

ZCZC  
WEPA40 PHEB 010008  
TSUPAC

TSUNAMI MESSAGE NUMBER 1  
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI  
0008 UCT WED OCT 1 2014

...TSUNAMI THREAT MESSAGE...

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

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.

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

#### PRELIMINARY EARTHQUAKE PARAMETERS

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* MAGNITUDE	8.6
* ORIGIN TIME	0000 UTC OCT 1 2014
* COORDINATES	11.7 NORTH 87.4 WEST
* DEPTH	20 KM / 12 MILES
* LOCATION	OFF THE COAST OF CENTRAL AMERICA

#### EVALUATION

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- \* AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 8.6 OCCURRED  
OFF THE COAST OF CENTRAL AMERICA AT 0000 UTC ON WEDNESDAY  
OCTOBER 1 2014.
- \* BASED ON THE PRELIMINARY EARTHQUAKE PARAMETERS... HAZARDOUS  
TSUNAMI WAVES ARE POSSIBLE FOR SOME COASTS.

#### TSUNAMI THREAT FORECAST

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- \* HAZARDOUS TSUNAMI WAVES ARE POSSIBLE WITHIN THE NEXT THREE

## HOURS ALONG SOME COASTS OF

EL SALVADOR... GUATEMALA... HONDURAS... COSTA RICA...  
NICARAGUA... PANAMA... MEXICO... COLOMBIA... AND ECUADOR.

- \* OTHER AREAS NOT MENTIONED ABOVE SHOULD REMAIN ALERT IN CASE THE TSUNAMI THREAT IS EXTENDED TO THEIR COAST.
- \* A MORE QUANTITATIVE TSUNAMI FORECAST IS NOT YET AVAILABLE DUE TO INSUFFICIENT INFORMATION ABOUT THE EARTHQUAKE AND TSUNAMI. THE SITUATION IS STILL BEING ANALYZED AND A MORE QUANTITATIVE FORECAST WILL BE PROVIDED AS SOON AS POSSIBLE.

## RECOMMENDED ACTIONS

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- \* GOVERNMENT AGENCIES RESPONSIBLE FOR THREATENED COASTAL AREAS SHOULD TAKE ACTION TO INFORM AND INSTRUCT ANY COASTAL POPULATIONS AT RISK IN ACCORDANCE WITH THEIR OWN EVALUATION... PROCEDURES AND THE LEVEL OF THREAT.
- \* PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND LOCAL AUTHORITIES.

## ESTIMATED TIMES OF ARRIVAL

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- \* ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE OVER THE NEXT SIX HOURS. OBSERVED ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST.

LOCATION	REGION	COORDINATES	ETA(UTC)
CABO SAN ELENA	COSTA RICA	10.9N 86.0W	0035 10/01
PUERTO SANDINO	NICARAGUA	12.2N 86.8W	0042 10/01
CORINTO	NICARAGUA	12.5N 87.2W	0044 10/01
SAN JUAN DL SUR	NICARAGUA	11.2N 85.9W	0100 10/01
PUERTO QUEPOS	COSTA RICA	9.4N 84.2W	0102 10/01
CABO MATAPALO	COSTA RICA	8.4N 83.3W	0104 10/01
COCOS ISLAND	COSTA RICA	5.5N 87.1W	0106 10/01
ACAJUTLA	EL SALVADOR	13.6N 89.8W	0108 10/01
PUNTA BURICA	PANAMA	8.0N 82.9W	0115 10/01
SIPIRATE	GUATEMALA	13.9N 91.2W	0124 10/01
PUERTO MADERO	MEXICO	14.8N 92.5W	0132 10/01
AMAPALA	HONDURAS	13.2N 87.6W	0134 10/01
SALINA CRUZ	MEXICO	16.5N 95.2W	0156 10/01
ACAPULCO	MEXICO	16.9N 99.9W	0157 10/01

PUNTA MALA	PANAMA	7.5N	80.0W	0201	10/01
PUERTO PINA	PANAMA	7.4N	78.0W	0211	10/01
BAHIA SOLANO	COLOMBIA	6.3N	77.4W	0214	10/01
LAZARO CARDENAS	MEXICO	17.9N	102.2W	0224	10/01
ESMERELDAS	ECUADOR	1.2N	79.8W	0229	10/01
TUMACO	COLOMBIA	1.8N	78.9W	0238	10/01
MANZANILLO	MEXICO	19.1N	104.3W	0247	10/01
BALTRA ISLAND	ECUADOR	0.5S	90.3W	0249	10/01
LA LIBERTAD	ECUADOR	2.2S	81.2W	0251	10/01
BUENAVENTURA	COLOMBIA	3.8N	77.2W	0257	10/01
PUERTO VALLARTA	MEXICO	20.6N	105.3W	0310	10/01
TALARA	PERU	4.6S	81.5W	0313	10/01
CABO SAN LUCAS	MEXICO	22.8N	110.0W	0340	10/01
MAZATLAN	MEXICO	23.2N	106.4W	0341	10/01
SAN BLAS	MEXICO	21.5N	105.3W	0344	10/01
BALBOA HEIGHTS	PANAMA	9.0N	79.6W	0421	10/01
PIMENTAL	PERU	6.9S	80.0W	0434	10/01
GUAYMAS	MEXICO	27.9N	110.9W	0442	10/01
LA PUNTA	PERU	12.1S	77.2W	0445	10/01
CHIMBOTE	PERU	9.0S	78.8W	0447	10/01
PUNTA ABREOJOS	MEXICO	26.7N	113.6W	0454	10/01
SAN JUAN	PERU	15.3S	75.2W	0500	10/01
MOLLENDON	PERU	17.1S	72.0W	0532	10/01
ENSENADA	MEXICO	31.8N	116.8W	0546	10/01
ARICA	CHILE	18.5S	70.3W	0551	10/01
IQUIQUE	CHILE	20.2S	70.1W	0556	10/01
ANTOFAGASTA	CHILE	23.3S	70.4W	0605	10/01

#### POTENTIAL IMPACTS

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- \* A TSUNAMI IS A SERIES OF WAVES. THE TIME BETWEEN WAVE CRESTS CAN VARY FROM 5 MINUTES TO AN HOUR. THE HAZARD MAY PERSIST FOR MANY HOURS OR LONGER AFTER THE INITIAL WAVE.
- \* IMPACTS CAN VARY SIGNIFICANTLY FROM ONE SECTION OF COAST TO THE NEXT DUE TO LOCAL BATHYMETRY AND THE SHAPE AND ELEVATION OF THE SHORELINE.
- \* IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.
- \* PERSONS CAUGHT IN THE WATER OF A TSUNAMI MAY DROWN... BE CRUSHED BY DEBRIS IN THE WATER... OR BE SWEEPED OUT TO SEA.

#### NEXT UPDATE AND ADDITIONAL INFORMATION

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- \* THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.
- \* AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT EARTHQUAKE.USGS.GOV/EARTHQUAKES -ALL IN SMALL LETTERS-.
- \* FURTHER INFORMATION ABOUT THIS EVENT MAY BE FOUND AT PTWC.WEATHER.GOV AND AT WWW.TSUNAMI.GOV.
- \* COASTAL REGIONS OF HAWAII... AMERICAN SAMOA... GUAM... AND CNMI SHOULD REFER TO PACIFIC TSUNAMI WARNING CENTER MESSAGES FOR THOSE PLACES THAT CAN BE FOUND AT PTWC.WEATHER.GOV.
- \* COASTAL REGIONS OF CALIFORNIA... OREGON... WASHINGTON... BRITISH COLUMBIA AND ALASKA SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER MESSAGES THAT CAN BE FOUND AT NTCW.ARH.NOAA.GOV.

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# PTWC Coastal Tsunami Amplitude Forecast Polygons

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 will likely be much smaller than the forecast indicates.

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## Earthquake:

01 Oct 2014

00:00:00 Z

Lat: 11.70°N

Lon: 87.40°W

Depth: 20 km

$M_w$ : 9.00

Determined  
Earthquake  
Mechanism:



## Maximum Amplitude (m)

> 3 m

1 - 3 m

0.3 - 1 m

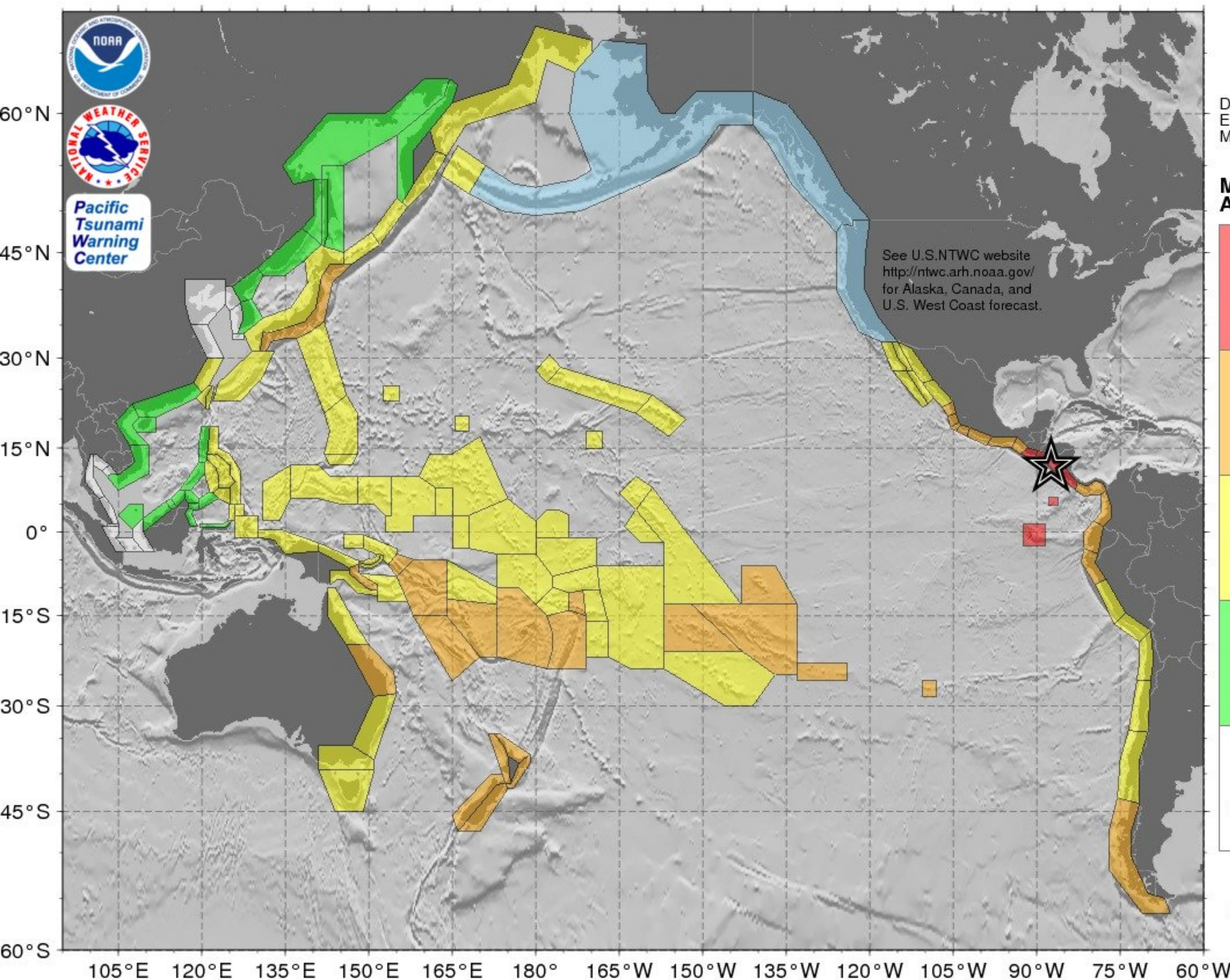
< 0.3 m

*Threat  
Not  
Computed*

model run at:

27 Aug 2014

13:23:15 Z

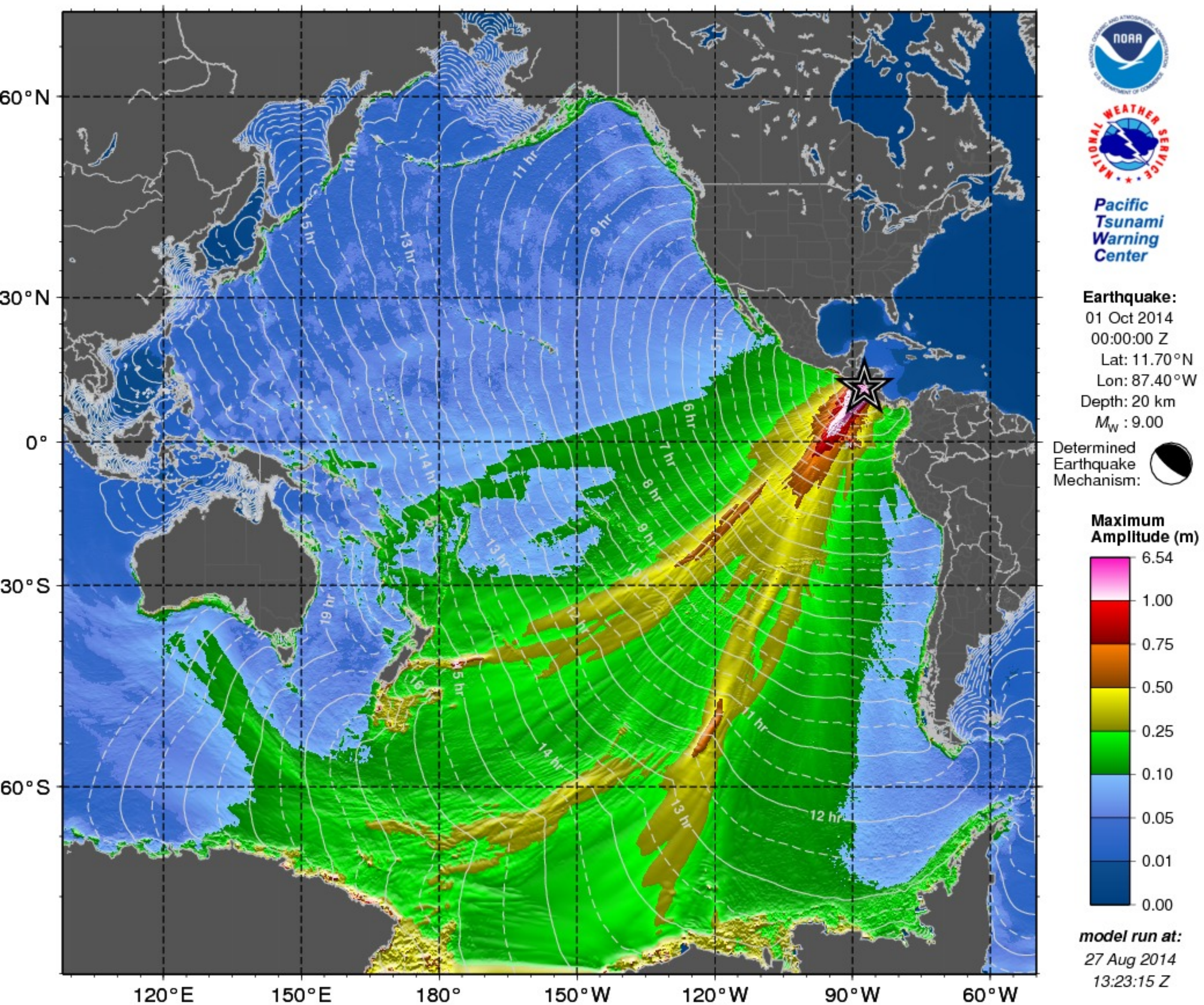




# PTWC Deep-Ocean Tsunami Amplitude Forecast

This map should not be used to estimate coastal tsunami amplitudes or impacts. Deep-ocean amplitudes are usually much smaller than coastal amplitudes.

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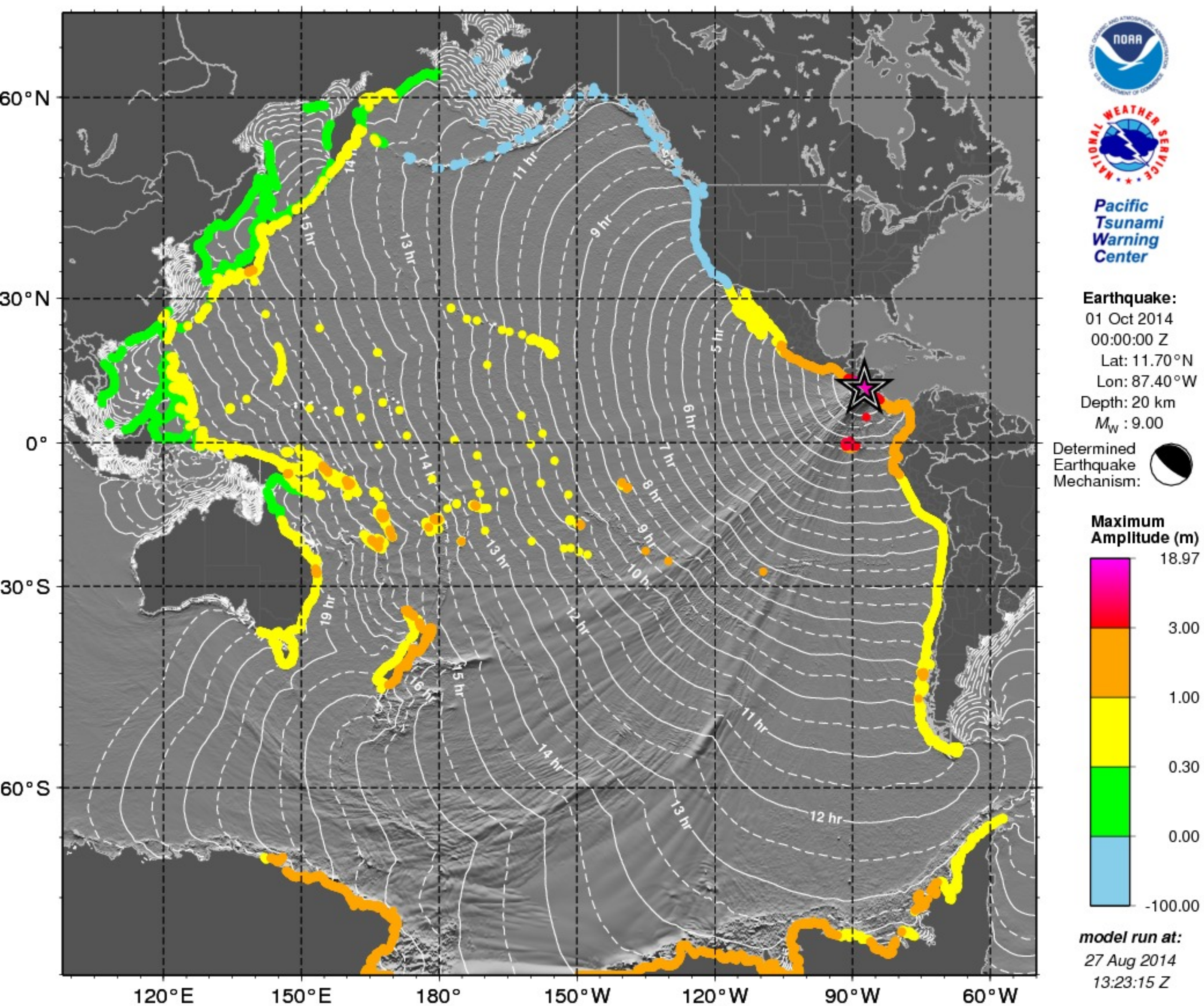




# PTWC Coastal Tsunami Amplitude Forecast

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 will likely be much smaller than the forecast indicates.

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ZCZC  
WEPA40 PHEB 010040  
TSUPAC

TSUNAMI MESSAGE NUMBER 2  
NWS PACIFIC TSUNAMI WARNING CENTER EWA BEACH HI  
0040 UCT WED OCT 1 2014

...TSUNAMI THREAT MESSAGE...

\*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\* NOTICE \*\*\*\*

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ALERT FOR EACH COUNTRY AND MAY ISSUE ADDITIONAL OR MORE REFINED  
INFORMATION.

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#### PRELIMINARY EARTHQUAKE PARAMETERS

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* MAGNITUDE	9.0
* ORIGIN TIME	0000 UTC OCT 1 2014
* COORDINATES	11.7 NORTH 87.4 WEST
* DEPTH	20 KM / 12 MILES
* LOCATION	OFF THE COAST OF CENTRAL AMERICA

#### EVALUATION

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- \* AN EARTHQUAKE WITH A PRELIMINARY MAGNITUDE OF 9.0 OCCURRED  
OFF THE COAST OF CENTRAL AMERICA AT 0000 UTC ON WEDNESDAY  
OCTOBER 1 2014.
- \* BASED ON THE PRELIMINARY EARTHQUAKE PARAMETERS... HAZARDOUS  
TSUNAMI WAVES ARE FORECAST FOR SOME COASTS.

#### TSUNAMI THREAT FORECAST...UPDATED

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- \* TSUNAMI WAVES REACHING MORE THAN 3 METERS ABOVE THE TIDE



LEVEL ARE POSSIBLE ALONG SOME COASTS OF

EL SALVADOR... GUATEMALA... HONDURAS... COSTA RICA...  
NICARAGUA... AND ECUADOR.

- \* TSUNAMI WAVES REACHING 1 TO 3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE ALONG SOME COASTS OF

MEXICO... PANAMA... COLOMBIA... PERU... CHILE...  
ANTARCTICA... AUSTRALIA... JAPAN... NEW CALEDONIA... NEW  
ZEALAND... FIJI... SAMOA... VANUATU... FRENCH POLYNESIA...  
TONGA... PITCAIRN ISLANDS... SOLOMON ISLANDS... AND PAPUA NEW  
GUINEA.

- \* TSUNAMI WAVES REACHING 0.3 TO 1 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF

PHILIPPINES... TAIWAN... CHINA... NORTHERN MARIANAS...  
GUAM... PALAU... YAP... POHNPEI... CHUUK... KOSRAE... MARSHALL  
ISLANDS... AMERICAN SAMOA... COOK ISLANDS... TOKELAU...  
KIRIBATI... NAURU... WAKE ISLAND... MIDWAY ISLAND... JOHNSTON  
ATOLL... JARVIS ISLAND... PALMYRA ISLAND... HOWLAND AND BAKER...  
TUVALU... WALLIS AND FUTUNA... NIUE... INDONESIA... RUSSIA...  
HAWAII... AND NORTHWESTERN HAWAIIAN ISLANDS.

- \* TSUNAMI WAVES LESS THAN 0.3 METERS ABOVE THE TIDE LEVEL ARE POSSIBLE FOR SOME COASTS OF

REPUBLIC OF KOREA... DPR OF KOREA... VIETNAM... MALAYSIA...  
AND BRUNEI.

- \* 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 WILL LIKELY BE MUCH SMALLER THAN THE FORECAST INDICATES.
- \* FOR OTHER AREAS COVERED BY THIS PRODUCT A FORECAST HAS NOT YET BEEN COMPUTED. THE FORECAST WILL BE EXPANDED AS NECESSARY IN SUBSEQUENT PRODUCTS.

#### RECOMMENDED ACTIONS

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- \* GOVERNMENT AGENCIES RESPONSIBLE FOR THREATENED COASTAL AREAS SHOULD TAKE ACTION TO INFORM AND INSTRUCT ANY COASTAL



GUAYMAS	MEXICO	27.9N	110.9W	0442	10/01
LA PUNTA	PERU	12.1S	77.2W	0445	10/01
CHIMBOTE	PERU	9.0S	78.8W	0447	10/01
PUNTA ABREOJOS	MEXICO	26.7N	113.6W	0454	10/01
SAN JUAN	PERU	15.3S	75.2W	0500	10/01
MOLLENDO	PERU	17.1S	72.0W	0532	10/01
ENSENADA	MEXICO	31.8N	116.8W	0546	10/01
ARICA	CHILE	18.5S	70.3W	0551	10/01
IQUIQUE	CHILE	20.2S	70.1W	0556	10/01
ANTOFAGASTA	CHILE	23.3S	70.4W	0605	10/01
CALDERA	CHILE	27.1S	70.8W	0635	10/01
COQUIMBO	CHILE	29.9S	71.4W	0659	10/01
SAN FELIPE	MEXICO	31.0N	114.8W	0714	10/01
EASTER ISLAND	CHILE	27.1S	109.4W	0716	10/01
VALPARAISO	CHILE	33.0S	71.6W	0723	10/01
TALCAHUANO	CHILE	36.7S	73.1W	0808	10/01
CORRAL	CHILE	39.8S	73.5W	0839	10/01
HIVA OA	FRENCH POLYNESIA	10.0S	139.0W	0844	10/01
PITCAIRN ISLAND	PITCAIRN	25.1S	130.1W	0907	10/01
RIKITEA	FRENCH POLYNESIA	23.1S	135.0W	0924	10/01
GOLFO DE PENAS	CHILE	47.1S	74.9W	0951	10/01
FLINT ISLAND	KIRIBATI	11.4S	151.8W	1022	10/01
CHRISTMAS ISLAND	KIRIBATI	2.0N	157.5W	1028	10/01
MALDEN ISLAND	KIRIBATI	3.9S	154.9W	1031	10/01
PAPEETE	FRENCH POLYNESIA	17.5S	149.6W	1046	10/01
JARVIS ISLAND	JARVIS ISLAND	0.4S	160.1W	1055	10/01
PALMYRA ISLAND	PALMYRA ISLAND	5.9N	162.1W	1100	10/01
PENRYN ISLAND	COOK ISLANDS	8.9S	157.8W	1101	10/01
JOHNSTON ISLAND	JOHNSTON ISLAND	16.7N	169.5W	1128	10/01
PUERTO MONTT	CHILE	41.5S	73.0W	1134	10/01
RAROTONGA	COOK ISLANDS	21.2S	159.8W	1206	10/01
MIDWAY ISLAND	MIDWAY ISLAND	28.2N	177.4W	1213	10/01
PUKAPUKA ISLAND	COOK ISLANDS	10.8S	165.9W	1215	10/01
KANTON ISLAND	KIRIBATI	2.8S	171.7W	1231	10/01
NUKUNONU ISLAND	TOKELAU	9.2S	171.8W	1257	10/01
HOWLAND ISLAND	HOWLAND AND BAKE	0.6N	176.6W	1300	10/01
NIUE ISLAND	NIUE	19.0S	170.0W	1300	10/01
PAGO PAGO	AMERICAN SAMOA	14.3S	170.7W	1301	10/01
APIA	SAMOA	13.8S	171.8W	1310	10/01
THURSTON ISLAND	ANTARCTICA	72.0S	100.0W	1340	10/01
WALLIS ISLAND	WALLIS AND FUTUN	13.3S	176.3W	1347	10/01
MEDNNY ISLAND	RUSSIA	54.7N	167.4E	1348	10/01
UST KAMCHATSK	RUSSIA	56.1N	162.6E	1354	10/01
FUNAFUTI ISLAND	TUVALU	7.9S	178.5E	1356	10/01
NUKUALOFA	TONGA	21.0S	175.2W	1356	10/01
FUTUNA ISLAND	WALLIS AND FUTUN	14.3S	178.2W	1410	10/01
MAJURO	MARSHALL ISLANDS	7.1N	171.4E	1414	10/01
OSTROV KARAGINS	RUSSIA	58.8N	164.5E	1417	10/01
PETROPAVLOVSK	RUSSIA	53.2N	159.6E	1425	10/01
WAKE ISLAND	WAKE ISLAND	19.3N	166.6E	1428	10/01



POPULATIONS AT RISK IN ACCORDANCE WITH THEIR OWN EVALUATION...  
PROCEDURES AND THE LEVEL OF THREAT.

