

B MELLÉKLET

A VILÁG JELENTŐS FÖLDRENGÉSEI

2006

Forrás:

*U.S. Geological Survey
National Earthquake Information Center
(USGS - NEIC)*

APPENDIX B

SIGNIFICANT EARTHQUAKES OF THE WORLD

2006

Source:

*U.S. Geological Survey
National Earthquake Information Center
(USGS - NEIC)*

Halálos áldozatot követelő földrengések a világon 2006-ban

Deaths from Earthquakes in 2006

Dátum Date	Ország, terület Region	Magnitúdó Magnitude	Áldozatok száma Number killed
2006 02 14	Sikkim, India	5.3	2
2006 02 22	Mozambique	7.0	4
2006 03 10	Pakistan	4.9	1
2006 03 14	Seram, Indonesia	6.7	4
2006 03 20	Northern Algeria	5.0	4
2006 03 25	Southern Iran	5.9	1
2006 03 31	Western Iran	6.1	70
2006 04 25	Tasmania, Australia Region	2.2	1
2006 05 26	Java, Indonesia	6.3	5 749
2006 06 03	Southern Iran	5.1	2
2006 07 17	South of Java, Indonesia	7.7	730
2006 07 22	Sichuan-Yunnan-Guizhou, China	5.0	22
2006 07 29	Tajikistan	5.6	3
2006 08 25	Eastern Sichuan, China	5.2	1
2006 09 29	Trinidad and Tobago	5.5	1
2006 12 01	Sumbawa Region, Indonesia	6.3	1
2006 12 17	Northern Sumatra	5.8	7
2006 12 26	Taiwan Region	7.1	2
	Összesen / Total		6 605

A 7.0 vagy annál nagyobb magnitúdójú földrengések a világon 2006-ban

Earthquakes of magnitude 7.0 and greater in 2006

	Év Year	Hónap Month	Nap Day	Idő Time (UTC)	Szélesség Latitude	Hosszúság Longitude	Mélység Depth (km)	Magnitúdó Magnitude	Ország, terület Region
1.	2006	01	02	06:10:49.2	-60.934	-21.575	10	7.4	East of the South Sandwich Islands
2.	2006	01	02	22:13:40.4	-19.926	-178.178	583	7.2	Fiji Region
3.	2006	01	27	16:58:53.6	-5.473	128.131	397	7.6	Banda Sea
4.	2006	02	22	22:19:07.8	-21.324	33.583	11	7.0	Mozambique
5.	2006	04	20	23:25:02.1	60.949	167.089	22	7.6	Koryakia, Russia
6.	2006	05	03	15:26:40.2	-20.187	-174.123	55	8.0	Tonga
7.	2006	05	16	10:39:23.3	-31.810	-179.307	152	7.4	Kermadec Islands Region
8.	2006	07	17	08:19:28.7	-9.254	107.411	34	7.7	South of Java, Indonesia
9.	2006	08	20	03:41:47.5	-61.029	-34.365	10	7.0	Scotia Sea
10.	2006	11	15	11:14:13.5	46.592	153.266	10	8.3	Kuril Islands
11.	2006	12	26	12:26:21.1	21.799	120.547	10	7.1	Taiwan Region

**A 6.5 vagy annál nagyobb magnitúdójú,
és a jelentősebb károkat okozó földrengések a világon 2006-ban**

**Earthquakes of magnitude 6.5 or greater
or ones that caused fatalities, injuries or substantial damage in 2006**

DÁTUM	IDŐ Ó M S	KOORDINÁTA SZÉL HOSSZ	MÉLYSÉG MAG KM	ÁLLOMÁS SZÁM	RÉGIÓ, TOVÁBBI MAGNITÚDÓK, MEGJEGYZÉSEK
DATE UTC	ORIGIN TIME UTC HR MN SEC	GEOGRAPHIC COORDINATES LAT LONG	DEPTH MAG	SD NO. STA USED	REGION, ADDITIONAL MAGNITUDES AND COMMENTS
JAN 02	06 10 49.2	60.934 S 21.575 W	10 G 7.4	1.2 209	EAST OF THE SOUTH SANDWICH ISLANDS. MW 7.4 (HRV), 7.1 (GS). mb 6.4 (GS). MS 7.3 (GS). ME 7.0 (GS). Mo 6.5*10**19 Nm (GS), 1.4*10**20 Nm (HRV), 1.8*10**20 Nm (PPT). Es 8.1*10**14 Nm (GS).
JAN 02	22 13 40.4	19.926 S 178.178 W	583 D 7.2	1.1 646	FIJI REGION. MW 7.2 (HRV), 7.1 (GS). mb 6.5 (GS). ME 7.2 (GS). Mo 7.1*10**19 Nm (HRV), 5.1*10**19 Nm (GS). Es 1.4*10**15 Nm (GS). Felt at Nuku'alofa, Tonga.
JAN 04	08 32 32.4	28.164 N 112.117 W	14 G 6.6	1.3 323	GULF OF CALIFORNIA. MW 6.6 (HRV), 6.5 (GS). mb 6.1 (GS). MS 6.7 (GS). ME 6.8 (GS). Mo 8.8*10**18 Nm (HRV), 6.8*10**18 Nm (GS), 5.1*10**18 Nm (PPT). Es 3.3*10**14 Nm (GS). Felt (IV) at Guaymas, Hermosillo and Bahia de Kino. Also felt at Guerrero Negro, Mulege, San Quintin and Santa Isabel.
JAN 08	11 34 55.5	36.305 N 23.217 E	66 G 6.7	1.3 713	SOUTHERN GREECE. MW 6.7 (GS), 6.7 (HRV). mb 6.5 (GS). ME 6.7 (GS). Mo 1.5*10**19 Nm (HRV), 1.3*10**19 Nm (GS). Es 2.6*10**14 Nm (GS). Three people slightly injured on Crete. Eighty homes and an airport damaged and phone service interrupted on Kythira. Minor damage and phone service interrupted on Crete and in Lakonia. Minor damage also on Karpathos. Felt (VI) at Amarusion; (V) at Irakleion, Kalamata, Chania and Nea Smirni; (IV) at Athens, Glifadha and Oikismos Papagou; (III) at Ermoupolis and Kifisia; (II) at Psikhikon. Also felt (IV) at Catania and Motta Sant'Anastasia; (III) at Caltagirone and Rutigliano; (II) at Campobasso, Italy. Felt (III) at Mgarr, Naxxar and San Ghiljan, Malta. Also felt (III) at Al Jizah and Cairo, Egypt. Also felt at Amman, Jordan and at Ramat Gan, Israel.
JAN 27	16 58 53.6	5.473 S 128.131 E	397 G 7.6	0.9 560	BANDA SEA. MW 7.6 (HRV), 7.5 (GS). mb 7.0 (GS). ME 7.4 (GS). Mo 3.5*10**20 Nm (HRV), 2.6*10**20 Nm (GS), 3.8*10**20 Nm (PPT). Es 2.5*10**15 Nm (GS). Felt (V) on Ambon; (IV) at Kupang, Saumlaki, Sorong, Tual, and Waingapu; (III) at Makassar, Indonesia. Felt at Denpasar. Felt (IV) at Dili, East Timor and (III) at Darwin, Australia. Felt (III) at Davao and Marawi, Mindanao, Philippines. Also felt at Jabiru and Humpty Doo-MacMinns Lagoon, Australia.
FEB 02	12 48 43.4	17.747 S 178.390 W	598 D 6.7	1.0 644	FIJI REGION. MW 6.7 (GS), 6.7 (HRV). mb 5.9 (GS). Mo 1.5*10**19 Nm (HRV), 1.4*10**19 Nm (GS), 8.5*10**18 Nm (PPT).
FEB 14	00 55 25.0	27.382 N 88.388 E	30 D 5.3	0.8 260	SIKKIM, INDIA. MW 5.3 (HRV). mb 5.4 (GS). MS 4.8 (GS). Mo 1.1*10**17 Nm (HRV). Two people killed by landslides at Sherathang. Two people injured in eastern Sikkim. Buildings and roads were damaged in the Gangtok area and at Bardan and Rangpo. Minor damage to buildings at Shiliguri, West Bengal. Felt at Darjiling, Guwahati, Itanagar, Jalpaiguri, Karsiyang, Koch Bihar, Maldah and Shillong. Also felt at Kathmandu, Nepal; at Dinajpur, Nilphamari, Pabna, Rajshahi, Rangpur, Sylhet and Thakurgaon, Bangladesh; and at Paro Chhu, Phuntsholing and Thimphu, Bhutan.
FEB 20	17 20 09.0&	41.708 N 25.544 E	10 G 4.6	140	GREECE-BULGARIA BORDER REGION. . mb 4.6 (GS). ML 4.6 (THE), 4.6 (ATH). MD 4.5 (SOF), 4.4 (PDG). Two people injured, at least 175 buildings slightly damaged and power and telephone service interrupted in the Murgovo area, Bulgaria.
FEB 22	22 19 07.8	21.324 S 33.583 E	11 G 7.0	1.4 412	MOZAMBIQUE. MW 7.0 (GS), 7.0 (HRV). mb 6.5 (GS). MS 7.5 (GS). ME 6.9 (GS). Mo 4.6*10**19 Nm (GS), 4.5*10**19 Nm (HRV), 1.3*10**19 Nm (PPT). Es 4.4*10**14 Nm (GS). One person killed at Espungabera, one killed at Machaze and 2 killed at Beira. Thirty-six people injured and at least 294 buildings damaged in the Espungabera-Beira-Chimoio area. Power outages occurred at

