

# SUMMARY OF EARTHQUAKES

1 JANUARY - 3 DECEMBER 2010

Reported by Tsunami Warning Centers

Compiled by The International Tsunami Information Center, ITIC

Advisories issued by international tsunami warning centres. The Pacific Tsunami Warning Center (P) issues: Tsunami Information Bulletins (TIB), Fixed and Expanding Regional Warnings (FRW, ERW), and Ocean-wide Watch/Warnings (TWW) for the Pacific; Tsunami Information Bulletins (TIB), Local, Regional, and Ocean-wide Tsunami Watches (LTW, RTW, TW) for the Indian Ocean; Tsunami Information Statements (TIS), Local, Regional, and Ocean-wide Watches (LTW, RTW, TW) for the wider Caribbean. The Japan Meteorological Agency (J), issues: Tsunami Advisories (NWPTA) for the Northwestern Pacific; Tsunami Watch Information (TWI) for the Indian Ocean. The West Coast/Alaska Tsunami Warning Center (A) issues: Tsunami Information Statements (TIS), Tsunami Watch/Warnings (TWW) for Canada, the US (including Puerto Rico, excluding Hawaii and US-affiliated Pacific Island countries), and the US/British Virgin Islands. Depth (from GCMT solution), epicenter and Mw from the USGS (G), and Mw from PTWC (P) and JMA ( $M_{JMA}$  for Japan local vicinity) at action time. Wave height and period measurements from sea level gauges reported as amplitude, peak to trough, or greatest value for either inundation or runup as indicated. Other earthquakes with moment magnitude (Mw) greater than or equal to 6.5 and a depth no greater than 100 km, as recorded by USGS, have also been included.

DATE	TIME (UTC)	LOCATION	EPICENTER	DEPTH (km)	M <sub>w</sub>	PTWC ACTION	ACTION TIME (UTC)	TSUNAMI? DAMAGING?	MAXIMUM MEASUREMENT and LOCATION
03 Jan	21:48	Solomon Islands	8.743° S 157.477° E	12	6.6 (A, G, GCMT, P)	TIB (P) TIS (A) NWPTAC (J)	22:04 22:06 20:05	YES NO	<0.02 m Honiara tide gauge
03 Jan	22:36	Solomon Islands	8.799° S 157.346° E	12	7.2 (G, P) 7.1 (GCMT)	TIS (A) TIB (P) NWPTAC (J) TIB 002 (P)	22:57 23:03 23:04 00:10 (4 Jan)	YES YES	0.155 m peak to peak Rosslyn Bay, Australia gauge
05 Jan	04:56	East of South Sandwich Islands	58.173° S 14.696° W	16	6.8 (GCMT) 6.7 (A, P, G)	TIS (A) TIB (P)	05:14 05:12	NO NO	
05 Jan	12:16	Solomon Islands	9.019° S 157.551° E	12	6.9 (A, P) 6.8 (G, GCMT)	TIB 001 (P) TIS (A) TIB 002 (P)	12:30 12:30 13:43	YES NO	0.03 m amp Honiara tide gauge
12 Jan	21:53	Haiti Region	18.443° N 72.571° W	12	7.3 (A, P001) 7.1 (P002,003) 7.0 (G, GCMT)	(C) LTWatch 001 (P) (C) TIS (A) LTWatch 002 (P) 003--Cancel (P)	22:03 22:03 22:54 23:45	YES YES	0.12 m peak-to-trough Santo Domingo gauge
20 Jan	11:04	Haiti Region	18.423° N 72.823° W	12	6.0 (A, P) 5.9 (G, GCMT)	(C) TIS (P) (C) TIS (A)	11:11 11:18	NO NO	
07 Feb	06:10	Southwest Ryukyu Islands, Japan	23.488° N 123.615° E	28	6.6 (A, J, P) 6.3 (G, GCMT)	NWPTAC (J) TIB (P) TIS (A)	06:15 06:22 06:22	NO NO	
18 Feb	01:13	E. Russia-N.E. China Border Region	42.587° N 130.703° E	580	6.9 (G, GCMT) 6.8 (A, P)	TIB (P) TIS (A)	1:22 1:22	NO NO	
26 Feb	20:31	Ryukyu Islands	25.965° N 128.443° E	18	7.3 (A, P) 7.0 (G, GCMT) 6.9 ( $M_{JMA}$ )	NWPTAC (J) TIB TIS	20:35 20:44 20:48	NO NO	

