

PTWC Response as a PTWS TSP Kamchatka Tsunami of July 29, 2025

Chip McCreery
Director, PTWC

Event Timeline

UTC	Elapsed	Msg	Event
23:24:52	00:00:00		Earthquake occurs
23:34:28	00:09:39	1	Mw=8.0, Threat for Russia and Japan, no forecast yet
00:16:32	00:51:40	2	Mw=8.7, forecast for NW Pacific based on PTWC WCMT
01:07:40	01:42:48	3	Forecast for entire Pacific based on USGS WCMT
		4-6	Forecast for entire Pacific based on PTWC WCMT
06:23:14	06:58:22	7	Mw=8.8 (USGS) Forecast Unchanged
		8-23	Forecast Unchanged
01:57:16	26:32:24	24	Final Threat Message

PTWC Message #2
Issued
9 min 39 sec
After the earthquake

TSUNAMI THREAT FORECAST...UPDATED

- * TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF
NORTHWESTERN HAWAIIAN ISLANDS... AND RUSSIA.
- * TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF
GUAM... HAWAII... JAPAN... JOHNSTON ATOLL... MIDWAY
ISLAND... NORTHERN MARIANAS... AND PALMYRA ISLAND.
- * TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF
CHUUK... KOSRAE... MARSHALL ISLANDS... PALAU...
PHILIPPINES... POHNPEI... WAKE ISLAND... AND YAP.

PTWC Message #2
With 1st Forecast
(Regional)
Issued
51 min 40 sec
After the earthquake

TSUNAMI THREAT FORECAST...UPDATED

- * TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF ECUADOR... AND RUSSIA.
- * TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF CHILE... HAWAII... JAPAN... NORTHWESTERN HAWAIIAN ISLANDS... AND SOLOMON ISLANDS.
- * TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF AMERICAN SAMOA... ANTARCTICA... CHUUK... COLOMBIA... COOK ISLANDS... COSTA RICA... EL SALVADOR... FIJI... FRENCH POLYNESIA... GUAM... GUATEMALA... HOWLAND AND BAKER... INDONESIA... JARVIS ISLAND... JOHNSTON ATOLL... KERMADEC ISLANDS... KIRIBATI... KOSRAE... MARSHALL ISLANDS... MEXICO... MIDWAY ISLAND... NAURU... NEW CALEDONIA... NEW ZEALAND... NICARAGUA... NIUE... NORTHERN MARIANAS... PALAU... PALMYRA ISLAND... PANAMA... PAPUA NEW GUINEA... PERU... PHILIPPINES... PITCAIRN ISLANDS... POHNPEI... SAMOA... TAIWAN... TOKELAU... TONGA... TUVALU... VANUATU... WAKE ISLAND... WALLIS AND FUTUNA... AND YAP.

PTWC Message #2
With 1st Forecast
(Regional)
Issued
51 min 40 sec
After the earthquake

Palau ETA is 6:47
after earthquake

PRELIMINARY EARTHQUAKE PARAMETERS

* MAGNITUDE	8.7
* ORIGIN TIME	2325 UTC JUL 29 2025
* COORDINATES	52.2 NORTH 160.0 EAST
* DEPTH	74 KM / 46 MILES
* LOCATION	OFF THE EAST COAST OF KAMCHATKA RUSSIA

