



CARIBE WAVE/LANTEX 2015

Visioconférence

26 février 2015

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avec**

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**Programme d'Alerte aux Tsunamis des Caraïbes
Service national de Météorologie, EEUUAA**

WELCOME!!!!

CARIBE WAVE 2014 Webinar Series

- ✓ 20 January in English
- ✓ 21 de enero en Español
- ✓ 22 janvier en Français
- ✓ 24 February in English
- ✓ 25 de febrero en Español
- ✓ 26 février en Français

CADRE INSTITUTIONNEL DE RÉFÉRENCE POUR L'EXERCISE

- L'organisation des Nations Unies pour l'éducation, les sciences et la culture (UNESCO), Le Groupe intergouvernemental de coordination du Système d'alerte aux tsunamis et autres menaces côtières dans les Caraïbes et régions adjacentes (**ICG / CARIBE-EWS**)
- L'Agence de gestion des urgences en cas de catastrophe des Caraïbes (**CDEMA**)
- Le Centre de coordination pour la prévention des catastrophes naturelles en Amérique centrale (**CEPRENAC**)
- L'Etat-major interministériel de zone Antilles (**EMIZ Antilles**)
- Le Programme national US NWS d'atténuation des risques de tsunami (**NTHMP**) et le Programme d'alerte aux tsunamis pour les Caraïbes (**CTWP**)

Objectifs (suite)

Objectif	Résultat 2013	Objectif 2014	Résultat 2014	Objectif 2015
Participation des états membres de l'ICG CARIBE EWS avec les points focaux d'alerte aux tsunamis	94%	95%	98% (incluant deux MS/Territoires officieux)	95% (actuellement 46%) 100%
Respect de la chronologie	proche de 100%	100%	proche de 100%	100%
Participation de la communauté (au-delà de TWFP)	69%	75%	75%	80%
Nombre de personnes enregistrées			191,000	+10% (actuellement 8,324)
TWP reçoit le message fictif	98%	100%	94%	100%
Pays soumettant le questionnaire sur l'exercice.	90%	100%	100%	100%

Manuel de l' Exercice

- Les manuels de l'exercice sont disponibles sur www.caribewave.info
- Le manuel de l'UNESCO IOC CARIBE EWS pour le scénario de Panama Scenario est seulement disponible en anglais.
- L'annexe de PTWC pour le scénario de la Floride, seulement en anglais.
- L'annexe de PTWC pour les produits nouveaux(en cours)
- Ils comprennent les mesures proposées ainsi qu'une description du scénario, la chronologie, les temps de trajet et la hauteur prévue des vagues, les chiffres et exemples de messages à transmettre pendant l'événement et le lien vers le site où trouver le questionnaire d'évaluation.

CARIBE WAVE/LANTEX 2015

- Lors de cet exercice, le PTWC et le NTWC vont diffuser des messages pour des tsunamis hypothétiques déclenchés d'une part par un séisme situé au large des côtes du Panama et de l'autre par un glissement de terrain sous-marin situé au large des côtes de la Floride.
- Le scénario Panama a été modélisé en prenant les hypothèses de l'événement réel séisme et tsunami du 7 septembre 1882.
- Le tsunami généré par le séisme du Panama de 1882 a affecté le littoral des pays et territoires bordant la mer des Caraïbes.
- La hauteur maximum de vague résultant de ce tsunami a été enregistrée à 3 mètres.

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Tsunami Travel Times

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

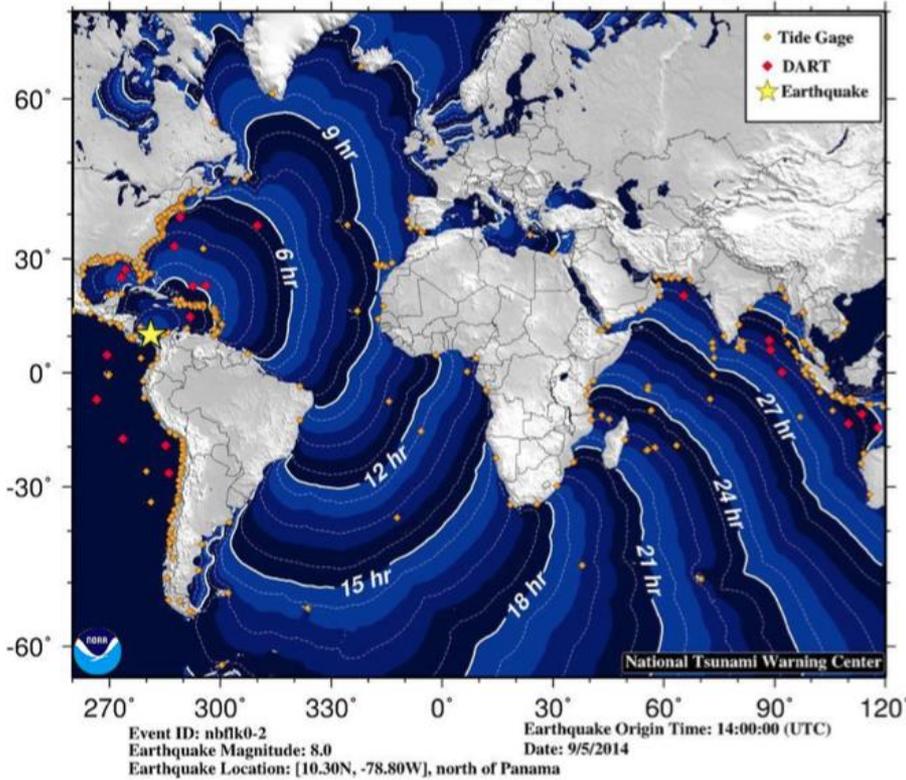


Figure A: Temps de trajet pour le scénario séisme au large du Panama

Tsunami Travel Times

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

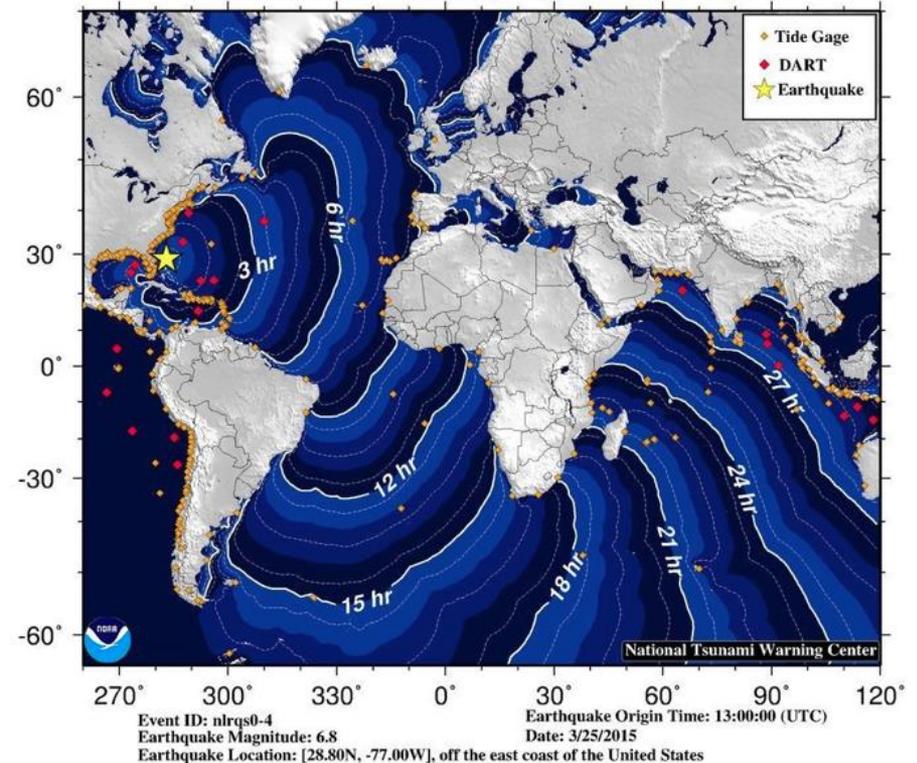
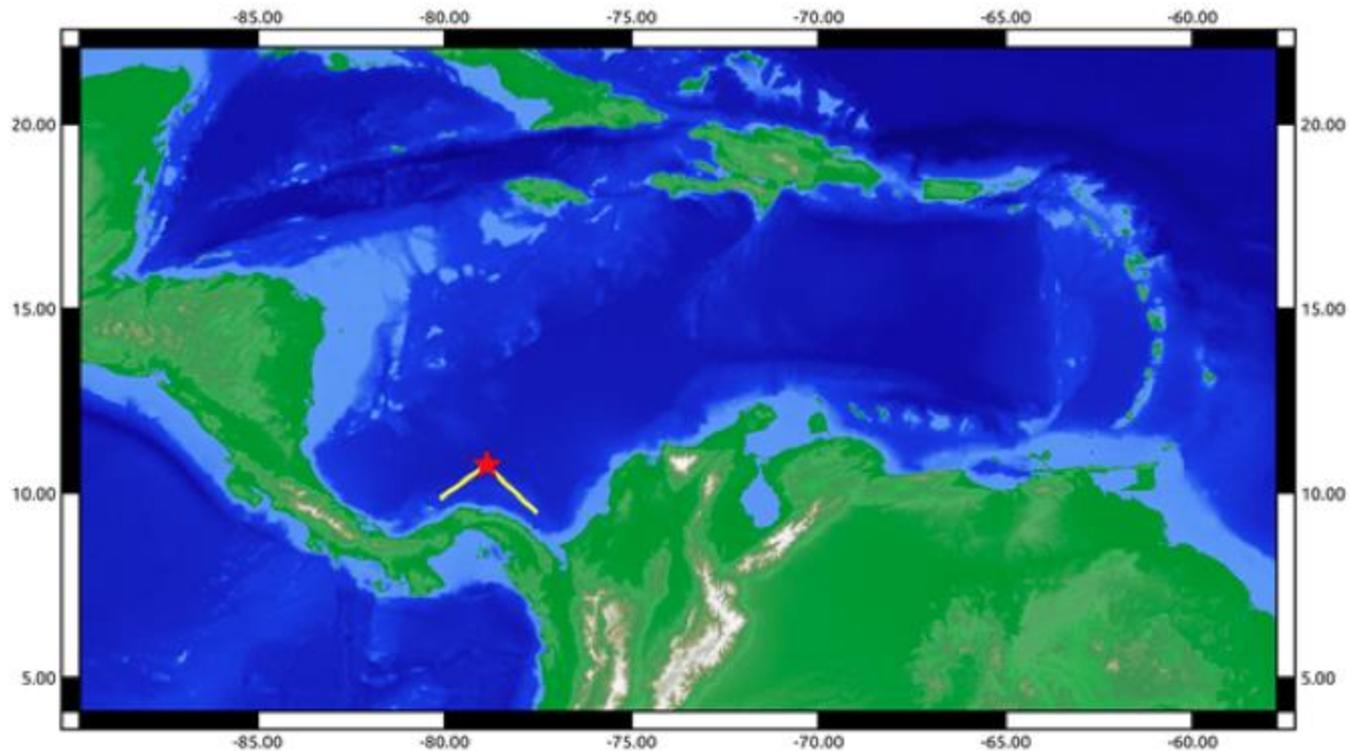


Figure B. Temps de trajet pour le scénario glissement de terrain sous-marin au large de la Floride