- \* PERSONS LOCATED IN THREATENED COASTAL AREAS SHOULD STAY ALERT FOR INFORMATION AND FOLLOW INSTRUCTIONS FROM NATIONAL AND LOCAL AUTHORITIES.

#### ESTIMATED TIMES OF ARRIVAL

- \* ESTIMATED TIMES OF ARRIVAL -ETA- OF THE INITIAL TSUNAMI WAVE FOR POINTS WITHIN THREATENED REGIONS ARE GIVEN BELOW. ACTUAL ARRIVAL TIMES MAY DIFFER AND THE INITIAL WAVE MAY NOT BE THE LARGEST. A TSUNAMI IS A SERIES OF WAVES AND THE TIME BETWEEN WAVES CAN BE FIVE MINUTES TO ONE HOUR.

LOCATION	REGION	COORDINATES		ETA(UTC)
CABO SAN ELENA	COSTA RICA	10.9N	86.0W	0035 10/01
PUERTO SANDINO	NICARAGUA	12.2N	86.8W	0042 10/01
CORINTO	NICARAGUA	12.5N	87.2W	0044 10/01
SAN JUAN DL SUR	NICARAGUA	11.2N	85.9W	0100 10/01
PUERTO QUEPOS	COSTA RICA	9.4N	84.2W	0102 10/01
CABO MATAPALO	COSTA RICA	8.4N	83.3W	0104 10/01
COCOS ISLAND	COSTA RICA	5.5N	87.1W	0106 10/01
ACAJUTLA	EL SALVADOR	13.6N	89.8W	0108 10/01
PUNTA BURICA	PANAMA	8.0N	82.9W	0115 10/01
SIPIRATE	GUATEMALA	13.9N	91.2W	0124 10/01
PUERTO MADERO	MEXICO	14.8N	92.5W	0132 10/01
AMAPALA	HONDURAS	13.2N	87.6W	0134 10/01
SALINA CRUZ	MEXICO	16.5N	95.2W	0156 10/01
ACAPULCO	MEXICO	16.9N	99.9W	0157 10/01
PUNTA MALA	PANAMA	7.5N	80.0W	0201 10/01
PUERTO PINA	PANAMA	7.4N	78.0W	0211 10/01
BAHIA SOLANO	COLOMBIA	6.3N	77.4W	0214 10/01
LAZARO CARDENAS	MEXICO	17.9N	102.2W	0224 10/01
ESMERELDAS	ECUADOR	1.2N	79.8W	0229 10/01
TUMACO	COLOMBIA	1.8N	78.9W	0238 10/01
MANZANILLO	MEXICO	19.1N	104.3W	0247 10/01
BALTRA ISLAND	ECUADOR	0.5S	90.3W	0249 10/01
LA LIBERTAD	ECUADOR	2.2S	81.2W	0251 10/01
BUENAVENTURA	COLOMBIA	3.8N	77.2W	0257 10/01
PUERTO VALLARTA	MEXICO	20.6N	105.3W	0310 10/01
TALARA	PERU	4.6S	81.5W	0313 10/01
CABO SAN LUCAS	MEXICO	22.8N	110.0W	0340 10/01
MAZATLAN	MEXICO	23.2N	106.4W	0341 10/01
SAN BLAS	MEXICO	21.5N	105.3W	0344 10/01
BALBOA HEIGHTS	PANAMA	9.0N	79.6W	0421 10/01
PIMENTAL	PERU	6.9S	80.0W	0434 10/01



KWAJALEIN	MARSHALL ISLANDS	8.7N	167.7E	1436	10/01
TARAWA ISLAND	KIRIBATI	1.5N	173.0E	1437	10/01
NAURU	NAURU	0.5S	166.9E	1509	10/01
SUVA	FIJI	18.1S	178.4E	1511	10/01
KOSRAE ISLAND	KOSRAE	5.5N	163.0E	1518	10/01
ENIWETOK	MARSHALL ISLANDS	11.4N	162.3E	1526	10/01
SEVERO KURILSK	RUSSIA	50.8N	156.1E	1528	10/01
MINAMITORISHIMA	MINAMITORISHIMA	24.3N	154.0E	1530	10/01
KUSHIRO	JAPAN	42.9N	144.3E	1545	10/01
EAST CAPE	NEW ZEALAND	37.7S	178.5E	1553	10/01
GISBORNE	NEW ZEALAND	38.7S	178.0E	1558	10/01
SANTA CRUZ ISLA	SOLOMON ISLANDS	10.9S	165.9E	1559	10/01
NORTH CAPE	NEW ZEALAND	34.4S	173.3E	1604	10/01
ESPERITU SANTO	VANUATU	15.1S	167.3E	1605	10/01
POHNPEI ISLAND	POHNPEI	7.0N	158.2E	1609	10/01
WELLINGTON	NEW ZEALAND	41.3S	174.8E	1616	10/01
KIRAKIRA	SOLOMON ISLANDS	10.4S	161.9E	1619	10/01
ANATOM ISLAND	VANUATU	20.2S	169.9E	1625	10/01
HACHINOHE	JAPAN	40.5N	141.5E	1625	10/01
KATSUURA	JAPAN	35.1N	140.3E	1631	10/01
HACHIJO JIMA	JAPAN	33.1N	139.8E	1640	10/01
NAPIER	NEW ZEALAND	39.5S	176.9E	1644	10/01
CHICHI JIMA	JAPAN	27.0N	142.3E	1646	10/01
AUKI	SOLOMON ISLANDS	8.8S	160.6E	1647	10/01
GHATERE	SOLOMON ISLANDS	7.8S	159.2E	1651	10/01
CAPE ADARE	ANTARCTICA	71.0S	170.0E	1654	10/01
DUNEDIN	NEW ZEALAND	45.9S	170.5E	1702	10/01
SAIPAN	NORTHERN MARIANA	15.3N	145.8E	1703	10/01
AUCKLAND EAST	NEW ZEALAND	36.7S	175.0E	1704	10/01
PANGGOE	SOLOMON ISLANDS	6.9S	157.2E	1709	10/01
HONIARA	SOLOMON ISLANDS	9.3S	160.0E	1710	10/01
NOUMEA	NEW CALEDONIA	22.3S	166.5E	1717	10/01
MUNDA	SOLOMON ISLANDS	8.4S	157.2E	1721	10/01
GUAM	GUAM	13.4N	144.7E	1723	10/01
KIETA	PAPUA NEW GUINEA	6.1S	155.6E	1728	10/01
CHUUK ISLAND	CHUUK	7.4N	151.8E	1731	10/01
AUCKLAND WEST	NEW ZEALAND	37.1S	174.2E	1735	10/01
FALAMAE	SOLOMON ISLANDS	7.4S	155.6E	1741	10/01
SHIMIZU	JAPAN	32.8N	133.0E	1752	10/01
SAPPORO	JAPAN	43.5N	141.0E	1753	10/01
WOODLARK ISLAND	PAPUA NEW GUINEA	9.0S	152.9E	1754	10/01
AMUN	PAPUA NEW GUINEA	6.0S	154.7E	1754	10/01
KAVIENG	PAPUA NEW GUINEA	2.5S	150.7E	1756	10/01
NOBEOKA	JAPAN	32.5N	131.8E	1759	10/01
YAP ISLAND	YAP	9.5N	138.1E	1806	10/01
RABAU	PAPUA NEW GUINEA	4.2S	152.3E	1812	10/01
NIIGATA	JAPAN	38.0N	139.0E	1812	10/01
MANUS ISLAND	PAPUA NEW GUINEA	2.0S	147.5E	1814	10/01
NEW PLYMOUTH	NEW ZEALAND	39.1S	174.1E	1821	10/01
LYTTELTON	NEW ZEALAND	43.6S	172.7E	1826	10/01

ULAMONA	PAPUA NEW GUINEA	5.0S	151.3E	1839	10/01
LAE	PAPUA NEW GUINEA	6.8S	147.0E	1850	10/01
MALAKAL	PALAU	7.3N	134.5E	1853	10/01
MILFORD SOUND	NEW ZEALAND	44.6S	167.9E	1854	10/01
VANIMO	PAPUA NEW GUINEA	2.6S	141.3E	1856	10/01
OKINAWA	JAPAN	26.2N	127.8E	1858	10/01
JAYAPURA	INDONESIA	2.4S	140.8E	1900	10/01
WEWAK	PAPUA NEW GUINEA	3.5S	143.6E	1902	10/01
WESTPORT	NEW ZEALAND	41.8S	171.6E	1904	10/01
BLUFF	NEW ZEALAND	46.6S	168.3E	1907	10/01
MADANG	PAPUA NEW GUINEA	5.2S	145.8E	1911	10/01
SHIMANE	JAPAN	35.8N	133.0E	1911	10/01
PORT MORESBY	PAPUA NEW GUINEA	9.3S	146.9E	1915	10/01
HUALIEN	TAIWAN	24.0N	121.7E	1918	10/01
TAITUNG	TAIWAN	22.7N	121.2E	1922	10/01
WARSA	INDONESIA	0.6S	135.8E	1932	10/01
HOBART	AUSTRALIA	43.3S	147.6E	1934	10/01
PALANAN	PHILIPPINES	17.1N	122.6E	1936	10/01
SYDNEY	AUSTRALIA	33.9S	151.4E	1939	10/01
NELSON	NEW ZEALAND	41.3S	173.3E	1939	10/01
MANOKWARI	INDONESIA	0.8S	134.2E	1940	10/01
NAGASAKI	JAPAN	32.7N	129.7E	1941	10/01
BEREBERE	INDONESIA	2.5N	128.7E	1945	10/01
CHILUNG	TAIWAN	25.2N	121.8E	1951	10/01
BRISBANE	AUSTRALIA	27.2S	153.3E	1952	10/01
GEME	INDONESIA	4.6N	126.8E	1953	10/01
SORONG	INDONESIA	0.8S	131.1E	1957	10/01
LEGASPI	PHILIPPINES	13.2N	123.8E	1958	10/01
DAVAO	PHILIPPINES	6.8N	125.7E	2002	10/01
PATANI	INDONESIA	0.4N	128.8E	2007	10/01
CAIRNS	AUSTRALIA	16.7S	145.8E	2008	10/01
TABUKAN TENGAH	INDONESIA	3.6N	125.6E	2021	10/01
GLADSTONE	AUSTRALIA	23.8S	151.4E	2109	10/01
MACKAY	AUSTRALIA	21.1S	149.3E	2228	10/01
WENZHOU	CHINA	27.8N	121.2E	2233	10/01

## POTENTIAL IMPACTS

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- \* A TSUNAMI IS A SERIES OF WAVES. THE TIME BETWEEN WAVE CRESTS CAN VARY FROM 5 MINUTES TO AN HOUR. THE HAZARD MAY PERSIST FOR MANY HOURS OR LONGER AFTER THE INITIAL WAVE.
- \* IMPACTS CAN VARY SIGNIFICANTLY FROM ONE SECTION OF COAST TO THE NEXT DUE TO LOCAL BATHYMETRY AND THE SHAPE AND ELEVATION OF THE SHORELINE.
- \* IMPACTS CAN ALSO VARY DEPENDING UPON THE STATE OF THE TIDE AT THE TIME OF THE MAXIMUM TSUNAMI WAVES.



- \* PERSONS CAUGHT IN THE WATER OF A TSUNAMI MAY DROWN... BE CRUSHED BY DEBRIS IN THE WATER... OR BE SWEEPED OUT TO SEA.

