

# Exercise LANTEX16

## Participant Handbook

A Western Atlantic Tsunami Warning Exercise  
March 16, 2016

US National Tsunami Hazard Mitigation Program  
Warning Coordination Subcommittee



NOTE: The contents of this handbook are patterned after previous LANTEX and CARIBE WAVE Exercises (e.g., Commission Océanographique Intergouvernementale. *Exercice Caribe Wave 11. A Caribbean Tsunami Warning Exercise, 23 March 2011*, IOC Technical Series No. 93. Paris, UNESCO, 2011 (English/ French/ Spanish), Intergovernmental Oceanographic Commission *Exercice Caribe Wave/Lantex 13, A Caribbean Tsunami Warning Exercise, 20 March 2013, Volume 1: Participant Handbook*, IOC Technical Series No. 101, Paris, UNESCO, 2012 and Intergovernmental Oceanographic commission. 2013. *Exercice Caribe Wave/Lantex 14. A Caribbean and Northwestern Atlantic Tsunami Warning Exercise, 26 Marc 2014. Volume 1: Participant Handbook. IOC Technical Series, 109 vol. 1. Paris: UNESCO. (English and Spanish))*. These CARIBE WAVE handbooks followed the Pacific Wave 08 manual published by the Intergovernmental Oceanographic Commission (*Exercice Pacific Wave 08, A Pacific-wide Tsunami Warning and Communication Exercise, 28-30 October 2008*, IOC Technical Series No. 82, Paris, UNESCO, 2008). The UNESCO How to Plan, Conduct and Evaluate Tsunami Wave Exercises. IOC Manuals and Guides No. 58 rev., Paris: UNESCO, 2013 (English, Spanish) is another important reference.

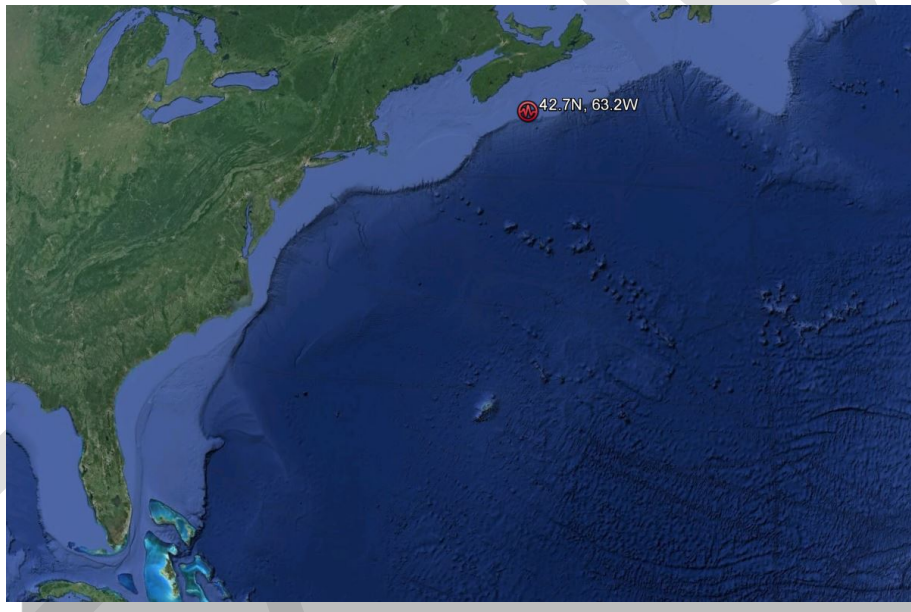
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## 1. Background

NOAA and the U.S. National Tsunami Hazard Mitigation Program (NTHMP) are providing the framework for the LANTEX16 tsunami exercise, which is being conducted to assist tsunami preparedness efforts throughout the northern Atlantic region. Recent earthquakes and their associated tsunamis, such as those in Samoa-2009, Haiti-2010, Chile-2010, Japan-2011, and Chile-2015, attest to the importance of proper planning for tsunami response. Similar recent exercises in the Pacific and Caribbean Basins have proven effective in strengthening preparedness levels of emergency management organizations.

This exercise will provide simulated tsunami alert messages from the NOAA/NWS National Tsunami Warning Center (NTWC) for the eastern coasts of Canada and the United States. The alert is based on a magnitude 6.8 earthquake located approximately 130 miles south of Halifax, Nova Scotia and 400 miles east of Boston, Massachusetts at 42.7°N, 63.2°W (Figure 1) which triggers a sub-sea landslide. The sub-sea landslide in turn generates a tsunami.



**Figure 1. LANTEX16 source location.**

Tsunami warning services for the United States and Canada are provided by the NTWC in Palmer, Alaska, while the Pacific Tsunami Warning Center (PTWC) in Pearl Harbor, Hawaii provides services for locations within the Caribbean region. These Centers issue messages to the region approximately two to six minutes after an earthquake's occurrence. The NTWC products include warnings, advisories, watches, and information statements. Primary recipients of Tsunami Warning Center messages include national tsunami warning focal points, Weather Forecast Offices (WFO), state/territory emergency operation centers, national Coast Guards, and military contacts. These agencies disseminate the messages to people potentially impacted by a tsunami.

A short description of landslide generated tsunamis is given below and is based on information at the following web sites:

<http://projects.noc.ac.uk/landslide-tsunami/project-information>,

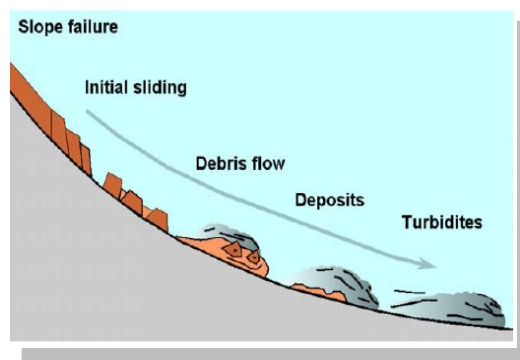
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.16.9503&rep=rep1&type=pdf>, and

[http://www.ngdc.noaa.gov/hazard/tsu\\_db.shtml](http://www.ngdc.noaa.gov/hazard/tsu_db.shtml).

Submarine landslides are known to generate tsunamis by displacing a large amount of sea water in a short time frame. The 1929 Grand Banks earthquake and tsunami is an excellent example. This magnitude 7.3 earthquake located south of Newfoundland triggered a massive sub-sea landslide estimated at 100 cubic kilometers in size which generated a tsunami reaching 13m runup (maximum vertical elevation reached onshore) along the Newfoundland coast. Twenty-eight people were killed by this tsunamis.

Landslide tsunamis possibly constitute the biggest tsunami hazard to the U.S. and Canadian Atlantic coasts. In addition to the 1929 tsunami mentioned previously, other landslides have been identified off the U.S. east coast. Only a small number have been dated and they are generally older than 10,000 years. Analysis of landslide statistics along the fluvial and glacial portions of the margin indicate that most of the landslides are translational, were probably initiated by seismic acceleration, and failed as aggregate slope failures.

Submarine landslides can be much larger (two orders of magnitude) than those on land. For example, the Storegga Slide off Norway affected an area larger than Scotland, and the amount of sediment it mobilized is enough to cover Scotland to a depth of 80m. The largest of all submarine landslides occur on nearly flat ( $<2^\circ$ ) continental slopes. Since the volume of mobilized material in a landslide is a critical parameter for tsunami generation, these enormous landslides often generate tsunamis.



**Figure 2. Submarine landslide schematic diagram (from <http://projects.noc.ac.uk/landslide-tsunami/project-information>).**

Figure 2 shows the evolution of a submarine landslide on its way from the continental slope to the abyssal plain. On its downslope journey, the slide mass itself remains intact, breaks up into distinct blocks or deforms internally. A cloud of suspended particles forms and divides into a debris flow at the bottom and a turbidity current on top. The debris flow travels faster on steeper portions of the slope but

stops eventually due to frictional forces, while the turbidity current can travel very long distances.

## **2. Exercise Concept**

### **2.1 Purpose**

The purpose of the exercise is to improve Tsunami Warning System effectiveness along the U.S. and Canadian Atlantic coasts. It 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 tsunamis, which are infrequent but high impact events. Every impacted emergency management organization (EMO) is encouraged to participate.

### **2.2 Objectives**

Each organization can develop their objectives for the exercise depending on their level of involvement in the scenario. The following are the exercise's overarching objectives.

- Ensure message transmission from the NTWC to primary customers.
- Test tsunami response plans for EMOs that have developed plans, and provide a catalyst for EMOs that have not developed plans.
- EMOs review, discuss, and evaluate the various communication alternatives for receiving and disseminating tsunami messages.
- EMOs review, discuss, and evaluate potential response actions and challenges.

### **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 disrupting or alarming the general public. Individual localities, however, may at their discretion elect to extend the 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 (SOPs). Exercise participants may use their own past multi-hazard drills (e.g. flood, hurricane, tsunami, earthquake, etc.) as a framework to conduct LANTEX16.

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 Appendix A 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 activate 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 wks	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

### 3. Exercise Outline

#### 3.1 General

Tsunami Warning and Advisory messages for this exercise are issued by the NTWC based on a hypothetical earthquake with the following hypocenter parameters which in turn generates a tsunamigenic sub-sea landslide:

- Origin Time            13:00:00 UTC March 16, 2016
- Latitude                42.7°N
- Longitude              63.2°W
- Magnitude            6.8 – Mw
- Depth                  5km

Expected impact for this event is determined from tsunami forecast models. The models indicated a significant tsunami along the Newfoundland coast, but with less impact elsewhere. Appendix B provides landslide source parameters and associated model results.

Initially, NTWC issues a bulletin which places the Newfoundland coast in a Warning. The alert level is geographically expanded later to an Advisory for several other coasts. Definitions of the products that will be issued by the TWC during this exercise are provided below.

**Tsunami Warning** - A tsunami warning is issued when a tsunami with the potential to generate widespread inundation is imminent, expected, or occurring. Warnings alert the public that dangerous coastal flooding accompanied by powerful currents is possible and may continue for several hours after initial arrival. Warnings alert emergency management officials to take action for the entire tsunami hazard zone. Appropriate actions to be taken by local officials may include the evacuation of low-lying coastal areas, and the repositioning of ships to deep waters when there is time to safely do so. Warnings may be updated, adjusted geographically, downgraded, or



canceled. To provide the earliest possible alert, initial warnings are normally based only on seismic information.

**Tsunami Advisory** - A tsunami advisory is issued when a tsunami with the potential to generate strong currents or waves dangerous to those in or very near the water is imminent, expected, or occurring. The threat may continue for several hours after initial arrival, but significant inundation is not expected for areas under an advisory. Appropriate actions to be taken by local officials may include closing beaches, evacuating harbors and marinas, and the repositioning of ships to deep waters when there is time to safely do so. Advisories are normally updated to continue the advisory, expand/contract affected areas, upgrade to a warning, or cancel the advisory.

NTWC will not issue live messages over broadcast dissemination channels other than to issue an initial dummy message to start the exercise at 1302 UTC on March 16, 2016. The content of the dummy message is given in Appendix C. The dummy message will indicate that exercise participants should refer to the first message provided in this handbook. From then on, participants should follow the schedule in Table 1 to look at new messages. Table 1 is the timeline for when messages would be issued by the NTWC if this were a real event, and can be used by EMOs to drive the exercise timing. The warning messages (as shown in Appendix D) cover a 15-hour period, though in an actual event they would likely continue longer. World Meteorological Organization (WMO) and Advanced Weather Interactive Processing System (AWIPS) headers used in the dummy message are listed in Table 2.

NTWC issues three official products each time a message is issued. The ones provided in Appendix D are known as the public message and do not contain codes or text intended for automated systems. English and Spanish versions of each message are provided for this exercise. The other message not shown in Appendix D is the segmented message. This message includes encoded NWS zones, Valid Time Event Codes (VTEC), and their level of threat. The segmentation is used for automated processing systems which parse NWS products. NTWC also issues additional graphical and web-based products to its web site.

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 Appendix D, will facilitate this approach.

EMOs are welcome to 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.

## 3.2 Master Schedule (Exercise Script)

**Table 1: Scenario Timeline**

Tsunami generated by landslide triggered by a magnitude 6.8 earthquake with epicenter at 42.7°N, 63.2°W occurring on March 17, 2016 at 1300 UTC. The initial warning is being disseminated at 1302 UTC.

Date (UTC)	Time (UTC)	NTWC Message		
		#	Type	Dummy
03/16/2015	1300		--- Earthquake Occurs ---	
03/16/2015	1302	01	Warn	Yes
03/16/2015	1331	02	Warn	No
03/16/2015	1401	03	Warn	No
03/16/2015	1436	04	Warn	No
03/16/2015	1505	05	Warn	No
03/16/2015	1537	06	Adv/Warn	No
03/16/2015	1611	07	Adv/Warn	No
03/16/2015	1713	08	Adv/Warn	No
03/16/2015	1811	09	Adv/Warn	No
03/16/2015	1907	10	Adv/Warn	No
03/16/2015	2006	11	Adv/Warn	No
03/16/2015	2101	12	Adv/Warn	No
03/16/2015	2202	13	Adv/Warn	No
03/16/2015	2259	14	Adv/Warn	No
03/17/2015	0000	15	Adv	No
03/17/2015	0101	16	Adv	No
03/17/2015	0201	17	Adv	No
03/17/2015	0301	18	Adv	No
03/17/2015	0401	19	Cancel	No

**TWC Message Types:**

Warn      Tsunami Warning  
Adv      Tsunami Advisory  
Can      Cancellation

**Dummy:**

Yes      Dummy Issued  
No      Dummy Not Issued

The initial dummy message will be disseminated over all standard TWC broadcast channels as listed in Table 2. This is being issued to test communications with EMOs, and to start the exercise. Please note that the NTWC Dummy message is being issued with the WMO/AWIPS IDs WEXX30 PAAQ /TSUATE, WEXX20 PAAQ /TSUAT1, and WEXX40 PAAQ /TSUSPN,.

**Table 2: Product Types**

Product Types Issued for Dummy Message with Transmission Methods

Center	WMO ID	AWIPS ID	NWWS	GTS	EMWIN	AISR	Fax	Email
NTWC	WEXX30 PAAQ	TSUATE	Yes	Yes	Yes	Yes	Yes	Yes

NTWC	WEXX20 PAAQ	TSUAT1	Yes	Yes	Yes	Yes	No	No
NTWC	WEXX40 PAAQ	TSUSPN	Yes	Yes	Yes	Yes	Yes	Yes

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

At 1400 UTC on March 17, 2016 a separate tsunami exercise (CARIB WAVE16) will take place. The scenario's tsunami will be generated from earthquakes off the Venezuela shore and a second off the Hispaniola shore. This exercise, organized under the framework of the ICG CARIBE EWS. More information is available at [www.caribewave.info](http://www.caribewave.info).

### 3.3 Actions in Case of a Real Event

In the case of a real event occurring during the exercise, the NTWC will issue their normal messages for the event. Such messages will be given full priority and a decision will be made by the NTWC whether to issue the dummy message. Smaller earthquakes that only trigger a Tsunami Information Statement will not disrupt the exercise. All documentation and correspondence relating to this exercise is to be clearly identified as "LANTEX16" and "Exercise."

### 3.4 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.

### 3.5 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:

<b>Person</b>	<b>Telephone #</b>	<b>Email</b>
Paul Whitmore, NTWC Director	907-745-4212	<a href="mailto:paul.whitmore@noaa.gov">paul.whitmore@noaa.gov</a>
James Waddell, NTWC Rep.	907-745-4212	<a href="mailto:james.waddell@noaa.gov">james.waddell@noaa.gov</a>
Christa von Hillebrandt, NWS CTWP Manager	787-833-8433	<a href="mailto:christa.vonh@noaa.gov">christa.vonh@noaa.gov</a>
Walt Zaleski, NWS Southern Region	817-978-1100x106	<a href="mailto:walt.zaleski@noaa.gov">walt.zaleski@noaa.gov</a>
Charles McCreery, PTWC Director	808-689-8207	<a href="mailto:Charles.mccreery@noaa.gov">Charles.mccreery@noaa.gov</a>
Chayne Sparagowski, NTHMP Gulf Rep.		<a href="mailto:Chayne.cbco@gmail.com">Chayne.cbco@gmail.com</a>
Harvey Thurm, NWS Eastern Region	631-244-0124	<a href="mailto:harvey.thurm@noaa.gov">harvey.thurm@noaa.gov</a>
Ed Fratto, NTHMP East Coast Rep.		<a href="mailto:efratto@nesec.org">efratto@nesec.org</a>
John Parker, Environment Canada		<a href="mailto:john.k.parker@ec.gc.ca">john.k.parker@ec.gc.ca</a>

### **3.6 Media Arrangements**

One advantage in conducting exercises is that it provides a venue to promote awareness of the exercise topic. Many residents along the Atlantic coast may not realize that a tsunami warning system exists for their region, let alone the proper response. Communities may wish to invite their local media to the exercise to promote local awareness of the tsunami hazard. For all levels of exercising but especially for those countries executing full-scale and functional exercises, the media can also provide support in building awareness leading up to the Exercise. The media should be provided with available informational brochures prepared by the local, regional and international agencies. Appendix E contains a sample press release which can be adapted as necessary.

## **4 Post-Exercise Evaluation**

All participating agencies are requested to provide brief feedback on the exercise. This feedback will assist NTHMP and NOAA in the development of subsequent exercises. Comments on the exercise, proposed improvements to the messages, or any other items related to the tsunami warning system can be addressed to the persons listed in section 3.5.

## Appendix A. Example Table Top Exercise

### Tabletop Exercise Development Steps

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 that 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:

<b>Exercise Activities</b>
<b>Agencies Involved</b>
<b>Hazard Type</b>
<b>Geographic Impact Area</b>

*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.

## Appendix B. Scenario Description

The objective of this exercise is to simulate an event which impacts a large portion of the north-Atlantic region and reflects a possible scenario.

The earthquake hypocenter parameters are:

- Origin Time            13:00:00 UTC March 16, 2016
- Latitude                42.7°N
- Longitude              63.2°W
- Magnitude            6.8 – Mw
- Depth                  5km

Landslide source parameters: 100 cubic km slide source which is moving southeast at about 20 meters per second.

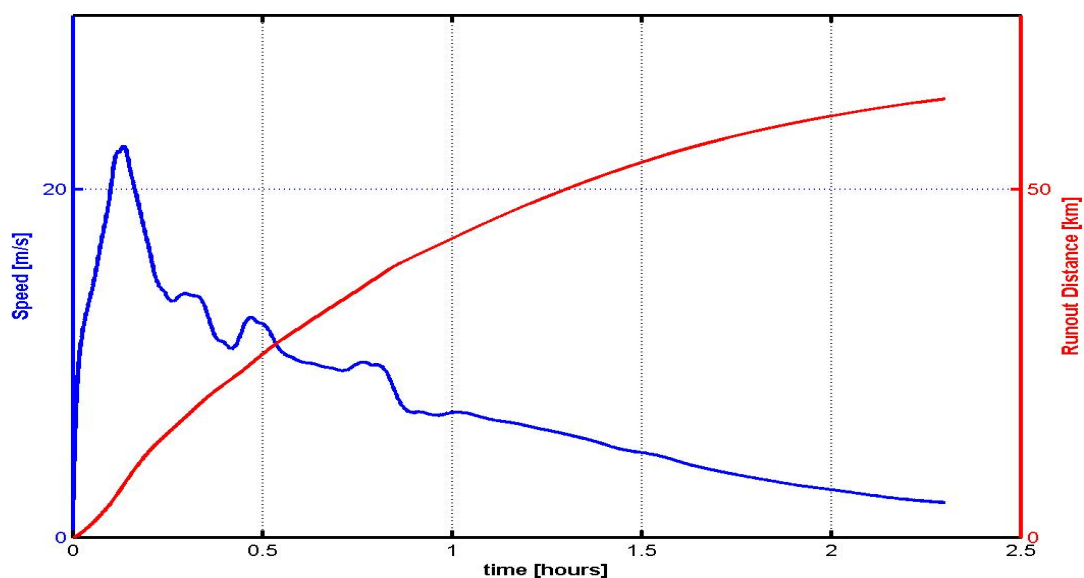


Figure B1. Lantex 156s submarine landslide speed and runout over time.

The model source was based on the landslide parameters which then provided the impetus for tsunami propagation throughout the Atlantic basin. Sample model outputs are shown in Figures B1 through B3. The model was run at a relatively coarse resolution and does not provide accurate impacts at the coast.



# Tsunami Travel Times

Tsunami travel time contours in hours, beginning from the earthquake origin time.

