

CARIBE WAVE/LANTEX 2013

2nd ICG CARIBE EWS Tsunami Exercise

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ICG CARIBE EWS CARIBE WAVE 13 Task Team Chair

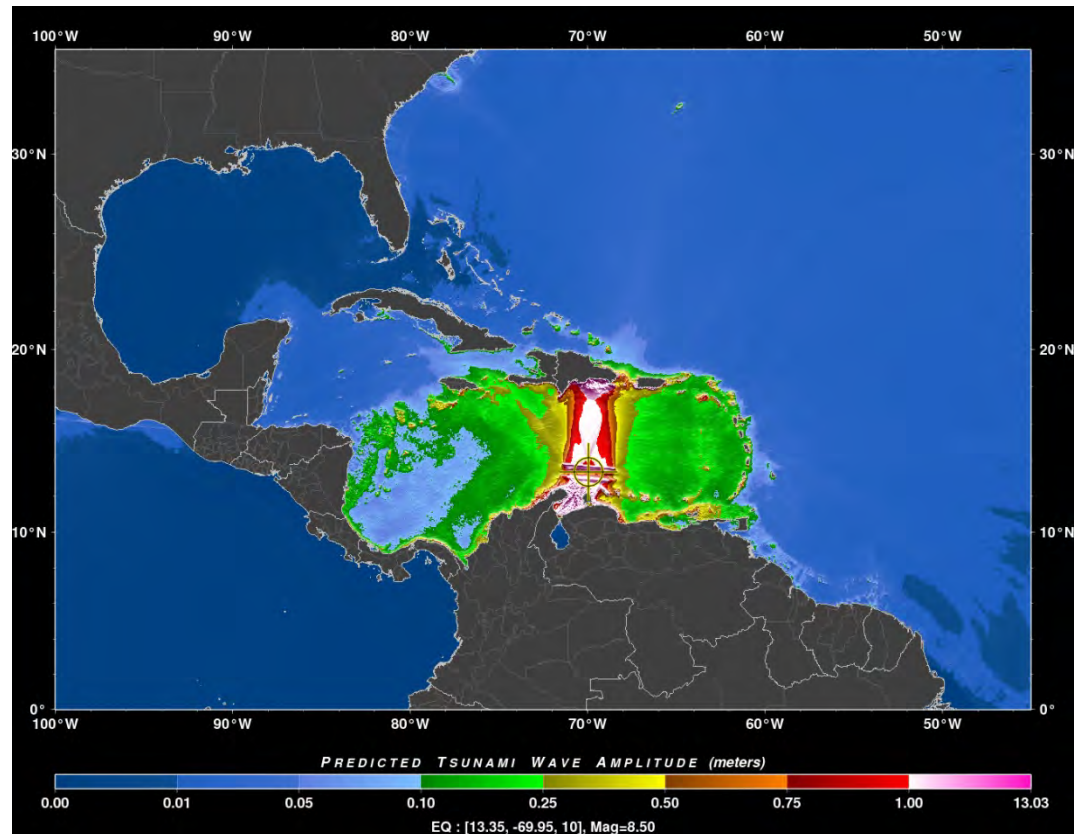
ICG CARIBE EWS Chair

Manger, NOAA NWS Caribbean Tsunami Warning Program

April 29, 2013

CARIBE WAVE 13

- 2nd Regional Tsunami Exercise
- March 20, 2013
- Source: M 8.5 EQ north of Aruba
- Kick off messages were issued by PTWC and WCATWC. Other warning monitoring centers also issued products.



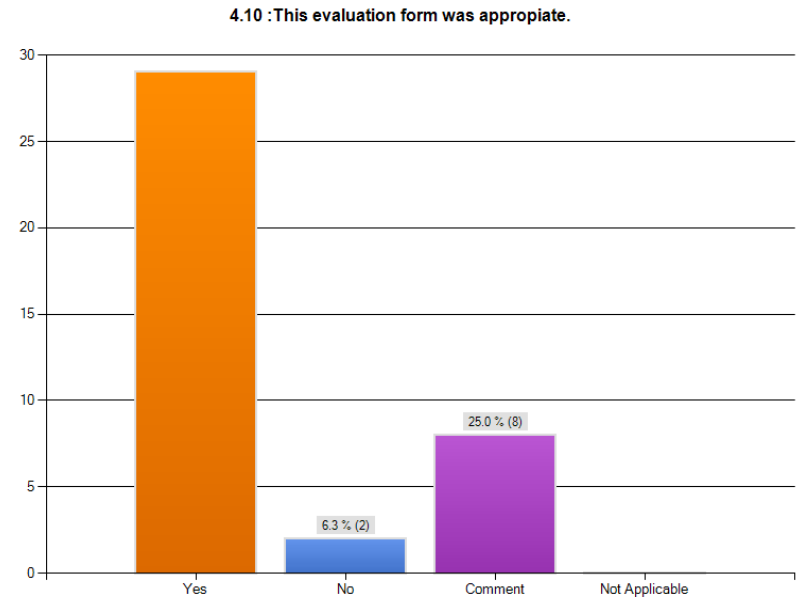
CARIBE WAVE/LANTEX 2013 Timeline

Action	Target Date (Date Task Accomplished)
1st Draft Circulated among Task Team	July 1, 2012 (July 10, 2012)
2 nd Draft Circulated among ICG CARIBE EWS TNC/TWFP	September 1, 2012 (September 10, 2012)
Final Exercise Manual Available on Line	November 1, 2012 (November 14, 2012)
Circular Letter Issued by IOC	November 15, 2012 (December 7, 2012)
1st Webinar	Mid- Late January, 2013 (24 and 25 January, 2013)
2 nd Webinar	Mid – Late February 2013 (14 and 15 February, 2013)
Exercise	March 20, 2013
Exercise Questionnaire Due	April 1, 2013 (Accepted answers until April 27, 2013)
Report	ICG CARIBE EWS VIII (Posted April 26, 2013)

Evaluation Form

https://www.surveymonkey.com/s/caribewave13_eval

- Contained 80 questions, followed PTWS (for harmonization purposes)
- To be completed by individuals by April 1 (last survey was received April 26 – had to redo all graphs)
- 1 Report to be submitted by each Tsunami National Contact (some countries submitted 2)
- Mine of information, not only on exercise but, general preparedness of the country
- Further analysis work required



MS who answered or for whom the Survey was answered

- Aruba, Bahamas, Barbados, Belize, Colombia, Costa Rica, Cuba, Curacao, Dominica, Dominican Republic, France (Martinique, Guadeloupe, Guyane, St. Barthelemy, St Martin), Grenada, Guatemala, Guyana, Haiti, Honduras, Mexico, Netherlands (Bonaire, Saba and Sint Eustatius), Nicaragua, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sint Maarten, Trinidad and Tobago, United Kingdom (Anguilla, British Virgin Islands, Bermuda, Cayman Islands, Turks and Caicos), United States (Puerto Rico and the US Virgin Islands) and Venezuela (Bolivarian Republic of)

Goals

Goal	Result for 2011	Metric 2013	Result 2013
Participation of Member States of ICG CARIBE EWS	75%	85%	94%
Compliance with the time line	100%	100%	Close to 100%
Community involvement (beyond TWFP)	61%	75%	69%
TWP receive the dummy message	90%	100%	98%
Countries submit exercise questionnaire	94%	100%	90%

Objective 1

- ✓ **To exercise and evaluate operations of the current Tsunami Warning System and in particular, the CARIBE EWS.**
 - Validate the **issuance** of tsunami products from the PTWC and WCATWC.
 - Validate the **receipt and dissemination** of tsunami products by CARIBE EWS Tsunami Warning Focal Points (TWFP).

