



A Pacific-wide Tsunami Warning and Communications Exercise 9-10 November 2011

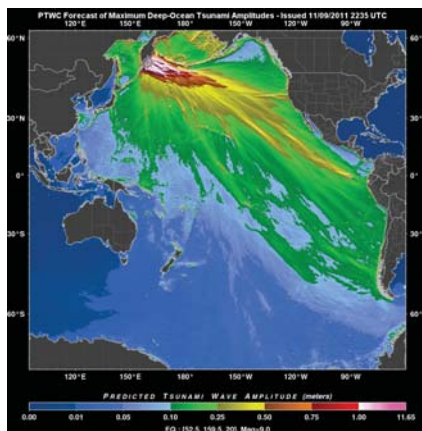
Most of the world's earthquakes and tsunamis occur in the Pacific Ocean and its marginal seas. On average, the Pacific is struck by a locally damaging tsunami every year or two, and by a major Pacific-wide tsunami a few times each century. However, over the past three years (2009-2011), the Pacific witnessed three destructive and deadly tsunamis that placed Pacific Tsunami Warning and Mitigation System countries in various levels of warning for local and distant tsunamis. Exercise Pacific Wave 11 provides an opportunity for Pacific countries to exercise their operational lines of communications, review their tsunami warning and response procedures, and promote emergency preparedness, education, and awareness.



Announcing new alert products

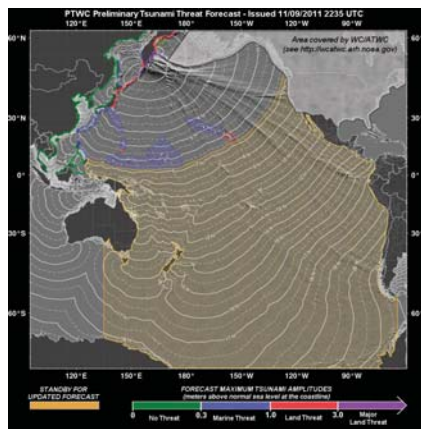
Experimental products

Exercise Pacific Wave 11 (PacWave11) will provide the initial exposure to the Pacific Tsunami Warning Center's (PTWC) experimental products. Feedback is requested on the test products prior to implementation after 2013. Alerts will be based on coastal threat and impact to the country, rather than solely on earthquake magnitude thresholds and time or distance to impact. Several levels of tsunami threat will be established, and wave forecast levels will be assigned to segments of extended coastlines, countries, or to island groups. The improvements should greatly reduce the number of areas warned unnecessarily, and also provide advance notice of potential local tsunamis.



This tsunami energy map shows, for the simulated tsunami, the maximum wave amplitudes and directivity of energy across the Pacific. The amplitude forecasts will be used by PTWC to assess and assign a threat level to different coastal segments.

This example threat map could be created just 35 minutes after the earthquake. At this early stage, the forecast model would be based only on the earthquake parameters, and not yet compared to, or constrained by, sea level observations. Tsunami travel time contours are also shown.



Exercise website

Visit the Exercise Pacific Wave 11 website for all information, including the announcement, guide, manual, information briefings, and messages. <http://www.pacwave.info>

Preparing for local and regional tsunamis

Multiple scenarios

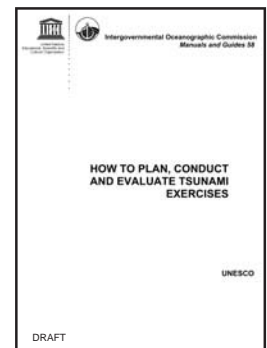
Exercise Pacific Wave 11 will have multiple scenarios, and be played out in real time. Countries are recommended to choose one scenario and to exercise their response to a destructive regional/local source tsunami. The exercise scenarios are:

- Kamchatka (Kuril-Kamchatka Trench)
- Ryukyu Islands (Nansei-Shoto Trench)
- Philippines - South China Sea (Manila Trench)
- Philippines - Pacific Ocean (Philippines Trench)
- Vanuatu (New Hebrides Trench)
- Tonga (Tonga Trench)
- Northern Chile (Peru-Chile Trench)
- Ecuador (Colombia - Ecuador Trench)
- Central America (Middle America Trench)
- Aleutian Islands (Aleutian Trench)

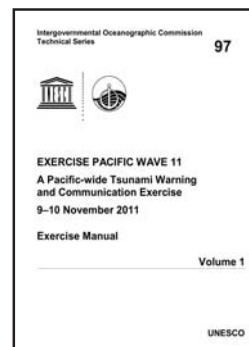
How to Plan, Conduct and Evaluate Tsunami Exercises guideline

The **How to Plan, Conduct and Evaluate Tsunami Exercises** guideline (IOC Manual and Guides 58) has been developed to assist countries in planning, conducting, and evaluating a tsunami exercise at a national and/or provincial or local level as part of Exercise Pacific Wave 11.

Each country is responsible for designing and conducting its own exercise(s) in line with the international framework.



Exercise Pacific Wave 11 manual



The **Exercise Pacific Wave 11 manual** (IOC TS 97) describes how the exercise will be run. To start each scenario, the international Tsunami Warning Centres (TWC) will issue a Dummy Exercise Start message. Once started, each country is responsible for disseminating all exercise messages. International TWC messages will be on the website (www.pacwave.info) in early October 2011. For PTWC products, both the existing and the new experimental products will be available. Country exercise controllers are recommended to download their scenario messages before the exercise.