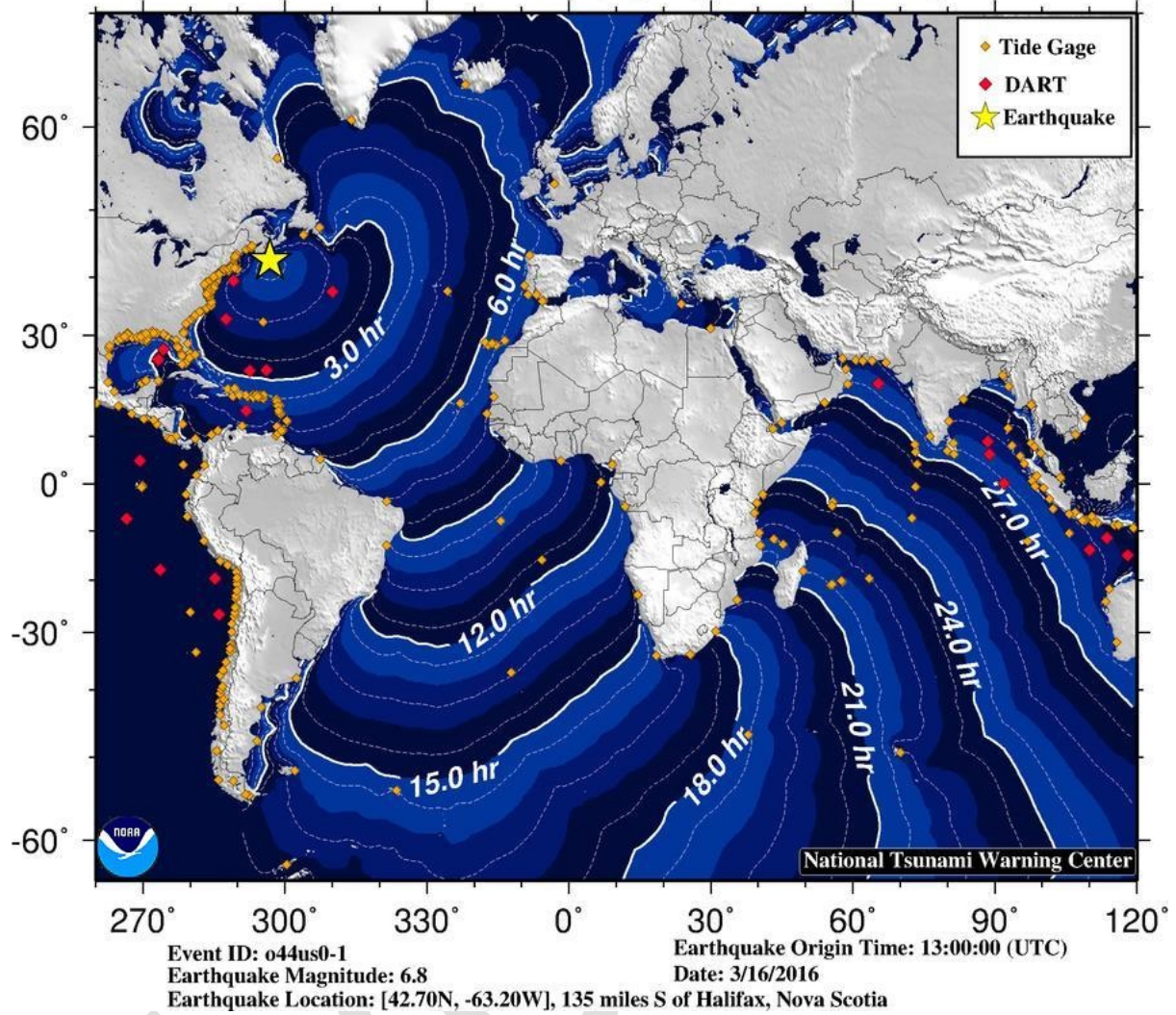
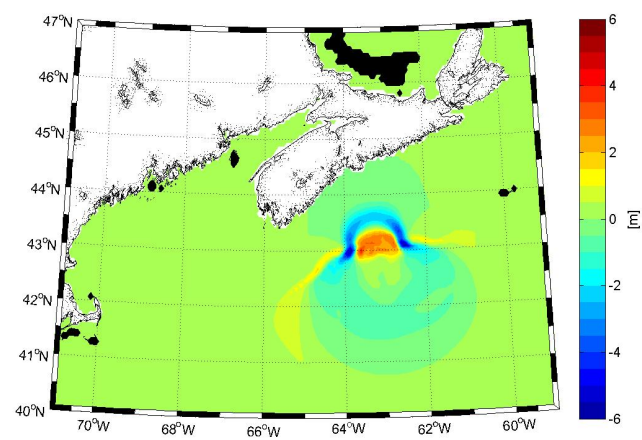
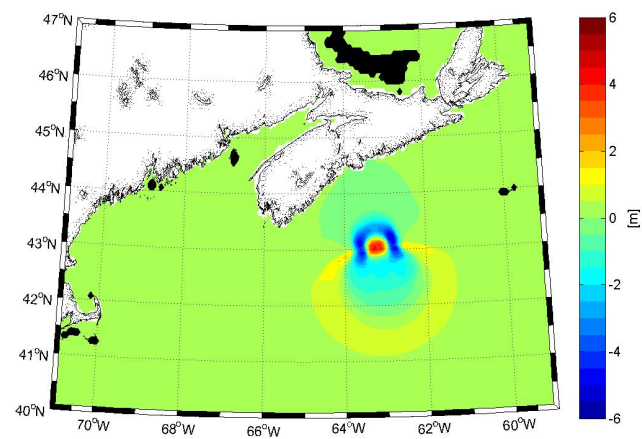
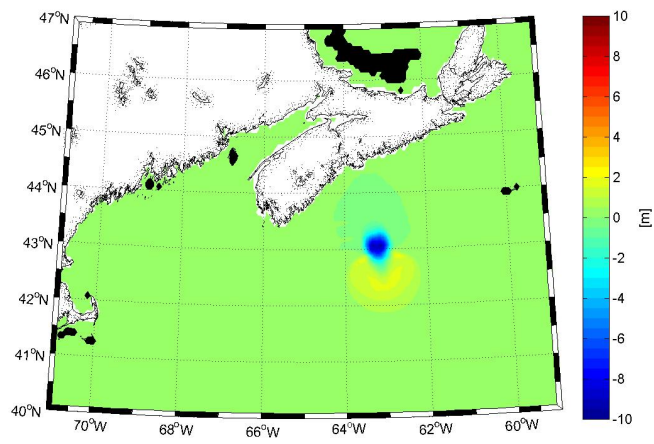
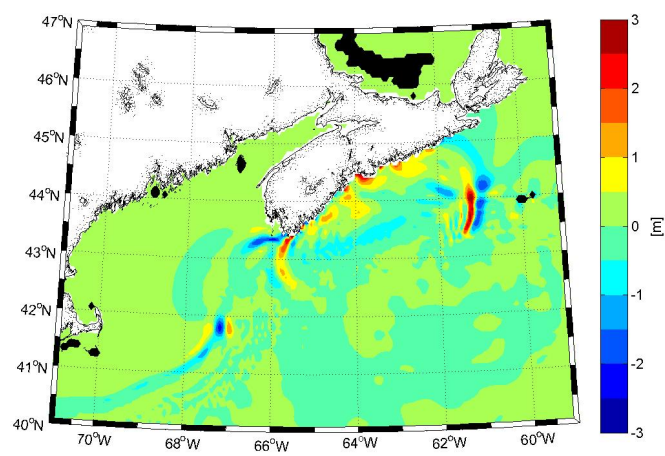
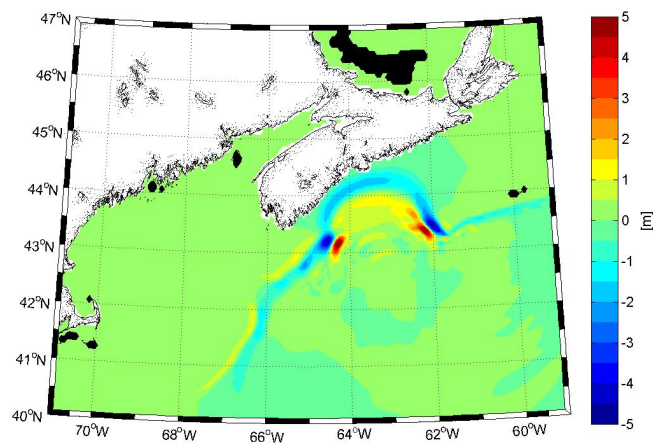
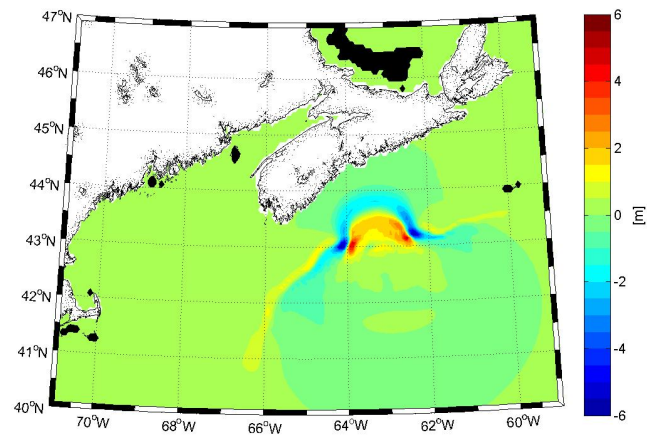
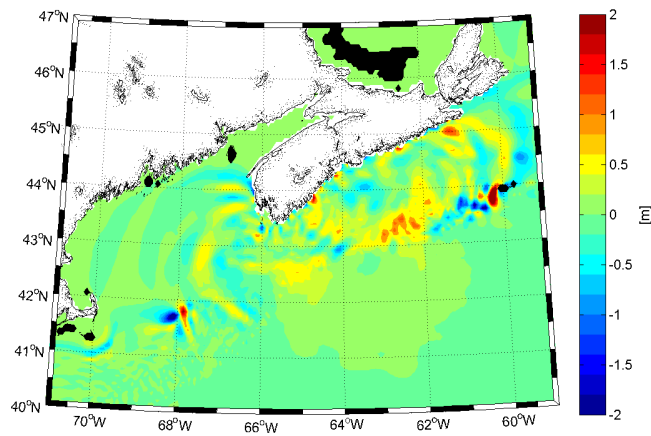


Figure B2. Tsunami travel times for the Lantex16 scenario.









**Figure B3. Snap shots of tsunami height above normal sea level at 10, 20, 30, and 40 minutes; 1, 2 and 3 hours.**

## Appendix C. NTWC Dummy Messages

WEXX20 PAAQ 161302  
TSUAT1

TEST...TSUNAMI EXERCISE MESSAGE NUMBER 1...TEST  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
0902 AM EDT WED MAR 16 2016

... LANTEX16 TSUNAMI EXERCISE MESSAGE. REFER TO MESSAGE 1 IN THE  
EXERCISE HANDBOOK. THIS IS AN EXERCISE ONLY...

THIS MESSAGE IS BEING USED TO START THE LANTEX16 ATLANTIC TSUNAMI  
EXERCISE. THIS WILL BE THE ONLY EXERCISE MESSAGE BROADCAST FROM  
THE NATIONAL TSUNAMI WARNING CENTER. THE EXERCISE HANDBOOK IS  
AVAILABLE AT THE WEB SITE NTWC.ARH.NOAA.GOV. THE EXERCISE PURPOSE  
IS TO PROVIDE EMERGENCY MANAGEMENT A REALISTIC SCENARIO TO TEST  
TSUNAMI RESPONSE PLANS.

THIS IS ONLY AN EXERCISE.  
\$\$

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WEXX30 PAAQ 161302  
TSUATE

TEST...PUBLIC TSUNAMI EXERCISE MESSAGE NUMBER 1...TEST  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
0902 AM EDT WED MAR 16 2016

... LANTEX16 TSUNAMI EXERCISE MESSAGE. REFER TO NTWC MESSAGE 1 IN THE  
EXERCISE HANDBOOK. THIS IS AN EXERCISE ONLY...

THIS MESSAGE IS BEING USED TO START THE LANTEX16 ATLANTIC TSUNAMI  
EXERCISE. THIS WILL BE THE ONLY EXERCISE MESSAGE BROADCAST FROM  
THE NATIONAL TSUNAMI WARNING CENTER. THE EXERCISE HANDBOOK IS  
AVAILABLE AT THE WEB SITE NTWC.ARH.NOAA.GOV. THE EXERCISE PURPOSE  
IS TO PROVIDE EMERGENCY MANAGEMENT A REALISTIC SCENARIO TO TEST  
TSUNAMI RESPONSE PLANS.

THIS IS ONLY AN EXERCISE.  
\$\$

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WEXX40 PAAQ 161302  
TSUSPN

TEST...MENSAJE DE EJERCICIO DE TSUNAMI NUMERO 1...TEST  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
0902 AM EDT WED MAR 16 2016

...MENSAJE PARA DAR COMIENZO AL EJERCICIO DE TSUNAMI LANTEX16.  
REFERIRSE AL MENSAJE 1 DE NTWC EN EL MANUAL PARA EL EJERCICIO.  
ESTO ES UN EJERCICIO SOLAMENTE...

ESTE MENSAJE ESTA SIENDO USADO PARA DAR COMIENZO AL EJERCICIO DE  
TSUNAMI LANTEX16. ESTE SERA EL UNICO MENSAJE QUE SERA EMITIDO  
DESDE EL CENTRO NACIONAL DE ALERTA DE TSUNAMI EXCLUYENDO LOS MENSAJES.  
EL MANUAL ESTA DISPONIBLE EN LA PAGINA NTWC.ARH.NOAA.GOV. EL  
PROPOSITO DEL EJERCICIO ES PROVEER A LAS AUTORIDADES DE MANEJO DE  
EMERGENCIA UN ESCENARIO REALISTICO PARA PROBAR LOS PLANES DE  
RESPUESTA A TSUNAMIS.

ESTE ES SOLO UN EJERCICIO.  
\$\$

## Appendix D. NTWC Exercise Messages

The following messages, created for the LANTEX16 tsunami exercise, are representative of the official standard products issued by the NTWC during a magnitude 6.8 earthquake and associated landslide-generated tsunami originating approximately 130 miles S of Halifax, Nova Scotia and 400 miles E of Boston, Massachusetts at 42.7°N, 63.2°W. During a real event, the NTWC would also issue graphical and html-based products to the web site and via RSS.

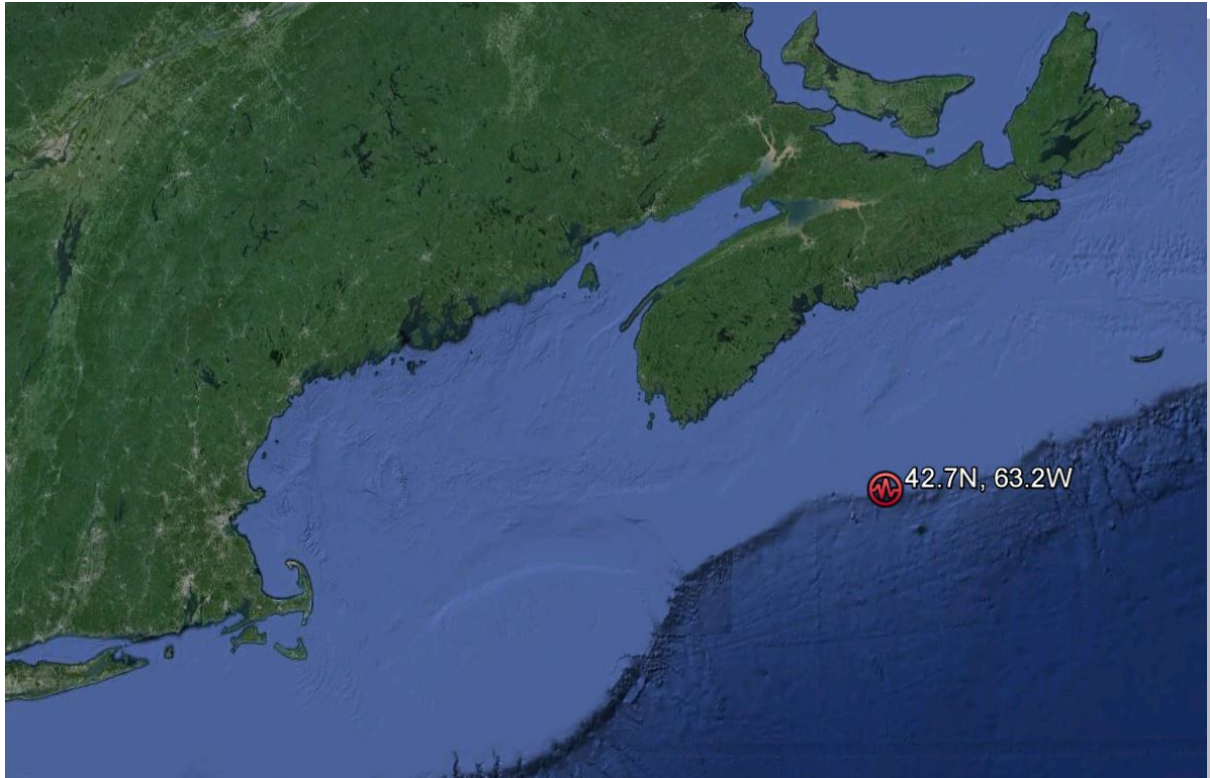


Figure D1: Event location.

### **NTWC Bulletin #1**

WEXX30 PAAQ 161302  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 1  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
902 AM EDT WED MAR 16 2016

...A TSUNAMI WARNING IS NOW IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

\* THE COASTAL AREAS OF NEW BRUNSWICK AND NOVA SCOTIA FROM THE

## LANTEX16 Handbook

US/CANADA BORDER TO MEAT COVE NOVA SCOTIA

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THE LEVEL OF TSUNAMI DANGER IS BEING EVALUATED. FURTHER INFORMATION WILL BE PROVIDED IN SUPPLEMENTARY MESSAGES.

### PRELIMINARY EARTHQUAKE PARAMETERS

-----

\* THE FOLLOWING PARAMETERS ARE BASED ON A RAPID PRELIMINARY ASSESSMENT AND CHANGES MAY OCCUR.

\* MAGNITUDE 6.8  
\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016  
\* COORDINATES 42.7 NORTH 63.2 WEST  
\* DEPTH 3 MILES  
\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### FORECASTS OF TSUNAMI ACTIVITY

-----

\* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING LOCATIONS AT THE SPECIFIED TIMES.

SITE	FORECAST START OF OF TSUNAMI
----	-----
* NOVA SCOTIA	
LOCKEPORT	1120 ADT MAR 16
SCATARIE ISLAND	1235 ADT MAR 16
* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16

### OBSERVATIONS OF TSUNAMI ACTIVITY

-----

\* NO TSUNAMI OBSERVATIONS ARE AVAILABLE TO REPORT.

### RECOMMENDED ACTIONS

-----

ACTIONS TO PROTECT HUMAN LIFE AND PROPERTY WILL VARY WITHIN TSUNAMI WARNING AREAS.

IF YOU ARE IN A TSUNAMI WARNING AREA...

\* EVACUATE INLAND OR TO HIGHER GROUND ABOVE AND BEYOND

## LANTEX16 Handbook

DESIGNATED TSUNAMI HAZARD ZONES OR MOVE TO AN UPPER FLOOR OF A MULTI-STORY BUILDING DEPENDING ON YOUR SITUATION.

- \* MOVE OUT OF THE WATER... OFF THE BEACH... AND AWAY FROM HARBORS... MARINAS... BREAKWATERS... BAYS AND INLETS.
- \* BE ALERT TO AND FOLLOW INSTRUCTIONS FROM YOUR LOCAL EMERGENCY OFFICIALS BECAUSE THEY MAY HAVE MORE DETAILED OR SPECIFIC INFORMATION FOR YOUR LOCATION.
- \* IF YOU FEEL A STRONG EARTHQUAKE OR EXTENDED GROUND ROLLING TAKE IMMEDIATE PROTECTIVE ACTIONS SUCH AS MOVING INLAND AND/OR UPHILL PREFERABLY BY FOOT.
- \* BOAT OPERATORS...
  - \* WHERE TIME AND CONDITIONS PERMIT MOVE YOUR BOAT OUT TO SEA TO A DEPTH OF AT LEAST 180 FEET.
  - \* IF AT SEA AVOID ENTERING SHALLOW WATER... HARBORS... MARINAS... BAYS... AND INLETS TO AVOID FLOATING AND SUBMERGED DEBRIS AND STRONG CURRENTS.
- \* DO NOT GO TO THE SHORE TO OBSERVE THE TSUNAMI.
- \* DO NOT RETURN TO THE COAST UNTIL LOCAL EMERGENCY OFFICIALS INDICATE IT IS SAFE TO DO SO.

