones, ocean trenches, and arcs of volcanoes clearly indicate subduction of oceanic lithosphere along the Central American and Atlantic Ocean margins of the Caribbean plate. Along the northeastern Caribbean plate boundary zone, from the Dominican Republic to the Island of Barbuda, relative motion between the North America plate and the Caribbean plate becomes increasingly complex and is partially accommodated by nearly arc-parallel subduction of the North America plate beneath the Caribbean plate. Moving east and south to the northern Lesser Antilles where the plate motion vector of the Caribbean plate relative to the North and South America plates is less oblique, resulting in active island-arc tectonics. The North and South America plates subduct towards the west beneath the Caribbean plate along the Lesser Antilles Trench at rates of approximately 20 mm/yr (DeMets et al. 2010). As a result of this subduction, there exist both intermediate focus earthquakes within the subducted plates and a chain of active volcanoes along the island arc, data that has been used to divide the arc into a northern and southern arc. Along the southern Lesser Antilles trench, the accretionary prism is anomalously thick and wide, raising awareness of the earthquake and tsunami potential. Farther west, the Southern Caribbean Deformed Belt has been developed due to the

southward-verging underthrusting of Caribbean lithosphere beneath the northern coast of South America. The following three sub-sections describe the CARIBE WAVE 18 scenarios and present a justification on their tsunamigenic potential regardless of their probability of occurrence.

1.2.2 Barbados Scenario

Although the Lesser Antilles is considered one of the most seismically active regions in the Caribbean, few of these events have been greater than M7.0 over the past century. The southern Caribbean plate boundary with the South America plate strikes east-west across Trinidad and western Venezuela at a relative rate of approximately 20 mm/yr. This boundary is characterized by major transform faults. The transition zone between subduction on the eastern and western margins of the Caribbean plate is characterized by diffuse seismicity involving low-to intermediate-magnitude ($M < 6.0$) earthquakes of shallow to intermediate depth. A recent study by Hayes et al. (2013) looked at GPS-derived strain rates and historical events of the Lesser Antilles to quantify the potential earthquake and tsunami hazard of the region. Although their study concludes a large Mw 8.2±0.4 event could occur at the latitude of Guadeloupe, several GPS studies (López et al., 2006; Manaker et al., 2007; Smithe et al., 2015) provide no particular concerns for the southern segment of the trench. López et al. (2006) proposed the entire Barbados accretionary prism moves along the Caribbean plate, whereas Smithe et al. (2015) used GPS data from the region to suggest very low coupling along the interface. Given this data evidence, plus that this region lacks the large earthquake record of its northern analog, the exercise in this region is purely hypothetical and seeks primarily tsunami preparedness for the immediate area. In this scenario, a Mw 8.6 earthquake located at 12.20°N -58.30°W ruptures along a 400 km by 100 km wide fault. With this scenario, the southern segment of the Lesser Antilles ruptures to create a tsunami that will mostly affect Barbados, however most of the energy is directed towards the southern Atlantic Ocean.

1.2.3 Colombia Scenario

Colombia has a complex tectonic setting, due to its location at the convergence of three major plates: South America, Nazca and Caribbean. In front of its Caribbean coast lies the western segment of the 'Southern Caribbean Deformed Belt - SCDB', where the South America (rather, the 'North Andean Block', the Andean part of Colombia's territory) and the Caribbean plate converge at a rate of 1-2 cm/yr (Toto & Kellogg, 1992) in ESE direction. While several major and destructive earthquakes have occurred in recent times elsewhere in Colombia, at its Nazca-South America convergence, at the triple junction in NW-Colombia, and on continental faults, there is no history of major earthquakes at the SCDB, which once underthrusts displays very low dip and very low seismicity. Some authors attribute its low level of seismicity and apparent lack of potential for major events also to its ingestion of large amounts of very porous and saturated sediments (Toto & Kellogg, 1992). Recently, a study by Mencin et al. (2015) used a large network of GPS sites in Colombia and Venezuela to preliminarily suggest the SCDB is currently active. If this data suggest this strain occurring there, then the SCDB While the real potential of large thrust events at the SCDB is still a subject of ongoing research, its neighboring thrust system to the W, the 'Northern Panama Deformed Belt - NPDB', has already shown its potential for tsunamigenic earthquakes; the 1882 event, with a magnitude estimated between 7.9 (Camacho & Viquez, 1992) and 8.3, marked 0.62 m at the Colón tide gage and swept over the San Blas Archipelago with waves above 6 m (Mendoza & Nishenko, 1989). So far, this is the only seismic source in the western Caribbean that poses a known tsunami threat to Colombia's Caribbean coast. Recently Leslie & Mann (2016) presented evidence of very large prehistoric tsunami caused by giant submarine mass movements on the - still active - fan deposited by Colombia's river Magdalena. These slides compare to the largest ones known worldwide. On the 19th of July 2017 wave with heights close to 1 m swept over several coastal villages south of Santa Marta. Testimonial information reported in the press allow to relate this event to a submarine landslide. For this exercise a M 8.1 earthquake

located at 11.4°N -74.8°W ruptures a 300 km long by 30 km wide fault segment at 19.39 km depth. The scenario produces localized wave amplitudes between one and more than five meters, and regional amplitudes less than one meter. Shaking intensities reach up to VII on the Modified Mercalli Intensity Scale, according to Shakemap (Appendix D).

1.2.4 Puerto Rico Scenario

The northeastern corner of the Caribbean plate shows complex tectonics processes due to the convergence between the North America and Caribbean plates. The dominant plate motion between these plates in this area is left-lateral strike-slip with a small thrust component of the North America plate subducting beneath the Caribbean plate. The Caribbean plate shows velocities of 19 ± 0.4 mm/yr towards the ENE in a North America Fixed Reference Frame (DeMets et al. 2007).

Geological data, marine geophysical studies, seismicity and geodesy have been used to define at least two microplates in this region; the Hispaniola platelet and the Puerto Rico-Virgin Islands microplate. The Mona Passage, with a rate of motion of 5 ± 3 mm/yr in a North America Fixed Reference Frame (Jansma and Mattioli, 2005), is the active feature accommodating the separation between the two blocks. This relative movement explains the presence of extensional features in the Mona Passage seafloor and the seismic activity along the area, and may have been responsible for the occurrence of the October 11, 1918 earthquake and tsunami. However, which particular fault within the Mona Passage ruptured during the earthquake is still uncertain. Therefore, two models have been suggested to describe the source of the 1918 earthquake and tsunami.

The first model is based on Reid and Taber (1919) observations of the arrival times of the tsunami to western Puerto Rico coasts. This model suggests a N-S fault rupture orientation as the probable source of the tsunami because prominent N-S trending faults have been expected based on the morphology of the Mona Canyon. Mercado and McCann (1998) modelled this source and obtained results in good agreement with observed tsunami wave arrival times. However, the lack of recent seafloor rupture on multichannel seismic lines from the region led López-Venegas et al. (2008) to conclude that if the source of the 1918 event was at the Mona Canyon, then the fault must have occurred on a blind fault that failed to rupture all the way to the surface. A recent high-resolution bathymetric survey by Chaytor & ten Brink (2010) was used to postulate a new interpretation of the Mona Passage, in which active sea floor extensional features in two distinctive orientations may have been related to the 1918 event. Their work suggest that the most probable deformation model for the Mona Passage is an oblique extension, which explains the E-W trending normal faults with internal NW-SE normal faults. Furthermore, this second model also provides agreement with the seismic damage described in Reid and Taber (1919) and LaForge and McCann (2017), and also agrees with the hypocenter determined by Russo & Bareford (1993). Although the waveform inversion of Doser et al. (2005) yielded high uncertainties in the fault plane solutions, a causative E-W trending fault is not far from their chosen auxiliary plane, and given the hypocenter location, it is understandable the second model yields a better source. Therefore, for CARIBE WAVE 18 exercise purposes; this second model will be used as the tsunami source. The parameters of the source are based on a pure normal fault (rake = -90) with azimuth at 110 degrees, with a dip of 70 degrees towards the SW, that is 80 km in length and 20 km in width. With these values and an average slip of 6m it yields a Mw 7.6 event.

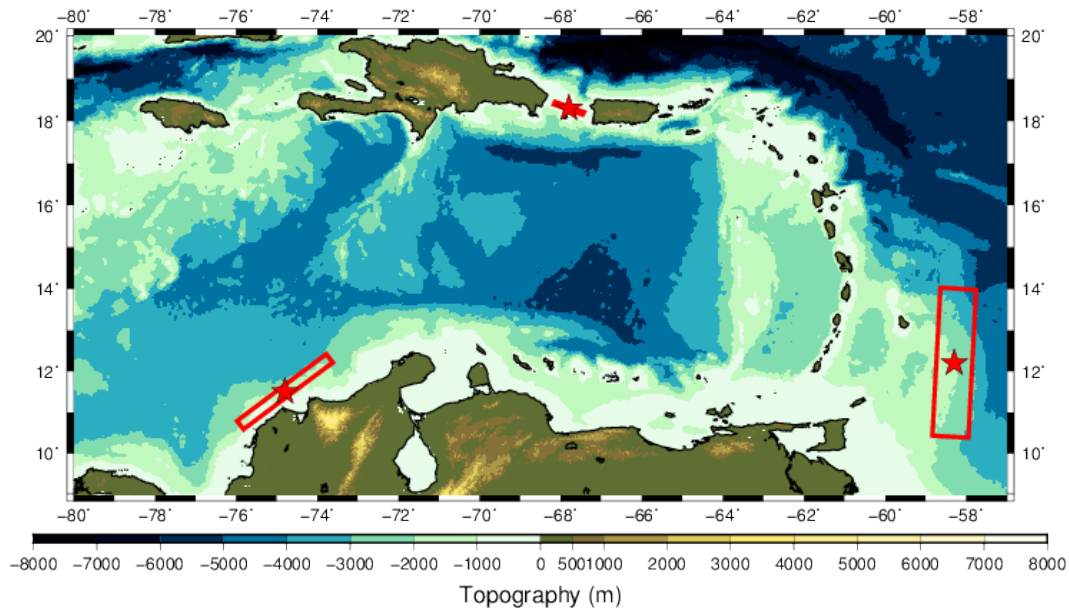


Figure 3. Map of the CARIBE WAVE 18 scenarios. Stars indicate epicentral locations and the red boxes indicate the map view of the ruptured fault segments. The figure is underlain by etopo1 model of Amante and Eakins (2009). This figure was generated using The Generic Mapping Tool (GMT) (Wessel et al., 2013).

1.2.5 Earthquake impact

For many countries, in addition to knowing the potential impact from the tsunami, it is also important to consider the potential earthquake impact. This is especially important for those in the near field. In consideration of this, the United States Geological Survey (USGS) provided for CARIBE WAVE 18 the scenario outputs of their ShakeMap and the Prompt Assessment of Global Earthquakes for Response (PAGER) products. These results provide emergency responders, government, aid agencies and the media the scope of the potential earthquake related disaster. ShakeMap illustrates the ground shaking levels close to the earthquake source depending on a set of parameters such as distance to the source, rock and soil behavior and seismic wave propagation through the crust (<http://earthquake.usgs.gov/research/shakemap/>). PAGER is based on the earthquake shaking (via ShakeMap) and analyses of the population exposed to each level of shaking intensity with models of economic and fatality losses based on past earthquakes in each country or region of the world (<http://earthquake.usgs.gov/research/pager/>). For the CARIBE WAVE 18 scenarios, the USGS estimated that significant casualties and damage are likely from the earthquakes themselves, which would require regional or national level response. According to the PAGER results, the countries that are going to receive the greatest impact from the earthquakes are Barbados, Colombia, and Puerto Rico. Complete information about the PAGER output for the exercise scenario is available in the [Annex D](#) of this handbook.

Exercises like this will help ensure that Caribbean and Adjacent regions are ready to respond in the event of a dangerous tsunami. Similar recent exercises in the Caribbean and Adjacent Regions (CARIBE WAVE and LANTEX) as well as the Pacific and Northeast Atlantic and Mediterranean Basins have proven effective in strengthening preparedness levels of emergency management organizations.

2. EXERCISE CONCEPT

2.1 PURPOSE

The purpose of the exercise is to improve Tsunami Warning System effectiveness along the Caribbean coasts. The exercise provides an opportunity for emergency management organizations throughout the region to exercise their operational lines of communications, review their tsunami response procedures, and promote tsunami preparedness. Regular exercising of response plans is critical to maintain readiness for an emergency. This is particularly true for the Caribbean and Adjacent regions, where tsunamis are infrequent but can be of very high impact. Every emergency management organization (EMO) is encouraged to participate.

2.2 OBJECTIVES

Each organization can develop its objectives for the exercise depending on its level of involvement in the scenario. The following are the exercise's overarching 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 pilot CARIBE EWS Tsunami Ready recognition program.

2.3 TYPE OF EXERCISE

The exercise should be carried out such that communications and decision making at various organizational levels are exercised and conducted without alarming the general public. Offices of Emergency Management (OEM) are, however, encouraged to exercise down to the level of testing local notification systems such as the Emergency Alert System (EAS), sirens, or loudspeakers.

Exercises stimulate the development, training, testing, and evaluation of Disaster Plans and Standard Operating Procedures (SOP). Most countries in the region have participated in SOP workshops in 2013 and 2014, and should use the materials and expertise acquired to help guide exercise preparation and conduct. [Annex A](#) gives an overview of SOPs. Exercise participants may use their own past multi-hazard drills (e.g. flood, hurricane, tsunami, earthquake, etc.) as a framework to conduct CARIBE WAVE 18.

Exercises can be conducted at various scales of magnitude and sophistication. The following are examples of types of exercises conducted by EMOs:

1. **Orientation Exercise (Seminar):** An Orientation Exercise lays the groundwork for a comprehensive exercise program. It is a planned event, developed to bring together individuals and officials with a role or interest in multi-hazard response planning, problem solving, development of standard operational procedures (SOPs), and resource integration and coordination. An Orientation Exercise will have a specific goal and written objectives and result in an agreed upon Plan of Action.
2. **Drill:** The Drill is a planned activity that tests, develops, and/or maintains skills in a single or limited emergency response procedure. Drills generally involve operational response of single departments or agencies. Drills can involve internal notifications and/or field activities.
3. **Tabletop Exercise:** The Tabletop Exercise is a planned activity in which local officials, key staff, and organizations with disaster management responsibilities are presented with simulated emergency situations. It is usually informal, in a conference room environment, and is designed to elicit constructive discussion from the participants. Participants will examine and attempt to resolve problems, based on plans and procedures, if they exist. Individuals are encouraged to discuss decisions in depth with emphasis on slow-paced problem solving, rather than rapid, real time decision-making. A Tabletop Exercise should have specific goals, objectives, and a scenario narrative (see [Annex B](#) for a Sample Tabletop Exercise Outline).
4. **Functional Exercise:** A Functional Exercise is a planned activity designed to test and evaluate organizational capacities. It is also utilized to evaluate the capability of a community's emergency management system by testing the Emergency Operations Plan (EOP). It is based on a simulation of a realistic emergency situation that includes a description of the situation (narrative) with communications between players and simulators. The Functional Exercise gives the players (decision-makers) a fully simulated experience of being in a major disaster event. It should take place at the appropriate coordination location (i.e. emergency operations center, emergency command center, command post, master control center, etc.) and involve all the appropriate members designated by the plan. Both internal and external agencies (government, private sector, and volunteer agencies) should be involved. It requires players, controllers, simulators, and evaluators. Message traffic will be simulated and inserted by the control team for player response/actions, under real time constraints. It may or may not include public evacuations. A Functional Exercise should have specific goals, objectives, and a scenario narrative.
5. **Full-scale Exercise:** A Full-scale Exercise is the culmination of a progressive exercise program that has grown with the capacity of the community to conduct exercises. A Full-Scale Exercise is a planned activity in a "challenging" environment that encompasses a majority of the emergency management functions. This type of exercise involves the actual mobilization and deployment of the appropriate personnel and resources needed to demonstrate operational capabilities. EOCs and other command centers are required to be activated. A Full-scale Exercise is the largest, costliest, and most complex exercise type. It may or may not include public evacuations.

Example Time Frames for Different Exercise Types

Style	Planning Period	Duration	Comments
Orientation Exercise	2 weeks	Hours	Individual or mixed groups

Drill	2 months	1 day	Individual technical groups generally
Tabletop Exercise	1 month	1-3 days	Single or multiple agency
Functional Exercise	> 3 months	1-5 days	Multiple Agency participation
Full-scale Exercise	>6 months	1 day/ week	Multiple Agency participation

2.4 TIMELINE

The planning of the CARIBE WAVE 18 takes more than a year from the decision of ICG to conduct the exercise and the decision on scenario(s) until the final reports are prepared and distributed. Listed below are the actions to be taken, before, during and after CARIBE WAVE 18.

ACTION	DUE DATE
Draft Circulated among ICG CARIBE EWS TNC/TWFP	Aug-17
Deadline for Comments	Sep-17
Exercise Handbook Available Online	Oct-17
Circular Letter Issued by IOC to MS	Nov-17
1st Webinar CW	23 - Jan- 18 -English 24 - Jan- 18 -Spanish 25 - Jan- 18 -French
2nd Webinar CW	27- Feb- 18 -English 28- Feb- 18 -Spanish 1- Mar- 18 -French
Countries Indicate Selected Scenario	2-Mar-18
Exercise	15-Mar-18
Exercise Evaluation Due	4-Apr-18
Draft Final CARIBE WAVE 18 Report	

3. PTWC PRODUCTS

On March 1st, 2016, the CARIBE EWS fully transitioned to the PTWC Enhanced Products. As of the second message these products are threat-based on tsunami wave forecasts, rather than on earthquake magnitude thresholds and travel time. Several levels of tsunami threat have been established, and forecast threat levels are assigned to polygons representing segments of extended coastlines or to island groups. These improvements should greatly reduce the number of areas warned unnecessarily and also provide some advance notice of potential local tsunamis. Details on the PTWC Enhanced Products for the CARIBE EWS are provided in the "User's Guide for the Pacific Tsunami Warning Center Enhanced Products for the CARIBE EWS" (<http://www.caribewave.info>). For the CARIBE WAVE 18, threat messages and enhanced graphical products for the chosen scenario by each Member State and Territory will be disseminated by email to officially designated TWFPs and NTWCs. These products have also been included in [Annexes C](#) and [F](#). Therefore each country and territory have to decide if and how to disseminate messages within its areas of responsibility.

There are important differences between PTWC's previous products and its enhanced products. Previous products used the term "watch" to indicate that there was a potential threat to the countries within the watch. Specifically, a country was designated by PTWC as being in a Tsunami Watch depending upon the tsunami threat presented by the event (e.g. earthquake magnitude and location), as well as the time remaining until the potential tsunami impact. Over the last several years, however, the use of the term "Watch" caused concern that the PTWC-designated level of alert could conflict with a country's independently derived level of alert. As each country is sovereign and thus responsible for the safety of its own population, the PTWC enhanced products no longer use the "watch" term but as of March 1st, 2016 instead provide forecasted wave heights along coasts.