ESTIMATED TIMES OF ARRIVAL

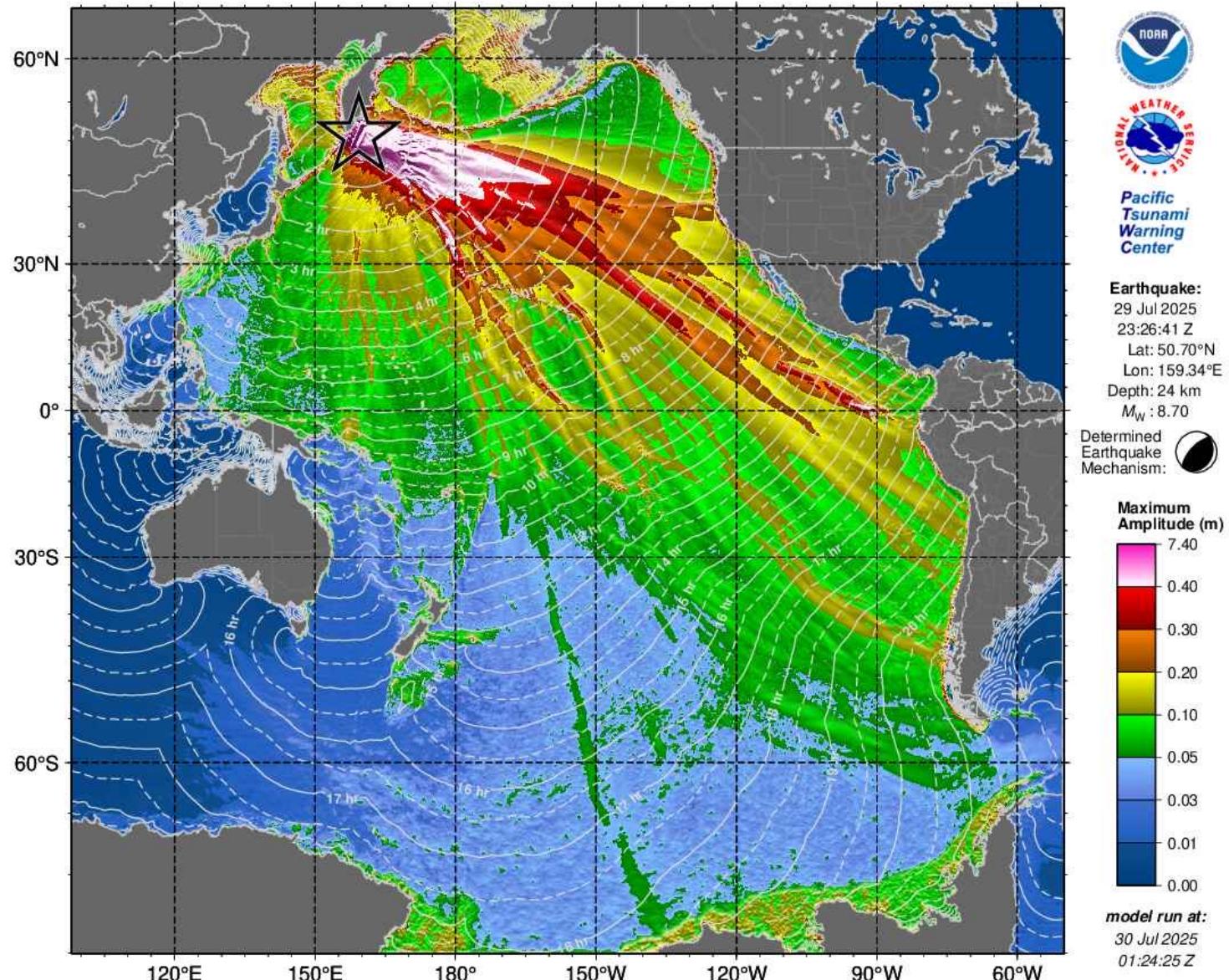
MAJURO	MARSHALL ISLANDS	7.1N 171.4E	0543 07/30
KOSRAE ISLAND	KOSRAE	5.5N 163.0E	0543 07/30
CHILUNG	TAIWAN	25.2N 121.8E	0552 07/30
HILO	HAWAII	19.7N 155.1W	0555 07/30
KAOHSIUNG	TAIWAN	22.5N 120.3E	0606 07/30
LAOAG	PHILIPPINES	18.2N 120.6E	0607 07/30
CHUUK ISLAND	CHUUK	7.4N 151.8E	0612 07/30
MALAKAL	PALAU	7.3N 134.5E	0612 07/30
LEGASPI	PHILIPPINES	13.2N 123.8E	0613 07/30
SAN FERNANDO	PHILIPPINES	16.6N 120.3E	0627 07/30
GEME	INDONESIA	4.6N 126.8E	0636 07/30
NAURU	NAURU	0.5S 166.9E	0640 07/30
DAVAO	PHILIPPINES	6.8N 125.7E	0640 07/30
BEREBERE	INDONESIA	2.5N 128.7E	0645 07/30
HOWLAND ISLAND	HOWLAND AND BAKE	0.6N 176.6W	0654 07/30
WARSA	INDONESIA	0.6S 135.8E	0657 07/30

PTWC Message #3
With 2st Forecast
(Pacific-wide)
Issued
1 hr 42 min 48 sec
After the earthquake