### IMPACTS

-----

IMPACTS WILL VARY AT DIFFERENT LOCATIONS IN THE WARNING AREAS.

IF YOU ARE IN A TSUNAMI WARNING AREA...

- \* A TSUNAMI WITH DAMAGING WAVES AND POWERFUL CURRENTS IS POSSIBLE.
- \* REPEATED COASTAL FLOODING IS POSSIBLE AS WAVES ARRIVE ONSHORE... MOVE INLAND... AND DRAIN BACK INTO THE OCEAN.
- \* STRONG AND UNUSUAL WAVES... CURRENTS AND INLAND FLOODING CAN DROWN OR INJURE PEOPLE AND WEAKEN OR DESTROY STRUCTURES ON LAND AND IN WATER.
- \* WATER FILLED WITH FLOATING OR SUBMERGED DEBRIS THAT CAN INJURE OR KILL PEOPLE AND WEAKEN OR DESTROY BUILDINGS AND BRIDGES IS POSSIBLE.
- \* STRONG AND UNUSUAL CURRENTS AND WAVES IN HARBORS... MARINAS... BAYS... AND INLETS MAY BE ESPECIALLY DESTRUCTIVE.
- \* SOME IMPACTS MAY CONTINUE FOR MANY HOURS TO DAYS AFTER ARRIVAL OF THE FIRST WAVE.



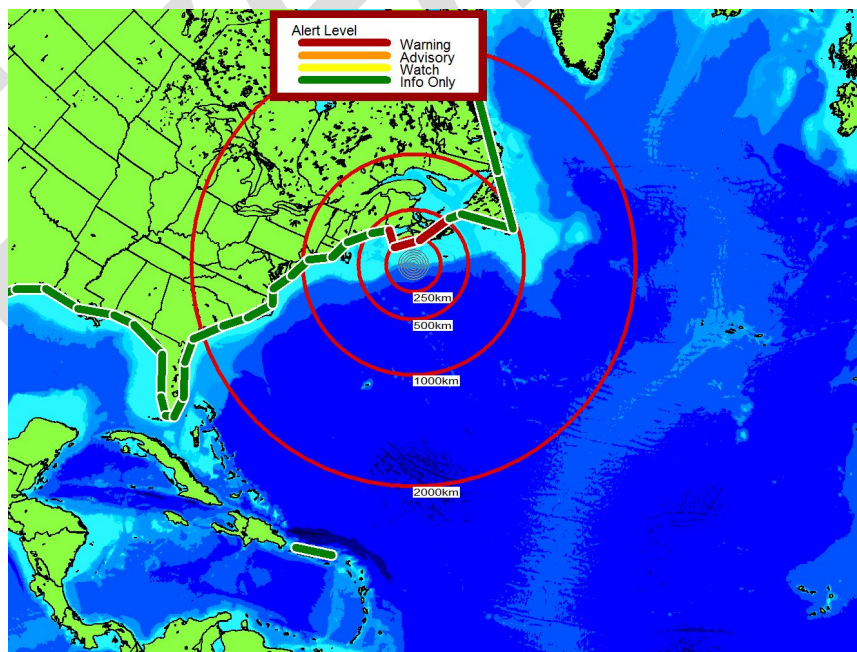
- \* THE FIRST WAVE MAY NOT BE THE LARGEST SO LATER WAVES MAY BE LARGER.
- \* EACH WAVE MAY LAST 5 TO 45 MINUTES AS A WAVE ENCROACHES AND RECEDES.
- \* COASTS FACING ALL DIRECTIONS ARE THREATENED BECAUSE THE WAVES CAN WRAP AROUND ISLANDS AND HEADLANDS AND INTO BAYS.
- \* STRONG SHAKING OR ROLLING OF THE GROUND INDICATES AN EARTHQUAKE HAS OCCURRED AND A TSUNAMI MAY BE IMMINENT.
- \* A RAPIDLY RECEDING OR RECEDED SHORELINE... UNUSUAL WAVES AND SOUNDS... AND STRONG CURRENTS ARE SIGNS OF A TSUNAMI.
- \* THE TSUNAMI MAY APPEAR AS WATER MOVING RAPIDLY OUT TO SEA... A GENTLE RISING TIDE LIKE FLOOD WITH NO BREAKING WAVE... AS A SERIES OF BREAKING WAVES... OR A FROTHY WALL OF WATER.

ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 30 MINUTES.

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**Figure D2: Tsunami Watch/Warning areas after Bulletin 1.**



**NTWC Bulletin #2**

WEXX30 PAAQ 161331  
TSUATE

BULLETIN

PUBLIC TSUNAMI MESSAGE NUMBER 2  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
931 AM EDT WED MAR 16 2016

UPDATES

-----

\* THERE ARE NO UPDATES IN THIS MESSAGE

...THE TSUNAMI WARNING REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

\* THE COASTAL AREAS OF NEW BRUNSWICK AND NOVA SCOTIA FROM THE  
US/CANADA BORDER TO MEAT COVE NOVA SCOTIA

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND  
GULF OF MEXICO - THE LEVEL OF TSUNAMI DANGER IS BEING  
EVALUATED. FURTHER INFORMATION WILL BE PROVIDED IN  
SUPPLEMENTARY MESSAGES.

PRELIMINARY EARTHQUAKE PARAMETERS

-----

\* THE FOLLOWING PARAMETERS ARE BASED ON A RAPID PRELIMINARY  
ASSESSMENT AND CHANGES MAY OCCUR.

\* MAGNITUDE 6.8  
\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016  
\* COORDINATES 42.7 NORTH 63.2 WEST  
\* DEPTH 3 MILES  
\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

FORECASTS OF TSUNAMI ACTIVITY

-----

\* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING  
LOCATIONS AT THE SPECIFIED TIMES.

	FORECAST
	START OF
SITE	OF TSUNAMI
----	-----

## LANTEX16 Handbook

\* NOVA SCOTIA  
LOCKEPORT 1120 ADT MAR 16  
SCATARIE ISLAND 1235 ADT MAR 16

\* NEW BRUNSWICK  
GRAND MANAN ISLA 1250 ADT MAR 16

### OBSERVATIONS OF TSUNAMI ACTIVITY

-----

\* NO TSUNAMI OBSERVATIONS ARE AVAILABLE TO REPORT.

### RECOMMENDED ACTIONS

-----

ACTIONS TO PROTECT HUMAN LIFE AND PROPERTY WILL  
VARY WITHIN TSUNAMI WARNING AREAS.

IF YOU ARE IN A TSUNAMI WARNING AREA...

- \* EVACUATE INLAND OR TO HIGHER GROUND ABOVE AND BEYOND  
DESIGNATED TSUNAMI HAZARD ZONES OR MOVE TO AN UPPER FLOOR  
OF A MULTI-STORY BUILDING DEPENDING ON YOUR SITUATION.
- \* MOVE OUT OF THE WATER... OFF THE BEACH... AND AWAY FROM  
HARBORS... MARINAS... BREAKWATERS... BAYS AND INLETS.
- \* BE ALERT TO AND FOLLOW INSTRUCTIONS FROM YOUR LOCAL  
EMERGENCY OFFICIALS BECAUSE THEY MAY HAVE MORE DETAILED OR  
SPECIFIC INFORMATION FOR YOUR LOCATION.
- \* IF YOU FEEL A STRONG EARTHQUAKE OR EXTENDED GROUND ROLLING  
TAKE IMMEDIATE PROTECTIVE ACTIONS SUCH AS MOVING INLAND  
AND/OR UPHILL PREFERABLY BY FOOT.
- \* BOAT OPERATORS...
  - \* WHERE TIME AND CONDITIONS PERMIT MOVE YOUR BOAT OUT TO  
SEA TO A DEPTH OF AT LEAST 180 FEET.
  - \* IF AT SEA AVOID ENTERING SHALLOW WATER... HARBORS...  
MARINAS... BAYS... AND INLETS TO AVOID FLOATING AND  
SUBMERGED DEBRIS AND STRONG CURRENTS.
- \* DO NOT GO TO THE SHORE TO OBSERVE THE TSUNAMI.
- \* DO NOT RETURN TO THE COAST UNTIL LOCAL EMERGENCY OFFICIALS  
INDICATE IT IS SAFE TO DO SO.

### IMPACTS

-----

IMPACTS WILL VARY AT DIFFERENT LOCATIONS IN THE WARNING  
AREAS.

IF YOU ARE IN A TSUNAMI WARNING AREA...

## LANTEX16 Handbook

- \* A TSUNAMI WITH DAMAGING WAVES AND POWERFUL CURRENTS IS POSSIBLE.
- \* REPEATED COASTAL FLOODING IS POSSIBLE AS WAVES ARRIVE ONSHORE... MOVE INLAND... AND DRAIN BACK INTO THE OCEAN.
- \* STRONG AND UNUSUAL WAVES... CURRENTS AND INLAND FLOODING CAN DROWN OR INJURE PEOPLE AND WEAKEN OR DESTROY STRUCTURES ON LAND AND IN WATER.
- \* WATER FILLED WITH FLOATING OR SUBMERGED DEBRIS THAT CAN INJURE OR KILL PEOPLE AND WEAKEN OR DESTROY BUILDINGS AND BRIDGES IS POSSIBLE.
- \* STRONG AND UNUSUAL CURRENTS AND WAVES IN HARBORS... MARINAS... BAYS... AND INLETS MAY BE ESPECIALLY DESTRUCTIVE.
- \* SOME IMPACTS MAY CONTINUE FOR MANY HOURS TO DAYS AFTER ARRIVAL OF THE FIRST WAVE.
- \* THE FIRST WAVE MAY NOT BE THE LARGEST SO LATER WAVES MAY BE LARGER.
- \* EACH WAVE MAY LAST 5 TO 45 MINUTES AS A WAVE ENCROACHES AND RECEDES.
- \* COASTS FACING ALL DIRECTIONS ARE THREATENED BECAUSE THE WAVES CAN WRAP AROUND ISLANDS AND HEADLANDS AND INTO BAYS.
- \* STRONG SHAKING OR ROLLING OF THE GROUND INDICATES AN EARTHQUAKE HAS OCCURRED AND A TSUNAMI MAY BE IMMINENT.
- \* A RAPIDLY RECEDING OR RECEDED SHORELINE... UNUSUAL WAVES AND SOUNDS... AND STRONG CURRENTS ARE SIGNS OF A TSUNAMI.
- \* THE TSUNAMI MAY APPEAR AS WATER MOVING RAPIDLY OUT TO SEA... A GENTLE RISING TIDE LIKE FLOOD WITH NO BREAKING WAVE... AS A SERIES OF BREAKING WAVES... OR A FROTHY WALL OF WATER.

### ADDITIONAL INFORMATION AND NEXT UPDATE

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 30 MINUTES.

\$\$

**NTWC Bulletin #3**

WEXX30 PAAQ 161401  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 3  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
1001 AM EDT WED MAR 16 2016

UPDATES

-----

\* THERE ARE NO UPDATES IN THIS MESSAGE

...THE TSUNAMI WARNING REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

\* THE COASTAL AREAS OF NEW BRUNSWICK AND NOVA SCOTIA FROM THE  
US/CANADA BORDER TO MEAT COVE NOVA SCOTIA

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND  
GULF OF MEXICO - THE LEVEL OF TSUNAMI DANGER IS BEING  
EVALUATED. FURTHER INFORMATION WILL BE PROVIDED IN  
SUPPLEMENTARY MESSAGES.

FORECASTS OF TSUNAMI ACTIVITY

-----

\* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING  
LOCATIONS AT THE SPECIFIED TIMES.

SITE	FORECAST START OF OF TSUNAMI
----	-----
* NOVA SCOTIA	
LOCKEPORT	1120 ADT MAR 16
SCATARIE ISLAND	1235 ADT MAR 16

* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16

OBSERVATIONS OF TSUNAMI ACTIVITY

-----

\* NO TSUNAMI OBSERVATIONS ARE AVAILABLE TO REPORT.

PRELIMINARY EARTHQUAKE PARAMETERS

-----

## LANTEX16 Handbook

\* MAGNITUDE 6.8  
\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016  
\* COORDINATES 42.7 NORTH 63.2 WEST  
\* DEPTH 3 MILES  
\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

-----  
\* SEE MESSAGE NUMBER 2 FOR RECOMMENDED ACTIONS.

### IMPACTS

-----  
\* SEE MESSAGE NUMBER 2 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

-----  
\* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.  
  
\* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).  
  
\* THIS MESSAGE WILL BE UPDATED WITHIN 30 MINUTES.

\$\$

### **NTWC Bulletin #4**

WEXX30 PAAQ 161436  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 4  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
1036 AM EDT WED MAR 16 2016

### UPDATES

-----  
\* A TSUNAMI HAS BEEN CONFIRMED AND SOME IMPACTS ARE EXPECTED  
\* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

## LANTEX16 Handbook

- \* THE COASTAL AREAS OF NEW BRUNSWICK AND NOVA SCOTIA FROM THE US/CANADA BORDER TO MEAT COVE NOVA SCOTIA

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THE LEVEL OF TSUNAMI DANGER IS BEING EVALUATED. FURTHER INFORMATION WILL BE PROVIDED IN SUPPLEMENTARY MESSAGES.

### FORECASTS OF TSUNAMI ACTIVITY

- \* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING LOCATIONS AT THE SPECIFIED TIMES.

SITE	FORECAST START OF OF TSUNAMI
* NOVA SCOTIA	
LOCKEPORT	1120 ADT MAR 16
SCATARIE ISLAND	1235 ADT MAR 16
* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16

### OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

- \* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT

### PRELIMINARY EARTHQUAKE PARAMETERS

* MAGNITUDE	6.8
* ORIGIN TIME	0900 EDT MAR 16 2016
	0800 CDT MAR 16 2016
	0900 AST MAR 16 2016
	1300 UTC MAR 16 2016
* COORDINATES	42.7 NORTH 63.2 WEST
* DEPTH	3 MILES
* LOCATION	135 MILES S OF HALIFAX NOVA SCOTIA
	315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

- \* SEE MESSAGE NUMBER 2 FOR RECOMMENDED ACTIONS.

IMPACTS

-----

- \* SEE MESSAGE NUMBER 2 FOR POSSIBLE IMPACTS.

ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE NTWC.ARH.NOAA.GOV FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT PTWC.WEATHER.GOV.
- \* THIS MESSAGE WILL BE UPDATED WITHIN 30 MINUTES.

\$\$

**NTWC Bulletin #5**

WEXX30 PAAQ 161505  
TSUATE

BULLETIN

PUBLIC TSUNAMI MESSAGE NUMBER 5  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
1105 AM EDT WED MAR 16 2016

UPDATES

-----

- \* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK AND NOVA SCOTIA FROM THE US/CANADA BORDER TO MEAT COVE NOVA SCOTIA

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THE LEVEL OF TSUNAMI DANGER IS BEING EVALUATED. FURTHER INFORMATION WILL BE PROVIDED IN SUPPLEMENTARY MESSAGES.

FORECASTS OF TSUNAMI ACTIVITY

-----

- \* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING LOCATIONS AT THE SPECIFIED TIMES.

FORECAST  
START OF

## LANTEX16 Handbook

SITE                      OF TSUNAMI  
-----

\* NOVA SCOTIA  
LOCKEPORT            1120    ADT MAR 16  
SCATARIE ISLAND    1235    ADT MAR 16

\* NEW BRUNSWICK  
GRAND MANAN ISLA 1250    ADT MAR 16

### OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

-----

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL  
ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
-----	-----	-----
DART 44402    US	1024    EDT MAR 16	0.6FT
BERMUDA    BERMUDA	1040    EDT MAR 16	4.6FT

### PRELIMINARY EARTHQUAKE PARAMETERS

-----

\* MAGNITUDE            6.8  
\* ORIGIN TIME           0900    EDT MAR 16 2016  
                             0800    CDT MAR 16 2016  
                             0900    AST MAR 16 2016  
                             1300    UTC MAR 16 2016  
\* COORDINATES           42.7 NORTH 63.2 WEST  
\* DEPTH                 3 MILES  
\* LOCATION              135 MILES S OF HALIFAX NOVA SCOTIA  
                             315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

-----

\* SEE MESSAGE NUMBER 2 FOR RECOMMENDED ACTIONS.

### IMPACTS

-----

\* SEE MESSAGE NUMBER 2 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

-----

\* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE  
INFORMATION.

\* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN  
ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC  
TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).

\* THIS MESSAGE WILL BE UPDATED WITHIN 30 MINUTES.



\$\$

**NTWC Bulletin #6**

WEXX30 PAAQ 161537  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 6  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
1137 AM EDT WED MAR 16 2016

UPDATES

-----

- \* UPDATED OBSERVATIONS
- \* REVISED ALERT AREAS
- \* THE WARNING AREA HAS BEEN EXTENDED NORTH BASED ON HISTORICAL IMPACTS FROM THE NEARBY 1929 TSUNAMI. THE 1929 EVENT PRODUCED WAVES EXCEEDING FIVE METERS IN NEWFOUNDLAND CANADA. AN ADVISORY REGION WAS EXTENDED SOUTH WHERE THE TSUNAMI COULD IMPART STRONG AND DANGEROUS CURRENTS.

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

FORECASTS OF TSUNAMI ACTIVITY

-----

- \* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING LOCATIONS AT THE SPECIFIED TIMES.

# LANTEX16 Handbook

SITE -----	FORECAST START OF OF TSUNAMI -----
* NOVA SCOTIA	
SCATARIE ISLAND	1235 ADT MAR 16
* NORTH CAROLINA	
CAPE HATTERAS	1135 EDT MAR 16
* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16
* NEWFOUNDLAND	
SAINT LAWRENCE	1320 NDT MAR 16
BONAVISTA	1525 NDT MAR 16
* NEW YORK	
MONTAUK	1155 EDT MAR 16
MANHATTAN	1330 EDT MAR 16
* MASSACHUSETTS	
NANTUCKET	1225 EDT MAR 16
BOSTON	1255 EDT MAR 16
* MAINE	
PORTLAND	1225 EDT MAR 16
* NEW JERSEY	
ATLANTIC CITY	1230 EDT MAR 16
* VIRGINIA	
VIRGINIA BEACH	1245 EDT MAR 16
* FLORIDA	
MIAMI	1315 EDT MAR 16
DAYTONA	1355 EDT MAR 16
KEY WEST	1400 EDT MAR 16
MELBOURNE BEACH	1405 EDT MAR 16
JACKSONVILLE BEA	1420 EDT MAR 16
* SOUTH CAROLINA	
MYRTLE BEACH	1405 EDT MAR 16
CHARLESTON	1420 EDT MAR 16
* GEORGIA	
SAVANNAH	1435 EDT MAR 16

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

TIME

OBSERVED MAX

## LANTEX16 Handbook

SITE	OF MEASUREMENT	TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT

### PRELIMINARY EARTHQUAKE PARAMETERS

-----

- \* MAGNITUDE 6.8
- \* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDINATES 42.7 NORTH 63.2 WEST
- \* DEPTH 3 MILES
- \* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

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ACTIONS TO PROTECT HUMAN LIFE AND PROPERTY WILL VARY WITHIN TSUNAMI WARNING AREAS AND WITHIN TSUNAMI ADVISORY AREAS.

IF YOU ARE IN A TSUNAMI WARNING AREA...

- \* EVACUATE INLAND OR TO HIGHER GROUND ABOVE AND BEYOND DESIGNATED TSUNAMI HAZARD ZONES OR MOVE TO AN UPPER FLOOR OF A MULTI-STORY BUILDING DEPENDING ON YOUR SITUATION.

IF YOU ARE IN A TSUNAMI WARNING OR ADVISORY AREA...

- \* MOVE OUT OF THE WATER... OFF THE BEACH... AND AWAY FROM HARBORS... MARINAS... BREAKWATERS... BAYS AND INLETS.
- \* BE ALERT TO AND FOLLOW INSTRUCTIONS FROM YOUR LOCAL EMERGENCY OFFICIALS BECAUSE THEY MAY HAVE MORE DETAILED OR SPECIFIC INFORMATION FOR YOUR LOCATION.
- \* IF YOU FEEL A STRONG EARTHQUAKE OR EXTENDED GROUND ROLLING TAKE IMMEDIATE PROTECTIVE ACTIONS SUCH AS MOVING INLAND AND/OR UPHILL PREFERABLY BY FOOT.
- \* BOAT OPERATORS...
  - \* WHERE TIME AND CONDITIONS PERMIT MOVE YOUR BOAT OUT TO SEA TO A DEPTH OF AT LEAST 180 FEET.
  - \* IF AT SEA AVOID ENTERING SHALLOW WATER... HARBORS... MARINAS... BAYS... AND INLETS TO AVOID FLOATING AND SUBMERGED DEBRIS AND STRONG CURRENTS.
- \* DO NOT GO TO THE SHORE TO OBSERVE THE TSUNAMI.

