TUVALU GOVERNMENT

Ministry of Public Works,
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Summary Report

Tsunami Watch Issued For Tuvalu
30th July 2025

1. Introduction

The Tuvalu Meteorological Service (TMS) has activated its response to the earthquake that caused a tsunami event on **30th July 2025 at 2325 UTC**. In accordance with as a Tsunami Warning Focal Point and its Standard Operating Procedures (SOPs), TMS has implemented necessary measures during the tsunami event. However, an earthquake of **magnitude 8.8** occurred off the east coast of Kamchatka, Russia, resulting in the generation of tsunami waves. The Pacific Tsunami Warning Centre (PTWC), in collaboration with the International Tsunami Information Centre, is responsible for issuing tsunami alert messages to all Tsunami Warning Focal Points.

Magnitude:	**8.8**
Origin Time:	**2325 UTC**
Coordinates:	**52.2N 160.0E**
Depth:	**74km/46miles**
Location:	**Off the East Coast of Kamchatka, Russia**

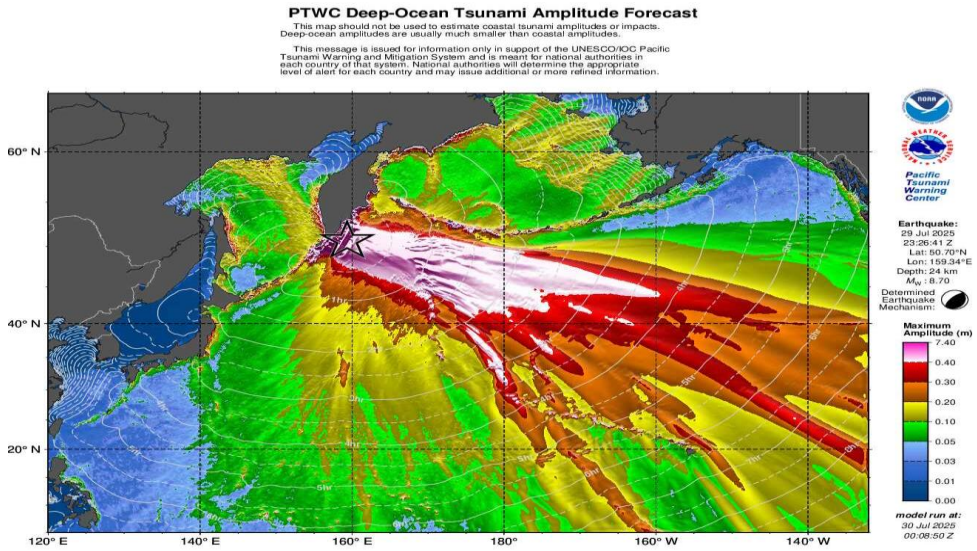


Fig 1: Earthquake rupture direction & Tsunami Amplitude Forecast

2. Operation Report Overview

This document presents a comprehensive progress report detailing the full operational cycle related to the tsunami watch issued for Tuvalu, from activation to cancellation. The report encompasses all tasks aligned with the key responsibilities of the TMS, highlighting the organization's role and established standard operating procedures (SOPs) in the dissemination of tsunami alert messages.