4. EXERCISE OUTLINE

4.1 GENERAL

Tsunami messages for this exercise are issued by the PTWC based on three hypothetical earthquakes with the following hypocenter parameters:

Barbados Earthquake Scenario:

Origin Time	14:00:00 UTC March 15, 2018
Latitude	12.20°
Longitude	-58.30°
Magnitude	8.6 – Mw
Depth	15.00 km

Colombia Earthquake Scenario:

Origin Time	14:00:00 UTC March 15, 2018
Latitude	11.5°
Longitude	-74.8°
Magnitude	8.1 – Mw
Depth	15 km

Puerto Rico Earthquake Scenario:

Origin Time	14:00:00 UTC March 15, 2018
Latitude	18.3°
Longitude	-67.8
Magnitude	7.6 – Mw
Depth	10 km

Expected impacts for these events are determined from pre-computed tsunami forecast models. The models indicate a significant tsunami along many coasts in the Caribbean Sea. [Annex C](#) provides the model results.

While the first tsunami threat message issued by PTWC is based on the earthquake magnitude and location and the tsunami travel times. As of the second message they are based on tsunami wave forecasts, rather than based upon seismic information. Tsunami threat forecasts indicate the levels of threat that have been forecast and to which countries or places they apply. The levels are tsunami heights of 0.3-1 meter, 1-3 meters, and greater than 3 meters above the normal tide level are determined. The threats are updated usually within an hour. All simulated products (text and graphical) for the scenarios chosen by the country will be disseminated through email to the corresponding TWFPs and NTWCs. Further dissemination will be the responsibility of the corresponding national and local authorities.

The PTWC will not issue live messages over broadcast dissemination channels other than to issue initial dummy message to start the exercise at 1400 UTC on March 15, 2018. The initial

dummy message will be disseminated over all standard PTWC broadcast channels. The World Meteorological Organization (WMO) and Advanced Weather Interactive Processing System (AWIPS) headers to be used in the dummy message are listed in Table 1. Please note that the PTWC dummy messages are being issued with the WMO/AWIPS IDs WECA41 PHEB/TSUCAX. These are being issued to test communications with TWFPs and NTWCs, and to start the exercise. The content of the dummy messages is given in [Annex E](#).

For CARIBE WAVE 18 each Member State needs to select for one scenario. By March 2, 2018 they must inform their selection to PTWC (charles.mccreery@noaa.gov and cindi.preller@noaa.gov) with a copy to the Caribbean Tsunami Warning Program (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. For the exercise the TWPF/ NTWC will receive only the simulated product for that scenario.

Table 1. Product Types Issued for Dummy Message with Transmission Methods

Center	WMO ID	AWIPS ID	NWWS	GTS	EMWIN	AISR	Fax	Email
PTWC	WECA41 PHEB	TSUCAX	Yes	Yes	Yes	Yes	Yes	Yes

NWWS NOAA Weather Wire Service
GTS Global Telecommunications System
EMWIN Emergency Managers Weather Information Network
AISR Aeronautical Information System Replacement

Participants should follow the schedule in Tables 2, 3 and 4, for each scenario, to look at new messages. Those tables include the timelines for when messages would be issued by the PTWC if this were a real event, and can be used by EMOs to drive the exercise timing. The messages (as shown in [Annex F](#)) cover a period of time between 5 minutes and 7-hours from earthquake origin time, however in an actual event messages would likely continue for a much longer period of time.

Participants may elect to exercise using their own timelines in order to achieve their particular objectives. For example, a particular EMO's Exercise Controller may choose to feed the TWC bulletins into the exercise at times of their own choosing, or alternatively put them in envelopes with the time they must be opened written on each, with each key participant agency having their own set of envelopes. The messages, provided in [Annex F](#), will facilitate this approach.

EMOs can modify estimated arrival times and/or wave amplitudes to suit their exercise – for example, to have the tsunami arrive sooner and with larger amplitude. Other exercise injects, such as tsunami damage reports, are also encouraged.

4.2 MASTER SCHEDULE (EXERCISE SCRIPT)

4.2.1 Barbados Earthquake Scenario

Tsunami generated by a magnitude 8.6 earthquake with epicenter at 12.20^o, -58.30^o occurring on March 15, 2018 at 1400 UTC. The initial alert is disseminated at 1405 UTC.

Table 2. Timeline Messages issued by PTWC

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

4.2.2 Colombia Earthquake Scenario

Tsunami generated by a magnitude 8.1 earthquake with epicenter at 11.5°, -74.8° occurring on March 15, 2018 at 1400 UTC. The initial alert is disseminated at 1405 UTC.

Table 3. Timeline Messages issued by PTWC

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

4.2.3 Puerto Rico Earthquake Scenario

Tsunami generated by a magnitude 7.6 earthquake with epicenter at 18.3°, -67.8° occurring on March 25, 2018 at 1400 UTC. The initial alert is disseminated at 1405 UTC.

Table 4. Timeline Messages issued by PTWC

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

4.3 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.**”

4.4 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.

4.5 RESOURCES

Although EMOs will have advance notice of the exercise and may elect to stand up a special dedicated shift to allow normal core business to continue uninterrupted, it is requested that realistic resource levels be deployed in order to reflect some of the issues that are likely to be faced in a real event. Questions on the exercise can be addressed to the members of the CARIBE WAVE 18 Task Team (Table 4).

4.6 COMMUNITY REGISTRATION

For CARIBE WAVE 18, the Caribe EWS has teamed up with TsunamiZone.org for online registration. Under the Caribbean Zone Region Tab participants will be able to sign up and choose among the following community categories: individuals, businesses, schools, faith-based organizations, community groups, government agencies, individuals. The link for registration is <http://tsunamizone.org/caribbean>. After registering, they will be sent a confirmation email. If desired, participants can also opt to be listed in the “Who is participating?” section of the TsunamiZone website, along with participants in tsunami preparedness activities worldwide. The EMOs will thus have real time access to the status of registration of participants within their areas of responsibility. EMOs are encouraged to promote this registration system.

4.7 MEDIA ARRANGEMENTS

One advantage in conducting exercises is that it provides a venue to promote tsunami awareness. Many residents along the CARIBE EWS coast may not realize that a regional tsunami warning system exists, nor that national authorities have protocols in place to issue tsunami alerts, let alone the proper response for individuals. Therefore, communities may wish to invite their local media to the exercise and to promote the awareness of the local tsunami hazard and protocols. Within all member states the media can also provide support in building awareness leading up to the exercise and avoid false alarms. The media should be provided with available informational brochures prepared by the local, regional and international agencies. It is also a good opportunity to distribute or prepare Media Guides like that of the Puerto Rico Seismic Network (PRSN) (<http://www.prsn.uprm.edu/mediakit/>) and the Seismic Research (<http://www.uwiseismic.com>) as additional guidance. Annex G contains a sample press release, which can be adapted as necessary.

Social media has been recognized as a very important means for disseminating tsunami information and products. CARIBE EWS countries and territories are encouraged to share information on the exercise CARIBE WAVE 18 through this medium. Furthermore, it is recommended that the hashtag **#CaribeWave**, be used by the participants before and during the exercise.

Table 4. Members of the CARIBE WAVE 18 Task Team

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5. POST-EXERCISE EVALUATION

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**.

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Annex A. Standard Operating Procedures

END-TO-END TSUNAMI WARNING for Tsunami Warning Focal Points and Tsunami
Emergency Response Operations– AN OVERVIEW
September 2008 (updated 2012)
UNESCO IOC Tsunami Unit (Paris) with ITIC (Hawaii)

This overview summarizes an end-to-end tsunami warning. In event time, it covers activities for monitoring, detection, threat evaluation and warning, alert dissemination, emergency response, and public action. An effective tsunami warning system is achieved when all people in vulnerable coastal communities are prepared to respond appropriately and in a timely manner upon recognizing that a potential destructive tsunami may be approaching. Meeting this challenge requires round-the-clock monitoring with real-time data streams and rapid alerting, as well as prepared communities, a strong emergency management system, and close and effective cooperation and coordination between all stakeholders. To warn without preparing, and further, to warn without providing a public safety message that is understandable to every person about what to do and where to go, is clearly useless. While alerts are the technical trigger for warning, any system will ultimately be judged by its ability to save lives, and by whether people move out of harm's way before a big tsunami hits. Towards these ends, education and awareness are clearly essential activities for successful early warning.

An end-to-end tsunami warning involves a number of stakeholders who must be able to work together and with good understanding of each other's roles, responsibilities, authorities, and action during a tsunami event. Planning and preparedness, and practicing in advance of the real event, helps to familiarize agencies and their staff with the steps and decision-making that need to be carried out without hesitation in a real emergency. Tsunami resilience is built upon a community's preparedness in tsunami knowledge, planning, warning, and awareness. All responding stakeholders should have a basic understanding of earthquake and tsunami science, and be familiar with warning concepts, detection, threat evaluation, and alerting methods, and emergency response and evacuation operations. The key components, requirements, and operations to enable an effective and timely warning and evacuation are covered in the following topics of end to-end tsunami warning:

- Tsunami Science and Hazard Assessment
- Tsunami Risk Reduction Strategy and community-based disaster risk management
- Stakeholders, Roles & Responsibilities, and Standard Operating Procedures (SOPs) and their Linkages
- End-to-end Tsunami Response and SOPs
- Tsunami Warning Focal Point (TWFP) and National Tsunami Warning Centre (NTWC) operations
- Tsunami Emergency Response (TER) operations
- Public Alerting
- The Role of Media
- Evacuation and Signage
- Use of Exercises to Build Preparedness
- Awareness and Education

To ensure the long-term sustainability of a tsunami warning system, it should be noted that:

- Tsunamis should be part of an all-hazards (natural and anthropogenic) strategy.
- System redundancy is required to ensure reliability.
- Clearly understood TWFP/TWC and TER public safety messages are essential. Media partnerships for warning, as well as preparedness, are important.

- Awareness must be continuous forever. Tsunamis are low frequency, high impact natural disasters that are also unpredictable.
- National, provincial, and local Tsunami Coordination Committees ensure stakeholder coordination and implementation of the end-to-end tsunami warning.

For specific details and algorithms and for actual descriptions of tsunami warning and emergency response operations, including data networks and data collection, methods of evaluation and criteria for action, products issued and methods of communication of alerts, and evacuation, original source references or plans should be consulted. These are the high-level system descriptions or concepts of operation, agency operations manuals, and user's guides of each regional and national system.

Basic references providing a comprehensive summary on tsunami warning center and emergency response operations considerations are:

- ITIC IOC Manual on Tsunami Warning Centre Standard Operating Procedures (Guidance and Samples), version 2010 (distributed as part of 2013 SOP capacity building).
- ITIC IOC Manual on Tsunami Emergency Response Standard Operating Procedures (Guidance and Samples), version 2010 (distributed as part of 2013 SOP capacity building)

For a description of the Caribbean tsunami warning system, consult the Pacific Tsunami Warning Center Enhanced Products for the CARIBE-EWS Users Guide (version 2.0 October, 2017). It can be accessed on the website of the CWP (<http://caribewave.info>).

TRAINING

In order to assist countries in strengthening their warning systems, the IOC has compiled and developed a Training Manual in close partnership with ITIC. It contains references, best practices, decision support tools, and guidance materials summarizing key components, requirements, and operations to enable an effective and timely warning and evacuation against tsunamis.

The Manual includes session plans, lectures (in Powerpoint), exercises, and multimedia materials. Together, they represent part of the IOC's collaborative contribution to national capacity building and training on end-to-end tsunami warning and tsunami standard operating procedures to countries of the Indian Ocean, Pacific, Southeast Asia, and the Caribbean. For more information, please contact Laura Kong, Director, ITIC (laura.kong@noaa.gov), Bernardo Aliaga, IOC (b.aliaga@unesco.org), Christa von Hillebrandt, US NWS Caribbean Tsunami Warning Program (christa.vonh@noaa.gov), or Alison Brome (a.brome@unesco.org). The tables presented below can be used as a guide for preparing the timeline for the exercise.

Table A1. Table to be used as a guide the timing, actions, authority, communication means and target audiences for a tsunami event.

Tsunami Evacuation Responsibilities Checklist for Government Disaster Response Agencies		
This is a simple checklist to use when doing an evacuation. List the agency(ies) / department(s) responsible for actions and recommended number of minutes (e.g. +10 minutes) after earthquake origin time.	Earthquake Origin Time: <u>0000</u>	
	Agency(ies) / Department(s):	Time (mins):
Strong and/or long duration earthquake is felt (vary depending distance from source)	_____	+__
Tsunami message received from tsunami service provider (NTWCs)	_____	+__
Call in staff	_____	+__
Activate emergency centers / Notify public safety agencies	_____	+__
Coordinate sounding of public sirens and alarm notifications	_____	+__
Initiate media notifications and evacuation announcements	_____	+__
Initiate evacuation of people away from coast (Tsunami Evacuation Maps)	_____	+__
Put boats/ships out to sea if wave impact time permits	_____	+__
Setup road-blocks and evacuation routes	_____	+__
Guide people through traffic points to shelter	_____	+__
Initiate recall of disaster response workers	_____	+__
Open and operate refuge centers	_____	+__
Prepare to start electrical generators	_____	+__
If your facility is located in a tsunami evacuation zone: -Prepare to shut off utilities (e.g. electrical, gas, water) -Protect key equipment (e.g. computers) -Remove key documents (e.g. financial, personal information)	_____	+__
Determine if tsunami has caused coastal damage / injuries and the need to initiate search and rescue operations	_____	+__
Determine when to declare the "all clear"	_____	+__
Prepare for post tsunami impact operations	_____ _____ _____	+__
Do roll call for workers ____ and volunteers	_____	+__

Annex B. Example Table Top Exercise

Tabletop Exercise Development Steps

EVENT	TIME (WHEN)	ACTIVITY (WHAT INFO)	AUTHORITY (WHO)	MEDIUM (HOW)	TO (TARGET)
EQ Occurs					
Tsunami might come					
Evacuate					
Tsunami comes					
Safe to return					

Original Source: California Office of Emergency Services

A Tabletop Exercise is a planned activity in which local officials, key staff, and organizations with disaster management responsibilities are presented with simulated emergency situations. It is usually informal and slow paced, in a conference room environment, and is designed to elicit constructive discussion from the participants to assess plans, policies, and procedures. Participants will examine and attempt to resolve problems, based on plans and procedures, if they exist. Individuals are encouraged to discuss decisions in depth based on their organization’s Standard Operating Procedures (SOPs), with emphasis on slow-paced problem solving, rather than rapid, real time decision-making. An Exercise Controller (moderator) introduces a simulated tsunami scenario to participants via written message, simulated telephone or radio call, or by other means. Exercise problems and activities (injects) are further introduced. Participants conduct group discussions where resolution is generally agreed upon and then summarized by a group leader. A Tabletop Exercise should have specific goals, objectives, and a scenario narrative.

The following provides a Tabletop Exercise structure with sample text and example.

1. Vulnerability Analysis: Problem Statement

An example for a hurricane might be:

Due to the recent Hurricane incidents in the Southeast region of the United States, an awareness of the threat risk involved in these disasters has become more apparent, therefore the need for evacuation system is vital. The state of Louisiana continues its ongoing tasks of planning, preparing, and training for Hurricane preparedness.

2. Purpose (Mission): Intent, what you plan to accomplish (Policy Statement)

An example for a hurricane might be:

The State of Louisiana has realized and recognizes the need for a more efficient and effective evacuation system, and is responding with this Comprehensive Exercise Plan. These events will include seminars, workshops, a tabletop exercise, functional and full-scale exercises within an 18-month time frame, under the State Homeland Security grant program.

3. Scope: **Exercise Activities**
 Agencies Involved
 Hazard Type
 Geographic Impact Area

An example might be:

Emergency Services coordinators at local levels of government will identify representative jurisdictions from each of the six mutual aid regions located throughout the State to participate as host jurisdictions in a series of disaster preparedness exercises. These host jurisdictions will develop a progressive series of exercises each type building upon the previous type of exercise. The process will begin with a vulnerability analysis for each jurisdiction and continue through a progression of exercise activities including: orientation seminars, workshops, and tabletop and functional exercises. The eventual objective of these activities will be to reduce disaster impacts to their populations and city infrastructure. All events will be evaluated utilizing US Homeland Security Exercise Evaluation Program (HSEEP) after action reporting (AAR) standards. Steps for corrective actions will be made a part of the after action process and report. Surrounding jurisdictions in the mutual aid area will act as exercise design team members, exercise evaluators, or exercise observers for the purpose of information transfer to increase their operational readiness. Jurisdictions will participate on a rotational basis every two years to provide the opportunity for multiple jurisdiction participation.

4. Goals and Objectives:
Criteria for good objectives: Think SMART

- Simple (concise)
- Measurable
- Achievable (can this be done during the exercise?)
- Realistic (and challenging)
- Task Oriented (oriented to functions)

An example might be:

Comprehensive Exercise Program (CEP) Objectives

- *To improve operational readiness*
- *To improve multi-agency coordination and response capabilities for effective disaster response*
- *To identify communication pathways and problem areas pre-event between local jurisdictions and operational area, regional and state emergency operations centers*
- *To establish uniform methods for resource ordering, tracking, and supply for agencies involved at all levels of government.*

5. Narrative:

The Narrative should describe the following:

- Triggering emergency/disaster event
- Describe the environment at the time the exercise begins
- Provide necessary background information
- Prepare participants for the exercise
- Discovery, report: how do you find out?
- Advance notice?
- Time, location, extent or level of damage

6. Evaluation:

The Evaluation should describe the following:

- Objectives Based
- Train Evaluation Teams
- Develop Evaluation Forms

7. After Action Report (AAR):

The AAR should be compiled using the evaluation reports.

8. Improvement Plan (IP):

The IP should reduce vulnerabilities.

Annex C. Tsunami Source Scenarios Description

All the following scenarios use a standard format to define the tsunami sources as described in the figure C1 below. Each fault segment is defined by 4 corner points where point A is the lower left corner of the fault plane.