## LANTEX16 Handbook

- \* DO NOT RETURN TO THE COAST UNTIL LOCAL EMERGENCY OFFICIALS INDICATE IT IS SAFE TO DO SO.

### IMPACTS

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IMPACTS WILL VARY AT DIFFERENT LOCATIONS IN THE WARNING AND IN THE ADVISORY AREAS.

IF YOU ARE IN A TSUNAMI WARNING AREA...

- \* A TSUNAMI WITH DAMAGING WAVES AND POWERFUL CURRENTS IS POSSIBLE.
- \* REPEATED COASTAL FLOODING IS POSSIBLE AS WAVES ARRIVE ONSHORE... MOVE INLAND... AND DRAIN BACK INTO THE OCEAN.
- \* STRONG AND UNUSUAL WAVES... CURRENTS AND INLAND FLOODING CAN DROWN OR INJURE PEOPLE AND WEAKEN OR DESTROY STRUCTURES ON LAND AND IN WATER.
- \* WATER FILLED WITH FLOATING OR SUBMERGED DEBRIS THAT CAN INJURE OR KILL PEOPLE AND WEAKEN OR DESTROY BUILDINGS AND BRIDGES IS POSSIBLE.
- \* STRONG AND UNUSUAL CURRENTS AND WAVES IN HARBORS... MARINAS... BAYS... AND INLETS MAY BE ESPECIALLY DESTRUCTIVE.

IF YOU ARE IN A TSUNAMI ADVISORY AREA...

- \* A TSUNAMI WITH STRONG WAVES AND CURRENTS IS POSSIBLE.
- \* WAVES AND CURRENTS CAN DROWN OR INJURE PEOPLE WHO ARE IN THE WATER.
- \* CURRENTS AT BEACHES AND IN HARBORS... MARINAS... BAYS... AND INLETS MAY BE ESPECIALLY DANGEROUS.

IF YOU ARE IN A TSUNAMI WARNING OR ADVISORY AREA...

- \* SOME IMPACTS MAY CONTINUE FOR MANY HOURS TO DAYS AFTER ARRIVAL OF THE FIRST WAVE.
- \* THE FIRST WAVE MAY NOT BE THE LARGEST SO LATER WAVES MAY BE LARGER.
- \* EACH WAVE MAY LAST 5 TO 45 MINUTES AS A WAVE ENCROACHES AND RECEDES.
- \* COASTS FACING ALL DIRECTIONS ARE THREATENED BECAUSE THE WAVES CAN WRAP AROUND ISLANDS AND HEADLANDS AND INTO BAYS.
- \* STRONG SHAKING OR ROLLING OF THE GROUND INDICATES AN EARTHQUAKE HAS OCCURRED AND A TSUNAMI MAY BE IMMINENT.

- \* A RAPIDLY RECEDING OR RECEDED SHORELINE... UNUSUAL WAVES AND SOUNDS... AND STRONG CURRENTS ARE SIGNS OF A TSUNAMI.
- \* THE TSUNAMI MAY APPEAR AS WATER MOVING RAPIDLY OUT TO SEA... A GENTLE RISING TIDE LIKE FLOOD WITH NO BREAKING WAVE... AS A SERIES OF BREAKING WAVES... OR A FROTHY WALL OF WATER.

ADDITIONAL INFORMATION AND NEXT UPDATE

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 30 MINUTES.

\$\$

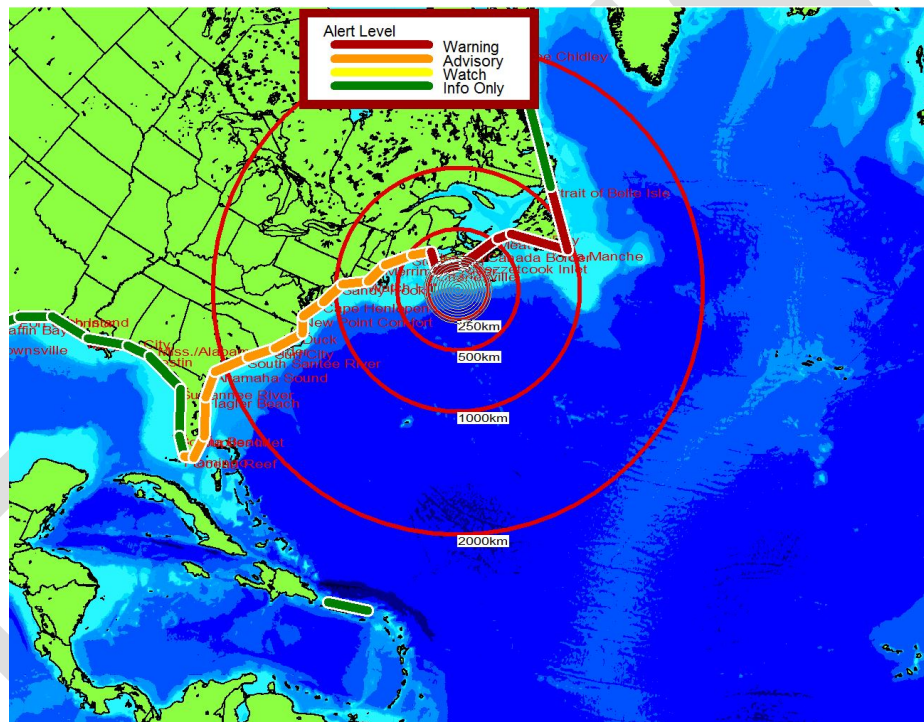


Figure D3: Tsunami Watch/Warning areas after Bulletin 6.

**NTWC Bulletin #7**

WEXX30 PAAQ 161611  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 7  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
1211 PM EDT WED MAR 16 2016

UPDATES

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\* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

FORECASTS OF TSUNAMI ACTIVITY

-----

- \* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING LOCATIONS AT THE SPECIFIED TIMES.

SITE	FORECAST START OF OF TSUNAMI	
-----	-----	
* NOVA SCOTIA		
SCATARIE ISLAND	1235	ADT MAR 16
* NORTH CAROLINA		
CAPE HATTERAS	1135	EDT MAR 16
* NEW BRUNSWICK		
GRAND MANAN ISLA	1250	ADT MAR 16
* NEWFOUNDLAND		
SAINT LAWRENCE	1320	NDT MAR 16
BONAVISTA	1525	NDT MAR 16
* NEW YORK		
MONTAUK	1155	EDT MAR 16

# LANTEX16 Handbook

MANHATTAN 1330 EDT MAR 16

\* MASSACHUSETTS

NANTUCKET 1225 EDT MAR 16

BOSTON 1255 EDT MAR 16

\* MAINE

PORTLAND 1225 EDT MAR 16

\* NEW JERSEY

ATLANTIC CITY 1230 EDT MAR 16

\* VIRGINIA

VIRGINIA BEACH 1245 EDT MAR 16

\* FLORIDA

MIAMI 1315 EDT MAR 16

DAYTONA 1355 EDT MAR 16

KEY WEST 1400 EDT MAR 16

MELBOURNE BEACH 1405 EDT MAR 16

JACKSONVILLE BEA 1420 EDT MAR 16

\* SOUTH CAROLINA

MYRTLE BEACH 1405 EDT MAR 16

CHARLESTON 1420 EDT MAR 16

\* GEORGIA

SAVANNAH 1435 EDT MAR 16

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	2.0FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	0.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	0.7FT

## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

## LANTEX16 Handbook

\* COORDINATES 42.7 NORTH 63.2 WEST  
\* DEPTH 3 MILES  
\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

-----

\* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

### IMPACTS

-----

\* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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### **NTWC Bulletin #8**

WEXX30 PAAQ 161713  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 8  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
113 PM EDT WED MAR 16 2016

### UPDATES

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\* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND



TSUNAMI ADVISORY IN EFFECT FOR...

\* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO  
FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND  
GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

# FORECASTS OF TSUNAMI ACTIVITY

\* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING  
LOCATIONS AT THE SPECIFIED TIMES.

SITE ----	FORECAST START OF OF TSUNAMI -----
* NEWFOUNDLAND	
BONAVISTA	1525 NDT MAR 16
* NEW YORK	
MANHATTAN	1330 EDT MAR 16
* MASSACHUSETTS	
NANTUCKET	1225 EDT MAR 16
BOSTON	1255 EDT MAR 16
* MAINE	
PORTLAND	1225 EDT MAR 16
* NEW JERSEY	
ATLANTIC CITY	1230 EDT MAR 16
* VIRGINIA	
VIRGINIA BEACH	1245 EDT MAR 16
* FLORIDA	
MIAMI	1315 EDT MAR 16
DAYTONA	1355 EDT MAR 16
KEY WEST	1400 EDT MAR 16
MELBOURNE BEACH	1405 EDT MAR 16
JACKSONVILLE BEA	1420 EDT MAR 16
* SOUTH CAROLINA	
MYRTLE BEACH	1405 EDT MAR 16
CHARLESTON	1420 EDT MAR 16
* GEORGIA	
SAVANNAH	1435 EDT MAR 16

# LANTEX16 Handbook

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
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DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	2.0FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.2FT
BAR HARBOR MAINE	1157 EDT MAR 16	1.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	0.8FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.1FT
WELLS MAINE	1233 EDT MAR 16	0.7FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	0.6FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	0.6FT
ATLANTIC CITY NJ	1240 EDT MAR 16	1.1FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
LIMETREE BAY VI	1251 EDT MAR 16	0.2FT
FAJARDO PUERTO RICO	1251 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16	0.2FT
CULEBRA PUERTO RICO	1257 EDT MAR 16	0.6FT

## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

\* COORDINATES 42.7 NORTH 63.2 WEST

\* DEPTH 3 MILES

\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

## RECOMMENDED ACTIONS

\* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

## IMPACTS

\* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

## ADDITIONAL INFORMATION AND NEXT UPDATE

- 
- \* REFER TO THE INTERNET SITE NTWC.ARH.NOAA.GOV FOR MORE INFORMATION.
  - \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT PTWC.WEATHER.GOV.
  - \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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**NTWC Bulletin #9**

WEXX30 PAAQ 161811  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 9  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
211 PM EDT WED MAR 16 2016

UPDATES

- 
- \* UPDATED OBSERVATIONS
  - \* WAVES IN EXCESS OF FOUR METERS HAVE BEEN REPORTED IN BURIN NF AND PORT AU GAUL NF. WAVES IN EXCESS OF TWO METERS HAVE BEEN REPORTED ELSEWHERE ALONG THE NEWFOUNDLAND COAST.

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

FORECASTS OF TSUNAMI ACTIVITY

\* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING LOCATIONS AT THE SPECIFIED TIMES.

SITE -----	FORECAST START OF OF TSUNAMI -----
* NEWFOUNDLAND	
BONAVISTA	1525 NDT MAR 16
* NEW YORK	
MANHATTAN	1330 EDT MAR 16
* FLORIDA	
MIAMI	1315 EDT MAR 16
DAYTONA	1355 EDT MAR 16
KEY WEST	1400 EDT MAR 16
MELBOURNE BEACH	1405 EDT MAR 16
JACKSONVILLE BEA	1420 EDT MAR 16
* SOUTH CAROLINA	
MYRTLE BEACH	1405 EDT MAR 16
CHARLESTON	1420 EDT MAR 16
* GEORGIA	
SAVANNAH	1435 EDT MAR 16

OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE -----	TIME OF MEASUREMENT -----	OBSERVED MAX TSUNAMI HEIGHT -----
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	1.7FT
WOODS HOLE MA	1301 EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	0.6FT

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ATLANTIC CITY NJ	1240	EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234	EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309	EDT MAR 16	0.5FT
LIMETREE BAY VI	1251	EDT MAR 16	0.7FT
FAJARDO PUERTO RICO	1251	EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257	EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257	EDT MAR 16	0.9FT
LEWES DELAWARE	1302	EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327	EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339	EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346	EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356	EDT MAR 16	0.5FT

### PRELIMINARY EARTHQUAKE PARAMETERS

-----

- \* MAGNITUDE 6.8
- \* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDINATES 42.7 NORTH 63.2 WEST
- \* DEPTH 3 MILES
- \* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

-----

- \* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

### IMPACTS

-----

- \* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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### **NTWC Bulletin #10**

WEXX30 PAAQ 161907  
TSUATE

## LANTEX16 Handbook

### BULLETIN

PUBLIC TSUNAMI MESSAGE NUMBER 10  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
307 PM EDT WED MAR 16 2016

### UPDATES

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\* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

\* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND  
NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE  
ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

\* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO  
FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND  
GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

### FORECASTS OF TSUNAMI ACTIVITY

-----

\* TSUNAMI ACTIVITY IS FORECASTED TO START AT THE FOLLOWING  
LOCATIONS AT THE SPECIFIED TIMES.

SITE	FORECAST START OF OF TSUNAMI
----	-----

* FLORIDA	
JACKSONVILLE BEA	1420 EDT MAR 16

* SOUTH CAROLINA	
CHARLESTON	1420 EDT MAR 16

* GEORGIA	
SAVANNAH	1435 EDT MAR 16

# LANTEX16 Handbook

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

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SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
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DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	0.6FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16	0.8FT
LIMETREE BAY VI	1251 EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16	0.9FT
LEWES DELAWARE	1302 EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16	0.5FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16	0.2FT
BRIDGEPORT CONNECTICUT	1424 EDT MAR 16	0.3FT

## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

\* COORDINATES 42.7 NORTH 63.2 WEST

\* DEPTH 3 MILES

\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

## RECOMMENDED ACTIONS

\* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

IMPACTS

-----

- \* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE NTWC.ARH.NOAA.GOV FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT PTWC.WEATHER.GOV.
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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**NTWC Bulletin #11**

WEXX30 PAAQ 162006  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 11  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
406 PM EDT WED MAR 16 2016

UPDATES

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- \* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO FLORIDA TO THE US/CANADA BORDER



# LANTEX16 Handbook

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND  
GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL  
ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16	0.8FT
LIMETREE BAY VI	1251 EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16	0.9FT
LEWES DELAWARE	1302 EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16	1.2FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16	0.2FT
BRIDGEPORT CONNECTICUT	1424 EDT MAR 16	0.3FT
SAVANNAH GEORGIA	1504 EDT MAR 16	0.3FT

## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

\* COORDINATES 42.7 NORTH 63.2 WEST

\* DEPTH 3 MILES

\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA

## LANTEX16 Handbook

315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

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- \* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

### IMPACTS

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- \* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

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- \* REFER TO THE INTERNET SITE NTC.ARH.NOAA.GOV FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT PTWC.WEATHER.GOV.
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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### **NTWC Bulletin #12**

WEXX30 PAAQ 162101  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 12  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
501 PM EDT WED MAR 16 2016

### UPDATES

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- \* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

# LANTEX16 Handbook

\* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16	0.8FT
LIMETREE BAY VI	1251 EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16	0.9FT
LEWES DELAWARE	1302 EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16	1.2FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16	0.2FT
BRIDGEPORT CONNECTICUT	1424 EDT MAR 16	0.7FT
SAVANNAH GEORGIA	1504 EDT MAR 16	0.3FT

## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

## LANTEX16 Handbook

\* ORIGIN TIME      0900    EDT MAR 16 2016  
                     0800    CDT MAR 16 2016  
                     0900    AST MAR 16 2016  
                     1300    UTC MAR 16 2016  
\* COORDINATES      42.7 NORTH 63.2 WEST  
\* DEPTH             3 MILES  
\* LOCATION          135 MILES S OF HALIFAX NOVA SCOTIA  
                     315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

-----  
\* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

### IMPACTS

-----  
\* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

-----  
\* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.  
  
\* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).  
  
\* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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### **NTWC Bulletin #13**

WEXX30 PAAQ 162202  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 13  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
602 PM EDT WED MAR 16 2016

### UPDATES

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\* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

# LANTEX16 Handbook

\* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND  
NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE  
ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

\* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO  
FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND  
GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL  
ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	0.6FT
DART 44401 US	1042 EDT MAR 16	0.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	1.9FT
DART 41424 US	1054 EDT MAR 16	0.7FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	2.0FT
SAINT PIERRE-MIQUELON FR	1132 EDT MAR 16	0.7FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1257 EDT MAR 16	1.0FT
SAINT LAWRENCE NL	1205 EDT MAR 16	9.8FT
THE US/CANADA BORDER US	1403 EDT MAR 16	3.0FT
BAR HARBOR MAINE	1600 EDT MAR 16	2.1FT
DUCK NORTH CAROLINA	1503 EDT MAR 16	1.0FT
OCEAN CITY MARYLAND	1645 EDT MAR 16	1.1FT
WELLS MAINE	1405 EDT MAR 16	2.6FT
WOODS HOLE MA	1710 EDT MAR 16	0.6FT
NEWPORT RHODE ISLAND	1645 EDT MAR 16	1.1FT
NEW LONDON CONNECTICUT	1549 EDT MAR 16	0.8FT
ATLANTIC CITY NJ	1318 EDT MAR 16	1.2FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1408 EDT MAR 16	0.6FT
LIMETREE BAY VI	1527 EDT MAR 16	0.3FT
LEWES DELAWARE	1718 EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1534 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1339 EDT MAR 16	0.6FT
CULEBRA PUERTO RICO	1548 EDT MAR 16	0.9FT
CHESAPEAKE BRIDGE VA	1421 EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT

## LANTEX16 Handbook

KIPTOPEKE	VIRGINIA	1346	EDT MAR 16	0.2FT
NEW HAVEN	CONNECTICUT	1726	EDT MAR 16	0.4FT
PORT CANAVERAL	FLORIDA	1715	EDT MAR 16	0.8FT
BRIDGEPORT	CONNECTICUT	1516	EDT MAR 16	0.6FT
SAVANNAH	GEORGIA	1504	EDT MAR 16	0.3FT

### PRELIMINARY EARTHQUAKE PARAMETERS

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- \* MAGNITUDE 6.8
- \* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDINATES 42.7 NORTH 63.2 WEST
- \* DEPTH 3 MILES
- \* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

-----

- \* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

### IMPACTS

-----

- \* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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### **NTWC Bulletin #14**

WEXX30 PAAQ 162259  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 14  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
659 PM EDT WED MAR 16 2016

### UPDATES

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## LANTEX16 Handbook

### \* UPDATED OBSERVATIONS

...THE TSUNAMI WARNING REMAINS IN EFFECT...

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI WARNING IN EFFECT FOR...

- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO FLORIDA TO THE US/CANADA BORDER

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

### OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

- \* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16	0.8FT
LIMETREE BAY VI	1251 EDT MAR 16	0.7FT

## LANTEX16 Handbook

MAYAGUEZ	PUERTO RICO	1437	EDT MAR 16	0.9FT
FAJARDO	PUERTO RICO	1251	EDT MAR 16	0.9FT
MAGUEYES	ISLAND PR	1257	EDT MAR 16	0.7FT
CULEBRA	PUERTO RICO	1257	EDT MAR 16	0.9FT
LEWES	DELAWARE	1302	EDT MAR 16	0.6FT
CHESAPEAKE	BRIDGE VA	1327	EDT MAR 16	0.3FT
WRIGHTSVILLE	BEACH NC	1339	EDT MAR 16	0.9FT
KIPTOPEKE	VIRGINIA	1346	EDT MAR 16	0.2FT
PORT CANAVERAL	FLORIDA	1356	EDT MAR 16	1.2FT
NEW HAVEN	CONNECTICUT	1410	EDT MAR 16	0.2FT
BRIDGEPORT	CONNECTICUT	1424	EDT MAR 16	0.7FT
SAVANNAH	GEORGIA	1504	EDT MAR 16	0.3FT

### PRELIMINARY EARTHQUAKE PARAMETERS

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- \* MAGNITUDE 6.8
- \* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDINATES 42.7 NORTH 63.2 WEST
- \* DEPTH 3 MILES
- \* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS

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- \* SEE MESSAGE NUMBER 6 FOR RECOMMENDED ACTIONS.

### IMPACTS

-----

- \* SEE MESSAGE NUMBER 6 FOR POSSIBLE IMPACTS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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### **NTWC Bulletin #15**

WEXX30 PAAQ 170000  
TSUATE



## LANTEX16 Handbook

### BULLETIN

PUBLIC TSUNAMI MESSAGE NUMBER 15  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
800 PM EDT WED MAR 16 2016

### UPDATES

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- \* UPDATED OBSERVATIONS
- \* WAVES IN NOVA SCOTIA, NEWFOUNDLAND, AND LABRADOR ARE REPORTED TO BE BELOW 1.0 METERS IN HEIGHT.

