

PLANETARY CONJUNCTIONS WITHIN 1-2 DAYS OF EARTHQUAKES M ≥ 7.0 2011-2023

Degrees in the first field is the longitude relative to the first celestial (i.e. centric) body. Degrees in the second field is the longitude difference, i.e. the deviation (< 2°) of an exact conjunction. Planetary data for each earthquake are scanned within 1 day (+/- 1) from the day of earthquake occurrence, unless specifically marked with (+/- 2).

All data are generated by Solpage and based on the VSOP87 solution. Heliocentric coordinates are changed through vector rotation to arrive at planetary-centric coordinates. No other adjustments are made to coordinates or time. Lunar geometry is not included.

Earthquake data source: EMSC
Planetary data source: SSGEOS

001 2011-01-02, 20:20:19 M 7.1 BIO-BIO, CHILE 33KM

Earth-Jupiter-Uranus	2011-01-01, 0:00:00	0°24'20"
Venus-Mercury-Mars	2011-01-01, 0:00:00	1°16'54"
Saturn-Mars-Uranus	2011-01-01, 0:00:00	0°22'20"
Venus-Mercury-Mars	2011-01-01, 14:36:19	302°44'30"
Jupiter-Sun-Saturn	2011-01-03, 1:20:15	1°58'35"

002 2011-01-13, 16:16:41 M 7.0 LOYALTY ISLANDS 5KM

Earth-Jupiter-Uranus	2011-01-12, 0:00:00	0°55'32"
Jupiter-Sun-Saturn	2011-01-12, 0:00:00	1°37'50"
Saturn-Mars-Uranus	2011-01-12, 0:00:00	0°12'24"
Jupiter-Mercury-Saturn	2011-01-12, 0:00:00	0°44'51"
Jupiter-Mercury-Saturn	2011-01-14, 11:53:43	190°18'07"

003 2011-01-18, 20:23:25 M 7.2 SOUTHWESTERN PAKISTAN 80KM

Earth-Jupiter-Uranus	2011-01-17, 0:00:00	1°35'22"
Jupiter-Sun-Saturn	2011-01-17, 0:00:00	1°26'14"
Jupiter-Mercury-Saturn	2011-01-17, 0:00:00	0°43'10"
Saturn-Mars-Uranus	2011-01-17, 0:00:00	0°29'35"

004 2011-03-09, 02:45:17 M 7.2 NEAR EAST COAST OF HONSHU, JAPAN 9KM

Venus-Mars-Uranus	2011-03-08, 0:00:00	0°45'42"
Jupiter-Sun-Saturn	2011-03-08, 0:00:00	0°30'02"
Jupiter-Mercury-Saturn	2011-03-08, 0:00:00	0°26'14"
Earth-Mercury-Uranus	2011-03-08, 14:24:00	1°58'12"
Earth-Mercury-Uranus	2011-03-09, 16:00:08	359°42'42"

005 2011-03-11, 05:46:23 M 9.0 NEAR EAST COAST OF HONSHU, JAPAN 22KM

Earth-Mercury-Uranus	2011-03-10, 0:00:00	0°36'40"
Jupiter-Sun-Saturn	2011-03-10, 0:00:00	0°34'41"
Jupiter-Mercury-Saturn	2011-03-10, 0:00:00	1°03'24"

006 2011-03-11, 06:15:41 M 7.9 NEAR EAST COAST OF HONSHU, JAPAN 40KM

Earth-Mercury-Uranus	2011-03-10, 0:00:00	0°36'40"
Jupiter-Sun-Saturn	2011-03-10, 0:00:00	0°34'41"
Jupiter-Mercury-Saturn	2011-03-10, 0:00:00	1°03'24"

007 2011-03-11, 06:25:49 M 7.6 NEAR EAST COAST OF HONSHU, JAPAN 10KM

Earth-Mercury-Uranus	2011-03-10, 0:00:00	0°36'40"
Jupiter-Sun-Saturn	2011-03-10, 0:00:00	0°34'41"
Jupiter-Mercury-Saturn	2011-03-10, 0:00:00	1°03'24"

008 2011-04-07, 14:32:44 M 7.1 NEAR EAST COAST OF HONSHU, JAPAN 50KM

Venus-Mars-Jupiter	2011-04-06, 0:00:00	0°24'59"
Jupiter-Sun-Saturn	2011-04-06, 0:00:00	1°37'38"

Sun-Earth-Saturn	2011-04-06,	0:00:00		1°54'58"
Earth-Mars-Uranus	2011-04-06,	0:00:00		1°32'35"
Jupiter-Mercury-Saturn	2011-04-06,	0:00:00		0°50'38"
Jupiter-Earth-Saturn	2011-04-06,	0:00:00		1°32'05"
Earth-Sun-Jupiter	2011-04-06,	0:00:00		0°27'24"
Earth-Sun-Jupiter	2011-04-06,	14:45:20	16°18'11"	
Sun-Mercury-Saturn	2011-04-07,	16:48:00		1°53'33"
Mercury-Mars-Uranus	2011-04-08,	0:00:00		1°55'23"
Sun-Mercury-Saturn	2011-04-08,	5:26:28	193°51'17"	
Mercury-Sun-Jupiter	2011-04-08,	9:36:00		1°50'18"
Mercury-Sun-Jupiter	2011-04-08,	23:22:44	16°31'10"	

009 2011-06-24, 03:09:40 M 7.3 FOX ISLANDS, ALEUTIAN ISLANDS 60KM

Mercury-Venus-Mars	2011-06-23,	0:00:00		0°51'51"
Jupiter-Mercury-Saturn	2011-06-23,	0:00:00		1°18'41"
Jupiter-Venus-Saturn	2011-06-23,	0:00:00		0°19'19"
Mercury-Sun-Neptune	2011-06-24,	4:48:00		2°00'00"
Mercury-Sun-Neptune	2011-06-24,	14:28:31	328°59'36"	

010 2011-07-06, 19:03:22 M 7.6 KERMADEC ISLANDS REGION 40KM

Jupiter-Venus-Saturn	2011-07-05,	0:00:00		1°51'47"
Sun-Mercury-Saturn	2011-07-05,	12:00:00		1°48'16"
Sun-Mercury-Saturn	2011-07-06,	0:19:08	196°45'59"	
Mercury-Sun-Jupiter	2011-07-07,	16:48:00		1°59'27"

011 2011-07-10, 00:57:13 M 7.1 OFF EAST COAST OF HONSHU, JAPAN 40KM

Mercury-Sun-Jupiter	2011-07-09,	0:00:00		1°53'29"
---------------------	-------------	---------	--	----------

012 2011-08-20, 16:55:02 M 7.1 VANUATU 30KM

Sun-Mercury-Neptune	2011-08-19,	0:00:00		1°45'45"
Venus-Mercury-Neptune	2011-08-19,	0:00:00		0°42'07"
Venus-Sun-Earth	2011-08-19,	0:00:00		0°58'45"
Jupiter-Venus-Saturn	2011-08-19,	0:00:00		0°06'16"
Venus-Mercury-Neptune	2011-08-19,	7:05:51	329°17'23"	
Venus-Sun-Neptune	2011-08-20,	5:14:29		0°08'40"
Venus-Sun-Neptune	2011-08-20,	7:26:01	329°20'03"	
Venus-Earth-Neptune	2011-08-20,	19:03:50		0°54'32"
Venus-Earth-Neptune	2011-08-21,	13:20:09	329°23'20"	
Sun-Earth-Neptune	2011-08-21,	17:02:20		1°12'09"

013 2011-08-20, 18:19:22 M 7.1 VANUATU 10KM

Sun-Mercury-Neptune	2011-08-19,	0:00:00		1°45'45"
Venus-Mercury-Neptune	2011-08-19,	0:00:00		0°42'07"
Venus-Sun-Earth	2011-08-19,	0:00:00		0°58'45"
Jupiter-Venus-Saturn	2011-08-19,	0:00:00		0°06'16"
Venus-Mercury-Neptune	2011-08-19,	7:05:51	329°17'23"	
Venus-Sun-Neptune	2011-08-20,	5:14:29		0°08'40"
Venus-Sun-Neptune	2011-08-20,	7:26:01	329°20'03"	
Venus-Earth-Neptune	2011-08-20,	19:03:50		0°54'32"
Venus-Earth-Neptune	2011-08-21,	13:20:09	329°23'20"	
Sun-Earth-Neptune	2011-08-21,	17:02:20		1°12'09"

014 2011-08-24, 17:46:10 M 7.0 NORTHERN PERU 134KM

Venus-Earth-Neptune	2011-08-23,	0:00:00		1°43'29"
Sun-Earth-Neptune	2011-08-23,	0:00:00		0°01'56"
Jupiter-Venus-Saturn	2011-08-23,	0:00:00		0°46'01"
Sun-Mercury-Uranus	2011-08-25,	19:14:53		1°37'59"

015 2011-09-03, 22:55:38 M 7.0 VANUATU 150KM

Venus-Mercury-Uranus	2011-09-01,	0:00:00		0°06'57"
----------------------	-------------	---------	--	----------

(+/- 2)

