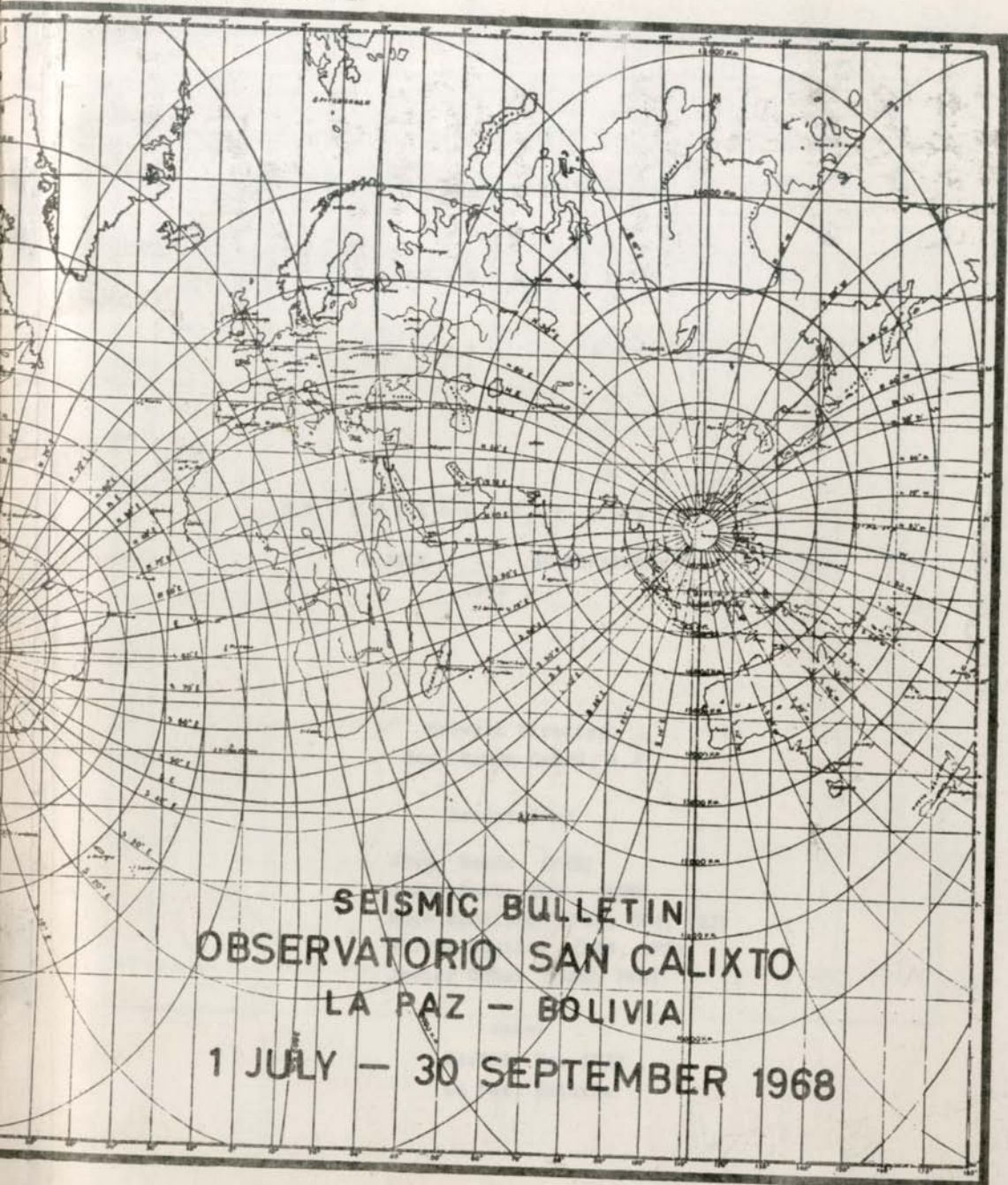
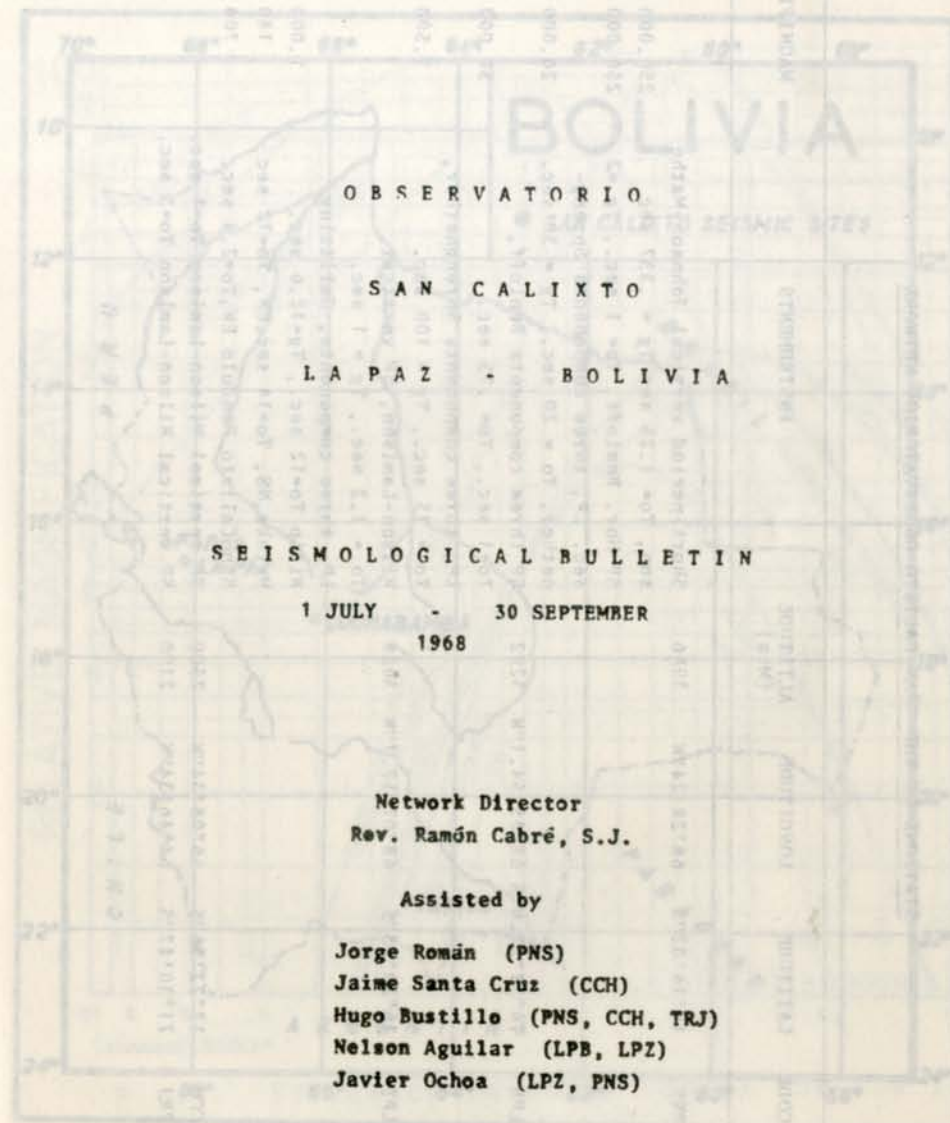


S — PARA LA PAZ





OBSERVATORIO

SAN CALIXTO

LA PAZ - BOLIVIA

SEISMOLOGICAL BULLETIN

1 JULY - 30 SEPTEMBER
1968

Network Director
Rev. Ramón Cabré, S.J.

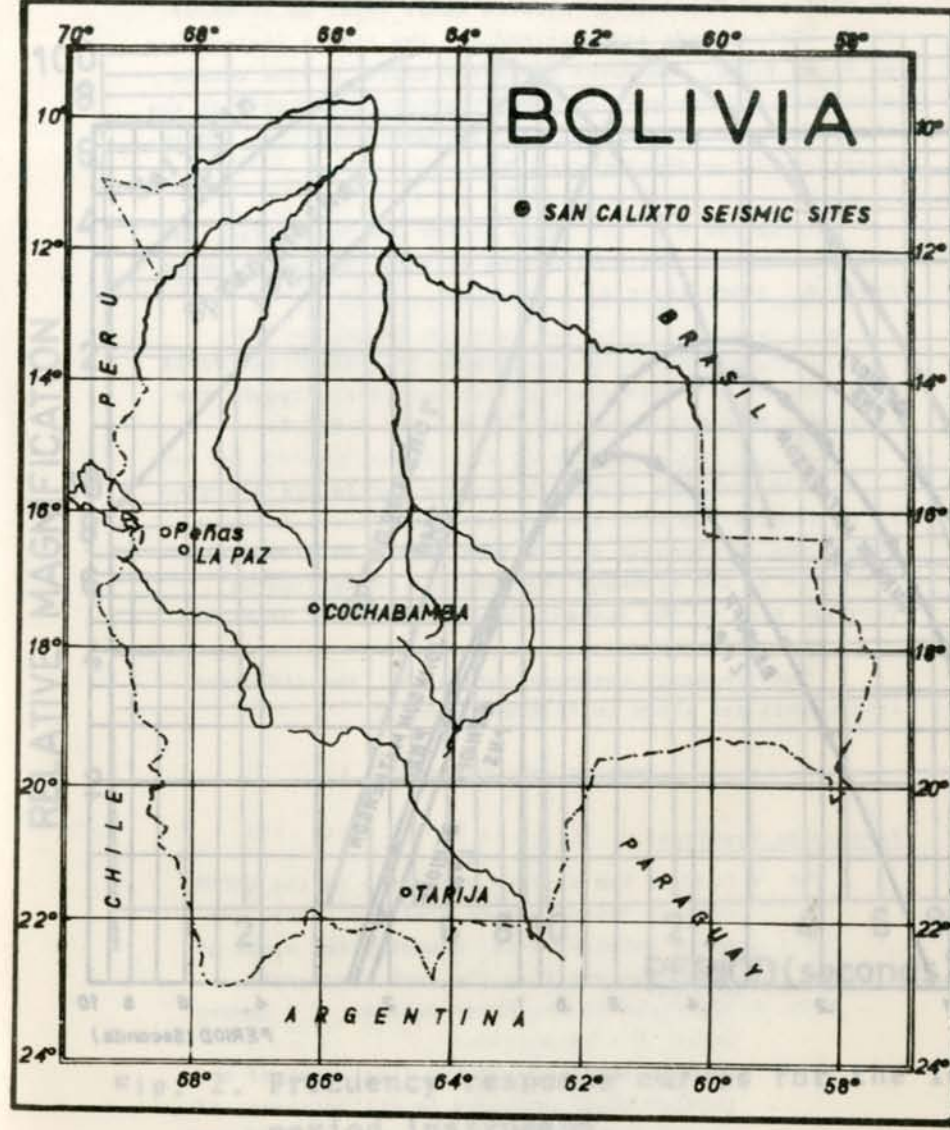
Assisted by

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Casilla No. 5939
La Paz, Bolivia

STATIONS OF THE "SAN CALIXTO OBSERVATORIO" NETWORK

LOCATION	CODE	LATITUDE	LONGITUDE	ALTITUDE (Mts)	INSTRUMENTS	MAGNIFICATION
Peñas	PNS	16°16'02"S	68°28'24"W	3986	Short-period vertical Johnson-Mathe son, To= 1.25 sec Tg = .337 sec SP Hor. Renioff, To= 1 sec., Tg =2 sec. LP, three components Sprengnether, To = 20 sec., Tg = 30 sec. SP three components Renioff, To=1 sec., To= .75 sec.	250,000 at 1 cps 250,000 at 1 cps 20,000 at 25 sec 50,000 at 1 cps
La Paz (WWNSS)	LPR	16°31'57.6"S	68°05'54.1"W	3292	LP, three components Sprengnether, To = 15 sec., Tg = 100 sec. Wilson-Lamison, Sp vertical, To = 1.2 sec., Tg = 1 sec.	1,500 at 15 sec
La Paz (Colecio)	LPZ	16°29'43"S	68°07'57.7"W	3658	LP, three components, Galitzin-Willip To=12 sec., Tg=12.6 sec. Mainka, NS, To=14 sec. EW, To=12 sec.	1,000 at 12 sec 180 and 300 700
Cochabamba	COH	17°22'56"S	66°08'34"W	2500	San Calixto Pendulo EW, To=2.4 sec.	
Tarija	TOJ	21°30'47"S	64°46'34"W	2100	SP vertical Wilson-Lamison To=1 sec. SP vertical Wilson-Lamison To=3 sec.	



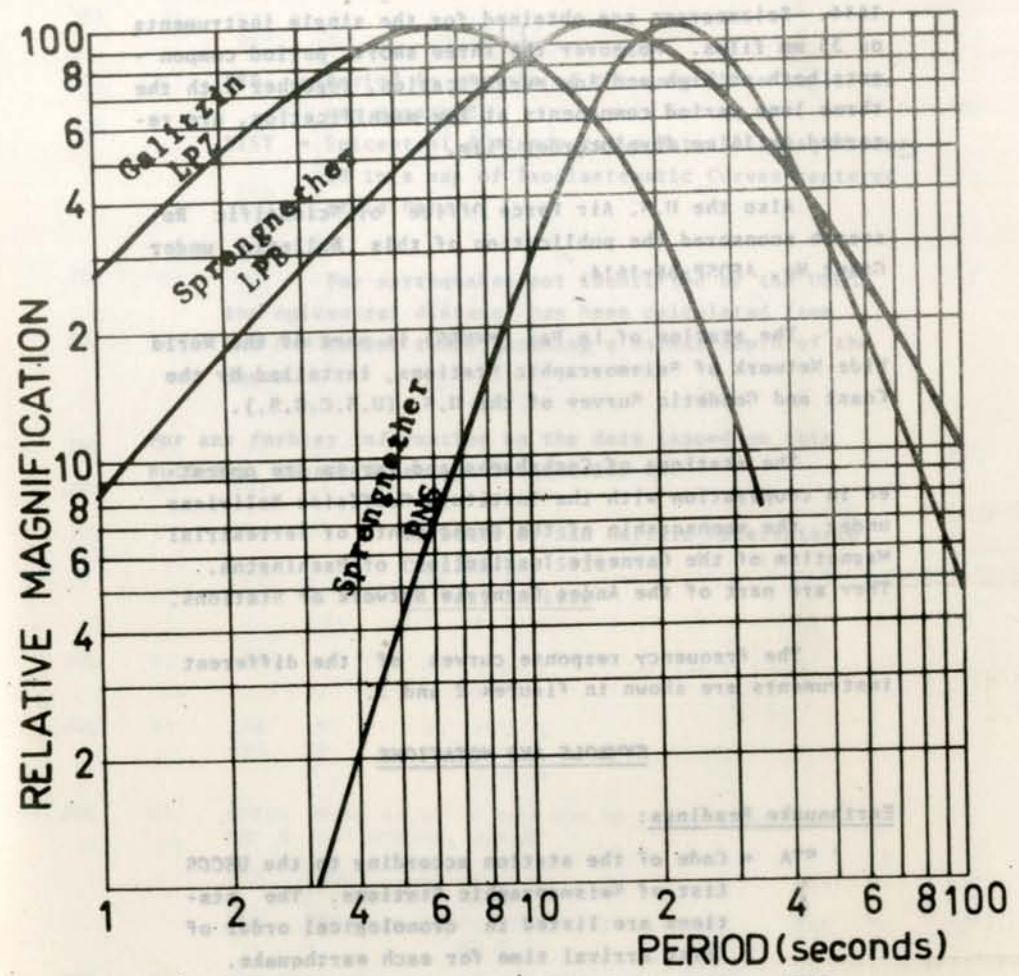
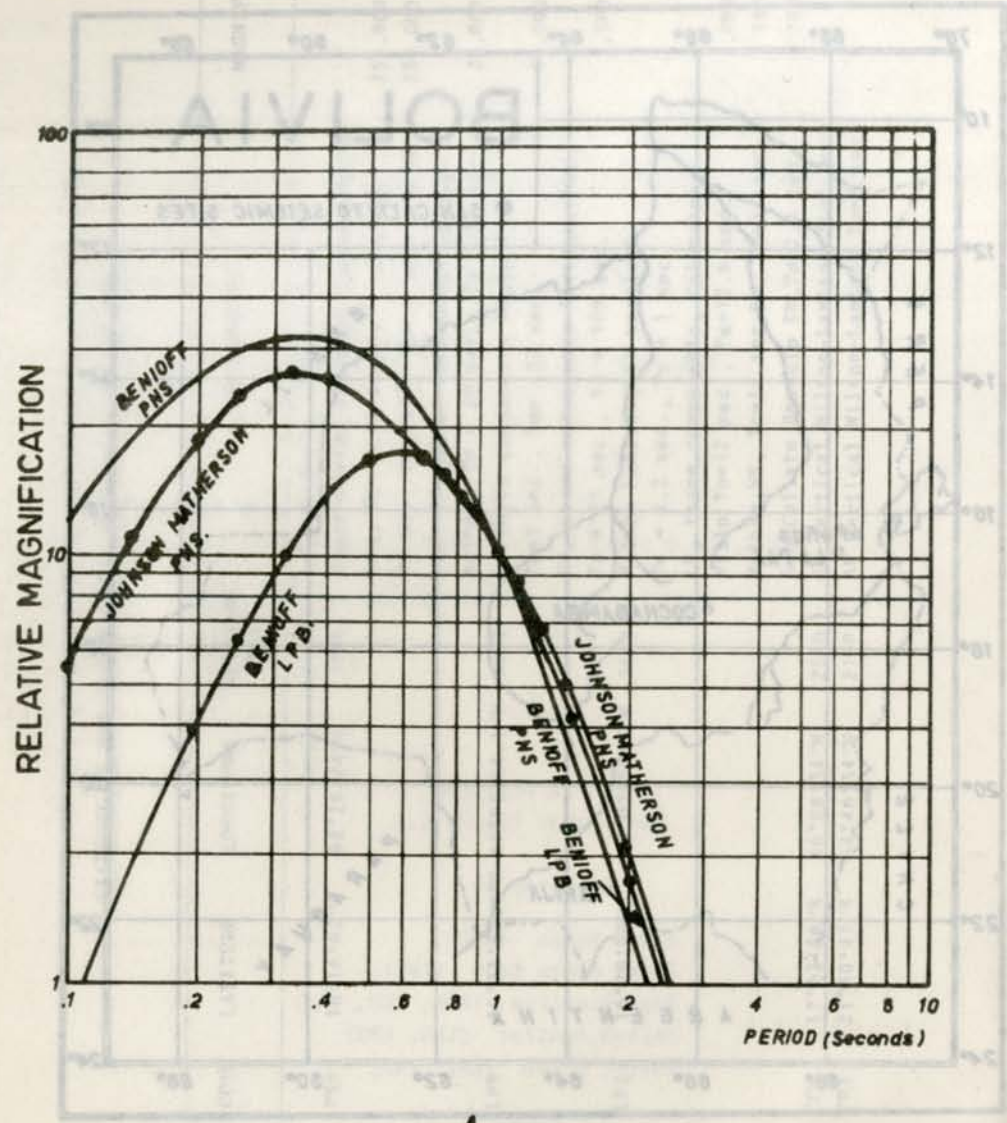


Fig. 2. Frequency response curves for the long period instruments.

The station of Peñas is operated under U.S. Air Force Office of Scientific Research under Grant No. AFOSR-68-1614. Seismograms are obtained for the single instruments on 35 mm films. Moreover the three short period components both at high and low magnification, together with the three long period components at low magnification, are recorded on 16 mm devolocorder film.

Also the U.S. Air Force Office of Scientific Research sponsored the publication of this Bulletin under Grant No. AFOSP-68-1614.

The station of La Paz (WNSS) is part of the World Wide Network of Seismographic Stations, installed by the Coast and Geodetic Survey of the U.S. (U.S.C.G.S.).

The stations of Cochabamba and Tarija are operated in cooperation with the Instituto Geofísico Boliviano under the sponsorship of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. They are part of the Andes Carnegie Network of Stations.

The frequency response curves of the different instruments are shown in figures 2 and 3.

SYMBOLS AND NOTATIONS

Earthquake Readings:

STA = Code of the station according to the USCGS List of Seismographic Stations. The stations are listed in chronological order of first arrival time for each earthquake.

SIGN = Direction of the first motion. C = Compression, D = Dilatation.

AMPL = Maximum amplitude of the first part of the initial phase measured in millimicrons of ground motion. Readings refer to half peak-to-peak amplitudes.

MONTH	DAY	STA	PHASE	TIME	SIGN	AMPL	DIST
JUL	01	LPS	4P	01 20 00			
		PNS	4P	02 20 07.5			
JUL	01	PER	-				Period in seconds of the wave whose amplitude was measured.
JUL	01	DIST	-				Epicentral distance to La Paz, Bolivia, measured in a map of Isodiastematic Curves centered at La Paz.
JUL	01	LPS		03 20 00			
JUL	01			04 20 00			
JUL	01			05 20 00			
JUL	01			06 20 00			
JUL	01			07 20 00			
JUL	01			08 20 00			
JUL	01			09 20 00			
JUL	01			10 20 00			
JUL	01			11 20 00			
JUL	01			12 20 00			
JUL	01			13 20 00			
JUL	01			14 20 00			
JUL	01			15 20 00			
JUL	01			16 20 00			
JUL	01			17 20 00			
JUL	01			18 20 00			
JUL	01			19 20 00			
JUL	01			20 20 00			
JUL	01			21 20 00			
JUL	01			22 20 00			
JUL	01			23 20 00			
JUL	01			24 20 00			
JUL	01			25 20 00			
JUL	01			26 20 00			
JUL	01			27 20 00			
JUL	01			28 20 00			
JUL	01			29 20 00			
JUL	01			30 20 00			

For earthquakes not identified by the USCGS the epicentral distance has been calculated from the S-P travel times assuming a normal depth of the focus.

For any further information on the data issued on this Bulletin, please direct your inquiries to:
 Director of San Calixto Observatorio
 Casilla No. 5939
 La Paz, Bolivia

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	01	LPB	eP	01 29 09				
		PNS	eP	01 20 07.5				
JUL	01	PNS	eP	03 21 04.4				
JUL	01	PNS	eP	03 53 47.9				
			i	58.1				
			S	57 14				
		LPB	P	03 53 52.5				
			i	54 02.2				
			e	58 11.8				
JUL	01	LPB	eP	04 22 00				
		PNS	eP	04 22 08				
JUL	01	LPB	eP	04 25 30				
			eS	26 01.2				
		PNS	P	04 25 30.9		0.5	4	
			eS	26 01				
JUL	01	LPR	eP	05 49 04				
JUL	01	PNS	eP	06 01 40.7				
JUL	01	PNS	P	07 09 17.2		0.6	3	
			S	10 16				
		LPR	P	07 09 21				
			i	25				
			eS	10 21.5				
JUL	01	PNS	P	08 25 55.2		0.3	2	
			S	26 17				
JUL	01	LPB	eP	09 31 36.5				
		PNS	eP	09 31 38				
			S	32 25.6				
JUL	01	USCGS	10 45 11.9, 36.0N, 139.3E, h = 67 Km., m = 5.9					
		NR S	CST HONSHU, JAPAN					
		PNS	1PKP	11 04 51.6	C	1.4	127	
			L	55.7				
		LPB	PKP	11 04 51.7	C	1.7	750	
			L	55.6				
JUL	01	USCGS	11 08 23.0, 5.7S, 77.1W, h = 52 Km., m = 4.8					
		NORTHERN	PERU					
		PNS	F	11 11 34.3				
			eS	14 31				
			L	17.5				
		LPB	P	11 11 36.7		0.7	62	13.5
			i	49.3				
			eS	14 30				
			eL	17.6				

JULY											
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST			
JUL	01	LPR PNS	eP eP S	13 12 31.5 13 12 35 13 32.5							
JUL	01	PNS	P S	13 20 02.7 30							
JUL	01	LPR	eP	15 24 55							
JUL	01	PNS LPR	eP eP	15 53 50 15 53 54							
JUL	01	USCGS 16 14 15.0, 21.4 S, 66.8 W, h = 167 km., m = 4.0 SOUTHERN BOLIVIA									
		LPR	iP iS	16 15 37 16 39	C	0.8	270	4.9			
		PNS	iP S	16 15 41.4 16 43.6	C						
JUL	01	LPR PNS	P iP	17 42 10 17 42 14.4	C	0.8 0.4	25 7				
JUL	01	PNS	P	17 54 36.1		0.6	3				
JUL	01	LPR PNS	eP eP	20 17 23 20 17 27.3							
JUL	01	PNS	P S	22 40 08.0 40.3		0.5	4				
JUL	02	USCGS 00 23 13.0, 16.3S, 73.0 W h = 33 km., m = 4.1 NEAR COAST OF PERU									
		PNS	iP S	00 24 13.7 55.9	C						
		LPR	iP iS	00 24 18.5 25 02	C	0.9	314	4.5			
JUL	02	PNS	P S	02 03 00.6 33.2							
JUL	02	PNS LPR	iP iS P S	03 52 10.0 32.6 03 52 11.4 36.2			8				
JUL	02	USCGS 03 44 48.0, 17.6N, 100.3W, h = 41 km., m = 5.9 GUERRERO, MEXICO									
		PNS	P S G L	03 53 08.7 59 56 04 05.9 08.4		1.2	61				
		LPR	P S G L	03 53 12 04 00 00 06 08.6		1.2	87	46.8			

JULY											
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST			
JUL	02	PNS LPB	e(P) eP	04 24 01 04 24 04.5							
JUL	02	USCGS 04 30 52.7, 29.7S, 177.9W, h = 53 km., m = 5.6 KERMADEC ISLAND									
		LPR PNS	eP P	04 44 21 04 44 26.2				98.1			
			e eL	44.0 05 14.9			1.2	7			
JUL	02	PNS	P	05 09 55.6		0.5	2				
		LPB	eS eP	10 34 05 10 02							
JUL	02	LPB	eP	06 38 20.7							
JUL	02	LPB PNS	eP P	06 46 19.5 06 46 20.4			0.7	2			
JUL	02	LPB	P	08 52 49.2		1.1	25				
			S	53 28							
		PNS	P	08 52 50.6	D	0.5	11				
			S	53 30							
JUL	02	PNS LPB	e(P) eP	09 11 21 09 11 26							
JUL	02	LPB PNS	eP P	12 10 11 12 10 13.5		0.5	4				
JUL	02	PNS LPB	P eP	14 35 40.0 14 35 42		0.6	3				
JUL	02	PNS LPB	P eS eP	14 58 47.0 59 22.7 14 58 48		0.4	4				
JUL	02	USCGS 16 15 48.0, 9.0N, 82.9W, h = 33 km., m = 4.2 PANAMA-COSTA RICA BOR REG									
		PNS LPB	eP eP	16 21 40.8 16 21 41				29.0			
JUL	02	USCGS 16 83 56.4, 32.7N, 143.6E, h = 20 km., m = 4.7 OFF E CST OF HONSHU, JAPAN									
		PNS LPB	ePKP ePKP	17 03 34 17 03 37				144.0			
JUL	02	USCGS 17 11 50.0, 41.1N, 143.3E, h = 33 km., m = 4.2 HOKKAIDO, JAPAN REG									
		PNS LPB	ePKP ePKP	17 31 26.6 17 31 30.5				143.8			

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	02	LPB	eP	18 10 29					
		PNS	P	18 10 30.8		1.3	7		
JUL	02	USCGS 18 40 10.1, 2.7S, 138.9E, h = 62 km., m = 5.7 WEST NEW GUINEA							
		LPB	eP	18 59 46				147.0	
			i	19 00 14.5					
		PNS	PKP	18 59 47.6		0.8	38.0		
			i	19 00 14.0					
			eL	19 50.6					
JUL	02	USCGS 19 49 17, 45.0S, 167.0E, h = 27 km., m = 5.0 OFF W CST OF SOUTH IS N.Z.							
		PNS	eL	20 39.6					
JUL	02	PNS	eP	20 15 38.6					
		LPB	eP	20 15 39.5					
JUL	02	USCGS 20 31 04, 0.6S, 91.8W, h = 33 km., m = 4.3 GALAPAGOS ISLANDS							
		PNS	P	20 36 52.5		1.0	3		
		LPB	eP	20 36 55.5				28.0	
JUL	02	LPB	eP	20 43 24					
		PNS	P	20 43 27.6		0.6	3		
JUL	02	USCGS 22 12 25 26.0N, 128.6E, h = 33 km., m = 5.1 RYUKYU ISLAND.							
		LPB	eP	22 32 24				161.6	
		PNS	P	22 32 28.6		1.0	4		
			e	41.6					
JUL	02	PNS	P	22 44 49.2		0.4	2		
			eS	45 03.8					
JUL	02	PNS	iP	22 52 06.3					
			iS	29.1					
		LPB	eP	22 52 07					
			S	31.8					
JUL	02	LPB	eP	22 58 48					
		PNS	eP	22 58 49.4					
			S	59 28.6					
JUL	02	LPB	e(P)	23 01 57					
		PNS	eP	23 00 58					
JUL	03	USCGS 22 43 28, 52.7N, 171.1E, h = 33 km., m = 4.4 NEAR IS ALBUTIAN IS							
		PNS	ePKP	23 12 23				46.3	
		LPB	ePKP	23 12 26				121.5	

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	03	PNS	P	00 53 28.0		0.9	5		
		LPB	eP	00 53 30.4		0.9	8		
JUL	03	LPB	P	00 55 42.5		0.8	7		
		PNS	P	00 55 45.8		0.5	7		
			S	56 41.5					
JUL	03	USCGS 01 10 35.0, 31.0S, 176.8W, h = 33 km., m = 4.9 KERMADEC ISLANDS REG							
		PNS	eP	01 2 04					
		LPB	eP	01 23 05				96.3	
JUL	03	LPB	P	01 14 11.7		0.8	6		
JUL	03	LPB	eP	01 30 02					
		PNS	eP	01 30 03					
JUL	03	USCGS 01 43 13.0, 39.7N, 143.6E, h = 33 km., m = 4.0 OFF E CST OF HONSHU, JAPAN							
		LPB	ePKP	02 02 49				144.0	
		PNS	ePKP	02 02 51					
JUL	03	LPB	P	02 31 22.5		0.8	6		
		PNS	P	02 31 22.7		0.5	8		
JUL	03	USCGS 02 39 46.0, 41.4N, 142.9E, h = 34 km., m = 4.6 HOKKAIDO, JAPAN REG							
		LPB	ePKP	02 59 20.5				143.8	
		PNS	ePKP	02 59 23					
JUL	03	PNS	P	03 27 43.0		0.6	14		
		LPB	P	03 27 47.8		1.0	14		
JUL	03	LPB	P	04 13 27		0.8	16		
			eS	14 29					
		PNS	P	04 13 30.9		C	0.5	12	
			eS	14 34.7					
JUL	03	LPB	P	04 32 40.5					
		PNS	P	04 32 41.0		0.5	2		
JUL	03	PNS	P	04 42 23.8		0.5	4		
			S	46.8					
JUL	03	LPB	P	07 38 27.8					
JUL	03	USCGS 08 19 26.0, 9.5N, 70.1W, h = 66 km., m = 4.0 VENEZUELA							
		PNS	eP	08 24 50.7		0.8	4		
			eL	32.5					

JULY									
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		LPB	eP	08 24 55.7		0.8	7	25.6	
JUL	03	LPB	eP	08 29 54					
			e(S)	32 27					
JUL	03	LPB	eP	09 00 20.5					
JUL	03	LPB	eP	09 08 30.7		0.7	4		
		PNS	eP	09 08 32					
JUL	03	PNS	eP	09 17 33					
			S	25 36.8					
			e(L)	33.9					
JUL	03	LPB	eP	09 17 35.5					
JUL	03	LPB	eP	09 25 39		0.9	6		
JUL	03	LPB	eP	10 07 42					
		PNS	P	10 07 42.5		1.4	8		
JUL	03	PNS	P	10 56 54.0					
			S	57 34.8					
JUL	03	PNS	P	11 29 09.2					
			eS	30 00					
		LPB	eP	11 29 04					
JUL	03	PNS	P	12 13 56					
			S	16 52.2					
			eL	17.8					
		LPB	eP	12 14 00					
			eL	18					
JUL	03	USCGS 12 21 44, 22.6N, 68.7W, h = 108 km., m = 4.0							
		NORHTERN CHILE							
		LPB	P	12 23 16.5		0.9	20	5.9	
		PNS	P	12 23 17.4		1.0	8		
			i	50.5					
JUL	03	PNS	P	13 27 34		0.4	3		
			S	28 16.7					
JUL	03	LPB	eP	14 09 25					
JUL	03	PNS	eP	14 28 21.7					
			eS	29 03.8					
		LPB	eP	14 28 22					
JUL	03	LPB	eP	15 16 13					
		PNS	iP	15 16 16.9		0.5	4		
			S	40					
								14	

JULY										
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST		
JUL	03	USCGS 15 24 54.0, 5.5S, 77.1N, h = 33 km., m = 4.2								
		NORTHERN PERU								
		PNS	P	15 28 06.5		1.4	8			
			i	18.1						
			eL	34.5						
		LPB	eP	15 28 10				13.5		
JUL	03	LPB	eP	15 41 08.4						
		PNS	P	15 41 14.2						
JUL	03	PNS	eP	15 56 41.6		1.5	12			
JUL	03	USCGS 17 30 51.0, 7.5S, 127.7E, h = 145 km., m = 5.2								
		BANDA SEA								
		LPR	PKP	17 50 30.5		0.8	16	151.1		
		PNS	PKP	17 50 30.7		1.0	14			
JUL	03	PNS	eP	17 59 06.2						
		LPB	eP	17 59 08						
JUL	03	LPB	eP	18 31 54						
		PNS	eP	18 31 58.6						
JUL	03	USCGS 18 39 44.1, 6.9N, 73.0W, h = 157 km., m = 3.8								
		NORTHERN COLOMBIA								
		PNS	P	18 44 40.4		C	0.7	4		
		LPB	eP	18 44 44.2				23.4		
JUL	03	PNS	P	19 22 14.3		0.9	6			
JUL	03	PNS	eP	19 40 33.9						
			eS	41 35						
JUL	03	PNS	P	19 48 13						
JUL	03	PNS	P	20 04 42.1		0.8	4			
JUL	03	PNS	eP	20 18 59.9						
			S	19 34.5						
JUL	03	LPB	eP	20 59 14						
		PNS	eP	20 59 14.7						
JUL	03	USCGS 20 53 04, 13.6N, 144.2E, h = 133 km., m = 4.7								
		MARIANA ISLAND								
		PNS	PKP	21 12 34.7		1.1	7			
		LPB	eP	21 12 35				148.5		
JUL	03	PNS	P	21 48 34.3		0.6	3			
			S	57						



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	04	LPB	eP	00 05 58					
		PNS	eP	00 06 01.4					
JUL	04	PNS	eP	00 39 07.8					
JUL	04	USCGS 00 34 13.2, 34.8N, 139.7E, h = 104 km., m = 5.0 NR S CST OF HONSHU, JAPAN							
		PNS	P	00 53 47.7		1.3	12		
			i	54 20.9					
			eL	01 44.9					
		LPB	eP	00 53 50				149.5	
JUL	04	PNS	eP	01 52 36					
		LPB	eP	01 52 40.5					
JUL	04	PNS	P	02 29 21.9		0.9	10		
JUL	04	PNS	eP	03 23 08					
JUL	04	PNS	P	04 31 58.6					
JUL	04	PNS	P	05 08 56.2					
JUL	04	PNS	eP	05 18 52					
JUL	04	PNS	eP	05 21 55					
JUL	04	LPB	P	06 15 23.4					
		PNS	iP	06 15 27.6	C	0.4	4		
			S	54					
JUL	04	PNS	P	06 17 24.8		0.8	3		
		LPB	eP	06 17 28					
JUL	04	USCGS 07 12 24.2, 43.9N, 147.2E, h = 80 km., m = 5.0 KURILE ISLAND							
		LPB	PKP	07 31 43				139.4	
			i	32 06					
		PNS	PKP	07 31 46.1		1.1	7		
			e	32 06.2					
			eL	08 16.2					
JUL	04	PNS	P	07 35 14.2		1.5	13		
		LPB	eP	07 35 15.4					
JUL	04	LPB	eP	09 37 40					
		PNS	P	09 37 43.3		0.9	5		
JUL	04	USCGS 10 01 45, 6.8S, 154.3E, h = 98 km., m = 4.8 SALOMON ISLANDS							
		PNS	PKP	10 20 34.6					
		LPB	ePKP	10 20 36				122.9	

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	04	USCGS 10 15 51.0, 6.7S, 154.2E, h = 109 km., m = 4.7 SALOMON ISLAND							
		PNS	ePKP	10 34 37					
		LPB	ePKP	10 34 43				122.9	
JUL	04	PNS	eP	11 18 36					
			S	19 10.8					
JUL	04	PNS	P	11 24 40.1					
			S	25 14					
JUL	04	PNS	P	11 41 23.4		1.0	9		
		LPB	P	11 41 23.5					
JUL	04	PNS	P	12 07 02.8					
			eS	46.4					
JUL	04	PNS	eP	12 45 44.7					
			i	51.9					
			eS	53 52					
			L	13 03.3					
		LPB	eP	12 45 45					
			eS	53 49					
			L	13 03.5					
JUL	04	PNS	P	13 22 27		0.4	8		
			S	50.5					
		LPB	eP	13 22 27					
			eS	57					
JUL	04	USCGS 15 15 59.6, 10.5N, 84.1W, h = 113 km., m = 4.4 COSTA RICA							
		PNS	P	15 22 06.2		0.8	5		
JUL	04	PNS	iP	16 10 42.1	D				
			iS	11 05.4					
		LPB	eP	16 10 44.3					
JUL	04	USCGS 20 38 40.5, 35.4N, 138.5S, h = 28 km., m = 4.5 HONSHU, JAPAN							
		PNS	PKP	20 58 30.5		1.0	5		
		LPB	ePKP	20 50 32				149.9	
JUL	04	USCGS 21 47 55.6, 37.8N, 23.2E, h = 33 km., m = 5.3 SOUTHERN GREECE							
		PNS	eP	22 01 46.8					
			eL	39.4					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	04	LPB	eP	22 05 43					
			eL	37.5					
		PNS	eP	22 05 46					
			e	51.3					
JUL	04	PNS	iP	22 54 01.3	D				
			S	24.2					
		LPB	P	22 54 01.5					
			iS	25					
JUL	04	PNS	eP	23 09 25.7					
			eS	10 33.8					
JUL	04	LPB	P	23 20 25.7					
		PNS	P	23 20 28.9		1.2	14		
JUL	08	PNS	eP	00 44 35					
JUL	05	USCGS 00 45 17.2, 34.1N, 119.7W, h = 6 km., m = 5.7 SOUTHERN CALIFORNIA							
		PNS	P	00 56 31.5		2.0	62		
			eL	01 18.4					
		LPB	P	00 56 34.4				70.1	
			eL	01 19.8					
JUL	05	LPB	eL	01 45					
		PNS	eP	01 24 33.8		1.7	22		
			eL	01 45.4					
JUL	05	LPB	P	01 34 11					
		PNS	P	01 34 11.7		1.2	12		
JUL	05	USCGS 01 33 36.0, 20.6S, 68.7W, h = 122 km., m = 38 CHILE-BOLIVIA BORDER REGION							
		LPB	iP	01 34 39.6				3.9	
			iS	35 27					
		PNS	iP	01 34 42.7	C				
			S	35 23					
JUL	05	USCGS 02 09 23.0, 35.8S, 103.7W, h = 33 km., m = 4.4 SOUTHERN PACIFIC OCEAN							
		PNS	P	02 16 31.3		1.1	23		
			i	54.4					
			eS	21 58					
			eG	24.4					
			L	26.9					
		LPB	iP	02 16 32.5	D			36.8	
			L	27					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	05	PNS	P	03 30 54.0			0.5	2	
JUL	05	LPB	iP	04 56 45.4	D				
			S	57 09.8					
		PNS	P	04 56 47.0					
			S	57 11.8					
JUL	05	PNS	P	06 39 00.7	D	0.5		4	
			iPP	12.8					
			S	51.8					
JUL	05	USCGS 06 45 42.2, 5.5S, 77.6W, h = 33 km., m = 4.4 NORTHERN PERU							
		PNS	P	06 48 57.8					
			L	54.9					
		LPB	eP	06 49 03				18.9	
			eL	55					
JUL	05	PNS	P	08 31 12.1		0.5		4	
			eS	41					
JUL	05	LPB	iP	08 35 07.5					
		PNS	P	08 35 11.6	C	0.4		7	
JUL	05	LPB	P	10 19 08.7					
		PNS	P	10 19 13.3		0.6		3	
			eS	20 34.4					
JUL	05	LPB	eP	10 45 53.5					
		PNS	P	10 45 55.0		0.8		4	
			i	46 02.0					
JUL	05	LPB	e(P)	11 10 54					
			S	11 02.6					
		PNS	P	11 11 03.2		0.4		2	
			S	17					
JUL	05	PNS	eP	11 30 58					
JUL	05	PNS	eP	11 38 37					
			e	59.8					
JUL	05	USCGS 11 28 12.6, 38.5N, 142.0E, h = 43 km., m = 5.9 NR B CST OF HONSHU, JAPAN							
		PNS	PKP	11 47 48.6		1.4		257	
			ePP	51 15					
			SKS	54 50					
			G	12 29.4					
			L	12 37.5					
		LPB	PKP	11 47 49.5				145.9	
			G	12 30					
			L	37.7					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	05	PNS	eP eS	13 22 42.6 23 33.7					
JUL	05	PNS	P	13 31 50.9		0.4	3		
JUL	05	USCGS 13 37 55.7, 30.2S, 178.1W, h = 53 km., m = 5.2 KERMADEC ISLAND							
		PNS	eP	13 51 30.6					
JUL	05	PNS	P	14 51 56.0		1.0	7		
JUL	05	PNS	eP	16 24 07.2					
JUL	05	LPB	eP	16 32 49					
		PNS	P	16 32 52.9		0.5	4		
			S	34 20					
JUL	05	LPB	eP	17 13 15					
		PNS	P	17 13 15.5		1.0	6		
JUL	05	PNS	P	18 41 01.8					
JUL	05	LPB	iP	20 03 34.5					
			eS	04 38					
		PNS	iP	20 03 38.5	D	0.5	13		
			S	04 43.6					
JUL	05	LPB	eP	21 24 25.5					
		PNS	eP	21 24 26					
JUL	05	LPB	eP	21 59 26					
		PNS	eP	21 59 28.8					
JUL	05	PNS	eP	23 30 40					
		LPB	P	23 30 41.5					
JUL	05	LPB	eP	23 54 47					
		PNS	eP	23 53 54.6					
			e(s)	56 50					
JUL	06	LPB	P	00 05 19.5		0.9	20		
		PNS	P	00 05 20.9		0.5	3		
			S	06 08					
JUL	06	LPB	eP	00 43 39					
		PNS	eP	00 43 40					
JUL	06	PNS	e(P) e(L)	02 13 20.8 35					
		LPB	P	02 13 21					
			eL	34					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	06	PNS	eP S	04 00 10.0 55					
JUL	06	LPB	P iS	04 00 18.8 45.7		0.7	5		
JUL	06	LPB	eP S	04 04 08 36.5					
		PNS	P S	04 04 10.5 34		0.4	5		
JUL	06	LPB	P	04 32 07.5		0.8	6		
JUL	06	PNS	e(P)	04 34 43					
JUL	06	LPB	eP	05 42 39					
		PNS	eP	05 42 43					
JUL	06	LPB	eP	05 52 45					
		PNS	eP	05 52 49.7					
JUL	06	PNS	eP eS	05 56 24.6 57 03.9					
		LPB	eP	05 56 30.5					
JUL	06	LPB	P	05 57 33					
JUL	06	PNS	P	06 09 05.8		0.4	2		
		LPB	eP	06 09 08					
JUL	06	PNS	eP	06 14 40					
JUL	06	PNS	eP	07 17 21.4					
		LPB	P	07 17 22.5		1.0	8		
JUL	06	LPB	P	08 49 45.7					
JUL	06	USCGS 09 25 20.0, 40.0N, 144.2E, h = 33 km., m = 4.2 OFF E CST OF HONSHU, JAPAN							
		PNS	ePKP	09 44 52.8					
		LPB	ePKP	09 44 54				43.3	
JUL	06	PNS	P	10 16 38.1					
		LPB	eP	10 16 39					
JUL	06	LPB	eP	11 02 39					
		PNS	eP	11 02 41					
JUL	06	PNS	eP	11 38 11.8					
JUL	06	PNS	P S	13 03 11.0 32.5		0.6	3		
		LPB	eP	13 03 14					
JUL	07	LPB	P	02 06 45.2					
JUL	07	USCGS 03 46 25.0, 14.0N, 94.1W, h = 33 km., m = 4.7 OFF S ST OF CHIAPAS, MEXICO							

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	06	LPB PNS	eP e(P)	13 33 16.5 13 35 22					
JUL	06	USCGS 14 02 42.0, 41.0N, 117.4W, h = 33 km., m = 5.1 NEVADA							
JUL	06	PNS LPB	P P	14 14 10.6 14 14 14.4		1.2 0.8	10 6	73.2	
JUL	06	USCGS 14 17 45.1, 58.7S, 24.9W, h = 33 km., m = 4.6 SOUTH SANDWICH IS REG							
JUL	06	LPB	eP	14 36 56				52.3	
JUL	06	PNS	P	14 26 59.9		0.7	4		
JUL	06	PNS	eL	14 44.1					
JUL	06	PNS	P	14 51 36.2					
JUL	06	LPB	eP	14 51 42.5					
JUL	06	LPB	P	14 52 28.5		0.8	10		
JUL	06	PNS	iP	14 52 31.7	C	0.5	6		
JUL	06	LPB	eP	14 55 40					
JUL	06	PNS	iP	14 55 43.8	D	0.6	4		
JUL	06		S	56 10					
JUL	06	LPB	eP	15 47 19					
JUL	06		e	26.3					
JUL	06		S	48 32					
JUL	06	PNS	P	15 47 20.9		0.5	5		
JUL	06		S	48 24.2					
JUL	06	USCGS 15 48 33.0, 24.1N, 122.5E, h = 50 km., m = 5.0 TAIWAN REG							
JUL	06	LPB	PKP	16 08 38.5				167.4	
JUL	06	PNS	PKP	16 08 39.0					
JUL	06	PNS	eP	17 30 53.6					
JUL	06	USCGS 17 23 55.8, 9.5N, 126.4E, h = 24 km., m = 5.1 MINDANAO, PHILIPPINE IS							
JUL	06	PNS	PKP	17 43 52.8		0.8	4		
JUL	06		i	44 02.5					
JUL	06		eL	18 35					
JUL	06	LPB	ePKP	17 43 58.6				164.1	
JUL	06		eL	18 35					
JUL	06	PNS	P	16 15 04.9		0.9	6		
JUL	06	LPB	eP	16 15 05.5					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	06	PNS	P	16 37 41.4			0.6	2	
JUL	06		eS	38 18					
JUL	06	PNS	P	17 50 12.2			1.1	17	
JUL	06		i	20.2					
JUL	06	LPB	eP	17 49 16					
JUL	06	PNS	P	17 54 03.5			0.5	3	
JUL	06	LPB	eP	17 54 08					
JUL	06	PNS	eP	18 13 34.3					
JUL	06	LPB	eP	18 12 39					
JUL	06	PNS	P	18 37 50.9	C		0.7	6	
JUL	06		i	38 14.4					
JUL	06	LPB	P	18 37 53			1.1	57	
JUL	06	LPB	eP	19 41 09					
JUL	06	PNS	eP	19 42 01.3					
JUL	06	USCGS 19 28 55.3, 6.4S, 133.8E, h = 27 km., m = 5.7 AROE ISLANDS REG							
JUL	06	LPB	iP	18 48 40.5	D		1.0	44	
JUL	06		i	44				148.0	
JUL	06	PNS	PKP	19 48 40.6	D		1.2	43	
JUL	06		i	43.9					
JUL	06		eL	20 39.6					
JUL	06	USCGS 20 05 15.0, 9.7N, 126.2E, h = 33 km., m = 5.1 MINDANAO, PHILIPPINE IS							
JUL	06	LPB	ePKP	20 25 09				150.0	
JUL	06		e	24.5					
JUL	06	PNS	ePKP	20 25 10.6					
JUL	06		e	20.0					
JUL	06	PNS	iP	21 11 38.0	C				
JUL	06		S	12 00					
JUL	06	LPB	P	21 11 40			0.8	13	
JUL	06	PNS	P	24 54 54.5					
JUL	06	LPB	eP	22 55 00					
JUL	06	LPB	eP	22 57 46					
JUL	06	LPB	e(P)	23 29 32					
JUL	06	PNS	eP	23 34 00					
JUL	06	LPB	eP	23 54 00					
JUL	06	PNS	P	23 54 03.3	C		0.7	7	
JUL	06		S	26.0					
JUL	07	LPB	eP	02 06 44.5					
JUL	07	PNS	P	02 06 45.9			0.7	4	
JUL	07	USCGS 03 46 25.0, 14.2N, 94.1W, h = 33 km., m = 4.1 OFF E ST OF CHIAPAS, MEXICO							



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL		LPB	eP	03 53 58.5				39.9	
		PNS	P	03 54 01.9		1.0	6		
JUL	07	PNS	eP	04 09 15					
		LPB	eP	04 15 19					
JUL	07	LPB	eP	05 39 18.4					
JUL	07	USCGS 05 46 27.3, 41.4S, 88.3W, h = 33 km., m = 4.5 WEST CHILE RISE							
		LPB	eP	05 52 38.5		0.6	6	39.1	
			eS	57 40					
			L	06 01.2					
		PNS	eP	05 52 39.8		1.1	8		
			S	57 31					
			eL	06 01.1					
JUL	07	LPB	eP	08 06 50					
		PNS	P	08 06 57.5		1.4	14		
JUL	07	LPB	P	08 48 52	C	0.8	24		
			S	49 39					
		PNS	iP	08 48 55.8	C	0.6	15		
			S	49 42					
JUL	07	PNS	P	10 15 14.4					
			S	17 07.2					
		LPB	P	10 15 16.5					
JUL	07	USCGS 10 59 33.4, 22.1S, 68.5W, h = 116 km., m = 4.0 NORTHERN CHILE							
		LPB	P	11 00 55.9	C	0.7	20	5.4	
			i	01 16.5					
		PNS	iP	11 00 59.0	C	0.6	25		
			S	01 49.7					
JUL	07	LPB	eP	11 13 23		1.0	10		
		PNS	P	11 14 25.7	D	0.9	10		
JUL	07	LPB	eP	11 40 50					
		PNS	P	11 40 52.0	C	0.4	3		
JUL	07	PNS	iP	11 48 30.2	D	0.5	6		
			S	52.2					
JUL	07	LPB	eP	11 53 45					
JUL	07	PNS	iP	12 07 64.2	D	0.4	5		
			S	08 17.0					
JUL	07	USCGS 12 35 50.0 5.4S, 76.9W, h = 34 km., m = 4.4 NORTHERN PERU							
		PNS	eP	30 02.8		1.0	4		
			S	41 21					
				45					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL		LPB	eP	12 39 05				13.5	
			eL	45					
JUL	07	PNS	P	13 35 49.8		1.9	56		
			L	41.3					
		LPB	eP	13 35 50		1.2	31		
			eS	39 25					
			eL	42.6					
JUL	07	USCGS 13 35 52.0, 27.9S, 68.4W, h = 128 km., m = 4.2 CHILE-ARGENTINA BOR NEG							
		PNS	P	13 38 30.8		0.6	5.0		
			S	40 34.7					
		LPB	eP	13 38 36.5				10.8	
JUL	07	PNS	eP	14 41 12.4					
			i	47 51					
			L	15 09.7					
		LPB	eP	14 41 13					
			L	15 09.6					
JUL	07	LPB	eP	15 03 58					
		PNS	P	15 03 59.7		0.9	7		
JUL	07	PNS	P	15 14 52.7		0.6	2		
		LPB	eP	15 14 53.5					
JUL	07	USCGS 16 50 31.0, 9.8N, 126.2E, h = 36 km., m = 4.8 MINDANAO, PHILIPPINE IS.							
		LPB	ePKP	17 10 32				164.2	
			eL	18 12					
		PNS	PKP	17 10 35.9		1.1	6		
			eL	18 11					
JUL	07	LPB	eP	17 24 27					
		PNS	eP	17 24 28					
JUL	07	PNS	P	18 48 54.0		0.8	4		
			i	49 10.0					
			eS	34.6					
		LPB	P	18 48 55.5		0.9	17		
			i	49 05.3					
			eS	38					
								25	