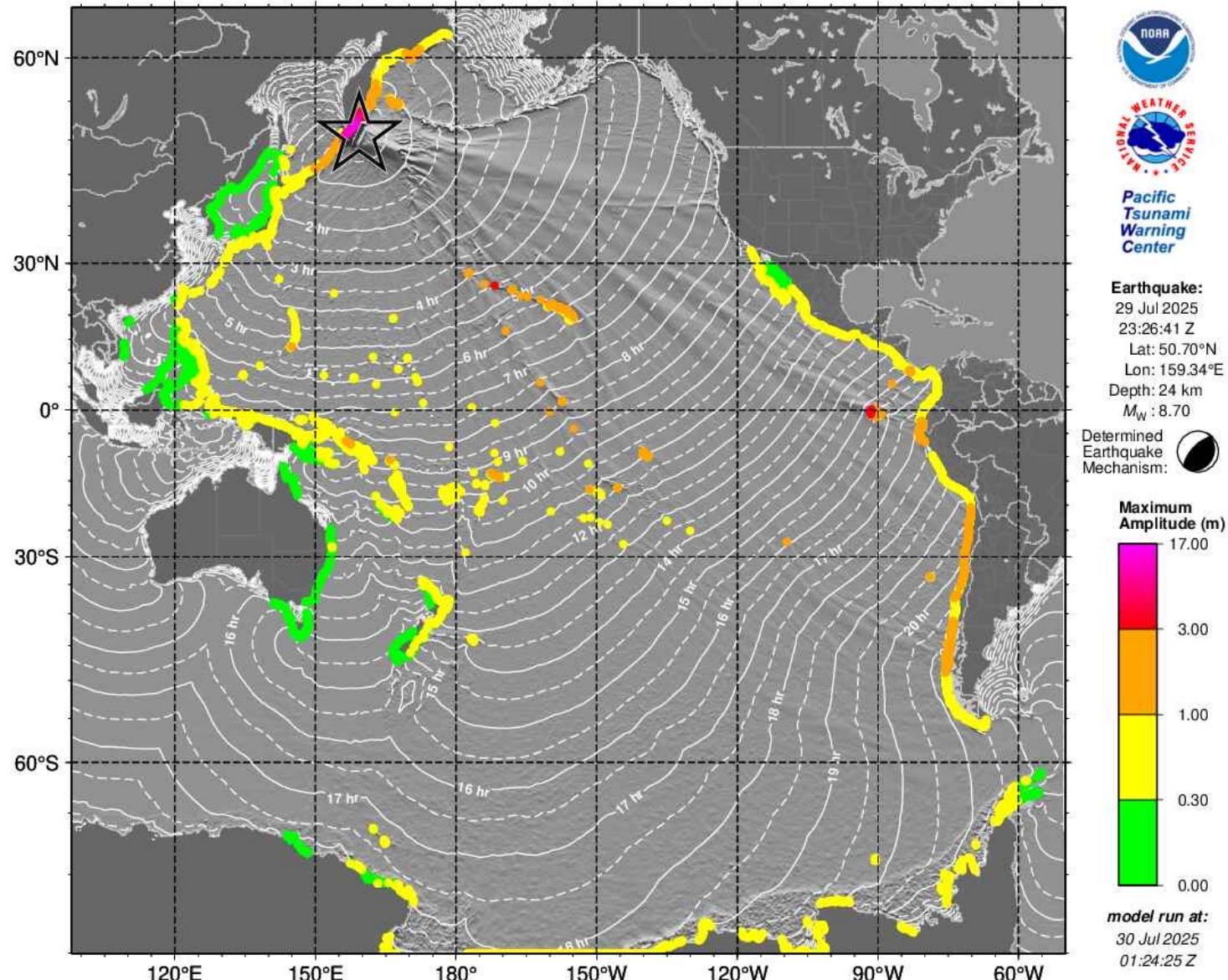
TSUNAMI THREAT FORECAST

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ECUADOR... NORTHWESTERN HAWAIIAN ISLANDS... AND RUSSIA.
- * TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF
CHILE... COSTA RICA... FRENCH POLYNESIA... HAWAII... JAPAN... JARVIS ISLAND... JOHNSTON ATOLL... KIRIBATI... MIDWAY ISLAND... PALMYRA ISLAND... PERU... SAMOA... AND SOLOMON ISLANDS.
- * TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF
ANTARCTICA... AUSTRALIA... CHUUK... COLOMBIA... COOK ISLANDS... EL SALVADOR... FIJI... GUATEMALA... HOWLAND AND BAKER... INDONESIA... KERMADEC ISLANDS... KOSRAE... MARSHALL ISLANDS... MEXICO... NAURU... NEW CALEDONIA... NEW ZEALAND... NICARAGUA... NIUE... NORTHERN MARIANAS... PALAU... PANAMA... PAPUA NEW GUINEA... PHILIPPINES... PITCAIRN ISLANDS... POHNPEI... TAIWAN... TOKELAU... TONGA... AMERICAN SAMOA... GUAM... TUVALU... VANUATU... WAKE ISLAND... WALLIS AND FUTUNA ... YAP.

