



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
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МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ
اللجنة الدولية الحكومية لعلوم المحيطات
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IOC/VR/BA/ss
11 August 2015

To: Registered NWPTAC focal points of the following countries:
Brunei Darussalam, Cambodia, China (Peoples Republic of),
Federated States of Micronesia (Chuuk, Kosrae, Pohnpei and Yap),
France (French Polynesia), Indonesia, Korea (Republic of), Malaysia,
Palau, Papua New Guinea, Philippines, Russian Federation, Singapore, Solomon
Islands, Thailand, Viet Nam
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) Tsunami Exercise
“PacWave16”, 1–5 February 2016**

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 2016 (PacWave16) during the first Quarter of 2016. PacWave16 will be a regional exercise involving **only** the sixteen countries that receive products of the Northwest Pacific Tsunami Advisory Center (NWPTAC). The exercise intends to support the development of improved tsunami procedures and NWPTAC Enhanced Products.

The exercise is an effective and important way to increase readiness and raise awareness especially for communities at risk that need to be prepared for the next tsunami. Accordingly, PacWave16 will be an important milestone in the preparedness activity of the warning centre and we trust that you and your country authorities will support this exercise. The 2016 exercise will be overseen by the Task Team on PacWave Exercises (ICG/PTWS-XXVI.1, Appendix attached).

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Exercise Aim

The aim of PacWave16 is to evaluate experimental NWPTAC Enhanced Products and identify necessary modifications.

Enhanced Products

Pursuant to the agreement of ICG/PTWS-XXVI, NWPTAC has proposed to proceed with its development of enhanced products for the North West Pacific with guidance and feedback provided by the Task Team on Enhancing Tsunami Warning Products. The new products consist of an initial text message prepared from pre-established tsunami database information and followed by text messages accompanied by graphics based on real-time simulation techniques intended exclusively for national authorities of the recipient countries. PacWave16 and a similar exercise in 2017 are experimental phases of a full transition to the new products due in 2018.

Date and Conduct of Exercise

PacWave16 will take place during the week 1–5 February 2016. For PacWave16 the 16 recipient countries of the NWPTAC products will be receiving experimental NWPTAC products enhanced with graphics. Member States may then analyze the information received to assess the threat to their nation and take actions as they deem appropriate. PacWave16 will be conducted as a table-top exercise and is not required to be conducted down to community levels. PacWave16 will propose multiple scenarios from which Member States will select either a distant or a regional source event which will cause the greatest impact to their country.

Exercise Documents

The PacWave16 Exercise Manual will be distributed electronically and posted on the exercise website (www.pacwave.info) by **2 November 2015**. The Exercise Manual will contain details on the scenarios, the Master Schedule of Events List (MSEL) for 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 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

Date	Milestone
2 November 2015	Exercise manual available on www.pacwave.info (including scenarios and products)
1–5 February 2016	PacWave 16 exercise conducted
8–26 February 2016	Countries to complete and submit evaluation survey
26 March 2016	Draft PacWave16 Preliminary Report available to Member States
31 May 2016	Final PacWave16 Summary Report uploaded to www.pacwave.info

PacWave16 National Contact Nomination

Member States that receive the NWPTAC products are strongly encouraged to participate in the exercise. Nomination of a National Contact for PacWave16 is a prerequisite for ensuring full participation of your country, and optimum communication, planning and coordination before, during and after the exercise. The designated PacWave16 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 PacWave16

National Contact will also be responsible for coordinating input to the exercise evaluation tool, which will be circulated as part of the PacWave16 Exercise Manual.

In anticipation of the next Pacific Wave exercise, I would be grateful if you could provide the details of your **National Contact for PacWave16 by 22 August 2015** to the ICG/PTWS Technical Secretary by 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.

Thank you in advance for your cooperation.

Yours sincerely,

[signed]

Vladimir Ryabinin
Executive Secretary

Attachments:

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).