#### NEXT UPDATE AND ADDITIONAL INFORMATION

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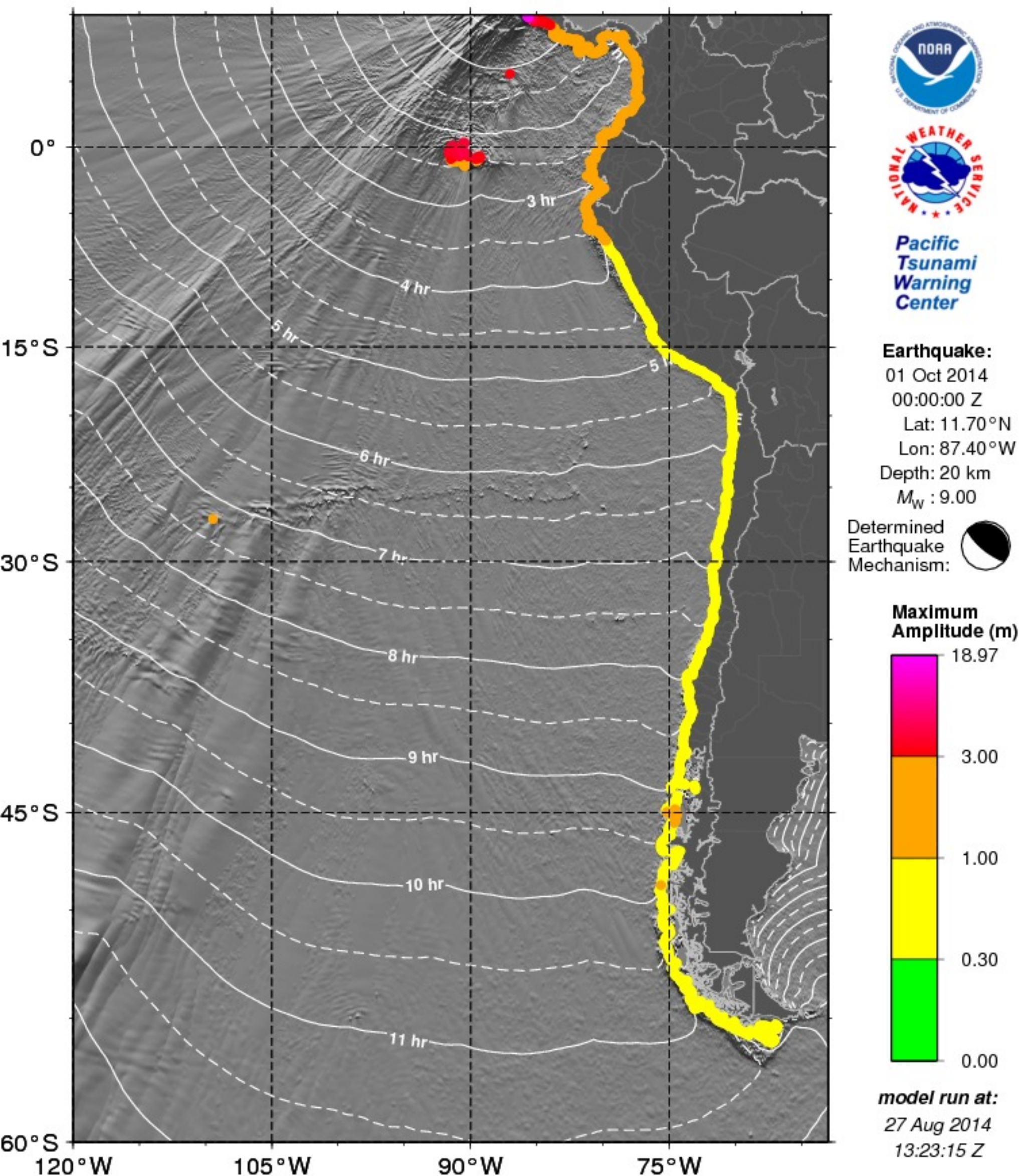
- \* THE NEXT MESSAGE WILL BE ISSUED IN ONE HOUR... OR SOONER IF THE SITUATION WARRANTS.
- \* AUTHORITATIVE INFORMATION ABOUT THE EARTHQUAKE FROM THE U.S. GEOLOGICAL SURVEY CAN BE FOUND ON THE INTERNET AT [EARTHQUAKE.USGS.GOV/EARTHQUAKES](http://EARTHQUAKE.USGS.GOV/EARTHQUAKES) -ALL IN SMALL LETTERS-.
- \* FURTHER INFORMATION ABOUT THIS EVENT MAY BE FOUND AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV) AND AT [WWW.TSUNAMI.GOV](http://WWW.TSUNAMI.GOV).
- \* COASTAL REGIONS OF HAWAII... AMERICAN SAMOA... GUAM... AND CNMI SHOULD REFER TO PACIFIC TSUNAMI WARNING CENTER MESSAGES FOR THOSE PLACES THAT CAN BE FOUND AT [PTWC.WEATHER.GOV](http://PTWC.WEATHER.GOV).
- \* COASTAL REGIONS OF CALIFORNIA... OREGON... WASHINGTON... BRITISH COLUMBIA AND ALASKA SHOULD REFER TO U.S. NATIONAL TSUNAMI WARNING CENTER MESSAGES THAT CAN BE FOUND AT [NTWC.ARH.NOAA.GOV](http://NTWC.ARH.NOAA.GOV).

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# 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 will likely be much smaller than the forecast indicates.

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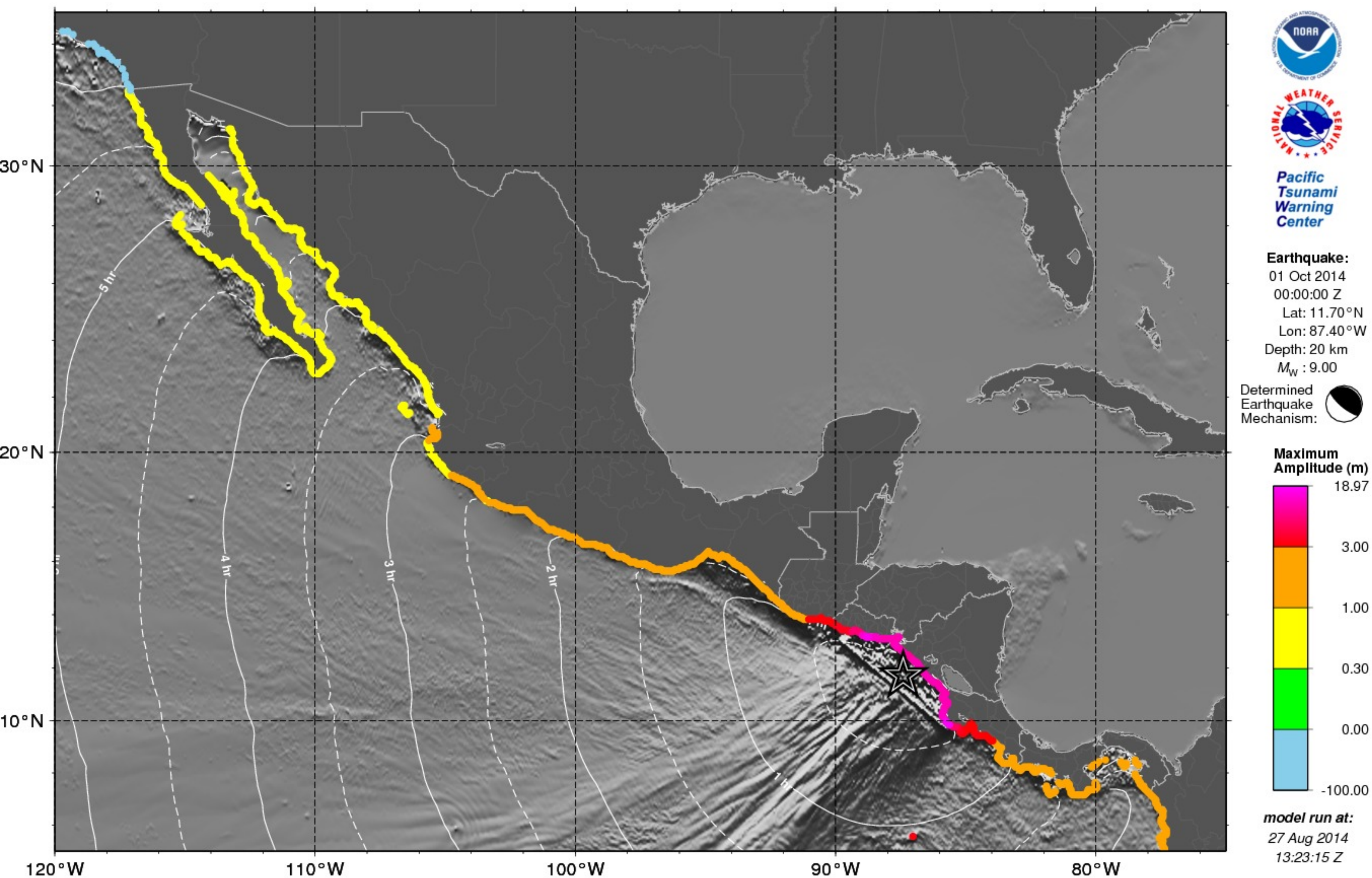




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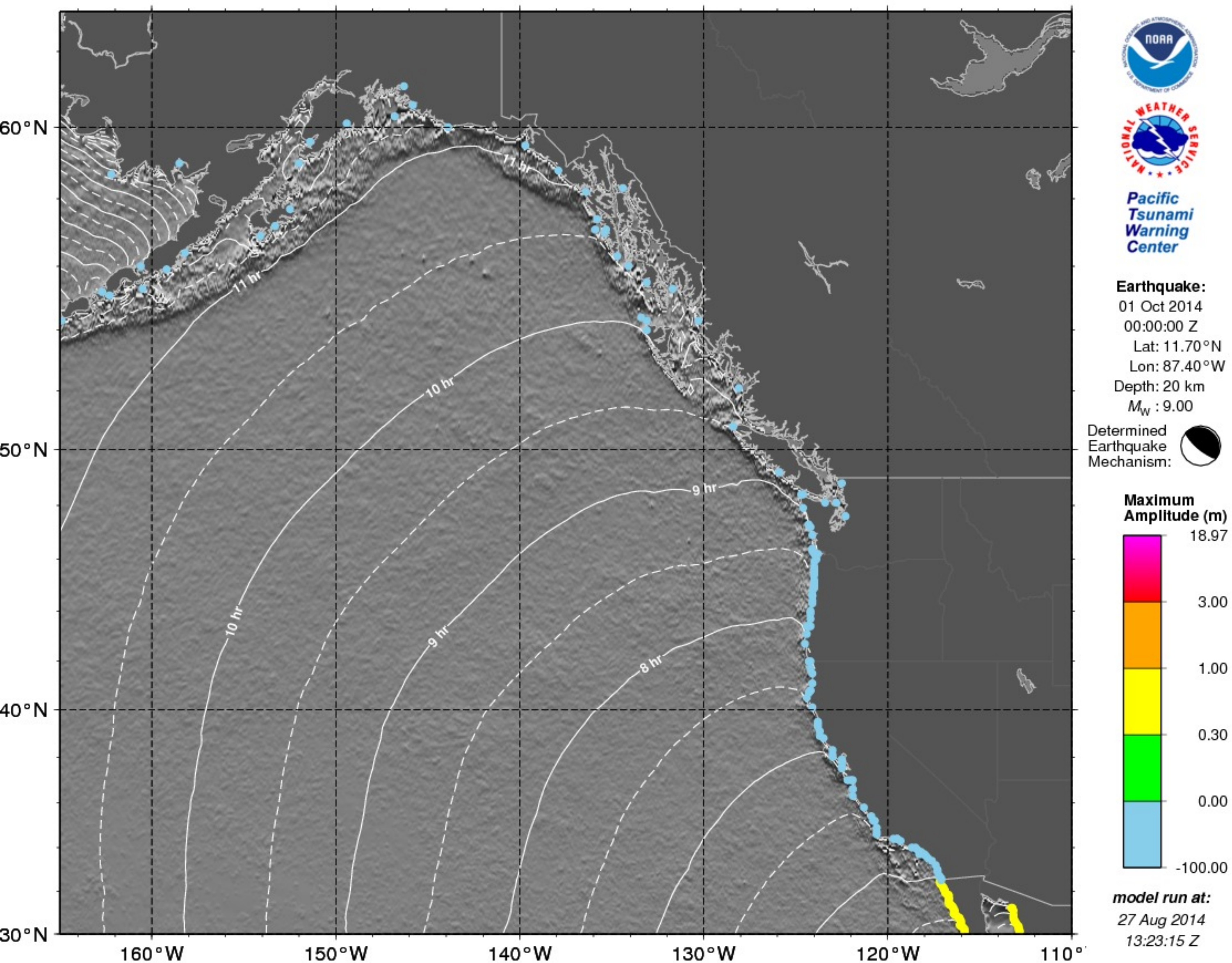




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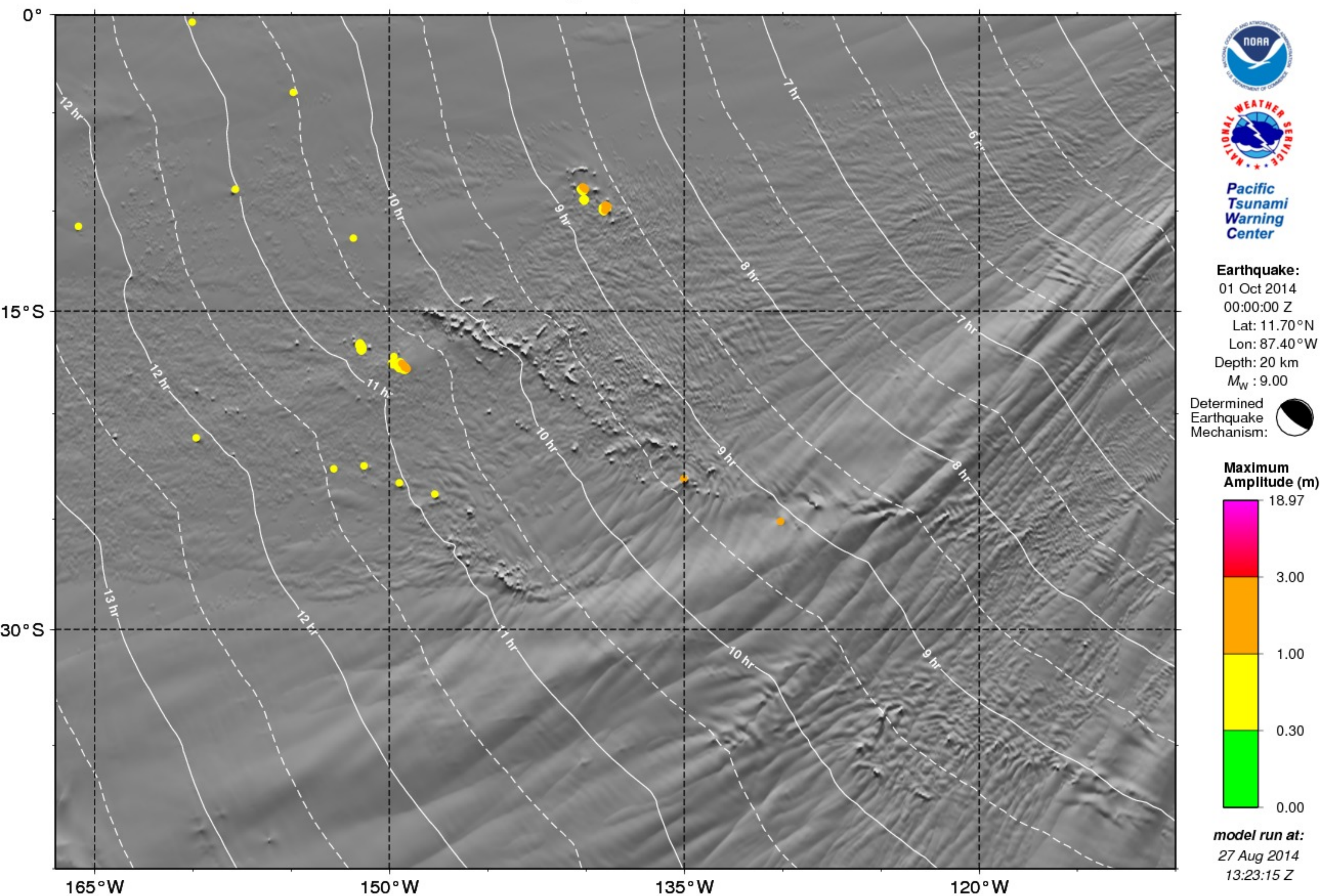