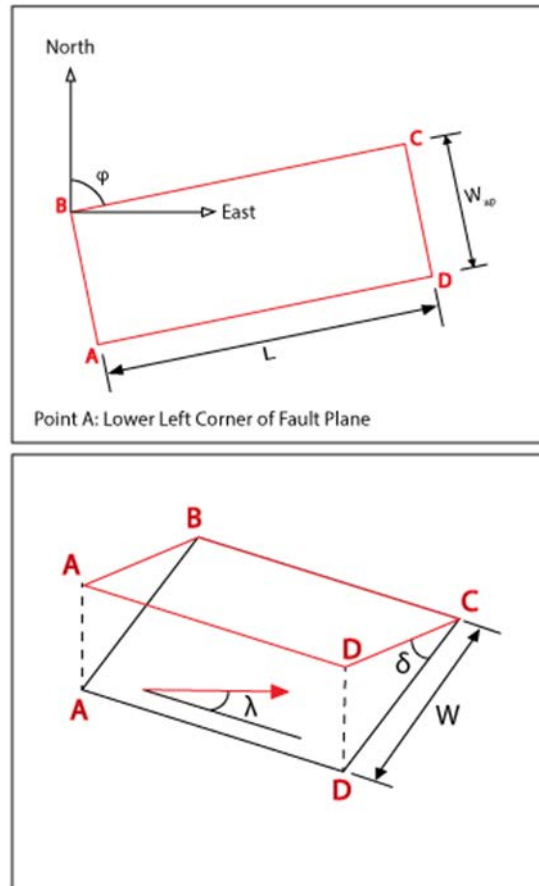


Figure C1: Schematic of the standard used to describe all fault planes in the Caribe Wave Exercise scenarios

Barbados Earthquake Scenario

The scenario consists of a rupture of a fault segment along the Caribbean coast of Barbados, in the southern Caribbean Sea, with hypocenter at:

- **Name of Scenario: Caribe Wave 18 Barbados Megathrust Scenario**
- **EQ Origin Time: 1400 UTC**
- **Hypocenter Longitude: -58.30°**
- **Hypocenter Latitude: 12.20°**
- **Hypocenter Depth (km): 15.00**
- **EQ Magnitude (Mw): 8.6**
- **Slip (m): 8**
- **Shear modulus: 3.3e11 dyne/cm²**
- **Seismic Moment: 0.1056E30 dyne-dm**

Corner Point A	
Latitude	14.02°
Longitude	-58.64°
Depth (km)	27.94
Corner Point B	
Latitude	13.97°
Longitude	-57.76°
Depth (km)	2.06

Corner Point C	
Latitude	10.38°
Longitude	-57.95°
Depth (km)	2.06
Corner Point D	
Latitude	10.43°
Longitude	-58.84°
Depth (km)	27.94

Other Fault Parameters	
Strike (ϕ phi)	183°
Dip (δ delta)	15°
Rake (λ lamda)	90°
Length (km)	400
Width (W in km)	100
Width Map View (km) [Wm = W * cos(delta)]	95.60

Colombia Earthquake Scenario

The scenario consists of a rupture of a fault segment along the southeastern coast of Colombia, in the northwestern portion of the Caribbean Sea, with hypocenter at:

- **Name of Scenario: Caribe Wave 18 Colombia Scenario**
- **EQ Origin Time: 14:00 UTC**
- **Hypocenter Longitude: -74.8°**
- **Hypocenter Latitude: 11.5°**
- **Hypocenter Depth (km): 15**
- **EQ Magnitude (Mw): 8.1**
- **Slip (m): 5**
- **Shear modulus: 3.3e11 dyne/cm²**
- **Seismic Moment: 0.1485E+29 dyne-cm**

Corner Point A	
Latitude	10.59°
Longitude	-75.82°
Depth (km)	19.39
Corner Point B	
Latitude	10.79°
Longitude	-75.98°
Depth (km)	10.61

Corner Point C	
Latitude	12.41°
Longitude	-73.78°
Depth (km)	10.61
Corner Point D	
Latitude	12.21°
Longitude	-73.62°
Depth (km)	19.39

Other Fault Parameters	
Strike (ϕ phi)	53°
Dip (δ delta)	17° SE
Rake (λ lamda)	90°
Length (km)	300
Width (W in km)	30
Width Map View (km)	28.7

Puerto Rico Earthquake Scenario

The scenario consists of a rupture of a fault segment along the Puerto Rico, in the Southeastern portion of the Caribbean Sea, with hypocenter at:

- **Name of Scenario: Caribe Wave 18 Puerto Rico 1918 Scenario**
- **EQ Origin Time: 14:00 UTC**
- **Hypocenter Longitude: -67.8°**
- **Hypocenter Latitude: 18.3°**
- **Hypocenter Depth (km): 10**
- **EQ Magnitude (Mw): 7.6**
- **Slip (m): 6**
- **Shear modulus: 3.3e11 dyne/cm²**
- **Seismic Moment: 0.3168E+28 dyn-cm**

Corner Point A	
Latitude	18.21°
Longitude	-67.43°
Depth (km)	19.40
Corner Point B	
Latitude	18.15°
Longitude	-67.46°
Depth (km)	0.60

Corner Point C	
Latitude	18.39°
Longitude	-68.17°
Depth (km)	0.60
Corner Point D	
Latitude	18.45°
Longitude	-68.14°
Depth (km)	19.40

Other Fault Parameters	
Strike (ϕ phi)	290°
Dip (δ delta)	70°
Rake (λ lamda)	270°
Length (km)	80
Width (W in km)	20
Width Map View (km)	6.84

Tsunami models were computed using the Rapid Inundation Forecasting of Tsunamis (RIFT) model to generate expected impacts throughout the region.

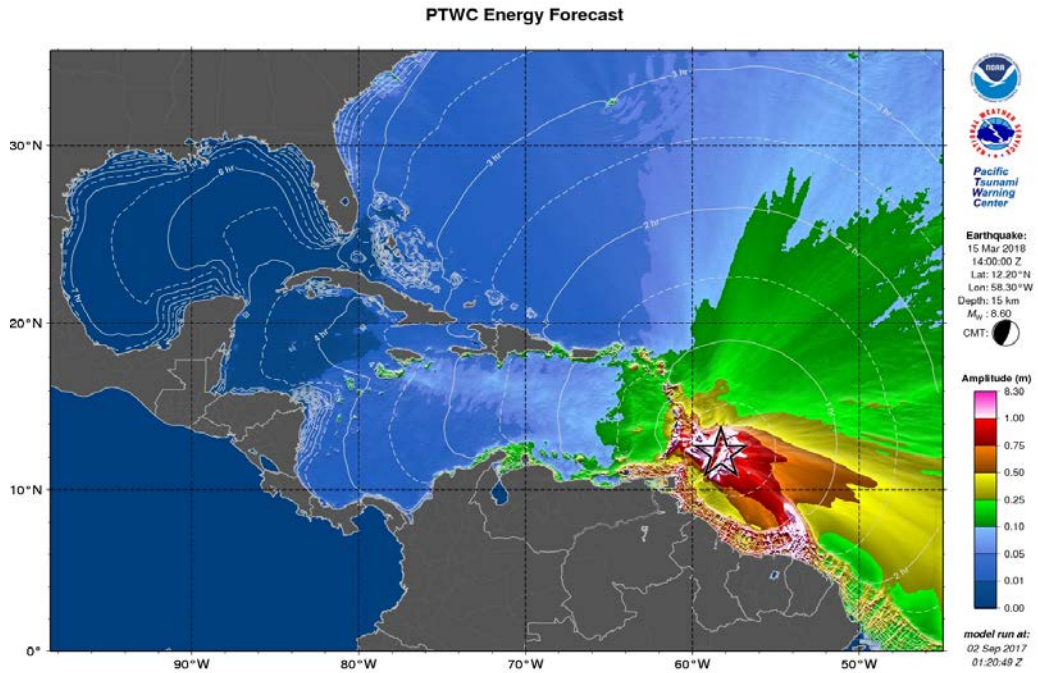


Figure C1. RIFT maximum amplitude map for the Caribbean and Adjacent Regions based on the scenario for Barbados. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

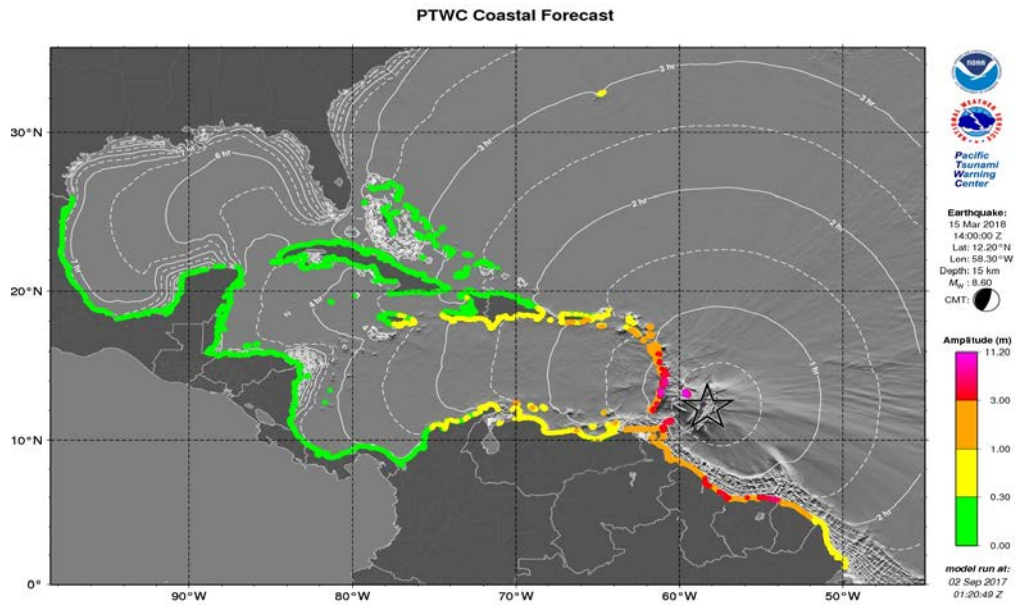


Figure C2. RIFT coastal tsunami amplitude map for the Caribbean and Adjacent Regions for the Barbados scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

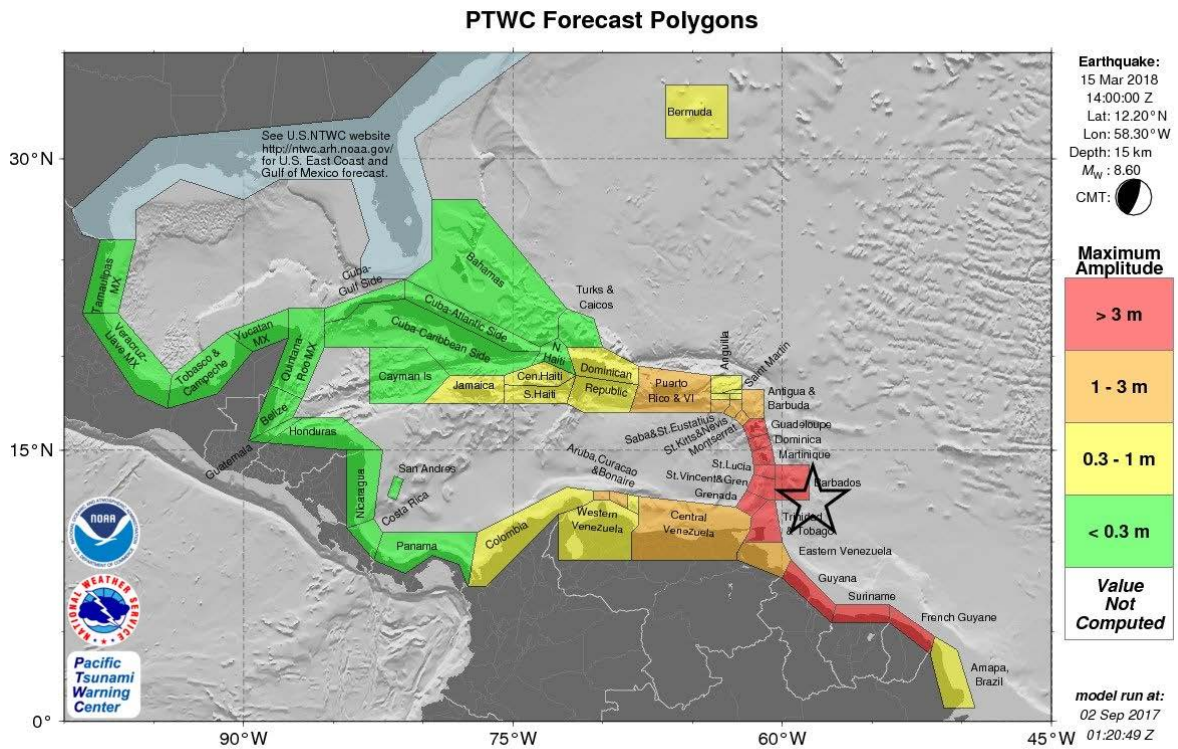


Figure C3. RIFT forecast polygons for the Caribbean and Adjacent Regions for the Barbados scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

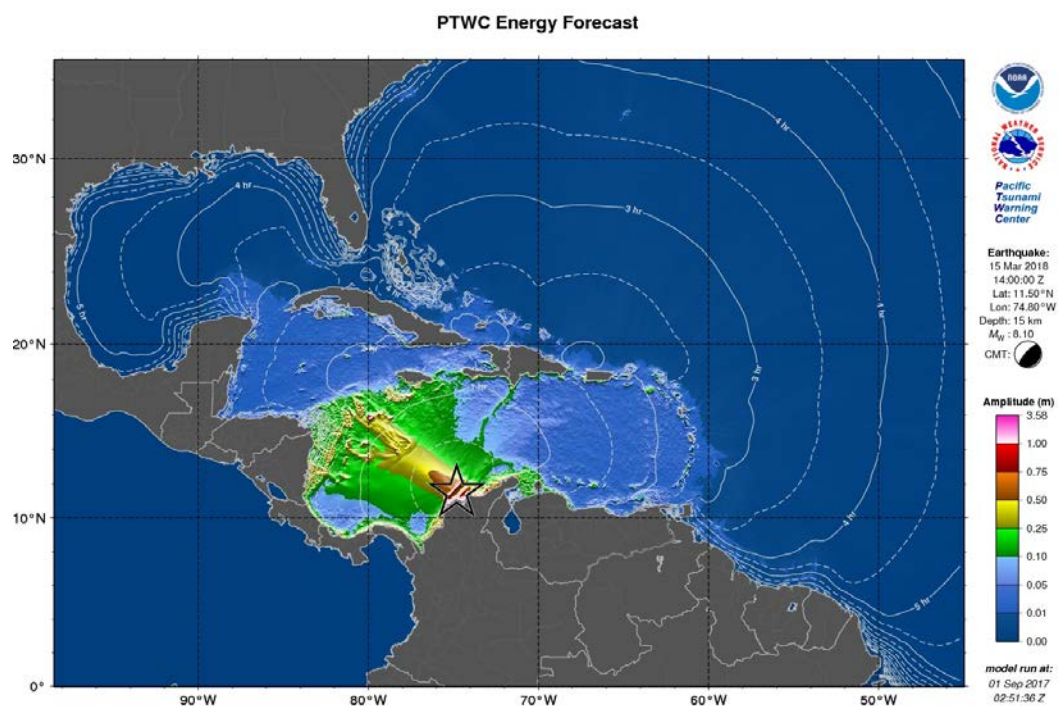


Figure C4. RIFT maximum amplitude map for the Caribbean and Adjacent Regions for the Colombia scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

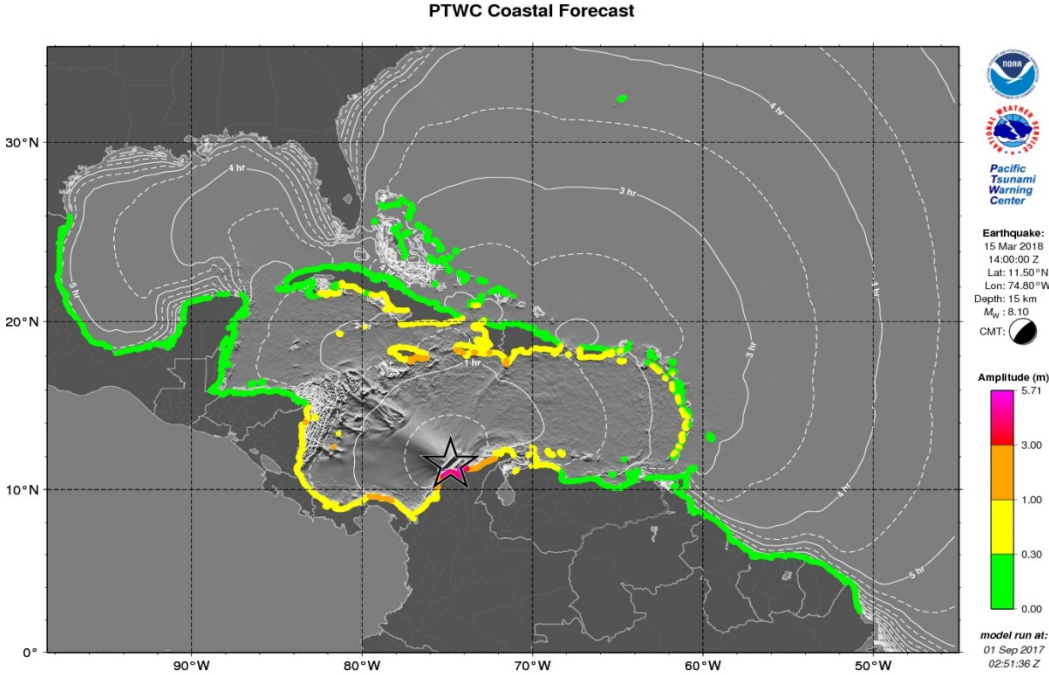


Figure C5. RIFT coastal tsunami amplitude map for the Caribbean and Adjacent Regions for the Colombia scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami.