<u>016 2011-09-15, 19:31:02 M 7.3 FIJI REGION 630KM</u>			
Venus-Earth-Uranus	2011-09-16,	9:17:13	1°15'00"
<u>017 2011-10-21, 17:57:18 M 7.4 KERMADEC ISLANDS REGION 40KM</u>			
Mercury-Earth-Jupiter	2011-10-19,	0:00:00	1°30'49"
(+/- 2)			
<u>018 2011-10-23, 10:41:23 M 7.2 EASTERN TURKEY 10KM</u>			
-			
<u>019 2011-12-14, 05:04:57 M 7.1 EASTERN NEW GUINEA REGION, P.N.G. 125KM</u>			
Sun-Mercury-Mars	2011-12-13,	4:48:00	1°47'20"
Sun-Mercury-Mars	2011-12-13,	13:02:56	127°45'10"
Mercury-Venus-Neptune	2011-12-14,	9:36:00	1°57'08"
Mercury-Venus-Neptune	2011-12-15,	3:19:39	329°53'22"
<u>020 2012-01-01, 05:27:56 M 7.0 IZU ISLANDS, JAPAN REGION 365KM</u>			
Sun-Mercury-Saturn	2011-12-31,	0:00:00	1°14'58"
Mars-Venus-Neptune	2011-12-31,	0:00:00	0°22'07"
Jupiter-Earth-Saturn	2011-12-31,	0:00:00	1°29'58"
Mars-Venus-Neptune	2011-12-31,	12:09:49	329°23'21"
Sun-Venus-Uranus	2012-01-01,	8:14:44	0°09'39"
Sun-Venus-Uranus	2012-01-01,	10:41:18	3°27'01"
<u>021 2012-01-10, 18:36:59 M 7.2 OFF WEST COAST OF NORTHERN SUMATRA 10KM</u>			
Jupiter-Earth-Saturn	2012-01-09,	0:00:00	1°19'48"
<u>022 2012-02-02, 13:34:39 M 7.1 VANUATU 10KM</u>			
Venus-Earth-Mars	2012-02-01,	0:00:00	0°31'55"
Mars-Sun-Neptune	2012-02-01,	0:00:00	0°42'31"
Venus-Earth-Mars	2012-02-01,	23:32:12	172°24'17"
Mars-Sun-Neptune	2012-02-02,	17:37:53	330°20'04"
<u>023 2012-03-20, 18:02:49 M 7.4 GUERRERO, MEXICO 19KM</u>			
Sun-Mercury-Mars	2012-03-19,	0:00:00	0°17'22"
Earth-Mercury-Uranus	2012-03-19,	0:00:00	0°14'11"
Jupiter-Mars-Saturn	2012-03-19,	0:00:00	1°41'51"
Sun-Mercury-Mars	2012-03-19,	1:47:45	170°09'37"
Sun-Mercury-Earth	2012-03-21,	4:48:00	1°48'05"
Sun-Mercury-Earth	2012-03-21,	19:13:49	181°24'11"
<u>024 2012-03-25, 22:37:01 M 7.1 MAULE, CHILE 1KM</u>			
Earth-Sun-Uranus	2012-03-24,	0:00:00	0°42'54"
Earth-Sun-Uranus	2012-03-24,	18:21:48	4°20'37"
<u>025 2012-04-11, 08:38:35 M 8.4 OFF WEST COAST OF NORTHERN SUMATRA 10KM</u>			
Mars-Earth-Neptune	2012-04-10,	0:00:00	1°24'44"
<u>026 2012-04-11, 10:43:09 M 8.0 OFF WEST COAST OF NORTHERN SUMATRA 10KM</u>			
Mars-Earth-Neptune	2012-04-10,	0:00:00	1°24'44"
<u>027 2012-04-12, 07:15:48 M 7.0 GULF OF CALIFORNIA 10KM</u>			
Mars-Earth-Neptune	2012-04-11,	0:00:00	1°20'26"
<u>028 2012-08-14, 02:59:40 M 7.7 SEA OF OKHOTSK 611KM</u>			
Sun-Mercury-Uranus	2012-08-13,	0:00:00	1°00'50"
Earth-Mars-Saturn	2012-08-13,	0:00:00	1°19'55"
Mars-Sun-Jupiter	2012-08-13,	0:00:00	1°30'16"
Sun-Venus-Uranus	2012-08-14,	13:19:49	0°11'08"
Sun-Venus-Uranus	2012-08-14,	16:08:55	5°52'36"

Earth-Mars-Saturn	2012-08-15, 10:30:53	204°38'44"
<u>029 2012-08-27, 04:37:21 M 7.4 OFFSHORE EL SALVADOR 25KM</u>		
Sun-Earth-Neptune	2012-08-26, 0:00:00	1°25'35"
Mercury-Venus-Uranus	2012-08-28, 19:12:00	1°55'36"
<u>030 2012-08-31, 12:47:32 M 7.6 PHILIPPINE ISLANDS REGION 20KM</u>		
Mercury-Venus-Uranus	2012-08-30, 0:00:00	0°08'17"
Venus-Sun-Saturn	2012-08-30, 0:00:00	0°02'31"
Venus-Sun-Saturn	2012-08-30, 0:41:33	210°22'01"
Mercury-Earth-Neptune	2012-08-31, 21:36:00	1°50'31"
Mercury-Earth-Neptune	2012-09-01, 21:02:23	331°19'50"
<u>031 2012-09-05, 14:42:10 COSTA RICA 40KM</u>		
Mercury-Sun-Neptune	2012-09-06, 15:56:50	1°33'32"
Mercury-Sun-Neptune	2012-09-06, 23:37:53	331°38'23"
<u>032 2012-09-30, 16:31:34 M 7.2 COLOMBIA 149KM</u>		
Sun-Earth-Uranus	2012-09-29, 0:00:00	0°17'00"
Sun-Earth-Uranus	2012-09-29, 7:00:20	6°21'58"
<u>033 2012-10-28, 16:31:34 M 7.7 QUEEN CHARLOTTE ISLANDS REGION 10KM</u>		
Earth-Sun-Saturn	2012-10-27, 0:00:00	1°26'20"
Mars-Earth-Jupiter	2012-10-27, 0:00:00	0°50'01"
Mars-Earth-Jupiter	2012-10-28, 12:35:42	75°14'29"
<u>034 2012-11-07, 16:35:48 M 7.3 OFFSHORE GUATEMALA 30KM</u>		
Venus-Mercury-Neptune	2012-11-06, 0:00:00	0°49'58"
Venus-Mercury-Neptune	2012-11-06, 8:17:03	331°44'17"
Sun-Mercury-Uranus	2012-11-08, 13:37:22	1°54'42"
Sun-Mercury-Uranus	2012-11-08, 22:55:47	6°48'09"
<u>035 2012-12-07, 08:18:23 M 7.3 OFF EAST COAST OF HONSHU, JAPAN 30KM</u>		
Venus-Sun-Uranus	2012-12-06, 0:00:00	1°34'41"
<u>036 2012-12-10, 16:53:10 M 7.1 BANDA SEA 162KM</u>		
Mercury-Sun-Uranus	2012-12-11, 17:39:00	1°43'18"
<u>037 2013-01-05, 08:58:19 M 7.5 SOUTHERN ALASKA 10KM</u>		
Mercury-Sun-Jupiter (+/- 2)	2013-01-03, 0:00:00	0°22'12"
<u>038 2013-02-06, 01:12:25 M 7.9 SANTA CRUZ ISLANDS 20KM</u>		
Sun-Mercury-Uranus	2013-02-05, 0:00:00	0°34'24"
Venus-Mercury-Jupiter	2013-02-05, 0:00:00	1°05'49"
Earth-Mars-Neptune	2013-02-05, 0:00:00	0°05'59"
Sun-Mercury-Uranus	2013-02-05, 2:45:48	7°44'55"
Venus-Mercury-Jupiter	2013-02-05, 12:00:17	80°24'51"
Earth-Mercury-Neptune	2013-02-05, 19:12:00	1°55'47"
Earth-Mercury-Mars	2013-02-06, 12:00:00	1°59'11"
Earth-Mercury-Neptune	2013-02-06, 22:55:54	332°06'15"
<u>039 2013-02-06, 01:23:20 M 7.1 SANTA CRUZ ISLANDS 10KM</u>		
Sun-Mercury-Uranus	2013-02-05, 0:00:00	0°34'24"
Venus-Mercury-Jupiter	2013-02-05, 0:00:00	1°05'49"
Earth-Mars-Neptune	2013-02-05, 0:00:00	0°05'59"
Sun-Mercury-Uranus	2013-02-05, 2:45:48	7°44'55"
Venus-Mercury-Jupiter	2013-02-05, 12:00:17	80°24'51"
Earth-Mercury-Neptune	2013-02-05, 19:12:00	1°55'47"
Earth-Mercury-Mars	2013-02-06, 12:00:00	1°59'11"
Earth-Mercury-Neptune	2013-02-06, 22:55:54	332°06'15"

<u>040 2013-02-06, 01:54:15 M 7.0 SANTA CRUZ ISLANDS 10KM</u>				
Sun-Mercury-Uranus	2013-02-05,	0:00:00		0°34'24"
Venus-Mercury-Jupiter	2013-02-05,	0:00:00		1°05'49"
Earth-Mars-Neptune	2013-02-05,	0:00:00		0°05'59"
Sun-Mercury-Uranus	2013-02-05,	2:45:48	7°44'55"	
Venus-Mercury-Jupiter	2013-02-05,	12:00:17	80°24'51"	
Earth-Mercury-Neptune	2013-02-05,	19:12:00		1°55'47"
Earth-Mercury-Mars	2013-02-06,	12:00:00		1°59'11"
Earth-Mercury-Neptune	2013-02-06,	22:55:54	332°06'15"	
<u>041 2013-02-08, 15:26:37 M 7.0 SANTA CRUZ ISLANDS 10KM</u>				
Earth-Mercury-Mars	2013-02-07,	0:00:00		1°31'55"
Earth-Mercury-Neptune	2013-02-07,	0:00:00		0°04'25"
Earth-Mars-Neptune	2013-02-07,	0:00:00		1°36'21"
Earth-Mercury-Mars	2013-02-08,	17:56:03	335°05'29"	
Mercury-Sun-Saturn	2013-02-09,	22:54:30		1°48'40"
<u>042 2013-02-09, 14:16:07 M 7.0 COLOMBIA 134KM</u>				
Earth-Mercury-Neptune	2013-02-08,	0:00:00		1°42'54"
Earth-Mercury-Mars	2013-02-08,	0:00:00		0°38'36"
Earth-Mercury-Mars	2013-02-08,	17:56:03	335°05'29"	
Mercury-Sun-Saturn	2013-02-09,	22:12:12		1°58'23"
Mercury-Sun-Saturn	2013-02-10,	6:46:19	215°35'13"	
<u>043 2013-04-06, 04:42:37 M 7.0 PAPUA, INDONESIA 73KM</u>				
Earth-Venus-Mars	2013-04-05,	0:00:00		1°03'18"
Sun-Venus-Mars	2013-04-05,	0:00:00		0°32'32"
Mars-Mercury-Saturn	2013-04-05,	0:00:00		0°19'16"
Mars-Mercury-Saturn	2013-04-05,	9:04:27	215°11'05"	
Sun-Venus-Mars	2013-04-05,	13:07:46	20°29'51"	
Earth-Venus-Mars	2013-04-07,	4:52:30	19°46'54"	
<u>044 2013-04-16, 10:44:20 M 7.8 IRAN-PAKISTAN BORDER REGION 87KM</u>				
Venus-Sun-Saturn	2013-04-15,	0:00:00		1°51'53"
Earth-Sun-Mars	2013-04-15,	0:00:00		0°40'59"
Venus-Sun-Saturn	2013-04-16,	6:38:35	217°38'25"	
<u>045 2013-04-19, 03:05:52 M 7.2 KURIL ISLANDS 100KM</u>				
Earth-Sun-Mars	2013-04-18,	0:00:00		0°00'29"
Earth-Sun-Mars	2013-04-18,	0:51:05	27°58'36"	
Earth-Mercury-Uranus	2013-04-19,	4:48:00		1°51'41"
Earth-Mercury-Uranus	2013-04-20,	9:16:13	9°33'41"	
Venus-Earth-Saturn	2013-04-20,	18:44:40		1°40'35"
<u>046 2013-05-23, 17:19:02 M 7.4 SOUTH OF FIJI ISLANDS 155KM</u>				
Venus-Mercury-Earth	2013-05-24,	0:00:00		1°50'00"
Venus-Mercury-Earth	2013-05-24,	23:50:47	258°41'11"	
<u>047 2013-05-24, 05:44:48 M 8.3 SEA OF OKHOTSK 598KM</u>				
Venus-Mercury-Earth	2013-05-24,	0:00:00		1°50'00"
Venus-Mercury-Earth	2013-05-24,	23:50:47	258°41'11"	
<u>048 2013-07-07, 18:35:31 M 7.3 NEW IRELAND REGION P.N.G. 388KM</u>				
Sun-Mercury-Earth	2013-07-08,	19:12:00		1°56'17"
<u>049 2013-07-15, 14:03:41 M 7.3 SOUTH SANDWICH ISLANDS REGION 24KM</u>				
-				
<u>050 2013-08-30, 16:25:00 M 7.0 ANDREANOF ISLANDS, ALEUTIAN ISLANDS 10KM</u>				
Sun-Earth-Neptune	2013-08-29,	0:00:00		1°51'38"

