CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA CALIFORNIA

SEISMOLOGICAL LABORATORY

BULLETIN

JANUARY–MARCH 1942

(PASADENA AND AUXILIARY STATIONS)

STATION COORDINATES

				Symbol
Pasadena	34°08.9' N.,	118°10.3' W.,	h=295 m.	P,PX
Mt. Wilson	34°13.5' N.,	118°03.4' W.,	h=1742 m.	MW
Riverside	33°59.6' N.,	117°22.5' W.,	h=250 m.	R
Santa Barbara	34°26.5' N.,	119°42.9' W.,	h=100 m.	SB
La Jolla	32°51.8' N.,	117°15.2' W.,	h=7.7 m.	LJ
Tinemaha	37°05.7' N.,	118°15.5' W.,	h=1180 m.	T
Haiwee	36°08.2' N.,	117°57.9' W.,	h=1100 m.	H
Palomar	33°21.0' N.,	116°51.5' W.,	h=1700 m.	Pr

c = compression

d = dilatation

When surface waves are not reported no such waves are observed at Pasadena.

Times given for Tucson (Tu) are read from original records lent by courtesy of the U.S.Coast and Geodetic Survey.

All times are G.C.T.

All communications should be addressed to the central station, as follows:

Seismological Laboratory,
220 North San Rafael Avenue,
Pasadena 2, California.

Date	Sta.	Phase	h	m	s		Remarks
Jan. 3	P	iPNEZ	04	06	22		
	MW	iPZ			22		
	R	iPZ			25		
	T	ePZ			24		
	H	iPZ			25		
Jan. 3	P	iPZ	04	58	55		Tu eP 04 58 01
	MW	iPZ			55		
	R	ePZ			49		
	T	ePZ		59	09		
	H	ePZ			03		
Jan. 4	P	iPZ	13	51	51		Tu iP 13 51 34
	T	ePZ		52	10		
Jan. 5	P	ePZ	05	01	54		Deep? Tu iP 05 02 17
		iZ		02	05		
	MW	iZ			06		
	R	ePZ		01	56		
		eZ		02	08		
	T	iPZ			00		
		iZ			12		
	H	ePZ		01	59		
		eZ		02	10		
	Pr	iPZ		01	57		
		iZ		02	09		
Jan. 5	P	eZ	22	40	58		Tu e 22 39 59
	Pr	eZ			41		e 41 20
Jan. 6	P	eZ	15	06	56		Tu e? 15 06 58
		iNEZ			59		e 07 12
	MW	eZ			55		i 19
		iZ		07	01		
	R	eZ?		06	57		
		iZ		07	02		
	H	eNEZ			08		
	Pr	eZ		06	56		
		i		07	02		
Jan. 7	P	iPNEZ	09	17	58	c	Deep? Tu iP 09 18 35 c
	PX	eLZ		36			Surface waves small
	MW	iPZ		17	59	c	Kurile Islands
	R	ePZ		18	01		
	SB	ePZ		17	51		
	LJ	ePZ		18	07		
	T	iPNEZ		17	49		
	H	ePNEZ			49		
Jan. 7	P	ePZ	11	01	20		Normal.
	PX	eLEZ		31.6			Wellington: 7°S.150°E.,
	MW	iPZ		01	21		O=10:47.9
	R	ePZ			24		
	T	iPZ			26		
Jan. 7	P	iPZ	11	17	52		Tu eP 11 18 15
	MW	ePZ			52		Near Apia, which reports
	Pr	eZ			58		e=11:07:11, S?=11:07:45
Jan. 7	T	iPZ	15	18	00		Tu iP 15 16 57
	Pr	iPZ		17	41		
Jan. 8	P	ePZ	15	07	49		Tu eP 15 08 42
	MW	ePZ			47		
	R	ePZ			55		
Jan. 8	P	iPNEZ!	15	21	56	d	Deep. Tu iP! 15 21 13 d
		eNEZ		22	36		Peru
	MW	iPNEZ!		21	56	d	
		iZ		22	06		
		iZ			22		
		iZ			37		
	R	iPNEZ		21	51	d	
	SB	ePNEZ		22	05		
	LJ	iPNEZ		21	45	d	
	T	iPNEZ		22	09	d	
		iZ			37		
	H	iPNEZ			04	d	

Date	Sta.	Phase	h	m	s	Remarks
Jan. 9	P	ePNEZ	06	42	54	Deep? Tu e 06 47 16
		iNEZ!		43	00	New Britain?
		iZ			06	
	PX	eLZ?	07	11		
	MW	iPNEZ	06	42	55	
		iZ		43	02	
	R	ePZ		42	57	
		iPZ		43	04	
	SB	eZ		42	55	
	T	ePZ			57	
		iZ		43	02	
	H	eZ			01	
	Pr	ePZ		42	58	
		iZ		43	04	
		iZ			12	
Jan. 9	P	ePZ	13	44	55	
	MW	iPZ			56	
		iZ		45	29	
	R	ePZ		44	59	
		eZ		45	34	
	T	ePZ		45	00	
Jan. 10	P	ePZ	20	13	30	
	MW	iPZ			31	
	R	ePZ			33	
	T	ePZ			32	
Jan. 11	P	ePZ	05	27	12	Tu eP 05 26 22
		eZ			41	Felt at Bogota, Colombia
	MW	eZ			16	
	R	ePZ			08	
	T	ePZ			24	
	Pr	iPZ			01	
Jan. 11	P	iPZ	05	56	31	Deep. Tu iP 05 55 44
	MW	iPZ			31	i 56 27
	R	ePZ			26	
	T	ePZ			43	
		eZ		57	27	
	Pr	ePZ		56	21	
Jan. 11	MW	ePZ	06	54	11	Tu eP 06 53 18
	T	ePZ			20	
	Pr	ePZ			00	
Jan. 11	P	iPZ	11	31	30	Tu eP 11 30 54
	MW	iPZ			30	
	R	iPZ			27	
	Pr	iPZ			24	
Jan. 12	P	iPZ	10	39	25	Tu iP 10 39 50
	MW	iPZ			27	
	T	iPZ			27	
	Pr	iPZ			28	
Jan. 12	P	iPNEZ!	15	24	47 d	
	MW	iPNEZ			46 d	
	T	iPNEZ			48	
	H	ePNEZ			49	
	Pr	iPZ			49	
Jan. 12	P	iPNEZ	16	20	25 c	Normal? Tu eP 16 20 53
	PX	eLZ		48.5		i 24 44
	MW	iPNEZ		20	25 c	New Britain?
	SB	ePZ			19	USCGS: 8°S.156.5E.,
	LJ	ePNEZ			27	O=16:07.3
	T	iPNEZ			26 c	
	H	iPNEZ			26	
	Pr	iPZ			28 c	
Jan. 13	P	iPZ	10	35	24	Tu iP 10 35 47
	MW	iPZ			25	
	R	ePZ			27	
	T	iPZ			32	
	Pr	iPZ			29 c	

Date	Sta.	Phase	h	m	s	Remarks
Jan. 13	P	iPZ	16	52	51	Tu iP 16 53 14 c
	MW	iPZ			51	
	R	ePZ			53	
	T	iPZ			59	
	Pr	iPZ			53 c	
Jan. 14	P	iPZ	03	11	04	Deep. Tu iP 03 10 30 c
		ipPZ			36	e 56
	MW	iPZ			05	ipP 11 01
		ipPZ			36	
	R	iPZ			01	
		ipPZ			33	
	T	iPZ			16	
		ipPZ			49	
	Pr	iPZ			03	
		ipPZ			34	
Jan. 14	P	eZ	05	10	49	Normal. Tu e 05 10 18
	PX	eLNZ		37.6		
	MW	eZ		10	38	
	T	eZ			37	
Jan. 14	P	iPZ	09	51	36	Tu iP 09 52 03
	MW	iPZ			38	
	R	ePZ			40	
	T	iPZ			55	
	Pr	iPZ			42	
Jan. 14	P	iPNEZ!	11	27	06	Deep? Tu iP 11 26 30
	MW	iPZ			06 d	e 56
		eZ			33	
	R	iPZ			01	
		eZ			28	
	T	iPNEZ			17	
		eZ			44	
	Pr	iPZ		26	57	
Jan. 14	P	iPZ	21	27	20	Tu iP 21 26 27 c
		iZ			32	i 45
		iZ			42	i 49
	MW	iPZ			20	
		iZ			39	
	T	iPNEZ			36	
	H	iPZ			29	
		eZ			42	
	Pr	iPZ			08 d	
		iZ			28	
Jan. 15	P	ePNEZ	04	16	32	Tu iP 04 15 57
	MW	iPZ			32	
	R	ePZ			28	
	T	ePZ			43	
	Pr	iPZ			27	
Jan. 16	P	iPNEZ!	21	34	53 c	Deep. Tu iP 21 35 18 c
		ipPZ		36	22	i! 19 d
		esPZ		37	41	ipP 36 47
	MW	iPNEZ		34	54 c	Tonga region, h=400 km.
		iNEZ!			55 d	
		ipPZ		36	23	
		esPZ		37	48	
		iZ			57	
	R	iPNEZ		34	55 c	
		ipPZ		36	25	
		esPZ		37	52	
	SB	iPZ		34	49	
	T	iPNEZ		35	01 c	
		epPZ		36	31	
	H	iPZ		35	00 c	
		ipPZ		36	30	

Date	Sta.	Phase	h	m	s		Remarks
Jan. 17	P	iPNEZ	06	42	39		
	MW	iPZ			39		
	R	iPZ			42		
	T	ePZ			40		
	H	ePZ			41		
	Pr	ePZ			43		
Jan. 17	P	iPNEZ	10	37	25		Normal? Tu iP 10 37 51 d
	PX	eLZ		58.5			e 40 20
	MW	iPZ		37	26	d	Near Apia, which reports:
	R	ePZ			27		P=10:26:36
	T	iPZ			35		S=10:26:58
	Pr	iPZ			28		
Jan. 17	MW	iZ	20	23	11		Tu eP 20 23 26; i 20 23 44
	T	iZ			34		Near Apia?
Jan. 17	P	iPNEZ	23	24	25	c	Normal. Tu iP 23 23 26 c
	PX	eLNEZ		32.5			JSA: 17.7°N.99.5°W.,
	MW	ePZ		24	26		O=23:19:16
	R	ePNEZ			18		
	T	iPNEZ			46		
	H	iPNEZ			37		
	Pr	iPZ			14		
Jan. 18	P	iPZ	06	51	46		Tu iP 06 52 10
	MW	iPZ			47		
	R	iPZ			49		
	T	iPZ			52		
	Pr	iPZ			50		
Jan. 18	P	iPZ	07	16	55		Tu iP 07 16 24
	MW	iPZ			56		
	R	iPZ			53		
	T	iPZ		17	07		
	H	iPZ			03		
	Pr	ePZ		16	48		
Jan. 18	P	iPZ	07	19	19		Normal. Tu iP 07 20 39
	PX	eNEZ		22.0			Felt in Humboldt County,
	MW	ePZ		19	18		California
	R	iPZ			27		
	T	iPNEZ		18	54		
		iSZ		20	17		
	H	iPZ		19	03		
	Pr	iPZ			37		
Jan. 18	P	iPZ	11	27	28		Deep. Tu iP 11 27 55
		eZ			43		
	MW	iPZ			29	d	
		iZ			50		
		eZ		28	42		
	R	iPZ		27	31		
		iZ			53		
	T	iPZ			32		
		eZ		27	55		
		eZ		28	09		
Jan. 19	P	eP?Z	04	26	59		Tu iP 04 27 17
		iZ		27	14		i 36
	MW	ePZ		27	01		
	R	ePZ?			00		
	T	ePZ			08		
	H	ePZ			08		
Jan. 20	P	iPNEZ!	04	26	33	d	Deep. Tu iP 04 27 00
		ipPZ			53		epP 18
	MW	iPZ			34	d	i 29
		ipPZ			55		
	R	iPNEZ			36	d	
		ipPZ			56		
	SB	iPZ			26		
		epPZ			47		
	T	iPNEZ			36	d	
		epPZ			54		
		iZ		27	09		
	H	iPNEZ		26	36		
	Pr	iPZ			37	d	
		ipPZ			57		

Date	Sta.	Phase	h	m	s		Remarks
Jan. 20	P	iPNEZ	06	26	43		Tu iP 06 25 44
	MW	ePZ			43		
	R	ePZ			36		
	T	ePNEZ		27	07		
	Pr	ePZ		26	26		
Jan. 20	P	iPNEZ	06	30	10	d	Normal. Tu iP 06 29 14
		iZ		31	15		USCGS: 17.9°N.105.6°W.,
	PX	iLNEZ		34.0			O=06:25:38
	MW	ePZ		30	09		
	R	ePNEZ			05		
	SB	ePN			23		
	LJ	iPNEZ		29	55		
	T	iPNEZ		30	36		
	H	iPNEZ			27		
	Pr	iPZ		29	55		
Jan. 20	P	iPNEZ	14	03	47		Tu iP 14 04 24 c
	MW	iPNEZ			48		Alaska
	R	ePNE			51		
	T	iPNEZ			25	c	
	H	iPNEZ			34		
	Pr	iPZ			57	c	
Jan. 21	P	iPNEZ	11	58	33		Tu iP 11 58 58
	MW	iPZ			35		
	R	iPZ			37		
	T	ePZ			40		
	Pr	iPZ			38		
Jan. 22	R	iPZ	18	02	31		Tu iP 18 01 41 c
	T	ePZ			54		Mexico
	Pr	iPZ			23		
Jan. 23	T	iPZ	03	03	12		Tu e 03 02 30
		eZ		03	31		Near Apia?
Jan. 23	PX	eLEZ	22	20.0			Normal. Tu e 21 47 27
Jan. 24	P	iZ	21	07	25		Tu eP 21 07 52
	MW	eZ			13		i 08 00
		eZ			22		
	T	eZ			15		
		iZ			23		
Jan. 26	MW	iPZ	16	57	14		Tu iP 16 57 47
	R	ePZ			16		
Jan. 27	P	iPZ	01	15	19		Tu iP 01 15 42
	MW	iPZ			19		
	R	ePZ			21		
	T	iPZ			27		
	Pr	iPZ			21		
Jan. 27	MW	ePZ	03	24	42		Tu iP 03 23 51
	R	ePZ			37		e 25 17
	T	ePZ			56		
	Pr	iPZ			31		
Jan. 27	P	ePZ	13	43.4			Normal. Tu e 13 44 05
		eP"Z		47	07		e 47 48
	PX	iPPNEZ			46		i 48 32
		iNE		54	00		Major earthquake
		eN			39		(Magnitude 7)
		eN		55	18		USCGS: 3.9°S.135.3°E.,
		iNE		57	00		O=13:29:20
		eSSEZ	14	02.9			
		eLN		12	42		
	MW	ePZ	13	43	24		
		eZ		47	39		
	R	ePZ		43	25		
	T	ePZ			42		
		eZ		47	44		
	Pr	ePZ?		43	57		
		eZ		47	40		

Date	Sta.	Phase	h	m	s		Remarks
Jan. 27	P	iPNZ	21	04	31		Tu iP 21 05 02
	MW	iPZ			33	c	
	R	iPZ			34	c	
	T	iPNEZ			28	c	
	H	iPZ			31	c	
	Pr	iPZ			37		
Jan. 27	P	iPZ	22	10	17		Tu iP 22 10 39 c
	MW	iPZ			18		
	R	ePZ			19		
	T	iPNEZ			26		
	Pr	iPZ			20		
Jan. 28	PX	eLNEZ	15	32.4			Normal. Tu eP 15 26 20
	R	ePZ		27	13		
	T	ePZ			44		
Jan. 28	P	ePZ	15	34	39		Normal. Tu iP 15 33 43
	PX	eLNZ		39.7			
	R	ePZ		34	32		
	T	ePNEZ		35	06		
	H	ePZ			07		
	Pr	iPZ		34	21		
Jan. 28	PX	eLNZ	15	50.4			Tu eP 15 43 57
	R	ePZ		44	46		
	T	ePZ		45	12		
	H	ePZ			12		
	Pr	ePZ		44	37		
Jan. 29	P	ePZ	07	43	37		Normal. Tu eP 07 44 02
	PX	eNEZ		53.6			i 05
		eLNE	08	02.4			Near Apia, which reports:
	MW	ePZ	07	43	36		P =07:32:55
		iZ			40		S =07:33:56
	R	ePZ			41		
	T	ePZ			51		
	Pr	iPZ			42		
Jan. 29	P	ePZ	08	21	26		Tu eP 08 21 54
	MW	iZ			35		i 22 00
	R	ePZ?			30		Near Apia, which reports:
		eZ			37		P=08:10:50
	T	ePZ			38		S= 11:34
		eZ			49		
	Pr	iPZ			31		
		iZ			55		
Jan. 29	P	iPNEZ!	09	36	22	c	Deep. Tu iP 09 36 46 c
	PX	ipPZ			54		ePP 40 30
		iPPZ		39	53		e 54 04
		ipPPZ		40	27		eP'P' 10 01 10
		iSKSE		46	37		Wellington: 19°S.169°E.,
		iNEZ		47	33		O=09:23.7, h=100 km. or more
		eGN		59.6			
	MW	iPNEZ		36	24	c	
	R	iPNEZ			25	c	
	SB	iPZ			18		
	LJ	iPNZ			24		
	T	iPNEZ			29	c	
	H	iPZ			27	c	
	Pr	iPZ			26	c	
		iZ		37	21		
Jan. 29	P	iPZ	20	43	32		Tu iP 20 43 47
	MW	iPZ			33		
	R	iPZ			34		
	Pr	iPZ			34		
Jan. 30	P	ePZ	07	25	09		Normal. Tu eP 07 24 42
	PX	eSNEZ		26	27		eS 25.5

Date	Sta.	Phase	h	m	s		Remarks
Jan. 30	P	iPZ	09	41	31		Tu iP 09 41 04
		ipPZ			45		ipP 18
	MW	iPZ			31		esP 23
		ipPZ			46		
	T	iPZ			44		
		ipPZ			59		
	Pr	iPZ			26		
		ipPZ			41		
Jan. 30	P	ePZ	11	03	35		Deep? Tu iP 11 02 49
	MW	iPZ			36		i 03 25
	R	ePZ			27		
	Pr	iPZ			26		
Jan. 30	P	eP'Z	12	31	17		Tu eP' 12 31 29
	PX	eE		55	47		e 34 52
	MW	eP'Z		31	07		Indian Ocean
	T	eP'Z			13		
	Pr	eP'Z			32		
Jan. 31	P	iPZ	06	53	18		Normal. Tu iP 06 53 59 c
	PX	iSE		56	40		Felt at Victoria and Van-
		eLE		58.3			couver, B. C.
	MW	iPNEZ		53	18		USCGS: 51°N.124°W.,
	R	iPNEZ			21		O=06:49.2
	SB	ePNEZ			13		
	LJ	ePNEZ			34		
	T	ePN		52	50		
	H	ePNE			52		
	Pr	iPZ		53	29		
Jan. 31	P	ePZ	11	52	04		
	MW	iPZ			05		
	R	ePZ			06		
	Pr	ePZ			10		
Jan. 31	PX	eLZ	16	11			Normal. Tu eP 15 35 38
	MW	ePZ	15	35	22		e 37 36
Jan. 31	P	iPZ	17	11	15		Tu iP 17 11 34
	MW	iPZ			16		
	R	ePZ			16		
	Pr	iPZ			17		
Jan. 31	PX	eLZ	18	26			
Feb. 1	P	ePZ	06	17	55		Tu eP 06 18 21
	MW	ePZ			56		
	R	ePZ			57		
	T	ePZ		18	00		
	Pr	iPZ		17	58		
Feb. 1	P	iPZ	07	17	26		Tu iP 07 17 51
	MW	iPZ			27		
	R	ePZ			29		
	T	iPZ			35		
	H	iPZ			35		
	Pr	iPZ			30		
Feb. 1	P	iPNEZ	15	18	49	c	Normal. Tu eP 15 19 51
		iSNE		19	05		iS 21 03
	MW	iPNEZ		18	48	c	Felt in and north of the
		iSNE		19	03		San Bernardino Mountains.
	R	iPNEZ		18	40		Smaller shocks from the same
		iSNE			49		source at 15^h16^m and 15^h48^m.
	LJ	iPNEZ			57		34°24'N. 116°55'W.,
		iSN		19	18		O = 15:18:28
	H	iPNEZ			01		
		iSN			21		
	Pr	iPZ		18	48		

Date	Sta.	Phase	h	m	s		Remarks
Feb. 1	P	iPNEZ	16	03	55	c	Normal. Tu eP 16 04 55
		iSNE		04	11		eS 05 06
	MW	iPNEZ		03	54	c	Shock about as large as that
		iSNE		04	08		at 15^h18^m, felt in the same
	R	iPNEZ		03	46	c	region. Epicenter nearly the
		iSNE			55		same. O = 16:03:34.
	LJ	iPNEZ		04	02		Aftershocks on Feb. 2, at
	H	iPNEZ			07		5^h56^m and 11^h30^m.
		iSN			36		
	Pr	iPZ		03	54		
Feb. 2	P	ePZ	08	18	52		Normal. Tu eP 08 18 10
		eSNEZ		19	56		eS 19.2
							Smaller shocks from same
							source at 6^h16^m, 6^h57^m,
							8^h13^m, 8^h21^m, 8^h24^m.
Feb. 2	P	eZ	16	55	50		Tu e? 16 55 58
		eZ			56		e 56 09
	MW	eZ?			52		
		iZ			57		
	R	eZ?			43		
		eZ			53		
	Pr	eZ			53		
		iZ		56	08		
Feb. 2	P	ePZ	18	06	33		Normal?
		eZ			55		
	PX	eLZ		34.6			
	MW	ePZ		06	32		
	R	ePZ			32		
	Pr	ePZ			39		
Feb. 2	P	ePZ	21	16	45		Tu iP 21 17 13
	MW	iPZ			47		
	R	iPZ			49		
	Pr	iPZ			50		
Feb. 4	P	iPNEZ	16	46	33	d	Tu iP 16 47 04 d
	MW	iPNEZ			33	d	e 50 42.
	R	iPNEZ			36		
	T	iPNEZ			28	d	
	H	iPNEZ			31		
	Pr	iPZ			39		
Feb. 5	P	ePZ	10	16	07		
	MW	ePZ			06		
	R	ePZ			08		
	T	ePZ			09		
	Pr	ePZ			10		
Feb. 5	P	ePNEZ	11	54	51		
	MW	iPZ			52		
		iZ		55	00		
	R	ePZ		54	54		
	T	ePZ			54		
Feb. 5	P	iPEZ	12	33	48		
	MW	iPZ			49		
	R	ePZ			51		
	T	ePZ			51		
	Pr	ePZ			51		
Feb. 6	P	ePZ	12	02	59		Tu eP 12 01 54
	MW	eZ		03	02		
	R	eZ		02	50		
	T	iPZ		03	16		
	Pr	iPZ		02	44		
Feb. 6	P	ePZ	16	46	14		Tu eP 16 46 46
	MW	iPZ			13		
	R	iPZ			16		
	T	ePZ			06		
	Pr	iPZ			21		

Date	Sta.	Phase	h	m	s		Remarks
Feb. 7	P	iPZ	23	28	27		Normal? Tu eP 23 28 34
	PX	eLZ	24	02.6			i 43
	R	ePZ	23	28	23		
		iZ			29		
	Pr	ePZ			20		
		iZ			28		
Feb. 8	P	iPNEZ	20	15	32	c	Normal? Tu e 20 20 02
	PX	eLN		41.3			
	MW	iPZ		15	32	c	
		iZ			42		
	R	iPZ			35	c	
	Pr	ePZ			36		
Feb. 10	P	iPZ	10	30	48		Tu iP 10 31 15 c
	Pr	iPZ			54		
Feb. 11	P	ePNEZ	08	13	17		Tu iP 08 12 43
	MW	iPZ			17		
	R	iPZ			15		
	T	iPZ			29		
Feb. 11	P	iPNEZ	10	21	35		Tu iP 10 22 13
		iZ			45		i 24
	MW	iPZ			35		
		iZ			45		
	R	eZ			39		
	T	iPZ			22		
Feb. 11	P	iPNEZ	11	23	42		Normal. Tu iP 11 22 37
	PX	eLNE		25.7			eS? 24.2
	MW	ePZ		23	41		JSA: 25.0°N.110.5°W.,
	R	ePZ			29		O= 11:21:03
	T	ePNEZ		24	16		
Feb. 12	P	iPNEZ!	06	09	25	c	Deep. Tu iP 06 09 49 c
	MW	iPNEZ!			26	c	i 13 30
	R	ePNEZ			29	c	New Hebrides
	SB	iPNEZ			20		
	T	iPNEZ			32		
	H	iPNEZ			31		
	Pr	iPZ			30	c	
Feb. 12	MW	eZ?	22	57	23		Tu iP 22 57 38
		eZ			34		i 53
	R	eZ			28		
	T	iPZ			20		
		iZ			28		
Feb. 13	P	iPNEZ	06	30	46		Normal? Tu iP 06 31 09 c
	PX	eLEZ		53.8			i 18
	MW	iPZ		30	48		USCGS: 20°S.175°W., O=06:18.9
	R	ePZ			49		
		e			57		
	T	iPEZ			56		
		iZ		31	05		
	H	iPNEZ		30	55		
	Pr	iPZ			49		
		iZ			58		
Feb. 13	P	iPEZ	08	05	23		Tu iP 08 05 46
	MW	iPZ			25		Roughly 22°S.171°E.,
	R	iPZ			25		O=07:52:34
	T	iPEZ			31		
	Pr	iPZ			26		
Feb. 13	MW	iPZ	22	28	41		Tu eP 22 29 04
Feb. 14	P	iPNZ	13	04	22		Tu eP 13 04 52
	MW	iPZ			21		Japan?
	R	ePZ			26		
	T	ePZ			12		
	Pr	iPZ			31		

Date	Sta.	Phase	h	m	s		Remarks
Feb. 15	P	iPNEZ	14	30	16	d	Deep? Tu iP 14 29 33 d
		iPcPZ		31	25		iPcP 31 03
	MW	iPZ		30	16	d	
		iZ			35		
		iPcPZ		31	25		
	R	iPZ		30	11		
		iZ			29		
		iPcPZ		31	20		
	T	iPEZ		30	31	d	
		eZ			50		
		iPcPZ		31	32		
	H	iPNEZ		30	25		
	Pr	iPZ			06		
		iPcPZ		31	18		
Feb. 16	P	iPNEZ	18	20	39	c	Deep Tu iP 18 21 06 c
		ipPZ		21	08		ipP 36
	PX	eE		30.8			h=100 km. Apia gives:
		iSNE		31	49		11°S167°E., O=18:07:51
		eLZ		43.2			
	MW	iPNEZ		20	40	c	
		ipPZ		21	11		
	R	iPNEZ		20	41	c	
		ipPZ		21	11		
	LJ	ePZ		20	41		
		epPZ		21	11		
	T	iPNEZ		20	44	c	
		ipPZ		21	14		
	H	iPNEZ		20	43		
		ipPZ		21	13	c	
	Pr	iPZ		20	42	c	
		ipPZ		21	11		
Feb. 16	P	ePNEZ	19	19	31		
	MW	iPZ			32		
	R	iPZ			35		
	T	iPNEZ			33		
Feb. 17	P	iPNEZ	04	24	31		Normal? Tu iP 04 25 00
	PX	eLZ		50			Roughly 10°S.165°E., O=04:12.0
	MW	iPZ		24	32	c	
	R	iPNEZ			35		
	T	iPEZ			36		
	H	ePNEZ			36		
	Pr	iPZ			35		
Feb. 18	P	ePZ	09	41	25		Tu eP 09 42 15
	MW	ePZ			26		
	T	ePZ			32		
Feb. 18	P	ePNEZ	17	04	28		Tu iP 17 04 50
	MW	ePZ?			30		
	T	iPZ			09		
	Pr	ePZ			24		
		iZ			30		
Feb. 18	P	ePNEZ	19	57	24		Tu iP 19 57 56
	MW	ePZ			24		
	R	ePZ			29		
	T	ePZ			15		
	Pr	ePZ			32		
		iZ		58	06		
Feb. 19	P	eZ	04	58	03		
	MW	ePZ		57	57		
Feb. 19	P	iPZ	05	41	42		Tu iP 05 42 08
	MW	iPZ			44		
	T	iPZ			48		
	H	iPZ			52		
	Pr	iPZ			46		
Feb. 19	R	ePZ	06	27	35		Tu iP 06 27 04
	T	ePZ			51		

Date	Sta.	Phase	h	m	s		Remarks
Feb. 19	P	iPZ	13	15	43		Tu iP 13 15 10
	MW	iPZ			42		
	R	iPZ			39		
	T	iPZ			54		
	Pr	iPZ			36		
Feb. 20	P	ePZ?	01	01	29		Normal. Tu iP 01 01 39
		eZ		02	35		East Indies?
		iZ			44		
	PX	eLEZ		34			
	MW	iPZ?		01	28		
		eZ		02	35		
		eZ			44		
	R	eZ		01	59		
		eZ		02	39		
	T	iPZ?		01	38		
		eZ		03	35		
	Pr	eZ?		01	54		
		eZ		02	52		
Feb. 21	P	iPNEZ	07	19	32	c	(Deep) Tu iP 07 20 04 c
		ipPNEZ!			42		ipP 16
	PX	iZ		23	22		eP'P' 46 39
		iSE!		29	16		Pasadena: 40°N.142°E.,
		eSSN		34	16		O=07:07:50, h=50 km.
		eLN		39.5			JSA: 38.2°N.141.9°E.,
		iLZ		42.7			O=07:07:50, h=75 km,
	MW	iPNEZ		19	33	c	USCGS: 38.2°N.141.5°E.,
		ipPZ			45		O=07:07:47, h=70 km.
	R	iPNEZ			34		
	SB	ePNEZ			26		
	LJ	ePNZ			39		
		epPNZ			50		
	T	iPNEZ			23		
		iZ			29		
	H	ePE			28		
		iZ			32		
	Pr	iPZ			40		
		ipPZ!			51		
Feb. 21	P	iZ	18	50	40		Normal? Tu eP 18 48 32
	PX	eZ		58	09		i 51 20
	MW	iZ		47	46		
		iZ		50	12		
		iZ			33		
		iZ			41		
	R	eZ		47	52		
		eZ		50	16		
		eZ			39		
	Pr	eZ		47	52		
		eZ		50	40		
Feb. 21	Pr	ePZ	22	05	45		Tu iP 22 05 41; i 22 05 54
Feb. 22	PX	eLNEZ	09	57			Normal. Tu eP 09 31 54
	MW	ePZ		31	42		
	R	ePZ			39		
	T	ePZ			48		
Feb. 23	Pr	iPZ	02	07	08		Tu eP 02 06 26
Feb. 23	P	iPZ	02	50	18		Normal? Tu eP 02 49 24
	PX	eLN		58.7			Central America
	MW	iPZ		50	18		
		ePcPZ		53	18		
	R	ePZ		50	13		
		ePcPZ		53	12		
	T	iPZ		50	35		
		iPcPZ		53	20		
	H	ePZ		50	27		
	Pr	iPZ			07		
Feb. 23	P	iPZ	06	33	46		Normal. Tu iP 06 32 51
	PX	eLNE		42.1			Central America
	MW	ePZ		33	45		
	R	ePZ			39		
	T	iPZ		34	01		
	Pr	iPZ		33	32		