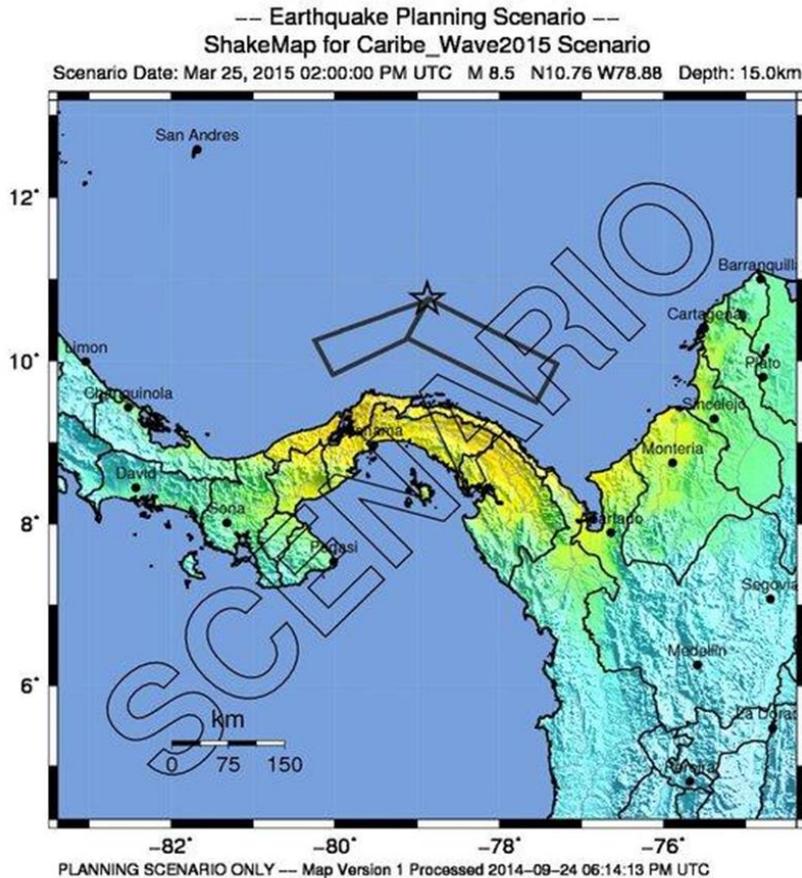
CARIBE WAVE/LANTEX 2015

Scénario du Panama



- 25 mars 2015, 14h00 UTC
- M 8.5, au Nord du Panama sur la “Northern Panama Deformed Belt”
- Les messages de lancement d’exercice seront publiés par le PTWC et le NTWC. Les autres centres de veille et d’alerte pourront eux aussi publiés des informations

Cartes d'impact du Scenario s isme



USGS science for a changing world
Earthquake Shaking **Orange Alert**

M 8.5, Caribe Wave
 Origin Time: Wed 2015-03-25 14:00:00 UTC (09:00:00 local)
 Location: 10.76°N 78.88°W Depth: 15 km
FOR TSUNAMI INFORMATION, SEE: tsunami.gov

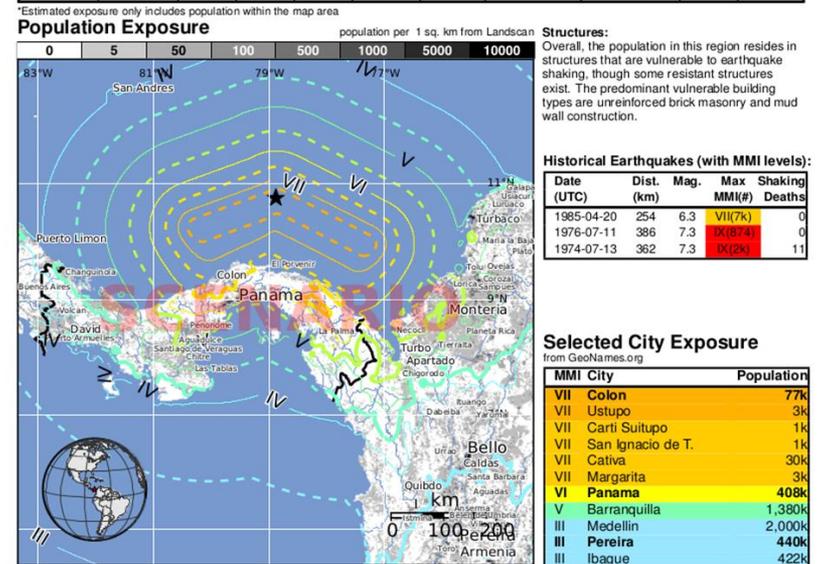
Created: -15707027 seconds after earthquake

Estimated Fatalities
 Significant damage is likely and the disaster is potentially widespread. Estimated economic losses are 0-1% GDP of Panama. Past events with this alert level have required a regional or national level response.

Estimated Economic Losses
 Yellow alert level for shaking-related fatalities. Some casualties are possible.

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)	0	1	2	3	4	5	6	7	8	9	10
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+		
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme		
POTENTIAL DAMAGE	Resistant Structures: none Vulnerable Structures: none	Resistant Structures: none Vulnerable Structures: none	Resistant Structures: none Vulnerable Structures: none	Resistant Structures: V. Light Vulnerable Structures: Light	Resistant Structures: Light Vulnerable Structures: Moderate	Resistant Structures: Moderate Vulnerable Structures: Moderate/Heavy	Resistant Structures: Moderate/Heavy Vulnerable Structures: Heavy	Resistant Structures: Heavy Vulnerable Structures: V. Heavy	Resistant Structures: V. Heavy Vulnerable Structures: V. Heavy		



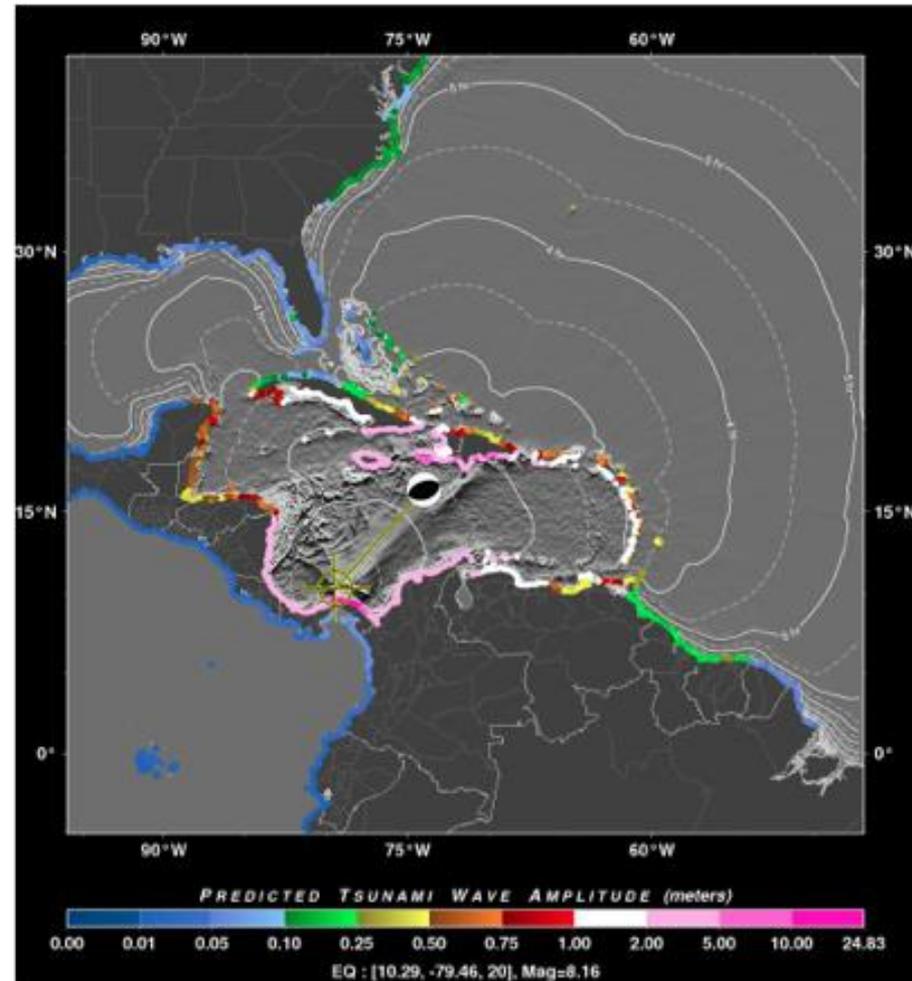
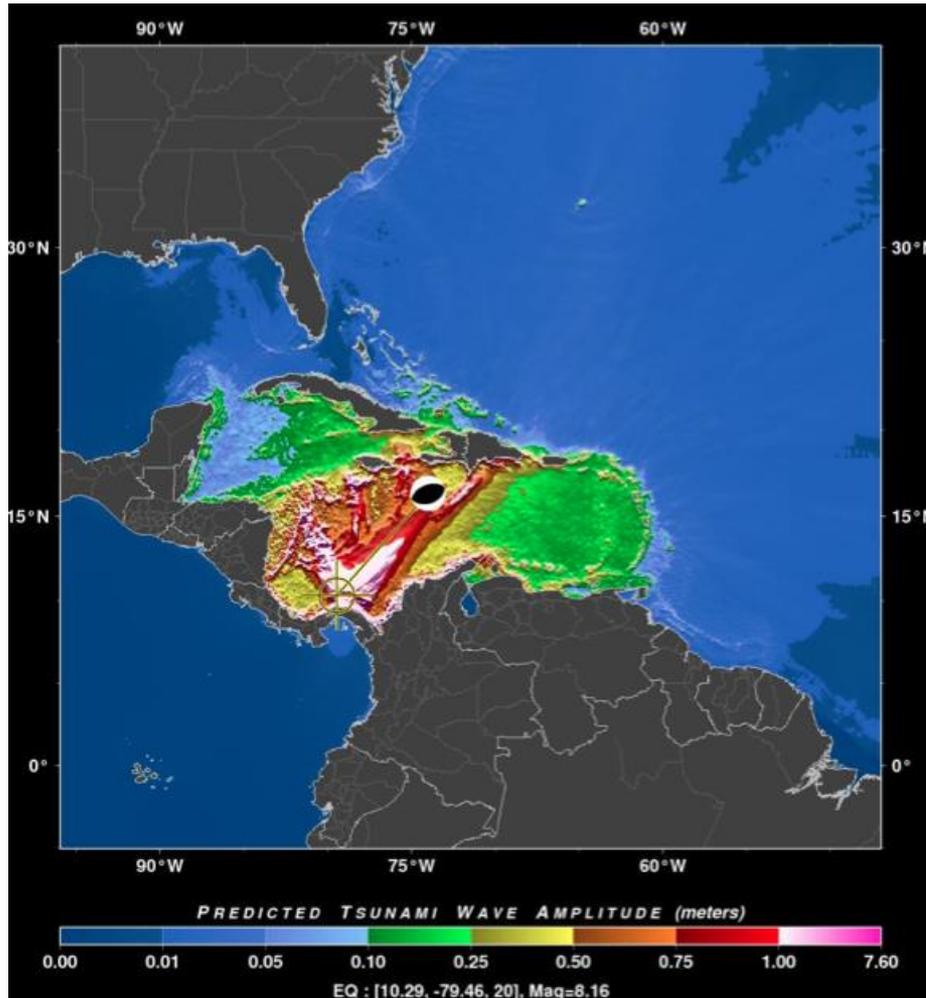
PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.
<http://earthquake.usgs.gov/pager>
 Event ID: usCaribe.Wave2015.se

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

Scale based upon Worden et al. (2012)