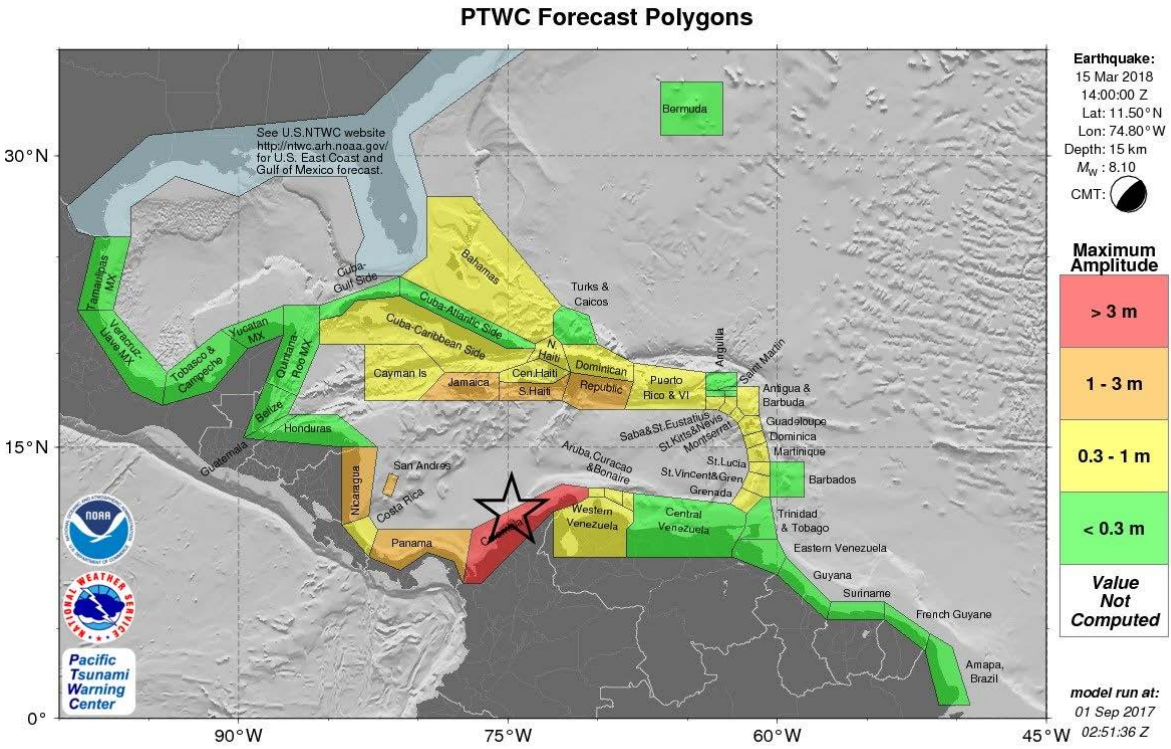


Figure C6. RIFT forecast polygons for the Caribbean and Adjacent Regions for the Colombia scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

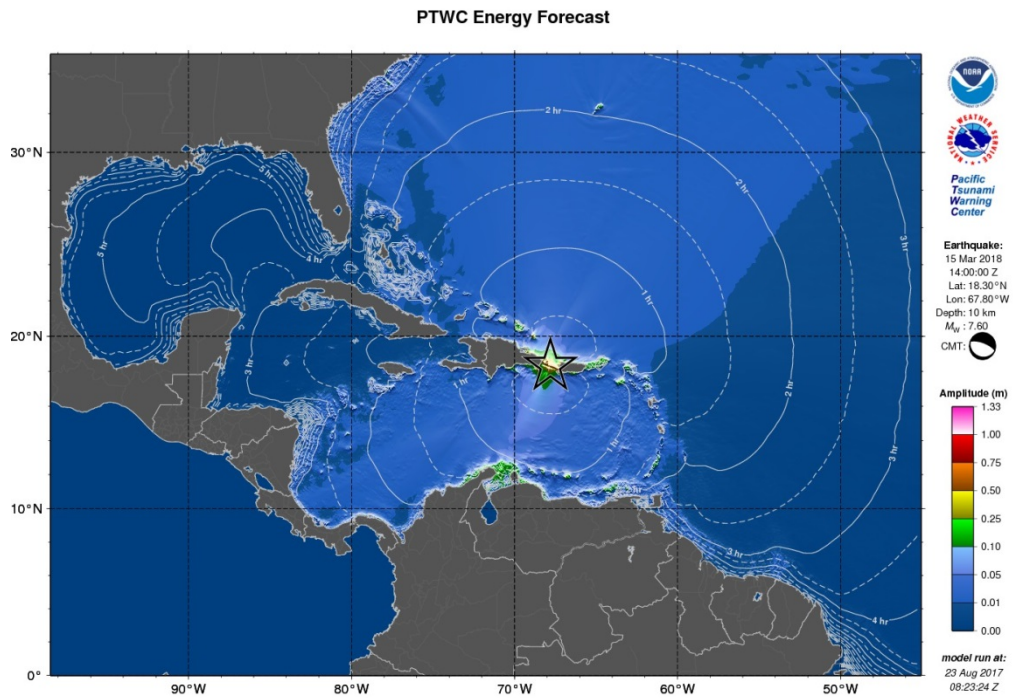


Figure C7. RIFT maximum amplitude map for the Caribbean and Adjacent Regions for the Puerto Rico scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

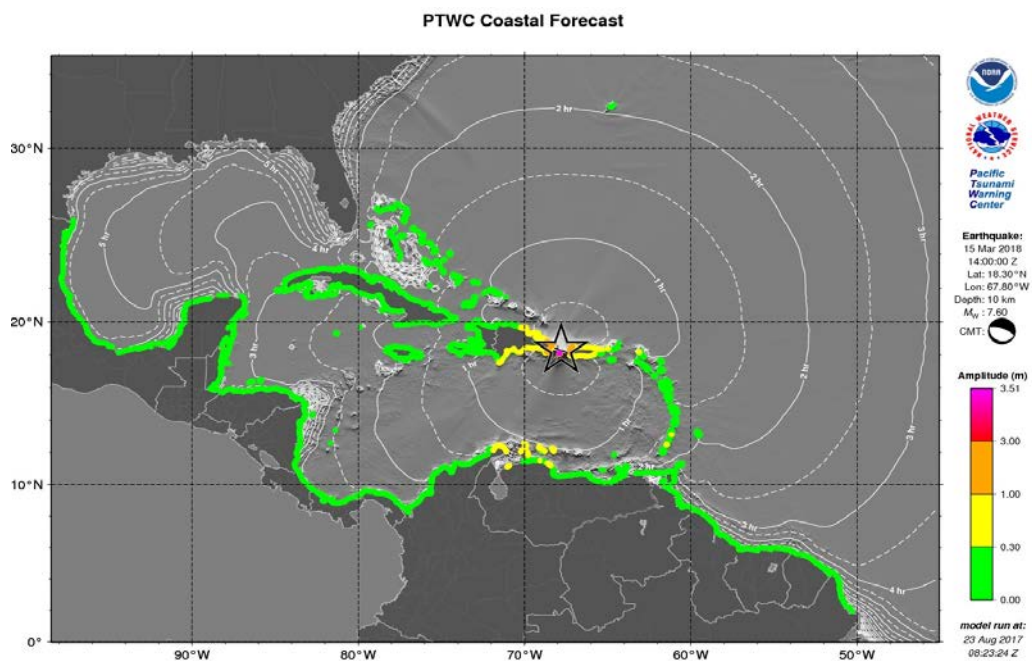


Figure C8. RIFT coastal tsunami amplitude map for the Caribbean and Adjacent Regions for the Puerto Rico scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

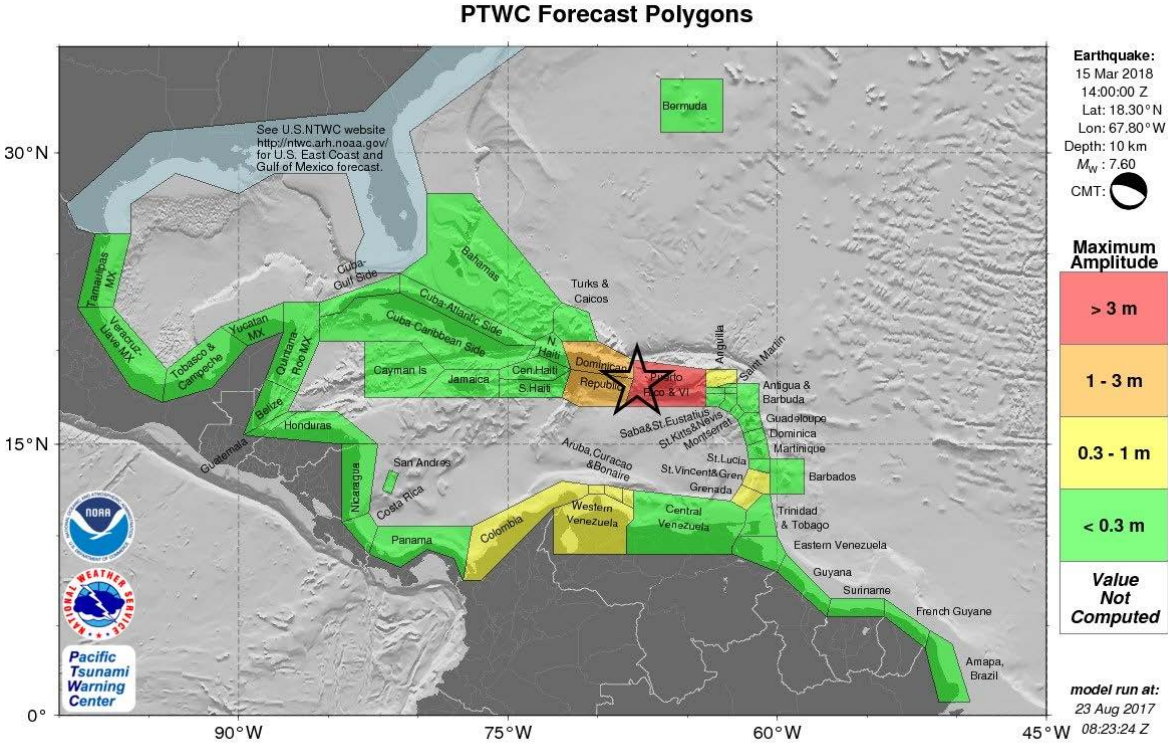


Figure C9. RIFT forecast polygons for the Caribbean and Adjacent Regions for the Puerto Rico scenario. During a real event this product will only be made available to officially designated Tsunami Warning Focal Points and National Tsunami Warning Centers.

Annex D. Earthquake Impact Scenarios

When planning for a tsunami it is important to also take into consideration the potential earthquake impact in areas close to the source, as these impacts can affect tsunami response and increase the tsunami impact by hindering evacuation and contributing debris to be carried by the waves. For earthquake impact, the USGS has developed ShakeMap and the Prompt Assessment of Global Earthquakes for Response (PAGER). The main purpose of ShakeMap is to display the levels of ground shaking produced by the earthquake. The ground shaking events levels in the region are studied depending on the magnitude of the earthquake, distance from the earthquake source, rock and soil behavior in the region and propagation of the seismic waves through the Earth's crust. Based on the output of ShakeMap, PAGER estimates the population exposed to earthquake shaking, fatalities and economic losses.

Earthquake Event

The input information for ShakeMap and PAGER are the four corners of the boxes from the fault plane and the depths at each of these four corners. For the case of CARIBE WAVE 18, the fault plane is represented by one segment for each of scenarios. The Barbados fault plane is 400 km long and 100 km wide. The Colombia fault plane is 300 km long and 30 km wide. The Puerto Rico fault plane is 80 km long and 20 km wide.

Figures D1, D2, D3, D4, D5, and D6, show ShakeMap and PAGER outputs for the CARIBE WAVE 18 earthquake scenarios.

For the Barbados scenarios the ShakeMap show intensities up to VI on the Mercalli Modified Scale (Figure D1). The strongest ground shaking is predicted for Bridgetown, capital city of Barbados. According to the ShakeMap for the Colombia scenario (Figure D3), intensities of up to VII on the Mercalli Modified Scale could be observed. The strongest ground shaking is predicted near Santa Marta and Cartagena. Moreover, the Puerto Rico ShakeMap shows intensities up to VII on the Mercalli Modified Scale (Figure D5). The strongest ground shaking is predicted for Punta Cana, and part of the East coast are of the Dominican Republic, also Mona Island and part of the West coast area of Puerto Rico.

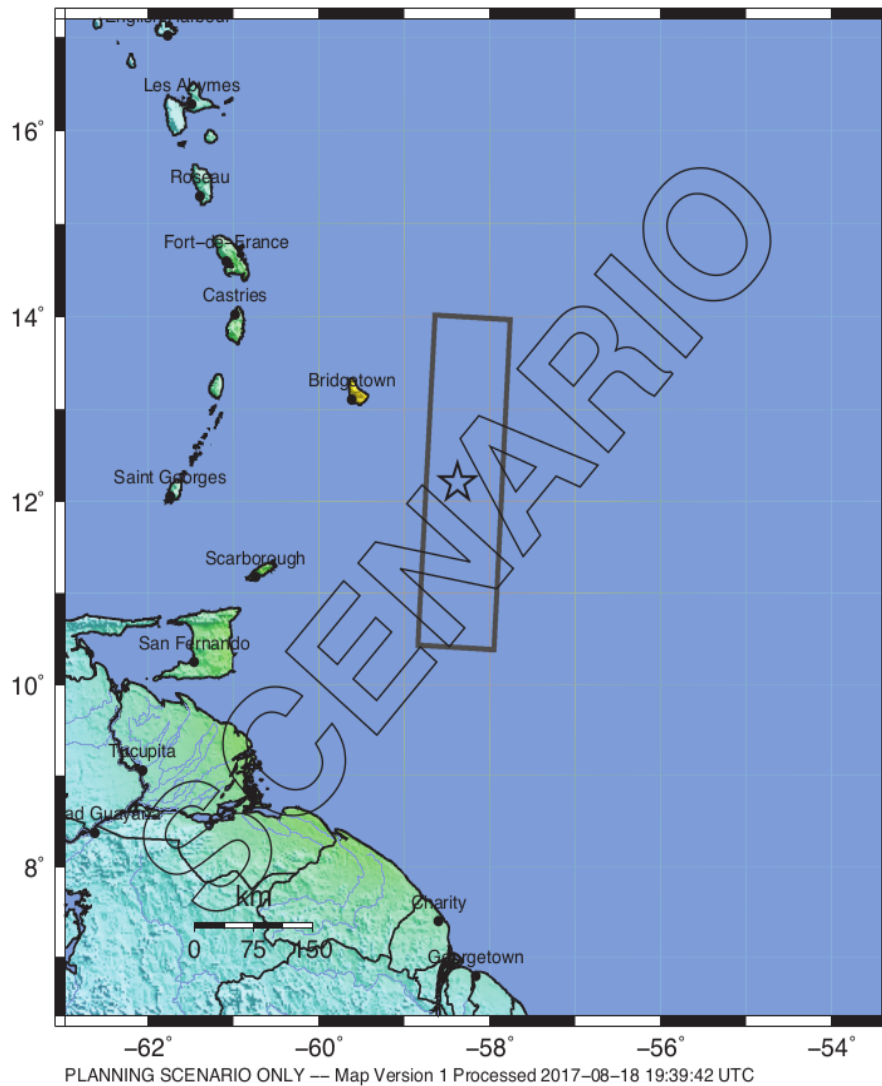
According to PAGER, (Figure D2, D4 and D6) the CARIBE WAVE 18 simulated earthquakes would produce earthquake shaking yellow alert for Barbados scenario, red alert for the Colombia scenarios, while a orange alert for the Puerto Rico scenario. For the Barbados scenario, fatalities and economic losses localized could be expected, but in a moderate manner. For the Colombia scenario, fatalities and extensive economic losses are estimated for the southern coast of Colombia. In the case of the Puerto Rico scenario, some casualties and extensive economic losses could be expected, mostly in West coast area of Puerto Rico.

Regarding population exposed to earthquake shaking, it is estimated that almost ~150,000 people for Barbados scenario, almost 4,338,000 people for Colombia scenario and ~1,838,000 people for the Puerto Rico would be exposed to Modified Mercalli intensities from V up to VII (according to pager).

Barbados Earthquake Scenario

— 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)

Figure D1. Shake map output for the CARIBE WAVE 18 Barbados earthquake scenario.



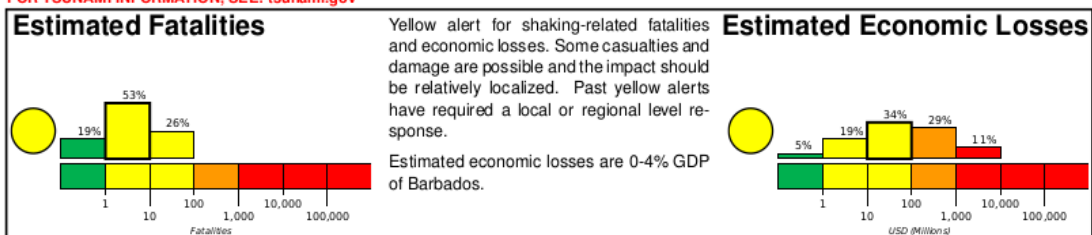
Earthquake Shaking **Yellow Alert**



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

PAGER
Version 1

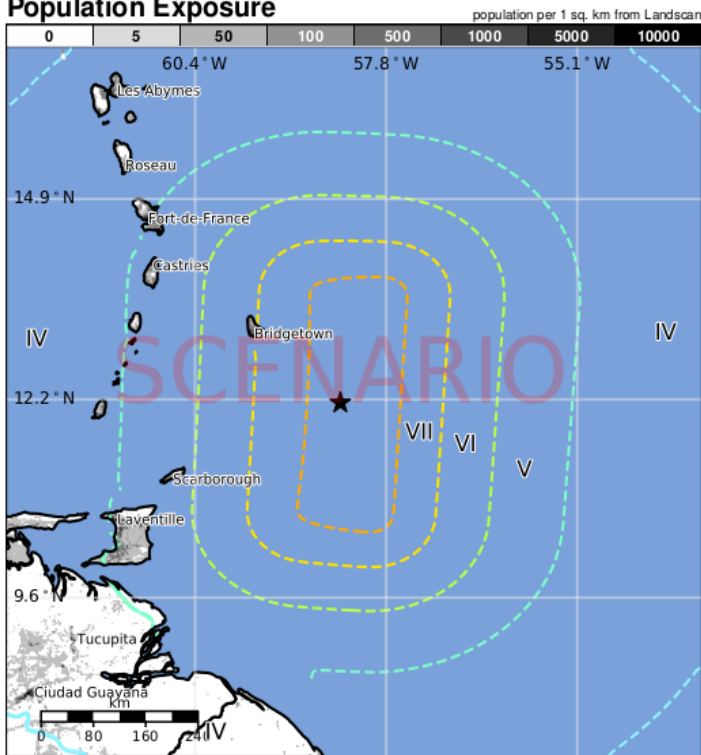


Estimated Population Exposed to Earthquake Shaking

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	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. 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	Oistins	2k
VI	Weichman 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

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: `uscaribewave2018_barbados.se`

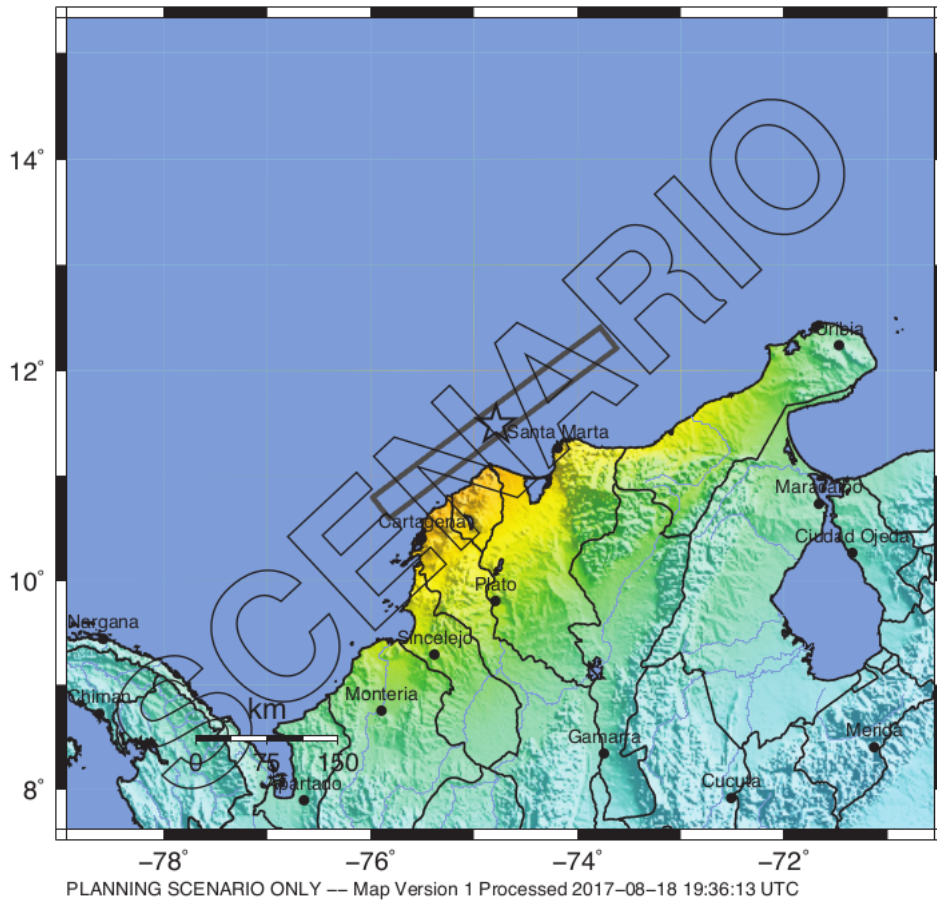
Figure D2. PAGER output for CARIBE WAVE 18 Barbados earthquake scenario (USGS).

