Twelfth Session of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning and Mitigation System for the Caribbean and Adjacent Regions

10-12 May 2017   Punta Leona, Costa Rica

Tsunami Service Provider Report
Pacific Tsunami Warning Center

Charles McCreery
Director
NOAA Pacific Tsunami Warning Center
SEISMIC STATIONS STATUS ON MAY 8, 2017
SEA LEVEL STATIONS STATUS ON MAY 8, 2017
Inter-Sessional Operations

During the Inter-Sessional Period

• PTWC duty staff responded to several thousand earthquakes worldwide (seismic alarms sound as signals reach nearest stations – 10 per day typical)

• Issued 348 Observatory Messages for the larger of these (typically, ones with magnitudes ≥ 5.8). Parameters are reported immediately via the CISN.

• 4 Tsunami Information Statements issued for qualifying events (Mw ≥ 6.0 in Caribbean, Mw ≥ 6.5 in the Atlantic)
  • 3 in the southern Atlantic
  • 1 in the central Atlantic

• No Tsunami Threats Messages were issued and no tsunamis were observed.
### 4 EVENTS DURING THE INTER-SESSIONAL PERIOD

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (UTC)</th>
<th>Lat</th>
<th>Lon</th>
<th>Location</th>
<th>TWC Mw</th>
<th>NEIC Mw</th>
<th>Product Type</th>
<th>Elapsed Minutes</th>
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</thead>
<tbody>
<tr>
<td>05/28/16</td>
<td>0947</td>
<td>56.1S</td>
<td>26.9W</td>
<td>South Sandwich Islands Region</td>
<td>7.3</td>
<td>7.2</td>
<td>TIS</td>
<td>8</td>
</tr>
<tr>
<td>08/19/16</td>
<td>0732</td>
<td>55.3S</td>
<td>31.9W</td>
<td>South Georgia Island Region</td>
<td>7.4</td>
<td>7.4</td>
<td>TIS</td>
<td>11</td>
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<tr>
<td>08/29/16</td>
<td>0430</td>
<td>0.1N</td>
<td>17.8W</td>
<td>North of Ascension Island</td>
<td>7.4</td>
<td>7.1</td>
<td>TIS</td>
<td>8</td>
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<tr>
<td>05/10/17</td>
<td>2324</td>
<td>56.3S</td>
<td>21.5W</td>
<td>South Sandwich Islands</td>
<td>6.8</td>
<td>6.5</td>
<td>TIS</td>
<td>27*</td>
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</table>
Enhanced Products for CARIBE-EWS

- Began March 1, 2016
- So far, 4 Information Statements

The infrequency of events, particularly tsunami threats, in the Caribbean region makes it all the more important for Member States to participate in exercises and communication tests in order to maintain readiness and otherwise be prepared for future tsunami events.
Communication Testing

- **MONTHLY SCHEDULED TESTS:** Scheduled communication tests are sent at 1530 UTC on the first Thursday of each month. A few problems were reported by TWFPs/NTWCs for these tests and addressed when possible.

- **TWO UNSCHEDULED TESTS:** Two unscheduled communications tests were made with responses required within 1 hour from all TWFPs and NTWCs.
  - February 18, 2017 at 1400 UTC
  - April 11, 2017 at 1900 UTC
  - The test is sent out by all methods used for a Threat Message.

- **CARIBE WAVE 17:** Dummy messages were sent to begin each of the three scenarios of the CaribeWave17 by GTS, EMWIN, AISR, Fax and Email. More than 80 messages overall for the three scenarios were sent by email to the TWFPs and NTWCs of Member States. Confirmation and timing of the receipt of those messages is provided in the exercise report.
Unscheduled Communication Tests

- **39 Countries and Territories with 67 Designated TWFPs and NTWCs**
- **GTS:** Issuance confirmed by receipt back to PTWC from NWS Gateway (a WMO/GTS Regional Telecommunications Hub)
- **AFTN:** Issuance confirmed by receipt back to PTWC from AFTN (15 Caribbean AFTN Addressees)
- **EMWIN:** Issuance confirmed by receipt back over PTWC Satellite EMWIN system
- **Email:**
  - Feb 18 – 214 of 229 delivered to server within 2 minutes
  - Apr 11 – 211 of 227 delivered to server within 2 minutes
- **Fax:**
  - Feb 18 – 41 of 68 delivered within 3-10 minutes
  - Apr 11 – 47 of 68 delivered within 3-10 minutes
- **“Within 1 Hour” Responses:**
  - Feb 18 – 19 of 39 Countries and Territories
  - Apr 11 – 19 of 39 Countries and Territories
Going Forward

- Development of Common Hardware & Software for PTWC and NTWC
  - Seismic Data Ingest and Analysis
  - Sea Level Data Ingest and Analysis
  - Tsunami Forecast Model Guidance
  - Message Creation and Dissemination
  - Seamless Backup

- SMS Service for key stakeholders
  - Replacement for former RANET SMS service
  - Pilot project in the PTWS first

- Integration of GNSS data for more rapid and accurate estimation of tsunamigenic seafloor deformations
  - Under development

- Volcano-induced tsunami protocols (under development)

- Re-evaluation of Threat Thresholds for CARIBE-EWS
  - South Sandwich Islands
  - Western vs Eastern Caribbean Basin
Reason to Review Default Threat Areas
Additional News

- **Domestic Transfer from US NTWC to PTWC**
  - Transfer occurred on March 3, 2017
  - Consistent forecast model guidance across Caribbean

- **Updated CARIBE-EWS User’s Guide for PTWC Products**

- **Common U.S. Tsunami Web Portal: tsunami.gov**
  - Contains both PTWC and US NTWC Domestic Products
  - Includes PTWC CARIBE-EWS and PTWS International Products and Information
  - Includes U.S. Domestic Products and Information
  - Old PTWC site will be retired after sufficient overlap period
No Warning, Advisory, Watch, or Threat

Earthquake:
Magnitude: 6.0
Depth: 1 km
Location: 110 miles E of Amchitka, Alaska

Lat: 51.4° N Lon: 178.5° W
Thank You