Date	Sta.	Phase	h	m	s	Remarks
Feb. 23	P	iZ	12	00	49	Tu eP 12 01 07
	MW	iZ			51	i 24
	R	iZ			46	
	T	ePZ			26	
		iZ			43	
Feb. 23	P	iPZ	20	29	17	Tu eP 20 29 29
	MW	iPZ			16	e 30 30
	R	ePZ			18	
Feb. 23	P	iPZ	20	55	53	Tu iP 20 54 59
	MW	ePZ			52	
	R	iPZ			47	
	T	iPZ		56	03	
	Pr	iPZ		55	41	
Feb. 23	R	ePZ	21	56	03	Tu eP 21 55 17
	Pr	iPZ			00	
Feb. 24	P	iPNEZ	11	34	44 c	Deep? Tu iP 11 34 14 c
	MW	iPNEZ			44 c	South America
	R	iPNEZ			41 c	
	SB	iPZ			48	
	LJ	iPZ			37	
	T	iPZ			57 c	
	H	iPNEZ			51	
	Pr	iPZ			36 c	
Feb. 25	P	iPNZ	23	15	17	
	MW	iPZ			17 c	
	R	iPZ			20	
	T	ePZ			16	
Feb. 27	P	iPZ	08	29	27 c	Deep? Tu iP 08 28 30 c
	MW	iPZ			26 c	i 42
		eZ			41	Probably h=70 km.
	R	iPZ			20 c	JSA: 16.5°N.87.0°W.,
	SB	iPZ			38	O=08:22:47
	LJ	ePZ			17	USCGS: 18.5°N.87.5°W.,
	T	ePZ			39	O=08:23.0
	H	ePNEZ			33	
	Pr	iPZ			15 c	
		iZ			31	
Feb. 28	P	iPNEZ	00	03	45	Tu e 00 03 25
	MW	ePZ			46	
	R	iPZ			47	
	T	ePZ			46	
	Pr	iPZ			49	
Feb. 28	R	ePZ	09	39	08	Tu iP 09 38 42
	T	ePZ			23	
Mar. 1	P	ePZ	01	57	00	Tu iP 01 56 21
	MW	iPZ		56	59	
	R	ePZ			55	
	Pr	ePZ			48	
	T	ePZ			58	
Mar. 1	P	iPNEZ	09	58	30	Normal? Tu iP 09 57 36
		iPcPZ	10	01	21	USCGS: 13.3°N.91.2°W.,
		eZ			30	O=09:52:01
	PX	iSNEZ		03	46	
	P	iScPZ		05	13	
	PX	eLNE		06.8		
	MW	iPNEZ	09	58	31	
		iZ	10	01	33	
		iScPZ		05	14	
	R	ePNEZ	09	58	25	
		ePcPZ	10	01	20	
	SB	ePZ	09	58	43	
	H	ePNEZ			40	
	Pr	iPZ			19	
Mar. 1	P	iZ	12	28	27	Tu e 12 28 37
	MW	eZ			18	
		iZ			27	

Date	Sta.	Phase	h	m	s	Remarks
Mar. 1	P	ePZ	17	43	19	Tu eP 17 42 31
	MW	ePZ			19	Ecuador
	R	ePZ			19	
	T	ePZ			43	
	Pr	ePZ			09	
Mar. 1	P	eZ	22	45	04	Tu eP 22 45 21
	MW	iPZ		44	52	e 34
		iZ		45	06	
	R	ePZ		44	48	
		eZ		45	02	
	T	ePZ		45	04	
		eZ			17	
	Pr	ePZ		44	46	
		iZ			58	
Mar. 2	MW	iPZ	02	09	53	Tu iP 02 10 14
	R	ePZ			55	
	Pr	iPZ			55	
Mar. 2	P	iPNEZ	03	08	44	Tu iP 03 09 08
	MW	iPZ			45	Near Apia, which reports:
	R	iPEZ			47	P=02:58:38; S=02:59:29
	T	ePZ			54	
	Pr	iPZ			47	
Mar. 3	P	iPNEZ	01	03	58	Tu iP 01 04 32
		iSNEZ		04	26	34°00'N.115°45'W., O=17:03:24
	MW	iPNEZ		03	57	Felt at Twenty-nine Palms
		iSNEZ		04	25	
	R	iPNEZ		03	49	
		iSN		04	05	
	SB	ePZ		04	17	
		eSN		05	05	
	LJ	iPZ		03	54	
		iSZ		04	15	
	T	iPZ		04	23	
		eSNE		05	16	
	H	iPZ		04	11	
	Pr	iPZ		03	45	
Mar. 3	MW	iPZ	07	14	36	Tu eP 07 15 18
	R	iPZ			40	
	T	iPZ			22	
	Pr	iPZ			46	
Mar. 3	P	iPZ	16	28	25	Tu iP 16 27 58
	MW	iPZ			26	
	R	iPZ			23	
	T	iPZ			39	
	Pr	iPZ			19	
Mar. 4	P	ePZ	03	50	26	Normal? Wellington:7°S.146°E
	PX	eLN	04	21.7		O=03:36.8
	MW	ePZ	03	50	27	USCGS: 6.5°S.145°E., O=03:36
	R	ePZ			30	
Mar. 5	MW	ePZ	01	56	58	Tu iP 01 56 05
	T	iPZ		57	19	
	Pr	iPZ		56	48	
Mar. 5	P	iPNEZ	19	59	24 d	Deep. Tu iP 19 59 59 d
		iZ			48	ipP 20 01 02
	PX	ipPZ	20	00	20	i 01 27
		iZ		01	04	i 03 06
		iZ		02	16	iPKKP 18 46
		iSNEZ		08	33	eP'P' 26 38
		iEZ		09	09	eSKPP' 29 36
	P	iP'P'Z		26	42	Pasadena: 44.5°N.142.5°E.,
		eSKPP'Z		29	48	O=19:48:16, h=260 km
	MW	iPNEZ	19	59	25 d	
		iZ	20	00	27	
		eSNEZ		08	32	
		eP'P'Z		26	40	

(Continued)

Date	Sta.	Phase	h	m	s		Remarks
			(Continued)				
Mar. 5	R	iPNEZ	19	59	27	d	
		iZ	20	02	23		
		eSNEZ		08	38		
	SB	iPNEZ	19	59	19	d	
		eSNE	20	08	23		
	LJ	iPNEZ	19	59	32		
		eSNE	20	08	48		
	T	iPNEZ	19	59	13	d	
		eSNE	20	08	13		
	H	iPNEZ	19	59	18		
		eEZ	20	02	05		
		eSNE		08	22		
	Pr	iPZ	19	59	32	d	
		iZ	20	00	37		
		iZ		02	28		
		eSZ		08	49		
Mar. 6	P	eZ	02	02	22		Northern California?
		eZ		03	38		
	MW	iPZ		02	17		
		eZ			22		
	T	ePZ		02	00		
	H	ePZ			10		
Mar. 6	P	iPZ	20	21	23	c	Normal? Tu e 20 21 50
		iZ			58		e 25 35
	PX	iSE		32	00		New Hebrides
		eLN		49			
	MW	iPNEZ		21	23	c	
	R	iPNEZ			25	c	
	SB	ePZ			18	c	
	LJ	ePZ			26		
	T	iPNEZ			26	c	
	H	ePEZ			27		
Mar. 8	P	iPNEZ	00	03	00		Tu iP 00 03 27 d
		eZ			20		i 35
	PX	eLEZ		24.2			Felt (IV) at Apia, which
	MW	iPZ		03	02		reports: P=23:52:09,
		iZ			23		S=23:52:29
	R	ePNEZ			03		
	LJ	ePZ			02		
	T	iPZ			11		
		iZ			31		
	H	ePEZ			10		
	Pr	iPZ			04		
Mar. 8	P	eZ	04	59	42		Normal. Tu e 04 59 07
	PX	eLNZ	05	27			Atlantic
	MW	eZ	04	59	34		
Mar. 9	R	ePZ	02	17	52		Tu eP 02 17 01
		iZ		18	03		i 09
	T	ePZ		18	18		
		eZ			29		
	Pr	iPZ		17	46		
		iZ		18	04		
Mar. 9	P	ePZ	10	27	45		Normal. Tu eP 10 26 51
	PX	eLN		46.3			i 29 15
	MW	ePZ		27	45		USCGS: 19°N.73°W.,
		iZ		29	35		O=10:19.7
	R	ePZ		27	40		
		iZ		29	32		
	T	iPZ		27	51		
	Pr	iPZ			36		
Mar. 10	MW	iZ	09	42	45		Tu eP 09 42 14
	R	iPZ			28		e 36
		eZ			40		
	Pr	iPZ			28		

Date	Sta.	Phase	h	m	s		Remarks
Mar. 10	P	iPNEZ	12	04	03	d	Tu iP 12 04 25 d
	MW	iPZ			04	d	
	R	iPZ			05		
	T	iPNEZ			12		
	Pr	iPZ			05		
Mar. 10	T	ePZ	12	56	47		Tu iP 12 56 59
	Pr	iPZ			40		
Mar. 10	T	ePZ	13	58	13		Tu iP 13 58 26 .
	Pr	iPZ			07		
Mar. 11	P	eZ	10	59	24		Tu iP 10 59 44
	T	ePZ			00		Asia?
Mar. 12	P	iPZ	01	12	26		Tu iP 01 12 43 d
	MW	ePZ			26		
	R	iPZ			28		
	T	ePZ			36		
Mar. 12	P	iPEZ	06	46	33	d	Tu iP 06 46 58 d
	MW	iPZ			34	d	Near Apia, which reports:
	R	iPZ			35		P=06:35:43
	T	iPZ			43		S=06:36:06
	H	ePZ			41		
Mar. 12	T	ePZ	13	42	41		Tu iP 13 43 20
Mar. 12	P	iPZ	13	50	04		Normal? Tu iP 13 50 31
		iZ			42		
	PX	eLZ	14	14			
	MW	ePZ	13	50	07		
		eZ			38		
	R	iPZ			08		
		e?			42		
	T	ePZ			11		
Mar. 12	MW	iPZ	14	36	06		Tu iP 14 36 39
		eZ			33		
	R	iPZ			08		
		iZ			35		
	T	iPZ		35	54		
Mar. 12	P	ePZ	22	25	49		Tu eP 22 26 43
		eZ			56		i 47
	MW	iPZ			51		
		eZ			57		
Mar. 17	P	ePZ	22	58	48		Tu iP 22 58 14
	MW	iPZ			47		
	R	iPZ			44		
	T	iPNEZ			59		
	Pr	ePZ			39		
Mar. 18	P	iPZ	08	38	53		Tu iP 08 39 40
	MW	ePZ			53		
	R	ePZ			58		
	T	iPZ			36		
	Pr	iPZ		39	05		
Mar. 19	P	iPNEZ	12	03	51	c	Normal. Tu iP 12 04 40 c
		i			56		i 46
	PX	iSNEZ		07	34		i 05 44
		eLZ		09.2			USCGS: 51.2°N.130.0°W.,
	MW	iPNEZ		03	51	c	O=11:59:26
		eSE		07	35		
	R	iPNEZ		03	55		
		iZ		04	04		
	SB	ePZ		03	43		
	LJ	ePZ		04	07		
		iZ			13		
	T	iPNEZ		03	23		
		eSNE		06	47		
	H	iPNEZ		03	34		
	Pr	iPZ		04	03		

Date	Sta.	Phase	h	m	s	Remarks
Mar. 19	P	iPNEZ	12	08	20	Tu iP 12 09 09
	MW	iPZ			20	i 15
	R	iPZ			25	Aftershock of preceding
	SB	ePZ			21	
	LJ	ePZ			38	
	T	iPZ			00	
	H	ePNEZ			06	
	Pr	iPZ			36	
Mar. 19	P	iPNEZ	16	38	35	Normal? Tu iP 16 37 42 d
	PX	eLE		43		
	MW	ePZ		38	34	
	R	ePZ			29	
	Pr	iPZ			16	
Mar. 20	P	iPNEZ	01	20	35	Normal. Tu iP 01 21 22
	PX	eSNE		26	37	USCGS: 52.4°N.167.7°W.,
		eLNE		29.5		O=01:13:01
	MW	iPZ		20	35	
	R	iPNEZ			39	
	SB	ePZ			28	
	LJ	ePZ			48	
	T	iPNEZ			20	
	H	iPNEZ			26	
Mar. 20	P	iPZ	01	28	30	Tu iP 01 29 16
	MW	iPZ			30	Aftershock of preceding
	R	iPZ			33	
	SB	ePZ			21	
	LJ	ePZ			54	
	T	iPZ			13	
	H	iPZ			20	
Mar. 21	P	iPNEZ	09	42	50	Tu eP 09 43 37
	MW	iPZ			50	Hawaii; Honolulu reports:
		iZ		45	18	iP=09:36:28
	R	ePZ		42	55	eS=09:36:59
		eZ		45	19	
	T	ePZ		42	57	
	Pr	iPZ			58	
Mar. 21	P	iPNEZ	23	33	40 c	Deep? Tu iP 23 34 09
		iZ		37	10	i 31
	PX	eSNEZ		44.2		i 37 57
	P	iPKKPZ		51	38	ePKKP 51 24
	PX	eLNEZ		57.5		eP'P' 59.4
	P	eP'P'Z		59	47	JSA: 27.8°N.138.4°E.,
	MW	iPZ		33	41	O=23:21:06
		iZ		37	13	Pasadena: 30°N.130°E.,
		eP'P'Z		59	47	O=23:20.7, h=80 km?
	R	iPZ		33	42	
		iZ		37	16	
		ePKKPZ		51	42	
		eP'P'Z		59	46	
	SB	ePNEZ		33	34	
	LJ	ePNEZ			48	
	T	iPNEZ			34 c	
		eZ		36	59	
	H	iPNEZ		33	37	
		eZ		37	05	
	Pr	iPZ		33	48	
		iZ		37	24	
		ePKKPZ		51	33	
		eP'P'Z		59	51	

Date	Sta.	Phase	h	m	s	Remarks
Mar. 22	P	iZ	02	26	55	Tu e 02 26 46
		iZ		27	13	e 27 14
		iZ		28	02	i 35
	MW	eZ		26	39	e 37 39
		iZ			57	Hindu Kush? Felt at Kabul(V)
	R	eZ			40	
		iZ		27	07	
	SB	eZ			12	
	T	eZ		26	38	
		eZ			52	
	Pr	eZ?			26	
		eZ			55	
		eZ		27	19	
Mar. 22	Pr	iPZ	12	42	00	Tu eP 12 41 13
Mar. 22	P	iPNEZ	14	34	10	Deep. Tu iP 14 33 33
		iZ			34	i 52
	MW	iPZ			09 d	i 56
		iZ			34	
		eZ			48	
	R	iPZ			05 d	
		iZ			30	
		eZ			49	
	T	iPZ			22	
		iZ			45	
	Pr	iPZ			00 d	
Mar. 23	MW	ePZ?	23	46	55	Tu eP 23 47 19
		iZ		47	08	Near Apia, which reports:
	T	iZ?		47	17	P=23:36:14, S=23:36:47
Mar. 25	P	iPZ	02	48	28	Tu iP 02 47 52
	MW	iPZ			27	
	R	iPZ			24	
	H	iPZ			35	
Mar. 25	P	iP"Z	07	42	36	Tu iP" 07 42 44
	MW	iP"Z			32	East Indies
Mar. 25	MW	iPZ	11	47	30	Tu eP 11 48 17
		iZ			39	i 25
	R	ePZ			32	
		eZ			39	
Mar. 26	P	iPZ	11	49	48	Possibly not seismic
Mar. 26	P	ePZ	19	18	29	Normal. Tu eP 19 17 47
	PX	eZ		24	50	Central America?
		eLNEZ		25		
	MW	iPZ		18	30	
	LJ	ePZ			22	
	Pr	iPZ			23	
Mar. 28	P	eZ	05	50	18	Normal. Tu iP 05 47 04
	PX	eLNEZ		50.3		eS 48.3
	Pr	iPZ		47	43	
		iSZ		49	43	
Mar. 28	P	ePZ	14	12	05	Tu eP 14 12 04
		eNZ		13	44	i 20
	MW	iPZ		12	04	iS 13 40
		iZ		13	44	USCGS: 38 1/2°N.112 1/2°W.,
	T	iPZ		11	47	O=14:10.5. Felt at
		iNZ		13	10	Circleville, Utah.
Mar. 29	P	iPNEZ	01	18	47 d	Deep. Tu iP 01 19 20
		iZ		19	26	i 59
		iZ		22	04	
		eSNE		28	56	
	MW	iPZ		18	49	
		iZ		19	25	
	R	iPZ		18	51	
	LJ	ePZ			50	
	T	iPNEZ			43	
		iZ		19	19	
		eSN		28	52	
	H	iPNEZ		18	46	
	Pr	iPZ			54	
		iZ		21	47	

Date	Sta.	Phase	h	m	s	Remarks
Mar.29	P	ePZ	05	46	50	Normal. Tu eP 05 47 16
	PX	eLZ	06	11		
	MW	ePZ	05	46	52	
	R	ePZ			51	
	T	ePZ			58	
	H	ePZ			56	
Mar.29	P	iPZ	14	07	49	Deep? Tu iP 14 07 18
		iZ		08	03	i 32
	MW	iPZ		07	49	
		iZ		08	03	
	R	iPZ		07	45	
		iZ			59	
	T	iPZ		08	00	
		iZ			15	
	H	iPZ		07	51	
	Pr	iPZ			41	
		iZ			54	
Mar.29	P	iPZ	16	30	48	Tu iP 16 31 26
		iZ		31	00	i 36
	MW	ePZ		30	49	i 42
		iZ		31	01	
	R	ePZ		30	51	
		eZ		31	06	
	T	iPNEZ		30	35	
	H	iPZ			40	
	Pr	iPZ			57	
		eZ		31	14	
Mar.29	P	ePZ	17	50	29	Tu iP 17 50 02
	PX	eLNEZ	18	02		South America?
	MW	ePZ	17	50	29	
	R	ePZ			26	
	T	ePZ			55	
	Pr	ePZ			26	
Mar.29	P	iPNEZ	18	01	10	
	MW	iPZ			11	
	R	ePZ			12	
	T	ePZ			11	
	Pr	ePZ			17	
Mar.30	P	eZ	00	47	11	Tu eP 00 47 08
	MW	ePZ			05	e 18
		e			10	
	R	eZ			04	
	Pr	eZ			08	
Mar.30	P	ePZ	09	19	42	Normal? Tu eP 09 19 08
		eZ		20	14	i 19
	PX	eNE		36.0		North Atlantic
		eLNE		39		
	MW	ePZ		19	41	
		iZ			45	
		iZ		20	17	
	R	eZ		19	39	
	T	iNEZ			38	
	Pr	ePZ			39	
		iZ		20	02	

C.F.Richter
Feb.20,1944

CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA CALIFORNIA

SEISMOLOGICAL LABORATORY

BULLETIN

APRIL–JUNE 1942

(PASADENA AND AUXILIARY STATIONS)

Date	Sta.	Phase	h	m	s		Remarks
Apr. 2	P	ePZ	14	11	07		
		iZ			20		
	MW	ePZ			08		
		iZ			21		
	R	ePZ			10		
		eZ			23		
Apr. 3	P	iPNEZ!	16	32	53	d	Tu iP! 16 33 18 d
		eZ		34	49		i 34 09
		iZ		35	39		Felt (IV) at Apia, which
	MW	iPNEZ!		32	55	d	reports: iP 16 22 40
		eZ		35	38		iS 23 24
	R	iPNEZ		32	56	d	and gives: 16.6°S.174.0°W.,
	SB	iPZ			48		O=16:21:42
	LJ	ePZ			54		
	T	iPNZ		33	06	d	
	H	iPNE			01		
	Pr	iPZ		32	57	d	
Apr. 4	P	iPNEZ	23	06	29		Normal. Tu iP 23 06 47
	PX	eLZ		34			
	MW	ePZ		06	30		
		eZ		09	13		
	R	iPZ		06	32		
	T	ePZ			47		
Apr. 6	P	eZ	04	05	42		Normal. Tu iP 04 04 03 c
		eSNE		07	52		i 05
	MW	ePZ		05	35		iS 30
		eSN		07	54		Tucson seismograms show large
	R	ePZ		05	21		amplitudes with several fore-
		iSNEZ		07	39		shocks and aftershocks.
	T	eNZ		08	41		Arizona?
Apr. 7	PX	eLNEZ	03	14.0			Tu iP 03 11 07, iS 03 12 18
Apr. 8	PX	ePZ	15	54	41		Normal. Tu eP 15 55 18
		eZ		57	39		iPP 59 54
		iPPNZ		59	06		iPKKP 16 09 52
		eSKSNE	16	05.3			eP'P' 17 40
		iPSNEZ		08	25		Major earthquake
		iPPSZ		09	31		(Magnitude 7.5)
	P	iPKKPZ		10	27		Reported felt in the
	PX	eSSZ		13.6			Philippines.
	P	eP'P'Z		18	16		JSA: 11.0°N.118.8°E.,
	PX	iLNE		24	25		O=15:40:10
	MW	ePZ	15	54	48		USCGS: 12.5°N.120°E.,
		iZ		58	33		O= 15:40.3
		iPPZ		59	05		Pasadena: 13.5°N.121°E.,
		iPKKP	16	10	27		O=15:40:24
		eP'P'Z		18	22		
	R	ePZ	15	54	51		
		eZ		58	33		
		ePPZ		59	17		
		ePKKPZ	16	10	07		
		eP'P'Z		18	20		
	SB	ePPZ		59	11		
	T	ePZ	15	54	43		
		ePPZ		58	58		
	H	ePNE	15	54	49		
		ePPNE		59	04		
Apr. 8	PX	eLNEZ	20	39			Normal. Aftershock.
	MW	ePPZ	19	48	52		Tu PP 19 49 12
Apr. 9	PX	eLEZ	00	46			Aftershock. Tu ePP 00 15 31
Apr. 9	PX	eLNEZ	05	32			Tu e 05 01 50
Apr. 10	P	iPNZ	11	44	46		Normal? Surface waves (?)
		iZ			53		small.
	MW	ePZ			47		Tu iP 11 44 44
	R	ePZ			46		i 51
		iZ			51		
	T	ePZ		45	02		
		eZ			08		
	Pr	ePZ		44	42		
		eZ			50		

Date	Sta.	Phase	h	m	s	Remarks
Apr. 10	P	iPZ	13	47	20	Tu iP 13 47 52
		iZ			28	i 48 01
	MW	ePZ			20	
		iZ			29	
	R	iPZ			24	
		eZ			32	
	Pr	ePZ			27	
		eZ			35	
Apr. 11	P	iPNEZ	01	31	22 c	Deep. (h=140 km.)
		ipPZ			47	Tu iP 01 30 27 c
		iPPZ		33	06	i! 28 d
		iPcPNEZ!		34	16	ipPZ 53
		ipPcPZ			43	iPcP! 34 01
	PX	iSNE		36	21	iScP 37 31
		eLNE		39	.0	USCGS: 15.3°N.91.1°W.,
		eScSZ		41	36	O=01:25:16, h=100 km.
		iScSNE			46	JSA: 14.7°N.91.2°W.,
	MW	iPNEZ		31	22	O=01:25:08, h=100 km.
		ipPZ			46	
		isPZ			58	
		iPcPZ		34	15	
	R	iPZ		31	16	
		iPcPZ		34	13	
		ipPcPZ			42	
		eScPZ		37	47	
		iScSNE		41	42	
	LJ	eZ		31	57	
		ePcPZ		34	11	
		eScSNE		41	40	
	T	iPNEZ	01	31	38	
		iPcPZ		34	21	
		eScSNE		41	56	
	H	ePNE		31	30	
		ePcPNE		34	17	
		eScSNE		41	56	
	Pr	iPZ		31	10	
		ipPZ			35	
		iPcPZ		34	11	
Apr. 12	P	iPZ	21	42	12	Tu iP 21 42 32
	MW	iPZ			12	
	R	ePZ			14	
	Pr	iPZ			14	
Apr. 13	P	ePZ	04	37	26	Tu iP 04 36 40
	MW	ePZ			26	
	R	iPZ			21	
	Pr	ePZ			26	
Apr. 13	PX	ePPZ	08	04	30	Tu eP 07 59 49
		iPSE		13	29	USCGS: 3°S.14°W., O=07:46.2
		eZ		14	33	
		iSSE		19	.0	
		eLNE		28	.7	
	MW	ePPZ		04	27	
	R	ePZ?		00	15	
		ePPZ		04	24	
Apr. 13	P	eP'Z	10	52	01	Normal. Tu eP' 10 52 02
	PX	eLEZ	11	50		Very distant
	MW	eP'Z	10	51	57	
		eZ		53	09	
	R	eP'Z?		52	01	
		eZ		53	18	
Apr. 13	P	ePZ	14	19	21	Deep? Tu iP 14 19 49
		iZ			33	i 20 02
	MW	ePZ			19	
		iZ			34	
	R	eZ			22	
		iZ			42	
	T	ePZ			13	
		iZ			25	
	Pr	eZ			26	

Date	Sta.	Phase	h	m	s	Remarks
Apr. 16	P	iPZ	01	17	34	Deep. Tu iP 01 16 58
		iZ		18	00	South America
	MW	iPZ		17	33 d	
		iZ		18	00	
		iZ			11	
	R	iPZ		17	30	
		eZ			56	
	T	ePZ			46	
Apr. 16	P	ePZ	12	52	32	
	MW	iPZ			32	
	R	iPZ			34	
		iZ		53	08	
	Pr	ePZ		52	37	
Apr. 16	P	iPNZ	20	55	36	Deep. Tu iP 20 56 04 c
		iZ		56	33	i 57 02
	MW	iPEZ		55	38 c	
		eZ		56	30	
	R	iPNEZ		55	39 c	
		iZ		56	33	
	SB	ePZ		55	32	
	T	iPZ			41	
	Pr	iPZ			41	
		iZ		56	34	
Apr. 18	P	iZ	05	47	51	Normal. Tu eP? 05 48 03
	R	iZ			47	e 11
		iSZ		50	07	eS 50.6
	T	ePZ		47	15	USCGS: Felt in Utah and Idaho
		iNEZ			36	41.5°N.112.3°W., O=05:45:41
		iSEZ		48	59	
	H	eSE		49	15	
Apr. 18	P	iPZ	22	27	33	Normal? Tu iP 22 26 39
		iZ			49	
	MW	ePZ			34	
		eZ			50	
	R	ePZ			26	
		eZ			42	
	T	ePZ			48	
		eZ		28	04	
	Pr	ePZ		27	21	
Apr. 19	PX	eLZ	02	37		Normal. Tu e 01 45.4
Apr. 20	P	iPNEZ!	08	52	15 c	Deep. Tu iP! 08 52 46 c
		iZ			34	i! 56 13
	PX	iZ		54	12	Japan: 35°N.135°E.,
		iPPZ		55	27	O=08:40:30, h=350 km.
		eN		57	01	
		iSNE	09	01	59	
		eLN		14	.5	
	P	iSKPP'Z		21	37	
	MW	iPNEZ!	08	52	15 c	
		iPPZ		55	28	
		iSKPP'Z	09	21	13	
	R	iPNEZ	08	52	18 c	
		iZ		55	32	
		iSKPP'Z	09	21	36	
	SB	iPNEZ	08	52	09 c	
		iZ		53	43	
	LJ	iPNEZ		52	22 c	
	T	iPNEZ			06 c	
		ePPZ		55	21	
		eSNEZ	09	01	44	
		eSKPP'Z		21	37	
	H	ePE	08	52	10	
	Pr	ePZ			22	

Date	Sta.	Phase	h	m	s	Remarks
Apr. 20	P	ePZ	14	58	05	Deep? Tu iP 14 58 52 d
		eZ			20	i 59 08
	MW	ePZ		58	06	
		iZ			21	
	R	ePZ			09	
		eZ			53	
	T	ePZ		57	47	
		iZ		58	03	
Apr. 20	P	iPZ	15	34	01	Tu eP 15 34 35
	MW	iPZ			02	
	R	iPZ			04	
	T	iPZ		33	58	
Apr. 20	P	iPNEZ	23	31	44	Tu iP 23 31 58
		iZ		32	28	
	R	iPZ		31	44	
Apr. 22	P	ePZ	11	57	28	Tu iP 11 56 36 c
	MW	ePZ?			25	USCGS: 8°N.80.5°W., O=11:49.4
	R	ePZ?			19	Near Panama
	T	ePZ			36	
Apr. 22	P	iPZ	23	28	01	Normal? Tu iP 23 27 08
		iZ			27	USCGS: 7.3°N.82.2°W.,
	PX	eLZ		44.2		O=23:20:09
	MW	iPNEZ		28	00	Near Panama
	R	ePZ		27	55	
	T	iPZ		28	14	
	Pr	ePZ		27	51	
Apr. 23	P	iPNEZ	11	01	36 c	Deep? Tu iP 11 01 59 c
	MW	iPZ			36	i 04 08
	R	iPZ			38	
		eZ		03	46	
	T	iPZ		01	46 c	
	Pr	ePZ			40	
Apr. 23	P	iPNEZ	12	20	26	Tu iP 12 19 45
	MW	iPZ			26	
	R	iPZ			21	
Apr. 24	P	iPZ	18	32	12	Tu iP 18 32 33
	MW	iPZ			13	
	R	iPZ			14	
	T	ePZ			19	
Apr. 25	P	ePZ	19	45	26	Tu eP 19 44 37
	MW	ePZ			30	USCGS: 19°N.70.5°W.,
	R	iPZ			24	O=19:38.1
		iZ			35	Santo Domingo
	T	iPNEZ			34	
Apr. 26	R	eZ	02	37	22	Tu iP 02 35 55
	T	eZ		36	38	e 36 26
Apr. 27	P	iPZ	01	22	23	Tu eP 01 22 30
		iZ			33	
	MW	iPZ			23	
		iZ			34	
	R	iPZ			25	
		iZ			36	
Apr. 27	MW	ePZ	09	27	40	Tu iP 09 27 17
	R	ePZ			36	Atlantic.
	T	iPZ			29	44°N.29°W., according to
	Pr	ePZ			27	Cartuja
Apr. 28	P	ePZ	08	17	42	Tu eP 08 18 32
		eZ			49	Near Hawaii.Honolulu reports:
	MW	ePZ			44	eP 08 11 26
	R	ePZ			52	i 50
		eZ		18	04	eL 12 17
	Pr	ePZ?		17	46	
		iZ			53	

Date	Sta.	Phase	h	m	s	Remarks
Apr. 28	P	iPNEZ	10	37	58 d	Deep. Tu iP 10 38 11 d
		iZ		38	49	i 30
		iZ		41	04	e 39 22
	MW	iPNEZ		37	58 d	May be very distant.
		iZ		38	50	
	R	iPZ		37	59	
		eZ		38	53	
	SB	ePZ		37	55	
	T	iPNEZ			57	
		iZ		38	52	
	Pr	iPZ		37	59	
Apr. 29	P	iPNEZ	11	53	31	Tu iP 11 53 57
		iZ		56	51	i 54 14
		iZ		57	34	e 29
	PX	eEZ	12	04.5		Wellington: 15°S.167°E.,
		iEZ		05	30	O=11:41.0
		eLEZ		20.2		USCGS: 13.5°S.167°E.,
	MW	iPNEZ		53	34	O=11:40.8
	R	iPZ			32	
	T	iPEZ			36	
	Pr	iPZ			32	
Apr. 29	P	iPZ	16	17	27 c	Deep? Tu iP 16 17 52
	MW	iPZ			29 c	i 18 08
	R	iPNEZ			31	
		iZ			55	
	T	iPZ			33	
	Pr	iPZ			28	
Apr. 29	R	eZ	17	24	04	Tu eP 17 23 21
	T	eZ			30	Tacubaya reports P=17:19:40
	Pr	iPZ		23	55	and gives 17°02'N.100°03'W.,
						O=17:19:01
Apr. 30	P	ePZ	01	39	50	Tu eP 01 40 00
	MW	ePZ			48	
	R	ePZ			41	
May 1	P	iPNEZ	17	09	21	Tu iP 17 09 51
	MW	iPZ			22	
	R	iPZ			23	
	T	iPZ			18	
May 2	P	ePZ?	21	52	19	Tu iP 21 51 26
	PX	eLZ	22	03		
	R	ePZ	21	52	14	
	Pr	iPZ			07	
		iZ			14	
May 3	P	ePZ	10	12	21	Tu eP 10 12 45
	MW	ePZ			22	Tonga region, according to
	R	ePZ			24	Apia, which reports:
	T	ePZ			33	eP 10 02 50
		eZ			46	iS 03 48
	Pr	ePZ			22	
May 4	MW	iPZ	16	11	46	Tu eP 16 12 28
		iZ		12	06	i 48
		iZ			19	
	R	ePZ		11	49	
		iZ		12	09	
	T	iZ		11	51	
May 5	P	ePZ	16	24	35	Tu eP 16 24 31
	MW	ePZ		24	34	e 25 00
		eZ		28	16	Azimuth east of north.
	R	iPZ		24	35	Mediterranean?
	SB	ePZ			33	Indian Ocean?
	LJ	ePZ?			38	
	T	iPNEZ			28	
	H	ePE			32	
	Pr	ePZ			36	
May 6	T	eZ	08	14	09	Tu e 08 16 19