2010 Earthquake List, *continued*

DATE	TIME (UTC)	LOCATION	EPICENTER	DEPTH (km)	M <sub>w</sub>	PTWC ACTION	ACTION TIME (UTC)	TSUNAMI? DAMAGING?	MAXIMUM MEASUREMENT and LOCATION
27 Feb	06:34	Near Coast of Central Chile	35.846° S 72.719° W	24	8.8 (A, P, G, GCMT) 8.6 (A, P, revised 002) 8.5 (A, P, initial 001)	Expanding Regional	06:46	YES	261 cm amplitude at Valparaiso, Chile tide gauge (highest measure- ment reported on sea level gauges)
						Warning (ERW) 001 (P)	06:49	YES	
						TIS 1 (A)	07:45		
						ERW-Supp 002 (P)	07:52		
						TIS 2 (A)	08:44		
						ERW-Sup 003 (P)	08:57		
						TIS 3 (A)	09:47		
						ERW-Sup 004 (P)	09:58		
						TIS 4 (A)			
						Widespread Warning (WW)-Initial 005 (P)	10:45		
						Tsunami Advisory (TA)	10:55		
						5 (A)	11:47		
						WW-Sup 006 (P)	11:53		
						TA 6 (A)	12:49		
						WW-Sup 007 (P)	12:55		
						TA 7 (A)	13:46		
						WW-Sup 008 (P)	13:52		
						TA 8 (A)	14:46		
						WW-Sup 009 (P)	15:04		
						TA 9 (A)	15:45		
						WW-Sup 010 (P)	16:03		
						TA 10 (A)	16:50		
						WW-Sup 011 (P)	17:04		
						TA 11 (A)	17:52		
						WW-Sup 012 (P)	17:58		
						TA 12 (A)	18:43		
						WW-Sup 013 (P)	19:06		
						TA 13 (A)	19:34		
						WW-Sup 014 (P)	20:03		
						TA 14 (A)	20:28		
						WW-Sup 015 (P)	21:05		
						TA 15 (A)	21:32		
						WW-Sup 016 (P)	21:47		
						TA 16 (A)	22:41		
						WW-Sup 017 (P)	22:46		
TA 17 (A)	23:54								
TA 18 (A)									
							28 Feb		
						WW-Sup 018 (P)	00:12		
						TA 19 (A)	00:54		
						WW-Sup 019 (P)	01:35		
						TA 20 (A)	01:57		
						WW-Sup 020 (P)	02:35		
						TA 21 (A)	03:05		
						WW-Sup 021 (P)	03:44		
						TA 22 (A)	04:03		
						WW-Sup 022 (P)	04:49		
						TA 23 (A)	05:01		
						WW-Sup 023 (P)	05:56		
						TA 24 (A)	06:02		
						WW-Sup 024 (P)	07:00		
						Cancel Message 25 (A)	07:13		
						WW-Sup 025 (P)	07:57		
						WW-Sup 026 (P)	08:59		
						WW-Cancel (P)	09:40		