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	07	PNS LPB	P eP	19 56 45.0 19 56 46		1.2	5		
JUL	07	PNS LPB	P eP	20 02 08.0 20 02 09		1.2	8		
JUL	07	PNS	eP	20 19 32					
JUL	07	USCGS 21 30 07.8, 0.6N, 126.5E, h = 69 km., m = 5.1 MINDANAO, PHILIPPINE IS							
		PNS	PKP	21 54 08.0		2.0	44		
			eL	22 54.8					
		LPB	ePKP	21 54 07.5				163.9	
			eL	22 54					
JUL	07	LPB	e(P)	22 10 51					
		PNS	P	22 10 55.7		0.8	3		
JUL	07	PNS	P	22 13 58.6		0.8	5		
JUL	07	PNS LPB	eP eP	22 50 42.5 22 50 47.6					
JUL	07	USCGS 23 05 18.2, 8.5N, 103.3W, h = 33 km., m = 5.0 OFF COAST OF MEXICO							
		PNS	P	23 13 10.6		0.8	6		
			PP	15 09.8					
			LS	19 35					
			L	26.9					
		LPB	eP	23 13 14		0.6	8	42.3	
			ePP	15 11					
			S	19 42					
			L	27					
JUL	07	USCGS 23 48 08.2, 5.8S, 77.1W, h = 27 km., m = 5.5 NORTHERN PERU							
		PNS	P	23 51 19.1		1.9	153		
			S	54 05					
			L	56.9					
		LPB	P	23 51 24.4	C	1.6	227	13.5	
			i	36					
			eS	54 09					
			e(L)	56.8					
JUL	08	LPB	eP	00 08 40					
			S	09 21					
		PNS	P	00 08 45.9					
			S	09 27.7					
JUL	08	PNS	P	00 22 33.3		0.8	5		
			e	23 59.5					
		LPB	P	00 22 34.4					



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	08	USCGS 00 18 39.5, 40.8N, 143.2E, h = 27 km., m = 4.5 OFF E CST OF HONSHU, JAPAN							
		PNS	ePKP	00 38 18					
			i	21.9					
		LPB	ePKP	00 38 20				143.7	
JUL	08	PNS	eP	00 56 37.4					
		LPB	eP	00 56 42					
JUL	08	PNS	eP	01 11 51.9					
		LPB	P	01 11 53.5					
JUL	08	USCGS 04 01 49.0, 8.6N, 103.2W, h = 33 km., m = 44 OFF COAST OF MEXICO							
		PNS	P	04 09 41.6		1.5	16		
			eL	23.4					
		LPB	P	04 09 45.2		1.4	22		
			eL	23.5					
JUL	08	USCGS 03 53 33.3, 41.0N, 141.9E, h = 60 km., m = 4.3 HOKKAIDO, JAPAN REGION							
		PNS	ePKP	04 13 03					
		LPB	PKP	04 13 05				144.8	
JUL	08	PNS	iP	04 17 29.3	D				
			S	55.6					
		LPB	iP	04 17 29.4	D	0.8	31		
			i	33.7					
			iS	56.3					
JUL	08	LPB	eP	04 22 33					
			(S)	24 14.2					
		PNS	P	04 22 38.9		1.0	4		
			i	23 12.9					
			eS	24 16.6					
JUL	08	PNS	eP	04 32 05.8					
		LPB	P	04 32 09.6		1.0	10		
JUL	08	PNS	eP	04 33 11					
			S	50.5					
JUL	08	LPB	eP	04 40 27					
		PNS	P	04 40 31.9		0.4	21		
JUL	08	PNS	eP	04 57 20.7		0.7	2		
		LPB	eP	04 57 24.2		0.7	4		
JUL	08	PNS	P	05 14 53.7		1.6	15		

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	08	USCGS 05 24 42.0, 15.9S, 72.3W, h = 122 km. SOUTHERN PERU						
		PNS	iP	05 25 38.9	C			
			S	26 23.6				
		LPB	P	05 25 44		1.0	60	4.0
JUL	08	LPB	eP	05 39 17.2				
		PNS	eP	05 39 20.8				
			eS	41 32.6				
JUL	08	USCGS 05 57 36.0, 8.6N, 103.3W, h = 33 km., m = 4.2 OFF COAST OF MEXICO						
		PNS	P	06 05 30.9		1.0	6	
		LPB	P	06 05 34		1.0	16	42.3
JUL	08	PNS	eP	06 54 12.2				
		LPB	eP	06 54 18				
JUL	08	PNS	eP	08 00 08.5				
		LPB	eP	08 00 09				
JUL	08	LPB	P	08 04 26.5		0.7	4	
JUL	08	USCGS 08 21 49.1, 42.5N, 144.5E, h = 33 km., m = 4.6 HOKKAIDO, JAPAN REG						
		LPB	ePKP	08 21 21.5				141.6
		PNS	ePKP	08 21 22				
JUL	08	USCGS 08 45 47, 5.7S, h = 77.1W, h = 33 km., m = 4.8 NORTHERN PERU						
		PNS	P	08 48 57.7		1.6	15	
			eS	52 54				
			eL	54.9				
		LPB	eP	08 49 01				13.5
			eS	52 57.5				
			eL	55				
JUL	08	PNS	eP	10 30 37				
			e	31 10.7				
JUL	08	USCGS 11 34 17.0, 2.3N, 75.9W, h = 77 km., m = 45 COLOMBIA						
		PNS	eP	11 38 40				
			eS	44 39				
			eL	48.9				
		LPB	P	10 38 47		0.8	24	19
			S	44 42				
			eL	49				

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	08	LPB	P	12 03 56.3		0.9	18	
		PNS	P	12 03 58.0		0.8	4	
			S	04 39.6				
JUL	08	PNS	P	13 02 47.6				
JUL	08	LPB	P	13 10 28.5		1.1	75	
JUL	08	PNS	P	13 15 40.1				
			eS	16 50				
JUL	08	USCGS 13 14 29.9, 38.0N, 67.6E, h = 28 km., m = 52 SOUTHERN UZBEK SSR						
		PNS	ePKP	13 33 48.8				
		LPB	ePKP	13 33 50				135.9
JUL	08	LPB	eP	14 01 49.6				
JUL	08	LPB	P	16 20 52.5				
			S	21 26.8				
		PNS	P	16 20 59.0				
			S	21 39.8				
JUL	08	PNS	eP	17 08 06.4				
		LPB	eP	17 08 09				
JUL	08	PNS	P	17 32 47.2		0.9	4	
			L	44.2				
		LPB	eP	17 32 48				
			eL	44.3				
JUL	08	USCGS 17 15 28.3, 29.7N, 51.1E, h = 44 km., m = 4.9 SOUTHERN IRAN						
		PNS	PKP	17 34 24.0		0.8	4	
			eL	18 13.2				
		LPB	ePKP	17 34 26				123.5
JUL	08	LPB	eP	17 47 49				
		PNS	P	17 47 51.4				
JUL	08	USCGS 17 41 05.8, 34.4N, 25.2E, h = 33 km., m = 5.3 CRETE						
		LPB	eP	17 54 53.5				101.8
			eL	24.6				
		PNS	eP	17 54 54.2				
			eL	18 23.9				
JUL	08	LPB	P	17 58 57				
		PNS	P	17 59 05.8		1.0	3	



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	08	PNS	P	18 03 04.3		0.5	4	
		eS		49				
		LPB	eP	18 02 55.3				
JUL	08	USCGS 20 58		23.0, 9.8N, 126.7E, h = 41 km., m = 4.9				
				MINDANAO, PHILIPPINE IS				
		PNS	ePKP	21 18 25.6				
JUL	08	LPB	eP	21 30 14.5				
		PNS	P	21 30 19.8		1.0	4	
JUL	08	PNS	P	21 38 41.2		0.5	5	
		S		39 18				
JUL	08	USCGS 21 24		48.3, 28.8N, 142.5E, h = 33 km., m = 5.3				
				BONIN IS REG				
		PNS	PKP	21 44 32.3		1.2	81	
		eSS		22 07 17				
		eL		35.3				
		LPB	PKP	21 44 33.4		1.1	45	149.0
		i		37.7				
JUL	09	LPB	P	00 10 12.5		0.8	15	
		PNS	iP	00 10 14.5		0.9	10	
JUL	09	LPB	P	01 50 21.3		1.0	14	
JUL	09	USCGS 02 38		56.1, 23.3S, 68.5W, h = 98 km., m = 4.2				
				NORTHERN CHILE				
		LPB	P	02 40 34.5		0.9	37	6.6
		eL		42.4				
		PNS	iP	02 40 38.9	C	0.8	23	
		S		41 55				
		eL		42.3				
JUL	09	LPB	eP	03 02 31.7				
JUL	09	PNS	eP	03 09 33				
		eS		10 00				
		LPB	eP	03 09 36.5		0.9	6	
JUL	09	USCGS 03 14		07.0, 10.3N, 126.5E, h = 64 km., m = 5.3				
				PHILIPPINE IS REG				
		LPB	ePKP	03 34 05				164.2
		PNS	ePKP	03 34 05		1.5	13	
JUL	09	LPB	eP	03 52 42.3				
		i		48.2				
		PNS	eP	03 52 42.9				
		i		47.5				

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	09	USCGS 03 39		56.8, 12.8N, 144.1E, h = 88 km., m = 4.7				
				SOUTH OF MARIANA IS				
		LPB	PKP	03 59 45				145.3
		eL		04 49				
		PNS	PKP	03 59 46.4		1.1	10	
		eL		48.9				
JUL	09	USCGS 03 53		19.0, 8.3S, 125.3E, h = 37 km., m = 4.9				
				TIMOR				
		PNS	ePKP	04 13 13.4				
		LPB	PKP	04 13 16		0.7	11	153.1
JUL	09	LPB	eP	04 30 01.8		1.0	8	
		PNS	P	04 30 02.7				
JUL	09	04 27		54.1, 41.4N, 143.6E, h = 23 km., m = 4.6				
				HOKKAIDO JAPAN REG				
		PNS	ePKP	04 47 36.2				
		LPB	ePKP	04 47 38				143.3
JUL	09	PNS	P	04 53 34.5	D	0.5	3	
		S		59.9				
		LPB	P	04 53 34.7		0.8	6	
JUL	09	USCGS 05 13		45.2, 2.3S, 75.7W, h = 156 km., m = 4.0				
				PERU-ECUADOR BOR REG				
		PNS	eP	05 17 20				
		e		24.6				
		LPB	P	05 17 30.5		1.0	14	16.1
JUL	09	PNS	P	06 04 35.8		0.4	4	
		S		05 17.7				
		LPB	eP	06 04 42.7				
		eS		05 27.7				
JUL	09	LPB	P	06 40 08.7		0.6	11	
		S		46				
		PNS	P	06 40 16.2		0.8	5	
		S		58.1				
JUL	09	PNS	eP	07 08 45				
JUL	09	USCGS 08 06		08.2, 39.5N, 142.8E, h = 33 km., m = 4.4				
				NR E CST OF HONSHU, JAPAN				
		PNS	ePKP	08 25 42.6				
		eL		09 16.3				
		LPB	PKP	08 25 43				144.8

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	09	USCGS OFF E	08 28 23.0, 40.4N, 143.7E, h = 33 km., m = 4.8 CST OF HONSHU, JAPAN					
		PNS	ePKP	08 47 52.5				
		LPB	ePKP	08 47 56				143.1
JUL	09	LPB	eP	09 57 11				
JUL	09	PNS	eP	10 29 29.8				
		LPB	eP	10 29 35				
JUL	09	LPB	eP	10 46 23.5				
JUL	09	PNS	P	11 14 56.7				
			S	15 40				
JUL	09	LPB	eP	14 32 11				
		PNS	P	14 32 11				
JUL	09	LPB	eP	15 09 05				
JUL	09	USCGS	15 31 08.0, 21.4S, 66.6W, h = 215 km., m = 4.0 SOUTHERN-BOLIVIA					
		LPB	iP	15 32 24.0	C	0.9	51	5.0
			(S)	33 21.5				
JUL	09	USCGS	16 14 02.0, 24.5S, 69.5W, h = 78 km., m = 4.2 NORTHERN CHILE					
		LPB	P	16 15 57.5				8.1
		PNS	P	16 15 59.9		1.0	7	
			i	16 05.9				
JUL	09	PNS	P	16 56 11.9				
		LPB	eP	16 56 17				
JUL	09	PNS	P	17 31 12.0		1.2	8	
		LPB	eP	17 31 20.5				
JUL	09	PNS	P	18 11 35.1		0.5	2	
			S	12 00.2				
		LPB	eP	18 11 32.7				
JUL	09	PNS	eP	20 00 10				
			eS	01 13				
		LPB	eP	20 00 17				
JUL	10	USCGS	00 40 45.9, 10.5N, 138.6E, h = 33 km., m = 5.1 WEST CAROLINE IS					
		PNS	ePKP	01 00 36.6		1.9	50	
			PP	04 00				
			eL	52.2				
		LPB	ePKP	01 00 37				141.8
			eL	52				
JUL	10	PNS	eP	01 54 00.6				
JUL	10	LPB	eP	02 22 18.7				
		PNS	eP	02 22 21				

JULY



From the ISC collection scanned by SISMOS

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	10	LPB	P	02 31 43.5		1.1	52	
		PNS	iP	02 31 45.4	C	0.9	11	
JUL	10	PNS	P	03 24 02.7		0.4	5	
			S	25.8				
		LPB	eP	03 24 10				
JUL	10	USCGS	06 36 14.1, 30.7S, 71.3W, h = 66 km., m = 4.7 NEAR COAST OF CENTRAL CHILE					
		LPB	P	06 39 37.5		1.0	30	14.0
			SS	43 07.8				
			L	44.2				
		PNS	iP	06 39 40.1	C	1.0	30	
			S	42 00.7				
			eSS	43 12.2				
			L	44.2				
JUL	10	USCGS	07 39 49.0, 7.0S, 129.7E, h = 104 km., m = 5.1 BANDA SEA					
		LPB	PKP	07 59 32.5		0.8	7	150.6
			i	32.7				
			eS	08 00 12		0.8	5	
		PNS	PKP	07 59 32.7				
			i	08 00 11.6				
JUL	10	LPB	P	08 28 41				
		PNS	P	08 28 44.8				
			S	29 42				
JUL	10	LPB	eP	08 47 42		0.8	6	
JUL	10	PNS	e(P)	08 50 52				
		LPB	eP	08 50 55				
JUL	10	LPB	e(P)	09 14 26.5		0.5	3	
JUL	10	PNS	eP	09 43 45.5				
JUL	10	PNS	P	09 44 33.6				
			eS	45 03.6				
		LPB	eP	09 44 35.5				
JUL	10	LPB	eP	10 14 03				
		PNS	P	10 14 06.5		1.0	6	
JUL	10	PNS	eP	10 29 17				
			S	52.8				
		LPB	eP	10 29 18.5				
JUL	10	PNS	P	10 39 53.4		0.9	5	
JUL	10	LPB	eP	10 45 57				
		PNS	eP	10 46 02.0		0.7	3	
			eS	47 02				

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	10	USCGS 11 16 44.6, 36.8S, 78.5E, n = 33 km., m = 5.7 MID-INDIAN RISE						
		LPB	ePKP	11 35 31			118.1	
			G	12 06.3				
			eL	11				
		PNS	PKP	11 35 33.2		0.8	5	
			ePP	36 37.6				
			e	44 30				
			ePS	46 07				
			eSS	52 29				
			T	12 04.2				
			eL	13.8				
JUL	10	PNS	eP	11 54 09				
			S	49.2				
JUL	10	LPB	eP	11 56 52				
		PNS	P	11 56 52		1.2	8	
JUL	10	LPB	P	13 27 56.7		1.2	31	
		PNS	iP	13 27 58.2		0.9	26	
JUL	10	PNS	P	15 02 27.8		0.9	6	
		LPB	eP	15 02 28				
JUL	10	PNS	eP	18 36 57				
JUL	10	USCGS 19 57 58, 5.6S, 151.9E, h = 55 km., m = 5.2 NEW BRITAIN REG						
		PNS	ePKP	20 17 16				
JUL	10	LPB	eP	20 25 32.6				
		PNS	P	20 25 33.8		0.6	2	
			S	26 47.6				
JUL	10	USCGS 20 40 31.2, 40.2N, 143.2E, h = 33 km., m = 5.3 OFF E CST OF HONSHU, JAPAN						
		PNS	ePKP	21 00 05				
			eL	50.4				
		LPB	ePKP	21 00 08			144.0	
			eL	21 50				
JUL	10	PNS	iP	21 29 33.8	D	0.3	4	
			S	56.5				
JUL	10	PNS	eP	22 29 16				
		LPB	eP	22 29 19				
JUL	10	USCGS 22 21 10.5, 40.3N, 143.2E, h = 33 km., m = 4.7 OFF E CST OF HONSHU, JAPAN						
		LPB	ePKP	22 40 42			144.0	
		PNS	ePKP	22 40 43.6				
JUL	10	PNS	eP	23 49 09.6				
		LPB	eP	23 49 12				
JUL	11	LPB	P	00 23 12.8		0.9	13	

JULY



From the ISC collection scanned by SISMOS

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	11	PNS	iP	00 23 12.9	D	0.5	9	
			S	37.8				
JUL	11	PNS	iP	00 39 48.4	D			
			S	40 18.8				
JUL	11	LPB	P	00 39 52.0	D	0.8	37	
			S	40 25.7				
JUL	11	PNS	eP	00 44 35				
		LPB	eP	00 44 36				
JUL	11	LPB	P	01 54 47.0	C	0.9	34	
			iS	55 35.3				
JUL	11	PNS	iP	01 54 50.9	C	0.5	13	
			S	55 41.8				
JUL	11	USCGS 02 16 32.0, 21.5S, 66.7W, h = 215 km., m = 3.8 SOUTHERN BOLIVIA						
		LPB	iP	02 17 52.7	C	0.9	314	5.0
			S	52.5				
		PNS	iP	02 17 57.0	C			
			S	18 59.9				
JUL	11	LPB	P	02 30 50.3		0.7	11	
		PNS	P	02 33 54.4		0.5	5	
JUL	11	LPB	eP	03 58 32				
		PNS	eP	03 59 31				
JUL	11	LPB	P	04 08 27.6		0.8	7	
		PNS	P	04 08 30.3		0.8	4	
JUL	11	LPB	eP	04 22 12.5				
		PNS	P	04 22 14.4				
JUL	11	LPB	P	04 40 06.7		0.8	7	
		PNS	P	04 40 08.8		0.6	2	
JUL	11	PNS	eP	05 04 51				
		LPB	eP	05 04 54				
JUL	11	LPB	eP	05 32 58		1.3	15	
			eL	41				
		PNS	eP	05 33 00		1.4	18	
			eL	41.1				
JUL	11	LPB	eP	07 12 40				
JUL	11	LPB	eP	07 16 22.5				
JUL	11	LPB	eP	07 41 41.6		0.6	4	
		PNS	eP	07 41 41.8				
			S	42 12.8				

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	11	PNS LPB	e(P) eP	08 02 42.6 08 02 44				
JUL	11	LPB PNS	iP eS iP S	08 31 06.5 32 06.2 08 31 10.8 32 13.6	C C	0.9 0.5	45 11	
JUL	11	PNS LPB	eP P	09 55 58 09 56 03		0.7	4	
JUL	11	LPB PNS	e(P) P	10 12 20 10 12 23.2		0.8	3	
JUL	11	PNS LPB	eP eP	10 24 58.2 10 23 58.5		0.9	5	
JUL	11	PNS LPB	eP eP	10 44 16.8 10 44 20.5				
JUL	11	PNS	eP	12 38 40				
JUL	11	PNS LPB	P S eP	12 50 13.9 26 12 50 17		0.5	5	
JUL	11	PNS LPB	eP S eP	13 26 44.8 52.6 13 26 48.5				
JUL	11	LPB PNS	P eL P eL	13 30 34 38.9 13 30 35.0 38.9		0.9 1.4	19 21	
JUL	11	PNS LPB	P eP	13 40 08.3 13 40 12		0.8	4	
JUL	11	LPB PNS	iP iP	14 01 08.4 14 01 09.8	D C	1.1 1.0	260 42	
JUL	11	PNS	P S	14 52 19.7 53		0.5	2	
JUL	11	LPB PNS	eP eP	16 39 13 16 39 20				
JUL	11	LPB	eP	17 43 32				
JUL	11	PNS	P	19 50 11.1		0.6	3	
JUL	11	PNS LPB	P i iS eP eS	20 15 02.8 15.0 39.2 20 15 07 45		0.6	4	
JUL	11	PNS	eP	20 20 17.8				
JUL	11	LPB DNC	e(P) D	20 21 24 20 21 27.4				

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	11	LPB	eP	20 45 43					
JUL	11	LPB	P	21 04 54.5					
JUL	11	LPB PNS	eP eP	21 15 08 21 15 12.2					
JUL	11	LPB PNS	eP P	21 26 54 21 26 56.2		0.3	6		
JUL	11	PNS LPB	P eP	23 38 20.5 23 38 22.4		1.1	11		
JUL	12	USCGS 00 44 36.5, 39.5N, 143.2E, h = 28 km., m = 6.0 OFF E CST OF HONSHU, JAPAN							
JUL	12	PNS SS eL	PKP SS eL	01 04 11.3 26 34 53.4		1.4	35		
JUL	12	LPB PP SS L	PKP PP SS L	01 04 12 07 28 33 54.8		1.1	57	144.3	
JUL	12	USCGS 03 56 27.5, 39.5N, 143.2E, h = 26 km., m = 5.5 OFF E CST OF HONSHU, JAPAN							
JUL	12	PNS L LPB	PKP L PKP eL	04 16 01.3 05 05 04 16 02.7 05 05		1.4 1.1	38 40	144.3	
JUL	12	LPB PNS	P P	04 54 45 04 54 47.8					
JUL	12	LPB	eP	06 36 51.5					
JUL	12	LPB	eP	07 53 02					
JUL	12	USCGS 09 12 07.9, 5.5S, 103.9E, h = 33 km., m = 5.2 SOUTHERN SUMATRA							
JUL	12	PNS LPB	ePKP ePKP	09 31 57.7 09 32 02				156.4	
JUL	12	LPB PNS	eP P	09 36 49 09 36 52.0					
JUL	12	LPB PNS	eP eP	10 21 19 10 21 22.5					
JUL	12	LPB PNS	eP eP	10 45 20.4 10 45 28					
JUL	12	PNS LPB	P eP	10 53 02.1 10 53 05		0.6	5		

JULY									
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	12	LPB	eP	13 33 42.5					
		PNS	P	13 33 47.4					
JUL	12	LPB	P	12 19 16.7		0.9	70		
		PNS	P	12 19 19.4		0.9	17		
			(S)	20 17					
JUL	12	LPB	eP	15 14 05					
		PNS	P	15 14 10					
JUL	12	LPB	eP	16 41 07.2					
JUL	12	USCGS 16 42	45.2, 39.8N, 142.8E, h = 41 km., m = 4.6						
		NR E CST OF HONSHU, JAPAN							
		PNS	eP	17 02 21				144.7	
		LPB	eP	17 02 22					
JUL	12	LPB	eP	17 21 54					
			eS	23 11					
		PNS	P	17 21 57.9		0.5	4		
			eS	23 17.3					
JUL	12	PNS	iP	19 28 12.8	C				
			iS	29 00					
		LPB	eP	19 28 17.7		0.8	22		
			S	29 10.3					
JUL	12	PNS	eP	20 35 52					
JUL	12	USCGS 22 01	08.6, 48.1N, 154.6E, h = 33 km., m = 5.0						
		KURILE IS							
		PNS	ePKP	22 20 23.4				133.4	
		LPB	ePKP	22 20 25					
JUL	12	LPB	e(P)	23 17 21.4					
		PNS	eP	23 17 30					
JUL	13	LPB	eP	01 20 08		0.9	8		
		PNS	P	01 20 14.3		1.0	4		
JUL	13	PNS	P	01 37 07.5		0.4	3		
			S	46.5					
		LPB	eP	01 37 10.5					
			eS	56					
JUL	13	LPB	eP	01 46 09					
		PNS	eP	01 46 11					
JUL	13	LPB	eP	03 15 10					
		PNS	P	03 15 19.3					
			S	34.5					

JULY									
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	13	PNS	eP	04 40 12.6					
		LPB	eP	04 40 15					
JUL	13	LPB	eP	04 47 44					
		PNS	eP	04 47 50					
JUL	13	LPB	P	05 35 31.6	D	0.8	30		
			(S)	36 13.5					
		PNS	P	05 35 35.1	D				
			(S)	36 20					
JUL	13	LPB	P	05 53 16.7	C	0.9	11		
		PNS	P	05 53 20.5		0.5	10		
JUL	13	PNS	eP	06 22 11					
		LPB	eP	06 22 14					
JUL	13	LPB	eP	06 41 17				1.1	5
		PNS	eP	06 41 29					
JUL	13	USCGS 06 33	00.0, 44.6N, 129.2W, h = 33 km., m = 4.6						
		OFF COAST OF OREGON							
		PNS	eP	06 45 16.8					82.3
		LPB	eP	06 45 20					
JUL	13	USCGS 06 40	38.0, 44.5N, 129.2W, h = 33 km., m = 4.2						
		OFF COAST OF OREGON							
		PNS	eP	06 52 54					82.3
		LPB	eP	06 52 58					
JUL	13	PNS	eP	06 56 20					
		LPB	eP	06 56 21.5					
JUL	13	PNS	P	06 57 35.8		1.0	6		
			i	47.6					
			e	07 01 19					
			e(L)	18					
		LPB	eP	06 57 40					
			i	55.4					
			e	07 01 25.3					
JUL	13	LPB	eP	07 16 54					
		PNS	eP	07 16 56					
			eS	18 07					
JUL	13	PNS	eP	08 16 14.6					
		LPB	eP	08 16 18					
JUL	13	PNS	eP	09 59 52					
		LPB	eP	09 59 53.5					
JUL	13	LPB	eP	11 42 55					
		PNS	eP	11 43 00					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	13	PNS LPB	P eP	12 16 07.3 12 16 10.5		0.7	9	
JUL	13	PNS LPB	P eP	13 08 24.9 13 09 25		1.5	2	
JUL	13	LPR PNS	eP eP	13 30 16.5 13 30 22				
JUL	13	USCGS SOUTH OF MARIANA ISLANDS 13 33 25.0, 12.2N, 143.6E, h = 20 km., m = 5.0						
		PNS LPB	ePKP ePKP	13 33 11.3 13 33 15				148.5
JUL	13	PNS LPB	P eP	16 39 43.6 16 39 44.4		0.6	5	
JUL	13	PNS LPB	eP eP	17 26 33 17 26 35.5				
JUL	13	PNS LPB	P eP	17 49 27 17 49 28		0.4	2	
JUL	13	LPB PNS	eP P	19 51 02 19 51 09.9				
			S eS	40 51				
JUL	13	PNS LPB	P eP	19 59 09 19 59 14				
			S eP	55.2 14				
JUL	13	LPB PNS	P P	20 07 01.1 20 07 02.9		1.1 0.9	25 19	
			(S)	57				
JUL	13	PNS LPB	eP eP	20 44 48 20 44 50				
JUL	13	PNS	P eS	21 21 31.2 22 04.6		0.5	3	
JUL	14	PNS LPB	P eP	01 43 44.5 01 43 47		0.7 0.9	4 6	
JUL	14	PNS LPB	P eP	03 25 12.0 03 25 15.5		0.5	3	
JUL	14	PNS LPB	P S eP	03 43 30.0 52 03 43 31.8				

JULY



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	14	PNS LPB	P P	04 02 38.3 14.4		1.1	17	
			eL	04 02 41.4 03 11.2 15		1.2	24	
JUL	14	PNS LPB	P eP	04 10 20.1 04 20 27		0.4	2	
JUL	14	PNS LPB	P P	04 27 22.3 04 27 28.5		0.5 1.0	5 10	
JUL	14	LPB PNS	eP eP	04 55 52.5 04 55 54.7				
			eS	57 33.8				
JUL	14	LPB PNS	eP P	05 27 34 05 27 36.2		0.5	3	
			eS	58.7				
JUL	14	LPB PNS	e(P) e(P)	05 44 22 05 44 21				
JUL	14	LPB PNS	eP e	06 27 33 28 02				
			P	06 27 35				
JUL	14	USCGS 07 30 46.4, 17.4N, 121.4E, h = 37 km., m = 5.0 LUZON, PHILIPPINE IS						
		LPB PNS	P PKP	07 50 50.3 07 50 56.2		0.9	6	170.8
JUL	14	PNS LPB	P eP	07 52 13.7 07 52 15.5		0.9	6	
JUL	14	USCGS 07 55 55, 33.9S, 71.8W, h = 20 km., m = 4.2 NEAR COAST OF CENTRAL CHILE						
		LPB PNS	P P	08 00 02 08 00 04.2		1.1	12	18.0
JUL	14	LPB PNS	P S	09 07 41 08 32.3				
			P	09 07 44.6 08 38.2		0.5	6	
JUL	14	USCGS 10 01 11.0, 5.4S, 77.3W, h = 33 km., m = 4.5 NORTHERN PERU						
		PNS LPB	eP eP	10 04 28.4 10				
			eL	10 04 32.8 10.8				13.5
JUL	14	LPB PNS	eP P	13 13 52 13 13 54.6		1.0	9	
JUL	14	LPB	eP	13 38 45				
JUL	14	PNS	P	13 58 04.4				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
			S	33.6				
		LPB	eP	13 58 09				
JUL	14	PNS	P	15 05 53.6		0.4	7	
			S	06 17				
		LPB	eP	15 05 56				
			S	15 06 20.5				
JUL	14	USCGS	15 19 59.0, 5.4S, 76.9W, h = 33 km., m = 4.2					
		NORTHERN PERU						
		PNS	eP	15 23 12.2				
			i	23.4				
			L	29.2				
		LPB	eP	15 23 09				13.5
			i	27.5				
			eL	29				
JUL	14	PNS	P	15 37 43.0		0.5	4	
		LPB	P	15 37 44				
JUL	14	PNS	eP	19 04 50.8				
		LPB	eP	19 04 52.5				
JUL	14	LPB	eP	19 09 02				
		PNS	P	19 09 06.1				
			S	50.4				
JUL	14	LPB	eP	20 02 31				
		PNS	eP	20 02 33.8				
JUL	14	PNS	eP	20 09 57				
JUL	14	USCGS	20 34 47.0, 57.9S, 25.7W, h = 33 km., m = 4.4					
		SOUTH SANDWICH IS REG						
		LPB	eP	20 43 51.5				51.3
		PNS	P	20 43 58.3		0.8	4	
JUL	14	USCGS	21 25 36.4, 20.9S, 68.8W, h = 109 km., m = 4.5					
		CHILE-BOLIVIA BOR REG						
		LPB	P	21 26 43.3		0.6	343	4.5
			S	27 32				
		PNS	P	21 26 46.3				
			S	27 40				
JUL	14	LPB	eL	22 02.5				
		PNS	SKS	41 47.4				
			eL	22 02.8				
JUL	14	LPB	eP	21 19 16				
		PNS	P	21 19 19.2				



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	14	PNS	P	22 04 29.5		1.1	8	
		LPB	P	22 04 33.6				
JUL	14	PNS	iP	22 31 10.6	D	0.4	12	
			S	33				
		LPB	P	22 31 11.5		0.9	29	
			S	35.5				
JUL	15	USCGS	23 49 29.9, 35.4W, 141.1E, h = 42 km., m = 4.4					
		NR E CST OF HONSHU, JAPAN						
		PNS	PKP	00 09 12.0		1.0	7	
			i	22.4				
		LPB	PKP	00 09 14		1.2	21	147.1
			e	23.2				
JUL	15	LPB	eP	01 12 11				
		PNS	P	01 12 13.1				
JUL	15	PNS	P	02 18 51.7		0.6	3	
			S	19 33				
		LPR	eP	02 18 57				
JUL	15	PNS	P	03 43 36.9		1.0	6	
		LPB	P	03 43 48		1.0	10	
JUL	15	LPB	P	04 23 57.7		1.0	10	
		PNS	eP	04 23 58		1.3	12	
JUL	15	LPB	P	05 04 01		0.6	7	
		PNS	P	05 04 04.0		0.5	6	
JUL	15	PNS	P	05 12 33.9		0.9	7	
		LPB	eP	05 12 35				
JUL	15	PNS	eP	05 56 41				
		LPB	eP	05 56 45				
JUL	15	PNS	P	06 26 41.4				
		LPB	P	06 26 45.6		0.7	4	
JUL	15	PNS	eP	07 51 05.4				
JUL	15	LPB	P	08 48 00		0.8	4	
		PNS	P	08 48 02.6				
JUL	15	PNS	P	09 13 43.7		0.6	4	
			S	14 08				
JUL	15	PNS	eP	09 24 56.8				
			i	25 07.3				
		LPB	eP	09 25 00				
			i	06.5				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	16	PNS	P	12 11 00.4	C	0.5	3		
			S	25.2					
		LPB	eP	12 11 08					
JUL	15	PNS	eP	12 18 14					
			e	22					
		LPB	eP	12 18 16.5					
			e	23.5					
JUL	15	LPB	eP	13 47 17.2		0.5	9		
		PNS	P	13 47 20.8		0.5	5		
JUL	15	USCGS 14 09 09.0, 58.7S, 25.7W, h = 33 km., m = 4.2 SOUTH SANDWICH IS REG							
		PNS	eP	14 18 22.8					
		LPB	eP	14 18 26				52.1	
JUL	15	PNS	P	14 56 09.5					
		LPB	eP	14 56 17.8					
JUL	15	PNS	P	16 48 05.0		0.9	3		
		LPB	eP	16 48 08.5					
JUL	15	LPB	eP	17 14 31					
		PNS	P	17 14 35.0		0.8	4		
			eL	27.7					
JUL	15	USCGS 18 16 57.3, 35.4N, 141.1E, h = 51 km., m = 4.5 NR E CST OF HONSHU, JAPON							
		PNS	iPKP	18 36 33					
			i	49.0					
		LPB	eP	18 36 36				147.1	
			i	50					
JUL	15	LPB	eP	19 20 25					
		PNS	P	19 20 30.3		0.8	2		
JUL	15	PNS	iP	20 50 27.5	D				
		LPB	iP	20 50 27.7	D	0.9	48		
			S	54.3					
JUL	15	LPB	eP	23 00 41.5					
		PNS	eP	23 00 43					
JUL	15	LPB	eP	23 23 35					
		PNS	P	23 23 39					
JUL	15	LPB	eP	23 42 30					
		PNS	P	23 42 34.1		0.5	2		
			S	56.2					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	16	LPB	eP	02 16 48.5					
JUL	16	LPB	P	02 29 31.4					
		PNS	P	02 29 34.1	C	0.9	34		
						0.9	11		
JUL	16	PNS	eP	02 40 18					
		LPB	eP	02 40 23.5					
JUL	16	LPB	P	02 58 05.4					
			eS	42.5		0.8	30		
		PNS	eP	02 58 11					
			S	52.7					
JUL	16	LPB	eP	03 00 23					
			S	01 01					
		PNS	P	03 00 29.2					
			S	01 11					
JUL	16	PNS	P	03 09 45.7		1.3	14		
			eL	21.2					
		LPB	P	03 09 46.7		1.0	14		
			eL	22					
JUL	16	PNS	eP	07 54 03.6					
		LPB	eP	07 54 05					
JUL	16	LPB	eP	09 21 10.2					
		PNS	eP	09 21 15					
JUL	16	LPB	eP	10 15 17.7					
JUL	16	LPB	eP	10 31 08.5					
JUL	16	USCGS 12 30 57.0, 5.7S, 77.2W, h = 33 km., m = 4.6 NORTHERN PERU							
		PNS	eP	12 34 06.9		1.4	9		
			L	39.5					
		LPB	eP	12 34 07.8				13.2	
			e	20					
			eL	40.2					
JUL	16	LPB	eP	11 01 27					
		PNS	eP	11 01 33					
JUL	16	USCGS 13 06 48.0, 18.4N, 106.5W, h = 33 km., m = 4.1 OFF CST OF JALISCO, MEXICO							
		PNS	eP	13 15 48.4					
		LPB	eP	13 15 52				51.3	

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	16	USCGS 13 18 43.2, 5.7S, 77.2W, h = 27 km., m = 5.0 NORTHERN PERU						
		PNS	P	13 21 56.0		1.0	5	
			L	27.2				
		LPB	P	13 22 01.9		0.9	29	13.2
			eL	28				
JUL	16	USCGS 14 01 51, 5.7S, 77.0W, h = 33 km., m = 4.5 NORTHERN PERU						
		PNS	P	14 05 01.6		1.2	12	
			i	12.6				
			L	11				
		LPB	eP	14 05 06.5		0.8	21	13.2
			i	17				
			eL	11				
JUL	16	LPB	eP	14 51 41				
		PNS	eP	14 51 41.8				
JUL	16	LPB	eP	15 15 42.5				
		PNS	eP	15 15 48				
JUL	16	PNS	eP	16 34 52				
		LPB	eP	16 34 55				
JUL	16	LPB	eP	16 51 12.5		0.8	9	
JUL	16	PNS	eP	17 55 53				
		LPB	eP	17 55 57				
JUL	16	PNS	P	18 06 52.1		1.6	12	
			eL	23.5				
		LPB	eP	18 06 53.5				
			eL	24				
JUL	16	PNS	iP	18 13 15.8	D	0.4	8	
			iS	45.8				
		LPB	eP	18 13 21.5				
			S	53.5				
JUL	16	LPB	e(P)	19 06 19.5				
JUL	16	USCGS 19 53 44.4, 29.8S, 71.9W, h = 46 km., m = 4.1 NEAR COAST OF CENTRAL CHILE						
		LPB	eP	19 56 57				14.4
			eL	20 02.5				
		PNS	eP	19 57 01				
			eL	20 03				
JUL	16	LPB	eP	21 43 08.5				
		PNS	e(P)	21 43 10				
JUL	16	USCGS 21 26 25.0, 13.6S, 166.1E, h = 215 km., m = 4.8 NEW HEBRIDES IS						
		PNS	PKP	21 44 46.2				118.3
		LPB	ePKP	21 44 50				
JUL	16	LPB	eP	22 09 51				46

JULY 1981



From the ISC collection scanned by SISMOS

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		PNS	eP	22 09 54.6				
			eS	10 14				
JUL	16	LPB	eP	22 49 36				
		PNS	eP	22 49 43.4				
			eS	51 06.3				
JUL	16	PNS	P	23 59 41.6		0.8	8	
			S	00 00 18.1				
		LPB	P	23 59 41.7		0.8	9	
			iS	00 00 26				
JUL	17	LPB	P	00 02 18				
		PNS	iP	00 02 21.8		0.6	3	
			eS	03 19.7				
JUL	17	PNS	P	01 17 28.1		1.4	13	
		LPB	P	01 17 28.7		1.1	17	
JUL	17	PNS	eP	02 37 01				
		LPB	eP	02 37 03				
JUL	17	PNS	iP	02 59 41.4	D	0.4	6	
			iS	03 00 03.4				
		LPB	P	02 59 42.7		0.6	15	
			eS	03 00 06				
JUL	17	PNS	P	05 01 33.7		0.8	6	
			eS	02 18				
		LPB	P	05 01 39		0.8	4	
JUL	17	LPB	P	05 07 45.5				
		PNS	P	05 07 49.7		0.7	3	
			S	09 17				
JUL	17	PNS	eP	05 19 01				
JUL	17	USCGS 05 24 15.6, 8.8S, 125.0E, h = 25 km., m = 5.7 TIMOR						
		LPB	ePKP	05 44 06		1.4	81	151.1
			i	13.4				
			eL	06 08				
		PNS	ePKP	05 44 06		1.6	42	
			eL	06 08.8				
JUL	17	USCGS 06 23 21.1, 10.4N, 83.4W, h = 19 km., m = 51 COSTA RICA						
		LPB	eP	06 29 11				31.5
			e	26.3				
		PNS	P	06 29 23.4		1.0	7	

JULY										
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST		
JUL	17	LPB	P	08 10 19.5		0.9	3			
		PNS	P	08 10 20.6						
JUL	17	USCGS 18 19 17.0, 1.2N, 83.1W, h = 33 km., m = 4.1 OFF COAST OF ECUADOR								
		PNS	eP	08 24 19.6		1.0	7			
		LPB	eP	08 24 21		0.7	5	20.7		
JUL	17	PNS	P	10 13 12.8		0.5	3			
		LPB	eP	10 13 15						
JUL	17	LPB	eP	12 42 55.6						
			e	43 08.5						
		PNS	eP	12 42 59						
			i	43 09.8						
JUL	17	LPB	eP	13 15 00						
		PNS	eP	13 15 05						
JUL	17	LPB	eP	13 40 47		1.0	3			
		PNS	P	13 40 49.1						
JUL	17	LPB	eP	13 48 57						
		PNS	eP	13 48 52						
			S	49 31.6						
JUL	17	LPB	P	14 04 35.7		0.9	11			
JUL	17	LPB	eP	16 10 17						
		PNS	iP	16 10 18.3		0.6	4			
			S	59.3						
JUL	17	PNS	eP	16 22 17.2						
			eS	23 38						
JUL	17	LPB	iP	16 32 50.8		0.9	8			
			S	33 22						
		PNS	iP	16 32 54.2	C	0.8	9			
			S	33 28.4						
JUL	17	PNS	eP	16 55 04.2						
			iS	34.3						
		LPB	eP	16 55 06.5						
JUL	17	PNS	P	17 03 21.2		0.6	3			
			eS	57.8						
		LPB	eP	17 03 26						
JUL	17	LPB	eP	20 12 50						
		PNS	P	20 12 55.4						
JUL	17	LPB	eP	23 59 44.5						

JULY										
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST		
JUL	18	USCGS 00 26 26.0, 2.4N, 128.3E, h = 69 km., m = 5.5 HALMAHERA								
		LPB	ePKP	00 46 20.6				158.0		
			PKP2	56						
			eL	01 34						
		PNS	ePKP	00 46 22						
			PKP2	56.1						
JUL	18	USCGS 00 59 43.2, 46.1N, 153.1E, h = 43 km., m = 4.9 KURILE ISLANDS								
		PNS	ePKP	01 19 04.4						
		LPB	ePKP	01 19 06.5				135.0		
JUL	18	LPB	eP	02 21 40						
		PNS	iP	02 21 44.0	D	0.5	2			
			S	22 06						
JUL	18	LPB	P	02 37 34			1.9	8		
		PNS	eP	02 37 34						
JUL	18	LPB	P	02 39 23.5			1.0	20		
		PNS	eP	02 39 24.2		0.6	2			
			eS	40 04.7						
JUL	18	LPB	iP	03 20 27.2	C	0.8	34			
		PNS	iP	03 20 29.2	C	0.8	8			
			S	54						
JUL	18	LPB	eP	04 05 10						
			eS	41						
		PNS	eP	04 05 17						
			eS	51.4						
JUL	18	PNS	eP	04 18 03						
			e(S)	21 05						
		LPB	eP	04 18 09.5						
JUL	18	USCGS 05 04 59.8, 19.5S, 175.9W, h = 235 km., m = 5.0 TONGA IS								
		LPB	eP	05 18 21				99.9		
		PNS	eP	05 18 23		1.3	8			
JUL	18	LPB	eP	05 22 32						
		PNS	eP	05 22 32.5						
JUL	18	PNS	iP	05 48 10.2	D	0.5	4			
			S	39.7						
		LPB	iP	05 48 10.2	D	0.8	15			
			S	39.8						

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	18	LPB	eP	05 50 38		0.8	8		
JUL	18	LPB	eP	07 16 10					
			S	44					
		PNS	eP	07 16 14					
			S	54					
JUL	18	LPB	eP	07 32 07					
JUL	18	PNS	eP	07 32 11.2					
JUL	18	LPB	eP	09 05 29.5		1.0	8		
JUL	18	LPB	eP	09 13 49					
		PNS	P	09 13 56.6		0.7	3		
JUL	18	USCGS 09 18 27.8, 0.9N, 85.2W, h = 36 km., m = 4.6 OFF COAST OF ECUADOR							
		LPR	P	09 23 40.2		1.4	121	23.4	
			i	45.8					
			L	31.5					
		PNS	P	09 23 41.2	C	1.4	62		
			S	28 07					
			L	31.3					
JUL	18	PNS	eP	11 30 51.4					
JUL	18	LPR	eP	11 30 52					
JUL	18	USCGS 11 20 59.7, 40.2N, 143.6E, h = 37 km., m = 5.4 OFF E CST OF HONSHU, JAPAN							
		PNS	ePKP	11 40 31					
		LPB	ePKP	11 40 35				144.0	
JUL	18	PNS	eP	13 31 04.4					
JUL	18	LPR	eP	13 31 07.5					
JUL	18	LPB	eP	14 46 21					
			e	38.5					
		PNS	(P)	14 46 39.2		1.0	8		
JUL	18	LPR	eP	15 32 33.5					
JUL	18	LPR	e(P)	16 09 35.5					
JUL	18	LPB	eP	16 55 50					
JUL	18	LPB	P	19 31 01.2		0.8	22		
			S	30.4					
		PNS	iP	19 31 01.2	D	0.6	8		
			S	30.0					
JUL	18	USCGS 23 49 24.0, 16.6N, 99.3W, h = 33 km., m = 4.2 NR EST OF GUERRERO, MEXICO							

JULY



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	18	PNS	P	23 57 35.0					
		LPB	eP	23 57 39		1.0	6	45.0	
JUL	19	LPB	P	00 05 27		1.0	10		
JUL	19	PNS	eP	00 05 24.2					
JUL	19	PNS	eP	00 10 35					
JUL	19	LPB	P	00 12 09.5		0.8	27		
JUL	19	LPB	e(P)	00 48 29					
JUL	19	LPB	eP	01 23 08.5					
JUL	19	LPB	eP	01 27 09.5					
JUL	19	LPB	e(P)	01 42 08					
JUL	19	LPB	P	02 33 09.3		0.7	7		
JUL	19	PNS	eP	03 56 24.7					
JUL	19	LPB	eP	03 56 31					
JUL	19	USCGS 04 56 27.2, 8.7N, 93.6E, h = 33 km., m = 5.3 NICOBAR IS REG							
		LPB	PKP	05 16 27.3	D	1.1	62	160.1	
			iPKP2	17 09.2					
			e(PP)	20 41					
			eSS	41 08					
			eG	06 03					
			eL	12					
		PNS	PKP	05 16 28.2		1.2	21		
			iPKP2	17 11.5					
			eG	06 03.4					
			eL	12.5					
JUL	19	PNS	P	05 19 41.4					
			S	20 03.9					
JUL	19	LPB	eP	05 20 51					
JUL	19	PNS	eP	05 20 52		1.2	9		
JUL	19	USCGS 06 07 22.0, 8.9N, 93.8S, h = 33 km., m = 4.8 NICOBAR IS REG							
		PNS	PKP	06 27 21.6					
			e	32.5					
		LPB	ePKP	06 27 22		1.2	12	160.1	
JUL	19	PNS	eP	06 31 52.7					
			S	33 03					
		LPB	eP	06 31 59		1.0	8		
			eS	32 00					



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	19	PNS	P S	07 34 48.9 35 13.8		0.3	2		
JUL	19	PNS LPB	eP eP	09 38 34 09 38 35					
JUL	19	USCGS	09 21 04.8, 13.0S, 166.5E, h = 29 km., m = 5.1 N.W. HEBRIDES IS						
		LPB	ePKP	09 39 53				118.1	
			eL	10 17					
		PNS	eL	10 16.9					
JUL	19	LPB	eP	09 50 05					
JUL	19	LPB PNS	e(P) eP	10 11 31.5 10 11 38.4					
JUL	19	LPB	eP	10 44 15					
JUL	19	PNS LPB	P eP	10 50 05.4 10 50 06		0.6	2		
JUL	19	LPB PNS	eP P S	11 23 07.5 11 23 11.1 33.3					
JUL	19	PNS	P	12 37 11.8		0.5	1		
JUL	19	PNS LPB	P eS eP	12 42 55.4 43 20 12 42 57.5					
JUL	19	LPB PNS	iP eS iP eS	13 04 25.4 05 53 13 04 28.0 05 58	D C	0.9 0.7	37 11		
JUL	19	PNS	eP	15 21 23.2		0.7	2		
JUL	19	PNS LPB	iP S eP S	16 19 31.9 20 13.6 16 19 38 20 23	C	0.9	11		
JUL	19	PNS LPB	eP eP	16 32 14 16 32 17					
JUL	19	USCGS	16 42 15.9, 8.7N, 93.7E, h = 8 km., m = 5.1 NUOBOR IS REG						
		PNS	ePKP	17 02 10.4		1.4	7		
			i	03 04.4					
		LPB	ePKP	17 02 15.5				160	

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	19	PNS	iP S LPB eP	18 34 08.2 82 18 34 09	D				
JUL	19	USCGS	18 48 59.0, 30.2N, 94.9E, h = 33 km., m = 4.9 TIBET						
		PNS	ePKP	19 08 53					
		LPB	ePKP	19 08 55.5				159.0	
JUL	19	LPB PNS	P iP S	10 31 31 19 31 36.6 32 03.2	D	0.6	4.0		
JUL	19	PNS	eP	19 36 51					
JUL	19	USCGS	19 44 04.0, 25.0S, 69.8W, h = 33 km., m = 4.2 NORTHERN CHILE						
		PNS	P	19 46 15.2					
		LPB	eP	19 46 17				8.9	
JUL	19	USCGS	21 58 34.0, 21.3S, 68.4W, h = 101 km., m = 4.1 CHILE-BOLIVIA BOR REG						
		LPB	P	21 59 49.6	D	0.9	34	4.5	
		PNS	iP	21 59 52.7	C	0.7	11		
JUL	19	LPB PNS	eP P S	22 06 33 22 06 34.2 57		0.6	3		
JUL	19	LPB	eP	22 33 23.6					
JUL	19	PNS	eP eS	23 59 50 00 00 22.6					
JUL	20	LPB	P	00 50 44		0.6	12		
JUL	20	LPB	(P)	01 15 09.5					
JUL	20	LPB PNS	e(P) eL eL	03 29 51.5 47 03 47.1					
JUL	20	LPB PNS	iP S iP S	04 19 19 20 25 04 19 23.2 20 29.8	D D	0.8 0.6	80 16		
JUL	20	PNS	eP	05 22 32.4					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	20	LPB	P	07 57 07.8		0.9	17	
		PNS	P	07 57 09.8		0.9	5	
			eS	56				
JUL	20	PNS	eP	09 13 05				
		LPB	eP	09 13 09.5				
JUL	20	LPB	eP	10 00 42				
JUL	20	PNS	eP	10 05 52				
		LPB	eP	10 05 56				
JUL	20	PNS	P	10 34 17.8		0.5	4	
			S	40				
JUL	20	PNS	eP	11 08 33				
		LPB	eP	11 08 35				
JUL	20	PNS	eP	12 05 58.2		0.7	3	
		LPB	eP	12 00 04.5		0.9	11	
JUL	20	PNS	P	12 56 54		0.8	2	
		LPB	eP	12 56 55.5				
JUL	20	LPB	eP	12 58 56.7				
JUL	20	PNS	P	13 17 11.0		0.9	3	
		LPB	eP	13 17 12				
JUL	20	LPB	eP	15 21 30.5		0.9	17	
			S	22 04.2				
		PNS	P	15 21 32.2		0.6	3	
			S	22 06.4				
JUL	20	LPB	P	15 27 19		0.8	9	
		PNS	eP	15 27 24.4				
JUL	20	PNS	P	15 52 40.8		0.4	1	
			S	53 12.5				
		LPB	eP	15 52 45				
JUL	20	PNS	P	16 27 42.0		0.6	3	
		LPB	eP	16 27 47.3				
			i	31				
JUL	20	PNS	P	16 36 14.6		0.4	1	
		LPB	eP	16 36 15.5				
JUL	20	LPB	eP	17 27 04				
		PNS	eP	17 27 04.4				

JULY



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	20	PNS	P	17 27 11.8		0.8	2		
		LPB	P	17 27 19.3		0.9	8		
JUL	20	LPB	eP	18 00 01					
		PNS	eP	18 00 03.2					
JUL	20	PNS	eP	18 23 56		0.8	2		
		LPB	eP	18 23 59.5					
JUL	20	LPB	eP	19 24 42.5					
JUL	20	LPB	eP	20 59 06.4					
		PNS	eP	20 59 07.8					
JUL	20	USCGS 21 22 03.0, 57.9S, 24.5W, h = 33 km., m = 4.9 SOUTH SANDWICH IS REG							
		LPB	P	21 31 14		0.8	19	52.4	
			eL	43					
		PNS	P	21 31 16.6		0.8	8		
			eL	43.1					
JUL	20	LPB	eP	21 36 20					
		PNS	P	21 36 21.4		1.1	7		
			e(S)	41 06					
JUL	20	PNS	eP	22 30 00					
		LPB	eP	22 30 01.5					
JUL	20	PNS	P	22 52 02.0					
		LPB	eP	22 52 06					
JUL	21	USCGS 00 23 40.4, 14.4N, 93.1W, h = 37 km., m = 5.0 NR CST OF CHIAPAS, MEXICO							
		PNS	P	00 31 08		1.2	6		
			eL	43.8					
		LPB	eP	00 31 11.2				39.1	
			eL	43.1					
JUL	21	USCGS 01 41 19.5, 55.2N, 113.3E, h = 33 km., m = 5.1 EAST OF LAKE BAIKAL							
		PNS	ePKP	02 00 42.6					
		LPB	ePKP	02 00 43				141.3	
JUL	21	LPB	e(P)	03 32 57.6					
JUL	21	LPB	P	03 50 35.7		0.7	4		
		PNS	eP	03 50 37.4					
JUL	21	LPB	P	04 06 22.4		1.0	12		
		PNS	P	04 06 25.2		0.8	3		