CARIBE WAVE/LANTEX 2015

Prévision des hauteurs de vagues



Prévision des hauteurs de vagues pour le scénario Panama

Hauteur maximum prévue pour les vagues*

CARIBE WAVE/LANTEX 2015 Scénario de Panama

US NTWC and PTWC

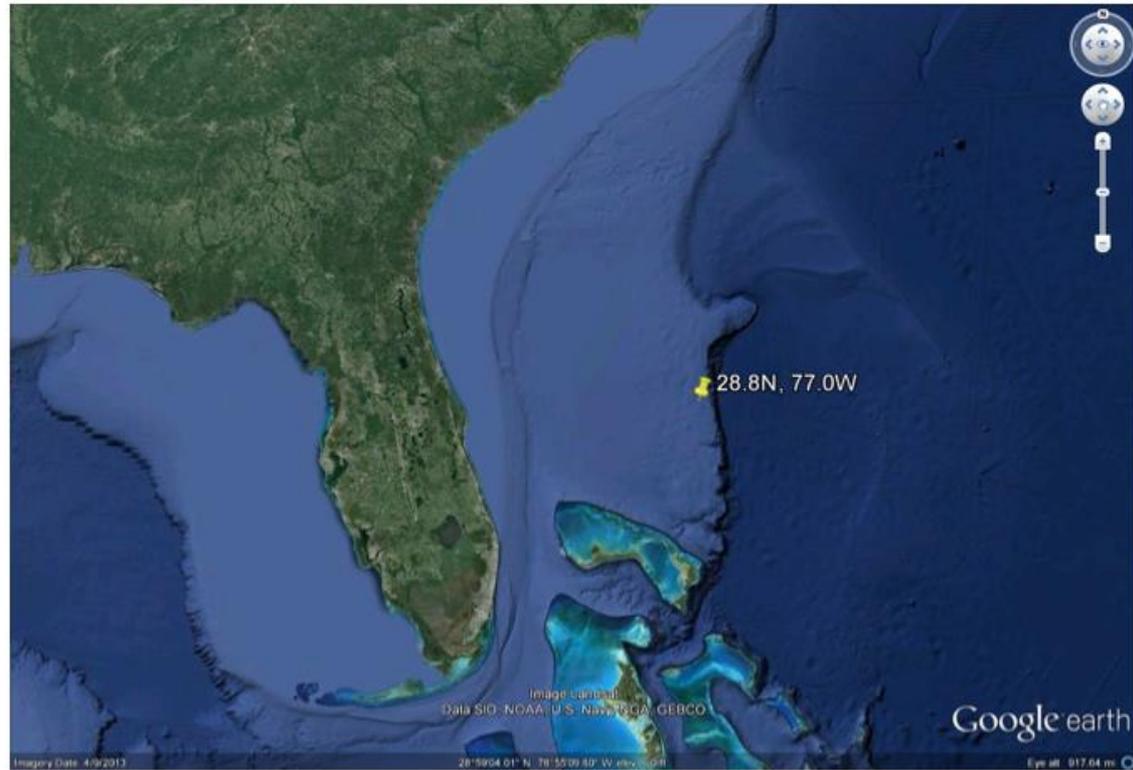
El Porvenir, PA	2.4m/7.8ft	Limetree, USVI	0.6m/2.1ft
Limon, CR	0.6m/1.9ft	St. Croix, USVI	0.5m/1.8ft
Santa Marta, CO	2.6m/8.6ft	Esperanza, Vieques, PR	1.1m/3.5ft
San Andres, CO	1.9m/6.2ft	Charlottle Amali USVI	1.1m/3.6ft
Port au Prince, HT	0.6m/2.1ft	Lameshur Bay, USVI	1.3m/4.2ft
Santo Domingo, DO	3.0m/9.8ft	Puerto Plata, DO	0.2m/0.5ft
Bullen Bay, Curacao	0.7m/2.4ft	Basseterre, KN	0.6m/1.9ft
Mona Island, PR	1.7m/5.6ft	Barbuda, AG	0.5m/1.8ft
Mayaguez, PR	0.9m/3.0ft	Desirade, GP	0.5m/1.7ft
Magueyes Island, PR	0.9m/2.9ft	Roseau, DM	0.2m/0.7ft
Yabucoa, PR	0.7m/4.2ft	Calliaqua, VC	0.4m/1.4ft
San Juan, PR	0.1m/0.4ft	Prickly Bay, GD	0.2m/0.7ft

*La hauteur maximum des tsunamis se mesurent à partir du niveau de l'eau au-dessus du niveau de la marée au moment du mesurage, les vagues qui suivent peuvent doubler cette valeur.

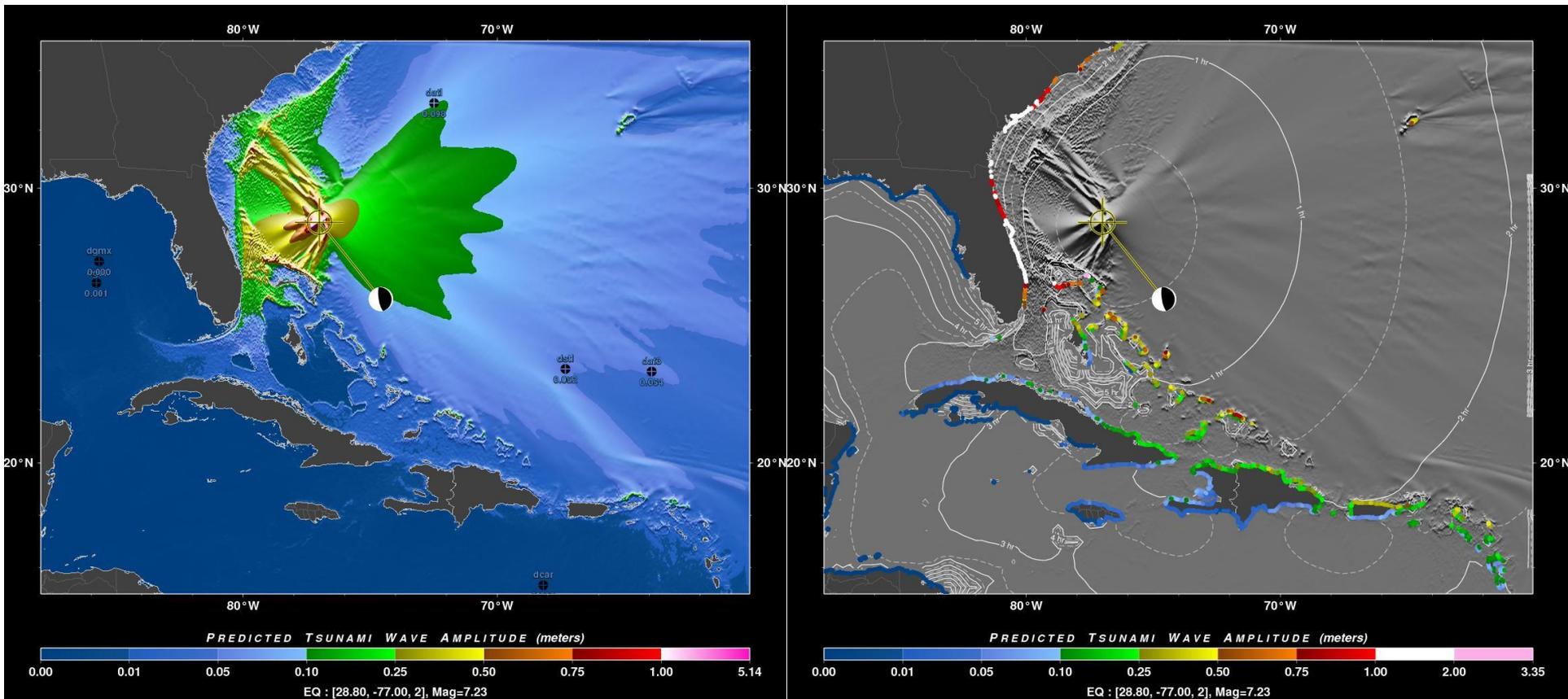
LANTEX 2015

Scénario de la Floride

- 25 Mars 2015
- 13h00 UTC
- M 6.8
- 215 miles à l'est de Port Canaveral en Florida
- Le message de lancement (Dummy) sera émis par le PTWC et le NTWC.



LANTEX 2015 (Florida Scenario) Forecasted Tsunami Wave Amplitudes



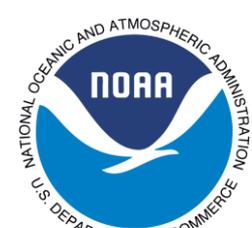
Forecasted Tsunami Wave Amplitudes for Florida Tsunami Scenario

Hauteur maximum prévue pour les vagues*

LANTEX 2015 Scénario de La Floride*

US NTWC		PTWC	
Bermuda	2.92 ft	Settlement Point, BS	0.5 m
Oregon Inlet, NC, USA	0.30 ft	Cap Haitien, HT	0.3m
Wrightsville, NC, USA	1.90 ft	Puerto Plata, DO	0.6 m
Ocean City, MD, USA	0.56 ft	Bermuda, BM	0.9 m
Charleston, SC, USA	0.52 ft	Arecibo, PR	0.9 m
Springmaid Pier, SC, USA	1.64 ft	Lameshur Bay, VI	0.6 m
Key West, FL, USA	0.03 ft	Fernandina Beach, FL, USA	0.1 m
Fernandina Beach, FL, USA	0.46 ft	Charleston, SC, USA	0.2 m
Chesapeake Bridge, VA, USA	0.20 ft	Hatteras, NC, USA	0.5 m
Lewes, DE, USA	0.26 ft	Duck Pier, NC, USA	0.4 m
Atlantic City, NJ, USA	3.22 ft	Beaufort, NC, USA	0.2 m
Cape May, NJ, USA	0.62 ft	Cape May, NJ, USA	0.2 m
Montauk, NY, USA	0.75 ft	Atlantic City, NJ, USA	1.0 m
Nantucket, MA, USA	0.13 ft	Montauk, NY, USA	0.2 m
Bar Harbor, ME, USA	0.72 ft	Bar Harbor, ME, USA	0.1 m

*La hauteur maximum des tsunamis se mesurent à partir du niveau de l'eau au-dessus du niveau de la marée au moment du mesurage, les vagues qui suivent peuvent doubler cette valeur.



Caribe Wave/LANTEX 2015

Scénario de tsunami pour le Panama



M_w 8.5, 10.3°N 78.8°W, 25 Mars, 2015, 14:00 UTC

Ce modèle de tsunami a été généré utilisant Tweb, un produit en temps réel pour modéliser les tsunamis.

Registration URL: <https://attendeegotowebinar.com/register/901690059478404610>

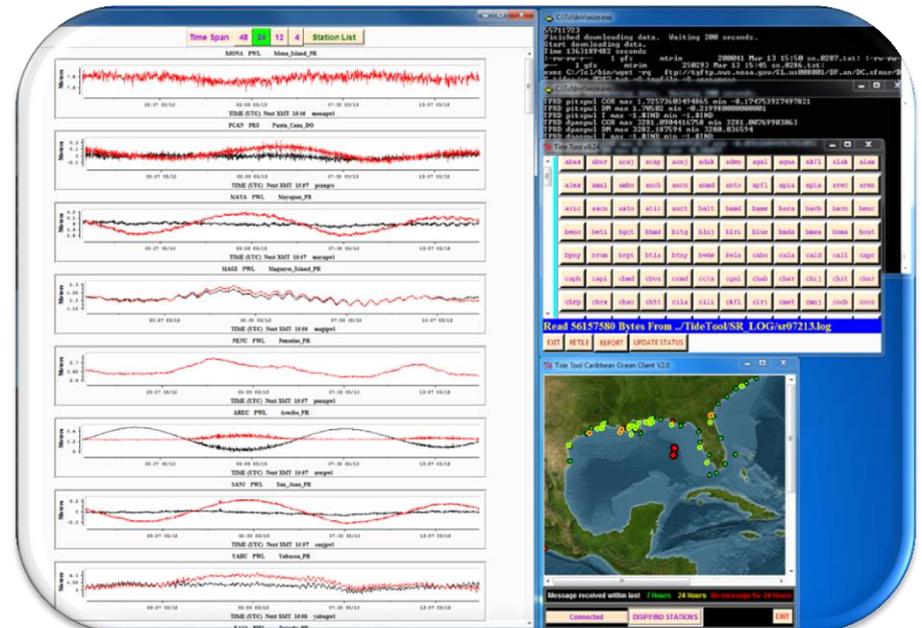
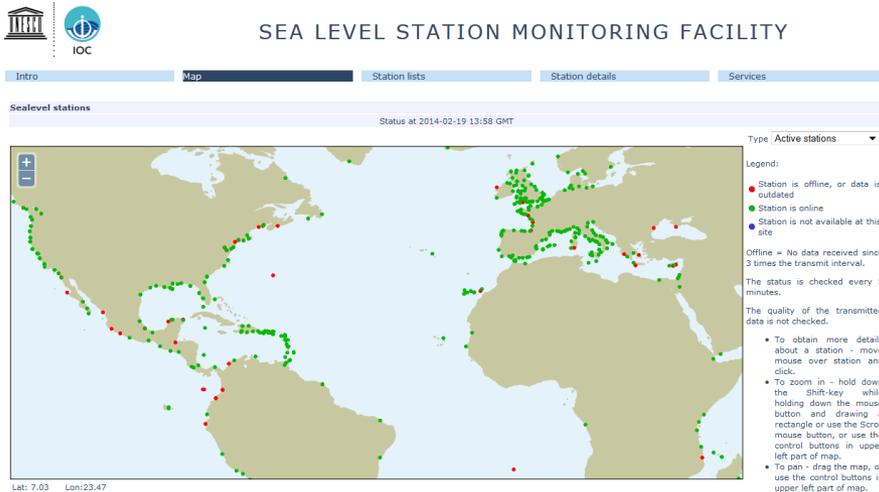
Webinar ID: 101-503-771