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE AND MAINE FROM FLAMINGO FLORIDA TO THE US/CANADA BORDER
- \* THE COASTAL AREAS OF NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM THE US/CANADA BORDER TO STRAIT OF BELLE ISLE NEWFOUNDLAND

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

### OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

-----

- \* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
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DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.3FT

## LANTEX16 Handbook

AGUADILLA	PUERTO RICO	1234	EDT MAR 16	0.9FT
SANDY HOOK	NEW JERSEY	1309	EDT MAR 16	0.8FT
LIMETREE BAY	VI	1251	EDT MAR 16	0.7FT
MAYAGUEZ	PUERTO RICO	1437	EDT MAR 16	0.9FT
FAJARDO	PUERTO RICO	1251	EDT MAR 16	0.9FT
MAGUEYES ISLAND	PR	1257	EDT MAR 16	0.7FT
CULEBRA	PUERTO RICO	1257	EDT MAR 16	0.9FT
LEWES	DELAWARE	1302	EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE	VA	1327	EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH	NC	1339	EDT MAR 16	0.9FT
KIPTOPEKE	VIRGINIA	1346	EDT MAR 16	0.2FT
PORT CANAVERAL	FLORIDA	1356	EDT MAR 16	1.2FT
NEW HAVEN	CONNECTICUT	1410	EDT MAR 16	0.2FT
BRIDGEPORT	CONNECTICUT	1424	EDT MAR 16	0.7FT
SAVANNAH	GEORGIA	1504	EDT MAR 16	0.3FT

### PRELIMINARY EARTHQUAKE PARAMETERS

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- \* MAGNITUDE 6.8
- \* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDINATES 42.7 NORTH 63.2 WEST
- \* DEPTH 3 MILES
- \* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

### RECOMMENDED ACTIONS - UPDATED

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ACTIONS TO PROTECT HUMAN LIFE AND PROPERTY WILL VARY WITHIN TSUNAMI ADVISORY AREAS.

IF YOU ARE IN A TSUNAMI ADVISORY AREA...

- \* MOVE OUT OF THE WATER... OFF THE BEACH... AND AWAY FROM HARBORS... MARINAS... BREAKWATERS... BAYS AND INLETS.
- \* BE ALERT TO AND FOLLOW INSTRUCTIONS FROM YOUR LOCAL EMERGENCY OFFICIALS BECAUSE THEY MAY HAVE MORE DETAILED OR SPECIFIC INFORMATION FOR YOUR LOCATION.
- \* IF YOU FEEL A STRONG EARTHQUAKE OR EXTENDED GROUND ROLLING TAKE IMMEDIATE PROTECTIVE ACTIONS SUCH AS MOVING INLAND AND/OR UPHILL PREFERABLY BY FOOT.
- \* BOAT OPERATORS...
  - \* WHERE TIME AND CONDITIONS PERMIT MOVE YOUR BOAT OUT TO SEA TO A DEPTH OF AT LEAST 180 FEET.
  - \* IF AT SEA AVOID ENTERING SHALLOW WATER... HARBORS... MARINAS... BAYS... AND INLETS TO AVOID FLOATING AND SUBMERGED DEBRIS AND STRONG CURRENTS.

## LANTEX16 Handbook

- \* DO NOT GO TO THE SHORE TO OBSERVE THE TSUNAMI.
- \* DO NOT RETURN TO THE COAST UNTIL LOCAL EMERGENCY OFFICIALS INDICATE IT IS SAFE TO DO SO.

### IMPACTS

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IMPACTS WILL VARY AT DIFFERENT LOCATIONS IN THE ADVISORY AREAS.

IF YOU ARE IN A TSUNAMI ADVISORY AREA...

- \* A TSUNAMI WITH STRONG WAVES AND CURRENTS IS POSSIBLE.
- \* WAVES AND CURRENTS CAN DROWN OR INJURE PEOPLE WHO ARE IN THE WATER.
- \* CURRENTS AT BEACHES AND IN HARBORS... MARINAS... BAYS... AND INLETS MAY BE ESPECIALLY DANGEROUS.
- \* SOME IMPACTS MAY CONTINUE FOR MANY HOURS TO DAYS AFTER ARRIVAL OF THE FIRST WAVE.
- \* THE FIRST WAVE MAY NOT BE THE LARGEST SO LATER WAVES MAY BE LARGER.
- \* EACH WAVE MAY LAST 5 TO 45 MINUTES AS A WAVE ENCROACHES AND RECEDES.
- \* COASTS FACING ALL DIRECTIONS ARE THREATENED BECAUSE THE WAVES CAN WRAP AROUND ISLANDS AND HEADLANDS AND INTO BAYS.
- \* STRONG SHAKING OR ROLLING OF THE GROUND INDICATES AN EARTHQUAKE HAS OCCURRED AND A TSUNAMI MAY BE IMMINENT.
- \* A RAPIDLY RECEDING OR RECEDED SHORELINE... UNUSUAL WAVES AND SOUNDS... AND STRONG CURRENTS ARE SIGNS OF A TSUNAMI.
- \* THE TSUNAMI MAY APPEAR AS WATER MOVING RAPIDLY OUT TO SEA... A GENTLE RISING TIDE LIKE FLOOD WITH NO BREAKING WAVE... AS A SERIES OF BREAKING WAVES... OR A FROTHY WALL OF WATER.

### ADDITIONAL INFORMATION AND NEXT UPDATE

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- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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## **NTWC Bulletin #16**

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 16  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
901 PM EDT WED MAR 16 2016

## \* UPDATED OBSERVATIONS

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI ADVISORY IN EFFECT FOR...

\* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE - MAINE - NEW BRUNSWICK -  
NOVA SCOTIA AND NEWFOUNDLAND FROM FLAMINGO FLORIDA TO  
STRAIT OF BELLE ISLE NEWFOUNDLAND

60

# LANTEX16 Handbook

GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.9FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
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AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
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LIMETREE BAY VI	1251 EDT MAR 16	0.7FT
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SAVANNAH GEORGIA	1504 EDT MAR 16	0.8FT

## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

\* COORDINATES 42.7 NORTH 63.2 WEST

\* DEPTH 3 MILES

\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

RECOMMENDED ACTIONS

-----

- \* SEE MESSAGE NUMBER 15 FOR RECOMMENDED ACTIONS.

IMPACTS

-----

- \* SEE MESSAGE NUMBER 15 FOR POSSIBLE IMPACTS.

ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE NTCW.ARH.NOAA.GOV FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT PTWC.WEATHER.GOV.
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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**NTWC Bulletin #17**

WEXX30 PAAQ 170201

TSUATE

BULLETIN

PUBLIC TSUNAMI MESSAGE NUMBER 17

NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK

1001 PM EDT WED MAR 16 2016

UPDATES

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- \* UPDATED OBSERVATIONS

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE - MAINE - NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM FLAMINGO FLORIDA TO STRAIT OF BELLE ISLE NEWFOUNDLAND

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.

# LANTEX16 Handbook

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

\* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

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## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

\* ORIGIN TIME 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
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\* COORDINATES 42.7 NORTH 63.2 WEST

\* DEPTH 3 MILES

\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

RECOMMENDED ACTIONS

-----

- \* SEE MESSAGE NUMBER 15 FOR RECOMMENDED ACTIONS.

IMPACTS

-----

- \* SEE MESSAGE NUMBER 15 FOR POSSIBLE IMPACTS.

ADDITIONAL INFORMATION AND NEXT UPDATE

-----

- \* REFER TO THE INTERNET SITE NTCW.ARH.NOAA.GOV FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT PTWC.WEATHER.GOV.
- \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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**NTWC Bulletin #18**

WEXX30 PAAQ 170301  
TSUATE

BULLETIN  
PUBLIC TSUNAMI MESSAGE NUMBER 18  
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
1101 PM EDT WED MAR 16 2016

UPDATES

-----

- \* UPDATED OBSERVATIONS

...THE TSUNAMI ADVISORY REMAINS IN EFFECT...

TSUNAMI ADVISORY IN EFFECT FOR...

- \* THE COASTAL AREAS OF FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE - MAINE - NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND FROM FLAMINGO FLORIDA TO STRAIT OF BELLE ISLE NEWFOUNDLAND

FOR OTHER US AND CANADIAN COASTS IN THE ATLANTIC AND GULF OF MEXICO - THERE IS NO TSUNAMI THREAT.



# LANTEX16 Handbook

## OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

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## PRELIMINARY EARTHQUAKE PARAMETERS

\* MAGNITUDE 6.8

\* ORIGIN TIME 0900 EDT MAR 16 2016  
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\* COORDINATES 42.7 NORTH 63.2 WEST

\* DEPTH 3 MILES

\* LOCATION 135 MILES S OF HALIFAX NOVA SCOTIA  
315 MILES SE OF BANGOR MAINE

## RECOMMENDED ACTIONS

-----  
 \* SEE MESSAGE NUMBER 15 FOR RECOMMENDED ACTIONS.

IMPACTS

-----  
 \* SEE MESSAGE NUMBER 15 FOR POSSIBLE IMPACTS.

ADDITIONAL INFORMATION AND NEXT UPDATE

- \* REFER TO THE INTERNET SITE NTCW.ARH.NOAA.GOV FOR MORE INFORMATION.  
 \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT PTWC.WEATHER.GOV.  
 \* THIS MESSAGE WILL BE UPDATED WITHIN 60 MINUTES.

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**NTWC Bulletin #19**

WEXX30 PAAQ 170401  
 TSUATE

BULLETIN  
 PUBLIC TSUNAMI MESSAGE NUMBER 19  
 NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK  
 1201 AM EDT THU MAR 17 2016

...THE TSUNAMI ADVISORY IS CANCELLED...

- \* THE TSUNAMI ADVISORY IS CANCELED FOR THE COASTAL AREAS OF  
 FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA -  
 VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK -  
 CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE  
 - MAINE - NEW BRUNSWICK - NOVA SCOTIA AND NEWFOUNDLAND

OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

- \* OBSERVED MAX TSUNAMI HEIGHT IS THE HIGHEST RECORDED WATER LEVEL  
 ABOVE THE TIDE LEVEL UP TO THE TIME OF THIS MESSAGE.

SITE	TIME OF MEASUREMENT	OBSERVED MAX TSUNAMI HEIGHT
-----	-----	-----
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HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT

## LANTEX16 Handbook

DART 41420 US	1154	EDT MAR 16	0.4FT
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### RECOMMENDED ACTIONS - UPDATED

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- \* DO NOT RE-OCCUPY HAZARD ZONES UNTIL LOCAL EMERGENCY OFFICIALS INDICATE IT IS SAFE TO DO SO.

### IMPACTS - UPDATED

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- \* TSUNAMI ACTIVITY HAS SUBSIDED ALONG THE COASTS OF PUERTO RICO... U.S. VIRGIN ISLANDS... BRITISH VIRGIN ISLANDS... AND U.S. AND CANADIAN COASTS IN THE ATLANTIC.
- \* ONGOING ACTIVITY MAY PERSIST IN SOME AREAS CAUSING STRONG CURRENTS DANGEROUS TO SWIMMERS AND BOATS.
- \* THE DETERMINATION TO RE-OCCUPY HAZARD ZONES MUST BE MADE BY LOCAL OFFICIALS.

### ADDITIONAL INFORMATION AND NEXT UPDATE

---

- \* REFER TO THE INTERNET SITE [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV) FOR MORE INFORMATION.
- \* CARIBBEAN COASTAL REGIONS OUTSIDE PUERTO RICO... U.S. VIRGIN ISLANDS AND BRITISH VIRGIN ISLANDS SHOULD REFER TO THE PACIFIC TSUNAMI WARNING CENTER MESSAGES AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* THIS WILL BE THE FINAL U.S. NATIONAL TSUNAMI WARNING CENTER

MESSAGE ISSUED FOR THIS EVENT.

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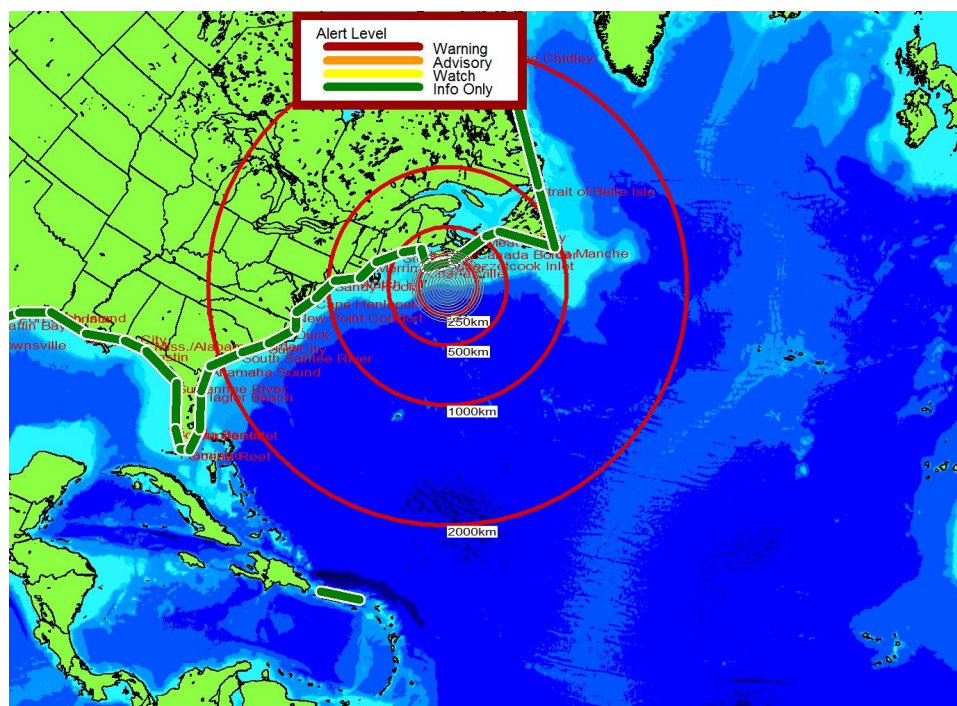


Figure D5: Tsunami Watch/Warning areas after Bulletin 19.

### **NTWC Spanish Bulletin #1**

WEXX40 PAAQ 161302  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 1  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
902 AM EDT WED MAR 16 2016

...UN AVISO DE TSUNAMI ESTA AHORA EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

\* AREAS COSTERAS DE NEW BRUNSWICK Y NOVA SCOTIA DESDE THE  
US/CANADA BORDER HASTA MEAT COVE NOVA SCOTIA

PARA OTRAS COSTAS DEL PACIFICO DE LOS ESTADOS UNIDOS Y CANADA  
EN NORTE AMERICA - EL NIVEL DE AMENAZA DE TSUNAMI ESTA SIENDO  
EVALUADO. SE PROVEERA INFORMACION ADICIONAL EN MENSAJES  
SUPLEMENTARIOS.

PARAMETROS PRELIMINARES DEL TERREMOTO

-----  
\* LOS SIGUIENTES PARAMETROS SE BASAN EN UN ANALISIS  
PRELIMINAR RAPIDO Y PUEDEN VARIAR.

\* MAGNITUD 6.8  
\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016  
\* COORDENADAS 42.7 NORTE 63.2 OESTE  
\* PROFUNDIDAD 3 MILLAS  
\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

PRONOSTICOS DEL TSUNAMI  
-----

\* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENZE EN LOS  
SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR	LLEGADA PRONOSTICADA DEL TSUNAMI
-----	-----

* NOVA SCOTIA	
LOCKEPORT	1120 ADT MAR 16
SCATARIE ISLAND	1235 ADT MAR 16

* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16

OBSERVACIONES DEL TSUNAMI  
-----

\* NO HAY OBSERVACIONES DEL TSUNAMI DISPONIBLES PARA REPORTAR.

ACCIONES RECOMENDADAS  
-----

LAS ACCIONES PARA PROTEGER LA VIDA Y PROPIEDAD PUEDEN  
VARIAR DENTRO DE LAS AREAS DE AVISO DE TSUNAMI.

SI USTED ESTA EN UN AREA DE AVISO...

\* DESALOJE TIERRA ADENTRO O A UN LUGAR ALTO FUERA DE LA ZONA  
DE INUNDACION POR TSUNAMI O MUEVASE A UN PISO ALTO DE UN  
EDIFICIO MULTIPISO SEGUN SEA SU SITUACION.

\* SALGASE DEL AGUA... DE LA PLAYA Y ALEJESE DE PUERTOS...  
MARINAS... BAHIAS... ENSENADAS Y ROMPEOLAS.

\* ESTE ALERTA Y SIGA LAS INSTRUCCIONES DE LOS OFICIALES  
LOCALES DE MANEJO DE EMERGENCIA YA QUE ELLOS PUEDEN TENER  
INFORMACION MAS DETALLADA O ESPECIFICA PARA SU UBICACION.

- \* SI SIENTE UN TERREMOTO FUERTE Y/O PROLONGADO TOME INMEDIATAMENTE ACCIONES DE SEGURIDAD COMO MOVERSE TIERRA ADENTRO Y/O HACIA UN LUGAR ALTO PREFERIBLEMENTE A PIE.
- \* OPERADORES DE BOTES...
  - \* CUANDO EL TIEMPO Y LAS CONDICIONES LO PERMITAN MUEVA SU BOTE MAR ADENTRO A UNA PROFUNDIDAD DE AL MENOS 180 PIES.
  - \* SI ESTA NAVEGANDO EVITE ENTRAR A AGUAS SOMERAS/LLANAS... PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PARA EVITAR CORRIENTES FUERTES Y OBJETOS FLOTANTES O SUMERGIDOS.
- \* NO VAYA A LA COSTA PARA OBSERVAR EL TSUNAMI.
- \* NO REGRESE A LA COSTA HASTA QUE LOS OFICIALES LOCALES DE MANEJO DE EMERGENCIA LOCAL INDIQUEN QUE ES SEGURO HACERLO.

#### IMPACTOS

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LOS IMPACTOS PUEDEN VARIAR EN DIFERENTES LUGARES DENTRO DE LAS AREAS DE AVISO.

SI USTED ESTA EN UN AREA DE AVISO...

- \* ES POSIBLE UN TSUNAMI CON OLAS DESTRUCTIVAS Y CORRIENTES FUERTES.
- \* POSIBLES INUNDACIONES COSTERAS REPETIDAS CUANDO LAS OLAS LLEGUEN A LA COSTA... SE MUEVEN TIERRA ADENTRO... Y RETROCEDEN AL OCEANO.
- \* OLAS FUERTES E INUSUALES... CORRIENTES E INUNDACIONES PUEDEN AHOGAR O HERIR PERSONAS Y DEBILITAR O DESTRUIR ESTRUCTURAS EN TIERRA Y DENTRO DEL AGUA.
- \* AGUA CON OBJETOS FLOTANTES O SUMERGIDOS PUEDEN HERIR O CAUSAR LA MUERTE A PERSONAS O DESTRUIR EDIFICIOS Y PUENTES.
- \* CORRIENTES Y OLAS FUERTES E INUSUALES EN PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PUEDEN SER ESPECIALMENTE DESTRUCTIVAS.
- \* ALGUNOS IMPACTOS PUEDEN CONTINUAR POR MUCHAS HORAS HASTA DIAS LUEGO DE LA LLEGADA DE LA PRIMERA OLA.
- \* LA PRIMERA OLA PUEDE NO SER LA MAS GRANDE LAS OLAS POSTERIORES SI.
- \* CADA OLA PUEDE DURAR DE 5 A 45 MINUTOS ENTRE SU EMBATE Y RETROCESO.
- \* COSTAS CON FRENTE EN TODAS LAS DIRECCIONES PUEDEN ESTAR EN PELIGRO PORQUE LAS OLAS PUEDEN DAR LA VUELTA A ISLAS Y ENTRAR A BAHIAS.

- \* MOVIMIENTO FUERTE Y/O PROLONGADO DEL SUELO INDICA QUE UN TERREMOTO HA OCURRIDO UN TSUNAMI PUEDE HABER SIDO GENERADO Y SU LLEGADA INMINENTE.
- \* UN RAPIDO RETROCESO DE LA LINEA DE COSTA... OLAS Y SONIDOS INUSIALES... Y FUERTES CORRIENTES SON SEÑALES DE UN TSUNAMI.
- \* EL TSUNAMI PUEDE APARECER COMO AGUA MOVIENDOSE RAPIDAMENTE HACIA MAR ADENTRO... UNA MAREA SUAVE QUE SE ELEVA RAPIDAMENTE SIN OLAS ROMPIENTES... COMO UNA SERIE DE OLAS ROMPIENTES... O UNA PARED DE AGUA ESPUMOSA.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 30 MINUTOS.