Product Types Issued for Dummy Message with Transmission Methods

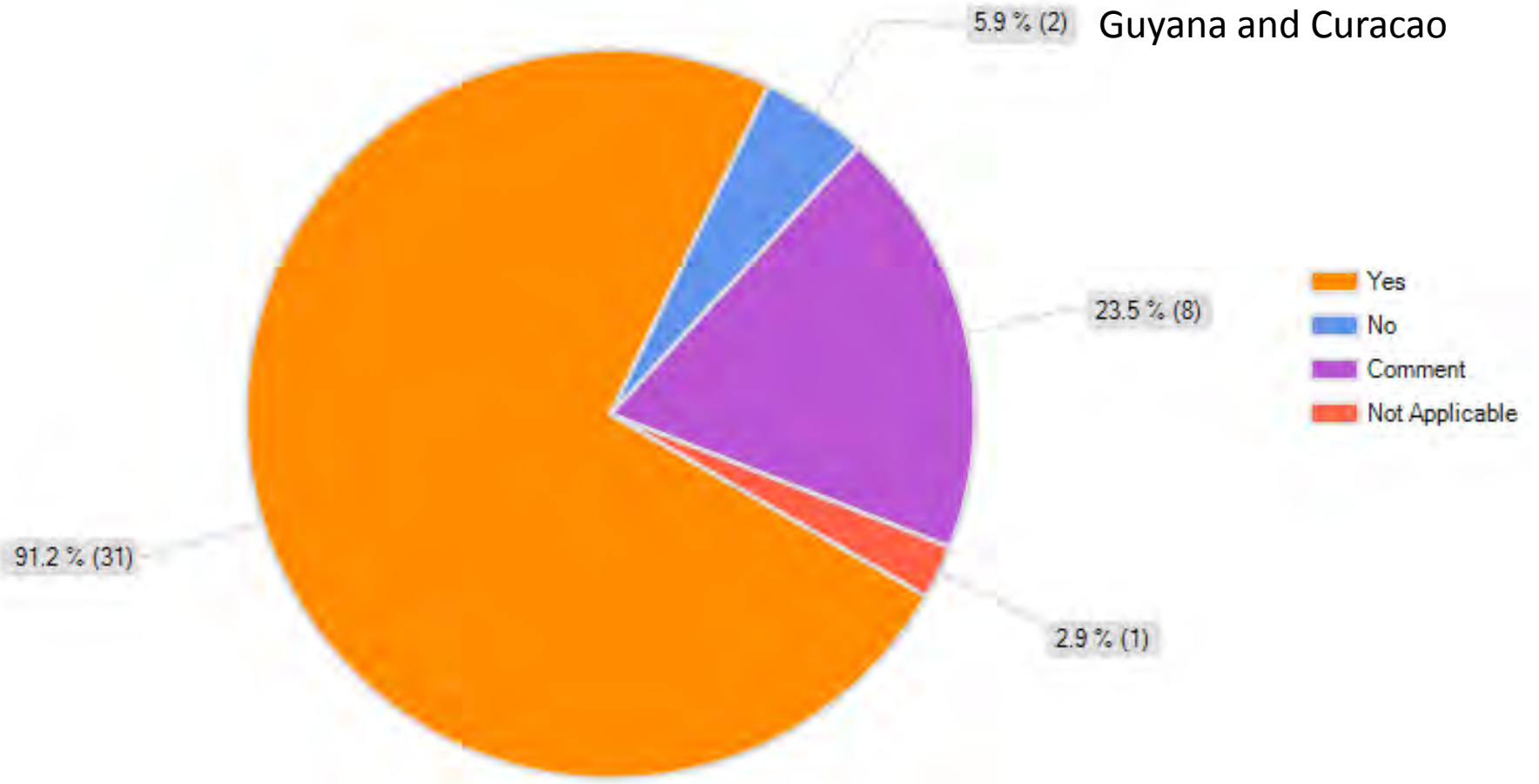
Center	WMO ID	AWIPS ID	NWWS	AFTN	GTS	EMWIN	Fax	Email
WCATWC	WEXX30 PAAQ	TSUATE	Yes	Yes	Yes	Yes	Yes	Yes
PTWC	WECA41 PHEB	TSUCAX	Yes	Yes	Yes	Yes	Yes	Yes

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

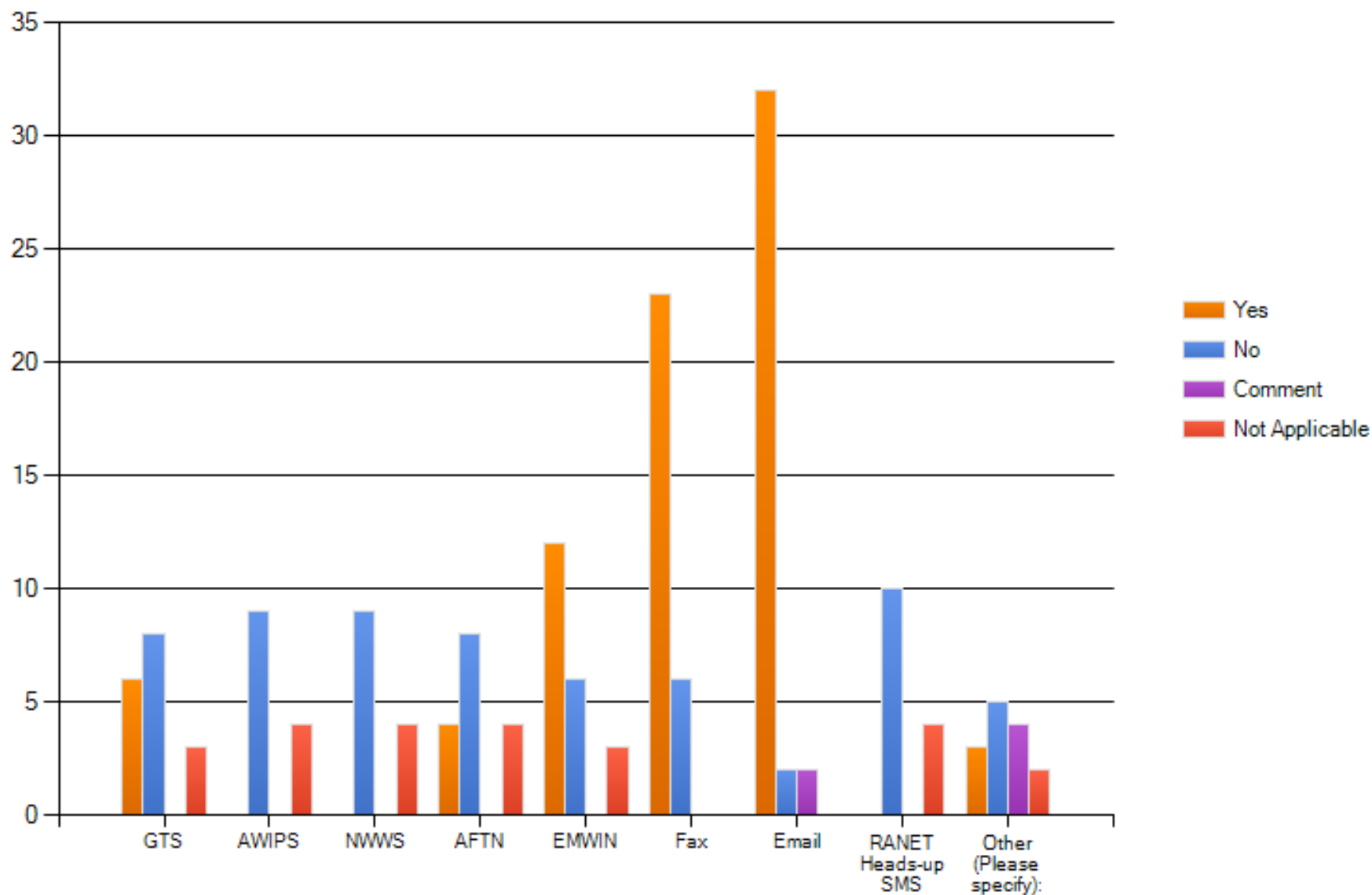
In the case of WCATWC the Dummy message will be issued with WMO ID WEXX30 PAAQ (instead of WEXX20 PAAQ) and AWIPS ID TSUATE (instead of TSUAT1).