Date	Sta.	Phase	h	m	s	Remarks
May 6	P	iPNEZ	21	27	28	Tu iP 21 26 39
	MW	ePZ			28	
	R	ePZ			22	
May 6	P	iPEZ	22	59	39	Tu eP 22 58 46
	PX	eLN	23	19		USCGS: 11°N.66°W.,O=22:50.3
	MW	ePZ	22	59	39	
	R	ePZ			34	
	T	ePZ			44	
May 7	P	iPNEZ	21	39	38	Tu iP 21 40 04
	MW	iPNEZ			38	
		iZ			54	
	R	iPZ			39	
		iZ			55	
	T	iPZ			41	
		iZ			57	
May 9	P	eZ	03	25	24	Tu eP 03 24 39
	MW	ePZ			16	
	R	ePZ			10	
	T	ePZ			29	
May 9	MW	ePZ	04	55	06	Tu iP 04 54 58
	R	ePZ			09	Atlantic
	T	ePZ?		54	16	
May 9	PX	eLNZ	16	12.0		Normal. Tu eP 15 43 21
	MW	eZ	15	48	26	
	R	ePZ		43	26	
May 10	MW	ePZ	03	38	19	Tu iP 03 38 43
	R	ePZ			19	
May 10	R	iPZ	07	17	59	Tu eP 07 18 31
		iZ		18	12	
	T	iPZ		17	51	
		iZ		18	03	
May 10	MW	iPZ	08	36	30	Tu iP 08 36 02
	R	iPZ			25	
	T	iPZ			43	
May 10	MW	ePZ	20	30	05	Tu iP 20 29 49
	R	ePZ			05	
	T	ePZ			04	
May 11	P	iPZ	11	44	51	
	MW	iPZ			53	
	R	iPZ			53	
May 11	P	eZ	23	43	27	Tu iP 23 43 52
	MW	eZ			19	i 44 05
		eZ			31	
	R	eZ			24	
May 13	P	iPZ	11	58	33	Tu iP 11 58 56
	MW	iPZ			33	
May 13	P	eZ	20	43	55	Normal. Tu eP 20 44 23
		eZ		46	00	e 46 30
	PX	iSNE		54	29	Two shocks?
		iNE		56	39	
		eLZ	21	12.0		
	MW	ePZ	20	43	51	
		eZ		46	01	
	R	ePZ		43	52	
		eZ		45	56	
	T	iPZ		43	48	
		eZ		46	03	
May 14	R	ePZ?	00	30	47	Tu iP 00 31 12
	T	ePZ			49	

Date	Sta.	Phase	h	m	s	Remarks
May 14	P	iPNEZ	02	22	12	Normal? Tu iP 02 21 25 c
		iZ		22	i 36	
	PX	iPPZ		24	11	Destructive in Ecuador
		iSNE!		29	17	Major earthquake
		eSSN		32.9		(Magnitude 7 3/4)
		iLN		34	57	Depth certainly less than
	P	eP'P'Z		53	22	100 km.
	MW	ePNE		22	13	USCGS: 0.3°S.80°W.,
	R	iPZ			05	O=02:13:21
		eSNE		29	13	
		eP'P'Z		53	20	
	SB	ePZ		22	24	
	LJ	ePZ			02	
	T	ePZ			28	
		iNEZ			37	
		eSN		29	44	
		eP'P'Z		53	08	
	H	ePNE		22	28	
		eSNE		29	29	
	Pr	ePZ	02	22	06	
		iZ			17	
		eP'P'Z		53	28	
May 14	P	iPNEZ	03	03	10	Aftershock.
	MW	ePNE			08	Tu eP 03 02 22
	R	ePZ			02	
	SB	ePZ			24	
	LJ	ePZ			00	
	T	ePZ			26	
	H	ePNE			23	
	Pr	ePZ			03	
May 14	R	ePZ	04	27	55	Aftershock?
	T	ePZ		28	16	Tu eP 04 27 15
	Pr	ePZ		27	56	
May 14	P	ePZ	08	16	37	Tu eP 08 18 02
	R	eZ?			26	
	T	iPZ			35	
May 14	P	iPNEZ	08	47	40	Aftershock, Ecuador.
	PX	iSNE		54	45	Tu eP 08 46 49
	R	ePZ		47	29	
	T	ePZ			49	
	Pr	ePZ			29	
May 14	P	iPZ	10	11	58	Tu iP 10 11 12
	R	ePZ			51	
	T	iPZ		12	12	
	Pr	ePZ		11	49	
May 14	P	ePZ	10	34	55	Normal. Tu eP 10 33 53
	PX	eLNE		36.6		S? 35.8
		eLZ		38	02	
	T	ePZ		35	28	
	H	ePNE			16	
	Pr	eZ		34	31	
May 14	P	iPNEZ	12	40	38 d	Tu iP 12 40 04
	R	iPZ			34	
	T	ePZ			50	
	Pr	ePZ			34	
May 14	P	iPNEZ	15	55	32 d	Deep? Tu iP 15 54 46 d
		eZ		56	06	
	R	iPZ		55	26	
	T	iPZ		55	46 d	
	Pr	iPZ			25	
May 15	P	ePZ	02	30	25	Normal. Tu iP 02 30 55
	PX	eLZ		56		
	MW	iPZ		30	28	
	R	iPZ			29	
	T	iPZ			32	

Date	Sta.	Phase	h	m	s	Remarks
May 15	P	ePZ	03	02	05	Tu iP 03 01 52
	MW	iPZ			04	North Atlantic.
	R	eZ			02	
	T	ePZ		01	48	
	Pr	ePZ		02	06	
May 15	P	ePNEZ	10	59	27	Tu eP 10 58 41
	PX	iSNEZ	11	06	35	Ecuador.
		eSSNE		10	17	
		eLZ		24.6		
	MW	iPZ	10	59	28	
	R	ePZ			22	
	LJ	ePNEZ			22	
	T	ePZ			43	
	Pr	ePZ			19	
May 15	P	ePZ	12	00	11	Tu eP 11 59 24
	PX	iSNEZ		07	14	Ecuador.
		eLZ		25		
	MW	ePZ		00	11	
	R	ePZ			04	
	LJ	ePZ			06	
	T	ePZ			26	
	Pr	ePZ			03	
May 15	P	iZ	13	39	01	Tu iP 13 38 13
	MW	ePZ		38	56	
	R	ePZ			55	
	T	ePZ		39	14	
May 15	P	ePZ	18	20	58	Tu iP 18 20 08 c
	MW	ePZ			54	Ecuador
	R	iPZ			50	
	T	iPZ			52	
May 16	P	ePZ	03	39	18	Tu iP 03 38 38 c
		iZ			48	Ecuador
	MW	iPZ			17 c	
		iZ			48	
	R	iPZ			13	
		iZ			43	
	T	iPZ			31 c	
		eZ			57	
May 16	P	iPNEZ	05	37	29	Tu iP 05 36 42 d
	MW	iPZ			28	
	R	iPZ			24	
	LJ	ePEZ			18	
	T	iPZ			43	
	Pr	iPZ			21	
May 16	T	ePZ	12	56	15	Tu iP 12 55 18
May 16	P	iPZ	19	06	51	Tu iP 19 06 04
	MW	iPZ			52	e 21
	R	iPZ			46	Ecuador
	LJ	ePZ			41	
	T	ePZ			48	
		eZ		07	06	
	Pr	ePZ		06	40	
May 16	P	iPNEZ	19	40	12	Tu iP 19 39 25
	PX	eSNEZ		47	18	i 45
		eLZ		56.9		Ecuador
	MW	iPZ		40	12	
	R	iPZ			06	
	T	ePZ			26	
May 16	P	iPNZ	20	31	16	Tu iP 20 30 29
	MW	iPZ			16	
	R	ePZ			10	
	T	ePZ			30	

Date	Sta.	Phase	h	m	s	Remarks
May 16	P	iPZ	20	48	08	Tu iP 20 48 26
	MW	ePZ			09	
	R	ePZ			10	
	T	iPZ			18	
	Pr	ePZ			09	
May 16	P	iPZ	21	47	27	Tu iP 21 47 54
	MW	iPZ			29 d	
	R	iPZ			30	
	T	ePZ			37	
	Pr	iPZ			32	
May 17	MW	iPZ	03	19	00	
	R	iPZ			02	
	T	ePZ			00	
May 17	P	iPNEZ	15	23	07	Tu eP 15 22 16
	PX	eSNEZ		30	10	Ecuador
		eLNEZ		38.6		
	MW	ePZ		23	07	
	R	iPZ			01	
	T	ePZ			21	
	Pr	ePZ		22	57	
May 17	Pr	iPZ	21	30	27	Tu iP 21 30 49
May 17	MW	iPZ	22	26	24	Tu iP 22 26 05
	T	ePZ			41	
	Pr	ePZ			21	
May 18	P	iPZ	03	23	38	Tu iP 03 24 16
	MW	ePZ			39	
May 18	MW	ePZ	08	08	52	Tu eP 08 09 24
	T	ePZ			47	
	Pr	ePZ		09	03	
May 18	P	iPZ	14	53	34	Tu iP 14 53 55
		iZ			56	
	T	iPZ			30	
	Pr	ePZ			42	
		eZ		54	03	
May 18	MW	iPZ	15	31	31	Tu iP 15 30 45
	R	iPZ			27	i 31 06
	Pr	iPZ			22	
May 18	MW	iPZ	16	28	01	Deep. Tu iP 16 28 23 d
	R	iPZ			04	e 30 10
	T	iPZ			10	i 14
	Pr	iPZ			04	
		iZ		29	54	
May 19	P	iPZ	00	05	56	Tu iP 00 05 01
		iZ		06	11	i 15
	MW	ePZ		05	54	
		iZ		06	11	
		eZ			19	
	R	ePZ		05	49	
		eZ		06	05	
	T	ePZ			10	
		iZ			17	
	Pr	iPZ		05	42	
		iZ		06	00	
May 19	P	iPZ	11	54	22	Tu iP 11 55 05
		iZ			36	
		iNE			39	
	MW	iPZ			21	
		iZ			39	
	Pr	iPZ			31	
May 19	P	iPZ	15	21	27	Deep. Tu iP 15 21 51
		iZ		22	04	i 22 27
	MW	iPZ		21	28	Near Apia, which reports:
		iZ		22	05	iP 15 11 00
	R	ePZ		21	29	iS 37
	T	iPZ			36	
		eZ		22	13	
	Pr	iPZ		21	29	
		iZ		22	06	

Date	Sta.	Phase	h	m	s	Remarks
May 20	P	iPZ	10	58	07	Normal. Tu iP 10 56 22
		eSNEZ	11	00	44	eL 57 16
	MW	ePZ	10	58	09	
		eSZ	11	00	39	
	R	ePZ	10	57	45	
		eSZ	11	00	27	
	LJ	ePZ	10	57	44	
		eSZ	11	00	25	
	Pr	iPZ	10	57	38	
		eSZ	11	00	06	
May 20	P	eSZ	11	19	54	Tu eP 11 15 34
	R	eSZ		19	40	eL 16.5
	Pr	ePZ		16	53	
		eSZ		19	38	
May 20	P	ePZ	11	48	33	Normal. Tu eP 11 48 53
	PX	eLZ	12	09		
	MW	ePZ	11	48	37	
	R	ePZ			38	
	Pr	ePZ			38	
May 20	Pr	ePZ	12	41	05	Tu eP 12 40 24
May 20	P	iPNZ	13	00	04	Tu iP 12 59 42
	MW	ePZ			04	
	R	ePZ			00	
	Pr	ePZ	12	59	56	
May 20	P	iPNEZ	17	18	56	Normal. Tu iP 17 19 14 c
	PX	eLNEZ		49		
	MW	ePZ		18	59	
	R	ePZ			59	
	Pr	iPZ		19	00 c	
May 21	P	iPNEZ	00	21	00 d	Tu iP 00 20 11 d
		iZ			15	Near Panama
		iZ			19	
		iZ		22	31	
	MW	iPNEZ		20	59	
	LJ	iPZ			49	
	Pr	iPZ			48 d	
		iZ		22	26	
May 21	PX	eLZ	07	47		Normal. Tu eP 07 14 22
May 22	P	iZ	10	39	36	Tu iP 10 38 47 d
	MW	ePZ			31	i 56
		eZ			37	Depth probably 100-150 km.
		iZ			41	USCGS: 04.6°N.74.5°W.,
	LJ	eZ			48	O=10:30:38
	T	ePNE			48	Near Bogota, Colombia;
	Pr	iPZ			27	felt there
		eZ			39	
May 22	P	iPZ	18	56	27	Normal. Tu iP 18 56 44
	PX	eLNEZ	19	27		i 57
	MW	ePZ	18	56	29	
	R	ePZ			30	
	Pr	ePZ			30	
May 22	P	iPZ	19	35	56	Normal. Tu eP 19 35 00
	PX	eLNEZ		49		
	MW	ePZ		35	55	
	R	ePZ			48	
	T	ePNE		36	13	
	Pr	ePZ		35	43	
May 22	PX	ePZ	19	45	46	Normal. Tu eP 19 46 01
		eLNEZ	20	18		
	MW	ePZ	19	45	45	
	R	ePZ			51	
	Pr	ePZ			49	
May 22	MW	ePZ	23	03	20	Tu iP 23 02 31
	Pr	ePZ			11	

Date	Sta.	Phase	h	m	s	Remarks
May 23	P	iPNEZ	03	32	12 d	Tu e 03 36 12
	MW	iPEZ			13 d	
	R	iPZ			15 d	
	Pr	ePZ			17	
May 23	P	iPZ	13	02	44	Normal. Tu e? 13 03 27
	PX	eLN		30		e 07 18
	MW	ePZ		02	42	
	R	ePZ			47	
	Pr	ePZ			45	
May 23	P	ePNEZ	15	48	04	Normal. Tu iP 15 48 36
		iSNE			35	Felt in Imperial Valley and
	MW	iPZ			05	as far as San Diego and
		iSNE			35	Escondido
	R	iPNEZ		47	56 d	32°59'N.115°59'W.,O=15:47:29
		iSNE		48	16	
	SB	ePZ			26	
		iSE		49	05	
	LJ	iPNEZ		47	50 c	
		iSNE		48	07	
	T	ePNE			39	
	H	ePNE			36	
		iSNE		49	26	
	Pr	iPZ		47	46 c	
May 24	P	eZ	03	23	07	Tu eP 03 22 07
	MW	iPZ			01	
	R	iPZ		22	56	
May 24	P	eP"Z	03	45	40	Normal. Tu eP" 03 45 47
	PX	ePPZ		47	32	Probably Nicobar Islands
		eSKPZ		48	51	
		eN		58.0		
		eLZ	04	29		
	MW	eP"Z	03	45	39	
	R	eP"Z			39	
May 24	P	iPZ	09	09	42	Tu iP 09 10 48
	MW	iPZ			43	
May 24	MW	ePZ	14	53	59	Tu iP 14 53 10
May 24	MW	ePZ	16	58	00	Tu eP 16 58 14
May 25	MW	iPZ	13	15	34	Tu iP 13 14 45 d
	R	ePZ			28	
	Pr	ePZ			22	
May 25	P	iPZ	19	55	23	Tu iP 19 55 44 c
	R	iPZ			24	
	Pr	iPZ			26	
May 26	MW	iPZ	03	24	58	Tu eP 03 24 17
May 26	P	ePZ	07	23	01	Tu eP 07 23 25
	PX	eLZ		52		
	MW	ePZ		23	02	
	R	ePZ			04	
May 26	P	ePZ	13	33	14	Tu eP 13 33 47
	MW	ePZ			12	i 56
		iZ			24	
	R	iPZ			17	
		eZ			26	
May 26	PX	eLZ	23	15		Normal. Tu eP 22 40 43
	MW	ePZ	22	40	28	
May 27	P	ePZ	06	44	31	Normal. Tu eP 06 44 50
	PX	eSNE		55	13	e 07 28 50
		iPSZ		56	41	Distance 87°
		iLNZ	07	07	55	Wellington gives:34°S.177°W.,
	MW	ePZ	06	44	33	O=06:31.8
	R	ePZ			34	
	T	ePN			42	
	Pr	ePZ			34	

Date	Sta.	Phase	h	m	s	Remarks
May 28	P	iPZ	00	42	00	Tu iP 00 43 21 c
		iSNEZ		43	35	Northern California.
	PX	eLNEZ		44.3		USCGS: 40.8°N.120.7°W.,
	R	ePNZ		42	07	O=00:39:50
		iSZ		43	47	
	SB	eSEZ			10	
	T	ePNE		41	36	
	H	ePNE			46	
	Pr	ePZ		42	20	
		eSZ		44	10	
May 28	P	iPZ	01	16	27	Deep. Tu eP 01 16 57
		iZ			39	iP" 20 34
		iP"NEZ		20	22	i 21 56
	PX	iPPEZ!		21	10	i 30 47
		iZ			40	USCGS: 0.4°S.122.6°E.,
	P	iZ		23	47	O=01:01:45, h=100 km.
	PX	iZ		24	20	Pasadena: 0°,124°E.,
		iSKSNE		26	58	O=01:01:48,h=120 km.
		iNE		27	49	
		iSNEZ		28	42	
		iSPEZ		30	35	
	P	ePKKPZ		31	09	
	PX	iZ		35	39	
		iZ		38	54	
		eLZ		53.4		
	MW	ePZ		16	27	
		iZ			38	
		iP"NEZ		20	21	
		iPPEZ		21	06	
		eSPZ		30	36	
		iPKKPZ		31	10	
		eZ		33	16	
	R	ePZ		16	32	
		iZ			41	
		iP"Z		20	22	
		iPPZ		21	06	
		eZ		24	12	
		iPKKPZ		31	07	
	SB	iP"EZ		20	21	
		eEZ			59	
	LJ	ePPN		21	21	
	T	eP"N		20	22	
		ePPNE		21	05	
	H	eP"NE		20	23	
		ePPE		21	04	
	Pr	ePZ		16	32	
		iP"Z		20	24	
		iPPZ		21	17	
		iPKKPZ		31	05	
May 28	MW	iPZ	03	32	04	Deep? Tu iP 03 32 02
		iZ			17	
	R	ePZ			04	
		eZ			17	
	H	ePNE		31	55	
	Pr	ePZ		32	06	
May 29	P	ePZ	05	44	00	Normal. Tu iP 05 43 31
	PX	eLNZ	06	08		i 38
	MW	iPZ	05	44	00	Approximately 38°N.19°W.,
	R	iPZ		43	50	O=05:32:03
	T	ePNE			49	
May 30	P	ePNZ	07	22	58	Normal. Tu eP 07 21 55
	PX	eLNE		25.6		eS? 24.1
	MW	ePZ		22	57	USCGS: 23°N.109.5°W.,
	R	ePNZ			51	O=07:19.7
	SB	ePZ		23	25	
	LJ	ePN		22	37	
	T	ePNE		23	31	
	H	ePNE			20	
	Pr	ePZ		22	40	

Date	Sta.	Phase	h	m	s	Remarks
May 30	P	ePZ	08	42	49	Tu iP 08 41 58
	MW	ePZ			49	Near Panama
	Pr	ePZ			38	
May 30	P	iPZ	10	38	17	Tu iP 10 38 55
	MW	iPZ			17	
	R	ePZ			21	
	T	ePNE			21	
	H	ePN			19	
	Pr	ePZ			26	
May 30	P	iPZ	13	41	17	Tu iP 13 40 17
	MW	ePZ			17	
	R	iPZ			09	
	T	ePZ			37	
	H	ePNE			32	
	Pr	iPZ			04	
May 30	P	iPZ	18	27	14	Tu iP 18 27 41 c
	MW	ePZ			15 c	
	R	iPZ			17 c	
	T	iPNEZ			19	
	H	ePE			19	
	Pr	iPZ			18	
May 30	MW	eZ	18	47	50	Tu eZ 18 48 26
	T	eZ			32	
May 31	P	iPZ	02	52	48	Normal. Tu iP 02 52 53 d
	PX	eLNE	03	14		i 53 03
	MW	iPZ	02	52	46	e 55 12
		iZ			57	Spitzbergen?
		eZ		55	06	
	R	iPZ		52	47	
		eZ		55	06	
	T	iPZ		52	29	
	H	ePN			37	
	Pr	ePZ			51	
		iZ		53	01	
May 31	P	iPNEZ	05	28	29	Tu iP 05 29 14
	PX	iSNEZ		34	46	i 26
		eLNE		38.5		USCGS: 52°N.173°W.,O=05:20.5
	MW	iPZ		28	29 c	
	R	iPZ			32	
		iZ			42	
	T	iPNEZ			13	
	H	ePNE			21	
	Pr	iPZ			40	
May 31	MW	ePZ	10	41	57	Tu iP 10 42 43
	R	ePZ		42	00	
	T	ePZ		41	31	
	Pr	ePZ		42	07	
May 31	Pr	iPZ	11	45	36	Tu iP 11 44 55
May 31	P	iNE?	12	55	20	Normal? Two or more earth-
		iNEZ		59	08	quakes? No satisfactory in-
	PX	eLN	13	24.7		terpretation of these
		eLZ		28.7		readings. Those marked ? are
	MW	eZ	12	52	21	probably due to a small
		eZ?		55	20	local shock.
		iZ		57	38	Tu iP 12 53 08
		eZ		59	07	e 55 27
	R	eZ		52	21	i 57 59
		iZ?		55	25	e 13 03 32
		eZ		57	39	eL 33 16
		eZ		59	10	
	T	iZ		52	06	
		eZ		55	13	
		eZ		57	46	
		eZ		59	07	
	Pr	iZ		52	32	
		iZ		55	07	
		iZ?		55	39	
		eZ		59	12	
		iZ			23	

Date	Sta.	Phase	h	m	s	Remarks
May 31	MW	eZ	14	12	41	Tu eP 14 12 23
	R	ePZ			36	
	T	eZ			59	
June 1	P	iPZ	00	30	02	Tu e 00 33 48
		iZ		31	10	
		iZ			17	
	MW	ePZ		30	04	
		iZ		31	06	
		iZ			11	
	R	ePZ		30	06	
		eZ		31	12	
	Pr	eZ		31	10	
June 1	P	iEZ	08	27	28	Normal. Tu iP 08 26 38
		iSNE		28	47	iS 27 41
	MW	iPZ		27	09	
		iZ			26	
		iSEZ		28	42	
	R	ePNZ		26	59	
		eSNZ		28	29	
	T	ePNEZ		27	24	
		eSNEZ		28	37	
	H	eSNE			31	
	Pr	iPZ		27	00	
		iSZ		28	28	
June 1	PX	eLEZ	10	18		Normal. Tu eP 09 31 08
June 1	P	iZ	17	00	40	Tu iP 17 00 31
	MW	iZ			42	
	R	iPZ			17	
	T	ePZ			24	
	Pr	ePZ			16	
June 2	P	iP"Z	00	49	40	Normal. Tu eP" 00 49 28
		eZ		54	38	South Atlantic (USCGS)
	PX	eLZ	01	30		
	MW	eP"Z	00	49	45	
	R	eP"Z			49	
June 3	MW	iPZ	02	00	43	Tu iP 01 59 55
	R	ePZ			37	
June 3	PX	eLZ	06	03		Tu eP 04 56 52
June 3	P	iPZ	16	43	46	Deep. Tu eP 16 44 11
		ipPNEZ		44	16	ipP 42
		eZ		47	00	New Hebrides, h=120 km,
		eZ		48	07	Wellington: 15.5°S.165°E.,
	MW	iPEZ		43	46	O=16:31.3
		ipPNZ		44	16	USCGS: 15.1°S.167.5°E.,
		iZ			45	O=16:31:05
		iZ		47	08	
	R	ePZ		43	48	
		ipPZ		44	18	
	T	iPNZ		43	52	
		iZ		44	29	
		iZ			50	
		iZ		45	08	
	H	ePE		43	51	
		epPE		44	21	
	Pr	iPZ		43	50	
		ipPZ		44	21	
		iZ			27	
June 4	P	iPZ	07	24	54	Tu iP 07 25 06 d
	MW	iPZ			52	e 27 22
	R	ePZ?			54	
	T	iPZ?			54	
	H	ePZ?			53	
June 4	P	ePZ	17	30	56	Tu eP 17 32 08
	MW	ePZ			58	
	R	ePZ		31	01	
	T	ePNEZ		30	30	
	H	ePE			39	

Date	Sta.	Phase	h	m	s	Remarks
June 4	P	eZ	23	03	04	Normal. Tu eP 23 01 58
		eSNZ		04	06	i 02 20
	MW	iPZ		02	00	e(S) 03 8
		eSE		04	05	Smaller foreshock recorded
	T	iPNEZ		01	40	at Tinemaha and Tucson at
		eZ			59	22h.52m.
		eSNEZ		03	20	
	H	eN		02	14	
		eSNE		03	22	
June 5	P	iPNEZ	03	08	38 d	Deep. Tu iP 03 08 04 d
	MW	iPNEZ			38 d	i 24
	R	iPZ			34 d	i 30
		eZ		09	33	South America
	SB	ePZ		08	44	
	LJ	ePN			30	
	T	iPNEZ			49 d	
	H	iPNEZ			45	
	Pr	ePZ			29	
June 5	P	ePZ	12	34	24	Tu eP 12 35 57
		iSE		35	13	e 38 51
	MW	ePNEZ		34	23	Felt in the region surround-
		eSZ		35	08	ing Monterey Bay.
	R	ePNEZ		34	32	
	SB	ePZ		34	10	
		eSE		35	06	
	T	ePZ		34	09	
		iNEZ			13	
		iSNZ			52	
	H	iPNEZ			15	
		eSN			54	
June 5	P	iPZ	13	20	02	Tu iP 13 20 24 d
	MW	iPZ			02	
	R	iPZ			03	
	T	iPZ			10	
June 5	MW	iPZ	15	45	36 c	
	T	iPZ			34	
June 5	P	iPNEZ	17	20	12 c	Tu iP 17 19 43 c
	MW	iPZ			11 c	
	R	iPZ			08 c	
	SB	ePZ			16	
	T	iPNEZ			24 c	
	H	iPNEZ			20	
	Pr	ePZ			05	
June 6	P	ePZ	05	40	46	Tu iP 05 39 59
	MW	ePZ			45	
	R	ePZ			41	
	T	ePZ		41	00	
June 6	P	ePZ	10	48	16	Tu iP 10 47 29 d
	MW	ePZ			18	
	R	ePZ			12	
	T	ePZ			32	
	Pr	ePZ			08	
June 6	P	iPZ	11	43	46	Tu eP 11 43 34
		eZ		45	16	e 44 31
	MW	ePZ		43	45 c	
		eZ		45	17	
	R	ePZ		43	44	
		iZ		44	11	
	T	ePZ		43	51	
	Pr	ePZ			49	
		eZ		44	19	
June 6	P	ePZ	11	54	03	Tu iP 11 54 20
	MW	ePZ			02	Part of preceding?
		eZ		57	43	
	T	ePZ		53	56	
		eZ		57	50	

Date	Sta	Phase	h	m	s		Remarks
June 6	P	iPNEZ	15	06	48		Tu ePP 15 11 32
		ePPZ		10	42		i 23 24
	MW	iPZ		06	49	d	Wellington: 6°S.145°E.,
	R	iPZ			51		O=14:53 3, h=100 km.
	T	iPNEZ			49		
	H	ePNEZ			49		
	Pr	iPZ			53		
June 7	P	iPZ	06	39	49		Tu iP 06 38 54
	MW	iPZ			47	c	
	R	ePZ			42		
	T	ePNZ		40	18		
June 7	MW	iZ	07	36	12		Tu e 07 36 36
	R	eZ			06		i 51
	T	eZ			00		
June 7	P	iPNEZ	10	56	57		Normal? Tu iP 10 56 09
		iZ		57	02		Ecuador
	PX	eN	11	04	01		
		eLZ		12.3			
	MW	iPNEZ	10	56	57		
	R	iPZ			52		
	SB	ePZ		57	08		
	LJ	ePN		56	50		
	T	iPNEZ		57	09		
	Pr	ePZ		56	47		
June 7	P	ePZ	12	58	21		Tu eP 12 57 33
	MW	ePEZ			19		
	R	ePZ			17		
	T	ePN			37		
June 7	PX	eLZ	22	09	9		Normal. Tu eP 22 01 49
	MW	eZ		02	44		
June 8	P	iPZ	23	38	42		Tu iP 23 38 22 c
	MW	iPZ			44		
	R	ePZ			40		
	T	ePNZ			55		
June 9	P	iPZ	05	07	05		Normal. Tu eP 05 07 44
		iSNE			28		iS 09 04
	MW	ePNEZ			03		33°20'N.116°44'W., O=05:06:33
		iSNE			27		San Jacinto fault. Felt in
	R	iPNE		06	54		San Diego and Imperial
		iSNE		07	08		counties
	SB	iPEZ			31		
		eSEZ		08	08		
	LJ	iPNZ		06	52		
		iSN		07	03		
	T	ePZ			40		
		iSNE		08	47		
	H	ePZ		07	26		
		eSNE		08	12		
	Pr	iPZ		06	44	c	
June 9	P	iPZ	06	44	01		Tu 06 44 30
	MW	ePZ			02		
	R	ePZ			04		
	T	ePZ		43	58		
	Pr	ePZ		44	08		
June 9	P	ePNEZ	11	10	54		Normal. Tu eP 11 11 42
	PX	eLNE		15.2			Off Vancouver Island.
	MW	ePEZ		10	52		USCGS: 49.5°N.129°W.,
	R	ePZ			57		O=11:06.8
	LJ	ePN		11	12		
	T	ePNEZ		10	16		
	H	eNEZ			36		
	Pr	ePZ		11	07		
June 9	P	iZ	19	52	40		May not be seismic

Date	Sta.	Phase	h	m	s		Remarks
June 10	P	iPNEZ	01	17	44	c	Tu iP 01 18 22
	MW	iPNEZ			44	c	ePP 47 51
	R	iPNZ			48	c	Kamchatka
	SB	iPEZ			37	c	
	T	iPNEZ			29	c	
		iNEZ			38		
	H	iPNEZ			35	c	
	Pr	ePZ			54		
June 10	P	iPEZ	03	25	11		Tu iP 03 25 49
	MW	iPZ			12		
	R	ePZ			15		
	T	iPNEZ		24	56		
	H	iPZ		25	02		
June 10	P	iPZ?	04	09	43		Tu ePZ 04 09 28
	MW	ePZ			45		
	R	ePZ			42		
	T	ePNZ		10	03		
	H	ePNZ		09	58		
June 10	P	eZ	10	40	00		Normal. Tu eP" 10 39 42
	PX	eZ		50	58		e 40 38
		eLNE	11	05.4			East Indies?
	MW	eP"Z	10	39	48		
		eZ			59		
	R	eZ		40	03		
	T	eZ		39	44		
June 10	PX	eLZ	14	48			Normal? Wellington gives:
							56°S.138°E., O=13:49.4.
June 10	P	iPZ	22	52	04		h=100 km.
		eSNEZ		53	27		Tu e 22 53 33
	MW	iNEZ		52	14		e 56 18
		eSZ		53	19		Felt (V) at Reno, Nevada,
	R	ePZ		52	09		and in surrounding territory
		eSNEZ		53	25		
	SB	ePZ		52	04		
		iSEZ		53	10		
	T	ePNEZ		51	26		
		eSNEZ		52	10		
	H	ePNEZ		51	44		
		iSNE		52	34		
June 11	P	iPZ	06	23	51		Tu iP 06 24 09
	MW	iPZ			52		
	R	iPZ			53		
	T	iPZ		24	00		
June 11	P	ePNEZ	16	19	00		Tu eP 16 19 22
	MW	ePNEZ			02		
	R	ePZ			00		
	T	ePZ			09		
	H	ePNZ			11		
	Pr	ePZ			01		
June 12	P	iPZ	02	07	44		Tu iP 02 08 19 c
	MW	iPZ			43		USCGS: 61.5°N.137.5°W.,
	R	ePZ			45		O=02:01.6
	T	ePNZ			20		
June 12	P	iPZ	02	37	33		Normal. Tu eP 02 37 28
		iSNEZ		38	20		Gulf of California
	MW	ePZ		37	55		
		iSNZ		38	21		
	R	iPNZ		37	25	c	
		iSNEZ		38	07		
	SB	ePEZ		38	03		
	LJ	ePZ		37	09		
		iSN			37		
	T	ePNEZ		38	23		
		iSNEZ		39	44		
	Pr	ePZ		37	09		
		iSZ			42		