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**NTWC Spanish Bulletin #2**

WEXX40 PAAQ 161331  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 2  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
931 AM EDT WED MAR 16 2016

ACTUALIZACIONES

- \* NO HAY ACTUALIZACIONES EN ESTE MENSAJE

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK Y NOVA SCOTIA DESDE THE US/CANADA BORDER HASTA MEAT COVE NOVA SCOTIA

PARA OTRAS COSTAS DEL PACIFICO DE LOS ESTADOS UNIDOS Y CANADA

## LANTEX16 Handbook

EN NORTE AMERICA - EL NIVEL DE AMENAZA DE TSUNAMI ESTA SIENDO EVALUADO. SE PROVEERA INFORMACION ADICIONAL EN MENSAJES SUPLEMENTARIOS.

### PARAMETROS PRELIMINARES DEL TERREMOTO

-----

- \* LOS SIGUIENTES PARAMETROS SE BASAN EN UN ANALISIS PRELIMINAR RAPIDO Y PUEDEN VARIAR.
- \* MAGNITUD 6.8
- \* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDENADAS 42.7 NORTE 63.2 OESTE
- \* PROFUNDIDAD 3 MILLAS
- \* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### PRONOSTICOS DEL TSUNAMI

-----

- \* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENZE EN LOS SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR	LLEGADA PRONOSTICADA DEL TSUNAMI
-----	-----

* NOVA SCOTIA	
LOCKEPORT	1120 ADT MAR 16
SCATARIE ISLAND	1235 ADT MAR 16

* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16

### OBSERVACIONES DEL TSUNAMI

-----

- \* NO HAY OBSERVACIONES DEL TSUNAMI DISPONIBLES PARA REPORTAR.

### ACCIONES RECOMENDADAS

-----

LAS ACCIONES PARA PROTEGER LA VIDA Y PROPIEDAD PUEDEN VARIAR DENTRO DE LAS AREAS DE AVISO DE TSUNAMI.

SI USTED ESTA EN UN AREA DE AVISO...

- \* DESALOJE TIERRA ADENTRO O A UN LUGAR ALTO FUERA DE LA ZONA DE INUNDACION POR TSUNAMI O MUEVASE A UN PISO ALTO DE UN EDIFICIO MULTIPISO SEGUN SEA SU SITUACION.
- \* SALGASE DEL AGUA... DE LA PLAYA Y ALEJESE DE PUERTOS...



## LANTEX16 Handbook

MARINAS... BAHIAS... ENSENADAS Y ROMPEOLAS.

- \* ESTE ALERTA Y SIGA LAS INSTRUCCIONES DE LOS OFICIALES LOCALES DE MANEJO DE EMERGENCIA YA QUE ELLOS PUEDEN TENER INFORMACION MAS DETALLADA O ESPECIFICA PARA SU UBICACION.
- \* SI SIENTE UN TERREMOTO FUERTE Y/O PROLONGADO TOME INMEDIATAMENTE ACCIONES DE SEGURIDAD COMO MOVERSE TIERRA ADENTRO Y/O HACIA UN LUGAR ALTO PREFERIBLEMENTE A PIE.
- \* OPERADORES DE BOTES...
  - \* CUANDO EL TIEMPO Y LAS CONDICIONES LO PERMITAN MUEVA SU BOTE MAR ADENTRO A UNA PROFUNDIDAD DE AL MENOS 180 PIES.
  - \* SI ESTA NAVEGANDO EVITE ENTRAR A AGUAS SOMERAS/LLANAS... PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PARA EVITAR CORRIENTES FUERTES Y OBJETOS FLOTANTES O SUMERGIDOS.
- \* NO VAYA A LA COSTA PARA OBSERVAR EL TSUNAMI.
- \* NO REGRESE A LA COSTA HASTA QUE LOS OFICIALES LOCALES DE MANEJO DE EMERGENCIA LOCAL INDIQUEN QUE ES SEGURO HACERLO.

### IMPACTOS

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LOS IMPACTOS PUEDEN VARIAR EN DIFERENTES LUGARES DENTRO DE LAS AREAS DE AVISO.

SI USTED ESTA EN UN AREA DE AVISO...

- \* ES POSIBLE UN TSUNAMI CON OLAS DESTRUCTIVAS Y CORRIENTES FUERTES.
- \* POSIBLES INUNDACIONES COSTERAS REPETIDAS CUANDO LAS OLAS LLEGUEN A LA COSTA... SE MUEVEN TIERRA ADENTRO... Y RETROCEDEN AL OCEANO.
- \* OLAS FUERTES E INUSUALES... CORRIENTES E INUNDACIONES PUEDEN AHOGAR O HERIR PERSONAS Y DEBILITAR O DESTRUIR ESTRUCTURAS EN TIERRA Y DENTRO DEL AGUA.
- \* AGUA CON OBJETOS FLOTANTES O SUMERGIDOS PUEDEN HERIR O CAUSAR LA MUERTE A PERSONAS O DESTRUIR EDIFICIOS Y PUENTES.
- \* CORRIENTES Y OLAS FUERTES E INUSUALES EN PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PUEDEN SER ESPECIALMENTE DESTRUCTIVAS.
- \* ALGUNOS IMPACTOS PUEDEN CONTINUAR POR MUCHAS HORAS HASTA DIAS LUEGO DE LA LLEGADA DE LA PRIMERA OLA.
- \* LA PRIMERA OLA PUEDE NO SER LA MAS GRANDE LAS OLAS POSTERIORES SI.

## LANTEX16 Handbook

- \* CADA OLA PUEDE DURAR DE 5 A 45 MINUTOS ENTRE SU EMBATE Y RETROCESO.
- \* COSTAS CON FRENTE EN TODAS LAS DIRECCIONES PUEDEN ESTAR EN PELIGRO PORQUE LAS OLAS PUEDEN DAR LA VUELTA A ISLAS Y ENTRAR A BAHIAS.
- \* MOVIMIENTO FUERTE Y/O PROLONGADO DEL SUELO INDICA QUE UN TERREMOTO HA OCURRIDO UN TSUNAMI PUEDE HABER SIDO GENERADO Y SU LLEGADA INMINENTE.
- \* UN RAPIDO RETROCESO DE LA LINEA DE COSTA... OLAS Y SONIDOS INUSIALES... Y FUERTES CORRIENTES SON SEÑALES DE UN TSUNAMI.
- \* EL TSUNAMI PUEDE APARECER COMO AGUA MOVIENDOSE RAPIDAMENTE HACIA MAR ADENTRO... UNA MAREA SUAVE QUE SE ELEVA RAPIDAMENTE SIN OLAS ROMPIENTES... COMO UNA SERIE DE OLAS ROMPIENTES... O UNA PARED DE AGUA ESPUMOSA.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

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- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV).
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* ESTE MENSAJE SERA ACTUALIZADO EN 30 MINUTOS.

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### **NTWC Spanish Bulletin #3**

WEXX40 PAAQ 161401  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 3  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
1001 AM EDT WED MAR 16 2016

### ACTUALIZACIONES

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- \* NO HAY ACTUALIZACIONES EN ESTE MENSAJE

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

## LANTEX16 Handbook

- \* AREAS COSTERAS DE NEW BRUNSWICK Y NOVA SCOTIA DESDE THE US/CANADA BORDER HASTA MEAT COVE NOVA SCOTIA

PARA OTRAS COSTAS DEL PACIFICO DE LOS ESTADOS UNIDOS Y CANADA EN NORTE AMERICA - EL NIVEL DE AMENAZA DE TSUNAMI ESTA SIENDO EVALUADO. SE PROVEERA INFORMACION ADICIONAL EN MENSAJES SUPLEMENTARIOS.

### PRONOSTICOS DEL TSUNAMI

- \* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENCE EN LOS SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR	LLEGADA PRONOSTICADA DEL TSUNAMI
* NOVA SCOTIA	
LOCKEPORT	1120 ADT MAR 16
SCATARIE ISLAND	1235 ADT MAR 16
* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16

### OBSERVACIONES DEL TSUNAMI

- \* NO HAY OBSERVACIONES DEL TSUNAMI DISPONIBLES PARA REPORTAR.

### PARAMETROS PRELIMINARES DEL TERREMOTO

* MAGNITUD	6.8
* TIEMPO DE ORIGEN	0900 EDT MAR 16 2016
	0800 CDT MAR 16 2016
	0900 AST MAR 16 2016
	1300 UTC MAR 16 2016
* COORDENADAS	42.7 NORTE 63.2 OESTE
* PROFUNDIDAD	3 MILLAS
* LOCALIZACION	135 MILLAS S DE HALIFAX NOVA SCOTIA
	315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

- \* VER MENSAJE NUMERO 2 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

- \* VER MENSAJE NUMERO 2 PARA POSIBLES IMPACTOS.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 30 MINUTOS.

\$ \$

**NTWC Spanish Bulletin #4**

WEXX40 PAAQ 161436  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 4  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
1036 AM EDT WED MAR 16 2016

ACTUALIZACIONES

- \* UN TSUNAMI HA SIDO CONFIRMADO Y SE ESPERAN ALGUNAS IMPACTOS
- \* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK Y NOVA SCOTIA DESDE THE US/CANADA BORDER HASTA MEAT COVE NOVA SCOTIA

PARA OTRAS COSTAS DEL PACIFICO DE LOS ESTADOS UNIDOS Y CANADA EN NORTE AMERICA - EL NIVEL DE AMENAZA DE TSUNAMI ESTA SIENDO EVALUADO. SE PROVEERA INFORMACION ADICIONAL EN MENSAJES SUPLEMENTARIOS.

PRONOSTICOS DEL TSUNAMI

- \* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENZE EN LOS SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

	LLEGADA
	PRONOSTICADA
LUGAR	DEL TSUNAMI

## LANTEX16 Handbook

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\* NOVA SCOTIA  
LOCKEPORT 1120 ADT MAR 16  
SCATARIE ISLAND 1235 ADT MAR 16

\* NEW BRUNSWICK  
GRAND MANAN ISLA 1250 ADT MAR 16

### OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

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\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA  
MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA  
EMISION DE ESTE MENSAJE.

OBSERVADA LUGAR	HORA DE LA MEDICION	ALTURA MAX DEL TSUNAMI
DART 44402 US	1024 EDT MAR 16	1.6FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

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\* MAGNITUD 6.8  
\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016  
\* COORDENADAS 42.7 NORTE 63.2 OESTE  
\* PROFUNDIDAD 3 MILLAS  
\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

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\* VER MENSAJE NUMERO 2 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

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\* VER MENSAJE NUMERO 2 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----

\* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE  
INTERNET NTWC.ARH.NOAA.GOV.

\* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS  
VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS  
DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO  
DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET  
PTWC.WEATHER.GOV.

\* ESTE MENSAJE SERA ACTUALIZADO EN 30 MINUTOS.

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**NTWC Spanish Bulletin #5**

WEXX40 PAAQ 161505  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 5  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
1105 AM EDT WED MAR 16 2016

ACTUALIZACIONES

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\* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

\* AREAS COSTERAS DE NEW BRUNSWICK Y NOVA SCOTIA DESDE THE  
US/CANADA BORDER HASTA MEAT COVE NOVA SCOTIA

PARA OTRAS COSTAS DEL PACIFICO DE LOS ESTADOS UNIDOS Y CANADA  
EN NORTE AMERICA - EL NIVEL DE AMENAZA DE TSUNAMI ESTA SIENDO  
EVALUADO. SE PROVEERA INFORMACION ADICIONAL EN MENSAJES  
SUPLEMENTARIOS.

PRONOSTICOS DEL TSUNAMI

-----  
\* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENCE EN LOS  
SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR	LLEGADA PRONOSTICADA DEL TSUNAMI
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* NOVA SCOTIA	
LOCKEPORT	1120 ADT MAR 16
SCATARIE ISLAND	1235 ADT MAR 16

* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16

OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

## LANTEX16 Handbook

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- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
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DART 44402 US	1024 EDT MAR 16	1.6FT
BERMUDA BERMUDA	1040 EDT MAR 16	4.6FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

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- \* MAGNITUD 6.8
- \* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDENADAS 42.7 NORTE 63.2 OESTE
- \* PROFUNDIDAD 3 MILLAS
- \* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

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- \* VER MENSAJE NUMERO 2 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

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- \* VER MENSAJE NUMERO 2 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

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- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 30 MINUTOS.

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### **NTWC Spanish Bulletin #6**

WEXX40 PAAQ 161537  
TSUSPN

BULLETIN

MENSAJE DE TSUNAMI NUMERO 6

NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK

1137 AM EDT WED MAR 16 2016

ACTUALIZACIONES

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- \* NUEVAS OBSERVACIONES
- \* MODIFICA LAS REGIONES BAJO ALERTA
- \* THE WARNING AREA HAS BEEN EXTENDED NORTH BASED ON HISTORICAL IMPACTS FROM THE NEARBY 1929 TSUNAMI. THE 1929 EVENT PRODUCED WAVES EXCEEDING FIVE METERS IN NEWFOUNDLAND CANADA. AN ADVISORY REGION WAS EXTENDED SOUTH WHERE THE TSUNAMI COULD IMPART STRONG AND DANGEROUS CURRENTS.

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO FLORIDA HASTA THE US/CANADA BORDER

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

PRONOSTICOS DEL TSUNAMI

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- \* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENZE EN LOS SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR	LLEGADA PRONOSTICADA DEL TSUNAMI
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- \* NOVA SCOTIA  
SCATARIE ISLAND 1235 ADT MAR 16



# LANTEX16 Handbook

\* NORTH CAROLINA  
CAPE HATTERAS 1135 EDT MAR 16

\* NEW BRUNSWICK  
GRAND MANAN ISLA 1250 ADT MAR 16

\* NEWFOUNDLAND  
SAINT LAWRENCE 1320 NDT MAR 16  
BONAVISTA 1525 NDT MAR 16

\* NEW YORK  
MONTAUK 1155 EDT MAR 16  
MANHATTAN 1330 EDT MAR 16

\* MASSACHUSETTS  
NANTUCKET 1225 EDT MAR 16  
BOSTON 1255 EDT MAR 16

\* MAINE  
PORTLAND 1225 EDT MAR 16

\* NEW JERSEY  
ATLANTIC CITY 1230 EDT MAR 16

\* VIRGINIA  
VIRGINIA BEACH 1245 EDT MAR 16

\* FLORIDA  
MIAMI 1315 EDT MAR 16  
DAYTONA 1355 EDT MAR 16  
KEY WEST 1400 EDT MAR 16  
MELBOURNE BEACH 1405 EDT MAR 16  
JACKSONVILLE BEA 1420 EDT MAR 16

\* SOUTH CAROLINA  
MYRTLE BEACH 1405 EDT MAR 16  
CHARLESTON 1420 EDT MAR 16

\* GEORGIA  
SAVANNAH 1435 EDT MAR 16

## OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA  
MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA  
EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT

DART 41424 US

1054 EDT MAR 16

1.2FT

PARAMETROS PRELIMINARES DEL TERREMOTO

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* MAGNITUD          6.8
* TIEMPO DE ORIGEN  0900 EDT MAR 16 2016
                   0800 CDT MAR 16 2016
                   0900 AST MAR 16 2016
                   1300 UTC MAR 16 2016
* COORDENADAS       42.7 NORTE 63.2 OESTE
* PROFUNDIDAD       3 MILLAS
* LOCALIZACION      135 MILLAS S DE HALIFAX NOVA SCOTIA
                   315 MILLAS SE DE BANGOR MAINE
    
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ACCIONES RECOMENDADAS

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LAS ACCIONES PARA PROTEGER LA VIDA Y PROPIEDAD PUEDEN VARIAR DENTRO DE LAS AREAS DE AVISO Y LAS AREAS DE ADVERTENCIA DE TSUNAMI.

SI USTED ESTA EN UN AREA DE AVISO...

- \* DESALOJE TIERRA ADENTRO O A UN LUGAR ALTO FUERA DE LA ZONA DE INUNDACION POR TSUNAMI O MUEVASE A UN PISO ALTO DE UN EDIFICIO MULTIPISO SEGUN SEA SU SITUACION.

SI USTED ESTA EN UN AREA DE AVISO O ADVERTENCIA...

- \* SALGASE DEL AGUA... DE LA PLAYA Y ALEJESE DE PUERTOS... MARINAS... BAHIAS... ENSENADAS Y ROMPEOLAS.
- \* ESTE ALERTA Y SIGA LAS INSTRUCCIONES DE LOS OFICIALES LOCALES DE MANEJO DE EMERGENCIA YA QUE ELLOS PUEDEN TENER INFORMACION MAS DETALLADA O ESPECIFICA PARA SU UBICACION.
- \* SI SIENTE UN TERREMOTO FUERTE Y/O PROLONGADO TOME INMEDIATAMENTE ACCIONES DE SEGURIDAD COMO MOVERSE TIERRA ADENTRO Y/O HACIA UN LUGAR ALTO PREFERIBLEMENTE A PIE.
- \* OPERADORES DE BOTES...
  - \* CUANDO EL TIEMPO Y LAS CONDICIONES LO PERMITAN MUEVA SU BOTE MAR ADENTRO A UNA PROFUNDIDAD DE AL MENOS 180 PIES.
  - \* SI ESTA NAVEGANDO EVITE ENTRAR A AGUAS SOMERAS/LLANAS... PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PARA EVITAR CORRIENTES FUERTES Y OBJETOS FLOTANTES O SUMERGIDOS.
- \* NO VAYA A LA COSTA PARA OBSERVAR EL TSUNAMI.
- \* NO REGRESE A LA COSTA HASTA QUE LOS OFICIALES LOCALES DE MANEJO DE EMERGENCIA LOCAL INDIQUEN QUE ES SEGURO HACERLO.

IMPACTOS

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LOS IMPACTOS PUEDEN VARIAR EN DIFERENTES LUGARES DENTRO DE LAS AREAS DE AVISO Y LAS AREAS DE ADVERTENCIA.

SI USTED ESTA EN UN AREA DE AVISO...

- \* ES POSIBLE UN TSUNAMI CON OLAS DESTRUCTIVAS Y CORRIENTES FUERTES.
- \* POSIBLES INUNDACIONES COSTERAS REPETIDAS CUANDO LAS OLAS LLEGUEN A LA COSTA... SE MUEVEN TIERRA ADENTRO... Y RETROCEDEN AL OCEANO.
- \* OLAS FUERTES E INUSUALES... CORRIENTES E INUNDACIONES PUEDEN AHOGAR O HERIR PERSONAS Y DEBILITAR O DESTRUIR ESTRUCTURAS EN TIERRA Y DENTRO DEL AGUA.
- \* AGUA CON OBJETOS FLOTANTES O SUMERGIDOS PUEDEN HERIR O CAUSAR LA MUERTE A PERSONAS O DESTRUIR EDIFICIOS Y PUENTES.
- \* CORRIENTES Y OLAS FUERTES E INUSUALES EN PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PUEDEN SER ESPECIALMENTE DESTRUCTIVAS.

SI USTED ESTA EN UN AREA DE ADVERTENCIA...

- \* UN TSUNAMI CON OLAS Y CORRIENTES FUERTES PUEDE SER POSIBLE.
- \* OLAS Y CORRIENTES PUEDEN AHOGAR O HERIR PERSONAS QUE SE ENCUENTRAN EN EL AGUA.
- \* CORRIENTES EN PLAYAS Y PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PUEDEN SER ESPECIALMENTE PELIGROSAS.

SI USTED ESTA EN UN AREA DE AVISO O ADVERTENCIA...

- \* ALGUNOS IMPACTOS PUEDEN CONTINUAR POR MUCHAS HORAS HASTA DIAS LUEGO DE LA LLEGADA DE LA PRIMERA OLA.
- \* LA PRIMERA OLA PUEDE NO SER LA MAS GRANDE LAS OLAS POSTERIORES SI.
- \* CADA OLA PUEDE DURAR DE 5 A 45 MINUTOS ENTRE SU EMBATE Y RETROCESO.
- \* COSTAS CON FRENTE EN TODAS LAS DIRECCIONES PUEDEN ESTAR EN PELIGRO PORQUE LAS OLAS PUEDEN DAR LA VUELTA A ISLAS Y ENTRAR A BAHIAS.
- \* MOVIMIENTO FUERTE Y/O PROLONGADO DEL SUELO INDICA QUE UN TERREMOTO HA OCURRIDO UN TSUNAMI PUEDE HABER SIDO GENERADO Y SU LLEGADA INMINENTE.
- \* UN RAPIDO RETROCESO DE LA LINEA DE COSTA... OLAS Y SONIDOS INUSIALES... Y FUERTES CORRIENTES SON SENALES DE UN TSUNAMI.

- \* EL TSUNAMI PUEDE APARECER COMO AGUA MOVIENDOSE RAPIDAMENTE HACIA MAR ADENTRO... UNA MAREA SUAVE QUE SE ELEVA RAPIDAMENTE SIN OLAS ROMPIENTES... COMO UNA SERIE DE OLAS ROMPIENTES... O UNA PARED DE AGUA ESPUMOSA.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 30 MINUTOS.