Surveillance du niveau de la mer

Comme bonne pratique lors de l'exercice, les participants devraient vérifier les lectures du niveau de la mer en temps réel en utilisant l'outil de "IOC Sea Level Monitoring Facility" ou "Tide Tool"

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

Tide Tool stuart.weinstein@noaa.gov



Types de produits émis pour les messages fictifs (DUMMY) avec les méthodes de transmission

Center	WMO ID	AWIPS ID	NWWS	GTS	EMWIN	AISR	Fax	Email
NTWC	WEXX20 PAAQ	TSUAT1	Yes	Yes	Yes	Yes	No	No
NTWC	WEXX30 PAAQ	TSUATE	Yes	Yes	Yes	Yes	Yes	Yes
NTWC	WEXX40 PAAQ	TSUSPN	Yes	Yes	Yes	Yes	Yes	Yes
PTWC	WECA41 PHEB	TSUCAX	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

Nouveau: Les messages du début de l'exercice
seront également envoyé par les compte twitter de
PTWC et US NTWC. Pour recevoir, envoyer le
message: "Follow NWS_NTWC" ou "Follow
NWS_PTWC" à 40404

NWS_NTWC:

"This is a test message for the LANTEX 15 Florida tsunami exercise."
(issued at 13h02 UTC)

"This is a test message for the CaribeWave/LANTEX 15 Panama
tsunami exercise." (issued at 14h05 UTC)

NWS_PTWC

"This is a test message for the LANTEX 15 Florida tsunami exercise."
(issued at 13h02 UTC)

"This is a test message for the CaribeWave/LANTEX 15 Panama
tsunami exercise." (issued at 14h05 UTC)

Messages Tsunami

US/NTWC
<http://www.ntwc.noaa.gov>
Puerto Rico Seismic Network
<http://webpages.com.edu> Telephone: 787-633-8633
TSUNAMI MESSAGES



- Danger!
- Run for high ground!
- Follow emergency instructions.

WARNING



ADVISORY

- Possible strong and dangerous local currents.
- Get out of the water and off the beach.
- Stay tuned for local emergency guidance.



WATCH

- Potential danger.
- Stayed tuned for more information.



- Relax.
- No danger.
- A distant ocean basin may be in danger.

INFORMATION STATEMENT

WEST COAST & ALASKA TSUNAMI WARNING CENTER

Centre d'Alerte aux Tsunamis au Pacifique
<http://www.weather.gov/ptwc/index.php>
Programme d'Alerte aux Tsunamis au Caribe
<http://www.srh.noaa.gov/srh/stwp>
LES NIVEAUX D'ALERTE AUX TSUNAMI POUR TOUS LE CARIBE, AVEC UNE EXCEPTION DE PORTO RICO ET LES ILES VIERGES



- Danger pour toutes les zones côtières de la Région du Caribe.
- Courez à hauts lieux.
- Suivez les instructions de la gestion des urgences.

SURVEILLANCE DU TSUNAMI POUR TOUT LE CARIBE



- Danger pour toutes les zones côtières qui sont à une distance de mil kilomètres de la zone du tremblement de terre.
- Courez à hauts lieux.
- Suivez les instructions de la gestion des urgences.

SURVEILLANCE DU TSUNAMI RÉGIONAL



- Danger pour toutes les zones côtières qui sont à une distance de cent kilomètres de la zone du tremblement de terre.
- Courez à hauts lieux.
- Suivez les instructions de la gestion des urgences.

SURVEILLANCE DU TSUNAMI LOCAL



- Restez calme.
- Il n'y a pas danger.
- Un endroit plus éloigné peut être à risque.

DÉCLARATION DE RENSEIGNEMENTS

Chronologie des messages

Scénario du Panama

Date (UTC)	Time (UTC)	NTWC Message (for PR and VI)				PTWC Message				
		#	Type	Dummy	Email	#	Type	Dummy	Email	
03/25/2015	1400		----- Earthquake Occurs -----							
03/25/2015	1405	01	Adv	Yes	Yes	01	Watch	Yes	Yes	
03/25/2015	1430					02	Watch	No	Yes	
03/25/2015	1500	02	Warn	No	Yes	03	Watch	No	Yes	
03/25/2015	1602	03	Warn	No	Yes	04	Watch	No	Yes	
03/25/2015	1701	04	Warn	No	Yes	05	Watch	No	Yes	
03/25/2015	1800	05	Warn	No	Yes	06	Watch	No	Yes	
03/25/2015	1901	06	Adv	No	Yes	07	Watch	No	Yes	
03/25/2015	1945	07	Can	No	Yes	08	Can	No	Yes	

PTWC Chronologie des messages

LANTEX 2015

Scénario du Florida

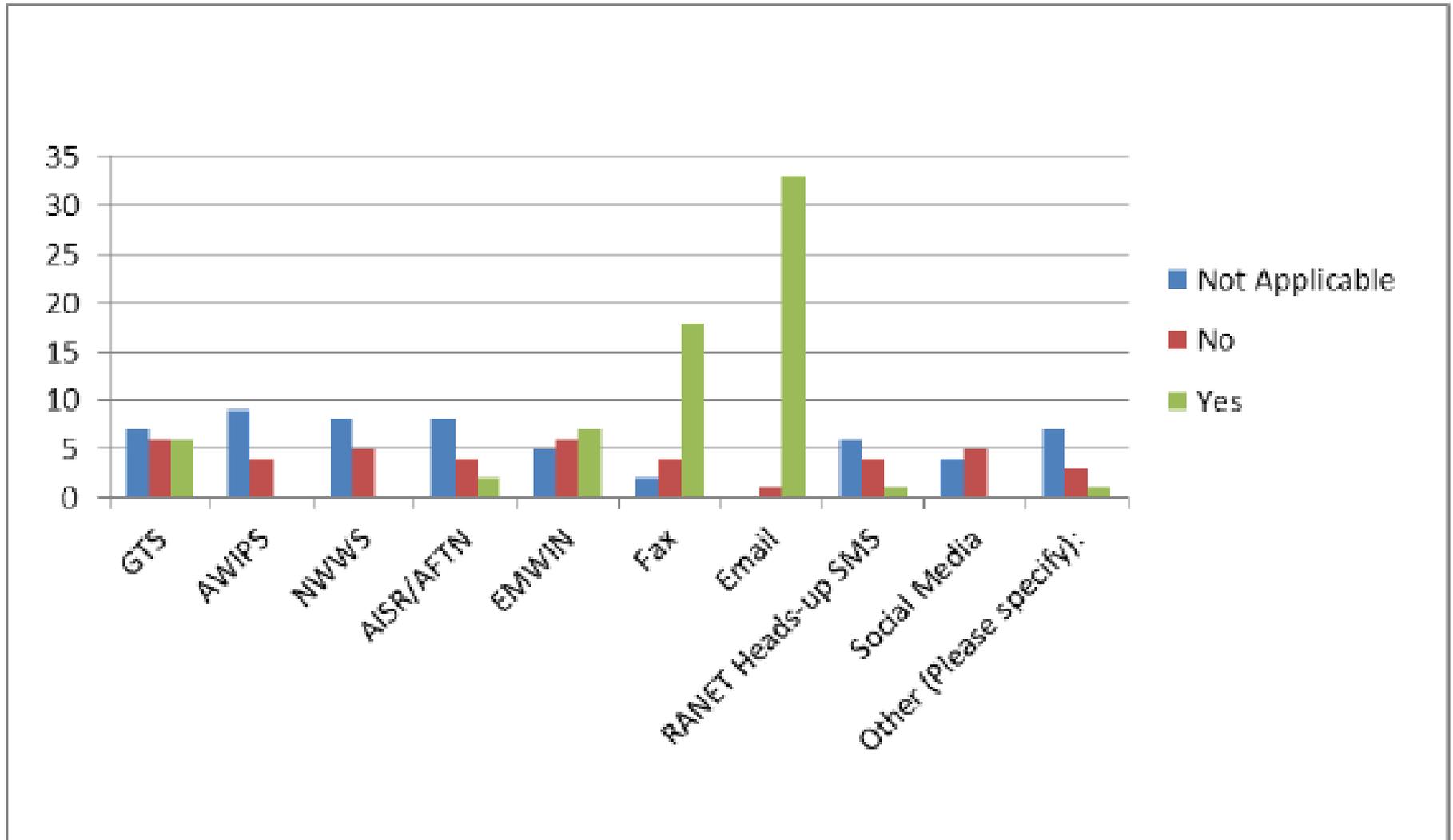
Date (UTC)	Time (UTC)	PTWC Message		
		#	Type*	Email
03/25/2015	1300	---- Earthquake Occurs ---		
03/25/2015	1302	--	Dummy	ALL
03/25/2015	1302	01	Statement	CARIBE EWS TWFP
03/25/2015	1354	02	Watch	CARIBE EWS TWFP
03/25/2015	1423	03	Watch	CARIBE EWS TWFP
03/25/2015	1501	04	Watch	CARIBE EWS TWFP
03/25/2015	1559	05	Watch	CARIBE EWS TWFP
03/25/2015	1658	06	Watch	CARIBE EWS TWFP
03/25/2015	1800	07	Watch	CARIBE EWS TWFP
03/25/2015	1900	08	Cancel	CARIBE EWS TWFP

US NTWC Message Chronology

LANTEX 2015 Florida Scenario

Date (UTC)	Time (UTC)	NTWC Message		
		#	Type*	Email
03/25/2015	1300	---- Earthquake Occurs ----		
03/25/2015	1302	--	Dummy	ALL
03/25/2015	1302	01	Warn	Registered Participants
03/25/2015	1339	02	Warn	Registered Participants
03/25/2015	1408	03	<u>Adv/Warn</u>	Registered Participants
03/25/2015	1434	04	<u>Adv/Warn</u>	Registered Participants
03/25/2015	1501	05	<u>Adv/Warn</u>	Registered Participants
03/25/2015	1604	06	<u>Adv/Warn</u>	Registered Participants
03/25/2015	1703	07	<u>Adv/Warn</u>	Registered Participants
03/25/2015	1801	08	<u>Adv/Warn</u>	Registered Participants
03/25/2015	1900	09	<u>Adv</u>	Registered Participants
03/25/2015	2000	10	<u>Adv</u>	Registered Participants
03/25/2015	2100	11	Cancel	Registered Participants

Les messages fictifs (dummy) initiaux du PTWC et/ou de l' US NTWC CARIBE WAVE/LANTEX 2014 ont été reçus par les Points Focaux d'alerte aux Tsunami par ces méthodes suivant:



Modifications apportées pour l'enregistrement en 2015

- Accent est mis sur le suivi des participants
- Les TWFP du CARIBE EWS recevront les produits tsunami par email pendant l'exercice, aucun enregistrement au préalable n'est nécessaire.
- Les participants rattachés au NTWC (United States, Puerto Rico, US Virgin Islands) auront la possibilité de recevoir les messages directement du NTWC, mais il devront s'enregistrer au préalable.
- Les TWFPs et TNCs sont chargés de la rediffusion aux participants du dummy message et des messages d'information qui suivront. Quand les participants se seront inscrits, leurs coordonnées seront transmises à leur TWFP/TNCs respectifs.
- Les participants seront invités à prendre contact avec leur TWFP/TNC pour de plus amples informations.
- [TWFP Link](#)
- [TNC Link](#)