Date	Sta.	Phase	h	m	s	Remarks
June 12	P	eZ	10	30	53	Normal. Tu eP 10 30 03
	PX	eSNZ		38.6		i! 07
		eLNEZ		47		Ecuador.
	MW	ePZ		30	49	USCGS: 2.0°S.76.9°W.,
		iZ			53	O=10:21:32
	R	ePZ			49	
	SB	ePZ		31	02	
	LJ	ePE		30	49	
	T	ePNEZ			59	
	Pr	ePZ			49	
June 13	P	iPNEZ	14	24	29 d	Deep. Tu iP 14 24 52 d
		eZ			59	e 25 21
		iZ		27	59 c	i 28 36
	MW	iPEZ		24	31 d	Southwest Pacific
		eZ			59	
		iZ		28	00	
	R	iPZ		24	32 d	
		eZ			59	
		eZ		28	01	
	SB	iPEZ		24	25 d	
		eZ			54	
		eZ		28	00	
	T	iPNEZ		24	36	
		iNEZ		27	43	
	H	ePNE		24	36	
		eN		28	06	
	Pr	iPZ		24	32	
		eZ		25	02	
June 13	P	ePZ	16	26	29	Normal. Tu eP 16 26 53
	PX	eLZ		52		
	MW	ePZ		26	32	
	R	ePZ			34	
	SB	ePZ			32	
	T	ePNZ		27	03	
	Pr	ePZ		26	33	
June 13	P	iPZ	19	26	24	Normal. Tu iP 19 26 46
	PX	eLNE		47.7		Recorded at the New Zealand
	MW	ePZ		26	24	stations
	R	ePZ			26	
	SB	ePEZ			19	
	T	ePNEZ			35	
	H	ePNE			30	
	Pr	ePZ			26	
June 14	P	iPNEZ	03	22	29 c	(Deep.) Tu iP 03 23 00
		ipPZ			49	ipP 20
	PX	eZ		25	37	iPKKP 39 41
		eSNEZ		32	46	i 41 13
		iPSZ		34	50	eP'P'P' 04 09 26
		eLN		44.3		USCGS: 15.0°N.143.8°E.,
	MW	iPEZ		22	30 c	O=03:09:37
		ipPZ			50	Pasadena: 15°N.145°E.,
	R	iPNEZ			31 c	O=03:09:45, h=80 km.
		ipPNEZ			52	
		iNEZ		26	09	
		eZ		33	28	
	SB	iPEZ		22	24 c	
	LJ	iPNEZ			35 c	
	T	iPNEZ			25 c	
		ipPNEZ			46	
		iNEZ			52	
	H	ePNE			30	
	Pr	ePZ			35	
		epPz			55	
		eZ		26	14	
June 14	P	ePZ	10	56	28	Tu iP 10 56 53 d
	MW	ePZ			31	
	T	ePZ			39	
	H	ePNE			37	

Date	Sta.	Phase	h	m	s	Remarks
June 14	PX	eLZ	15	16		Normal. Tu eP 14 48 37
	MW	eZ	14	47	52	
	T	eZ			44	
June 15	PX	eLZ	06	33		Normal? Tu iP 06 07 05
	MW	ePZ		07	30	i 09 53
		iZ		10	18	Atlantic
	T	ePNEZ		07	23	
		eZ		10	10	
June 15	P	iPNEZ	13	59	09	Deep. Tu iP 13 59 26 d
		ipPZ	14	01	41	h=550 km.
	PX	iSNE		09	20	Very roughly 32°S.179°E.,
	MW	iPZ	13	59	10	O=13:47:15, using New Zea-
		eSNE	14	09	20	land stations, Apia, and
	SB	ePEZ	13	59	07	Riverview
	LJ	ePNEZ			09	
	T	ePNEZ			18	
		eNEZ	14	09	07	
		iNZ			40	
	H	ePNEZ	13	59	17	
		eSNE	14	09	35	
	Pr	ePZ	13	59	12	
June 15	P	iPNEZ	16	45	47 d	Normal? Tu iP 16 44 50 d
	PX	iZ		46	25	JSA: 19.0°N.106.5°W.,
		eZ		49	23	O=16:41:33
		eLNEZ		50.7		
	MW	iPNEZ		45	45	
		iZ		46	02	
	R	iPNEZ		45	40	
	SB	ePEZ			56	
	LJ	ePNZ			28	
	T	iPNEZ		46	13 d	
	H	ePNEZ			04	
	Pr	ePZ		45	29	
June 15	MW	iPZ	22	59	06	Tu iP 22 58 19
	R	ePZ			01	
June 16	P	iPNEZ	02	02	29	Tu iP 02 02 59
		iZ		03	06	
	MW	iPZ		02	30	
	R	ePZ			33	
		eZ		03	08	
	LJ	ePNZ		02	34	
June 16	PX	eLZ	05	48		Normal. Tu eP 05 01 33
	R	eZ		05	56	e 05 40
						Anatolia?
June 16	PX	eLNEZ	06	35		Normal. Tu e 05 56 08
June 16	P	iPNEZ	07	51	40	Deep? Tu iP 07 50 52
		eZ			56	Ecuador
		iPPZ		53	39	
		eSNE		58	43	
		eSSZ	08	02	27	
		eLNEZ		07.0		
	MW	iPNEZ	07	51	39	
	R	iPZ			35	
	LJ	ePNZ			25	
	T	ePNEZ			54	
		iNEZ		52	11	
June 16	R	ePZ	11	35	27	Tu eP 11 34 43
June 16	P	iPNEZ	21	14	00 c	Normal? Tu iP 21 13 12 c
	PX	iZ			21	Ecuador.
		iPPNEZ		16	00	USCGS: 0.5°N.80.9°W.,
		iSNEZ		21	06	O=21:05:14
		eSSNE		24.5		
		eLNE		28.8		
	MW	iPNEZ		14	00 c	
	R	iPNEZ		13	55 c	
	LJ	ePNZ			49	
	T	ePNZ		14	15	
		eZ		14	11	
	H	ePNE		14	12	

Date	Sta.	Phase	h	m	s	Remarks
June 16	P	iPZ	21	17	45	Tu iP 21 16 57 c
	MW	iPZ			44	Aftershock, involved in the
	R	iPZ			40	preceding.
	T	iPZ			59	
June 16	MW	iPZ	22	52	46	Tu iP 22 53 17
	R	ePZ			48	
June 17	MW	eZ	15	16	28	Tu eZ 15 16 44
	R	eZ			23	
June 17	P	iPZ	15	56	29	Normal? Tu iP 15 56 51 d
	PX	eLZ	16	22		
	MW	ePZ	15	56	30	
	R	ePZ			31	
	LJ	ePNE			25	
	T	ePZ			41	
	H	ePNE			39	
June 17	PX	eLZ	23	48		Normal. Tu e 23 15 24
June 18	P	iPNEZ	05	26	54	Deep. Tu iP 05 26 15 d
		eZ		27	33	South America
	MW	iPNEZ		26	55	
		eZ		27	34	
	R	iPZ		26	50 c	
		eZ		27	28	
	LJ	ePZ		26	44	
	T	iPZ		27	07	
June 18	P	ePZ	08	31	13	Tu eP 08 30 26
	MW	ePZ			14	
	R	ePZ			09	
June 18	P	iPZ	09	44	17	Normal. Tu eP 09 44 44
	PX	ePPE		48	33	e 46 55
		eSKSE		54	55	e 10 01 26
		eSN		55.3		USCGS: 9.5°N.138.9°E.,
		eLN	10	08.9		O=09:30:52
	MW	ePEZ	09	44	17	Pasadena: 9°N.142°E.,
	R	ePZ			21	O=09:31:00
	LJ	ePNEZ			25	Major earthquake(Magnitude 7)
	T	ePNEZ			15	
	H	ePEZ			16	
June 18	P	iPZ	10	52	21	Normal. Tu iP 10 52 19
		iSNZ		53	11	iS 53 39
	MW	ePZ		52	21	Gulf of California
		iSZ		53	06	
	R	iPNEZ		52	11	
		iSZ			55	
	SB	ePEZ		52	58	
		eSEZ		53	57	
	LJ	ePNEZ		51	56	
		iSNEZ		52	29	
	T	ePNZ		53	14	
		eSNZ		54	34	
	H	ePZ		52	57	
		iSEZ		53	51	
	Pr	ePZ		51	59	
		iSZ		52	53	
June 18	MW	ePZ	19	36	17	Tu eP 19 36 49
	R	ePZ			15	
June 19	P	iPZ	01	02	39	Tu iP 01 03 10
	MW	iPZ			40	
	R	iPZ			53	
	T	ePZ?		03	08	
June 19	MW	ePZ	09	12	03	Tu eP 09 11 16
June 19	P	iPNEZ	19	48	28	Deep? Tu eP 19 49 00
		iZ			41	Japan.
	R	ePZ			29	
		iZ			45	
	SB	ePEZ			22	
		iEZ			34	
	T	ePZ			15	
		iZ			32	
	H	ePE			23	
		eNZ			42	

Date	Sta.	Phase	h	m	s	Remarks
June 20	P	iPZ	01	03	29	Deep. Tu eP 01 03 56
		iZ			45	e 04 13
	R	iPZ			33	
		iZ			49	
		iZ			55	
	T	ePZ			34	
June 20	P	iPNEZ	10	06	55 c	(Deep.) Tu iP 10 05 52 c
		ipPZ		07	09	i 06 07
		isPZ			21	Depth 100 km.
		iPcPZ		10	54	USCGS: 19.0°N.100.7°W.,
		eZ		11	04	O=10:02:07, h=65 km.
	PX	eLNEZ		12.3		
	P	iZ		14	43	
	R	iPNEZ		06	48 c	
		ipPNEZ		07	05	
		iZ			15	
		iPcPZ		10	52	
		iZ		14	30	
	SB	ePEZ		07	07	
		ipPEZ			22	
	LJ	ePNEZ		06	40	
		ipPNEZ			57	
	T	ePNEZ		07	16 c	
		ipPNEZ			33	
	H	ePNEZ			08	
		ipPNEZ			27	
	Pr	ePZ		06	45	
June 21	R	ePZ	04	52	31	Normal. Tu iP 04 52 25
	T	iPNEZ			22	Zurich: 39°N.28°E.
	H	iPNEZ			25	
June 21	P	ePZ	09	27	04	Tu eP 09 27 46
	R	ePZ			08	
	T	ePZ		26	51	
June 22	P	iPNEZ	20	01	25 c	Normal. Tu iP 20 00 30 c
	PX	eLN		10.6		
	R	ePZ		01	19	
		ePcPZ		04	04	
	LJ	ePNEZ		01	14	
	T	ePNZ			41	
		ePcPZ		04	15	
	H	ePNEZ		01	39	
June 22	P	iPZ	20	33	07	Deep. Tu iP 20 33 40
		ipPZ			42	ipP 34 19
	R	iPZ			11	e 37
	SB	ePEZ			02	
	T	iPNEZ			04 d	
		ipPZ			43	
June 23	P	iPNEZ	09	02	45	Deep? Tu eP 09 01 51
		iZ			58	i 56
		eZ		03	18	i 02 26
		eZ		05	24	
		eZ			41	
		iZ		09	06	
	MW	iPZ		02	46 c	
		iZ		03	02	
	R	iPZ		02	30	
		eZ		05	23	
		eZ			38	
		eZ		09	03	
	LJ	ePNZ		02	36	
	T	ePNZ		03	00	
		eNZ			15	
		eNZ			29	
	H	eNE			08	
June 24	P	iPZ	06	02	28	Tu iP 06 03 02
	MW	iPZ			29	
	R	iPZ			31	

Date	Sta.	Phase	h	m	s		Remarks
June 24	P	iPNEZ	11	29	58	d	Normal. Tu iP 11 30 13
	PX	iPPZ		33	54		ePKKP 46 42
		eNE		40	5		eP'P' 54 45
		iSZ		41	13		Major earthquake
		iSNE			24		(Magnitude 7.1)
		iZ		42	09		Destructive on the North
		iPSN			59		Island, New Zealand.
		eSSNE		47	5		Wellington: 40.9°S.175.9°E.,
		eLZ	12	00	0		O=11:16.5
	MW	ePNEZ	11	29	59		
		eNEZ		40	33		
		ePKKPZ		46	8		
	R	ePZ		29	58		
		ePPZ		33	54		
	LJ	ePN		29	59		
	T	ePNEZ		30	12		
	H	ePNE			14		
June 24	PX	eLZ	18	52			Normal. Tu eP 18 21 17
June 26	P	ePZ	10	43	48		Tu eP? 10 44 16
	PX	eLZ	11	11			
	MW	ePZ	10	43	47		
	R	ePZ			50		
	T	ePNZ			53		
June 26	P	iPZ	11	13	23		Deep. Tu iP 11 12 42
		eZ		14	03		i 13 13
	MW	iPZ		13	22		i 26
		eZ		14	04		
	R	ePZ		13	19		
		eZ		14	03		
June 26	P	iPZ	15	25	53		Tu iP 15 25 32
	MW	ePZ			54		
June 26	MW	ePZ	17	08	55		Tu eP 17 08 07
	R	ePZ			49		
June 27	P	iPNEZ	02	55	36	c	Deep. Tu iP 02 56 07
		epPZ		57	16		i! 59 45
		esPZ		58	32		e 03 06 28
		ePPZ			57		Region of Japan. Depth
		iSNE	03	05	18		about 450 km.
	MW	iPEZ	02	55	37		
		epPZ		57	13		
		iZ		58	20		
		eZ			52		
		iZ		59	17		
		eSNE	03	05	20		
	R	iPZ!	02	55	39		
		iZ			52		
		ipPZ		57	15		
	SB	ePNEZ		55	31		
	LJ	ePNEZ			44		
	T	ePZ			29		
		iZ			59		
		eSN	03	05	04		
	H	ePNE	02	55	33		
		eSN	03	05	13		
June 28	P	iPNEZ!	00	13	38	c	(Deep) Tu eP 00 12 43
		ipPNEZ!			52		ipP 58
		iPcPZ		16	17		i 13 11
		ipPcPZ			32		iPcP? 16 01
	PX	eLNE		25.5			ipPcP 16
	MW	iPNEZ		13	37	c	i 54
		ipPNEZ			52	c	Central America
		iZ		14	09		
		ePcPZ		16	16		
		iZ			30		

(Continued)

Date	Sta.	Phase	h	m	s		Remarks
				(Continued)			
June 28	R	iPNEZ	00	13	32	c	
		ipPEZ			46		
		eZ		14	04		
		iPcPZ		16	14		
		ipPcPZ			29		
		iZ			48		
	SB	iPZ		13	48		
		ipPNEZ		14	03		
	LJ	iPZ		13	25		
		ipPNEZ			39		
	T	iPNEZ	00	13	53		
		ipPNEZ		14	07		
		isPZ			21		
		iPcPEZ		16	22		
		ipPcPNEZ			42		
		eNEZ			54		
		eZ		20	06		
		eNZ			35		
	H	iPNEZ		14	01		
	Pr	epPZ		13	41		
June 28	P	iPNEZ!	02	55	56		
	MW	iPZ			56		
	R	iPZ			59		
		eZ		56	42		
	T	iPZ		55	57		
	H	ePZ			59		
June 28	P	eZ	06	48	02		Tu e 06 48 22
	MW	eZ		47	49		e 39
		eZ		48	01		
	R	eZ		48	04		
June 28	P	ePZ	10	20	02		Tu eP 10 20 34
	MW	ePZ			06		
	R	ePZ			05		
June 28	P	ePZ	15	24	31		Normal.
	PX	eLZ		55.9			
	MW	ePZ		24	33		
	R	ePZ			34		
June 29	P	iPNEZ	06	38	42	d	Deep. Tu iP 06 38 13 d
		ipPZ		39	06		isP 46
		isPZ			16		eP'P' 07 05 47
		ePPZ		42	01		Strong at Santiago, Chile.
		iSNEZ		48	45		USCGS: 33 1/2°S.70 1/2°W.,
	PX	eLNE	07	01	0		O=06:26:48, h=200 km.
	MW	iPNEZ	06	38	42	d	JSA: 31.9°S.69.8°W.,
		ipPNEZ		39	07		O=06:26:44, h=100 km.
		isPNEZ			16		
		eSNE		48	42		
	R	iPNEZ		38	39	d	
		isPNEZ		39	13		
	SB	ePNEZ		38	48		
		epPNEZ		39	14		
		isPNEZ			21		
		iZ		40	16		
		eSE		48	53		
	LJ	ePNEZ		38	34		
		ipPNEZ			57		
		isPNEZ		39	06		
		eSE		48	27		
	T	iPNEZ		38	55	d	
		ipPNEZ		39	21		
		isPZ			28		
		iNEZ		40	09		
		eSNEZ		49	06		
	H	ePNEZ		38	52		
		epPNE		39	08		
		eNE			14		
		eSNE		48	58		
		eN		49	28		

Date	Sta.	Phase	h	m	s	Remarks
June 29	P	ePZ	17	42	42	Tu iP 17 41 49
	PX	eLNE		52		Surface waves small
	MW	ePZ		42	44	
	R	ePZ			35	
June 29	MW	iPZ	19	08	22	Deep? Tu iP 19 08 59
		iZ			51	i 09 36
	R	iPZ			24	
		eZ			57	
	T	ePZ			10	
		eZ			46	
		eZ		09	26	
June 30	PX	eLZ	05	41		Normal. Tu eP 05 14 09
	R	ePZ		13	46	
	T	ePZ		14	00	
June 30	PX	eLZ	08	18.9		Normal. Tu e 07 45 21
June 30	P	iPNEZ	15	19	11	Tu iP 15 18 24
	MW	iPNZ			13	
	R	ePZ			07	

C. F. Richter

April 6, 1944

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA CALIFORNIA

SEISMOLOGICAL LABORATORY

BULLETIN

JULY–SEPTEMBER 1942

(PASADENA AND AUXILIARY STATIONS)

Date	Sta.	Phase	h	m	s	Remarks
July 1	P	iPZ	04	32	04	Tu iP 04 31 12
	R	ePZ		31	58	Near Panama
July 1	P	ePZ	11	56	43	Tu iP 57 08
		eZ		57	36	i 59
	MW	iPZ		56	43	
		eZ		57	32	
	R	ePZ		56	44	
		eZ		57	36	
	T	ePZ		56	47	
		eZ		57	36	
July 1	P	ePZ	21	42	26	Normal. Tu iP 21 41 40
	PX	eLZ		58.0		Ecuador
	MW	iPZ		42	27	
	R	ePZ			22	
	T	ePZ			41	
July 1	P	iPNEZ	23	49	08	Tu iP 23 49 31 c
	MW	iPZ			09	
	R	ePZ			11	
	SB	ePZ			05	
	T	iPNEZ			17	
	H	ePZ			15	
July 2	MW	ePZ	05	16	29	Tu eP 05 17 12
	R	ePZ			42	
	T	ePZ			11	
July 2	P	iPNZ	08	00	48	Normal. Tu 08 00 00
	PX	eLZ		16.5		Ecuador
	MW	iPZ		00	49	
	R	iPZ			43	
	SB	ePZ			59	
	LJ	ePZ			39	
	T	iPZ		01	02	
July 2	P	iPZ	08	28	07	Normal? Tu eP 08 27 20
		iNZ			40	i 53
	PX	eLZ		43.8		Ecuador.
	MW	iPZ		28	06	Two shocks?
		iZ			39	
	R	ePZ			02	
		iZ			35	
	SB	eZ			50	
	T	ePZ			21	
		eNZ			54	
July 2	P	ePZ	14	03	37	Normal. Tu eP 14 02 49
	PX	eLZ		19.8		Ecuador
	MW	ePZ		03	40	
	R	ePZ			37	
	T	ePNEZ			53	
July 2	P	ePZ	23	31	36	Tu eP 23 31 34
	R	ePZ			37	
July 3	PX	eLZ	03	49.5		Normal. Tu e 03 09 14
	MW	ePZ		10	27	(India) e 10 42
July 3	P	iPNEZ	13	21	33 c	Tu iP 13 21 58 c
	R	ePZ			36	
	T	iPNZ			42	
July 3	P	ePZ	18	22	11	Tu eP 18 21 24
	R	ePZ			06	
	T	ePNZ			26	
July 3	P	ePZ	21	08	12	Tu iP 21 07 23
	R	ePZ			06	Ecuador
July 3	P	iPNEZ	23	55	09	Normal. Tu iP 23 54 20
	PX	eLZ	24	10.5		Ecuador
	R	ePZ	23	55	00	
	LJ	iPZ			00	
	T	ePZ			23	
July 4	P	iPZ	00	23	57	Tu eP 00 23 12
	R	ePZ			51	Ecuador

Date	Sta.	Phase	h	m	s	Remarks
July 4	P	iPNEZ	00	49	20	Tu iP 00 48 33
	R	iPZ			15	Ecuador
	T	ePZ			34	
July 4	P	iPNEZ	02	04	52	Normal? Tu iP 02 01 05
	PX	iPPZ		03	51	USCGS: 0.7°N. 80.7°W.;
		iSEZ		08	55	O=01:53:07
		eSSE		12	36	Ecuador
		eLNE		16.6		
	R	iPZ		01	48	
		iZ		05	53	
	SB	ePNEZ		02	06	
	LJ	ePZ		01	42	
	T	ePZ		02	07	
	H	ePNE			04	
July 4	P	ePZ	02	21	23	Tu iP 02 20 36
	R	iPZ			19	
July 4	P	iPNEZ	05	08	17	Normal? Tu iP 05 07 30
	PX	eLZ		23.6		Ecuador
	R	iPEZ		08	13	
	LJ	ePNEZ			07	
	T	ePZ			32	
July 4	P	iPZ	05	45	54	Tu iP 05 45 07
	R	iPNZ			48	
	T	ePNZ		46	08	
July 4	P	iPNEZ	06	17	22	Normal? Tu iP 06 16 33
	PX	iPPZ		19	33	Ecuador
		eSZ		24	10	USCGS: 0.7°N.80.7°W.;
		eSNE			20	O=06:08:33
		eSSNE		28	04	Apparently followed by a
		iLZ		32	47	larger shock 15 seconds
	MW	ePN		17	22	later
	R	iPNEZ			16	
	SB	ePZ			39	
	LJ	ePNEZ			11	
	T	ePNEZ			35	
	H	ePNE			46	
July 4	R	iPZ	06	21	11	Tu iPZ 06 20 28
	T	iPZ			29	
July 4	P	iPZ	07	37	33	Tu iP 07 36 45
	R	ePZ			29	
	T	ePZ			47	
July 4	P	iPNEZ	07	40	01	Tu iP 07 39 13
	R	iPZ		39	56	
	LJ	ePZ			51	
	T	ePZ		40	14	
July 4	P	ePZ	11	39	50	Tu eP 11 39 02
	R	ePZ			44	
	LJ	ePZ			38	
	T	ePZ		40	02	
July 4	P	ePZ	18	53	57	Deep? Tu eP 18 54 43
		iZ		54	17	i 56
	PX	eSNE	19	00	21	Aleutian Islands
	MW	ePNE	18	53	57	Overlaps the next
	R	ePNZ		54	03	
		iNZ			15	
	SB	ePNEZ		53	57	
	H	ePNE		54	03	
July 4	P	iPZ	18	58	13	Deep? Tu iP 18 58 59 c
		iZ			32	i 59 13
	PX	iSNE	19	04	37	Small surface waves recorded
	MW	ePNE	18	58	13	Aleutian Islands
	R	iPNZ			17	
		iZ			31	
		iZ			39	
	SB	ePNEZ			04	

(Continued)

Date	Sta.	Phase	h	m	s		Remarks
			(Continued)				
July 4	LJ	iPZ	18	58	26		
		iZ			37		
		iZ			42		
	T	iPZ		57	59		
		iZ		58	13		
	H	ePNE			05		
July 5	P	iPNEZ	10	38	37		Normal? Tu iP 10 37 49
	PX	eLZ		53.8			Ecuador
	MW	ePN		38	38		USCGS: 0.7°N 80.7°W.;
	R	iPNZ			32		O=10:29:53
	SB	ePNEZ			46		
	LJ	iPNEZ			28		
	T	ePNEZ			51		
	Pr	ePZ			26		
July 5	P	iPNEZ	10	40	35		Tu iP 10 39 48
	MW	ePN			37		
	R	iPNEZ			31		
	LJ	iPNEZ			32		
	T	ePNEZ			51		
July 5	P	iPNEZ	10	41	25		Tu iP 10 40 36
	R	ePNEZ			19		
	SB	iPZ			32		
	LJ	iPNEZ			15		
	T	iPNEZ			39		
July 5	P	iPZ	11	01	21		Tu iP 11 00 33
	R	iPZ			16		
July 5	P	ePZ	14	19	58		Normal? Tu iP 14 19 09
	PX	eLZ		35.6			Ecuador
	R	ePZ		19	53		
	LJ	ePZ			47		
	T	ePNEZ		20	13		
July 5	P	ePZ	23	24	24		Normal. Tu iP 23 23 31
	PX	eLZ		46.8			USCGS: Near 19° N. 70°W.;
	R	ePZ		24	19		O=23:16.1
	SB	ePZ			35		
	T	iPNEZ			29	c	
July 6	P	iPZ	16	29	58		Tu iP 16 29 10
	R	ePZ			52		Ecuador
	T	ePZ		30	12		
July 6	P	iPZ	20	37	54		Tu iP 20 37 02
	R	ePZ			56		
July 7	P	iPNEZ	03	05	14	d	Deep. Tu iP 03 05 37 d
		ipPNEZ		06	50		ipP 07 13
		iZ			57		iZ 21
		eSEZ		14	40		iPKKP 23 55
		iP:P:Z		32	13		eP:P: 31 53
	R	iPNEZ		05	17	d	epP:P: 33 45
		ipPZ		06	54		e 54 14
		eSNE		14	49		h=430 km.
		eP:P:Z		32	13		USCGS: 21.4°S.177.8°W.;
	SB	iPZ		05	12	d	O=02:53:48
		ipPZ		06	48		
	LJ	ePNEZ		05	16		
		epPNEZ		06	53		
		eSNE		14	45		
	T	iPNEZ		05	24	d	
		epPZ		07	02		
		iSNE		15	00		
		eP:P:Z		32	11		
	H	ePNE		05	24		
		epPNE		07	01		
		eSN		14	57		
	Pr	iPZ		05	18		
		epPZ		06	52		

Date	Sta.	Phase	h	m	s		Remarks
July 7	P	iPNEZ	12	46	32		Normal? Tu eP 12 45 43
	PX	ePPZ		48	36		Ecuador
		eSEZ		53	37		
		eSSZ		57	23		
		iLZ	13	01	9		
	R	ePZ	12	46	27		
	SB	iPZ			46		
	LJ	ePNEZ			23		
	T	ePNEZ			47		
	H	ePNE			45		
	Pr	ePZ			23		
July 7	R	ePZ	13	48	49		Tu 13 48 06
	T	ePZ		49	08		Ecuador
July 8	P	iPNZ	07	07	14	c	Deep? Tu iP 07 06 42 c
	PX	iZ			39		P:P: 34 55
		iSNEZ		16	47		Strong in Chile. Depth
		iEZ		17	24		near 150 km.
		eLE		26.8			USCGS: 25.0°S.69.7°W.;
	MW	ePN		07	16		O=06:55:33
	R	iPZ			12		JSA: 24.5°S.69.5°W.;
		eSNEZ		16	26		O=06:55:54, h=175 km.
	SB	iPZ		07	26		
	LJ	ePZ			09		
		eSNE		16	37		
	T	iPNEZ		07	28		
		eSNEZ		17	12		
	H	ePNE		07	26		
		eSNE		17	06		
	Pr	ePZ		07	08		
July 8	P	iPZ	13	20	55		Deep. Tu iP 13 20 23
		iZ		21	09		i 36
	R	iPZ		20	52	d	i 41
		eZ		21	06		Aftershock, Chile
		eZ			12		
	T	iPZ		21	08		
		iZ			22		
July 8	P	ePZ	19	31	28		Deep? Tu iP 19 30 46
	R	iPZ			25		Chile
	T	iPNEZ			41		
		iZ			54		
July 8	P	iPNEZ	21	35	09		Tu eP 21 35 35
	R	ePZ			11		e 39 13
		eZ		38	41		Chile.
	SB	ePEZ		35	08		
	T	iPNEZ			00		
	H	ePNE			03		
July 8	P	iPNEZ	22	39	43	c	Normal? eP 22 38 52
	PX	iPPEZ		41	41		Ecuador
		eSNEZ		46	43		USCGS: 0.7°N.80.5°W.;
		eSSN		50	30		O=22:30:56
		eLNEZ		54.6			
	MW	ePN		39	44		
	R	ePZ			34		
	SB	ePNEZ			55		
	LJ	ePNE			31		
	T	ePZ			57		
	H	ePNE			55		
	Pr	ePZ			32		
July 9	P	iPEZ	00	30	15		
	R	iPZ			18		
	T	ePZ			15		
July 9	P	iPZ	13	36	35		Tu eP 13 37 25
		iZ		37	04		i 38
	R	iPZ		36	41		
		iZ			52		
	T	eNEZ			14		
		iZ			42		

Date	Sta.	Phase	h	m	s	Remarks
July 10	R	ePZ	04	51	39	Tu eP 04 52 07
	T	ePZ			19	i 19
	Pr	ePZ			32	
		iZ			44	
July 10	P	iPNEZ	04	58	42	Tu iP 04 57 54
	R	ePZ			37	Ecuador
		iZ			47	
	LJ	ePZ			36	
		eZ			45	
	T	ePZ			56	
July 10	P	iPZ	21	05	12	Tu iP 21 05 50
	R	ePZ			14	
	T	iPNEZ		04	59	
July 11	P	iPZ	06	10	00	Tu iP 06 10 33
	R	ePZ			03	
	T	ePZ		09	51	
	Pr	ePZ		10	08	
July 11	R	iPZ	13	01	23	Tu iP 13 00 40
July 11	P	ePZ	16	43	04	Normal. Tu eP 16 44 03
		iZ			20	i 34
		iSEZ		44	20	eS 46 32
	R	ePNZ		43	05	O=16:41:6
		iNZ!			21	Felt at Tonopah and Manhattan
		iSZ		44	23	Nevada
	SB	ePZ		43	16	Aftershock 4 minutes later
		iSNE		44	16	
	T	iPNEZ		42	23	
		eSNE			47	
	H	ePNE			37	
		iSNE		43	19	
	Pr	ePZ			15	
		eSZ		44	47	
July 11	Pr	ePZ	23	00	12	Tu eP 12 00 54
July 12	P	ePNEZ	05	14	10	Normal? Tu iP 05 13 23
		iNZ			17	i! 30
	PX	eSEZ		21	15	USCGS: 0.6°N.80.1°W.;
		eSSNEZ		24	56	O=05:05:16
		eLNE		26		
	MW	iPNZ		14	10	
		eSNZ		21	14	
	LJ	iPNEZ		14	08	
		eSNE		21	02	
	Pr	iPZ		14	00	
		iZ			09	
		eSZ		21	00	
July 12	P	ePZ	08	49	40	Tu iP 08 49 56
	MW	ePZ			39	
	T	ePZ			49	
	Pr	ePZ			41	
July 12	P	iPNZ	12	32	18	Tu iP 12 31 47
	MW	ePZ			18	
	T	iPZ			21	
	Pr	iPZ			10	
July 12	P	iPZ	22	24	34	
	MW	ePZ			33	
	R	ePZ			33	
	T	ePZ			38	
	Pr	iPZ			38	
July 13	P	eZ	00	25	50	Normal. Tu e 00 25 58
	PX	eLN		52		e 27 13
	MW	eZ		26	19	Very distant?
	R	eZ			26	Indian Ocean?
	T	eZ		25	50	
		eZ		26	11	
	Pr	eZ		25	54	
		eZ		26	36	
		eZ		27	03	

