PTWS Post-event Brief
29 July 2025, M8.8, Kamchatka Earthquake and Tsunami

13 August 2025

NWPTAC Responses to the Earthquake originated 29 July 2025, Off East Coast of Kamchatka

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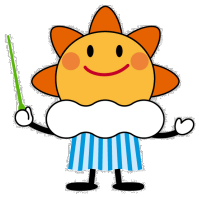
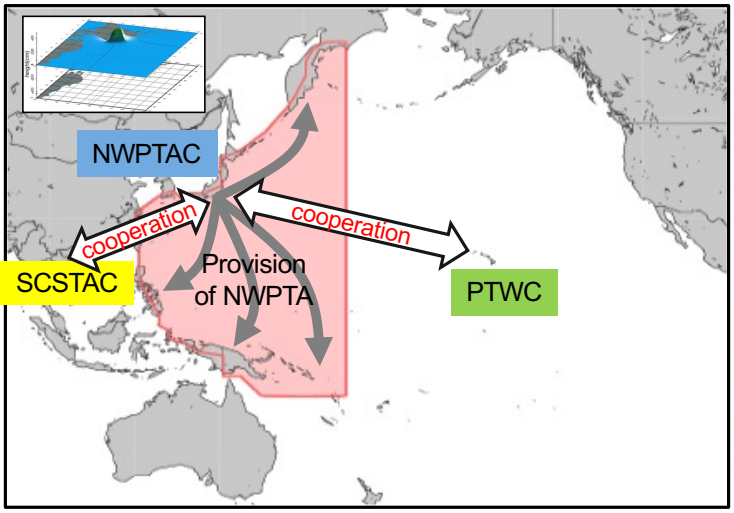
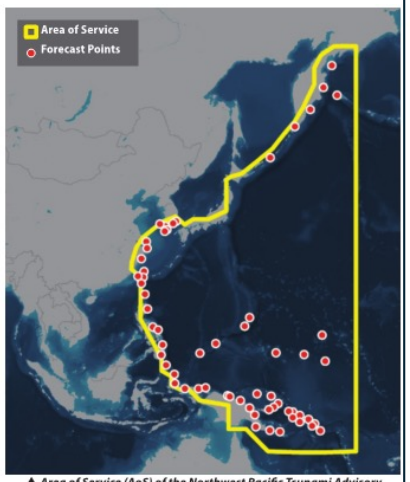


Northwest Pacific Tsunami Advisory Center (NWPTAC)

- ✓ JMA operates Northwest Pacific Tsunami Advisory Center (NWPTAC) under PTWS framework since 2005, and contributes to tsunami disaster mitigation systems of Pacific countries in collaboration with the Pacific Tsunami Warning Center (PTWC) and SCSTAC.
- ✓ Northwest Pacific Tsunami Advisories (NWPTA) are provided with recipient countries to support their national DRR services.
- ✓ The first advisory includes tsunami heights and coastal arrival times derived from pre-calculated tsunami scenario database, are issued in about 10-20 minutes. Typically, the second advisory uses real-time tsunami numerical simulation output using CMT solution and deliver graphical product. We issue revised advisories when necessary, for example when we find more reliable earthquake parameters.
- ✓ The center monitors sea level observation carefully and integrate them to the following issuance as well.

