



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
COMMISSION OCÉANOGRAPHIQUE INTERGOUVERNEMENTALE
COMISIÓN OCEANOGRÁFICA INTERGUBERNAMENTAL
МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ
اللجنة الدولية الحكومية لعلوم المحيطات
政府间海洋学委员会

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IOC Circular Letter No. 2548
(Available in English only)

IOC/TA/BA/ss
4 November 2014

To : ICG/PTWS Tsunami Warning Focal Points (TWFP)
ICG/PTWS Tsunami National Contacts (TNC)
ICG/PTWS Chair and Vice-Chairs

cc. : Official National Coordinating Body for liaison with IOC in IOC Member States
Permanent Delegates/Observer Missions to UNESCO of IOC Member States
National Commissions for UNESCO in IOC Member States Directors of UNESCO and
IOC Regional Offices in the Asia/Pacific Region Regional Organizations cooperating with
UNESCO/IOC
Director, Pacific Tsunami Warning Center
Director, Northwest Pacific Tsunami Advisory Center
Director, International Tsunami Information Center

**Subject: Pacific Tsunami Warning and Mitigation System (PTWS) Pacific-wide
Tsunami Exercise “PacWave15”, 2–6 February 2015**

At its 25th Session the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS-XXV, Vladivostok, Russian Federation, 9–11 September 2013) approved the conduct of Exercise Pacific Wave 2015 (PacWave15) during the first Quarter of 2015 to practise using the [Operational PTWC Enhanced Products](#). The exercise will be overseen by the Task Team on PacWave15 (ICG/PTWS-XXV.1, Appendix attached). At its fourth meeting in July 2014 the PTWS Steering Committee (SC) endorsed the recommendation of the Task Team for the format and conduct of PacWave15 and set the dates to be between 2–6 February 2015.

Exercise Pacific Wave 2015

Accordingly, PacWave15 will be an important warning centre milestone preparedness activity and we trust that you and your country authorities will participate to this exercise.

Exercise Aim

The aim of PacWave15 is to test the new [Operational PTWC Enhanced Products](#) of the Pacific Tsunami Warning and Mitigation System (see [IOC Circular Letter 2535](#) of 4 september 2014).

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Date and Conduct of Exercise

PacWave15 should take place during the week 2–6 February 2015, so that the post-exercise evaluation questionnaire can be returned by 21 February 2015. PacWave15 will simulate Pacific countries receiving Tsunami Threat messages containing wave amplitude forecasts. Member States may then use the information in their decision making to assess their national threat. It is recommended to be a table-top exercise and is not required to be conducted down to community levels.

PacWave15 will include multiple scenarios to enable Member States to select a distant or regional event that will cause the greatest impact to their country. The exercise will be conducted in real time during the daytime, and start with a dummy message issued by the Pacific Tsunami Warning Center, and as needed, by the Northwest Pacific Tsunami Advisory Center (NWPTAC) of the Japan Meteorological Agency (JMA).

Exercise Documents

The PacWave15 Exercise Manual will be distributed electronically and posted on the exercise website (www.pacwave.info) by 5 January 2015. The Exercise Manual will contain details on the scenarios, the Master Schedule of Events List (MSEL) for the PTWC, JMA, and NWPTAC, the post-exercise evaluation questionnaire, and guidance on how countries may want to conduct their exercise. All exercise documents, including the actual exercise messages, will be posted at <http://www.pacwave.info>.

For further exercise guidance, Member States should consult IOC Manuals and Guides, 58 “[How to Plan, Conduct and Evaluate Tsunami Wave Exercises](#)” (2012, English, Spanish) available on the PacWave15 website.

For information on the PTWC New Enhanced Products, Member States should refer to the “[User's Guide for the Pacific Tsunami Warning Center Enhanced Products for the Pacific Tsunami Warning System](#)” (IOC Technical Series, 105, in English and Spanish). The Guide documents procedures, criteria, and products, and provides guidance on the interpretation and limitations of the PTWC Enhanced products.

Provisional timeline and milestones

5 January 2015	Exercise manual available on www.pacwave.info (including scenarios and products)
2–6 February 2015	PacWave 15
7–21 February 2015	Countries to complete and submit evaluation survey online
20 March 2015	Draft PacWave15 Preliminary Report available to Member States
22–24 April 2015	Draft PacWave15 Preliminary Report discussed at the ICG meeting
31 May 2015	Final PacWave15 Summary Report uploaded to www.pacwave.info

PacWave15 National Contact Nomination

Member States are strongly encouraged to participate in the exercise. In order to ensure the commitment of participating countries is fully coordinated and to convey important information, we seek your nomination of a National Contact for PacWave15. The designated PacWave15 National Contact will be expected to confirm the accuracy of existing points of contact for the receipt and dissemination of tsunami warnings downstream from the national tsunami warning centre. The designated PacWave15 National Contact will also be responsible for coordinating input to the exercise evaluation tool.