# 2010 Earthquake List, *continued*

DATE	TIME (UTC)	LOCATION	EPICENTER	DEPTH (km)	M <sub>w</sub>	PTWC ACTION	ACTION TIME (UTC)	TSUNAMI? DAMAGING?	MAXIMUM MEASUREMENT and LOCATION
05 Mar	11:47	Near Coast of Central Chile	36.665° S 73.374° W	14	6.6 (A, G, GCMT, P)	TIB (P) TIS (A)	11:59 12:00	NO NO	
05 Mar	16:07	Southern Sumatra Indonesia	3.762° S 100.991° E	12	6.7 (GCMT) 6.6 (P, J) 6.5 (G)	(IO) TIB (P) (IO) TBN (J)	16:17 16:32	NO NO	
11 Mar	14:40	Near Coast of Central Chile	34.290° S 71.891° W	15	7.2 (A, P) 6.9 (GCMT) 6.8 (G)	TIB TIS	14:53 14:51	YES NO	29 cm. peak-to-peak, San Antonio, Chile tide guage
14 Mar	00:58	Halmahera, Indonesia	1.692° S 128.135° E	59	6.5 (A, P) 6.4 (G, GCMT)	TIB TIS	01:07 01:08	NO NO	
14 Mar	08:08	Near East Coast of Honshu, Japan	37.745° N 141.590° E	45	6.6 ( <i>M<sub>JMA</sub></i> ) 6.5 (GCMT) 6.4 (G)	NWPTAC (J)	08:15	NO NO	
16 Mar	02:22	Near Coast of Central Chile	36.217° S 73.257° W	13	6.6 (A, GCMT, P) 6.5 (G)	TIB TIS	02:30 02:32	NO NO	
30 Mar	16:55	Andaman Islands, India Region	13.667° N 92.831° E	30	6.9 (P) 6.7 (GCMT) 6.4 (G)	(IO) TIB (P) TWI (J)	17:04 17:14	NO NO	
04 Apr	22:41	Baja, California, Mexico	32.259° N 115.287° W	12	7.3 (A, P) 7.2 (G, GCMT)	TIB (P) TIS (A)	22:47 22:44	NO NO	
06 Apr	22:15	Northern Sumatra, Indonesia	2.360° N 97.132° E	20	7.8 (GCMT) 7.7 (G) 7.5 (A,P)	(IO) LTW 001(P) LTW 002 LTW 003 TIS (A) (IO) TWI 001 (J) (IO) TWI 002 (J)	22:22 23:22 00:15 22:27 22:42 01:20 (7April)	YES NO	4.1275 cm (Peak-2-peak) Meulaboh tide station
11 Apr	09:41	Solomon Islands	10.913° S 161.130° E	36	7.0 (A, P) 6.8 (G, GCMT)	TIB (P) TIS (A) NWPTAC (J)	09:53 09:53 10:05	NO NO	
26 Apr	03:00	Southeast of Taiwan	22.241° N 123.709° E	26	6.5 (A, G, GCMT, J, P)	NWPTAC (J) TIB (P) TIS (A)	03:09 03:08 03:09	NO NO	
30 Apr	23:12	Bering Sea	60.644° N 177.901° W	14	6.6 (A, P) 6.5 (GCMT) 6.3 (G)	TIB TIS	23:21 23:17	NO NO	
05 May	16:29	Southern Sumatra Indonesia	4.063° S 101.085° E	12	6.6 (GCMT) 6.5 (G, P)	(IO) TIB (P) TWI (J)	16:39 16:54	NO NO	
10 May	06:00	Off W. Coast of Northern Sumatra, Indonesia	3.775° N 96.055° E	38	7.3 (A, P) 7.2 (G, GCMT)	(IO) LTW 001(P) TIS (A) (IO) TWI 001 (J) LTW 002-Cancel (P)	06:08 06:18 06:22 06:55	NO NO	
26 May	08:53	Southeast of the Ryukyu Islands	25.796° N 129.956° E	12	6.6 (A, J, P) 6.4 (G, GCMT)	NWPTAC (J) TIB (P) TIS (A)	06:15 06:22 06:22	NO NO	

