

PACWAVE20

GT-ATPS / SEP-WG



REGIONAL EXERCISE PACWAVE20 GT-ATPS / SEP-WG

1. BACKGROUND

During the meeting held in Bogota between October 6th and 7th 2019, member states of this working group agreed to conduct four regional Tsunami exercises during the year 2020. Considering that each trimester, one of the member states would organize an exercise, it would be the turn of Perú to organize the third one on October 22nd, which would be held according to PacWave20 directives.

2. EXERCISE OBJECTIVES

- a. Test the latest version of the Regional Communication Protocol between National Tsunami Warning Centers of the South East Pacific.
- b. Test the Regional Communication Portal for sharing Tsunami Bulletins within GT-ATPS framework.

3. EXERCISE DEVELOPMENT

This exercise started on October 22nd at 12:00 UTC and satellite communications capability was also tested between each participant state.

The selected scenario considered a major earthquake off the central coast of Perú, with the following seismic parameters:

| | |
|----------------------|-------------|
| Latitude | : 17.6° S |
| Longitude | : 173.2° W |
| Magnitude | : 9.0 Mw |
| Depth | : 12 Km |
| Geographic Reference | : Tonga. |
| Origin Time | : 12:00 UTC |

TsuCAT 4.1 software was used to generate text and modeling products for this event and Perú acted as PTWC to distribute all the Tsunami Bulletins. Due to the distance from the South American coast, to use real-time development during the first hour and from that time on, use the compressed time to speed up the reception of Tsunami Bulletins.

Eleven Tsunami Bulletins were sent upon completion of the exercise at 18:21 UTC.



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4. CONCLUSIONS AND RECOMMENDATIONS

- a. This exercise allowed the working group to test the Communications Regional Protocol and each of the internal operational protocols for each National Tsunami Warning Center.
- b. Despite the COVID-19 restrictions in place, for Chile and Colombia, National Emergency Management Agencies also joined the exercise. In Colombia, the Geological Service also participated.
- c. The use of TsuCAT 4.1 facilitated the creation of all the necessary text bulletins and additional products, with the formats that would be normally used by PTWC during a real emergency. This was a key factor for the exercise's overall success, considering that PTWC was not participating at this regional level.
- d. It is strongly required that Antarctica be included in the text messages and map products for the Pacific Basin, due to the great number of countries that operate in the area and increased tourism activities during the summer in the Southern Hemisphere.
- e. It is strongly advised to continue with this type of exercise to familiarize the on-duty staff for each National Tsunami Warning Center, with the PTWC products and enhance their state of preparation to successfully address real emergencies.



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ANNEX 1. PHOTOGRAPHIC RECORDS

CHILE: Hidrographic and Oceanographic Service of the Chilean Navy (SHOA) – National Tsunami Warning System (SNAM).





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COLOMBIA: General Maritime Directorate (DIMAR) – National Tsunami Warning Center for Tsunamis (CNAT).





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**ECUADOR: Oceanographic and Antarctic Institute of the Ecuadorian Navy (INOCAR) –
Center for Oceanic Monitoring**





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PERÚ: Hidrography and Navigation Directorate of the war Navy of Perú (DHN)





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