

Report from Northwest Pacific Tsunami Advisory Center (NWPTAC)

Northwest Pacific Tsunami Advisory Center (NWPTAC)
Japan Meteorological Agency (JMA)

NWPTAC Major Activities (Dec. 2021 – Aug. 2023)

Mar. 01, 2022 EPOS6 (Tokyo) started operation

Apr. 12, 2022 Communications Test

Sep. 14, 2022 EPOS6 (Osaka) started operation

Oct. 13, 2022 Live Communications Test for the PacWave22

Feb. 07, 2023 Communications Test



Japan Meteorological Agency



Operation Room of NWPTAC (JMA)

EPOS6

○The operating system of the Earthquake and Tsunami Observation Information Service has been updated.

This system is called Earthquake Phenomena Observation System (EPOS).

○A new system (EPOS6) has been installed at the Tokyo Headquarter and the Osaka Regional Headquarter. These two systems have the same functions.

○In the case of Tokyo system is down, we can issue NWPTAs using the Osaka system from Tokyo.

北西太平洋津波情報発表

tho6tk01-dev 東京 #1 運転系

イベントID: 20220209033918

イベント中

OT[IST]	2022/02/09 03:39:00		
緯度	34.1	経度	142.1
深さ	10	M	8.4
発表回数	2	更新検査	

× 予報終了 イベント選択を開く

確定前画像あり
確定前テストあり 確定前画像なし

情報生成 情報確定

確定済み・発信前モード
確定済みテキストなし 確定済み画像なし

送信

編集モード

テキスト内容

TSUNAMI BULLETIN NUMBER 003
ISSUED BY NWPTAC(JMA)
ISSUED AT 0203Z 09 FEB 2022

HYPOCENTRAL PARAMETERS
ORIGIN TIME:1839Z 08 FEB 2022
PRELIMINARY EPICENTER:LAT34.1NORTH LON142.1EAST
OFF EAST COAST OF HONSHU, JAPAN
JAPAN - KURIL ISLANDS - KAMCHATKA PENINSULA
MAG:8.4 (M3MA)

EVALUATION
THERE IS A POSSIBILITY OF A DESTRUCTIVE OCEAN-WIDE TSUNAMI

THIS BULLETIN IS FOR
EAST COASTS OF KAMCHATKA PENINSULA
KURIL ISLANDS
COASTS OF EAST CHINA SEA
TAIWAN
EAST COASTS OF PHILIPPINES
NORTH COASTS OF TAIWAN, JAVA