L'ENREGISTREMENT sera ouvert à partir du vendredi 23
janvier 2015

**US, PR, USVI, et BVI ont l'option de recevoir les produits
de tsunami par e-mail de l'US NTWC (Scénario du
Panama et/ou de la Floride)**

**PR/USVI/BVI ont l'option de recevoir les e-mails de
PRSN (scénario du Panama)**

**La date limite pour s'enregistrer pour la réception des
email (US NTWC and PRSN):
Vendredi 20 mars 2015**

Pas de date limite pour les autres enregistrements

Horaire du CTWP pour l'envoi des rapports d'inscription

- 26 Février, 2015
- 12 Mars, 2015
- 18 Mars, 2015 (rappel d'enregistrement)
- 23 Mars, 2015 – Résumé final

Registration as of February 22, 2015

Type de participant	CARIBE WAVE/LANTEX 2015 (Scénario du Panama)		LANTEX 2015 (Scénario de la Floride)	
	# Inscrits	# Participants	# Inscrits	# Participants
State Agency	18	597	5	23
National Agency	16	4195	1	6
International Agency	2	13	3	18
Private Business	2	35	-	-
Press	1	1	-	-
Educational Institution	9	1947	3	221
Health Facility	2	42	-	-
Community	2	51	4	8
Individual	32	116	10	24
Other*	19	671	4	336
Total:	103	7688	30	636

* This includes TWFPs and TNCs

Pays	Numéro d'enregistrants	Numéro de participants
Anguilla	3	3
Aruba	1	12
Barbados	1	1
British Virgin Islands	1	12
Cayman Islands	2	14
Colombia	1	3
Costa Rica	3	8
Dominica	1	100
Dominican Republic	5	26
Grenada	1	6
Guyana	2	10
Honduras	1	1
Martinique	1	3
Mexico	4	24
Nicaragua	1	1
Panama	2	2
Puerto Rico	55	3163
Saint Lucia	1	1
Turks and Caicos	2	8
United States	31	651
US Virgin Islands	3	89
Venezuela	8	4169

Appendix E. TWC Dummy (Start of Exercise) Messages

US NTWC

WXXX20 PAAQ 251405
TSUNTI

TEST...TSUNAMI EXERCISE MESSAGE NUMBER 1...TEST
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK
1005 AM AST WED MAR 25 2015

...CARIBBEWAVE 15 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 CARIBBEWAVE 15 CARIBBEAN TSUNAMI
EXERCISE. THIS WILL BE THE ONLY EXERCISE MESSAGE BROADCAST FROM THE NATIONAL
TSUNAMI WARNING CENTER EXCLUDING SPECIAL EMAIL MESSAGES DISCUSSED IN THE
HANDBOOK. THE HANDBOOK IS AVAILABLE AT THE WEB SITE NTWC.ANH.NOAA.GOV. THE
EXERCISE PURPOSE IS TO PROVIDE EMERGENCY MANAGEMENT A REALISTIC SCENARIO TO TEST
TSUNAMI RESPONSE PLANS.

THIS IS ONLY AN EXERCISE.

##

WXXX30 PAAQ 251405
TSUATE

TEST...PUBLIC TSUNAMI EXERCISE MESSAGE NUMBER 1...TEST
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK
1005 AM AST WED MAR 25 2015

...CARIBBEWAVE 15 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 CARIBBEWAVE 15 CARIBBEAN TSUNAMI
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EXERCISE PURPOSE IS TO PROVIDE EMERGENCY MANAGEMENT A REALISTIC SCENARIO TO TEST
TSUNAMI RESPONSE PLANS.

THIS IS ONLY AN EXERCISE.

##

WXXX40 PAAQ 251405
TSUSIV

TEST...MENSAJE DE EJERCICIO DE TSUNAMI NUMERO 1...TEST
NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK
1005 AM AST WED MAR 25 2015

...MENSAJE PARA DAR COMIENZO AL EJERCICIO DE TSUNAMI CARIBBEWAVE 15. 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 CARIBE
WAVE 15. ESTE SERA EL UNICO MENSAJE QUE SERA EMITIDO DESDE EL CENTRO NACIONAL
DE ALERTA DE TSUNAMI EXCLUYENDO LOS MENSAJES ESPECIALES DE CORREO ELECTRONICO
DISCUTIDOS EN EL MANUAL. EL MANUAL ESTA DISPONIBLE EN LA PAGINA
NTWC.ANH.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.

\$\$

PTWC

WSCA1 PHB 251405
TSUCAM

TEST...TSUNAMI EXERCISE MESSAGE NUMBER 1...TEST
NWS PACIFIC TSUNAMI WARNING CENTER/NOAA/NWS
ISSUED AT 1405Z 25 MAR 2015

...CARIBBEAN 15 TSUNAMI EXERCISE MESSAGE. REFER TO PTWC MESSAGE 1 IN THE
EXERCISE HANDBOOK. THIS IS AN EXERCISE ONLY...

THIS MESSAGE IS BEING USED TO START THE CARIBBEAN 15 CARIBBEAN TSUNAMI
EXERCISE. THIS WILL BE THE ONLY EXERCISE MESSAGE BROADCAST FROM THE PACIFIC
TSUNAMI WARNING CENTER EXCLUDING SPECIAL EMAIL MESSAGES DISCUSSED IN THE
HANDBOOK. THE HANDBOOK IS AVAILABLE AT THE WEB SITE NWS.PACIFIC.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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Appendix F. TWC Exercise Messages

The following messages created for the CARIBE WAVE/LANTEX15 tsunami exercise are representative of the official standard products issued by the US NTWC and PTWC during a large magnitude 8.5 earthquake and tsunami originating just north of Panama. During a real event, the TWCs would also issue graphical and html-based products to their web sites and via RSS. The alerts would persist longer during a real event than is depicted in this exercise. NTWC also issues a product under the header WEXX20 PAAQ/TSUAT1 which is designed to drive automated alert systems.

US NTWC Message #1

WEXX20 PAAQ 251405
TSUATE

BULLETIN
PUBLIC TSUNAMI MESSAGE NUMBER 1
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK
1005 AM AST WED MAR 25 2015

...A TSUNAMI ADVISORY IS NOW IN EFFECT...

WARNINGS/ADVISORIES/WATCHES

TSUNAMI ADVISORY IN EFFECT FOR...

- * COASTAL AREAS OF PUERTO RICO - THE U.S. VIRGIN ISLANDS AND THE BRITISH VIRGIN ISLANDS.

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

* MAGNITUDE 8.0
* ORIGIN TIME 1000 EDT MAR 25 2015
1000 AST MAR 25 2015
0900 CDT MAR 25 2015
1400 UTC MAR 25 2015
* COORDINATES 10.3 NORTH 78.8 WEST
* DEPTH 9 MILES
* LOCATION NORTH OF PANAMA

IMPACTS FOR TSUNAMI ADVISORY AREAS

-
- * A TSUNAMI CAPABLE OF PRODUCING STRONG CURRENTS OR WAVES DANGEROUS TO PERSONS IN OR VERY NEAR THE WATER IS EXPECTED.
 - * CURRENTS MAY BE HAZARDOUS TO SWIMMERS... BOATS... AND COASTAL STRUCTURES AND MAY CONTINUE FOR MANY HOURS AFTER THE TSUNAMI ARRIVAL.
 - * THE FIRST WAVE MAY NOT BE THE LARGEST.

US NTWC Message #7

WXXX30 PAAQ 251945
TSUNAMI

BULLETIN
PUBLIC TSUNAMI MESSAGE NUMBER 7
NWS NATIONAL TSUNAMI WARNING CENTER PALMER AK
345 PM AST WED MAR 25 2015

...THE TSUNAMI ADVISORY IS CANCELLED...

CANCELLATIONS

- * THE TSUNAMI ADVISORY IS CANCELED FOR PUERTO RICO - THE U.S. VIRGIN ISLANDS AND THE BRITISH VIRGIN ISLANDS

IMPACTS - UPDATED

- * 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.

RECOMMENDED ACTIONS - UPDATED

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

OBSERVATIONS OF TSUNAMI ACTIVITY - UPDATED

<u>SITE</u>	<u>TIME</u> <u>OF MEASUREMENT</u>	<u>OBSERVED MAX</u> <u>TSUNAMI HEIGHT</u>
EL PORVENIR PANAMA	1505 UTC 03-25	07.8FT
SANTA MARTA COLOMBIA	1634 UTC 03-25	08.6FT
LIMON COSTA RICA	1544 UTC 03-25	01.9FT
SAN ANDRES COLOMBIA	1623 UTC 03-25	06.2FT
PORT AU PRINCE HAITI	1722 UTC 03-25	02.1FT
SANTO DOMINGO DR	1734 UTC 03-25	09.8FT
BULLIEN BAY CURACAO	1715 UTC 03-25	02.4FT
MONA ISLAND PR	1745 UTC 03-25	05.6FT
MAYAGUEZ PR	1732 UTC 03-25	03.0FT
MAGUEYES ISLAND PR	1746 UTC 03-25	02.9FT
YARUCCA PR	1735 UTC 03-25	04.2FT
SAN JUAN PR	1721 UTC 03-25	00.4FT
LIME TREE BAY US VIRGI	1756 UTC 03-25	02.1FT
CHRISTIANSTED HARBOR U	1731 UTC 03-25	01.8FT
ESPERANZA VISQUES ISLA	1751 UTC 03-25	03.5FT
FAJARDO PR	1755 UTC 03-25	01.7FT
CHARLOTTE AMALIE US VI	1748 UTC 03-25	03.6FT
LAMMESHUR BAY ST JOHN	1744 UTC 03-25	04.2FT
PUNTO FLATA DR	1823 UTC 09-06	00.5FT
MASETENNE CG BASE ST.	1845 UTC 09-06	01.9FT
BARBUDA	1812 UTC 09-06	01.8FT
DESIRADE GUADELOUPE	1845 UTC 09-06	01.7FT
ROSKAU DOMINICA	1822 UTC 09-06	00.7FT
CALLIAQUA CG BASE ST.	1847 UTC 09-06	01.4FT

US NTWC Spanish Bulletin #1

NEOO40 PAAQ 251405
1905PM

BULLETIN

Mensaje de TSUNAMI NUMERO 1
 NWS CENTRO NACIONAL DE ALERTA DE TSUNAMI PALMER AK
 1005 AM AST WED MAR 25 2015

...UNA ADVERTENCIA DE TSUNAMI ESTA AHORA EN EFECTO...

AVISOS/ADVERTENCIAS/VIGILANCIAS

ADVERTENCIA DE TSUNAMI EN EFECTO PARA...

- * AREAS COSTERAS DE PUERTO RICO - ISLAS VIRGENES DE LOS ESTADOS UNIDOS E ISLAS VIRGENES BRITANICAS.

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

PARAMETROS PRELIMINARES DEL TERREMOTO

- * MAGNITUD 8.0
- * TIEMPO DE ORIGEN 1200 EDT MAR 25 2015
1200 AST MAR 25 2015
0900 CDT MAR 25 2015
1400 UTC MAR 25 2015
- * COORDENADAS 15.3 NORTE 78.8 OESTE
- * PROFUNDIDAD 9 MILEAS
- * LOCALIZACION NORTH OF PANAMA

IMPACTOS PARA AREAS BAJO ADVERTENCIA DE TSUNAMI

- * UN TSUNAMI CAPAZ DE PRODUCIR FUERTES CORRIENTES U OLAS PELIGROSAS A PERSONAS EN O MUY CERCA DEL AGUA ES ESPERADO.
- * **CORRIENTES PUEDEN SER PELIGROSAS PARA NADADORES, EMBARCACIONES Y ESTRUCTURAS COSTERAS Y PUEDEN CONTINUAR POR MUCHAS HORAS DESPUES DE LA LLEGADA DEL TSUNAMI.**
- * LA PRIMERA OLA PUEDE NO SER LA MAS GRANDE.