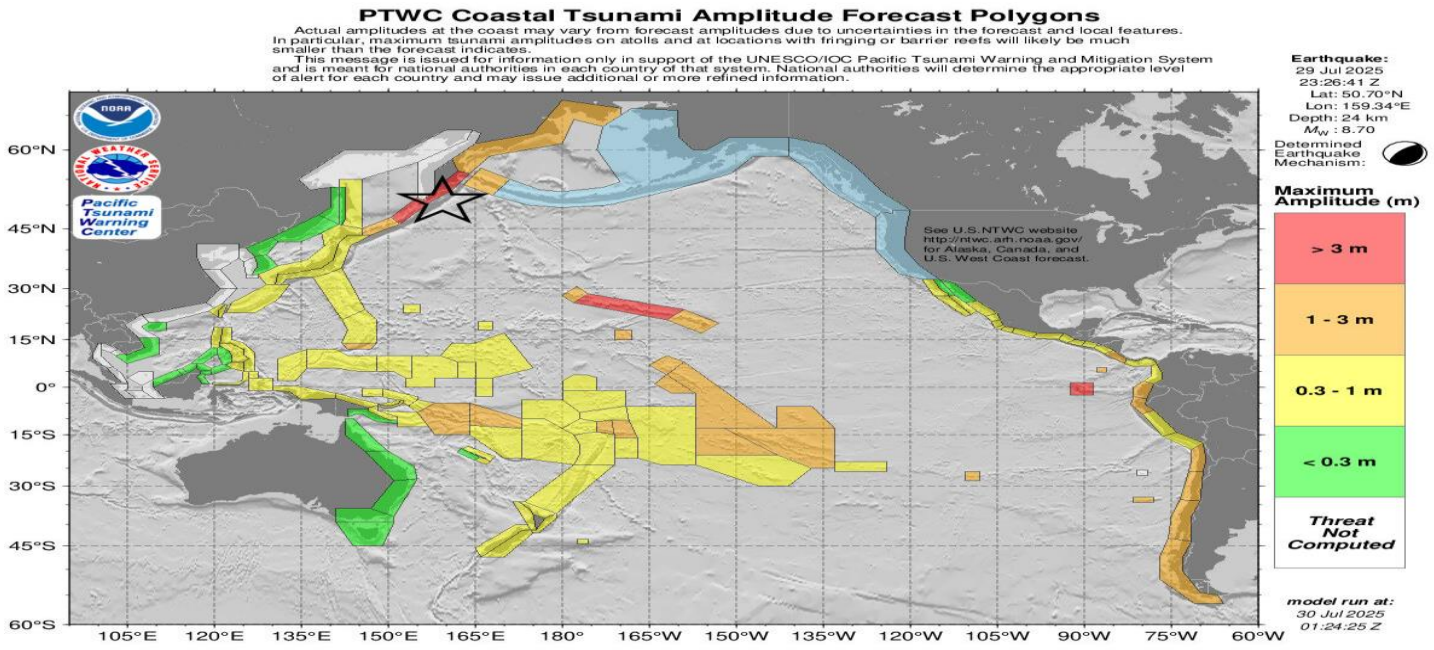
Table 1: Alert Messages

PTWC Messages	Time Received	Additional Information (Wave Amplitude)	TMS Alert Message	Time Issued
Bulletin No.1	1135 am	-	-	
Bulletin No.2	1218 pm	-	-	
Bulletin No.3	0110 pm	Tuvalu included 0.3 to 1m	-	
Bulletin No.4	0152 pm	✓	-	
Bulletin No.5	0311 pm	✓	Bulletin # 1 Tsunami Watch	0315pm
Bulletin No.6	0440 pm	✓	Bulletin # 2 Tsunami Watch	0446pm
Bulletin No.7	0626 pm	✓	Bulletin # 3 Tsunami Watch	0633pm
Bulletin No.8	0727 pm	✓	Bulletin # 4 Tsunami Watch	0730pm
Bulletin No 9	0840 pm	✓	Bulletin # 5 Downgraded to Tsunami Information	0900pm
Bulletin No 10	0939 pm	✓	Bulletin # 6 Tsunami Watch Cancelled	1040pm

Table 1 above outlines the flow of messages from the Pacific Tsunami Warning Center (PTWC) to the Tuvalu Meteorological Service (TMS), and from TMS to the National Disaster Management Office (NDMO). The first and second messages received from the PTWC after the earthquake were for informational purposes only, intended for internal evaluation and monitoring by all tsunami warning centers. The third message analyzed by the PTWC indicated that Tuvalu, along with other Pacific island countries, was included in the alert level with wave Amplitude reaching most coastal areas at a height of 0.3m to 1m, with an estimated time of arrival for the first wave at Tuvalu **7:44 pm,** early evening on the same day. Subsequent messages continued to confirm the unchanged alert level for Tuvalu until the tsunami waves had passed.