A világ jelentős földrengései

Significant Earthquakes of the World

											Maputo. Felt (V) at Beira, Inhambane and Maputo; (IV) at Matola. Felt (IV) at Harare and Mutare, Zimbabwe. Also felt (IV) at Louis Trichardt and Phalaborwa; (III) at Durban and Middelburg; (II) at Johannesburg and Pretoria, South Africa. Felt throughout Mozambique and eastern Zimbabwe. Felt in Swaziland and at Lobatse, Botswana and Lusaka, Zambia.
FEB 28	07 31 02.6	28.120 N	56.865 E	18 G	6.0	1.3	480	SOUTHERN IRAN. MW 6.0 (GS), 6.0 (HRV). mb 5.8 (GS). MS 6.2 (GS). ME 5.4 (GS). mbLg 5.8 (TEH). Mo 1.3*10**18 Nm (HRV), 1.1*10**18 Nm (GS). Es 2.5*10**12 Nm (GS). Six people injured in Kahnuj. Many buildings damaged or destroyed at Faryab. Minor damage to many buildings at Baft and to some buildings in the Jiroft-Orzuieh area. Felt at Kahnuj and Kerman. Felt (III) at Dubai, United Arab Emirates. Also felt at Ash Shariqah and Ras al Khaymah, United Arab Emirates.			
MAR 07	18 20 46.1	23.777 N	70.899 E	10 G	5.5	1.1	199	GUJARAT, INDIA. MW 5.5 (GS), 5.5 (HRV). mb 5.2 (GS). MS 5.1 (GS). Mo 2.2*10**17 Nm (GS), 2.0*10**17 Nm (HRV). At least seven people injured in the Jatawada-Rapar area and some buildings damaged at Jatawada. Felt (IV) at Ahmadabad, Bhuj, Morbi and Rajkot; (II) at Vadodara. Felt in much of Gujarat and in southern Rajasthan. Also felt at Matli, Pakistan.			
MAR 10	07 50 14.3	33.129 N	73.887 E	10 G	4.9	0.9	124	PAKISTAN. mb 4.9 (GS). One person killed and 22 injured in Mirpur District. Felt at Islamabad, Jhelum, Lahore and Peshawar.			
MAR 14	06 57 33.8	3.595 S	127.214 E	30 D	6.7	1.2	306	SERAM, INDONESIA. MW 6.7 (GS), 6.7 (HRV). mb 6.4 (GS). MS 6.7 (GS). ME 7.0 (GS). Mo 1.5*10**19 Nm (GS), 1.4*10**19 Nm (HRV), 2.5*10**19 Nm (PPT). Es 7.6*10**14 Nm (GS). At least three people killed and one missing due to a local tsunami with an observed wave height (peak-to-trough) of 7 meters on Buru. Maximum run-in was about 100 meters. Ground cracks about 500 meters long with maximum width of about 15 centimeters were observed in the area. Liquefaction was also observed in the area. One hundred sixteen houses damaged or destroyed at Pela, 54 at Batu Jugku, 30 at Waimorot, 25 at Wailawa and 16 at Waimoly. Felt (VI) at Namlea, Buru and (V) on Ambon.			
MAR 20	19 44 25.1	36.623 N	5.328 E	10 G	5.0	1.1	283	NORTHERN ALGERIA. mb 5.0 (GS). MS 4.9 (GS). Four people killed and nine injured; 30 houses destroyed and 32 damaged; roads damaged, power outages occurred and water lines broken in the Kherrata area. Felt strongly in eastern Bejaia.			
MAR 25	07 28 57.6	27.574 N	55.685 E	18 G	5.9	1.1	503	SOUTHERN IRAN. MW 5.9 (HRV), 5.8 (GS). mb 5.7 (GS). MS 5.5 (GS). ME 5.4 (GS). ML 5.6 (TEH), 5.4 (THR). Mo 7.6*10**17 Nm (HRV), 5.7*10**17 Nm (GS). Es 2.6*10**12 Nm (GS). One person killed and one person injured at Fin. Damage to homes in Hormozgan Province. Felt at Bandar-e Abbas. Also felt at Abu Dhabi, Dubai, Ra's al Khaymah and Sharjah, United Arab Emirates.			
MAR 31	01 17 00.9	33.500 N	48.780 E	7 G	6.1	1.1	586	WESTERN IRAN. MW 6.1 (HRV), 5.9 (GS). mb 5.7 (GS). MS 6.0 (GS). ME 6.0 (GS). ML 6.1 (THR). mbLg 5.9 (TEH). Mo 1.6*10**18 Nm (HRV), 1.0*10**18 Nm (GS). Es 2.1*10**13 Nm (GS). At least 70 people killed, more than 1300 people injured and 40 villages completely destroyed in the Borujerd-Dorud area. Felt (VIII) at Borujerd and (IV) at Hamadan.			
MAR 31	13 21 00.3	29.609 S	176.825 W	17 G	6.5	1.0	206	KERMADEC ISLANDS REGION. MW 6.5 (GS), 6.5 (HRV). mb 5.9 (GS). MS 6.7 (GS). ME 6.3 (GS). Mo 7.3*10**18 Nm (HRV), 6.6*10**18 Nm (GS), 1.1*10**19 Nm (PPT). Es 5.6*10**13 Nm (GS).			
APR 01	10 02 19.5	22.868 N	121.278 E	9 G	6.1	1.0	429	TAIWAN REGION. MW 6.1 (GS), 6.1 (HRV). mb 6.0 (GS). MS 6.1 (GS). ME 6.6 (GS). ML 6.4 (TAP). Mo 2.0*10**18 Nm (GS), 2.0*10**18 Nm (HRV). Es 1.8*10**14 Nm (GS). Forty-two people injured and some buildings damaged in T'ai-tung County. Felt in much of Taiwan. Recorded (6 TAP) at T'ai-tung. Recorded (5 TAP) in T'ai-tung; (4 TAP) in Kao-hsiung, P'ing-tung and T'ai-nan; (3 TAP) in Chia-i, Hua-lien, Nan-t'ou and Yun-lin; (2 TAP) in Chang-hua, Miao-li and I-lan; (1 TAP) in P'eng-hu Counties.			
APR 04	09 12 23.4	34.600 N	73.136 E	10 G	4.6	1.2	109	PAKISTAN. MW 4.6 (HRV). mb 4.8 (GS). Mo 1.0*10**16 Nm (HRV). Twenty-eight people injured and several houses damaged or destroyed at Batgram. Felt at Balakot, Islamabad, Kohistan, Mansehra and Peshawar. Also felt at Muzaffarabad, Kashmir.			
APR 07	08 30 44.6	16.527 S	176.989 E	14 G	6.5	1.1	247	FIJI REGION. MW 6.5 (HRV), 6.4 (GS). mb 5.9 (GS). MS 6.4 (GS). ME 7.4 (GS). Mo 6.2*10**18 Nm (HRV), 5.3*10**18 Nm (GS), 7.8*10**18 Nm (PPT). Es 2.4*10**15 Nm (GS). Felt (IV) at Nadi and (III) at Lautoka. Felt at Lami and Nausori.			