ACCIONES RECOMENDADAS

- * SI SE ENCUENTRA EN UN AREA BAJO ADVERTENCIA - SALGASE DE LA PLAYA BAHIAS Y MARINAS. NO SE ESPERAN INUNDACIONES GENERALIZADAS PARA AREAS BAJO ADVERTENCIA
- * ESTE ALERTA A INSTRUCCIONES DE SUS AUTORIDADES DE MANEJO DE EMERGENCIA.
- * NO VAYA A LA COSTA PARA OBSERVAR EL TSUNAMI.
- * NO REGRESE A LA COSTA HASTA QUE LAS AUTORIDADES LOCALES DE MANEJO DE EMERGENCIA INDIQUEN QUE ES SEGURO HACERLO.

PTWC Message #7

TEST...TSUNAMI MESSAGE NUMBER 7...TEST
NWS PACIFIC TSUNAMI WARNING CENTER EMA BEACH HI
1900 UTC WED MAR 25 2015

THIS MESSAGE APPLIES TO COUNTRIES WITHIN AND BORDERING THE
CARIBBEAN SEA...EXCEPT FOR PUERTO RICO...THE U.S. VIRGIN
ISLANDS...AND THE BRITISH VIRGIN ISLANDS.

... A CARIBBEAN-WIDE TSUNAMI WATCH IS IN EFFECT ...

A TSUNAMI WATCH IS IN EFFECT FOR

PANAMA / COLOMBIA / COSTA RICA / HAITI / ARUBA / NICARAGUA /
CAYMAN ISLANDS / JAMAICA / CUBA / BONAIRE / DOMINICAN REP /
BAHAMAS / CURACAO / TURKS N CAICOS / VENEZUELA / SABA /
SAINT KITTS / MONTSENIAT / MEXICO / HONDURAS / SAINT EUSTATIUS /
GUADELOUPE / DOMINICA / SAINT LUCIA / SAINT MAARTEN /
SAINT VINCENT / MARTINIQUE / ANGUILLA / GRENADA / BARBADOS /
SAINT BARTHELEMY / ANTIGUA / BARBUDA / SAINT MARTIN /
TRINIDAD TOBAGO / BELIZE / BERMUDEA / GUATEMALA / FRENCH GUIANA /
GUYANA / SURINAME / BRAZIL

THIS BULLETIN IS ISSUED AS ADVICE TO GOVERNMENT AGENCIES. ONLY
NATIONAL AND LOCAL GOVERNMENT AGENCIES HAVE THE AUTHORITY TO MAKE
DECISIONS REGARDING THE OFFICIAL STATE OF ALERT IN THEIR ANSA AND
ANY ACTIONS TO BE TAKEN IN RESPONSE.

AN EARTHQUAKE HAS OCCURRED WITH THESE PRELIMINARY PARAMETERS

ORIGIN TIME - 1400Z 25 MAR 2015
COORDINATES - 10.3 NORTH 78.8 WEST
LOCATION - NORTH OF PANAMA
MAGNITUDE - 8.5

MEASUREMENTS OR REPORTS OF TSUNAMI WAVE ACTIVITY

GAUGE LOCATION	GAUGE COORDINATES		TIME OF MEASURE (UTC)	MAXIMUM TSUNAMI HEIGHT	WAVE PERIOD (MIN)
	LAT	LONG			
EL PORVENIR PA	9.5N	78.9W	1505	2.4M/07.8FT	15
LIMON CR	10.0N	83.0W	1544	0.6M/01.9FT	12
SANTA MARTA CO	11.2N	74.2W	1634	2.6M/08.6FT	13
SAN ANDRES CO	12.6N	81.7W	1623	1.9M/06.2FT	13
PORT AU PRINCE HT	18.5N	72.4W	1722	0.6M/02.1FT	14
SANTO DOMINGO DO	18.4N	69.6W	1734	3.0M/09.8FT	12
BULLEN BAY CURACAO	12.2N	69.0W	1715	0.7M/02.4FT	15
MONA ISLAND PR	18.1N	67.9W	1745	1.7M/05.6FT	15
MAYAGUEZ PR	18.2N	67.2W	1732	0.9M/03.0FT	15
MAGUIYES IS PR	18.0N	67.0W	1746	0.9M/02.9FT	14
YABOCCA PR	18.1N	65.8W	1735	0.7M/04.2FT	14
SAN JUAN PR	18.5N	66.1W	1721	0.1M/00.4FT	20
LIMESTREE USVI	17.7N	64.7W	1756	0.6M/02.1FT	15
ST CROIX USVI	17.7N	64.6W	1731	0.5M/01.8FT	18
ESPERANZA VIRGUES PR	18.1N	65.5W	1751	1.1M/03.5FT	13
FALJARDO PR	18.3N	65.6W	1755	0.5M/01.7FT	14
CHARLOTTE ANGLI USVI	18.3N	64.9W	1748	1.1M/03.6FT	17
LAMESHUR BAY USVI	18.3N	64.7W	1744	1.3M/04.2FT	16
PUERTO PLATA DO	19.8N	70.7W	1823	0.2M/00.5FT	20
BASSETERRE KN	17.3N	62.7W	1845	0.6M/01.9FT	19
BARBUDA AG	17.6N	61.8W	1812	0.5M/01.8FT	14
DESINADE GP	16.3N	61.1W	1845	0.5M/01.7FT	12
ROSEAU DM	15.3N	61.4W	1822	0.2M/00.7FT	12
CALLAQUA VC	13.1N	61.2W	1847	0.4M/01.4FT	15
PRICKLY BAY GD	12.0N	61.8W	1821	0.2M/00.7FT	18

EVALUATION

SEA LEVEL READINGS INDICATE A TSUNAMI WAS GENERATED. IT MAY HAVE ALREADY HAD BEEN DESTRUCTIVE ALONG COASTS NEAR THE EARTHQUAKE EPICENTER.

BASED ON THESE DATA THE THREAT CONTINUES FOR ALL COASTAL AREAS OF THE CARIBBEAN. FOR THOSE AREAS - WHEN NO MAJOR WAVES HAVE OCCURRED FOR AT LEAST TWO HOURS AFTER THE ESTIMATED ARRIVAL TIME OR DAMAGING WAVES HAVE NOT OCCURRED FOR AT LEAST TWO HOURS THEN LOCAL AUTHORITIES CAN ASSUME THE THREAT IS PASSED. DANGER TO BOATS AND COASTAL STRUCTURES CAN CONTINUE FOR SEVERAL HOURS DUE TO RAPID CURRENTS. AS LOCAL CONDITIONS CAN CAUSE A WIDE VARIATION IN TSUNAMI WAVE ACTION THE ALL CLEAR DETERMINATION MUST BE MADE BY LOCAL AUTHORITIES.

ESTIMATED INITIAL TSUNAMI WAVE ARRIVAL TIMES AT FORECAST POINTS WITHIN THE WARNING AND WATCH AREAS ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVES MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN SUCCESSIVE WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	FORECAST POINT	COORDINATES	ARRIVAL TIME
PANAMA	ALIGANDI	9.2N 78.0W	1425Z 25 MAR
	PUESTO_CARRISTO	8.8N 77.6N	1439Z 25 MAR
	COLON	9.4N 79.9W	1451Z 25 MAR
COLOMBIA	PUESTO_OBALDIA	8.7N 77.4N	1453Z 25 MAR
	BOCAS DEL TORO	9.4N 82.2N	1506Z 25 MAR
	CARTAGENA	10.4N 75.6N	1442Z 25 MAR
	PUNTA_CARIBANA	8.6N 76.9N	1459Z 25 MAR
	SANTA MARCA	11.2N 74.2N	1502Z 25 MAR
COSTA RICA	BARRANQUILLA	11.1N 74.9N	1516Z 25 MAR
	RIONAGUA	11.6N 72.9N	1522Z 25 MAR
	PUESTO_LINON	10.0N 83.0N	1454Z 25 MAR
HAITI	JACMEL	18.1N 72.5W	1532Z 25 MAR
	JEROME	18.6N 74.1N	1551Z 25 MAR
	CAP HAITEN	19.8N 72.2N	1626Z 25 MAR
ANUSA	PORT AU PRINCE	18.3N 72.4N	1655Z 25 MAR
	ONANJESTAD	12.5N 70.0N	1547Z 25 MAR
NICARAGUA	PUNTA GONDA	11.4N 83.8N	1548Z 25 MAR
	PUESTO_CABEZAS	14.0N 83.4N	1936Z 25 MAR
CAYMAN ISLANDS	CAYMAN BRAC	19.7N 79.9W	1551Z 25 MAR
	GRAND CAYMAN	19.3N 81.3N	1600Z 25 MAR
JAMAICA	KINGSTON	17.9N 76.9W	1553Z 25 MAR
	MONTEGO BAY	18.5N 77.9W	1615Z 25 MAR
CUBA	SANTIAGO_D_CUBA	19.9N 75.8N	1554Z 25 MAR
	BARACOA	20.4N 74.5N	1614Z 25 MAR
	CIENFUEGOS	22.0N 80.5N	1620Z 25 MAR
	GINAMA	21.1N 76.1N	1634Z 25 MAR
	LA_HABANA	23.2N 82.4N	1721Z 25 MAR
DOMAIRE	SANTA_CRE_D_SUR	20.7N 78.0N	1854Z 25 MAR
	NEUVA_GERONA	21.9N 82.8N	2010Z 25 MAR
	OKIMA	12.3N 68.3N	1557Z 25 MAR
DOMINICAN REP	SANTO_DOMINGO	18.5N 69.9W	1604Z 25 MAR
	CABO ENGANO	18.6N 68.3N	1628Z 25 MAR
BAHAMAS	PUESTO_PLATA	19.8N 70.7N	1637Z 25 MAR
	GREAT INAGUA	20.9N 73.7N	1620Z 25 MAR
	MAYAGUANA	22.3N 73.0N	1634Z 25 MAR
	LONG ISLAND	23.3N 75.1N	1654Z 25 MAR
	SAN SALVADOR	24.1N 74.5N	1654Z 25 MAR
	EXUMA	23.6N 75.9N	1704Z 25 MAR
	CROOKED ISLAND	22.7N 74.1N	1709Z 25 MAR
	CAT ISLAND	24.4N 75.5N	1713Z 25 MAR
	BLEUHERA ISLAND	25.2N 76.1N	1721Z 25 MAR
	ANDROS ISLAND	25.0N 77.9N	1730Z 25 MAR
NASSAU	25.1N 77.4N	1742Z 25 MAR	