Date	Sta.	Phase	h	m	s		Remarks
July 13	P	iPZ	01	48	54		Tu iP 01 49 19
	MW	iPZ			57		Near Apia, which reports:
	R	iPZ			56		P=01:38:24; S=01:39:03
	T	iPZ		49	04		
	Pr	iPZ		48	57		
July 13	P	iPZ	14	58	20		
	MW	ePZ			21		
	R	ePZ			24		
	T	ePZ			23		
July 13	P	iPNEZ	16	24	14	d	Deep.
	MW	iPNEZ			14	d	
		eZ			42		
	R	iPZ			18	d	
	T	iPZ			16		
	Pr	iPZ			20		
		iZ			45		
July 13	MW	ePZ	17	25	25		
	R	ePZ			27		
	Pr	ePZ			28		
July 14	Pr	eZ	22	54	44		Tu e 22 55 38
		eZ		57	30		e 57 22
July 15	P	iPZ	02	38	04		Tu iP 02 37 29
	MW	iPZ			04		
	R	iPZ			00		
	T	ePZ			14		
	Pr	iPZ		37	57		
July 15	P	iPZ	20	07	48		Tu iP 20 08 13
	MW	iPZ			49		Near Apia, which reports:
	R	ePZ			50		P=19:57:17; S=19:57:48
	T	ePZ			57		
	Pr	iPZ			52		
July 16	P	iPNEZ	17	36	58	c	Tu iP 17 37 23 c
	MW	iPZ		37	01		
	R	ePZ			01		
	T	iPZ		36	48		
	Pr	iPZ		37	02		
July 16	P	iPZ	19	43	30		Tu iP 19 43 49
	R	ePZ			30		
	Pr	ePZ			34		
July 17	MW	ePZ	02	15	53		Tu iP 02 14 55
		eZ		16	03		i 15 08
	R	ePZ		15	47		Mexico. Tacubaya reports:
	Pr	iPZ		15	41		P=02:11:21; L=02:12:11
		i			49		
July 20	P	iPZ	13	43	18		Normal. Tu eP 13 42 58
	PX	eLZ	14	04			Southeast Pacific.
	MW	ePZ	13	43	19		USCGS: 35.6°S.99°W.;
	R	iPZ			15		O=13:31.9
	LJ	ePZ			15		
	T	ePZ			36		
	Pr	iPZ			12		
July 20	P	iPZ	15	46	31		Normal? Tu iP 15 46 48
	PX	eLZ	16	28			
	MW	iPZ	15	46	32		
	R	iPZ			33		
	T	ePZ			41		
	Pr	iPZ			32		
July 21	P	iPEZ	07	59	33	d	Deep? Tu iP 07 58 58 d
		iZ			49		i 59 13
		iSNEZ	08	08	19		Peru?
	MW	iPZ	07	59	34	d	
	R	iPZ			30	d	
		iZ			47		
		eSNE		08	13		
	SB	iPZ	07	59	45		

(Continued)

Date	Sta.	Phase	h	m	s		Remarks
			(Continued)				
July 21	LJ	ePZ	07	59	25		
	T	iPZ			43		
		iZ	08	00	02		
		eSNEZ		08	41		
	H	ePNE	07	59	41		
		eSN	08	08	30		
	Pr	iPZ	07	59	25		
		iZ			43		
July 21	P	ePZ	08	54	18		Deep? Tu iP 08 53 39
		iZ			35		i 54
	PX	iSN	09	02	45		Peru; USCGS gives:
	MW	ePZ	08	54	21		15°S. 75°W., O=08:43.8
		iZ			35		
	R	ePZ			16		
		iZ			30		
	SB	iZ			53		
	LJ	ePZ			13		
	T	iPNEZ			34		
		iZ			48		
		eNE			51		
	H	ePNE			43		
	Pr	ePZ			10		
		iZ			19		
July 22	P	iPNEZ	07	18	25		Deep? Tu iP 07 18 45 c
	MW	iPZ			26		i 19 13
	R	iPZ			27		
		eZ			55		
	T	iPZ			35		
	Pr	iPZ			27		
		iZ			55		
July 22	P	iPNEZ	17	21	08 d		Tu iP 17 21 46 d
	MW	iPZ			09 d		i 24 19
	R	iPZ			12 d		
	SB	iPZ			02		
	LJ	iPZ			18		
	T	iPNEZ		20	55 d		
		iZ		21	35		
	H	ePNE			01		
	Pr	iPZ			17 d		
July 22	P	iPZ	20	15	40		Tu eP 20 16 09
		iZ			56		
	MW	iPZ			40		
		eZ			52		
	T	ePZ			28		
July 22	MW	iPZ	22	29	48		Tu eP 22 29 13
	R	iPZ			47		
	T	ePZ		30	01		
July 23	P	iPZ	12	03	53		Tu iP 12 04 38 c
	MW	ePZ			53		
	R	ePZ			57		
	LJ	ePZ		04	03		
	T	iPZ		03	37		
	Pr	iPZ		04	03		
July 23	P	iPNEZ	12	08	34 c		Tu iP 12 09 09 c
	MW	iPZ			34 c		i 10 34
	R	iPNZ			37 c		
	SB	iPZ			28		
	LJ	iPZ			43 c		
	H	iPNE			26		
	Pr	iPZ			42 c		
		eZ		10	09 c		
July 23	MW	iPZ	14	21	06		Deep? Tu iP 14 20 05
		eZ			27		i 25
	R	iPZ			01		Tacubaya: 18°00'N. 98°27'W.,
		eZ			16		O=14:15:59
		eZ			21		
	T	iPZ			24		
	Pr	iPZ		20	54		
		eZ		21	13		

Date	Sta.	Phase	h	m	s	Remarks
July 24	P	eZ	05	19	58	Normal. Tu eP 05 19 49
		eZ		20	38	
		eLNZ	06	24		
	MW	eZ	05	19	53	
		eZ		20	37	
	Pr	eZ		19	53	
		eZ		20	42	
July 24	P	iPZ	12	00	55	Tu eP 12 01 39
		iNEZ		01	03	i 47
	MW	iPZ		00	55	USCGS: Near 51°N.172°E.,
		iZ		01	04	O=11:51.7
	R	ePZ			08	
	SB	iPZ		00	56	
	LJ	iPZ		01	14	
	T	ePZ		00	34	
		eZ			50	
	Pr	iPZ		01	06	
		iZ			14	
July 24	P	ePZ	15	32	04	Tu e 15 31 35
	MW	eZ			07	
	R	ePZ			02	
	Pr	ePZ		31	55	
July 25	PX	eLZ	00	32		Normal. Tu e 00 01 20
	MW	ePZ?	00	01	37	
	R	ePZ?			16	
July 25	P	ePNEZ	01	26	38	Tu eP 01 25 43
	MW	iPNEZ			39	i 47
	R	ePZ			31	
		eZ		28	56	
	Pr	ePZ		26	22	
		iZ			28	
		eZ		27	56	
July 25	P	ePZ	06	36	37	Normal. Pasadena distant
		iZ			57	105°.
		iZ		39	39	Tu eZ 37 08
	PX	iSNE		47	10	eZ 47 10
		iNE			45	ePKKPZ 52 02
		iZ		49	59	USCGS: 11.9°N.125.5°E.,
		ePKKPZ		52	18	O=06:22:30
		eLNEZ	07	09.6		
	MW	ePZ	06	36	39	
		iZ		37	00	
		eNEZ		39	40	
		eZ		52	39	
	R	ePZ		36	40	
		eZ		39	44	
		ePKKPZ		52	14	
		eZ			35	
	SB	ePZ		36	33	
	LJ	eZ		37	03	
		eZ			15	
		eZ		52	33	
	T	ePZ		36	34	
		eZ		52	42	
	Pr	ePZ		36	43	
		eZ		39	39	
		iZ		41	08	
		eZ		50	11	
		iPKKPZ		52	18	
		iZ			34	
July 25	P	iPZ	10	35	27	Tu iP 10 35 51
	MW	iPZ			28	
	R	ePZ			30	
	T	ePZ			34	
	Pr	iPZ			31	

Date	Sta	Phase	h	m	s	Remarks
July 25	P	iPNZ	15	26	40	Normal. Tu iP 15 26 08
	PX	eSN		32	57	USCGS: 5°S.104°W.,
		eLZ		38.2		O=15:18.9
	MW	ePZ		26	40	
	R	iPZ			37	
	SB	ePZ			47	
	LJ	ePZ			28	
	T	ePZ		27	03	
	H	ePNE		26	58	
	Pr	iPZ			31	
July 26	MW	ePZ	08	46	25	Tu iP 08 46 36
	T	ePZ			11	i 48
	Pr	iPZ			36	
		iZ			48	
		iZ		47	00	
July 26	P	iPNEZ	18	39	33	Tu iP 18 39 23
	MW	iPZ			33	
	R	ePZ			35	
	T	ePZ			28	
	Pr	iPz			32	
July 27	MW	ePZ	10	15	25	Tu eP 10 14 34
	Pr	ePZ			14	
July 27	MW	iPZ	11	16	29	Deep? Tu iP 11 17 03
		iZ			52	i 27
	R	iPZ			32	Japan?
		iZ			56	
	SB	ePZ			22	
	T	iPZ			18	
		eZ			41	
	H	ePNE			23	
July 28	P	iPZ	01	35	21	Deep? Tu iP 01 34 46
		iZ			51	
	MW	iPZ			23	
		eZ			52	
	R	iPZ			18	
		iZ			48	
	T	iPZ			33	
		eZ		36	03	
	Pr	ePZ		35	13	
		eZ			43	
July 28	Pr	iZ	02	11	06	Tu i 02 10 21
July 29	MW	ePZ	03	02	51	
	Pr	iPZ		03	00	
July 29	Pr	iPZ	13	06	09	Tu iP 13 05 29
July 29	P	ePZ	21	13	42	Tu eP 21 13 40
	MW	ePZ			42	i 54
	R	ePZ			42	
	SB	ePZ			41	
	T	ePZ			35	
	Pr	ePZ			46	
July 29	P	ePZ	21	27	19	Tu iP 21 26 31
	MW	ePZ			20	Ecuador.
	R	iPZ			15	
	Pr	iPZ			08	
		iZ			21	
July 29	P	iPNEZ	21	59	11 d	Tu iP! 21 58 14 d
	MW	iPZ			11 d	i 58
	R	iPZ			04 d	
	T	iPZ			27	
	H	ePNE			21	
	Pr	iPZ		58	59 d	
		iZ		59	08	
		iZ			36	

Date	Sta	Phase	h	m	s	Remarks
July 29	P	ePZ	23	03	52	Normal Tu eP" 23 08 03
		eP"Z		07	59	ePP 09 17
	PX	iPPNEZ		08	29	Banda Sea.
		eSKSE		14	32	USCGS: 2.8°S.127.9°E.,
		iPSEZ		17	59	O=22:49:13
		iE		18	18	
		eLN		34		
	MW	ePZ		03	48	
		eZ		04	06	
		ePPNZ		08	30	
	R	ePZ		04	12	
		ePPZ		08	31	
		eZ		18	43	
	T	ePPZ		08	35	
	H	ePPNE			44	
		eE		18	15	
	Pr	ePZ		03	59	
		iPPZ		08	40	
July 30	P	ePZ	13	45	09	Tu iP 13 44 19
	MW	ePZ			11	Near Panama
	T	iPZ			20	
		iZ			33	
	Pr	iPZ			00	
July 30	P	iPZ	18	03	44	Tu iP 18 02 52
	MW	iPZ			44	
	R	ePZ			38	
	Pr	iPZ			31	
July 31	P	iPZ	18	15	36	Tu iP 18 15 54
	MW	iPZ			36	
	R	ePZ			36	
	T	ePZ			45	
	Pr	iPZ			38	
Aug 1	P	ePZ	05	01	16	Normal? Tu iP 05 01 31
		ePPZ		05	19	ePKKP 17 54
	PX	eLZ		33		New Zealand. Foreshock of the
	MW	iPZ		01	18	next.
	R	ePZ			17	
	LJ	ePZ			16	
	Pr	iPZ			18	
Aug 1	P	iPNEZ	12	47	31 d	Normal? Tu iP 12 47 46 d
	PX	iPPZ		51	26	iPKKP 13 04 09
		eNEZ		58	56	Magnitude about 6 3/4
		iSNE		59	18	Damage in New Zealand
		iZ			54	Wellington: 41.0°S.175.8°E.,
		iZ	13	00	16	O=12:34.1
	P	ePKKPZ		04	19	
		iZ		06	06	
	PX	eLNE		13.5		
	MW	iPNEZ	12	47	32 d	
		ePKKPZ	13	04	16	
		eZ			27	
		eZ			46	
	R	iPZ	12	47	32 d	
		iPPNEZ		51	27	
		ePKKPZ	13	04	15	
		eNE		59	01	
	SB	iPZ	12	47	28 d	
		eN		58	50	
	LJ	ePNEZ	12	47	30 d	
	T	ePZ	12	47	41 d	
		eN		58	36	
	H	ePNE		47	40	
		ePPN		52	01	
	Pr	iPZ		47	33 d	
		iPPZ		51	27	
		eZ		59	02	
		iPKKPZ	13	04	20	

Date	Sta	Phase	h	m	s	Remarks
Aug 1	P	eP Z	14	49	50	Normal. Tu eP 14 49 55
		iP NEZ		50	02	i 50 16
	PZ	eSKSPE	15	03	7	e 15 04 07
	P	eZ	15	03	57	Pasadena distant 151°
	PX	eSSE	15	13	2	Southeast Indian Ocean.
		eLZ		39	0	48°S. 99°E., O=14:30:04
	MW	eP Z	14	49	47	
		eZ	15	04	00	
	R	eP Z	14	49	49	
		iZ			59	
		eZ	15	04	00	
	SB	eP Z	14	49	58	
	LJ	iP Z			55	
	T	iP NZ			59	
		eZ	15	04	04	
	H	eP E	14	50	00	
	Pr	eP Z		49	45	
		iZ		50	04	
		iZ	15	04	01	
Aug 2	P	ePZ	04	25	18	Tu eP 04 26 02
		eZ			37	i 24
		eZ			54	
		eZ		26	17	
	MW	ePZ		25	18	
		iZ			40	
		iZ			56	
	R	ePZ			23	
		iZ			45	
		iZ		26	44	
	T	ePZ		25	05	
		iZ			22	
		iZ			37	
	Pr	ePZ			28	
		iZ			49	
		iZ		26	01	
Aug 2	R	iPZ	12	30	48	Tu iP 12 31 21
	T	iPZ			22	
	Pr	iPZ			55	
Aug 3	PX	eLZ	19	28		Normal.
	MW	ePZ	18	59	29	
	T	ePZ		58	58	
	Pr	iPZ		59	32	
Aug 3	P	ePZ	20	21	03	Deep! Tu iP 20 21 23 d
		iNEZ			05	Tonga, Kermadec region.
	PX	iZ		24	10	USCGS: 25°S. 174°W., O=20:09.0
		eNZ		31.0		
		eLZ		45.7		
	MW	iPNEZ		21	03 d	
		iZ		24	09	
	R	iPZ		21	05 d	
		iNEZ			08	
	SB	iPNEZ		21	00	
	LJ	iPNEZ			02	
	T	iPNZ			12	
		iNZ			14	
	H	iPE			13	
Aug 3	PX	eLZ	23	15		Normal. Tu iP 23 07 07
	MW	ePZ		06	22	
	R	ePZ			25	
	T	ePZ			02	
	Pr	iPZ			33	

Date	Sta	Phase	h	m	s	Remarks
Aug 5	P	iPZ	02	14	05	Deep Tu iP 02 14 29
		epPZ		16	01	epP 16 26
	MW	iPZ		14	06	
		epPZ		15	02	
	R	ePZ		14	08	
		epPZ		16	04	
	T	iPZ		14	13	
		epPZ		16	10	
	Pr	iPZ		14	08	
		ipPZ		16	06	
Aug 6	P	iPNEZ	18	18	56	Normal Tu iP 18 18 01
	PX	eLZ		53.8		i 19 53
	MW	iPZ		18	57	
	R	ePZ			51	
		iZ			55	
	SB	ePZ		19	08	
	T	iPZ			27	
	Pr	iPZ		18	40	
Aug 6	P	iPNEZ	23	43	23	Normal Tu iP 23 42 28 c
		iZ		44	51	Tacubaya: 14°09'N. 93°23'W.,
	PX	iPPZ		45	02	O=23:37:26, h=90 km.
	P	iNEZ		46	23	USCGS: 14.1°N. 90.9°W.,
	PX	iSNE!		48	38	O=23:36:57
		eLE		51.6		JSA: 12.9°N. 92.1°W.,
	MW	iPNEZ		43	23 d	O=23:36:50, h=100 km.
		iZ		46	29	Major earthquake
		eSNE		48	34	(Magnitude 7.5)
		iZ		50	10	Strong in Guatemala and
	R	iPZ		43	18	Salvador
		iSNE		48	26	Recordings in 50th minute
		iZ		50	25	probably P of an aftershock
	SB	iPZ		43	34	
		iSNE		49	12	
	LJ	iPNEZ		43	11	
		iZ		46	20	
		iSNEZ		48	13	
		iZ		50	02	
	T	iPNEZ		43	38	
		iZ		50	03	
		iZ		54	30	
	H	ePN		43	33	
		iSN		48	51	
	Pr	ePZ		43	13	
Aug 7	Pr	iPZ	00	58	00	Tu iP 00 57 18
Aug 7	P	iPNEZ	01	16	00	Normal Tu eP 01 16 48
		iSNE			20	eS 18.2
	MW	iPNEZ			00 c	Mojave Desert.
		iSNE			20	34°18'N. 116°25'W.,
	R	iPNEZ		15	50 c	O=01:15:33
		iSNE		16	01	
	SB	iPNEZ		16	18	
		iSNEZ		17	04	
	LJ	iPNEZ		16	02 d	
		iSNE			22	
	T	ePZ			25	
		iSN		17	16	
	H	ePN		16	15	
		iSN			46	
	Pr	iPZ		15	53 d	
Aug 7	P	ePZ	06	11	10	Normal? Tu iP 06 10 14
		eZ			27	Central America, 14°N. 91°W.
	PX	eLNE		20		Aftershock of August 6, 23h
	MW	ePZ		11	09	
		eZ			27	
	R	ePZ			03	
		eZ			25	
	LJ	ePZ			01	
	T	ePZ		11	29	
	H	ePN			25	
	Pr	ePZ		10	57	

Date	Sta	Phase	h	m	s	Remarks
Aug. 7	P	ePZ	07	12	29	Tu iP 07 12 36
	MW	ePZ			30	
	T	ePZ			46	
		eZ		15	26	
	Pr	iPZ		12	19	
Aug. 7	Pr	ePZ	13	46	39	Tu iP 13 45 58
Aug. 7	T	ePZ	15	54	55	Tu iP 15 53 45
	Pr	ePZ			27	
Aug. 7	MW	ePZ	20	03	02	Tu iP 20 02 09
	Pr	iPZ		02	52	
Aug. 8	P	iPZ	00	31	45	Normal. Tu iP 00 32 18
	PX	eSNE		41	08	e 35 23
		eLZ		54.2		Japan.
	MW	ePZ		31	47	USCGS: 42°N.144°E., O=00:20.2
	R	iPZ			49	
	SB	ePZ			40	
	LJ	iPZ			55	
	T	iPZ			36	
	H	ePNE			40	
	Pr	iPZ			53	
Aug. 8	P	iPZ	07	25	45	Normal. Tu iP 07 24 52 d
		eZ		27	00	i 25 01
		eZ		28	38	Central America (aftershock)
	PX	eLNEZ		34		
	MW	ePZ		25	46	
	R	ePZ			40	
		iZ		28	42	
	LJ	iPZ		25	35	
	T	iPZ		26	02	
		eZ		28	43	
	H	ePN		26	01	
	Pr	iPZ		25	34	
		iZ		28	40	
Aug. 8	T	ePZ	09	26	26	Tu iP 09 25 15
	Pr	iPZ		25	57	
		eZ		26	13	
Aug. 8	T	ePZ	16	04	23	Tu eP 16 03 15
	Pr	ePZ		03	27	
Aug. 8	P	iPNEZ	22	42	55	Normal. Tu iP 22 42 02 c
		iZ		43	05	i 10
		iZ		44	21	e 47 04
		iZ		45	50	Central America, aftershock
	PX	iSNE		48	15	USCGS: 14.0°N.91.0°W.,
	P	iScPZ		49	37	O=22:36:31
	PX	eLE		51.3		
	MW	ePZ		42	56	
		iZ		45	52	
	R	ePZ		42	50	
		iZ		43	36	
		iZ		45	50	
		iZ		49	35	
	SB	ePZ		43	11	
	LJ	ePZ		42	40	
	T	iPNZ		43	13	
	H	ePE			06	
	Pr	iPZ		42	45	
		iZ!			52	
		eZ		45	49	
		eZ		47	54	
		iZ		49	33	
Aug. 9	P	iPNEZ	17	50	37 d	Tu iP! 17 51 02 d
	MW	iPZ			38	
	R	ePNEZ			41	
	T	iPZ			37	
	Pr	iPZ			41 d	

Date	Sta	Phase	h	m	s	Remarks
Aug. 10	P	eZ	08	21	09	Not seismic?
Aug. 10	P	ePZ	15	00	48	Tu iP 14 59 56
	MW	ePZ			51	
	R	ePZ			46	
	T	ePZ		01	07	
	Pr	iPZ		00	38	
Aug. 11	P	iPZ	04	54	42 d	Normal. Tu iP 04 53 48 d
		iZ		55	17	Central America; aftershock
		iZ		57	32	
	PX	eLN	05	03.4		
	MW	iPZ	04	54	41 d	
	R	ePNEZ			36	
		iZ		55	14	
		eZ		57	32	
	SB	ePZ		54	52	
		iZ		57	42	
	LJ	ePNEZ		54	30	
	T	iPZ			57	
		iZ		57	37	
	H	iPEZ		54	50	
	Pr	iPZ			29 d	
Aug. 11	P	iPZ	07	17	57	Normal. Tu iP 07 17 02 c
	PX	eZ		25	21	Central America, aftershock
		eLN		26.1		
	MW	iPZ		17	56	
	R	ePZ			51	
	SB	ePZ		18	08	
	LJ	ePZ		17	45	
	T	iPZ		18	12	
	H	ePNE			09	
	Pr	iPZ		17	45	
Aug. 11	P	iPZ	12	26	25	Tu iP 12 26 48
	MW	ePZ			27	
	R	ePZ			28	
	Pr	iPZ			28	
Aug. 11	P	iPZ	13	58	26	Tu iP 13 57 51
		eZ			54	
	MW	iPZ			27	
		iZ			55	
	R	iPZ			22	
	T	ePZ			38	
	Pr	ePZ			18	
Aug. 13	P	iPZ	15	57	46 c	Normal. Tu eP 15 58 16
		iZ			58	Central Solomon Islands.
	PX	eE	16	08	16	USCGS: 8°S.156.5°E.
		iN			39	(Near Vella Lavella)
		eLZ		25.2		O=15:44.7
	MW	iPZ	15	57	48 c	
	R	ePNEZ			51	
	SB	iPNEZ			43	
	LJ	ePNEZ			51	
	T	iPNEZ			50	
		iZ		58	03	
	H	ePZ		57	50	
	Pr	iPZ			51 c	
Aug. 13	P	iPNEZ	19	38	03 d	Deep. Tu iP 19 37 22 d
		iZ			23	i 45
	MW	iPNEZ			03 d	Peru.
	R	iPNEZ		37	59 d	USCGS: near 10°S.78°W.,
	SB	iPNEZ		38	10	O=19:28.1
	LJ	iPZ		37	52	
	T	iPNEZ		38	16 d	
	H	iPNEZ			11	
	Pr	iPZ		37	53 d	
		iZ		38	13	

Date	Sta.	Phase	h	m	s	Remarks
Aug.14	P	iZ	06	53	33	Normal. Tu eP 06 53 10
	PX	eLNZ	07	07	.1	
	MW	ePZ	06	53	27	
		iZ			33	
	R	ePZ			31	
	T	ePZ			54	
	Pr	ePZ			16	
		iZ			24	
Aug.14	P	iPZ	08	32	06	Tu iP 08 32 20
		iZ			43	e 57
	MW	ePZ			07	
	R	ePZ			08	
	Pr	ePZ			11	
Aug.14	P	iPZ	09	41	04	Tu iP 09 40 34
	MW	iPZ			06	
	R	iPZ			03	
	T	ePZ			16	
	Pr	iPZ		40	58	
		iZ		41	18	
Aug.14	MW	iPZ	10	35	51	Tu iP 10 36 35
	T	iPZ			37	
	Pr	iPZ		36	01	
Aug.14	P	iPNEZ	20	54	42	Normal. Tu eP 20 53 45
		iZ			54	Mexico
	PX	eLN		57	.8	
	MW	ePZ		54	42 c	
		iNEZ			54	
	R	ePNEZ			37	
	SB	ePNEZ		55	03	
	LJ	iPNEZ		54	39	
	T	ePNEZ		55	14	
		iNEZ			22	
	H	ePNEZ			07	
		iZ			19	
	Pr	ePZ		54	24	
		iZ			41	
Aug.14	P	iPZ	21	49	45	Tu iP 21 48 50
		iZ		50	00	i 49 06
	MW	ePZ		49	44	
		eZ			59	
	R	ePZ		49	39	
	LJ	ePZ			42	
	T	ePZ		50	02	
		iZ		51	15	
	Pr	iPZ		49	32	
		iZ			48	
Aug.15	P	iPZ	06	42	00	Normal. Tu iP 06 41 04
	PX	eLNE		50		Central America
	MW	ePZ		41	56	
		iZ		42	01	
	R	ePZ		41	52	
	LJ	iZ		42	29	
	T	ePZ		42	17	
	Pr	iPZ		41	46	
Aug.15	P	ePZ	15	15	42	Normal? Tu e 15 19 31
		iZ			55	New Guinea?
	PX	eLN		41	.1	
	MW	ePZ		15	44	
		iZ			55	
	R	ePZ			43	
		eZ			59	
	Pr	eZ			46	
		eZ			55	
		iZ		16	01	

Date	Sta	Phase	h	m	s	Remarks
Aug. 16	P	iPZ	09	26	59	Tu iP 09 25 59
	MW	ePZ			58	
	R	iPZ			54	
	LJ	ePZ			42	
	T	iPZ		27	24	
	Pr	iPZ		26	46	
Aug. 16	P	iP NEZ	11	39	40 d	Tu iP 11 39 53 d
		iZ		41	29	Recorded at many stations
	MW	iP Z		39	41	Location very doubtful,
		iZ		41	08	Indian Ocean?
		iZ			33	
		iZ		49	58	
		eZ		51	40	
	R	eP Z		39	40	
		iZ		40	03	
		eZ		41	12	
		eZ		49	55	
		eZ		51	45	
	SB	iP Z		39	37	
	LJ	iP Z			42	
	T	eP NEZ			39	
	H	eP NEZ			38	
		eZ		41	04	
	Pr	iP Z		39	42	
		iZ		41	13	
		eZ		49	48	
		iZ		51	36	
Aug. 16	Pr	ePZ	18	21	36	Tu iPZ 18 20 54
Aug. 16	P	iPZ	19	28	24	Tu iP 19 27 44
	MW	ePZ			25	i 28 09
	R	ePZ			19	
	Pr	iPZ			15	
Aug. 16	P	iPNEZ!	20	14	15 c	Tu iP 20 13 22 c
		iPcPNZ		17	05	i 14 08
	PX	iSNZ		19	28	iPcP 16 54
	P	iZ		20	49	e 20 32
	PX	eLE		21	.4	i 21 36
	MW	iPZ	20	14	16 c	Central America
		iZ		15	43	
		iPcPZ		17	05	
	R	ePNEZ		14	09 c	
		ePcPZ		17	04	
	SB	iPNEZ		14	27	
	LJ	ePNEZ			04	
	T	iPNEZ			30	
		iPcPZ		17	10	
	H	iPNEZ		14	24	
	Pr	iPZ			04	
		iPcPZ		17	02	
Aug. 16	P	iPZ	21	02	53	Tu iP 21 02 00
		iZ		05	42	
	MW	ePZ		02	54	
	R	ePZ			48	
	T	ePZ		03	11	
	Pr	iPZ		02	42	
Aug. 17	MW	ePZ	12	50	16	Tu eP 12 49 18
	Pr	ePZ			00	i 34
		eZ			16	
Aug. 18	Pr	ePZ	09	42	34	Tu iP 09 42 57
Aug. 18	MW	eZ	17	42	11	Tu eP 17 42 32
	Pr	iPZ			12	e 44 40
Aug. 18	P	iPZ	19	13	57	Tu eP 19 13 13
	MW	ePZ			59	
	Pr	ePZ			45	

Date	Sta.	Phase	h	m	s	Remarks
Aug.18	P	iPNZ	21	56	38	Normal. Tu eP 21 57 35
		iNEZ			49	eS 22 00.1
		iSN		57	43	Felt at Tonopah and Manhattan,
	MW	iPZ		56	38	Nevada.
		iSNE		57	43	38.6°N.118.5°W., O=21:55.4
	R	ePZ		56	38	
		iSZ		57	51	
	SB	ePN		56	37	
		iSNE		57	38	
	LJ	ePNE		57	11	
		iSNEZ		58	27	
	T	iPNEZ		55	53 d	
	H	ePNEZ		56	11	
		iSNE			40	
	Pr	iPZ			51	
Aug.19	P	iPZ	06	03	04	Tu eP 06 03 25
		iZ			14	i 36
	MW	ePZ			04	
	R	ePZ?			07	
		eZ			17	
	T	eZ			15	
	Pr	iPZ			06	
		iZ			17	
Aug.19	Pr	iPZ	06	31	10	Tu eP 06 30 28
Aug.19	P	iPZ	08	17	38	Tu iP 08 18 28
		iZ			48	
		iZ		18	04	
	MW	ePZ		17	37	
		iZ			49	
	R	eZ			54	
		eZ		18	10	
	T	ePZ		17	39	
	Pr	iZ			58	
		eZ		18	14	
Aug.19	Pr	ePZ	10	19	53	Tu iP 10 19 12
Aug.19	P	iPZ	18	48	45	Tu iP 18 48 56
	MW	iPZ			46	i 49 19
		iZ		50	02	i 50 32
	R	iPZ		48	47	
	Pr	ePZ			50	
		iZ		50	10	
Aug.19	MW	iPZ	21	56	48	Salt Lake City reports:
	R	ePZ			46	P=21:57:06, S=21:58:22
	Pr	iPZ			42	
Aug.20	Pr	ePZ	00	34	46	Tu iP 00 34 05
Aug.20	MW	iPZ	07	39	51	Tu iP 07 40 35
	R	ePZ			54	e 43 30
	T	ePZ			37	
Aug.20	P	iPZ	09	32	52	Tu iP 09 33 16 d
	MW	iPZ			53	
	R	ePZ			47	
	T	ePZ		33	01	
Aug.20	P	iPZ	15	59	08	Deep. Tu iP 15 58 14
		iZ			23	i 28
	MW	iPZ			08	i 43
	R	ePZ			18	
	T	iZ			35	
	H	ePZ			17	
		iZ			31	
Aug.20	P	iPZ	16	49	34	Tu iP 16 48 40 d
		iZ		52	25	i 54
	MW	iPZ		49	34	
		eZ		52	27	
	R	ePZ		49	28	
		iZ		52	24	
	T	ePZ		49	50	
		eZ		52	31	
	H	ePZ		49	43	