直接編集の変更を元に戻す 直接編集

グレード編集 初期化

進捗状況 ID:
CM10分
CM130分

図情報 津波伝播図 沿岸波高図 沖合波高図 シミュレーション結果縦覧

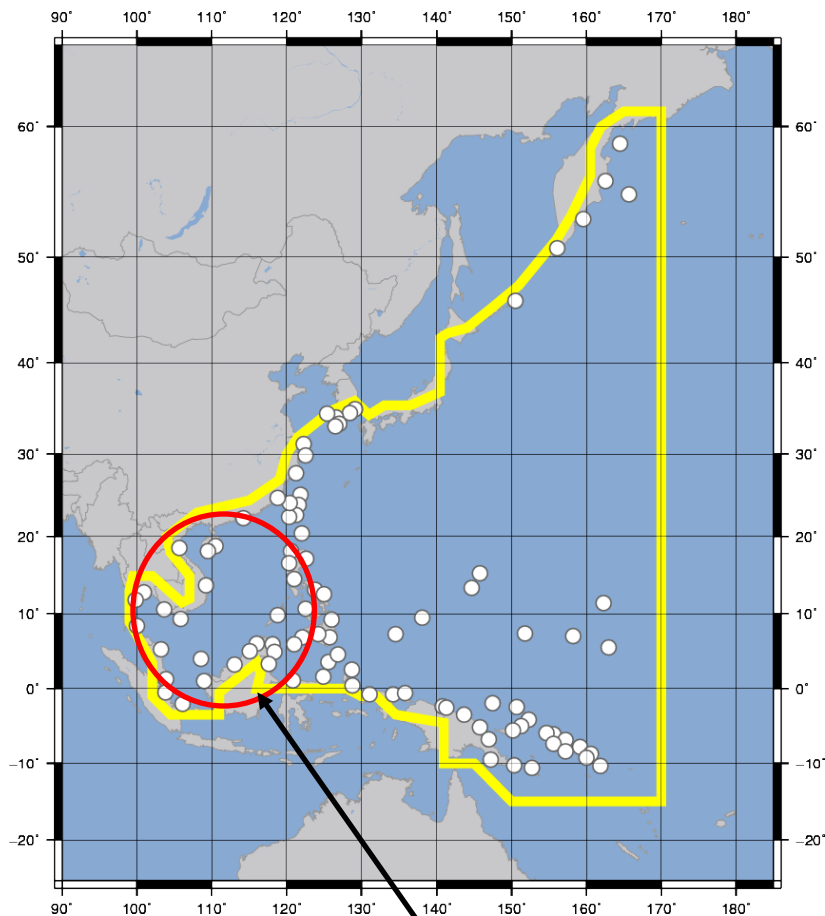
津波伝播図

NWPTAC Tsunami Travel Time Forecast

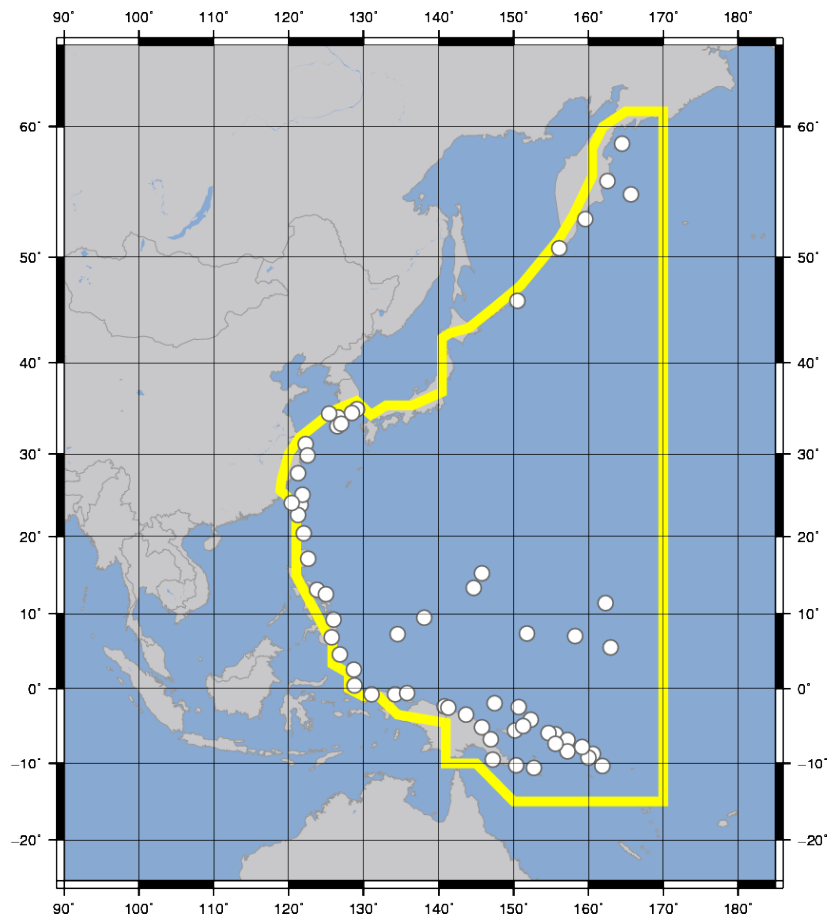
津波伝播図

津波伝播図

NWPTAC Area of Service (AoS)