	FRESHPORT	26.5N 78.8W	1754Z 25 MAR	
	ABADO ISLAND	26.6N 77.1N	1759Z 25 MAR	
	BIMINI	25.8N 79.3N	1807Z 25 MAR	
CURACAO	WILLEMSTAD	12.1N 68.9W	1621Z 25 MAR	
	WEST CAICOS	21.7N 72.5W	1630Z 25 MAR	
TURKS N CAICOS	GRAND TURK	21.5N 71.1N	1645Z 25 MAR	
	MALIBERTIA	10.6N 67.5W	1634Z 25 MAR	
VENEZUELA	COMANA	10.5N 64.2N	1707Z 25 MAR	
	PUNTO_PICO	11.7N 70.2N	1807Z 25 MAR	
	GOLFO_VENEZUELA	11.4N 71.2N	1906Z 25 MAR	
	FORLAMAR	10.9N 63.8N	2031Z 25 MAR	
	SABA	17.6N 63.2N	1650Z 25 MAR	
	SAINT KITTS	17.3N 62.7N	1632Z 25 MAR	
	MONTSERRAT	16.7N 62.2N	1633Z 25 MAR	
	MEXICO	COZUMEL	20.5N 87.5W	1655Z 25 MAR
		MADRID	22.3N 97.8W	1936Z 25 MAR
		VERACRUZ	19.2N 96.1N	1941Z 25 MAR
	TEXAS BORDER	26.0N 97.1N	1951Z 25 MAR	
	PROGRESO	21.3N 89.7N	2042Z 25 MAR	
	CAMPECHE	19.9N 90.5N	2338Z 25 MAR	
HONDURAS	PUESTO_CORTES	15.9N 88.5W	1655Z 25 MAR	
	TROJILLO	15.9N 86.5W	1741Z 25 MAR	
SINT EUSTATIUS	SINT EUSTATIUS	17.5N 63.0N	1656Z 25 MAR	
GUADELOUPE	BASSE TERRE	16.0N 61.7N	1656Z 25 MAR	
DOMINICA	ROSSAU	15.3N 61.4N	1657Z 25 MAR	
SAINT LUCIA	CASTRIES	14.0N 61.0N	1659Z 25 MAR	
SINT MAARTEN	SIMPSON MAAL	18.0N 63.1N	1700Z 25 MAR	
SAINT VINCENT	KINGSTON	13.1N 61.2N	1701Z 25 MAR	
MARTINIQUE	FORT DE FRANCE	14.6N 61.1N	1704Z 25 MAR	
ANGUILLA	THE VALLEY	18.3N 63.1N	1708Z 25 MAR	
GRENADA	SAINT GEORGES	12.0N 61.8N	1710Z 25 MAR	
BARBADOS	BRIDGETOWN	13.1N 59.6N	1726Z 25 MAR	
SAINT BARTHELEMY	SAINT BARTHELEMY	17.9N 62.8N	1727Z 25 MAR	
ANTIGUA	SAINT JOHN'S	17.1N 61.9N	1732Z 25 MAR	
BARBUDA	PALMETTO POINT	17.6N 61.9N	1735Z 25 MAR	
SAINT MARTIN	BALE BLANCHE	18.1N 63.0N	1738Z 25 MAR	
TRINIDAD TOBAGO	FINCHES BAY	11.3N 60.6N	1753Z 25 MAR	
	PORT OF SPAIN	10.6N 61.5N	1824Z 25 MAR	
BELIZE	BELIZE CITY	17.5N 88.2N	1805Z 25 MAR	
BERMUDA	RUTHS BAY	32.4N 64.6N	1819Z 25 MAR	
GUATEMALA	PUESTO_MARRIOS	15.7N 88.6N	1847Z 25 MAR	
FRENCH GUIANA	CAYENNE	4.9N 52.3N	2103Z 25 MAR	
GUYANA	GEORGETOWN	6.8N 58.2N	2142Z 25 MAR	
SURINAME	PARAMARIBO	5.9N 55.2N	2203Z 25 MAR	
BRAZIL	FORTALEZA	3.7S 38.5N	2244Z 25 MAR	
	SAO LUIS	2.5S 44.3N	0044Z 26 MAR	
	ILHA_DS_MARACA	2.2N 50.5N	0049Z 26 MAR	

ADDITIONAL BULLETINS WILL BE ISSUED BY THE PACIFIC TSUNAMI WARNING CENTER FOR THIS EVENT AS MORE INFORMATION BECOMES AVAILABLE.

PTWC Enhanced Products

ZCZC
WECA41 PHEB 251405
TSUCAX

EXPERIMENTAL TSUNAMI MESSAGE NUMBER 1
NOT FOR DISTRIBUTION
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1405 UCT WED MAR 25 2015

...TSUNAMI THREAT MESSAGE...

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

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

NATIONAL AUTHORITIES WILL DETERMINE THE TSUNAMI THREAT AND
APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY.

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

PRELIMINARY EARTHQUAKE PARAMETERS

* MAGNITUDE 8.2
* ORIGIN TIME 1400 UTC MAR 25 2015
* COORDINATES 10.3 NORTH 78.8 WEST
* DEPTH 15 KM / 9 MILES
* LOCATION NORTH OF PANAMA

EVALUATION

- * AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 8.2 OCCURRED
NORTH OF PANAMA AT 1400 UTC ON WEDNESDAY MARCH 25 2015.
* BASED ON THE PRELIMINARY EARTHQUAKE PARAMETERS... HAZARDOUS
TSUNAMI WAVES ARE FORECAST FOR SOME COASTS.

TSUNAMI THREAT FORECAST...UPDATED

- * TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE
LEVEL ARE POSSIBLE ALONG SOME COASTS OF

PANAMA.

- * TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE
POSSIBLE ALONG SOME COASTS OF

COLOMBIA... COSTA RICA... CUBA... DOMINICAN REPUBLIC...
HAITI... NICARAGUA... AND JAMAICA.

- * TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL
ARE POSSIBLE FOR SOME COASTS OF

ARUBA... HONDURAS... MEXICO... PUERTO RICO... ANGUILLA...
ANTIGUA AND BARBUDA... BAHAMAS... CAYMAN ISLANDS... DOMINICA...
GRENADA... GUADELOUPE... MARTINIQUE... MONTERRAT... CURACAO...
BONAIRE... SAINT KITTS AND NEVIS... SAINT LUCIA... SAINT VINCENT
AND THE GRENADINES... US VIRGIN ISLANDS... AND VENEZUELA.

- * TSUNAMI WAVES LESS THAN 0.3 METERS ABOVE THE TIDE LEVEL ARE
POSSIBLE FOR SOME COASTS OF

GUYANA... GUATEMALA... SURINAME... BARBADOS... BELIZE...
BERMUDA... FRENCH GUIANA... SINT MAARTEN... SAINT BARTHELEMY...
SAINT MARTIN... TRINIDAD AND TOBAGO... AND TURKS AND CAICOS
ISLANDS.

- * ACTUAL AMPLITUDES AT THE COAST MAY VARY FROM FORECAST
AMPLITUDES DUE TO UNCERTAINTIES IN THE FORECAST AND LOCAL
FEATURES. IN PARTICULAR MAXIMUM TSUNAMI AMPLITUDES ON ATOLLS
WILL LIKELY BE MUCH SMALLER THAN THE FORECAST INDICATES.

- * FOR OTHER AREAS COVERED BY THIS PRODUCT A FORECAST HAS NOT
YET BEEN COMPUTED. THE FORECAST WILL BE EXPANDED AS NECESSARY
IN SUBSEQUENT PRODUCTS.

RECOMMENDED ACTIONS

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

- * PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT
FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND
LOCAL AUTHORITIES.

ESTIMATED TIMES OF ARRIVAL

- * ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE
FOR POINTS WITHIN THREATENED REGIONS ARE GIVEN BELOW. ACTUAL

PTWC Enhanced Products

ZCZC
WECA41 PHEB 251405
TSUCAX

EXPERIMENTAL TSUNAMI MESSAGE NUMBER 1
NOT FOR DISTRIBUTION
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI
1405 UCT WED MAR 25 2015

...TSUNAMI THREAT MESSAGE...

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

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

NATIONAL AUTHORITIES WILL DETERMINE THE TSUNAMI THREAT AND
APPROPRIATE LEVEL OF ALERT FOR EACH COUNTRY.

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

PRELIMINARY EARTHQUAKE PARAMETERS

* MAGNITUDE 8.2
* ORIGIN TIME 1400 UTC MAR 25 2015
* COORDINATES 10.3 NORTH 78.8 WEST
* DEPTH 15 KM / 9 MILES
* LOCATION NORTH OF PANAMA

EVALUATION

-
- * AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 8.2 OCCURRED
NORTH OF PANAMA AT 1400 UTC ON WEDNESDAY MARCH 25 2015.
 - * BASED ON THE PRELIMINARY EARTHQUAKE PARAMETERS... HAZARDOUS
TSUNAMI WAVES ARE FORECAST FOR SOME COASTS.

TSUNAMI THREAT FORECAST...UPDATED

-
- * TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE
LEVEL ARE POSSIBLE ALONG SOME COASTS OF

PANAMA.

- * TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE
POSSIBLE ALONG SOME COASTS OF

COLOMBIA... COSTA RICA... CUBA... DOMINICAN REPUBLIC...
HAITI... NICARAGUA... AND JAMAICA.

- * TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL
ARE POSSIBLE FOR SOME COASTS OF

ARUBA... HONDURAS... MEXICO... PUERTO RICO... ANGUILLA...
ANTIGUA AND BARBUDA... BAHAMAS... CAYMAN ISLANDS... DOMINICA...
GRENADA... GUADELOUPE... MARTINIQUE... MONTSERAT... CURACAO...
BONAIRE... SAINT KITTS AND NEVIS... SAINT LUCIA... SAINT VINCENT
AND THE GRENADINES... US VIRGIN ISLANDS... AND VENEZUELA.

- * TSUNAMI WAVES LESS THAN 0.3 METERS ABOVE THE TIDE LEVEL ARE
POSSIBLE FOR SOME COASTS OF

GUYANA... GUATEMALA... SURINAME... BARBADOS... BELIZE...
BERMUDA... FRENCH GUIANA... SINT MAARTEN... SAINT BARTHELEMY...
SAINT MARTIN... TRINIDAD AND TOBAGO... AND TURKS AND CAICOS
ISLANDS.

- * ACTUAL AMPLITUDES AT THE COAST MAY VARY FROM FORECAST
AMPLITUDES DUE TO UNCERTAINTIES IN THE FORECAST AND LOCAL
FEATURES. IN PARTICULAR MAXIMUM TSUNAMI AMPLITUDES ON ATOLLS
WILL LIKELY BE MUCH SMALLER THAN THE FORECAST INDICATES.

- * FOR OTHER AREAS COVERED BY THIS PRODUCT A FORECAST HAS NOT
YET BEEN COMPUTED. THE FORECAST WILL BE EXPANDED AS NECESSARY
IN SUBSEQUENT PRODUCTS.

RECOMMENDED ACTIONS

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

- * PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT
FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND
LOCAL AUTHORITIES.

ESTIMATED TIMES OF ARRIVAL

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- * ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE
FOR POINTS WITHIN THREATENED REGIONS ARE GIVEN BELOW. ACTUAL

PTWC Enhanced Products

ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	REGION	COORDINATES	ETA (UTC)
ALIGANDI	PANAMA	9.2N 78.0W	1421 03/25
PUERTO CARRETO	PANAMA	8.8N 77.6W	1437 03/25
CARTAGENA	COLOMBIA	10.4N 75.6W	1442 03/25
PUNTA CARIBANA	COLOMBIA	8.6N 76.9W	1453 03/25
BARRANQUILLA	COLOMBIA	11.1N 74.9W	1453 03/25
PUERTO LIMON	COSTA RICA	10.0N 83.0W	1456 03/25
PUERTO OBALDIA	PANAMA	8.7N 77.4W	1502 03/25
COLON	PANAMA	9.4N 79.9W	1512 03/25
RIOHACHA	COLOMBIA	11.6N 72.9W	1518 03/25
BOCAS DEL TORO	PANAMA	9.4N 82.2W	1528 03/25
KINGSTON	JAMAICA	17.9N 76.9W	1528 03/25
JACAMEL	HAITI	18.1N 72.5W	1536 03/25
PUNTA GORDA	NICARAGUA	11.4N 83.8W	1544 03/25
SANTA MARTA	COLOMBIA	11.2N 74.2W	1546 03/25
ORANJESTAD	ARUBA	12.5N 70.0W	1548 03/25
CAYMAN BRAC	CAYMAN ISLANDS	19.7N 79.9W	1552 03/25
MONTEGO BAY	JAMAICA	18.5N 77.9W	1553 03/25
SANTIAGO D CUBA	CUBA	19.9N 75.8W	1553 03/25
WILLEMSTAD	CURACAO	12.1N 68.9W	1557 03/25
ONIMA	BONAIRE	12.3N 68.3W	1559 03/25
SANTO DOMINGO	DOMINICAN REP	18.5N 69.9W	1603 03/25
GRAND CAYMAN	CAYMAN ISLANDS	19.3N 81.3W	1611 03/25
BARACOA	CUBA	20.4N 74.5W	1615 03/25
GREAT INAGUA	BAHAMAS	20.9N 73.7W	1616 03/25
CIENFUEGOS	CUBA	22.0N 80.5W	1620 03/25
CABO ENGANO	DOMINICAN REP	18.6N 68.3W	1623 03/25
CAP HAITEN	HAITI	19.8N 72.2W	1628 03/25
MAIQUETIA	VENEZUELA	10.6N 67.0W	1636 03/25
MAYAGUANA	BAHAMAS	22.3N 73.0W	1637 03/25
PUERTO PLATA	DOMINICAN REP	19.8N 70.7W	1640 03/25
JEREMIE	HAITI	18.6N 74.1W	1641 03/25
CROOKED ISLAND	BAHAMAS	22.7N 74.1W	1645 03/25
LONG ISLAND	BAHAMAS	23.3N 75.1W	1648 03/25
COZUMEL	MEXICO	20.5N 87.0W	1651 03/25
BASSE TERRE	GUADELOUPE	16.0N 61.7W	1654 03/25
ROSEAU	DOMINICA	15.3N 61.4W	1655 03/25
PUERTO CORTES	HONDURAS	15.9N 88.0W	1655 03/25
FORT DE FRANCE	MARTINIQUE	14.6N 61.1W	1658 03/25
SAN SALVADOR	BAHAMAS	24.1N 74.5W	1658 03/25
KINGSTOWN	SAINTE VINCENT	13.1N 61.2W	1658 03/25
CASTRIES	SAINTE LUCIA	14.0N 61.0W	1658 03/25
SAINTE GEORGES	GRENADA	12.0N 61.8W	1659 03/25
BASSETERRE	SAINTE KITTS	17.3N 62.7W	1659 03/25
PLYMOUTH	MONTSERRAT	16.7N 62.2W	1700 03/25
CUMANA	VENEZUELA	10.5N 64.2W	1701 03/25
EKUMA	BAHAMAS	23.6N 75.9W	1704 03/25
TRUJILLO	HONDURAS	15.9N 86.0W	1714 03/25
CAT ISLAND	BAHAMAS	24.4N 75.5W	1714 03/25