Significant Earthquakes of the World

A világ jelentős földrengései

APR 20	23 25 02.1	60.949 N	167.089 E	22 G	7.6	0.9	579	NEAR THE EAST COAST OF KORYAKIA, RUSSIA. MW 7.6 (HRV), 7.3 (GS), 7.2 (OBN). mb 6.8 (GS). MS 7.6 (GS). ME 7.3 (GS). Mo 9.6×10^{19} Nm (GS), 3.0×10^{20} Nm (HRV), 7.9×10^{19} Nm (OBN), 7.3×10^{20} Nm (PPT). Es 1.7×10^{15} Nm (GS). About 40 people injured and the villages of Apuka, Khailino and Vyvenka were destroyed. Some buildings and water supply systems badly damaged in the Korf-Tilichiki area. Damage estimated at 55 million U.S. dollars. Felt (V) at Korf, Ossora and Tilichiki; (II) at Magadan.
APR 25	11 26 25.1& 41.164 S	146.863 E		4	2.2		4	TASMANIA, AUSTRALIA REGION. . ML 2.2 (MEL). A rockfall in a mine near Beaconsfield killed one miner and trapped two others for 14 days. Also felt at Launceston.
APR 29	16 58 06.3	60.491 N	167.516 E	11 G	6.6	0.8	645	NEAR THE EAST COAST OF KORYAKIA, RUSSIA. MW 6.6 (HRV), 6.4 (GS), 6.6 (OBN). mb 6.4 (GS). MS 6.6 (GS). ME 6.5 (GS). Mo 9.4×10^{18} Nm (HRV), 4.4×10^{18} Nm (GS), 9.0×10^{18} Nm (OBN). Es 1.1×10^{14} Nm (GS). Felt at Tilichiki.
APR 30	19 17 14.9	27.017 S	71.022 W	12 G	6.7	1.2	277	OFFSHORE ATACAMA, CHILE. MW 6.7 (GS), 6.6 (HRV). mb 6.0 (GS). MS 6.4 (GS). ME 6.5 (GS). ML 6.3 (GUC). Mo 1.6×10^{19} Nm (GS), 1.0×10^{19} Nm (HRV), 1.0×10^{19} Nm (PPT). Es 1.3×10^{14} Nm (GS). Felt (V) at Copiapo; (IV) at Caldera and Chanaral; (III) at Huasco. Felt at Talta. Also felt at San Juan, Argentina.
APR 30	21 40 58.4	27.211 S	71.056 W	12 G	6.5	1.3	282	OFFSHORE ATACAMA, CHILE. MW 6.5 (HRV). mb 5.9 (GS). MS 6.7 (GS). ME 6.2 (GS). ML 6.3 (GUC). Mo 6.5×10^{18} Nm (HRV), 1.0×10^{19} Nm (PPT). Es 4.2×10^{13} Nm (GS). Felt (VI) at Copiapo, (IV) at Caldera and (II) at La Serena.
MAY 03	15 26 40.2	20.187 S	174.123 W	55 G	8.0	1.2	626	TONGA. MW 8.0 (HRV), 7.9 (GS). mb 7.2 (GS). MS 7.8 (GS). ME 8.1 (GS). Mo 8.5×10^{20} Nm (GS), 1.1×10^{21} Nm (HRV), 1.4×10^{21} Nm (PPT). Es 2.8×10^{16} Nm (GS). One person injured, a church damaged, windows broken and items knocked from shelves (VII) at Nuku'alofa. Felt (VII) at Neiafu. Felt at Hihifo, Pangai and Vaini. Felt (III) at Apia, Samoa. Felt in American Samoa. Felt at Atiu and Avarua, Cook Islands; at Suva, Fiji; at Alofi, Niue; at Mulifanua, Samoa. Also felt at Auckland, Mingingui, Napier, Wanganui, Wellington and Whakatane, New Zealand. A tsunami was generated with recorded wave heights in meters (peak-to-trough) at the following selected tide stations: 0.54 at Pago Pago, American Samoa; 0.10 at Tofino, British Columbia, Canada; 0.13 at Raratonga, Cook Islands; 0.07 at Suva, Fiji; 0.15 at Hanasaki, Japan; 0.48 at Noumea, New Caledonia; 0.15 at Jackson Bay, New Zealand; 0.42 on Niue; 0.42 at Apia, Samoa; 0.42 at Nuku'alofa, Tonga; 0.13 at King Cove, Alaska, 0.54 at Crescent City, California, 0.35 at Santa Barbara, California, 0.10 at San Francisco, California, 0.49 at Kahului, Hawaii, 0.12 at Portland, Oregon, 0.11 at La Push, Washington, U.S.A.; 0.45 at Port-Vila, Vanuatu.
MAY 07	06 20 53.7& 30.790 N	56.700 E		14 G	5.0		148	CENTRAL IRAN. . MW 5.0 (HRV). mb 4.8 (GS). MS 4.1 (GS). mbLg 5.2 (TEH). ML 4.7 (THR). Mo 3.4×10^{16} Nm (HRV). More than 70 people injured slightly and some buildings and roads damaged in the Zarand area.
MAY 16	10 39 23.3	31.810 S	179.307 W	152 G	7.4	1.3	613	KERMADEC ISLANDS REGION. MW 7.4 (GS), 7.4 (HRV). mb 6.8 (GS). ME 7.2 (GS). Mo 1.8×10^{20} Nm (HRV), 1.6×10^{20} Nm (GS), 3.9×10^{20} Nm (PPT). Es 1.2×10^{15} Nm (GS). Felt (III) at Christchurch and Wellington, New Zealand. Also felt at Auckland, Gisborne, Hastings, Napier, Tauranga and Wanganui, New Zealand. Also felt on Kapiti Island, New Zealand.
MAY 16	15 28 25.9	0.093 N	97.050 E	12 G	6.8	0.8	701	NIAS REGION, INDONESIA. MW 6.8 (GS), 6.8 (HRV). mb 6.6 (GS). MS 6.8 (GS). ME 7.6 (GS). Mo 2.1×10^{19} Nm (GS), 2.1×10^{19} Nm (HRV). Es 5.2×10^{15} Nm (GS). Felt (VI) at Gunungsitoli. Felt (V) at Sibolga; (IV) at Banda Aceh and Padang; felt at Bukittinggi and Medan, Sumatra. Felt at Balakong, Butterworth and Kuala Lumpur, Malaysia. Also felt in Singapore. Ground cracks observed on Nias.
MAY 22	11 12 00.8	60.772 N	165.743 E	19 G	6.6	1.0	548	NEAR THE EAST COAST OF KORYAKIA, RUSSIA. MW 6.6 (HRV), 6.5 (GS), 6.4 (OBN). mb 6.0 (GS). MS 6.7 (GS). ME 6.8 (GS). Mo 7.3×10^{18} Nm (GS), 1.0×10^{19} Nm (HRV), 5.0×10^{18} Nm (OBN), 1.0×10^{19} Nm (PPT). Es 4.1×10^{14} Nm (GS). Felt (VII) at Tilichiki.
MAY 26	22 53 58.9	7.961 S	110.446 E	13 D	6.3	1.3	213	JAVA, INDONESIA. MW 6.3 (GS), 6.3 (HRV). mb 6.0 (GS). MS 6.2 (GS). ME 6.8 (GS). Mo 4.2×10^{18} Nm (GS), 4.2×10^{18} Nm (HRV), 6.8×10^{18} Nm (PPT). Es 3.8×10^{14} Nm (GS). At least 5,749