The messages were issued according to the schedule and the means indicated

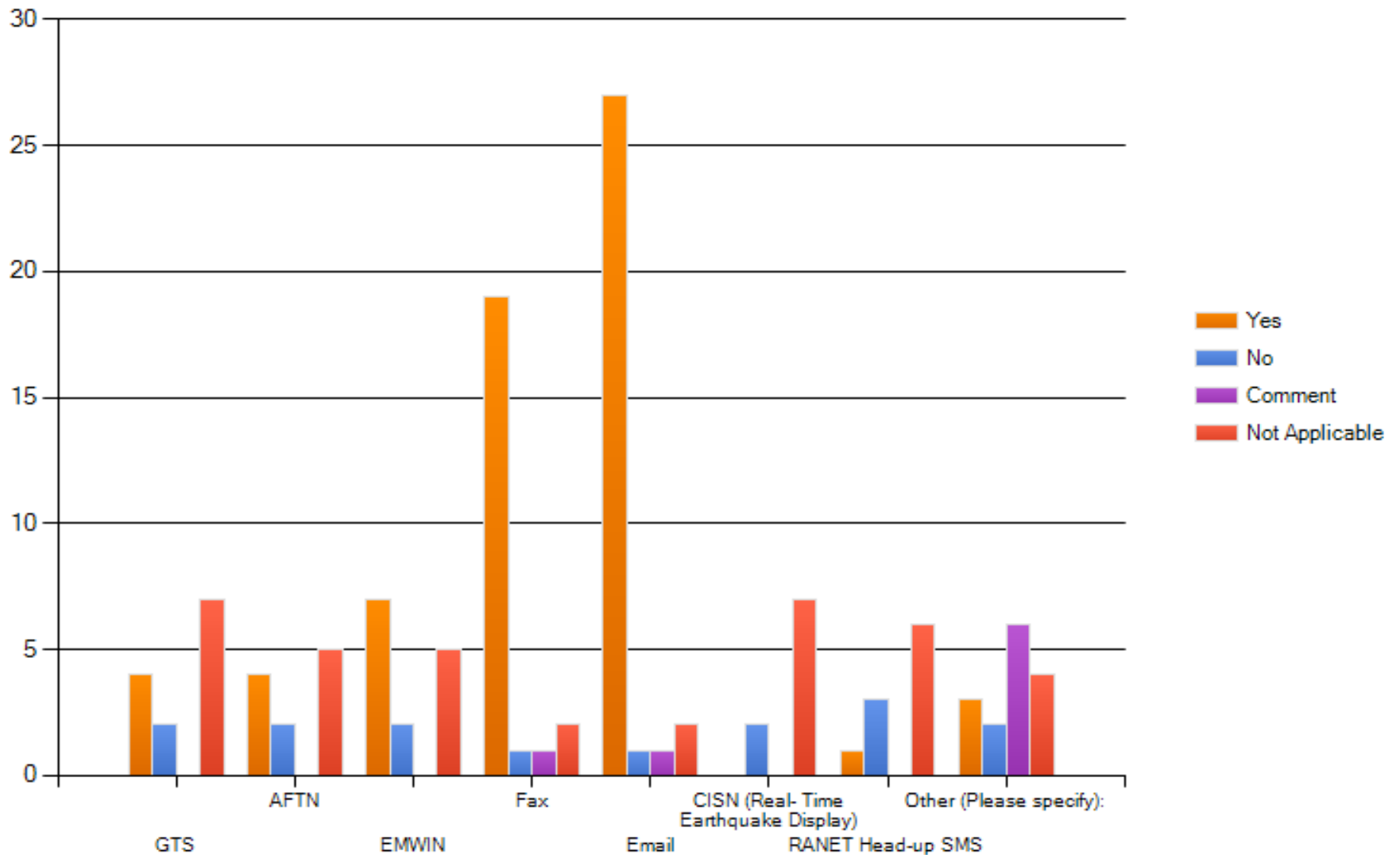
1B.1: The PTWC and/or WCATWC CARIBE WAVE/LANTEX 13 scenario initial dummy message was received by your country TWFP.



1A.3: The PTWC and/or WCATWC Exercise CARIBE WAVE/LANTEX 13 initial dummy message was sent to national tsunami warning centres by the following methods. Please check all methods thru which the messages were received.



1B.5 :Indicate thru which systems the initial PTWC or WCATWC CARIBE WAVE 13 scenario exercise start message was received by your country TWFP.



ALL THE SIMULATED MESSAGES WERE SENT OUT LIVE VIA EMAIL, BUT ONLY TO THOSE WHO HAD REGISTERED.

- PRSN set up and managed the online registration process
- 46 TWFP/TNC registered to participate and receive emails
- In addition, 131 EMOs, 118 schools and universities (30,600 participants), 71 non EMO government agencies, 21 Private Organizations, 8 health facilities, 5 members of media and 95 individuals and families
- According to registrations, 47,952 people were to participate in exercise, 45,526 from Puerto Rico (5th Exercise)
- 17% of the countries that received the emails noted that they received them with delay, slight delay.