Colombia Earthquake Scenario

-- 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



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)

Figure D3. Shake map output for the CARIBE WAVE 18 Colombia earthquake scenario.



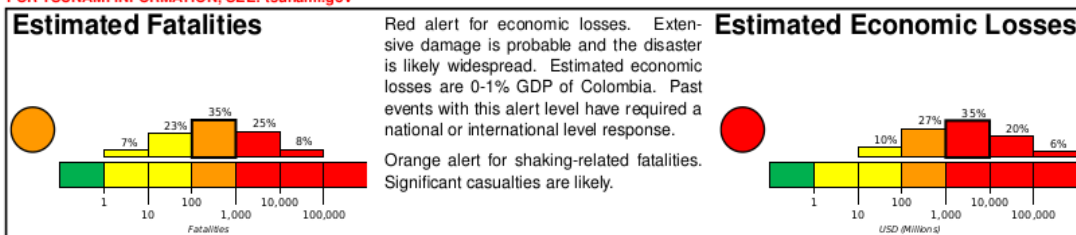
Earthquake Shaking **Red Alert**



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

PAGER
Version 1

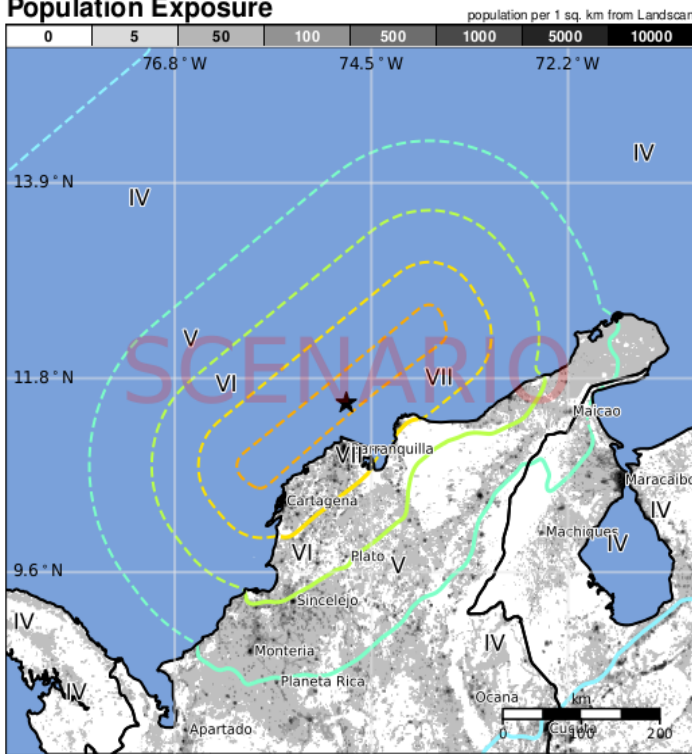


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1,000)	—*	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	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. 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

bold cities appear on map.

(k= x1,000)

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.colombia.se

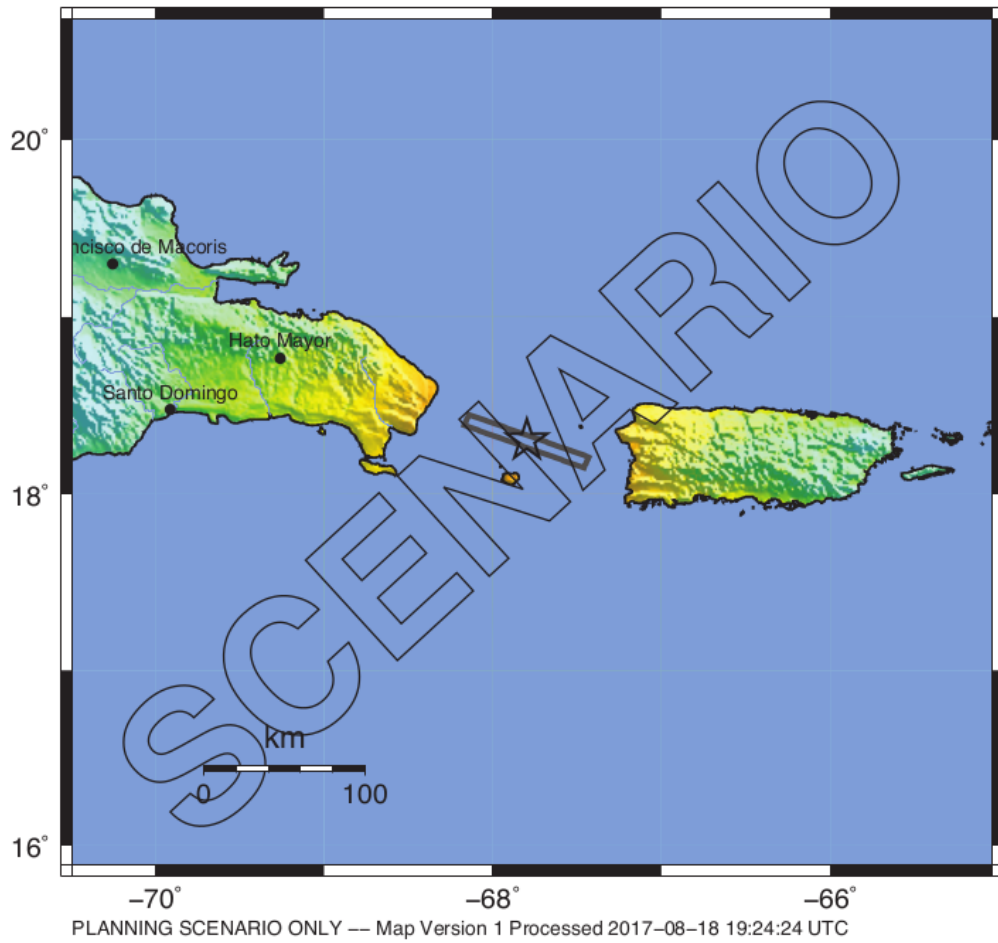
Figure D4. PAGER output for CARIBE WAVE 18 Colombia earthquake scenario (USGS).

Puerto Rico Earthquake Scenario

-- 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



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)

Figure D5. Shake map output for the CARIBE WAVE 18 Puerto Rico earthquake scenario.



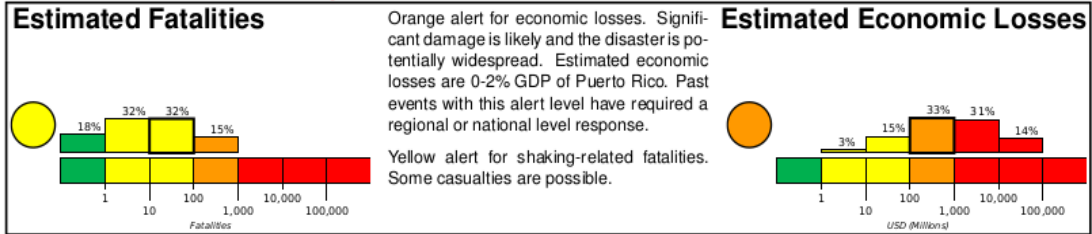
Earthquake Shaking **Orange Alert**



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

**PAGER
Version 1**

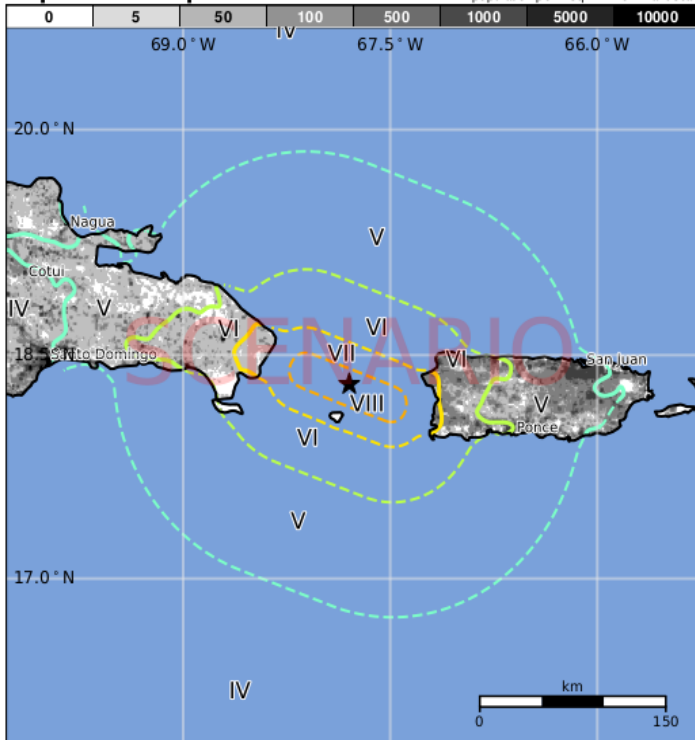


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	—*	—*	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	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. 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 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	VI(605k)	0
2003-09-22	344	6.4	IX(132k)	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

from GeoNames.org

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

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.puerto.rico.se

Figure D6. PAGER output for CARIBE WAVE 18 Puerto Rico earthquake scenario (USGS).

Annex E. TWC Dummy (Start of Exercise) Messages

PTWC

WECA41 PHEB 151400
TSUCAX

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.

\$\$

Annex F. TWC Exercise Messages

Barbados Earthquake Scenario

The following messages created for the CARIBE WAVE 18 tsunami exercise are representative of the official standard products issued by the PTWC during a large magnitude 8.6 earthquake and tsunami originating in Barbados. During a real event, NTWC and TWFP would be sent via email the graphical products. The alerts would persist longer during a real event than is depicted in this exercise.

PTWC Message #1

ZCZC
WECA41 PHEB 151405
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 1...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1405 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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 8.3
* ORIGIN TIME 1400 UTC MAR 15 2018
* COORDINATES 12.2 NORTH 58.3 WEST
* DEPTH 15 KM / 9 MILES
* LOCATION NORTH ATLANTIC OCEAN

TEST... EVALUATION ...TEST

* 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... MONTSERRAT... 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
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
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
SANTO 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
SAN SALVADOR	BAHAMAS	24.1N	74.5W	1656 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 -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

PTWC Message #2

ZCZC
WECA41 PHEB 151425
TSUCAX

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

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...TEST TSUNAMI THREAT MESSAGE TEST...

...REVISED MAGNITUDE TO M8.6

**** 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

TEST... EVALUATION ...TEST

* 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

- * 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... 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	TIME OF	MAXIMUM	WAVE
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GAUGE LOCATION	COORDINATES		MEASURE	TSUNAMI	PERIOD
	LAT	LON	(UTC)	HEIGHT	(MIN)

* NO OBSERVATIONS AT THIS TIME

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 -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.

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

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NNNN

PTWC Message #3

ZCZC
WECA41 PHEB 151500
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 3...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1500 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...TEST TSUNAMI THREAT MESSAGE TEST...

**** NOTICE **** NOTICE **** NOTICE **** NOTICE **** NOTICE *****

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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

TEST... EVALUATION ...TEST

* 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. 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

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...
MONTSEERRAT... 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.

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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
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THEIR OWN EVALUATION... PROCEDURES AND THE LEVEL OF THREAT.

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

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THE INITIAL TSUNAMI WAVE FOR PLACES WITHIN THREATENED
REGIONS ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND
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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	MONTSEERRAT	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
MONTAGO 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

- * 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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LON	(UTC)		(MIN)

LE ROBERT MARTINIQU 14.7N 60.9W 1457 3.53M/11.6FT 24
CALLIAQUA VC 13.1N 61.2W 1454 2.77M/ 9.1FT 22
BRIDGEPORT BB 13.1N 59.6W 1433 9.32M/30.6FT 16

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 -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

PTWC Message #4

ZCZC
WECA41 PHEB 151600
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 4...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1600 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

TEST... EVALUATION ...TEST

- * 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. 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

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)
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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- * 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... TSUNAMI OBSERVATIONS ...TEST

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- * 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LOX			
YABUCOA PR	18.1N	65.8W	1600	1.14M/	3.7FT 16
SAN JUAN PR	18.5N	66.1W	1559	0.25M/	0.8FT 18
DART 41421	23.4N	63.9W	1556	0.04M/	0.1FT 20
LIMETREE VI	17.7N	64.8W	1554	1.07M/	3.5FT 24
ST CROIX VI	17.7N	64.7W	1558	0.67M/	2.2FT 26
BASSETERRE KN	17.3N	62.7W	1543	0.89M/	2.9FT 18
PARHAM AT	17.1N	61.8W	1526	1.03M/	3.4FT 26

GANTERS BAY ST LUCI	14.0N	61.0W	1520	3.10M/10.2FT	26
DESHAIES GUADELOUPE	16.3N	61.8W	1526	1.29M/ 4.2FT	26
PRICKLEY BAY GD	12.0N	61.8W	1517	1.93M/ 6.3FT	20
POINT A PITRE GP	16.2N	61.5W	1519	2.84M/ 9.3FT	22
ROSEAU DM	15.3N	61.4W	1512	1.42M/ 4.7FT	22
FORT DE FRANCE MQ	14.6N	61.1W	1509	2.61M/ 8.5FT	16
CHARLOTTEVILLE TT	11.3N	60.5W	1510	4.01M/13.2FT	24
DESIRADE GUADELOUPE	16.3N	61.1W	1511	1.42M/ 4.6FT	14
LE PRECHEUR MARTINI	14.8N	61.2W	1510	1.77M/ 5.8FT	20
LE ROBERT MARTINIQU	14.7N	60.9W	1457	3.53M/11.6FT	24
CALLIAQUA VC	13.1N	61.2W	1454	2.77M/ 9.1FT	22
BRIDGEPORT BB	13.1N	59.6W	1433	9.32M/30.6FT	16

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 -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

PTWC Message #5

ZCZC
WECA41 PHEB 151700
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 5...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1700 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...TEST TSUNAMI THREAT MESSAGE TEST...

**** NOTICE **** NOTICE **** NOTICE **** NOTICE **** NOTICE ****

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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

TEST... EVALUATION ...TEST

* 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. 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

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)
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

-
- * 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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LON	(UTC)		(MIN)
JACMEL HT	18.2N	72.5W	1658	0.62M/ 2.0FT	16
BARAHONA DO	18.2N	71.1W	1647	0.65M/ 2.1FT	22
CAP HAITIEN HT	19.8N	72.2W	1643	0.08M/ 0.3FT	26
BULLEN BAY CURACAO	12.2N	69.0W	1629	1.04M/ 3.4FT	22
PUERTO PLATA DO	19.8N	70.7W	1625	0.11M/ 0.4FT	18
PUNTA CANA DO	18.5N	68.4W	1627	0.75M/ 2.5FT	28
MAGUEYES ISLAND PR	18.0N	67.0W	1628	0.71M/ 2.3FT	24
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1618	0.69M/ 2.3FT	14
MONA ISLAND PR	18.1N	67.9W	1624	0.57M/ 1.9FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1619	0.75M/ 2.5FT	28
SAINT MARTIN FR	18.1N	63.1W	1613	0.75M/ 2.5FT	28
AGUADILLA PR	18.5N	67.2W	1609	0.34M/ 1.1FT	22
MAYAGUEZ PR	18.2N	67.2W	1609	0.50M/ 1.6FT	16
DART 42407	15.3N	68.2W	1609	0.07M/ 0.2FT	28
ESPERANZA VIEQUES P	18.1N	65.5W	1608	0.86M/ 2.8FT	22
ARECIBO PR	18.5N	66.7W	1607	0.33M/ 1.1FT	28
YABUCOA PR	18.1N	65.8W	1600	1.14M/ 3.7FT	16
SAN JUAN PR	18.5N	66.1W	1559	0.25M/ 0.8FT	18
DART 41421	23.4N	63.9W	1556	0.04M/ 0.1FT	20
LIMETREE VI	17.7N	64.8W	1554	1.07M/ 3.5FT	24
ST CROIX VI	17.7N	64.7W	1558	0.67M/ 2.2FT	26
BASSETERRE KN	17.3N	62.7W	1543	0.89M/ 2.9FT	18
PARHAM AT	17.1N	61.8W	1526	1.03M/ 3.4FT	26
GANTERS BAY ST LUCI	14.0N	61.0W	1520	3.10M/10.2FT	26
DESHAIES GUADELOUPE	16.3N	61.8W	1526	1.29M/ 4.2FT	26

PRICKLEY BAY GD	12.0N	61.8W	1517	1.93M/ 6.3FT	20
POINT A PITRE GP	16.2N	61.5W	1519	2.84M/ 9.3FT	22
ROSEAU DM	15.3N	61.4W	1512	1.42M/ 4.7FT	22
FORT DE FRANCE MQ	14.6N	61.1W	1509	2.61M/ 8.5FT	16
CHARLOTTEVILLE TT	11.3N	60.5W	1510	4.01M/13.2FT	24
DESIRADE GUADELOUPE	16.3N	61.1W	1511	1.42M/ 4.6FT	14
LE PRECHEUR MARTINI	14.8N	61.2W	1510	1.77M/ 5.8FT	20
LE ROBERT MARTINIQU	14.7N	60.9W	1457	3.53M/11.6FT	24
CALLIAQUA VC	13.1N	61.2W	1454	2.77M/ 9.1FT	22
BRIDGEPORT BB	13.1N	59.6W	1433	9.32M/30.6FT	16

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 -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

PTWC Message #6

ZCZC
WECA41 PHEB 151800
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 6...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1800 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

TEST... EVALUATION ...TEST

- * 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. 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

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)
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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- * 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... TSUNAMI OBSERVATIONS ...TEST