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**NTWC Spanish Bulletin #7**

BULLETIN

MENSAJE DE TSUNAMI NUMERO 7  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
1211 PM EDT WED MAR 16 2016

ACTUALIZACIONES

- \* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO FLORIDA HASTA THE US/CANADA BORDER

## LANTEX16 Handbook

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO  
Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

### PRONOSTICOS DEL TSUNAMI

\* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENZE EN LOS  
SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR -----	LLEGADA PRONOSTICADA DEL TSUNAMI -----
* NOVA SCOTIA	
SCATARIE ISLAND	1235 ADT MAR 16
* NORTH CAROLINA	
CAPE HATTERAS	1135 EDT MAR 16
* NEW BRUNSWICK	
GRAND MANAN ISLA	1250 ADT MAR 16
* NEWFOUNDLAND	
SAINT LAWRENCE	1320 NDT MAR 16
BONAVISTA	1525 NDT MAR 16
* NEW YORK	
MONTAUK	1155 EDT MAR 16
MANHATTAN	1330 EDT MAR 16
* MASSACHUSETTS	
NANTUCKET	1225 EDT MAR 16
BOSTON	1255 EDT MAR 16
* MAINE	
PORTLAND	1225 EDT MAR 16
* NEW JERSEY	
ATLANTIC CITY	1230 EDT MAR 16
* VIRGINIA	
VIRGINIA BEACH	1245 EDT MAR 16
* FLORIDA	
MIAMI	1315 EDT MAR 16
DAYTONA	1355 EDT MAR 16
KEY WEST	1400 EDT MAR 16
MELBOURNE BEACH	1405 EDT MAR 16
JACKSONVILLE BEA	1420 EDT MAR 16
* SOUTH CAROLINA	
MYRTLE BEACH	1405 EDT MAR 16
CHARLESTON	1420 EDT MAR 16
* GEORGIA	

## LANTEX16 Handbook

SAVANNAH

1435 EDT MAR 16

### OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

- 
- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA LUGAR	HORA DE LA MEDICION	ALTURA MAX DEL TSUNAMI
-----	-----	-----
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	2.0FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	0.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	0.7FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

- 
- \* MAGNITUD 6.8
  - \* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
  - \* COORDENADAS 42.7 NORTE 63.2 OESTE
  - \* PROFUNDIDAD 3 MILLAS
  - \* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

- 
- \* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

- 
- \* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

- 
- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV).
  - \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET

PTWC.WEATHER.GOV.

\* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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**NTWC Spanish Bulletin #8**

WEXX40 PAAQ 161713  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 8  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
113 PM EDT WED MAR 16 2016

ACTUALIZACIONES

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\* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

\* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y  
NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF  
BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

\* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO  
FLORIDA HASTA THE US/CANADA BORDER

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO  
Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

PRONOSTICOS DEL TSUNAMI

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\* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENCE EN LOS  
SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

	LLEGADA
	PRONOSTICADA
LUGAR	DEL TSUNAMI

# LANTEX16 Handbook

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* NEWFOUNDLAND
BONAVISTA      1525   NDT MAR 16

* NEW YORK
MANHATTAN      1330   EDT MAR 16

* MASSACHUSETTS
NANTUCKET      1225   EDT MAR 16
BOSTON         1255   EDT MAR 16

* MAINE
PORTLAND       1225   EDT MAR 16

* NEW JERSEY
ATLANTIC CITY  1230   EDT MAR 16

* VIRGINIA
VIRGINIA BEACH 1245   EDT MAR 16

* FLORIDA
MIAMI          1315   EDT MAR 16
DAYTONA        1355   EDT MAR 16
KEY WEST       1400   EDT MAR 16
MELBOURNE BEACH 1405   EDT MAR 16
JACKSONVILLE BEA 1420   EDT MAR 16

* SOUTH CAROLINA
MYRTLE BEACH   1405   EDT MAR 16
CHARLESTON     1420   EDT MAR 16

* GEORGIA
SAVANNAH       1435   EDT MAR 16

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## OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	2.0FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.2FT
BAR HARBOR MAINE	1157 EDT MAR 16	1.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	0.8FT



## LANTEX16 Handbook

OCEAN CITY MARYLAND	1227	EDT MAR 16	1.1FT
WELLS MAINE	1233	EDT MAR 16	0.7FT
NEWPORT RHODE ISLAND	1233	EDT MAR 16	0.6FT
NEW LONDON CONNECTICUT	1245	EDT MAR 16	0.6FT
ATLANTIC CITY NJ	1240	EDT MAR 16	1.1FT
AGUADILLA PUERTO RICO	1234	EDT MAR 16	0.9FT
LIMETREE BAY VI	1251	EDT MAR 16	0.2FT
FAJARDO PUERTO RICO	1251	EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257	EDT MAR 16	0.2FT
CULEBRA PUERTO RICO	1257	EDT MAR 16	0.6FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

-----

- \* MAGNITUD 6.8
- \* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDENADAS 42.7 NORTE 63.2 OESTE
- \* PROFUNDIDAD 3 MILLAS
- \* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

-----

- \* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

-----

- \* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTWC.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

\$\$

### **NTWC Spanish Bulletin #9**

WEXX40 PAAQ 161811  
TSUSPN

BULLETIN

## LANTEX16 Handbook

MENSAJE DE TSUNAMI NUMERO 9  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
211 PM EDT WED MAR 16 2016

### ACTUALIZACIONES

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- \* NUEVAS OBSERVACIONES
- \* WAVES IN EXCESS OF FOUR METERS HAVE BEEN REPORTED IN  
BURIN NF AND PORT AU GAUL NF. WAVES IN EXCESS OF TWO  
METERS HAVE BEEN REPORTED ELSEWHERE ALONG THE  
NEWFOUNDLAND COAST.

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y  
NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF  
BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO  
FLORIDA HASTA THE US/CANADA BORDER

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO  
Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

### PRONOSTICOS DEL TSUNAMI

-----

- \* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENCE EN LOS  
SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR	LLEGADA PRONOSTICADA DEL TSUNAMI
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* NEWFOUNDLAND	
BONAVISTA	1525 NDT MAR 16

* NEW YORK	
MANHATTAN	1330 EDT MAR 16

- \* FLORIDA

# LANTEX16 Handbook

MIAMI 1315 EDT MAR 16  
 DAYTONA 1355 EDT MAR 16  
 KEY WEST 1400 EDT MAR 16  
 MELBOURNE BEACH 1405 EDT MAR 16  
 JACKSONVILLE BEA 1420 EDT MAR 16

## \* SOUTH CAROLINA

MYRTLE BEACH 1405 EDT MAR 16  
 CHARLESTON 1420 EDT MAR 16

## \* GEORGIA

SAVANNAH 1435 EDT MAR 16

## OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	1.7FT
WOODS HOLE MA	1301 EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	0.6FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16	0.5FT
LIMETREE BAY VI	1251 EDT MAR 16	0.7FT
FAJARDO PUERTO RICO	1251 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16	0.9FT
LEWES DELAWARE	1302 EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16	0.5FT

## PARAMETROS PRELIMINARES DEL TERREMOTO

\* MAGNITUD 6.8

## LANTEX16 Handbook

\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016  
\* COORDENADAS 42.7 NORTE 63.2 OESTE  
\* PROFUNDIDAD 3 MILLAS  
\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

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\* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

-----

\* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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### **NTWC Spanish Bulletin #10**

WEXX40 PAAQ 161907  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 10  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
307 PM EDT WED MAR 16 2016

### ACTUALIZACIONES

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\* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

## LANTEX16 Handbook

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y  
NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF  
BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO  
FLORIDA HASTA THE US/CANADA BORDER

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO  
Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

### PRONOSTICOS DEL TSUNAMI

- \* SE PRONOSTICA QUE LA ACTIVIDAD DEL TSUNAMI COMIENCE EN LOS  
SIGUIENTES PUNTOS A LOAS HORAS INDICADAS.

LUGAR	LLEGADA PRONOSTICADA DEL TSUNAMI
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* FLORIDA	
JACKSONVILLE BEA	1420 EDT MAR 16

* SOUTH CAROLINA	
CHARLESTON	1420 EDT MAR 16

* GEORGIA	
SAVANNAH	1435 EDT MAR 16

### OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA  
MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA  
EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
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DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT

## LANTEX16 Handbook

DART 41421 US	1151	EDT MAR 16	0.5FT
DART 41420 US	1154	EDT MAR 16	0.4FT
OREGON INLET NC	1152	EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157	EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225	EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227	EDT MAR 16	1.7FT
WELLS MAINE	1233	EDT MAR 16	2.6FT
WOODS HOLE MA	1301	EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233	EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245	EDT MAR 16	0.6FT
ATLANTIC CITY NJ	1240	EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234	EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309	EDT MAR 16	0.8FT
LIMETREE BAY VI	1251	EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437	EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251	EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257	EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257	EDT MAR 16	0.9FT
LEWES DELAWARE	1302	EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327	EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339	EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346	EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356	EDT MAR 16	0.5FT
NEW HAVEN CONNECTICUT	1410	EDT MAR 16	0.2FT
BRIDGEPORT CONNECTICUT	1424	EDT MAR 16	0.3FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

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- \* MAGNITUD 6.8
- \* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016
- \* COORDENADAS 42.7 NORTE 63.2 OESTE
- \* PROFUNDIDAD 3 MILLAS
- \* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

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- \* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

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- \* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NWC.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS

VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS  
DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO  
DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET  
PTWC.WEATHER.GOV.

\* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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**NTWC Spanish Bulletin #11**

WEXX40 PAAQ 162006  
TSUSPN

BULLETIN

MENSAJE DE TSUNAMI NUMERO 11  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
406 PM EDT WED MAR 16 2016

ACTUALIZACIONES

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\* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

\* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y  
NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF  
BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

\* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO  
FLORIDA HASTA THE US/CANADA BORDER

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO  
Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

-----

\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA  
MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA  
EMISION DE ESTE MENSAJE.

# LANTEX16 Handbook

OBSERVADA LUGAR	HORA		ALTURA MAX
	DE LA MEDICION		DEL TSUNAMI
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DART 44402 US	1024 EDT MAR 16		1.6FT
DART 44401 US	1042 EDT MAR 16		1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16		4.9FT
DART 41424 US	1054 EDT MAR 16		1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16		4.5FT
DART 41421 US	1151 EDT MAR 16		0.5FT
DART 41420 US	1154 EDT MAR 16		0.4FT
OREGON INLET NC	1152 EDT MAR 16		1.7FT
BAR HARBOR MAINE	1157 EDT MAR 16		2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16		1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16		1.7FT
WELLS MAINE	1233 EDT MAR 16		2.6FT
WOODS HOLE MA	1301 EDT MAR 16		0.8FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16		1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16		1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16		2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16		0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16		0.8FT
LIMETREE BAY VI	1251 EDT MAR 16		0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16		0.9FT
FAJARDO PUERTO RICO	1251 EDT MAR 16		0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16		0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16		0.9FT
LEWES DELAWARE	1302 EDT MAR 16		0.6FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16		0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16		0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16		0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16		1.2FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16		0.2FT
BRIDGEPORT CONNECTICUT	1424 EDT MAR 16		0.3FT
SAVANNAH GEORGIA	1504 EDT MAR 16		0.3FT

## PARAMETROS PRELIMINARES DEL TERREMOTO

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* MAGNITUD          6.8
* TIEMPO DE ORIGEN  0900 EDT MAR 16 2016
                   0800 CDT MAR 16 2016
                   0900 AST MAR 16 2016
                   1300 UTC MAR 16 2016
* COORDENADAS       42.7 NORTE 63.2 OESTE
* PROFUNDIDAD        3 MILLAS
* LOCALIZACION       135 MILLAS S DE HALIFAX NOVA SCOTIA
                   315 MILLAS SE DE BANGOR MAINE

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## ACCIONES RECOMENDADAS

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* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

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IMPACTOS

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- \* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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**NTWC Spanish Bulletin #12**

WEXX40 PAAQ 162101  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 12  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
501 PM EDT WED MAR 16 2016

ACTUALIZACIONES

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- \* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO FLORIDA HASTA THE US/CANADA BORDER

# LANTEX16 Handbook

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO  
Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

## OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA  
MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA  
EMISION DE ESTE MENSAJE.

OBSERVADA LUGAR	HORA DE LA MEDICION	ALTURA MAX DEL TSUNAMI
DART 44402 US	1024 EDT MAR 16	0.6FT
DART 44401 US	1042 EDT MAR 16	0.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	1.9FT
DART 41424 US	1054 EDT MAR 16	0.7FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	2.0FT
SAINT PIERRE-MIQUELON FR	1132 EDT MAR 16	0.7FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1257 EDT MAR 16	1.0FT
SAINT LAWRENCE NL	1205 EDT MAR 16	9.8FT
THE US/CANADA BORDER US	1403 EDT MAR 16	3.0FT
BAR HARBOR MAINE	1600 EDT MAR 16	2.1FT
DUCK NORTH CAROLINA	1503 EDT MAR 16	1.0FT
OCEAN CITY MARYLAND	1645 EDT MAR 16	1.1FT
WELLS MAINE	1405 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	0.3FT
NEWPORT RHODE ISLAND	1645 EDT MAR 16	1.1FT
NEW LONDON CONNECTICUT	1549 EDT MAR 16	0.8FT
ATLANTIC CITY NJ	1318 EDT MAR 16	1.2FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1408 EDT MAR 16	0.6FT
LIMETREE BAY VI	1527 EDT MAR 16	0.3FT
LEWES DELAWARE	1302 EDT MAR 16	0.6FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1534 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1339 EDT MAR 16	0.6FT
CULEBRA PUERTO RICO	1548 EDT MAR 16	0.9FT
CHESAPEAKE BRIDGE VA	1421 EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16	0.2FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16	0.5FT
BRIDGEPORT CONNECTICUT	1516 EDT MAR 16	0.6FT
SAVANNAH GEORGIA	1504 EDT MAR 16	0.3FT

## PARAMETROS PRELIMINARES DEL TERREMOTO

\* MAGNITUD 6.8  
\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016

## LANTEX16 Handbook

0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016  
\* COORDENADAS 42.7 NORTE 63.2 OESTE  
\* PROFUNDIDAD 3 MILLAS  
\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

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\* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

-----  
\* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----  
\* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE  
INTERNET NTWC.ARH.NOAA.GOV.  
  
\* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS  
VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS  
DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO  
DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET  
PTWC.WEATHER.GOV.  
  
\* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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### **NTWC Spanish Bulletin #13**

WEXX40 PAAQ 162202  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 13  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
602 PM EDT WED MAR 16 2016

### ACTUALIZACIONES

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\* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

# LANTEX16 Handbook

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y  
NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF  
BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA -  
NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW  
JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND -  
MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO  
FLORIDA HASTA THE US/CANADA BORDER

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO  
Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

## OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA  
MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA  
EMISION DE ESTE MENSAJE.

OBSERVADA	HORA			ALTURA MAX
LUGAR	DE LA MEDICION			DEL TSUNAMI
DART 44402 US	1024	EDT	MAR 16	1.6FT
DART 44401 US	1042	EDT	MAR 16	1.5FT
BERMUDA BERMUDA	1127	EDT	MAR 16	4.9FT
DART 41424 US	1054	EDT	MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106	EDT	MAR 16	4.5FT
DART 41421 US	1151	EDT	MAR 16	0.5FT
DART 41420 US	1154	EDT	MAR 16	0.4FT
OREGON INLET NC	1152	EDT	MAR 16	1.7FT
BAR HARBOR MAINE	1157	EDT	MAR 16	2.7FT
DUCK NORTH CAROLINA	1225	EDT	MAR 16	1.5FT
OCEAN CITY MARYLAND	1227	EDT	MAR 16	1.7FT
WELLS MAINE	1233	EDT	MAR 16	2.6FT
WOODS HOLE MA	1301	EDT	MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233	EDT	MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245	EDT	MAR 16	1.5FT
ATLANTIC CITY NJ	1240	EDT	MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234	EDT	MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309	EDT	MAR 16	0.8FT
LIMETREE BAY VI	1251	EDT	MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437	EDT	MAR 16	0.9FT
FAJARDO PUERTO RICO	1251	EDT	MAR 16	0.9FT
MAGUEYES ISLAND PR	1257	EDT	MAR 16	0.7FT
CULEBRA PUERTO RICO	1257	EDT	MAR 16	0.9FT
LEWES DELAWARE	1302	EDT	MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327	EDT	MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339	EDT	MAR 16	0.9FT

## LANTEX16 Handbook

KIPTOPEKE VIRGINIA	1346	EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356	EDT MAR 16	1.2FT
NEW HAVEN CONNECTICUT	1410	EDT MAR 16	0.2FT
BRIDGEPORT CONNECTICUT	1424	EDT MAR 16	0.7FT
SAVANNAH GEORGIA	1504	EDT MAR 16	0.3FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

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- \* MAGNITUD 6.8
- \* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
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1300 UTC MAR 16 2016
- \* COORDENADAS 42.7 NORTE 63.2 OESTE
- \* PROFUNDIDAD 3 MILLAS
- \* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

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- \* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

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- \* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

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- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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### **NTWC Spanish Bulletin #14**

WEXX40 PAAQ 162259  
TSUSPN

#### BULLETIN

MENSAJE DE TSUNAMI NUMERO 14  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
659 PM EDT WED MAR 16 2016

## LANTEX16 Handbook

### ACTUALIZACIONES

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#### \* NUEVAS OBSERVACIONES

...EL AVISO DE TSUNAMI PERMANECE EN EFECTO...

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

AVISO DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO FLORIDA HASTA THE US/CANADA BORDER

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

### OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

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- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA LUGAR	HORA		ALTURA MAX	
	DE LA MEDICION		DEL TSUNAMI	
DART 44402 US	1024	EDT MAR 16	1.6FT	
DART 44401 US	1042	EDT MAR 16	1.5FT	
BERMUDA BERMUDA	1127	EDT MAR 16	4.9FT	
DART 41424 US	1054	EDT MAR 16	1.2FT	
HALIFAX NOVA SCOTIA	1106	EDT MAR 16	4.5FT	
DART 41421 US	1151	EDT MAR 16	0.5FT	
DART 41420 US	1154	EDT MAR 16	0.4FT	
OREGON INLET NC	1152	EDT MAR 16	1.7FT	
BAR HARBOR MAINE	1157	EDT MAR 16	2.7FT	
DUCK NORTH CAROLINA	1225	EDT MAR 16	1.5FT	
OCEAN CITY MARYLAND	1227	EDT MAR 16	1.7FT	
WELLS MAINE	1233	EDT MAR 16	2.6FT	
WOODS HOLE MA	1301	EDT MAR 16	0.8FT	
NEWPORT RHODE ISLAND	1233	EDT MAR 16	1.3FT	
NEW LONDON CONNECTICUT	1245	EDT MAR 16	1.5FT	

## LANTEX16 Handbook

ATLANTIC CITY NJ	1240	EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234	EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309	EDT MAR 16	0.8FT
LIMETREE BAY VI	1251	EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437	EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251	EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257	EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257	EDT MAR 16	0.9FT
LEWES DELAWARE	1302	EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327	EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339	EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346	EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356	EDT MAR 16	1.2FT
NEW HAVEN CONNECTICUT	1410	EDT MAR 16	0.2FT
BRIDGEPORT CONNECTICUT	1424	EDT MAR 16	0.7FT
SAVANNAH GEORGIA	1504	EDT MAR 16	0.3FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

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\* MAGNITUD 6.8

\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

\* COORDENADAS 42.7 NORTE 63.2 OESTE

\* PROFUNDIDAD 3 MILLAS

\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS

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\* VER MENSAJE NUMERO 6 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

-----

\* VER MENSAJE NUMERO 6 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----

\* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE  
INTERNET NTCW.ARH.NOAA.GOV.

\* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS  
VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS  
DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO  
DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET  
PTWC.WEATHER.GOV.

\* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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**NTWC Spanish Bulletin #15**

WEXX40 PAAQ 170000  
TSUSPN

## BULLETIN

MENSAJE DE TSUNAMI NUMERO 15

NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK

800 PM EDT WED MAR 16 2016

## ACTUALIZACIONES

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- \* NUEVAS OBSERVACIONES
- \* WAVES IN NOVA SCOTIA, NEWFOUNDLAND, AND LABRADOR ARE REPORTED TO BE BELOW 1.0 METERS IN HEIGHT.