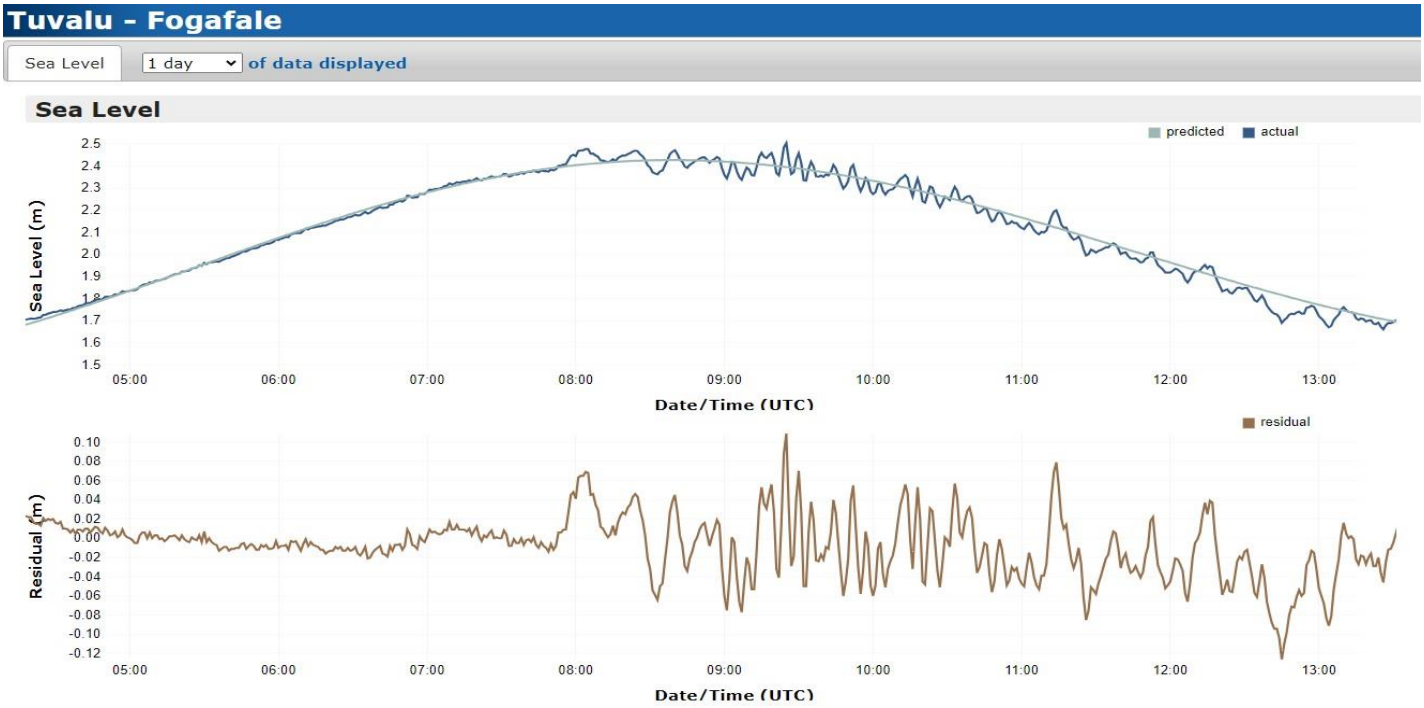
The TMS issued the first alert message in **Tsunami Watch Bulletin No. 1** at **3:15 PM**, following an analysis of PTWC Bulletin No. 5, which confirmed that the alert level remained unchanged for the situation in Tuvalu. The tsunami watch continued until Bulletin No. 4, during which the first wave reached our shores, as was observed by our Tide Gauge at around 7.59 pm. Subsequently, TMS analyzed the data and issued Bulletin No. 5, which downgraded the alert level from Tsunami Watch to Tsunami Information only. Later, PTWC Bulletin No. 10 was received around 9.39pm, along with observations from the Funafuti tide gauge and our wave buoy real-time data, indicating that a tsunami wave passed and is no longer a threat to Tuvalu, which follows the cancellation of the Tsunami Watch bulletin and later followed by the all clear message.

Fig 2: PTWC Threat Map



Forecast

Alert Level of Maximum Wave Amplitude forecasted for Tuvalu in the color code of yellow indicate wave height at 0.3 to 1m



Observation

The Fuanfuti Tide Gauge recorded a tide fluctuation above and below the normal tide level of 0.1m for 4-5 hours, due to the powerful earthquake aftershocks that generated these long-distance tsunamis reaching our shores.

3. In Summary of the event

In conclusion, the tsunami event triggered by the 8.8 magnitude earthquake off the east coast of Kamchatka, Russia, on July 30, 2025, serves as a testament to our resilience in the face of nature's challenges. Thanks to diligent monitoring and proactive response protocols, the Tuvalu Meteorological Service (TMS) confirmed that the tsunami waves dissipated without causing damage or endangering lives within Tuvalu's jurisdiction. All alert messages issued during the event, including the Tsunami Watch, were competently downgraded to Tsunami Information only, with timely cancellations based on precise data from the Pacific Tsunami Warning Centre (PTWC) and observations from the Funafuti tide gauge and wave buoy.

The preparedness of our community and the effective response measures taken by TMS and the National Disaster Management Office (NDMO) underscored the strength of our collective commitment to safety. Ongoing evaluation and improvement of our tsunami response plans remain a priority, empowering us to face future events with confidence. TMS is inspired to conduct routine tsunami drills and training sessions for both the public and emergency response teams. These drills will incorporate alert messages and protocols, ensuring everyone is familiar with the communication process during an actual event, fostering an unwavering spirit of readiness and unity.