NWPTAs since the SCS-WG-VI

March 6, 2018

Northwest Pacific Tsunami Advisory Center
Japan Meteorological Agency

- issued for 11 events
Issuance: Feb. 10, 2017 at 14:20 (UTC)

Origin Time: 14:04 (UTC)
Location: 09.8N, 125.6E
Magnitude: 6.7 (PTWC)

THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI

Issuance: Mar. 5, 2017 at 23:07 (UTC)

Origin Time: 22:48 (UTC)
Location: 06.3S, 149.5E
Magnitude: 6.5 (PTWC)

THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
Issuance: Mar. 29, 2017 at 04:27 (UTC)

Origin Time: 04:09 (UTC)
Location: 57.0N, 162.9E
Magnitude: 6.9 (PTWC)

THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI

Issuance: Apr. 28, 2017 at 20:45 (UTC)

Origin Time: 20:23 (UTC)
Location: 05.5N, 125.1E
Magnitude: 7.2 (PTWC)

THERE IS A POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI NEAR THE EPICENTER
**Issuance:** May 9, 2017 at 14:15 (UTC)

**Origin Time:** 13:52 (UTC)

**Location:** 14.5S, 167.2E

**Magnitude:** 6.8 (PTWC)

**THERE IS NO POSSIBILITY OF A TSUNAMI**

(Focal Depth: 175km)

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**Issuance:** Jul. 6, 2017 at 08:21 (UTC)

**Origin Time:** 08:04 (UTC)

**Location:** 11.1N, 124.8E

**Magnitude:** 6.9 (PTWC)

**THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI**
Issuance: Jul. 13, 2017 at 03:57 (UTC)

Origin Time: 03:36 (UTC)
Location: 04.8S, 153.2E
Magnitude: 6.7 (PTWC)

THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI

Issuance: Aug. 27, 2017 at 04:36 (UTC)

Origin Time: 04:18 (UTC)
Location: 01.4S, 148.1E
Magnitude: 6.6 (PTWC)

THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
Issuance: Nov. 7, 2017 at 21:49 (UTC)

Origin Time: 21:27 (UTC)
Location: 04.3S, 143.5E
Magnitude: 6.6 (PTWC)

THERE IS NO POSSIBILITY OF A TSUNAMI
(Focal Depth: 113km)

Issuance: Dec. 8, 2017 at 00:42 (UTC)

Origin Time: 00:23 (UTC)
Location: 10.2N, 140.2E
Magnitude: 6.6 (PTWC)

THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
Issuance: Dec. 8, 2017 at 10:07 (UTC)

Origin Time: 09:51 (UTC)
Location: 10.0N, 140.3E
Magnitude: 6.6 (PTWC)

THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
NWPTA Recipient Countries

16 recipient countries
NWPTA Communications Tests

NWPTAC conducts communications tests basically twice a year since 2012.

<table>
<thead>
<tr>
<th>Date</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul. 11, 2012</td>
<td>3 countries</td>
</tr>
<tr>
<td>Jan. 30, 2013</td>
<td>3 countries</td>
</tr>
<tr>
<td>Jul. 17, 2013</td>
<td>3 countries</td>
</tr>
<tr>
<td>Jan. 29, 2014</td>
<td>6 countries</td>
</tr>
<tr>
<td>Jul. 14, 2014</td>
<td>6 countries</td>
</tr>
<tr>
<td>Jan. 21, 2015</td>
<td>10 countries</td>
</tr>
<tr>
<td>Jul. 22, 2015</td>
<td>9 countries</td>
</tr>
<tr>
<td>Oct. 1, 2015</td>
<td>7 countries</td>
</tr>
<tr>
<td>Nov. 4, 2015</td>
<td>10 countries</td>
</tr>
<tr>
<td>Jul. 25, 2016</td>
<td>11 countries</td>
</tr>
<tr>
<td>Jan. 17, 2017</td>
<td>11 countries</td>
</tr>
<tr>
<td>Aug. 1, 2017</td>
<td>13 countries</td>
</tr>
</tbody>
</table>

5 recipient countries added

Thanks to the coordination of the Secretariat and the member states, the situation seems to be becoming better.

FAX
70%
successfully received messages

64% (76%)
Last issuance for the event
Starting of experimental NWPTAC products on 20th December 2017
Schedule on NWPTAC Enhanced Products

Feb. 2017  
PacWave17  
- Experimental issuance of NWPTAC Enhanced Products. 
  (PTWC products and SCSTAC experimental products were also used)

Mar. 28-31, 2017  
ICG/PTWS-XXVII  
- Approval of NWPTAC’s Enhanced Products.

Sept. 11, 2017  
Approval by PTWS-SC on the date to start issuance of experimental NWPTAC Enhanced Products on PTWS Steering Committee

Dec. 13, 2017  
Announcement from IOC on NWPTAC Enhanced Product 
  (IOC Circular Letter No 2702)

Dec. 20, 2017  
Parallel issuance of existing and enhanced products started.

xxx 2018 (TBD)  
Approval by PTWS-SC on the full changeover date to NWPTAC Enhanced Products and announcement by IOC (Two months in advance)

xxx 2018 (TBD)  
Final changeover to NWPTAC Enhanced Products.
NWPTAC issued the first enhanced product on 4 February 2018, for Earthquake near Taiwan. Real-time simulation based on the 10 minute CMT solution has been done in 20 minutes after the earthquake. The 2nd message and graphical products were not issued because no tsunami threat was expected.

