

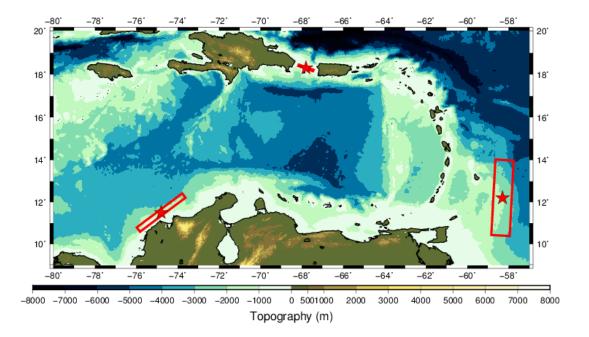


2nd Webinar

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NOAA NWS Caribbean Tsunami Warning Program- Manager ICG CARIBE EWS Chair February 27, 2018

CARIBE WAVE 18 Earthquake and Tsunami Scenarios



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

To be discussed in Webinar 2

Emphasize the importance of:

- Communication Systems
- Registration on TsunamiZone
- Post Exercise Evaluation

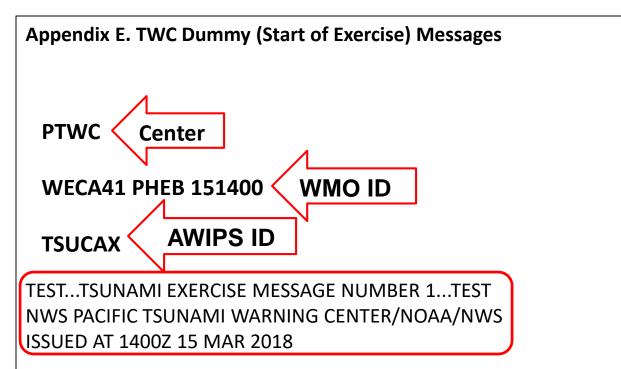
CARIBE WAVE 18 Scenarios by Member State/Territory

Barbados	Colombia	Puerto Rico
Aruba	Costa Rica	Bahamas
Barbados	Cuba	Dominican Republic
Grenada	Haiti	Honduras
Netherlands		United Kingdom
Bonaire Saba Sint Eustatius	Mexico	British Virgin Islands
Coint Kitta & Novia	United Kingdom	United States
Saint Kitts & Nevis	Cayman Islands	Puerto Rico U.S. Virgin Islands
St. Vincent and the Grenadines		
United Kingdom		
Anguilla Bermuda		
Venezuela		

For Caribe Wave 18 PTWC will issue the following products:

- The initial dummy message for the three scenarios will be issued on March 15, 2018 at 1400 UTC and disseminated over all its standard broadcast channels.
- PTWC will issue a start of exercise message through its Twitter account at 1400 UTC.
- As of 1405 UTC, PTWC emails will be sent with all the simulated enhanced products (text and graphical) to the designated CARIBE EWS, TWFP and NTWC for one of the scenarios.
 - By March 2, 2018, each Member State needs to select one scenario and must inform its selection to PTWC (<u>charles.mccreery@noaa.gov</u> and <u>cindi.preller@noaa.gov</u>) with a copy to the Caribbean Tsunami Warning Program (<u>christa.vonh@noaa.gov</u>). If the Member State does not inform the PTWC and CTWP, the organizers will decide for which scenario the PTWC will send the products.
 - Each country and territory will choose one scenario and decide if and how to disseminate messages within its area of responsibility.
 - To verify the current list of officially designated UNESCO IOC CARIBE EWS TWFP and NTWC check out:

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



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

THIS MESSAGE IS BEING USED TO START THE CARIBEWAVE 18 CARIBBEAN TSUNAMI EXERCISE. THIS WILL BE THE ONLY EXERCISE MESSAGE BROADCAST FROM THE PACIFIC TSUNAMI WARNING CENTER EXCLUDING SPECIAL EMAIL MESSAGES DISCUSSED IN THE HANDBOOK. THE HANDBOOK IS AVAILABLE AT THE WEB SITE CARIBEWAVE.INFO. THE EXERCISE PURPOSE IS TO PROVIDE EMERGENCY MANAGEMENT A REALISTIC SCENARIO TO TEST TSUNAMI RESPONSE PLANS.

THIS IS ONLY AN EXERCISE.