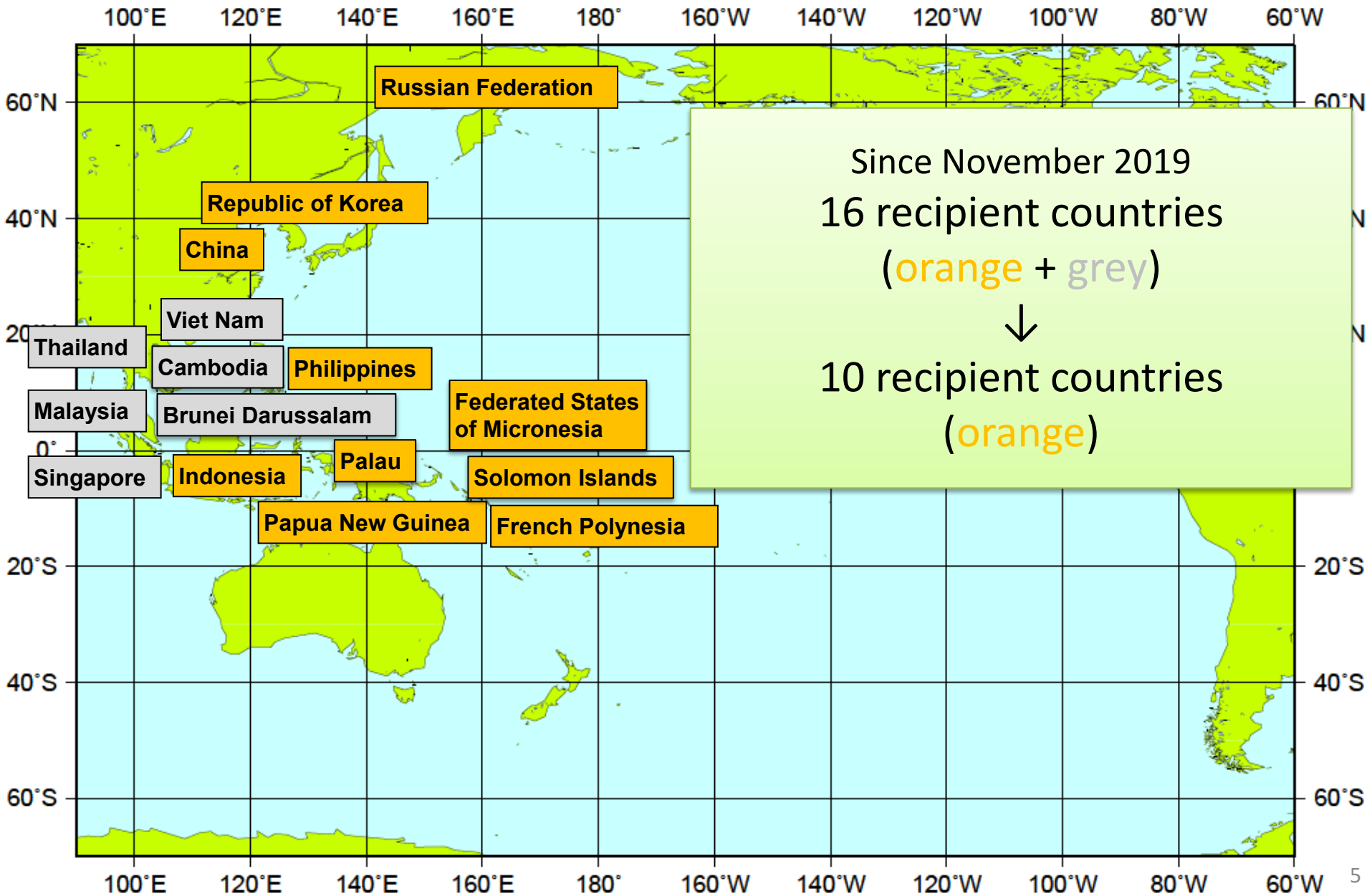
Region for Interim service



□ : AoS ○ : Forecast Point

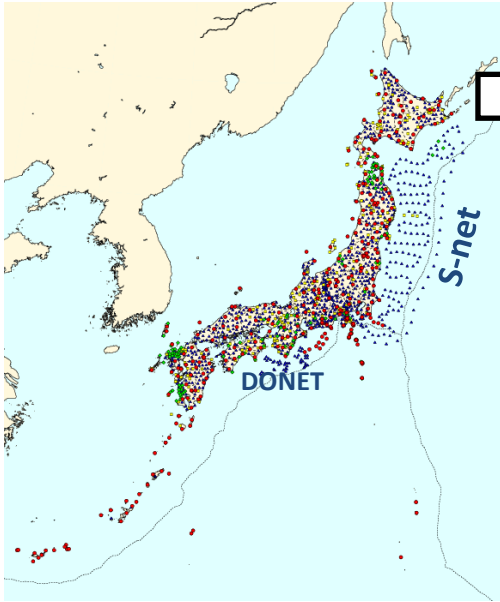
The NWPTAC AoS was changed when the full operation of SCSTAC started in November 2019.

NWPTA Recipient Countries



Use of Seismic and Sea Level Monitoring Data for Products of NWPATC and NTWC

Seismic Monitoring Network

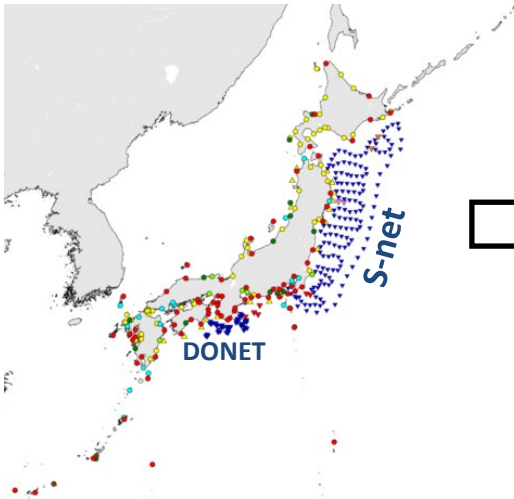


Hypocentral parameters
(Magnitude, Location,
Depth, Origin time)

Prediction of coastal tsunami
heights and arrival times using
the tsunami scenario database

NWPTAC's
Products

Sea Level Monitoring Network



Prediction of coastal
tsunami heights and
arrival times

Estimated tsunami height and
arrival time at coasts using

- tFISH (tsunami Forecasting
based on Inversion for
initial sea-Surface Height)
- Green's law