Deep-Ocean Forecast



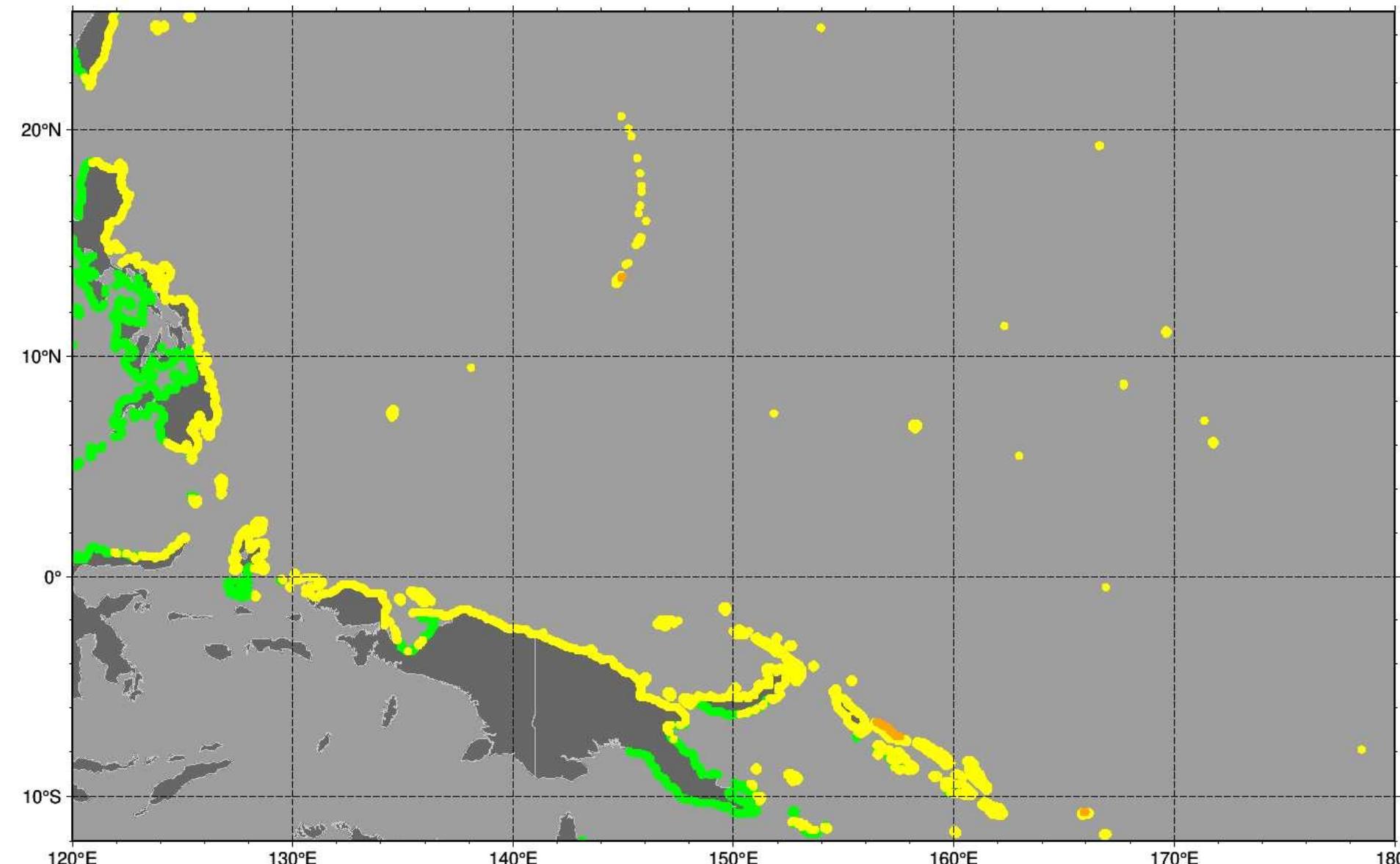
Coastal Forecast



PTWC Coastal Tsunami Amplitude Forecast

Actual amplitudes at the coast may vary from forecast amplitudes due to uncertainties in the forecast and local features. In particular, maximum tsunami amplitudes on atolls and at locations with fringing or barrier reefs will likely be much smaller than the forecast indicates.

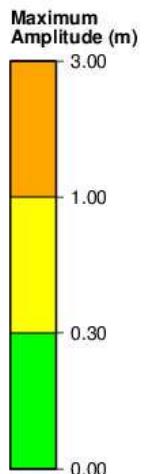
This message is issued for information only in support of the UNESCO/IOC Pacific Tsunami Warning and Mitigation System and is meant for national authorities in each country of that system. National authorities will determine the appropriate level of alert for each country and may issue additional or more refined information.