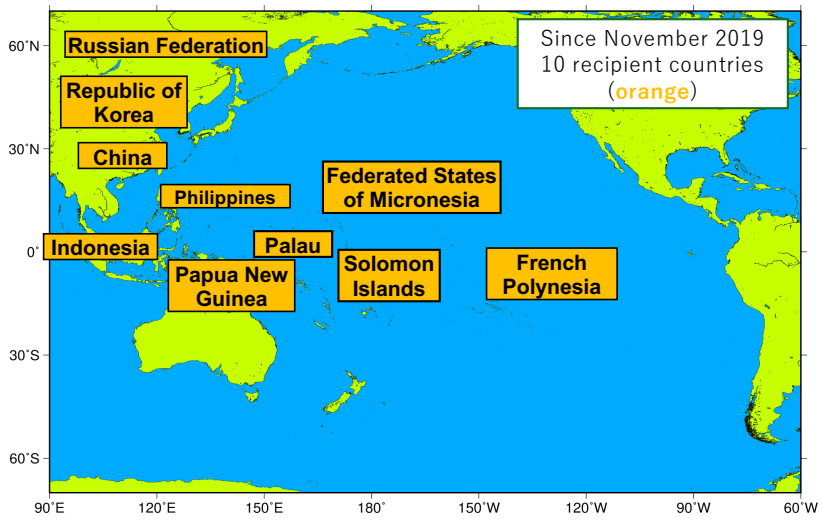
NWPTAC Area of Service and cooperation





▲ *Area of Service (AoS) of the Northwest Pacific Tsunami Advisory Center (NWPTAC) and its Forecast Points (FPs)* as of March 2025

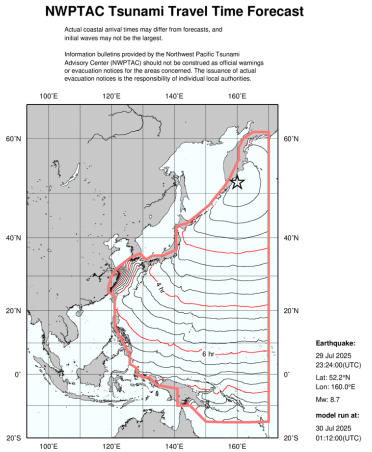
Recipient countries of NWPTA

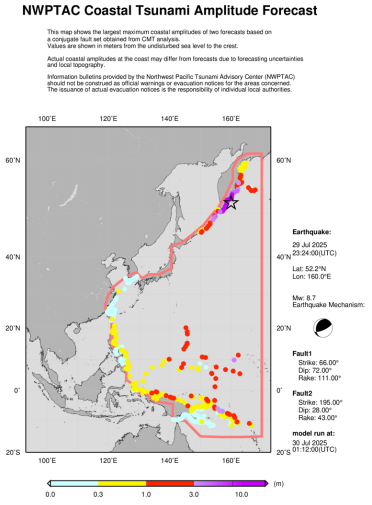


NWPTAC's Response to the 29 JUL 2025 Earthquake off Kamchatka Peninsula

Date	Time (UTC)	Actions
29 July	23:24:52	The earthquake occurred.
29 July	23:34	The PTWC issued the tsunami threat message 01 with M8.0
		The NWPTAC estimated tsunami amplitudes and arrival times using the pre-simulated tsunami scenario database based on M8.0, consistent with the PTWC.
29 July	23:45	The NWPTAC issued the bulletin number 01.
30 July	00:16	The PTWC updated the magnitude to 8.7 in the threat message 002.
		The NWPTAC estimated tsunami amplitudes and arrival times using pre-simulated tsunami scenario database based on the updated magnitude 8.7.
30 July	00:49	The NWPTAC issued the bulletin number 02.
		The NWPTAC carried out the tsunami simulation using the USGS CMT with Mw 8.7 and estimated tsunami amplitudes and arrival times based on the result of the tsunami simulation.
30 July	01:19	The NWPTAC issued the bulletin number 03 with the graphical products.
30 July	01:44 to 1923	The NWPTAC issued the bulletin number 04 to 15 with observed sea level changes.