Date	Sta.	Phase	h	m	s	Remarks
Aug.20	P	iPZ	18	03	35	Normal. Tu iP 18 02 55
	PX	eLNE		11.0		i 03 05
	MW	ePZ		03	33	
	R	ePZ			29	
	T	ePZ			58	
Aug.20	P	iPNEZ	22	43	27	Normal? Tu iP 22 42 33
		iZ		44	59	i 57
		iZ		46	18	i 45 40
		iSE		48	39	i 49 44
		iZ		50	03	e 50 25
	PX	eLNE		52.6		Central America
	MW	iPZ		43	28	
		iZ		46	19	
		eZ		50	00	
	R	ePZ		43	23	
		iZ		46	17	
		eZ		49	59	
	LJ	ePZ		43	16	
	T	ePZ		43	43	
		iZ			55	
		iZ		46	23	
		eZ		50	09	
	H	ePZ		43	37	
Aug.22	MW	iPZ	03	39	07	Tu eP 03 39 29
Aug.22	P	iPZ	08	38	41	Normal? Tu iP 08 39 29
		iZ		39	01	i 49
		iZ		40	29	i 54
	PX	eLZ		48.8		Aleutian Islands
	MW	ePZ		38	41	
		iZ		39	00	
	R	ePZ		38	46	
		eZ		39	05	
	LJ	ePZ		38	54	
		eZ		39	08	
	T	ePZ		38	26	
		iZ			47	
	H	ePZ			37	
		iZ			53	
Aug.22	P	iPZ	09	13	31	Normal? Tu eP 09 13 59
		iZ		16	56	i 14 05
	PX	eLZ		40.9		e 17 40
	MW	ePZ		13	30	South of Japan.
		iZ		16	54	USCGS: near 32°N.135°E.,
	R	ePZ		13	36	O=09:00.8
		eZ		16	59	
	SB	ePNEZ		13	31	
	LJ	ePNEZ			43	
	T	ePZ			24	
	H	ePZ			27	
Aug.22	P	iPZ	10	16	18	Tu iP 10 16 56
		iZ			33	
	MW	ePZ			19	
Aug.22	P	iPNEZ	19	58	39 c	(Deep) Tu iP! 19 57 45 c
		iNEZ		59	00	i! 58 06
		iZ			10	i 15
	MW	iPZ!		58	39 c	i 20 02 13
		iZ!		59	01	Central America
		iZ			10	
		iZ			30	
	R	iPZ		58	34 c	
		iZ			55	
	SB	iPZ			50 c	
	LJ	ePZ			28	
		eZ			59	
	T	iPZ			55 c	
		iZ		59	17	
	H	iPZ		58	49	
		iZ		59	10	
		iZ			20	

Date	Sta	Phase	h	m	s		Remarks
Aug. 23	P	iPNEZ	06	45	06	d	Deep? Tu iP 06 45 44 d
		iNE			20		i 49
	PX	iSEZ		52	59		i 59
		iN		53	14		iP'P' 07 14 52
		eSSNEZ		56	47		e 15 14
		eLE		59.4			USCGS: 54.8°N 164.8°E,
	P	iP'P'Z	07	14	44		O=06:35:40, h=150 km.
		iZ			55		
	MW	iPNEZ	06	45	05	d	
		eP'P'Z	07	14	54		
	R	iPNEZ	06	45	09	d	
		eP'P'Z	07	14	43		
	SB	ePNEZ	06	44	57	d	
	LJ	iPNEZ	06	45	16	d	
	T	iPNEZ		44	50	d	
		eSNE		52	32		
	H	ePZ		44	57	d	
Aug. 23	MW	ePZ	15	09	28		Tu iP 15 08 36
Aug. 24	P	eZ	05	19	17		Tu e 05 18 21
		iZ		22	25		i 21 35
	MW	ePZ		19	09		
		eZ		22	14		
	Pr	e(P)		19	01		
		eZ		21	47		
		e		22	11		
Aug. 24	MW	eZ	05	33	38		Tu eZ 05 33 28
	R	eZ			50		
Aug. 24	P	iPNEZ	23	00	59		Normal Tu iP 23 00 20 c
		iSN		09	35		i 24
	PX	eLNE		18.8			eP'P' 30 17
	P	iP'P'Z		30	00		Destructive in southern Peru
	MW	ePZ		00	58		Great earthquake
		iSNEZ		09	39		(Magnitude 8)
		iP'P'Z		29	59		15°S 75°W, O=22:50:32
	R	ePZ		00	55		
		iNEZ		01	00		
		iSNE		09	34		
		eP'P'Z		29	57		
		iNEZ		30	35		
	SB	iPNZ		01	12		
	LJ	ePNEZ		00	50		
		eP'P'NEZ		30	01		
	T	ePZ		01	12		
		iZ			17		
		eSN		09	58		
		eP'P'Z		29	53		
		iZ		30	08		
	H	ePZ		01	11		
		iSNE		09	53		
		eP'P'Z		30	16		
	Pr	iPZ		00	50	c	
		iZ			54		
		iP'P'Z		30	04		
		iZ			31		
Aug. 24	MW	ePZ	23	27	23		Tu eP 23 26 48
	R	ePZ			20		
	Pr	ePZ			14		
Aug. 25	MW	ePZ	00	46	40		Tu eP 00 46 01
	R	ePZ			38		
	T	ePZ?			56		
	Pr	ePZ			36		
Aug. 25	MW	ePZ	01	00	09		Tu eP 00 59 30
	R	ePZ			05		
	Pr	ePZ			00		
Aug. 25	P	iPZ	01	55	23		Tu iP 01 54 46
	MW	iPZ			24		
	R	ePZ			20		
	T	ePZ			38		
	Pr	iPZ			15		

Date	Sta	Phase	h	m	s		Remarks
Aug.25	P	iZ	02	13	16		Tu iP 02 12 33
	MW	ePZ			12		
		iZ			17		
	R	ePZ			08		
	T	ePZ			26		
	Pr	ePZ			03		
Aug.25	P	iPZ	02	41	14		Tu iP 02 40 36
	MW	ePZ			16		
	R	ePZ			11		
	T	ePZ			30		
	Pr	iPZ			07		
Aug.25	P	iPZ	03	13	23		Tu iP 03 12 43
	MW	iPZ			22		Aftershock, Peru
	R	iPZ			18		
	T	ePZ			36		
	Pr	iPZ			14		
		eP'P'Z		42	22		
Aug.25	R	ePZ	04	14	25		Tu eP 04 13 31
	Pr	ePZ			17		
Aug.25	MW	ePZ	05	47	40		Tu eP 05 47 02
	R	ePZ			37		
	T	ePZ			54		
	Pr	ePZ?			24		
Aug.25	MW	ePZ	07	43	02		Tu eP 07 42 20
	R	eZ			04		
	Pr	ePZ		42	59		
Aug.25	P	ePZ	07	50	40		Tu iP 07 50 00
	MW	ePZ			39		
	R	ePZ			35		
	Pr	ePZ			30		
Aug.25	P	iPNEZ	08	56	08	c	Deep? Tu iP 08 55 29
		iZ!			19		i! 41
		iZ			32		
		eP'P'Z	09	25	18		
	MW	iPZ	08	56	08		
		iZ!			19		
		iZ			30		
	R	ePZ			05		
		iZ			16		
		eZ			29		
	LJ	ePZ		55	59		
		eZ		56	10		
	T	iPZ			23		
		iZ			33		
	Pr	iPZ			00	c	
		iZ			11		
		eP'P'Z	09	25	09		
Aug.25	P	iPNEZ	13	37	01		Deep. Tu eP 13 36 07
		iZ			19		i 10
		iPcPZ		39	35		i 24
		iZ			54		iPcP 39 19
		iScPZ		43	15		iScP 42 55
		eZ			53		i 44 02
	MW	ePZ		37	01		Central America
		ePcPZ		39	35		
		eScPZ		43	16		
	R	ePZ		36	56		
		ePcPZ		39	33		
		eZ			52		
		eScPZ		43	15		
	T	iPZ		37	17		
		ePcPZ		39	41		
	Pr	iPZ		36	50		
		iZ		37	07		
		iZ			49		
		iPcPZ		39	32		
		iZ			51		
		iScPZ		43	11		

Date	Sta.	Phase	h	m	s	Remarks
Aug. 25	P	iPZ	15	07	44	Normal? Tu eP 15 08 11
		iZ			48	i 11
		iZ		08	13	e 11 41
		iZ		11	08	
	PX	eLZ		36	9	
	MW	ePZ		07	44	
		iZ			48	
		eZ		11	04	
	T	ePZ		07	35	
		iZ			42	
		iZ		08	01	
	H	iZ		07	42	
	Pr	iPZ			54	
		iZ		08	39	
		iZ		11	19	
Aug. 25	P	ePZ	16	05	50	Tu eP 16 05 11
	MW	ePZ			50	i 19
	Pr	ePZ			41	
Aug. 25	P	iPNEZ	20	26	23 d	Normal? Tu iP 20 25 42
	PX	iSN		35	01	eP'P' 55 34
		eLZ		47	.0	Aftershock, Peru
	P	eP'P'Z		55	23	
	MW	iPZ		26	21	
		eP'P'Z		55	22	
	R	iPZ		26	17	
		eP'P'Z		55	35	
	SB	ePZ		26	30	
	LJ	ePZ			11	
	T	iPZ			35	
	H	ePNE			34	
	Pr	iPZ			13	
		iZ			24	
		eP'P'Z		55	32	
Aug. 25	P	iPZ	21	01	51	Normal? Tu iP 21 01 12
		iZ		02	00	eP'P' 30 59
		eP'P'Z		30	51	Peru.
	MW	ePZ		01	51	
		eP'P'Z		30	49	
	R	ePZ		01	47	
	SB	eZ		02	07	
	LJ	ePZ		01	45	
	T	ePZ		02	04	
	H	ePZ			04	
	Pr	iPZ		01	43	
		eP'P'Z		30	56	
Aug. 25	Pr	ePZ	21	46	27	Tu eP 21 45 56
Aug. 25	P	eZ	23	23	51	Tu eP 23 24 21
	MW	ePZ			35	e 34
		iPZ			49	
	R	ePZ			53	
		eZ		24	06	
	Pr	ePZ		23	44	
		iZ		24	00	
Aug. 25	P	iPZ	23	54	31	Tu iP 23 54 55
	MW	ePZ			31	
	Pr	iPZ			34	
Aug. 26	Pr	iPZ	01	42	36	Tu eP 01 41 53
Aug. 26	MW	ePZ	02	47	07	Tu iP 02 47 50
		iZ			20	i 48 05
	R	eZ		47	23	
	T	ePZ		46	54	
		iZ		47	06	
	Pr	ePZ		47	17	
		iZ			30	
Aug. 26	MW	ePZ	04	06	48	Tu eP 04 06 01
	R	ePZ			38	
	Pr	ePZ			33	

Date	Sta.	Phase	h	m	s	Remarks
Aug 26	Pr	iPZ	04	35	26	Tu iP 04 34 55
Aug.26	Pr	iPZ	05	32	15	Tu eP 05 31 43
Aug.26	P	iPNEZ	12	19	07 c	Normal? Tu iP 12 18 29 c
	PX	iZ			17	i 39
		iSN		28	06	eP'P' 48 16
		eLZ		40	.6	Aftershock, Peru
	P	iP'P'Z		48	01	
	MW	iPZ		19	07	
		iZ			18	
		eP'P'Z		47	57	
	R	iPZ		19	04 c	
	SB	ePZ			24	
	LJ	ePZ		18	58	
	T	iPZ		19	21	
		iZ			36	
		eP'P'Z		47	52	
	H	ePZ		19	18	
	Pr	iPZ			00	
		iZ			10	
		eP'P'Z		48	05	
Aug.26	P	ePZ	14	28	51	
	PX	eLZ		54	.7	
	MW	ePZ		28	51	
	R	ePZ			47	
	T	ePZ		29	03	
	Pr	ePZ		28	41	
Aug.26	MW	ePZ	15	47	54	Tu iP 15 47 07
	Pr	iPZ			44	
Aug.26	P	iPZ	16	37	22	Tu eP 16 36 33
	MW	ePZ			23	
	R	ePZ			09	
	Pr	ePZ			06	
		iZ		37	14	
Aug.26	P	iZ	22	20	12	Tu eP 22 20 33
	MW	ePZ		19	56	i 48
		iZ		20	12	
	R	ePZ		19	59	
		eZ		20	14	
	T	iZ			00	
	Pr	ePZ			09	
		iZ			20	
Aug.27	PX	eLZ	07	01		Normal. Tu iP 06 27 33
	MW	ePZ	06	27	43	i 31 05
	T	ePZ			30	Albania; destructive
Aug.27	MW	eZ	12	31	36	Tu eP 12 30 41
	R	eZ			22	
	T	ePZ			34	
	Pr	ePZ			11	
Aug.28	P	iPZ	06	26	02	Normal? Tu iP 06 26 27
		iZ			11	i 38
	PX	eLZ		54	.8	
	MW	ePZ		26	02	
	R	ePZ			04	
		iZ			14	
	Pr	iPZ			05	
		iZ			15	
Aug.29	P	iPZ	01	07	34	Deep? Tu iP 01 08 10 d
		iZ		08	00	i 39
	MW	iPZ		07	34 d	Kamchatka
		iZ			59	
	R	ePZ			35	
		eZ		08	03	
	T	iPNEZ		07	20 d	
		iNEZ			46	
		iZ		08	43	
		eSN		15	04	
		eP'P'Z		36	51	

(Continued)

Date	Sta	Phase	h	m	s		Remarks
		(Continued)					
Aug. 29	Pr	iPZ	01	07	42	d	
		iZ			09		
		iZ		08	46		
		iP'P'Z		37	05		
Aug. 29	P	iPNEZ	01	50	53	d	Deep. Tu iP 01 51 09 d
		eZ		51	59		ipP 53 17
		epPZ		52	58		iP'P' 02 19 36
	PX	eSNE	02	00	34		24°S 179.5°E., O=01:39:20,
		eZ		01	30		h=570 km.
	MW	iPNEZ	01	50	53	d	
		ipPZ		52	55		
		eP'P'Z	02	19	46		
	R	iPZ	01	50	55	d	
		epPZ		52	57		
		eP'P'Z	02	19	45		
	SB	iPZ	01	50	53		
	LJ	iPZ			53	d	
	T	iPNZ		51	02	d	
		eSZ	02	00	37		
		eP'P'Z		19	43		
	Pr	iPZ	01	50	56	d	
		iP'P'Z	02	19	51		
Aug. 29	P	iPEZ	12	30	20		Normal? Tu iP 12 29 25 c
		iPcPZ		33	11		i 36 36
	PX	eSNEZ		35	33		Central America
		eLN		38.7			
	MW	iPNEZ		30	21		
		iPcPZ		33	11		
		iZ		36	56		
	R	ePZ		30	14		
		iPcPZ		33	10		
	LJ	ePZ		30	09		
	T	iPZ		30	37		
		iPcPZ		33	17		
	Pr	iPZ		30	08	c	
		iZ		36	50		
Aug. 29	P	ePNEZ	21	46	44		Deep? Tu eP 21 45 49
	PX	eEZ		47	00		i 46 08
		eZ		49	35		Central America
		eZ			51		
		eSEZ		51	54		
		eLNE		55.2			
	MW	iPZ		46	45		
		iZ		47	00		
		iZ		49	52		
		iZ		53	48		
	R	ePZ		46	39		
		iZ			54		
		iZ		49	34		
		iZ			51		
		eZ		53	47		
	LJ	ePZ		46	33		
		eZ			48		
		eZ		49	05		
	T	ePZ		47	00		
		iZ			18		
		iZ		49	59		
		eZ		53	55		
	Pr	iPZ	21	46	38	c	
		iZ			49		
		iZ		47	02		
		iZ		48	12		
		iZ		53	44		
Aug. 31	MW	ePZ	02	18	54		Tu eP 02 18 06
	R	ePZ			48		
	T	ePZ		19	10		
	Pr	iPZ		18	45		

Date	Sta.	Phase	h	m	s		Remarks
Aug. 31	P	iPNEZ	03	08	05		Tu eP 07 14
	MW	iPZ			03		
	R	ePZ		07	59		
	SB	ePZ		08	18		
	LJ	ePZ		07	51		
	T	ePZ		08	18		
	Pr	iPZ		07	53		
Aug. 31	P	iPNEZ	06	49	08	c	Deep? Tu iP 06 48 24
		iNEZ			20		South America.
	MW	iPZ			08	c	Huancayo reports:
		iZ			19		P=06:40:44
	R	iPZ			02		S= 41:43
		iZ			14		
	SB	ePNZ			16		
	LJ	ePNEZ		48	57	c	
	T	iPZ		49	21		
		iZ			32		
	Pr	iPZ		48	58		
		iZ		49	08		
		iZ			18		
Aug. 31	P	iPNRZ	07	11	16		Tu iP 07 11 45
	MW	iPZ			15		
	R	ePZ			17		
	LJ	ePZ			20		
	T	ePZ			10		
	Pr	iPZ			21		
Aug. 31	MW	ePZ	09	10	47		Tu eP 09 10 09
	R	ePZ			43		
	T	ePZ		11	01		
	Pr	ePZ		10	38		
Aug. 31	P	ePZ	09	54	03		Tu iP 09 53 09
	MW	ePZ			05		
	R	ePZ		53	57		
	T	ePZ		54	32		
	Pr	ePZ		53	47		
Aug. 31	P	iPNEZ	10	15	04	c	Deep? Tu iP! 10 15 37 c
		eZ		16	40		e 17 10
	MW	ePZ		15	02	c	
		eZ		16	38		
	R	iPZ		15	06	c	
		eZ		16	46		
	SB	ePZ		14	56		
	LJ	ePZ		15	12		
	T	ePZ		14	51		
	Pr	iPZ		15	11		
Aug. 31	MW	ePZ	14	04	31		Tu eP 14 03 52
	R	ePZ			26		
	T	ePZ			45		
	Pr	ePZ			20		
Aug. 31	R	ePZ	20	29	31		Tu eP 20 29 40
	T	ePZ			35		
	Pr	ePZ			31		
Sept. 1	P	ePZ	07	59	45		Tu 07 59 04
	MW	ePZ			45		
	R	ePZ			41		
	T	ePZ			57		
	Pr	ePZ			36		
Sept. 1	P	ePPZ	10	00	28		Normal. Tu eP 09 57 08
	PX	eLZ		43.2			e 10 00 18
	MW	ePPZ		00	27		Aegean Sea?
	R	ePPZ			29		
	Pr	ePPZ			29		

Date	Sta.	Phase	h	m	s	Remarks
Sept. 1	P	iPNEZ	13	21	56 d	Deep. Tu iP 13 21 22 d
		eZ		22	32	eP P 49 36
		iZ			46	
	MW	iPZ		21	55 d	
		iZ		22	46	
	R	iPZ		21	53 d	
		eZ		22	29	
		eZ			42	
	SB	ePNEZ		22	03	
	T	iPZ			07 d	
	Pr	iPZ		21	48 d	
		iZ		22	25	
		iZ			38	
Sept. 1	P	iPZ	19	11	46 c	Tu iP 19 12 15 c
		iZ			51	Central Asis?
	MW	ePZ			47	
	R	ePZ			49	
	T	ePZ			34	
	Pr	iPZ			54 c	
		iZ			59	
		iZ		12	48	
		iZ		14	37	
Sept. 1	P	ePZ	20	39	14	Normal? Tu iP 20 39 47
		iZ			26	i 56
	PX	eLZ	21	03.2		i 40 32
	MW	ePZ	20	39	15	Japan?
	R	ePZ			18	
		eZ			29	
	SB	ePZ			09	
		iZ			20	
	T	ePZ			05	
		iZ			16	
	Pr	ePZ			23	
		iZ			34	
Sept. 2	P	iPZ	03	24	53	Normal Tu iP 03 25 39 d
		eZ		26	39	i 26 03
	PX	eZ		30.7		USCGS: 52.4°N 169.6°W.,
		iSE		30	58	O=03:17:09
		eLNE		34.1		
	MW	iPZ		24	54	
		eZ		30	44	
	R	ePZ		24	56	
	SB	ePZ			45	
	T	ePZ			38	
		iZ			52	
Sept. 2	P	ePZ	07	32	37	Tu iP 07 33 23
	MW	ePZ			37	i 47
	R	ePZ			41	
	T	ePZ			21	
Sept. 2	P	ePZ	16	22	35	Tu eP 16 21 57
	MW	ePZ			35	South America
	R	ePZ			37	
	T	ePZ			49	
Sept. 2	P	ePZ	20	53	44	Tu iP 20 52 57 d
		iZ		54	06	i 53 24
	MW	ePZ		53	46	i 38
		iZ		54	07	Near Panama?
	R	ePZ		53	41	
	Pr	iPZ		53	37	
		eZ		54	01	
Sept. 3	P	iPZ	07	23	39	Deep Tu iP 07 24 26 d
		iZ		24	03	i 49
	MW	ePZ		23	41	i 26 12
	R	iPZ			44	
		eZ		24	07	
	T	iPZ		23	26	
	Pr	iPZ		23	50	
		iZ		24	14	
		iZ			29	

Date	Sta.	Phase	h	m	s	Remarks
Sept. 3	MW	iPZ	09	33	42	Tu iP 09 34 09
	R	ePZ			43	
	T	iPZ			48	
	Pr	iPZ			44 c	
Sept. 3	P	iPNEZ	14	06	16 c	Normal. Tu eP 14 07 54
		iSN			27	Felt over a wide area; no
	MW	iPNEZ			17 d	strong effects reported
		iSN			29	Epicenter near Fillmore
	R	iPNEZ			26 d	(Ventura Co.)
		iSNEZ			46	34°29'N. 118°59'W.; O=14:06:01
	SB	iPNEZ			13 d	
		iSNE			21	
	T	ePZ			44	
	Pr	iPZ			36	
Sept. 3	P	iPZ	20	23	05	iP 20 22 32 d
	MW	iPZ			05 d	e 23 28
	R	iPZ			02 d	
	T	ePZ			17	
	Pr	iPZ		22	58	
Sept. 4	P	ePNEZ	03	00	14	Normal. Tu iP 02 59 21 c
	PX	eLNE		08.7		i 40
	MW	iPZ		00	14	i 03 00 06
	R	ePZ			08	USCGS: 14.5°N. 91.6°W.,
	SB	iPZ			31	O = 02:53:14
	T	ePZ			30	
	Pr	iPZ			03	
		iZ			29	
Sept. 4	P	ePZ	15	29	25	Tu iP 15 29 54
	MW	ePZ			25	
	T	ePZ			17	
	Pr	ePZ			31	
Sept. 4	P	iPZ	17	53	52	Normal. Tu iP 17 54 39 d
		iSNE		59	56	USCGS: 52.6°N. 170°W.,
	PX	eLZ	18	03.2		O=17:46.1
	MW	iPZ	17	53	52	
		iZ		55	06	
	R	ePZ		53	57	
		iZ		54	09	
	SB	ePZ		53	32	
		eZ			46	
		eZ		54	03	
	T	iPZ		53	37	
		iZ		54	53	
		iZ		59	36	
	Pr	iPZ		54	04	
		iZ		54	17	
		e(S)Z		59	19	
Sept. 5	P	iPZ	00	21	37	Tu iP 00 20 42
	MW	iPZ			36 d	
	T	ePZ			31	
	T	ePZ			51	
	Pr	iPZ			24	
Sept. 5	P	ePZ	06	47	42	Tu eP 06 48 05
	MW	ePZ			43	
	T	ePZ			41	
Sept. 5	P	eNE	08	59	27	Tu iP 09 55 59
	MW	eZ			29	eS? 57 33
	R	eZ			03	
Sept. 5	P	ePZ	11	20	47	Tu eP 11 20 19
	PX	eLNZ		32.4		
	MW	ePZ		20	47	
	R	ePz			44	
	T	ePZ		21	12	
	Pr	ePZ		20	38	
Sept. 5	P	iPNEZ	19	15	54	
	Mw	iPZ			55	
	R	ePZ			58	
	Pr	iPZ			59	

Date	Sta.	Phase	h	m	s	Remarks
Sept. 5	P	ePZ	21	41	20	
	MW	ePZ			20	
	R	ePZ			23	
	Pr	ePZ			24	
Sept. 5	MW	ePZ	22	34	39	Tu 22 33 45
	Pr	ePZ			26	
Sept. 6	MW	ePZ	06	07	21	Tu iP 06 06 22
	T	ePZ			37	
	Pr	iPZ			10	
Sept. 6	P	iPNEZ	16	05	16 c	(Deep) Tu iP 16 04 45
		ipPNEZ			31	i! 59
		iNEZ			37	e 34 49
	PX	eSN		14.9		Chile
		iSPNE		15	24	
		eLZ		30.3		
	MW	iPZ	16	05	16	
		ipPZ!			32	
	R	iPZ			14	
		ipPZ!			28	
		iZ			34	
	SB	iPZ			23	
		ipPZ			38	
	T	iPNEZ			29	
		ipPNEZ!			44	
		iNEZ!			52	
		iZ		06	18	
	Pr	iPZ		05	10	
		ipPZ!			25	
		iZ			52	
Sept. 7	Pr	ePZ	03	57	59	Tu eP 03 57 29
Sept. 7	MW	ePZ	04	48	29	Tu eP 04 47 35
	Pr	ePZ			18	
Sept. 7	P	ePZ	04	58	14	Normal. Tu iP 04 57 19
	PX	eLN	05	08.5		Central America
	MW	ePZ	04	58	12	
	R	ePZ			07	
	T	iPZ			29	
	Pr	iPZ			01	
Sept. 7	P	iPNEZ	14	43	16 c	Tu iP 14 43 41 c
	MW	iPZ			17 c	
	T	iPZ			25	
	Pr	iPZ			20	
Sept. 7	Pr	ePZ	22	09	38	Tu eP 22 09 13
		eZ		12	25	e 11 34
Sept. 7	P	iPZ	23	44	05	Tu iP 23 44 30 d
	MW	iPZ			06	Near Apia, which reports:
	R	ePZ			07	P=23:33:28; S=23:34:03
	SB	ePZ			00	
	T	ePZ			15	
	Pr	iPZ			08	
Sept. 8	P	iPZ	03	04	35	Tu iP 03 05 13
	MW	iPZ			37	
	R	ePZ			40	
	T	iPZ			22	
	Pr	iPZ			45	
Sept. 8	P	iPNEZ	07	12	16 d	Tu iP 07 12 39 d
	MW	iPZ			19 d	e 14 40
	R	ePZ			17	
	T	iPZ			24	
	Pr	iPZ			19 d	

Date	Sta.	Phase	h	m	s	Remarks
Sept. 8	P	iPNEZ	16	19	25	Deep? Tu iP 16 19 56 d
		iZ			47	i 20 16
	PX	eZ		22	22	Japan.
		eSN		29	14	USCGS: Near 36.6°N. 139.5°E.,
		eLZ		43.1		O=16:07:3
	MW	iPZ		19	25 d	
	R	ePZ			29	
		iZ			52	
	SB	ePZ			18	
		iZ			41	
	T	iPZ			16	
		iZ			40	
	Pr	iPZ			32 d	
		iZ			56	
		eZ		22	33	
Sept. 8	P	iZ?	19	35	26	Tu e 19 35 15
	MW	iZ?			26	e 45
Sept. 9	P	iPZ	00	39	31	Tu iP 00 39 55
	MW	iPZ			32	
	R	ePZ			34	
	Pr	iPZ			35	
Sept. 9	P	iPZ	01	32	42 d	Deep. h=80 km.
		ipPZ		33	00	Tu iP 01 33 29 c
		isPZ			09	ipP 47
		iSNEZ		38	38	i 35 15
	PX	iLNE		41.6		i 39 03
	P	iScSN		42	48	eP P? 02 04 50
	MW	iPNEZ		32	44 c	USCGS: 53.0°N. 165.7°W.;
		iSNEZ		38	39	O=01:25:24
		iZ		43	06	
	R	ePZ		32	47	
		iZ?		35	00	
		eSZ		38	40	
	SB	iPNEZ		32	36	
		ipPNEZ!			48	
		iSNEZ		38	25	
	T	ePZ		32	27	
		iZ		33	12	
		iSN		38	14	
		iZ			32	
	Pr	iPZ		32	55 c	
		iZ		33	07	
		iZ			20	
		iZ		38	44	
		eZ		39	01	
Sept. 9	P	iPZ	05	15	54	Normal. Tu iP 05 16 15 c
		eSE		16	53	i! 32
	MW	ePZ		15	52	e(S) 17 38
		iSNE		16	48	
	R	iPNEZ		15	48	
		iSZ		16	32	
	SB	ePZ			08	
		eSNEZ		17	25	
	T	ePZ		15	50	
		eSN		16	37	
	Pr	iPZ		15	52 d	
Sept. 9	T	iPZ	09	39	53	Tu iP 09 40 06
	Pr	iPZ			46	e 42 02
Sept. 9	P	ePZ	22	40	00	Tu eP 22 39.4
	MW	ePZ		39	58	iS 41.4
	R	ePZ			46	
	Pr	iPZ			34	
		iZ			58	
Sept. 10	P	eZ	05	06	09	Normal. Tu e 05 06 22
	PX	eNE		12	43	e 17 07
		eLZ		36.6		
	MW	eZ		06	10	
	T	eZ			45	

Date	Sta.	Phase	h	m	s	Remarks
Sept. 10	P	iPZ	22	06	57	
	MW	ePZ			56	
	R	ePZ		07	00	
	Pr	ePZ			01	
Sept. 10	PX	eN	23	41	1	Normal. Tu eP 23 34 27
		eLZ		46	6	
	MW	ePZ		34	53	
	R	ePZ			49	
	Pr	eZ			51	
Sept. 10	MW	ePZ	23	46	15	Tu iP 23 45 23
	R	ePZ			13	
	Pr	iPZ			06	
Sept. 11	P	eZ	00	45	44	Tu eP 00 43 44
	MW	ePZ		44	38	eS 44.6
	R	ePZ			36	
		eZ		45	37	
	Pr	iPZ		44	01	
		iSZ		45	05	
Sept. 11	P	iPZ	02	28	06	
	MW	iPZ			06	
	R	iPZ			09	
	Pr	iPZ			14	
Sept. 11	P	eNEZ	02	52	18	Tu eP 02 50 03
	MW	eZ			07	i(S) 51 08
	R	ePZ		50	55	
Sept. 11	P	ePZ	06	25	01	
	MW	iPZ		24	58	
	R	ePZ		25	00	
	Pr	iPZ			03	
Sept. 11	P	eNEZ	06	47	23	Tu eP 06 45 11
	MW	ePZ		46	02	i(S) 46 08
		eSZ		47	10	
	R	ePZ		45	46	
		iZ		47	09	
	Pr	iPZ		45	39	
		iSZ		46	30	
Sept. 12	P	eZ	05	51	02	Normal. Tu eP 05 50 15
	PX	eLZ	06	14		Peru.
	MW	ePZ	05	50	55	Huancayo reports:
		eZ		51	02	P=05:41:20; S=05:42:10
	R	ePZ		51	02	
	T	e(P)Z			08	
	Pr	ePZ		50	55	
Sept. 12	R	eZ	16	23	18	Tu e 16 24 33
	T	eZ		22	40	
Sept. 13	R	ePZ	06	50	33	Tu iP 06 49 40
	T	ePZ			58	
	Pr	ePZ			25	
Sept. 13	P	ePNEZ	17	33	56	Tu iP 17 33 13
	MW	ePZ			53	Peru.
	R	ePZ			47	
	T	ePZ		34	11	
	Pr	iPZ		33	45	
Sept. 13	T	ePZ	19	21	48	Tu iP 19 20 45
	Pr	ePZ			24	
Sept. 13	P	iPZ	20	41	45	Deep. Tu eP 20 42 22
		ipPZ		42	11	ipP 48
	MW	iPZ		41	47	
		ipPZ		42	12	
	R	iPZ		41	48	
		ipPZ		42	13	
		eZ			27	
	SB	epPZ		42	04	
	T	ePZ		41	23	
		iZ			49	
	Pr	iPZ		42	01	
		ipPZ			27	