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

## ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE Y MAINE DESDE FLAMINGO FLORIDA HASTA THE US/CANADA BORDER
- \* AREAS COSTERAS DE NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE THE US/CANADA BORDER HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

## OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

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- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
-----	-----	-----
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT



## LANTEX16 Handbook

DART 41420 US	1154	EDT MAR 16	0.4FT
OREGON INLET NC	1152	EDT MAR 16	1.7FT
BAR HARBOR MAINE	1157	EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225	EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227	EDT MAR 16	1.7FT
WELLS MAINE	1233	EDT MAR 16	2.6FT
WOODS HOLE MA	1301	EDT MAR 16	0.8FT
NEWPORT RHODE ISLAND	1233	EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245	EDT MAR 16	1.5FT
ATLANTIC CITY NJ	1240	EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234	EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309	EDT MAR 16	0.8FT
LIMETREE BAY VI	1251	EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437	EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251	EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257	EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257	EDT MAR 16	0.9FT
LEWES DELAWARE	1302	EDT MAR 16	0.6FT
CHESAPEAKE BRIDGE VA	1327	EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339	EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346	EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356	EDT MAR 16	1.2FT
NEW HAVEN CONNECTICUT	1410	EDT MAR 16	0.2FT
BRIDGEPORT CONNECTICUT	1424	EDT MAR 16	0.7FT
SAVANNAH GEORGIA	1504	EDT MAR 16	0.3FT

### PARAMETROS PRELIMINARES DEL TERREMOTO

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\* MAGNITUD 6.8

\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
 0800 CDT MAR 16 2016  
 0900 AST MAR 16 2016  
 1300 UTC MAR 16 2016

\* COORDENADAS 42.7 NORTE 63.2 OESTE

\* PROFUNDIDAD 3 MILLAS

\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
 315 MILLAS SE DE BANGOR MAINE

### ACCIONES RECOMENDADAS - ACTUALIZADAS

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LAS ACCIONES PARA PROTEGER LA VIDA Y PROPIEDAD PUEDEN VARIAR DENTRO DE LAS AREAS DE ADVERTENCIA DE TSUNAMI.

SI USTED ESTA EN UN AREA DE ADVERTENCIA...

- \* SALGASE DEL AGUA... DE LA PLAYA Y ALEJESE DE PUERTOS... MARINAS... BAHIAS... ENSENADAS Y ROMPEOLAS.
- \* ESTE ALERTA Y SIGA LAS INSTRUCCIONES DE LOS OFICIALES LOCALES DE MANEJO DE EMERGENCIA YA QUE ELLOS PUEDEN TENER INFORMACION MAS DETALLADA O ESPECIFICA PARA SU UBICACION.
- \* SI SIENTE UN TERREMOTO FUERTE Y/O PROLONGADO TOME INMEDIATAMENTE ACCIONES DE SEGURIDAD COMO MOVERSE TIERRA

ADENTRO Y/O HACIA UN LUGAR ALTO PREFERIBLEMENTE A PIE.

- \* OPERADORES DE BOTES...
  - \* CUANDO EL TIEMPO Y LAS CONDICIONES LO PERMITAN MUEVA SU BOTE MAR ADENTRO A UNA PROFUNDIDAD DE AL MENOS 180 PIES.
  - \* SI ESTA NAVEGANDO EVITE ENTRAR A AGUAS SOMERAS/LLANAS... PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PARA EVITAR CORRIENTES FUERTES Y OBJETOS FLOTANTES O SUMERGIDOS.
- \* NO VAYA A LA COSTA PARA OBSERVAR EL TSUNAMI.
- \* NO REGRESE A LA COSTA HASTA QUE LOS OFICIALES LOCALES DE MANEJO DE EMERGENCIA LOCAL INDIQUEN QUE ES SEGURO HACERLO.

#### IMPACTOS

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LOS IMPACTOS PUEDEN VARIAR EN DIFERENTES LUGARES DENTRO DE LAS AREAS DE ADVERTENCIA.

SI USTED ESTA EN UN AREA DE ADVERTENCIA...

- \* UN TSUNAMI CON OLAS Y CORRIENTES FUERTES PUEDE SER POSIBLE.
- \* OLAS Y CORRIENTES PUEDEN AHOGAR O HERIR PERSONAS QUE SE ENCUENTRAN EN EL AGUA.
- \* CORRIENTES EN PLAYAS Y PUERTOS... MARINAS... BAHIAS... Y ENSENADAS PUEDEN SER ESPECIALMENTE PELIGROSAS.
- \* ALGUNOS IMPACTOS PUEDEN CONTINUAR POR MUCHAS HORAS HASTA DIAS LUEGO DE LA LLEGADA DE LA PRIMERA OLA.
- \* LA PRIMERA OLA PUEDE NO SER LA MAS GRANDE LAS OLAS POSTERIORES SI.
- \* CADA OLA PUEDE DURAR DE 5 A 45 MINUTOS ENTRE SU EMBATE Y RETROCESO.
- \* COSTAS CON FRENTE EN TODAS LAS DIRECCIONES PUEDEN ESTAR EN PELIGRO PORQUE LAS OLAS PUEDEN DAR LA VUELTA A ISLAS Y ENTRAR A BAHIAS.
- \* MOVIMIENTO FUERTE Y/O PROLONGADO DEL SUELO INDICA QUE UN TERREMOTO HA OCURRIDO UN TSUNAMI PUEDE HABER SIDO GENERADO Y SU LLEGADA INMINENTE.
- \* UN RAPIDO RETROCESO DE LA LINEA DE COSTA... OLAS Y SONIDOS INUSIALES... Y FUERTES CORRIENTES SON SEÑALES DE UN TSUNAMI.
- \* EL TSUNAMI PUEDE APARECER COMO AGUA MOVIENDOSE RAPIDAMENTE HACIA MAR ADENTRO... UNA MAREA SUAVE QUE SE ELEVA RAPIDAMENTE SIN OLAS ROMPIENTES... COMO UNA SERIE DE OLAS ROMPIENTES... O UNA PARED DE AGUA ESPUMOSA.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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**NTWC Spanish Bulletin #16**

WEXX40 PAAQ 170101  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 16  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
901 PM EDT WED MAR 16 2016

ACTUALIZACIONES

- \* NUEVAS OBSERVACIONES

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE - MAINE - NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE FLAMINGO FLORIDA HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

# LANTEX16 Handbook

OBSERVADA LUGAR	HORA		ALTURA MAX
	DE LA MEDICION		DEL TSUNAMI
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DART 44402 US	1024 EDT MAR 16		1.6FT
DART 44401 US	1042 EDT MAR 16		1.5FT
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DART 41424 US	1054 EDT MAR 16		1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16		4.5FT
DART 41421 US	1151 EDT MAR 16		0.5FT
DART 41420 US	1154 EDT MAR 16		0.4FT
OREGON INLET NC	1152 EDT MAR 16		1.9FT
BAR HARBOR MAINE	1157 EDT MAR 16		2.7FT
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OCEAN CITY MARYLAND	1227 EDT MAR 16		1.7FT
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NEWPORT RHODE ISLAND	1233 EDT MAR 16		1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16		1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16		2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16		0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16		1.5FT
LIMETREE BAY VI	1251 EDT MAR 16		0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16		0.9FT
FAJARDO PUERTO RICO	1251 EDT MAR 16		0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16		0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16		0.9FT
LEWES DELAWARE	1302 EDT MAR 16		0.6FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16		0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16		0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16		0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16		1.2FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16		0.6FT
BRIDGEPORT CONNECTICUT	1424 EDT MAR 16		0.7FT
SAVANNAH GEORGIA	1504 EDT MAR 16		0.8FT

## PARAMETROS PRELIMINARES DEL TERREMOTO

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* MAGNITUD          6.8
* TIEMPO DE ORIGEN  0900 EDT MAR 16 2016
                   0800 CDT MAR 16 2016
                   0900 AST MAR 16 2016
                   1300 UTC MAR 16 2016
* COORDENADAS       42.7 NORTE 63.2 OESTE
* PROFUNDIDAD       3 MILLAS
* LOCALIZACION      135 MILLAS S DE HALIFAX NOVA SCOTIA
                   315 MILLAS SE DE BANGOR MAINE

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## ACCIONES RECOMENDADAS

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* VER MENSAJE NUMERO 15 PARA ACCIONES RECOMENDADAS.

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IMPACTOS

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- \* VER MENSAJE NUMERO 15 PARA POSIBLES IMPACTOS.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

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- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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**NTWC Spanish Bulletin #17**

WEXX40 PAAQ 170201  
TSUSPN

BULLETIN

MENSAJE DE TSUNAMI NUMERO 17  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
1001 PM EDT WED MAR 16 2016

ACTUALIZACIONES

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- \* NUEVAS OBSERVACIONES

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- \* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE - MAINE - NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE FLAMINGO FLORIDA HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

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# LANTEX16 Handbook

\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.9FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	1.2FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.3FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16	1.5FT
LIMETREE BAY VI	1251 EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16	0.9FT
LEWES DELAWARE	1302 EDT MAR 16	0.8FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16	0.3FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16	1.2FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16	0.8FT
BRIDGEPORT CONNECTICUT	1424 EDT MAR 16	0.7FT
SAVANNAH GEORGIA	1504 EDT MAR 16	0.8FT

## PARAMETROS PRELIMINARES DEL TERREMOTO

\* MAGNITUD 6.8

\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

\* COORDENADAS 42.7 NORTE 63.2 OESTE

\* PROFUNDIDAD 3 MILLAS

\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE

## ACCIONES RECOMENDADAS

\* VER MENSAJE NUMERO 15 PARA ACCIONES RECOMENDADAS.

IMPACTOS

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\* VER MENSAJE NUMERO 15 PARA POSIBLES IMPACTOS.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

-----

\* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.

\* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.

\* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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**NTWC Spanish Bulletin #18**

WEXX40 PAAQ 170301  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 18  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
1101 PM EDT WED MAR 16 2016

ACTUALIZACIONES

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\* NUEVAS OBSERVACIONES

...LA ADVERTENCIA DE TSUNAMI PERMANECE EN EFECTO...

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

\* AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE - MAINE - NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND DESDE FLAMINGO FLORIDA HASTA STRAIT OF BELLE ISLE NEWFOUNDLAND

PARA OTRAS COSTAS DE ESTADOS UNIDOS Y CANADA EN EL ATLANTICO Y GOLFO DE MEXICO - NO EXISTE AMENAZA DE TSUNAMI.

# LANTEX16 Handbook

## OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

\* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI
DART 44402 US	1024 EDT MAR 16	1.6FT
DART 44401 US	1042 EDT MAR 16	1.5FT
BERMUDA BERMUDA	1127 EDT MAR 16	4.9FT
DART 41424 US	1054 EDT MAR 16	1.2FT
HALIFAX NOVA SCOTIA	1106 EDT MAR 16	4.5FT
DART 41421 US	1151 EDT MAR 16	0.5FT
DART 41420 US	1154 EDT MAR 16	0.4FT
OREGON INLET NC	1152 EDT MAR 16	1.9FT
BAR HARBOR MAINE	1157 EDT MAR 16	2.7FT
DUCK NORTH CAROLINA	1225 EDT MAR 16	1.5FT
OCEAN CITY MARYLAND	1227 EDT MAR 16	1.7FT
WELLS MAINE	1233 EDT MAR 16	2.6FT
WOODS HOLE MA	1301 EDT MAR 16	1.2FT
NEWPORT RHODE ISLAND	1233 EDT MAR 16	1.3FT
NEW LONDON CONNECTICUT	1245 EDT MAR 16	1.5FT
ATLANTIC CITY NJ	1240 EDT MAR 16	2.6FT
AGUADILLA PUERTO RICO	1234 EDT MAR 16	0.9FT
SANDY HOOK NEW JERSEY	1309 EDT MAR 16	1.6FT
LIMETREE BAY VI	1251 EDT MAR 16	0.7FT
MAYAGUEZ PUERTO RICO	1437 EDT MAR 16	0.9FT
FAJARDO PUERTO RICO	1251 EDT MAR 16	0.9FT
MAGUEYES ISLAND PR	1257 EDT MAR 16	0.7FT
CULEBRA PUERTO RICO	1257 EDT MAR 16	0.9FT
LEWES DELAWARE	1302 EDT MAR 16	0.8FT
CHESAPEAKE BRIDGE VA	1327 EDT MAR 16	0.6FT
WRIGHTSVILLE BEACH NC	1339 EDT MAR 16	0.9FT
KIPTOPEKE VIRGINIA	1346 EDT MAR 16	0.2FT
PORT CANAVERAL FLORIDA	1356 EDT MAR 16	1.2FT
NEW HAVEN CONNECTICUT	1410 EDT MAR 16	0.8FT
BRIDGEPORT CONNECTICUT	1424 EDT MAR 16	0.7FT
SAVANNAH GEORGIA	1504 EDT MAR 16	0.8FT

## PARAMETROS PRELIMINARES DEL TERREMOTO

\* MAGNITUD 6.8

\* TIEMPO DE ORIGEN 0900 EDT MAR 16 2016  
0800 CDT MAR 16 2016  
0900 AST MAR 16 2016  
1300 UTC MAR 16 2016

\* COORDENADAS 42.7 NORTE 63.2 OESTE

\* PROFUNDIDAD 3 MILLAS

\* LOCALIZACION 135 MILLAS S DE HALIFAX NOVA SCOTIA  
315 MILLAS SE DE BANGOR MAINE



## LANTEX16 Handbook

### ACCIONES RECOMENDADAS

- \* VER MENSAJE NUMERO 15 PARA ACCIONES RECOMENDADAS.

### IMPACTOS

- \* VER MENSAJE NUMERO 15 PARA POSIBLES IMPACTOS.

### INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTCW.ARH.NOAA.GOV.
- \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
- \* ESTE MENSAJE SERA ACTUALIZADO EN 60 MINUTOS.

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### **NTWC Spanish Bulletin #19**

WEXX40 PAAQ 170401  
TSUSPN

BULLETIN  
MENSAJE DE TSUNAMI NUMERO 19  
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK  
1201 AM EDT THU MAR 17 2016

...LA ADVERTENCIA DE TSUNAMI HA SIDO CANCELADA...

- \* LA ADVERTENCIA DE TSUNAMI HA SIDO CANCELADO PARA AREAS COSTERAS DE FLORIDA - GEORGIA - SOUTH CAROLINA - NORTH CAROLINA - VIRGINIA - MARYLAND - DELAWARE - NEW JERSEY - NEW YORK - CONNECTICUT - RHODE ISLAND - MASSACHUSETTS - NEW HAMPSHIRE - MAINE - NEW BRUNSWICK - NOVA SCOTIA Y NEWFOUNDLAND

### OBSERVACIONES DEL TSUNAMI - ACTUALIZADAS

- \* LA ALTURA MAXIMA OBSERVADA DEL TSUNAMI ES EL NIVEL DE AGUA MAS ALTO REGISTRADO SOBRE EL NIVEL DE LA MAREA HASTA LA EMISION DE ESTE MENSAJE.

OBSERVADA	HORA	ALTURA MAX
LUGAR	DE LA MEDICION	DEL TSUNAMI

## LANTEX16 Handbook

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DART 44402	US	1024	EDT	MAR	16	1.6FT
DART 44401	US	1042	EDT	MAR	16	1.5FT
BERMUDA	BERMUDA	1127	EDT	MAR	16	4.9FT
DART 41424	US	1054	EDT	MAR	16	1.2FT
HALIFAX	NOVA SCOTIA	1106	EDT	MAR	16	4.5FT
DART 41421	US	1151	EDT	MAR	16	0.5FT
DART 41420	US	1154	EDT	MAR	16	0.4FT
OREGON INLET	NC	1152	EDT	MAR	16	1.9FT
BAR HARBOR	MAINE	1157	EDT	MAR	16	2.7FT
DUCK	NORTH CAROLINA	1225	EDT	MAR	16	1.5FT
OCEAN CITY	MARYLAND	1227	EDT	MAR	16	1.7FT
WELLS	MAINE	1233	EDT	MAR	16	2.6FT
WOODS HOLE	MA	1301	EDT	MAR	16	1.2FT
NEWPORT	RHODE ISLAND	1233	EDT	MAR	16	1.3FT
NEW LONDON	CONNECTICUT	1245	EDT	MAR	16	1.5FT
ATLANTIC CITY	NJ	1240	EDT	MAR	16	2.6FT
AGUADILLA	PUERTO RICO	1234	EDT	MAR	16	0.9FT
SANDY HOOK	NEW JERSEY	1309	EDT	MAR	16	1.6FT
LIMETREE BAY	VI	1251	EDT	MAR	16	0.7FT
MAYAGUEZ	PUERTO RICO	1437	EDT	MAR	16	0.9FT
FAJARDO	PUERTO RICO	1251	EDT	MAR	16	0.9FT
MAGUEYES	ISLAND PR	1257	EDT	MAR	16	0.7FT
CULEBRA	PUERTO RICO	1257	EDT	MAR	16	0.9FT
LEWES	DELAWARE	1302	EDT	MAR	16	0.8FT
CHESAPEAKE BRIDGE	VA	1327	EDT	MAR	16	0.6FT
WRIGHTSVILLE BEACH	NC	1339	EDT	MAR	16	0.9FT
KIPTOPEKE	VIRGINIA	1346	EDT	MAR	16	0.2FT
PORT CANAVERAL	FLORIDA	1356	EDT	MAR	16	1.2FT
NEW HAVEN	CONNECTICUT	1410	EDT	MAR	16	0.8FT
BRIDGEPORT	CONNECTICUT	1424	EDT	MAR	16	0.7FT
SAVANNAH	GEORGIA	1504	EDT	MAR	16	0.8FT

### ACCIONES RECOMENDADAS - ACTUALIZADAS

- 
- \* NO REGRESEN A ZONAS DESALOJADAS HASTA QUE LAS AUTORIDADES LOCALES DE MANEJO DE EMERGENCIA INDIQUEN QUE ES SEGURO HACERLO.

### IMPACTOS - ACTUALIZADOS

- 
- \* LA ACTIVIDAD DE TSUNAMI HA DISMINUIDO A LO LARGO DE LAS COSTAS DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS... ISLAS VIRGENES BRITANICAS Y DE LAS COSTAS DEL ATLANTICO DE ESTADOS UNIDOS Y CANADA.
  - \* ACTIVIDAD EN CURSO PUEDE SEGUIR EN ALGUNAS AREAS CAUSANDO FUERTES CORRIENTES PELIGROSOS PARA NADADORES Y EMBARCACIONES.
  - \* LA DETERMINACION PARA VOLVER A OCUPAR ZONAS DE PELIGRO DEBE SER HECHA POR AUTORIDADES LOCALES.

INFORMACION ADICIONAL E PROXIMA ACTUALIZACION

- 
- \* PARA ACCEDER A INFORMACION ADICIONAL CONSULTE EL SITIO DE INTERNET NTWC.ARH.NOAA.GOV.
  - \* REGIONES COSTERAS DEL CARIBE FUERA DE PUERTO RICO... ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS DEBEN CONSULTAR LOS MENSAJES EMITIDOS POR EL CENTRO DE ALERTA DE TSUNAMI DEL PACIFICO EN SU SITIO DE INTERNET PTWC.WEATHER.GOV.
  - \* ESTE SERA EL ULTIMO BOLETIN PROVENIENTE DEL CENTRO NACIONAL DE ALERTA DE TSUNAMI DE LOS ESTADOS UNIDOS PARA ESTE EVENTO.

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Exercise

## Appendix E. 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)

### **ATLANTIC TSUNAMI EXERCISE TO BE CONDUCTED March 16, 2016**

(*insert community/county/state name*) will join other localities in the Atlantic as a participant in a tsunami response exercise on March 16, 2016. 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 2011 Japan earthquake 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 LANTEX16, will simulate a widespread Tsunami Warning and Advisory situation throughout the north-Atlantic 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 130 miles S of Halifax, Nova Scotia and 400 miles E of Boston, Massachusetts at 42.7°N, 63.2°W at 9:00 am Eastern Daylight Time (*or appropriate local time*) on March 16, 2016. Exercise participants will be provided with a handbook which describes the scenario and contains tsunami messages from the U.S. National Tsunami Warning Center (NTWC). The NTWC is responsible for providing tsunami information to the Atlantic coasts of U.S. and Canada as well as the Gulf of Mexico coast.

*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 U.S. National Tsunami Hazard Mitigation Program (NTHMP – a partnership of 29 states and territories and three federal agencies). For more information on the U.S. tsunami warning system, see [www.tsunami.gov](http://www.tsunami.gov). For more information on the NTHMP, see [nthmp.tsunami.gov](http://nthmp.tsunami.gov).

###

On the Web:

National Tsunami Warning Center

<http://NTWC.arh.noaa.gov>

Pacific Tsunami Warning Center

<http://ptwc.weather.gov>

NOAA Tsunami Program

<http://www.tsunami.gov>

NTHMP:

<http://nthmp.tsunami.gov>

*Insert state/local emergency response URLs*

Exercise