Timeline (JST) 4 Feb. 2018

22:56 Earthquake
23:08 Current Product
23:10 Enhanced Product

23:07 10min. CMT calculated
Simulation start
23:16 Simulation completed
23:17 Graphic product prepared (not issued)

Enhanced Product (1st)

TSUNAMI BULLETIN NUMBER 001
ISSUED BY NWPTAC(JMA)
ISSUED AT 1405Z 04 FEB 2018
PART 01 OF 01 PARTS

HYPOCENTRAL PARAMETERS
ORIGIN TIME: 1356Z 04 FEB 2018
PRELIMINARY EPICENTER: LAT23.9NORTH LON121.6EAST
TAIWAN
TAIWAN
MAG: 6.5 (MJMA)

EVALUATION
THERE IS A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
ESTIMATION AT FORECAST POINTS - NO TSUNAMI WAVES WITH AN AMPLITUDE
OF 0.3 METERS OR MORE ARE EXPECTED AT ANY FORECAST POINT.

HOWEVER, IN SOME COASTAL AREAS (PARTICULARLY NEAR THE EPICENTER),
HIGHER TSUNAMI WAVES THAN ESTIMATED MAY ARRIVE.
AUTHORITIES SHOULD BE AWARE OF THIS POSSIBILITY.

THIS WILL BE THE FINAL BULLETIN UNLESS CHANGES IN THE POTENTIAL
FOR TSUNAMI GENERATION ARE DEEMED POSSIBLE BASED ON EARTHQUAKE
RE-EVALUATION OR REPORTS INDICATING TSUNAMI OBSERVATION ARE
RECEIVED.
The 2nd message (based on real-time simulation: not issued)

TSUNAMI BULLETIN NUMBER 002
ISSUED BY NWPTAC (JMA)
ISSUED AT 1428Z 04 FEB 2018
PART 01 OF 01 PARTS

HYPOCENTRAL PARAMETERS (REVISION)
ORIGIN TIME: 1356Z 04 FEB 2018
PRELIMINARY EPICENTER: LAT 23.9 NORTH LON 121.6 EAST
TAIWAN
TAIWAN
MAG: 6.3

EVALUATION
THERE IS NO POSSIBILITY OF A TSUNAMI

ESTIMATION AT FORECAST POINTS - NO TSUNAMI WAVES WITH AN AMPLITUDE OF 0.3 METERS OR MORE ARE EXPECTED AT ANY FORECAST POINT.

HOWEVER, IN SOME COASTAL AREAS (PARTICULARLY NEAR THE EPICENTER), HIGHER TSUNAMI WAVES THAN ESTIMATED MAY ARRIVE. AUTHORITIES SHOULD BE AWARE OF THIS POSSIBILITY.

THIS WILL BE THE FINAL BULLETIN UNLESS CHANGES IN THE POTENTIAL FOR TSUNAMI GENERATION ARE DEEMED POSSIBLE BASED ON EARTHQUAKE RE-EVALUATION OR REPORTS INDICATING TSUNAMI OBSERVATION ARE RECEIVED.
NWPTAC Tsunami Travel Time Forecast

Actual coastal arrival times may differ from forecasts, and initial waves may not be the largest.

Information bulletins provided by the Northwest Pacific Tsunami Advisory Center (NWPTAC) should not be construed as official warnings or evacuation notices for the areas concerned. The issuance of actual evacuation notices is the responsibility of individual local authorities.

Earthquake:
04 Feb 2018
13:56:00(UTC)
Lat: 23.90°N
Lon: 121.55°E
Mw: 6.3

model run at:
04 Feb 2018
14:16:00(UTC)
NWPTAC Coastal Tsunami Amplitude Forecast

This map shows the largest maximum coastal amplitudes of two forecasts based on a conjugate fault set obtained from CMT analysis. Values are shown in meters from the undisturbed sea level to the crest.

Actual coastal amplitudes at the coast may differ from forecasts due to forecasting uncertainties and local topography.

Information bulletins provided by the Northwest Pacific Tsunami Advisory Center (NWPTAC) should not be construed as official warnings or evacuation notices for the areas concerned. The issuance of actual evacuation notices is the responsibility of individual local authorities.
NWPTAC Deep–Ocean Tsunami Amplitude Forecast

The amplitudes shown on these maps are maximum values in meters from the undisturbed sea level to the crest.

Maps should not be used to estimate coastal tsunami amplitudes or impacts. Deep–ocean tsunami amplitudes are usually much smaller than coastal amplitudes.

Information bulletins provided by the Northwest Pacific Tsunami Advisory Center (NWPTAC) should not be construed as official warnings or evacuation notices for the areas concerned. The issuance of actual evacuation notices is the responsibility of individual local authorities.

Earthquake: 04 Feb 2018 13:56:00(UTC)
Lat: 23.90°N, Lon: 121.55°E, Depth: 10 km
Mw: 6.3

Earthquake Mechanism:

Fault1 Strike: 59.13°, Dip: 65.72°, Rake: 79.66°
Fault2 Strike: 306.90°, Dip: 11.18°, Rake: 157.38°

model run at: 04 Feb 2018 14:16:00(UTC)
During NWPTA experimental session…

• Review NWPTAC enhanced products and collect requests from member states.

• Review “Users guide for NWPTAC Enhanced Products for PTWS” by PTWS-SC as well as member states by 31 May 2018.
  – Fixed and issued as a new IOC technical series by the full changeover in 2018
Thank you for your attention!

- JMA website: http://www.jma.go.jp/jma/indexe.html