Date	Sta.	Phase	h	m	s		Remarks
Sept. 13	P	ePZ	22	53	48		Normal. Tu iP 22 54 12
	PX	eLZ	23	15			Near Apia, which reports:
	T	ePZ	22	53	57		P=22:43:10; S=22:43:42
	Pr	ePZ			43		
Sept. 14	P	ePZ	01	04	42		
	MW	ePZ			44		
	R	ePZ			44		
	T	ePZ			41		
Sept. 14	P	iPNEZ	11	43	38	c	Deep. Tu iP 11 44 01 c
		ipPZ		44	12		ipP 36
	PX	ePPZ		47	05		22°S. 171.5°E.; O=11:31:02,
		e(S)NZ		54	11		h=130 km. (using all avail-
		iNZ		55	16		able data).
		eLZ	12	06	7		Wellington gives:
	MW	iPZ	11	43	40	c	22.6=S. 171.6=E.; O=11:31.0,
		ipPZ		44	15		h=100 km.
		iZ		47	42		
	R	iPNEZ		43	40	c	
		ipPZ		45	15		
	SB	ePZ		43	31		
		iZ		44	12		
	T	iPZ		43	45	c	
		eZ		44	19		
		eN		54	27		
	Pr	iPZ		43	42	c	
		ipPZ		44	16		
		eZ		47	46		
Sept. 14	P	iPNEZ	19	53	14		
	MW	iPZ			17		
	R	ePZ			17		
	Pr	iPZ			18		
Sept. 15	P	ePNZ	05	33	58		Normal.
	PX	eLZ	06	02			
	MW	ePZ	05	34	01		
	R	ePZ		33	59		
	Pr	ePZ		34	03		
Sept. 15	P	iPNEZ	23	50	40		Normal. Tu eP 23 51 16
	PX	eLN	24	17			e 55 16
	MW	iPZ	23	50	50		
	R	ePZ			52		
	SB	eZ			55		
	LJ	ePZ			53		
	Pr	iPZ			54		
Sept. 17	P	iPNEZ	11	50	40	c	Deep. Tu iP 11 51 16 c
		iZ		51	46		i 52 23
	MW	iPZ		50	41	c	Kurile Islands.
		iZ		51	48		Very roughly 42°N. 155°E.;
	R	iPZ		50	43	c	O:11:40.4, h=250 km.
		iZ		51	50		
	SB	iPZ		50	34	c	
	LJ	iPZ			50	c	
		iZ		51	46		
	Pr	iPZ		50	49	c	
		iZ		51	56		
Sept. 17	P	ePNEZ	12	29	51		iP 12 30 41
	MW	ePZ			52		
	R	ePZ			56		
	Pr	ePZ		30	06		
Sept. 17	P	ePEZ	20	11	35		Normal. Tu iP 20 12 03
	PX	eLZ		37	4		
	MW	ePZ		11	31		
		iZ			36		
	R	ePZ			35		
	T	iPZ			41		
	Pr	ePZ			37		
Sept. 18	MW	iPZ	01	31	16		Tu iP 01 30 42
	R	iPZ			11		
Sept. 20	P	iPZ	21	06	43		Tu e(PP) 21 09 45
	MW	iPZ			44		
	R	ePZ			44		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 20	MW	iPZ	23	25	35		Tu iP 23 25 55
	T	ePZ			44		
Sept. 20	P	iPNEZ	23	55	05	c	Deep? Tu iP 23 55 32 c
		iZ			41		
	PX	eLZ	24	21			
	MW	iPZ	23	55	06	c	
		iZ			46		
	R	iPZ			06	c	
		eZ			41		
	SB	iPZ		54	59		
		eZ		55	37		
	LJ	iPZ		55	07		
	T	iPZ			09		
	Pr	iPZ			10		
Sept. 21	P	eZ	06	04	19		Normal. Tu eP 06 04 56
	PX	eLZ		29			
	MW	eZ		04	24		
	R	eZ			26		
	T	iPZ			25		
Sept. 21	P	ePZ	10	05	15		Deep? Tu iP 10 04 30 d
	MW	iPZ			16	d	
		eZ			47		
	R	iPZ			11		
	T	iPZ			29	d	
	Pr	ePZ			05		
		eZ			35		
Sept. 21	T	ePZ	12	55	51		Tu eP 12 57 29
Sept. 21	T	iPZ	20	35	23		Tu iP 20 34 36
Sept. 22	P	ePZ	00	57	54		Normal. Tu eP 00 57 30
		eZ		58	57		USCGS: 37.6°S. 98.6°W.,
	PX	iSE	01	07	1		O=00:46:15
		iLNE		17	2		Huancayo reports: P=01:52:45
	P	eZ		27	15		S=01:58:02
	MW	ePZ	00	57	53		
	R	ePZ			51		
	SB	ePZ			59		
	LJ	ePZ			43		
	T	iPZ		58	11		
	Pr	ePZ			48		
Sept. 22	T	iPZ	07	52	35		Tu iP 07 53 12
Sept. 23	P	ePNZ	10	35	27		Normal. Tu iP 10 34 47
	PX	eLNE		42	0		
	MW	iPZ		35	28		
	R	ePZ			23		
	T	ePZ			51		
Sept. 23	P	iPZ	21	22	36		Tu eP 21 22 58
	MW	iPZ			38		
	R	ePZ			39		
	T	ePZ			47		
	H	ePZ			45		
Sept. 24	P	iPZ	03	52	39		Normal. Tu eP 03 53 07
	PX	eN	04	02	49		e 57 18
		eE		03	07		USCGS: 25°N. 123°E.; O=03:39.0
		eLN		19	6		
	MW	ePZ		52	41		
	R	ePZ			45		
	SB	ePZ			36		
	T	iPZ			31		
	H	ePZ			35		
Sept. 25	P	iPNEZ	08	21	44		Normal? Tu iP 08 22 32 d
		iZ			56		i 47
	PX	eE		28	46		i 57
		eLNE		30	43		USCGS: 53°N. 168°W.; O=08:14.1
	MW	iPZ		21	45		
		iZ			54		
	R	ePZ			48		
	LJ	ePZ			56		
	T	iPZ			29		
		iZ			44		
	H	iPZ			37		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 25	P	iPZ	10	37	26		Tu iP 10 37 46 d
	MW	ePZ			26		
	R	ePZ			27		
Sept. 26	P	iPNEZ	04	07	08		Normal. Tu eP 04 06 14
		iZ		09	24		iPcP 09 26
		iPcPNEZ			42		iScP 03 03
	PX	eSNE		12	35		USCGS: 12.8°N. 87.7°W.;
	P	iScPNEZ		13	22		O=04:00 16.
	PX	iSSNE		15	20		
		eLNE		17	2		
		iScSNE		17	26		
	MW	iPNEZ		07	09		
		iPcPZ		09	41		
		iScPZ		13	22		
	SB	ePZ		07	21		
		iPcPZ		09	50		
		iScPZ		13	28		
	LJ	ePZ		06	56		
		eNZ		09	37		
		eScPNEZ		13	17		
		eScSN		17	18		
	T	iPZ		07	22		
		iPcPZ		09	48		
		eScPZ		13	28		
		eScSNEZ		17	31		
	H	ePZ		07	17		
		iPcPZ		09	44		
		iScPZ		13	26		
Sept. 26	P	iPZ	10	41	18		Tu eP 10 40 24
		ePcPZ		43	50		ePcP 43 36
		iScPZ		47	31		eScP 47 10
	MW	iPZ		41	18		Aftershock
	T	iPZ			34		
		iPcPZ		43	57		
	H	ePZ		41	27		
Sept. 26	P	eZ	13	59	15		Tu eP 13 58 32
	MW	ePZ			06		South America
Sept. 27	P	eZ	08	55	52		Tu eP 08 56 50
	MW	eZ			57		i 57 05
	T	ePZ			46		
	H	ePZ			53		
Sept. 27	P	ePZ	13	24	48		Normal? Tu eP 13 24 27
		iZ			59		i 37
	PX	iSNE		35	25		Southeast Pacific.
		eLE		45			Huancayo P=13:18:50
	MW	ePZ		24	47		
	R	ePZ			44		
	LJ	ePZ			44		
	T	ePZ		25	00		
	H	ePZ			00		
Sept. 27	P	iPZ	14	18	44		Tu eP 14 17 50
	MW	ePZ			45		
	R	ePZ			38		
	T	ePZ		19	02		
Sept. 27	P	iPZ	16	47	10		Tu iP 16 46 16
	MW	iPZ			11		
	R	ePZ			05		
	T	ePZ	-		31		
Sept. 27	P	iPNEZ	17	08	29	d	Normal? Tu iP 17 07 35
		iPcPZ		11	23		Central America
		eZ		15	03		
		eZ			31		
	PX	eLNE		15	2		
	MW	iPZ			29		
	R	iPZ		08	24	d	
		iPcPZ		11	22		

(Continued)

Date	Sta.	Phase	h	m	s		Remarks
		(Continued)					
Sept. 27	SB	ePZ	17	08	34		
	LJ	ePNEZ			17		
	T	iPZ			44		
		iPcPZ		11	28		
		iZ		15	11		
	H	iPNEZ		08	38	d	
Sept. 28	P	iPZ	16	46	50		Tu iP 16 47 14
	MW	iPZ			50		Near Apia, which reports:
	R	iPZ			53		P=16:36:57; S=16:38:21
	T	ePZ		47	00		
	H	ePZ		46	52		
Sept. 29	P	iPNZ	00	06	38	c	Normal. Tu eP 00 06 17
	PX	eLZ		19	26		
	MW	ePZ		06	39		
	R	ePZ			36		
	SB	ePZ			34		
Sept. 29	P	iZ	00	12	16		Tu e 00 12 51
	MW	iZ			12		
	R	eZ			10		
Sept. 29	P	iPZ	01	33	31		Tu eP 01 34 44
	MW	iPZ			34		
	R	ePZ			39		
	SB	iPZ			19		
	T	iPZ			53		
	H	iPZ			45		
Sept. 29	P	iPNEZ	08	29	41	d	Normal. Tu eP 08 31.2
		iSE		30	59		eS 34.4
	MW	ePZ			38		Strong in Colusa County,
		iZ			42		California
		eSE		30	54		
	R	ePZ		29	48		
		iSZ		30	56		
	T	ePZ		29	13		
		iSNE		30	11		
	H	iPNEZ		29	25		
		iSE		30	44		
Sept. 29	P	iPNEZ	12	53	32		Normal? Tu iP 12 52 41
	PX	eZ		59	19		Near Panama
		eLZ	13	06.9			
	MW	iPZ	12	53	30		
	R	ePZ			26		
	LJ	ePZ			22		
	T	ePZ			43		
	H	ePZ			40		
Sept. 29	MW	ePZ	18	48	29		Tu ePZ 18 49 22
	R	ePZ			33		
	T	eZ			30		
Sept. 30	P	iPZ	15	20	32		Tu i 15 23 08
		ePKKPZ		39	20		ePKKP 38 39
	MW	iPZ		20	32		
		ePKKPZ		39	19		
	H	ePZ		20	32		
Sept. 30	P	iPZ	16	15	05		Tu iP 16 14 24
	MW	iPZ			04		
	R	iPZ			01		
	SB	ePZ			15		

C F Richter

June 20, 1944

CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA

SEISMOLOGICAL LABORATORY

BULLETIN

OCTOBER-DECEMBER 1942

(PASADENA AND AUXILIARY STATIONS)

Pasadena and auxiliary stations.

Date	Sta.	Phase	h	m	s		Remarks
Oct. 1	P	iPZ	07	30	33		Tu iP 07 29 57
Oct. 1	P	iPZ	19	30	09		Tu eP 19 29 47
	R	ePZ			04		
Oct. 2	MW	iPZ	20	17	47		Tu iP 20 17 06 c
Oct. 3	P	eZ	10	16	13		Normal. Tu eP 10 15 15
	MW	ePZ		16	02		
		eZ			12		
	R	ePZ		15	57		
	SB	eZ		16	25		
	H	eNZ			26		
Oct. 3	P	iPZ	10	52	00		Tu iP 10 52 25 d
	MW	iPZ			01	d	
	R	ePZ			02		
	H	iPZ			07		
Oct. 3	MW	ePZ	23	13	29		Tu eP 23 13 53
	R	ePZ			31		
	H	ePZ			36		
Oct. 4	MW	eZ?	01	52	59		
		iZ		53	07		
	R	ePZ			00		
		iZ			10		
	H	eZ			11		
Oct. 4	P	iPZ	05	38	11		Deep? Tu iP 05 37 35 c
	MW	iPZ			11	c	i 47
		iZ			22		
	R	iPZ			06	c	
		iZ			19		
	T	iPZ			23		
		eZ			35		
	H	ePZ			19		
		eZ			29		
Oct. 4	P	iPZ	14	40	54		Tu iP 14 40 05 d
	MW	ePZ			54		
	R	iPZ			48		
Oct. 5	P	iPZ	01	11	25		Normal? Tu iP 01 10 55
		iNEZ			32		i 11 03
	PX	eLNZ		39	1		
	MW	iPZ		11	24		South America
		iZ			35		
	R	ePZ			20		
		iZ			29		
	T	iZ			36		
	H	ePZ			32		
		iZ			41		
Oct. 5	MW	iPZ	09	01	39		Tu eP 09 00 44
		iZ			59		i 01 04
Oct. 5	P	iPZ	15	01	19		
	MW	iPZ			21	c	
	R	iPZ			22		
	T	iPZ			22		
Oct. 6	P	iPZ	03	01	04	d	Normal. Tu iP 03 02 18
	PX	eLN		03	22		USCGS: 43.5°N. 126.8°W.,
	MW	iPZ		01	06	d	O=02:58:19
	R	iPZ			12	d	Off Oregon
	SB	ePZ		00	53		
	LJ	ePZ		01	28		
	T	iPZ		00	36		
	H	iPZ			48		
Oct. 6	MW	ePZ	03	25	27		Tu iP 03 24 29
	R	ePZ			16		Off Mexico
	H	ePZ			37		
Oct. 6	MW	ePZ	03	37	45		Tu iP 03 36 49
	R	ePZ			41		Off Mexico
	LJ	ePZ			32		
	T	iPZ		38	05		
	H	ePZ		37	58		

Date	Sta.	Phase	h	m	s		Remarks
Oct. 6	P	eZ	03	40	40		Tu iP 03 39 37
	MW	ePZ			35		
	R	ePZ			27		
	LJ	ePZ			20		
	T	ePZ			59		
	H	ePZ			47		
Oct. 6	P	iPZ	12	03	23	c	Deep? Tu iP 12 03 52
		iZ			38		i 20 32
	PX	eLEZ		32.0			USCGS: 65°S. 155.5°W.,
	MW	iPZ		03	23	c	O=11:50:3
		iZ			39		Wellington: 4.5°S. 150.5°E.,
	R	iPZ			27	c	O=11:50.2
		iZ			41		
	SB	ePZ			19		
		eZ			32		
	LJ	ePNEZ			27		
		iZ			42		
	T	iPZ			25		
	H	iPZ			26		
Oct. 6	P	iPZ	12	30	49		Tu iP 12 31 12 c
	MW	iPZ			51		
	R	iPZ			51		
	T	iPZ			56		
	H	ePZ			53		
Oct. 6	P	iPNEZ	14	28	33	d	Deep? Tu iP 14 28 52
		iZ		29	59		i 29 08
		iZ		32	09		Wellington: 36°S. 179°W.,
		iZ			15		O=14:16.0, h=250 km
		iSNE		38	39		
	MW	iPZ		28	34	d	
		iZ			52		
		eZ		32	02		
		iZ			15		
		eSNEZ		38	41		
	R	iPZ		28	36	d	
		eZ		32	11		
		iZ			17		
		eSN		38	42		
	SB	iPZ		28	32		
	LJ	iPNEZ			32		
	T	iPZ			42		
		iSN		38	51		
	H	iPZ		28	41		
		eSN		38	46		
Oct. 6	MW	ePZ	17	33	00		Tu eP 17 33 31
Oct. 6	MW	iPZ	17	46	27		Tu iP 17 46 46 c
Oct. 6	P	ePZ	17	56	04		Tu iP 17 56 33
	MW	iPZ			03		
	R	ePZ			05		
	T	iPZ		55	59		
	H	iPZ		56	01		
Oct. 7	P	iPZ	08	17	29		Tu iP 08 17 57
	MW	iPZ			31		
	R	iPZ			32		
	T	iPZ			36		
	H	ePZ			35		
Oct. 7	MW	ePZ	09	00	41		Tu iP 09 01 05
	R	ePZ			42		
	H	iPZ			46		
Oct. 8	P	iPNEZ	03	10	44		Normal. Tu iP 03 09 54
	PX	eSNE		17	24		USCGS: 5.9°N. 82.7°W.,
		eLNEZ		23	9		O=03:02:41
	MW	ePZ		10	45		
	SB	ePZ			57		
	LJ	iPNZ			35		
	T	ePZ		11	00		
	H	ePZ		10	46		

Date	Sta.	Phase	h	m	s		Remarks
Oct. 8	P	iPNEZ	20	15	16	c	Normal. Tu iP 20 15 44 c
	PX	eLEZ		43	8		New Hebrides
	MW	iPZ		15	17		
	R	iPZ			20	c	
	SB	ePZ			11		
	LJ	iPEZ			18		
	T	ePZ			21		
	H	ePZ			20		
	Pr	iPZ			20	c	
Oct. 9	P	iPZ	00	52	29		Normal. Tu eP 00 52 03
	PX	eLZ	01	15	4		Southeast Pacific
	MW	ePZ	00	52	26		
	R	ePZ			21		
	SB	ePZ			43		
	T	ePZ			46		
	H	ePZ			41		
	Pr	ePZ			18		
Oct. 9	Pr	ePZ	11	24	39		Tu eP 11 23 51
Oct. 9	P	iPNEZ	16	05	52	d	Tu iP 16 05 38
	PX	iNEZ		06	05		i 08 47
		eZ		09.0			East Africa
		eZ		12	24		Pasadena: 10°S. 34.5°E.,
		eLNE	17	00.3			O=15:46:20
	MW	iPNEZ	16	05	51		
		iZ		06	05		
	R	iPNEZ		05	50		
		iZ		06	03		
	SB	iPNEZ		05	54		
	LJ	iPZ			53		
	T	ePN			49		
	H	iPZ			49	d	
	Pr	iPZ			51		
		iZ		08	13		
Oct. 9	Pr	iZ	22	59	07		
Oct. 9	Pr	ePZ	23	13	35		Tu iP 23 12 54
Oct. 10	P	iPZ	01	11	23	d	Tu iP 01 11 48
		iZ		12	04		i 12 23
	MW	iPZ		11	25		
		iZ		12	09		
	R	ePZ		11	26		
	SB	ePZ			18		
	LJ	iPNEZ			24		
	T	iPZ			34		
	H	iPZ			31		
	Pr	iPZ			27		
Oct. 10	P	iPZ	01	59	18		Tu iP 01 59 23
	R	ePZ			07		
	Pr	iPZ			07		
Oct. 10	P	iPZ	06	13	39		Tu iP 06 14 12 c
	MW	iPZ			41		
	R	iPZ			43		
	SB	iPZ			23		
	LJ	ePZ			45		
	T	iPZ			33		
	H	iPZ			35		
	Pr	iPZ			46		
Oct. 12	P	iPZ	01	27	05		Tu iP 01 26 27 c
	MW	ePNE			08		i 36
	R	ePZ			01		USCGS: 16.5°S. 74.4°W.,
		iZ			11		O=01:16:19
	T	ePZ			20		
		eZ			29		
	Pr	iPZ		26	57		
		iZ		27	08		

Date	Sta.	Phase	h	m	s	Remarks
Oct. 12	P	iPZ	06	21	27	Tu iP 06 21 08
	R	ePZ			24	Southeast Pacific
	LJ	ePZ			19	
	T	ePZ			45	
		iZ		22	03	
		iZ			12	
	H	ePZ		21	39	
	Pr	ePZ			20	
Oct. 14	P	iPNZ	00	16	03	Normal. Tu iP 00 15 28
		iSNZ			52	USCGS: 32.5°N. 113.5°W.,
	MW	ePZ			02	O=01:14:53
	R	ePZ		15	40	
		iSN		17	02	
	LJ	ePNEZ		15	30	
		iSE		16	21	
		iE			36	
	T	ePZ			47	
		eSN		18	45	
	H	ePZ		16	28	
	Pr	iPZ		15	28	
		iSZ		16	26	
Oct. 14	P	iPZ	08	03	20	Tu iP 08 03 59
	MW	ePZ			21	
	Pr	iPZ			30	
Oct. 14	P	ePZ	18	02	00	
	MW	ePZ			02	
	R	ePZ			04	
Oct. 15	P	ePZ	04	01	08	Tu eP 04 00 21
	MW	ePZ			07	
	R	ePZ			04	
	LJ	ePZ		00	54	
	Pr	ePZ			56	
Oct. 15	P	ePZ	05	44	25	Tu eP 05 44 55
	MW	ePZ			25	
	R	eZ			25	
	LJ	eZ			30	
	T	ePZ			27	
	H	eZ			30	
	Pr	iPZ			37	
Oct. 15	MW	iZ	07	14	09	Tu iP 07 13 21
	Pr	eZ		13	56	
Oct. 15	P	ePZ	07	35	52	Normal. Tu iP 07 34 54
		iSZ		37	15	First of a swarm of similar
	MW	eZ		35	58	shocks; others at
	R	ePZ		35	40	08:15, 08:21, 08:24, 08:33, etc.,
		eSZ		37	05	
	LJ	ePZ		35	29	
		iSEZ		36	38	
	Pr	ePZ		35	27	
Oct. 15	R	eZ	10	18	38	Tu iP 10 17 21
	Pr	iPZ			10	
		iZ			42	
Oct. 15	MW	ePZ	12	59	24	Tu iP 12 59 49
	R	ePZ			26	
	Pr	iPZ			26	
Oct. 15	P	iPZ	15	04	23	Tu iP 15 03 59
	MW	iPZ			24	
	R	ePZ			21	
	T	ePZ			15	
	H	ePZ			17	
	Pr	iPZ			22	
Oct. 16	P	ePZ	01	13	07	Tu eP 01 12 06
		iSZ		14	51	Similar to Oct. 15, 07 h
	Pr	iPZ		12	46	
		iSZ		14	03	
Oct. 16	T	ePZ	11	43	34	Tu eP 11 43 48
		eZ		44	10	i 44 24
	Pr	ePZ		43	24	
		eZ		44	01	

Date	Sta.	Phase	h	m	s	Remarks
Oct. 16	P	iPZ	23	36	47	Tu iP 23 35 56
	MW	iPZ			47	
	Pr	iPZ			37	
Oct. 17	T	ePZ	02	26	17	Tu eP 02 25 32
Oct. 17	P	iPZ	03	59	24	Tu eP 03 59 57
	MW	iPZ			24	
	T	iPZ			02	
	H	iPZ			09	
	Pr	iPZ			32	
		iZ			53	
Oct. 17	P	iPZ	12	25	01	Tu iP 12 26 25
		iSNEZ		26	42	
	MW	iSNE			46	
	T	iPNEZ		24	42	
		iSN		26	21	
	Pr	ePZ		25	22	
		iSZ		27	11	
Oct. 17	P	iPNEZ	20	19	52 d	Deep? Tu iP 20 20 23 d
	MW	iPZ			52 d	
		iZ		30	11	
	R	iPZ!		19	56 d	
	SB	iPNEZ!			47 d	
	LJ	ePZ		20	02	
	T	iPZ		19	42 d	
	H	iPNEZ			46	
	Pr	iPZ			59 d	
		iZ		20	20	
Oct. 18	MW	iPZ	04	21	30	Tu iP 04 21 51
	T	iPZ			38	
	Pr	iPZ			32	
Oct. 18	MW	eZ?	05	22	16	Tu eP 05 21 34
	T	eZ		23	14	eS? 24 01
	Pr	ePZ		22	26	
Oct. 18	P	iPNEZ	05	28	16	Normal. Tu iP 05 27 13
	PX	eLNEZ		30.7		USCGS: 22 5°N. 108.5°W.,
	P	iNZ		32	24	O=05:24:45
	MW	ePZ		28	17	
	R	ePZ			12	
		eZ		32	07	
	LJ	ePZ		28	15	
	T	iPZ			51	
		iNE		29	32	
		eNZ		34	16	
	H	ePZ		28	37	
	Pr	ePZ		27	58	
		eZ		31	31	
Oct. 18	P	ePZ	10	25	38	Tu eP 10 26 14
		iZ			45	
	MW	iPZ			39	
		iZ			46	
	R	eZ			49	
	SB	eZ			40	
	T	ePZ			32	
		iZ			39	
	H	iZ			42	
	Pr	ePZ			46	
		iZ			53	
Oct. 18	P	iPZ	11	44	38	Tu eP 11 43 41
	MW	ePZ			37	Central America
	R	ePZ			35	
	T	ePZ			52	
	H	ePZ			45	
	Pr	iPZ			25	

Date	Sta.	Phase	h	m	s	Remarks
Oct.18	P	ePZ	13	16	08	Tu eP 13 15 35
	MW	ePZ			10	
	H	ePZ			06	
	Pr	ePZ			05	
Oct.18	P	ePZ	19	07	14	Tu eP 19 06 34
	MW	ePZ			12	South America. Huancayo
	R	ePZ			08	reports eP 18 57 36
	T	ePZ			24	iS 58 25
Oct.19	P	eZ	19	03	22	Tu iP 19 02 24
	MW	iPZ			15	
		eZ			23	
	R	ePZ			10	
	T	ePZ			19	
	Pr	ePZ			06	
Oct.20	P	iPZ	08	00	45	Tu iP 07 59 51 d
	PX	eLZ		06.5		i 08 00 10
	MW	iPZ		00	45	Central America
	R	iPZ			40	
	LJ	ePZ			24	
	T	ePZ		01	13	
	H	ePZ			03	
		eZ			19	
	Pr	ePZ		00	25	
Oct.20	P	ePZ	09	18	44	Tu eP 09 17 54
	MW	ePZ			44	
	R	ePZ			39	
	Pr	ePZ			33	
Oct.20	P	ePZ	13	06	15	Deep? Tu iP 13 05 42
		eZ			41	i 06 07
	MW	ePZ			17	
		eZ			43	
	R	ePZ			12	
		eZ			39	
	T	ePZ			29	
		eZ			55	
	H	ePZ			24	
		eZ			50	
	Pr	ePZ			09	
		iZ			35	
Oct.20	P	iPZ	20	26	29	Tu eP? 20 26 59
	MW	iPZ			30	
	R	iPZ			32	
	T	iPZ			23	
	H	iPZ			26	
	Pr	iPZ			36	
Oct.20	MW	ePZ	22	38	33	Tu iP 22 37 47
	Pr	ePZ			25	
Oct.20	P	ePZ	23	36	08	Normal. Tu eP 23 36 33
		eP"Z		39	58	eP" 40 30
	PX	iPPZ		40	50	Philippines
		iZ		43	39	9°N.122.5°E.,
		iSKSE		47	01	O=23:21:43
		iZ		48	03	Major earthquake
		iPSNE		50	00	(Magnitude 7)
	P	ePKKPZ		51	31	
	PX	eLN	24	06.3		
		eL2N	25	06		
	MW	ePZ	23	36	09	
		iZ		39	42	
	SB	eZ		39	54	
	T	ePZ		36	07	
		eZ		39	36	
		iZ		40	23	
	Pr	ePZ		36	41	
		eZ		40	21	
		ePKKPZ		51	38	

Date	Sta.	Phase	h	m	s	Remarks
Oct.21	P	iPZ	08	38	53	Tu iP 08 38 35 c
		iZ			57	
		iZ		39	01	
	MW	ePZ		38	54	
	R	ePZ			51	
	SB	ePZ			59	
	T	iPZ		39	11	
	H	ePZ			06	
	Pr	iPZ		38	47	
Oct.21	P	iPZ	11	07	22	Tu iP 11 07 03 c
		iZ			36	
	MW	iPZ			23	
	R	ePZ			19	
	T	iPZ			40	
	Pr	iPZ			15	
Oct.21	P	iPEZ	16	22	49	Normal. Tu iP 16 23 21 c
		iNEZ			51 c	Felt widely in Southern
	PX	iSNE		23	21	California and Arizona.
	MW	iPZ		22	49	Minor damage (Plaster, glass
		iSN		23	21	etc.) at San Diego, El Cent
	R	iPNEZ		22	41 d	Escondido, ets.
		iSNE		23	02	Many rock slides near the
	SB	iPZ			10	epicenter
		iSE?		24	11	33°58'N.116°00'W.,
	LJ	iPNEZ		22	34 c	O=16:22:13
	T	iPNEZ		23	22	Magnitude 6.5
	H	iPNEZ			10	
		iSE		24	13	
	Pr	iPZ!		22	30	
Oct.22	P	ePZ	01	51	14	Normal. Tu 01 51 42 c
		iPNEZ			15 c	33°14'N.115°43'W.,
		iSNE			48	O=01:50:38
	MW	ePEZ			14	Magnitude 5.7
		iSNE			48	
	R	iPNEZ			06 c	
	SB	ePNZ			35	
	LJ	iPNE			03 c	
	T	ePZ			44	
	H	iPZ			32	
Oct.25	MW	ePZ	03	08	47	Tu iP 03 07 54
	T	ePZ		09	02	
Oct.25	P	iPZ	06	24	53	Tu iP 06 25 31
	MW	iPZ			53	
	T	iPZ			39	
	H	iPZ			44	
Oct.25	P	ePZ	07	10	09	Normal. Tu eP 07 10 34
	PX	eLZ		32.7		
	MW	ePZ		10	10	
	R	ePZ			17	
	T	ePZ			22	
	H	iPZ			21	
Oct.25	P	ePZ	08	53	33	Normal. Tu eP 08 53 46
		iNEZ!			46	i 54
		eZ		56	02	i 57 44
		eZ		57	04	
		iZ			17	
		iZ			29	
	PX	iZ		59	14	
		eLZ	09	33.6		
	MW	ePZ	08	53	35	
		iZ			46	
		iZ			58	
		eZ		56	46	
		eZ		57	05	
		iZ			30	

(Continued)

Date	Sta.	Phase	h	m	s	Remarks
		(Continued)				
Oct.25	R	ePZ	08	53	36	
		iZ			47	
		eZ		56	09	
		eZ		57	07	
		eZ			22	
		eZ			37	
	SB	iPZ		53	43	
	LJ	iPNEZ			47	
		eZ		57	26	
	T	eZ		53	30	
		iZ			41	
		iZ		56	27	
		eZ			59	
		eZ		57	24	
	H	iZ		53	43	
		eZ		57	03	
		eZ			27	
Oct.25	P	iPZ	12	54	41	Tu eP 12 54 46
	MW	iPZ			41	
	T	iPZ			31	
Oct.25	P	ePZ	18	19	53	Tu eP 18 19 12
	MW	ePZ			52	
Oct.26	P	iPZ	15	19	59	Deep Tu iP 15 20 21 d
		iZ		20	10	i 29
		eZ			48	i 21 09
	MW	iPZ			00	
		eZ			10	
		eZ			48	
	R	ePZ			01	
	SB	eZ			31	
	T	iPZ			09	
		iZ			58	
	H	eZ			02	
		eZ			54	
	Pr	ePZ			01	
Oct.26	P	iPNEZ	21	20	01 c	Normal? Tu iP 21 20 36
		iZ			39	iP'P' 48 13
		iSNEZ		28	49	USGCS: 45.1°N. 152.0°E.,
	PX	eLZ		35	5	O=21:09:09
	P	iP'P'Z		48	32	
	MW	ePZ		20	01 c	
		eSNEZ		28	48	
		iP'P'Z		48	33	
	R	ePZ		20	03	
		eSEZ		28	57	
		eP'P'Z		48	24	
	SB	ePNE		19	56	
		iSNE		28	40	
	LJ	iPZ		20	12	
	T	iPZ		19	51	
		iSZ		28	26	
		eP'P'Z		48	32	
	H	iPNEZ		19	56	
		iSEZ		28	35	
Oct.26	P	iPZ	23	46	46	Tu eP 23 47 24
	MW	ePZ			45	iS? 48 19
	R	iPZ			30	
	LJ	ePZ			28	
	T	eZ		47	28	
	H	iZ			13	
Oct.27	P	iPZ	08	30	27	Tu eP 08 31 03
	MW	iPZ			28	
	T	ePZ			19	
Oct.27	P	iPZ	17	29	39	Tu iP 17 29 06
	MW	iPZ			38	
	R	ePZ			36	
	T	ePZ			51	
Oct.27	MW	iPZ	17	36	31	Tu iP 17 36 54