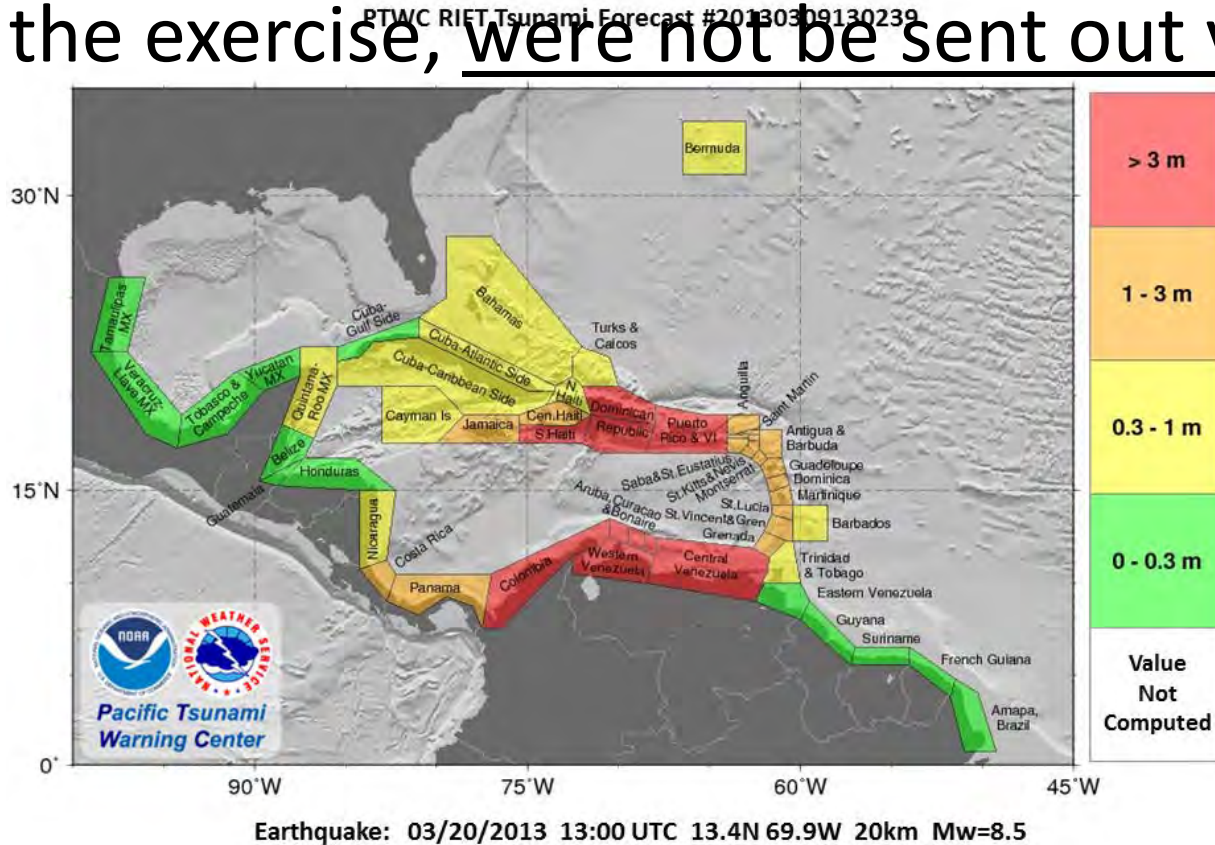
Objective 2

- ✓ **To begin a process of exposure to an initial test version of PTWC experimental products.**
 - Review and evaluate PTWC experimental products that will be available in parallel with existing PTWC products.
 - Provide feedback on the staging, format and content of the experimental products

Opportunity to Evaluate New Products these products will be available via web

www.caribewave.info

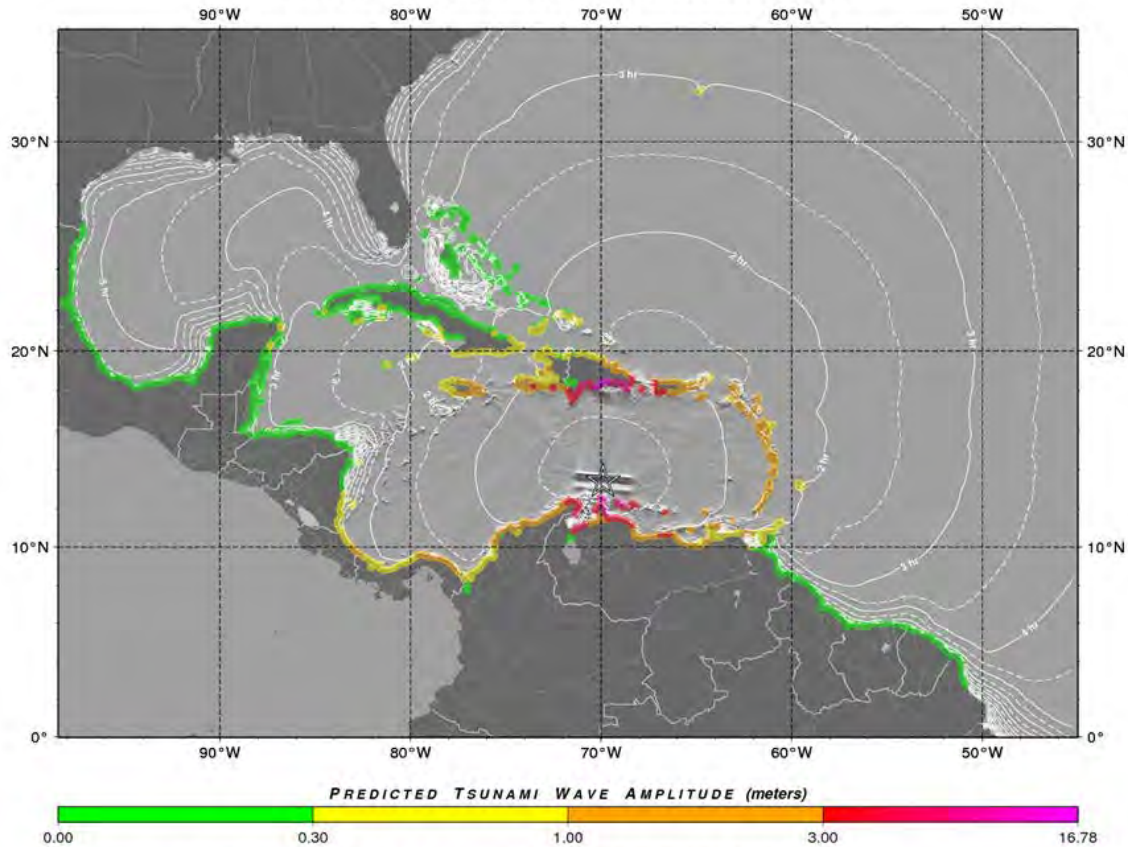
before the exercise, were not be sent out via email



CARIBE EWS Proposed Forecast Polygons (Charles McCreery, US NWS PTWC).

RIFT (Rapid Inundation Forecasting of Tsunamis) graphic with the travel times and coastal amplitude heights of the tsunamis (Charles McCreery, US NWS PTWC).

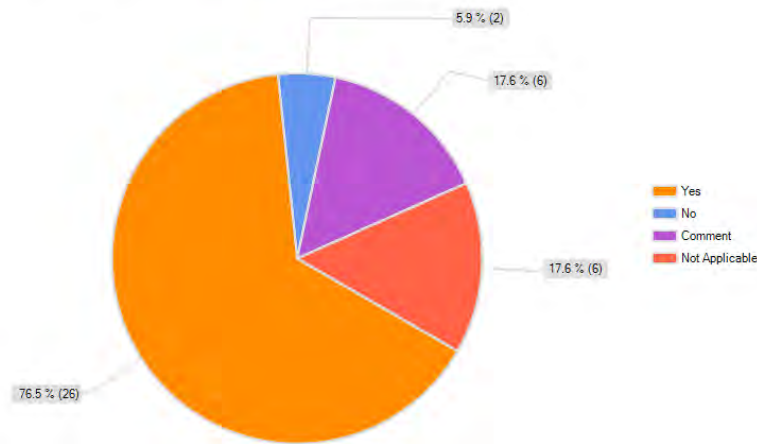
PTWC RIFT Tsunami Forecast # 20130309130239



Earthquake: 03/20/2013 13:00 UTC 13.4N 69.9W 20km Mw=8.5

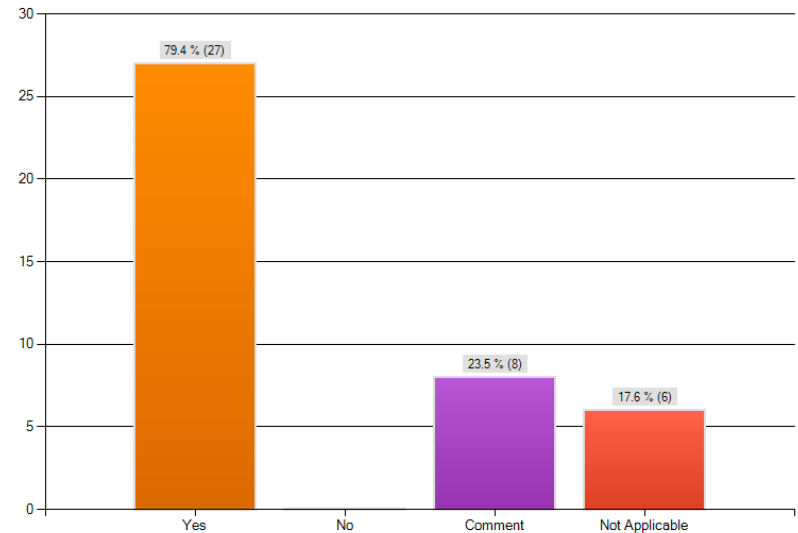
Feedback on Enhanced Products

2A.1 :The information contained in the experimental products is understandable.