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

Center	WMO ID	AWIPS ID	NWWS	GTS	EMWIN	AISR	Fax	Email
PTWC	WECA41 PHEB	TSUCAX	Yes	Yes	Yes	Yes	Yes	Yes
NWWS	NOAA Weather Wire Service							
GTS	Global Telecommunications System							

Global Telecommunications System

EMWIN Emergency Managers Weather Information Network

AISR Aeronautical Information System Replacement

Message Chronology issued by the PTWC Barbados

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

Message Chronology issued by the PTWC Colombia

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

Message Chronology issued by the PTWC Puerto Rico

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

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

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

"Follow NWS_PTWC" to 40404 (this account is for all PTWC products)

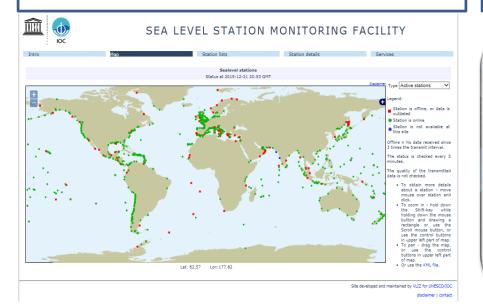
"Follow NWS_CTWP" to 40404 (this account is only for PTWC products for the Caribbean and Adjacent Regions)

"This is a test message for the CARIBEWAVE18 tsunami exercise #CaribeWave" (will be issued at 14h00 UTC to NWS_PTWC and NWS_CTWP accounts/subscribers)."

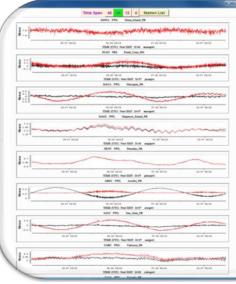
Sea Level Monitoring

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

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



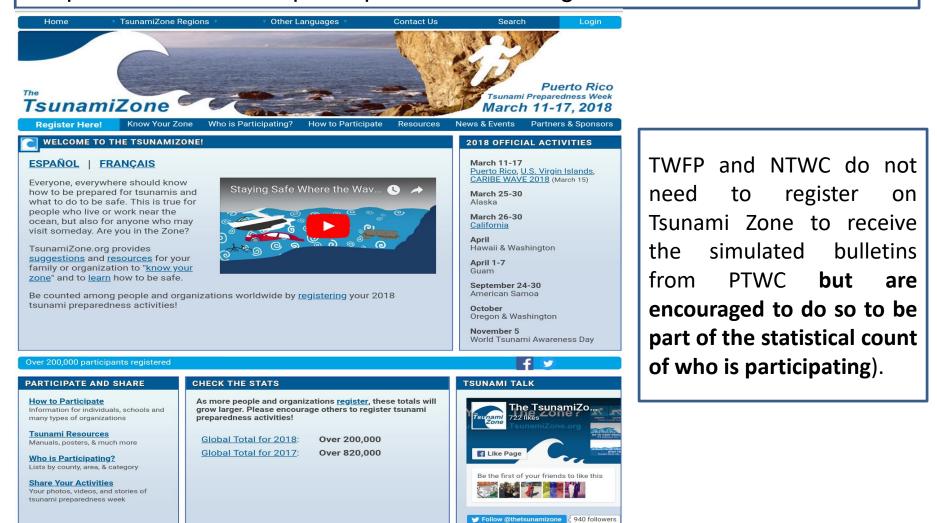
Tide Tool stuart.weinstein@noaa.gov





Member State Participation – The *Tsunami*Zone Registration

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



#TsunamiPrep



PARTICIPATION TOTALS

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

These totals are current as of 02/25/2018 11:25 AM PST.

Category	Participants	
Total:	200,144	
Individuals/Families	423	
Childcare and Pre-Schools	552	
K-12 Schools and Districts	1,375	
Colleges and Universities	34,085	
Local Government	1,348	
State Government	91,447	
<u>Federal Government (Including Military)</u>	64,280	
Tribes	C	
Businesses	531	
Hotels and Other Lodgings	C	
<u>Healthcare</u>	1,647	
Senior Facilities/Communities	100	
Disability/AFN Organizations	C	
Non-Profit Organizations	382	
<u>Neighborhood Groups</u>	C	
Preparedness Organizations	3,090	
Faith-based Organizations	100	
<u>Museums, Libraries, Parks, etc.</u>	C	
Volunteer/Service Clubs	C	
Youth Organizations	C	
Animal Shelter/Service Providers	C	
Agriculture/Livestock	C	
Volunteer Radio Groups	83	
Science/Engineering Organizations	62	
Media Organizations	C	
<u>Other</u>	639	