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	21	LPB	eP	04 26 32				
		PNS	eP	04 26 35.8				
JUL	21	USCGS 04 28 09.6, 6.8N, 72.9W, h = 167 km., m = 4.0 NORTHERN COLOMBIA						
		PNS	P	04 33 06.1		0.7	5	
		LPB	eP	04 33 08.8		0.8	6	23.4
JUL	21	LPB	e(P)	04 39 31				
JUL	21	LPB	eP	04 48 42				
		PNS	eP	04 48 42.6				
JUL	21	PNS	P	04 51 22.6		0.8	7	
			eL	05 13.7				
		LPB	P	04 51 23.4		0.9	18	
			eL	05 13.8				
JUL	21	USCGS 04 59 24, 41.1S, 88.0W, h = 53 km., m = 4.7 WEST CHILE RISE						
		LPB	P	05 05 32.7		0.9	11	30.0
		PNS	P	05 05 33.1		1.3	19	
JUL	21	LPB	P	05 42 39.8		0.9	102	
			i	41				
			eS	44 06				
		PNS	P	05 42 43.2		0.8	30	
			eS	44 08.6				
JUL	21	LPR	eP	05 58 46.6				
		PNS	eP	05 58 48				
JUL	21	USCGS 05 52 10.4, 3.2S, 150.7E, h = 5 km., m = 5.3 NEW IRELAND RBG						
		PNS	ePKP	06 11 32				
			PKS	15 20				
			eSS	32 33				
			eG	49.9				
			L	56.9				
		LPB	eP	06 11 35.5		1.1	7	136.8
			eG	50				
			L	57.3				
JUL	21	USCGS 06 09 41.8, 3.2S, 150.5E, h = 33 km., m = 5.4 NEW IRELAND REG						
		PNS	ePKP	06 29 02.8				
			i	11.3				
		LPB	PKP	06 29 07		0.8	7	136.8

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	21	PNS	eP	08 15 13.7				
			eS	16 24.7				
		LPB	eP	08 15 19				
JUL	21	LPB	eP	09 03 04.4		1.0	8	
		PNS	P	09 02 58.6				
			S	03 32				
JUL	21	USCGS 08 59 16.0, 16.5N, 97.1W, h = 33 km., m = 4.0 OAXACA, MEXICO						
		LPB	eP	09 07 15.8				43.1
		PNS	eP	09 07 17				
JUL	21	LPB	eP	09 56 38				
		PNS	eP	09 56 39.2				
			eS	57 02.3				
JUL	21	LPB	eP	11 07 34		0.9	10	
			i	08 10.8				
		PNS	P	11 06 37.5		0.6	3	
			i	08 13.6				
JUL	21	PNS	P	11 34 44.8		0.8	9	
			SB	35 08				
JUL	21	LPR	eP	11 40 45.5				
		PNS	eP	11 40 50				
JUL	21	LPB	eP	11 48 20.7				
JUL	21	LPB	eP	14 28 13				
		PNS	P	14 28 15.4		0.8	3	
			S	38				
JUL	21	LPB	eP	14 56 14.5				
			eS	52.8				
JUL	21	LPB	eP	15 19 28				
		PNS	eP	15 19 30.3				
JUL	21	PNS	P	15 23 41.8		0.4	3	
JUL	21	PNS	P	16 48 44.3		1.0	23	
		LPB	iP	16 48 46.4		1.0	52	
JUL	21	LPB	eP	17 09 47.5				
		PNS	eP	17 09 56				
JUL	21	USCGS 17 28 17.6, 58.1S, 148.3E, h = 33 km., m = 4.7 WEST OF MACQUARIE IS						
		LPB	eP	17 41 58				99.7
			eG	18 10.2				
			eL	15.2				
		PNS	eL	18 15.3				



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	21	LPB	eP	17 56 06					
		PNS	eP	17 56 08					
JUL	21	LPB	eP	18 33 53.5					
JUL	21	PNS	P	18 47 12.9					
		IPB	eP	18 47 15					
JUL	21	PNS	eP	18 48 58					
		i		49 05.7					
		LPB	eP	18 49 05					
JUL	21	LPB	eP	19 12 04					
JUL	21	PNS	P	20 00 49.8		0.4	2		
JUL	21	LPB	e(P)	20 33 20					
JUL	21	USCGS 21 02 31.5, 49.7N, 147.8E, h=576, m = 4.9 SEA OF OKHOTSK							
		LPB	ePKP	21 20 37.6				136.0	
		e		49.8					
		PNS	ePKP	21 20 38					
		i		49.1					
JUL	21	PNS	P	21 23 25.0		1.4	51		
		LPB	P	21 23 27	D	1.2	83		
JUL	21	LPB	eP	21 44 20					
		PNS	P	21 44 24.4		0.6	2		
JUL	21	PNS	eP	22 35 11					
		LPB	eP	22 35 08.5					
JUL	22	USCGS 23 54 21, 58.4S, 29.5W, h = 33 km., m = 4.5 SOUTH SANDWICH IS REG							
		LPB	eP	00 03 13.8		1.0	26	50.4	
		ePP		05 18.2					
		eS		10 20					
		eL		21.8					
		PNS	P	00 03 21.1		1.0	12		
		eS		10 20					
		L		20					
JUL	22	USCGS 00 13 53.0, 42.3N, 142.3E, h = 31 km., m = 4.7 HOKKAIDO, JAPAN REG							
		PNS	ePKP	00 33 24					
		LPB	PKP	00 33 29				143.1	

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	22	LPB	eP	00 40 39.2		0.8	4		
JUL	22	LPB	eP	01 13 17.3					
JUL	22	PNS	eP	03 31 13.6					
		LPB	eP	03 31 15		0.7	6		
JUL	22	LPB	eP	04 09 02					
		PNS	eP	04 09 04					
JUL	22	LPB	eP	04 57 52					
		PNS	eP	04 57 55					
JUL	22	USCGS 05 09 15.7, 54.6S, 1.7E, h = 33 km., m = 5.6 BOUVET IS REG							
		LPB	P	05 19 54.2	D	1.5	58	64.8	
		S		28 47					
		eSS		32 27					
		eL		36					
		L		40.1					
		PNS	P	05 19 57		1.5	54		
		S		28 40					
		SS		32 27					
		G		36.2					
		L		40.2		2			
JUL	22	LPB	eP	05 27 27.3					
JUL	22	LPB	eP	05 30 35.2		0.7	8		
JUL	22	LPB	eP	05 40 23					
		PNS	P	05 40 27.4		0.8	2		
		eS		41 24					
JUL	22	PNS	e(P)	05 48 40					
		LPB	e(P)	05 48 43.5					
JUL	22	LPB	eP	06 32 28					
		PNS	P	06 32 33.5		0.4	2		
JUL	22	USCGS 07 29 51, 58.8S, 28.9W, h = 33 km., m = 4.4 SOUTH SANDWICH IS REG							
		LPB	P	07 38 49.2		1.0	20	51.1	
		PNS	P	07 38 53.1		1.0	10		
		i		59.3					
JUL	22	PNS	eP	08 17 22					
JUL	22	LPB	eP	08 54 41.7					
JUL	22	PNS	P	09 26 21.6					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	22	PNS	P	09 30 37.4		0.7	2		
			i	31 13.4					
		LPB	eP	09 30 40					
JUL	22	LPB	P	09 45 52.5		0.9	11		
		PNS	P	09 45 54.0		0.6	3		
			eS	46 36					
JUL	22	LPB	iP	12 10 47.0	D	0.7	117		
			S	11 13.5					
		PNS	iP	12 10 48.2	D				
			S	11 15.6					
JUL	22	LPB	eP	12 47 43.5					
		PNS	P	12 47 44.4		1.0	5		
JUL	22	USCGS 12 49 48, 24.5S, 114.3W, h = 33 km., m = 4.5 EASTER IS REG							
		LPB	P	12 57 08		0.6	9	43.4	
			eL	13 11.8					
		PNS	P	12 58 05.2		1.2	10		
			eL	13 12.6					
JUL	22	PNS	P	13 35 59.8		0.4	2		
			S	36 24.6					
JUL	22	LPB	eP	15 19 34.2					
JUL	22	LPB	P	16 01 51.2					
		PNS	P	16 01 56.4		0.9	10		
JUL	22	PNS	P	16 03 13.3		0.8	4		
		LPB	eP	16 03 31					
JUL	22	PNS	P	16 37 58.5		0.6	3		
JUL	22	LPB	eP	18 03 09					
		PNS	P	18 03 11.0		0.4	1		
JUL	22	USCGS 17 58 30.3, 20.1S, 169.0E, h = 34 km., m = 5.4 NEW HEBRIDES IS							
		PNS	PKP	18 17 06.6		1.2	7		
			i	17.3					
			eL	52.2					
		LPB	P	18 17 07.4		1.0	12	113.3	
			s	17.2					
			eL	52.8					
JUL	22	PNS	eP	18 28 01					
			e	12					
		LPB	eP	18 28 07					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	22	PNS	P	19 14 08.6		0.8	6		
		LPB	eP	19 14 12					
JUL	22	LPB	eP	20 27 09.5					
		PNS	eP	20 27 12					
JUL	22	LPB	e(P)	20 29 38		0.5	6		
JUL	22	LPB	P	20 41 18.3		0.6	8		
			S	50.5					
JUL	22	PNS	iP	21 32 47.5	D	0.6	8		
			S	33 15.8					
		LPB	P	21 22 48		0.6	8		
			S	33 15					
JUL	22	USCGS 22 33 43.2, 30.3N, 138.4E, h = 438 km., m = 5.0 SOUTH OF HONSHU, JAPAN							
		LPB	ePKP	22 52 49				151.7	
		PNS	ePKP	22 52 50.6					
JUL	22	LPB	eP	22 54 33.3					
		PNS	eP	22 54 33.4					
JUL	22	LPB	iP	22 56 10	C	1.0	6		
		PNS	P	22 56 11.5		0.5	9		
JUL	22	LPB	P	23 11 16		1.0	16		
		PNS	P	23 11 19.1		0.4	8		
JUL	22	LPB	eP	23 34 37					
		PNS	P	23 34 40.7		0.6	2		
JUL	23	LPB	(P)	01 09 18.7		0.7	6		
JUL	23	PNS	eP	01 47 00					
			eS	24					
		LPB	eP	01 47 10					
JUL	23	LPB	P	02 32 52.7		0.6	6		
JUL	23	LPB	eP	02 46 09.3		0.8	6		
JUL	23	LPB	eP	04 22 16.5					
		PNS	iP	04 22 23.0	D	0.4	3		
			eS	45					
JUL	23	LPB	eP	05 32 02.3		1.1	25		
		PNS	P	05 31 58.1					
JUL	23	LPB	P	05 36 44.3		1.0	10		

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	23	PNS LPB	P eP	06 41 15.7 06 41 16		0.8	4		
JUL	23	PNS LPB	eP eP	06 49 45.2 06 49 47					
JUL	23	PNS LPB	eP eP	06 59 30 06 59 35					
JUL	23	USCGS 07 14 48.3, 5.9S, 77.0W, m = 116 km., m = 4.0 NORHTERN PERU							
JUL		LPB	P	07 18 00.9 09.5		0.6	4	13.5	
JUL		PNS	eP eL	07 17 54 23.3					
JUL	23	PNS LPB	iP S P S	08 00 29.4 01 18 08 00 35 01 18.2	C	0.8	9		
JUL	23	PNS LPB	eP eP	08 15 17.6 08 15 19					
JUL	23	PNS LPB	eP eP	08 21 01.6 08 21 02					
JUL	23	PNS LPB	P P (S)	09 05 53.8 09 05 59.2 06 40.5	C	0.6 0.7	10 7		
JUL	23	PNS LPB	eP eS eP	11 46 50 47 43 11 46 52					
JUL	23	LPB	P	13 16 39		1.0	30		
JUL	23	PNS LPB	eP eP	18 28 51.2 18 28 53.5					
JUL	23	USCGS 18 28 01.2, 18.7N, 107.0W, h = 33 km., m = 5.4 OFF CST OF JALISCO, MEXICO							
		PNS	P iS G eL	18 57 06.0 44 29.0 50 53.8		1.5	100		
		LPB	P ePP S eL	18 37 10.7 39 20.5 44 36 54		1.6	162	51.7	

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	23	LPB	P	19 15 19.7		0.9	28		
JUL	23	PNS	P	19 15 22.6		0.8	5		
JUL	23	PNS LPB	P eP	21 47 59.3 21 48 00		0.8	4		
JUL	23	LPB PNS	eP eP	22 21 54.5 22 21 57					
JUL	23	LPB	eP eS	22 24 42.7 25 36		0.5	6		
JUL	23	LPB	e(P)	22 59 23.5					
JUL	23	LPB	eP	23 06 56.3					
JUL	23	USCGS 23 02 35.5, 40.3N, 143.3E, h = 14 km., m = 5.2 OFF E CST HONSHU, JAPAN							
JUL	23	PNS	ePKP SS eG L	23 22 11.6 44 26 00 02 11.3					
JUL	23	LPB	PKP eSS eL	23 22 15 44 20 00 12		1.0	16	144.0	
JUL	24	PNS	eP	00 59 49					
JUL	24	PNS	iP S	01 07 15.2 37.4		0.7	11		
JUL	24	LPB	e(P)	01 21 03.3					
JUL	24	LPB PNS	eP P	02 09 02 02 09 12.9					
JUL	24	LPB PNS	P P eS	02 32 38.7 02 32 42.6 33 37.7		0.7 0.5	5 5		
JUL	24	PNS	e(P)	03 01 46					
JUL	24	USCGS 04 06 41.2, 18.1N, 106.0W, h = 46 km., m = 5.2 OFF CST OF JALISCO, MEXICO							
		PNS	P S G L	04 15 35.3 22 56 27.8 31.6		1.2	18		
		LPB	P eS eL	04 15 37.2 23 02 31		1.2	58	50.4	
JUL	24	PNS LPB	P eP	04 35 44.7 04 35 48.2		0.7 1.0	3 8		
JUL	24	PNS	(P)	04 51 53.6					
JUL	24	PNS LPB	eP eP	05 09 16 05 09 19					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	24	USCGS 05 40 59.0, 34.9S, 111.4W, h = 53 km., m = 4.7 EASTER IS CORDILLERA						
		PNS	eP	05 48 54				
			eL	06 01 11				
		LPB	eP	05 48 58				42.5
			eL	06 01 11				
JUL	24	PNS	P	05 50 47.8		1.0	5	
		LPB	eP	05 50 49				
JUL	24	LPB	eP	05 56 06.5				
JUL	24	LPB	eP	05 58 23				
		PNS	eP	05 58 23				
JUL	24	LPB	eP	06 50 44		0.9	5	
JUL	24	PNS	P	07 20 11.1		1.1	12	
		LPB	P	07 20 15.5		1.0	9	
JUL	24	PNS	eP	07 36 50.8				
		LPB	eP	07 36 53				
JUL	24	USCGS 08 22 28.5, 19.7N, 70.1W, h = 27 km., m = 4.5 DOMINICAN REPUBLIC REGION						
		PNS	eP	08 29 25				
		LPB	eP	08 29 31.5		1.0	10	36.0
			eL	37				
JUL	24	LPB	eP	09 34 55				
JUL	24	LPB	eP	09 42 40.5				
		PNS	eP	09 42 42				
JUL	24	LPB	eP	09 54 15		0.8	5	
JUL	24	LPB	e(P)	11 04 08.7				
JUL	24	USCGS 11 12 27.1, 16.2N, 95.1W, h = 47 km., m = 4.4 OAXACA, MEXICO						
		PNSe	eP	11 20 14				
			eL	35.1				
		LPB	eP	11 20 16.5				
JUL	24	USCGS 13 25 27.9, 6.7N, 73.4W, h = 181 km., m = 40 NORTHERN COLOMBIA						
		PNS	1P	13 30 21.6	C	0.8	20	
		LPB	eP	13 30 24.2		0.8	15	23.5
JUL	24	PNS	eP	14 14 29				
		LPB	eP	14 14 30				



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	24	PNS	1P	15 57 49.5	D	0.5	3	
			eS	58 13.8				
		LPB	eP	15 57 50.5				
JUL	24	LPB	eP	16 32 55				
		PNS	P	16 32 57				
			S	33 19.8				
JUL	24	PNS	P	16 46 22.5		0.6	7	
			S	58.4				
		LPB	eP	16 46 28.5		0.7	11	
JUL	24	LPB	eP	17 09 42				
		PNS	P	17 09 47.6		0.4	5	
JUL	24	PNS	eP	17 35 36				
		LPB	e(P)	17 35 39				
JUL	24	LPB	eP	18 23 08.5				
		PNS	eP	18 23 11				
			e(S)	29 43				
JUL	24	LPB	P	18 29 21.2		1.2	18	
			i	53.5				
JUL	24	PNS	eP	18 45 24				
JUL	24	LPB	eP	19 43 29				
		PNS	P	19 43 30.8		0.8	3	
JUL	24	LPB	eP	19 54 28.2		1.0	20	
		PNS	eP	19 54 32				
JUL	24	USCGS 22 31 40.4, 2.5S, 77.8W, h = 79 km., m = 4.9 PERU ECUADOR BOR REG						
		PNS	eP	22 35 23				
			eS	38 12				
			L	42.8				
		LPB	P	22 35 34		1.0	34	16.1
			i	40.5				
			L	43				
JUL	24	LPB	eP	23 18 58				
		PNS	P	23 18 58.9		0.8	4	
JUL	24	PNS	e(P)	23 24 02				
		LPB	eP	23 24 08.5				
JUL	24	PNS	1P	23 38 15.9		0.7	10	
			S	39 36.3				
		LPB	P	23 38 12		1.0	24	
			S	39 28.7				



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	25	LPB PNS	eP iP	01 20 16.3 01 20 20.4	C	0.7 0.5	11 6	
JUL	25	PNS LPB	eP eP	02 03 51 02 03 53				
JUL	25	PNS LPB	eP eP	03 07 11.6 03 07 19		1.0	8	
JUL	25	LPB PNS	eP P	03 10 22 03 10 25.7		0.5	3	
JUL	25	LPB PNS	P P	03 44 05 03 44 08.3				
JUL	25	LPB PNS	eP P	05 50 18 05 50 18.3		0.4	2	
JUL	25	LPB	eS	43				
JUL	25	LPB	eP	06 32 27		0.7	6	
JUL	25	PNS LPB	P eS	06 38 37.6 39 00		0.5	3	
JUL	25	LPB	eP	06 38 40.5				
JUL	25	USCGS TONGA IS	06 41 27.0, 21.3S, 174.5W, h = 33 km., m = 5.1					
JUL	25	PNS LPB	eP eP	06 55 05 06 55 06.8				98.5
JUL	25	PNS LPB	P eL	07 13 20.6 28		1.0	4	
JUL	25	LPB	eP	07 13 23 28				
JUL	25	USCGS KERMADEC IS	07 23 07.8, 30.8S, 178.4W, h = 60 km., m = 6.4					
JUL	25	PNS LPB	P ePP	07 36 40.6 40 53				
JUL	25	SKS eL	SKS eL	47 19 08 08				
JUL	25	LPB SKS	P SKS	07 36 41.4 40 48		2.2	324	97.6
JUL	25	G L	G L	47 16 08 03				
JUL	25	PNS LPB	eP e(P)	08 07 08.7				
JUL	25	PNS LPB	eP e(P)	07 41 59 07 42 00				

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	25	LPB PNS	P P	07 53 13.3 07 53 14.6			1.1 1.2	17 18
JUL	25	USCGS KERMADEC IS	07 47 45.8, 30.9S, 178.0W, h = 42 km., m = 4.8					
JUL	25	LPB PNS	e(P) eP	08 01 10.5 08 01 14.3				97.6
JUL	25	PNS	eP	09 21 39				
JUL	25	PNS LPB	eP eP	09 22 49.2 09 22 51.5				
JUL	25	USCGS NORTH ATLANTIC RIDGE	09 40 08.2, 51.0N, 30.1W, h = 33 km., m = 4.4					
JUL	25	LPB PNS	eP P	09 55 48 09 55 51.5			1.6	14
JUL	25	LPB PNS	eP eP	10 31 51 10 31 53.6				
JUL	25	LPB PNS	eP iP	10 49 22.5 10 49 26.1	C	0.4	4	
JUL	25	USCGS KURILE ISLANDS	10 50 31.5, 45.7N, 146.7E, h = 17 km., m = 5.9					
JUL	25	PNS LPB	ePKP i	11 09 56.2 10 09.1		1.7	67	
JUL	25	LPB	eP	11 09 57 09.2		1.2	37	138.8
JUL	25	LPB	eL	56				
JUL	25	LPB	eP	11 19 23				
JUL	25	PNS LPB	P eP	11 21 50.0 11 21 52.5		1.4	13	
JUL	25	LPB PNS	eP eP	13 48 43 13 48 44				
JUL	25	PNS LPB	eP eP	15 15 50.6 15 15 52.7				
JUL	25	PNS LPB	P e(P)	16 34 49.4 16 34 50		0.5	2	
JUL	25	LPB	eP	19 00 55.5		0.7	11	
JUL	25	LPB PNS	eP e(P)	19 25 23 19 25 26				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	25	PNS LPB	P eP	20 42 34.9 20 42 36					
JUL	25	LPB	eP	21 01 10					
JUL	25	USCGS 21 22 01.1, 17.5S, 72.3W, h = 33 km., m = 4.1 NEAR COAST OF PERU							
		PNS LPB	iP iP	21 23 00.0 21 23 03.8	C C	0.9 0.6	14 112	3.9	
JUL	25	LPB	e(P)	22 57 06.5		0.8	5		
JUL	25	LPB	P	23 14 47		0.8	22		
			S	15 43.7					
		PNS	iP	23 14 51.4	C	0.5	9		
			S	15 51.5					
JUL	25	LPB	P	23 29 20.2		0.7	8		
JUL	26	PNS	P	00 40 26.7		0.6	4		
			S	48.3					
JUL	26	LPB	eP	00 43 16.7					
		PNS	eP	00 43 20					
JUL	26	PNS	eP	03 58 04					
		LPB	eP	03 58 06.5		0.9	5		
JUL	26	PNS	eP	04 20 01					
JUL	26	PNS	eP	05 12 12					
		LPB	eP	05 12 15					
JUL	26	LPB	eP	05 21 02					
		PNS	P	05 21 03.4		0.6	2		
JUL	26	USCGS 05 44 37.8, 35.0S, 71.0W, h = 86 km., m = 4.4 CENTRAL CHILE							
		LPB	P	05 48 50.6				18.7	
		PNS	P	05 48 53.1		1.0	11		
JUL	26	PNS	eP	06 07 02		0.4	2		
		LPB	eP	06 07 05.5					
JUL	26	PNS	iP	06 24 35.8	D				
			iS	58.6					
		LPB	iP	06 24 38		0.8	21		
			S	25 01.5					
JUL	26	USCGS 06 33 59.6, 14.4N, 93.0W, h = 14 km., m = 4.9 NR CST OF CHIAPAS, MEXICO							
		PNS	P	06 41 26.2		1.0	22		
			eL	54					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		LPB	P eL	06 41 29.8 54		0.8	15	39.1	
JUL	26	PNS LPB	eP eP	07 03 00.6 07 03 04.5					
JUL	26	PNS	P	10 08 40					
JUL	26	LPB PNS	eP P	11 48 23.5 10 48 28.0					
JUL	26	LPB PNS	eP eP	11 46 49 11 46 52					
JUL	26	LPB	eP	12 34 38		0.7	5		
JUL	26	PNS	P	13 34 57.9		0.4	2		
			S	35 29.2					
JUL	26	USCGS 14 00 03.6, 8.6S, 74.2W, h = 151 km., m = 5.2 PERU-BRAZIL BOR REG							
		PNS	P	14 02 18.61	C				
		LPB	P	14 02 23.5	C	1.0	210	9.6	
JUL	26	PNS	P	16 09 04.3					
			S	48					
		LPB	P	16 09 07.7					
JUL	26	PNS	eP	16 59 22					
		LPB	eP	16 59 29					
JUL	26	USCGS 17 07 24.9, 22.4S, 12.6W, h = 33 km., m = 5.3 SOUTH ATLANTIC REG							
		LPB	eP	17 16 35.6		1.2	68	52.8	
			eL	31					
		PNS	P	17 16 38.5		1.5	63		
JUL	26	USCGS 18 29 53.2, 6.8N, 73.0W, h = 161 km., m = 4.6 NORTHERN COLOMBIA							
		PNS	P	18 34 49.6		1.0	9		
			i	35 22.2					
		LPB	P	18 34 51.5		0.8	12	23.4	
			i	35 27					
JUL	26	LPB PNS	eP iP	20 20 37 20 20 41.0		0.7 0.5	21 14		
JUL	26	LPB PNS	P P	20 58 15.8 20 58 19.8		0.7 0.5	9 4		
			S	59 13					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	26	PNS LPB	P	21 07 31.9 21 07 32.2		1.0 0.6	7 7	
JUL	26	LPB PNS	e(P) P	21 40 11.2 21 40 13.4		0.4	3	
JUL	26	LPB PNS	eP P S	22 13 10 22 13 16.0 29.8				
JUL	26	LPB	(P)	22 59 26.3				
JUL	26	PNS LPB	e(P) eP	23 45 24 23 45 27				
JUL	27	PNS	eP	00 41 39				
JUL	27	PNS LPB	eP eP	00 52 24 00 52 27				
JUL	27	LPB	eP	01 43 27.7				
JUL	27	LPB PNS	eP P	01 53 35 01 53 37.7		0.5	3	
JUL	27	LPB PNS	eP P	02 12 41 02 12 43.6		0.8	3	
JUL	27	LPB PNS	eP P	02 24 51 02 24 53.4		0.9	5	
JUL	27	PNS LPB	iP S P S	02 31 55.9 32 18.2 02 31 56.6 32 20.6	D	0.9	29	
JUL	27	PNS LPB	P eS	02 57 33.4 56				
JUL	27	PNS LPB	eP eP	03 04 09 03 04 09.2				
JUL	27	LPB	eP	03 15 32.2				
JUL	27	PNS LPB	P S iP S	05 20 26.2 46 05 20 33.8 59.8	D	0.9	35	
JUL	27	LPB PNS	eP P	05 26 41.4 05 26 41.7		0.8 0.7	7 5	

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL	27	LPB	P	05 58 10.5 22.6 59 25		0.6	42		
JUL	27	PNS	iP	05 58 16.7	C				
JUL	27	LPB PNS	eP P eS	06 28 17 06 28 21.8 29 17.6					
JUL	27	PNS LPB	eP eP	06 54 49 06 54 53.6		0.8	6		
JUL	27	PNS LPB	eP eP	08 42 22.2 08 42 24					
JUL	27	LPB PNS	eP P	09 09 45 09 09 45.6					
JUL	27	PNS LPB	eP eP	09 37 37.4 09 37 41					
JUL	27	PNS LPB	eP eP	10 59 54 10 59 55					
JUL	27	USCGS 10 51 40.11, 19.2S, 175.7E, h = 88 km., m = 5.4 SOUTH OF FIJI IS							
JUL	27	PNS LPB	eP eP	11 05 22 11 05 26				100.0	
JUL	27	PNS	eP	11 08 51.6					
JUL	27	LPB PNS	e(P) P	11 20 39.4 11 20 40.8		0.7	5		
JUL	27	LPB PNS	eP eP	11 33 00.5 11 33 04.8					
JUL	27	LPB PNS	eP eP	11 50 31 11 50 32.6					
JUL	27	PNS LPB	eP eP	18 27 46.6 29 41.6 18 27 50					
JUL	27	LPB PNS	eP eP	21 40 38.5 21 40 41					
JUL	27	USCGS 22 06 09.0, 5.5S, 76.6W, h = 139 km., m = 4.2 NORTHERN PERU							
JUL	27	PNS	eP i	22 09 15 47.0					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		LPB	eP i	22 09 21.4 43.0				13.5
JUL	27	PNS	P S	23 07 03.9 08 12.7		0.8	5	
		LPB	eP	23 07 04				
JUL	27	USCGS PERU	23 18 28.7, 16.3S, 69.2W, h = 214 km., m = 4.2 BOLIVIA BOR REG					
		PNS	iP iS	23 18 59.6 19 24.0	D			
		LPB	iP iS	23 19 01.5 25.0	D	0.7	408	1.1
JUL	27	LPB	eP	23 55 45		0.8	7	
		PNS	P	23 55 45.7		0.7	2	
JUL	28	LPB	eP	00 41 19				
		PNS	eP	00 41 21.2				
JUL	28	LPB	e(P)	00 44 33				
		PNS	P eS	00 44 37.3 45 01.5		0.5	2	
JUL	28	LPB	eP	00 45 07		0.6	5	
		PNS	eP	00 45 11				
JUL	28	PNS	eP	01 09 32				
		LPB	eP	01 09 34				
JUL	28	PNS	iP S	01 23 40.1 24 03.4	D	0.4	11	
		LPB	P	01 23 42				
JUL	28	PNS	P eS	01 38 12.0 39 04		0.5	3	
		LPB	eP	01 38 18.5				
JUL	28	LPB	iP S	03 46 43.9 47 07	D	0.8	61	
JUL	28	PNS	iP S	03 46 44.0 47 07.2	D			
JUL	28	PNS	eP	04 53 40.4				
		LPB	eP	04 53 45.5				
JUL	28	LPB	eP	05 46 54.5				
		PNS	eP	05 46 58.6				
JUL	28	USCGS	07 17 04.1, 41.2N, 142.7E, h = 36 km., m = 4.5 HOKKAIDO, JAPAN REG					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		PNS	ePKP	07 36 36				
		LPB	PKP	07 36 36.2		1.0	10	144.0
JUL	28	PNS	iP S	07 42 13.5 35.5	D			
		LPB	P	07 42 15				
JUL	28	PNS	P	07 43 14.1		0.5	3	
		LPB	eP	07 43 15				
JUL	28	LPB	iP S	07 43 38.5 44 04.7	D	0.7	60	
		PNS	iP S	07 43 39.3 44 16	D			
JUL	28	PNS	eP i	08 03 36 42.7				
		LPB	eP i	08 03 42.7 46.4				
JUL	28	USCGS	08 22 16.4, 2.0N, 85.0W, h = 33 km., m = 4.2 OFF COAST OF ECUADOR					
		PNS	P eL	08 27 33.6 36.1		0.8	27	
		LPB	P eL	08 27 37 36.1		1.2	34	25.2
JUL	28	LPB	eP	08 49 40				
		PNS	P	08 49 45.2				
JUL	28	PNS	P eS	09 05 40.0 06 05		0.5	3	
		LPB	eP	09 05 45				
JUL	28	LPB	eP	09 18 39				
JUL	28	LPB	eP	09 45 53				
		PNS	P	09 45 56.4		0.5	2	
JUL	28	LPB	eP	10 46 11.5		1.0	8	
		PNS	eP	10 46 15				
JUL	28	LPB	eP	11 10 13.3				
		PNS	P	11 10 10.0		0.4	3	
JUL	28	USCGS	10 58 25.7, 22.5S, 174.7W, h = 33 km., m = 5.0 TONGA ISLANDS REG					
		LPB	P eL	11 12 08 44				98.4
		PNS	P eL	11 12 15.4 44.2		1.6	19	

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	28	PNS	P	11 59 05.7				
			S	30.4				
		LPB	P	11 59 10				
			S	33.8				
JUL	28	LPB	e(P)	14 16 26.2				
JUL	28	USCGS 14 03		35.9, 40.9N, 142.3E, h = 33 km., m = 4.7				
				NR CST OF HONSHU, JAPAN				
		LPB	ePKP	14 23 07.5			144.4	
		PNS	ePKP	14 23 09.8				
JUL	28	LPB	eP	14 42 52.5				
		PNS	P	14 42 59.5				
			S	43 28				
JUL	28	LPB	P	15 50 07.8	1.4		45	
			eL	58				
		PNS	P	15 50 08.0	1.6		41	
			eL	58				
JUL	28	PNS	eP	15 54 33				
		LPB	P	15 54 33.2	1.0		10	
JUL	28	LPB	eP	16 40 05.5				
JUL	28	PNS	P	16 40 10.8	0.7		3	
JUL	28	LPB	eP	18 13 27.5				
JUL	28	PNS	eP	18 13 28				
JUL	28	USCGS 18 36		10.3, 5.6S, 76.9W, h = 46 km., m = 5.0				
				NORTHERN PERU				
		PNS	P	18 39 19.9	1.2		38	
			S	41 55				
			L	44.9				
		LPB	P	18 39 23.5	1.1		32	13.5
			eL	45.4				
JUL	28	PNS	eP	19 08 04				
			eL	32.2				
JUL	28	LPB	eP	19 54 59	0.9		17	
		PNS	P	19 55 00	0.8		4	
			(S)	48.6				
JUL	28	PNS	eP	20 08 43				
			i	57.0				
			S	10 23.8				
JUL	28	LPB	eP	20 29 51.6				
		PNS	eP	20 29 52				



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	28	USCGS 21 18		59.5, 22.7S, 69.4W, h = 70 km., m = 5.1				
				NORTHERN CHILE				
		LPB	P	21 20 35.2	C	1.0	100	509
			eS	21 48				
			eL	23				
		PNS	P	21 20 37.0	D	0.8	29	
			i	43.0				
			eL	23.0				
JUL	28	USCGS 21 12		38.1, 55.4N, 166.6E, h = 27 km., m = 5.4				
				KOMANDORSKY ISLANDS REGION				
		PNS	ePKP	21 31 33.7		1.4	16	
			ePS	43 27				
			eSS	50 08				
			L	14.4				
		LPB	PKP	21 31 34.5		1.2	27	
			ePS	43 27				
			eSS	50 08				
			L	14.4				
JUL	28	LPB	eP	00 56 12.5				
JUL	28	LPB	eP	01 08 08				
		PNS	eP	01 08 13.4				
JUL	29	LPB	e(P)	01 10 12.8				
		PNS	e(P)	01 10 15				
JUL	29	LPB	eP	01 36 23.3				
		PNS	P	01 36 29.2	0.8		5	
JUL	29	LPB	eP	01 40 02				
		PNS	P	01 41 02.4	0.6		3	
JUL	29	LPB	eP	02 18 27				
		PNS	eP	02 18 30				
JUL	29	USCGS 02 45		46.3, 7.5S, 148.3W, h = 33 km., m = 4.9				
				LINE ISLANDS REGION				
		PNS	P	02 57 46.6	0.9		10	
		LPB	eP	02 57 46.8				77.9
JUL	29	LPB	eP	03 50 15				
		PNS	P	03 50 17.2	0.8		7	
JUL	29	LPB	eP	03 59 29.6				
		PNS	eP	03 59 34				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	29	LPB	iP	04 25 45.2	D	0.9	20	
			S	26 10.2				
		PNS	iP	04 25 45.6	D	0.7	15	
			S	26 10.8				
JUL	29	LPB	P	04 44 19.3				
		PNS	eP	04 44 26				
			eS	45 06				
JUL	29	LPB	e(P)	05 03 12.7		0.7	4	
JUL	29	USCGS 05 57 05.9, 19.2S, 69.8W, h = 71 km., m = 5.2 NORTHERN CHILE						
		LPB	iP	05 58 00	C	0.6	420	3.1
			S	58 22				
			L	59				
		PNS	iP	05 58 01.0	C			
			S	58 23				
			L	59.2				
JUL	29	LPB	eP	06 35 42.5				
		PNS	eP	06 35 43				
JUL	29	USCGS 06 24 47.3, 52.9N, 167.1W, h = 23 km., m = 4.7 FOX IS ALEUTIAN IS						
		PNS	eP	06 39 11.4				
JUL	29	LPB	eP	06 43 25				
		PNS	e(P)	06 43 31				
JUL	29	PNS	iP	06 52 08.9	D			
			S	52 17.8				
		LPB	iP	06 52 10	D	0.8	42	
			iS	52 18.3				
JUL	29	USCGS 08 26 29.0, 21.3S, 68.4W, h = 85 km., m = 4.2 CHILE-BOLIVIA BOR REG						
		LPB	P	08 27 47.2		0.8	31	8.6
		PNS	P	08 27 50.0		0.6	12	
			eS	28 39				
JUL	29	LPB	eP	08 45 23.5				
		PNS	eP	08 45 31				
JUL	29	LPB	eP	08 50 04.5				
JUL	29	LPB	eP	09 02 08.3				
JUL	29	LPB	eP	09 43 24				
		PNS	P	09 43 27.2		0.8	4	

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	29	USCGS 09 54 04.9, 15.1N, 94.0W, h = 43 km., m = 5.0 NR CST OF CHIAPAS, MEXICO						
		PNS	P	10 01 35		1.2	15	
			eL	15.9				
		LPB	eP	10 09 39.5				40.5
			eL	16				
JUL	29	USCGS 11 11 59.5, 22.5S, 175.0W, h = 33 km., m = 5.6 TONGA IS REG						
		LPB	eP	11 24 43.5				98.5
			e	25 40.7				
			SKS	36 18				
			S	37 14				
			eSS	44 02				
			L	58.0				
		PNS	eP	11 24 44				
			e	25 39				
			e	29 36				
			eSKS	36 20				
			S	37 10				
			SS	44 00				
			L	57.9				
JUL	29	USCGS 11 38 44.0, 15.3N, 94.0W, h = 33 km., m = 4.5 NR CST OF CAXACA, MEXICO						
		LPB	eP	11 42 06				80.5
		PNS	eP	11 42 12				
JUL	29	USCGS 11 49 00.0, 1.7S, 90.3W, h = 33 km., m = 4.3 GALAPAGOS IS						
		PNS	eP	11 54 27				
		LPB	eP	11 54 28				25.4
JUL	29	USCGS 12 19 46.6, 22.4S, 174.9W, h = 33 km., m = 5.3 TONGA IS REG						
		PNS	eP	12 33 22.8				
			eL	13 06.1				
		LPB	eP	12 33 25				98.5
			eL	13 06				
JUL	29	LPB	eP	12 37 10				
		PNS	eP	12 37 11				
JUL	29	USCGS 13 30 31.9, 3.2S, 150.6E, h = 28 km., m = 5.4 NEW IRELAND REG						
		PNS	ePKP	13 49 46.5				
			pPKP	58.0				

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	30	PNS LPB	eP eP	05 27 26 05 27 31				
JUL	30	PNS LPB	P P	05 51 01 05 51 07		0.7	4	
JUL	30	LPB PNS	eP P S	07 02 10 07 02 14.0 38.7		0.4	2	
JUL	30	PNS LPB	eP eP	09 58 50.3 09 58 52				
JUL	30	LPB PNS	eP S eP eS	10 08 15 44 23.3 56.2				
JUL	30	LPB PNS	eP iP S	10 22 30 10 22 33.7 56.2	D	0.6	17	
JUL	30	LPB PNS	P eS P	10 34 39 35 24.5 10 34 47.1	C	0.7	6	
JUL	30	LPB PNS	P i P	11 01 08.2 14 11 01 15.2		0.8	5	
JUL	30	PNS LPB	eP eP	12 01 31.3 12 01 34				
JUL	30	LPB PNS	eP eP	14 26 04.8 14 26 04.8				
JUL	30	PNS	iP S	15 52 25.3 47		0.6	5	
JUL	30	LPR PNS	P P	15 55 46.5 15 55 48.8		0.5	3	
JUL	30	PNS	P eS	16 35 57.6 36 30		0.6	2	
JUL	30	PNS	P S	17 14 46.5 15 57.6		0.5	2	
JUL	30	LPB PNS	eP eP	17 33 28 17 33 35				
JUL	30	USCGS 17 34 29.0, 44.1N, 148.8E, h = 35 km., m = 5.2 KURILE ISLANDS						

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	31	LPB PNS	ePKP ePKP	17 53 44 17 53 46				138.6
JUL	30	LPB PNS	eP eP	19 09 08.5 19 09 14				
JUL	30	PNS	eP eS	20 38 02 41				
JUL	30	USCGS 20 38 42.0, 6.9S, 80.5W, h = 37 km., m = 5.8 NEAR COAST OF NORTHERN PERU						
JUL	31	PNS LPB	P i eP (S) L	20 42 13.6 20.4 20 42 18 45 29 46.8		1.3	70	15.0
JUL	30	LPR PNS	eP eP	22 23 48.5 22 23 54.6				
JUL	30	LPB PNS	eP S P S	22 43 12.3 43.5 22 43 22.6 55				
JUL	31	LPB PNS	eP eP	00 30 32.5 00 30 34				
JUL	31	PNS LPB	eP eP	00 38 54.4 00 38 57.5				
JUL	31	PNS LPB	P P	01 12 47.1 01 12 51		0.6 0.8	10 10	
JUL	31	USCGS 01 37 24.1, 40.3N, 144.0E, h = 33 km., m = 4.6 OFF E CST OF HONSHU, JAPAN						
JUL	31	PNS LPB	ePKP PKP	01 56 59.8 01 57 08.5		1.3	6	143.8
JUL	31	LPR PNS	eL eL	54 54.6				
JUL	31	PNS LPB	P eP	02 47 42.2 02 47 46				
JUL	31	PNS LPB	eP e eP	03 00 07.7 15.7 03 00 10.7				
JUL	31	PNS LPB	iP S P	04 59 30.5 56.6 04 59 30.8	D D	0.9	41	
JUL	31	USCGS 07 12 35.0, 43.7N, 127.1W, h = 33 km., m = 4.2 OFF COAST OF OREGON						



JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
JUL		PNS	eP	07 24 51					
			eL	07 51					
		LPB	eP	07 24 53				81.0	
			eL	51					
	31	PNS	eP	08 12 39					
		LPR	e(P)	08 12 41.5					
JUL	31	PNS	eP	08 51 10					
	31	PNS	P	10 10 03.8		0.4	2		
		LPB	eP	10 10 08.7					
	31	LPB	eP	10 27 10					
		PNS	eP	10 27 14.4					
	31	PNS	e(P)	10 55 50					
JUL	31	PNS	eP	11 15 45					
		LPB	eP	11 15 50					
JUL	31	LPB	eP	11 36 31					
		PNS	P	11 36 34.7		0.5	3		
			S	57.4					
JUL	31	LPB	eP	11 53 51					
		PNS	eP	11 53 51.6					
JUL	31	LPB	eP	12 12 37					
		PNS	eP	12 12 37.8					
JUL	31	LPB	eP	13 06 39.5					
		PNS	P	13 06 41.7		0.4	2		
			S	07 12.4					
JUL	31	USCGS 13 46 00.1, 31.5S, 178.1W, h = 33 km., m = 4.7 KERMADEC ISLANDS REG							
		LPB	eP	13 59 34.5				97.1	
	31	LPB	eP	16 15 46.7					
		PNS	P	16 15 50.6		0.8	5		
JUL	31	PNS	P	16 37 00.1		0.6	7		
JUL	31	LPB	eP	16 37 04					
JUL	31	USCGS 16 41 39.0, 31.8S, 69.6W, h = 124 km., m = 4.3 SAN JUAN PROV. ARGENTINA							
		LPB	eP	16 45 11				15.3	
		PNS	P	16 45 13.2					
JUL	31	PNS	P	17 19 17.1		0.6	2		
			S	56.8					

JULY

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
JUL	31	PNS	P	18 54 40.8				
			S	55 02.4				
		LPB	eP	18 54 44				
JUL	31	LPB	P	19 59 16.6				
			eS	20 05 88				
			eL	08 47				
			11					
		PNS	P	19 59 17.4		1.0	6	
			eS	20 05 34				
			SS	08 42				
			L	11.2				
JUL	31	PNS	P	21 03 11.4		0.8	2	
		LPB	eP	21 03 12.5				
JUL	31	LPB	P	21 16 07.8		0.7	7	
JUL	31	PNS	1P	21 37 43.3	D	0.7	10	
			S	38 07.5				
		LPB	eP	21 37 47				
JUL	31	PNS	eP	22 38 17				
		LPB	eP	22 38 20				
JUL	31	PNS	e(P)	23 40 10				
		LPB	e(P)	23 40 13.5				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	01	LPB	eP	00 27 40					
			e	28 16.3					
			ePP	31 33.5					
			SKS	38 13					
			ePS	40 35					
			eSS	46 11					
			eL	01 00					
		PNS	P	00 27 45.7		0.9	3		
			e	28 16.6					
			ePP	31 35					
			iSKS	38 15					
			PS	40 30					
			SS	46 12					
			L	01 00.2					
AUG	01	PNS	eP	00 42 08					
		LPB	eP	00 42 08.5					
AUG	01	PNS	P	00 44 11.4		1.4	12		
		LPB	eP	00 44 17					
AUG	01	LPB	eP	00 46 38.8					
			eS	47 11.7					
		PNS	P	00 46 44.3		0.5	1		
			S	47 12					
AUG	01	PNS	eP	00 59 25					
AUG	01	PNS	eP	01 00 41.6					
		LPB	eP	01 00 43.5					
AUG	01	PNS	eP	01 23 20					
		LPB	eP	01 23 23.8					
AUG	01	USCGS 01 53 32.9, 19.2S, 70.7W, h = 147 km., NR CST OF NORTHERN CHILE							
		LPB	P	01 54 29.4		0.5	12	3.8	
			eS	55 30.6					
		PNS	P	01 54 30.0		0.5	5		
			eS	55 31.3					
AUG	01	LPB	eP	02 38 07					
		PNS	P	02 38 10					
			e(S)	39 07					
AUG	01	LPR	e(P)	03 21 50					
		PNS	eP	03 21 56					
AUG	01	LPB	P	03 36 05		0.6	4		
		PNS	P	03 36 09.2		0.5	3		

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	01	LPB	eP	04 30 03.8					
		PNS	eP	04 30 04					
AUG	01	PNS	eP	04 50 34					
AUG	01	PNS	e(P)	05 47 05					
		LPB	eP	05 47 07.2					
AUG	01	PNS	P	05 54 29.2					
			iS	55 08.2					
		LPB	P	05 54 33.4		0.7	5		
			eS	55 16.5					
AUG	01	PNS	P	05 58 19.0					
			i	21.6					
			iS	59 00.0					
		LPB	P	05 58 26					
			S	59 13.5					
AUG	01	LPR	eP	06 10 03					
		PNS	eP	06 10 03					
AUG	01	PNS	eP	07 45 21					
AUG	01	USCGS 07 37 44.2, 2.4S, 138.4E, h = 33 km., m = 5.2 WEST NEW GUINEA							
		PNS	PKP	07 57 26		0.9	5		
			eL	08 49					
		LPB	PKP	07 57 27.9		1.0	10	147.5	
			eL	08 49					
AUG	01	PNS	eP	08 03 12.4					
		LPB	e(P)	08 03 16.5					
AUG	01	LPB	P	08 07 03.5					
			S	27					
		PNS	P	08 07 03.8		0.6	4		
			S	26.4					
AUG	01	PNS	P	09 04 08.1					
		LPR	eP	09 04 08.5					
AUG	01	LPR	eP	09 30 05.5					
		PNS	eP	09 30 09.4					
			eS	31 09					
AUG	01	PNS	P	09 53 46.5		0.8	7		
			S	54 09.2					
		LPB	eP	09 53 47					
AUG	01	PNS	eP	10 37 58.7					
			S	38 23.6					
		LPB	eP	10 38 00					



AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	01	PNS LPB	eP eP	12 00 23.8 12 00 27.4					
AUG	01	LPB PNS	eP P	12 17 49.5 12 17 54.3		1.0	4		
AUG	01	PNS	eP	12 23 27					
AUG	01	PNS	P S	13 38 22.7 46		0.5	1		
AUG	01	LPB	eP	13 44 45					
AUG	01	USCGS 13 33 05.0, 19.4N, 121.8E, h = 33 km., m = 5.0 PHILIPPINE ISLANDS REGION							170
		LPB PNS	ePKP ePKP	13 53 17 13 53 12					
AUG	01	LPB PNS	eP P	14 32 47.5 33 52 14 33 51.8		1.8	82		
AUG	01	USCGS 14 23 03.9, 39.2N, 29.9W, h = 33 km., m = 4.8 AZORES ISLANDS							66
		LPB PNS	eL eL	14 55 14 55.7					
AUG	01	USCGS 18 27 25.1, 40.0N, 139.2E, h = 42 km., m = 4.9 NR W CST OF HONSHU, JAPAN							147
		PNS LPB	e(PKP) P eL	18 47 20 18 47 04 19 38		1.6 1.4	24 49		
AUG	01	PNS LPB	e(P) i eP	18 54 22.3 55 18 54 25.5					
AUG	01	PNS LPB	P eP	19 18 30 19 18 34					
AUG	01	LPB	e(P)	19 39 10.4		0.7	9		
AUG	01	USCGS 20 19 21.9, 16.5N, 122.2E, h = 37 km., m = 5.9 LUZON, PHILIPPINE ISLANDS							170.5
		LPB PNS	PKP eL PKP eL	20 39 29.7 21 38 20 39 30 21 38	C	1.1	82 39		

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	01	USCGS 20 43 10.0, 16.5N, 122.4E, h = 33 km., m = 4.9 LUZON PHILIPPINE ISLANDS							
		PNS LPB	PKP ePKP	21 03 18.3 21 03 24		1.6	26	170.3	
AUG	01	USCGS 20 57 18.0, 16.0N, 122.2E, h = 33 km., m = 4.9 LUZON PHILIPPINE ISLANDS							
		LPB PNS	ePKP ePKP	21 19 23.7 21 17 27.6				170.4	
AUG	01	LPB PNS	eP P	21 18 40.5 21 18 42.7		0.8	4		
AUG	01	USCGS 21 15 03.0, 15.7N, 121.8E, h = 33 km., m = 5.0 LUZON PHILIPPINE ISLANDS							
		PNS LPB	ePKP ePKP	21 35 13 21 35 15				170.5	
AUG	01	LPB PNS	P eP	21 44 30.3 21 49 31.8		1.0 0.6	32 6		
AUG	01	LPB PNS	eP P	22 28 01.8 22 28 04.0		1.0 0.7	20 3		
AUG	01	PNS LPB	P eP	23 25 11.8 23 24 13.5		1.6	13		
AUG	01	USCGS 23 16 26.0, 16.0N, 122.3E, h = 33 km., m = 4.7 PHILIPPINE ISLANDS REGION							
		PNS LPB	PKP eL eP	23 36 31.4 00 37.6 23 36 35.5		1.6	17	170.4	
AUG	02	USCGS 23 45 10.0, 15.9N, 122.4E, h = 33 km., m = 4.9 PHILIPPINE ISLANDS REGION							
		LPB PNS	eP P	00 05 20 00 05 20					
AUG	02	LPB PNS	eP eS P S	00 15 28.5 16 07.4 00 15 36.1 55		0.4	5		
AUG	02	LPB	eP	00 45 25					
AUG	02	PNS LPB	eP eP	00 55 43 00 55 43.5					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	02	USCGS 00 40 24.1, 16.2N, 122.5E, h = 33 km., m = 4.4 LUZON PHILIPPINE ISLANDS							
		PNS	ePKP	01 00 26					
		LPB	ePKP	01 00 29.5				170	
AUG	02	USCGS 01 05 49.0, 16.1N, 122.2E, h = 33 km., m = 5.0 LUZON, PHILIPPINE ISLANDS							
		PNS	ePKP	01 25 55					
		LPB	ePKP	01 25 58				170	
AUG	02	PNS	eP	01 47 42		1.5	11		
		LPB	eP	01 47 44					
AUG	02	PNS	P	01 53 35					
			S	56.6					
AUG	02	PNS	eP	02 06 00					
		LPB	eP	02 06 01					
AUG	02	USCGS 01 55 34.0, 16.3N, 121.9E, h = 33 km., m = 4.8 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	02 15 43				170.6	
		PNS	ePKP	02 15 43.4					
			e	17 01					
AUG	02	LPB	eP	02 51 52					
		PNS	eP	02 51 56					
AUG	02	USCGS 03 48 21.7, 15.6N, 121.8E, h = 49 km., m = 4.7 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	04 08 30				170.7	
		PNS	ePKP	04 08 33					
AUG	02	PNS	eP	06 41 11.6					
			eL	07 06.1					
		LPB	eP	06 41 12.2					
			eL	07 06					
AUG	02	USCGS 07 33 01.0, 0.9S, 78.1W, h = 41 km., m = 4.0 ECUADOR							
		PNS	eP	07 37 10					
		LPB	eP	07 37 11				18	
AUG	02	USCGS 10 09 30.0, 5.8S, 77.4W, h = 76 km., m = 4.3 NORTHERN PERU							
		PNS	eP	10 12 42					
		LPB	eP	10 12 46				13.8	
AUG	02	PNS	eP	10 41 31					
		LPB	eP	10 41 32.7					
AUG	02	PNS	eP	10 56 11					
		LPB	eP	10 56 13					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	02	PNS	eP	11 32 00					
		LPB	eP	11 32 04.5					
AUG	02	PNS	P	11 33 46.6		0.8	5		
AUG	02	PNS	P	11 55 57.2	C				
		LPB	eP	11 55 57.5					
AUG	02	LPB	P	12 35 55.4		1.1	29		
AUG	02	USCGS 13 30 25.5, 27.5N, 60.9E, h = 62 km., m = 5.7 SOUTHERN IRAN							
		LPB	PKP	13 49 33.2	D	1.2	145		
			PP	51 50.5					
			PKS	53 01					
		PNS	PKP	13 49 34.0	D	1.4	134		
			PP	51 52.8					
			PKS	53 02					
AUG	02	LPB	eP	14 02 06					
		PNS	eP	14 02 10					
AUG	02	USCGS 14 06 43.9, 16.6N, 97.7W, h = 40 km., m = 6.3 OAXACA, MEXICO							
		PNS	iP	14 14 45.1	C	1.1	77		
			PP	16 41					
			S	21 10					
			L	28					
		LPB	P	14 14 48.4	C	1.5	286	44.1	
			PP	16 35					
			iS	21 09					
			L	28					
AUG	02	LPB	eP	14 28 28					
		PNS	eP	14 28 29					
AUG	02	PNS	eP	14 45 04					
AUG	02	PNS	P	15 52 10		1.0	9		
		LPB	eP	15 52 11.5					
AUG	02	LPB	P	16 09 51.7		0.9	25		
		PNS	P	16 09 53.5		1.2	12		
AUG	02	PNS	eP	16 21 51					
		LPB	eP	16 21 54.8					
AUG	02	LPB	eP	16 25 50					
		PNS	eP	16 25 50.5					



AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	02	LPB PNS	eP P	16 33 35.5 16 33 37.4		0.5	3	
AUG	02	USCGS 17 15		28.4, 57.0N, 151.5W, h = 15 km., m = 4.8				
				KODIAK ISLAND REGION				100.5
		LPB PNS	eP eP	17 29 11 17 29 13				
AUG	02	USCGS 1R 37		52.0, 16.1N, 97.7W, h = 33 km., m = 5.0				
				OAXACA, MEXICO				43.8
		LPB S L	P L	18 45 56.4 52 29 19 01				
		PNS	eS eL	52 27 19 00.7				
AUG	02	PNS L LPB	P L P	21 26 34.2 35.1 21 26 36		0.9	2	
			L	35				
AUG	02	USCGS 23 05		56.7, 21.9S, 68.8W, h = 66 km., m = 4.4				
				CHILE-BOLIVIA BORDER REGION				
		LPB PNS	P P	23 07 23.6 23 07 26.1		0.7	54	
			eS	08 05	C			
AUG	02	PNS LPB	P e(P)	23 55 36.4 23 55 37		1.2	6	
AUG	02	PNS L LPB	P L eP	23 58 25.7 31.9 23 58 30				
AUG	03	PNS S LPB	1P S P	01 33 35.1 59.4 01 33 37	D	0.6	19	
			S	35 04.2		0.9	11	
AUG	03	PNS LPB	eP eP	02 01 11 02 01 11				
AUG	03	PNS LPB	P eS	04 24 48.5 27 00		0.8	13	
			P	04 24 53.2	D	1.1	32	
			S	27 09				
AUG	03	LPB PNS	eP eP	04 38 52 04 38 55				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	03	USCGS 04 54		32.7, 25.6N, 128.5E, h = 19 km., m = 64				
				RYUKYU ISLANDS				
		PNS	PKP	05 14 36.6	D	2.0	600	
			PP	19 02.7				
			SS	39 32				
			eG	06 006				
			L	09.7				
		LPB	PKP	05 14 36.7	D	2.2	89	162
			PP	19 03				
			SS	39 30				
			eG	06 005				
			eL	09.5				
AUG	03	PNS	P	06 14 41.9				
		LPB	P	06 14 44.5				
AUG	03	LPB	eP	06 25 25				
AUG	03	USCGS 06 25		05.8, 16.5N, 122.3, h = 37 km., m = 5.9				
				LUZON, PHILIPPINE ISLANDS				
		LPB	PKP	06 45 14.4	C	1.3	266	
			PKP2	46 28				
			ePP	50 20				
			eG	36				
			L	44.5				
		PNS	1PKP	06 45 14.5	C			
			PKP2	46 30.6				
			PP	50 17				
			SS	07 10 16				
			G	36.2				
			L	40.0				
AUG	03	PNS	eP	07 03 56.4		1.6	17	
		LPB	eP	07 04 00				
AUG	03	PNS	P	08 01 38.1		0.8	5	
		LPB	eP	08 01 44		1.1	17	
AUG	03	PNS	eP	08 26 57.2				
		LPB	P	08 27 05.3		1.0	12	
AUG	03	PNS	eP	09 29 15				
		LPB	eP	09 29 17.6				
AUG	03	PNS	P	09 39 41.2		0.9	6	
		LPB	P	09 39 46.4		1.0	10	
AUG	03	LPB	eP	10 46 58.5				
		PNS	eP	10 46 59.5				



AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	03	PNS	P	11 48 31.2					
			eL	12 06.6					
		LPB	eP	11 48 33					
			eI	12 06.5					
AUG	03	PNS	eP	11 56 02.6					
		LPB	eP	11 56 08					
AUG	03	USCGS 14 17 35.0, 15.5W, 121.4E, h = 33 km., m = 4.7 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	14 37 46				170.7	
		PNS	ePKP	14 37 46					
AUG	03	USCGS 15 38 35.6, 15.5N, 122.0E, h = 33 km., m = 4.9 PHILIPPINE ISLANDS REGION							
		LPB	PKP	15 58 51				170.4	
		PNS	PKP	15 58 54.1	1.0	4			
AUG	03	USCGS 15 51 48.0, 16.0N, 122.4E, h = 33 km., m = 4.7 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	16 11 56.5				170.4	
		PNS	PKP	16 11 59.7	1.2	10			
AUG	03	USCGS 16 29 11.0, 16.1N, 98.0W, h = 50 km., m = 4.5 OAXACA, MEXICO							
		PNS	P	16 37 12.4	1.0	6			
AUG	03	PNS	P	17 15 48.2	0.8	8			
		LPB	eP	17 15 49.5					
AUG	03	USCGS 19 19 01.6, 16.3N, 122.4E, h = 22 km., m = 5.2 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	19 39 10.5	1.1	22		170	
		PNS	PKP	19 39 12	1.2	18			
AUG	03	PNS	eP	19 40 26.8					
		LPB	eP	19 49 29	1.0	10			
AUG	03	LPB	eP	19 52 42					
		PNS	eP	19 52 42.8					
AUG	03	LPB	eP	20 19 17					
		PNS	eP	20 19 21					
			S	53					
AUG	03	LPB	eP	20 22 30					
		PNS	P	20 22 32.9	0.6	2			
			eL	38.1					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	03	PNS	1P	21 17 42.5	D	0.5	9		
			S	18 05					
AUG	04	LPB	e(P)	01 56 51					
AUG	04	USCGS 02 04 44.0, 16.7N, 122.5E, h = 33 km., LUZON, PHILIPPINE ISLANDS							
		PNS	ePKP	02 24 52					
		LPB	ePKP	02 24 53.7				170.3	
AUG	04	PNS	P	03 02 41.6					
			S	03 13.2					
		LPB	eP	03 01 43					
AUG	04	LPB	P	03 45 33		0.9	8		
			eS	46 05					
		PNS	P	03 45 33.3		0.6	16		
			S	59.0					
AUG	04	USCGS 05 48 49.8, 33.1S, 68.5W, h = 63 km., m = 4.1 MENDOZA, PROVINCE ARGENTINA							
		LPB	P	05 52 39.5		0.9	15	16.2	
		PNS	P	05 52 39.8		1.2	8		
AUG	04	USCGS 08 05 14.3, 16.5N, 122.4E, h = 18 km., m = 5.1 LUZON, PHILIPPINE ISLANDS							
		LPB	P	08 25 25.7		1.0	8	170.3	
		PNS	PKP	08 25 25.9		0.9	6		
AUG	04	PNS	eP	08 29 54.8					
AUG	04	PNS	eP	08 34 40					
		LPB	eP	08 34 40.7		0.9	13		
AUG	04	USCGS 08 54 33.1, 3.2S, 148.9E, h = 9 km., m = 4.7 BESMARCK SEA							
		PNS	ePKP	09 14 02.7					
			eL	10 09.9					
		LPB	eP	09 14 03.7		1.7	10	138.6	
AUG	04	LPB	eP	10 39 52.5					
		PNS	P	10 39 54.2		0.7	4		
			S	40 17.7					
AUG	04	USCGS 11 40 37.3, 22.5S, 174.8W, h = 33 km., m = 4.9 TONGA ISLANDS REGION							
		LPB	eP	10 54 13				98.1	
		PNS	eP	10 54 13.6					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	04	USCGS 11 41 24.8, 6.6N, 126.8E, h = 107 km., m = 5.7 MINDANAO, PHILIPPINE ISLAND						
		LPR	PKP	12 01 18.2		1.8	0.4	152.5
			ePKS	04 42				
			PP	12				
			eL	59				
		PNS	PKP	12 01 18.6	C	1.8	230	
			ePKS	04 43				
			PP	05 10				
			SS	24 40				
			G	43.8				
			L	57.6				
AUG	04	PNS	eP	14 28 42				
		LPR	eP	14 28 43				
AUG	04	LPR	eP	14 39 35.5		0.6	3	
		PNS	P	14 39 38.9				
AUG	04	USCGS 15 24 15.7, 23.0S, 69.0W, h = 93 km., m = 4.4 NORTHERN CHILE						
		LPR	P	15 26 51.4		1.2	40	6.3
		PNS	P	15 26 54.1		0.9	10	
AUG	04	LPR	eP	15 40 35				
AUG	04	USCGS 15 22 38.0, 16.2N, 122.5E, h = 33 km., m = 5.0 LUZON, PHILIPPINE ISLANDS						
		LPR	ePKP	15 42 48				170
		PNS	ePKP	15 42 50				
AUG	04	LPR	eP	15 44 02.5		0.8	5	
		PNS	P	15 44 04.0				
AUG	04	PNS	P	16 40 02.0		1.0	7	
		LPR	eP	16 40 03				
AUG	04	USCGS 18 00 08.0, 16.4N, 122.6E, h = 22 km., m = 4.9 LUZON, PHILIPPINE ISLANDS						
		LPR	ePKP	18 20 17				169.8
		PNS	ePKP	18 20 19				
AUG	04	PNS	P	18 34 01.8				
		LPR	eP	18 34 06				
AUG	14	USCGS 18 24 16.6, 6.1S, 147.6E, h = 81 km., m = 4.9 FAST NEW GUINEA REGION						
		LPR	PKP	18 43 25		1.0	10	138.2
		PNS	PKP	18 43 26.2				
			i	37.2				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	04	LPR	P	18 47 05.5				
		PNS	P	18 47 06.0		1.0	12	
						0.7	5	
AUG	04	PNS	eP	19 25 13				
		LPR	eP	19 25 16				
AUG	04	LPR	eP	22 03 08.5				
		PNS	P	23 05 03.4		0.7	3	
AUG	04	PNS	P	23 34 15.4		0.6	3	
		LPR	P	23 34 16.7		0.5	5	
AUG	04	PNS	eP	23 51 49.4				
			eS	52 50				
		LPR	eP	23 51 52				
AUG	08	USCGS 23 57 39.6, 53.0S, 9.6E, h = 33 km., m = 4.9 SOUTHWEST OF AFRICA						
		LPR	P	00 08 48		1.6	104	69.
			S	18 00				
			eG	26				
			eL	30.8				
		PNS	P	00 08 51.0		0.9	19	
			S	18 04				
			SS	22 08				
			eG	25.8				
			L	30.7				
AUG	05	USCGS 01 08 22.5, 23.2S, 66.6W, h = 215 km., m = 4.4 JUJUY PROVINCE, ARGENTINA						
		LPR	1P	01 10 01.5	C	0.7	108	7
			S	11 18.8				
		PNS	1P	01 10 05.4	C			
			S	11 22.7				
AUG	05	LPR	P	02 14 16.2		0.7	6	
		PNS	P	02 14 19.8				
			eS	15 15.4				
AUG	05	LPR	eP	03 05 07.5		0.9	6	
		PNS	eP	03 05 07.6				
AUG	05	PNS	eP	03 18 23				
		LPR	eP	03 18 30.5		1.0	6	
AUG	05	LPR	eP	04 15 21.7				
		PNS	eP	04 15 24.6				
AUG	05	USCGS 04 20 44.4, 8.6S, 71.2W, h = 56.4 km., m = 3.8 WESTERN BRAZIL						

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG		PNS	P	04 22 43.3		0.6	12		
			eS	24 17					
		LPB	P	04 22 46.8		1.0	14	8	
AUG	05	LPB	eP	04 59 35.6					
		PNS	P	04 59 37.8					
AUG	05	PNS	1P	05 09 00	D	05	9		
			S	22.6					
		LPB	P	05 09 02					
AUG	05	USCGS 05 08 31.8, 5.0S, 151.7E, h = 79 km., m = 4.8 NEW BRITAIN REGION							
		LPB	ePKP	05 27 51.5				135	
		PNS	ePKP	05 27 56					
AUG	05	PNS	P	07 34 19		0.4	2		
			S	50.6					
		LPB	eP	07 34 19					
			S	49					
AUG	05	LPB	eP	07 34 49		0.8	4		
AUG	05	PNS	P	07 51 30.0	D	0.7	6		
			1S	53.6					
		LPB	eP	07 51 33.2					
			S	59.2					
AUG	05	LPB	eP	08 12 34					
		PNS	eP	08 13 36.4					
AUG	05	LPB	eP	08 60 01.8		1.0	6		
AUG	05	LPB	eP	09 10 08					
		PNS	eP	09 10 09					
AUG	05	LPB	eP	10 19 20.5		0.8	7		
		PNS	P	10 19 22.7		0.8	7		
AUG	05	LPB	eP	12 49 06.5					
		PNS	P	12 49 08.1		0.6	4		
			S	55					
AUG	05	USCGS 13 30 59.0, 4.3S, 102.8E, h = 47 km., m = 4.8 SOUTHERN SUMATRA							
		PNS	ePKP	13 50 51					
		LPB	ePKP	13 50 51.6				157.5	

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	05	LPB	eP	13 55 25					
AUG	05	USCGS 14 23 44.4, 12.8S, 76.8W, h = 78 km., m = 4.4 NEAR COAST OF PERU							
		PNS	P	14 25 49.7		1.2	31		
			S	27 49					
			eL	29.1					
		LPB	P	14 25 54.6				8.6	
			eS	27 40					
AUG	05	USCGS 14 51 09.5, 16.0N, 122.0E, h = 43 km., m = 4.6 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	15 11 18.5					
		PNS	ePKP	15 11 18.5				169.8	
AUG	05	PNS	P	15 12 34.9		1.2	10		
		LPB	eP	15 12 37					
AUG	05	PNS	P	16 34 02.7					
		LPB	eP	16 34 04					
AUG	05	USCGS 16 17 04.8, 33.3N, 132.2E, h = 41 km., m = 6.3 SHIKOKU, JAPAN							
		PNS	PKP	16 36 56.3	D				
			PP	40 51.8					
			G	23.7					
			eL	32.9					
		LPB	PKP	16 36 57.0	D	1.6	910	155.4	
			PP	40 50.5					
			eG	22					
			L	33.7					
AUG	05	PNS	P	16 49 02.3		1.4	25		
		LPR	P	16 49 06		1.0	16		
AUG	05	LPB	eP	17 43 25.5					
		PNS	eP	17 43 29					
AUG	05	LPB	P	18 05 27.5					
AUG	05	LPB	eP	18 20 42					
		PNS	P	18 20 46.3		0.8	5		
AUG	05	LPB	P	18 43 10		1.0	16		
		PNS	P	18 43 07.0		1.2	15		
AUG	05	LPB	eP	20 18 42					
		PNS	P	20 18 44.2					



AUGUST TRINDIA

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	05	PNS	eP e(S)	20 23 23.8 28 25				
AUG	05	LPB PNS	eP eP	20 57 22 20 57 23				
AUG	05	PNS LPB	P eP	21 11 11.4 21 11 12.6		1.1	6	
AUG	06	LPB PNS	eP P	00 20 14.5 00 20 18.2		0.8	4	
AUG	06	USCGS		00 12 30.3, 26.7N, 44.6W, h = 33 km., m = 4.7.				
			NORTH ATLANTIC RIDGE					
		PNS	P eL	00 21 13.2 37.1		0.8	15	
		LPB	P eL	00 21 13.6 37		1.1	50	48.8
AUG	06	LPB PNS	eP P	00 26 31 00 25 33.3		0.8	4	
AUG	06	LPB PNS	eP P eS	01 28 15.5 01 28 19.1 29 07		0.7	3	
AUG	06	PNS LPR	P eP	01 39 08.6 01 39 12		0.5	4	
AUG	06	PNS LPB	eP eP	01 58 30 01 58 34.5				
AUG	06	USCGS		02 34 38.8, 33.4N, 132.3E, h = 44 km., m = 4.7				
			SHIKOKU, JAPAN					
		PNS LPB	PKP PKP	02 54 29.8 02 54 30.2		1.0 0.9	7 8	155
AUG	06	USCGS		02 36 30.3, 4.8S, 128.9E, h = 191 km., m = 5.0				
			BANDA SEA					
		PNS LPR	PKP PKP	02 56 07.0 02 56 07.5		0.9	5	153
AUG	06	USCGS		03 06 27.8, 16.6N, 122.4E, h = 33 km., m = 5.1				
			LUZON, PHILIPPINE ISLANDS					
		PNS LPB	PKP PKP	03 26 36.4 03 26 36.7		1.7 1.2	36 22	170.3
AUG	06	USCGS		03 24 04.3, 17.2N, 92.6W, h = 13 km., m = 4.4				
			CHIAPAS, MEXICO					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	06	PNS	eP eL	03 31 48 44.1				
		LPB	P eL	03 31 51.7 44		1.0	10	41.4
AUG	06	USCGS		03 16 29.0, 16.2N, 121.9E, h = 43 km., m = 4.8				
			LUZON, PHILIPPINE ISLANDS					
		PNS	PKP eL	03 36 35.0 04 34.5		1.7	45	
		LPB	PKP eL	03 36 35.3 04 35		1.6	39	170.6
AUG	06	USCGS		03 46 06.8, 26.7N, 44.6W, h = 33 km., m = 4.8				
			NORTH ATLANTIC RIDGE					
		LPB	P eL	03 54 50 10		1.3	53	49
		PNS	P eL	03 54 50 04 09.2		1.0	19	
AUG	06	LPB	eP	03 59 25.5				
AUG	06	LPB PNS	eP P	04 01 51 04 01 53.1				
AUG	06	PNS LPB	P eS eP	04 12 00.5 32 04 12 10				
AUG	06	USCGS		04 21 03.2, 33.4N, 132.2E, h = 43 km., m = 5.1				
			SHIKOKU, JAPAN					
		LPB PNS	P PKP	04 40 55 04 40 55.1		1.0 1.2	20 26	155
AUG	06	USCGS		04 35 19.4, 25.6N, 128.4E, h = 43 km., m = 5.1				
			RYUKYU ISLANDS					
		PNS LPB	PKP PKP	04 55 21.2 04 55 21.3		1.3 1.3	10 11	162
AUG	06	USCGS		04 53 04.6, 15.7N, 121.9E, h = 50 km., m = 5.2				
			LUZON, PHILIPPINE ISLANDS					
		LPB	PKP eL	05 13 12 06 13	C	1.0	32	170.6
		PNS	PKP eL	05 13 12.3 06 12.4	C	1.4	56	
AUG	06	PNS LPB	eP eP	05 17 57 05 18 00				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	06	LPB	P	05 20 32		0.3	7		
		PNS	P	05 20 32.6		0.5	3		
			eS	21 10					
AUG	06	USCGS 05 44 25.0, 13.8N, 145.7E, h = 33 km., m = 4.5 MARIANA ISLANDS							
		PNS	ePKP	06 04 05.6		1.3	13		
		LPB	PKP	06 04 08.5				147.5	
AUG	06	USCGS 06 42 46.9, 23.8S, 70.7W, h = 41 km., m = 4.3 NR CST OF NORTHERN CHILE							
		LPB	P	06 44 40.3		1.0	30	7.5	
			PP	51.3					
			S	46 37					
			eL	47.7					
		PNS	P	06 44 41.9		0.6	4		
			PP	52.4					
			S	46 32					
			eL	47.6					
AUG	06	PNS	eP	07 02 32.6					
		LPB	eP	07 02 33					
AUG	06	PNS	eP	07 40 56.7					
			eS	41 19.3					
		LPB	P	07 41 05.4					
AUG	06	PNS	eP	08 18 17					
		LPB	eP	08 18 20					
AUG	06	LPB	eP	08 22 39.3					
AUG	06	PNS	iP	08 53 29.8	D	0.7	18		
		LPB	P	08 53 30.5					
AUG	06	USCGS 08 34 42.3, 13.9N, 51.5E, h = 33 km., m = 4.9 EASTERN GULF OF ADEN							
		LPB	PKP	08 53 30.5		0.8	6	122	
			eL	09 32					
		PNS	eL	09 32					
AUG	06	PNS	P	09 57 53.2		0.9	10		
		LPB	P	09 57 53.8		1.0	12		
AUG	06	LPB	P	10 02 48.5					
AUG	06	USCGS 10 08 01.2, 25.7N, 128.4E, h = 33 km., m = 5.0 RYUKYU ISLANDS							
		LPB	ePKP	10 28 01.8				162	
		PNS	ePKP	10 28 03.6					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	06	LPB	eP	11 43 34.5					
		PNS	P	11 43 37.7					
			eS	44 01		0.4	2		
AUG	06	LPB	eP	13 37 56					
		PNS	P	13 38 00.2		0.7	7		
AUG	06	PNS	eP	13 46 03					
		LPB	eP	13 46 05					
AUG	06	PNS	eP	13 58 31					
		LPB	eP	13 58 35.5					
AUG	06	LPB	eP	19 15 12.5					
		PNS	eP	19 15 16.6					
			S	35.2					
AUG	06	LPB	eP	19 16 29		1.0	10		
			e	37					
			eS	18 18.7					
		PNS	P	19 16 31.2		0.5	2		
			i	39.5					
			S	18 24.9					
AUG	06	LPB	eP	19 57 49					
		PNS	iP	19 57 51.4	D				
AUG	06	PNS	iP	20 02 15.4	C				
			iS	58.1					
		LPB	P	20 02 20.5	C	1.0	32		
AUG	06	LPB	P	20 32 14.3		0.8	6		
AUG	06	LPB	eP	21 14 22.5					
		PNS	P	21 14 27.4		0.9	10		
AUG	06	USCGS 21 35 53.9, 25.6S, 13.8W, h = 33 km., m = 4.9 SOUTH ATLANTIC RIDGE							
		LPB	eP	21 42 56		1.1	17	51.3	
			eL	57					
		PNS	P	21 42 59.6		0.8	6		
			eL	57.5					
AUG	06	LPB	e(P)	22 10 07					
AUG	06	LPB	eP	22 21 53.5					
			e	22 03.5					
		PNS	P	22 22 05.8		0.8	12		
AUG	06	LPB	eP	23 59 39.5					
		PNS	eP	23 59 43					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	07	USCGS 23 44 35.0, 15.5N, 121.8E, h = 33 km., m = 5.1 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	00 04 45			170.7		
		PNS	ePKP	00 04 45					
AUG	07	PNS	P	00 23 00.5		0.8	4		
			eL	40.3					
		LPB	P	00 23 00.8		1.0	16	147.5	
			eL	40					
AUG	07	LPB	eP	00 49 00					
		PNS	eP	00 48 58					
AUG	07	PNS	eP	01 37 41.2					
AUG	07	LPB	P	02 49 30.5		0.3	5		
AUG	07	LPB	eL	03 29					
		PNS	eL	03 29.1					
AUG	07	USCGS 03 53 25.7, 15.7N, 121.9E, h = 34 km., m = 4.8 LUZON, PHILIPPINE ISLANDS							
		LPB	ePKP	04 13 34			170.7		
		PNS	PKP	04 13 35.2		1.1	7		
AUG	07	LPB	eP	04 23 12					
		PNS	P	04 23 12.5					
AUG	07	LPB	eP	04 48 03.8					
AUG	07	LPB	eP	05 07 42.6					
		PNS	P	05 07 46.2					
AUG	07	PNS	P	05 16 20.5		0.9	6		
			eS	59.5					
		LPB	eP	05 16 27.8		0.9	13	4.9	
AUG	07	PNS	eP	05 24 05.2					
		LPB	eP	05 24 06.3		0.5	3	122	
AUG	07	PNS	P	06 47 08.3		0.7	3		
			S	50.2					
		LPB	eP	06 47 11.5					
			e	48 03.3					
AUG	07	USCGS 07 22 58.0, 32.0S, 70.5W, h = 16 km., m = 4.1 CHILE-ARGENTINA BORDER REG							
		LPB	P	07 26 38.5		0.7	6	15.6	
			i	42.7					
			eL	31					
		PNS	P	07 26 39.9		1.0	10		

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	07	USCGS 08 15 55.7, 23.5S, 70.1W, h = 58 km., m = 4.3 NR CST OF NORTHERN CHILE							
		PNS	P	08 17 42.3		0.9	3		
			i	18 10					
		LPB	eP	08 17 42.5		0.9	15	8.3	
			i	18 09					
			eL	19.4					
AUG	07	USCGS 08 00 13.4, 43.1N, 144.6E, h = 54 km., m = 5.6 HOKKAIDO, JAPAN REGION							
		PNS	eL	09 08.6					
		LPB	eL	09 08.7				141.9	
AUG	07	PNS	eP	09 57 13					
		LPB	eP	09 57 13.6					
AUG	07	LPB	eP	10 12 41					
		PNS	eP	10 12 41					
AUG	07	PNS	iP	11 00 13.6		0.5	12		
			S	38					
		LPB	eP	11 00 16					
AUG	07	PNS	P	11 24 20		1.0	26		
			S	25 05.9					
		LPB	P	11 24 26		0.9	34		
			eS	25 03.8					
AUG	07	LPB	eP	12 05 42.5					
		PNS	P	12 05 44.1					
			S	06 07					
AUG	07	USCGS 12 03 32.0, 9.3S, 159.0E, h = 12 km., m = 4.8 SOLOMON ISLANDS							
		PNS	PKP	12 22 38.7		1.0	7		
		LPB	PKP	12 22 39		1.0	10	127	
AUG	07	PNS	eP	12 29 06.2					
		LPB	eP	12 29 08					
AUG	07	PNS	P	12 29 34.9		1.6	27		
		LPB	eP	12 29 36.2					
AUG	07	PNS	P	12 37 03.6		0.4	2		
			S	25.9					
		LPB	eP	12 37 07					
AUG	07	PNS	eP	12 39 47					
		LPB	eP	12 39 48					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	07	LPB	eP	12 43 34.5				
AUG	07	PNS	P	15 33 37.4		0.8	4	
			S	34 26				
		LPB	eP	15 33 38.4				
AUG	07	LPB	P	16 38 40.7		1.0	14	
		PNS	P	16 38 43.4				
AUG	07	LPB	eP	18 38 13		0.9	11	
		PNS	eP	18 38 13.8				
AUG	07	PNS	eP	20 47 24.7				
		LPB	P	20 47 27.6		0.4	6	
AUG	07	LPB	P	21 36 14.6		1.0	24	
		PNS	P	21 36 15.7				
			eS	55.4				
AUG	08	LPB	P	00 15 28.3		1.0	14	
		PNS	P	00 15 30.6		0.7	3	
AUG	08	PNS	eP	01 50 48				
		LPB	eP	01 50 51				
AUG	08	LPB	eP	03 17 53				
		PNS	P	03 17 57.3		0.8	5	
AUG	08	PNS	eP	03 27 30				
AUG	08	LPB	eP	03 57 39				
		PNS	P	03 57 42.6		0.6	2	
			S	58 04				
AUG	08	USCGS 04 55 10.0, 36.4N, 141.4E, h = 41 km., m = 5.4 NR E CST OF HONSHU, JAPAN						
		PNS	PKP	05 14 49.6				
			eL	06 24.8				
		LPB	PKP	05 14 50		1.0	50	147.1
			L	06 05				
AUG	08	USCGS 05 31 09.7, 40.5N, 124.4W, h = 2 km., m = 4.6 NR CST OF N CALIFORNIA						
		PNS	eP	05 42 59.6				
AUG	08	LPB	eP	05 54 05.5				
		PNS	eP	05 54 10				
AUG	08	PNS	iP	06 00 33.6		0.4	9	
			S	57				
		LPB	P	06 00 37				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	08	PNS	eP	08 20 26				
		LPB	eP	08 20 29				
AUG	08	PNS	eP	09 39 56				
		LPB	eP	09 39 56.2		1.0	6	
AUG	08	USCGS 09 10 53.9, 25.8N, 128.6E, h = 33 km., m = 4.9 RYUKYU IS						
		PNS	ePKP	09 39 55.6				
		LPB	ePKP	09 39 56				161 °
AUG	08	LPB	eP	08 31 46.3				
		PNS	P	13 31 49.0		0.9	7	
AUG	08	PNS	P	13 58 18.2		0.4	2	
			S	39.8				
AUG	08	USCGS 14 07 44.5, 16.0N, 122.0E, h = 18 km., m = 5.1 LUZON, PHILIPPINE IS						
		LPB	ePKP	14 27 54				
		PNS	PKP	14 27 54				
AUG	08	LPB	eP	14 29 12				
		PNS	P	14 29 12.3		1.0	9	
AUG	08	LPB	eP	18 46 26				
			eS	47 13.5				
			P	18 46 28.5		0.7	3	
			eS	47 18				
AUG	08	PNS	P	23 03 07.8				
		LPB	eP	23 03 10				
AUG	08	PNS	P	23 16 36.1		0.6	6	
		LPB	P	23 16 38.7		0.9	15	
AUG	08	PNS	eP	23 49 40				
		LPB	eF	23 49 42				
AUG	08	PNS	eP	00 57 30				
		LPB	P	00 57 31.3				
AUG	08	LPB	eL	48				
		PNS	eL	02 48.1				
AUG	09	USCGS 02 24 53.2, 25.2N, 94.4E, h = 33 km., m = 4.7 BURMA-INDIA BORDER REG						
		PNS	ePKP	02 44 50.6				
		LPB	ePKP	02 44 51				161

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	09	LPB	P	03 00 09.5		0.8	12	
AUG	09	LPB	eP	03 08 38.5		0.7	28	
		PNS	P	03 08 45.5				
			S	09 16.2				
AUG	09	USCGS 03 08 04.2, 11.4S, 113.0W, h = 33 km., m = 5.4 EASTERN ISLAND REG						
		LPB	iP	03 16 00.0		1.3	319	42.4
			S	22 34				
			eSS	25 43				
			L	28.5				
		PNS	iP	03 16 00.2	C			
			S	22 29				
			SS	25 40				
			L	28.1				
AUG	09	USCGS 03 31 47.5, 22.2S, 113.1W, h = 33 km., m = 4.6 EASTER ISLAND REG						
		PNS	iP	03 39 42.2	C	1.0	27	
		LPB	P	03 39 44.5		1.2	24	42.5
AUG	09	LPB	eP	04 07 37.5				
		PNS	P	04 07 40.0		0.9	6	
AUG	09	LPB	eP	05 00 09				
		PNS	eP	05 00 11.6				
AUG	09	USCGS 05 32 57.0, 22.3S, 113.3W, h = 33 km., m = 4.6 EASTER IS REG						
		PNS	P	05 40 51.8		1.7	26	
			L	53.2				
		LPB	eP	05 40 53.8				42.5
			eL	53.2				
AUG	09	PNS	iP	05 43 10.7	D	0.4	11	
			S	33.6				
		LPB	P	05 43 12.5				
AUG	09	PNS	eP	05 47 31				
		LPB	eP	05 47 36				
AUG	09	PNS	P	21 27 19.4		0.6	2	
		LPB	eP	21 27 20				
AUG	09	USCGS 06 50 50.9, 32.2S, 71.8W, h = 31 km., m = 4.7 NEAR COAST OF CENTRAL CHILE						

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	09	LPB	P	06 54 36				
			S	57 02		1.0	24	16
			L	59.7				
		PNS	P	06 54 38.6		1.7	72	
			S	57 59				
			L	59.4				
AUG	09	USCGS 07 13 24.9, 32.3S, 71.6W, h = 53 km., m = 4.4 NEAR COAST OF CENTRAL CHILE						
		PNS	P	07 17 10		1.2	14	
			L	22				
		LPB	eP	07 17 07				16
			i	12.5				
			L	22.3				
AUG	09	USCGS 07 25 40.0, 32.1S, 70.4W, h = 16 km., m = 4.1 CHILE-ARGENTINA BORDER REG						
		PNS	eP	07 29 24.1				
		LPB	eP	07 29 25.7		0.9	17	15.8
AUG	09	PNS	P	08 08 03.0				
			S	25.4				
		LPB	eP	08 08 05				
AUG	09	USCGS 08 09 33.0, 22.7S, 113.7W, h = 33 km., m = 4.5 EASTER IS REG						
		PNS	P	08 17 32.1		1.5	10	
			L	30				
		LPB	P	08 17 34.5		1.4	17	43.1
AUG	09	PNS	P	09 13 16.4				
		LPB	eP	09 13 19.2		0.9	10	
AUG	09	LPB	eP	09 21 11.5		1.0	14	
			S	22 21				
		PNS	P	09 21 15.2		0.7	6	
			eS	22 17				
AUG	09	PNS	P	10 03 37.6				
			eS	04 36				
		LPR	eP	10 03 39.5		1.0	6	
			S	04 44				
AUG	09	LPR	eP	10 18 31				
		PNS	eP	10 18 33				
AUG	09	PNS	P	10 23 39.8		0.9	10	
		LPB	P	10 23 40.5		1.0	6	

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	09	LPB	P	10 57 31.5		1.1	22		
		PNS	P	10 57 31.6		1.2	18		
AUG	09	LPB	eP	11 01 02					
		PNS	P	11 01 04.2		1.8	20		
AUG	09	USCGS 11 41 03.0, 37.5S, 73.7W, h = 33 km., m = 4.1 NEAR COAST OF CENTRAL CHILE							
		LPB	P	11 45 51.4		1.0	12	121.5	
			eL	55					
		PNS	P	11 45 54.2		1.4	23		
			eL	55.2					
AUG	09	LPB	eP	12 03 51.5					
		PNS	P	12 03 52.3		0.6	4		
			eS	04 48.5					
AUG	09	PNS	P	12 10 47.8		1.0	14		
			eS	14 40					
			eL	15.9					
		LPB	P	12 10 48.8		1.0	44		
			eS	14 41					
			eL	15.8					
AUG	09	PNS	eP	12 54 52					
		LPB	eP	12 54 56					
AUG	09	LPB	eP	16 38 38					
		PNS	P	16 38 43.4		0.5	5		
AUG	09	LPB	eP	16 56 52					
		PNS	P	16 56 57.2					
AUG	09	PNS	eP	17 00 15					
		LPB	eP	17 00 17					
AUG	09	LPB	eP	17 34 45					
		PNS	P	17 34 47.2					
			S	35 12.6					
AUG	09	PNS	P	19 48 17.4		1.6	19		
AUG	09	LPB	P	21 07 21.5		1.0	10		
		PNS	P	21 08 23.8		0.7	4		
AUG	09	PNS	P	21 34 45.0		1.0	7		
		LPB	eP	21 34 46					
AUG	09	USCGS 21 33 56.4, 15.7N, 121.9E, h = 46 km., m = 4.9 LUZON, PHILIPPINE IS							

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		PNS	PKP	21 54 05.1					
		LPB	PKP	21 54 05.3				170.7	
AUG	09	LPB	eP	22 29 37					
		PNS	iP	22 29 35.1		0.5	12		
			S	57.1					
AUG	09	PNS	P	22 40 22		0.5	4		
		LPB	eP	22 40 24					
AUG	09	PNS	P	22 53 18.1		0.5	4		
		LPB	eP	22 53 21					
AUG	09	PNS	P	23 10 07.2		0.6	14		
			eS	11 00					
		LPB	P	23 10 13		0.9	10		
AUG	09	LPB	eP	23 26 56					
		PNS	P	23 26 58.6		0.5	2		
			eS	28 24					
AUG	09	PNS	iP	23 51 31.9		0.4	5		
			S	54.4					
AUG	09	PNS	eP	23 56 00					
			eS	57 09					
		LPB	eP	23 56 05.2					
AUG	10	LPB	eP	00 42 50					
		PNS	P	00 42 50.5					
AUG	10	LPB	eP	02 18 24.2					
		PNS	P	02 18 30.6					
AUG	10	USCGS 02 07 04.2, 1.4N, 126.2E, h = 33 km., m = 6.3 MOLUCCA PASSAGE							
		PNS	iP	02 25 30		1.8	184		
			iPKP	27 04.1					
			PKS	30 35.6					
			PP	34 26					
			SKS	34 00					
			L	03 22					
		LPB	P	02 25 26		1.9	388	159.7	
			PKP	27 04					
			PP	31 26					
			SKS	34 00					
			L	03 22					
AUG	10	PNS	eP	02 43 16.4		0.9	7		
		LPB	eP	02 43 17					



AUGUST 1963

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	10	PNS	iP	02 56 01.0	C	0.6	33		
		LPR	P	02 56 05.5					
AUG	10	PNS	eP	02 57 42					
		LPR	eP	02 57 43.5					
AUG	10	LPR	eP	02 59 33					
		PNS	eP	02 59 37					
AUG	10	LPR	eP	03 02 16.5					
			i	03 02 27					
		PNS	P	03 02 17					
			i	03 02 54.4					
			i	03 29					
AUG	10	PNS	P	03 07 43					
		LPR	P	03 07 49.7		1.0	10		
AUG	10	LPR	eP	03 15 49					
		PNS	eP	03 15 53					
AUG	10	PNS	eP	03 26 03					
			i	03 26 30					
AUG	10	LPR	P	03 52 33.8					
		PNS	eP	03 52 36					
AUG	10	USCGS 03 47 42.0, 1.4N, 126.4E, h = 33 km., m = 5.2 MOLUCCA PASSAGE							
		LPR	ePKP	04 07 43				159.4	
		PNS	ePKP	04 07 43.2		1.8	31		
AUG	10	USCGS 03 57 09.6, 1.4N, 126.6E, h = 33 km., m = 4.8 MOLUCCA PASSAGE							
		PNS	ePKP	04 17 08					
		LPR	ePKP	04 17 08.5				159.4	
AUG	10	USCGS 04 02 26.6, 1.4N, 126.4E, h = 33 km., m = 5.3 MOLUCCA PASSAGE							
		LPR	eP	04 22 25				159.4	
		PNS	PKP	04 22 27.5		1.0	10		
AUG	10	USCGS 04 05 50.6, 1.3N, 126.5E, h = 33 km., m = 5.7 MOLUCCA PASSAGE							
		PNS	PKP	04 25 50.2	C	1.5	56		
			PP	04 30 08.2					
			L	05 23.1					

AUGUST 1963

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		LPR	PKP	04 25 50.5	C				
			PP	04 30 09				159.3	
			eL	05 23					
AUG	10	LPR	P	05 15 06.7					
		PNS	eP	05 15 09.8		1.0	8		
AUG	10	PNS	P	05 24 55.9		1.6	22		
			S	05 25 18.8		0.7	8		
AUG	10	LPR	eP	05 24 57					
AUG	10	PNS	eP	05 28 39.6					
		LPR	eP	05 28 45					
AUG	10	LPR	eP	05 34 19.5					
		PNS	P	05 34 20.6					
AUG	10	LPR	eP	06 10 43.2					
		PNS	P	06 10 42.8		0.4	5		
			S	06 11 10					
AUG	10	PNS	P	06 11 26.30		0.8	4		
AUG	10	USCGS 05 51 47.0, 1.5N, 126.2E, h = 33 km., m = 6.2 MOLUCCA PASSAGE							
		LPR	PKP	06 11 47					
			PP	06 16 02.3		1.3	198	159.7	
			eL	07 08					
AUG	10	PNS	PKP	06 11 47.4		2.1	310		
			PP	06 16 02.5					
			L	07 08					
AUG	10	LPR	P	06 23 10.7		0.7	30		
AUG	10	LPR	P	06 28 58.5		0.7	15		
		PNS	P	06 29 01.1		0.9	12		
AUG	10	LPR	eP	06 57 45					
		PNS	eP	06 57 49.3					
AUG	10	USCGS 07 17 50.9, 1.8N, 126.3E, h = 33 km., m = 4.9 MOLUCCA PASSAGE							
		LPR	ePKP	07 37 51.5					
		PNS	PKP	07 37 51.7		0.8	3	159.6	
AUG	10	LPR	eP	07 44 24					
AUG	10	LPR	eP	08 11 04.5					
		PNS	eP	08 11 03					



AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	10	PNS	eP	08 29 07					
		LPB	eP	08 29 11					
AUG	10	USCGS 08 10 16.3, 1.6N, 126.2E, h = 33 km., m = 5.6 MOLUCCA PASSAGE							
		PNS	PKP	08 30 15.0		1.5	47		
			eL	09 26.9					
		LPR	PKP	08 30 15.7		1.2	31	159.6	
			eL	09 27					
AUG	10	USCGS 08 49 56.8, 1.4N, 126.2E, h = 33 km., m = 4.9 MOLUCCA PASSAGE							
		PNS	ePKP	09 09 56.2					
		LPB	PKP	09 09 58		1.1	8	159.5	
AUG	10	LPR	P	09 15 35.3		1.0	10		
		PNS	eP	09 15 38.6					
			e	54					
AUG	10	LPR	P	10 02 24		0.8	6		
AUG	10	PNS	eP	10 16 02					
AUG	10	USCGS 10 05 52.1, 1.6N, 126.3E, h = 24 km., m = 5.4 MOLUCCA PASSAGE							
		LPR	PKP	10 25 53.3		1.1	15	156.6	
		PNS	PKP	10 25 54		1.4	14		
			i	26 31					
AUG	10	USCGS 10 16 04.2, 1.5N, 126.4E, h = 33 km., m = 4.9 MOLUCCA PASSAGE							
		LPR	ePKP	10 36 03.5				159.4	
		PNS	ePKP	10 36 06					
AUG	10	USCGS 10 28 56.2, 1.6N, 126.1E, h = 6 km., m = 4.8 MOLUCCA PASSAGE							
		LPR	ePKP	10 49 00				159.8	
		PNS	ePKP	10 49 00.2		1.2	7		
			e	38.6					
AUG	10	PNS	eP	11 07 40					
		LPR	P	11 07 43		1.0	8		
AUG	10	LPR	eP	11 43 10					
		PNS	P	11 43 15.5					
AUG	10	USCGS 11 55 29.4, 1.8N, 126.4E, h = 33 km., m = 5.1 MOLUCCA PASSAGE							

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		PNS	ePKP	12 15 30.5					
		LPB	ePKP	12 15 31				154.6	
AUG	10	USCGS 12 24 51.1, 1.4N, 126.5S, h = 33 km., m = 4.8 MOLUCCA PASSAGE							
		LPR	ePKP	12 44 52.5				159.4	
		PNS	ePKP	12 44 53					
AUG	10	PNS	P	13 08 11.1		0.5	3		
			S	33.6					
AUG	10	LPR	eP	13 49 04.5					
		PNS	eP	13 49 06					
			S	50 32.2					
AUG	10	USCGS 14 00 40.2, 1.6N, 126.3E, h = 33 km., m = 4.9 MOLUCCA PASSAGE							
		PNS	PKP	14 20 40.4		0.9	3		
		LPB	ePKP	14 20 43				159.6	
AUG	10	USCGS 15 21 43.5, 1.3N, 126.2E, h = 33 km., m = 5.1 MOLUCCA PASSAGE							
		LPR	ePKP	15 41 42				159.3	
		PNS	PKP	15 41 42.7		1.6	15		
			i	42 20					
AUG	10	PNS	iP	15 39 30.3					
			S	56.5					
		LPB	eP	15 59 33.5					
AUG	10	USCGS 15 45 37.2, 1.5N, 126.3E, h = 33 km., m = 5.4 MOLUCCA PASSAGE							
		LPR	ePKP	16 05 34.5				159.3	
		PNS	PKP	16 05 37.5		1.2	14		
			PKP2	06 14.6					
AUG	10	USCGS 16 41 25.4, 15.5N, 121.6E, h = 33 km., m = 5.4 LUZON, PHILIPPINE IS							
		LPR	ePKP	17 01 28				170.8	
			eL	18 01.5					
		PNS	PKP	17 01 33.6		1.2	11		
			eL	18 01.3					
AUG	10	PNS	P	17 31 25.6					
		LPB	eP	17 31 23.5					
AUG	10	USCGS 17 26 20.2, 5.6S, 153.2E, h = 50 km., m = 5.0 NEW IRELAND REG							

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		LPR	ePKP	17 45 34				128.2
		PNS	PKP	17 45 35.6				
AUG	10	LPR	eP	17 49 03				
		PNS	eP	17 49 03.3		1.0	5	
AUG	10	USCGS 17 48 04.8, 1.5N 126.5E, h = 33 km., m = 4.9 MOLUCCA PASSAGE						
		PNS	P	18 08 03.6				
			eL	19 01				
		LPR	eP	18 08 04.3				153
			eL	19 01.7				
AUG	10	PNS	P	10 03 40.3		0.8	17	
			S	04 45.8				
		LPR	P	19 03 47		1.0	44	
AUG	10	LPR	eP	19 07 24				
AUG	10	USCGS 19 18 43.0, 21.5S, 170.4E, h = 136 km., m = 5.1 LOYALTY IS REG						
		PNS	ePKP	19 37 19				
AUG	10	USCGS 19 49 58.6, 17.0N, 122.4E, h = 43 km., m = 4.9 LUZON, PHILIPPINE ISLANDS						
		PNS	PKP	20 10 05		1.4	9	
		LPR	ePKP	20 10 06				170.1
AUG	10	PNS	eP	20 20 24				
AUG	10	LPR	eP	20 46 14.5				
		PNS	eP	20 46 16.2				
			i	50				
AUG	10	USCGS 20 49 53.6, 1.5N, 126.3E, h = 33 km., m = 4.8 MOLUCCA PASSAGE						
		PNS	ePKP	21 09 53.6				
		LPR	ePKP	21 10 55.5				159.5
AUG	10	PNS	P	01 11 02.8		1.0	6	
		LPR	eP	01 11 03				
AUG	10	LPR	P	01 13 21.7	C	0.9	57	
			eC	14 08.2				
		PNS	P	01 13 24.4	C	0.6	17	
			eS	14 10				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	11	LPR	P	02 02 19				
AUG	11	USCGS 02 41 52.8, 15.2S, 74.0W, h = 91 km., m = 5.6 SOUTHERN PERU						
		PNS	iP	02 43 14	C			
			S	44 00				
		LPR	iP	02 43 19.2	C	0.8	630	5.7
			S	44 02				
AUG	11	USCGS 02 45 19.4, 1.8N, 126.4E, h = 33 km., m = 5.3 MOLUCCA PASSAGE						
		LPR	ePKP	03 05 54				159.6
		PNS	ePKP	03 05 54.6				
AUG	11	USCGS 02 48 19.4, 1.8N, 126.4E, h = 33 km., m = 5.0 MOLUCCA PASSAGE						
		LPR	ePKP	03 03 19				159.6
		PNS	ePKP	03 08 20				
AUG	11	LPR	e(P)	03 28 24.5				
AUG	11	LPR	eP	03 56 09				
		PNS	eP	03 56 09				
AUG	11	PNS	eP	04 03 50				
		LPR	eP	04 03 51				
AUG	11	LPR	eP	04 14 06.5				
		PNS	P	04 14 07.9				
AUG	11	LPR	eP	04 27 23				
		PNS	P	04 27 25.6				
			S	45.8				
AUG	11	PNS	P	05 23 08.8		0.6	2	
			S	30				
		LPR	eP	05 23 10				
AUG	11	LPR	eP	05 26 00				
		PNS	eP	05 26 02.3				
AUG	11	PNS	P	06 03 41.7				
			eS	56				
		LPR	eP	06 03 49		0.8	6	
AUG	11	PNS	P	06 23 28.5				
			S	51.4				
		LPR	P	06 23 29.2				
			S	52				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	11	PNS	P	06 46 40.7					
			i	45.3					
			S	47 32					
		LPB	eP	06 46 52		0.8	10		
			S	47 47					
AUG	11	PNS	P	07 53 21.2					
			e	47.7					
		LPB	eP	07 53 22.3					
AUG	11	LPB	eP	07 54 20					
		PNS	P	07 54 21.2					
			S	54.4					
AUG	11	LPB	P	08 01 48.3					
		PNS	1P	08 01 56.6	D	0.6	18		
AUG	11	PNS	P	08 51 32					
AUG	11	USCGS 09 00 24.5, 1.8N, 126.1E, h = 33 km., m = 5.2 MOLUCCA PASSAGE							
		LPB	PKP	09 20 24.5	C	1.0	20		
		PNS	PKP	09 20 24.6		1.2	20		
AUG	11	USCGS 09 22 37.0, 11.1S, 13.0W, h = 33 km., m = 4.7 ASCENSION ISLAND REG							
		LPB	eP	09 32 02				54	
		PNS	eP	09 32 02.2					
			L	48.4					
AUG	11	LPB	P	09 57 13.4					
			S	53.4					
		PNS	P	09 57 19					
			eS	58 03					
AUG	11	USCGS 10 02 40.2, 1.5N, 126.8E, h = 33 km., m = 5.3 MOLUCCA PASSAGE							
		PNS	PKP	10 22 38.8					
			e	23 16					
		LPB	PKP	10 22 40.5		0.9	6	159.4	
AUG	11	LPB	eP	10 28 47					
		PNS	P	10 28 50.7					
			S	29 27.4					
AUG	11	LPB	eP	10 54 19					
			eL	11 32					
		PNS	eP	10 54 25					
			eL	11 32.1					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	11	LPB	eP	11 24 27.5					
		PNS	P	11 24 29.5					
AUG	11	LPB	P	11 37 18	D	0.8	178		
			S	38 04					
		PNS	P	11 37 19.3	C	0.9	30		
			S	38 03					
AUG	11	PNS	eP	11 56 43					
		LPB	eP	11 56 44.5					
AUG	11	LPB	eP	12 23 58					
		PNS	eP	12 23 59		1.4	9		
AUG	11	PNS	P	12 38 11.4					
			S	33.6					
		LPB	eP	12 38 15					
AUG	11	PNS	P	12 59 14.4		0.7	4		
		LPB	eP	12 59 16					
AUG	11	LPB	eP	13 02 09					
AUG	11	PNS	P	13 05 33		1.3	14		
AUG	11	LPB	P	13 53 43.4		0.8	18		
		PNS	1P	13 53 47.2	C	0.8	19		
AUG	11	LPB	P	14 24 13.2					
AUG	11	PNS	P	14 28 16.2					
		LPB	eP	14 28 18					
AUG	11	USCGS 15 07 53.0, 1.8N, 126.3E, h = 33 km., m = 5.1 MOLUCCA PASSAGE							
		PNS	PKP	15 27 51		1.9	50		
			eL	16 25.5					
		LPB	PKP	15 27 52.6		1.2	22	159.7	
			eL	16 26					
AUG	11	USCGS 16 24 19.3, 1.0N, 126.3E, h = 33 km., m = 4.9 MOLUCCA PASSAGE							
		LPB	ePKP	16 44 10				153	
		PNS	ePKP	16 44 11					
AUG	11	PNS	P	18 23 29					
		LPB	eP	18 23 31					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	11	USCGS 18 47 07.1, 1.6N, 126.2E, h = 6 km., m = 5.2 MOLUCCA PASSAGE						
		LPB	ePKP	19 07 09				159.5
		PNS	ePKP	19 07 10				
AUG	11	USCGS 20 00 43.4, 1.6N, 126.1E, h = 33 km., m = 5.9 MOLUCCA PASSAGE						
		LPB	PKP	20 20 41.6		1.5	126	159.5
			ePKS	24 14				
			eL	17.7				
		PNS	PKP	20 20 41.8		1.6	91	
			ePKS	24 16.6				
			PP	46				
			eSS	44 29				
			L	21 16.9				
AUG	11	LPB	eP	21 24 48				
		PNS	eP	21 24 49.6				
AUG	11	PNS	eP	22 05 05				
AUG	11	PNS	eP	22 25 03.5				
			e	32.6				
		LPB	eP	22 25 07				
AUG	11	LPB	eP	22 27 06				
		PNS	P	22 27 06.2		0.7	3	
AUG	11	LPB	P	23 23 10		0.6	7	
AUG	12	USCGS 00 50 34.0, 6.7N, 73.1W, h = 278 km., m = 3.8 NORTHERN COLOMBIA						
		PNS	P	00 55 19.7		0.7	7	
		LPB	eP	00 55 22.7				23.4
AUG	12	LPB	eP	00 59 27.3		1.0	10	
AUG	12	PNS	P	01 34 30		1.0	5	
			eL	45.7				
		LPB	eP	01 34 32.5				
			eL	45				
AUG	12	USCGS 02 15 57.9, 21.1S 68.7W, h = 130 km., m = 4.7 CHILE-BOLIVIA BORDER REG						
		LPB	P	02 17 08.4	C	1.2	1209	4.5
			S	18 06				
			eL	18.6				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	12	PNS	P	02 17 10.6				
			S	18 12				
			eL	18.2				
AUG	12	PNS	P	02 46 47				
			S	54.1				
AUG	12	LPB	eP	02 46 51				
AUG	12	LPB	P	05 15 25				
		PNS	P	05 15 25.4		0.4	5	
			e(S)	49		0.6	5	
AUG	12	PNS	P	05 31 44.1	D	0.6	10	
			S	32 08.7				
		LPB	eP	05 31 46.5				
			S	32 14				
AUG	12	PNS	eP	05 35 48				
AUG	12	PNS	P	05 42 39.9		1.3	30	
			eL	51.6				
		LPB	eP	05 42 40				
			eL	51.2				
AUG	12	LPB	eP	06 14 47.5		0.8	5	
AUG	12	LPB	eP	06 23 09				
		PNS	eP	06 23 12.6				
			eS	24 04				
AUG	12	USCGS 06 59 10.6, 1.8N, 126.8E, h = 19 km., m = 5.3 MOLUCCA PASSAGE						
		PNS	PKP	07 19 10.4				
		LPB	ePKP	07 19 10.7		0.8	5	159.3
AUG	12	LPB	P	07 21 19.5		0.9	8	
		PNS	eP	07 21 19.7		0.6	6	
			S	22 30				
AUG	12	LPB	P	07 41 26.4		1.2	9	
		PNS	eP	07 41 27.6				
AUG	12	LPB	eP	09 18 51		1.0	8	
		PNS	P	09 18 53.3		0.7	8	
			eS	19 33.7				
AUG	12	LPB	eP	09 55 39				
		PNS	P	09 55 41		0.5	3	
AUG	12	PNS	eP	10 11 39				
		LPB	eP	10 11 40				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	12	PNS	eP	10 54 12					
		LPB	eP	10 54 14					
AUG	12	PNS	eP	12 07 21					
AUG	12	LPB	eP	12 46 30					
		PNS	eP	12 46 37					
			S	47 09.4					
AUG	12	LPB	eP	12 50 30.7					
		PNS	eP	12 50 34.2					
AUG	12	LPB	P	13 00 37.8		0.5	18		
			S	01 05.5					
		PNS	iP	13 00 37.9					
			iS	01 04					
AUG	12	LPB	eP	13 52 44					
		PNS	eP	13 52 48					
AUG	12	USCGS 13 43 45.9, 1.7N, 126.3E, h = 33 km., m = 5.4 MOLOCCA PASSAGE							
		PNS	PKP	14 03 45.9		1.7	45		
			PKP2	04 23.3					
		LPB	P	14 03 46		1.2	39	159.6	
			PKP2	04 24.5					
AUG	12	LPB	eP	14 13 19					
AUG	12	USCGS 14 04 40.4, 1.8N, 125.9E, h = 19 km., m = 5.0 MOLOCCA PASSAGE							
		PNS	ePKP	14 24 43					
		LPB	ePKP	14 24 45.5				160	
AUG	12	PNS	eP	14 27 21					
AUG	12	PNS	P	16 38 04		0.8	5		
		LPB	eP	16 38 06					
AUG	12	PNS	P	16 40 05.5		0.6	5		
		LPB	eP	16 40 09					
AUG	12	LPB	eP	17 31 29.5					
		PNS	P	17 31 30.4		0.8	7		
AUG	12	LPB	eP	17 34 44					
		PNS	P	17 34 45.3		0.8	12		
AUG	12	LPB	eP	19 54 40					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	12	PNS	eP	20 19 48.7		0.5	2		
		LPB	eP	20 19 51					
AUG	12	PNS	eP	20 30 53					
		LPB	eP	20 30 56					
AUG	12	LPB	e(P)	20 36 15					
AUG	12	USCGS 20 31 52.8, 41.4N, 142.6E, h = 68km., m = 5.2 HOKKADO, JAPAN REGION							
		LPB	ePKP	20 51 23.8					
		PNS	ePKP	20 51 21				143.9	
AUG	12	PNS	eP	21 52 51		0.8	2		
AUG	12	PNS	P	22 22 19.2	C	0.7	18		
		LPB	P	22 22 24.5		0.8	16		
AUG	12	PNS	eP	22 41 12.4					
AUG	12	USCGS 23 14 18.0, 5.5N, 77.4W, h = 33 km., m = 4.2 NEAR WEST COAST COLUMBIA							
		PNS	P	23 19 23.7		0.8	2		
			eL	27.5					
		LPB	P	23 19 27.5		1.1	27	23.8	
			eL	28					
AUG	12	PNS	P	23 47 39.6					
			eS	48 03.8					
		LPB	eP	23 47 42					
AUG	13	PNS	P	00 18 21.4		0.6	2		
		LPB	eP	00 18 22					
AUG	13	USCGS 00 14 58.8, 15.6N, 121.8E, h = 44 km., m = 5.1 LUZON, PHILIPPINE IS							
		PNS	PKP	00 35 07					
		LPB	ePKP	00 35 08				170.8	
AUG	13	USCGS 00 33 22.6, 1.3N, 126.0E, h = 33 km., m = 5.3 MOLOCCA PASSAGE							
		LPB	ePKP	00 53 20					
		PNS	PKP	00 53 21.6				159	
AUG	13	LPB	P	01 00 22.3					
AUG	13	LPB	eP	01 41 50.3					
		PNS	eP	01 41 51.7					