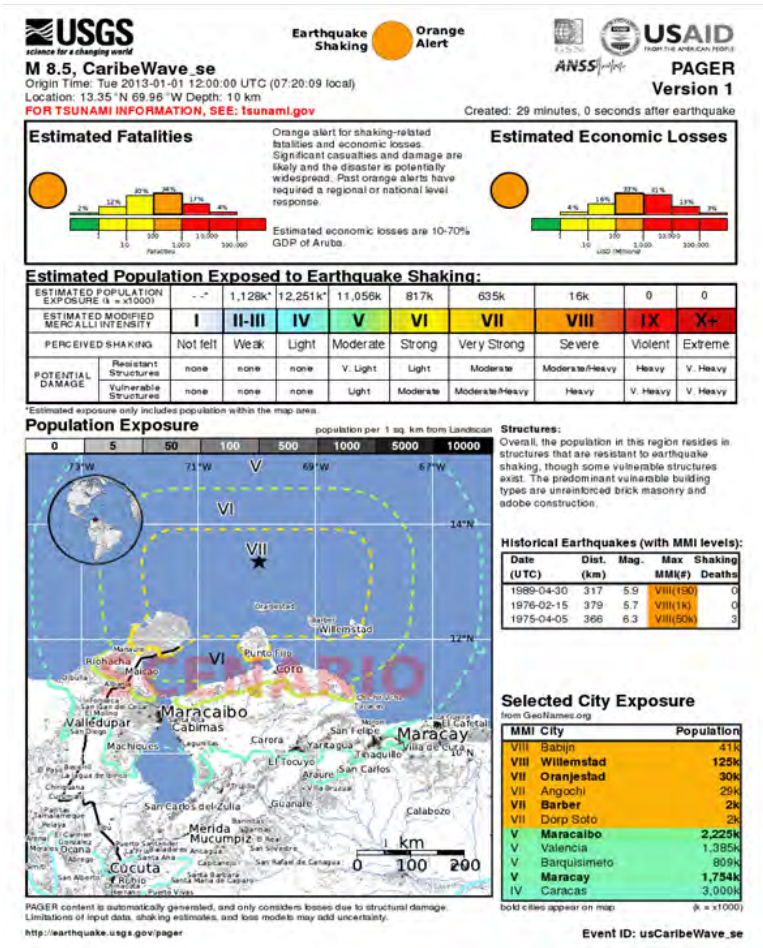
One of the respondents who answered no indicated that they did not receive the products during the exercise. The products were only posted on the website.

2A.2 :The information contained in the experimental products helps with your decision-making.



Puerto Rico, USVI and BVI did not comment as they receive services from WCATWC. Nevertheless, the PTWC products do include information for these jurisdictions, so their input is important.

Earthquake Info



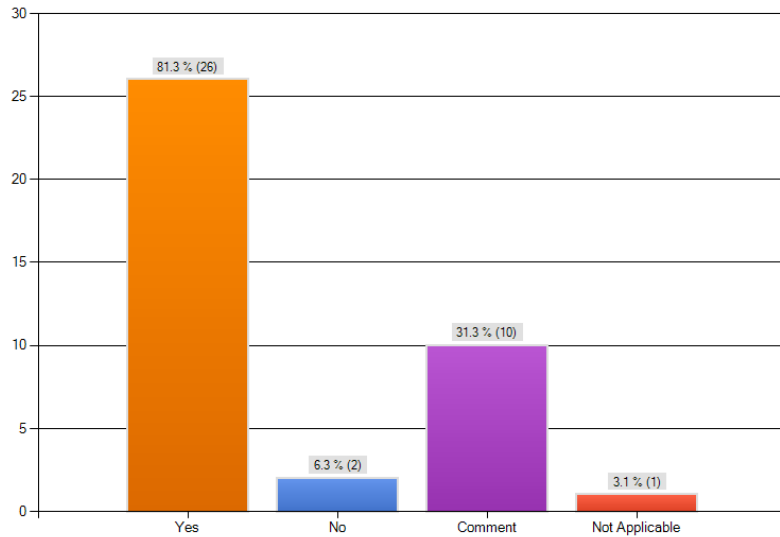
- For the first time, earthquake impact was included.
- USGS provided the input, not successful getting feedback from GEM
- Assume it was helpful, especially for the ABC, Venezuela and Colombia
- No question in survey addressed this aspect

Objective 3

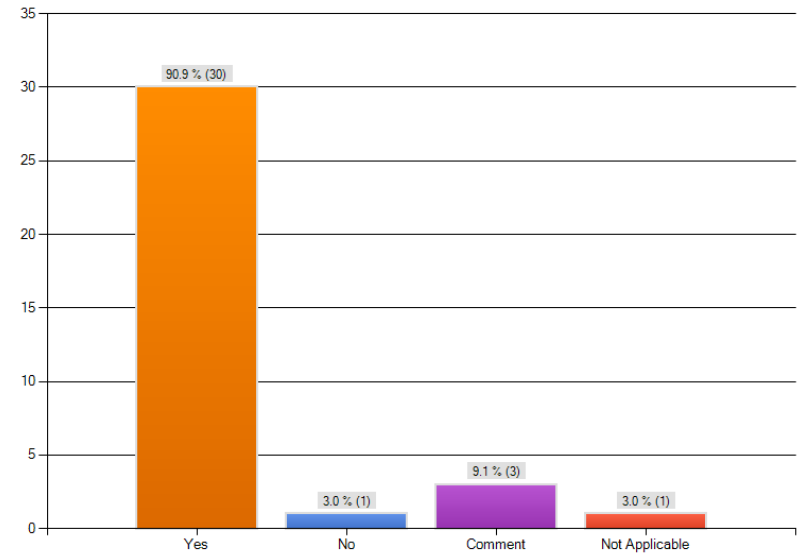
- ✓ **To validate the readiness to respond to a local/regional source tsunami.**
 - Validate the operational readiness of the Tsunami Warning Focal Point (TWFP, or like function) and/or the National Disaster Management Office (NDMO).
 - To improve operational readiness. Before the exercise, ensure appropriate tools and response plan(s) have been developed, including public education materials
 - Validate dissemination of warnings and information/advice by Tsunami Warning Focal Points to relevant in-country agencies and the public is accurate and timely.
 - Validate the organisational decision-making process (tsunami response plans) about public warnings and evacuations.
 - Validate the methods used to notify and instruct the public are accurate and timely.

TWFP Readiness

3A.1 : The TWFP/NDMO has an activation and response process (standard operating procedures) in place for the receipt of tsunami warnings.