A világ jelentős földrengései

Significant Earthquakes of the World

people were killed, 38,568 were injured and as many as 600,000 people were displaced in the Bantul-Yogyakarta area. More than 127,000 houses were destroyed and an additional 451,000 were damaged in the area, with the total loss estimated at approximately 3.1 billion U.S. dollars. Felt (IX) at Bantul and Klaten, (VIII) at Sleman and Yogyakarta, (V) at Surakarta, (IV) at Salatiga and Blitar and (II) at Surabaya. Felt in much of Java. Also felt at Denpasar, Bali.

MAY 28	03 12 08.7	5.724 S	151.133 E	34 G	6.5	0.9	477	NEW BRITAIN REGION, PAPUA NEW GUINEA. MW 6.5 (HRV), 6.4 (GS), mb 5.9 (GS), MS 6.6 (GS), ME 5.8 (GS), Mo 6.1*10**18 Nm (HRV), 4.6*10**18 Nm (GS), 6.5*10**18 Nm (PPT), Es 9.8*10**12 Nm (GS). Felt at Kimbe.
JUN 03	07 15 35.6	26.759 N	55.843 E	12 D	5.1	1.0	344	SOUTHERN IRAN. MW 5.1 (HRV), mb 5.4 (GS), ML 5.1 (THR), Mo 6.5*10**16 Nm (HRV). Two people killed and four injured on Qeshm. Some buildings damaged at Ramkan. Felt at Khamir.
JUN 11	20 01 26.3	33.134 N	131.145 E	140 G	6.3	0.8	623	KYUSHU, JAPAN. MW 6.3 (GS), 6.3 (HRV), 6.3 (NIED), mb 5.9 (GS), ME 5.8 (GS), Mo 4.2*10**18 Nm (GS), 4.2*10**18 Nm (HRV), 4.1*10**18 Nm (NIED), Es 1.3*10**13 Nm (GS). At least eight people injured in Miyazaki Prefecture, Kyushu; Ehime Prefecture, Shikoku; and Hiroshima and Yamaguchi Prefectures, Honshu. Felt (V) at Hiroshima and Iwakuni, Honshu. Felt widely in southern and western Japan. Recorded (5L JMA) in Oita; (4 JMA) in Kumamoto and Miyazaki; (3 JMA) in Fukuoka, Kagoshima and Saga; (2 JMA) in Nagasaki Prefectures, Kyushu. Recorded (5L JMA) in Hiroshima; (4 JMA) in Okayama, Shimane and Yamaguchi; (3 JMA) in Hyogo and Tottori; (2 JMA) in Aichi, Gifu, Kyoto, Mie, Nara, Osaka, Shiga and Wakayama; (1 JMA) in Fukui, Nagano and Shizuoka Prefectures, Honshu. Also recorded (5L JMA) in Ehime; (4 JMA) in Kagawa and Kochi; (3 JMA) in Tokushima Prefectures, Shikoku.
JUN 13	14 15 38.38	40.270 N	19.960 E	10	4.5		286	ALBANIA, . mb 4.5 (GS), ML 4.8 (ATH), 4.5 (ROM), 4.5 (PDG), 4.5 (CSEM), 4.0 (BUC). One person slightly injured and at least 12 houses damaged at Tepelene.
JUN 14	04 18 42.5	51.752 N	177.082 E	14 G	6.5	1.3	470	RAT ISLANDS, ALEUTIAN ISLANDS, ALASKA. MW 6.5 (HRV), 6.4 (GS), mb 5.9 (GS), MS 6.4 (GS), ME 6.9 (GS), ML 6.1 (AEIC), Mo 6.4*10**18 Nm (HRV), 5.5*10**18 Nm (GS), 3.9*10**18 Nm (PPT), Es 4.6*10**14 Nm (GS). Felt (V) on Shemya.
JUN 20	16 52 57.9	33.068 N	104.950 E	24	4.9	0.9	198	GANSU, CHINA. MW 4.9 (HRV), mb 5.1 (GS), MS 4.5 (GS), Mo 3.0*10**16 Nm (HRV). Five people injured in Gansu. Twenty-five houses damaged at Xinsi. At least six buildings damaged at Linjiang and Liping. Two landslides damaged the road between Wen Xian and Wudu Counties.
JUN 28	21 02 09.9	26.925 N	55.866 E	11 G	5.8	1.0	608	SOUTHERN IRAN. MW 5.8 (HRV), 5.7 (GS), mb 5.8 (GS), MS 5.5 (GS), ME 5.6 (GS), ML 5.6 (THR), Mo 6.4*10**17 Nm (HRV), 5.3*10**17 Nm (GS), Es 5.5*10**12 Nm (GS). Nine people injured and power outages occurred on Jazireh-ye Qeshm. Felt at Bandar `Abbas. Felt (IV) at Ra's al Khaymah and (III) at Abu Dhabi, Dubai and Sharjah, United Arab Emirates. Felt at Ajman, United Arab Emirates.
JUL 08	20 40 00.9	51.214 N	179.312 W	22 G	6.6	1.0	632	ANDREANOF ISLANDS, ALEUTIAN IS., ALASKA. MW 6.6 (GS), 6.6 (HRV), mb 6.2 (GS), MS 6.4 (GS), ME 6.0 (GS), ML 6.5 (AEIC), Mo 1.1*10**19 Nm (GS), 1.0*10**19 Nm (HRV), 1.2*10**19 Nm (PPT), Es 2.1*10**13 Nm (GS). Felt on Adak.
JUL 17	08 19 28.7	9.254 S	107.411 E	34 G	7.7	1.1	299	SOUTH OF JAVA, INDONESIA. MW 7.7 (HRV), 7.2 (GS), mb 6.1 (GS), MS 7.2 (GS), ME 7.2 (GS), Mo 8.1*10**19 Nm (GS), 4.0*10**20 Nm (HRV), 1.2*10**20 Nm (PPT), Es 1.2*10**15 Nm (GS). Four-hundred and thirteen people killed, 2,741 injured and 15 missing in Ciamis; 62 people killed, 6,124 injured and 2 missing in Tasikmalaya; 15 people killed and 244 injured at Banjar; 1 person killed and 30 injured in Garut; 157 people killed, 104 injured and 15 missing in Cilacap; 10 people killed, 22 injured and 33 missing in Kebumen; 1 person killed in Banyumas; 3 people killed and 10 injured in Gunung Kidul; 3 people killed in Bantul. At least 1,540 buildings damaged or destroyed, 176 boats destroyed and many roads damaged in Jawa Barat. At least 83 buildings damaged and 698 boats damaged or destroyed in Jawa Tengah. Felt (IV) at Bandung, Jakarta, Pangandaran and Tasikmalaya; (III) at Cianjur; (II) at Karangates, Sawahan and Yogyakarta. Felt at Banda Aceh, Sukabumi and Surabaya. Also felt at Broome, Australia; Subang Jaya, Malaysia and in Singapore. All deaths and damage were a result of a tsunami with maximum