AUGUST										
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST		
AUG	13	LPR	eP	01 45 50.2						
AUG	13	PNS	P	02 26 34						
		LPR	eP	02 26 35		1.1	7			
AUG	13	PNS	P	02 40 40.4		0.5	5			
			S	41 06.3						
		LPR	eP	02 40 42.7						
AUG	13	USCGS 02 52 51.9, 2 0N, 126.3E, h = 33 km., m = 5.8 MOLUCCA PASSAGE								
		LPR	PKP	03 12 50.9	C	1.3	53	160		
			eL	04 10						
		PNS	PKP	03 12 51	C	1.6	37			
			eL	04 10						
AUG	13	LPR	eP	04 01 24.2						
		PNS	eP	04 01 28						
AUG	13	USCGS 04 05 25.9, 1.9N, 126.6E, h = 33 km., m = 5.1 MOLUCCA PASSAGE								
		LPR	ePKP	04 25 25				159.5		
		PNS	ePKP	04 25 27.8		1.0	3			
AUG	13	LPR	eP	06 25 55						
		PNS	P	06 25 57.1						
AUG	13	PNS	iP	07 01 42.6	D	0.5	7			
			S	02 06.4						
		LPR	eP	07 01 43.2		0.9	6			
AUG	13	USCGS 06 42 48.9, 1.8N, 126.6E, h = 33 km., m = 4.8 MOLUCCA PASSAGE								
		LPR	ePKP	07 02 48				159.5		
		PNS	ePKP	07 02 48.8						
			PKP2	03 35.2						
AUG	13	PNS	P	07 11 36.3		0.9	4			
		LPR	eP	07 11 37						
AUG	13	LPR	P	07 32 14.5		0.8	22			
		PNS	iP	07 32 18.8	C	0.4	5			
			eS	33 37						
AUG	13	PNS	eP	09 13 10.6						
		LPR	eP	09 13 11						
AUG	13	USCGS 09 02 40.4, 1.8N, 126.5E, h = 33 km., m = 5.1 MOLUCCA PASSAGE								

AUGUST										
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST		
		PNS	PKP	09 22 49.1		0.9	4			
		LPR	PKP	09 22 49.2		0.9	6	159.5		
AUG	13	USCGS 10 40 14.6, 1.5N, 126.3E, h = 33 km., m = 5.0 MOLUCCA PASSAGE								
		LPR	PKP	11 00 15				159.6		
		PNS	ePKP	11 00 14						
AUG	13	PNS	eP	11 25 03						
		LPR	eP	11 24 57						
AUG	13	PNS	eP	11 34 38.8						
AUG	13	PNS	P	11 44 51.5		0.7	5			
			S	45 36						
		LPR	eP	11 44 54						
AUG	13	LPR	eP	13 45 40						
		PNS	eP	13 45 47.4						
AUG	13	LPR	eP	15 45 10						
		PNS	P	15 45 14.9		1.0	9			
AUG	13	LPR	eP	17 41 18						
		PNS	P	17 41 24		0.8	4			
AUG	13	PNS	P	17 48 46		0.6	7			
			S	49 12.1						
		LPR	eP	17 48 47						
AUG	13	PNS	P	17 43 41.1		0.8	4			
		LPR	eP	17 43 42						
AUG	13	PNS	P	17 59 49.6		0.6	5			
			S	18 00 20						
		LPR	eP	17 59 53						
AUG	13	PNS	P	18 41 25.5		0.8	19			
			S	42 06.3						
		LPR	P	18 41 31		1.1	45			
			S	42 14.5						
AUG	13	USCGS 18 28 17.0, 1.7N, 126.6E, h = 33 km., m = 5.1 MOLUCCA PASSAGE								
		PNS	ePKP	18 48 18						
		LPR	ePKP	18 48 22				159.5		

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	13	LPB	eP	20 06 05.2					
			eL	30					
		PNS	eP	20 06 10					
AUG	13	PNS	P	21 44 26.5		0.8	5		
		LPB	eP	21 44 30					
AUG	13	PNS	P	21 59 03.1		0.6	2		
			S	25.8					
AUG	13	LPB	P	22 05 07.8	C	0.9	56		
			S	46					
		PNS	iP	22 05 11.6	C				
			S	51.2					
AUG	13	PNS	P	22 26 00	C	0.7	12		
			S	55					
AUG	13	LPB	eP	22 25 55					
AUG	13	PNS	iP	22 31 18.6	D	0.6	15		
			S	45.4					
AUG	13	LPB	eP	22 31 21.5					
			iS	50.5					
AUG	13	USCGS 22 20 08.7, 9.5S, 116.4E, h = 50 km., m = 4.9 SIMBAWA IS REG							
		PNS	ePKP	22 40 00.2					
			i	21.2					
			eL	23 37					
		LPB	ePKP	22 39 57.5				153.9	
			i	40 19					
			eL	23 30					
AUG	14	LPB	eP	00 14 38.6		1.0	12		
AUG	14	USCGS 00 24 29.3, 1.2N, 126.4E, h = 33 km., m = 5.0 MOLUCCA PASSAGE							
		PNS	ePKP	00 44 21					
		LPB	ePKP	00 44 28.5				153	
AUG	14	USCGS 01 13 45.2, 55.6N, 162.1E, h = 71 km., m = 5.3 NR E CST OF KAMCHATKA							
		LPB	ePKP	01 32 39				125.5	
		PNS	PKP	01 32 40.1		0.6	3		
AUG	14	PNS	P	01 48 11.3	D	0.5	10		
			S	36.8					
		LPB	P	01 48 12					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	14	PNS	eP	01 49 41.6					
		LPR	eP	01 49 42					
AUG	14	PNS	P	03 23 49.8		0.5	6		
			S	24 14.2					
		LPR	eP	03 23 50					
AUG	14	PNS	iP	03 47 25.9	n	0.6	15		
			eS	48 03					
		LPB	P	03 47 30.5		1.1	18		
			iS	48 13.5					
AUG	14	PNS	eP	04 28 15					
			S	29 03					
		LPR	eP	04 28 17.3					
			S	29 10.3					
AUG	14	LPR	eP	06 30 27					
AUG	14	LPB	eP	07 18 59					
		PNS	eP	07 19 01					
			e	26.5					
AUG	14	LPR	eP	07 44 25.5					
AUG	14	USCGS 07 56 35.5, 15.1N, 122.5E, h = 9 km., m = 5.4 PHILIPPINE IS REG							
		LPR	PKP	08 16 47.7		1.4	14	170	
		PNS	PKP	08 16 47.7		1.8	50		
			PP	21 50					
AUG	14	LPR	eP	08 33 07.5					
AUG	14	USCGS 08 38 48.4, 18.5N, 102.8W, h = 72 km., m = 5.4 MICHOCAN, MEXICO							
		PNS	iP	08 47 24.6	C				
			PP	48 52.1					
			S	54 49					
			SS	58 28					
			L	09 03.6					
		LPR	P	08 47 27.7	C	1.1	312	49	
			PP	48 50					
			iS	54 31					
			eSS	58 32					
			L	09 03.8					
AUG	14	LPB	eP	08 55 15					
		PNS	eP	08 55 15.6					
			S	45.4					

AUGUST

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	14	LPR PNS	eP P	09 14 21.2 09 14 24.4		1.0 0.8	14 12		
AUG	14	LPR PNS	eP eP	09 40 41 09 40 44.6					
AUG	14	LPR PNS	eP eP	10 08 45 10 08 48.6					
AUG	14	PNS LPR	eP eP	10 20 37 10 20 43.5					
AUG	14	LPR PNS	eP eP	10 32 17 10 32 20		0.4	3		
AUG	14	PNS	iP S	11 04 38 11 05 03.3	D	0.6	11		
AUG	14	LPR	P	13 36 53		0.8	19		
AUG	14	PNS	P eS	14 14 53.7 15 51					
AUG	14	LPR PNS	iP iP S	16 26 12.7 16 26 40.8 16 26 13.8 16 26 41.5		0.9	22		
AUG	14	LPR PNS	P P	16 42 05.5 16 42 07.8	D	0.9 0.5	22 9		
AUG	14	HSCGS 17 14 55.5, 52.4S, 16.6E, h = 21 km., m = 4.8 SOUTH OF AFRICA							
AUG	14	LPR PNS	eP P	17 27 05.5 17 27 07.4				80	
AUG	14	PNS	P	18 06 22.2		0.5	2		
AUG	14	LPR PNS	eP P	18 27 05 18 27 11.7		0.8	21		
AUG	14	PNS	iP S	19 24 06.1 19 24 30.8	C	0.5	8		
AUG	14	HSCGS 20 41 38.6, 1.2N, 126.9E, h = 33 km., m = 5.2 MOLUCCA PASSAGE							
AUG	14	LPR LPR	ePKP ePKP	21 01 39 21 01 40				159	

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	14	HSCGS 22 14 19.4, 0.2N, 119.8E, h = 23 km., m = 6.0 NORTHERN CELFBES							
AUG	14	PNS	ePKP PP	22 34 22.2 22 34 39.7					
AUG	14	LPR	PKP PP	23 34 24 23 34 02		2.2	337	171	
AUG	14	PNS	P e	22 50 10 22 50 54		1.6	12		
AUG	14	LPR PNS	eP P	22 59 32 23 59 38.5		0.5	13		
AUG	14	PNS	iP P	00 59 38.1 00 59 40.7	D	0.4 0.8	7 7		
AUG	15	PNS	P	01 20 47.6		0.7	4		
AUG	15	LPR PNS	P P	02 06 25.7 02 06 30.6		0.8 0.5	9 5		
AUG	15	LPR PNS	eP P	02 11 00 02 11 00	D	0.6	10		
AUG	15	LPR PNS	eP P	02 19 21 02 19 21.1					
AUG	15	PNS	P	04 07 03.2					
AUG	15	HSCGS 04 13 00.9, 0.6N, 119.4E, h = 33 km., m = 5.3 NORTHERN CELFBES							
AUG	15	PNS LPR	ePKP ePKP	04 33 00 04 33 08				162.1	
AUG	15	HSCGS 05 05 18.3, 1.6N, 126.2E, h = 33 km., m = 5.3 MOLUCCA PASSAGE							
AUG	15	LPR LPR	ePKP ePKP	05 25 17 05 25 19				159.9	
AUG	15	LPR PNS	eP eP	05 27 50 05 27 54.4					
AUG	15	LPR PNS	P P	06 29 25 06 29 29	C	1.0 0.6	14 9		

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	15	PNS	eP	06 33 08		0.9	10	
			L	07 04.1				
		LPR	eP	06 33 12.6		0.9	8	
AUG	15	LPR	P	07 04 07.2		1.6	45	
		PNS	P	07 04 07.8		1.5	42	
AUG	15	PNS	P	07 08 11.8		1.8	100	
		LPR	eP	07 08 13.3				
AUG	15	LPR	eP	07 20 22.7				
		PNS	P	07 20 23				
AUG	15	PNS	P	07 36 02.0				
			S	56.4				
		LPR	eP	07 36 04.5				
AUG	15	PNS	eP	08 12 12				
		LPR	e(P)	08 12 17				
AUG	15	LPR	P	08 41 02				
		PNS	P	08 40 57.8		0.6	7	
AUG	15	USCGS		09 27 12.3, 1.6N, 126.2E, h = 33 km., m = 4.9				
				MOLUCCA PASSAGE				
		LPR	ePKP	09 47 13				159.7
		PNS	ePKP	09 47 13.6				
AUG	15	PNS	iP	09 49 24	D			
		LPR	iP	09 49 27	D	0.6	42	
AUG	15	LPR	eP	10 21 00				
		PNS	P	10 21 10				
			eL	36				
AUG	15	LPR	P	11 39 35		0.8	12	
		PNS	P	11 39 35		1.0	7	
AUG	15	USCGS		11 40 27.5, 0.2S, 120.0E, h = 11 km., m = 5.3				
				NORTHERN CELEBES				
		LPR	ePKP	12 00 33				159.9
			PKP2	01 17.5				
		PNS	PKP	12 00 33.3		1.0	14	
			PKP2	01 17				
AUG	15	PNS	eP	13 49 07.4				
			S	23.6				
AUG	15	PNS	eP	17 49 02				
			eS	24				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	15	LPR	eP	18 00 18				
		PNS	eP	18 00 19.4				
AUG	15	USCGS		17 41 28.1, 12.7S, 166.2E, h = 4 km., m = 5.4				
				SANTA CRUZ IS				
		LPR	ePKP	18 00 19				118.9
			eL	18 38				
		PNS	ePKP	18 00 19.2				
			eL	18 38				
AUG	15	USCGS		18 11 02.6, 23.2S, 67.2W, h = 220 km., m = 4.4				
				CHILE-ARGENTINA BORDER REG				
		LPR	iP	18 12 40	C	0.6	217	6.8
			S	13 03				
		PNS	iP	18 12 44.2	C			
			S	13 03				
AUG	15	PNS	P	18 44 01		0.5	2	
AUG	15	USCGS		19 20 15.3, 6.3S, 154.8E, h = 76 km., m = 5.1				
				SOLOMON IS				
		PNS	PKP	19 39 23.4		1.0	3	
		LPR	ePKP	19 39 23.5				132
AUG	15	USCGS		19 40 45.1, 40.3S, 8.1W, h = 33 km., m = 5.1				
				SOUTH ATLANTIC RIDGE				
		LPR	P	19 50 37		1.5	49	58.8
			eL	20 08.7				
		PNS	eP	19 50 40.4		1.0	5	
			eS	59 11				
			eL	20 08.7				
AUG	15	USCGS		20 32 36.2, 40.3S, 8.0W, h = 33 km., m = 5.1				
				SOUTH ATLANTIC RIDGE				
		LPR	eP	20 42 28.4		1.4	39	
			eL	21 11				
		PNS	P	20 42 31.8		1.0	13	
			eL	21 01.2				
AUG	15	USCGS		21 26 00.0, 0.1N, 120.0E, h = 33 km., m = 5.3				
				NORTHERN CELEBES				
		PNS	ePKP	21 46 00				
			PKP2	50.8				
		LPR	eL	41				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	15	LPB	ePKP PKP2 eL	21 46 03 49.5 41				161.
AUG	16	PNS	eP	23 50 34				
AUG	16	PNS LPB	eP eP	00 02 47.2 00 02 48				
AUG	16	PNS	eP	00 58 15				
AUG	16	LPB PNS	P P S	01 02 14.5 01 02 18.8 03 32.4	D D	0.7 0.6	8 3	
AUG	16	LPB	P S	02 48 33.8 49 04.3	C	0.9	117	
AUG	16	PNS	iP S	02 48 35.6 49 07.2	C	0.6	14	
AUG	16	LPB	eP	03 11 37				
AUG	16	PNS LPB	P eP	03 13 22.8 03 13 27				
AUG	16	PNS	P S	03 26 38.9 27 09		0.5	2	
AUG	16	PNS	iP S	04 36 56.6 37 19.4	D	0.5	13	
AUG	16	LPB	eP S	04 36 58 37 21.2		0.7	7	
AUG	16	LPB	P S	06 00 09.3 01 12.4		1.2	77	
AUG	16	PNS	P (S)	06 00 10 01 20		0.6	6	
AUG	16	LPB PNS	P P	06 08 05.8 06 08 09.4		0.8 1.0	7 7	
AUG	16	PNS LPB	eP eP	06 45 57 06 45 58				
AUG	16	PNS LPB	eP eP	06 46 43 06 46 45				
AUG	16	PNS LPB	P eP	07 31 24.8 07 31 25.5		0.8	2	
AUG	16	LPB PNS	eP P	07 36 01 07 35 58.9				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	16	LPB	eP S	07 24 20 53.6					
AUG	16	LPB PNS	eP P	08 04 04 08 04 06.1		0.8	3		
AUG	16	LPB PNS	P S P S	08 26 36.7 27 19.5 08 26 38.7 27 30		1.0 0.7	20 9		
AUG	16	PNS LPB	eP eP	09 29 30.6 09 29 32					
AUG	16	LPB PNS	eP e(P)	09 55 35 09 55 47					
AUG	16	LPB PNS	P P	09 58 44.5 09 58 48	D	0.7	63		
AUG	16	IUSCGS 10 13 38.2, 57.7S, 26.5W, h = 134 km., m = 5.4 SOUTH SANDWICH IS REG							
AUG	16	LPB PNS	P eL P eL	10 22 31.7 39 10 22 34.9 39.1	D	1.0 0.8	44 8	51.6	
AUG	16	IUSCGS 10 39 16.8, 38.5N, 143.3E, h = 22 km., m = 5.6 OFF E CST HONSHU, JAPAN							
AUG	16	PNS LPB	PKP PKP eL	10 58 53.6 11 48.3 10 58 53.8 11 48		1.8 1.4	36 36	144.9	
AUG	16	IUSCGS 11 08 38.5, 1.2N, 126.0E, h = 33 km., m = 5.0 MOLUCCA PASSAGE							
AUG	16	PNS LPB	ePKP PKP	11 28 37.4 11 28 37				159.4	
AUG	16	LPB PNS	eP eP	12 45 27.5 12 45 28					
AUG	16	PNS	P	14 35 40		0.6	2		
AUG	16	PNS LPB	eP S eP	15 04 04.4 30 15 14 00.5					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	16	PNS	P	15 17 42.4		0.4	3		
			S	49.4					
		LPB	eP	15 17 46					
AUG	16	PNS	P	16 40 37					
			S	41 14					
AUG	16	USCGS 18 25 55.1, 16.7N 97.7W, h = 46 km., m = 5.4 OAXACA, MEXICO							
		PNS	eP	18 33 56.5		1.2	8		
			i	34 03.0					
			L	49.3					
		LPR	eP	18 34 02		1.0	54	44.1	
			i	06.8					
			L	49.5					
AUG	16	LPR	P	19 27 59.7		0.7	61		
			S	28 41.3					
		PNS	P	19 28 01.6		1.0	17		
			S	28 43.2					
AUG	16	LPR	eP	20 09 46					
		PNS	iP	20 09 52.2	D	0.4	2		
			S	10 17					
AUG	16	USCGS 21 24 38.1, 18.4N, 102.9W, h = 25 km., m = 4.4 MICHOCAN, MEXICO							
		PNS	P	21 33 20		0.9	13		
			eL	50.1					
		LPR	P	21 33 23.4	D	1.1	60	48.7	
			eL	50					
AUG	16	LPR	P	21 40 40.4		0.8	7		
		PNS	P	21 40 41					
			eS	42 30					
AUG	16	PNS	eP	23 06 08.8					
			e(S)	07 13					
		LPR	eP	23 06 10.5					
AUG	17	LPR	eP	00 56 07.4					
AUG	17	LPR	iP	01 15 15.7	C	0.7	102		
			S	16 11					
		PNS	iP	01 15 19.5	C				
			S	16 16.6					
AUG	17	LPR	e(P)	01 54 35.5					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	17	USCGS 04 00 36.3, 1.4N, 126.3E, h = 33 km., m = 5.7 MOLUCCA PASSAGE							
		PNS	PKP	04 20 36.1	C	2	168		
			PKP2	21 14.6					
			PKS	24 00					
			PP	50					
			eG	05 07.1					
			L	18					
		LPB	=P	04 20 36.3		1.4	108	159.3	
			PKP2	21 13.8					
			PKS	24 07					
			ePP	51.1					
			eG	05 07					
			L	19.2					
AUG	17	USCGS 04 38 06.4, 31.6N, 140.8E, h = 82 km., m = 5.3 SOUTH OF HONSHU, JAPAN							
		PNS	PKP	04 57 45.3		1.3	18		
			i	50.2					
			eL	05 49.6					
		LPB	PKP	04 57 46.4		1.1	22	149	
			i	51.3					
			eL	05 48.3					
AUG	17	PNS	P	05 47 19.6					
		LPB	e(P)	05 47 20		0.7	6		
AUG	17	PNS	eP	08 38 11.5					
			eS	57					
		LPB	eP	08 38 12.2					
AUG	17	LPB	eP	10 02 49.1		0.8	9		
AUG	17	PNS	eP	10 56 38					
		LPB	P	10 56 42.5		0.9	8		
AUG	17	LPB	eP	13 41 37					
		PNS	P	13 41 40		0.7	4		
			S	42 12.5					
AUG	17	USCGS 13 28 53.0, 1.9N, 126.1E, h = 33 km., m = 5.2 MOLUCCA PASSAGE							
		PNS	PKP	13 48 53		1.4	11		
		LPB	PKP	13 48 53.3				160	
AUG	17	PNS	P	13 53 45					
		LPB	eP	13 58 47					

AUGUST										
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST		
AUG	17	PNS	iP	14 32 01.4	D	0.5	10			
			S	25						
		LPB	eP	14 32 05						
			S	30.4						
AUG	17	PNS	iP	14 43 45.2		0.3	8			
AUG	17	USCGS 14 39. 28.8, 4.8S, 103.3E, h = 89 km., m = 5.4 SOUTHERN SIMATRA								
		PNS	ePKP	14 59 19						
		LPB	ePKP	14 59 20.5				157.1		
AUG	17	LPB	P	15 27 37.2						
AUG	17	LPB	P	15 29 38.3	C	0.5	56			
			S	30 11.2						
		PNS	P	15 29 43.1	C	0.5	4			
			(S)	30 20						
AUG	17	PNS	P	16 41 50.2		0.6	4			
		LPB	eP	16 41 56						
AUG	17	LPB	eP	17 03 58.3						
		PNS	P	17 04 00.7						
AUG	17	USCGS 17 14 37.4, 2.4N, 128.3E, h = 81 km., m = 5.5 HALMAHEPA								
		PNS	PKP	17 34 29.8						
		LPB	ePKP	17 34 30				158.8		
AUG	17	USCGS 18 04 31.1, 2.1N, 126.7E, h = 31 km., m = 5.3 MOLUCCA PASSAGE								
		PNS	ePKP	18 24 45.2						
		LPB	ePKP	18 24 41				159.8		
AUG	17	PNS	eP	19 06 57						
AUG	17	USCGS 18 47 24.0, 2.1N, 126.7E, h = 33 km., m = 6.1 MOLUCCA PASSAGE								
		LPB	PKP	19 07 29.3		1.2	18	154.8		
		PNS	PKP	19 07 29.7		1.2	6			
AUG	17	LPB	eP	19 59 23						
		PNS	P	19 59 24.2		0.6	2			

AUGUST										
MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST		
AUG	17	LPB	eP	20 05 14.5						
		PNS	eP	20 05 16						
AUG	17	LPB	eP	20 09 20.2						
AUG	17	PNS	eP	20 48 50						
		LPB	eP	20 48 54.5						
AUG	17	LPB	eP	20 56 34						
		PNS	P	20 56 40						
			S	57 02.6			0.5	6		
AUG	17	LPB	eP	21 43 13						
AUG	17	USCGS 21 46 59.3, 1.5N, 126.6E, h = 33 km., m = 5.1 MOLUCCA PASSAGE								
		PNS	ePKP	22 06 58.6						
		LPB	ePKP	22 06 59.5						159.3
AUG	17	PNS	eP	23 40 25.7						
		LPB	eP	23 40 26.3						
AUG	18	LPB	P	00 11 12					1.0	14
			S	12 13.5						
		PNS	P	00 11 15.8	C	0.5	7			
			S	12 20						
AUG	18	LPB	eP	01 11 51.2						
		PNS	eP	01 12 45.7						
AUG	18	LPB	eP	02 17 40.5						
		PNS	eP	02 17 41.6						
AUG	18	LPB	eP	02 24 38						
		PNS	eP	02 24 41.8						
AUG	18	USCGS 02 10 27.2, 0.0S, 125.7E, h = 33 km., MOLUCCA SEA								
		PNS	ePKP	02 30 25						
		LPB	ePKP	02 30 29.3			0.8	7	158.9	
AUG	18	PNS	P	05 08 44.4			0.3	8		
			eS	09 07						
AUG	18	PNS	P	05 24 05.2			0.7	3		
		LPB	eP	05 24 06						
AUG	18	USCGS 05 31 39.4, 7.1S, 148.4E, h = 56 km., m = 5.0 EAST NEW GUINEA REG								

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		LPB	ePKP	05 51 00				136.8	
		PNS	ePKP	05 50 56.4					
AUG	18	PNS	P	05 51 43.2	D	0.7	9		
		LPB	eP	05 51 44.7					
AUG	18	USCGS 05 43 57.7, 1.4N, 126.4E, h = 33 km., m = 5.4 MOLUCCA PASSAGE							
		LPB	PKP	06 03 57.7		1.0	10	159.4	
			eL	07 02					
		PNS	ePKP	06 03 58		1.0	6		
			eL	07 02.1					
AUG	18	LPB	eP	06 08 40.5					
		PNS	P	06 08 53.6		0.6	5		
AUG	18	PNS	P	06 29 25.8		0.6	4		
		LPR	eP	06 29 28.2					
			e	47.6					
AUG	18	USCGS 06 38 25.8, 6.8S, 78.4W, h = 156 km., m = 3.9 NORTHERN PERU							
		PNS	P	06 41 35.2		0.7	4		
			eS	44 09					
		LPB	P	06 41 38.4		0.8	7	13.6	
			i	43 25.3					
AUG	18	PNS	P	06 43 01.1		0.7	5		
			S	24					
		LPB	eP	06 43 03					
			S	25					
AUG	18	USCGS 07 12 19.3, 35.3N, 135.3E, h = 33 km., m = 5.0 SOUTHERN HONSHU, JAPAN							
		LPB	PKP	07 32 08.4				152.	
			i	14.7					
			eL	30					
		PNS	PKP	07 32 08.7		1.4	23		
			i	14.4					
			eL	08 29.6					
AUG	18	PNS	eP	07 43 11					
		LPB	e(P)	07 43 16					
AUG	18	PNS	eP	08 33 51.6					
		LPR	eP	08 33 56					
AUG	18	LPR	eP	09 34 20.7					
AUG	18	LPB	eP	10 01 42.3					
		PNS	P	10 01 43.6	C	0.6	5		

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	18	PNS	P	10 10 06		0.7	8		
			eL	37.1					
		LPB	eP	10 10 11		1.1	17		
			eL	37					
AUG	18	LPB	eP	10 14 46.8					
AUG	18	LPB	P	11 15 25.5		1.0	18		
		PNS	P	11 15 27.2		0.4	2		
AUG	18	PNS	iP	12 02 16.8	D	0.5	10		
			S	39.7					
		LPB	eP	12 02 19					
			S	44.4					
AUG	18	USCGS 11 54 59.4, 48.2N, 157.3E, h = 27 km., m = 5.2 KURILE IS REG							
		PNS	PKP	12 14 12		1.4	23		
		LPB	PKP	12 14 12.8		0.9	18	131.5	
AUG	18	USCGS 14 18 59.5, 26.4N, 90.6E, h = 31 km., m = 5.2 EASTERN INDIA							
		LPB	PKP	14 38 56.4				158.1	
		PNS	PKP	14 38 57.1		1.2	8		
AUG	18	LPB	eP	14 44 22.4					
AUG	18	PNS	iP	15 42 45.8		0.6	7		
		LPB	eP	15 42 48.5					
AUG	18	LPB	P	16 40 04.7		0.9	23		
		PNS	P	16 40 07.8		0.8	7		
AUG	18	LPB	P	17 23 32.5					
		PNS	P	17 23 32.8		0.4	4		
			eS	54					
AUG	18	USCGS 17 35 37.4, 1.5N, 126.1E, h = 33 km., m = 5.2 MOLUCCA PASSAGE							
		LPR	ePKP	17 55 37		0.9	8	159.6	
			eL	52.7					
		PNS	PKP	17 55 37.8		1.0	4		
			i	56 15					
			eL	18 51.8					
AUG	18	USCGS 18 08 35.3, 12.7S, 166.2E, h = 34 km., m = 5.2 SANTA CRUZ IS							
		LPR	ePKP	18 27 23				118.8	
		PNS	ePKP	18 27 23.9					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	18	PNS LPB	eP eP	18 31 01 18 30 58.5					
AUG	18	PNS LPB	eP eP	18 37 50 18 37 53					
AUG	18	LPB	eP	18 41 26					
AUG	18	LPB PNS	eP P	18 51 51.5 18 51 52		0.8	3		
AUG	18	PNS LPB	eP eP	18 53 30.9 18 53 35.5					
AUG	18	PNS i s	eP i s	18 56 14 35 19 00 04.4					
AUG	18	LPB i s	P i s	18 56 19.5 34.4 19 00 03		1.0	32		
AUG	18	HSCGS 18 56 48.2, 1.2N, 126.1E, h = 33 km., m = 5.7 MOLUCCA PASSAGE							
		LPB PNS	PKP PKP	19 16 48.8 19 16 48.9	D	1.3 1.3	76 59	151	
AUG	18	PNS LPB	P P	19 32 18.5 19 32 19.3		1.4 1.1	18 30		
AUG	18	PNS	eP	19 36 14.6					
AUG	18	LPB S	P S	19 54 25.7 53					
AUG	18	LPB PNS	P P eS	20 47 43.3 20 47 44.4 48 24.6		1.0 0.6	42 11		
AUG	18	PNS LPB	P P	21 03 41.5 21 03 43.3		0.9 1.0	5 18		
AUG	18	LPB PNS	eP eP	21 12 50 21 12 57.8					
AUG	18	LPB PNS	eP P	21 32 02 21 32 02.3		0.5	5		
AUG	18	LPB	eP	21 30 31.2					
AUG	18	PNS LPB	eP eP	21 58 19.4 21 58 20					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	18	PNS LPB	eP eS eP	22 57 02.4 56.5 22 57 06.5				
AUG	18	PNS LPB	eP eP	23 39 56.6 23 40 00				
AUG	18	PNS LPB	eP eP	02 26 35.8 02 26 42				
AUG	19	LPB PNS	eP P	04 24 50 04 24 55.4		0.5	2	
AUG	19	PNS LPB	eP P	05 58 54 05 58 54.3		0.7	5	
AUG	19	LPB PNS	e(P) e(P)	07 34 18.8 07 34 36				
AUG	19	PNS LPB	eP S eP	08 41 21.7 42 28.8 08 41 26.3		0.7	4	
AUG	19	LPB PNS	eP eP	10 43 06 10 43 08.7				
AUG	19	PNS	eP	11 15 12.1				
AUG	19	PNS LPB	P eP i	11 32 50.8 11 32 51.5 33 04.7		0.6 1.0	3 8	
AUG	19	LPB PNS	eP eP eS	11 41 11.5 11 41 17.8 42 15.8				
AUG	19	LPB PNS	eP P	12 57 34.5 12 57 35.9		0.8 0.8	12 9	
AUG	19	LPB PNS	eP S P S	13 20 53.3 21 20.2 13 20 55 21 20		0.7	2	
AUG	19	PNS LPB	P (S) eP	13 47 38.2 48 35.6 13 47 42				
AUG	19	PNS LPB	eP eP	15 44 11.5 15 44 12				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	19	USCGS TONGA IS	15 42	29.7, 15.9S, 174.0W, h = 151 km., m = 5.3				
		LPR	ePKP	15 55 50.7		0.7	6	99.9
		PNS	PKP	15 56 00		1.5	17	
AUG	19	PNS	P	16 00 04.3		2.0	93	
		LPR	L	25				
		LPB	eP	16 00 05				
			eL	25				
AUG	19	LPB	eP	16 12 45.2				
		PNS	P	16 12 45.9		0.9	5	
AUG	19	PNS	P	16 34 18.3		0.5	5	
		LPB	eP	16 34 20				
AUG	19	PNS	P	17 09 51.2		0.5	7	
			S	09 28.6				
		LPB	eP	17 08 56.3		0.8	12	
AUG	19	USCGS SAMAR, PHILIPPINE IS	17 02	28.5, 11.8N, 125.6E, h = 33 km., m = 5.3				
		PNS	PKP	17 22 34.7		1.1	12	
		LPB	PKP	17 22 35.2		1.0	26	166.2
AUG	19	PNS	P	19 09 06.3		0.7	8	
AUG	19	PNS	P	20 40 21.4				
AUG	19	LPB	eP	20 56 48.5				
		PNS	P	20 56 51.7		0.8	8	
AUG	19	LPB	eP	21 58 17.5				
		PNS	eP	21 58 21				
AUG	19	PNS	eP	22 06 07.9		0.8	5	
			S	06 15				
		LPB	P	22 05 12.8		0.8	25	
			S	06 12				
AUG	19	PNS	P	23 24 14.4		0.7	15	
			e(S)	25 15				
		LPB	P	23 24 20.8		1.0	24	

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	19	PNS	P	23 27 33.7		0.7	5	
		LPR	eP	23 27 36				
AUG	19	USCGS	23 24	28.2, 0.9N, 79.7W, h = 122 km., m = 4.1				
		COLOMBIA-ECUADOR BORDER	PEF					
AUG	20	LPR	P	23 28 50		0.8	10	18.6
		PNS	eP	23 28 51.5				
			eL	37.6				
AUG	20	LPB	iP	00 15 53.4	C	0.5	40	
			eS	16 18.5				
		PNS	iP	00 15 53.7	C			
			S	16 20				
AUG	20	PNS	P	00 20 37		0.6		
		LPB	eP	00 20 38				
AUG	20	LPB	eP	00 23 45.2				
AUG	20	PNS	P	00 40 43.4		0.6	4	
			S	41 11.4				
		LPB	eP	00 40 44.5				
AUG	20	PNS	eP	01 42 41.2				
			eL	02 04.7				
		LPB	eP	01 42 46				
AUG	20	PNS	P	02 21 50		0.8	4	
		LPB	eP	02 21 58				
AUG	20	LPB	eP	02 41 52.5				
		PNS	P	02 41 55.8				
			S	42 35.8				
AUG	20	PNS	P	03 58 52.4				
			i	50.4				
			i	59 51.4				
		LPB	eP	03 58 55.5		1.0	10	
			i	04 00 00				
AUG	20	PNS	eP	04 00 44.5				
			S	01 45.2				
		LPB	eP	04 00 44.5				
AUG	20	LPB	P	04 41 41		0.8	9	
		PNS	P	04 41 41.5		0.7	7	
AUG	20	PNS	eP	05 24 49				
AUG	30	PNS	P	05 42 44.3		0.6	4	
			S	43 08.9				
		LPR	eP	05 42 47				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	20	LPR PNS	eP P	07 24 58 07 25 01.6		0.4	3		
AUG	20	PNS LPR	iP eP	08 31 34.4 08 31 37		0.5	10		
AUG	20	LPR	eP	09 48 33					
AUG	20	LPR	P	10 02 11.3		0.8	15		
AUG	20	PNS S	iP S	10 02 11.8 34	D	0.4	4		
AUG	20	LPR PNS	eP P	10 13 04 10 13 04.3		0.6	2		
			eS	50					
AUG	20	PNS	eP	10 46 52					
			e(S)	48 04					
AUG	20	LPR PNS	eP eP	10 57 42 10 57 43					
AUG	20	USCGS 11 16 59.3, 5.6N, 146.9E, h = 33 km., m = 5.6 CAROLINE IS REG							
AUG	19	PNS	PKP	11 36 32.4	C	1.4	80		
			L	12 24.8					
AUG	19	LPR	PKP	11 36 33.3	C	1.3	143	144	
AUG	19	LPR	eL	12 11					
AUG	20	PNS	e(P)	11 47 09					
AUG	20	USCGS 11 50 59.3, 22.7S, 113.2W, h = 33 km., m = 4.8 EASTER IS REG							
AUG	19	PNS	P	11 58 53.9	C	0.9	17		
			eL	12 11.2					
		LPR	P	11 58 56.5				42.6	
			eL	12 24					
AUG	20	PNS	eP	12 01 57.8					
AUG	20	LPR	P	15 47 43		1.1	20		
AUG	20	LPR	eP	15 53 19					
AUG	20	LPR	eP	19 15 16.7					
AUG	20	PNS	iP	21 58 57.6		0.5	6		
			S	59 23.4					
		LPR	eP	21 59 05					
			S	24					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	20	LPR PNS	P P	22 18 00 22 18 01.7		0.8 0.6	15 3	
AUG	20	PNS LPR	P eP	22 41 36.8 22 41 34.5				
AUG	20	PNS	iP	23 32 17.6	D			
			S	42.7				
AUG	21	LPR	iP	23 32 18	D	0.9	136	
			S	59.5				
AUG	21	PNS	P	00 01 16.3				
			eS	48.6				
AUG	21	LPR	eP	00 12 18				
AUG	21	PNS	eP	02 04 36.7				
AUG	21	LPR	eP	02 21 45				
AUG	21	LPR PNS	iP iP	02 36 04.2 02 36 07.9	C	0.8 0.6	31 11	
			S	37 05.4				
AUG	21	PNS	e(P)	02 48 54				
AUG	21	PNS	iP	02 57 55.2	D			
			S	58 17.3				
		LPR	P	02 57 57.4		0.5	9	
			S	58 22				
AUG	21	PNS	P	03 19 23.6		0.6	8	
AUG	21	PNS	eP	05 00 07				
		LPR	eP	05 00 10				
AUG	21	LPR PNS	eL eL	05 49 05 49.2				
AUG	21	PNS	eP	05 43 22				
		LPR	eP	05 43 24		1.1	10	
AUG	21	PNS	eP	06 04 07				
		LPR	eP	06 04 11.6		0.9	6	
AUG	21	LPR PNS	eP eP	08 17 59.5 08 18 00				
			eS	59				
AUG	21	LPR	P	08 49 50.3				
			S	50 15.2				
		PNS	iP	08 49 50.8	D			
			S	50 15.5				



AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	21	PNS LPB	eP eP	09 12 43.6 09 12 38.5					
AUG	21	PNS LPB	eP eP	09 58 41.7 09 58 43.5					
AUG	21	PNS LPB	eP eP	10 15 18.2 10 15 19					
AUG	21	PNS LPB	iP S iP S	13 21 09.1 34 13 21 10 35	D	0.9	76		
AUG	21	PNS LPB	eP S eP	14 02 24.2 58.9 14 02 28.5					
AUG	21	PNS	P eS	14 07 16.9 57.4		0.5			
AUG	21	PNS LPB	P S eP	16 38 24.4 39 00.8 16 38 25		0.6			
AUG	21	LPB PNS	eP P	16 43 08.5 16 43 14		0.5			
AUG	21	PNS LPB	eP eP	17 32 16 17 32 17.7					
AUG	21	PNS LPB	P eP	17 41 20.6 17 41 22.5		0.9			
AUG	21	USCGS 17 56 88, 30.9S, 179.1W, h = 33 km., m = 5.3 KERMADEC IS REG							
		PNS	eP ePP SKS L	18 10 07.4 14 22 21 10 42.5					
		LPB	eP ePP SKS L	18 10 25 14 27 21 08 42.8			98.4		
AUG	21	PNS LPB	eP S eP eS	19 26 20.7 27 19 19 26 22 27 09.5					
AUG	21	USCGS 19 14 10.3, 5.8S, 148.7E, h = 33 km., m = 4.8 NEW BRITAIN REG							

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	21	LPR PNS	ePKP ePKP	19 33 08.5 19 33 10.4				137.3	
AUG	21	PNS	P	19 35 30.2					
AUG	21	PNS	P	19 36 45.6		1.0	9		
AUG	21	PNS	e(P)	19 39 55					
AUG	21	PNS LPB	eP eS eP	20 05 45.4 08 10 20 05 49					
AUG	21	LPB PNS	P S eP	20 26 04.3 46.4 20 26 06		1.0	46		
AUG	21	PNS LPB	P eP	23 03 31.4 23 03 32		0.6	5		
AUG	21	LPB	eP	23 09 13.8					
AUG	22	USCGS 00 06 42.4, 17.2S, 64.8W, h = 69 km., m = 4.6 BOLIVIA							
		LPB PNS	P S P	00 07 32.3 08 17 00 07 38.1		0.9	115	3.2	
AUG	22	PNS LPB	P S P S	02 08 28.1 09 15 02 08 29.2 09 13.3					
AUG	22	PNS LPB	iP S P S	02 29 14.3 39.8 02 29 14.5 41	C	0.5	9		
AUG	22	LPB PNS	P eC P S	02 38 42.2 39 55 02 38 46 40 02.3		0.8	31		
AUG	22	USCGS 02 47 34.6, 6.3S, 76.8W, h = 185 km., m = 3.7 NORTHERN PIRI							
		PNS LPB	eP eL eP	02 50 31 54.9 02 50 37.8				13.1	
AUG	22	PNS	eP	03 37 53.6					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	22	LPB	e(PKP)	02 53 06.4					
			eL	03 40					
		PNS	eL	03 41					
AUG	22	PNS	eP	03 52 11.7		1.2	5		
		LPR	eP	03 52 13.8					
AUG	22	LPL	P	07 01 59.3		0.8	12		
		PNS	P	07 02 02.9		0.8	6		
			e	03 04					
AUG	22	LPR	P	07 34 58.5					
		PNS	P	07 34 59.5		0.8	9		
AUG	22	LPB	P	08 14 19.6		1.1	32		
		PNS	iP	08 14 21.3		0.7	10		
			S	15 00					
AUG	22	LPB	eP	08 33 46.3					
			S	34 15					
		PNS	P	08 33 46.4		0.6	3		
			S	34 17.6					
AUG	22	LPB	eP	09 28 23.3					
AUG	22	LPB	eP	10 20 25					
		PNS	P	10 20 27.3		0.9	5		
			S	21 07					
AUG	22	LPB	eP	13 10 04					
AUG	22	PNS	eP	14 17 25.6					
			S	18 22.3					
AUG	22	USCGS 14 00 06.8, 53.0N, 171.0E, h = 33 km., m = 5.4 NEAR IS, ALEUTIAN IS.							
		PNS	ePKP	14 19 00.4					
			SS	37 10					
			eG	51.9					
			L	59.8					
		LPB	ePKP	14 18 55			121.6		
			eSS	37 06					
			eG	52					
			eL	15 01.5					
AUG	22	LPB	eP	15 47 23.5					
AUG	22	PNS	P	16 37 27.7		0.6	5		
			S	38 03.6					
		LPB	eP	16 37 29					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	22	USCGS 16 19 30.4, 19.1S, 160.0E, h = 166 km., m = 5.1 NEW HEPPIDES IS							
		PNS	ePKP	16 38 00					
		LPB	ePKP	16 38 03			113.4		
AUG	22	USCGS 16 42 13.4, 15.4N, 121.5E, h = 25 km., m = 5.2 LUZON, PHILIPPINE IS							
		PNS	ePKP	17 02 24					
		LPB	ePKP	17 02 25.5					
AUG	22	LPB	eP	17 17 17.5					
AUG	22	LPB	eP	18 44 10					
AUG	22	LPB	eP	19 06 55					
			eS	07 30					
		PNS	iP	19 06 56.5		0.5	6		
			S	07 30					
AUG	22	PNS	eP	19 27 48					
			eS	28 12.8					
		LPB	eP	19 27 52					
			eS	28 14.5					
AUG	22	USCGS 20 38 15.6, 15.4S, 70.0W, h = 178 km., m = 4.5 SOUTHERN PEPJI							
		PNS	iP	20 38 57.4					
			iS	39 30					
		LPB	iP	20 39 02.2		0.0	600	2.0	
			S	31.7					
AUG	23	LPB	P	00 23 21.7		0.8	7		
AUG	23	PNS	eP	00 27 30.2					
			eS	28 01.4					
		LPB	eP	00 27 41					
AUG	23	PNS	iP	00 32 20.7					
			S	43.6					
AUG	23	LPB	iP	00 32 23.3					
			S	47.7					
AUG	23	PNS	eP	03 56 14					
			S	57 14.9					
		LPB	eP	03 56 21					
AUG	23	USCGS 00 55 37.1, 16.8N, 100.4W, h = 40 km., m = 4.1 NR CST OF GUERRERO, MEXICO							
		LPB	eP	01 03 52				45.0	
		PNS	eP	01 03 55.2					
			e	04 02.6					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	23	LPB	P	02 38 02.8		0.8	16		
			S	39 25.5					
		PNS	P	02 38 05.9		0.5	15		
			eS	39 31.8					
AUG	23	LPB	P	03 05 23.5					
AUG	23	PNS	P	03 36 47.5		0.5	7		
			S	37 46					
		LPB	P	03 36 48.8		0.5	11		
			S	37 34.7					
AUG	23	LPR	P	05 07 15		0.9	4		
AUG	23	LPB	eP	06 29 28					
		PNS	eP	06 29 30					
AUG	23	PNS	eP	06 38 15					
			eS	39 14.2					
		LPB	eP	06 38 23					
			eS	39 03.7					
AUG	23	USCGS 06 42 59.6, 15.7N, 121.8E, h = 55 km., m = 5.1 LUZON, PHILLIPINE IS							
		PNS	PKP	07 03 06.6		1.0	12		
			eL	08 02					
		LPR	PKP	07 03 07.3		1.0	12	170.7	
AUG	23	PNS	eP	07 38 25.7					
			e	39 13					
AUG	23	LPB	eP	07 39 55					
		PNS	eP	07 38 55.6					
AUG	23	LPB	P	08 17 36.4					
		PNS	P	08 17 37.2		0.8	5		
AUG	23	USCGS 08 35 24.3, 1.3N, 126.3E, h = 103 km., m = 4.8 MOLUCCA PASSAGE							
		LPR	ePKP	08 55 16				168.3	
		PNS	ePKP	08 55 16.2					
AUG	23	USCGS 08 38 07.8, 0.7N, 119.9E, h = 40 km., m = 5.4 NORTHERN CELEBES							
		PNS	PKP	08 58 10.6		2.0	150		
		LPB	PKP	08 58 10.7		2.0	140	162.6	
			eL	09 56					
AUG	23	LPB	eP	10 26 29					

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	23	PNS	eP	11 23 00					
		LPB	eP	11 23 04					
AUG	23	PNS	eP	12 53 19					
			eS	54 01.7					
		LPB	eP	12 53 24					
AUG	23	PNS	P	13 25 43.4		0.9	6		
			eL	33					
		LPB	eP	13 25 43.5					
			eL	33					
AUG	23	LPR	eP	15 01 31					
		PNS	P	15 01 37.2		0.6	3		
AUG	23	PNS	P	16 06 26		0.4	2		
			S	55.4					
AUG	23	LPB	P	17 06 46.6		0.7	39		
		PNS	iP	17 06 60.4	D	0.5	18		
			S	07 47.8					
AUG	23	LPB	eP	18 15 00					
		PNS	eP	18 15 02.3					
AUG	23	LPB	P	18 20 47					
		PNS	P	18 20 51.5		0.9	7		
			S	21 54.7					
AUG	23	PNS	eP	18 54 14.4					
		LPB	eP	18 54 18					
AUG	23	LPB	P	20 15 35.6		0.6	14		
		PNS	iP	20 15 10	C	0.5	11		
AUG	23	PNS	P	20 46 46.2		0.9	6		
		LPB	P	20 46 52.8		0.8	9		
AUG	23	LPR	eP	21 09 12.5					
			eS	10 24.3					
		PNS	eP	21 10 17.6					
AUG	23	USCGS 22 36 51.3, 22.0S, 64.5W, h = 537 km., m = 5.8 SOUTHERN BOLIVIA							
		LPR	iP	22 38 38.4	C			6.9	
		PNS	iP	22 38 42.6	C				
			S	39 59					
AUG	23	PNS	eP	23 15 00					
		LPB	eP	23 15 08					
AUG	23	USCGS 23 14 52.7, 21.8S, 63.5W, 541 km., m = 5.2 SOUTHERN BOLIVIA							

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		LPB	iP	23 16 39.6	D			6.9	
			iS	18 04					
		PNS	iP	23 16 43.4	D				
			S	18 10					
AUG	23	PNS	P	23 25 06.5		1.3	60		
			S	28 41.2					
		LPB	P	23 25 07		1.4	117		
			S	28 40					
AUG	23	LPB	eP	23 41 33					
		PNS	P	23 41 38.3	C	0.4	4		
AUG	23	PNS	eP	23 42 21.1					
		LPB	eP	23 42 21.5					
AUG	24	LPB	eP	01 34 36.5					
		PNS	P	01 34 39.6		0.4	4		
AUG	24	LPR	eP	01 49 06.3		0.8	5		
		PNS	eP	01 49 06.8		0.9	4		
			eL	54.9					
AUG	24	PNS	eP	02 19 15.1		0.8	6		
		LPR	eP	02 19 20					
AUG	24	PNS	P	02 23 01.6		0.3	1		
			S	24					
AUG	24	LPB	eP	03 05 35.5					
		PNS	P	03 05 40.4		0.6	3		
			eS	06 16.4					
AUG	24	USCGS 03 19 39.7, 27.5S, 67.1W, h = 133 km., m = 4.1 CATAMARCA PROV. ARGENTINA							
		LPR	P	03 22 15.2		0.7	8	11	
		PNS	P	03 22 17.9		0.7	7		
			eS	24 20					
AUG	24	PNS	P	03 32 24.5		0.3	2		
			S	47.2					
		LPB	eP	03 32 26.3					
AUG	24	LPB	e(P)	05 26 54					
		PNS	eP	05 26 59.6					
AUG	24	LPB	eP	05 27 51					
		PNS	P	05 27 52.5		0.4	2		
			S	28 21.2					
AUG	24	LPR	P	05 42 38.6		1.0	8		
		PNS	P	05 42 42.2		1.2	12		