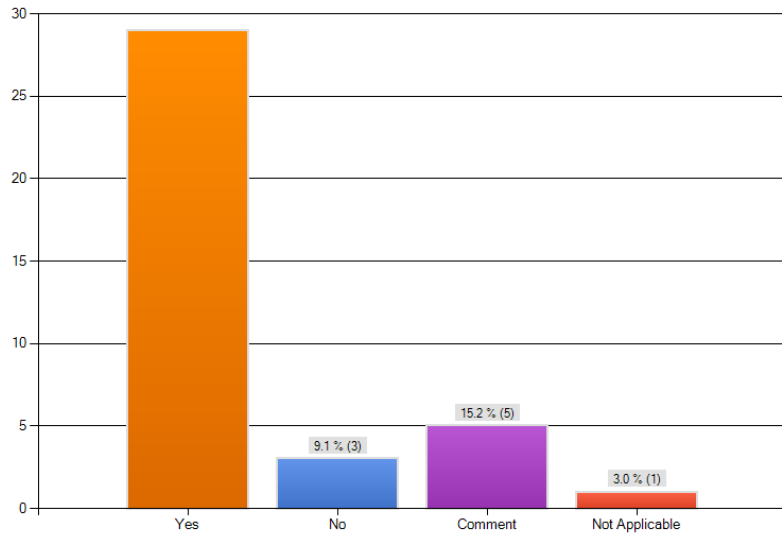


3A.2 : The TWFP/NDMO knows its specific response role in the event of a tsunami.

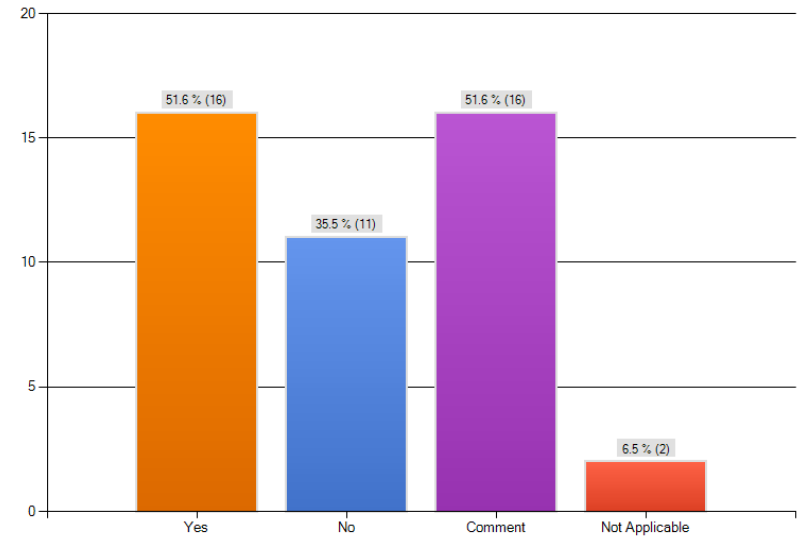


Tsunami Response Planning

3A.3 : The TWFP/NDMO has, prior to the exercise, engaged in tsunami response planning.

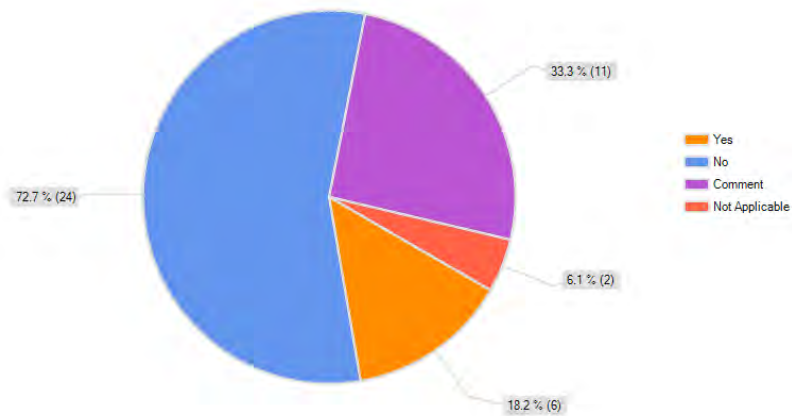


3B.2 : A country tsunami emergency response plan (standard operating procedures) for tele/regional/local tsunamis exists.

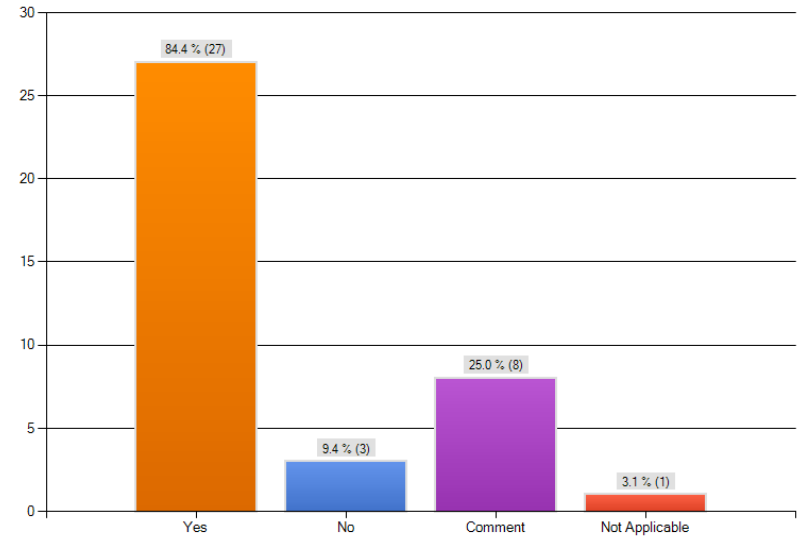


Tsunami Response Planning

3A.6 : The TWFP/NDMO has a tsunami mass coastal evacuation plan.

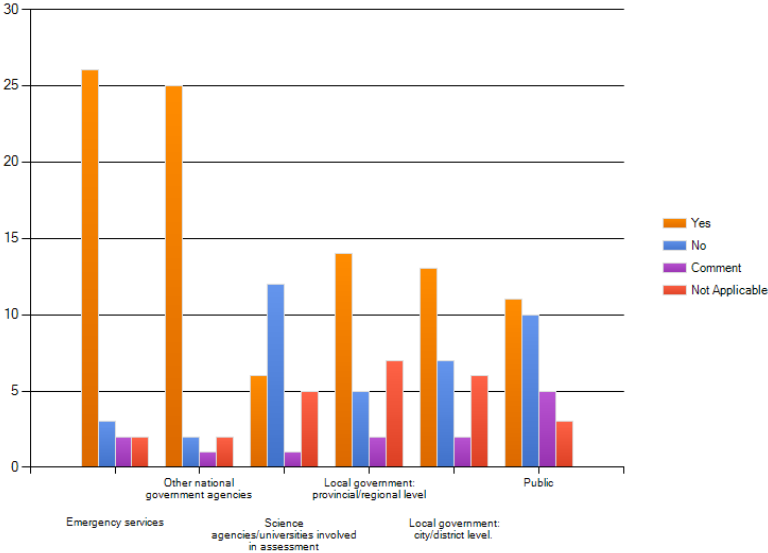


3B.1 :Arrangements to assemble the in-country disaster management group relevant to decision-making on tsunami warning and response exist.