Venus-Mars-Jupiter	2013-08-29, 0:00:00		0°32'17"
Venus-Mars-Jupiter	2013-08-29, 23:11:02	92°13'19"	
<u>051 2013-09-24, 11:29:49 M 7.7 PAKISTAN 20KM</u>			
Mercury-Venus-Neptune	2013-09-23, 0:00:00		1°02'02"
Mercury-Venus-Neptune	2013-09-23, 17:01:05	334°48'45"	
<u>052 2013-09-25, 16:42:43 M 7.0 NEAR COAST OF SOUTHERN PERU 40KM</u>			
Mercury-Venus-Neptune	2013-09-24, 0:00:00		0°24'57"
<u>053 2013-10-15, 00:12:33 M 7.1 BOHOL, PHILIPPINES 15KM</u>			
Mars-Earth-Neptune	2013-10-17, 13:57:57		1°24'38"
Sun-Venus-Neptune	2013-10-17, 16:27:55		0°34'18"
	(+/-2)		
<u>054 2013-10-25, 17:10:17 M 7.1 OFF EAST COAST OF HONSHU, JAPAN 10KM</u>			
Mercury-Venus-Neptune	2013-10-24, 0:00:00		0°11'00"
Mercury-Venus-Neptune	2013-10-24, 5:39:16	333°52'29"	
<u>055 2013-11-17, 09:04:55 M 7.7 SCOTIA SEA 10KM</u>			
Mars-Venus-Neptune	2013-11-16, 0:00:00		0°20'18"
Sun-Mercury-Mars	2013-11-17, 9:36:00		1°50'26"
Sun-Mercury-Mars	2013-11-17, 18:27:38	135°52'00"	
<u>056 2014-04-01, 23:46:47 M 8.1 OFFSHORE TARAPACA, CHILE 20KM</u>			
Mercury-Sun-Jupiter	2014-03-31, 14:24:00		1°51'19"
Mercury-Sun-Jupiter	2014-04-01, 6:51:47	112°19'30"	
Earth-Sun-Uranus	2014-04-01, 12:39:36		0°43'02"
Earth-Sun-Uranus	2014-04-02, 7:10:08	12°16'24"	
<u>057 2014-04-03, 02:43:18 M 7.6 OFFSHORE TARAPACA, CHILE 40KM</u>			
Mercury-Sun-Jupiter	2014-04-02, 0:00:00		1°57'17"
Earth-Sun-Uranus	2014-04-02, 0:00:00		0°16'40"
Earth-Sun-Uranus	2014-04-02, 7:10:08	12°16'24"	
<u>058 2014-04-11, 07:07:23 M 7.2 BOUGAINVILLE REGION, P.N.G. 60KM</u>			
Sun-Earth-Mars	2014-04-10, 0:00:00		0°35'18"
Earth-Venus-Neptune	2014-04-11, 7:08:49		0°50'40"
Mercury-Venus-Saturn	2014-04-11, 21:36:00		1°52'27"
Earth-Venus-Neptune	2014-04-12, 2:23:34	336°30'04"	
Mars-Mercury-Uranus	2014-04-12, 4:48:00		1°59'21"
Mercury-Venus-Saturn	2014-04-12, 17:51:06	226°45'22"	
<u>059 2014-04-12, 20:14:37 M 7.6 SOLOMON ISLANDS 10KM</u>			
Sun-Earth-Mars	2014-04-11, 0:00:00		1°06'31"
Earth-Venus-Neptune	2014-04-11, 0:00:00		1°09'27"
Mercury-Venus-Saturn	2014-04-11, 21:36:00		1°52'27"
Earth-Venus-Neptune	2014-04-12, 2:23:34	336°30'04"	
Mars-Mercury-Uranus	2014-04-12, 4:48:00		1°59'21"
Mercury-Venus-Saturn	2014-04-12, 17:51:06	226°45'22"	
Sun-Mercury-Neptune	2014-04-13, 4:48:00		1°56'34"
Sun-Mercury-Neptune	2014-04-13, 16:31:05	335°08'45"	
Mercury-Earth-Mars	2014-04-13, 19:12:00		1°57'22"
Earth-Mercury-Uranus	2014-04-13, 21:36:00		1°56'35"
<u>060 2014-04-13, 12:36:18 M 7.4 SOLOMON ISLANDS 30KM</u>			
Earth-Venus-Neptune	2014-04-12, 0:00:00		0°06'18"
Mercury-Venus-Saturn	2014-04-12, 0:00:00		1°39'10"
Sun-Earth-Mars	2014-04-12, 0:00:00		1°37'41"
Earth-Venus-Neptune	2014-04-12, 2:23:34	336°30'04"	
Mars-Mercury-Uranus	2014-04-12, 4:48:00		1°59'21"

Mercury-Venus-Saturn	2014-04-12,	17:51:06	226°45'22"	
Sun-Mercury-Neptune	2014-04-13,	4:48:00		1°56'34"
Sun-Mercury-Neptune	2014-04-13,	16:31:05	335°08'45"	
Mercury-Earth-Mars	2014-04-13,	19:12:00		1°57'22"
Earth-Mercury-Uranus	2014-04-13,	21:36:00		1°56'35"
Mars-Mercury-Uranus	2014-04-14,	1:21:12	13°03'03"	
Earth-Mercury-Uranus	2014-04-14,	23:09:34	12°59'34"	

061 2014-04-18, 14:27:26 M 7.2 GUERRERO, MEXICO 26KM

Mercury-Earth-Mars	2014-04-17,	0:00:00		0°23'51"
Mars-Earth-Uranus	2014-04-18,	18:28:20		1°45'15"

062 2014-04-19, 13:28:00 M 7.5 BOUGAINVILLE REGION, P.N.G. 30KM

Mercury-Earth-Mars	2014-04-18,	0:00:00		1°08'20"
Mars-Earth-Uranus	2014-04-19,	11:25:49		1°28'12"

063 2014-06-23, 20:53:09 M 7.9 RAT ISLANDS, ALEUTIAN ISLANDS 106KM

Mars-Earth-Uranus	2014-06-22,	0:00:00		1°02'24"
Venus-Mercury-Mars	2014-06-22,	0:00:00		0°16'21"
Venus-Mercury-Mars	2014-06-22,	6:14:23	220°43'34"	
Sun-Venus-Uranus	2014-06-24,	4:32:42		0°15'26"
Sun-Venus-Uranus	2014-06-24,	8:26:48	13°09'59"	

064 2014-10-09, 02:14:32 M 7.1 SOUTHERN EAST PACIFIC RISE 10KM

Sun-Earth-Uranus	2014-10-08,	0:00:00		0°08'00"
Venus-Earth-Uranus	2014-10-10,	8:17:08		1°12'41"

065 2014-10-14, 03:51:36 M 7.3 NEAR COAST OF NICARAGUA 50KM

Venus-Earth-Uranus	2014-10-13,	0:00:00		1°55'52"
Venus-Mercury-Uranus	2014-10-14,	7:12:00		1°47'36"
Venus-Sun-Uranus	2014-10-14,	10:56:18		0°13'18"
Venus-Sun-Uranus	2014-10-14,	14:22:29	14°22'27"	
Mercury-Sun-Venus	2014-10-14,	16:48:00		1°51'20"
Sun-Mercury-Uranus	2014-10-14,	21:36:00		1°32'51"
Venus-Mercury-Uranus	2014-10-14,	23:15:15	14°23'56"	
Sun-Mercury-Uranus	2014-10-15,	4:47:38	14°22'51"	
Mercury-Sun-Venus	2014-10-15,	11:12:26	195°46'29"	

066 2014-11-01, 18:57:22 M 7.1 FIJI REGION 431KM

Mars-Sun-Jupiter	2014-10-31,	0:00:00		0°11'11"
Venus-Mars-Neptune	2014-10-31,	0:00:00		0°31'56"
Mars-Sun-Jupiter	2014-10-31,	10:23:21	129°36'19"	
Venus-Mars-Neptune	2014-10-31,	15:38:38	337°35'50"	
Mars-Mercury-Jupiter	2014-11-01,	9:36:00		1°55'48"
Mars-Mercury-Jupiter	2014-11-02,	19:18:10	130°03'48"	

067 2014-11-15, 02:31:43 M 7.1 MOLUCCA SEA 51KM

Earth-Venus-Saturn	2014-11-14,	0:00:00		1°05'29"
Earth-Sun-Saturn	2014-11-16,	18:33:36		1°25'11"

068 2015-02-13, 18:59:12 M 7.0 REYKJANES RIDGE M 7.0

Sun-Mars-Uranus	2015-02-12,	0:00:00		0°56'50"
Mercury-Mars-Uranus	2015-02-12,	9:36:00		1°54'08"
Sun-Mars-Uranus	2015-02-13,	13:53:58	15°41'15"	
Mercury-Sun-Mars	2015-02-13,	14:24:00		1°48'30"
Mercury-Sun-Uranus	2015-02-13,	16:48:00		1°55'06"
Mercury-Mars-Uranus	2015-02-13,	23:42:11	15°40'24"	
Mercury-Sun-Uranus	2015-02-14,	5:58:06	15°41'41"	
Mercury-Sun-Mars	2015-02-14,	9:14:48	16°10'45"	

069 2015-02-27, 13:45:05 M 7.0 FLORES SEA 548KM

Earth-Sun-Neptune	2015-02-26,	0:00:00		0°11'57"
Earth-Venus-Mars	2015-02-26,	0:00:00		1°44'48"
Earth-Sun-Neptune	2015-02-26,	4:56:33	337°03'33"	
Sun-Mercury-Saturn	2015-02-27,	12:00:00		1°51'28"
Mercury-Earth-Jupiter	2015-02-28,	0:00:00		1°57'15"
Sun-Mercury-Saturn	2015-02-28,	3:59:50	238°51'05"	