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- * 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LON			
SANTA MARTA CO	11.2N	74.2W	1726	0.27M/ 0.9FT	24
BERMUDA UK	32.4N	64.7W	1718	0.61M/ 2.0FT	26
ILE ROYAL GUIANA FR	5.3N	52.6W	1710	1.31M/ 4.3FT	22
PUERTO ESTRELLA CO	12.4N	71.3W	1706	0.38M/ 1.2FT	22
PORT SAN ANDRES DO	18.4N	69.6W	1702	0.44M/ 1.5FT	26
JACMEL HT	18.2N	72.5W	1658	0.62M/ 2.0FT	16
BARAHONA DO	18.2N	71.1W	1647	0.65M/ 2.1FT	22
CAP HAITIEN HT	19.8N	72.2W	1643	0.08M/ 0.3FT	26
BULLEN BAY CURACAO	12.2N	69.0W	1629	1.04M/ 3.4FT	22
PUERTO PLATA DO	19.8N	70.7W	1625	0.11M/ 0.4FT	18
PUNTA CANA DO	18.5N	68.4W	1627	0.75M/ 2.5FT	28
MAGUEYES ISLAND PR	18.0N	67.0W	1628	0.71M/ 2.3FT	24
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1618	0.69M/ 2.3FT	14
MONA ISLAND PR	18.1N	67.9W	1624	0.57M/ 1.9FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1619	0.75M/ 2.5FT	28
SAINT MARTIN FR	18.1N	63.1W	1613	0.75M/ 2.5FT	28
AGUADILLA PR	18.5N	67.2W	1609	0.34M/ 1.1FT	22
MAYAGUEZ PR	18.2N	67.2W	1609	0.50M/ 1.6FT	16
DART 42407	15.3N	68.2W	1609	0.07M/ 0.2FT	28
ESPERANZA VIEQUES P	18.1N	65.5W	1608	0.86M/ 2.8FT	22
ARECIBO PR	18.5N	66.7W	1607	0.33M/ 1.1FT	28
YABUCOA PR	18.1N	65.8W	1600	1.14M/ 3.7FT	16
SAN JUAN PR	18.5N	66.1W	1559	0.25M/ 0.8FT	18
DART 41421	23.4N	63.9W	1556	0.04M/ 0.1FT	20
LIMETREE VI	17.7N	64.8W	1554	1.07M/ 3.5FT	24
ST CROIX VI	17.7N	64.7W	1558	0.67M/ 2.2FT	26
BASSETERRE KN	17.3N	62.7W	1543	0.89M/ 2.9FT	18
PARHAM AT	17.1N	61.8W	1526	1.03M/ 3.4FT	26
GANTERS BAY ST LUCI	14.0N	61.0W	1520	3.10M/10.2FT	26
DESHAIES GUADELOUPE	16.3N	61.8W	1526	1.29M/ 4.2FT	26
PRICKLEY BAY GD	12.0N	61.8W	1517	1.93M/ 6.3FT	20
POINT A PITRE GP	16.2N	61.5W	1519	2.84M/ 9.3FT	22
ROSEAU DM	15.3N	61.4W	1512	1.42M/ 4.7FT	22
FORT DE FRANCE MQ	14.6N	61.1W	1509	2.61M/ 8.5FT	16
CHARLOTTEVILLE TT	11.3N	60.5W	1510	4.01M/13.2FT	24

DESIRADE GUADELOUPE	16.3N	61.1W	1511	1.42M/ 4.6FT	14
LE PRECHEUR MARTINI	14.8N	61.2W	1510	1.77M/ 5.8FT	20
LE ROBERT MARTINIQU	14.7N	60.9W	1457	3.53M/11.6FT	24
CALLIAQUA VC	13.1N	61.2W	1454	2.77M/ 9.1FT	22
BRIDGEPORT BB	13.1N	59.6W	1433	9.32M/30.6FT	16

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 -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

PTWC Message #7

ZCZC
WECA41 PHEB 151900
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 7...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1900 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

TEST... EVALUATION ...TEST

- * 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. 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

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)
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

* 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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LOX	(UTC)		(MIN)
LIMON CR	10.0N	83.0W	1846	0.16M/ 0.5FT	26
SAPZURRO CO	8.7N	77.4W	1823	0.13M/ 0.4FT	22
SAN ANDRES CO	12.6N	81.7W	1817	0.13M/ 0.4FT	24
EL PORVENIR PA	9.6N	78.9W	1817	0.22M/ 0.7FT	28
COVENAS CO	9.4N	76.2W	1819	0.15M/ 0.5FT	18
PORT ROYAL JM	17.9N	76.8W	1813	0.66M/ 2.2FT	14
SANTA MARTA CO	11.2N	74.2W	1726	0.27M/ 0.9FT	24
BERMUDA UK	32.4N	64.7W	1718	0.61M/ 2.0FT	26
ILE ROYAL GUIANA FR	5.3N	52.6W	1710	1.31M/ 4.3FT	22
PUERTO ESTRELLA CO	12.4N	71.3W	1706	0.38M/ 1.2FT	22
PORT SAN ANDRES DO	18.4N	69.6W	1702	0.44M/ 1.5FT	26
JACMEL HT	18.2N	72.5W	1658	0.62M/ 2.0FT	16
BARAHONA DO	18.2N	71.1W	1647	0.65M/ 2.1FT	22
CAP HAITIEN HT	19.8N	72.2W	1643	0.08M/ 0.3FT	26
BULLEN BAY CURACAO	12.2N	69.0W	1629	1.04M/ 3.4FT	22
PUERTO PLATA DO	19.8N	70.7W	1625	0.11M/ 0.4FT	18
PUNTA CANA DO	18.5N	68.4W	1627	0.75M/ 2.5FT	28
MAGUEYES ISLAND PR	18.0N	67.0W	1628	0.71M/ 2.3FT	24
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1618	0.69M/ 2.3FT	14
MONA ISLAND PR	18.1N	67.9W	1624	0.57M/ 1.9FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1619	0.75M/ 2.5FT	28
SAINT MARTIN FR	18.1N	63.1W	1613	0.75M/ 2.5FT	28
AGUADILLA PR	18.5N	67.2W	1609	0.34M/ 1.1FT	22
MAYAGUEZ PR	18.2N	67.2W	1609	0.50M/ 1.6FT	16
DART 42407	15.3N	68.2W	1609	0.07M/ 0.2FT	28
ESPERANZA VIEQUES P	18.1N	65.5W	1608	0.86M/ 2.8FT	22
ARECIBO PR	18.5N	66.7W	1607	0.33M/ 1.1FT	28
YABUCOA PR	18.1N	65.8W	1600	1.14M/ 3.7FT	16
SAN JUAN PR	18.5N	66.1W	1559	0.25M/ 0.8FT	18
DART 41421	23.4N	63.9W	1556	0.04M/ 0.1FT	20
LIMETREE VI	17.7N	64.8W	1554	1.07M/ 3.5FT	24
ST CROIX VI	17.7N	64.7W	1558	0.67M/ 2.2FT	26
BASSETERRE KN	17.3N	62.7W	1543	0.89M/ 2.9FT	18
PARHAM AT	17.1N	61.8W	1526	1.03M/ 3.4FT	26
GANTERS BAY ST LUCI	14.0N	61.0W	1520	3.10M/10.2FT	26
DESHAIES GUADELOUPE	16.3N	61.8W	1526	1.29M/ 4.2FT	26
PRICKLEY BAY GD	12.0N	61.8W	1517	1.93M/ 6.3FT	20
POINT A PITRE GP	16.2N	61.5W	1519	2.84M/ 9.3FT	22
ROSEAU DM	15.3N	61.4W	1512	1.42M/ 4.7FT	22
FORT DE FRANCE MQ	14.6N	61.1W	1509	2.61M/ 8.5FT	16
CHARLOTTEVILLE TT	11.3N	60.5W	1510	4.01M/13.2FT	24
DESIRADE GUADELOUPE	16.3N	61.1W	1511	1.42M/ 4.6FT	14
LE PRECHEUR MARTINI	14.8N	61.2W	1510	1.77M/ 5.8FT	20
LE ROBERT MARTINIQU	14.7N	60.9W	1457	3.53M/11.6FT	24

CALLIAQUA VC	13.1N	61.2W	1454	2.77M/ 9.1FT	22
BRIDGEPORT BB	13.1N	59.6W	1433	9.32M/30.6FT	16

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 -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

PTWC Message #8

ZCZC
WECA41 PHEB 152000
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 8...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
2000 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

TEST... EVALUATION ...TEST

-
- * 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. 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

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)
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

- * 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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LOX	(UTC)		(MIN)
WRIGHT BEACH NC	34.2N	77.8W	1959	0.15M/ 0.5FT	18
TRIDENT PIER FL	28.4N	80.6W	1951	0.19M/ 0.6FT	28
LIMON CR	10.0N	83.0W	1846	0.16M/ 0.5FT	26
SAPZURRO CO	8.7N	77.4W	1823	0.13M/ 0.4FT	22
SAN ANDRES CO	12.6N	81.7W	1817	0.13M/ 0.4FT	24
EL PORVENIR PA	9.6N	78.9W	1817	0.22M/ 0.7FT	28
COVENAS CO	9.4N	76.2W	1819	0.15M/ 0.5FT	18
PORT ROYAL JM	17.9N	76.8W	1813	0.66M/ 2.2FT	14
SANTA MARTA CO	11.2N	74.2W	1726	0.27M/ 0.9FT	24
BERMUDA UK	32.4N	64.7W	1718	0.61M/ 2.0FT	26
ILE ROYAL GUIANA FR	5.3N	52.6W	1710	1.31M/ 4.3FT	22
PUERTO ESTRELLA CO	12.4N	71.3W	1706	0.38M/ 1.2FT	22
PORT SAN ANDRES DO	18.4N	69.6W	1702	0.44M/ 1.5FT	26
JACMEL HT	18.2N	72.5W	1658	0.62M/ 2.0FT	16
BARAHONA DO	18.2N	71.1W	1647	0.65M/ 2.1FT	22
CAP HAITIEN HT	19.8N	72.2W	1643	0.08M/ 0.3FT	26
BULLEN BAY CURACAO	12.2N	69.0W	1629	1.04M/ 3.4FT	22
PUERTO PLATA DO	19.8N	70.7W	1625	0.11M/ 0.4FT	18
PUNTA CANA DO	18.5N	68.4W	1627	0.75M/ 2.5FT	28
MAGUEYES ISLAND PR	18.0N	67.0W	1628	0.71M/ 2.3FT	24
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1618	0.69M/ 2.3FT	14
MONA ISLAND PR	18.1N	67.9W	1624	0.57M/ 1.9FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1619	0.75M/ 2.5FT	28
SAINT MARTIN FR	18.1N	63.1W	1613	0.75M/ 2.5FT	28
AGUADILLA PR	18.5N	67.2W	1609	0.34M/ 1.1FT	22
MAYAGUEZ PR	18.2N	67.2W	1609	0.50M/ 1.6FT	16
DART 42407	15.3N	68.2W	1609	0.07M/ 0.2FT	28
ESPERANZA VIEQUES P	18.1N	65.5W	1608	0.86M/ 2.8FT	22
ARECIBO PR	18.5N	66.7W	1607	0.33M/ 1.1FT	28
YABUcoa PR	18.1N	65.8W	1600	1.14M/ 3.7FT	16
SAN JUAN PR	18.5N	66.1W	1559	0.25M/ 0.8FT	18
DART 41421	23.4N	63.9W	1556	0.04M/ 0.1FT	20
LIMETREE VI	17.7N	64.8W	1554	1.07M/ 3.5FT	24
ST CROIX VI	17.7N	64.7W	1558	0.67M/ 2.2FT	26
BASSETERRE KN	17.3N	62.7W	1543	0.89M/ 2.9FT	18
PARHAM AT	17.1N	61.8W	1526	1.03M/ 3.4FT	26
GANTERS BAY ST LUCI	14.0N	61.0W	1520	3.10M/10.2FT	26
DESHAIES GUADELOUPE	16.3N	61.8W	1526	1.29M/ 4.2FT	26
PRICKLEY BAY GD	12.0N	61.8W	1517	1.93M/ 6.3FT	20
POINT A PITRE GP	16.2N	61.5W	1519	2.84M/ 9.3FT	22
ROSEAU DM	15.3N	61.4W	1512	1.42M/ 4.7FT	22
FORT DE FRANCE MQ	14.6N	61.1W	1509	2.61M/ 8.5FT	16
CHARLOTTEVILLE TT	11.3N	60.5W	1510	4.01M/13.2FT	24
DESIRADE GUADELOUPE	16.3N	61.1W	1511	1.42M/ 4.6FT	14
LE PRECHEUR MARTINI	14.8N	61.2W	1510	1.77M/ 5.8FT	20
LE ROBERT MARTINIQU	14.7N	60.9W	1457	3.53M/11.6FT	24
CALLIAQUA VC	13.1N	61.2W	1454	2.77M/ 9.1FT	22
BRIDGEPORT BB	13.1N	59.6W	1433	9.32M/30.6FT	16

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 -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

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

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

TEST... EVALUATION ...TEST

* 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

* 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LON			
WRIGHT BEACH NC	34.2N	77.8W	1959	0.15M/ 0.5FT	18
TRIDENT PIER FL	28.4N	80.6W	1951	0.19M/ 0.6FT	28
LIMON CR	10.0N	83.0W	1846	0.16M/ 0.5FT	26
SAPZURRO CO	8.7N	77.4W	1823	0.13M/ 0.4FT	22
SAN ANDRES CO	12.6N	81.7W	1817	0.13M/ 0.4FT	24
EL PORVENIR PA	9.6N	78.9W	1817	0.22M/ 0.7FT	28
COVENAS CO	9.4N	76.2W	1819	0.15M/ 0.5FT	18
PORT ROYAL JM	17.9N	76.8W	1813	0.66M/ 2.2FT	14
SANTA MARTA CO	11.2N	74.2W	1726	0.27M/ 0.9FT	24
BERMUDA UK	32.4N	64.7W	1718	0.61M/ 2.0FT	26
ILE ROYAL GUIANA FR	5.3N	52.6W	1710	1.31M/ 4.3FT	22
PUERTO ESTRELLA CO	12.4N	71.3W	1706	0.38M/ 1.2FT	22
PORT SAN ANDRES DO	18.4N	69.6W	1702	0.44M/ 1.5FT	26
JACMEL HT	18.2N	72.5W	1658	0.62M/ 2.0FT	16
BARAHONA DO	18.2N	71.1W	1647	0.65M/ 2.1FT	22
CAP HAITIEN HT	19.8N	72.2W	1643	0.08M/ 0.3FT	26
BULLEN BAY CURACAO	12.2N	69.0W	1629	1.04M/ 3.4FT	22
PUERTO PLATA DO	19.8N	70.7W	1625	0.11M/ 0.4FT	18
PUNTA CANA DO	18.5N	68.4W	1627	0.75M/ 2.5FT	28
MAGUEYES ISLAND PR	18.0N	67.0W	1628	0.71M/ 2.3FT	24
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1618	0.69M/ 2.3FT	14
MONA ISLAND PR	18.1N	67.9W	1624	0.57M/ 1.9FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1619	0.75M/ 2.5FT	28
SAINT MARTIN FR	18.1N	63.1W	1613	0.75M/ 2.5FT	28
AGUADILLA PR	18.5N	67.2W	1609	0.34M/ 1.1FT	22
MAYAGUEZ PR	18.2N	67.2W	1609	0.50M/ 1.6FT	16
DART 42407	15.3N	68.2W	1609	0.07M/ 0.2FT	28
ESPERANZA VIEQUES P	18.1N	65.5W	1608	0.86M/ 2.8FT	22
ARECIBO PR	18.5N	66.7W	1607	0.33M/ 1.1FT	28
YABUCOA PR	18.1N	65.8W	1600	1.14M/ 3.7FT	16
SAN JUAN PR	18.5N	66.1W	1559	0.25M/ 0.8FT	18
DART 41421	23.4N	63.9W	1556	0.04M/ 0.1FT	20
LIMETREE VI	17.7N	64.8W	1554	1.07M/ 3.5FT	24
ST CROIX VI	17.7N	64.7W	1558	0.67M/ 2.2FT	26
BASSETERRE KN	17.3N	62.7W	1543	0.89M/ 2.9FT	18
PARHAM AT	17.1N	61.8W	1526	1.03M/ 3.4FT	26
GANTERS BAY ST LUCI	14.0N	61.0W	1520	3.10M/10.2FT	26
DESHAIES GUADELOUPE	16.3N	61.8W	1526	1.29M/ 4.2FT	26
PRICKLEY BAY GD	12.0N	61.8W	1517	1.93M/ 6.3FT	20
POINT A PITRE GP	16.2N	61.5W	1519	2.84M/ 9.3FT	22
ROSEAU DM	15.3N	61.4W	1512	1.42M/ 4.7FT	22
FORT DE FRANCE MQ	14.6N	61.1W	1509	2.61M/ 8.5FT	16

CHARLOTTEVILLE TT	11.3N	60.5W	1510	4.01M/13.2FT	24
DESIRADE GUADELOUPE	16.3N	61.1W	1511	1.42M/ 4.6FT	14
LE PRECHEUR MARTINI	14.8N	61.2W	1510	1.77M/ 5.8FT	20
LE ROBERT MARTINIQU	14.7N	60.9W	1457	3.53M/11.6FT	24
CALLIAQUA VC	13.1N	61.2W	1454	2.77M/ 9.1FT	22
BRIDGEPORT BB	13.1N	59.6W	1433	9.32M/30.6FT	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

Colombia Earthquake Scenario

The following messages created for the CARIBE WAVE 18 tsunami exercise are representative of the official standard products issued by the PTWC during a large magnitude 8.05 earthquake and tsunami originating in southeastern coast of Colombia . During a real event, the TWCs would also issue graphical and html-based products to their web sites and via RSS. The alerts would persist longer during a real event than is depicted in this exercise.

PTWC Message #1

ZCZC
WECA41 PHEB 151405
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 1...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1405 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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 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	MONTserrat	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

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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

-
- * 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 -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

PTWC Message #2

ZCZC
WECA41 PHEB 151425
TSUCAX

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

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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... MONTSERRAT... 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

* 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)
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	MONTserrat	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

-
- * 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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LON	(UTC)		(MIN)
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. 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 -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

PTWC Message #3

ZCZC
WECA41 PHEB 151500
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 3...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1500 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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 ...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... MONTSERRAT... 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

* 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)
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	MONTSERRAT	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

- * 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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LON	(UTC)		(MIN)
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. 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 -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

PTWC Message #4

ZCZC
WECA41 PHEB 151600
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 4...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1600 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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 ...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... MONTSERRAT... 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

* 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)
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	MONTserrat	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
FREPORT	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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LON	(UTC)		(MIN)
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. 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 -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

PTWC Message #5

ZCZC
WECA41 PHEB 151700
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 5...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1700 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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 ...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... MONTSERRAT... 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

* 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)
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	MONTSERRAT	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... TSUNAMI OBSERVATIONS ...TEST

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- * 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LON			
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. 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 -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

PTWC Message #6

ZCZC
WECA41 PHEB 151800
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 6...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1800 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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 ...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... MONTSERRAT... 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

* 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)
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

* 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... 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LOE			
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
SAINI 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. 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 -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

PTWC Message #7

ZCZC
WECA41 PHEB 151900
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 7...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1900 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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 ...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... MONTSERRAT... 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

* 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)
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

* 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... 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LOE			
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. 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 -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

PTWC Message #8

ZCZC
WECA41 PHEB 152000
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 8...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
2000 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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 ...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... MONTSERRAT... 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

* 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)
PUERTO CABEZAS	NICARAGUA	14.0N 83.4W	2005 03/15
NUEVA GERONA	CUBA	21.9N 82.8W	2011 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... 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	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LOX	(UTC)		(MIN)
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. 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 -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

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

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LOE			
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
LAMESHURBAYSTJOHNV	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 Earthquake Scenario

The following messages created for the CARIBE WAVE 18 tsunami exercise are representative of the official standard products issued by the PTWC during a large magnitude 7.60 earthquake and tsunami originating in the Puerto Rico. During a real event, the TWCs would also issue graphical and html-based products to their web sites and via RSS. The alerts would persist longer during a real event than is depicted in this exercise.