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I would be grateful if you could provide the details of your **PacWave15 National Contact by 21 November 2014 to the ICG/PTWS Technical Secretary through email to b.aliaga@unesco.org**, with copy to laura.kong@noaa.gov and jo.guard@dpmc.govt.nz. You are also encouraged to further disseminate copies of this letter to appropriate organizations and authorities within your country. In the meantime, I remain,

Yours sincerely,

[signed]

Wendy Watson-Wright
Executive Secretary, IOC

Enclosures:

PTWS WG2 Task Team on PacWave15 Terms of Reference [Appendix to Recommendation ICG/PTWS-XXV.1, in report IOC/ICG/PTWS-XXV/3, 2013]

Exercise Pacific Wave 2015, Meeting Report of the PTWS Steering Committee, July 2014

Attachment I

IOC/ICG/PTWS-XXV/3

Appendix to Recommendation ICG/PTWS-XXV.1

PTWS WG2 Task Team on PACWAVE 15

Co-Chair Jo Guard (New Zealand) and Laura Kong (ITIC)

Terms of Reference

1. Design and carry out a fifth Pacific-wide exercise with the following characteristics:
 - iii) The exercise will take place preferably in the 1st quarter of 2015.
 - iv) The exercise scenarios will be major tsunamis originating in various seismic zones of the Pacific to complement previous scenarios in other places.
 - v) The exercise date be finalized by the Task Team and the exercise announced to Member States at least 180 days in advance of the exercise date.
 - vi) The exercise manual including instructions to Member States regarding their participation and the evaluation instrument be prepared with content and structure similar to what was prepared for previous Pacific-wide exercises, but taking into account lessons learned and any need to collect additional information.
 - vii) The exercise manual be distributed to Member States at least 60 days in advance of the exercise date.
 - viii) Participating Member States be asked to complete and return the evaluation instrument no more than 30 days following the exercise.
 - ix) The exercise be considered as a way to test new enhanced products from the Pacific Tsunami Warning Center
2. Advise countries as requested on the design and conduct of national tsunami exercises

Attachment II

Intergovernmental Coordination Group for the Pacific Ocean Tsunami Warning and Mitigation System (ICG/PTWS)

Meeting of the Steering Committee, Honolulu, United States of America
10 - 11 July 2014

MEETING REPORT (excerpt only – page 9 &10)
Exercise Pacific Wave 2015

Co-Chairs Jo Guard and Laura Kong reported on the recommendations of the Task Team on Exercise Pacific Wave 2015 (PACWAVE 15). They provided a [written report](#) of the meeting of the Task Team.

PACWAVE 13 and regional training feedback indicated that the majority of Member States understand and will be ready for the implementation of the new products on 1st October 2014.

In order to be ready for the transition to the new products, it is recommended that countries use existing training scenarios and start exercising/practicing their decision making with the new products.

With respect to the format, it was suggested that sub-regional exercises using the new products could also increase readiness. Discussion also covered the possibility of Regional Working Groups running exercises in future. It was decided that it would be too difficult for PacWave 2015 given the preparation that would be required and the time available (this approach instead was recommended for future exercises). Regional exercise objectives for regionally run exercises could then be divided as follows:

- PTWS Overall Objectives
- Region-determined Objectives
- Trackable indicators that can be measured across exercises (including previous PacWave exercises).

PacWave 2015

Task Team Members will be made up from each Regional Working Group, PTWC, and NWPTAC, as follows:

- Co-Chairs: Jo Guard, Laura Kong
- Yuelong Miao – Australia
- Carlos Zuñiga, SEP – Chile
- Takeshi Koizumi – Japan
- Chip McCreery – USA
- Rajendra Prasad - IOC
- Anthony Blake - SWP – SPC SOPAC
- H Y Mok - SCS
- Silvia Chacón CA-PAC
- David Coetzee - WG 3 Chair

The Task Team recommended that the aim of PacWave 15 is to test the new products. Draft considerations for PacWave 15 objectives are:

1. Test Communications from PTWS Tsunami Service Providers (TSP) to Countries

- Did TWFPs receive products – what, when, who, how since (all are different file sizes)

2. TWS TSP products are interpreted by Countries accurately and in a timely manner.

- SOPs for New Products effective?
- Were they followed?
- Did they work, e.g., followed and led to correct interpretation
- Have the Products helped in decision-making?
- Suggested improvements
- Further dissemination of products by Countries – yes or no, who, internal in government, or outside to public or non-govt.

3. Facilitating national and regional cooperation

The following timeline, which may change slightly as planning progresses, was agreed.

1 October 2014	Announcement by IOC CL
1 November 2014	Sub-Regional Working Groups to advise the Task Team Co-Chairs on their preferred scenario and exercise date (consider previous PacWave scenarios)
5 January 2015	Exercise Manual available at www.pacwave.info (including scenarios and products).
2-6 February 2015	PacWave15 (all scenarios will start at 1000 local time)
7-21 February 2015	Countries to complete and submit evaluation survey online
20 March 2015	PacWave 15 Preliminary Report available
22-24 April 2015	ICG/PTWS-XXVI
31 May 2015	PacWave 15 Summary Report

The format of the exercise will be left up to each country to decide.

The conduct of the exercise is as follows:

- **Live messages by PTWC**

- o 1. Dummy Text only (5-7 min later) = 1st message
- o 2a. Dummy Text only (20-30 min later)
- o 2b. Dummy All Products (20-30 min later)
- o 2c. Dummy Regional Products (may be more than 1 email) (20-30 min later)

- **Live messages by NWPTAC**

- o Dummy Text only (10 min later) = 1st message

The SC agreed with the recommendations of the Task Team and requested the WG2 PacWave15 Task Team to continue its work along the above indicated objectives, aim, format and timeline.