											runup heights of 4.6 m at Widarapayung, 3.6 m at Cikembulan, 3.4 m at Parang Kusumo and 1.8 m at Pangandaran. Inundation was at least 457 m at Buntong, 422 m at Cikembulan and 304 m at Suwuk. Wave heights in centimeters (peak-to-trough) were recorded at the following selected tide stations: 82.7 at Christmas Island, 28.8 at Hillarys, 19.5 at Esperance, 11.9 at Cocos Island and 4.5 at Broome, Australia; 24.3 at Benoa and 11.9 at Sabang, Indonesia; 21.4 at Hanimaadhoo, Maldives; 73.8 at Rodriguez, Mauritius.
JUL 22	01 10 29.0	27.995 N	104.138 E	56	5.0	0.9	263	SICHUAN-YUNNAN-GUIZHOU REGION, CHINA.	mb 5.0 (GS). MS 4.6 (GS). Twenty-two people killed and at least 106 injured due to a landslide in Yanjin County.		
JUL 29	00 11 51.3	37.255 N	68.828 E	34 D	5.6	0.9	184	TAJIKISTAN.	MW 5.6 (HRV), 5.4 (GS). mb 4.8 (GS). MS 5.2 (GS). Mo 2.8×10^{17} Nm (HRV), 1.5×10^{17} Nm (GS). Three people killed, 19 injured, 721 houses destroyed, 1,205 damaged and power outages occurred in the Panj-Qumsangir area.		
AUG 07	22 18 54.0	15.777 S	167.799 E	141 D	6.8	1.1	550	VANUATU.	MW 6.8 (GS), 6.8 (HRV). mb 6.0 (GS). ME 6.8 (GS). Mo 2.0×10^{19} Nm (HRV), 1.9×10^{19} Nm (GS), 2.4×10^{19} Nm (PPT). Es 3.5×10^{14} Nm (GS). Felt at Luganville, Espiritu Santo.		
AUG 20	03 41 47.5	61.029 S	34.365 W	10 G	7.0	1.0	322	SCOTIA SEA.	MW 7.0 (GS), 7.0 (HRV). mb 6.4 (GS). MS 6.8 (GS). ME 7.6 (GS). Mo 3.6×10^{19} Nm (HRV), 3.5×10^{19} Nm (GS). Es 5.3×10^{15} Nm (GS).		
AUG 24	21 50 36.6	51.148 N	157.522 E	43 G	6.5	0.8	700	NEAR THE EAST COAST OF KAMCHATKA, RUSSIA.	MW 6.5 (GS), 6.5 (HRV). mb 5.9 (GS). MS 6.2 (GS). ME 6.0 (GS). Mo 6.1×10^{18} Nm (GS), 6.1×10^{18} Nm (HRV), 7.5×10^{18} Nm (PPT). Es 2.3×10^{13} Nm (GS). Felt at Petropavlovsk-Kamchatskiy.		
AUG 25	00 44 46.1	24.405 S	67.028 W	184 D	6.6	0.9	455	SALTA, ARGENTINA.	MW 6.6 (GS), 6.6 (HRV). mb 5.9 (GS). Mo 9.2×10^{18} Nm (HRV), 8.9×10^{18} Nm (GS), 8.5×10^{18} Nm (PPT). Felt (III) at Salta. Felt (IV) at Antofagasta, Baquedano, Calama, Chanaral, Maria Elena, Mejillones and Sierra Gorda; (III) at Caldera, Copiapo, Huara, Iquique, Pozo Almonte, San Pedro de Atacama, Tierra Amarilla and Tocopilla; (II) at Diego de Almagro, El Salvador, Freirina, Huasco and Vallenar, Chile.		
AUG 25	05 51 44.3	28.012 N	104.151 E	22	5.2	0.7	255	EASTERN SICHUAN, CHINA.	mb 5.2 (GS). MS 4.6 (GS). At least one person killed, 31 injured, buildings destroyed and landslides damaged roads in the Doushaguan-Yanjin area. Felt as far north as Chengdu.		
SEP 01	10 18 51.6	6.759 S	155.512 E	38 G	6.8	0.8	459	BOUGAINVILLE REGION, PAPUA NEW GUINEA.	MW 6.8 (GS), 6.7 (HRV). mb 6.3 (GS). MS 6.7 (GS). ME 6.5 (GS). Mo 1.7×10^{19} Nm (GS), 1.5×10^{19} Nm (HRV), 1.4×10^{19} Nm (PPT). Es 1.1×10^{14} Nm (GS).		
SEP 28	06 22 09.7	16.592 S	172.033 W	28 G	6.9	0.9	702	SAMOA ISLANDS REGION.	MW 6.9 (HRV), 6.7 (GS). mb 6.5 (GS). MS 6.6 (GS). ME 6.7 (GS). Mo 2.5×10^{19} Nm (HRV), 1.3×10^{19} Nm (GS). Es 2.9×10^{14} Nm (GS). Felt (IV) at Alofi and (III) at Tamakautoga, Niue. Felt (III) at Apia. Also felt (III) at Neiafu, Tonga. A tsunami with a wave height of 16 cm (peak-to-trough) was recorded at Pago Pago, American Samoa.		
SEP 29	13 08 26.1	10.876 N	61.756 W	53 D	6.1	0.9	595	TRINIDAD REGION, TRINIDAD AND TOBAGO.	MW 6.1 (HRV), 6.0 (GS), 6.1 (CAR). mb 5.9 (GS). MS 5.4 (GS). Mo 1.5×10^{18} Nm (HRV), 1.1×10^{18} Nm (GS). Three people injured in the Port-of-Spain area. One building destroyed and one damaged at California. Several buildings damaged on Tobago and in parts of northern Trinidad, including minor damage to buildings at Port-of-Spain. Felt (VI) at Arima, Arouca, Chaguana, Couva, Mucurapo, Princes Town, Saint Joseph, San Juan, Tacarigua and Tunapuna; (V) at Point Fortin, Port-of-Spain and San Fernando. Felt (IV) at Ciudad Guayana, Venezuela; (III) at Georgetown, Guyana and Kingstown, Saint Vincent and the Grenadines. Felt throughout Trinidad and Tobago and in parts of northern Venezuela, including Caracas. Also felt in Grenada, St. Lucia and Saint Vincent and the Grenadines. Also felt at Georgetown, Guyana. Power outages occurred in northern and eastern Trinidad and parts of Tobago.		
SEP 29	18 23 05.9	10.814 N	61.758 W	52 D	5.5	1.1	359	TRINIDAD REGION, TRINIDAD AND TOBAGO.	MW 5.5 (GS), 5.5 (HRV), 5.4 (CAR). mb 5.3 (GS). MS 4.8 (GS). Mo 2.4×10^{17} Nm (HRV), 2.1×10^{17} Nm (GS). One person killed at Gasparillo. Felt (VI) at San Juan and (V) at Arouca, Chaguana, Port-of-Spain, San Fernando and Tunapuna. Felt (III) at Ciudad Guayana, Venezuela. Felt in Grenada and Saint Vincent and the Grenadines.		