Participation totals for each area	Total
<u>California</u>	98981
North Coast	483
Shasta Cascade	0
Bay Area	612
Delta Sierra	26
Inyo-Mono	0
Central Valley South	6
Central Coast	35093
Southern California Coast	1057
Inland Southern California	215
<u>San Diego</u>	61484
Other Areas	5
Caribbean	101118
Anguilla	0
Antigua and Barbuda	0
Aruba	3
<u>Bahamas</u>	0
Barbados	0
Belize	0
Bermuda	10
Bonaire	0
Brazil	0
British Virgin Islands	157
<u>Cayman Islands</u>	0
Colombia	0
<u>Costa Rica</u>	1
<u>Cuba</u>	0

Curacao	0
<u>Dominica</u>	0
Dominican Republic	320
France	0
<u>Grenada</u>	736
Guadeloupe	15
Guatemala	0
<u>Guyana</u>	0
Guyane	0
<u>Haiti</u>	0
Honduras	0
<u>Jamaica</u>	0
<u>Martinique</u>	605
Mexico	500
Montserrat	0
<u>Netherlands</u>	4
<u>Nicaragua</u>	0
<u>Panama</u>	10
Puerto Rico	2954
Saba	0
Saint Barthelemy	0
Saint Kitts and Nevis	2500
Saint Lucia	0
Saint Martin	160
Saint Vincent and the Grenadines	400
Sint Eustatius	0
Sint Maarten	0
Suriname	0
Trinidad and Tobago	0
Turks and Caicos Islands	0
<u>U.S. Virgin Islands</u>	12
<u>Venezuela</u>	92731
Other Areas	45
Other Areas	45

WHO IS PARTICIPATING? (CARIBBEAN)

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

These totals are current as of 02/25/2018 11:25 AM PST.

Category	Participants	Participation totals for
Total:	101,118	Anguilla
Individuals/Families	146	Antigua and Barbuda
Childcare and Pre-Schools	0	Antigua and Barbuda
K-12 Schools and Districts	912	<u>Aruba</u>
Colleges and Universities	12	Bahamas
Local Government	720	Dallallias
State Government	91,382	Barbados
Federal Government (Including Military)	3,280	Belize
Tribes	0	Delize
Businesses	31	Bermuda
Hotels and Other Lodgings	0	Bonaire
Healthcare	666	Donane
Senior Facilities/Communities	0	<u>Brazil</u>
Disability/AFN Organizations	0	British Virgin Islands
Non-Profit Organizations	125	Difficit Virgin Islands
Neighborhood Groups	0	<u>Cayman Islands</u>
Preparedness Organizations	3,060	Colombia
Faith-based Organizations	0	COlombia
Museums, Libraries, Parks, etc.	0	Costa Rica
Volunteer/Service Clubs	0	Cuba
Youth Organizations	0	Cuba
Animal Shelter/Service Providers	0	<u>Curacao</u>
Agriculture/Livestock	0	Dominica
Volunteer Radio Groups	83	Dominica
Science/Engineering Organizations	62	Dominican Republic
Media Organizations	0	France
Other	639	Tanoc

articipation totals for each area	Total
<u>nguilla</u>	0
ntigua and Barbuda	0
<u>ruba</u>	3
ahamas	0
arbados	0
elize	0
ermuda	10
onaire	0
razil	0
ritish Virgin Islands	157
ayman Islands	0
olombia	0
osta Rica	1
uba	0
uracao	0
ominica	0
ominican Republic	320
ance	0