NTWC's
Products

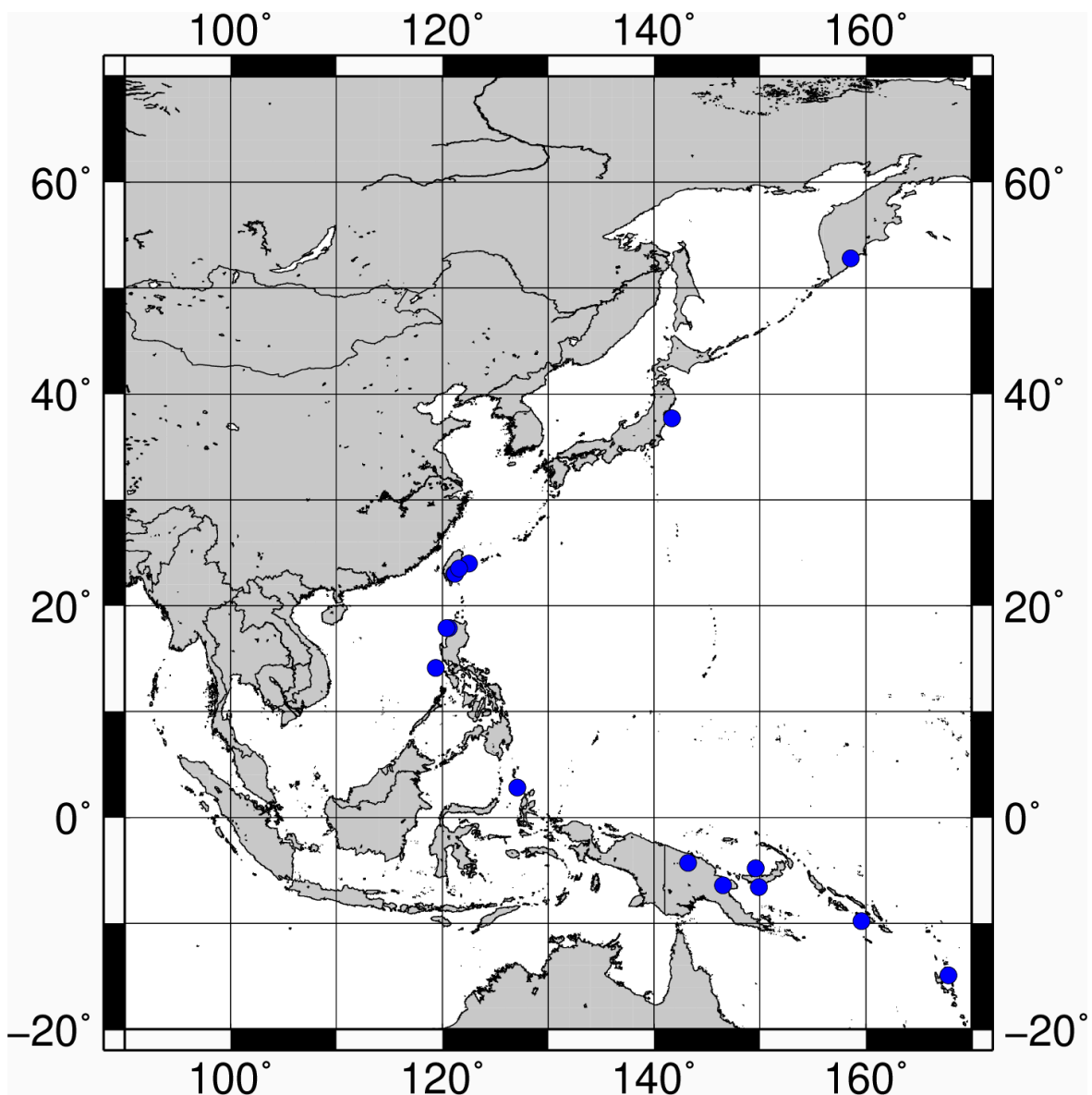
Issuing or updating
tsunami
warnings/advisories
in Japan.

NWPTA Issuance (December 2021 – August 2023)

Origin Time(UTC)	Lat.	Lon.	Location	Mag.	Elapsed Time(min)*	Tsunami Potential
1245Z 26 JUL 2023	14.9S	167.8E	VANUATU	6.8	22	VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
03:07Z 03 APR 2023	52.8N	158.6E	KAMCHATKA	6.7	16	NO POSSIBILITY OF A TSUNAMI
18:04Z 02 APR 2023	4.3S	143.2E	PNG	7.3	23	NO POSSIBILITY OF A TSUNAMI
05:36Z 01 MAR 2023	4.8S	149.6E	BISMARCK SEA	6.5	19	NO POSSIBILITY OF A TSUNAMI
21:25Z 25 FEB 2023	6.6S	149.9E	PNG	6.5	25	A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
06:06Z 18 JAN 2023	2.8N	127.1E	MOLUCCA SEA	7.2	14	A POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI NEAR THE EPICENTER
02:03Z 22 NOV 2022	9.8S	159.6E	SOLOMON ISLANDS	7.3	20	A POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI NEAR THE EPICENTER
14:59Z 25 OCT 2022	17.9N	120.6E	PHILIPPINES	6.8	18	A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
06:44Z 18 SEP 2022	23.0N	121.1E	TAIWAN	7.2	12	A POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI NEAR THE EPICENTER
13:41Z 17 SEP 2022	23.0N	121.2E	TAIWAN	6.6	13	A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
23:47Z 10 SEP 2022	6.4S	146.5E	PNG	7.7	33	A POSSIBILITY OF A DESTRUCTIVE REGIONAL TSUNAMI
00:43Z 27 JUL 2022	17.9N	120.4E	PHILIPPINES	6.8	17	A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
06:23Z 09 MAY 2022	24.0N	122.5E	TAIWAN	6.6	8	A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
17:41Z 22 MAR 2022	23.5N	121.6E	TAIWAN	6.6	49	A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI
14:36Z 16 MAR 2022	37.7N	141.7E	JAPAN	7.3	8	A POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI NEAR THE EPICENTER
21:06Z 13 MAR 2022	14.1N	119.4E	PHILIPPINES	6.7	18	A VERY SMALL POSSIBILITY OF A DESTRUCTIVE LOCAL TSUNAMI