A világ jelentős földrengései

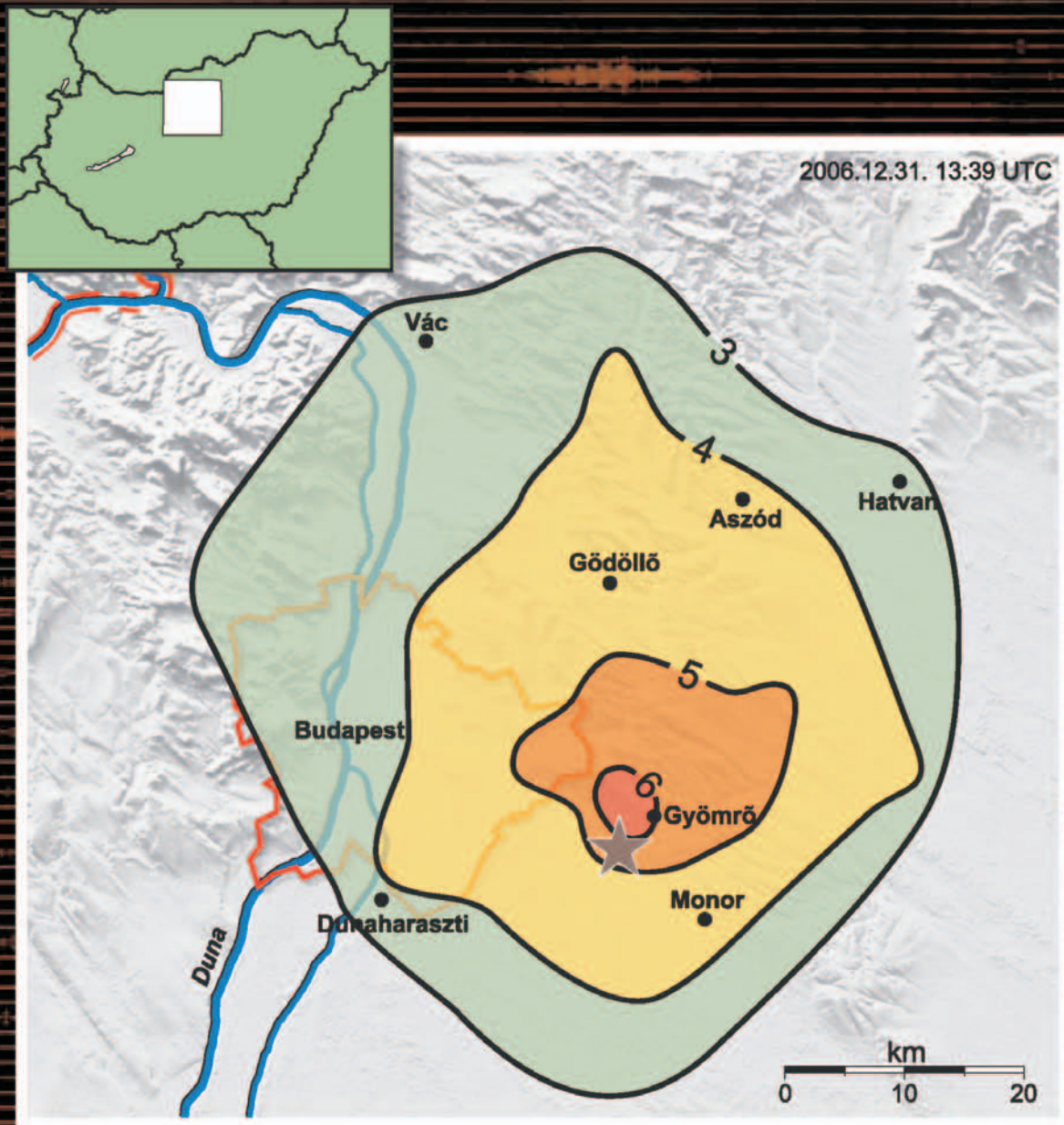
Significant Earthquakes of the World

SEP 30	17 50 23.0	46.351 N	153.166 E	11 G	6.6	1.0	603	KURIL ISLANDS. MW 6.6 (GS), 6.6 (HRV). mb 6.1 (GS). MS 6.5 (GS). ME 6.4 (GS). Mo 9.3×10^{18} Nm (HRV), 1.0×10^{19} Nm (GS), 1.6×10^{19} Nm (PPT). Es 8.6×10^{13} Nm (GS).
OCT 01	09 06 02.3	46.470 N	153.240 E	19 G	6.6	0.9	628	KURIL ISLANDS. MW 6.6 (HRV), 6.5 (GS). mb 6.1 (GS). MS 6.4 (GS). ME 6.5 (GS). Mo 8.8×10^{18} Nm (HRV), 6.0×10^{18} Nm (GS), 1.6×10^{19} Nm (PPT). Es 1.3×10^{14} Nm (GS). Felt (II) at Misawa, Japan.
OCT 09	05 12 50.9*	30.941 N	66.541 E	10 G	4.4	1.0	16	PAKISTAN. mb 4.4 (GS). At least three injured in Chaman.
OCT 15	17 07 49.2&	19.878 N	155.935 W	39	6.7		425	ISLAND OF HAWAII, HAWAII. MW 6.7 (GS), 6.7 (HRV). mb 6.2 (GS). MS 6.6 (GS). ME 6.7 (GS). Mo 1.3×10^{19} Nm (HRV), 1.2×10^{19} Nm (GS). Es 2.3×10^{14} Nm (GS). Numerous people suffered minor injuries, at least 1,173 buildings damaged, roads damaged and landslides blocked roads on Hawai'i. Power outages occurred throughout the Hawaiian Islands. Damage estimated at 73 million dollars. Felt (VII-VIII) in northern and western Hawai'i and (V-VI) in eastern and southern Hawai'i. Also felt (VI) on Maui; (V) on Lana'i, Moloka'i and O'ahu; (IV) on Kaua'i. A tsunami with a wave height of 10 cm was recorded at Kawaihae Harbor.
OCT 17	01 25 12.2	5.881 S	150.982 E	32 G	6.7	1.0	533	NEW BRITAIN REGION, PAPUA NEW GUINEA. MW 6.7 (HRV), 6.6 (GS). mb 6.4 (GS). MS 6.9 (GS). ME 6.5 (GS). Mo 1.3×10^{19} Nm (HRV), 1.0×10^{19} Nm (GS), 2.8×10^{19} Nm (PPT). Es 1.2×10^{14} Nm (GS). Felt at Kimbe, Kokopo and Rabaul.
OCT 20	10 48 56.0	13.457 S	76.677 W	23 G	6.7	1.0	444	NEAR THE COAST OF CENTRAL PERU. MW 6.7 (HRV), 6.6 (GS). mb 5.9 (GS). MS 6.6 (GS). ME 6.5 (GS). MD 6.5 (QUI), ML 6.2 (LIM). Mo 1.3×10^{19} Nm (HRV), 1.0×10^{19} Nm (GS), 1.5×10^{19} Nm (PPT). Es 1.1×10^{14} Nm (GS). Minor damage (IV) to some houses at Pisco. Felt (IV) at Chíncha and Lima. Felt at Chaclacayo, Chíncha Alta, Chosica, Ica, Nuevo Imperial, Pachacamac and San Luis. Also felt at Guayaquil, Ecuador.
NOV 07	17 38 33.6	6.482 S	151.195 E	10 G	6.5	1.0	350	NEW BRITAIN REGION, PAPUA NEW GUINEA. MW 6.5 (HRV), 6.4 (GS). mb 6.2 (GS). MS 6.3 (GS). Mo 7.6×10^{18} Nm (HRV), 4.3×10^{18} Nm (GS).