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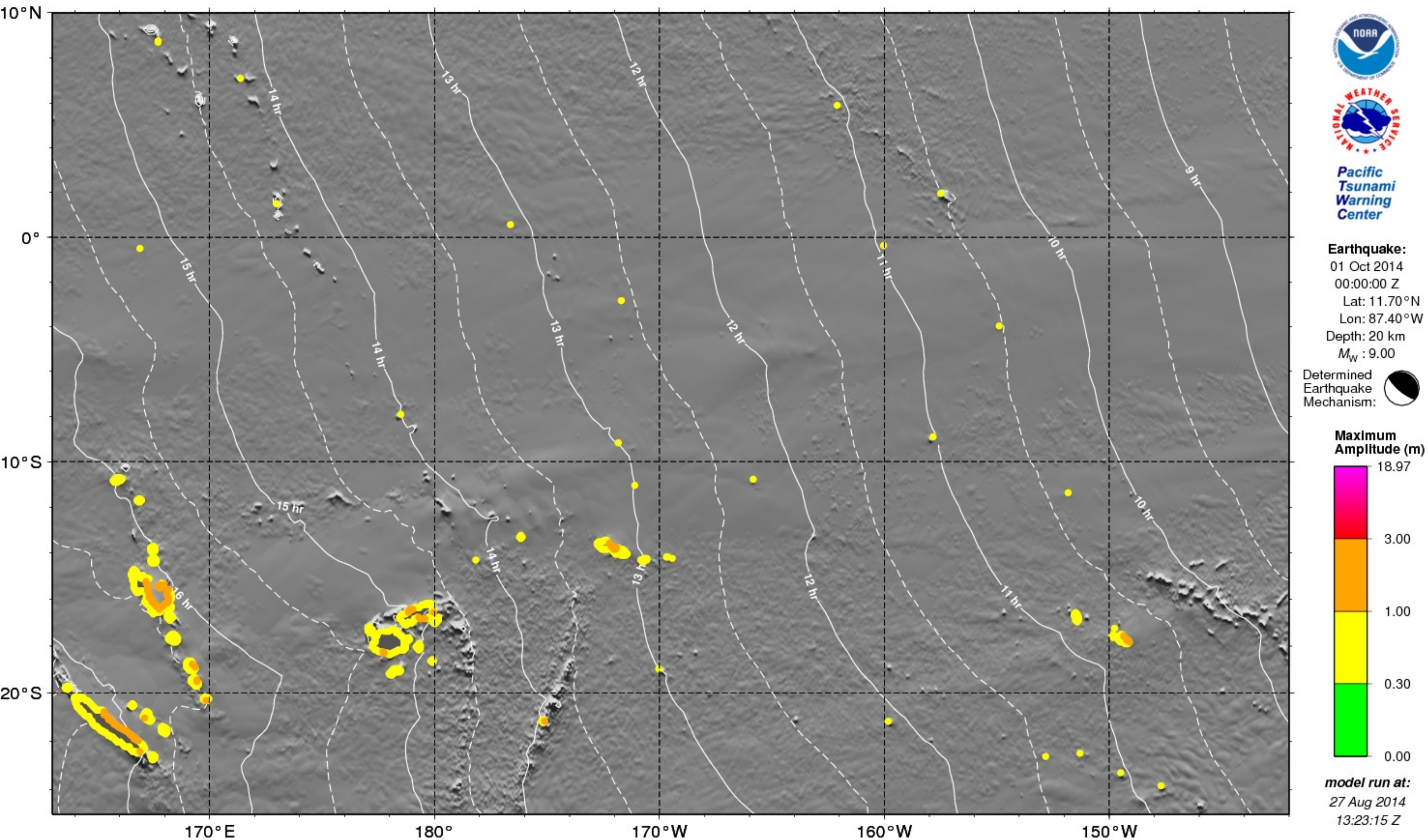




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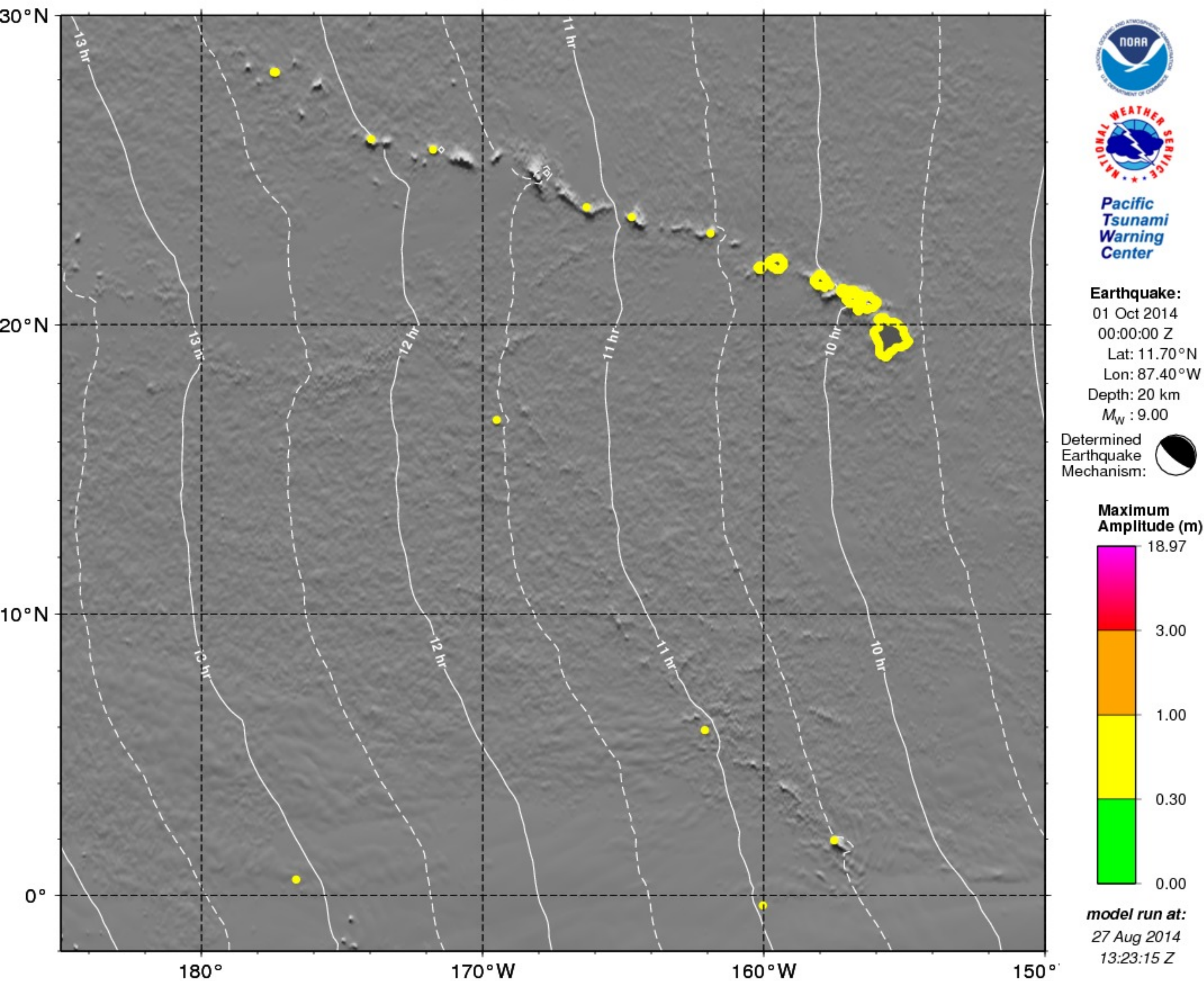




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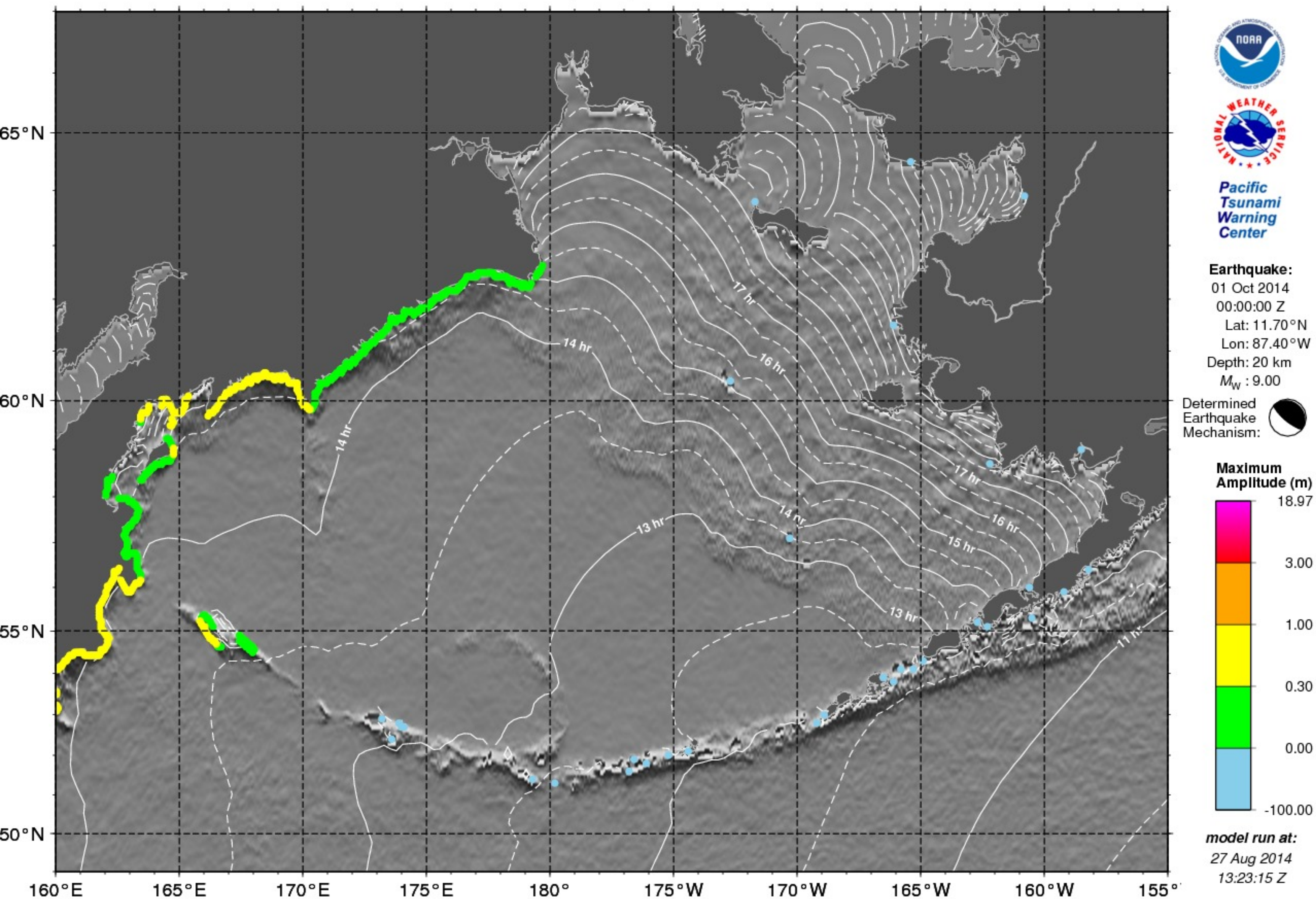