*) Elapsed time from Eq. origin time to Issuance the first NWPTA Products (minutes)

Earthquake locations for which NWPTA were Issued (December 2021 – August 2023)

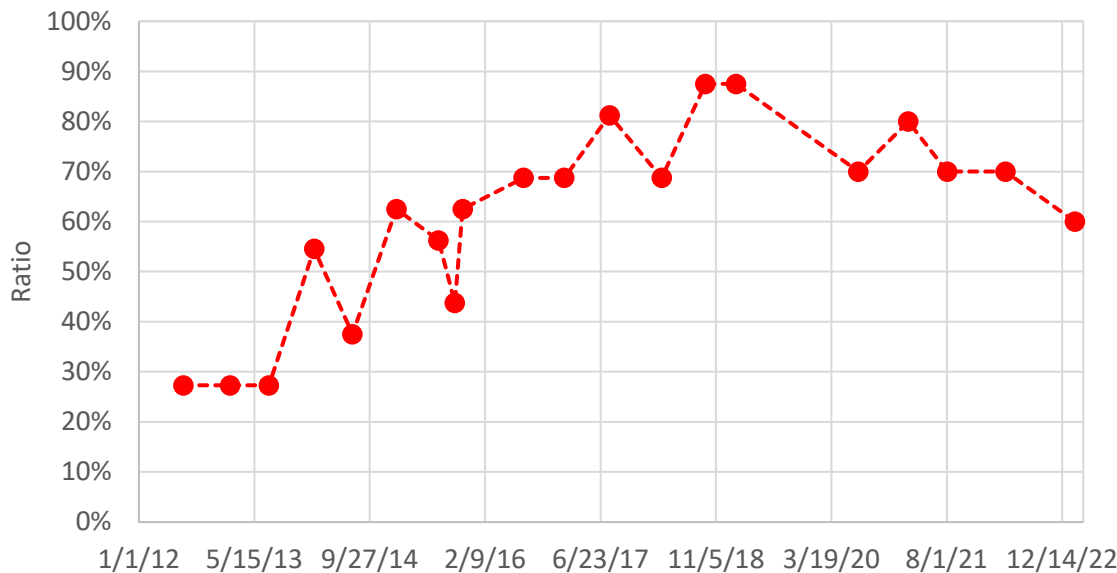


- issued for 16 events

Communication Tests

NWPTAC conducts communication tests basically twice a year since 2012. Thanks to the coordination of the secretariat and the member states, the situation seems to be becoming better.

Temporal changes of response ratio



Date	Number of responses	Number of recipients	Response Ratio
2012/7/11	3	11	27%
2013/1/30	3	11	27%
2013/7/17	3	11	27%
2014/1/29	6	11	55%
2014/7/14	6	16	38%
2015/1/21	10	16	63%
2015/7/22	9	16	56%
2015/10/1	7	16	44%
2015/11/4	10	16	63%
2016/7/25	11	16	69%
2017/1/17	11	16	69%
2017/8/1	13	16	81%
2018/3/15	11	16	69%
2018/9/20	14	16	88%
2019/1/31	14	16	88%
2020/7/14	7	10	70%
2021/2/15	8	10	80%
2021/8/3	7	10	70%
2022/4/12	7	10	70%
2023/2/7	6	10	60%

The same countries (Federated States of Micronesia, Palau, and Solomon Islands) have not responded to communication tests recently.

Communication Tests (Telefax Failure)

There are fax numbers that now routinely fail.
Failure to receive a telefax not only fails to disseminate the warning,
but also burdens the TSP with the retransmission process.

22

sent
in the last test

8

non-received
in the last test

4

failed the last two
tests as well

We ask for confirmation of the fax receiving system, or notification of the end of the reception by the next test (a few months later).

Thank you very much for your kind attention.