PTWC Message #1

ZCZC
WECA41 PHEB 151405
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 1...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1405 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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... MONTSERRAT... 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
PORLAMAR	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 -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

PTWC Message #2

ZCZC
WECA41 PHEB 151425
TSUCAX

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

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

* 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... 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LOX			
PUNTA CANA DO	18.5N	68.4W	1421	0.97M/ 3.2FT	24
MAYAGUEZ PR	18.2N	67.2W	1423	1.70M/ 5.6FT	22
MONA ISLAND PR	18.1N	67.9W	1413	1.84M/ 6.0FT	16

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 -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

PTWC Message #3

ZCZC
WECA41 PHEB 151500
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 3...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1500 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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

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* 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

* 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... 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LON			
BARAHONA DO	18.2N	71.1W	1459	0.35M/ 1.1FT	26
ESPERANZA VIEQUES P	18.1N	65.5W	1453	0.30M/ 1.0FT	18
LIMETREE VI	17.7N	64.8W	1454	0.21M/ 0.7FT	26
ST CROIX VI	17.7N	64.7W	1448	0.22M/ 0.7FT	26
PUERTO PLATA DO	19.8N	70.7W	1456	0.20M/ 0.6FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1448	0.44M/ 1.5FT	20
YABUCOA PR	18.1N	65.8W	1450	0.36M/ 1.2FT	22
DART 42407	15.3N	68.2W	1446	0.06M/ 0.2FT	22
MAGUEYES ISLAND PR	18.0N	67.0W	1439	0.44M/ 1.5FT	16
SAN JUAN PR	18.5N	66.1W	1438	0.46M/ 1.5FT	24
ARECIBO PR	18.5N	66.7W	1437	0.75M/ 2.5FT	14
AGUADILLA PR	18.5N	67.2W	1432	1.93M/ 6.3FT	20
PUNTA CANA DO	18.5N	68.4W	1421	0.97M/ 3.2FT	24
MAYAGUEZ PR	18.2N	67.2W	1423	1.70M/ 5.6FT	22
MONA ISLAND PR	18.1N	67.9W	1413	1.84M/ 6.0FT	16

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 -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

PTWC Message #4

ZCZC
WECA41 PHEB 151600
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 4...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1600 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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)
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

* 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... 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LOE			
SANTA MARTA CO	11.2N	74.2W	1557	0.17M/ 0.6FT	26
LE ROBERT MARTINIQU	14.7N	60.9W	1552	0.12M/ 0.4FT	22
CALLIAQUA VC	13.1N	61.2W	1549	0.28M/ 0.9FT	18
POINT A PITRE GP	16.2N	61.5W	1545	0.14M/ 0.5FT	28
FORT DE FRANCE MQ	14.6N	61.1W	1545	0.17M/ 0.6FT	24
PUERTO ESTRELLA CO	12.4N	71.3W	1537	0.31M/ 1.0FT	14
SAINT MARTIN FR	18.1N	63.1W	1537	0.19M/ 0.6FT	26
LE PRECHEUR MARTINI	14.8N	61.2W	1534	0.13M/ 0.4FT	28
ROSEAU DM	15.3N	61.4W	1530	0.14M/ 0.4FT	28
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1526	0.23M/ 0.8FT	22
DESHAIES GUADELOUPE	16.3N	61.8W	1526	0.17M/ 0.6FT	16
DESIRADE GUADELOUPE	16.3N	61.1W	1531	0.06M/ 0.2FT	22
BULLEN BAY CURACAO	12.2N	69.0W	1525	0.61M/ 2.0FT	28
BASSETERRE KN	17.3N	62.7W	1518	0.17M/ 0.6FT	16
JACMEL HT	18.2N	72.5W	1509	0.18M/ 0.6FT	18
CAP HAITIEN HT	19.8N	72.2W	1506	0.11M/ 0.4FT	20
PORT SAN ANDRES DO	18.4N	69.6W	1503	0.45M/ 1.5FT	24
BARAHONA DO	18.2N	71.1W	1459	0.35M/ 1.1FT	26
ESPERANZA VIEQUES P	18.1N	65.5W	1453	0.30M/ 1.0FT	18
LIMETREE VI	17.7N	64.8W	1454	0.21M/ 0.7FT	26
ST CROIX VI	17.7N	64.7W	1448	0.22M/ 0.7FT	26
PUERTO PLATA DO	19.8N	70.7W	1456	0.20M/ 0.6FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1448	0.44M/ 1.5FT	20
YABUCOA PR	18.1N	65.8W	1450	0.36M/ 1.2FT	22
DART 42407	15.3N	68.2W	1446	0.06M/ 0.2FT	22
MAGUEYES ISLAND PR	18.0N	67.0W	1439	0.44M/ 1.5FT	16
SAN JUAN PR	18.5N	66.1W	1438	0.46M/ 1.5FT	24
ARECIBO PR	18.5N	66.7W	1437	0.75M/ 2.5FT	14
AGUADILLA PR	18.5N	67.2W	1432	1.93M/ 6.3FT	20
PUNTA CANA DO	18.5N	68.4W	1421	0.97M/ 3.2FT	24
MAYAGUEZ PR	18.2N	67.2W	1423	1.70M/ 5.6FT	22
MONA ISLAND PR	18.1N	67.9W	1413	1.84M/ 6.0FT	16

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 -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

PTWC Message #5

ZCZC
WECA41 PHEB 151700
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 5...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1700 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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)
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

* 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.

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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.

GAUGE LOCATION	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LON	(UTC)		(MIN)
SAPZURRO CO	8.7N	77.4W	1658	0.08M/	0.3FT 18
EL PORVENIR PA	9.6N	78.9W	1646	0.16M/	0.5FT 14
CHARLOTTEVILLE TT	11.3N	60.5W	1642	0.07M/	0.2FT 18
COVENAS CO	9.4N	76.2W	1645	0.07M/	0.2FT 26
PORT ROYAL JM	17.9N	76.8W	1626	0.16M/	0.5FT 22
BERMUDA UK	32.4N	64.7W	1622	0.21M/	0.7FT 22
PRICKLEY BAY GD	12.0N	61.8W	1603	0.23M/	0.7FT 16
GANTERS BAY ST LUCI	14.0N	61.0W	1602	0.19M/	0.6FT 22
SANTA MARTA CO	11.2N	74.2W	1557	0.17M/	0.6FT 26
LE ROBERT MARTINIQU	14.7N	60.9W	1552	0.12M/	0.4FT 22
CALLIAQUA VC	13.1N	61.2W	1549	0.28M/	0.9FT 18
POINT A PITRE GP	16.2N	61.5W	1545	0.14M/	0.5FT 28
FORT DE FRANCE MQ	14.6N	61.1W	1545	0.17M/	0.6FT 24
PUERTO ESTRELLA CO	12.4N	71.3W	1537	0.31M/	1.0FT 14
SAINT MARTIN FR	18.1N	63.1W	1537	0.19M/	0.6FT 26
LE PRECHEUR MARTINI	14.8N	61.2W	1534	0.13M/	0.4FT 28
ROSEAU DM	15.3N	61.4W	1530	0.14M/	0.4FT 28
LAMESHURBAYSTJOHNV	18.3N	64.7W	1526	0.23M/	0.8FT 22
DESHAIES GUADELOUPE	16.3N	61.8W	1526	0.17M/	0.6FT 16
DESIRADE GUADELOUPE	16.3N	61.1W	1531	0.06M/	0.2FT 22
BULLEN BAY CURACAO	12.2N	69.0W	1525	0.61M/	2.0FT 28
BASSETERRE KN	17.3N	62.7W	1518	0.17M/	0.6FT 16
JACMEL HT	18.2N	72.5W	1509	0.18M/	0.6FT 18
CAP HAITIEN HT	19.8N	72.2W	1506	0.11M/	0.4FT 20
PORT SAN ANDRES DO	18.4N	69.6W	1503	0.45M/	1.5FT 24
BARAHONA DO	18.2N	71.1W	1459	0.35M/	1.1FT 26
ESPERANZA VIEQUES P	18.1N	65.5W	1453	0.30M/	1.0FT 18
LIMETREE VI	17.7N	64.8W	1454	0.21M/	0.7FT 26
ST CROIX VI	17.7N	64.7W	1448	0.22M/	0.7FT 26
PUERTO PLATA DO	19.8N	70.7W	1456	0.20M/	0.6FT 26
CAJA DE MUERTOS PR	17.9N	66.5W	1448	0.44M/	1.5FT 20
YABUCOA PR	18.1N	65.8W	1450	0.36M/	1.2FT 22
DART 42407	15.3N	68.2W	1446	0.06M/	0.2FT 22
MAGUEYES ISLAND PR	18.0N	67.0W	1439	0.44M/	1.5FT 16
SAN JUAN PR	18.5N	66.1W	1438	0.46M/	1.5FT 24
ARECIBO PR	18.5N	66.7W	1437	0.75M/	2.5FT 14
AGUADILLA PR	18.5N	67.2W	1432	1.93M/	6.3FT 20
PUNTA CANA DO	18.5N	68.4W	1421	0.97M/	3.2FT 24
MAYAGUEZ PR	18.2N	67.2W	1423	1.70M/	5.6FT 22
MONA ISLAND PR	18.1N	67.9W	1413	1.84M/	6.0FT 16

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 -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

PTWC Message #6

ZCZC
WECA41 PHEB 151800
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 6...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1800 UTC THU MAR 15 2018

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...TEST TSUNAMI THREAT MESSAGE TEST...

**** NOTICE **** NOTICE **** NOTICE **** NOTICE **** NOTICE *****

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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

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- * 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.

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TEST... RECOMMENDED ACTIONS ...TEST

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

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LOCATION	REGION	COORDINATES	ETA(UTC)
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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TEST... TSUNAMI OBSERVATIONS ...TEST

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GAUGE LOCATION	GAUGE COORDINATES		TIME OF MEASURE	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD
	LAT	LON	(UTC)		(MIN)
LIMON CR	10.0N	83.0W	1711	0.15M/ 0.5FT	28
SAPZURRO CO	8.7N	77.4W	1658	0.08M/ 0.3FT	18
EL PORVENIR PA	9.6N	78.9W	1646	0.16M/ 0.5FT	14
CHARLOTTEVILLE TT	11.3N	60.5W	1642	0.07M/ 0.2FT	18
COVENAS CO	9.4N	76.2W	1645	0.07M/ 0.2FT	26
PORT ROYAL JM	17.9N	76.8W	1626	0.16M/ 0.5FT	22
BERMUDA UK	32.4N	64.7W	1622	0.21M/ 0.7FT	22
PRICKLEY BAY GD	12.0N	61.8W	1603	0.23M/ 0.7FT	16
GANTERS BAY ST LUCI	14.0N	61.0W	1602	0.19M/ 0.6FT	22
SANTA MARTA CO	11.2N	74.2W	1557	0.17M/ 0.6FT	26
LE ROBERT MARTINIQU	14.7N	60.9W	1552	0.12M/ 0.4FT	22
CALLIAQUA VC	13.1N	61.2W	1549	0.28M/ 0.9FT	18
POINT A PITRE GP	16.2N	61.5W	1545	0.14M/ 0.5FT	28
FORT DE FRANCE MQ	14.6N	61.1W	1545	0.17M/ 0.6FT	24
PUERTO ESTRELLA CO	12.4N	71.3W	1537	0.31M/ 1.0FT	14
SAINT MARTIN FR	18.1N	63.1W	1537	0.19M/ 0.6FT	26
LE PRECHEUR MARTINI	14.8N	61.2W	1534	0.13M/ 0.4FT	28
ROSEAU DM	15.3N	61.4W	1530	0.14M/ 0.4FT	28
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1526	0.23M/ 0.8FT	22
DESHAIES GUADELOUPE	16.3N	61.8W	1526	0.17M/ 0.6FT	16
DESIRADE GUADELOUPE	16.3N	61.1W	1531	0.06M/ 0.2FT	22
BULLEN BAY CURACAO	12.2N	69.0W	1525	0.61M/ 2.0FT	28
BASSETERRE KN	17.3N	62.7W	1518	0.17M/ 0.6FT	16
JACMEL HT	18.2N	72.5W	1509	0.18M/ 0.6FT	18
CAP HAITIEN HT	19.8N	72.2W	1506	0.11M/ 0.4FT	20
PORT SAN ANDRES DO	18.4N	69.6W	1503	0.45M/ 1.5FT	24
BARAHONA DO	18.2N	71.1W	1459	0.35M/ 1.1FT	26
ESPERANZA VIEQUES P	18.1N	65.5W	1453	0.30M/ 1.0FT	18
LIMETREE VI	17.7N	64.8W	1454	0.21M/ 0.7FT	26
ST CROIX VI	17.7N	64.7W	1448	0.22M/ 0.7FT	26
PUERTO PLATA DO	19.8N	70.7W	1456	0.20M/ 0.6FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1448	0.44M/ 1.5FT	20
YABUCOA PR	18.1N	65.8W	1450	0.36M/ 1.2FT	22
DART 42407	15.3N	68.2W	1446	0.06M/ 0.2FT	22
MAGUEYES ISLAND PR	18.0N	67.0W	1439	0.44M/ 1.5FT	16
SAN JUAN PR	18.5N	66.1W	1438	0.46M/ 1.5FT	24
ARECIBO PR	18.5N	66.7W	1437	0.75M/ 2.5FT	14
AGUADILLA PR	18.5N	67.2W	1432	1.93M/ 6.3FT	20
PUNTA CANA DO	18.5N	68.4W	1421	0.97M/ 3.2FT	24
MAYAGUEZ PR	18.2N	67.2W	1423	1.70M/ 5.6FT	22
MONA ISLAND PR	18.1N	67.9W	1413	1.84M/ 6.0FT	16

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

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NNNN

PTWC Message #7

ZCZC
WECA41 PHEB 151900
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 7...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1900 UTC THU MAR 15 2018

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* DEPTH 10 KM / 6 MILES
* LOCATION MONA PASSAGE

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NNNN

PTWC Message #8

ZCZC
WECA41 PHEB 152000
TSUCAX

TEST...TSUNAMI MESSAGE NUMBER 8...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
2000 UTC THU MAR 15 2018

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COVENAS CO	9.4N	76.2W	1645	0.07M/ 0.2FT	26
PORT ROYAL JM	17.9N	76.8W	1626	0.16M/ 0.5FT	22
BERMUDA UK	32.4N	64.7W	1622	0.21M/ 0.7FT	22
PRICKLEY BAY GD	12.0N	61.8W	1603	0.23M/ 0.7FT	16
GANTERS BAY ST LUCI	14.0N	61.0W	1602	0.19M/ 0.6FT	22
SANTA MARTA CO	11.2N	74.2W	1557	0.17M/ 0.6FT	26

LE ROBERT MARTINIQU	14.7N	60.9W	1552	0.12M/	0.4FT	22
CALLIAQUA VC	13.1N	61.2W	1549	0.28M/	0.9FT	18
POINT A PITRE GP	16.2N	61.5W	1545	0.14M/	0.5FT	28
FORT DE FRANCE MQ	14.6N	61.1W	1545	0.17M/	0.6FT	24
PUERTO ESTRELLA CO	12.4N	71.3W	1537	0.31M/	1.0FT	14
SAINT MARTIN FR	18.1N	63.1W	1537	0.19M/	0.6FT	26
LE PRECHEUR MARTINI	14.8N	61.2W	1534	0.13M/	0.4FT	28
ROSEAU DM	15.3N	61.4W	1530	0.14M/	0.4FT	28
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1526	0.23M/	0.8FT	22
DESHAIES GUADELOUPE	16.3N	61.8W	1526	0.17M/	0.6FT	16
DESIRADE GUADELOUPE	16.3N	61.1W	1531	0.06M/	0.2FT	22
BULLEN BAY CURACAO	12.2N	69.0W	1525	0.61M/	2.0FT	28
BASSETERRE KN	17.3N	62.7W	1518	0.17M/	0.6FT	16
JACMEL HT	18.2N	72.5W	1509	0.18M/	0.6FT	18
CAP HAITIEN HT	19.8N	72.2W	1506	0.11M/	0.4FT	20
PORT SAN ANDRES DO	18.4N	69.6W	1503	0.45M/	1.5FT	24
BARAHONA DO	18.2N	71.1W	1459	0.35M/	1.1FT	26
ESPERANZA VIEQUES P	18.1N	65.5W	1453	0.30M/	1.0FT	18
LIMETREE VI	17.7N	64.8W	1454	0.21M/	0.7FT	26
ST CROIX VI	17.7N	64.7W	1448	0.22M/	0.7FT	26
PUERTO PLATA DO	19.8N	70.7W	1456	0.20M/	0.6FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1448	0.44M/	1.5FT	20
YABUCOA PR	18.1N	65.8W	1450	0.36M/	1.2FT	22
DART 42407	15.3N	68.2W	1446	0.06M/	0.2FT	22
MAGUEYES ISLAND PR	18.0N	67.0W	1439	0.44M/	1.5FT	16
SAN JUAN PR	18.5N	66.1W	1438	0.46M/	1.5FT	24
ARECIBO PR	18.5N	66.7W	1437	0.75M/	2.5FT	14
AGUADILLA PR	18.5N	67.2W	1432	1.93M/	6.3FT	20
PUNTA CANA DO	18.5N	68.4W	1421	0.97M/	3.2FT	24
MAYAGUEZ PR	18.2N	67.2W	1423	1.70M/	5.6FT	22
MONA ISLAND PR	18.1N	67.9W	1413	1.84M/	6.0FT	16

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 -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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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