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	24	LPB	eP	06 38 13					
		PNS	P	06 38 15.5					
AUG	24	USCGS 06 40 49.4, 5.7S, 76.9W, h = 102 km., m = 4.4 NORTHERN PERU							
		PNS	P	06 43 57.9		1.0	9		
			PP	44 09.0					
			eS	48 38.7					
			eL	49.5					
		LPB	P	06 44 01.8				13.7	
			PP	04.8					
			eS	48 40					
			eL	50					
AUG	24	LPB	eP	07 44 58					
AUG	24	LPB	eP	09 28 17					
		PNS	eP	09 28 22.6					
AUG	24	LPB	e(P)	09 42 16					
AUG	24	LPB	P	11 18 29.4		1.8	86		
		PNS	P	11 18 33.6		0.9	11		
			S	19 47.4					
AUG	24	PNS	P	11 51 03.1	D				
			S	30.4					
AUG	24	USCGS 12 21 28.7, 56.2S, 143.5W, h = 33 km., m = 5.5 SOUTH PACIFIC CORDILLERA							
		PNS	P	12 32 27.5		2.0	166		
			PP	35 00.4					
			S	41 37					
			G	49.4					
			L	53.8					
		LPB	P	12 32 28.4		2.0	151	68.3	
			S	41 32					
			L	54					
AUG	24	USCGS 13 35 03.6, 22.4S, 68.4W, h = 122 km., m = 4.6 NORTHERN CHILE							
		LPB	P	13 37 29.7		0.9	10	5.7	
		PNS	iP	13 37 32.9	D				
			S	38 07.7					
AUG	24	LPR	P	15 00 34.3		0.7	18		
AUG	24	PNS	P	15 03 14.2					
			S	54.6					
		LPR	P	15 03 18					

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	24	LPR PNS	eP eP S	15 45 30 15 44 36 46 24.2					
AUG	24	PNS LPB	P S eP	16 34 23.8 35 00 16 34 27.5		0.7	5		
AUG	24	PNS LPB	eP eP	18 03 19 18 03 19.5					
AUG	24	PNS LPB	eP e(S) eP	18 25 21 28 00 18 27 21.5					
AUG	24	USCGS 18 29 58.9, 22.2S, 138.8W, h = 0 km., m = 5.0 TUAMOTU ARCHIPELAGO REG							
AUG	24	PNS LPB	iP eL P eL	18 40 52.5 19 01.3 18 40 54.5 19 01.2	C	0.9	25	66.4	
AUG	24	PNS LPB	P eS eP	18 43 05 28 18 43 08.5					
AUG	24	PNS	P	19 11 23.1		0.7	4		
AUG	24	USCGS 19 28 57.9, 23.9S, 67.7W, h = 118 km., m = 4.8 CHILE-ARGENTINA BORDER REG							
AUG	24	LPR PNS S	iP iP S	19 30 45.6 19 30 49 32 10	D D	0.7	186	7.4	
AUG	24	PNS LPB	eP eS eP	20 23 07 24 10.4 20 23 11		0.9	6		
AUG	24	USCGS 20 37 52.0, 19.5S, 67.9W, h = 192 km., m = 4.2 SOUTHERN BOLIVIA							
AUG	24	LPR PNS	iP S iP S	20 38 42.4 39 16 20 38 45.9 39 21.6	C C	0.8	255	3.1	
AUG	24	LPB	eP	22 17 13		0.7	12		
AUG	24	LPR PNS	P eP e(S)	22 41 04 22 40 59.7 43 19					

AUGUST 1963

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	24	PNS LPB	P eS eP	22 59 04.6 23 01 17.4 22 59 07.5		0.7	3		
AUG	24	LPB PNS	P iP	23 20 54.5 23 20 50.9	D	0.9	13	7	
AUG	24	PNS	eP	23 56 52					
AUG	24	USCGS 23 58 58.5, 1.1N, 126.4E, h = 60 km., m = 5.4 MOLUCCA PASSAGE							
AUG	25	LPB PNS	PKP eL PKP eL	00 18 55 01 05 00 18 55 01 18		1.2	18	159.2	
AUG	25	LPB PNS	eP eP S	00 26 10.5 00 26 12.6 28					
AUG	25	USCGS 00 11 33.2, 1.2N, 126.1E, h = 62 km., m = 5.3 MOLUCCA PASSAGE							
AUG	25	LPB PNS	ePKP ePKP	00 30 29 00 31 29		0.9	8	159.5	
AUG	25	LPB	eP	01 26 25		1.0	8		
AUG	25	PNS LPB	iP iP eS	01 39 30.4 01 39 30.7 56.8	D D	0.7	60		
AUG	25	USCGS 01 39 16.7, 6.3S, 77.1W, h = 191 km., m = 3.8 NORTHERN PERU							
AUG	25	PNS LPB	eP e eL eP eL	01 42 20.7 27.3 45.3 01 42 21.7 46				13.2	
AUG	25	LPB PNS	eP eP eS	03 25 47.5 03 25 54.3 28 05					
AUG	25	LPB PNS	iP S iP eS	03 41 46.7 42 11.5 03 41 46.7 42 10	D D	0.8	2.8		
AUG	25	LPB	eP	04 48 53.8					



AUGUST

MONTH	DAY	STA	PHASE	TIME	AMPL	DIST	
AUG	25	PNS LPR	eP eP	05 24 49.6 05 24 56	0.7 4	95	
AUG	25	PNS LPR	eP eP	05 28 06 05 28 10	40.4	95	
AUG	25	PNS	eP	07 14 54		95	
AUG	25	PNS LPR	P P	07 43 48.7 07 43 49.3	10.8 1.0	80	
AUG	25	USCGS 09 07 31.9, 40.1N, 143.2E, h = 33 km., m = 5.4 OFF E CST OF HONSHU, JAPAN					
AUG	25	PNS	ePKP SS eL	09 27 03 49 00 10 16.1		95	
AUG	25	LPR	PKP eSS eL	09 27 05 49 14 10 16.6	1.1 10	144	
AUG	25	USCGS 09 13 48.5, 40.1N, 143.3E, h = 31 km., m = 5.2 HONSHU, JAPAN					
AUG	25	PNS LPR	ePKP ePKP	09 33 21 09 33 24.5	1.4 27	144	
AUG	25	USCGS 10 05 24.1, 40.2N, 143.4E, h = 37 km., m = 4.2 OFF E CST OF HONSHU, JAPAN					
AUG	25	PNS LPR	ePKP ePKP	10 25 02 10 25 07.5		144	
AUG	25	LPR	eP eL	10 32 06.7 11 00.6			
AUG	25	PNS	eP e	10 32 07.8 33 03			
AUG	25	LPR	eP eL	11 01			
AUG	25	LPR PNS	eP eP	10 52 30 10 52 31			
AUG	25	LPR PNS	eP P eS	11 13 09 11 13 14.1 14 14.5	0.6 2		
AUG	25	USCGS 11 15 46.3, 20.0S, 175.3W, h = 96 km., m = 5.5 TONGA IS					
AUG	25	PNS	P ePP eL	11 29 22.4 33 20.4 12 02.4	1.2 11		

AUGUST

MONTH	DAY	STA	PHASE	TIME	AMPL	DIST	
AUG	25	LPR	eP eL	11 29 23.5 12 02		90.4	
AUG	25	LPR PNS	eP eP	11 45 42.7 11 45 44			
AUG	25	LPR PNS	eP eP	12 03 24 12 03 25.5			
AUG	25	LPR PNS	eP eP	12 24 41.2 12 24 45.8			
AUG	25	LPR	S	25 23			
AUG	25	LPR	eP eS	13 22 19.5 50.5			
AUG	25	LPR	eP	13 39 53.8	1.0 10		
AUG	25	USCGS 13 23 09.0, 1.1N, 126.2E, h = 33 km., m = 5.4 MOLUCCA PASSAGE					
AUG	25	PNS	PKP PKP2 PP eL	13 43 08.5 44.8 47 23.4 14 38.7	1.7 48		
AUG	25	LPR	PKP PKP2 PP eL	13 43 09 45.8 47 24.8 14 39	2.0 98	159.5	
AUG	25	PNS	eP eS	13 55 10 32.8			
AUG	25	LPR PNS	eP P S	15 37 29.2 15 37 32 46.2	0.5 3		
AUG	25	LPR PNS	eP P	15 57 49 15 57 51.7			
AUG	25	USCGS 15 38 49.8, 1.2N, 126.2E, h = 108 km., m = 4.8 MOLUCCA PASSAGE					
AUG	25	PNS LPR	ePKP ePKP	15 58 41.2 15 58 42		159.5	
AUG	25	USCGS 18 11 31.6, 16.2N, 122.5E, h = 33 km., m = 4.9 LUZON, PHILIPPINE IS					
AUG	25	PNS	ePKP	18 31 40			

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	25	PNS	iP	21 21 14.5	D				
			S	36.4					
		LPB	P	21 21 16.3		0.7	21		
AUG	25	LPB	P	21 34 34		0.4	10		
		PNS	eP	21 35 85.7		0.9	5		
AUG	25	PNS	eP	21 56 31.7		0.7	4		
		LPB	eP	21 56 37					
AUG	26	PNS	P	00 15 40.3		0.4	2		
			eS	16 03					
AUG	26	LPB	eP	00 28 42.8					
AUG	26	PNS	eP	02 00 04.7					
		LPB	eP	02 00 06					
AUG	26	LPB	eP	02 56 03.2		0.8	7		
		PNS	eP	02 55 59					
			S	56 42.6					
AUG	26	LPB	eP	03 04 51					
AUG	26	PNS	eP	04 41 14					
			eI	47.4					
		LPB	eP	04 41 48.3		1.2	15		
			eI	47					
AUG	26	PNS	P	04 47 25.3					
			S	47.4					
		LPB	eP	04 47 31					
AUG	26	PNS	eP	05 07 30					
		LPB	eP	05 07 39					
AUG	26	PNS	eP	06 51 42.3					
		LPB	eP	06 51 47					
AUG	26	LPB	P	07 50 51.7					
		PNS	P	07 50 54.9		0.8	5		
			eS	51 31					
AUG	26	PNS	eP	09 21 43					
			e	54.6					
			eS	22 40					
		LPB	eP	09 21 44		0.9	5		
AUG	26	USCGS 09 19 00.5, 11.4S, 163.6E, h = 7 km., m = 4.8 SOLOMON IS							

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		PNS	ePKP	09 37 59		0.9	5		
		LPB	eP	09 37 59.2				121.9	
AUG	26	USCGS 09 25 58.7, 16.3S, 178.0E, h = 25 km., m = 5.7 FIJI IS							
		LPB	eI	10 16.4				107	
		PNS	eI	10 16.4					
AUG	26	PNS	eP	09 44 34					
AUG	26	PNS	e(P)	09 54 11					
		LPB	eP	09 54 12					
AUG	26	LPB	eP	10 48 37.8					
AUG	26	PNS	eP	12 04 02.5		0.9	5		
AUG	26	PNS	eP	12 21 09					
			eS	22 41					
		LPB	eP	12 21 13					
AUG	26	LPB	eP	12 19 38.7		0.9	11		
AUG	26	LPB	eP	13 19 38.7		1.0	14		
		PNS	P	13 19 44.7		0.8	7		
AUG	26	LPB	eP	14 03 21		1.2	28		
		PNS	P	14 03 24		0.7	8		
AUG	26	PNS	P	14 17 43.3		0.7	4		
		LPB	eP	14 17 49					
AUG	26	LPB	eP	14 19 26					
			S	52					
		PNS	iP	14 19 28.6		0.7	17		
			S	50.2					
AUG	26	PNS	P	14 52 40.4		0.6	3		
			S	53 17.3					
AUG	26	LPB	eP	14 54 37					
			e	55 21.5					
		PNS	P	14 54 38.4		1.5	18		
			e	55 21.4					
AUG	26	PNS	P	15 14 01.3		0.7	4		
		LPB	e(P)	15 14 03					
AUG	26	PNS	eP	15 58 06					
		LPB	eP	15 58 07.5					
AUG	26	LPB	eP	16 35 04					
		PNS	P	16 35 10.9		0.5	6		

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	26	USCGS 17 24 35.0, 17.6S, 69.6W, h = 170 km., m = 4.1 PERU-BOLIVIA BORDER REG						
		PNS	iP	17 25 09.1	D			
			S	33.2				
		LPB	iP	17 25 09.6	D	0.9	200	2.3
AUG	26	PNS	P	18 33 48.8		1.2	11	
		LPB	eP	18 33 51				
AUG	26	USCGS 18 23 41.3, 36.4N, 70.7E, h = 203 km., m = 5.0 HINDU KUSH REG						
		LPB	eL	19 28				138.6
		PNS	eL	19 28.8				
AUG	26	PNS	eP	18 53 37				
			eS	54 22.7				
AUG	26	PNS	eP	19 19 04.1		0.8	6	
		LPB	eP	19 19 08				
AUG	26	PNS	eP	19 48 07.6				
			S	50.8				
AUG	26	USCGS 20 41 06.3, 15.0S, 72.1W, h = 113 km., SOUTHERN PERU						
		PNS	iP	20 42 03.5	C			
			S	48.7				
		LPB	iP	20 42 09	C	0.9	82	4.2
AUG	27	PNS	P	02 17 30.1		0.4	3	
AUG	27	LPB	eP	04 02 58.8				
		PNS	P	04 02 59.7				
			S	03 37.7				
AUG	27	PNS	eP	04 17 00.3				
		LPB	P	04 18 00.5		0.7	12	
AUG	27	LPB	eP	05 03 53				
AUG	27	USCGS 05 17 35.5, 9.0S, 72.8W, h = 49 km., m = 4.9 PERU-BRAZIL BORDER REG						
		PNS	P	05 19 36.6		1.0	20	
			S	21 40				
			L	22.5				
		LPB	P	05 19 42.6		1.0	50	8.5
			eL	22.4				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	27	PNS	eP	05 38 16.4				
			S	39 13.2				
AUG	27	LPB	eP	05 42 30.5		0.6	9	
AUG	27	LPB	eP	05 57 15.5		0.7	5	
		PNS	P	05 57 16.3		0.9	7	
AUG	27	PNS	eP	06 24 55				
			e(S)	25 42				
		LPB	eP	06 24 57.5				
AUG	27	LPB	eP	07 10 35.2				
		PNS	eP	07 10 40				
AUG	27	LPB	eP	08 22 37.5				
		PNS	eP	08 22 41				
			eS	23 31.7				
AUG	27	LPB	eP	11 21 22.7				
		PNS	P	11 21 24.5		1.0	10	
AUG	27	USCGS 11 19 14.6, 5.8S, 77.4W, h = 26 km., m = 4.9 NORTHERN PERU						
		PNS	P	11 22 27.6		0.9	7	
			eS	25 04				
			eL	27.3				
		LPB	P	11 22 32.2		1.0	12	13.8
			L	28.6				
AUG	27	LPB	eP	12 08 23.5				
		PNS	P	12 08 24.6		0.4	3	
AUG	27	LPB	eP	12 26 02				
		PNS	P	12 26 05.6		0.5	0	
			S	27 07.1				
AUG	27	LPB	eP	13 18 40				
		PNS	eP	13 18 40.6				
AUG	27	USCGS 13 45 47.8, 13.3N, 144.3E, h = 16 km., m = 5.6 SOUTH OF MARIANA IS						
		PNS	ePKP	14 05 33.8		1.2	27	
			eL	52.8				
		LPB	ePKP	14 05 34.7		1.2	108	148.5
			eL	53				
AUG	27	PNS	eP	14 44 49.4				
		LPB	eP	14 44 52				
AUG	27	PNS	P	15 36 44.3				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	27	LPB PNS S	eP P S	16 35 03.5 16 35 06 42.8		0.6	6		
AUG	27	LPB PNS S	eP eS P S	19 30 44 31 34 19 30 44.8 31 40.5		0.8	7		
AUG	27	LPB PNS eP	eP eP	20 11 10 20 11 16.6					
AUG	27	PNS LPB eS	P eS P eS	20 18 42.8 19 17 20 18 47.4 19 24		0.5 1.0	10 26		
AUG	27	LPR PNS eP	eP eP	22 06 49.5 22 06 51.2					
AUG	27	PNS LPB eP	P eP	22 24 04 22 04 05		0.6	5		
AUG	27	PNS LPB eP eS	eP S eP eS	23 25 40 26 23.8 23 25 42 20					
AUG	27	PNS P	P	23 32 39.3		0.4	2		
AUG	28	HSCGS 23 55 48.3, 1.0N, 120.1E, h = 33 km., m = 5.0 NORTHERN CELEBES							
		PNS LPB e(L)	ePKP ePKP e(L)	00 15 51.2 00 15 53 40				162.7	
AUG	28	LPR eP	eP	02 14 04.5					
AUG	28	PNS eP	eP	03 14 32					
AUG	28	LPB PNS P	P P C	03 59 37.7 03 59 40.8		0.9 0.7	22 13		
AUG	28	LPB eP	eP	03 48 13					
AUG	28	LPB PNS P	P P	04 57 08.5 04 57 10.4		0.9	13		
AUG	28	LPB PNS eS	eP P eS	05 34 12.7 05 34 16.8 44		0.4	2		

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	28	LPB PNS eP	eP eL eP eL	07 30 50 45.3 07 30 52.6 44.5					
						0.9	5		
AUG	28	LPB eP	eP	12 03 31.5					
AUG	28	HSCGS 11 50 30.4, 20.0S, 176.3E, h = 36 km., m = 5.7 SOUTH FIJI ISLANDS							
		LPB PNS ePKP	ePKP ePKP	12 09 08 12 09 11				119	
AUG	28	PNS LPB eP	eP eP	13 10 59.6 13 11 00					
AUG	28	LPB P S	P S	13 26 07.6 34.7		0.7	14		
		PNS P	P	13 26 15.8		0.7	4		
		eS	eS	47					
AUG	28	PNS LPB P	P P	13 33 14.6 13 33 15		0.6	4		
AUG	28	LPB P	P	13 38 04.7		0.9	11		
AUG	28	PNS LPB eP	eP eP	15 47 21 15 47 23.5					
AUG	28	HSCGS 15 44 34.4, 7.4S, 128.2E, h = 114 km., m = 4.7 RANDA SFA							
		PNS LPB ePKP e(L)	ePKP i eL ePKP eL	16 04 11.9 17.8 56 16 04 17.5 57				151	
AUG	28	LPB PNS iP	P iP	17 13 48.8 17 13 53		0.8 0.5	42 19		
AUG	28	LPR eP S	eP S	17 09 07 38.7					
		PNS P	P	17 39 10.3		0.5	4		
		S	S	40					
AUG	28	LPB eP	eP	17 39 07 38.7					
AUG	28	PNS LPB P	eP P	19 11 23.3 19 11 29.3		0.5 1.0	3 12		
AUG	28	PNS LPB eP	P P eP	19 43 31.9 19 43 35		0.8	4		

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	28	PNS LPB	P eP	20 16 44.4 20 16 49		0.6	4		
AUG	28	USCGS 20 42 167, 15.5N, 122.0E, h = 15 km., m = 5.7 PHILIPPINE IS REG							
		PNS	PKP	21 02 28.7		2.5	570		
			PKP2	03 46.6					
			PP	07 35					
			eSS	28 50					
			eG	51.8					
			L	22 01.6					
		LPB	PKP	21 02 28.8		2.6	731	170.5	
			PKP2	03 47.5					
			PP	07 36					
			eL	22 01.8					
AUG	28	PNS LPB	eP e(P)	21 07 03.6 21 07 07.5					
AUG	28	PNS LPB	eP eP	21 11 04.9 21 11 07					
AUG	28	LPB PNS	eP eP	22 21 54 22 21 56.6					
			eS	23 12					
AUG	28	PNS LPB	P e(P)	22 25 43 22 25 41		0.7	4		
AUG	28	LPB PNS	eP P	23 41 52.5 23 41 52.7		0.5	3		
AUG	29	LPB	eP	00 55 53.5					
AUG	29	USCGS 01 36 18.8, 15.4N, 121.9E, h = 17 km., m = 5.3 LUZON, PHILIPPINE IS							
		LPB	PKP	01 56 31.3		1.8	43	170.6	
			eL	02 54					
		PNS	PKP	01 56 31.4		1.5	21		
			L	02 55					
AUG	29	PNS LPB	eP eP	01 59 40.2 01 59 43.5					
AUG	29	LPB PNS	P P	02 00 02 01 59 59		0.9	10		
			i	02 00 16.8					
AUG	29	LPB PNS	eP P	02 04 55 02 04 57.5		0.6	4		



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	29	LPB PNS	eP eP	03 22 13 03 22 20.6					
AUG	29	LPB PNS	eP eP	03 40 06.3 03 40 11					
AUG	29	USCGS 04 02 09.2, 11.0S, 76.6W, h = 106. km., m = 4.3 PERU							
		PNS	P	04 04 24.4		0.7	16		
			eS	06 20					
			L	07.6					
		LPB	P	04 04 29.5		0.9	24	9.7	
			eL	08					
AUG	29	PNS LPB	eP eP	06 28 41.8 06 28 48.5					
AUG	29	LPB PNS	eP P	06 44 49 06 44 51.6		0.8	6		
AUG	29	LPB	eP	07 40 10					
AUG	29	USCGS 08 05 30.5, 15.5N, 122.1E, h = 22 km., m = 5.1 PHILIPPINE IS REG							
		LPB	eP	08 25 41		1.3	11	170.5	
		PNS	P	08 25 41.2		1.6	24		
			e(L)	09 25					
AUG	29	PNS	P	08 36 57.3		0.5	6		
AUG	29	PNS LPB	eP eP	09 46 12 09 46 13					
AUG	29	USCGS 09 57 29.9, 44.0N, 128.0W, h = 33 km., m = 4.1 OFF COAST OF OREGON							
		PNS	eP	10 09 42					
		LPB	eP	10 09 43				81.2	
AUG	29	LPB	P	09 49 16		0.7	20		
AUG	29	PNS LPB	P e(P)	09 51 09.5 09 51 14.2		0.6	7		
AUG	29	USCGS 10 33 36, 41.1S, 91.1W, h = 33km., m = 4.9 SOUTHERN PACIFIC OCEAN							
		PNS	P	10 39 58.6		1.0	22		
			i	40 05.6					
			L	48.8					
		LPB	P	10 39 58.7		1.2	34	31.5	
			L	48.8					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	29	PNS	eP	10 52 06					
		LPB	eP	10 52 08					
AUG	29	PNS	eP	11 49 22					
AUG	29	LPB	eP	12 17 42					
		PNS	eP	12 17 45.6		0.6	2		
AUG	29	PNS	eP	12 24 00					
		LPB	eP	12 24 02.7					
AUG	29	LPB	eP	14 38 50.5					
		PNS	eP	14 38 54					
AUG	29	PNS	P	16 37 33.7		0.6	4		
			eS	38 10.4					
		LPB	eP	16 37 34.5					
AUG	29	LPR	eP	17 32 50.5					
AUG	29	USCGS 18 27 08.9, 15.3N, 122.6E, h = 33 km., m = 5.5 PHILIPPINE IS REG							
		LPR	ePKP	18 47 18					
		PNS	ePKP	18 47 20					
AUG	29	LPB	P	18 54 02		0.9	16		
		PNS	P	18 54 04.7		0.8	9		
			eS	55 01					
AUG	29	USCGS 19 51 24.6, 30.2N, 95.1E, h = 33 km., m = 5.0 TIRET							
		LPR	ePKP	20 11 23.5				159.3	
		PNS	ePKP	20 11 25					
AUG	29	LPR	eP	21 07 23					
			iS	54					
		PNS	eP	21 07 28.3					
			S	08 04					
AUG	29	LPB	eP	21 16 41					
AUG	29	USCGS 21 15 44.1, 6.9N, 73.0W, h = 151 km., m = 4.6 NORTHERN COLOMBIA							
		PNS	P	21 20 41.2		0.8	5		
			i	21 13.1					
		LPB	eP	21 20 45.5				23.4	
			eS	21 19.5					
AUG	29	LPB	eP	21 24 49.5					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	29	LPB	eP	21 26 46.5					
		PNS	P	21 26 49.9		0.6	6		
			eS	27 14.4					
AUG	29	USCGS 21 08 07.9, 15.9N, 121.7E, h = 39 km., m = 5.2 LUZON, PHILIPPINE ISLANDS							
		PNS	ePKP	21 28 16.6		1.2	13		
			PP	33 25.2					
			eL	22 28					
		LPR	ePKP	21 28 17				170.7	
			ePP	33 26					
			eL	22 28					
AUG	29	PNS	iP	22 56 13		C			
			eL	22 28.3					
		LPR	iP	22 56 15.6		C	1.1	200	
			eL	28					
AUG	29	PNS	eP	23 24 14.2					
		LPB	eP	23 24 16.7					
AUG	30	USCGS 23 57 48.1, 44.4S, 82.1W, h = 33 km., m = 4.8 WEST CHILE RISE							
		PNS	eP	00 03 58.9		0.8	16	30.7	
			eL	12.4					
		LPB	eP	00 03 59		0.8	16		
			eL	12					
AUG	30	LPR	P	02 14 56		0.6	5		
			S	15 33					
		PNS	P	02 14 57.4		0.5	4		
			eS	15 34					
AUG	30	USCGS 02 44 52.9, 40.0N, 142.7E, h = 38 km., m = 5.0 NR E CST OF HONSHU, JAPAN							
		LPB	ePKP	03 04 22				144.7	
			eL	54					
		PNS	ePKP	03 04 25.2					
			eL	54.2					
AUG	30	LPR	eP	03 29 57.7		1.0	12		
		PNS	eP	03 29 58		0.8	5		
AUG	30	USCGS 05 24 41.6, 51-3N, 157.7E, h = 21 km., m = 5.1 NR E CST OF MARCHATKA							
		PNS	PKP	05 43 51		0.6	2		
		LPB	ePKP	05 43 52.2				130	
AUG	30	USCGS 06 18 30.4, 1.4N, 126.3E, h = 50 km., m = 5.4 MOLUCCA PASSAGE							



AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PKP	AMPL.	DIST.	
AUG	29	LPR	ePKP	06 38 27.8					
AUG	29	PNS	PKP	06 38 28.2					
AUG	30	PNS	eP	11 55 40					
			eS	57 07					
		LPR	eP	11 55 41.5					
AUG	30	LPR	eP	11 59 15					
		PNS	eP	11 59 22					
			S	49					
AUG	30	PNS	eP	12 12 47.8					
			eS	13 35					
AUG	30	USCGS 12 17 39.9, 16.1N, 121.9E, h = 33 km., m = 5.1 LUZON, PHILIPPINE IS.							
		PNS	ePKP	12 37 51.2					
		LPR	ePKP	12 37 53.8				170.5	
AUG	30	LPR	eP	13 00 52					
		PNS	eP	13 00 53					
AUG	30	LPR	eP	13 40 12					
			eS	49					
		PNS	eP	13 40 16.2					
			eS	54					
AUG	30	USCGS 13 31 32.5, 6.7S, 155.0E, h = 62 km., m = 4.7 SOLOMON ISLANDS							
		LPR	ePKP	13 50 39				131.5	
		PNS	PKP	13 50 42.5		0.9	4		
AUG	30	PNS	eP	17 38 40					
			i	39 40					
		LPR	eP	17 38 40.5					
AUG	30	PNS	iP	19 16 38.2	D	0.5	16		
			S	17 00.9					
		LPR	P	19 16 40.5		0.8	13		
AUG	30	PNS	P	21 15 11.4		0.5	3		
			eS	35.4					
AUG	30	USCGS 22 02 19.8, 14.6N, 56.3E, h = 33 km., m = 5.2 ARABIAN SEA							
		PNS	PKP	22 21 23.6		1.2	11		
			eL	23 00					

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PKP	AMPL.	DIST.
AUG	30	LPR	ePKP	22 21 24.3				
			eL	23 02				126.5
AUG	30	PNS	eP	22 42 24.6				
AUG	31	LPR	eP	01 55 38.6				
AUG	31	PNS	P	02 34 38.8				
		LPR	eP	02 34 43.5				
AUG	31	PNS	eP	02 34 56		0.9	5	
		LPR	eP	02 35 00				
AUG	31	PNS	eP	03 02 43				
		LPR	eP	03 02 45.7				
AUG	31	PNS	P	03 49 27.6		0.6	3	
			S	50.5				
AUG	31	PNS	eP	06 42 22				
AUG	31	LPR	P	08 03 06.5		0.9	8	
			eL	18				
		PNS	eP	08 03 08.4				
			eL	18.1				
AUG	31	LPR	eP	09 22 16.5				
			eL	40				
		PNS	eP	09 22 17.6				
			eL	39.7				
AUG	31	LPR	eP	09 33 02				
			eL	51.6				
		PNS	P	09 34 04		0.8	8	
			eL	50.8				
AUG	31	LPR	eP	09 45 34.5		1.8	51	
			eL	10 08.7				
		PNS	eP	09 45 36		1.2	14	
			eL	10 08.7				
AUG	31	LPR	eP	09 54 34				
		PNS	P	09 54 36.5		1.0	10	
AUG	31	LPR	eP	10 04 47.9		2.0	54	
		PNS	eP	10 04 49.9				
AUG	31	LPR	P	10 10 09.5				
		PNS	eP	10 10 10.6				



AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	31	HSCGS	10 13	54.7, 0.9S, 24.6W, h = 33 km., m = 4.5				
				CENTRAL MID-ATLANTIC RIDGE				
		LPR	eP	10 22 13.5				
		PNS	P	10 22 16		0.9	7	
AUG	31	PNS	eP	10 38 05.5				
		LPR	eP	10 38 06.6		0.9	6	
AUG	31	LPR	eP	10 49 11.6				
		PNS	eP	10 49 16.6				
AUG	31	LPR	P	10 43 27.7		1.3	18	
		PNS	eP	10 43 30				
			eL	11 00				
AUG	31	LPR	eP	10 57 13.8				
		PNS	eP	10 57 14.6				
AUG	31	HSCGS	10 47	37.4, 34.0N, 59.0E, h = 13 km., m = 6.0				
				IRAN				
		LPR	PKP	11 06 51.3				129.6
			ePP	09 03.5				
			PKB	10 16				
			SS	26 36				
			G	42.2				
			I	49				
		PNS	PKP	11 06 51.5		1.3	21	
			PP	09 07.4				
			PKS	10 17				
			eSKS	13 55				
			PS	19 15				
			SS	26 40				
			eG	41.6				
			eL	49.8				
AUG	31	LPR	P	11 36 03.6		1.5	44	
		PNS	P	11 36 05.2		1.0	8	
AUG	31	HSCGS	11 34	32.9, 33.9N, 59.2E, h = 24 km., m = 5.0				
				IRAN				
		PNS	PKP	11 53 43.2		1.2	23	
		LPR	PKP	11 53 43.3		1.8	129	129.8
AUG	31	LPR	eP	12 35 28				
		PNS	eP	12 35 31.4		1.4	16	
AUG	31	LPR	e(P)	13 09 41				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	31	PNS	P	13 51 15.5			1.9	14
		LPR	P	13 51 20.5				
AUG	31	PNS	eP	14 18 44				
		LPR	eP	14 18 45				
AUG	31	LPR	i(P)	14 19 30.5				
		PNS	P	14 19 31.3				
AUG	31	LPR	eP	14 23 19				
		PNS	eP	14 23 20				
AUG	31	HSCGS	14 06	16.1, 34.1N, 59.4E, h = 18 km., m = 5.0				
				IRAN				
		LPR	PKP	14 25 31.5				130
		PNS	ePKP	14 25 31.8				
AUG	31	LPR	eP	17 05 08				
		PNS	eP	17 05 10				
AUG	31	LPR	eP	17 45 36.6				
		PNS	eP	17 45 40.2				
AUG	31	LPR	eP	18 10 01				
		PNS	eP	18 10 05				
AUG	31	LPR	eP	18 23 09				
		PNS	iP	18 23 14.5	D	0.3	7	
			S	37				
AUG	31	LPR	P	18 45 10.2			0.8	13
		PNS	P	18 45 11.9			0.6	5
AUG	31	LPR	eP	19 45 39				
		PNS	eP	19 45 40				
AUG	31	PNS	eP	20 07 52.9				
AUG	31	PNS	eP	20 12 07.6			1.4	21
		LPR	eP	20 12 09.5				
AUG	31	HSCGS	21 47	38.5, 4.5N, 76.4W, h = 98 km., m = 4.6				
				COLOMBIA				
		PNS	P	21 52 25.3		0.9	12	
			S	56 38				
			eL	22 01.7				
		LPR	eP	21 52 30		1.0	14	22.5
			eS	56 36				
			eL	22 01.5				

AUGUST

MONTH	DAY	STA	PHASE	TIME	SIGN	PEP	AMPL	DIST	
AUG	31	USCGS 21 47 38.5, 4.5N, 76.4W, h = 98 km., m = 4.6 COLOMBIA							
		PNS	P	21 52 25.7		0.9	12		
			S	56 38					
			eL	22 01.7					
		LPR	eP	21 52 30		1.0	14	22.5	
			eS	56 36					
			eL	22 01.5					
AUG	31	LPR	P	22 26 47		0.6	25		
			S	27 34					
		PNS	iP	22 26 51.5		0.8	56		
			S	27 36					
AUG	31	LPR	eP	22 37 46.7		0.9	10		
		PNS	eP	22 37 47.7					
AUG	31	LPR	eP	23 26 55.5					
		PNS	eP	23 26 56.4					
AUG	31	LPR	eP	23 47 43.7					



SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PEP	AMPL	DIST	
SEP	01	USCGS 00 24 06.7, 30.7S, 178.3W, h = 25 km., m = 5.2 KERMADOC IS							
		LPR	eP	00 37 42					
		PNS	eP	00 37 45					
SEP	01	LPR	eP	00 46 10					
		PNS	P	00 46 12.8					
SEP	01	USCGS 00 39 54.8, 1.6N, 126.3E, h = 33 km., m = 4.9 MOLUCCA PASSAGE							
		LPR	ePKP	00 59 33				159.7	
		PNS	ePKP	00 59 35					
			eL	56.5					
SEP	01	PNS	P	01 00 30.4		0.8	8		
			eL	10					
		LPR	P	01 00 31.5					
			eL	10					
SEP	01	PNS	eP	01 09 12					
		LPR	e(P)	01 09 12.5					
SEP	01	LPR	eP	01 51 10					
		PNS	eP	01 51 11.8		0.6	3		
SEP	01	LPR	P	01 55 10.5					
		PNS	eP	01 55 14					
SEP	01	LPR	eP	02 13 08.5					
			eL	27					
		PNS	P	02 13 10.9		0.6	4		
			eL	27.1					
SEP	01	USCGS 02 15 05.6, 0.9S, 24.4W, h = 33 km., m = 4.8 CENTRAL MID-ATLANTIC RIDGE							
		LPR	P	02 23 25.5		1.1	14	46	
			eL	36.8					
		PNS	P	02 23 26.9		1.0	14		
			eL	36.6					
SEP	01	LPR	eP	03 15 37					
		PNS	eP	03 15 38.3					
SEP	01	LPR	eP	03 29 32.5					
		PNS	P	03 29 34.8		0.6	5		
SEP	01	PNS	eP	03 50 27.7					
		LPR	eP	03 50 30					
SEP	01	USCGS 03 47 56.6, 0.9S, 24.4W, h = 33 km., m = 4.7 CENTRAL MID-ATLANTIC RIDGE							

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		LPR	P	03 56 10.5				46	
			eI	04 10					
		PNS	P	03 56 17.0		1.4	30		
			eS	04 03 11					
			eI	10.3					
SEP	01	PNS	eP	04 23 44.3					
SEP	01	PNS	P	04 31 04.4		0.8	6		
		LPR	eP	04 31 08		1.0	8		
SEP	01	USCGS 04 27 38.5, 0.9S 24.4W, h = 33 km., m = 4.7 CENTRAL MID-ATLANTIC RIDGE							
		LPR	P	04 35 58.3		0.9	25	46	
		PNS	P	04 36 00.6		0.8	22		
SEP	01	USCGS 04 48 52.2, 1.0S, 24.5W, h = 33 km., m = 5.2 CENTRAL-MID-ATLANTIC RIDGE							
		LPR	P	04 57 12.2		1.8	240	46	
			ePP	59 02					
			S	05 03 53					
			G	07.4					
			L	10.5					
		PNS	P	04 57 14.2		1.7	150		
			PP	59 04.6					
			S	05 03 49					
			G	07.4					
			L	10.7					
SEP	01	LPR	P	05 26 25.7		0.7	7		
		PNS	eP	05 26 26					
SEP	01	PNS	eP	05 33 03.1					
SEP	01	USCGS 05 39 46.7, 39.1N, 46.0E, h = 38 km., m = 5.1 N.W. IRAN-IUSSR. BOR RFG							
		LPR	ePKP	05 58 33.5				119	
		PNS	ePKP	05 58 35.4					
SEP	01	LPR	eP	06 12 33					
SEP	01	LPR	eP	06 50 02		0.7	11		
			S	39.5					
		PNS	iP	06 50 05.0	C	0.7	14		
			S	45.9					
SEP	01	LPR	eP	07 11 55.7		1.0	14		
		PNS	eP	07 12 00		1.2	12		
SEP	01	LPR	eP	07 19 21		0.8	6		



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	01	LPR	eP	07 37 09					
		PNS	eP	07 37 14					
SEP	01	USCGS 07 27 30.2, 34.0N, 58.2E, h = 15 km., m = 5.0 IRAN							
		LPR	PKP	07 46 38.2		1.0	15	130.5	
			i	43					
			eI	07 30					
		PNS	PKP	07 46 39.8		1.0	24		
			i	43.6					
			eI	08 35.7					
SEP	01	LPR	eP	07 58 50					
SEP	02	PNS	eP	07 58 52					
SEP	01	USCGS 08 19 57.2, 0.9S, 24.5W, h = 33 km., m = 5.0 CENTRAL-MID-ATLANTIC RIDGE							
		PNS	P	08 28 15		0.8	47		
		LPR	P	08 28 16.7	P	1.0	52	46	
SEP	01	LPR	P	08 29 59.4		0.9	9		
		PNS	P	08 30 03.0		0.6	11		
SEP	01	USCGS 08 23 28.4, 1.1S, 24.5W, h = 33 km., m = 4.9 CENTRAL MID ATLANTIC RIDGE							
		LPR	eP	08 31 45.6		1.0	20	46	
			i	32 37.8					
		PNS	P	08 31 47.5		0.9	20		
			i	32 39.8					
SEP	01	LPR	P	08 40 38		0.7	11		
		PNS	P	08 40 41.9		0.6	8		
			S	41 37					
SEP	01	LPR	eP	09 09 24					
		PNS	eP	07 09 25					
SEP	01	PNS	ePKP	09 43 09.4					
		LPR	ePKP	09 43 10				135	
SEP	01	LPR	eP	11 10 55.5					
		PNS	eP	11 10 58					
SEP	01	LPR	eP	11 26 18					
SEP	01	LPR	eP	18 45 38.5					
		PNS	eP	18 45 40					
SEP	01	LPR	eP	19 01 27.5					
		PNS	eP	19 01 27.7					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	01	PNS LPB	eP eP	19 13 31 19 13 31		0.8	3	
SEP	01	USCGS 19 16 17.3, 34.2N, 58.3E, h = 23 km., m = 5.0 IRAN						
SEP	01	LPB PNS	ePKP ePKP	19 35 45.4 19 35 45.7		1.2 1.0	31 6	129
SEP	01	PNS	P S	19 39 26.1 49.2		0.4	4	
SEP	01	PNS LPB	eP e(P)	20 58 43 20 58 45.5		1.0	5	
SEP	01	LPB PNS	eP eP	21 36 06 21 36 07.6				
SEP	01	LPB PNS	eP eP	21 44 35.5 21 44 41.6				
SEP	01	PNS LPB	iP S P	21 58 18.6 43.8 21 58 18.7	D	0.9	15	
SEP	01	PNS LPB	P P	22 12 51 22 12 51.5		0.9	8	
SEP	01	LPB PNS	eP eP	22 19 08 22 19 10.2				
SEP	02	LPB PNS	eP P	00 06 12 00 06 13.7		0.8	4	
SEP	02	PNS	P	00 22 52.6		0.6	2	
SEP	02	LPB PNS	eP eP	01 45 51 01 45 51				
SEP	02	LPB	e(P)	03 14 22				
SEP	02	LPB	eP	03 29 54				
SEP	02	USCGS 03 40 02.0, 11.0N, 69.4W, h = 36 km., m = 4.1 VENEZUELA						
SEP	02	PNS LPB	eP eP	03 45 43.6 03 45 49.5		1.0	5	27.5
SEP	02	PNS LPB	eP eP	03 52 59 03 53 03				
SEP	02	LPB	eP	03 54 08				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	02	LPB PNS	eP P	06 16 35 06 16 43				
SEP	02	PNS LPB	iP iP eS	07 03 20.6 43.4 07 03 22.5 47.3	D	0.8	19	
SEP	02	LPB PNS	eP P	07 34 51 07 24 54				
SEP	02	PNS	eP	07 53 36.7				
SEP	02	LPB	eP	10 03 10.7				
SEP	02	LPB	e(P)	10 47 45.2				
SEP	02	LPB PNS	eP P	11 32 57.5 11 32 57.8		0.4		
SEP	02	LPB PNS	e(P) eP	12 15 33 12 15 35				
SEP	02	PNS	eP	12 21 04				
SEP	02	LPB PNS	eP eP	13 21 28.5 18 21 30.1		0.6	2	
SEP	02	PNS LPB	P S eP	16 37 52 38 26.4 16 37 56.5		0.6	5	
SEP	02	LPB PNS	eP eP	18 19 31 18 19 37		0.6	2	
SEP	02	USCGS 19 24 13.0, 9.8S, 123.9E, h = 33 km., m = 4.8 TIMOR						
SEP	02	LPB PNS	ePKP ePKP	19 49 06.5 19 49 08.6		1.4	21	166.5
SEP	02	USCGS 23 01 53.4, 5.9S, 77.4W, h = 104 km., m = 4.3 NORTHERN PFDI						
SEP	02	PNS LPB	eP eP	23 05 10 23 05 11				14
SEP	03	USCGS 01 12 27.3, 37.8S, 37.9E, h = 33 km., m = 5.1 SOUTH INDIAN OCEAN						
SEP	03	PNS	eP eL	01 25 38.3 57.3		0.9	3	

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	PER	AMPL	DIST	
SEP	01	LPR	p	01 25 40.7	0.9	5	92	
			eL	57				
SEP	03	PNS	iP	01 52 10.2	0.5	5		
			S	34				
		LPR	eP	01 52 15				
SEP	03	USCGS 04 03 25.5, 41.2S, 73.8W, h = 134 km., m = 3.8 NR CST OF SOUTHERN CHILE						
		LPR	eP	04 08 39				
		PNS	eP	04 08 40.8				
SEP	03	LPR	eP	04 51 12.2				
		PNS	P	04 51 17.6	0.4	4		
SEP	03	PNS	eP	05 09 11				
		LPR	eP	05 09 17				
SEP	03	PNS	eP	05 12 02.6				
		LPR	eP	05 12 06				
SEP	03	PNS	eP	05 30 50.6				
		LPR	eP	05 30 55.5				
SEP	03	USCGS 05 32 59.7, 57.9S, 25.2W, h = 63 km., m = 4.6 SOUTH SANDWICH IS REG						
		PNS	eP	05 34 46.8				
		LPR	P	05 34 55.7	0.9	6	52.2	
SEP	03	LPR	eP	05 42 06				
		PNS	P	05 42 08.5	0.8	5		
			e	59				
SEP	03	LPR	eP	06 52 50				
			e	55 18.6				
		PNS	P	06 52 51.6	0.8	3		
			i	55 20.11				
SEP	03	LPR	eP	06 58 58				
		PNS	P	06 59 04.1	0.7	2		
SEP	03	USCGS 07 01 36.5, 37.9N, 141.7E, h = 79 km., m = 5.4 NR E. CST OF HONSHU, JAPAN						
		PNS	PKP	07 21 09.4	1.2	90		
			eL	08 11.3				
		LPR	PKP	07 21 10.2	1.0	108	146.1	
			eL	08 11.3				
SEP	03	LPR	eP	08 30 23.2	0.8	6		
		PNS	eP	08 30 25.4				
SEP	03	USCGS 08 19 52.2, 41.8N, 32.3E, h = 5 km., m = 5.7 TURKEY						
		PNS	eP	08 34 16				
			PP	38 51				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	03		SKS	45 13				
			PS	48 20				
			PPS	49 25				
			SS	54 10				
			L	09 11.7				
		LPR	eP	08 34 17.2				109
			ePP	38 52				
			SKS	45 06				
			PS	48 20				
			PPS	49 23				
			L	09 11.8				
SEP	03	PNS	eP	08 40 36				
		LPR	eP	08 49 36.7				
SEP	03	LPR	eP	09 09 25.7				
			eS	11 10.5				
		PNS	eP	09 09 27				
				16 53				
SEP	03	USCGS 03 53 47.0, 33.8N, 59.2E, h = 16 km., m = 5.0 IRAN						
		PNS	eP	10 12 58		1.0	10	
		LPR	P	10 12 59		1.1	22	130
SEP	03	PNS	eP	10 15 04				
		LPR	eP	10 15 04.5				
SEP	03	LPR	eP	10 33 29.4		0.6	7	
		PNS	eP	10 33 31.4		0.7	3	
SEP	03	PNS	P	11 19 42.6		1.2	12	
SEP	03	LPR	eP	11 39 13				
		PNS	P	11 39 15.7		1.2	8	
SEP	03	PNS	eP	14 43 30				
SEP	03	LPR	P	15 24 00		0.9	10	
		PNS	P	15 24 02.5		0.8	6	
SEP	03	USCGS 15 37 00.2, 20.6N, 62.2W, h = 33 km., m = 5.5 NORTH ATLANTIC OCEAN						
		PNS	P	15 44 10.3		1.0	35	
			eS	49 56.2				
		LPR	P	15 44 11.8		1.0	30	37.3
			S	49 57.5				
			L	55.4				
SEP	03	PNS	eP	16 51 01.3		0.5	6	
		LPR	P	16 51 07.5				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL.	DIST
SEP	03	PNS	P	17 16 09.5				
			S	17 16 32				
SEP	03	USCGS 19 59 08.3, 1.0N, 28.2N, h = 33 km., m = 4.7 CENTRAL MID ATLANTIC RIDGE						
		LPR	iP	19 06 08.1	D	0.8	46	44
			eS	12 40				
			SS	15 53				
			eL	20				
		PNS	iP	19 06 09.8	C	0.8	21	
			S	12 42				
			SS	15 50				
			eL	19.6				
SEP	03	USCGS 19 55 56.3, 21.3S, 68.8W, h = 118 km., m = 4.0 CHILE BOLIVIA BORDER REG.						
		LPR	P	19 57 07.4		0.7	42	5
		PNS	iP	19 57 10.5		0.5	12	
SEP	03	USCGS 22 22 06.9, 29.3N, 139.3E, h = 410 km., m = 4.0 SOUTH OF HONSHU, JAPAN						
		PNS	PKP	22 41 16		0.7	6	
		LPR	ePKP	22 41 17		0.8	18	
SEP	03	LPR	P	23 14 21		0.9	17	
			eL	00 25				
		PNS	P	23 14 21.1		0.8	2	
			eL	00 24.7				
SEP	03	PNS	P	23 38 55.4		0.5	4	
SEP	04	USCGS 00 37 11.8, 1.4N, 122.1E, h = 441 km., m = 5.6 NORTHERN CELEBES						
		LPR	PKP	00 57 14.3		1.2	18	162
		PNS	PKP	00 57 14.5		0.9	16	
SEP	04	LPR	e(P)	02 33 08.3				
SEP	04	PNS	P	02 47 24.8		1.1	5	
		LPR	eP	02 47 25.5		0.9	5	
SEP	04	LPR	P	03 52 54.5		0.8	7	
		PNS	P	03 52 58.8		0.4	2	
SEP	04	USCGS 04 00 01.2, 6.9S, 129.0E, h = 108 km., m = 5.0 BANDA SEA						
		LPR	ePKP	04 19 39.6				151
		PNS	iP	04 19 45.5				
		PNS	PKP	04 19 40		1.5	14	
SEP	05	USCGS 39 19 52.3, 41.45.2 TURKEY						



