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Ministry of Foreign Affairs

Regional Training Workshop on Pacific Tsunami Warning  
Center Enhanced Tsunami Products for ICG/CARIBE EWS  
31 October – 02 November, 2017  
Cartagena, Colombia

# 6.3 Tsunami Table Top Exercise Decision-making using PTWC Enhanced Products, Local/Regional Scenario

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# GOAL AND OBJECTIVES

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## **GOAL: Simulate decision-making on**

- ❑ Issuance of Warning, or not, and where
- ❑ Upgrade of Warning, or not
- ❑ Continue, Cancel, Downgrade Warning;  
Criteria for Search and Rescue, Public All-Clear

## **Activities are:**

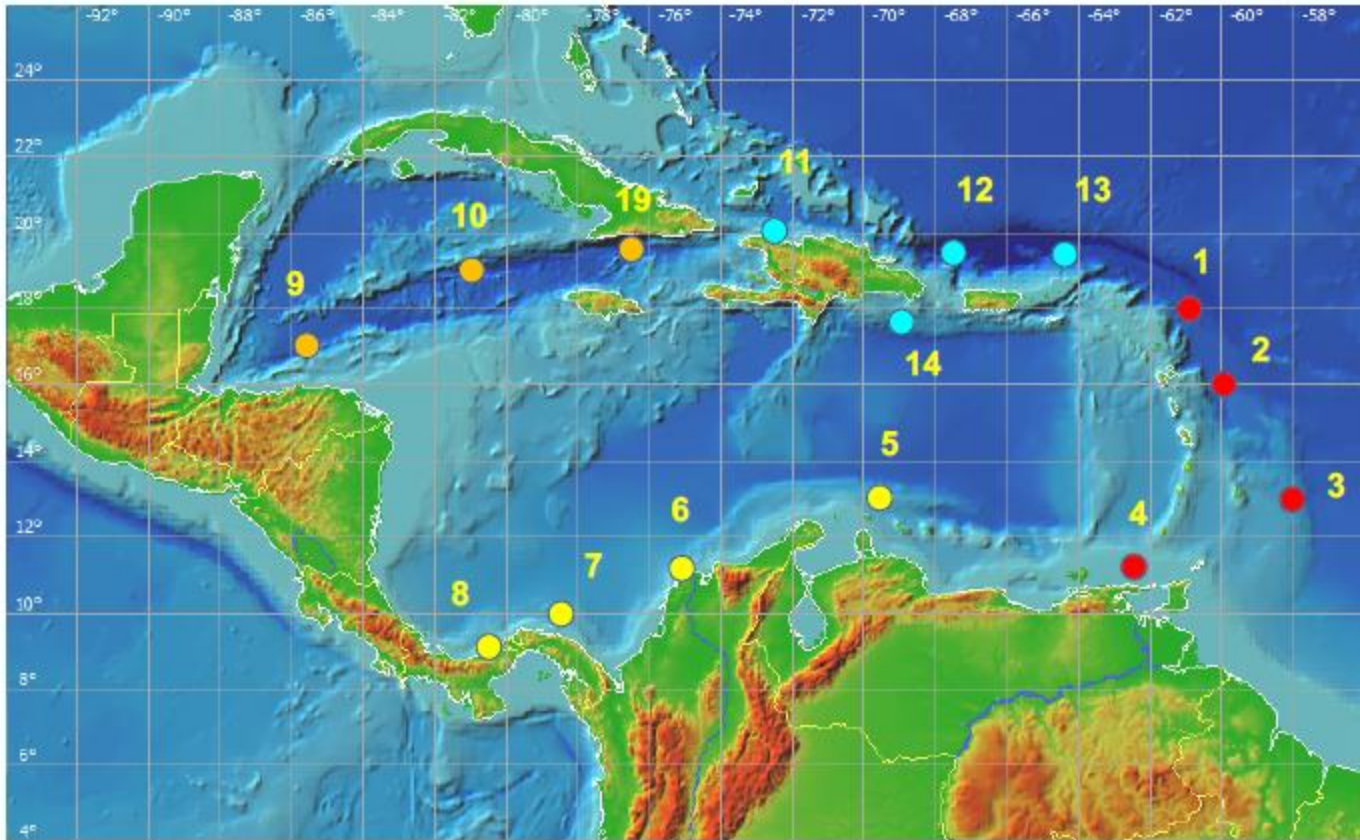
- ❑ Time 0 - 15 min: TWC EQ Monitoring and Early Source Characterization, Hazard Decision-making
- ❑ Time 15 - 60 min: TER Risk Decision-making, Evacuation
- ❑ Time hrs - days: TER Search-and-Rescue, Safe-to-Return