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...
...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 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... 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	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LON			
WRIGHT BEACH NC	34.2N	77.8W	1842	0.11M/ 0.4FT	22
LIMON CR	10.0N	83.0W	1711	0.15M/ 0.5FT	28
SAPZURRO CO	8.7N	77.4W	1658	0.08M/ 0.3FT	18
EL PORVENIR PA	9.6N	78.9W	1646	0.16M/ 0.5FT	14
CHARLOTTEVILLE TT	11.3N	60.5W	1642	0.07M/ 0.2FT	18
COVENAS CO	9.4N	76.2W	1645	0.07M/ 0.2FT	26
PORT ROYAL JM	17.9N	76.8W	1626	0.16M/ 0.5FT	22
BERMUDA UK	32.4N	64.7W	1622	0.21M/ 0.7FT	22
PRICKLEY BAY GD	12.0N	61.8W	1603	0.23M/ 0.7FT	16
GANTERS BAY ST LUCI	14.0N	61.0W	1602	0.19M/ 0.6FT	22
SANTA MARTA CO	11.2N	74.2W	1557	0.17M/ 0.6FT	26
LE ROBERT MARTINIQU	14.7N	60.9W	1552	0.12M/ 0.4FT	22
CALLIAQUA VC	13.1N	61.2W	1549	0.28M/ 0.9FT	18
POINT A PITRE GP	16.2N	61.5W	1545	0.14M/ 0.5FT	28
FORT DE FRANCE MQ	14.6N	61.1W	1545	0.17M/ 0.6FT	24
PUERTO ESTRELLA CO	12.4N	71.3W	1537	0.31M/ 1.0FT	14
SAINT MARTIN FR	18.1N	63.1W	1537	0.19M/ 0.6FT	26
LE PRECHEUR MARTINI	14.8N	61.2W	1534	0.13M/ 0.4FT	28
ROSEAU DM	15.3N	61.4W	1530	0.14M/ 0.4FT	28
LAMESHURBAYSTJOHNVI	18.3N	64.7W	1526	0.23M/ 0.8FT	22
DESHAIES GUADELOUPE	16.3N	61.8W	1526	0.17M/ 0.6FT	16
DESIRADE GUADELOUPE	16.3N	61.1W	1531	0.06M/ 0.2FT	22
BULLEN BAY CURACAO	12.2N	69.0W	1525	0.61M/ 2.0FT	28
BASSETERRE KN	17.3N	62.7W	1518	0.17M/ 0.6FT	16
JACMEL HT	18.2N	72.5W	1509	0.18M/ 0.6FT	18
CAP HAITIEN HT	19.8N	72.2W	1506	0.11M/ 0.4FT	20
PORT SAN ANDRES DO	18.4N	69.6W	1503	0.45M/ 1.5FT	24
BARAHONA DO	18.2N	71.1W	1459	0.35M/ 1.1FT	26
ESPERANZA VIEQUES P	18.1N	65.5W	1453	0.30M/ 1.0FT	18
LIMETREE VI	17.7N	64.8W	1454	0.21M/ 0.7FT	26
ST CROIX VI	17.7N	64.7W	1448	0.22M/ 0.7FT	26
PUERTO PLATA DO	19.8N	70.7W	1456	0.20M/ 0.6FT	26
CAJA DE MUERTOS PR	17.9N	66.5W	1448	0.44M/ 1.5FT	20
YABUCOA PR	18.1N	65.8W	1450	0.36M/ 1.2FT	22
DART 42407	15.3N	68.2W	1446	0.06M/ 0.2FT	22
MAGUEYES ISLAND PR	18.0N	67.0W	1439	0.44M/ 1.5FT	16
SAN JUAN PR	18.5N	66.1W	1438	0.46M/ 1.5FT	24
ARECIBO PR	18.5N	66.7W	1437	0.75M/ 2.5FT	14
AGUADILLA PR	18.5N	67.2W	1432	1.93M/ 6.3FT	20

PUNTA CANA DO	18.5N	68.4W	1421	0.97M/	3.2FT	24
MAYAGUEZ PR	18.2N	67.2W	1423	1.70M/	5.6FT	22
MONA ISLAND PR	18.1N	67.9W	1413	1.84M/	6.0FT	16

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

-
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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.

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

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Annex G. Sample Press Release for Local Media

TEMPLATE FOR NEWS RELEASE

USE AGENCY MASTHEAD

Contact: (insert name)
(insert phone number)
(insert email address)

FOR IMMEDIATE RELEASE
(insert date)

CARIBBEAN TSUNAMI EXERCISE TO BE CONDUCTED MARCH 15, 2018

(insert community/county/state name) will join other localities in the Caribbean as a participant in a tsunami response exercise on March 15, 2018. The purpose of this exercise is to evaluate local tsunami response plans, increase tsunami preparedness, and improve coordination throughout the region.

(insert a promotional comment from a local official, such as "The 2010 Haiti and 2010, 2014, 2015 Chilean earthquakes and tsunamis have reminded the world again of the urgent need to be more prepared for such events," said (insert name of appropriate official). "This important exercise will test the current procedures of the Tsunami Warning System and help identify operational strengths and weaknesses in each community." (Please modify for uniqueness.))

The exercise, titled CARIBE WAVE 18, will simulate a widespread Tsunami Warning and Watch situation throughout the Caribbean, which requires implementation of local tsunami response, plans. The exercise will *(insert "include" or "not include")* public notification.

The exercise will simulate a major earthquake and tsunami generated *(insert description of chosen scenario - source and appropriate local time)* on March 15, 2018. A handbook has been prepared which describes the scenario and contains tsunami messages from the Pacific Tsunami Warning Center (PTWC). The PTWC is the Regional Tsunami Service Provider for the other countries in the Caribbean Sea and Adjacent Regions.

Insert paragraph tailored for specific community. Could identify participating agencies and specific plans. Could describe current early warning program, past tsunami exercises (if any), ongoing mitigation and public education programs, etc. Could describe tsunami threat, history of tsunami hazards, if any.

If any real tsunami threat occurs during the time period of the exercise, the exercise will be terminated.

The exercise is sponsored by the UNESCO/IOC Intergovernmental Coordination Group for Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS), the Caribbean Emergency Management Agency (CDEMA), the Centro de Coordinación para la Prevención de los Desastres Naturales en América Central (CEPREDENAC), and the U.S. National Oceanic and Atmospheric Administration (NOAA).

For more information on the U.S. tsunami warning system, see www.tsunami.gov.

For more information on the ICG/CARIBE-EWS, see http://ioc-tsunami.org/index.php?option=com_oe&task=viewEventRecord&eventID=1912.

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On the Web:

ICG/CARIBE EWS

<http://www.ioc-tsunami.org>

Pacific Tsunami Warning Center

<http://tsunami.gov>

NOAA Tsunami Program

<http://www.tsunami.gov>

Caribbean Tsunami Warning Program

<http://caribewave.info>

Insert state/local emergency response URLs

IOC Technical Series

No.	Title	Languages
1	Manual on International Oceanographic Data Exchange. 1965	(out of stock)
2	Intergovernmental Oceanographic Commission (Five years of work). 1966	(out of stock)
3	Radio Communication Requirements of Oceanography. 1967	(out of stock)
4	Manual on International Oceanographic Data Exchange - Second revised edition. 1967	(out of stock)
5	Legal Problems Associated with Ocean Data Acquisition Systems (ODAS). 1969	(out of stock)
6	Perspectives in Oceanography, 1968	(out of stock)
7	Comprehensive Outline of the Scope of the Long-term and Expanded Programme of Oceanic Exploration and Research. 1970	(out of stock)
8	IGOSS (Integrated Global Ocean Station System) - General Plan Implementation Programme for Phase I. 1971	(out of stock)
9	Manual on International Oceanographic Data Exchange - Third Revised Edition. 1973	(out of stock)
10	Bruun Memorial Lectures, 1971	E, F, S, R
11	Bruun Memorial Lectures, 1973	(out of stock)
12	Oceanographic Products and Methods of Analysis and Prediction. 1977	E only
13	International Decade of Ocean Exploration (IDOE), 1971-1980. 1974	(out of stock)
14	A Comprehensive Plan for the Global Investigation of Pollution in the Marine Environment and Baseline Study Guidelines. 1976	E, F, S, R
15	Bruun Memorial Lectures, 1975 - Co-operative Study of the Kuroshio and Adjacent Regions. 1976	(out of stock)
16	Integrated Ocean Global Station System (IGOSS) General Plan and Implementation Programme 1977-1982. 1977	E, F, S, R
17	Oceanographic Components of the Global Atmospheric Research Programme (GARP) . 1977	(out of stock)
18	Global Ocean Pollution: An Overview. 1977	(out of stock)
19	Bruun Memorial Lectures - The Importance and Application of Satellite and Remotely Sensed Data to Oceanography. 1977	(out of stock)
20	A Focus for Ocean Research: The Intergovernmental Oceanographic Commission - History, Functions, Achievements. 1979	(out of stock)
21	Bruun Memorial Lectures, 1979: Marine Environment and Ocean Resources. 1986	E, F, S, R
22	Scientific Report of the Intercalibration Exercise of the IOC-WMO-UNEP Pilot Project on Monitoring Background Levels of Selected Pollutants in Open Ocean Waters. 1982	(out of stock)
23	Operational Sea-Level Stations. 1983	E, F, S, R
24	Time-Series of Ocean Measurements. Vol.1. 1983	E, F, S, R
25	A Framework for the Implementation of the Comprehensive Plan for the Global Investigation of Pollution in the Marine Environment. 1984	(out of stock)
26	The Determination of Polychlorinated Biphenyls in Open-ocean Waters. 1984	E only
27	Ocean Observing System Development Programme. 1984	E, F, S, R
28	Bruun Memorial Lectures, 1982: Ocean Science for the Year 2000. 1984	E, F, S, R
29	Catalogue of Tide Gauges in the Pacific. 1985	E only
30	Time-Series of Ocean Measurements. Vol. 2. 1984	E only
31	Time-Series of Ocean Measurements. Vol. 3. 1986	E only
32	Summary of Radiometric Ages from the Pacific. 1987	E only
33	Time-Series of Ocean Measurements. Vol. 4. 1988	E only
34	Bruun Memorial Lectures, 1987: Recent Advances in Selected Areas of Ocean Sciences in the Regions of the Caribbean, Indian Ocean and the Western Pacific. 1988	Composite E, F, S
35	Global Sea-Level Observing System (GLOSS) Implementation Plan. 1990	E only

(continued)

36	Bruun Memorial Lectures 1989: Impact of New Technology on Marine Scientific Research. 1991	Composite E, F, S
37	Tsunami Glossary - A Glossary of Terms and Acronyms Used in the Tsunami Literature. 1991	E only
38	The Oceans and Climate: A Guide to Present Needs. 1991	E only
39	Bruun Memorial Lectures, 1991: Modelling and Prediction in Marine Science. 1992	E only
40	Oceanic Interdecadal Climate Variability. 1992	E only
41	Marine Debris: Solid Waste Management Action for the Wider Caribbean. 1994	E only
42	Calculation of New Depth Equations for Expendable Bathythermographs Using a Temperature-Error-Free Method (Application to Sippican/TSK T-7, T-6 and T-4 XBTS. 1994	E only
43	IGOSS Plan and Implementation Programme 1996-2003. 1996	E, F, S, R
44	Design and Implementation of some Harmful Algal Monitoring Systems. 1996	E only
45	Use of Standards and Reference Materials in the Measurement of Chlorinated Hydrocarbon Residues. 1996	E only
46	Equatorial Segment of the Mid-Atlantic Ridge. 1996	E only
47	Peace in the Oceans: Ocean Governance and the Agenda for Peace; the Proceedings of <i>Pacem in Maribus</i> XXIII, Costa Rica, 1995. 1997	E only
48	Neotectonics and fluid flow through seafloor sediments in the Eastern Mediterranean and Black Seas - Parts I and II. 1997	E only
49	Global Temperature Salinity Profile Programme: Overview and Future. 1998	E only
50	Global Sea-Level Observing System (GLOSS) Implementation Plan-1997. 1997	E only
51	L'état actuel de l'exploitation des pêcheries maritimes au Cameroun et leur gestion intégrée dans la sous-région du Golfe de Guinée (<i>cancelled</i>)	F only
52	Cold water carbonate mounds and sediment transport on the Northeast Atlantic Margin. 1998	E only
53	The Baltic Floating University: Training Through Research in the Baltic, Barents and White Seas - 1997. 1998	E only
54	Geological Processes on the Northeast Atlantic Margin (8 th training-through-research cruise, June-August 1998). 1999	E only
55	Bruun Memorial Lectures, 1999: Ocean Predictability. 2000	E only
56	Multidisciplinary Study of Geological Processes on the North East Atlantic and Western Mediterranean Margins (9 th training-through-research cruise, June-July 1999). 2000	E only
57	Ad hoc Benthic Indicator Group - Results of Initial Planning Meeting, Paris, France, 6-9 December 1999. 2000	E only
58	Bruun Memorial Lectures, 2001: Operational Oceanography – a perspective from the private sector. 2001	E only
59	Monitoring and Management Strategies for Harmful Algal Blooms in Coastal Waters. 2001	E only
60	Interdisciplinary Approaches to Geoscience on the North East Atlantic Margin and Mid-Atlantic Ridge (10 th training-through-research cruise, July-August 2000). 2001	E only
61	Forecasting Ocean Science? Pros and Cons, Potsdam Lecture, 1999. 2002	E only
62	Geological Processes in the Mediterranean and Black Seas and North East Atlantic (11 th training-through-research cruise, July- September 2001). 2002	E only
63	Improved Global Bathymetry – Final Report of SCOR Working Group 107. 2002	E only
64	R. Revelle Memorial Lecture, 2006: Global Sea Levels, Past, Present and Future. 2007	E only
65	Bruun Memorial Lectures, 2003: Gas Hydrates – a potential source of energy from the oceans. 2003	E only
66	Bruun Memorial Lectures, 2003: Energy from the Sea: the potential and realities of Ocean Thermal Energy Conversion (OTEC). 2003	E only

67	Interdisciplinary Geoscience Research on the North East Atlantic Margin, Mediterranean Sea and Mid-Atlantic Ridge (12 th training-through-research cruise, June-August 2002). 2003	E only
68	Interdisciplinary Studies of North Atlantic and Labrador Sea Margin Architecture and Sedimentary Processes (13 th training-through-research cruise, July-September 2003). 2004	E only
69	Biodiversity and Distribution of the Megafauna / Biodiversité et distribution de la mégafaune. 2006 Vol.1 The polymetallic nodule ecosystem of the Eastern Equatorial Pacific Ocean / Ecosystème de nodules polymétalliques de l'océan Pacifique Est équatorial Vol.2 Annotated photographic Atlas of the echinoderms of the Clarion-Clipperton fracture zone / Atlas photographique annoté des échinodermes de la zone de fractures de Clarion et de Clipperton Vol.3 Options for the management and conservation of the biodiversity — The nodule ecosystem in the Clarion Clipperton fracture zone: scientific, legal and institutional aspects	E F
70	Interdisciplinary geoscience studies of the Gulf of Cadiz and Western Mediterranean Basin (14 th training-through-research cruise, July-September 2004). 2006	E only
71	Indian Ocean Tsunami Warning and Mitigation System, IOTWS. Implementation Plan, 7–9 April 2009 (2 nd Revision). 2009	E only
72	Deep-water Cold Seeps, Sedimentary Environments and Ecosystems of the Black and Tyrrhenian Seas and the Gulf of Cadiz (15 th training-through-research cruise, June–August 2005). 2007	E only
73	Implementation Plan for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas (NEAMTWS), 2007–2011. 2007 (<i>electronic only</i>)	E only
74	Bruun Memorial Lectures, 2005: The Ecology and Oceanography of Harmful Algal Blooms – Multidisciplinary approaches to research and management. 2007	E only
75	National Ocean Policy. The Basic Texts from: Australia, Brazil, Canada, China, Colombia, Japan, Norway, Portugal, Russian Federation, United States of America. (Also Law of Sea Dossier 1). 2008	E only
76	Deep-water Depositional Systems and Cold Seeps of the Western Mediterranean, Gulf of Cadiz and Norwegian Continental margins (16 th training-through-research cruise, May–July 2006). 2008	E only
77	Indian Ocean Tsunami Warning and Mitigation System (IOTWS) – 12 September 2007 Indian Ocean Tsunami Event. Post-Event Assessment of IOTWS Performance. 2008	E only
78	Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (CARIBE EWS) – Implementation Plan 2013–2017 (Version 2.0). 2013	E only
79	Filling Gaps in Large Marine Ecosystem Nitrogen Loadings Forecast for 64 LMEs – GEF/LME global project Promoting Ecosystem-based Approaches to Fisheries Conservation and Large Marine Ecosystems. 2008	E only
80	Models of the World's Large Marine Ecosystems. GEF/LME Global Project Promoting Ecosystem-based Approaches to Fisheries Conservation and Large Marine Ecosystems. 2008	E only
81	Indian Ocean Tsunami Warning and Mitigation System (IOTWS) – Implementation Plan for Regional Tsunami Watch Providers (RTWP). 2008	E only
82	Exercise Pacific Wave 08 – A Pacific-wide Tsunami Warning and Communication Exercise, 28–30 October 2008. 2008	E only
83.	<i>Cancelled</i>	
84.	Global Open Oceans and Deep Seabed (GOODS) Bio-geographic Classification. 2009	E only
85.	Tsunami Glossary	E, F, S
86	Pacific Tsunami Warning System (PTWS) Implementation Plan	<i>Electronic publication</i>

(continued)

87.	Operational Users Guide for the Pacific Tsunami Warning and Mitigation System (PTWS) – Second Edition. 2011	E only
88.	Exercise Indian Ocean Wave 2009 (IOWave09) – An Indian Ocean-wide Tsunami Warning and Communication Exercise – 14 October 2009. 2009	E only
89.	Ship-based Repeat Hydrography: A Strategy for a Sustained Global Programme. 2009	E only
90.	12 January 2010 Haiti Earthquake and Tsunami Event Post-Event Assessment of CARIBE EWS Performance. 2010	E only
91.	Compendium of Definitions and Terminology on Hazards, Disasters, Vulnerability and Risks in a coastal context	<i>Under preparation</i>
92.	27 February 2010 Chile Earthquake and Tsunami Event – Post-Event Assessment of PTWS Performance (Pacific Tsunami Warning System). 2010	E only
93.	Exercise CARIBE WAVE 11 / LANTEX 11—A Caribbean Tsunami Warning Exercise, 23 March 2011	
	Vol. 1 Participant Handbook / Exercice CARIBE WAVE 11 —Exercice d’alerte au tsunami dans les Caraïbes, 23 mars 2011. Manuel du participant / Ejercicio Caribe Wave 11. Un ejercicio de alerta de tsunami en el Caribe, 23 de marzo de 2011. Manual del participante. 2010	E/F/S
	Vol. 2 Report. 2011	E only
	Vol. 3 Supplement: Media Reports. 2011	E/F/S
94.	Cold seeps, coral mounds and deep-water depositional systems of the Alboran Sea, Gulf of Cadiz and Norwegian continental margin (17th training-through-research cruise, June–July 2008)	E only
95.	International Post-Tsunami Survey for the 25 October 2010 Mentawai, Indonesia Tsunami	E only
96.	Pacific Tsunami Warning System (PTWS) 11 March 2011 Off Pacific coast of Tohoku, Japan, Earthquake and Tsunami Event. Post-Event Assessment of PTWS Performance	E only
97.	Exercise PACIFIC WAVE 11: A Pacific-wide Tsunami Warning and Communication Exercise, 9–10 November 2011	
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