<u>Grenada</u>	736		
<u>Guadeloupe</u>	15		
<u>Guatemala</u>	0	Carolina	200
		Catano	0
<u>Guyana</u>	0	<u>Cayey</u>	0
0	0	Ceiba Ciales	0
Guyane	0	Cidra	0
Haiti	0	Coamo	0
	-	Comerio	0
Honduras	0	Corozal Culebra	150 0
		Dorado	0
<u>Jamaica</u>	0	Fajardo	40
Martinique	605	<u>Florida</u>	0
Martinque	005	Guanica Guayama	0 350
Mexico	500	Guaynabo	0
		Guayanilla	0
<u>Montserrat</u>	0	Gurabo	0
Made and an ele	4	Hatillo Hormigueros	0
Netherlands	4	Humacao	0
<u>Nicaragua</u>	0	Isabela	11
		Jayuya	0
Panama	10	<u>Juana Diaz</u> Juncos	0
		Lajas	117
Puerto Rico	.,954	Lares	15
<u>Adjuntas</u>	0	Las Marias	0
<u>Aguada</u>	0	Las Piedras Loiza	0
<u>Aguadilla</u>	381	Luquillo	0
<u>Aguas Buenas</u>	0	Manati	220
Aibonito	0	Maricao Maunabo	0
Anasco	0	Mayaguez	226
Arecibo	150	Moca	0
		Morovis	0
Arroyo	0	<u>Naguabo</u> Naranjito	0
Barceloneta	0	Orocovis	0
<u>Barranquitas</u>	0	Patillas	0
<u>Bayamon</u>	0	Penuelas Ponce	0 10
<u>Cabo Rojo</u>	4	Quebradillas	0
<u>Camuy</u>	0	Rincon	300
Canovanas	0	Rio Grande	0
Caguas	0	<u>Sabana Grande</u> Salinas	0
Cayuas	0	San German	0
		San Juan	217
		San Lorenzo	0
		San Sebastian Santa Isabel	0
		Toa Alta	0
		Toa Baja	150
		Trujillo Alto	0

<u>Utuado</u>	0
Vega Alta	0
<u>Vega Baja</u>	11
Vieques	0
Villalba	0
Yabucoa	0
Yauco	0
Saba	0
Saint Barthelemy	0
Saint Kitts and Nevis	2,500
Saint Lucia	0
Saint Martin	160
Saint Vincent and the Grenadines	400
Sint Eustatius	0
Sint Maarten	0
Suriname	0
Trinidad and Tobago	0
Turks and Caicos Islands	0
U.S. Virgin Islands	12
<u>Venezuela</u>	92,731
Multiple Counties	0
Other (outside of California)	5

WHO IS PARTICIPATING? (BRITISH VIRGIN ISLANDS)

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

Participation totals for each county are listed below.

These totals are current as of 02/25/2018 11:25 AM PST.

Category	Participant	
Total:	157	
Individuals/Families	C	
Childcare and Pre-Schools	C	
K-12 Schools and Districts	0	
Colleges and Universities	0	
Local Government	157	
State Government	0	
<u>Federal Government (Including Military)</u>	0	
Tribes	0	
<u>Businesses</u>	0	
Hotels and Other Lodgings	0	
Healthcare	0	
Senior Facilities/Communities	0	
Disability/AFN Organizations	0	
Non-Profit Organizations	0	
Neighborhood Groups	0	
Preparedness Organizations	0	
Faith-based Organizations	0	
<u>Museums, Libraries, Parks, etc.</u>	0	
Volunteer/Service Clubs	0	
Youth Organizations	0	
Animal Shelter/Service Providers	0	
Agriculture/Livestock	0	
Volunteer Radio Groups	0	
Science/Engineering Organizations	0	
Media Organizations	0	
<u>Other</u>	0	

Media Arrangements

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

Actions in Case of a Real Event

- In the case of a real event occurring during the exercise, the PTWC will issue the corresponding messages for the event. Such messages will be given full priority and a decision will be made by the PTWC whether to issue the Caribe Wave 18 dummy messages and to send email messages to corresponding recipients.
- In the case of smaller earthquakes, PTWC will issue the corresponding Tsunami Information Statement and the exercise will not be disrupted.
- All documentation and correspondence relating to this exercise is to be clearly identified as "CARIBE WAVE 18" and "Exercise."

Procedure for False Alarm

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

Post-Exercise Evaluation Form

- Each CARIBE EWS member state and territory is requested to provide feedback on the exercise.
 - This feedback will assist the ICG/CARIBE-EWS in the evaluation of Caribe Wave 18 and the development of subsequent exercises, and help response agencies document lessons learned.
 - To facilitate feedback the online evaluation survey can be accessed at the following link: <u>https://www.surveymonkey.com/r/CaribeWave18</u>
 - The deadline for completing the evaluation is April 4, 2018.
 - 62 questions (64 questions in 2017, and 83 questions in 2016), should take no more than 20 minutes. We highly recommend review the questionnaire to compile ahead the information and diminish the time filling up the online form.