# FORMAT

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1. Table top Exercise – 90 min
2. Each Group is acting as a NTWC and discusses PTWC bulletins/other injects/potential sources of information
3. 5 Injects corresponding to 5 times As of EQ occurrence (OT, OT+5 min, OT+25 min, OT+4hrs 25 min, OT+6.5 hrs)
4. For each Inject, Group will
  - Receive Inject and Questions to Answer
  - Discuss situation (interpret products) and response. Document response. Answer Questions - 15 min (except first and second, 5 and 25 minutes, respectively)
  - Report Back - Share your Analysis in Plenary - 5 min (per group)

# TSUNAMI EXERCISE SCENARIO



**RIFT MODEL REGIONAL TSUNAMI SCENARIOS (M8.4)**

# EXERCISE FORMAT

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- ❑ **Groups by Country**
- ❑ **During Exercise, Groups 'execute' SOPs**
- ❑ **SOPs should be timeline-driven (actions based on time after earthquake)**
- ❑ **The Exercise will follow this information flow / format:**
  - **Controller gives scenario inject (via email).  
Each Group discusses and takes action.  
Followed by next inject**
  - **Each Group has Recorder to log actions (on laptop or by hand on paper)**
  - **Group Discussion**

# INJECT 1

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## 1. Origin Time

## 2. Situation Report

- Strong earthquake occurs off the coast of southern Cuba

# **OT: INJECT 1 - QUESTIONS**

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- 1. What do you expect is being experienced in your country?**
- 2. Based on Shaking, do you think there is a tsunami threat?**
- 3. Where can you go for information?**
- 4. Are you going to issue a product?**
- 5. Who will you issue this product to?**
- 6. How will you issue this product?**
- 7. What is the expected action in your country?**

# INJECT 2

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- 1. Origin Time + 7 minutes**
- 2. PTWC Message 1**
- 3. Situation Report**
  - PTWC no quantitative forecast – public text msg only



## **OT + 5 min: INJECT 2 - QUESTIONS**

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- 1. What time is the first wave forecasted to arrive to your country?**
- 2. When will you issue the product?**
- 3. What product will you issue?**
- 4. Who will you issue this product to?**
- 5. How will you issue this product?**
- 6. What is the expected action in your country?**

# INJECT 3

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1. **Origin Time + 30 minutes**
2. **PTWC Message 2**
3. **Situation Report**
  - PTWC quantitative forecast
    - Public - text msg (Threat)
    - TWFP – polygon, deep-ocean, coastal, statistical, KMZ
  - USGS PAGER and SHAKE MAP

# **OT + 30 min: INJECT 3 - QUESTIONS**

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- 1. What wave heights are expected? (Text, Polygon, Coastal Ampl Map, Statistics, KMZ file)**
- 2. How much time is remaining until the first impact to your country?**
- 3. Did the PTWC enhanced products influence your decision making?**
- 4. Which community is forecasted to be most affected in your country?**
- 5. What was the EQ impact, will it affect the response, messages?**
- 6. Will you change the product issued (upgrade, downgrade or maintain the same threat level)?**
- 7. What additional information would you share with public, other agencies?**

# INJECT 4

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- 1. Origin Time + 4 hours, 25 minutes**
- 2. PTWC Message 6**
- 3. Situation Report**
  - PTWC Public - text msg (Update Threat)
  - Threat continues

# **OT + 4 hours 25 min: INJECT 4 - QUESTIONS**

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- 1. Have the waves impacted the coast? (Text, Polygon, Coastal Ampl Map, Statistics, KMZ file)**
- 2. If not, how much time is remaining until the first impact to your country?**
- 3. If the waves impacted, were you able to issue your NTWC messages before Tsunami Arrival**
- 4. Will you Issue an update (upgrade, downgrade or maintain the same threat level)?**
- 5. What additional information would you share with public, other agencies?**

# INJECT 5 Final Threat

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1. **Origin Time + 6.5 hours**
2. **PTWC Message 9**
3. **Situation Report**
  - The Tsunami Threat has passed and there is no further threat
  - Destructive Tsunami Waves have hit coasts
  - PTWC observations reported
  - Minor sea level fluctuation of up to 1 foot (.3 m) may continue
  - Final Statement

# **OT + 6.5 hrs: INJECT 5 - QUESTIONS**

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- 1. Which product will you issue?**
- 2. What products helped you in the decision making process?**
- 3. Suggestions to NEMO/NDMO for direct their search and rescue activities?**
- 4. Who will declare All Clear?**



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# Thank You

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