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL.	DIST
AUG	04	LPR	eP	05 32 09				
			S	43.5				
		PNS	eP	05 32 12				
AUG	04	LPR	P	07 32 52				
		PNS	eP	07 32 52.8				
AUG	04	USCGS 08 08 44.3, 33.9N, 59.2E, h = 24 km., m = 5.0 IRAN						
		PNS	ePKP	08 27 53.6				
		LPR	ePKP	08 27 54				130
AUG	04	LPR	eP	08 59 09				
		PNS	P	09 59 11.6		0.8	5	
AUG	04	LPR	eP	08 53 20.1				
			eL	09 07				
		PNS	eP	08 53 23				
			eL	09 07.8				
AUG	04	LPR	P	10 08 41.6		0.9	17	
		PNS	P	10 08 44.8	C	0.4	12	
AUG	04	USCGS 10 34 29.4, 53.2N, 159.7E, h = 31 km., m = 4.7 NR E CST OF KAMCHATKA						
		LPR	PKP	10 53 32.4		0.8	10	128
			eL	11 36				
		PNS	PKP	10 53 32.7		0.9	4	
			eL	11 36				
AUG	04	USCGS 11 11 50.6, 17.8S, 69.7N, 137 km., m = 3.8 PERU BOLIVIA BORDER REG.						
		PNS	iP	11 12 26.1	D			
			e	52				
		LPR	iP	11 12 26.7				1.8
			IS	54				
AUG	04	USCGS 11 19.3 5.6, 33.9N, 59.1E, h = 25 km., m = 5.1 IRAN						
		LPR	PKP	11 38 45.8		1.2	15	130
		PNS	PKP	11 38 46		1.5	22	
AUG	04	LPR	eP	11 55 20.5				
		PNS	P	11 55 21.2		0.9	3	
AUG	04	LPR	eP	12 40 23				
			eL	13 07				
		PNS	eL	13 07.3				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
AUG	04	LPR	eP	13 41 29.5				
AUG	04	PNS	eP eS	13 48 48 49 19				
AUG	04	LPR	eP	14 03 02				
		PNS	P S	14 03 05.9 48		0.6	6	
AUG	04	LPR	eP	14 58 31.5				
AUG	04	LPR	eL	18 37				
AUG	04	PNS	eP	19 39 57				
AUG	04	LPR	eP	20 18 48				
			eI	43				
		PNS	P	20 18 52.4		0.7	3	
			eI	43				
AUG	04	PNS	eP	20 52 22				
AUG	04	USCGS BANDA SEA	20 41 57.0, 7.3S, 128.3E, h = 124 km., m = 4.8					
		PNS	PKP	21 01 38.8		0.9	15	
			i	48.4				
		LPR	PKP	21 01 39		1.0	38	52
AUG	04	PNS	P S	21 02 36.3 55		0.4	5	
AUG	04	PNS	eP	22 34 51.4		1.0	6	
AUG	04	LPR	eP	23 34 54.7		0.9	10	
			S	35 24.4				
		PNS	eP	23 35 03.7				
			S	36.3				
AUG	04	PNS	eP	23 39 03				
		LPR	eP	23 39 01				
AUG	04	USCGS TRAN	23 24 47.2, 34.0N, 58.2E, h = 15 km., m = 5.4					
		LPR	ePKP	23 43 51.3				129
		PNS	ePKP	23 43 51.4				
			i	57.3				
AUG	05	PNS	eP	00 17 04.8				
		LPR	eP	00 17 06				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	05	PNS	eP	00 28 18				
		LPR	eP	00 28 20.5				
SEP	05	PNS	e(P)	00 38 38				
SEP	05	PNS	P	00 50 19		0.5	7	
			S	49				
		LPR	eP	00 50 23				
SEP	05	PNS	eP	01 58 17				
SEP	05	PNS	eP	02 29 15				
			eS	30 24				
		LPR	P	02 29 38.7		0.9	15	
SEP	05	USCGS	02 43 02.6, 45.1S, 80.1W, h = 33 km., m = 5.0					
			OFF COAST OF SOUTHERN CHILE					
		LPR	P	02 49 13.6		1.3	136	30.1
			i	50 08				
			S	54 16				
			eG	55.3				
			L	57.7				
			SeS	03 00 02				
		PNS	P	02 49 13.7		1.4	80	
			i	50 09				
			S	54 15				
			L	57.8				
			SeS	03 00 00				
SEP	05	PNS	P	03 30 41.2		0.4	5	
			S	31 10.2				
		LPR	eP	03 30 44				
SEP	05	LPR	eP	04 25 24.6		0.7	4	
		PNS	P	04 25 25.4		0.6	2	
SEP	05	USCGS	06 32 39.9, 3.6N, 125.6E, h = 33 km., m = 5.7					
			TALAUD IS					
		PNS	PKP	06 52 41.1		1.4	16	
		LPR	ePKP	06 52 41.6		1.0	6	161.1
SEP	05	PNS	P	07 31 32.3	D	0.5	4	
			S	50				
		LPR	P	07 31 33	D	0.9	15	
			S	32 00				
SEP	05	LPR	eP	08 00 06.8				
SEP	05	LPR	e(P)	08 09 20.5				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	05	USCGS 08 21 07.8, 37.4N, 31.7W, h = 33 km., m = 4.6 AZORES IS REG							
		LPR	eP	08 31 37.5		1.3	11	64	
		PNS	eP	08 31 39.6		1.4	11		
SEP	05	PNS	P	08 51 19.6		1.0	10		
		LPR	P	08 51 19.7		1.0	14		
SEP	05	LPR	eP	09 01 18.7		0.6	4		
		PNS	P	09 01 23.2					
SEP	05	LPR	eP	09 21 03					
		PNS	P	09 21 06.1		1.2	15		
SEP	05	PNS	eP	10 20 19					
SEP	05	LPR	eP	11 54 10					
		PNS	P	11 54 10		0.7	6		
			eS	55 01					
SEP	05	PNS	P	14 06 34.8		0.6	3		
		LPR	eP	14 06 38					
SEP	05	LPR	P	16 10 26.4					
			S	49.7					
SEP	05	USCGS 17 02 49.8, 6.1S, 142.8E, h = 33 km., m = 5.4 NEW GUINEA							
		LPR	eP	17 22 19				142	
SEP	05	PNS	P	19 28 42		0.4	2		
			S	29 09.8					
SEP	05	PNS	eP	22 14 55					
SEP	05	PNS	P	22 32 46.6		0.9	7		
			S	33 40.8					
		LPR	eP	22 32 47		0.8	18		
			S	33 35					
SEP	05	PNS	iP	22 35 27.8					
			S	54					
		LPR	eP	22 35 34.3		0.7	14		
			S	36 08.7					
SEP	05	LPR	eP	23 37 12.2					
SEP	06	LPR	e(P)	01 25 10.5					
SEP	06	PNS	P	02 22 55.6		0.5	3		
			S	23 26					
		LPR	eP	02 22 58.5					
SEP	06	PNS	P	02 31 54.2		0.4	3		
			W	32 25					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		LPR	eP	02 31 54.7					
			S	32 24		0.9	15		
SEP	06	PNS	P	02 53 34		0.6	6		
		LPR	eP	02 53 37		0.9	8		
SEP	06	LPR	eP	03 45 28.3					
SEP	06	PNS	P	06 11 44.1		0.8	2		
		LPR	eP	06 11 44.5					
SEP	06	PNS	P	06 21 00		0.6	2		
			S	25					
SEP	06	PNS	eP	06 55 26					
			eL	07 01.4					
		LPR	eP	06 55 28		0.8	4		
			eS	59 25					
			eL	07 01.6					
SEP	06	USCGS 07 49 42, 5.8S, 80.3W, h = 66 km., m = 5.3 NEAR COAST OF NORTHERN PERU							
		PNS	P	07 53 20.1		1.3	58		
			S	56 28.2					
			L	58.6					
		LPR	P	07 53 25.3		1.0	148	16	
			S	56 32					
			eL	58.3					
SEP	06	USCGS 07 36 06.4, 17.8S, 167.8E, h = 28 km., m = 5.3 NEW HEBRIDES IS							
		LPR	eL	08 31					
		PNS	eL	08 31					
SEP	06	LPR	P	08 05 44.7		0.8	25		
SEP	06	LPR	e(P)	08 38 30					
		PNS	eP	08 38 31.3					
SEP	06	PNS	P	08 59 26.6		0.7	3		
		LPR	eP	08 59 28.5		0.9	6		
SEP	06	LPR	eP	11 55 32					
		PNS	P	11 55 35.4		0.8	3		
SEP	06	PNS	eP	12 05 44.2					
SEP	06	PNS	eP	12 42 00.1		0.8	3		
		LPR	eP	12 42 02					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	06	PNS	P	14 11 11.2	C	1.5	42		
			L	37.1					
		LPB	iP	14 11 14.1	C	0.8	58		
			eL	37.7					
SFP	06	LPB	eP	16 33 14					
		PNS	P	16 33 18.2		0.6	5		
			S	55.4					
SEP	06	LPR	eP	16 56 05.5					
		PNS	P	16 56 10.8		0.9	4		
SFP	06	PNS	P	16 59 42.7		0.5	6		
		LPR	eP	16 59 46					
SEP	06	USCGS 17 10 34.7, 55.7, 26.8W, h = 33 km., m = 4.9 SOUTH SANDWICH IS REG							
		LPB	P	17 19 29.4		1.1	17	50	
		PNS	P	17 19 32.6		0.8	13		
SFP	06	PNS	iP	17 28 59.1	D				
			S	29 22.5					
		LPR	P	17 29 00.4	D	0.8	79		
			S	24.7					
SEP	06	LPR	eP	19 26 42					
		PNS	eP	19 26 48.9		0.8	2		
			e	27 21.6					
SFP	06	PNS	P	19 35 46					
			S	36 12.3					
SEP	06	USCGS 19 22 31.0N, 31.0N, 131.9E, h = 39 km., m = 5.7 KIUSHU, JAPAN							
		PNS	PP	19 42 43.2		1.2	70		
			PPKP	52.6					
			PP	46 45.8					
			eL	20 39.1					
		LPR	PKP	19 42 43.5		1.2	56	156.9	
			PPKP	52.8					
			PP	46 48.3					
			eL	20 39					
SFP	06	LPR	eP	20 26 04.6					
SFP	06	PNS	P	21 22 49.6		0.8	4		
SFP	06	PNS	eP	22 20 05.6					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SFP	06	LPR	eP	22 37 05				
		PNS	P	22 37 05.6		0.4	4	
SFP	06	PNS	eP	23 13 57				
		LPR	eP	23 13 59.5				
SFP	06	LPR	eP	23 40 44				
		PNS	P	23 40 47.5		0.6	2	
SEP	07	LPR	eP	00 30 02		0.6	4	
		PNS	P	00 29 57.3		0.3	5	
			S	30 18				
SFP	07	PNS	eP	00 56 09.2				
SEP	07	LPR	eP	01 28 02				
			eL	36.1				
		PNS	P	01 28 03.6		0.8	4	
			eL	36				
SFP	07	LPR	P	02 00 40		1.0	6	
		PNS	eP	02 00 49.9		0.7	2	
SEP	07	PNS	eP	02 51 38.4				
		LPR	P	02 51 40.2		0.7	11	
SFP	07	PNS	eP	03 37 57				
		LPR	eP	03 38 03				
SFP	07	PNS	eP	03 48 23.6				
		LPR	eP	03 48 26				
SFP	07	PNS	P	03 59 47.6		0.5	4	
			S	04 00 11				
SFP	07	PNS	eP	04 04 31.2				
			S	55.2				
		LPR	eP	04 04 34.2				
SFP	07	LPR	eP	04 35 35				
		PNS	P	04 35 35.6		0.9	4	
SFP	07	PNS	iP	04 46 01.2	D			
			S	24				
		LPR	P	04 46 01.8		0.9	37	
			eS	25.7				
SFP	07	LPR	eP	05 09 49		0.8	6	
		PNS	eP	05 09 50.6		0.8	4	
SFP	07	PNS	eP	06 21 59				
		LPR	eP	06 22 05.2				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	07	LPR	eP	07 03 19.7				
SEP	07	USCGS 06 47 59.0, 5.0S, 145.6E, h = 48 km., m = 5.3 NP NORTH CST OF NEW GUINEA						
		PNS	ePKP	07 07 21		0.8	2	
		LPR	ePKP	07 07 22				145
SEP	07	USCGS 07 23 07.8, 22.4S, 67.4W, h = 173 km., m = 4.8 CHILE-BOLIVIA BORDER REG						
		LPR	iP	07 24 35.6	C	0.8	285	7
			S	25 43				
		PNS	iP	07 24 39.2	C			
			S	25 48				
SEP	07	LPR	eP	08 38 34.5				
		PNS	P	08 38 38.2		1.0	6	
SEP	07	LPR	e(P)	08 56 52				
		PNS	eP	08 57 00.8				
SEP	07	LPR	e(P)	10 00 31.5				
		PNS	eP	10 00 34				
SEP	07	LPR	eP	10 17 33.6				
SEP	07	LPR	eP	10 56 38.5				
		PNS	eP	10 56 39.3				
SEP	07	LPR	eP	10 44 37.5				
SEP	07	USCGS 15 52 13.6, 58.4S, 25.6W, h = 25 km., m = 5.5 SOUTH SANDWICH IS REG						
		LPR	P	16 01 22.4	C	0.8	61	52
			eL	17.6				
		PNS	P	16 01 25.4	C			
			PCP	02 35.5				
			eS	08 52				
			eL	17.6				
SEP	07	PNS	P	16 06 21.5		1.1	12	
SEP	07	LPR	eP	16 56 09.3		1.1	17	
			eL	17 12				
		PNS	P	16 56 11.2		1.0	5	
			eL	17 12.1				
SEP	07	PNS	P	17 13 03.0		0.8	6	
		LPR	eP	17 13 09				



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	07	USCGS 17 06 30.1, 1.0S, 24.4W, h = 33 km., m = 4.7 CENTRAL MID ATLANTIC RIDGE						
		LPR	P	17 14 51.2		1.0	34	46
			eL	29.3				
		PNS	P	17 14 52.8		1.3	16	
			i	58.1				
			eL	29.7				
SEP	07	USCGS 17 41 56.8, 5.5S, 76.9W, h = 63 km., m = 5.0 NORTHERN PEPII						
		PNS	eP	17 45 05.2		1.1	11	
			PP	18.8				
		LPR	P	17 45 13.6		0.8	21	14.4
			PP	23.3				
SEP	07	PNS	eP	18 03 02				
SEP	07	USCGS 18 12 41.0, 15.4N, 121.7E, h = 9 km., m = 4.8 LUZON, PHILIPPINE IS						
		LPR	eP	18 32 29				167.4
		PNS	ePKP	18 32 30				
SEP	07	PNS	eP	19 51 44				
SEP	07	LPR	eP	19 56 36.5				
		PNS	eP	19 56 37				
SEP	08	PNS	P	00 07 21.2	D			
		LPR	eP	00 07 21.8		1.2	37	
SEP	08	USCGS 00 16 38.0, 17.6S, 167.7E, h = 20 km., m = 5.0 NEW HERPIDES IS						
		LPR	eP	00 35 19.5				115
			PS	46 00				
			eL	01 11.2				
			ePKP	00 35 21				
			e	57.5				
			PS	46 00				
			L	01 11.2				
SEP	08	PNS	P	01 22 13.5		0.6	2	
			S	49.7				
SEP	08	LPR	eP	02 01 26.5				
		PNS	eP	02 01 26				
SEP	08	LPR	eP	03 03 10				
		PNS	eP	03 03 15.2				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	08	PNS	P	03 28 03.7		0.9	7	
		LPR	P	03 28 07		0.7	8	
SEP	08	IUSCGS		03 29 57.0, 57.0S, 26.0W, h = 69 km., m = 5.0				
		SOUTH		SANDWICH IS REG				
		LPR	P	03 32 56.2		0.9	25	50.4
		PNS	P	03 22 59		0.9	12	
SEP	08	PNS	P	04 11 38.7		0.4	9	
			S	12 01.8				
SEP	08	LPR	eP	04 27 20		0.8	7	
		PNS	P	04 27 23.1		0.9	3	
SEP	08	LPR	P	04 55 23.3		0.9	6	
		PNS	P	04 55 29.9		0.9	4	
SEP	08	LPR	eP	06 44 23.3		0.9	5	
		PNS	P	06 44 26		0.6	17	
SEP	08	PNS	P	06 51 50.7				
			eS	53 11				
		LPR	eP	06 51 53.6				
SEP	08	LPR	eP	08 50 47.5				
SEP	08	PNS	eP	09 04 00				
		LPR	e(P)	09 04 02				
SEP	08	LPR	eP	09 27 54.6				
		PNS	P	09 27 58.2		0.4	5	
SEP	08	LPR	eP	09 37 50.5				
			eS	39 06.5				
		PNS	eP	09 38 00				
			eS	39 12				
SEP	08	LPR	P	10 55 10.7		1.0	26	
		PNS	P	10 55 12.8		0.9	15	
SEP	08	LPR	e(P)	11 37 05				
		PNS	eP	11 37 05				
SEP	08	PNS	eP	12 11 01.6		0.9	4	
		LPR	eP	12 11 03.5				
SEP	08	LPR	eP	13 03 41				
		PNS	eP	13 03 48				
			eS	04 14				
SEP	08	LPR	eP	13 05 04				
		PNS	eP	13 05 07				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	08	IUSCGS		13 04 30.7, 58.2S, 26.6W, h = 151 km., m = 5.3				
		SOUTH		SANDWICH IS REG				
		LPR	P	13 13 33.5	D	0.8	21	52
		PNS	P	13 13 36	C	0.6	14	
			e	14 16.2				
SEP	08	PNS	P	13 18 25.2		1.1	8	
		LPR	eP	13 18 28				
SEP	08	LPR	eL	14 24.7				
		PNS	eL	14 24.8				
SEP	08	IUSCGS		15 12 23.8, 3.7S, 143.0E, h = 29 km., m = 6.0				
		NR N		CST OF NEW GUINEA				
		PNS	PKP	15 31 54		0.9	26	
			PKC	35 35				
			PS	45 28				
			L	16 21				
		LPR	PKP	15 31 56	D	1.0	132	143.1
			PKS	35 35.5				
			eL	16 21.1				
SEP	08	PNS	P	15 43 57.3		0.9	11	
		LPR	eP	15 44 00				
SEP	08	PNS	iP	15 46 03.9	D			
			S	26.4				
		LPR	P	15 46 04.8				
SEP	08	IUSCGS		15 32 09.8, 3.7S, 143.0E, h = 42 km., m = 5.2				
		NP		NORTH! CST OF NEW GUINEA				
		PNS	PKP	15 51 39.8		0.8	9	
		LPR	ePKP	15 51 40		1.0	20	143.1
SEP	08	LPR	eP	17 48 40.5				
		PNS	P	17 48 42.5		0.7	9	
SEP	08	LPR	P	18 19 50.8		0.8	19	
		PNS	P	18 19 54.9		0.5	12	
SEP	08	LPR	eP	18 25 55.2				
		PNS	P	18 25 59.3		0.7	3	
SEP	08	LPR	eP	19 10 53				
		PNS	P	19 10 54.9		1.0	5	
SEP	08	IUSCGS		19 41 04.5, 0.6N, 121.9E, h = 137 km., m = 5.3				
		NORTHERN		CELEBES				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	08	PNS	PKP	20 03 52.3		1.1	13		
			i	04 37.8					
			eL	57.5					
SEP	08	LPR	PKP	20 03 52.5		0.8	12	161.5	
SEP	08	USCGS 20 04 51.2, 46.0N, 151.4E, h = 31 km., m = 5.0 KIURILE IS							
		LPR	ePKP	20 29 12.3				136	
SEP	08	LPR	P	21 27 03.7		0.9	16		
		PNS	P	21 27 04.0		0.8	14		
SEP	08	LPR	P	21 44 48.3	D	0.8	88		
			S	45 38					
		PNS	iP	21 44 51.5	C				
			S	45 47					
SEP	08	LPR	eP	22 59 31.5					
		PNS	P	22 59 33.7		0.8	5		
SEP	08	PNS	eP	23 17 56					
SEP	09	PNS	eP	00 12 32.8		0.4	4		
		LPR	eP	00 12 36					
SEP	09	PNS	iP	00 18 41.6		0.9	26		
			eL	27.2					
		LPR	P	00 18 45		1.1	52		
			eL	27.3					
SEP	09	LPR	eP	00 23 07.7					
			e	42.5					
		PNS	P	00 23 09.0		0.6	5		
SEP	09	USCGS 00 35 18.4, 8.7S, 74.5W, h = 144 km., m = 5.3 PERU-BRAZIL BORDER REG							
		PNS	P	00 37 33					
			S	39 24					
			i	43 09					
		LPR	P	00 37 38.8		1.3	178	10	
			S	34 30					
SEP	09	LPR	eP	01 55 58					
		PNS	P	01 55 59.6		0.5	2		
			S	56 30					
SEP	09	PNS	P	02 01 20		0.5	4		
			S	42.4					
SEP	09	LPR	eP	02 35 35					
		PNS	eP	02 35 36.4					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	09	USCGS 02 20 57.9, 66.1N, 142.1E, h = 33 km., m = 5.1 FASTENY SIBERIA							
		LPR	ePKP	02 39 57.5				126.7	
		PNS	ePKP	02 49 02.7					
SEP	09	PNS	P	04 06 56.2					
		LPR	eP	04 06 51.5					
SEP	09	PNS	eP	04 18 03.4					
		LPR	eP	04 18 06.2					
SEP	09	LPR	eP	05 10 40.7					
SEP	09	LPR	eP	05 18 18.5					
		PNS	P	05 18 21.3		0.8	3		
SEP	09	PNS	eP	05 23 20.4					
			eL	48.3					
		LPR	P	05 23 22.3					
			eL	48					
SEP	09	PNS	eP	05 48 47.9					
		LPR	eP	05 48 53					
SEP	09	LPR	P	06 24 49.5		0.8	6		
		PNS	P	06 24 51.5		1.1	7		
SEP	09	LPR	eP	06 40 55.3					
		PNS	eP	06 40 58.8					
SEP	09	LPR	iP	06 57 11.7	C	0.8	49		
		PNS	iP	06 57 15.8	C	0.5	12		
SEP	09	USCGS 08 22 13.5, 19.5S, 69.8W, h = 118 km., m = 4.3 NORTHERN CHILE							
		PNS	iP	08 23 07	C				
			S	47.4					
		LPR	iP	08 23 05.4	C	0.9	42	3.6	
			S	44					
SEP	09	LPR	eP	09 29 27					
SEP	09	LPR	eP	09 47 02					
		PNS	eP	09 47 04.6					
SEP	09	LPR	e(P)	10 12 08					
		PNS	eP	10 12 29.2					
SEP	09	LPR	eP	11 40 53					
		PNS	P	11 40 55.5		0.6	4		

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
AUG	09	PNS	iP	11 59 45					
			S	12 00 04.6					
		LPR	eP	11 59 45.5		0.7	14		
AUG	09	PNS	eP	12 16 53					
AUG	09	PNS	eP	13 24 05		1.0	5		
		LPR	eP	13 24 08.7		0.9	17		
AUG	09	LPR	e(P)	14 56 57.5					
AUG	09	LPR	eP	15 02 10.5					
AUG	09	USCGS 16 01 22.1, 7.4S, 127.1E, h = 82 km., m = 4.7 BANDA SEA							
		LPR	P	16 21 10		1.2	21	151.6	
AUG	09	PNS	P	16 48 10.6		0.5	3		
			S	16 48 25.7					
		LPR	eP	16 48 51					
AUG	09	USCGS 16 42 54.0, 3.7S, 142.9E, h = 40 km., m = 5.6 NR NORTH CST OF NEW GUINEA							
		PNS	ePKP	17 02 27					
		LPR	ePKP	17 02 30				143.3	
AUG	09	PNS	P	19 11 07.1		0.5	2		
			eS	19 11 32.8					
AUG	09	PNS	eP	19 40 31.7					
AUG	09	USCGS 19 57 30.9, 2.0S, 80.8W, h = 56 km., m = 4.5 NEAR COAST OF ECUADOR							
		PNS	P	20 01 48.5		1.0	25		
			eL	20 01 09.1					
		LPR	P	20 01 53.2		0.9	40	18	
			eL	20 01 09.8					
AUG	09	PNS	eP	21 02 07					
AUG	09	LPR	eP	22 02 54.5					
		PNS	eP	22 02 50.8					
AUG	09	LPR	eP	22 44 43.5					
		PNS	P	22 44 44.2		0.8	3		
			i	22 45 37.2					
AUG	09	PNS	eP	22 52 53		0.4	4		
			S	22 53 21.8					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	10	LPR	P	00 06 44.5		0.9	20		
			S	07 11.4					
		PNS	P	00 06 52.2	C	0.6	10		
			S	07 27.9					
SEP	10	PNS	eP	00 42 25.1					
		LPR	P	00 42 26.3		0.8	7		
			i	40					
SEP	10	PNS	eP	01 08 08.6					
		LPR	P	01 08 20					
				24.3					
SEP	10	USCGS 02 23 37.2, 5.3S, 152.4E, h = 49 km., m = 5.1 NEW BRITAIN REG							
		PNS	ePKP	02 42 54		0.8	3		
		LPR	PKP	02 42 54.8		0.6	4	143	
SEP	10	LPR	P	02 46 26		0.9	5		
SEP	10	LPR	eP	04 47 54					
		PNS	iP	04 47 49.4	D	0.4	6		
			S	48 13.4					
SEP	10	LPR	eP	05 10 06		0.9	5		
		PNS	P	05 10 05.7		0.9	5		
SEP	10	LPR	P	05 11 40.4		0.7	7		
SEP	10	LPR	eP	05 25 47.5					
		PNS	P	05 25 48		0.8	8		
SEP	10	LPR	P	05 26 40.4		0.7	11		
		PNS	P	05 26 43.9		0.7	5		
SEP	10	USCGS 05 25 01.6, 3.7S, 142.9E, h = 47 km., m = 5.3 NR NORTH CST OF NEW GUINEA							
		PNS	PKP	05 44 31.5		1.5	24		
			eL	06 32.4					
		LPR	PKP	05 44 32.2		1.0	16	143.3	
			eL	06 32					
SEP	10	USCGS 05 40 00.0, 3.6S, 142.9E, h = 41 km., m = 5.2 NR NORTH CST OF NEW GUINEA							
		PNS	PKP	05 59 30.4		0.8	16		
			PP	06 03 11					
		LPR	P	05 59 31.4		1.1	27	143.6	
			ePP	06 03 13.6					
SEP	10	LPR	eP	06 10 18.2					
		PNS	eP	06 10 18.7					
SEP	10	PNS	eP	06 25 41					
		LPR	eP	06 25 44.6					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	10	LPR	eP	06 37 14.2				
		PNS	eP	06 37 18				
SEP	10	USCGS 07 00 45.6, 3.6S, 142.9E, h = 50 km., m = 4.8 NR NORTH CST OF GUINEA						
		PNS	ePKP	07 20 13.9		0.8	3	
		LPR	ePKP	07 20 15		0.6	5	143.6
SEP	10	PNS	P	08 07 02.8		1.1	8	
		LPR	P	08 07 08.7		0.8	11	
SEP	10	LPR	eP	08 16 13				
SEP	10	LPR	eP	10 15 51.5				
SEP	10	USCGS 12 00 32.5, 20.0S, 68.8W, h = 103 km., m = 4.1 CHILE-BOLIVIA BORDER REG						
		LPR	P	12 01 27		0.9	62	3.6
			S	02 03.3				
		PNS	P	12 01 30				
			S	02 06				
SEP	10	PNS	P	13 29 56.8	D	0.5	5	
			S	30 19.5				
		LPR	eP	13 29 58				
SEP	10	LPR	eP	14 29 24.5				
			eL	38				
		PNS	P	14 29 25.5		1.0	6	
			eL	38.2				
SEP	10	LPR	P	15 57 37				
			eS	58 38				
		PNS	P	15 57 40	D			
			S	58 39.6				
SEP	10	LPR	eP	16 36 32				
		PNS	P	16 36 32.9		0.6	8	
SEP	10	USCGS 17 18 08.9, 36.3N, 70.8E, h = 223 km., m = 5.0 HINDU RUSH REGION						
		PNS	ePKP	17 37 10.6		0.8	2	
		LPR	ePKP	17 37 14.5				138.6
SEP	10	PNS	eP	17 40 23.8		0.7	2	
		LPR	eP	17 40 28				
SEP	10	PNS	iP	17 52 30.9	D			
			S	56				
		LPR	P	17 52 32.2		0.9	42	

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	10	USCGS 21 23 48.0, 18.6N, 145.8E, h = 126 km., m = 5.3 MAPIANA IS						
		PNS	PKP	21 43 17.9		0.9	6	
		LPR	PKP	21 43 21.5		1.0	20	148
SEP	10	LPR	P	21 57 22.8		0.9	32	
		PNS	P	21 57 26.2		0.7	8	
			S	58 18.9				
SEP	10	USCGS 23 13 47.0, 14.3N, 93.9W, h = 72 km., m = 5.0 NR CST OF CHIAPAS, MEXICO						
		PNS	eP	23 21 07.6				
			S	27 15				
			L	35.4				
		LPR	eP	23 21 11.5				39
			S	27 17				
			L	35.6				
SEP	10	PNS	P	23 39 24.5				
			S	55				
SEP	11	LPR	eP	00 02 20				
SEP	11	USCGS 00 56 29.2, 5.9S, 76.5W, h = 282 km., m = 3.7 NORTHERN PERU						
		PNS	eP	00 59 26.2				
		LPR	eP	00 59 30		0.9	5	13
SEP	11	PNS	eP	05 26 40				
			e	27 20				
		LPR	eP	05 26 43				
SEP	11	LPR	eP	05 46 11				
SEP	11	USCGS 06 00 05.9, 35.3S, 105.0W, h = 33 km., m = 4.2 EASTERN IS CORDILLERA						
		LPR	eP	06 07 21				37.8
			eS	13 23				
			eL	18.2				
		PNS	eP	06 07 21.6		1.2	8	
			eS	13 26				
			eL	18.1				
SEP	11	LPR	eP	06 16 52.5				
SEP	11	PNS	eP	06 53 56				

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	11	PNS LPB	eP eP	08 17 55.2 08 18 00.7		0.9	8		
SEP	11	USCGS 08 32 05.6, 43.0S, 75.4W, h = 20 km., m = 5.0 OFF COAST OF SOUTHERN CHILE							
		LPR	P	08 37 50.5		1.2	24	27.1	
			eL	48					
		PNS	P	08 37 52		1.4	25		
			eL	49					
SEP	11	PNS LPB	eP P	09 59 38.4 09 59 43.5					
SEP	11	LPB	eP	11 12 12.8					
		PNS	eP	11 12 13					
SEP	11	PNS	P	11 24 24.9					
			eS	25 40					
		LPB	eP	11 24 25.4					
SEP	11	LPB	P	12 35 40.8					
			S	37 04					
		PNS	P	12 35 47.6					
			S	37 07.4					
SEP	11	LPB	eP	13 49 17.6					
			eS	50 09					
		PNS	eP	13 49 20					
			eS	50 10					
SEP	11	LPB	eL	15 52					
		PNS	eL	15 52.1					
SEP	11	LPB	eP	16 48 36					
		PNS	P	16 48 36.8					
SEP	11	PNS	eP	17 21 29					
		LPB	eP	17 21 29.5					
SEP	11	LPR	eP	17 25 34.3		0.8	7		
		PNS	P	17 25 37.5		0.8	9		
SEP	11	PNS	eP	17 35 44					
SEP	11	USCGS 18 26 36.8, 43.0S, 75.2W, h = 31 km., m = 5.7 OFF COAST OF SOUTHERN CHILE							
		LPB	P	18 32 20.2		1.4	270	27	
			S	36 59					
			eL	39					

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		PNS	P	18 32 21					
			eS	37 02					
			eL	41					
SEP	11	LPB	eP	18 57 31					
		PNS	eP	18 57 35.2					
SEP	11	USCGS 19 17 12.4, 33.9N, 59.4E, h = 33 km., m = 5.2 IRAN							
		PNS	ePKP	19 36 23		1.2	7		
		LPB	ePKP	19 36 25		1.2	21	130	
			e(L)	20 24					
SEP	11	LPR	eP	19 44 01.8					
		PNS	eP	19 44 03.8					
SEP	11	PNS	P	20 28 36.4		0.9	20		
		LPB	P	20 28 34.6		0.8	37		
SEP	11	PNS	eP	20 57 47.5		0.9	3		
		LPB	eP	20 57 49.5					
SEP	11	USCGS 21 47 21.9, 24.0N, 122.3E, h = 42 km., m = 5.0 TAIWAN REG							
		PNS	ePKP	22 07 26.4		1.0	5		
		LPB	ePKP	22 07 27.5				168	
SEP	11	LPB	eP	23 55 20.2					
SEP	12	LPB	P	01 55 24.4		0.9	24		
			i	43.4					
		PNS	P	01 55 26.8		0.8	17		
			i	46.1					
			i	56 19.8					
SEP	12	LPB	eP	02 02 08.5					
			S	03 14.1					
		PNS	P	02 02 15.5					
			S	03 14					
SEP	12	PNS	P	04 12 06		0.8	3		
		LPB	eP	04 12 06.3					
SEP	12	LPB	e(P)	04 15 41.5					
		PNS	eP	04 16 47					
SEP	12	LPB	eP	05 38 28.4					
		PNS	P	05 38 34.6		0.5	2		
			eS	39 26.2					
SEP	12	LPB	eP	06 06 15.5					
		PNS	eP	06 06 16					
			S	51.8					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	12	PNS	iP	06 24 23	D			
			S	46				
		LPB	P	06 24 25.4	D	0.9	7†	
			eS	50.5				
SEP	12	USCGS 08 04 30.4, 5.6S, 149.9E, h = 146 km., m = 4.8 NEW BRITAIN REG						
		LPB	ePKP	08 23 28				136.6
		PNS	PKP	08 23 29.8		1.0	5	
SEP	12	PNS	P	08 26 59.2		0.8	5	
SEP	12	LPR	eP	09 10 20				
		PNS	eP	09 10 25		1.0	3	
SEP	12	PNS	iP	09 59 13.9	D	0.4	3	
		LPR	eP	09 59 17				
SEP	12	PNS	eP	10 26 29				
			eS	29 00				
		LPR	P	10 27 31.5				
SEP	12	LPR	eP	10 47 31.5				
		PNS	eP	10 47 34				
SEP	12	PNS	eP	11 11 01.8				
			S	12 09				
		LPR	eP	11 11 02				
SEP	12	USCGS 13 36 27.5, 39.7N, 143.6E, h = 12 km., m = 5.2 OFF E CST OF HONSHU, JAPAN						
		PNS	ePKP	13 56 03.1		0.7	3	
		LPR	ePKP	13 56 03.2		0.6	8	144
SEP	12	USCGS 15 59 10.2, 16.8S, 71.0W, h = 114 km., m = 4.0 SOUTHERN PERU						
		PNS	iP	15 59 49.5	D			
			S	16 00 28				
		LPR	P	15 59 54.5		0.8	165	4
			i	56.8				
SEP	12	PNS	eP	16 13 41				
		LPR	eP	16 13 44				
SEP	12	LPR	P	18 59 43.4		0.8	18	
SEP	12	PNS	P	20 25 40.9		0.5	3	
			eS	26 16				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	12	PNS	P	20 34 59		0.4	5	
			S	35 23.6				
SEP	12	USCGS 22 44 06.5, 21.6S, 179.4W, h = 635 km., m = 5.9 WEST TONGA IS						
		PNS	P	22 57 01.6		0.9	8	
			e	06 41				
			S	23 07 27				
		LPR	P	22 57 03.7		1.0	14	103.3
SEP	12	LPR	eP	23 12 18.5				
			i	56.3				
		PNS	eP	23 12 22				
			i	57				
SEP	12	PNS	P	23 17 15.4		1.0	4	
		LPR	P	23 17 16.5		1.0	12	
SEP	12	PNS	eP	23 20 50.4				
		LPR	eP	23 20 55				
SEP	13	USCGS 00 56 00.5, 43.1S, 75.5W, h = 33 km., m = 4.7 OFF COAST OF SOUTHERN CHILE						
		PNS	P	01 01 45.1		1.4	12	
		LPR	P	01 01 46		0.9	8	27.4
SEP	13	LPR	eP	04 14 19.5		0.9	8	
		PNS	P	04 14 24.2		0.6	5	
SEP	13	LPR	eP	04 57 48.7				
		PNS	P	04 57 50.6				
SEP	13	LPR	P	05 17 56.5	D	1.0	17	
			iS	18 23				
		PNS	P	05 17 56.8	D			
			S	18 24.8				
SEP	13	PNS	P	05 23 05.1		0.5	4	
			S	31				
		LPR	P	05 23 06.4		1.2	6	
SEP	13	LPR	eP	05 40 13.3				
			eS	41 20				
		PNS	P	05 40 18.8		0.6	3	
			eS	41 26.2				
SEP	13	PNS	eP	06 00 18.8				
		LPR	eP	06 00 22				
SEP	13	PNS	eP	06 31 02.6				
		LPR	eP	06 31 05				

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	13	PNS LPR	P P	06 55 53.5 06 55 56.5		1.2	20	
SEP	13	USCGS		07 30 43.6, 15.1N, 93.9W, h = 34 km., m = 5.1				
		PNS	P	07 38 15		1.1	9	
		LPR	eP	07 38 19				40.5
			eL	08 52				
SEP	13	PNS LPR	P eP	08 19 10 08 19 42		0.9	4	
SEP	13	LPR PNS	eP P	09 40 31.5 09 40 40.5		0.7	2	
			S	57.3				
SEP	13	LPR PNS	eP eP	09 49 47 09 49 53				
SEP	13	LPR PNS	eP P	11 31 52 11 31 52		1.0	6	
SEP	13	PNS	P	11 32 49.2	D	0.5	5	
			S	33 11.9				
SEP	13	LPR PNS	P P	11 41 37.6 42 08.4	D	0.8	75	
			S	42 07.8				
SEP	13	USCGS		12 49 54.8, 11.1S, 164.4E, h = 59 km., m = 5.4				
		SANTA CRUZ IS REG						
		PNS	PKP	13 08 44.4		1.0	20	
		LPR	PKP	13 08 45		0.9	30	14.3
SEP	13	LPR PNS	eP P	14 18 00 14 18 03.2				
			eS	56				
SEP	13	LPR PNS	eP P	14 52 25.5 14 52 28.3		0.5	2	
SEP	13	PNS	eP	15 55 00				
SEP	13	LPR PNS	eP eP	17 00 32.6 17 00 34.2				
SEP	13	PNS LPR	P eP	17 10 40.4 17 10 41.5		0.4	7	

SEPTEMBER



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	13	LPR PNS	eP P	19 26 57.4 19 26 59.4			0.6	3
SEP	13	LPR PNS	eP eP	19 50 10 19 50 17.2				
SEP	13	PNS	P	20 24 44.6			0.6	4
			S	25 20.9				
SEP	14	PNS	P	00 18 58.4			0.6	3
			S	19 10.6				
		LPR	eP	00 19 03.5				
SEP	14	LPR	P	00 54 13.7			1.0	12
			eS	55 29				
		PNS	eP	00 54 11				
			eS	55 32.4				
SEP	14	USCGS		01 25 14.1, 24.5S, 80.4E, h = 33 km., m = 5.5				
		SOUTH INDIAN OCEAN						
		PNS	PKP	01 44 28.3		1.0	17	
			PP	46 34.3				
			eL	02 29				
		LPR	PKP	01 44 27		1.0	30	129
			PP	33				
			eL	02 28				
SEP	14	PNS	e(P)	01 49 43.6				
SEP	14	USCGS		01 38 44.8, 57.9N, 32.6W, h = 33 km., m = 5.3				
		NORTH ATLANTIC OCEAN						
		PNS	P	01 50 47.9		0.9	7	
		LPR	eP	01 50 50				80
SEP	14	PNS LPR	eP eP	03 07 48.8 03 07 54				
SEP	14	USCGS		06 56 11.7, 8.9S, 124.0E, h = 33 km., m = 5.3				
		TIMOR						
		LPR	PKP	07 16 08		1.0	20	152
		PNS	PKP	07 16 08.4		1.3	20	
SEP	14	PNS	eP	09 20 11				
			eS	40				
SEP	15	LPR	eP	09 20 11				
			eS	44				
SEP	14	PNS	P	09 23 53			0.6	3
			S	24 18				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	14	PNS LPR	eP eP	09 49 54 09 49 56					
SEP	14	PNS LPR	eP eP	10 54 32.3 10 54 32.4					
SEP	14	PNS LPR	eP eP	11 31 50 11 31 50.5					
SEP	14	LPR PNS	eP eP	12 37 49 12 37 50					
SEP	14	PNS LPR	e(S) eP	13 32 12 13 32 14		0.4	2		
SEP	14	PNS LPR	P eP	13 47 35.3 13 48 19.8		0.4	3		
SEP	14	HSCGS 13 48 31.2, 28.4N, 53.1E, h = 33 km., m = 5.8 SOUTHERN IRAN							
		PNS	PKP	14 07 30.3		0.8	13		
			PP	09 18.7					
			PKS	11 10					
			SS	26 15					
			L	49					
		LPR	PKP	14 07 31.8		0.9	17	125	
			PP	09 15.8					
			ePKS	11 11.8					
			eL	48.8					
SEP	14	LPR PNS	e(P) eP	14 20 39.5 14 20 40.4					
SEP	14	LPR PNS	eP eP	14 30 46 14 30 48					
SEP	14	PNS LPR	eP eP	14 52 05.2 14 52 06					
SEP	14	PNS LPR	eP eP	15 13 36.2 15 13 42.5					
SEP	14	PNS LPR	P e	15 36 43.9 15 36 50.6					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	14	PNS	eP	16 36 11.4					
SEP	14	PNS LPR	iP iP	18 54 05.7 18 54 10.6		1.0	304		
SEP	14	LPR PNS	eP eP	19 30 43.5 19 30 47.6					
SEP	14	HSCGS 19 20 22.7, 28.4N, 53.2E, h = 44 km., m = 5.1 SOUTHERN IRAN							
		LPR	ePKP	19 39 21				125	
			eI	20 24					
		PNS	PKP	19 39 22		1.0	5		
			eI	20 23.5					
SEP	14	HSCGS 23 20 42.8, 12.1N, 123.2E, h = 33 km., m = 5.1 LUCON, PHILIPPINE IS							
		LPR PNS	ePKP ePKP	23 40 45 23 40 49.7		1.1	6	168.6	
SEP	15	LPR PNS	eP P	01 36 18 01 36 18.7		0.8	2		
SEP	15	HSCGS 01 29 33.8, 56.0S, 27.4W, h = 139 km., m = 5.1 SOUTH SANDWICH IS REG							
		LPR	P	01 38 16		1.0	10	50	
			S	45 19					
		PNS	P	01 38 19.4		0.8	9		
			S	45 24					
SEP	15	LPR PNS	eP P	01 03 17.5 01 43 17.6		1.0	6		
SEP	15	PNS LPR	eP i	03 09 40 03 09 45					
SEP	15	LPR	P	03 09 42.7		0.8	7		
SEP	15	PNS	i	10 21.5					
SEP	15	PNS	eP	03 21 54.5		0.8	4		
SEP	15	HSCGS 03 09 29.6, 6.4S, 146.6E, h = 111 km., m = 5.2 EASTERN NEW GUINEA REG							
		PNS	ePKP	03 28 40		1.0	3		
		LPR	PKP	03 28 47		1.0	12	139	
SEP	15	PNS LPR	eP e(P)	03 32 14.6 03 32 19		0.8	6		

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	15	USCGS GRFTE	04 55	59.5, 34.7N, 25.1E, h = 33 km., m = 4.9				
		LPR	eL	05 44				102
		PNS	eL	05 44.4				
SEP	15	USCGS NP S CST OF HONSHU, JAPAN	05 03	28.3, 35.1N, 139.2E, h = 144 km., m = 4.5				
		PNS	PKP	05 23 02.8		0.9	8	
		LPR	PKP	05 23 03.5				149.7
SEP	15	PNS LPB	P	06 44 37.6 06 44 44		0.9	3	
SEP	15	PNS LPB	eP	07 05 03 07 05 08				
SEP	15	PNS	eP	09 28 59				
SEP	15	LPR	iP	09 29 47.7 30 26	C	0.9		105
		PNS	iP	09 29 51.7 30 30	C			
SEP	15	PNS LPR	eP	09 41 05 09 41 07		1.0	6	
SEP	15	PNS LPR	iP	09 52 52.6 53 18	D	0.4	6	
		LPR	eP	09 52 53.5				
SEP	15	USCGS IRAN	09 42	14.6, 34.0N, 59.4E, h = 20 km., m = 4.9				
		LPR	ePKP	10 01 25.5				130
		PNS	ePKP	10 01 25.8				
SEP	15	LPB	iP	10 15 04.5 46.5	C	1.0	64	
		PNS	iP	10 15 16.2 48	C			
SEP	15	LPB PNS	eL	10 58 10 58				
SEP	15	USCGS OFF E CST OF HONSHU, JAPAN	10 50	11.8, 40.9N, 143.2E, h = 15 km., m = 5.4				
		PNS	PKP	11 09 46.4		1.6	13	
			eSS	31 30				
			i	37 00				
			L	57.9				
		LPR	ePKP	11 09 50				143.9
			e	37 10				
			L	57.4				
SEP	15	USCGS	11 58	36, 1.3N, 126.2E, h = 33 km., m = 5.2				
				MOLUCCA PASSAGE				
		PNS	PKP	12 18 35		1.5	19	



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
			i	19 13.2				
		LPB	PKP	12 18 35.5		0.9	13	157.5
SEP	15	LPB	eP	13 03 24.5				
			S	54				
		PNS	P	13 03 28.2		0.5	3	
			S	04 02				
SEP	15	PNS	e(P)	13 53 56				
SEP	15	USCGS	14 52	29.4, 33.1N, 142.0E, h = 53 km., m = 4.7				
				OFF E CST OF HONSHU, JAPAN				
		LPB	PKP	15 12 10.7		0.9	11	148.1
		PNS	PKP	15 12 10	C	1.0	8	
SEP	15	LPB	P	17 30 01.4	C	0.7	21	
			eS	31 05				
		PNS	iP	17 30 05.3	C			
			eS	31 10				
SEP	15	LPB	eP	17 32 03				
		PNS	eP	17 32 10				
SEP	15	PNS LPB	P	17 47 21.6 17 47 21.2		1.1	10	
						1.0	10	
SEP	15	USCGS	19 48	12.5, 21.0S, 68.3W, h = 145 km., m = 4.6				
				CHILE BOLIVIA BORDER REG				
		PNS	iP	19 49 25.4	C			
			S	50 19				
SEP	15	LPB	P	20 50 31.5	C	1.0	34	
			eS	51 23.5				
		PNS	iP	20 50 35.7	C	0.8	4	
			eS	51 30.4				
SEP	15	PNS	iP	21 52 01.8	D			
			S	30				
		LPB	iP	21 52 02.7	D	0.5	122	
			eS	31.8				
SEP	15	PNS	P	22 24 40.5		0.8	4	
SEP	15	LPB	eP	23 34 46				
		PNS	eP	23 34 49.1				
SEP	16	USCGS	00 48	32.1, 14.5N, 41.5W, h = 33 km., m = 4.6				
				NORTH ATLANTIC RIDGE				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		PNS	P	00 55 53		1.0	7		
			eL	01 07.7					
		LPR	P	00 55 52.8		1.0	14	38.3	
			eL	01 07.2					
SEP	16	USCGS 00 52 36.8, 33.8S, 102.9W, h = 33 km., m = 4.8 WEST CHILE RISE							
		PNS	P	00 59 28.4		1.0	8		
		LPR	P	00 59 29		1.0	10	35	
SEP	16	LPR	eP	02 14 20.6					
		PNS	P	02 14 23.9		1.2	7		
SEP	16	LPR	P	02 16 03.5		0.9	17		
			eS	17 13.7					
		PNS	P	02 16 07.3		0.4	9		
			eS	17 14.4					
SEP	16	USCGS 03 07 28.8, 1.4S, 119.5E, h = 33 km., m = 5.2 CFLEBES							
		PNS	ePKP	03 27 36					
		LPR	ePKP	03 27 39.5				160.2	
SEP	16	LPR	P	05 29 02					
SEP	16	LPR	P	06 29 07		1.0	10		
		PNS	eP	06 29 09.4		0.5	12		
SEP	16	LPR	P	08 03 48		0.6	7		
SEP	16	LPR	P	09 22 36.5		1.2	20		
SEP	16	LPR	eP	12 34 15					
		PNS	eP	12 34 19					
SEP	16	PNS	P	13 50 23.4					
			eS	51 08					
		LPR	eP	13 50 27.5					
			eS	51 09					
SEP	16	USCGS 13 55 36.1, 6.1S, 148.7E, h = 59 km., m = 5.8 NEW BRITAIN REG							
		LPR	eP	14 12 21				137	
			ePKP	14 42					
			i	14 48.5					
			PP	17 48.8					
			PS	28 04					
			eL	15 00.7					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
		PNS	P	14 12 23		0.7	5		
			ePKP	14 42.2					
			i	48					
			PP	17 42					
			SKS	21 50					
			PS	28 00					
			SS	35 54					
			θ	52.7					
			L	15 00.5					
SEP	16	PNS	eP	14 49 52.4		1.0	3		
		LPR	eP	14 49 55					
SEP	16	LPR	eP	14 53 20					
		PNS	eP	14 53 23.5		1.4	11		
SEP	16	LPR	eP	15 14 25.5					
		PNS	eP	15 14 22.7					
			e	37.8					
SEP	16	PNS	P	15 15 50.1		1.2	8		
		LPR	eP	15 15 50.5					
SEP	16	USCGS 15 00 44.2, 6.4S, 148.8E, h = 66 km., m = 4.9 NEW BRITAIN REG							
		LPR	eP	15 19 53				137	
			e	20 05					
		PNS	ePKP	15 19 55					
			e	20 03.6					
SEP	16	PNS	eP	15 23 40.6		1.0	6		
		LPR	eP	15 23 41.4					
SEP	16	PNS	P	15 45 40.5		1.2	8		
		LPR	eP	15 45 43					
SEP	16	LPR	eP	15 53 43.7					
		PNS	eP	15 53 47					
SEP	16	USCGS 15 45 04.6, 6.4S, 149.1E, h = 50 km., m = 4.0 NEW BRITAIN REG							
		LPR	eP	16 04 10.2				136.8	
		PNS	PKP	16 04 14.6		1.0	5		
			i	26					
SEP	16	LPR	eP	16 08 00					
		PNS	P	16 07 57.4		0.9	4		
SEP	16	USCGS 16 00 53.1, 6.0S, 148.8E, h = 71 km., m = 5.3 NEW BRITAIN REG							

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		LPR	ePKP i	16 19 53.5 20 13.7		1.0	28	137
		PNS	eL ePKP i eL	16 06 16 19 57.5 20 02.0 17 04.1				
SEP	16	PNS LPB	P eP	16 23 41.8 16 23 43.4		1.0	16	
SEP	16	PNS LPB	P i eP i	16 39 18.6 28 16 39 20.6 30.8		1.1	30	
SEP	16	LPR PNS	eP P	16 41 12 16 41 14.1		0.6	6	
SEP	16	PNS	eP	16 51 11		0.8	2	
SEP	16	LPR PNS	eP P	17 59 20.5 17 59 21.6		0.5	5	
SEP	16	LPR PNS	eP eS iP S	18 09 12.2 42.5 18 09 13.5 37	D			
SEP	16	PNS LPB	eP eP	18 53 06 18 53 06.5				
SEP	16	LPR PNS	eP P	19 52 40.8 19 52 41		0.9	5	
SEP	16	PNS	P	21 02 23.5		0.4	3	
SEP	16	LPR PNS	P P	23 15 25.6 23 15 27		1.0 1.0	36 11	
SEP	16	PNS LPR	eP eP e	23 25 20 23 25 20.6 32				
SEP	17	PNS LPR	P eS eP	00 06 04 30 00 06 04				
SEP	17	PNS LPR	P eP	00 23 35.4 00 23 39		0.8	2	
SEP	17	LPB PNS	eP eP	01 54 28.2 01 54 30.2		0.5	2	

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	17	PNS	P S	05 06 51.8 02 32				
SEP	17	PNS LPB	eP eP	05 41 23 05 41 23.8				
SEP	17	PNS	eP	07 22 35				
SEP	17	USCGS 07 30 51.9, 6.4S, 148.7E, h = 36 km., m = 5.1 NEW BRITAIN REG						
		PNS	PKP ePKS eL	07 50 15 53 48 08 37.6		0.9	5	
		LPB	ePKP ePKS eL	07 50 16 53 51.6 37				137.2
SEP	17	PNS LPB	iP P	07 54 27.8 07 54 33	C	0.6	5	
SEP	17	LPR	P i	09 54 12.4 26		1.0	20	
SEP	17	LPR	eP	10 17 17.5				
SEP	17	PNS LPB	eP P	14 11 10 14 11 15				1.0
SEP	17	USCGS 14 51 4.8, 21.6S, 11.26W, h = 33 km., m = 4.0 EASTERN IS COPDILLERA						
		PNS	iP eP L	14 59 02.5 15 00 40.8 15 10.9	C	1.2	87	
		LPR	P eL	14 59 04.8 11		1.2	62	42
SEP	17	LPB	P eS	15 02 33.5 03 40		1.0	38	
		PNS	iP S	15 02 37.9 03 40.7		0.5	6	
SEP	17	LPB PNS	P iP	16 09 31.2 16 09 32.9	C	0.9	73	
SEP	17	PNS LPB	P eP	16 19 42.7 16 19 49.3		0.6	2	
SEP	17	USCGS 20 47 26.4, 63.0S, 60.8W, h = 33 km., m = 4.9 PALMER PENINSULA						
		LPR	P eL	20 55 54.5 21 16.8		0.9	11	46.7
		PNS	P eL	20 55 56.3 21 16.9		1.0	10	
SEP	17	LPR PNS	P S P S	20 57 18.5 43.7 20 57 22.7 54.4		0.6	4	



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	17	USCGS PERU	21 49	58.7, 13.7S, 75.9W, h = 97 km., m = 1.				
		PNS	P	21 51 49		0.7	7	
			eS	53 20				
		LPB	P	21 51 56.3		0.9	35	7.9
			eS	53 29				
SEP	17	PNS	eP	22 08 45		0.8	3	
			eS	09 23				
SEP	17	LPB	P	22 53 50		0.8	15	
			S	54 14				
		PNS	iP	22 53 48.5				
			S	54 11				
SEP	18	PNS	iP	00 38 23	D	0.5	5	
			eS	46.8				
		LPB	P	00 38 24				
SEP	18	PNS	iP	00 57 23.4	D	0.6	12	
			S	49.7				
		LPB	eP	00 57 30				
			S	55.4				
SEP	18	LPB	P	00 59 50.5		0.5	7	
		PNS	P	00 50 53.1		0.5	3	
SEP	18	LPB	eP	02 31 37.7				
		PNS	eP	02 31 39.4				
SEP	18	PNS	P	02 59 12		0.5	4	
			S	34				
		LPB	eP	02 59 14.3		0.7	8	
			S	38.3				
SEP	18	USCGS PERU	04 23	40.3, 9.3S, 75.7W, h = 41 km., m = 4.3				
		PNS	P	04 26 03.1		0.8	2	
			PP	20.7				
			eS	27 54				
			eL	30.4				
		LPB	P	04 26 10		0.8	7	10
			eL	30.5				
SEP	18	PNS	P	05 12 18.7		0.5	3	
		LPB	eP	05 12 19.2				
SEP	18	LPB	eP	05 27 25.5		0.9	8	
		PNS	P	05 27 30		0.8	2	
SEP	18	PNS	eP	05 35 10.6		1.0	4	
		LPB	eP	05 35 14.5				



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	18	LPB	P	06 02 18.6		0.6	7	
			S	03 34.2				
		PNS	P	06 02 22.8		0.4	3	
			S	03 40.8				
SEP	18	PNS	eP	06 16 09.2				
		LPB	eP	06 16 10.2				
SEP	18	LPB	eP	06 25 02.2				
		PNS	P	06 25 06.3		0.4	2	
SEP	18	PNS	P	06 44 18.6		0.5	4	
		LPB	P	06 44 23.8		1.0	10	
SEP	18	LPB	eP	06 56 02.5				
			S	55				
		PNS	P	06 56 06		0.5	3	
			S	57 01.9				
SEP	18	PNS	eP	07 11 05.2		1.0	5	
SEP	18	LPB	eP	07 22 55.5				
		PNS	eP	07 22 56.7				
SEP	18	LPB	eP	07 43 35				
		PNS	P	07 43 36.2		1.0	5	
SEP	18	USCGS	07 37	21.8, 37.2N, 71.9E, h = 123 km., m = 5.0				
		AFGHANISTAN-USSR BORDER REG						
		LPB	ePKP	07 56 36.8				134.4
		PNS	ePKP	07 56 37.4				
SEP	18	LPB	eP	08 09 40		1.0	4	
SEP	18	LPB	eP	09 13 41				
		PNS	eP	09 13 53				
SEP	18	LPB	eP	09 31 05.5				
		PNS	eP	09 31 08				
SEP	18	LPB	eP	09 34 47.5				
		PNS	P	09 34 48		0.7	2	
SEP	18	LPB	eP	11 04 10				
		PNS	eP	11 04 07				
SEP	18	LPB	eP	11 41 07				
		PNS	eP	11 41 17.2				
SEP	18	USCGS	11 43	45.6, 18.2S, 167.1E, h = 33 km., m = 5.7				
		NEW HERPIDES IS						
		LPB	eP	12 02 22.7		1.15		115.4
			L	38.3				
		PNS	ePKP	12 02 26.6		0.9	4	