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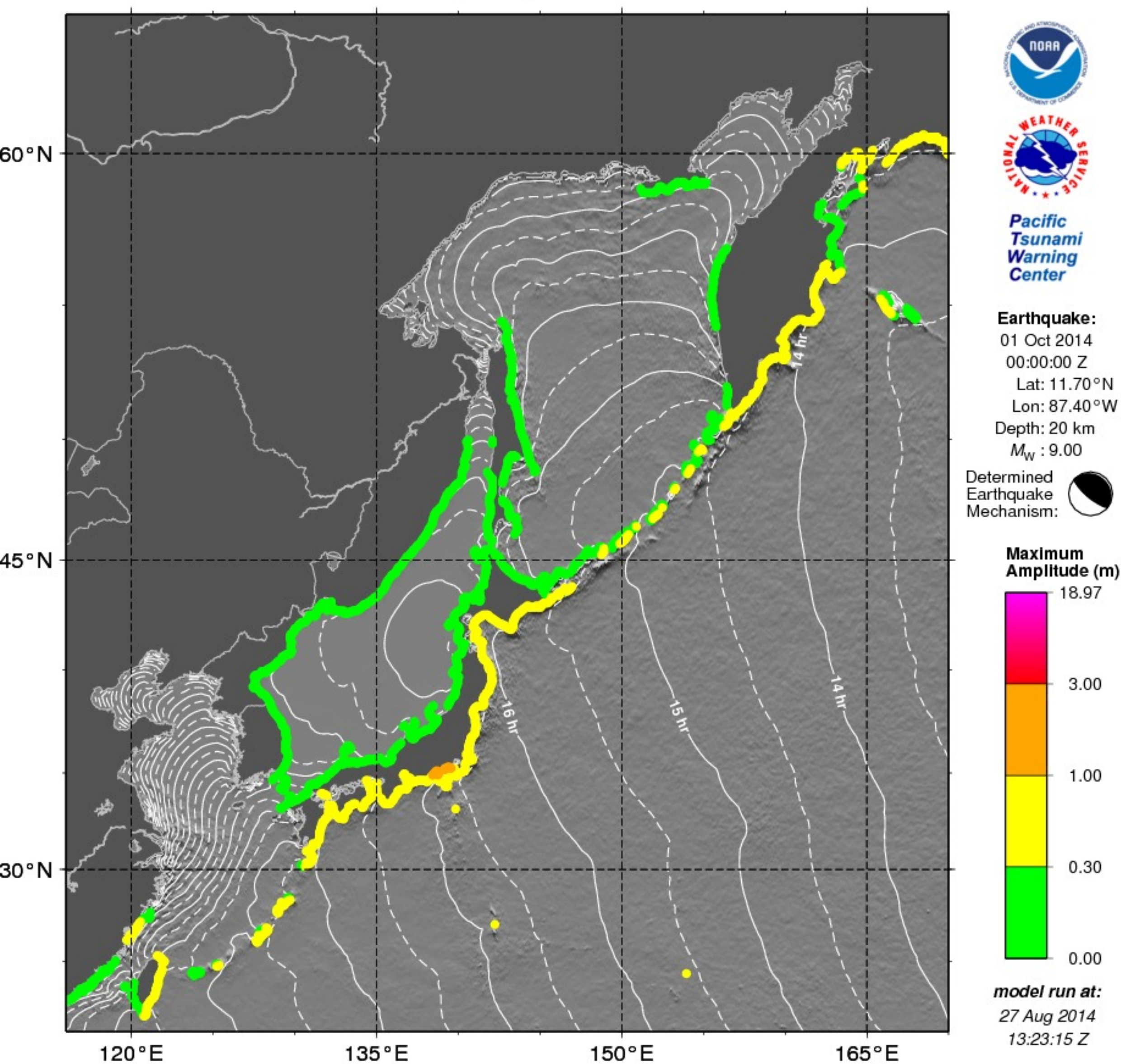




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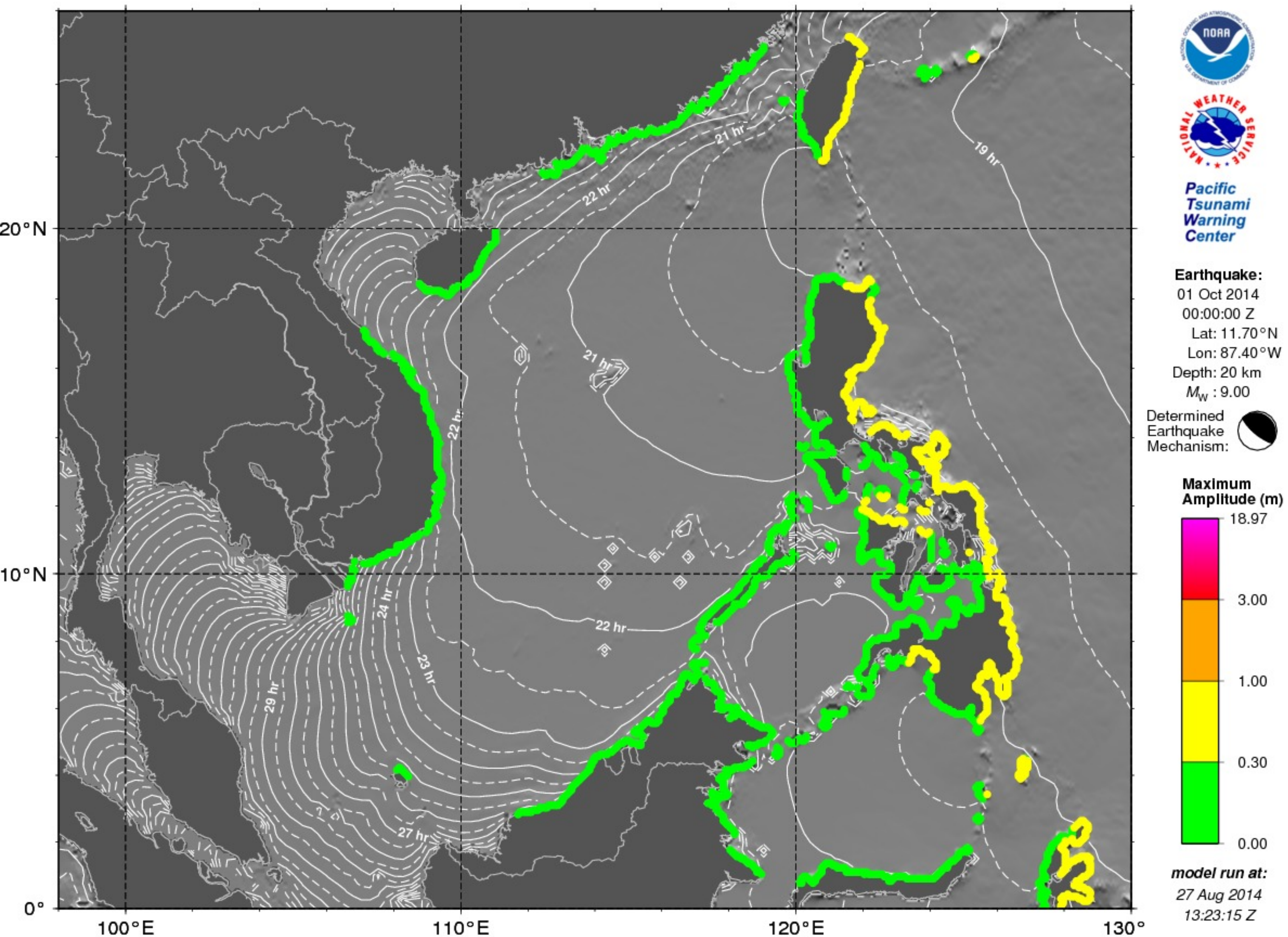




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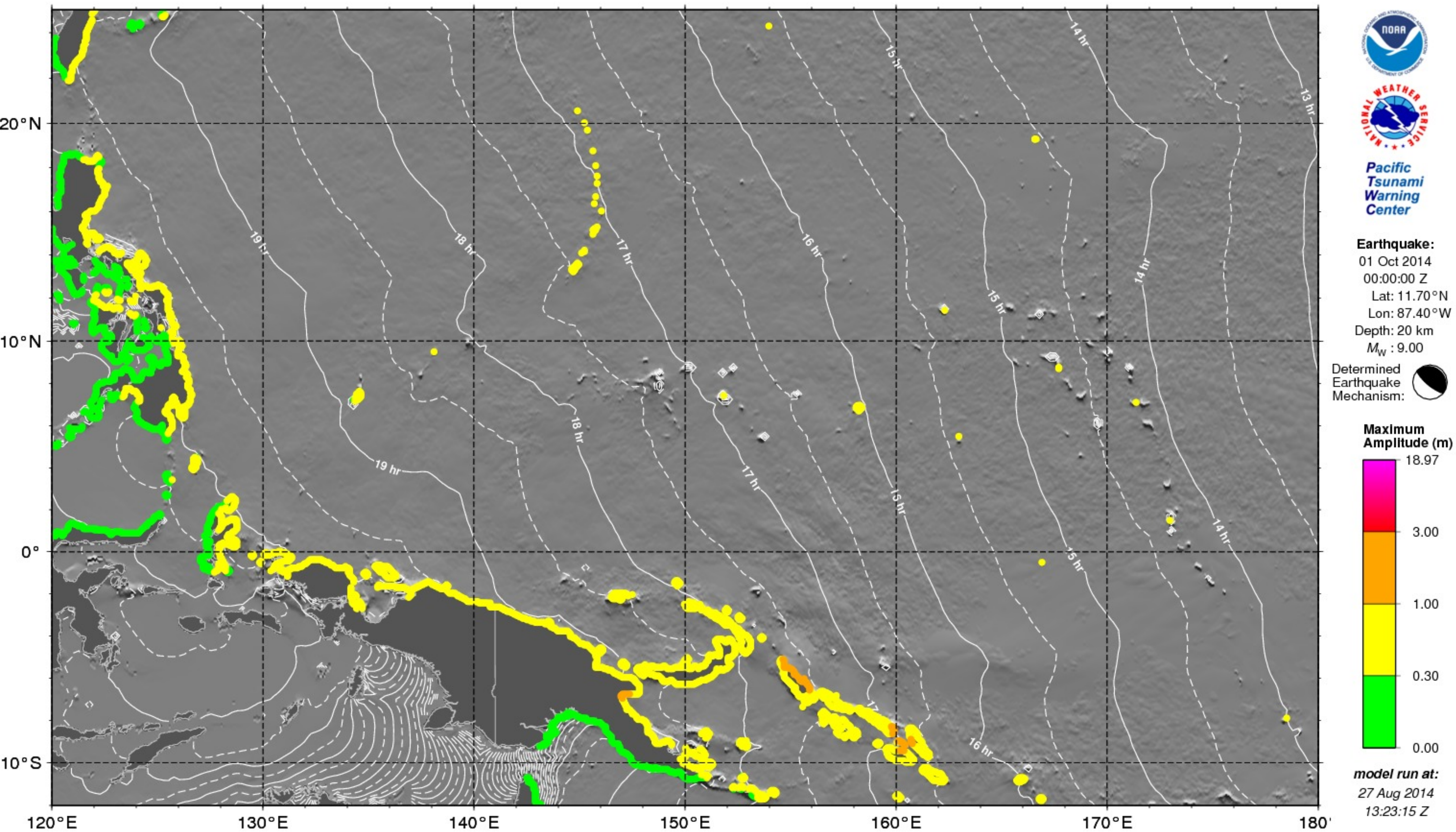




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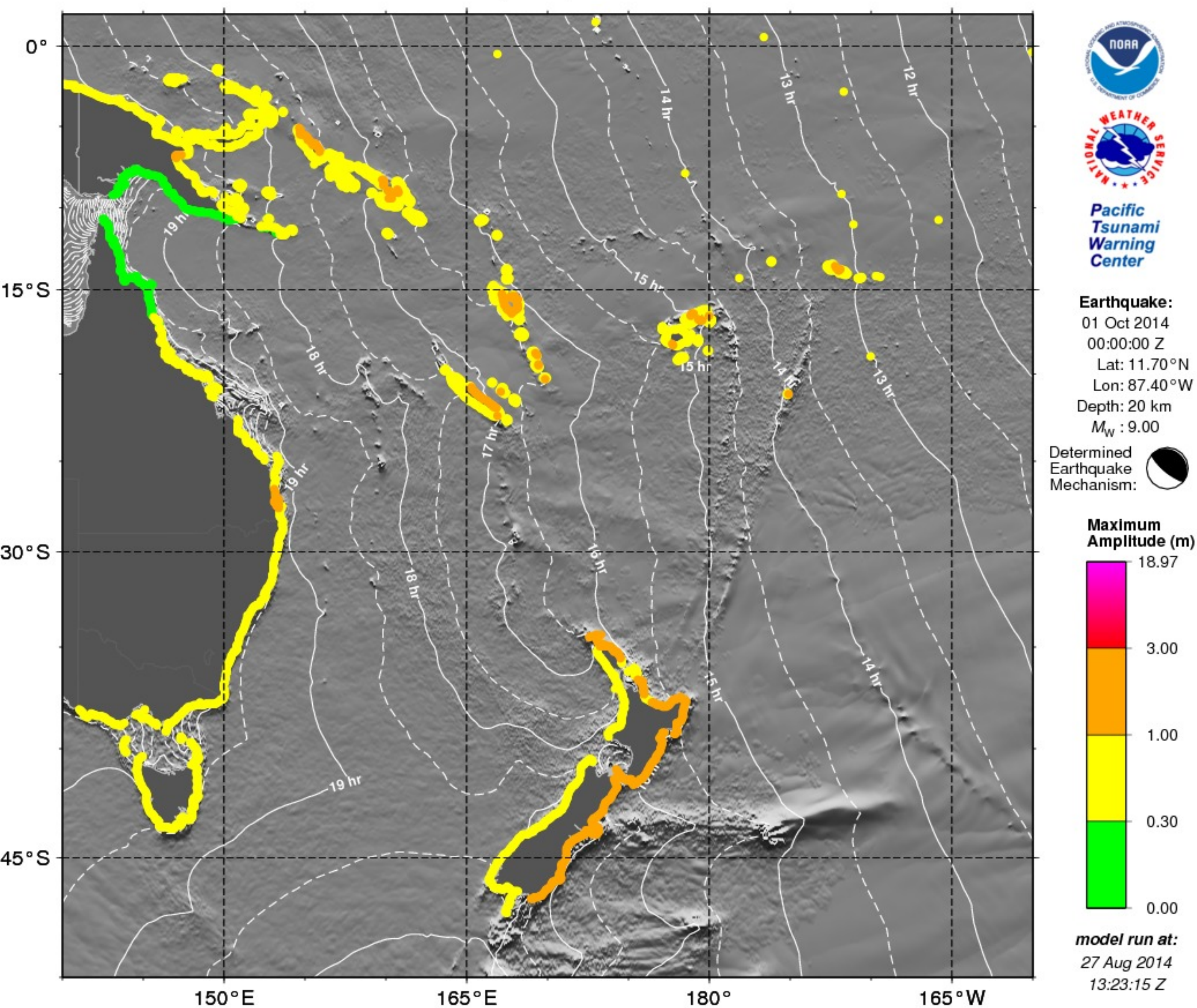