# 2010 Earthquake List, *continued*

DATE	TIME (UTC)	LOCATION	EPICENTER	DEPTH (km)	M <sub>w</sub>	PTWC ACTION	ACTION TIME (UTC)	TSUNAMI? DAMAGING?	MAXIMUM MEASUREMENT and LOCATION
27 May	17:15	Vanuatu Islands	13.710° S 166.507° E	42	7.6 (A, J, P001) 7.2 (G, P002) 7.1 (GCMT)	FRW 001 (P) TIS (A) NWPTAC (J) FRW--Sup. (P) FRW--Cancel (P)	17:27 17:27 17:35 17:39 18:38	NO NO	
31 May	19:52	Andaman Islands, India Region	11.119° N 93.698° E	130	6.6 (P, J) 6.5 (GCMT) 6.4 (G)	(IO) TIB (P) TWI (J)	20:07 20:17	NO NO	
12 Jun	19:27	Nicobar Islands, India Region	7.748° N 91.938° E	37	7.6 (A, J, P) 7.5 (G) 7.4 (GCMT)	(IO) RTWB (P) (IO) TWI (J) LTWB (P) TWatch Cancel 003 (P)	19:34 19:47 20:18 21:46	YES NO	.06 m (peak-to-trough) Trincomalee Sri Lanka Tide guage
16 Jun	03:16	Irian Jaya Region, Indonesia	2.141° S 136.460° E	12	7.3 (A, J, P) 7.0 (G, GCMT)	TIB (P) TIS (A) NWPTAC (J)	03:26 03:27 03:29	NO NO	
26 Jun	05:30	Solomon Islands	10.636° S 161.443° E	40	7.1 (A, J, P) 6.7 (G, GCMT)	TIB (P) TIS (A) NWPTAC (J)	05:40 05:41 05:43	NO NO	
02 Jul	06:04	Vanuatu Islands	13.647° S 166.441° E	63	6.7 (A, J, P) 6.3 (G, GCMT)	TIB (P) TIS (A) NWPTAC (J)	06:14 06:16 06:22	NO NO	
14 Jul	08:32	Near Coast of Central Chile	38.002° S 73.282° W	17	6.6 (GCMT) 6.5 (A, G, P)	TIB (P) TIS (A)	08:44 08:44	NO NO	
18 Jul	05:57	Fox Islands, Aleutian Islands	52.867° N 169.840° W	12	6.7 (A, P) 6.6 ( G, GCMT)	TIB (P) TIS (A)	06:04 06:01	NO NO	
18 Jul	13:14	New Britain Region, PNG	6.000° S 150.436° E	35	7.2 (A, P, J) 6.9 (G, GCMT)	TIB (P) TIS (A) NWPTAC (J)	13:14 13:14 13:22	NO NO	
18 Jul	13:35	New Britain Region, PNG	5.939° S 150.572° E	37	7.3 (A, P, J, G, GCMT) 6.8 (A, P, J TIB001)	TIB 001 (P) TIS (A) NWPTAC (J) TIB 002(P)-revise mag TIB 003 (P)-Cancel	14:10 14:14 14:17 15:37 15:45	NO NO	
20 Jul	19:18	New Britain Region, PNG	5.912° S 150.665° E	33	6.6 (A, J, P) 6.3 (G, GCMT)	TIB (P) TIS (A) NWPTAC (J)	19:27 19:29 19:36	NO NO	
23 Jul	22:08	Mindanao Philippines	6.699° N 123.475° E	594	7.3 (G, GCMT) 7.1 (A, J, P)	TIB (P) TIS (A) NWPTAC (J)	22:16 22:17 22:23	NO NO	
23 Jul	22:51	Mindanao Philippines	6.470° N 123.532° E	576	7.6 (G, GCMT) 7.3 (A, J, P)	TIB (P) TIS (A) NWPTAC (J)	23:01 23:02 23:06	NO NO	
23 Jul	23:15	Mindanao Philippines	6.792° N 123.282° E	650	7.4 (G, GCMT) 7.2 (A, J, P)	TIB (P) TIS (A) NWPTAC (J)	23:27 23:27 23:31	NO NO	
24 Jul	05:35	Mindanao Philippines	6.226° N 123.522° E	557	6.6 (GCMT) 6.5 (A, G, J, P)	TIB (P) TIS (A) NWPTAC (J)	05:44 05:45 05:50	NO NO	