Post-Exercise Evaluation Form Questionnaire

1B.2:

The PTWC issued the CARIBE WAVE 18 initial Dummy Message by several methods. Please check all methods through which the message was received by the TWFP/NTWC.

	Yes	No	Not Applicable
WMO Information Process (e.g., GTS, WIS)			
NWWS			
AISR/AFTN			
EMWIN			
GEONETCast			
Fax			
Email from PTWC			
Social Media			
Other (please specify)			

1B.3:

The PTWC issued the CARIBE WAVE 18 initial Dummy Message by several methods. Please indicate the time at which the message was received by the TWFP/NTWC (UTC, Coordinated Universal Time).

	Hour	Minutes	Time Zone
WMO Information Process (e.g., GTS, WIS)	•	•	\$
AISR/AFTN	•		\$
EMWIN	•		
GEONETCast	•		\$
Fax	•		\$
Email from PTWC	•		\$
Social Media	\$	•	\$

Post-Exercise Evaluation Form Questionnaire

1B.4:

Were there any problems with the receipt of PTWC CARIBE WAVE 18 initial Dummy (Start of Exercise) Message?

\bigcirc	Yes
\bigcirc	No
0	Not Applicable
Con	nments:

1B.5:

Did your TWFP/NTWC receive by email from PTWC the simulated exercise messages at the times specified in the Exercise Manual?

- Yes
- 🔿 No

O Not Applicable

Comments:

1B.6:

Did the Tsunami Warning Focal Point / National Tsunami Warning Center receive any message from an organisation other than the PTWC (e.g., Hydro/Met Office)? If yes, please use the comment box to indicate the agencies that receiv and communicated the products from PTWC during the exercise.

Yes

O No

Comments:

Post-Exercise Evaluation Form Questionnaire

3.F.1:

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

🔵 Yes

() No

Comments:

3.F.2:

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

🔵 Yes

O No

Other (please specify)

3.F.3:

How many communities in your country have already been designated as TsunamiReady® or Tsunami Ready?

Communities

\$

\$

3.F.4:

What is the target number of Tsunami Ready communities in your country/territory you expect will pursue Tsunami Ready recognition?

Communities					

New in 2018

 In the Exercise Evaluation Survey, each MS/Territory will be asked to reconfirm the total number of participants.

Resources

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

CARIBE WAVE 18 Task Team

Person	Telephone #	Email
Elizabeth Vanacore, PRSN, CARIBE WAVE Chair	1-787-833-8433	elizabeth.vanacore@upr.edu
Christa von Hillebrandt-Andrade, CARIBE EWS Chair; NWS CTWP Manager	1-787-249-8307	christa.vonh@noaa.gov
Nestor Luque Chair WG 1 Monitoring and Detection Systems	507-523-5560	<u>barcelona010104@γahoo.com</u>
Silvia Chacón Chair WG 2 Hazard Assesment	506-830-96690	silviachaconb@gmail.com
Antonio Aguilar Chair WG 3 Tsunami Related Services	58-212-2575153	antoniodesastres@gmail.com
Lt. Patrick Tyburn Chair WG 4 Preparedness, Readiness and Resilience	596-696-286471	patrick.tyburn@sdis972.fr
Joan L. Latchman, SRC Dr. Frederic Dondin, SRC Scientific Experts – Barbados Scenario	1 868-662-4659	j_latchman@uwiseismic.com fredericdondin@gmail.com
Hansjürgen Meyer, OSSO Scientific Expert – Colombia Scenario	57-2-3317881	hansjurgen.meyer@osso.org.co
Alberto M. López Venegas, PRSN Scientific Expert – Puerto Rico Scenario	847- 217-3828	alberto.lopez3@upr.edu
Charles McCreery, PTWC Director	1-808-689-8207	charles.mccreery@noaa.gov
Ronald Jackson Director CDEMA	246-425-0386	ronald.Jackson@cdema.org
Roy Barboza Sequeira Executive Secretary, CEPREDENAC	502-2390-0200	<u>rbarboza@sica.int</u>
Bernardo Aliaga Technical Secretary UNESCO	33-1-45683980	<u>b.aliaga@unesco.org</u>
David Wald, USGS Scientific Expert – Earthquake Impact Products	1-303-273-8441	wald@usgs.gov

Timeline

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

Questions, Comments

Thank you for participating

christa.vonh@noaa.gov