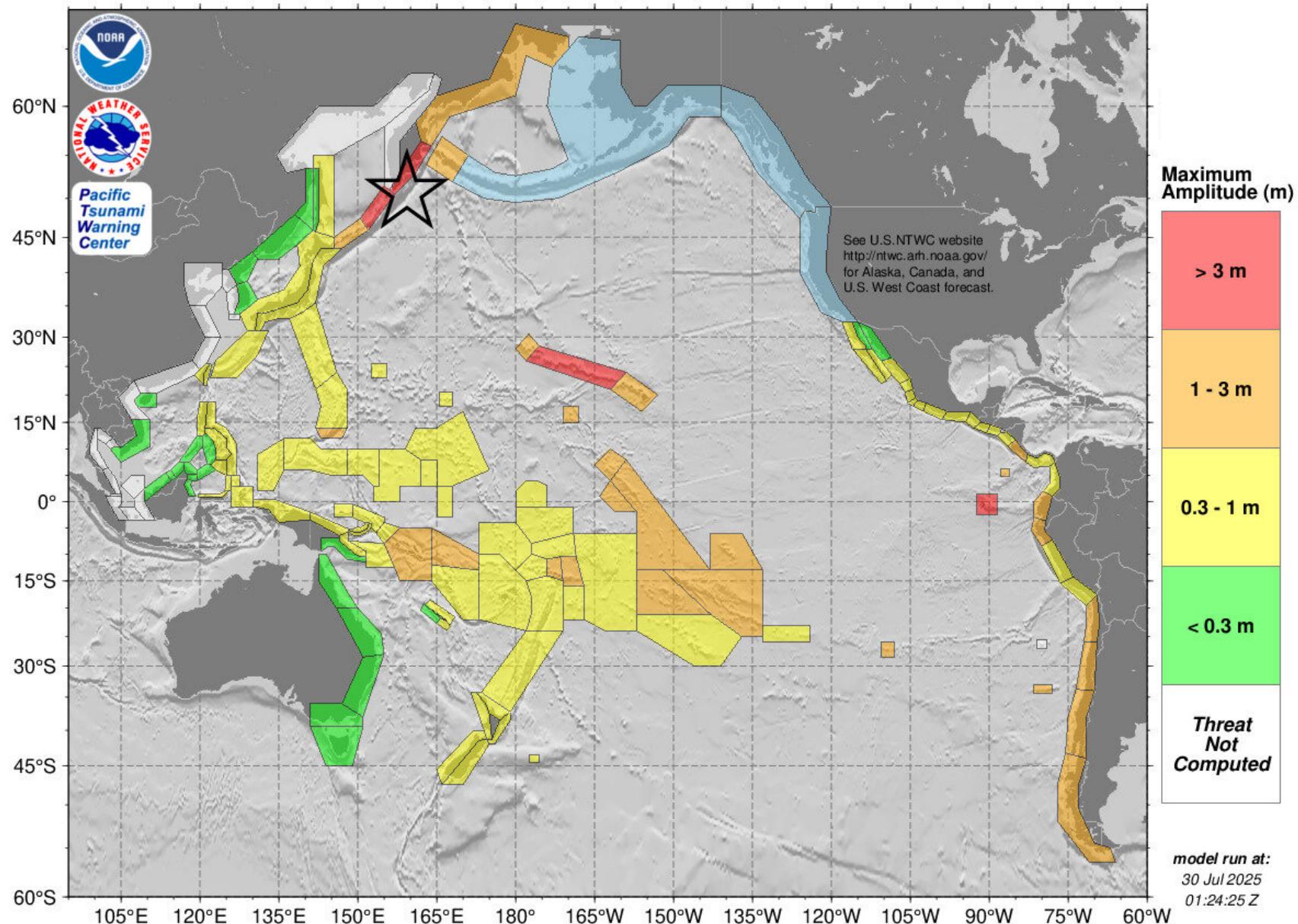
Pacific
Tsunami
Warning Center

Earthquake:
29 Jul 2025
23:26:41 Z
Lat: 50.70°N