070 2015-03-29, 23:48:32 M 7.5 NEW BRITAIN REGION, P.N.G. 40KM

Mercury-Sun-Jupiter	2015-03-28,	0:00:00		0°12'47"
Mars-Mercury-Saturn	2015-03-28,	0:00:00		0°24'24"
Jupiter-Mars-Neptune	2015-03-28,	0:00:00		0°44'16"
Mars-Mercury-Saturn	2015-03-29,	8:19:38	237°27'36"	
Venus-Mars-Uranus	2015-03-29,	16:04:44		1°54'16"

071 2015-04-25, 06:11:26 M 7.8 NEPAL 15KM

Earth-Mercury-Mars	2015-04-24,	0:00:00		1°12'46"
Sun-Venus-Jupiter	2015-04-25,	18:54:24		0°16'24"
Sun-Venus-Jupiter	2015-04-25,	23:08:45	143°34'13"	

072 2015-05-05, 01:44:05 M 7.4 NEW BRITAIN REGION, P.N.G. 40KM

Sun-Mercury-Venus	2015-05-04,	0:00:00		1°30'27"
Mercury-Sun-Neptune	2015-05-04,	0:00:00		0°40'06"
Mercury-Earth-Saturn	2015-05-04,	0:00:00		0°46'14"
Venus-Sun-Neptune	2015-05-04,	0:00:00		0°48'42"
Mars-Sun-Saturn	2015-05-04,	0:00:00		0°30'15"
Venus-Sun-Neptune	2015-05-04,	12:19:25	337°27'48"	

073 2015-05-07, 07:10:22 M 7.1 BOUGAINVILLE REGION, P.N.G. 20KM

Mars-Sun-Saturn	2015-05-06,	0:00:00		1°23'09"
-----------------	-------------	---------	--	----------

074 2015-05-12, 07:05:19 M 7.3 NEPAL 10KM

Mars-Earth-Saturn	2015-05-12,	20:15:07		1°27'20"
Mercury-Sun-Uranus	2015-05-13,	0:00:00		1°41'16"
Mercury-Sun-Uranus	2015-05-13,	11:40:41	16°38'44"	

075 2015-05-30, 11:23:03 M 7.8 BONIN ISLANDS, JAPAN REGION 693KM

Venus-Mercury-Neptune	2015-05-29,	0:00:00		1°17'59"
Venus-Sun-Uranus	2015-05-29,	0:00:00		0°17'43"
Earth-Mercury-Mars	2015-05-29,	0:00:00		1°55'06"
Sun-Mercury-Earth	2015-05-29,	14:24:00		1°59'01"
Venus-Mercury-Neptune	2015-05-29,	21:55:22	338°30'12"	
Sun-Mercury-Earth	2015-05-30,	16:48:45	248°45'28"	

076 2015-07-27, 21:41:21 M 7.0 PAPUA, INDONESIA 50KM

Sun-Mercury-Jupiter	2015-07-29,	2:34:59		1°46'48"
Sun-Mercury-Jupiter	2015-07-29,	11:20:11	150°56'11"	

(+/-2)

077 2015-09-16, 22:54:31 M 8.3 OFFSHORE COQUIMBO, CHILE 20KM

Jupiter-Venus-Neptune	2015-09-15,	0:00:00		0°57'29"
Mercury-Sun-Mars	2015-09-15,	0:00:00		1°39'05"
Jupiter-Earth-Neptune	2015-09-15,	0:00:00		0°26'25"
Mercury-Sun-Mars	2015-09-15,	17:39:27	126°58'09"	
Jupiter-Earth-Neptune	2015-09-17,	5:42:22	337°44'48"	

078 2015-09-16, 23:18:43 M 7.0 COQUIMBO, CHILE 40KM

Jupiter-Venus-Neptune	2015-09-15,	0:00:00		0°57'29"
Mercury-Sun-Mars	2015-09-15,	0:00:00		1°39'05"
Jupiter-Earth-Neptune	2015-09-15,	0:00:00		0°26'25"
Mercury-Sun-Mars	2015-09-15,	17:39:27	126°58'09"	
Jupiter-Earth-Neptune	2015-09-17,	5:42:22	337°44'48"	

079 2015-10-20, 21:52:03 M 7.1 VANUATU 147KM
 Earth-Mars-Jupiter 2015-10-19, 0:00:00 0°27'08"
 Venus-Sun-Saturn 2015-10-19, 0:00:00 1°05'58"
 Venus-Earth-Neptune 2015-10-19, 0:00:00 1°44'25"
 Jupiter-Sun-Neptune 2015-10-19, 0:00:00 1°02'36"
 Jupiter-Mercury-Neptune 2015-10-19, 0:00:00 1°16'55"
 Venus-Sun-Saturn 2015-10-19, 17:55:51 245°58'58"

080 2015-10-26, 09:09:32 M 7.5 HINDU KUSH REGION, AFGHANISTAN 207KM
 Mercury-Earth-Uranus 2015-10-25, 0:00:00 1°27'13"
 Jupiter-Sun-Neptune 2015-10-25, 0:00:00 0°40'56"
 Earth-Venus-Jupiter 2015-10-25, 0:00:00 0°40'45"
 Jupiter-Mercury-Neptune 2015-10-25, 0:00:00 0°04'26"
 Earth-Venus-Jupiter 2015-10-25, 20:07:11 165°25'54"
 Mercury-Earth-Uranus 2015-10-25, 22:45:35 17°43'39"
 Sun-Mercury-Jupiter 2015-10-26, 12:00:00 1°45'00"
 Mercury-Sun-Neptune 2015-10-26, 14:24:00 1°57'04"
 Sun-Mercury-Jupiter 2015-10-26, 21:01:17 157°50'42"
 Mercury-Sun-Neptune 2015-10-27, 0:27:48 338°31'04"

081 2015-11-18, 18:31:05 M 7.0 SOLOMON ISLANDS 20KM
 Mercury-Sun-Earth 2015-11-17, 0:00:00 0°46'02"
 Jupiter-Sun-Neptune 2015-11-17, 0:00:00 0°41'58"
 Mercury-Sun-Earth 2015-11-17, 14:34:16 54°42'12"

082 2015-11-24, 22:45:40 M 7.6 CENTRAL PERU 636KM
 Jupiter-Sun-Neptune 2015-11-23, 0:00:00 1°03'34"
 Venus-Earth-Uranus 2015-11-23, 0:00:00 1°01'17"
 Mars-Sun-Neptune 2015-11-23, 0:00:00 1°33'59"
 Earth-Mercury-Saturn 2015-11-23, 21:36:00 1°53'04"
 Venus-Earth-Uranus 2015-11-23, 22:02:11 16°45'49"
 Earth-Mercury-Saturn 2015-11-25, 4:51:26 246°40'04"
 Sun-Mars-Jupiter 2015-11-25, 21:42:05 1°51'33"

083 2015-11-24, 22:50:54 M 7.6 CENTRAL PERU 631KM
 Jupiter-Sun-Neptune 2015-11-23, 0:00:00 1°03'34"
 Venus-Earth-Uranus 2015-11-23, 0:00:00 1°01'17"
 Mars-Sun-Neptune 2015-11-23, 0:00:00 1°33'59"
 Earth-Mercury-Saturn 2015-11-23, 21:36:00 1°53'04"
 Venus-Earth-Uranus 2015-11-23, 22:02:11 16°45'49"
 Earth-Mercury-Saturn 2015-11-25, 4:51:26 246°40'04"
 Sun-Mars-Jupiter 2015-11-25, 21:42:05 1°51'33"

084 2015-12-04, 22:24:53 M 7.1 SOUTHEAST INDIAN RIDGE M 7.1 10KM
 Sun-Mars-Jupiter 2015-12-03, 0:00:00 0°41'43"
 Jupiter-Sun-Neptune 2015-12-03, 0:00:00 1°39'32"
 Jupiter-Mars-Neptune 2015-12-03, 0:00:00 1°21'00"
 Jupiter-Mercury-Neptune 2015-12-05, 12:00:00 1°58'53"

085 2015-12-07, 07:50:07 M 7.2 TAJIKISTAN 30KM
 Sun-Mars-Jupiter 2015-12-06, 0:00:00 1°46'34"
 Jupiter-Mercury-Neptune 2015-12-06, 0:00:00 1°52'11"
 Jupiter-Sun-Neptune 2015-12-06, 0:00:00 1°50'19"
 Jupiter-Mars-Neptune 2015-12-06, 0:00:00 1°03'00"
 Mars-Earth-Uranus 2015-12-07, 23:01:22 1°40'32"

086 2016-01-24, 10:30:30 M 7.1 SOUTHERN ALASKA 128KM
 Mercury-Sun-Neptune 2016-01-23, 0:00:00 0°28'10"
 Mercury-Venus-Saturn 2016-01-23, 0:00:00 1°14'44"
 Mars-Venus-Neptune 2016-01-23, 0:00:00 1°40'43"

Mercury-Sun-Neptune	2016-01-23,	2:26:37	339°02'50"	
Mercury-Venus-Saturn	2016-01-23,	14:25:42	250°57'30"	
Sun-Mercury-Jupiter	2016-01-23,	21:36:00		1°57'11"
Sun-Mercury-Jupiter	2016-01-24,	8:10:05	164°42'31"	

087 2016-01-30, 03:25:09 M 7.2 KAMCHATKA PENINSULA, RUSSIA 159KM

Sun-Mercury-Mars	2016-01-29,	4:48:00		1°45'59"
Sun-Mercury-Mars	2016-01-29,	17:22:16	186°52'59"	

088 2016-03-02, 12:49:48 M 7.8 SOUTHWEST OF SUMATRA, INDONESIA 20KM

Earth-Sun-Neptune	2016-03-01,	0:00:00		1°17'44"
Sun-Mercury-Venus	2016-03-01,	0:00:00		0°06'39"
Jupiter-Venus-Neptune	2016-03-01,	0:00:00		0°17'13"
Mars-Sun-Uranus	2016-03-01,	0:00:00		1°13'54"
Sun-Mercury-Venus	2016-03-01,	2:03:05	280°39'31"	

089 2016-04-15, 16:25:06 M 7.0 KYUSHU, JAPAN 10KM

Mercury-Venus-Neptune	2016-04-14,	0:00:00		1°49'29"
Venus-Sun-Jupiter	2016-04-14,	0:00:00		0°36'14"
Venus-Sun-Jupiter	2016-04-14,	10:51:54	170°53'45"	
Mercury-Venus-Neptune	2016-04-14,	17:07:10	339°15'14"	

090 2016-04-16, 23:58:37 M 7.8 NEAR COAST OF ECUADOR 20KM

Mercury-Venus-Neptune	2016-04-15,	0:00:00		0°43'53"
Venus-Sun-Jupiter	2016-04-15,	0:00:00		0°43'48"