Graphics showed in Bulletin 03





Summary

NWPT Advisories in this event;

- **15** bulletins issued over **19** hours
- First bulletin based on pre-simulated DB issued in **20 minutes**
- **Graphical products** derived from the real-time simulation issued in **115 minutes**
- Provided ETA and Wave Amplitude for **45 Forecast Points out of 61 points**

Estimated Wave Amplitude for 45 Forecast Points

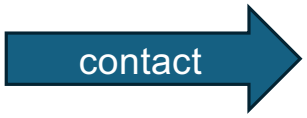
+ : Estimated amplitude is larger than amplitude in the previous bulletin

LOCATION	COORDINATES	ESTIMATED WAVE AMPLITUDE (M8.0 DB Bulletin No.1)	ESTIMATED WAVE AMPLITUDE (M8.7 DB Bulletin No.2)	ESTIMATED WAVE AMPLITUDE (M8.7 simulation Bulletin No.3)
OSTROV_KARAGINSKIY	58.8N 164.5E		0.3-1M +	1-3M +
UST_KAMCHATSK	56.1N 162.6E	0.3-1M	1-3M +	3-5M +
PETROPAVLOVSK_K	53.2N 159.6E	5-10M	OVER10M +	OVER10M
NIKOLSKOYA	55.1N 165.7E	0.3-1M	3-5M +	3-5M
SEVERO_KURILSK	50.8N 156.1E	0.3-1M	1-3M +	5-10M +
URUP_IS.	46.1N 150.5E		0.3-1M +	1-3M +
SHANGHAI	31.2N 122.3E			0.3-1M +
TAITUNG	22.7N 121.2E			0.3-1M +
BASCO	20.4N 122.0E			0.3-1M +
PALANAN	17.2N 122.6E			0.3-1M +
LEGASPI	13.2N 123.8E		0.3-1M +	0.3-1M
LAOANG	12.6N 125.0E			0.3-1M +
MADRID	09.2N 126.0E		0.3-1M +	0.3-1M
DAVAO	06.9N 125.7E			0.3-1M +
BEREBERE	02.5N 128.7E			0.3-1M +
PATANI	00.4N 128.8E			0.3-1M +
SORONG	00.8S 131.1E			0.3-1M +
MANOKWARI	00.8S 134.2E		0.3-1M +	1-3M +
WARSA	00.6S 135.8E		0.3-1M +	1-3M +
JAYAPURA	02.4S 140.8E		0.3-1M +	1-3M +
GEME	04.6N 126.8E			0.3-1M +
VANIMO	02.6S 141.3E		0.3-1M +	1-3M +
WEWAK	03.5S 143.7E		0.3-1M +	1-3M +
MADANG	05.2S 145.8E		0.3-1M +	1-3M +
MANUS_IS.	02.0S 147.5E		0.3-1M +	1-3M +
KIMBE	05.6S 150.2E		0.3-1M +	1-3M +
ULAMONA	05.0S 151.3E			0.3-1M +
RABAUL	04.2S 152.3E		0.3-1M +	0.3-1M
KAVIENG	02.5S 150.7E		0.3-1M +	1-3M +
KIETA	06.1S 155.6E		1-3M +	3-5M +
PANGGOE	06.9S 157.2E	0.3-1M	1-3M +	3-5M +
GHATERE	07.8S 159.2E		0.3-1M +	1-3M +
AUKI	08.8S 160.6E		0.3-1M +	1-3M +
KIRAKIRA	10.4S 161.9E		1-3M +	1-3M
SAIPAN	15.3N 145.8E		0.3-1M +	1-3M +
GUAM	13.4N 144.7E		0.3-1M +	1-3M +
MALAKAL	07.3N 134.5E		0.3-1M +	1-3M +
YAP_IS.	09.5N 138.1E			0.3-1M +
POHNPEI_IS.	07.0N 158.2E		0.3-1M +	1-3M +
KOSRAE_IS.	05.5N 163.0E		1-3M +	1-3M
ENIWETOK	11.4N 162.3E		0.3-1M +	1-3M +
LAE	06.8S 147.0E			0.3-1M +
ALOTAU	10.3S 150.4E		0.3-1M +	0.3-1M
AMUN	06.0S 154.7E		0.3-1M +	1-3M +
HONIARA	09.3S 160.0E		0.3-1M +	0.3-1M

Thank you very much for your attention.

NWPTAC welcomes any feedback from the users, e.g.,

- Did you receive our advisories with no delay?
- Do you have any requests/demands for future improvement of our services?



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