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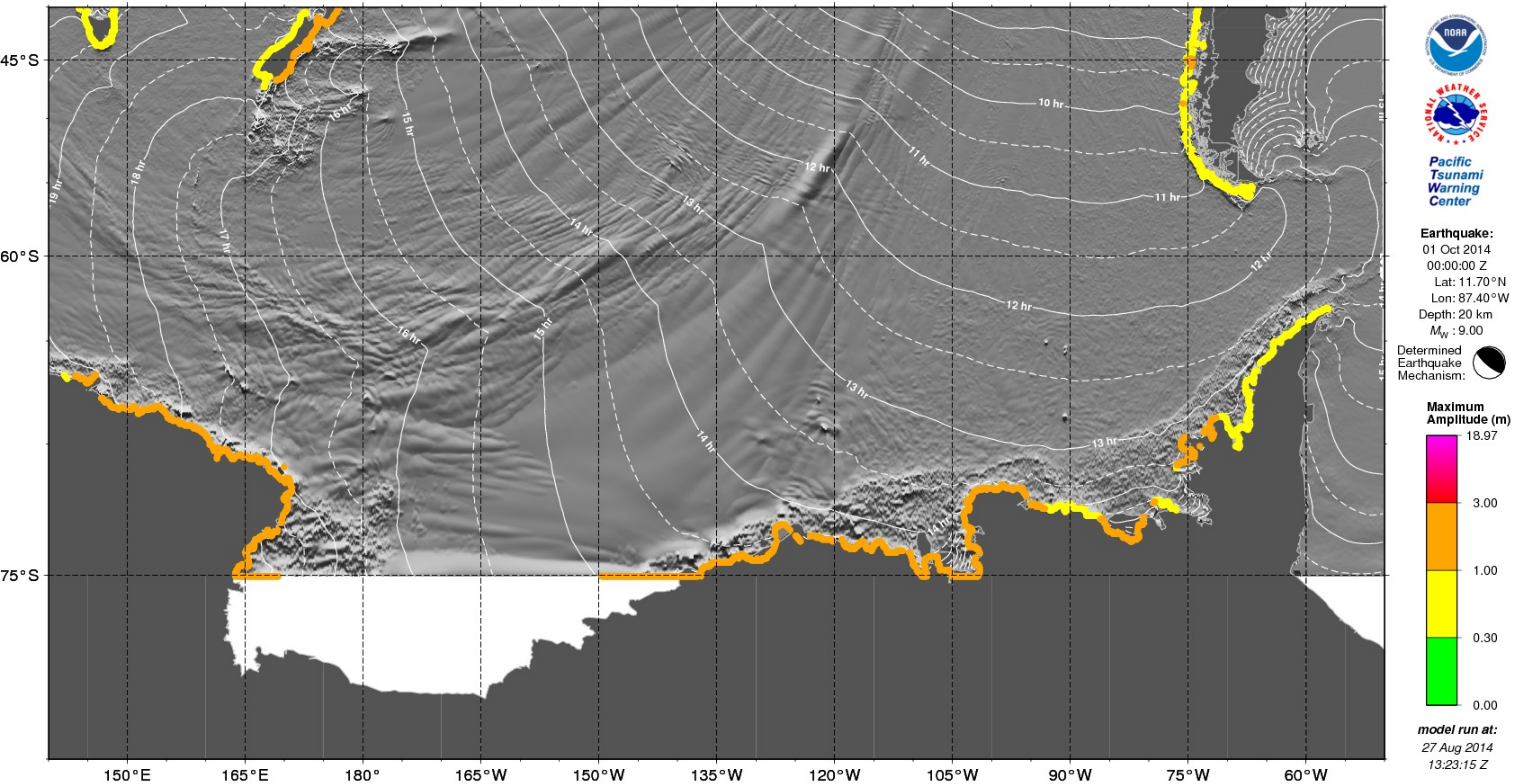




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PTWC TABLE OF FORECAST STATISTICS FOR REGIONAL POLYGONS – RUN ID 0  
(for internal use only – not for distribution)

Earthquake – Origin: 10/01/2014 00:00:00 UTC Coordinates: 11.7N 87.4W Depth: 020km Magnitude: 9.0

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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 will likely be much smaller than the forecast indicates.

Coastal Forecast (meters)				Offshore Forecast (meters)				Total	Region Name
Maximum	Mean	Median	STD	Maximum	Mean	Median	STD	Points	
18.97	6.40	3.23	5.38	5.98	2.08	1.56	1.39	79	Pacific_Coast_of_Costa_Rica
18.01	11.19	14.22	4.69	6.32	4.24	4.07	1.12	37	El_Salvador
14.89	13.94	14.07	0.63	6.54	4.51	4.31	0.72	35	Pacific_Coast_of_Nicaragua
14.22	14.22	14.22	0.00	3.64	3.57	3.58	0.06	3	Pacific_Coast_of_Honduras
7.05	4.37	4.83	1.57	2.64	1.14	1.10	0.46	94	Galapagos_Islands
4.01	4.01	4.01	0.00	0.65	0.65	0.65	0.00	1	Cocos_Island_Costa_Rica
3.57	2.78	2.80	0.74	3.33	1.97	1.86	0.46	33	Pacific_Coast_of_Guatemala
2.83	1.80	1.63	0.54	2.84	0.72	0.66	0.33	630	
Victoria_Oates_and_George_V_Coast_of_Antarctica									
2.50	1.72	1.69	0.35	3.11	0.62	0.54	0.29	806	Marie_Byrd_Land_Coast_of_Antarctica
2.39	2.39	2.39	0.00	0.39	0.39	0.39	0.00	1	Pitcairn_Islands
2.38	1.44	1.39	0.28	2.45	0.72	0.60	0.41	91	Pacific_Coast_of_Panama
2.24	2.24	2.24	0.00	0.47	0.47	0.47	0.00	1	Easter_Island
2.11	1.66	1.67	0.22	1.83	0.87	0.87	0.29	88	East_Side_of_North_Island_New_Zealand
1.91	0.63	0.57	0.27	1.19	0.33	0.32	0.18	139	West_Side_of_South_Island_New_Zealand
1.91	1.31	1.32	0.24	1.90	0.95	0.94	0.28	158	East_Side_of_South_Island_New_Zealand
1.85	0.99	1.36	0.63	1.66	0.62	0.73	0.48	163	Ecuador
1.85	1.45	1.40	0.14	1.32	0.77	0.76	0.29	98	Pacific_Coast_of_Colombia
1.81	1.15	1.22	0.28	1.19	0.73	0.72	0.18	100	Northern_Peru
1.75	1.53	1.61	0.20	2.52	1.88	1.85	0.30	28	Chiapas_Mexico
1.67	0.89	0.81	0.32	0.81	0.21	0.20	0.08	189	Vanuatu
1.60	0.66	0.50	0.41	0.64	0.30	0.28	0.09	142	Southern_Queensland_Australia
1.56	1.35	1.33	0.09	3.02	0.78	0.52	0.59	68	Oaxaca_Mexico
1.51	0.84	0.86	0.14	0.78	0.35	0.32	0.15	151	Fiji
1.49	1.08	1.08	0.11	1.14	0.67	0.67	0.17	114	North_Side_of_North_Island_New_Zealand
1.46	1.23	1.20	0.09	1.26	0.49	0.44	0.20	56	Guerrero_Mexico
1.45	1.06	1.04	0.15	1.98	0.48	0.43	0.25	274	Ellsworth_Land_Coast_of_Antarctica
1.40	0.81	0.66	0.41	0.64	0.29	0.26	0.13	75	Bougainville_Papua_New_Guinea
1.31	1.09	1.09	0.07	0.49	0.33	0.31	0.07	27	Michoacan_Mexico
1.26	1.26	1.26	0.00	0.25	0.25	0.25	0.00	1	Tuamotu_Archipelago
1.24	0.84	0.85	0.19	0.87	0.34	0.28	0.17	153	New_Caledonia
1.18	0.54	0.48	0.17	0.65	0.24	0.23	0.09	407	East_Coast_of_Japanese_Main_Islands



1.16	0.89	0.90	0.18	0.87	0.29	0.27	0.10	436	Northeast_Side_of_the_Antarctic_Peninsula
1.15	0.94	0.94	0.12	0.36	0.23	0.23	0.06	24	Marquesas_Islands
1.14	1.10	1.10	0.03	0.56	0.39	0.35	0.08	12	Colima_Mexico
1.13	0.75	0.71	0.15	0.99	0.52	0.56	0.27	32	Nayarit_Mexico
1.13	0.90	0.83	0.16	0.53	0.30	0.30	0.07	33	Jalisco_Mexico
1.09	0.56	0.55	0.10	0.68	0.38	0.38	0.08	76	West_Side_of_North_Island_New_Zealand
1.09	0.68	0.68	0.15	0.79	0.34	0.31	0.10	382	Southern_Chile
1.09	0.63	0.64	0.19	0.70	0.17	0.15	0.09	339	Choisel_to_Philip_Solomon_Islands
1.08	0.61	0.59	0.18	0.98	0.17	0.13	0.11	141	Solomon_Sea_Coast_of_Papua_New_Guinea
1.07	0.83	0.82	0.12	0.36	0.19	0.18	0.05	35	Society_Islands
1.06	0.92	0.89	0.10	0.84	0.65	0.63	0.15	4	Tonga
1.04	0.81	0.81	0.13	0.39	0.21	0.18	0.07	40	Samoa
0.98	0.75	0.73	0.09	0.75	0.36	0.34	0.12	167	South_Central_Chile
0.95	0.68	0.56	0.19	0.32	0.23	0.22	0.06	23	Manus_Island_Papua_New_Guinea
0.93	0.50	0.40	0.25	0.69	0.15	0.12	0.11	190	Halmahera_Indonesia
0.93	0.76	0.69	0.13	0.14	0.12	0.13	0.02	3	Line_Islands_Kiribati
0.91	0.73	0.72	0.07	0.83	0.44	0.41	0.12	104	Central_Peru
0.90	0.82	0.81	0.06	0.41	0.27	0.28	0.09	5	Wallis_and_Futuna
0.89	0.72	0.72	0.06	0.50	0.26	0.26	0.06	120	North_Central_Chile
0.89	0.77	0.71	0.08	0.11	0.11	0.11	0.01	3	Cook_Islands
0.88	0.70	0.71	0.07	0.98	0.50	0.51	0.17	77	Sinaloa_Mexico
0.87	0.71	0.69	0.07	1.20	0.41	0.39	0.14	110	Pacific_Side_of_Baja_Sud_Mexico
0.87	0.73	0.72	0.06	0.56	0.29	0.28	0.07	76	Southern_Peru
0.86	0.73	0.74	0.12	0.64	0.25	0.21	0.12	97	Sonora_Mexico
0.86	0.85	0.86	0.02	0.21	0.16	0.14	0.03	40	Gulf_Side_of_Baja_Mexico
0.85	0.66	0.65	0.08	0.51	0.28	0.26	0.07	75	Pacific_Side_of_Baja_Mexico
0.85	0.53	0.50	0.12	0.61	0.18	0.16	0.10	266	Pacific_Side_of_Papua_Indonesia
0.84	0.63	0.62	0.11	0.62	0.15	0.13	0.07	127	New_Ireland
0.84	0.69	0.68	0.07	0.52	0.19	0.17	0.09	18	Santa_Cruz_Islands
0.82	0.61	0.57	0.12	0.54	0.17	0.15	0.08	86	New_Britain-Bismarck_Sea_Coast_of_New_Britain
0.82	0.68	0.68	0.05	0.40	0.22	0.21	0.06	119	Northern_Chile
0.80	0.66	0.64	0.06	0.29	0.19	0.16	0.07	18	American_Samoa
0.79	0.56	0.55	0.11	0.36	0.14	0.13	0.04	152	Bismarck_Sea_Coast_of_Papua_New_Guinea
0.79	0.65	0.64	0.06	0.79	0.18	0.15	0.09	99	Gulf_Side_of_Baja_Sud_Mexico
0.78	0.60	0.60	0.09	0.41	0.18	0.17	0.06	147	Hawaii
0.77	0.44	0.41	0.14	0.74	0.14	0.13	0.08	350	Pacific_Coast_of_the_Philippines
0.77	0.53	0.52	0.07	0.56	0.31	0.31	0.10	167	Tasmania
0.74	0.43	0.43	0.08	0.26	0.11	0.09	0.05	82	New_Britain-Solomon_Sea_Coast_of_New_Britain
0.74	0.74	0.74	0.00	0.14	0.14	0.14	0.00	1	Tokelau
0.72	0.72	0.72	0.00	0.09	0.09	0.09	0.00	1	Howland_and_Baker
0.72	0.10	0.04	0.14	0.31	0.04	0.02	0.05	465	West_Coast_of_Japanese_Main_Islands
0.70	0.67	0.67	0.03	0.14	0.12	0.12	0.01	4	Austral_Islands
0.68	0.68	0.68	0.00	0.09	0.09	0.09	0.00	1	Niue
0.67	0.67	0.67	0.00	0.10	0.10	0.10	0.00	1	Jarvis_Island
0.64	0.51	0.51	0.05	0.78	0.39	0.38	0.11	150	New_South_Wales_Australia
0.64	0.64	0.64	0.00	0.10	0.10	0.10	0.00	1	Palmyra_Island
0.63	0.63	0.63	0.00	0.17	0.17	0.17	0.00	1	Gilbert_Islands_Kiribati