091 2016-04-28, 19:33:24 M 7.0 VANUATU 30KM

Mercury-Sun-Venus	2016-04-27,	0:00:00		1°49'00"
Jupiter-Earth-Neptune	2016-04-27,	0:00:00		1°46'48"
Mercury-Sun-Venus	2016-04-28,	8:12:07	12°59'30"	
Mercury-Sun-Uranus	2016-04-29,	21:52:25		1°50'44"

092 2016-05-28, 09:46:58 M 7.2 SOUTH SANDWICH ISLANDS REGION 70KM

Sun-Earth-Mars	2016-05-27,	0:00:00		1°58'30"
Venus-Earth-Mars	2016-05-27,	0:00:00		0°40'35"
Venus-Mercury-Saturn	2016-05-27,	0:00:00		1°58'35"
Jupiter-Earth-Neptune	2016-05-27,	0:00:00		1°30'00"
Venus-Sun-Mars	2016-05-29,	0:50:31		1°58'15"

093 2016-07-29, 21:18:30 M 7.7 PAGAN REGION, NORTH MARIANA ISLANDS 267KM

Mercury-Sun-Uranus	2016-07-28,	0:00:00		0°58'30"
Jupiter-Mars-Neptune	2016-07-28,	0:00:00		1°48'49"
Venus-Sun-Neptune	2016-07-28,	0:00:00		0°55'46"
Venus-Sun-Neptune	2016-07-28,	14:06:56	340°10'28"	

094 2016-08-12, 01:26:36 M 7.1 SOUTHEAST OF LOYALTY ISLANDS 20KM

Venus-Earth-Neptune	2016-08-13,	13:59:17		1°19'29"
---------------------	-------------	----------	--	----------

095 2016-08-19, 07:32:23 M 7.5 SOUTH GEORGIA ISLAND REGION 20KM

Earth-Mercury-Jupiter	2016-08-18,	19:12:00		1°59'24"
Venus-Mercury-Neptune	2016-08-19,	21:36:00		1°58'02"
Venus-Mercury-Neptune	2016-08-20,	21:50:16	341°08'24"	

096 2016-08-29, 04:29:59 M 7.1 NORTH OF ASCENSION ISLAND 20KM

Earth-Mars-Saturn	2016-08-28,	0:00:00		1°47'44"
Venus-Mercury-Earth	2016-08-28,	0:00:00		1°14'07"
Earth-Mercury-Jupiter	2016-08-28,	0:00:00		1°23'30"
Mercury-Venus-Jupiter	2016-08-28,	0:00:00		0°58'57"
Earth-Venus-Jupiter	2016-08-28,	0:00:00		0°04'05"
Mercury-Venus-Jupiter	2016-08-28,	11:53:26	177°04'18"	
Sun-Mercury-Mars	2016-08-29,	2:24:00		1°53'24"

Venus-Mercury-Earth	2016-08-29,	6:18:44	358°46'05"
Sun-Mercury-Mars	2016-08-29,	20:33:42	298°06'48"

097 2016-09-01, 16:37:58 M 7.0 OFF EAST COAST OF NORTH ISLAND, NEW ZEALAND 26KM

Venus-Mercury-Earth	2016-08-31,	0:00:00	1°46'03"
Earth-Mercury-Jupiter	2016-08-31,	0:00:00	1°03'35"
Sun-Earth-Neptune	2016-09-01,	20:14:56	0°48'28"
Sun-Earth-Neptune	2016-09-02,	16:23:13	340°23'29"
Earth-Mercury-Jupiter	2016-09-02,	16:54:01	178°20'35"

098 2016-11-13, 11:02:58 M 7.9 SOUTH ISLAND OF NEW ZEALAND 10KM

Sun-Mercury-Saturn	2016-11-12,	0:00:00	0°33'21"
Mars-Mercury-Jupiter	2016-11-12,	0:00:00	1°12'13"

099 2016-11-24, 18:43:48 M 7.0 OFF COAST OF CENTRAL AMERICA 10KM

Mercury-Venus-Uranus	2016-11-23,	0:00:00	1°13'14"
Earth-Mercury-Saturn	2016-11-23,	0:00:00	1°03'54"
Earth-Mercury-Saturn	2016-11-23,	18:39:25	256°40'12"
Sun-Venus-Mars	2016-11-25,	11:25:35	1°50'20"

100 2016-12-08, 17:38:46 M 7.8 SOLOMON ISLANDS 40KM

Venus-Sun-Jupiter	2016-12-07,	0:00:00	0°49'04"
Mars-Mercury-Jupiter	2016-12-07,	0:00:00	1°25'47"
Sun-Mercury-Neptune	2016-12-07,	7:12:00	1°57'09"
Sun-Mercury-Neptune	2016-12-07,	18:29:55	340°58'10"
Mars-Mercury-Jupiter	2016-12-08,	16:19:27	187°26'07"
Earth-Sun-Saturn	2016-12-09,	5:47:22	1°07'35"

101 2016-12-17, 10:51:09 M 7.9 NEW IRELAND REGION, P.N.G. 83KM

Sun-Venus-Uranus	2016-12-16,	0:00:00	1°09'12"
Jupiter-Earth-Uranus	2016-12-16,	0:00:00	1°08'04"
Sun-Mercury-Uranus	2016-12-16,	4:48:00	1°47'59"
Sun-Mercury-Uranus	2016-12-16,	12:47:34	22°56'33"
Sun-Mercury-Venus	2016-12-16,	14:24:00	1°44'28"
Sun-Mercury-Venus	2016-12-17,	1:09:06	25°45'49"
Mercury-Venus-Uranus	2016-12-17,	14:24:00	1°59'50"
Mars-Sun-Jupiter	2016-12-18,	16:57:46	1°32'00"
Mercury-Venus-Uranus	2016-12-18,	22:40:38	22°44'59"

102 2016-12-25, 14:22:26 M 7.6 ISLA CHILOE, LOS LAGOS, CHILE 30KM

Mars-Sun-Jupiter	2016-12-24,	0:00:00	0°44'55"
Jupiter-Earth-Uranus	2016-12-24,	0:00:00	0°15'55"
Mercury-Sun-Saturn	2016-12-25,	14:24:00	1°47'36"
Mercury-Sun-Saturn	2016-12-25,	21:26:57	259°05'45"
Jupiter-Earth-Uranus	2016-12-26,	17:43:10	20°19'28"

103 2017-01-03, 21:52:31 M 7.0 SOUTH OF FIJI ISLANDS 10KM

Earth-Mars-Neptune	2017-01-02,	0:00:00	0°31'30"
Jupiter-Earth-Uranus	2017-01-02,	0:00:00	0°32'22"

104 2017-01-10, 06:13:47 M 7.3 CELEBES SEA 630KM

Jupiter-Earth-Uranus	2017-01-09,	0:00:00	1°01'29"
Mercury-Sun-Neptune	2017-01-09,	0:00:00	1°59'45"
Mars-Mercury-Jupiter	2017-01-09,	0:00:00	0°29'43"
Mercury-Sun-Neptune	2017-01-09,	10:29:16	341°09'57"
Mars-Mercury-Jupiter	2017-01-09,	11:33:54	193°20'39"
Earth-Venus-Neptune	2017-01-11,	7:23:10	1°35'49"
Sun-Mars-Uranus	2017-01-11,	9:39:32	0°58'48"

105 2017-01-22, 04:30:23 M 7.9 BOUGAINVILLE REGION, P.N.G. 150KM

Venus-Sun-Saturn	2017-01-21,	0:00:00		1°50'39"
Mercury-Sun-Mars	2017-01-21,	0:00:00		1°33'35"
Jupiter-Earth-Uranus	2017-01-21,	0:00:00		1°32'40"
Jupiter-Venus-Uranus	2017-01-21,	0:00:00		1°59'12"
Mercury-Sun-Mars	2017-01-21,	18:04:55	28°25'45"	

106 2017-07-17, 23:34:16 M 7.7 KOMANDORSKIYE OSTROVA REGION 30KM

Sun-Mercury-Jupiter	2017-07-16,	0:00:00		0°39'44"
Mercury-Sun-Uranus	2017-07-16,	0:00:00		0°54'25"
Jupiter-Sun-Uranus	2017-07-16,	0:00:00		0°12'27"
Jupiter-Mercury-Uranus	2017-07-16,	0:00:00		0°09'05"
Jupiter-Mercury-Uranus	2017-07-16,	16:20:56	25°18'29"	

107 2017-09-08, 04:49:21 M 8.1 OFFSHORE CHIAPAS, MEXICO 72KM

Sun-Mercury-Uranus	2017-09-07,	0:00:00		0°11'32"
Sun-Earth-Neptune	2017-09-07,	0:00:00		1°43'03"
Venus-Sun-Saturn	2017-09-07,	0:00:00		1°53'10"
Mercury-Sun-Jupiter	2017-09-07,	7:12:00		1°45'40"
Mercury-Sun-Jupiter	2017-09-07,	15:19:24	209°33'28"	

108 2017-09-19, 18:14:38 M 7.1 PUEBLA, MEXICO 50KM

Jupiter-Earth-Uranus	2017-09-18,	0:00:00		1°49'50"
Earth-Mercury-Mars	2017-09-18,	0:00:00		1°01'00"
Mercury-Earth-Neptune	2017-09-18,	21:36:00		1°58'42"
Mercury-Earth-Neptune	2017-09-20,	3:36:37	342°11'51"	
Sun-Mercury-Venus	2017-09-20,	15:17:38		1°39'10"

109 2017-11-12, 18:18:17 M 7.3 IRAN-IRAQ BORDER REGION 24KM

Venus-Mercury-Neptune	2017-11-11,	0:00:00		1°25'32"
Jupiter-Mercury-Uranus	2017-11-11,	0:00:00		1°35'32"
Earth-Venus-Jupiter	2017-11-12,	10:17:31		0°56'47"
Mars-Mercury-Neptune	2017-11-12,	19:12:00		1°58'47"
Earth-Venus-Jupiter	2017-11-13,	8:10:06	217°06'11"	

110 2017-11-19, 22:43:30 M 7.0 LOYALTY ISLANDS 12KM

Venus-Sun-Uranus	2017-11-18,	0:00:00		1°03'41"
Venus-Sun-Uranus	2017-11-18,	16:31:12	26°35'57"	

111 2018-01-10, 02:51:32 M 7.6 NORTH OF HONDURAS 15KM

Earth-Mars-Jupiter	2018-01-09,	0:00:00		0°55'10"
Venus-Sun-Earth	2018-01-09,	0:00:00		0°05'08"
Jupiter-Venus-Uranus	2018-01-09,	0:00:00		1°45'28"
Venus-Sun-Earth	2018-01-09,	6:21:41	108°41'12"	
Sun-Mercury-Jupiter	2018-01-11,	9:36:00		1°54'49"
Earth-Mercury-Saturn	2018-01-11,	16:48:00		1°58'41"