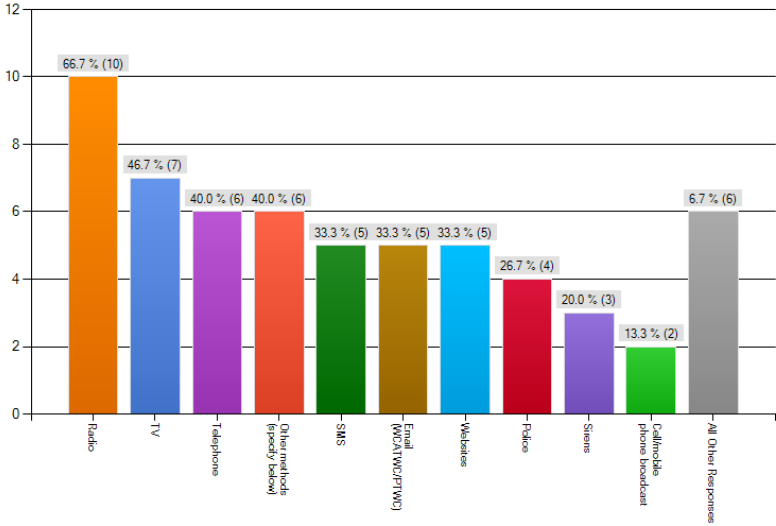


Alert Dissemination

3C.2 : The alert was disseminated to:



3E.3 :If you answered yes to Q3E.1, how was the warning/information communicated to the public?Please check as many that apply:



Other Aspects of Exercise

Member State Participation

- Member States established their own national task teams to determine the scope of their national participation and testing;



Media Arrangements

- Sample press release were included in Handbook which could be adapted as necessary.
- CTWP sent out talking points day before the exercise and a summary at the end of the exercise
- 47% of the survey respondents indicated that the exercise had media coverage.
- Volume 3 of the Exercise report currently includes 18 media reports

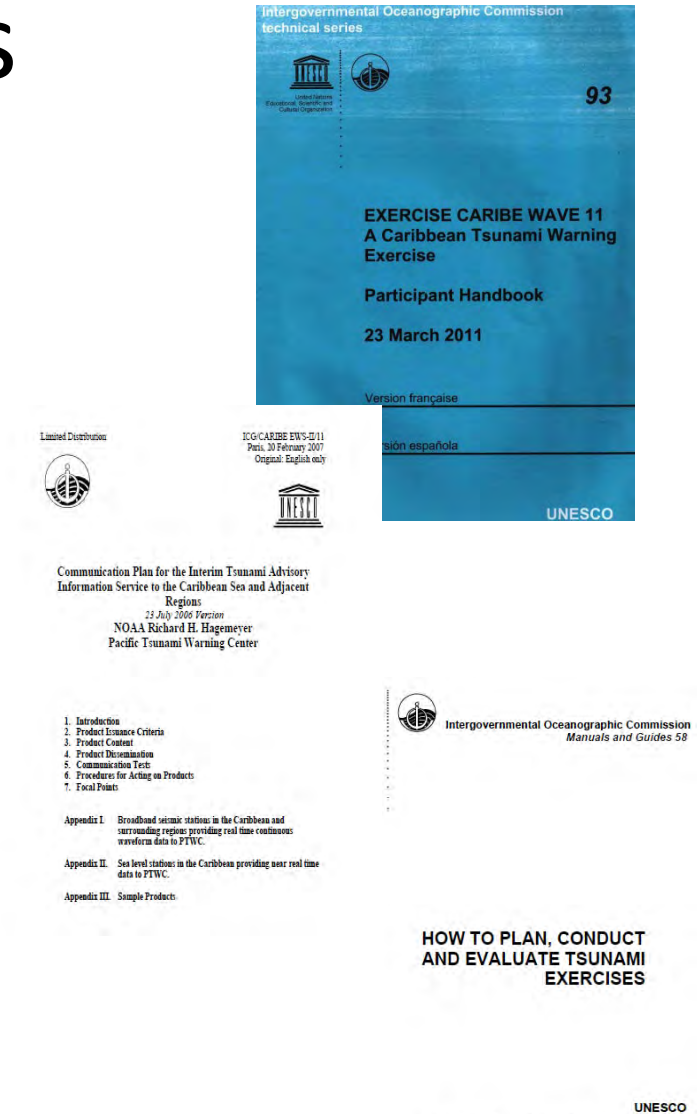


Real Events/Procedure for False Alarm

- **NO** real events requiring action on behalf of the TWC took place during the event
- Any time disaster response exercises are conducted, the potential exists for the public or media to interpret the event as real.
- It was suggested that Procedures should be set up by all participating entities to address public or media concerns involving this exercise in case of mis-interpretation by media or the public.
- **NO** false alarms were reported

Resources

- Draft IOC Manual “How to plan, conduct and evaluate tsunami exercises” which will also be a useful resource (English and Spanish).
- CARIBE WAVE 2011 Manual
- CARIBE WAVE 2011 Report (Draft)
- PTWC Communications Plan for the Caribbean

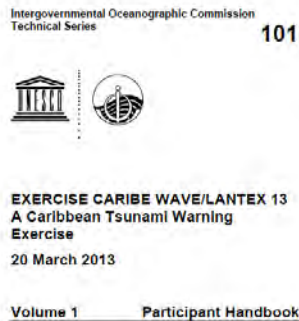


DRAFT

UNESCO

Exercise Manual

- The exercise manual was made available thru various websites in
- It includes suggested actions as well as a description of the scenario, the time table, travel times and expected wave heights, figures and samples of the messages that would be issued for such an event and the website link to evaluation questionnaire.



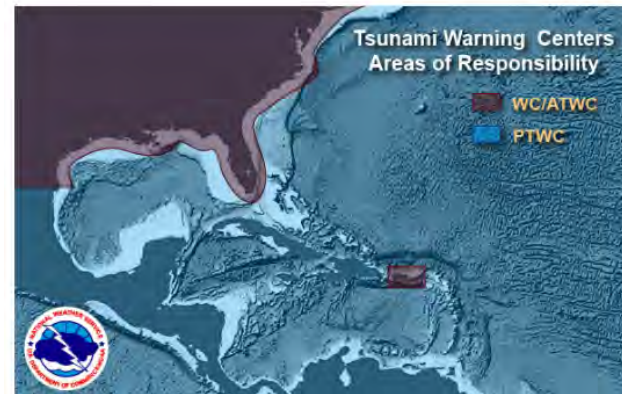
Caribbean Tsunami Warning Program

CARIBE WAVE/LANTEX 2013
 March 20, 2013
 A Caribbean, Western Atlantic and Gulf of Mexico Tsunami Warning Exercise
 Webinars for CARIBE WAVE/LANTEX 2013

- [24 de enero en español](#)
- [25 January in English](#)
- [14 de febrero en español](#) *Nueva fecha*
- [15 February in English](#) *New date*
- [Register by March 18, 2013](#) to receive Tsunami Messages during CARIBE WAVE/LANTEX 2013
- Exercise CARIBE WAVE/LANTEX13 [Participant Handbook](#)
- How to Plan, Conduct and Evaluate Tsunami Exercises ([English](#) / [Español](#))
- LANTEX 2013 [Presentation](#) (English)
- Submit [CARIBE WAVE/LANTEX 2013 Post-Exercise evaluation](#) by April 1, 2013

Additional Websites for CARIBE WAVE/LANTEX 2013:

- [Puerto Rico Seismic Network](#)
- [National Tsunami Hazard Mitigation Program](#)
- [UNESCO IOC](#)



Click map for status of any watch or warning for the Caribbean region.