NOV 13	01 26 34.2	26.041 S	63.221 W	552	6.8	0.9	481	SANTIAGO DEL ESTERO, ARGENTINA. MW 6.8 (GS), 6.8 (HRV). mb 6.3 (GS). ME 6.6 (GS). Mo 2.1×10^{19} Nm (HRV), 1.8×10^{19} Nm (GS), 1.7×10^{19} Nm (PPT). Es 1.5×10^{14} Nm (GS). Felt (III) in Catamarca, Corrientes, La Rioja and San Juan. Also felt at Asuncion, Paraguay and Antofagasta, Chile.
NOV 15	11 14 13.5	46.592 N	153.266 E	10 G	8.3	1.1	576	KURIL ISLANDS. MW 8.3 (HRV), 7.9 (GS). mb 6.5 (GS). MS 7.8 (GS). ME 7.7 (GS). Mo 8.7×10^{20} Nm (GS), 3.4×10^{21} Nm (HRV), 2.0×10^{21} Nm (PPT). Es 6.8×10^{15} Nm (GS). One person injured at Waikiki by a tsunami with a recorded wave height of 34 cm at Honolulu, Hawaii. One parking lot was flooded at Nawiliwili, Hawaii by a tsunami with a recorded wave height of 88 cm. Two docks destroyed and at least one damaged at Crescent City, California by a tsunami with a recorded wave height of 176 cm. Felt at Misawa and Yokosuka, Japan and at Petropavlovsk-Kamchatskiy, Russia. Recorded (2 JMA) in eastern and south-central Hokkaido. Recorded (1 JMA) in western Hokkaido and in Aomori, Iwate and Miyagi Prefectures, Honshu. Tsunami wave heights in centimeters (peak-to-trough) were recorded at the following tide stations: 44 at Pago Pago, American Samoa; 97 at Talcahuano, 82 at Arica, 76 at Caldera, 66 at Coquimbo, 64 at Iquique, 46 at Antofagasta and 40 at Juan Fernandez, Chile; 18 at Rarotonga, Cook Islands; 88 at Nuku Hiva and 11 at Rikitea, French Polynesia; 67 at Santa Cruz and 62 at Baltra, Galapagos Islands; 120 at Tokachi-ko, 100 at Chichi-jima, 80 at Hana-saki, 60 at Hachinohe, 40 at Hakodate, 40 at Kushiro, 40 at Nemuro and 13 at Naha, Japan; 35 on Shikotan, Kuril Islands; 6 on Kanton, Kiribati; 96 on Midway Island; 28 on Kwajalein, Marshall Islands; 58 at Timaru Port, 56 at Kaingaroa, Chatham Island, 33 at Lyttelton Port, 33 at Sumner Head, 32 at Kaikoura and 21 at Moturiki Island, New Zealand; 13 on Niue; 13 on Manus Island, Papua New Guinea; 73 at Callao-La Punta and 24 at Atico, Peru; 57 at Apia, Samoa; 7 at Honiara, Solomon Islands; 5 at Betio, Tarawa; 9 at Nuku'alofa, Tonga; 6 at Funafuti, Tuvalu; 39 at Adak, 36 at King Cove, 32 at Nikolski, 25 at Sitka, 21 at Sand Point, 20 at Shemya Island and 8 at Amchitka Island, Alaska, United States; 118 at Arena Cove, 79 at Santa Barbara, 62 at Point Reyes, 30 at Santa Monica, 22 at Los Angeles, 18 at San Diego and 17 at Richmond, California, United States; 152 at