112 2018-01-14, 09:18:45 M 7.1 NEAR COAST OF SOUTHERN PERU 40KM

Venus-Sun-Earth	2018-01-13,	0:00:00		1°12'22"
Jupiter-Venus-Uranus	2018-01-13,	0:00:00		1°49'00"
Earth-Mercury-Saturn	2018-01-13,	0:00:00		0°21'59"
Earth-Mercury-Saturn	2018-01-13,	7:00:36	272°34'05"	

113 2018-01-23, 09:31:44 M 7.9 GULF OF ALASKA 30KM

Mercury-Venus-Neptune	2018-01-21,	0:00:00		1°39'34"
(+/-2)				

114 2018-02-16, 23:39:40 M 7.2 OAXACA, MEXICO 15KM

Mercury-Sun-Earth	2018-02-16,	12:00:00		1°59'07"
Mercury-Sun-Earth	2018-02-17,	12:11:43	148°31'54"	

115 2018-02-25, 17:44:44 M 7.5 NEW GUINEA, PAPUA NEW GUINEA 30KM

Mars-Venus-Uranus	2018-02-24,	0:00:00		1°04'51"
Earth-Mercury-Neptune	2018-02-24,	12:00:00		1°52'44"
Sun-Mercury-Venus	2018-02-25,	2:24:00		1°50'04"
Mars-Venus-Uranus	2018-02-25,	9:53:09	28°33'40"	
Earth-Mercury-Neptune	2018-02-25,	12:19:55	343°25'18"	
Sun-Mercury-Venus	2018-02-25,	15:58:13	3°46'53"	

116 2018-03-29, 21:25:38 M 7.0 NEW BRITAIN REGION, P.N.G. 51KM

Venus-Sun-Mars	2018-03-28,	0:00:00		1°57'57"
Earth-Venus-Uranus	2018-03-28,	0:00:00		1°12'46"
Earth-Venus-Uranus	2018-03-29,	0:41:13	27°04'41"	
Earth-Mars-Saturn	2018-03-30,	2:38:07		1°51'02"
Venus-Sun-Mars	2018-03-30,	15:29:05	236°29'28"	

117 2018-08-19, 00:19:37 M 8.2 FIJI REGION 558KM

Venus-Mars-Neptune	2018-08-18,	0:00:00		0°36'46"
Venus-Mars-Neptune	2018-08-20,	4:10:00	345°54'44"	

118 2018-08-21, 21:31:43 M 7.3 OFFSHORE SUCRE, VENEZUELA 127KM

Venus-Mars-Neptune	2018-08-20,	0:00:00		0°02'44"
Venus-Mars-Neptune	2018-08-20,	4:10:00	345°54'44"	

119 2018-08-24, 09:04:08 M 7.1 PERU-BRAZIL BORDER REGION 651KM

Venus-Mars-Neptune	2018-08-23,	0:00:00		0°39'13"
Sun-Mercury-Uranus	2018-08-25,	5:50:29		1°36'35"
Sun-Mercury-Uranus	2018-08-25,	12:45:25	29°38'41"	

120 2018-08-29, 03:51:56 M 7.1 SOUTHEAST OF LOYALTY ISLANDS 20KM

Mercury-Venus-Saturn	2018-08-28,	0:00:00		1°39'57"
Venus-Mars-Neptune	2018-08-28,	0:00:00		1°22'58"
Mercury-Sun-Jupiter	2018-08-29,	19:15:32		1°51'57"
Mercury-Sun-Jupiter	2018-08-30,	3:03:30	236°49'35"	

121 2018-09-06, 15:49:15 M 7.8 FIJI 627KM

Venus-Mars-Neptune	2018-09-05,	0:00:00		1°19'07"
Mercury-Sun-Saturn	2018-09-05,	9:36:00		1°26'06"
Mercury-Sun-Saturn	2018-09-05,	15:19:43	277°42'14"	
Sun-Earth-Neptune	2018-09-06,	21:35:31		0°49'43"

122 2018-09-28, 10:02:43 M 7.5 MINAHASA, SULAWESI, INDONESIA 10KM

Sun-Venus-Neptune	2018-09-27,	0:00:00		0°47'17"
Sun-Mars-Neptune	2018-09-29,	2:22:30		0°46'51"
Mercury-Sun-Uranus	2018-09-29,	12:00:00		1°41'05"

123 2018-10-10, 20:48:19 M 7.0 NEW BRITAIN REGION, P.N.G. 30KM

Mercury-Earth-Uranus	2018-10-09,	9:36:00		1°57'55"
Sun-Mercury-Jupiter	2018-10-09,	9:36:00		1°57'43"
Sun-Mercury-Jupiter	2018-10-10,	2:50:25	240°00'35"	
Mercury-Earth-Uranus	2018-10-10,	17:20:37	30°49'55"	
Mercury-Venus-Uranus	2018-10-11,	2:24:00		1°55'12"

124 2018-11-30, 17:29:27 M 7.0 SOUTHERN ALASKA 57KM

Earth-Mercury-Jupiter	2018-11-29,	0:00:00		1°40'36"
Venus-Earth-Uranus	2018-11-29,	0:00:00		1°01'22"
Venus-Earth-Uranus	2018-12-01,	2:00:31	28°53'35"	
Sun-Mercury-Venus	2018-12-01,	2:24:00		1°39'48"
Sun-Mercury-Venus	2018-12-01,	10:56:11	90°29'56"	

125 2018-12-05, 04:18:07 M 7.5 SOUTHEAST OF LOYALTY ISLANDS 10KM

Venus-Earth-Uranus	2018-12-04,	0:00:00		1°36'50"
Earth-Mars-Neptune	2018-12-05,	15:32:51		1°14'55"

<u>126 2018-12-11, 02:26:30 M 7.1 SOUTH SANDWICH ISLANDS REGION 150KM</u>				
Earth-Mars-Neptune	2018-12-10,	0:00:00		1°33'25"
Sun-Mars-Uranus	2018-12-12,	5:33:23		0°56'05"
<u>127 2018-12-20, 17:01:54 M 7.4 KOMANDORSKIYE OSTROVA REGION 10KM</u>				
Earth-Mercury-Jupiter	2018-12-19,	21:36:00		1°54'44"
Mercury-Mars-Uranus	2018-12-20,	2:24:00		1°57'55"
Earth-Mercury-Jupiter	2018-12-21,	17:36:10	249°19'22"	
Mercury-Mars-Uranus	2018-12-21,	21:09:19	30°34'28"	
<u>128 2018-12-29, 03:39:10 M 7.0 MINDANAO, PHILIPPINES 66KM</u>				
Venus-Mercury-Saturn	2018-12-28,	21:36:00		1°58'05"
Mercury-Sun-Mars	2018-12-29,	7:12:00		1°59'05"
Venus-Mercury-Saturn	2018-12-30,	3:01:31	283°26'09"	
Mercury-Sun-Mars	2018-12-30,	8:13:25	40°27'12"	
<u>129 2019-02-22, 10:17:22 M 7.5 PERU-ECUADOR BORDER REGION 140KM</u>				
Mars-Sun-Jupiter	2019-02-21,	0:00:00		0°51'19"
Mars-Mercury-Jupiter	2019-02-22,	21:36:00		1°55'58"
Mars-Sun-Jupiter	2019-02-23,	11:14:19	250°41'42"	
Mercury-Sun-Jupiter	2019-02-23,	23:46:44		1°48'17"
<u>130 2019-03-01, 08:50:44 M 7.0 SOUTHERN PERU 286KM</u>				
Mars-Sun-Jupiter	2019-02-28,	0:00:00		1°33'25"
Venus-Mercury-Mars	2019-02-28,	0:00:00		1°23'17"
Venus-Mercury-Mars	2019-02-28,	16:13:23	67°26'11"	
Mercury-Sun-Saturn	2019-03-01,	4:48:00		1°24'16"
Mercury-Sun-Saturn	2019-03-01,	10:28:08	283°01'16"	
Mercury-Venus-Jupiter	2019-03-02,	0:00:00		1°47'20"
Mercury-Venus-Jupiter	2019-03-02,	17:08:14	253°19'29"	
<u>131 2019-05-06, 21:19:36 M 7.2 EASTERN NEW GUINEA REGION, P.N.G. 141KM</u>				
Mars-Sun-Saturn	2019-05-05,	0:00:00		0°32'02"
Mars-Earth-Jupiter	2019-05-05,	0:00:00		0°25'59"
Sun-Mercury-Venus	2019-05-05,	14:24:00		1°48'57"
Mars-Earth-Jupiter	2019-05-05,	21:36:16	263°06'50"	
Sun-Mercury-Venus	2019-05-06,	7:35:40	340°21'13"	
Sun-Mercury-Neptune	2019-05-07,	7:12:00		1°45'56"
Earth-Mercury-Uranus	2019-05-07,	12:00:00		1°59'44"
Sun-Mercury-Neptune	2019-05-07,	17:02:02	346°16'39"	
<u>132 2019-05-14, 12:58:25 M 7.5 NEW BRITAIN REGION, P.N.G. 10KM</u>				
Sun-Mercury-Uranus	2019-05-16,	15:36:50		1°41'24"
Sun-Mercury-Uranus	2019-05-16,	22:46:57	32°31'56"	
(+/-2)				
<u>133 2019-05-26, 07:41:13 M 8.0 NORTHERN PERU 112KM</u>				
Mercury-Venus-Neptune	2019-05-25,	0:00:00		0°37'50"
Mercury-Venus-Neptune	2019-05-25,	8:20:01	345°48'07"	
<u>134 2019-06-15, 22:54:59 M 7.2 KERMADEC ISLANDS, NEW ZEALAND 10KM</u>				
Mars-Mercury-Saturn	2019-06-14,	0:00:00		1°51'47"
Mars-Earth-Saturn	2019-06-14,	0:00:00		0°21'13"
Mercury-Venus-Uranus	2019-06-14,	12:00:00		1°53'08"
Mars-Earth-Saturn	2019-06-14,	15:24:36	288°41'49"	
Mercury-Earth-Saturn	2019-06-15,	2:24:00		1°54'39"
Mercury-Venus-Uranus	2019-06-15,	9:04:58	32°25'43"	
Earth-Mercury-Mars	2019-06-15,	16:48:00		1°59'10"
Mercury-Earth-Saturn	2019-06-16,	13:49:31	288°34'29"	

