



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
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МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ
اللجنة الدولية الحكومية لعلوم المحيطات
政府间海洋学委员会

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IOC Circular Letter N° 2636
(Available only in English)

IOC/VR/BA/ss
16 August 2016

- 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 (PTWC)
Director, Northwest Pacific Tsunami Advisory Center (NWPTAC)
Director, International Tsunami Information Center (ITIC)

Subject: Pacific Tsunami Warning and Mitigation System (PTWS) Exercise Pacific Wave 2017 (PacWave17), 15-17 February 2017

At its 26th session, the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS-XXVI, Honolulu, United States of America, 22–24 April 2015) approved the conduct of Exercise Pacific Wave 2017 (PacWave17) during the first Quarter of 2017. The exercise intends to support the development of improved tsunami products and procedures, including the Enhanced Products of the Pacific Tsunami Warning Center (PTWC) and the Northwest Pacific Tsunami Advisory Center (NWPTAC) of the Japan Meteorological Agency (JMA). Given the importance of PacWave17 to test and improve the regional Tsunami Warning and Mitigation System, we trust that you and your country authorities will actively participate in it. PacWave17 will be overseen by the Task Team on PacWave Exercises (ICG/PTWS-XXVI.1, Appendix attached).

Exercise Aim

The aim of PacWave17 is to test the NWPTAC and the Pacific Tsunami Warning Center PTWC enhanced Products.

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Date and Conduct of Exercise

PacWave17 should take place during the period 15-17 February 2017, so that the post-exercise evaluation questionnaire can be returned by 10 March 2017. PacWave17 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.

PacWave17 will include multiple scenarios to enable all Member States to select a distant or regional event that will cause the greatest impact to their country. Each exercise scenario, to be available in the PacWave17 Exercise Manual, will start during the daytime with a dummy message issued by the PTWC, and as needed, by the NWPTAC.

Enhanced Products

At the ICG/PTWS-XXVI, Member States agreed that the NWPTAC should proceed with the development of its enhanced products for the North-West Pacific, with guidance and feedback to be received from the Task Team on Enhanced Products. The new products will consist of an initial text message using information from a pre-established tsunami database, and be followed by text and graphical messages that include results from real-time simulations. The graphical products will be sent solely to Tsunami Warning Focal Points of recipient countries. PacWave16 and PacWave17 are both experimental phases being conducted to support the changeover to the NWPTAC enhanced products in 2018.

Exercise Documents

The PacWave17 Exercise Manual will be distributed electronically and posted on the exercise website (www.pacwave.info) by **15 November 2016**. The Exercise Manual will contain details on the scenarios, the Master Schedule of Events List (MSEL) for PTWC and NWPTAC, the post-exercise evaluation questionnaire, and guidance on how countries may want to conduct their exercise. Exercise messages will be posted at least two weeks prior, i.e. by **31 January 2017**. All exercise documents will be posted at <http://www.pacwave.info>.

For further and immediate exercise guidance, Member States should consult “[How to Plan, Conduct and Evaluate Tsunami Wave Exercises](#)” (2012, English, Spanish) IOC Manuals and Guides 58, available at <http://www.pacwave.info>.

Provisional timeline and milestones

4 November 2016	Nomination of a National Contact for PacWave17
15 November 2016	Exercise manual available on www.pacwave.info (including scenarios and products)
31 January 2017	Exercise messages posted
15-17 February 2017	PacWave 17
18 February -10 March 2017	Countries to complete and submit evaluation survey online
27 March – 1 April 2017	Draft PacWave17 Preliminary Report discussed at the ICG meeting
21 April 2017	Draft PacWave17 Preliminary Report available to Member States
30 June 2017	Final PacWave17 Summary Report uploaded to www.pacwave.info

PacWave17 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 PacWave17. The designated PacWave17 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 PacWave17 National Contact will also be responsible for coordinating input to the exercise evaluation tool.

I would be grateful if you could provide the details of your PacWave17 National Contact by 4 November 2016 to the ICG/PTWS Technical Secretary through email to b.aliaga@unesco.org, with copy to laura.kong@noaa.gov, jo.guard@dpmc.govt.nz and hokusei@eqvol2.kishou.go.jp. 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,

[signature]

Vladimir Ryabinin
Executive Secretary

Enclosure:

PTWS Task Team on PacWave Exercises Terms of Reference [Appendix to Recommendation ICG/PTWS-XXVI.1, in report: *Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS), twenty-sixth session, Honolulu, United States of America, 22–24 April 2015 – [IOC/ICG/PTWS-XXVI/3](#), 2015]*

Appendix to Recommendation ICG/PTWS-XXVI.1

**Terms of Reference
Task Team on PacWave Exercises**

1. Design and carry out a sixth and seventh Exercise Pacific Wave 2016 and 2017 with the following characteristics:
 - Two exercises shall be conducted to support the development of improved tsunami procedures and products by the Northwest Pacific Tsunami Advisory of the Northwest Pacific Tsunami Advisory Center (NWPTAC) enhanced products.
 - The exercises are an effective and important way to increase readiness and raise awareness, and especially communities at risk need to be prepared for the next tsunami.
 - Exercise Pacific Wave 2016 (PacWave16) will:
 - Take place in the first quarter of 2016, preferably in February
 - Be conducted as a regional exercise involving the sixteen countries that receive the NWPTAC products
 - Be conducted as a table top exercise.
 - Exercise Pacific Wave 2017 (PacWave17) will:
 - Take place in the first quarter of 2017, preferably in February
 - Be conducted as a Pacific-wide exercise involving all PTWS countries as part of the regular bi-annual Pacific Wave exercise conducted since 2006
 - Be conducted to include exercise activities over and above a table top exercise. Possible exercise variations include:
 - conduct in real time during the daytime working hours with full staffing, or simulating minimal staff during night time or weekend hours
 - joint exercises involving neighbouring countries organized through the PTWS Regional Working Groups.
 - The exercise objectives and dates of the exercises will be finalized by the PTWS Steering Committee.
 - The exercise scenarios will be a multi-scenario exercise consisting of major tsunamis originating in various seismic zones of the Pacific to complement previous scenarios in other places.
 - The exercise shall be announced by the IOC to Member States at least 180 days in advance of the exercise date.
 - 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.
 - The exercise manual will be distributed by the IOC to Member States at least 90 days in advance of the exercise date. The manual should include instructions to Member States regarding the exercise conduct and the evaluation instrument.
 - Participating Member States be asked to complete and return the evaluation instrument no more than 21 days following the exercise.
2. Advise countries as requested on the scenarios, design and conduct of national tsunami exercises, in coordination with the Task Team on Enhancing Products.

3. Prepare the Summary Report for each exercise, compiling a list of recommendations on the NWPTAC enhanced products and the list of actions from the findings for consideration by the ICG/PTWS-XXVII.
4. Members from the ICG/PTWS Member States, Task Team co-chairs: Laura Kong (ITIC), Jo Guard (New Zealand), Tomoaki Ozaki (Japan).