THE VALLEY	ANGUILLA	18.3N 63.1W	1722 03/25
GIBARA	CUBA	21.1N 76.1W	1722 03/25
LA HABANA	CUBA	23.2N 82.4W	1724 03/25
ABACO ISLAND	BAHAMAS	26.6N 77.1W	1726 03/25
ANDROS ISLAND	BAHAMAS	25.0N 77.9W	1730 03/25
SAINT JOHNS	ANTIGUA	17.1N 61.9W	1735 03/25
PALMETTO POINT	BARBUDA	17.6N 61.9W	1735 03/25
PUNTO FIJO	VENEZUELA	11.7N 70.2W	1737 03/25
ELEUTHERA ISLAND	BAHAMAS	25.2N 76.1W	1743 03/25
PORT AU PRINCE	HAITI	18.5N 72.4W	1744 03/25
NASSAU	BAHAMAS	25.1N 77.4W	1747 03/25
FREEPORT	BAHAMAS	26.5N 78.8W	1750 03/25
BIMINI	BAHAMAS	25.8N 79.3W	1822 03/25
SANTA CRZ D SUR	CUBA	20.7N 78.0W	1837 03/25
GOLFO VENEZUELA	VENEZUELA	11.4N 71.2W	1914 03/25
NUEVA GERONA	CUBA	21.9N 82.8W	1937 03/25
PUERTO CABEZAS	NICARAGUA	14.0N 83.4W	1939 03/25
FORLAMAR	VENEZUELA	10.9N 63.8W	2124 03/25

POTENTIAL IMPACTS

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

* IMPACTS CAN VARY SIGNIFICANTLY FROM ONE SECTION OF COAST TO THE NEXT DUE TO LOCAL BATHYMETRY AND THE SHAPE AND ELEVATION OF THE SHORELINE.

* IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.

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

NEXT UPDATE AND ADDITIONAL INFORMATION

* THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.

* AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT EARTHQUAKE.USGS.GOV/EARTHQUAKES -ALL IN SMALL LETTERS-.

* FURTHER INFORMATION ABOUT THIS EVENT MAY BE FOUND AT PTWC.WEATHER.GOV AND AT WWW.TSUNAMI.GOV.

* COASTAL REGIONS OF PUERTO RICO... THE U.S. VIRGIN ISLANDS AND THE BRITISH VIRGIN ISLANDS SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER MESSAGES THAT CAN BE FOUND AT

Participation des Etats Membres

- Chaque État membre doit établir son propre groupe de travail pour déterminer le niveau de la participation nationale et les objectifs à tester.



Dispositions pour les médias

- **Des dossiers de presse sur les Tsunamis ont été préparés par:**
 - Réseau Sismique de Puerto Rico (Anglais et Espagnol):
<http://www.prsn.uprm.edu/mediakit/>
 - Centre sur la Recherche Sismique (Anglais):
[http://www.uwiseismic.com/Downloads/TCHWS Final Media Kit.pdf](http://www.uwiseismic.com/Downloads/TCHWS_Final_Media_Kit.pdf)
- Des exemples de communiqué de presse sont fournis dans le manuel et peuvent être adaptés si nécessaire.
- **Un communiqué de presse** pourrait être diffusé en avance l'exercice **par l'UNESCO** et la NOAA.

Dispositions pour les médias-Révisions

- VITEMA a déjà publié un communiqué de presse.
- PRSEMA organisera une conférence de presse.
- NOAA avec CTWP publieront également un communiqué de presse.
- UNESCO, communiqué de presse en attente

Actions en cas d'événement réel

- Dans le cas d'un événement réel durant l'exercice, les TWC émettront leurs messages standard pour alerter de l'événement. Ces messages auront une priorité absolue et les TWC prendront la décision de continuer (ou pas) de diffuser le message fictif et d'envoyer les messages électroniques. Les tremblements de terre qui déclenchent seulement un Tsunami Information Statement (message d'information tsunami) ne perturberont pas l'exercice. Tous les documents et correspondances relatifs à cet exercice doivent être clairement identifiés comme "**CARIBE WAVE 15/LANTEX 15**» et «**Exercice**».

Procédure pour fausse alarme

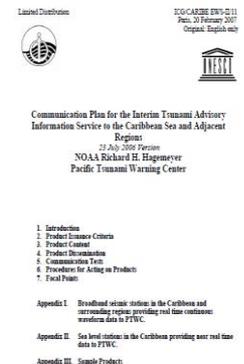
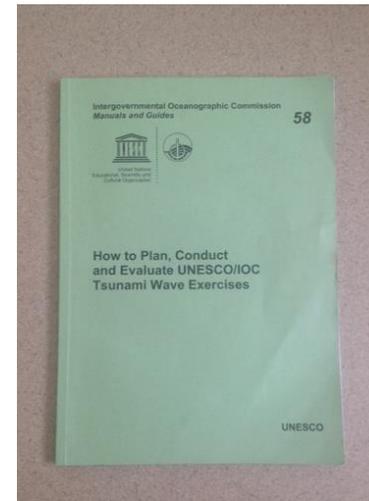
- Chaque fois que des exercices de préparation aux situations de catastrophe sont menés, il existe un risque que le public et/ou les médias l'interprètent comme un événement réel. Des procédures devront donc être mises en place par l'ensemble des entités participantes pour répondre aux préoccupations du public ou des médias concernés dans l'exercice en cas de mauvaises interprétations.

Formulaire d'évaluation après l'exercice.

- Tous les membres participants sont invités à fournir des commentaires succincts sur l'exercice. Ces commentaires aideront l'ICG / CARIBE-EWS, le NTHMP, et la NOAA dans l'évaluation du CARIBEWAVE 15 et la préparation des prochains exercices. Ces commentaires permettront également de tirer les enseignements de l'exercice.
- La date limite pour remplir le formulaire d'évaluation est fixée au **9 Avril 2015**
- Sur Survey Monkey, suivez le lien:
www.surveymonkey.com/s/CaribeWave15

Ressources

- Manuel IOC “How to plan, conduct and evaluate tsunami exercises” (Anglais, Espagnol).
- Manuel CARIBE WAVE 2011, 2013, et 2014
- Rapport final CARIBE WAVE 2013 et 2014 et article de presse
- Plan de Communication de PTWC pour les Caraïbes.
- Disponible sur www.caribewave.info

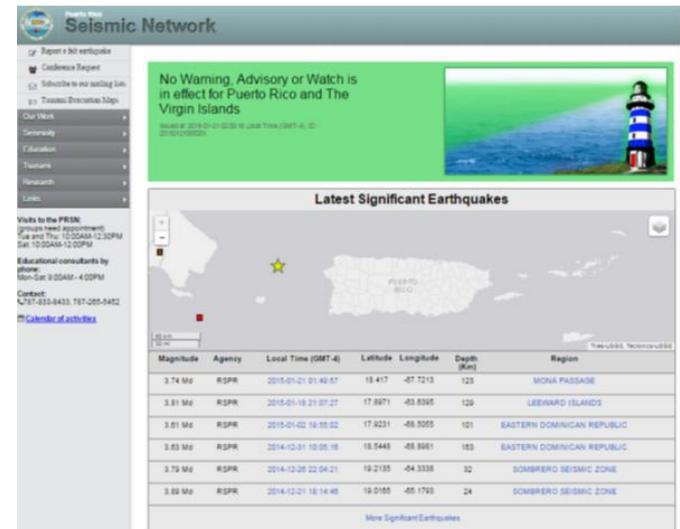


Autres informations

- Des supports additionnels seront placés sur les pages de CTWP y RSPR.
- Envoyer les liens des pages de chaque pays à christa.vonh@noaa.gov pour être inclus sur les pages de CTWP et de PRSN.
- Cette présentation sera placée sur la page de CTWP.



- CARIBE WAVE/LANTEX 2015**
- [UNESCO IJC Circular Letter](#) Announcing CARIBE WAVE/LANTEX 2015
 - [CaribeWave 2015 Task Team Meeting](#) [2014-2015](#)
 - The participants **HANDBOOKS** are available for:
 - [SW Caribbean Program UNESCO Format](#)
 - [NW Caribbean Program IJC/CA Format](#)
 - [Index](#)
- Webinar 1 for CARIBE WAVE/LANTEX 2015:**
- [English](#): 1800 UTC, Tuesday, January 20, 2015 - [Presentation](#)
 - [Spanish](#): 1800 UTC, miércoles, 21 de enero de 2015
 - [Portuguese](#): 1800 UTC, jeudi, 22 janvier de 2015
- Webinar 2 for CARIBE WAVE/LANTEX 2015:**
- [English](#): 1800 UTC, Tuesday, February 24, 2015
 - [Spanish](#): 1800 UTC, miércoles, 25 de febrero de 2015
 - [Portuguese](#): 1800 UTC, jeudi, 26 février de 2015
- Additional Websites for CARIBE WAVE/LANTEX 2015
- [US National Tsunami Warning Center](#)
 - [UNESCO IJC](#)
 - [CaribeWave Network](#)
 - [IJC/CA Network](#)
 - [NOAA WaveWatch](#)
- Thanks and PLEASE contact me with any questions.
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[Back](#) [Caribbean Tsunami Warning Program Home](#)



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Chronologie Actualisée

Action	Date limite
Draft Circulated among ICG CARIBE EWS TNC/TWFP	August 15, 2014
Date Limite pour commentaires	12 Septembre 2014
Version finale du manuel d'exercice disponible en ligne	10 novembre 2014
Circular Letter Issued by IOC to MS	5 décembre 2014
1er Webinaire	20, 21 et 22 Janvier 2014 -14h00 AST (18h00 UTC)
2 ^{eme} Webinaire	24, 25 et 26 Février 2014 - 14h00 AST (18h00 UTC)
Exercice	25 Mars 2015 (Mercredi)
Date limite pour soumettre le Questionnaire d'évaluation de l'exercice	9 Avril 2015 (Jeudi)
Rapport final de Caribe Wave 2015	ICG CARIBE EWS X (19-21 Mai, 2015 – Sint Maarten)



Caribe Wave/LANTEX 2015

Scénario de tsunami du Panama



M_w 8.5, 10.3°N 78.8°W, March 25, 2015, 14:00 UTC

This tsunami model was generated in Tweb, a NOAA real time forecast tsunami tool (experimental phase).

Lien d'enregistrement: <https://attendee.gotowebinar.com/register/901690059478404610>

Webinaire #: 101-503-771

Questions, Commentaires

Merci de votre participation

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