<u>135 2019-06-24, 02:53:40 M 7.3 BANDA SEA 214KM</u>			
Venus-Earth-Jupiter	2019-06-23,	0:00:00	0°39'54"
Venus-Earth-Jupiter	2019-06-23,	16:29:03	257°34'34"
<u>136 2019-07-06, 03:19:57 M 7.1 SOUTHERN CALIFORNIA 10KM</u>			
Earth-Mercury-Mars	2019-07-05,	12:00:00	1°58'24"
Mercury-Sun-Venus	2019-07-06,	7:12:00	1°57'38"
Venus-Mercury-Jupiter	2019-07-07,	14:24:00	1°58'10"
Venus-Sun-Jupiter	2019-07-07,	19:33:51	0°59'21"
<u>137 2019-07-14, 09:10:50 M 7.3 HALMAHERA, INDONESIA 10KM</u>			
Venus-Earth-Saturn	2019-07-15,	17:09:22	1°38'43"
<u>138 2019-11-14, 16:17:42 M 7.1 MOLUCCA SEA 52KM</u>			
Mars-Venus-Neptune	2019-11-13,	0:00:00	0°33'05"
Mars-Venus-Neptune	2019-11-13,	21:00:53	348°38'27"
Sun-Venus-Saturn	2019-11-15,	11:45:41	0°22'16"
Sun-Venus-Saturn	2019-11-15,	17:30:09	290°50'16"
<u>139 2020-01-28, 19:10:25 M 7.7 CUBA REGION 10KM</u>			
Sun-Mercury-Neptune	2020-01-27,	0:00:00	0°04'24"
Earth-Venus-Neptune	2020-01-27,	0:00:00	0°58'12"
Venus-Sun-Mars	2020-01-27,	0:00:00	0°36'06"
Mars-Mercury-Uranus	2020-01-27,	0:00:00	0°14'05"
Venus-Sun-Mars	2020-01-27,	19:07:56	226°57'06"
Earth-Venus-Neptune	2020-01-27,	19:57:59	346°40'37"
<u>140 2020-03-25, 02:49:21 M 7.5 EAST OF KURIL ISLANDS 60KM</u>			
Earth-Mars-Jupiter	2020-03-24,	0:00:00	1°55'54"
Venus-Mercury-Saturn	2020-03-25,	12:00:00	1°55'04"
Venus-Mercury-Saturn	2020-03-26,	12:27:39	296°34'33"
Sun-Mercury-Mars	2020-03-26,	16:48:00	1°52'18"
<u>141 2020-06-18, 12:49:53 M 7.4 SOUTH OF KERMADEC ISLANDS 8KM</u>			
Earth-Mars-Neptune	2020-06-16,	0:00:00	1°32'02"
(+/-2)			
<u>142 2020-06-23, 15:29:04 M 7.4 OAXACA, MEXICO 10KM</u>			
-			
<u>143 2020-07-17, 02:50:23 M 7.0 EASTERN NEW GUINEA REGION, P.N.G. 80KM</u>			
Sun-Earth-Jupiter	2020-07-16,	0:00:00	1°27'25"
Sun-Venus-Mars	2020-07-18,	11:56:54	1°52'28"
<u>144 2020-07-22, 06:12:44 M 7.8 ALASKA PENINSULA 30KM</u>			
Sun-Venus-Mars	2020-07-21,	0:00:00	0°30'07"
Sun-Mercury-Neptune	2020-07-21,	0:00:00	0°43'02"
Sun-Earth-Saturn	2020-07-21,	0:00:00	0°04'04"
Sun-Mercury-Neptune	2020-07-21,	3:54:28	348°56'20"
<u>145 2020-10-19, 20:54:40 M 7.5 SOUTH OF ALASKA 40KM</u>			
Sun-Earth-Mars	2020-10-18,	0:00:00	1°34'16"
Sun-Jupiter-Saturn	2020-10-18,	0:00:00	0°52'18"
Venus-Earth-Neptune	2020-10-18,	0:00:00	0°42'39"
Mercury-Earth-Uranus	2020-10-18,	0:00:00	1°20'18"
Venus-Jupiter-Saturn	2020-10-18,	0:00:00	1°20'51"
Venus-Earth-Neptune	2020-10-18,	14:35:20	348°19'50"
Mercury-Earth-Uranus	2020-10-20,	2:56:01	38°51'52"
<u>146 2020-10-30, 11:51:25 M 7.0 DODECANESE ISLANDS, GREECE 10KM</u>			
Sun-Jupiter-Saturn	2020-10-29,	0:00:00	0°15'50"

Mercury-Jupiter-Saturn	2020-10-29,	0:00:00		1°48'32"
Venus-Jupiter-Saturn	2020-10-29,	0:00:00		0°09'55"
Sun-Earth-Uranus	2020-10-30,	20:55:08		0°46'17"
Sun-Earth-Uranus	2020-10-31,	15:38:33	38°23'37"	

147 2021-01-21, 12:23:04 M 7.0 PHILIPPINE ISLANDS REGION 92KM

Earth-Mars-Uranus	2021-01-20,	0:00:00		0°25'39"
Mars-Jupiter-Saturn	2021-01-20,	0:00:00		1°08'52"
Earth-Mars-Uranus	2021-01-20,	20:29:45	36°27'02"	
Sun-Mercury-Uranus	2021-01-22,	13:35:46		1°59'28"
Earth-Sun-Saturn	2021-01-22,	15:34:15		1°19'41"
Sun-Mercury-Uranus	2021-01-22,	21:48:48	39°18'44"	

148 2021-02-10, 13:19:59 M 7.7 SOUTHEAST OF LOYALTY ISLANDS 10KM

Sun-Mercury-Earth	2021-02-09,	0:00:00		1°49'12"
Mars-Jupiter-Saturn	2021-02-09,	0:00:00		0°31'00"
Mercury-Venus-Saturn	2021-02-09,	4:48:00		1°56'20"
Mercury-Venus-Saturn	2021-02-09,	22:51:50	305°17'45"	
Earth-Venus-Jupiter	2021-02-10,	13:36:33		1°04'17"
Earth-Venus-Jupiter	2021-02-11,	14:54:08	312°17'33"	
Mercury-Venus-Jupiter	2021-02-11,	16:48:00		1°46'59"

149 2021-02-13, 14:07:51 M 7.1 NEAR EAST COAST OF HONSHU, JAPAN 60KM

Venus-Mercury-Earth	2021-02-12,	0:00:00		1°52'44"
Mercury-Venus-Jupiter	2021-02-12,	0:00:00		1°05'21"
Mars-Jupiter-Saturn	2021-02-12,	0:00:00		0°46'01"
Earth-Venus-Jupiter	2021-02-12,	0:00:00		0°23'07"
Mercury-Venus-Jupiter	2021-02-12,	11:20:46	312°09'39"	
Earth-Mercury-Jupiter	2021-02-13,	2:24:00		1°59'09"
Venus-Mercury-Earth	2021-02-13,	7:37:46	134°25'03"	
Mercury-Sun-Neptune	2021-02-14,	11:51:27		1°56'01"
Earth-Mercury-Jupiter	2021-02-14,	21:23:43	313°03'43"	
Mercury-Sun-Neptune	2021-02-14,	22:42:49	350°12'09"	

150 2021-03-04, 13:27:35 M 7.3 OFF EAST COAST OF NORTH ISLAND, NEW ZEALAND 16KM

Earth-Mercury-Jupiter	2021-03-03,	0:00:00		1°25'21"
Earth-Mercury-Jupiter	2021-03-05,	3:32:32	317°15'52"	

151 2021-03-04, 17:41:25 M 7.4 KERMADEC ISLANDS, NEW ZEALAND 49KM

Earth-Mercury-Jupiter	2021-03-03,	0:00:00		1°25'21"
Earth-Mercury-Jupiter	2021-03-05,	3:32:32	317°15'52"	

152 2021-03-04, 19:28:35 M 7.4 KERMADEC ISLANDS, NEW ZEALAND 25KM

Earth-Mercury-Jupiter	2021-03-03,	0:00:00		1°25'21"
Earth-Mercury-Jupiter	2021-03-05,	3:32:32	317°15'52"	

153 2021-03-20, 09:09:44 M 7.0 NEAR EAST COAST OF HONSHU, JAPAN 40KM

Mars-Venus-Saturn	2021-03-19,	0:00:00		1°35'28"
Mars-Venus-Jupiter	2021-03-20,	5:40:04		1°25'08"
Venus-Sun-Earth	2021-03-21,	15:45:44		1°35'52"

154 2021-05-21, 18:04:14 M 7.4 SOUTHERN QINGHAI, CHINA 10KM

-

155 2021-07-29, 06:15:50 M 8.2 ALASKA PENINSULA 43KM

Mars-Earth-Jupiter	2021-07-28,	0:00:00		0°44'44"
Mars-Earth-Jupiter	2021-07-29,	15:27:14	329°34'44"	

156 2021-08-11, 17:46:13 M 7.1 MINDANAO, PHILIPPINES 57KM

Mercury-Earth-Jupiter	2021-08-10,	0:00:00		1°35'15"
-----------------------	-------------	---------	--	----------

Mercury-Sun-Neptune	2021-08-10,	0:00:00		0°33'51"
Venus-Earth-Neptune	2021-08-10,	0:00:00		0°00'16"
Venus-Earth-Neptune	2021-08-10,	0:05:30	352°23'03"	
Mercury-Sun-Neptune	2021-08-10,	3:12:33	351°16'09"	
Mercury-Earth-Jupiter	2021-08-11,	1:07:10	328°05'35"	
Mars-Sun-Neptune	2021-08-12,	16:34:05		1°35'14"

157 2021-08-12, 18:32:55 M 7.5 SOUTH SANDWICH ISLANDS REGION 60KM

Venus-Earth-Neptune	2021-08-11,	0:00:00		1°09'17"
Mercury-Earth-Jupiter	2021-08-11,	0:00:00		0°04'13"
Mercury-Earth-Jupiter	2021-08-11,	1:07:10	328°05'35"	
Mars-Sun-Neptune	2021-08-13,	6:43:53		1°20'43"

158 2021-08-12, 18:32:55 M 8.1 SOUTH SANDWICH ISLANDS REGION 60KM

Venus-Earth-Neptune	2021-08-11,	0:00:00		1°09'17"
Mercury-Earth-Jupiter	2021-08-11,	0:00:00		0°04'13"
Mercury-Earth-Jupiter	2021-08-11,	1:07:10	328°05'35"	
Mars-Sun-Neptune	2021-08-13,	6:43:53		1°20'43"

159 2021-08-14, 11:57:42 M 7.0 ALASKA PENINSULA 10KM

Mars-Sun-Neptune	2021-08-13,	0:00:00		1°27'37"
------------------	-------------	---------	--	----------

160 2021-08-14, 12:29:09 M 7.2 HAITI REGION 10KM

Mars-Sun-Neptune	2021-08-13,	0:00:00		1°27'37"
------------------	-------------	---------	--	----------