Kahului, 115 at Hale'iwa, 100 at Wai'anae, 98 at Hilo, 88 at Kalaupapa, 85 at Hanalei, 65 at Kawaihae, 64 at Makapu'u, 45 at Lahaina, 26 at Honokohau, 23 at Miloli'i, 13 at Kapoho and 10 at Mokuolo'e, Hawaii, United States; 112 at Port Orford, 38 at Charleston and 34 at South Beach, Oregon, United States; 24 at Port Angeles, Washington, United States; 29 at Port-Vila, Vanuatu; 22 on Wake Island.

NOV 15	11 34	58.1	46.640 N	155.312 E	10 G	6.5	0.8	419	EAST OF THE KURIL ISLANDS, mb 6.5 (GS).
DEC 01	14 01	47.5	8.251 S	118.777 E	43	6.3	1.1	200	SUMBAWA REGION, INDONESIA. MW 6.3 (HRV), 6.2 (GS), mb 5.9 (GS), MS 6.0 (GS). Mo 3.4*10**18 Nm (HRV), 2.4*10**18 Nm (GS), 1.4*10**18 Nm (PPT). One person died of a heart attack, 14 people injured and at least 20 houses destroyed and many damaged at Bima. Felt (V) at Bima; (IV) at Labuhan Bajo; (III) at Makassar, Sulawesi and (II) at Mataram, Lombok.
DEC 17	21 39	17.4	0.626 N	99.859 E	30 G	5.8	1.1	290	NORTHERN SUMATRA, INDONESIA. MW 5.8 (HRV), mb 5.5 (GS), MS 5.8 (GS). Mo 6.0*10**17 Nm (HRV). Seven people killed, 100 injured and more than 680 homes damaged or destroyed in the Muarasipongi area. Landslides reported in the Muarasipongi district. Felt (VI) at Muarasipongi; (IV) at Aekgodang and Payakumbuh; (III) at Airbangis, Duri, Mandailing, Padangpanjang and Pekanbaru; (II) at Padang. Felt (II) at Kuala Lumpur, Malaysia and in Singapore. Also felt at Johor Bahru and Petaling Jaya, Malaysia.
DEC 26	12 26	21.1	21.799 N	120.547 E	10 G	7.1	1.0	744	TAIWAN REGION. MW 7.1 (GS), 6.9 (HRV), mb 6.4 (GS), MS 7.3 (GS), ME 7.4 (GS). Mo 5.7*10**19 Nm (GS), 3.3*10**19 Nm (HRV), 4.2*10**19 Nm (PPT), Es 2.5*10**15 Nm (GS). Two people killed, over forty injured and several buildings damaged or destroyed. Undersea telecommunication cables were cut, disrupting voice and internet communication in much of East and Southeast Asia. Felt (V) at Kao-hsiung and (III) at T'ai-nan and Taipei. Also felt (IV) at Quanzhou and Xiamen; (III) at Fuzhou, Guangzhou, Hong Kong, Jiulong, Shating, Shenzhen and Yuanlong; (II) at Quanwan, China. Felt (IV PIVS) at Basco, Batan Islands and (II PIVS) at Pasuquin and Santo Domingo, Luzon, Philippines. Recorded (5 TAP) in P'ing-tung; (4 TAP) in Chang-hua, Chia-i, Kao-hsiung, Nan-t'ou, P'eng-hu, T'ai-nan, T'ai-tung and Yun-lin; (3 TAP) in Hua-lien, T'ai-chung and I-lan; (2 TAP) in Miao-li and T'ao-yuan; (1 TAP) in Hsin-chu and T'ai-pei Counties. Recorded (1 JMA) on Iriomote-jima, Ryukyu Islands.
DEC 26	12 34	13.8	21.974 N	120.493 E	10 G	6.9	1.1	466	TAIWAN REGION. MW 6.9 (HRV), mb 6.5 (GS), MS 7.1 (GS), Mo 2.4*10**19 Nm (HRV). Felt throughout Taiwan. Also felt along the coast of southeastern China from Shantou to Fuzhou. Felt (V PIVS) at Basco, Batan Islands; (II PIVS) at Pasuquin and (I PIVS) at Baguio, Luzon, Philippines. Recorded (5 TAP) in Kao-hsiung and P'ing-tung; (4 TAP) in Chang-hua, Chia-i, Nan-t'ou, P'eng-hu, T'ai-nan, T'ai-tung and Yun-lin; (3 TAP) in Hua-lien; (2 TAP) in Hsin-chu; (1 TAP) in Kin-men Counties. Recorded (1 JMA) on Ishigaki-jima, Iriomote-jima, Tarama-shima and Yonaguni-jima, Ryukyu Islands.
DEC 30	08 30	49.7	13.313 N	51.365 E	15 G	6.6	1.2	474	GULF OF ADEN. MW 6.6 (HRV), 6.5 (GS), mb 5.9 (GS), MS 6.4 (GS), ME 6.9 (GS). Mo 7.4*10**18 Nm (GS), 1.0*10**19 Nm (HRV), Es 5.0*10**14 Nm (GS).

Compiled by Pamela J. Benfield and NEIC Operations Staff.



A 2006. december 31-i, gyömrői földrengés (13:39 UTC)
 izoszeizta térképe (4.1 ML)

Isosismal Map of Gyömrő Earthquake
 31st December 2006, 13:39 UTC (4.1 ML)



Műszeresen meghatározott epicentrum
 Instrumental Epicentre