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 IOC Sea Level Monitoring Facility
 Status of Sea Level Data Availability

Seismic Stations
 IRIS CARIBE EWS Virtual Seismic Network
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 Status of Seismic Data Availability

Communications Systems
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NOAA Tsunami Program
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 Communication Plan
 Communication Test

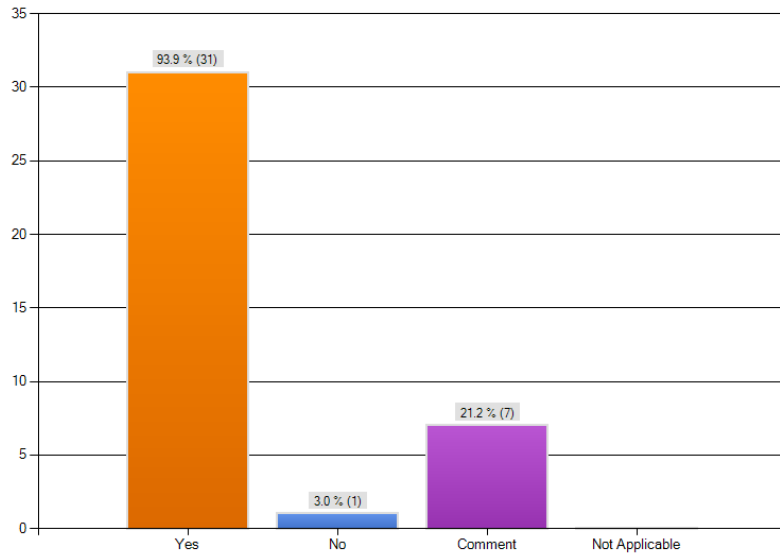
Preparedness
 Education
 Tsunami Messages
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 NOAA Education

CTWP Activities
 Calendar

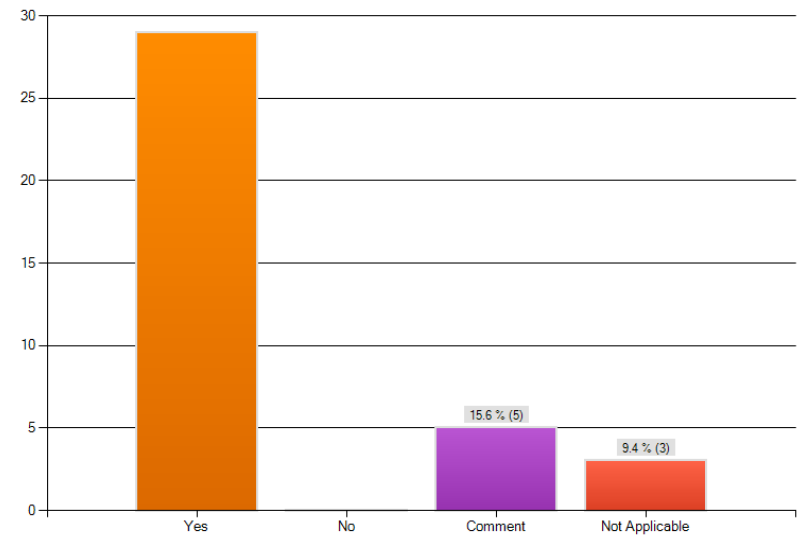
CTWP Office
 Staff
 CTWP News
 CTWP Homepage

Satisfaction with resources

4.11 :CARIBE WAVE/ LANTEX 13 Exercise Manual provided an appropriate level of detail.



4.14 :The IOC How to Plan, Conduct, and Evaluate Tsunami Exercises guideline was useful?



97% of the respondents were satisfied with the planning, conduct, format and style of the exercise

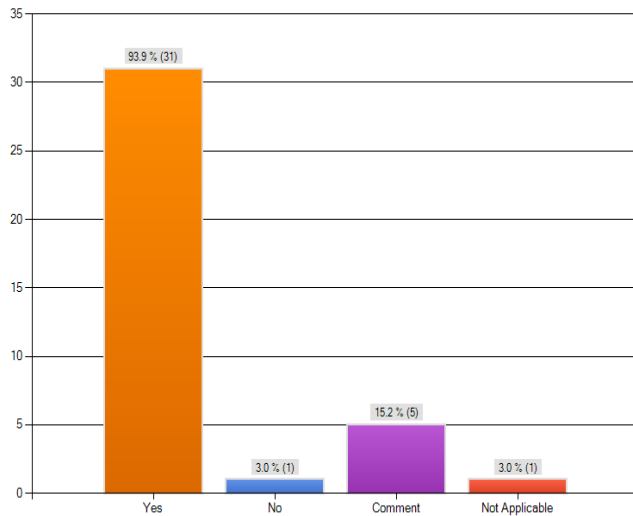
Webinars

- ✓ 24 de enero en español
 - ✓ 25 January in English
 - ✓ 14 de febrero en español
 - ✓ 15 February in English
- 16 MS participated in the webinars
 - 96% of the participants found the webinars to be helpful.
 - Request for French webinars

Websites

- Materials were posted to CTWP and PRSN websites.

4.9 :The CARIBE WAVE/LANTEX 13 exercise website pages were useful.

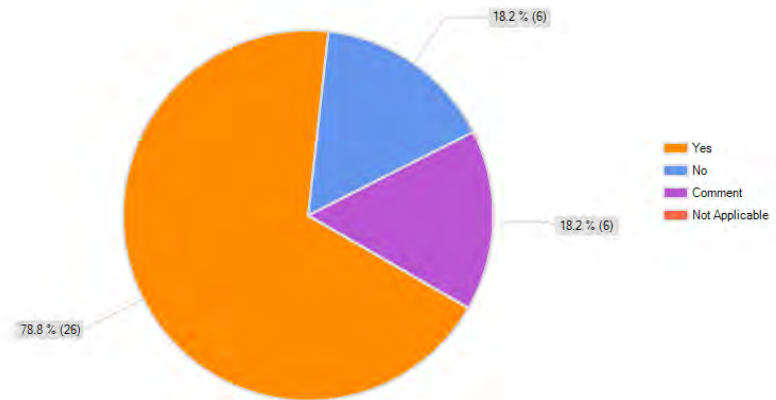


Exercise in 2014?

80% indicated that CARIBE WAVE should be conducted annually

- Pros
 - Given the low frequency, the procedures are reviewed annually
 - Visibility to the tsunami issue
 - Goes beyond just a communication tests
 - NEAMTWS interested in a joint exercise, but might not be ready until 2015
 - Additional scenarios are mad available to the MS
- Cons
 - Lots of work for organizers and Member States
- Other considerations
 - Need to consider along with the implementation of new products
 - It is not mandatory to participate
 - Participation can be at different levels

4.13: Do you think CARIBE WAVE exercises should be conducted annually like LANTEX.



CARIBE WAVE LANTEX 2013 Task Team

- Chair of CARIBE EWS-Christa von Hillebrandt
- Chairs of Working Group 1, 2, 3 and 4-Emilio Talavera, Narcisse Zahibo, Liz Klute and Kerry Hinds.
- Manager Caribbean Tsunami Warning Program (Leader)-Christa von Hillebrandt
- Director of Caribbean Tsunami Information Center
- Director ITIC-Laura Kong
- Director Pacific Tsunami Warning Center-Charles McCreery
- Director West Coast/Alaska Tsunami Warning Center-Paul Whitmore
- Director of CDEMA
- Director of CEPREDENAC-delegated to Wilfred Strauch
- Technical Secretary ICG CARIBE EWS-Bernardo Aliaga

Special Thanks

In addition to those in Task Team

- Ricardo Rivera from PRSN, setting up the electronic registration and updates to PRSN website
- Dennis Cain, NWS SR for updates to CTWP website with CARIBE WAVE materials
- Tammy Fukuji and Nicolas Arcos from ITIC
- Students Hector Crespo and Natalia Ramirez from CTWP

Questions, Comments

Thank you