0.62	0.49	0.49	0.08	0.78	0.27	0.23	0.13	157	Pacific_Coast_of_Kamchatka_Russia
0.61	0.61	0.61	0.00	0.08	0.08	0.08	0.00	1	Tuvalu
0.58	0.38	0.37	0.07	0.42	0.17	0.16	0.08	71	Trobriand_Woodlark_and_Louisiade_Islands
0.58	0.50	0.48	0.05	0.24	0.16	0.16	0.06	4	Marshall_Islands
0.57	0.47	0.46	0.06	0.76	0.28	0.26	0.12	130	Victoria_Australia
0.55	0.55	0.55	0.00	0.17	0.17	0.17	0.00	1	Phoenix_Islands_Kiribati
0.55	0.23	0.22	0.05	0.39	0.13	0.11	0.06	164	Coral_Sea_Coast_of_Papua_New_Guinea
0.55	0.48	0.47	0.04	0.22	0.15	0.16	0.04	5	Northwestern_Hawaiian_Islands
0.52	0.25	0.19	0.13	0.30	0.10	0.07	0.07	101	
Urup_Etorofu_Kunashiri_Shikotan_and_Habomai_Islands									
0.51	0.45	0.44	0.04	0.15	0.10	0.11	0.02	12	Guam
0.51	0.46	0.46	0.03	0.24	0.14	0.12	0.04	10	Pohnpei_State_Micronesia
0.50	0.50	0.50	0.01	0.16	0.13	0.13	0.03	2	Izu_and_Ogasawara_Islands_Japan
0.49	0.28	0.26	0.05	0.38	0.15	0.14	0.06	328	Bering_Sea_Coast_of_Eastern_Russia
0.48	0.48	0.48	0.00	0.08	0.08	0.08	0.00	1	Johnston_Atoll
0.47	0.47	0.47	0.00	0.33	0.33	0.33	0.00	1	Chuuk_State_Micronesia
0.46	0.27	0.26	0.08	0.34	0.11	0.09	0.07	95	Kuril_Islands_Russia
0.46	0.42	0.40	0.03	0.20	0.15	0.12	0.04	3	Midway_Island
0.45	0.37	0.37	0.04	0.16	0.08	0.07	0.03	19	Northern_Marianas
0.44	0.24	0.20	0.11	0.23	0.06	0.05	0.04	67	Celebes_Sea_Coast_of_the_Philippines
0.44	0.44	0.44	0.00	0.06	0.06	0.06	0.00	1	Nauru
0.43	0.36	0.35	0.03	0.19	0.09	0.08	0.03	49	Eastern_Coast_of_Taiwan
0.43	0.43	0.43	0.00	0.05	0.05	0.05	0.00	1	Kosrae_State_Micronesia
0.43	0.19	0.16	0.08	0.38	0.04	0.03	0.04	264	Interior_Seas_of_the_Philippines
0.42	0.32	0.33	0.05	0.42	0.14	0.12	0.07	81	Nansei_Islands_Japan
0.40	0.35	0.34	0.03	0.26	0.13	0.09	0.06	15	Palau
0.39	0.28	0.25	0.06	0.44	0.15	0.12	0.09	38	Komandorsky_Islands_Russia
0.39	0.28	0.26	0.06	0.40	0.16	0.14	0.07	211	Northern_Queensland_Australia
0.39	0.37	0.35	0.01	0.07	0.06	0.05	0.01	3	Wake_Island
0.38	0.19	0.16	0.06	0.08	0.04	0.04	0.02	13	Sangihe_Islands_Indonesia
0.38	0.33	0.33	0.02	0.14	0.09	0.07	0.03	19	Talaud_Islands_Indonesia
0.35	0.20	0.18	0.05	0.16	0.07	0.06	0.03	32	Western_Coast_of_Taiwan
0.35	0.31	0.31	0.04	0.14	0.08	0.08	0.02	30	Southeastern_Coast_of_China
0.34	0.34	0.34	0.00	0.05	0.05	0.05	0.00	1	Minamitorishima_Japan
0.34	0.34	0.34	0.00	0.15	0.15	0.15	0.00	1	Yap_State_Micronesia
0.34	0.09	0.07	0.06	0.07	0.02	0.01	0.01	120	Sulu_Sea_Coast_of_the_Philippines
0.26	0.18	0.18	0.04	0.22	0.06	0.05	0.04	87	Celebes_Sea_Coast_of_Sulawesi_Indonesia
0.24	0.09	0.06	0.05	0.20	0.03	0.02	0.03	125	Western_Coast_of_the_Northern_Philippines
0.19	0.17	0.18	0.02	0.17	0.09	0.09	0.03	57	Celebes_Sea_Coast_of_Borneo_Indonesia
0.19	0.18	0.18	0.01	0.07	0.05	0.05	0.01	23	Caribbean_Coast_of_Costa_Rica
0.18	0.16	0.14	0.02	0.14	0.06	0.05	0.03	27	Celebes_Sea_Coast_of_Sabah_Malaysia
0.18	0.12	0.11	0.03	0.19	0.10	0.09	0.03	54	Western_Coast_of_Kamchatka_Russia
0.18	0.12	0.14	0.05	0.12	0.06	0.05	0.02	130	Southern_Coast_of_China
0.17	0.14	0.14	0.03	0.17	0.09	0.09	0.03	150	Sea_of_Okhotsk_Coast_of_Sakhalin_Russia
0.17	0.13	0.13	0.01	0.12	0.07	0.06	0.01	59	Caribbean_Coast_of_Nicaragua
0.17	0.10	0.09	0.04	0.09	0.03	0.02	0.02	92	Caribbean_Coast_of_Panama
0.14	0.12	0.12	0.02	0.11	0.05	0.04	0.03	52	Sulu_Archipelago_Philippines



0.12	0.11	0.11	0.01	0.09	0.04	0.04	0.02	83	Caribbean_Coast_of_Honduras
0.11	0.11	0.11	0.00	0.09	0.05	0.04	0.02	61	East_Coast_of_Russia_on_the_Sea_of_Okhotsk
0.10	0.09	0.09	0.01	0.07	0.05	0.05	0.01	41	Belize
0.10	0.10	0.10	0.00	0.09	0.06	0.06	0.02	8	Caribbean_Coast_of_Guatemala
0.10	0.08	0.07	0.01	0.04	0.01	0.01	0.01	70	Gulf_of_Gonave_Coast_of_Haiti
0.09	0.08	0.08	0.01	0.05	0.03	0.03	0.01	67	Quintana_Roo_Mexico
0.08	0.06	0.05	0.02	0.06	0.02	0.02	0.01	118	Central_Coast_of_Venezuela
0.08	0.06	0.06	0.01	0.06	0.03	0.02	0.01	130	Caribbean_Coast_of_Colombia
0.08	0.06	0.06	0.01	0.06	0.02	0.02	0.01	130	Palawan_Island_Philippines
0.08	0.06	0.06	0.01	0.05	0.02	0.01	0.01	180	Caribbean_Coast_of_Cuba
0.07	0.06	0.07	0.01	0.05	0.03	0.03	0.01	54	Sulu_Sea_Coast_of_Sabah_Malaysia
0.07	0.05	0.05	0.00	0.05	0.02	0.02	0.01	112	Southern_Coast_of_Vietnam
0.07	0.07	0.07	0.00	0.05	0.03	0.03	0.01	33	Northern_Coast_of_Vietnam
0.07	0.03	0.03	0.00	0.02	0.01	0.01	0.00	57	Gulf_of_Mexico_Coast_of_Cuba
0.06	0.06	0.06	0.00	0.04	0.03	0.02	0.00	46	Hainan_Island_China
0.06	0.03	0.02	0.02	0.02	0.02	0.02	0.00	34	Yucatan_Mexico
0.06	0.06	0.06	0.00	0.01	0.01	0.01	0.00	2	Cayman_Islands
0.06	0.06	0.06	0.00	0.05	0.03	0.03	0.01	42	Southwest_Coast_of_Sabah_Malaysia
0.06	0.05	0.05	0.00	0.02	0.01	0.01	0.00	45	Caribbean_Coast_of_Haiti
0.06	0.06	0.06	0.00	0.06	0.03	0.03	0.01	16	Brunei
0.06	0.05	0.05	0.00	0.04	0.01	0.01	0.01	71	Jamaica
0.06	0.06	0.06	0.00	0.02	0.02	0.02	0.00	6	Natuna_Islands_Indonesia
0.05	0.05	0.05	0.00	0.02	0.01	0.01	0.00	63	Caribbean_Coast_of_Dominican_Republic
0.05	0.05	0.05	0.00	0.03	0.02	0.01	0.01	64	Western_Coast_of_Venezuela
0.05	0.05	0.05	0.00	0.07	0.03	0.03	0.01	51	Northwest_Coast_of_Sabah_Malaysia
0.05	0.04	0.05	0.01	0.02	0.01	0.01	0.00	90	Veracruz_Mexico
0.05	0.05	0.05	0.00	0.05	0.03	0.03	0.01	91	Tabasco_and_Campeche_Mexico
0.05	0.05	0.05	0.00	0.01	0.01	0.01	0.00	5	Curacao
0.05	0.04	0.05	0.01	0.01	0.01	0.01	0.00	10	Grenada
0.05	0.04	0.05	0.01	0.01	0.01	0.01	0.00	13	Saint_Vincent_and_the_Grenadines
0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.00	15	Saint_Lucia
0.05	0.03	0.02	0.01	0.01	0.01	0.01	0.00	31	Atlantic_Coast_of_Haiti
0.05	0.05	0.05	0.00	0.01	0.01	0.01	0.00	1	Aruba
0.04	0.04	0.04	0.01	0.04	0.01	0.01	0.01	105	Atlantic_Coast_of_Cuba
0.04	0.03	0.04	0.01	0.01	0.01	0.01	0.00	18	Martinique
0.04	0.04	0.04	0.00	0.01	0.01	0.01	0.00	1	Bonaire
0.04	0.02	0.02	0.01	0.01	0.00	0.00	0.00	103	Bahamas
0.04	0.03	0.04	0.01	0.01	0.00	0.01	0.00	13	Dominica
0.04	0.03	0.03	0.01	0.01	0.00	0.00	0.00	21	Guadeloupe
0.04	0.04	0.04	0.00	0.01	0.01	0.01	0.00	8	Saint_Kitts_and_Nevis
0.04	0.03	0.03	0.00	0.02	0.01	0.01	0.00	66	Tamaulipas_Mexico
0.04	0.03	0.03	0.00	0.02	0.01	0.01	0.00	59	Eastern_Coast_of_the_Republic_of_Korea
0.04	0.03	0.04	0.00	0.05	0.02	0.02	0.01	47	Tatarskiy_Straight_Coast_of_Sakhalin_Russia
0.04	0.02	0.02	0.01	0.02	0.01	0.01	0.00	148	
East_Coast_of_Russia_north_of_the_Korean_Peninsula									
0.04	0.03	0.03	0.00	0.02	0.01	0.01	0.00	43	East_Coast_of_Russia_on_the_Tatarskiy_Straight
0.04	0.04	0.04	0.00	0.01	0.01	0.01	0.00	1	Montserrat



0.03	0.02	0.01	0.01	0.01	0.01	0.00	0.00	7	Antigua_and_Barbuda
0.03	0.03	0.02	0.00	0.02	0.01	0.01	0.00	30	Trinidad_and_Tobago
0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	2	Saba_and_Sint_Eustatius
0.03	0.02	0.03	0.01	0.00	0.00	0.00	0.00	3	Anguilla
0.03	0.03	0.03	0.01	0.01	0.01	0.00	0.00	4	Sint_Maarten
0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	1	Saint_Martin
0.03	0.02	0.02	0.00	0.03	0.01	0.00	0.01	89	Eastern_Coast_of_DPR_of_Korea
0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	9	Barbados
0.02	0.02	0.01	0.00	0.02	0.00	0.00	0.00	60	Atlantic_Coast_of_Dominican_Republic
0.02	0.02	0.02	0.00	0.02	0.02	0.02	0.00	34	Atlantic_Coast_of_Venezuela
0.02	0.01	0.01	0.00	0.01	0.00	0.00	0.00	10	Turks_and_Caicos_Islands
0.02	0.02	0.02	0.00	0.03	0.01	0.01	0.00	49	Guyana
0.02	0.02	0.02	0.00	0.03	0.02	0.02	0.00	51	Suriname
0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	45	Amapa_Brazil
0.01	0.01	0.01	0.00	0.02	0.01	0.01	0.00	41	French_Guiana
0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	1	Saint_Barthelemy
0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	1	Bermuda