# 2010 Earthquake List, *continued*

DATE	TIME (UTC)	LOCATION	EPICENTER	DEPTH (km)	M <sub>w</sub>	PTWC ACTION	ACTION TIME (UTC)	TSUNAMI? DAMAGING?	MAXIMUM MEASUREMENT and LOCATION
3 Aug	12:09	Northern Molucca Sea	1.240° N 126.212° E	41	6.5 (P,A,J)	TIB (P)	12:18	NO	
					6.3 (G, GCMT)	TIS (A)	12:19	NO	
						NWPTAC (J)	12:24		
4 Aug	22:02	New Britain Region, PNG	5.768° S 150.776° W	34	7.0 (P,A, J)	TIB (P)	22:09	NO	
					6.9 (G,GCMT)	TIS (A)	22:09	NO	
						NWPTAC (J)	22:14		
10 Aug	05:24	Vanuatu Islands	17.561° S 168.028° E	31	7.5 (P)	TIB (P)	05:34	NO	
					7.2 (G, GCMT)			NO	
12 Aug	11:54	Ecuador	1.260° S 77.312° E	201	7.2 (P, A)	TIB (P)	12:03	NO	
					7.1 (G, GCMT)	TIS (A)	12:09	NO	
13 Aug	21:20	South of Mariana Islands	12.480° N 141.482° E	12	7.2 (P, A, J)	TIB (P)	21:29	NO	
					6.9 (G, GCMT)	TIS (A)	21:30	NO	
						NWPTAC (J)	21:37		
14 Aug	07:30	South of Mariana Islands	12.350° N 141.492° E	12	6.5 (P, A, J)	TIB (P)	07:40	NO	
					6.1 (G, GCMT)	TIS (A)	07:41	NO	
						NWPTAC (J)	07:42		
14 Aug	23:01	South of Mariana Islands	12.211° N 141.408° E	12	6.5 (P, A, J)	TIB (P)	23:11	NO	
					6.3 (G, GCMT)	TIS (A)	23:12	NO	
						NWPTAC (J)	23:20		
3 Sep	11:16	Andreanof Islands, Aleutian Island	51.450° N 175.872° W	40	6.5 (P, A, G, GCMT)	TIS (A)	11:21	NO	
						TIB (P)	11:28	NO	
3-Sep	16:36	South Island, New Zealand	43.530° S 172.120° E	12	7.4 (P, A)	TIB (P)	16:45	NO	
					7.0 (G, GCMT)	TIS (A)	16:46	NO	
29-Sep	17:11	Aru Islands, Indonesia	4.920° S 133.783° E	15	7.2 (P, A)	NWPTAC (J)	17:39	NO	
					7.0 (J)	TIB (P)	18:08	NO	
					6.9 (G, GCMT)	TIS (A)	18:11		
21-Oct	17:53	Gulf of California	24.843° N 109.171° W	14	6.9 (P,A)	TIB (P)	18:02	NO	
					6.7 (G, GCMT)	TIS (A)	18:02	NO	
25-Oct	14:42	Southern Sumatra, Indonesia	3.484° S 100.114° E	12	7.5 (P,A,J)	LTW (P) 001	14:49	YES	0.38 m (amp) Padang
					7.7 (G)	TIS (A)	14:53		
					7.8 (GCMT)	TWI (J) 001	15:01		
						LTW (P) 002	15:49		
						TWI (J) 002	16:20		
						Cancel (P)	16:42		
						TWI (J) 003	17:20		
						TWI (J) 004	20:10		
						TWI (J) 005	21:30		
						TWI (J) 006	1:00		
30-Nov	3:24	Bonin Islands, Japan Region	28.365° N 139.152° E	464	6.9 (P,A,J)	NWPTAC (J)	3:31	NO	
					6.8 (G, GCMT)	TIB (P)	3:32	NO	
						TIS (A)	3:33		
2-Dec	3:12	New Britain Region, PNG	6.059° S 149.851° E	48	6.9 (P,A,J)	TIB (P)	3:19	NO	
					6.6 (G, GCMT)	TIS (A)	3:25	NO	
						NWPTAC (J)	3:26		