Lon: 159.34°E
Depth: 24 km
 M_w : 8.70

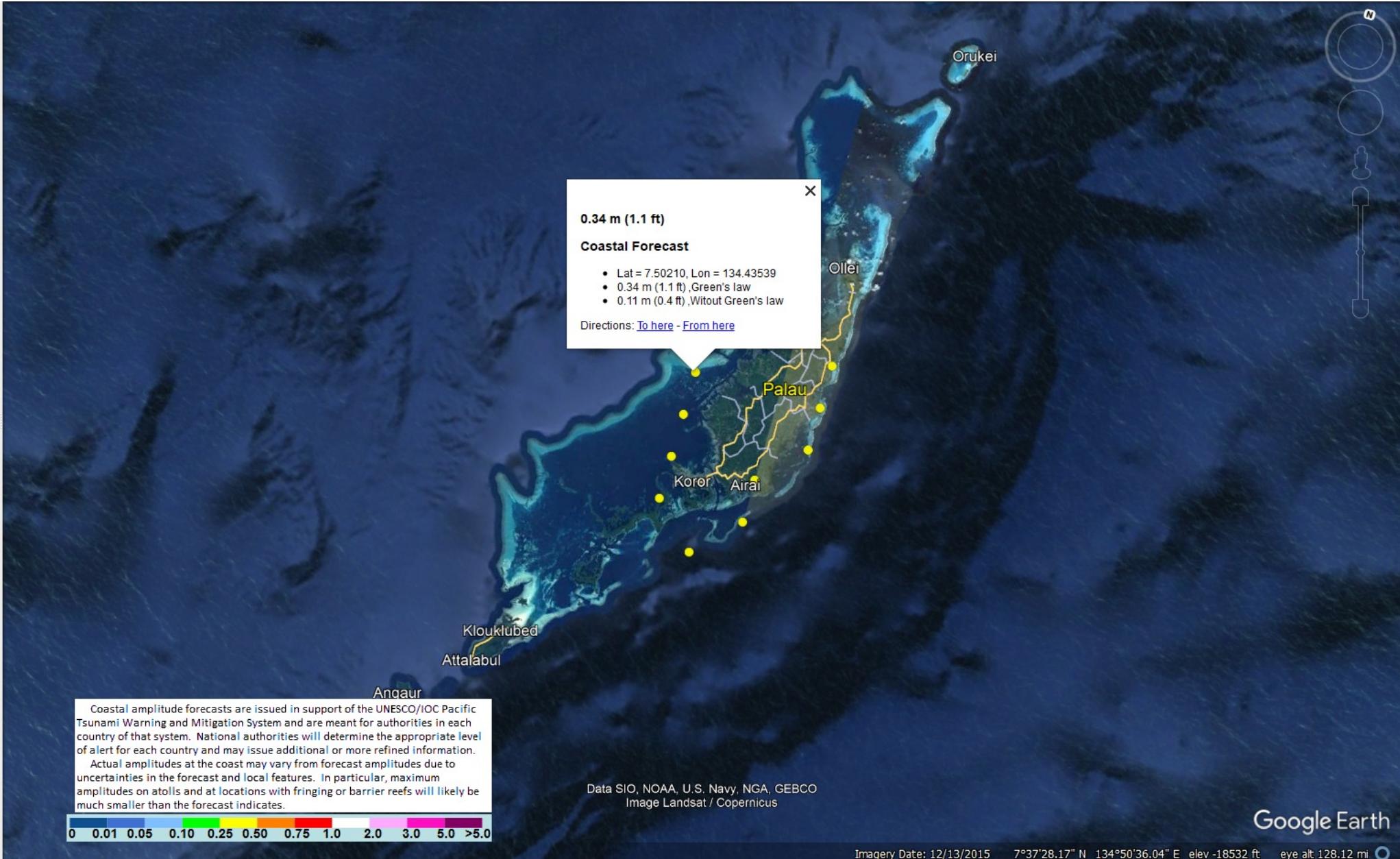
Determined
Earthquake
Mechanism:



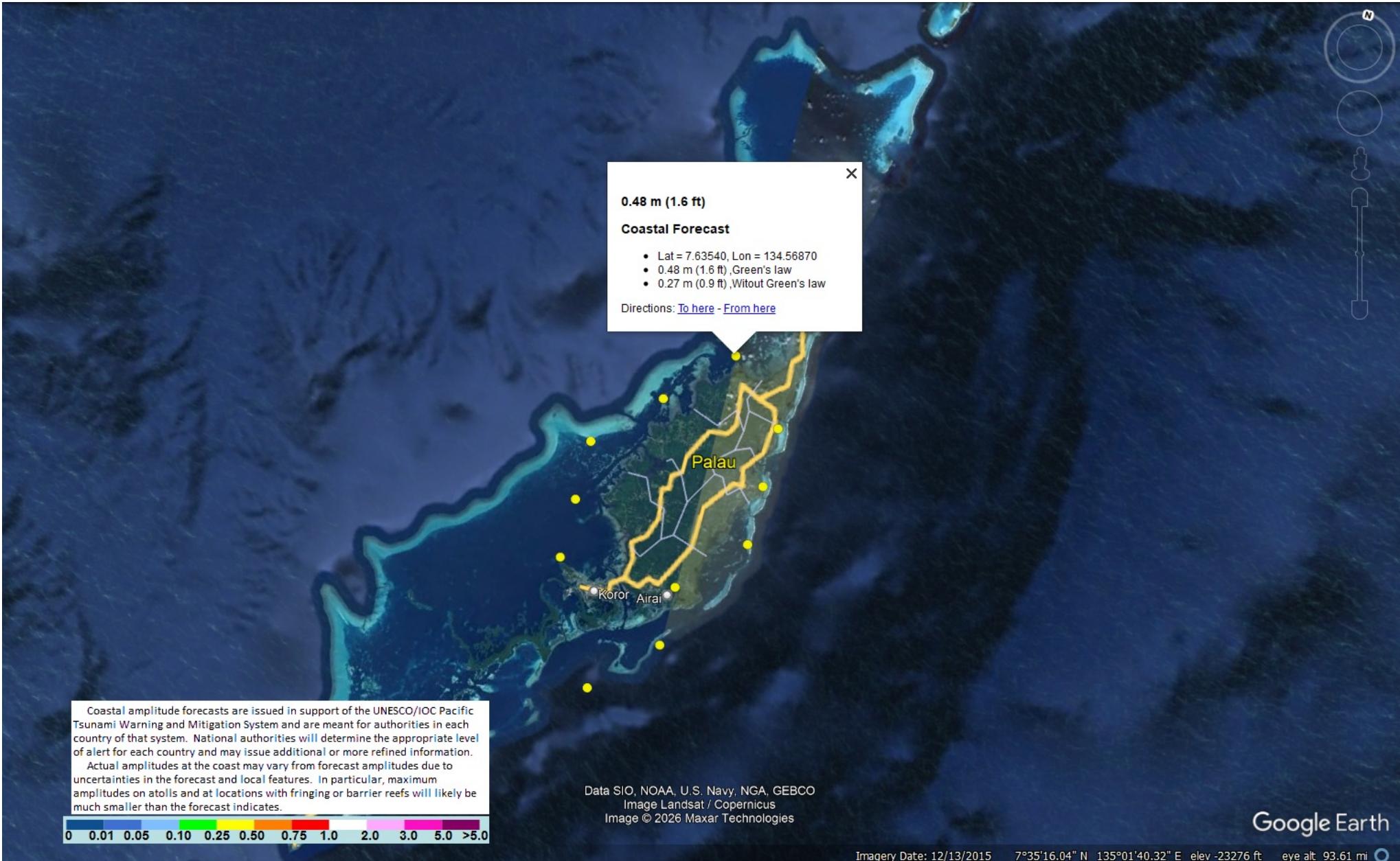
Maximum Forecast Tsunami Amplitudes



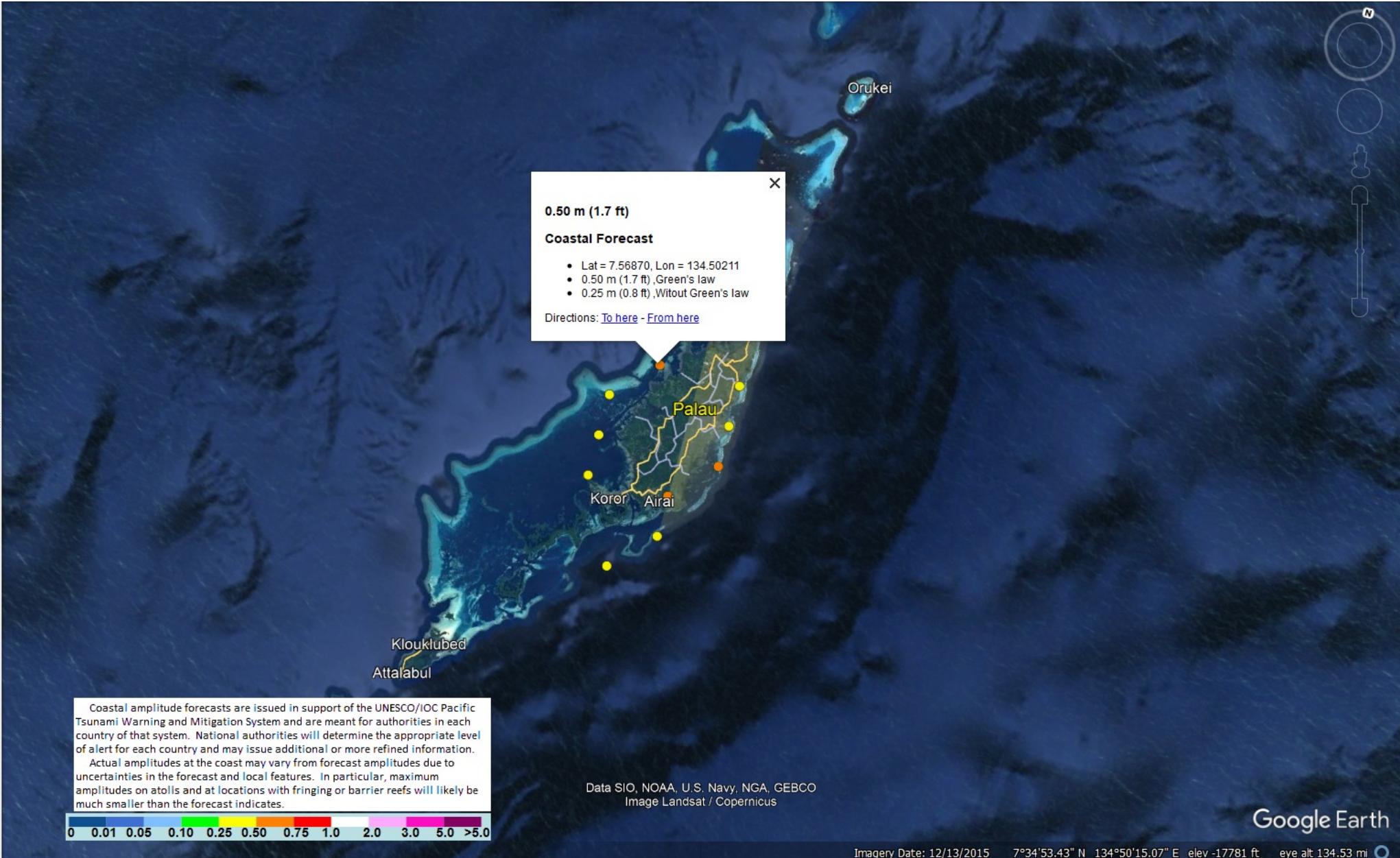
Message 2 KMZ File in Google Earth Zoomed in to Palau



Message 3 KMZ File in Google Earth Zoomed in to Palau



Message 5 KMZ File in Google Earth Zoomed in to Palau



Example for
a Philippines
Event
Showing
more
forecast
points
because of a
finer
gridsize.