161 2021-08-22, 21:33:20 M 7.0 SOUTH SANDWICH ISLANDS REGION 10KM

Sun-Earth-Jupiter	2021-08-21,	0:00:00		0°51'47"
Earth-Mercury-Mars	2021-08-21,	0:00:00		1°54'23"
Mars-Sun-Neptune	2021-08-21,	0:00:00		1°49'37"
Mercury-Sun-Uranus	2021-08-23,	19:12:00		1°47'30"
Mercury-Earth-Neptune	2021-08-23,	19:12:00		1°53'12"

162 2021-09-08, 01:47:46 M 7.0 GUERRERO, MEXICO 10KM

Mars-Venus-Jupiter	2021-09-07,	0:00:00		0°37'27"
--------------------	-------------	---------	--	----------

163 2021-10-02, 06:29:18 M 7.3 VANUATU REGION 537KM

Mars-Venus-Neptune	2021-10-01,	0:00:00		0°41'00"
Earth-Sun-Mars	2021-10-02,	16:30:48		1°48'29"
Sun-Venus-Saturn	2021-10-02,	21:27:46		0°16'59"
Sun-Venus-Saturn	2021-10-03,	1:50:34	311°47'15"	

164 2021-11-28, 10:52:13 M 7.5 NORTHERN PERU 110KM

Venus-Sun-Mars	2021-11-27,	0:00:00		0°36'34"
Mercury-Sun-Earth	2021-11-27,	14:24:00		1°53'42"
Sun-Venus-Uranus	2021-11-29,	3:06:39		0°14'04"
Mercury-Sun-Earth	2021-11-29,	4:20:16	66°51'32"	
Sun-Venus-Uranus	2021-11-29,	6:39:00	42°44'54"	

165 2021-12-14, 03:20:24 M 7.3 FLORES SEA 12KM

Mars-Jupiter-Neptune (+/-2)	2021-12-16,	21:15:32		1°59'41"
--------------------------------	-------------	----------	--	----------

166 2021-12-29, 18:25:52 M 7.3 KEPULAUAN BARAT DAYA, INDONESIA 170KM

Mercury-Venus-Earth	2021-12-28,	0:00:00		0°48'58"
Mars-Jupiter-Neptune	2021-12-28,	0:00:00		0°37'50"
Sun-Mercury-Jupiter	2021-12-28,	2:24:00		1°49'57"
Sun-Mercury-Jupiter	2021-12-28,	13:24:29	338°37'13"	
Mars-Mercury-Uranus	2021-12-29,	4:48:00		1°58'12"
Mercury-Venus-Earth	2021-12-29,	10:19:09	114°08'08"	

167 2022-03-16, 14:36:32 M 7.3 NEAR EAST COAST OF HONSHU, JAPAN 49KM

Earth-Sun-Neptune	2022-03-15,	0:00:00		1°26'55"
Earth-Venus-Mars	2022-03-15,	0:00:00		1°25'13"
Venus-Jupiter-Neptune	2022-03-17,	13:37:04		1°48'17"

168 2022-03-31, 05:44:01 M 7.0 SOUTHEAST OF LOYALTY ISLANDS 10KM

Sun-Mercury-Neptune	2022-03-30,	0:00:00		0°59'39"
Venus-Jupiter-Neptune	2022-03-30,	0:00:00		0°26'48"
Earth-Venus-Saturn	2022-03-30,	0:00:00		1°07'29"
Venus-Mercury-Uranus	2022-04-01,	0:00:00		1°50'59"
Venus-Mercury-Uranus	2022-04-01,	16:40:29	44°44'36"	

169 2022-05-26, 12:02:19 M 7.2 SOUTHERN PERU 210KM

Sun-Jupiter-Neptune	2022-05-25,	0:00:00		1°01'58"
Sun-Mars-Saturn	2022-05-25,	0:00:00		0°16'05"
Sun-Mars-Saturn	2022-05-25,	10:44:07	319°02'55"	
Earth-Mars-Jupiter	2022-05-26,	19:49:15		1°30'25"

170 2022-07-27, 00:43:23 M 7.0 LUZON, PHILIPPINES 10KM

Sun-Mars-Jupiter	2022-07-26,	0:00:00		0°22'20"
Mercury-Mars-Neptune	2022-07-26,	0:00:00		1°32'38"
Mercury-Mars-Jupiter	2022-07-26,	0:00:00		1°48'25"
Mercury-Venus-Uranus	2022-07-27,	7:12:00		1°49'23"
Mercury-Mars-Jupiter	2022-07-27,	19:05:32	357°16'47"	
Mercury-Sun-Neptune	2022-07-28,	2:24:00		1°44'01"
Mercury-Venus-Uranus	2022-07-28,	5:52:07	44°33'55"	
Mercury-Sun-Neptune	2022-07-28,	12:22:41	353°24'16"	

171 2022-09-10, 23:46:58 M 7.6 EASTERN NEW GUINEA REGION, P.N.G.

Mars-Jupiter-Neptune	2022-09-09,	0:00:00		0°37'35"
Venus-Sun-Saturn	2022-09-11,	8:28:21		0°30'12"
Venus-Sun-Saturn	2022-09-11,	16:36:05	322°27'34"	

172 2022-09-14, 11:04:07 M 7.0 SOUTHEAST OF LOYALTY ISLANDS 139KM

Mars-Jupiter-Neptune	2022-09-13,	0:00:00		0°23'31"
Venus-Sun-Saturn	2022-09-13,	0:00:00		1°56'39"
Venus-Mercury-Saturn	2022-09-13,	0:00:00		0°32'03"
Venus-Mercury-Saturn	2022-09-13,	5:48:41	322°40'33"	
Sun-Mercury-Saturn	2022-09-13,	19:12:00		1°53'37"
Sun-Mercury-Saturn	2022-09-14,	7:46:56	322°32'31"	
Mercury-Mars-Uranus	2022-09-14,	19:12:00		1°59'53"
Mercury-Sun-Venus	2022-09-14,	21:36:00		1°55'46"
Mercury-Earth-Jupiter	2022-09-15,	4:48:00		1°59'08"
Sun-Earth-Neptune	2022-09-15,	17:03:27		1°10'21"

173 2022-09-19, 18:05:08 M 7.6 MICHOACAN, MEXICO 25KM

Sun-Earth-Neptune	2022-09-18,	0:00:00		1°02'44"
Mercury-Earth-Jupiter	2022-09-18,	0:00:00		0°36'35"
Mercury-Mars-Uranus	2022-09-18,	0:00:00		1°40'10"
Mars-Jupiter-Neptune	2022-09-18,	0:00:00		0°07'45"
Mercury-Earth-Jupiter	2022-09-18,	22:33:20	4°25'31"	
Mars-Jupiter-Neptune	2022-09-20,	17:42:47	351°56'29"	

174 2022-11-09, 09:51:03 M 7.0 SOUTH OF FIJI ISLANDS 651KM

Mercury-Earth-Uranus	2022-11-08,	0:00:00		1°41'18"
Sun-Earth-Uranus	2022-11-08,	0:00:00		1°19'52"
Mars-Jupiter-Neptune	2022-11-08,	0:00:00		0°29'07"
Mercury-Sun-Earth	2022-11-08,	0:00:00		0°55'22"
Mercury-Sun-Uranus	2022-11-08,	7:12:00		1°44'35"
Mercury-Sun-Earth	2022-11-08,	16:24:31	45°55'47"	
Mercury-Sun-Uranus	2022-11-08,	21:45:02	46°35'06"	
Mercury-Earth-Uranus	2022-11-09,	2:24:13	46°35'59"	

Sun-Earth-Uranus	2022-11-09, 8:11:39	46°35'23"	
Venus-Sun-Mars	2022-11-09, 22:20:01		1°54'44"
<u>175 2022-11-11, 10:48:48 M 7.3 TONGA REGION 45KM</u>			
Sun-Earth-Uranus	2022-11-10, 0:00:00		0°39'14"
Mercury-Sun-Earth	2022-11-10, 0:00:00		1°44'00"
Mercury-Earth-Uranus	2022-11-10, 0:00:00		1°22'32"
Venus-Sun-Mars	2022-11-10, 0:00:00		1°51'46"
Mars-Jupiter-Neptune	2022-11-10, 0:00:00		0°26'05"
Venus-Sun-Mars	2022-11-12, 14:55:15	62°19'00"	
<u>176 2022-11-12, 07:09:14 M 7.0 FIJI REGION 591KM</u>			
Sun-Earth-Uranus	2022-11-11, 0:00:00		1°38'50"
Venus-Sun-Mars	2022-11-11, 0:00:00		1°09'10"
Mars-Jupiter-Neptune	2022-11-11, 0:00:00		0°24'27"
Venus-Sun-Mars	2022-11-12, 14:55:15	62°19'00"	
Mercury-Sun-Mars	2022-11-13, 16:48:00		1°58'58"
<u>177 2022-11-22, 02:03:07 M 7.0 SOLOMON ISLANDS 10KM</u>			
Venus-Mercury-Earth	2022-11-21, 0:00:00		1°31'18"
Mars-Jupiter-Neptune	2022-11-21, 0:00:00		0°04'03"
Venus-Mercury-Earth	2022-11-21, 22:52:14	66°50'42"	
Mars-Jupiter-Neptune	2022-11-22, 15:34:12	351°17'41"	
<u>178 2023-01-08, 12:32:42 M 7.0 VANUATU 26KM</u>			
Sun-Mercury-Earth	2023-01-07, 4:48:00		1°42'17"
Sun-Mercury-Earth	2023-01-07, 12:50:14	106°37'46"	
Mercury-Venus-Saturn	2023-01-09, 14:24:00		1°48'27"
<u>179 2023-01-09, 17:47:35 M 7.6 KEPULAUAN BABAR, INDONESIA 104KM</u>			
Mercury-Venus-Saturn	2023-01-09, 14:24:00		1°48'27"
Mercury-Venus-Saturn	2023-01-10, 7:30:43	325°31'51"	
<u>180 2023-01-18, 06-06-14 M 7.0 MOLUCCA SEA 46KM</u>			
Mercury-Sun-Venus	2023-01-18, 16:48:00		1°49'30"
Mercury-Sun-Venus	2023-01-19, 16:27:18	350°08'02"	
<u>181 2023-02-06, 01:17:36 M 7.8 CENTRAL TURKEY 20KM</u>			
Sun-Venus-Jupiter	2023-02-05, 0:00:00		0°41'42"
Mercury-Sun-Uranus	2023-02-05, 0:00:00		0°36'18"
Mercury-Sun-Uranus	2023-02-05, 5:05:16	47°34'18"	
<u>182 2023-02-06, 10:24:49 M 7.5 CENTRAL TURKEY 20KM</u>			
Sun-Venus-Jupiter	2023-02-05, 0:00:00		0°41'42"
Mercury-Sun-Uranus	2023-02-05, 0:00:00		0°36'18"
Mercury-Sun-Uranus	2023-02-05, 5:05:16	47°34'18"	