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	18	PNS	p	13 30 50.8		0.8	2		
			eS	33 23.8					
		LPR	eP	13 30 55.6					
SEP	18	USCGS 14 10 57.8, 6.3S, 148.8E, h = 68 km., m = 5.0 NEW BRITAIN REG							
		LPR	ePKP	14 30 06.6				137	
			PPKP	17.2					
			eL	15 15					
		PNS	PKP	14 30 07.4					
			PPKP	17.4					
			eL	15 17.2					
SEP	18	LPR	p	14 33 51					
		PNS	p	14 33 51.4		2.0	82		
SEP	18	LPR	eP	16 34 07.5					
		PNS	p	16 34 12.2		0.6	2		
SEP	18	LPR	p	16 36 18					
		PNS	p	16 36 18.9		0.5	8		
			s	55.2					
SEP	18	LPR	eP	17 11 19.4					
SEP	18	PNS	p	17 45 27.6					
		LPR	eP	17 45 29					
SEP	18	LPR	eP	20 00 31					
		PNS	eP	20 00 34.6					
SEP	18	PNS	p	20 23 52.2		0.5	3		
		LPR	eP	20 23 55					
SEP	18	LPR	eP	20 50 48.5					
		PNS	iP	20 50 50.7		0.4	4		
			s	51 22.1					
SEP	18	LPR	eP	22 21 51.5					
		PNS	eP	22 21 54.8					
SEP	18	USCGS 00 37 17.6, 12.1N, 88.7W, h = 33 km., m = 4.4 OFF CST OF CENTRAL AMERICA							
		PNS	eP	00 43 56.4		1.0	5		
SEP	19	PNS	p	04 39 21.8		0.7	7		
			s	40 04.5					
SEP	19	PNS	eP	06 23 45					
SEP	19	LPR	eP	19 01 39					
		PNS	eP	19 00 42.9					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	19	PNS	p	08 00 55.6			0.6	2	
SEP	19	USCGS 08 55 07.3, 29.3S, 71.0W, h = 33 km., m = 4.2 CENTRAL CHILE							
		PNS	eP	08 58 14.7					
			PP	28.5					
			eS	09 01 11					
			L	09 02.5					
SEP	19	PNS	eP	09 16 13.3					
			eL	35.2					
SEP	19	PNS	p	09 35 16.3			0.6	6	
			eS	36 10					
SEP	19	PNS	p	09 40 33.6					
			e	32.6					
SEP	19	USCGS 11 13 07.4, 30.7N, 41.9W, h = 33 km., m = 4.9 NORTH ATLANTIC RIDGE							
		PNS	p	11 22 25			1.5	51	
			eSS	33 52					
			eL	39.7					
SEP	19	PNS	eP	13 40 01.6					
SEP	19	PNS	iP	14 22 12					
			s	40					
SEP	19	PNS	iP	14 31 02.5			1.1	31	
			(S)	32 00					
			L	32.6					
SEP	19	PNS	p	15 14 11.5			0.4	3	
			s	33.6					
SEP	19	PNS	p	16 38 08.3			0.7	6	
			s	43.9					
SEP	19	PNS	p	17 57 47.9			0.5	2	
			eS	59 53.2					
SEP	19	LPR	eP	19 12 25.7					
SEP	19	PNS	p	21 53 28.6			0.4	2	
			s	54 09					
		LPR	eP	21 53 31.5					

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	19	USCGS 22 12		38.2, 28.4N, 53.2E, h = 34 km., m = 5.1				
		SOUTHERN IRAN						
		LPB	ePKP	22 31 38				125
			eL	23 20				
		PNS	PKP	22 31 39.2		1.0	5	
			ePP	33 26.2				
			eL	23 17				
SEP	19	USCGS 23 55		56.0, 28.3N, 53.1E, h = 33 km., m = 4.8				
		SOUTHERN IRAN						
		LPB	ePKP	23 54 52.2				125
		PNS	ePKP	23 54 55				
SEP	20	PNS	P	01 19 22.1		0.4	2	
			eS	44.4				
SEP	20	PNS	eP	01 47 55				
			eS	48 54				
		LPB	eP	01 47 56.4				
SEP	20	LPB	P	03 01 28.7		0.8	6	
			S	56.7				
		PNS	P	03 01 37		0.7	3	
			S	02 09.3				
SEP	20	LPB	P	04 19 48		0.9	6	
SEP	20	LPB	P	04 35 07.5		0.8	3	
		PNS	P	04 35 10.9		0.4	3	
SEP	20	LPB	eP	04 45 27				
SEP	20	PNS	eP	05 50 26				
		LPB	eP	05 50 26.7				
SEP	20	USCGS 06 00		03.5, 10.7N, 62.7W, h = 107 km., m = 6.2				
		NEAR COAST OF VENEZUELA						
		PNS	iP	06 05 42.7	D			
			S	10 25				
		LPB	iP	06 05 43.6	D			27.7
			iS	10 21				
SEP	20	PNS	P	06 38 13.3		0.8	8	
		LPB	eP	06 38 16				
SEP	20	PNS	eP	06 48 37				
SEP	20	LPB	P	06 54 45.7		1.0	6	
		PNS	P	06 54 46.5		1.3	12	

SEPTEMBER



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	20	LPB	eP	07 31 07.5			0.8	4
		PNS	eP	07 31 09.1				
SEP	20	PNS	P	08 29 21.8			0.6	2
			eL	39.6				
		LPB	P	08 29 28.5			0.9	6
			eL	39.7				
SEP	20	LPB	eP	08 37 19.3				
SEP	20	LPB	P	09 02 15.3			1.0	24
		PNS	P	09 02 16.8			0.8	7
SEP	20	LPB	eP	10 08 48.7				
		PNS	P	10 08 51.5				
			e	09 00.3				
SEP	20	PNS	eP	10 13 36				
		LPB	eP	10 13 40				
SEP	20	LPB	P	12 37 28.6			0.9	20
			eL	48.5				
		PNS	P	12 37 30.3			1.0	25
			e	38 57				
			eL	48.2				
SEP	20	PNS	eP	13 05 41.3				
SEP	20	USCGS 13 53		35.9, 40.6N, 143.5E, h = 25 km., m = 4.9				
		OFF E. COAST OF HONSHU, JAPAN						
		LPB	ePKP	14 13 08				
		PNS	ePKP	14 13 13.3				
SEP	20	PNS	P	14 14 01.3			0.5	7
		LPB	eP	14 13 59				
SEP	20	LPB	eP	14 16 07			0.8	27
			S	17 19				
		PNS	P	14 16 11.3			0.5	14
			S	17 26.4				
SEP	20	LPB	eP	14 53 32.2				
		PNS	P	14 53 33.5			0.7	3
			S	57.4				
SEP	20	PNS	eP	15 09 50.9			0.7	2
		LPB	eP	15 09 53				
SEP	20	LPB	eP	15 13 41				
			eL	15 18				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	19	PNS	eP	15 13 55					
			eL	21.2					
SEP	20	PNS	eP	16 36 40.2		0.5	4		
			S	37 15.8					
		LPR	eP	16 36 44.5					
SEP	20	USCGS 16 38 20.1, 30.3S, 71.4W, h = 61 km., m = 4.5 NEAR COAST OF CENTRAL CHILE							
		LPR	P	16 41 40.3		0.9	42	13.5	
			eS	44 45					
			eL	46.3					
		PNS	P	16 41 41.3		1.0	19		
			eS	44 40					
			L	46.5					
SEP	20	LPR	eP	18 28 43.3					
		PNS	P	18 28 43.9		0.5	2		
SEP	20	USCGS 18 29 09.8, 28.1S, 176.7W, h = 70 km., m = 5.3 KERMADEC IS REG							
		PNS	eP	18 42 40.9					
			eL	19 14.2					
		LPR	eP	18 42 50				98.6	
			eL	19 14					
SEP	20	PNS	eP	19 08 31		0.6	2		
SEP	20	LPR	eP	19 24 29					
		PNS	P	19 24 31.6		0.7	3		
SEP	20	PNS	P	20 42 35.8		0.5	2		
			S	57.4					
SEP	20	LPR	eP	20 45 42.8					
			eL	50					
		PNS	P	20 45 45.8		0.8	2		
			eL	50.8					
SEP	20	USCGS 23 39 14.6, 5.0S, 80.0W, h = 228 km., m = 3.9 EAR COAST OF NORTHERN PERU							
		PNS	eP	22 42 47.5		1.0	14		
			eL	48.3					
		LPR	eP	22 42 51.5				19.7	
			eL	48					
SEP	20	USCGS 22 25 37.1, 36.8N, 138.1E, h = 59 km., m = 5.0 HONSHU, JAPAN							
		LPR	ePKP	22 45 15.5				149.4	
			PKP2	22					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	20	PNS	PKP	22 45 18		1.6	19		
			PKP2	26.2					
			eL	23 36.8					
SEP	20	USCGS 23 02 43.5, 13.7S, 66.1E, h = 33 km., m = 5.0 MID INDIAN RISE							
		LPR	ePKP	23 21 45				125.8	
		PNS	ePKP	23 21 48					
			eL	00 04.4					
SEP	20	PNS	P	23 35 38.8		0.8	3		
		LPR	eP	23 35 40					
SEP	20	USCGS 23 35 15.3, 36.8N, 138.2E, h = 47 km., m = 4.7 HONSHU, JAPAN							
		PNS	ePKP	23 54 55.9					
		LPR	PKP	23 54 53.2		1.1	10	149.4	
SEP	21	PNS	P	00 31 27.7					
		LPR	eP	00 31 32					
SEP	21	LPR	eP	01 34 43					
		PNS	P	01 34 45.8		0.8	5		
SEP	21	PNS	iP	02 02 17.3		0.9	24		
			S	41.2					
		LPR	eP	02 02 18.2		0.8	5		
SEP	21	PNS	P	03 27 00.5		0.5	7		
		LPR	eP	03 27 01.5		0.9	5		
SEP	21	LPR	eP	04 26 35					
SEP	21	PNS	P	05 57 04.4		0.6	5		
			eS	27					
		LPR	eP	05 57 07					
SEP	21	LPR	P	06 24 39.3		0.9	25		
		PNS	P	06 24 42		0.5	3		
SEP	21	LPR	eP	07 43 50.2		0.9	8		
		PNS	eP	07 43 46.8					
SEP	21	LPR	eP	11 54 11.5					
		PNS	eP	11 54 16.8					
SEP	21	USCGS 13 05 58.2, 42.2N, 142.6E, h = 33 km., m = 5.9 HOKKAIDO, JAPAN PEG							
		PNS	ePKP	13 25 29.4		1.8	87		

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
			PP	28 33.5				
			SKS	32 35				
			ePS	39 33				
			SS	47 30				
			L	14 14.6				
		LPR	PKP	13 25 30.7		2.0	260	143.3
			ePP	28 36				
			SS	47 27				
			G	14 05.8				
			I	14.8				
SEP	21	LPR	P	13 50 14.3		0.8	25	
SEP	21	USCGS PERU	14 44 34.6, 11.8S, 75.1W, h = 7 km., m = 5.0					
		PNS	P	14 46 22.6		0.9	14	
		LPR	eP	14 46 26.5		0.9	20	8.2
SEP	21	PNS	P	15 05 24.6		0.8	5	
			i	53.4				
			eS	07 32				
		LPR	eP	15 05 25				
			eS	07 27.5				
SEP	21	LPR	eP	15 26 15				
		PNS	eP	15 26 17.4				
SEP	21	USCGS NEAR COAST OF VENEZUELA	15 55 12.2, 10.9N, 62.5W, h = 95 km., m = 4.3					
		PNS	eP	16 00 53				
		LPR	eP	16 00 55.8				27.8
SEP	21	PNS	eP	16 06 32.6				
SEP	21	LPR	eP	16 09 23				
		PNS	e(P)	16 09 23.6				
SEP	21	PNS	P	16 22 27		0.5	5	
			eS	23 53.6				
SEP	21	LPR	eP	19 48 21.5				
SEP	21	LPR	eP	19 50 40				
		PNS	eP	10 50 42				
			eS	52 46				
SEP	21	PNS	P	20 15 30.6		0.7	6	
			eS	57.2				
SEP	21	PNS	P	20 25 57.9		0.6	2	
SEP	21	PNS	eP	21 29 05.6				
		LPR	eP	21 29 06				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SFP	21	PNS	iP	22 31 01.8	D	0.5	8	
			S	24.3				
		LPR	eP	22 31 03.6				
SEP	21	PNS	P	23 29 12.2		0.5	2	
			eS	36.6				
SEP	22	LPR	eP	00 12 17				
		PNS	P	00 12 20		0.6	2	
			eS	49				
SEP	22	LPR	P	00 59 15.5				
		PNS	P	00 59 18.8		0.5	2	
SEP	22	LPR	eP	02 43 40				
		PNS	eP	02 43 40.4				
SEP	22	USCGS SOUTH SANDWICH IS REG	02 57 51.7, 56.1S, 27.4W, h = 176 km., m = 4.7					
		LPR	P	03 06 30.3		1.0	20	50
			PP	07 03				
		PNS	iP	03 06 33.8	C	0.9	21	
			PP	07 06.2				
SEP	22	LPR	eP	03 11 28				
		PNS	eP	03 11 33.6		1.6	19	
SEP	22	LPR	eP	04 04 41.5				
			eP	04 04 47.2		0.8	3	
SEP	22	PNS	eP	04 46 40.8				
			e	47 13.6				
		LPR	P	04 46 46				
			e	47 17.2				
SEP	22	PNS	P	06 18 27.2		1.0	8	
			eL	48.2				
		LPR	P	06 18 27.7				
			eL	48				
SEP	22	LPR	P	06 39 50.7		0.8	9	
			S	40 23.5				
		PNS	P	06 39 53.4	D	0.5	24	
			S	40 17.6				
SEP	22	PNS	eP	07 10 32.8				
			eS	11 09				
		LPR	eP	07 10 36.7		0.7	5	
SEP	22	LPR	eP	08 13 30				
		PNS	eP	08 13 33.8		1.0	4	
SEP	22	USCGS SALTA PROVINCE, ARGENTINA	21 52 59.2, 29.1S, 68.9W, h = 194 km., m = 5.5					
		LPR	iP	21 54 49.2				
			S	55 41				
			e	56 20				
		PNS	iP	21 54 52.7	C			
			S	56 24				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	22	PNS	eP	08 17 48					
			eL	40					
		LPR	eP	08 17 52.5					
			eL	42					
SEP	22	LPR	n	08 50 16					
		PNS	n	08 50 17					
SEP	22	PNS	eP	09 09 04.6					
			eS	46					
		LPR	eP	09 09 08.2					
			S	36					
SEP	22	USCGS 09 06 25.7, 0.4S, 81.4W, h = 33 km., m = 4.1 OFF COAST OF ECUADOR							
		PNS	P	09 11 01.1		0.9	15		
		LPR	P	09 11 05.7		1.0	12	200	
SEP	22	USCGS 09 20 26.4, 15.7N, 121.9E, h = 20 km., m = 5.3 LUZON, PHILIPPINE IS							
		PNS	ePKP	09 40 37.5		1.3	18		
			PP	45 43.2					
			e	52 36					
			eSS	10 06 31					
			eL	38.9					
		LPR	PKP	09 40 38.6		1.4	58	170	
			ePP	45 45.5					
			e	52 33					
			eL	39					
SEP	22	USCGS 11 17 34.2, 0.6S, 81.4W, h = 33 km., m = 3.9 OFF COAST OF ECUADOR							
		PNS	P	11 22 10		0.8	3		
		LPR	eP	11 22 13		1.1	12	20.7	
SEP	22	LPR	eP	11 59 50					
		PNS	eP	11 59 52					
SEP	22	PNS	eP	12 21 08.8					
SEP	22	USCGS 12 36 34.9, 3.9N, 76.3W, h = 153 km., m = 3.8 COLOMBIA							
		PNS	eP	12 41 13					
			eS	42 02.0					
		LPR	eP	12 41 16.5				21.8	
SEP	22	LPR	eP	12 44 01					
		PNS	eP	12 44 07.5					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	22	LPR	eP	12 47 05					
		PNS	eP	12 48 07.8					
SEP	22	LPR	P	12 58 00					
		PNS	P	12 58 04.1		0.6	3		
			eS	59 30					
SEP	22	PNS	eP	13 40 02.9					
		LPR	eP	13 40 05					
SEP	22	USCGS 13 41 01.1, 35.3N, 140.1E, h = 56 km., m = 4.8 NR E CST OF HONSHU, JAPAN							
		PNS	PKP	14 00 43.9		1.2	10		
		LPR	PKP	14 00 45.2		1.0	16	148.8	
SEP	22	PNS	P	14 14 28		0.4	2		
			S	57.5					
SEP	22	LPR	eP	14 43 38.5					
SEP	22	USCGS 15 04 04.1, 10.9N, 62.7W, h = 104 km., m = 4.5 NEAR COAST OF VENEZUELA							
		LPR	eP	15 09 44				28	
			e	10 06.2					
		PNS	eP	15 09 45.9					
			e	10 07					
SEP	22	PNS	eP	15 14 10.5		1.0	5		
		LPR	eP	15 14 11					
SEP	22	USCGS 15 42 23.8, 0.7S, 81.7W, h = 33 km., m = 4.0 OFF COAST ECUADOR							
		PNS	eP	15 46 59					
		LPR	P	15 47 04.3		0.9	10	20.7	
SEP	22	PNS	P	15 50 14.6		0.5	9		
SEP	22	LPR	eL	17 40					
		PNS	eL	17 40.2					
SEP	22	PNS	P	17 50 16.4		0.9	4		
		LPR	eP	17 50 17					
SEP	22	PNS	P	19 24 52.3		0.8	2		
SEP	22	LPR	P	20 46 05					
			eL	21 05					
		PNS	P	20 46 08.8		0.9	5		
			eL	21 05.2					
SEP	22	USCGS 21 52 59.2, 24.1S, 66.9W, h = 194 km., m = 5.5 SALTA PROVINCE, ARGENTINE							
		LPR	iP	21 54 49.2				8.9	
			i	55 41					
			S	56 20					
		PNS	iP	21 54 52.2					
			S	56 24					

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	22	LPR PNS	eP eP	22 04 24 22 04 27.4		1.2	31		
SEP	22	LPR PNS	eP eP	22 31 49 22 31 53					
SEP	22	PNS LPR	eP eP	23 08 05 23 08 06					
SEP	22	PNS LPR	p eP	23 21 41.8 22 03.6 23 21 43.7 22 07.2		0.6	5		
SEP	22	LPR PNS	p p	23 48 40.7 23 48 44 50 09.6		0.7 0.7	8 4		
SEP	23	LPR	eP	00 01 22.5					
SEP	23	LPR	p	01 31 31.5		0.8	6		
SEP	23	LPR PNS	p p	02 04 23 02 04 30.4 05 04		0.5	10		
SEP	23	PNS LPR	p eS	02 26 36.8 29 04.6		0.6	15		
SEP	23	LPR PNS	p p	02 26 33.2 27 56.4 02 52 21.8 47.2 02 52 22.2 49.4		0.7 1.0 0.7	5 18 9		
SEP	23	PNS LPR	p eS	03 56 50.3 57 04.3 58 31					
SEP	23	LPR PNS	p eS	03 57 01.4 58 27.2		0.8	10		
SEP	23	PNS LPR	p eP	04 00 53 01 58.8 04 00 54		1.0	6		
SEP	23	LPR	eP	04 12 40		0.8	7		
SEP	23	USCGS 04 33 46.7, 3.8S, 77.3W, h = 135 km., m = 3.9 PERU-ECHADOR BORDER REGION							
SEP	23	PNS LPR	p p	04 37 15.8 04 37 21		1.0 0.9	7 6	15.3	



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	23	PNS LPR	eP eP	05 18 48.8 05 18 51		1.0	7		
SEP	23	USCGS 05 03 50.0, 40.3N, 143.5E, h = 30 km., m = 4.8 OFF F CST OF HONSHU, JAPAN							
SEP	23	LPR PNS	ePKP eL ePKP	05 23 23.5 12.6 05 23 25.3		0.8	5	144	
SEP	23	LPR PNS	L eP P	06 12.5 05 32 05.5 05 32 01.7		1.0	4		
SEP	23	LPR PNS	eS eS	33 22.8 05 39 53.7					
SEP	23	PNS LPR	eP p	05 40 19.6 46.2 05 40 23.5 51		0.6 0.9	5 5		
SEP	23	LPR PNS	eP p	05 44 34 05 44 37.5		0.5	3		
SEP	23	LPR PNS	eP p	05 51 58.3 05 52 02.2		0.4 0.5	5 2		
SEP	23	PNS	eP	06 32 06					
SEP	23	PNS LPR	p eP	06 33 56.2 06 33 59		0.6	5		
SEP	23	PNS	eP	06 54 55					
SEP	23	LPR PNS	eP p	07 41 37.2 07 41 38.3 42 05		0.6	3		
SEP	23	USCGS 07 52 17.2, 24.3S, 67.0W, h = 161 km., m = 4.2 CHILE-ARGENTINA BOPFER REG							
SEP	23	LPR PNS	p p	07 54 11.7 07 54 14.7		0.8 0.5	6 9	7.9	
SEP	23	LPR PNS	p p	08 01 33.5 02 16.2 08 01 34.5 02 20		0.9 0.8	8 3		
SEP	23	LPR	p	08 19 30.7		1.0	38		

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	22	PNS	eP	08 19 32		1.0	16		
			i	20 34.1					
			S	20 42.8					
SEP	23	PNS	P	09 02 11.7		0.9	17		
			eL	16.9					
		LPB	P	09 02 12.3	D	0.9	17		
			eL	16					
SEP	23	USCGS 10 26	54.6, 20.9S, 68.7W, h = 139 km., m = 3.7						
		CHILE-BOLIVIA BORDER REG							
		LPR	P	10 28 01.2		0.9	15	4.5	
		PNS	P	10 28 03.9		0.8	5		
			S	29 00.6					
SEP	23	PNS	eP	12 51 50.8					
		LPB	eP	12 51 53					
SEP	23	LPB	eP	14 10 15.5					
		PNS	eP	14 10 17.7					
			eS	55					
SEP	23	PNS	eP	14 35 09.4					
		LPB	eP	14 35 10.4					
SEP	23	PNS	eP	15 21 46.2		1.0	3		
		LPB	eP	15 21 48					
SEP	23	PNS	P	16 37 47.8		0.6	4		
			C	38 23.6					
		LPB	eP	16 37 53					
SEP	23	PNS	P	16 38 57.2		0.6	2		
			eS	39 46					
SEP	23	LPB	eP	17 19 45					
		PNS	P	17 19 49.7		0.5	5		
			S	20 29.4					
SEP	23	PNS	P	20 04 50.6					
SEP	23	LPB	eP	21 46 39					
		PNS	eP	21 46 40					
SEP	23	USCGS 23 37	57.9, 5.2S, 152.8E, h = 57 km., m = 5.2						
		NEW BRITAIN REG							
		LPB	ePKP	23 57 12.7				134	
		PNS	ePKP	23 57 14					
SEP	24	LPB	eP	00 00 41.5					
		PNS	P	00 00 43		1.4	19		
			eL	28.5					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	24	USCGS 01 43	33.4, 20.9S, 68.2W, h = 159 km., m = 4.7						
		CHILE-BOLIVIA BORDER REG							
		LPB	iP	01 44 39.5	D	0.7	196	4.5	
			iS	45 34					
		PNS	iP	01 44 42.8	D				
			iS	45 41					
SEP	24	LPB	eP	02 03 20					
SEP	24	LPB	P	03 28 13.5		0.9	5		
		PNS	P	03 28 15.2	C	0.8	11		
SEP	24	USCGS 03 34	48.5, 40.3N, 143.6E, h = 22 km., m = 5.1						
		OFF E CST OF HONSHU, JAPAN							
		PNS	ePKP	03 54 20					
			SS	04 16 25					
			eL	04 43.6					
		LPB	ePKP	03 54 27				144	
			eL	04 43					
SEP	24	LPB	eP	04 12 38.4					
SEP	24	LPB	P	04 33 39.5		0.7	7		
		PNS	P	04 33 42.6		0.8	8		
SEP	24	USCGS 04 10	54.5, 39.2N, 40.2E, h = 14 km., m = 5.1						
		TURKEY							
		PNS	ePKP	04 38 32.6					
		LPB	ePKP	04 38 35				114	
SEP	24	USCGS 04 46	03.6, 40.3N, 143.6E, h = 26 km., m = 5.0						
		OFF F CST OF HONSHU, JAPAN							
		PNS	ePKP	05 05 32					
		LPB	ePKP	05 05 39.5		1.0	8	144	
SEP	24	LPB	P	05 47 21		0.8	7		
		PNS	P	05 47 25.1		0.8	4		
SEP	24	PNS	iP	06 11 04.4		0.5	7		
			S	12 07					
		LPB	P	06 11 00.5		0.9	17		
			eS	12 00					
SEP	24	PNS	P	07 50 01.4		0.9	17		
			eL	55.9					
		LPB	P	07 50 06		1.0	30		
			eL	56					
SEP	24	USCGS 08 46	02.1, 11.0S, 164.4E, h = 40 km., m = 5.1						
		SANTA CRUZ IS REGION							

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		LPR	eP	09 04 52.4				121.4
		PNS	ePKP	09 04 54		0.8	3	
			eL	42.3				
SEP	24	PNS	P	13 01 13.8				
		LPR	P	13 01 15				
SEP	24	PNS	P	14 44 31.0		0.3	2	
		LPR	eP	14 04 32.5				
SEP	24	PNS	eP	17 16 10.8		1.0	5	
		LPR	eP	17 16 15		0.9	17	
SEP	24	LPR	eP	17 29 31.5				
		PNS	eP	17 29 35.6				
SEP	24	PNS	P	17 36 56.7		0.7	4	
			eS	37 23				
SEP	24	PNS	iP	18 37 15.9				
			iS	40				
		LPR	P	18 37 16		0.5	28	
			eS	42.5				
SEP	24	LPR	eP	18 56 38				
		PNS	P	18 56 39.6	C	0.7	11	
			eS	57 23.3				
SEP	24	LPR	eP	20 26 10				
		PNS	eP	20 26 16				
SEP	24	PNS	e(P)	20 31 02				
SEP	24	PNS	eP	23 11 45.4				
			eS	12 40				
		LPR	eP	23 11 48.4				
			S	12 31.5				
SEP	24	PNS	eP	23 59 09				
			e(S)	24 02 15				
		LPR	eP	23 59 13				
SEP	25	PNS	eP	01 38 53				
SEP	25	LPR	P	02 59 49.5		1.0	10	
		PNS	P	02 59 49.8		0.9	6	
SEP	25	LPR	eP	06 05 40				
		PNS	eP	06 05 43.6				
SEP	25	USCGS 06 33 10.7, 21.2S, 69.8W, h = 129 km., m = 4.2 NORTHERN CHILE						



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		LPR	P	06 34 24.5			1.1	75
			I	36.2				5
		PNS	P	06 34 25	C		1.1	32
			S	35 48				
			L	36.3				
SEP	25	LPR	P	07 07 23.4			0.9	6
		PNS	P	07 07 26.6			0.9	6
SEP	25	LPR	P	07 09 28			1.0	12
		PNS	P	07 09 31.4			0.9	11
SEP	25	USCGS 07 02 51.8, 46.4S, 166.8P, h = 33 km., m = 5.5 OFF W COAST OF SOUTH IS., NZ						
		PNS	eP	07 16 39.7			1.6	19
			PP	20 48				
			SKS	27 58				
			PS	29 34				
			SS	34 49				
			I	50				
		LPR	eP	07 16 40			1.5	22
			L	50.4				100.1
SEP	25	LPR	eP	07 33 21.2				
		PNS	P	07 33 21.3				
SEP	25	LPR	P	09 21 18.3			0.5	11
		PNS	P	09 21 21.2			0.5	6
			eS	22 50				
SEP	25	USCGS 09 16 35, 57.9S, 25.5W, h = 35 km., m = 5.0 SOUTH SANDWICH IS REG						
		PNS	P	09 25 45.4			0.8	16
			i	26 56.8				
		LPR	P	09 25 42.6			0.9	18
SEP	25	LPR	P	10 29 50.2			1.2	31
		PNS	P	10 29 51.8				
SEP	25	USCGS 10 38 38.4, 15.6N, 92.6W, h = 138 km., m = 5.7 MEXICO-GUATEMALA BORDER REG						
		PNS	iP	10 45 59.2	D			
			S	52 00				
			L	55.2				
		LPR	P	10 46 02	D		1.0	166
			iS	52 00				40.
			eL	55				
SEP	25	PNS	iP	11 00 27.8	C		0.5	7
		LPR	eP	11 00 32				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	25	LPB PNS	eP P eS	11 10 50.5 11 10 52.8 11 21.2		0.5	4		
SEP	25	PNS	eP	11 15 37.7					
SEP	25	PNS	iP S	11 50 48.1 51 12.7	D	0.6	6		
SEP	25	LPB PNS	eP eP	12 08 35 12 08 41					
SEP	25	LPB PNS	eP eS P S	12 43 14.5 44 09.5 12 43 17.1 44 09.6		0.4	5		
SEP	25	LPB PNS	eP eP	13 44 32 13 44 34					
SEP	25	PNS	P S	14 25 22.3 44		0.6	3		
SEP	25	USCGS 14 20 25.9, 1.6N, 121.5E, h = 45 km., m = 5.2 NORTHEFN CELEBES							
		PNS	ePKP	14 40 30					
		LPB	ePKP	14 40 31.5				162.5	
SEP	25	USCGS 14 34 22.6, 19.3S, 175.9W, h = 230 km., m = 5.0 TONGA ISLANDS							
		LPB	eP	14 47 46.5				100	
		PNS	P PP	14 47 47.9 51 53.9		1.5	19		
SEP	25	PNS	P	15 24 20.5		0.5	2		
SEP	25	LPB PNS	eP eP	15 24 23.2					
SEP	25	LPB PNS	eP eP	16 38 42 16 18 39.6					
SEP	25	LPB PNS	eP eP	16 48 02 16 48 04.4					
SEP	25	PNS	eP	16 52 40					
SEP	25	PNS	eP eS	18 23 55.6 25 53.2					
		LPB	eP	18 23 56					
SEP	25	PNS	P eS	18 38 10.9 39 15.6		0.6	4		
		LPB	eP	18 38 12.7					

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	25	PNS LPB	eP eP	19 09 57 19 09 58		1.3	8		
SEP	25	PNS	P	20 33 41.4		0.7	3		
SEP	25	LPB PNS	eP S eP eS	21 42 09 54.2 21 42 14 56		0.5	3		
SEP	25	USCGS 21 36 51.5, 41.9N, 142.1E, h = 78 km., m = 4.8 HOKKAIDO, JAPAN REGION							
		LPB	ePKP	21 56 10				144	
		PNS	ePKP e	21 56 14.2 20.4		1.0	5		
SEP	25	LPB PNS	eP S iP S	23 39 05.7 33.4 23 39 07.3 30	D				
SEP	26	USCGS 00 46 13.8, 33.7N, 69.9E, h = 45 km., m = 5.2 AFGHANISTAN							
		LPB	ePKP eL	01 05 30 02 09.7				138	
		PNS	ePKP	01 05 36					
SEP	26	PNS	e(P)	02 57 11.3					
SEP	26	PNS	eP	03 08 56					
SEP	26	PNS LPB	eP P	06 09 03.4 06 09 04		0.7 1.1	3 7		
SEP	26	PNS LPB	P P e	07 18 11.8 07 18 15.5 26.8		0.8 1.0	13 8		
SEP	26	PNS	eP eS	07 27 37.2 28 02					
		LPB	eP S	07 27 39.5 28 05.5					
SEP	26	LPB PNS	eL e(P)	07 20.6 07 30 05					
SEP	26	LPB	eP	08 06 39.5					
SEP	26	USCGS 08 06 57.4, 5.7S, 105.5E, h = 33 km., m = 5.1 SINDA STRAIT							

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	25	PNS	ePKP	08 26 53.7				
			PKP2	27 26				
			PP	38 03				
		LPB	ePKP	08 27 00				157
			ePKP2	27 23.5				
SEP	26	PNS	eP	08 58 42.8		0.9	3	
			S	09 04 06				
		LPB	eP	08 58 45.6				
			S	09 04 09.2				
SEP	26	LPB	eP	09 04 11				
		PNS	eP	09 04 08				
SEP	26	LPB	eP	09 10 14.5				
		PNS	eP	09 10 15		1.0	5	
SEP	26	LPB	eP	09 21 37				
		PNS	eP	09 21 37.6				
			e	22 12.4				
SEP	26	LPB	eP	10 30 18				
		PNS	eP	10 30 24				
SEP	26	PNS	eP	12 06 06				
		LPR	eP	12 06 07.5				
SEP	26	PNS	eP	13 23 31.6				
SEP	26	LPB	eP	13 42 43.5				
		PNS	P	13 42 45.7		0.7	6	
SEP	26	USCGS 14 37 46.2, 20.9S, 177.0W, h = 251 km., m = 5.8 WEST OF TONGA IS						
		PNS	P	14 51 10.4		1.0	13	
			PP	55 17.4				
			SKS	15 01 26				
			S	02 38				
			SS	09 26				
			G	17				
			eL	23.2				
		LPB	P	14 51 11		0.9	22	0101
			ePP	55 17				
			SKS	15 01 26				
			S	02 32				
			eL	23;				
SEP	26	PNS	P	15 05 12.9		1.2	8	
SEP	26	LPB	eP	15 07 20				
		PNS	P	15 07 21.5				



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	26	PNS	P	15 21 08.6			0.5	5
			S	22 15.4				
		LPB	eP	15 21 14.8				
SEP	26	USCGS 16 25 47.1, 4.7S, 139.3E, h = 14 km., m = 5.5 WEST NEW GUINEA						
		LPR	eP	16 45 29			0.7	25
		PNS	PKP	16 45 29.5			0.8	16
			i	37.3				
SEP	26	LPR	eP	16 59 45.4			0.9	24
		PNS	P	16 59 46.8			0.6	8
SEP	26	PNS	eP	18 06 04.6				
		LPR	eP	18 06 11			0.5	19
SEP	26	USCGS 18 02 50.1, 30.5S, 178.2W, h = 33 km., m = 5.8 KEPMADEC IS						
		PNS	eP	18 16 24.2				
			PP	20 27				
			SKS	27 03				
			L	47.2				
		LPR	P	18 16 26.5			1.2	18
			ePP	20 30.5				97.4
			iSKS	27 02				
			L	48.3				
SEP	26	PNS	eP	18 30 41				
		LPB	eP	18 30 42			0.9	25
SEP	26	PNS	eP	18 33 01.3				
			e	35 14.2				
		LPB	eP	18 33 04.5				
SEP	26	PNS	eP	18 41 02.9				
		LPB	eP	18 41 03.5				
SEP	26	LPB	eP	14 20 49				
			S	21 29.5				
		PNS	eP	14 20 51.5				
SEP	26	USCGS 18 43 19.9, 5.8N, 126.3E, h = 51 km., m = 5.3 MINDANAO, PHILIPPINE ISLAND						
		PNS	PKP	19 03 19.2			0.9	5
			i	04 07.8				
		LPB	ePKP	19 03 22				162
SEP	26	PNS	P	20 20 00.6			0.6	4
			eS	36				
		LPR	eP	20 20 05.7				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	26	LPI	eP	21 04 31				
SEP	26	LPR	eP	22 02 32				
		PNS	P	22 02 32.4		0.9	4	
SEP	26	LPR	eP	22 39 42				
		PNS	eP	22 39 44				
SEP	26	LPP	P	23 04 07.5		0.8	24	
			S	36				
		PNS	iP	23 04 08.9	D			
			S	37				
SEP	27	PNS	iP	00 19 25.5	D	0.3	11	
			S	47.4				
		LPR	eP	00 19 31				
SEP	27	USCGS BANDA STA		03 58 55.1, 6.8S, 129.1E, h = 127 km., m = 6.1				
		LPR	P	04 18 31	C	1.1	162	151.3
			i	35.7				
			S	42 08				
			eI	10.2				
		PNS	eP	04 19 31.1	C	0.9	26	
			eP	22 19				
			S	43 07				
			eI	05 10.4				
SEP	27	PNS	eP	04 28 47		1.2	7	
			S	30 05				
			S	35 20				
SEP	26	LPR	eP	04 28 50				
			i	06.2				
			S	35 20				
SEP	27	LPR	eP	06 31 16				
			S	35 09.7				
		PNS	eP	06 31 16.6				
			e(S)	35 21				
SEP	27	LPR	eP	06 36 55				
		PNS	P	06 36 58.9		0.4	4	
			eS	37 48.5				
SEP	27	LPR	P	07 33 35.6		0.9	23	
			S	35 00.2				
		PNS	P	07 33 39.2		0.6	16	
SEP	27	LPR	eP	08 21 17.5				
SEP	27	PNS	eP	09 53 53				
		LPR	e(P)	09 53 58				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	27	PNS	eP	09 53 53				
		LPR	e(P)	09 53 58				
SEP	27	LPR	eP	09 57 45				
SEP	27	USCGS		10 11 18.9, 56.2S, 145.8W, h = 33 km., m = 4.6				
		SOUTH PACIFIC CORDILLERA						
		LPR	P	10 22 21.6		1.2	15	68.5
			eS	31 20				
			eI	44				
		PNS	P	10 22 18.9		0.8	4	
			eS	31 24				
			eI	44.2				
SEP	27	LPR	P	10 41 06		1.0	10	
			PP	13				
			eS	48.5				
		PNS	P	10 41 07.4		0.5	2	
			PP	15.9				
			S	42 52.6				
SEP	27	USCGS		10 37 55.9, 37.8N, 72.3E, h = 119 km., m = 5.2				
		TADZHIK SSR						
		LPR	ePKP	10 57 11		1.0	10	148.4
			eI	11 44				
		PNS	ePKP	10 57 12				
			eI	11 47.3				
SEP	27	LPR	eP	11 00 37				
		PNS	P	11 00 37.6		1.0	4	
SEP	27	PNS	eP	11 07 02.4				
SEP	27	PNS	eP	11 59 54				
		LPR	eP	11 59 55				
SEP	27	LPR	P	14 16 19.8		0.8	9	
		PNS	P	14 16 23.7		0.6	9	
SEP	27	LPR	eP	16 30 52.8				
		PNS	eP	16 30 53.3				
SEP	27	PNS	P	16 33 33		0.5	7	
		LPR	eP	16 33 39				
SEP	27	USCGS		16 41 07.8, 30.7S, 178.2W, h = 33 km., m = 5.4				
		KERMADEC IS						
		LPR	eP	16 54 50.5				97.7
			SKS	17 05 19.5				
			eSS	13 02				
			L	26.5				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	26	PNS	eP	16 54 43				
			SKS	17 05 21				
			eL	22 26.5				
SEP	27	LPR	eP	17 11 07.5				
		PNS	eP	17 17 11.6				
SEP	27	USCGS 16 56 06.7, 3.7S, 143.3E, h = 33 km., m = 5.0 NR NORTH CST OF NEW GUINEA						
		PNS	PKP	17 15 38.6		0.7	3	
		LPR	PKP	17 15 39.2		1.1	15	122.4
SEP	27	PNS	P	17 35 52.6				
SEP	27	LPR	P	18 11 47		0.8	82	
			S	12 33				
		PNS	P	18 11 52.4		0.9	34	
SEP	27	USCGS 19 06 42.2, 3.7S, 143.3E, h = 7 km., m = 5.9 NR NORTH CST OF NEW GUINEA						
		PNS	ePKP	19 26 14.8		0.1	42	
			PP	29 28				
		LPR	PKP	19 26 16.5		1.1	42	143
			eL	20 14.5				
SEP	27	LPR	eP	20 43 35				
		PNS	P	20 43 38.6		0.7	3	
			S	45 01.4				
SEP	27	USCGS 20 58 58.6, 3.8S, 143.2E, h = 21 km., m = 5.5 NR NORTH CST OF NEW GUINEA						
		PNS	ePKP	21 18 30.4		1.2	7	
			PP	22 10.9				
		LPR	PKP	21 19 35.4		1.0	12	143
SEP	27	USCGS 21 17 59.6, 3.7S, 143.3E, h = 33 km., m = 5.2 NR NORTH CST NEW GUINEA						
		PNS	ePKP	21 37 30.7		1.0	6	
		LPR	ePKP	21 37 34				143
SEP	27	USCGS 22 10 09.5, 29.9S, 71.5W, h = 73 km., m = 4.2 NEAR COAST OF CENTRAL CHILE						
		PNS	eP	22 13 22				13.5
		LPR	eP	22 13 22				
SEP	27	USCGS 21 55 36.2, 3.8S, 143.5E, h = 12 km., m = 5.0 NR NORTH CST OF NEW GUINEA						



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		PNS	ePKP	22 15 12.2				
		LPR	ePKP	22 15 14.8				143
SEP	27	USCGS 22 47 36.3, 30.9S, 177.7W, h = 33 km., m = 4.6 KERMADEC IS						
		LPR	eP	23 01 07				97.3
			eL	33				
		PNS	eP	23 01 08				
			eL	32.5				
SEP	28	LPR	P	00 45 54.3	C	0.8	21	
			eS	46 42				
		PNS	P	00 45 55.5		0.7	7	
			eS	46 45				
SEP	28	PNS	eP	03 15 52.6				
		LPR	eP	03 15 55				
SEP	28	LPR	eP	03 25 35				
SEP	28	LPR	eP	03 46 10				
		PNS	P	03 46 13.7				
SEP	28	LPR	eP	05 21 41.5				
			e	21 45.5				
SEP	28	PNS	P	07 13 07.6		0.6	4	
			S	29.2				
		LPR	eP	07 13 10				
SEP	28	LPR	eP	07 50 02.5				
SEP	28	USCGS 07 38 25.5, 3.6S, 143.2E, h = 33 km., m = 5.0 NR NORTH CST OF NEW GUINEA						
		LPR	ePKP	07 57 58				143
		PNS	ePKP	07 57 58.6		1.0	5	
SEP	28	LPR	eP	07 58 21.3				
		PNS	eP	07 58 22.2				
SEP	28	PNS	P	08 50 13.0	D	0.5	9	
			eS	38.4				
		LPR	eP	08 50 16.2				
SEP	28	USCGS 08 48 33.6, 16.0N, 122.3E, h = 65 km., m = 4.0 PHILIPPINE IS DEG						
		LPR	ePKP	09 08 4				170
		PNS	PKP	09 08 40.6		1.2	8	
			PKP2	10 14				

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	28	PNS LPR	p eP	09 45 01.5 09 44 59		1.0	7		
SEP	28	PNS	eP	10 07 47.4					
SEP	28	USCGS 09 54 75.9, 15.9N, 122.6E, h = 27 km., m = 5.2 PHILIPPINE IS REG							
		PNS LPR	PKP ePKP eL	10 14 57.6 10 14 58 11 14		1.4 1.2	31 25	170	
SEP	28	PNS	eP	10 52 13					
SEP	28	PNS LPR	eP eP	12 25 26.6 12 25 28					
SEP	28	PNS LPR	eP eP	12 30 22.3 12 30 23		0.8	5		
SEP	28	PNS	eP	13 53 13.3		1.1	4		
SEP	28	USCGS 13 53 35.3, 13.2S, 76.4W, h = 70 km., m = 6.0 NEAR COAST OF PERU							
		PNS	p s L	13 55 36 57 08 57.5					
		LPR	p s L	13 55 42.3 57 04 57.8	C	1.0	24	8.5	
SEP	28	PNS LPR	eP eP	14 32 52 14 32 56					
SEP	28	PNS LPR	p eP	14 36 50.6 14 36 53.5		1.3	8		
SEP	28	LPR PNS	eP eP	15 19 28.5 15 19 31.5					
SEP	28	LPR PNS	eP p eP	15 47 30.5 15 47 30.7 58.4		0.4	9		
SEP	28	PNS LPR	p i p	15 50 13.7 19.5 15 59 17.3		1.5 0.8	16 87		
SEP	28	PNS	eP	16 09 34.8		1.4	9		
SEP	28	PNS	eP	17 35 50					



MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	28	LPR PNS	eP eP	17 56 12.8 17 56 22					
SEP	28	PNS LPR	eP p	18 03 24.2 18 03 29.2					
SEP	28	LPR PNS	eP eP eL	18 39 52 18 39 54.9 19 10.9					
SEP	28	PNS LPR	iP S -iP S	19 03 20.2 43.2 19 03 21 45	C	0.7	23		
SEP	28	PNS LPR	eP eP	19 28 08.6 19 28 13		1.2	8		
SEP	28	PNS	eL	19 34.6					
SEP	28	PNS LPR	p eP	19 41 36 19 41 42		0.6	2		
SEP	28	PNS	p s LPR eP s	19 59 58.4 20 00 22.6 20 00 02 20		0.5	3		
SEP	28	PNS	eP s	20 22 25.2 56.8					
SEP	28	PNS LPR	eP eP	21 05 37 21 05 43					
SEP	29	PNS LPR	p eP	00 27 54.9 00 27 59		0.8	6		
SEP	29	LPR PNS	eP p	00 30 11 00 30 12.6		0.8	5		
SEP	29	PNS LPR	eP eP	01 13 53.8 01 13 58		0.8	6		
SEP	29	LPR PNS	eP p	01 15 22.5 01 15 27.9		0.6	3		
SEP	29	USCGS 01 32 52.0, 7.6N, 59.5E, h = 33 km., m = 4.7 GARLSBERG RIDGE							
		LPR	ePKP eL	01 51 59 02 39				128.4	
		PNS	ePKP eL	01 52 00 02 40.7		1.5	24		

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MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	29	LPR PNS	eP P S	02 58 43 02 58 48 59 10	D	0.4	4		
SEP	29	LPR PNS	eP eL eP e(S) eL	03 42 31.5 48.5 42 35.8 45 51 48.6		0.8	2		
SEP	29	PNS LPR	P e e	04 02 15 25.4 04 02 15.5 25		0.8	2 7		
SEP	29	USCGS 05 12 19.2, 3.1N, 128.0E, h = 109 km., m = 5.3 NORTH OF HALMAHEPA							
		PNS LPR	ePKP ePKP	05 31 52.4 05 31 54				159.5	
SEP	29	LPR PNS	P S P eS	06 03 26.4 04 39 06 03 30.7 04 46		0.9	11 4		
SEP	29	LPR PNS	P S P eS	06 03 26.4 04 39 06 03 30.7 04 46		0.9	11 4		
SEP	29	LPR	eP	06 40 43		1.0	8		
SEP	29	USCGS 08 21 17.1, 16.3N, 144.9E, h = 33 km., m = 4.9 MARIANA IS REG							
		PNS LPR	PKP eL PKP eL	08 41 01 09 30 08 41 07 09 30		1.6 1.8	26 37	148.3	
SEP	29	PNS LPR	eP eP	08 58 14.4 08 58 15					
SEP	29	USCGS 08 46 08.7, 16.2N, 144.8E, h = 33 km., m = 4.7 MARIANA IS REG							
		LPR PNS	ePKP ePKP	09 05 50 09 05 55.2				148.5	
SEP	29	PNS LPR	P eP	10 42 42.4 10 42 44		1.0	7		
SEP	29	LPR PNS	eP eP	11 03 57 11 03 59					

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	29	PNS	P	12 08 09.4		0.4	2		
SEP	29	PNS LPR	iP S eP	12 23 51.4 24 13.3 12 23 51.5	D	0.4	6		
SEP	29	LPR PNS	eP e(P)	12 34 13 12 34 15					
SEP	29	LPR PNS	eP eP	13 16 05 13 16 07.6					
SEP	29	LPR PNS	P P	13 20 12 13 20 12.4		1.0 0.6	14 2		
SEP	29	USCGS 13 26 47.5, 1.6N, 126.2E, h = 53 km., m = 5.4 MOLUCCA PASSAGE							
		PNS LPR	PKP eL PKP eL	13 46 47.2 14 43.4 13 46 47.3 14 43		1.4 1.0	16 18	159.1	
SEP	29	PNS	P S	14 11 02.3 24.3		0.4	2		
SEP	29	PNS LPR	iP S eP	17 19 14.9 38.7 17 19 17	D				
SEP	29	USCGS 17 18 23.8, 3.7S, 143.4E, h = 38 km., m = 5.2 NR NORTH CST OF NEW GUINEA							
		PNS LPR	PKP PKP	17 37 52.7 17 37 53		1.5 1.1	16 15	145	
SEP	29	USCGS 17 37 46.8, 3.8S, 143.5E, h = 46 km., m = 5.2 NR NORTH CST OF NEW GUINEA							
		LPR PNS	ePKP ePKP	17 57 16.6 17 57 17		1.0	6	143	
SEP	29	PNS	P S	18 08 19.2 41					
SEP	29	USCGS 18 13 22.6, 3.7S, 143.3E, h = 39 km., m = 4.9 NR NORTH CST OF NEW GUINEA							
		LPR PNS	ePKP ePKP	18 32 52 18 32 54				143	
SEP	29	USCGS 18 23 40.4, 16.3N, 144.8E, h = 50 km., m = 4.7 MARIANA ISLANDS REGION							

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
		PNS	ePKP	18 43 23				
			eL	19 30				
		LPB	ePKP	18 43 24		1.3	15	148.4
SEP	29	LPB	eP	19 27 13				
SEP	29	USCGS 19 41 40.9, 7.3S, 128.4E, h = 86 km., m = 5.0 BANDA SEA						
		PNS	PKP	20 01 22.3		1.0	7	
			i	28.2				
		LPB	PKP	20 01 23		1.0	12	161.5
			i	28.3				
SEP	29	PNS	P	20 21 29.9		0.7	11	
			S	22 10				
		LPR	P	20 21 31.2	D	0.9	30	
SEP	29	PNS	eP	21 40 48				
SEP	29	LPB	eP	21 57 04.5				
SEP	29	USCGS 21 54 35.2, 3.7S, 143.5E, h = 44 km., m = 5.4 NR NORTH CST OF NEW GUINEA						
		PNS	ePKP	22 14 03		1.3	14	
		LPB	PKP	22 14 06		1.0	20	143
SEP	29	USCGS 22 14 52.6, 24.1S, 66.9W, h = 209 km., m = 4.6 SALTA PROVINCE, ARGENTINE						
		LPB	iP	22 16 41.2	C	0.7	140	8
			iS	18 06.4				
		PNS	P	22 16 54.6	C			
			S	18 14				
SEP	29	LPR	eP	22 43 12				
		PNS	eP	22 43 17				
SEP	29	USCGS 22 42 06.0, 3.7S, 143.4E, h = 43 km., m = 5.2 NR NORTH CST OF NEW GUINEA						
		PNS	ePKP	23 01 33.8				
		LPB	ePKP	23 01 37		1.0	10	143
SEP	29	LPB	eP	23 58 19.5				
SEP	30	USCGS 00 37 36.6, 18.2S, 68.9W, h = 191 km., m = 3.8 CHILE-BOLIVIA BORDER REG						
		LPR	P	00 38 12.3	C	0.9	15	2
			S	47				
		PNS	iP	00 38 16	C	0.8	13	
			S	51.4				
SEP	30	LPB	eP	01 26 35				
			e	29 37				
SEP	30	PNS	P	01 35 06.7				
			eS	30				



SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST
SEP	30	LPB	eP	01 41 15.5				
		PNS	P	01 41 16.8		0.9	4	
SEP	30	LPB	eP	01 45 41				
		PNS	eP	01 45 41.4				
SEP	30	LPB	P	02 30 50		1.0	14	
		PNS	P	02 30 52.3		0.6	7	
SEP	30	PNS	P	02 45 57.2		0.4	4	
			S	46 21				
SEP	30	LPB	eP	02 48 54				
SEP	30	LPB	eP	03 06 32.8		1.0	80	
SEP	30	LPB	eP	03 22 21.5				
		PNS	P	03 22 24.2				
			eS	46.4				
SEP	30	PNS	eP	03 58 17.4				
		LPB	eP	03 58 25				
SEP	30	PNS	eP	07 18 19				
		LPB	eP	07 18 21				
SEP	30	LPB	eP	07 58 36.7				
SEP	30	LPR	eP	08 07 12				
			e	47.7				
		PNS	eP	08 07 16				
			e	49.6				
SEP	30	USCGS 08 13 36.1, 3.7S, 143.4E, h = 33 km., m = 5.0 NR NORTH CST OF NEW GUINEA						
		LPB	ePKP	08 32 09				143
		PNS	ePKP	09 33 06				
SEP	30	LPB	eP	08 59 33				
		PNS	P	08 59 34				
SEP	30	LPB	eP	11 33 10				
		PNS	eP	11 33 13.5		1.2	8	
SEP	30	USCGS 11 37 24.2, 29.5S, 176.9W, h = 74 km., m = 4.8 KERMADEC IS REG						
		LPB	eP	11 50 53				97.3
			eL	12 23				
		PNS	eP	11 50 54				
			eL	12 24.6				

SEPTEMBER

MONTH	DAY	STA	PHASE	TIME	SIGN	PER	AMPL	DIST	
SEP	30	PNS	eP	12 57 10					
			S	58 05					
		LPR	eP	12 57 16		0.9	5		
SEP	30	PNS	eP	13 38 13.4					
			S	39 08					
		LPR	eP	13 38 13.8		1.2	89		
			eS	39 07					
SEP	30	USCGS 14 05 14.6, 1.2N, 126.2E, h = 33 km., m = 5.3 MOLUCCA PASSAGE							
		PNS	ePKP	14 25 17		0.9	4		
		LPR	ePKP	14 25 18.6				159.5	
SEP	30	USCGS 14 15 58.1, 3.1N, 128.2E, h = 160 km., m = 5.4 NORTH OF HALMAHERA							
		LPR	eP	14 35 40		0.8	13	159.3	
			PKP2	19.7					
		PNS	PKP	14 35 40.8		1.8	44		
			PKP2	36 19.8					
SEP	30	LPR	eP	15 57 53.5					
		PNS	P	15 59 56.2		0.8	3		
SEP	30	LPR	eP	16 41 40					
		PNS	P	16 41 49.5		0.5	5		
			eS	42 25					
SEP	30	LPR	eP	16 47 54.5					
		PNS	P	16 47 58.7		0.6	3		
SEP	30	LPR	eP	17 26 44					
		PNS	P	17 26 48.2		0.6	4		
			eS	27 50					
SEP	30	LPR	eP	17 32 59					
		PNS	eP	17 32 59.3		0.8	3		
SEP	30	LPR	eP	18 25 19					
SEP	30	LPR	eP	19 02 12.4					
		PNS	P	19 02 13.4		0.7	4		
			eS	03 10					
SEP	30	PNS	P	20 52 11.5		0.8	4		
SEP	30	LPR	P	21 54 31.7		0.9	59		
		PNS	eP	21 54 42					
SEP	30	LPR	eP	22 57 46.5					
		PNS	P	22 57 53.1					
			S	58 30					
SEP	30	PNS	eP	23 56 54.8					
		LPR	P	23 56 57.5					