Date	Sta.	Phase	h	m	s	Remarks
Oct.27	P	iPZ	17	49	20	Tu iP 17 48 26 c
		iZ		52	13	i 49 02
	MW	iPZ		49	21	i 55 32
		iZ			44	
		eZ		50	46	
	R	ePZ		49	14	
		eZ			36	
		eZ		52	11	
	T	iPZ		49	35	
		iZ		52	19	
		iZ		55	56	
	H	ePZ		49	29	
Oct.28	P	iPNEZ	10	50	29 d	Normal. Tu iP 10 49 34 d
		iPcPZ		53	47	USCGS: 15.4°N. 96.0°W.,
	PX	eSE		55	33	O=10:44:43
		eLE		58		
	MW	iPZ		50	29 d	
		ePcPZ		53	36	
	R	iPZ		50	23	
		iPcPZ		53	45	
	SB	ePZ		50	37	
	LJ	ePNZ			16	
	T	iPEZ			47	
		ePcPZ		53	53	
	H	iPNEZ		50	40	
Oct.28	P	iPZ	15	40	02	Tu iP 15 40 28
		iZ			21	
	MW	iPZ			02 d	
	R	ePZ			05	
Oct.29	P	iPNEZ	21	44	15 c	Normal? Tu iP 21 44 47 c
		iZ		45	09	Marianne Islands
	PX	iSNE		54	16	
		iN		55	53	
		eLN	22	07	8	
	MW	ePNE	21	44	16	
		eSNE		54	17	
	R	iPNEZ		44	18 c	
		eSNE		54	19	
	SB	ePE		44	02	
	LJ	ePZ		44	22	
	T	iPNEZ		44	11 c	
		iZ		45	07	
		iZ		47	30	
		eSN		54	08	
		iZ	22	13	45	
	H	iPNEZ	21	44	14 c	
		iZ		45	09	
		eE		55	19	
Oct 31	P	iPZ	15	30	20	Tu eP 15 29 25
		iZ			32	i 31
		iPcPZ		32	53	iPcP 32 38
		iZ		33	06	i 52
	MW	ePZ		30	25	e 33 07
	R	iPZ			15	Central America
		iPcPZ		32	52	
		iZ		33	06	
	T	iPcPZ		32	58	
		iZ		33	13	
Oct.31	P	eZ	22	51	13	Tu iP 22 49 48
	MW	ePZ		50	43	e 55 39
		iZ		57	44	
	R	ePZ		50	38	
	H	ePZ			54	

Date	Sta.	Phase	h	m	s	Remarks
Nov. 1	P	eZ	15	44	00	Tu e 15 44 0
						i 44 43
	MW	eZ			00	
	R	eZ		43	54	
	T	eNEZ		44	12	
Nov. 1	P	ePNEZ	18	53	28	Normal. Tu iP 18 53 59
		iNEZ		57	51	Felt in British Columbia,
	MW	iPZ		53	29	Washington, Idaho and
		iZ		57	40	Montana.
	R	ePZ		53	30	
		eZ		57	55	
	LJ	ePZ		53	49	
	T	ePNZ		52	53	
		eZ		56	12	
	H	eNE			43	
Nov. 2	MW	iPZ	20	33	26	Tu iP 20 33 47
	R	ePZ			27	
Nov. 2	R	iPZ	21	45	29	Tu iP 21 46 18
Nov. 2	P	iPNEZ	22	56	56 c	Tu eP 22 57 24
	MW	iPNEZ			56 c	e 23 01 17
	R	iPNEZ			59 c	
	LJ	iPNZ			59	
	T	iPNEZ			58	
	H	iPZ			58	
	Pr	iPZ		57	02	
Nov. 3	P	ePZ	00	11	18	Normal. Tu eP 00 11 41
	PX	eE		16	23	19°S.173°W.,
		eNZ		21	11	O=23:59:36
		eLNE		30.1		Apia reports:
	MW	ePZ		11	19	P=00:00:56
	R	ePZ?			20	S= 01:58
		iZ			26	
	LJ	ePZ			23	
	T	iPZ			32	
	H	iPZ			31	
Nov. 3	P	iPZ	01	33	22	Tu eP 01 33 37
	MW	ePZ			23	
	R	ePZ			21	
	T	iPZ			43	
	H	ePZ			35	
Nov. 3	P	iZ	13	33	24	Tu eP 13 33 48
		iZ			58	i 34 00
	MW	ePZ			15	
		iZ			26	
	R	ePZ			13	
		iZ			28	
	T	ePZ			14	
Nov. 3	P	iPZ	16	53	55	Tu iP 16 53 25 c
	MW	iPZ			55	i 43
	R	iPZ			53	Felt at Santiago
	LJ	ePZ			47	de Chile
	T	iPZ		54	09	
		iZ			34	
	H	iPZ			03	
Nov. 3	MW	ePZ	23	42	40	Tu iP 23 44 55
		eZ		45	43	e 46 32
Nov. 4	P	iZ	20	53	11	Tu iP 20 53 38
	MW	ePZ		52	52	i 53
		iZ		53	09	
Nov. 5	P	iPZ	01	39	39	Tu eP 01 40 02
	MW	iPZ			37	
	R	iPZ			40	
	Pr	ePZ			42	
Nov. 5	MW	iPZ	03	04	19	Tu eP 03 03 34
	R	ePZ			11	
	T	ePZ			41	
	Pr	ePZ			09	

Date	Sta.	Phase	h	m	s	Remarks
Nov. 5	P	ePZ	10	46	04	Tu eP 10 45 19
	MW	iPZ			07	
	R	ePZ			00	
	T	iPZ			30	
		iZ			36	
Nov. 5	P	iPZ	11	39	33	Normal? Tu iP 11 39 59c
		iZ			51	Wellington: 18°S.168°E.,
	PX	eLZ	12	04.7		O=11 26 8
	MW	iPZ	11	39	36	
	R	ePZ			37	
		iZ		40	04	
	T	iPZ		39	42	
	Pr	ePZ			38	
Nov. 5	P	iPZ	11	53	46	Tu iP 11 52 53
		iZ		54	05	Central America
		iZ		56	37	
	MW	iPZ		53	48	
		iZ		56	37	
	R	iPZ		53	41	
		iZ		56	37	
	T	iPZ		54	02	
		eZ		56	40	
Nov. 6	P	iPZ	07	54	10	Tu eP 07 54 17
	MW	ePZ			08	
	R	ePZ			12	
Nov. 6	P	iPZ	10	33	19	Tu iP 10 33 37
	R	ePZ			20	i 48
		eZ			35	
Nov. 6	P	iPNEZ	13	40	40 d	Deep. Tu iP 13 39 57 d
		ipPNEZ		41	11	ipP 40 28
		isPZ			35	eP'P' 14 10 30
	PX	iSNEZ		48	23	Peru
		eLN		55		h=110 km.
	P	eP'P'Z	14	10	25	
		iZ			47	
	MW	iPNEZ	13	40	39 d	
		ipPZ		41	08	
		iSNEZ		48	22	
		eP'P'Z	14	10	36	
	R	iPNEZ	13	40	35 d	
		ipPZ		41	06	
		eSNEZ		48	12	
	LJ	iPZ		40	29 d	
		iZ		41	29	
	T	iPNEZ		40	53	
		eP'P'Z	14	10	43	
Nov. 7	P	iPNZ	04	09	36	Tu iP 04 08 43 d
	MW	iPZ			35	
	R	iPZ			31	
	T	iPZ		10	06	
Nov. 7	P	iP"NEZ	07	50	51	Deep. Tu iP" 07 51 03
		ipP"Z		51	15	ipP" 38
		isP"Z			41	isP" 53
		ePPZ		52	23	i 54 12
		eSKPZ		53	47	i 34
		ipPKSNEZ		54	19	i 56 32
		iPPPZ			56	iPKKP 08 00 44
		ipPPPZ		55	18	Using Australian, New
		iSKSNE		57	40	Zealand and other stations,
		ipSKSNE		58	18	we find: 8.5°.123°E.,
		iPKKPZ	08	01	10	O=07:32:09,
	PX	iSPZ			43	h=100 km
	P	eSKKPZ		04	33	Wellington gives:
	PX	eLZ		29.4		7°S.123°E.,
	MW	iP"Z	07	50	52	O=07:32.0,
		iZ		51	15	h=180-200 km
		iZ		54	19	
		iSKSZ		57	45	
		iPKKPZ	08	01	10	

(Continued)

Date	Sta.	Phase	h	m	s	Remarks
				(Continued)		
Nov. 7	R	iP"Z	07	50	53	
		ePKKPZ	08	01	08	
	LJ	iP"Z	07	50	54	
	T	eP"Z		50	53	
		iZ		51	08	
		ePKKPZ	08	01	11	
Nov. 7	P	eZ	14	16	00	Tu iP 14 16 25
	MW	eZ		16	03	
	R	eZ			09	
	T	eZ		15	57	
Nov. 8	P	iPZ	05	52	10	Normal? Tu eP 05 52 24
		iZ			17	e 32
	MW	iPZ			10	
		iZ			17	
	R	ePZ			10	
		eZ			18	
Nov. 8	P	ePZ	06	54	51	Tu eP 06 54 07
		eSNE		55	57	eS 55.2
	MW	ePZ		54	49	
		iSZ		56	02	
	R	ePZ		54	36	
		eSZ		55	43	
	Pr	iPZ		54	14	
		iZ			26	
		eSZ		55	13	
Nov. 8	P	iPZ	10	01	38	Tu iP 10 02 24 c
		ipPNEZ		02	05	ipP 52
	MW	iPZ		01	38	esP 03 05
		ipPZ		02	06	Aleutian Islands
		isPZ			18	
	R	ePZ		01	43	
		ipPZ		02	09	
	LJ	iPNZ		01	50	
		epPNZ		02	18	
	T	ePZ		01	23	
		ipPNEZ			49	
		esPZ		02	01	
Nov. 8	P	ePZ	10	27	15	Tu eP 10 26 36
		iZ			23	i 46
	MW	ePZ			15	Peru
		iZ			24	
	R	ePZ			11	
		iZ			20	
	T	eZ			37	
Nov. 9	P	iPZ	03	22	54	Tu eP 03 23 07
		iZ		25	07	i 25 38
	MW	iPZ		22	54	
		iZ		25	07	
	R	ePZ		22	55	
		eZ		25	08	
	T	ePZ		22	52	
Nov. 9	P	iPNEZ	04	09	07	Tu iP 04 09 19
		iZ		11	19	i 11 52
	MW	iPZ		09	07	
		eZ		11	19	
	R	iPZ		09	08	
	T	iPZ			05	
	Pr	iPZ			09	
Nov. 9	MW	ePZ	07	15	57	Tu eP 07 15 14
	R	ePZ			43	
Nov. 9	P	iPZ	10	41	47	Tu eP 10 42 01
		iZ		42	00	e 14
	MW	iZ			01	
	R	ePZ		41	49	

Date	Sta.	Phase	h	m	s	Remarks
Nov. 9	P	iPNZ	22	04	20	Tu eP 22 03 34
	MW	iPZ			21	
	R	ePZ			17	
	Pr	iPZ			15	
Nov.10	P	iP:Z	12	01	15 d	Tu iP: 12 01 06 d
	PX	ePPSN		18.2		Normal. USCGS:
		iSSN		24.6		46 1/2°S.35°E.,
		iSSSN		29.6		O=11:41.3
		iLN		43.1		Pasadena:49 1/2°S.32°E.,
		iMNZ		54.4		O=11:41:27
		iM2N	13	10.2		South Africa
		eL4N	15	15		Pasadena distant 153°
	MW	iP:Z	12	01	15 d	Great earthquake
	R	eP:Z			14	(Magnitude 7 3/4)
	T	eP:Z			16	
	Pr	eP:Z			20	
Nov.10	P	ePZ	13	35	22	Tu eP 13 35 07
	MW	ePZ			23	
	R	ePZ			21	
Nov.10	P	ePZ	14	01	58	Tu eP? 14 01 44
	MW	iPZ			57	
	R	ePZ			59	
Nov.10	P	iPZ	20	02	51	Tu iP 20 03 29
	MW	iPZ			51	
Nov.10	P	iPZ	21	54	24	
	MW	iPZ			24	
	T	ePZ			31	
Nov.11	P	iZ	01	48	17	Tu i 01 48 53
		iZ			51	
	MW	iZ			17	
		eZ			51	
Nov.11	P	iPZ	02	12	27	Tu iP 02 11 43
	MW	iPZ			26	
	R	iPZ			25	
	T	ePZ			41	
Nov.11	MW	ePZ	08	33	53	
	R	ePZ			52	
	T	ePZ		34	04	
Nov.11	P	iPZ	10	19	45	
	MW	iPZ			45	
	R	ePZ			43	
	T	ePZ			52	
Nov.11	P	ePZ	10	43	09	
	MW	iPZ			11	
	R	iPZ			07	
	T	ePZ			17	
Nov.11	P	iPNZ	13	13	38	Deep? Tu eP 13 12 43
		iZ			51	i 13 02
		eNE		14	03	i. 08
		iPcPZ		15	42	Central America
		iZ		16	01	
	PX	eSE		18	43	
		eLZ		26.1		
	MW	iPZ		13	37	
		iNEZ		14	00	
		iPcPZ		15	43	
		iZ		16	00	
		eScPZ		19	33	
	R	ePZ		13	33	
		eZ			50	
		iPcPZ		15	40	
		iZ			58	
	T	ePZ		13	52	
		eZ		14	09	
		iZ		16	07	
	Pr	eZ		13	48	
Nov.11	P	iPZ	17	08	51	Tu iP 17 08 37

Date	Sta.	Phase	h	m	s	Remarks
Nov.12	P	iPNEZ	05	01	13 d	(Deep) Tu iP 05 00 16 d
		iNEZ			31	Damage at Tehuantepec,
	PX	iSZ		06	22	Mexico.
		eLZ		09	Q	Tacubaya: 16°28'N 94°26'W.,
	MW	ePZ		01	12	O=04:55:29
	R	ePZ			07	Pasadena: 17.2°N.94.2°W.,
		iSZ		06	13	O=04:55:34
	SB	ePZ		01	24	h=90 km
	T	iPZ			29	
	Pr	ePZ			01	
		iZ			19	
Nov.12	P	iPZ	05	33	40	
	MW	ePZ			42	
Nov.12	P	ePZ	10	50	50	
	MW	ePZ			48	
	R	ePZ			47	
Nov.12	P	iPZ	11	50	19	
	MW	iPZ			19	
Nov.12	P	ePZ	12	00	04	
	MW	iPZ			03	
		iZ			11	
		iZ			20	
	R	iPZ			04	
Nov.12	P	iPZ	12	20	13	Deep. Tu iP 12 20 50
		iZ			32	i 21 10
	MW	iPZ			13	
		iZ			32	
	R	ePZ			16	
		eZ			32	
		eZ			49	
	T	iPZ			01	
Nov.12	P	ePZ	15	16	50	Tu eP 15 15 58
	MW	ePZ			51	
	R	ePZ			45	
Nov.12	P	iPNEZ	15	35	04	Tu eP 15 34 17
		iZ			53	i 46
	PX	iZ		37	06	USCGS: 0.1°S.81.0°W.,
		eSNEZ		42	10	O=15:26.3
		eSSE		45	40	
		eLNE		49		
	MW	iPZ		35	04	
		iZ		37	22	
	R	ePZ		35	00	
	SB	ePNZ			15	
	T	iPZ			19	
		iNE			33	
	Pr	ePZ		34	55	
Nov.12	P	ePNEZ	16	10	13	Tu iP 16 09 28
	MW	ePZ			14	
	R	ePZ			09	
	SB	iPZ			26	
	T	iPZ			30	
Nov.12	P	ePNEZ	18	08	44	Normal. Tu iP 18 07 59
	PX	eLZ		21		
	MW	ePZ		08	44	
	R	iPZ			41	
	T	ePZ		09	00	
Nov.12	P	iPZ	22	38	58	Tu iP 22 38 11
	PX	eLZ		54		
	MW	iPZ		38	58	
	R	iPZ			54	
	T	ePZ		39	12	

Date	Sta.	Phase	h	m	s	Remarks
Nov.13	P	iPNEZ	00	54	44	Deep? Tu eP 00 53 55
		iNZ		55	57	e 55 08
	MW	iPZ		54	45	e 56 07
		iZ		55	57	
		iZ		56	51	
	R	ePZ		54	39	
		iZ		55	53	
		iZ		56	45	
	T	ePZ		55	02	
Nov.13	P	ePZ	06	09	18	Tu iP 06 09 03
		iZ			30	
	MW	ePZ			17	
		iPZ			25	
	R	iPZ			16	
		iZ			27	
Nov 13	MW	iPZ	06	47	13	Tu eP 06 47 24
		iZ			19	e 31
Nov.13	P	iPZ	07	30	50	Tu eP 07 30 03
	MW	iPZ			50	
	R	ePZ			44	
Nov.13	P	iPNEZ	08	21	20	Tu iP 08 20 33
		iZ		22	24	
	MW	iPZ		21	20	
		eZ		22	15	
	R	iPZ		21	14	
	T	ePZ			35	
Nov.13	P	ePZ	10	22	30	
	MW	ePZ			30	
Nov,13	P	ePZ	10	44	06	Tu eP 10 44 21
		iZ			13	
		eZ		45	01	
	MW	iPZ		44	05	
		iZ			13	
		iZ		45	01	
	T	ePZ		43	45	
Nov.13	P	iPNEZ	23	05	58 d	Tu iP 23 06 21 d
		iNEZ!		06	02 d	i! 25 d
	MW	iPZ		05	58 d	i 40 d
		iZ!		06	02 d	
		iZ		07	57	
	R	iPZ		06	00	
		iZ!			04 d	
	SB	iPZ		05	53	
		iPZ			57	
	T	iPZ		06	06	
		iZ			11	
Nov.14	MW	iPZ	03	08	42	Tu iP 03 09 13
	R	iPZ			46	
	T	iPZ			38	
Nov.14	P	iPZ	04	01	37	Tu iP 04 02 08
	MW	iPZ			39	
	R	iPZ			41	
	T	iPZ			31	
Nov.14	P	iPNEZ	05	34	38	Normal? Tu e 05 35 08
	PX	ePPZ		38	27	e 39 14
		iS		45	37	Southwest Pacific
		ePSE		47	37	
		eLEZ	06	04		
	MW	iPZ	05	34	38	
		iZ		35	12	
	R	iPZ		34	42	
	T	ePZ			40	
Nov.14	P	ePZ	06	27	52	Tu eP 06 27 02
	MW	iPZ			52	
		eZ		28	54	
	R	ePZ		27	54	

Date	Sta	Phase	h	m	s	Remarks
Nov 14	P	ePZ	14	20	05	
		iZ			12	
	MW	ePZ			05	
	R	ePZ			14	
	T	ePZ		19	47	
Nov 14	P	iPNEZ	18	07	39	Normal? Tu eP 18 06 51
		iNEZ			45	Ecuador
	PX	ePPNZ		09	14	
		iSNE		14	52	
		iLNEZ		22	58	
	MW	iPZ		07	40	
	R	ePZ			33	
	T	ePZ			53	
		iZ		08	02	
Nov 14	P	iPNEZ	21	05	45 d	Normal? Tu iP 21 04 58
	PX	eLZ		21.1		
	MW	iPZ		05	46	
	R	iPZ			40	
	T	iPZ			59	
Nov 14	P	iZ	21	16	33	Tu eP 21 15 35
	MW	ePZ			21	
	R	ePZ			16	
Nov 14	MW	ePZ	21	42	14	Tu eP 21 41 29
	R	ePZ			10	
Nov 14	MW	iPZ	21	48	25	Tu iP 21 47 39
	R	ePZ			20	
Nov 14	MW	ePZ	21	57	56	Tu eP 21 57 11
	R	ePZ			52	
Nov 15	P	ePZ	00	54	50	Normal. Tu eP 00 55 04
	PX	eLZ	01	10.1		
	MW	iPZ	00	54	51	
	R	ePZ			55	
	T	ePZ		55	09	
Nov 15	P	iPZ	05	09	03	Tu eP 05 08 29
	MW	iPZ			03	
	R	iPZ			00	
Nov 15	P	iPZ	16	13	02	Tu iP 16 12 10
	MW	iPZ			02	
	R	ePZ		12	53	
Nov 15	MW	iPZ	16	47	20	Tu iP 16 46 33
	R	iPZ			14	
Nov 15	P	ePZ	17	23	56	Normal? Tu iP 17 24 30
		iZ		24	01	i 43
		iNEZ			13	i 53
		iPPZ		26	38	Japan:
	PX	eSZ		33	46	USCGS: 35 1/2°N 142 1/2°E.,
		iSNE			50	O=17:12.2
		iNE		34	11	
		eLNE		44.0		
	MW	ePZ		23	55	
		iZ		24	00	
		iNEZ			09	
		eSE		33	50	
	R	ePZ		24	00	
		iZ			12	
	SB	ePZ		23	51	
		iNEZ		24	03	
	LJ	ePZ		24	06	
		eNE			18	
		iNEZ			24	
	T	iPZ		23	50	
		iZ		24	02	

Date	Sta	Phase	h	m	s	Remarks
Nov 17	P	iPZ	10	14	41 d	Normal? Tu iP 10 15 01 d
		iZ			55	i 14
	PX	eN		25.9		
		eLZ		39.2		
	MW	ePNE		14	44	
	R	iPNEZ			43 d	
		iZ			56	
	T	iPZ			52	
		iZ		15	06	
	Pr	iPZ		14	44 d	
		iZ		15	06	
Nov 17	P	iPZ	20	44	26	Tu eP 20 43 37
	MW	ePZ			27	
	R	iPZ			20	
	Pr	iPZ			18	
Nov 17	P	eZ	23	30	16	Normal. Tu iP 23 29 31
	PX	eSNE		38	58	South America
		eLZ		51		
	MW	ePZ		30	09	
	R	iPZ			05	
	T	iPZ			23	
	Pr	iPZ			01	
Nov 17	R	ePZ	23	41	44	Tu eP 23 41 09
Nov 18	MW	iPZ	00	35	07	Tu iP 00 34 13
	R	iPZ			07	
Nov 18	R	iPZ	02	58	21	Tu iP 02 57 38
		iZ			35	e 48
	Pr	iPZ			17	
Nov 18	PX	eLZ	07	46		Normal. Tu iP 07 20 03
	MW	iPZ?		20	12	
Nov 18	P	iPNEZ	07	57	59	
	R	iPZ			48	
	Pr	iPZ			46	
		iZ		58	21	
Nov 19	P	ePZ	09	00	38	Normal Tu eP 08 59 51
		eNEZ			42	iP 56
		ePPZ		02	03	USCGS: 0.5°S 81.5°W.,
	PX	eSZ		07	48	O=0:51:51
		iSNE			54	
		eSSN		11	32	
		eLE		13.5		
	MW	ePE		00	43	
	R	iPZ			34	
		iZ			38	
		iZ		02	22	
	SB	ePZ		00	49	
	LJ	ePNZ			30	
	T	iPZ			55	
		iZ		02	25	
	H	ePNE		00	55	
	Pr	ePZ		00	27	
		iZ			45	
		iZ		02	16	
Nov 19	P	ePZ	09	12	07	Aftershock. Tu iP 09 11 20
	R	ePZ			04	
	Pr	ePZ		11	58	
Nov 19	P	iPNEZ	09	17	36	Normal. Aftershock
		iZ		18	56	Tu iP 09 16 50
	PX	iSE		24	34	
		iLZ		32	59	
	MW	ePNE		17	39	
	R	ePZ			32	
		iZ		18	53	
	SB	ePNEZ		17	48	
		iZ		19	09	
	LJ	ePN		17	26	
	T	iPZ			51	
		iZ		19	08	
	Pr	iPZ		17	26	
		iZ			47	

Date	Sta.	Phase	h	m	s		Remarks
Nov. 19	P	iPNEZ	10	01	42		Tu iP 10 00 55
	R	iPZ			38		
	LJ	ePZ			31		
	T	iPZ			32		
	Pr	iPZ			32		
Nov. 19	P	iPZ	10	54	35		Tu iP 10 53 49
	R	iPZ			31		
	Pr	iPZ			26		
Nov. 19	P	iPNZ	10	58	40		Tu iP 10 57 53
	R	iPZ			34		
	Pr	iPZ			29		
Nov. 19	P	iPNEZ	13	43	31	c	Tu iP 13 42 43 d
	R	iPZ			25	d	
	LJ	iPNZ			20		
	T	iPZ			45		
	Pr	iPZ			19		
Nov. 19	P	ePZ	14	48	45		Tu iP 14 47 58
		iPcPZ		52	24		Ecuador
	PX	iLNEZ	15	04	00		
	R	iPZ	14	48	40		
		iPcPZ		52	16		
	T	ePZ		49	00		
		eZ		50	21		
		iPcPZ		52	35		
	Pr	iPZ		48	37		
		eZ		50	31		
		ePcPZ		52	10		
		iZ		52	18		
Nov. 19	P	iPZ	16	41	38		Tu iP 16 40 48
	R	iPZ			30		
	T	iPZ			50		
	Pr	iPZ			25		
Nov. 20	R	ePZ	04	09	50		Deep? Tu iP 04 09 01
		eZ		10	21		i 19
		iZ			25		i 29
	T	iPZ		10	12		
		iZ			42		
	Pr	iPZ		09	46		
		iZ		10	05		
		iZ			15		
Nov. 20	P	iPZ	23	08	18		
	R	iPZ			15		
	T	iPZ			30		
		iZ			56		
		eZ		10	33		
	Pr	iPZ		08	10		
Nov. 21	R	ePZ	03	28	27		Tu iP 03 27 45
	T	ePZ			48		
	Pr	ePZ			22		
Nov. 21	P	iPNEZ	03	33	57		Tu iP 03 33 10
	R	iPZ			52		
	LJ	ePNZ			46		
	T	ePZ		34	11		
	Pr	iPZ		33	46		
Nov. 21	P	eZ	14	19	49		Tu eP? 14 19 32
	PX	eLZ		59			Damage in Turkey
	Pr	eZ		19	53		
Nov. 22	PX	eLNE	17	20			Normal?
	R	iPZ	15	55	22		
	T	iPZ			26		
	Pr	iPZ			19		
Nov. 23	P	iZ?	07	40	53		
		iZ		41	12		
	T	iPZ			21		
	Pr	ePZ			16		

Date	Sta.	Phase	h	m	s		Remarks
Nov. 24	P	iPZ	00	21	59		Tu iP 00 21 49
		iZ		23	30		e 22 49
		iZ		25	31		e 24 18
	MW	iPZ		21	59		e 32 42
		eZ		23	30		
	R	iPZ		21	58		
	T	iPZ		22	03		
		eZ		23	31		
	H	ePZ		22	02		
Nov. 24	P	ePZ	10	52	40		Tu iP 10 53 12
	R	ePZ			44		i 27
	T	iPZ			08		
	H	iPZ			15		
Nov. 24	R	ePZ	11	08	14		Deep? Tu eP 11 08 38
		eZ			45		e 09 09
	T	ePZ			17		
		eZ			46		
Nov. 25	P	iPEZ	01	23	28	c	Normal Tu iP 01 22 29
		ePcPZ		27	05		USCGS: 16.6°N 97.8°W.
	PX	iSNEZ		28	08		O=01:18.0
		eLNE		30.9			Destruction at Pinotepa
		iScSNE		31	58		Nacional, Mexico.
	MW	iPNEZ		23	28		
	R	iPNEZ			23		
		eSNE		27	57		
	SB	iPZ		23	39		
	LJ	ePZ			13		
	T	iPNEZ			46		
	H	iPNEZ			38		
	Pr	iPZ			16		
		iZ		23	52		
		eZ		27	47		
Nov. 25	P	ePZ	08	18	54		Tu iP 08 18 07 d
	MW	iPZ			55	d	i 14
	R	iPZ			49		i 28
	T	ePZ		19	09		
	Pr	iPZ		18	45	d	
Nov. 26	P	ePNEZ	10	05	49		Tu iP 10 06 14
	PX	eLZ		27.2			Near Apia, which reports
	MW	ePZ		05	48		P=09:54:54, S=09:55:15,
	R	ePZ			52		and gives
	LJ	ePZ			50		15.0°S.172.9°W.,
	T	ePZ		06	00		O=09:54:26
	Pr	ePZ		05	52		
Nov. 26	MW	ePZ	13	09	37		Tu eP 13 10 02
	Pr	ePZ			39		Near Apia
Nov. 26	P	iPZ	14	38	20	c	Deep. Surface waves small
		iNEZ			24	c	USCGS: 44°N.147°E.,
		iZ			44		O=14:27.3
	PX	iSNEZ		47	11		Pasadena: 45.5°N.150°E.,
		iN		48	11		O=14:27:28, h=100 km
		eSSE		51	41		Tu iP 14 38 55 c
		eLNE		54.7			i 39 24
	P	eP:P:Z	15	06	45		eP:P: 15 06 31
	MW	iPZ	14	38	20		
		iZ			50		
		eP:P:Z	15	06	47		
	R	iPNEZ	14	38	23	c	
		iZ			55		
		eP:P:Z	15	06	42		
	SB	ePZ	14	38	14		Addenda as follows:
		eSE		47	04		H iPNEZ 14 38 13 c
	LJ	ePN		38	33		iSNE 47 01
	T	iPNEZ			08		eP:P:Z 15 06 45
		iNZ			41		Pr iPZ 14 38 29
		eSNEZ		46	52		eP:P:Z 15 06 08
		eP:P:Z	15	06	39		eZ 38

Date	Sta.	Phase	h	m	s		Remarks
Nov. 26	P	iPZ	21	31	59		Deep? Tu eP 21 32 24
	MW	iPZ			59		e 38
	R	ePZ		32	01		Near Apia
	T	iPZ			09		
	H	iPZ			07		
	Pr	iPZ			01		
Nov. 27	P	iPZ	10	58	11		Normal. Tu ip 10 59 29 c
	PX	eNE	11	00.5			
	MW	ePZ	10	58	12		
	R	ePZ			18		
	T	ePZ		57	46		
	H	ePNZ		58	10		
	Pr	ePZ			31		
Nov. 27	P	ePZ	18	43	05		Normal. Tu e 18 42 26
	PX	eLN	19	04.9			
	MW	ePZ	18	43	07		
	T	ePZ		42	50		
	Pr	eZ			58		
Nov. 28	P	iPZ	10	50	53		Normal? Tu iP 10 50 19 d
	PX	iSNEZ	11	00	58		USCGS: 7.3°N. 36.8°W.,
		eLZ		12.6			O=10:38.8
	MW	iPZ	10	50	54		
	R	ePEZ			51	d	
	SB	iPZ			59		
	T	ePZ			54	d	
		iSN	11	00	47		
	H	ePEZ	10	50	54		
		eSNE	11	00	59		
	Pr	iPZ	10	50	49	d	
Nov. 28	P	iPZ	15	15	46		Deep? Tu eP 15 14 52
		iPcPZ		18	20		i 15 07
		iZ!			34		iPcP 18 03
	MW	iPZ		15	44		i 18
		iZ		18	19		Central America
	R	iPZ		15	40		
		iPcPZ		18	17		
		iZ			32		
	T	iPZ		16	00		
		iPcPZ		18	24		
		iZ			40		
	Pr	iPZ		15	34		
		iZ			47		
		iPcPZ		18	16		
		iZ			30		
Nov. 30	P	iPNZ	00	59	13	d	Deep! Tu iP 00 58 42
		iNEZ!			17	c	i 46
		ipPZ	01	01	17		epP 01 00 44
		esPZ		02	26		eS 07 35
	PX	eSNEZ		08	32		eP'P' 25 57
	MW	iPZ	00	59	12	d	e 28 24
		epPZ	01	01	09		i 54
		iZ			20		South America
		iSNEZ		08	32		Pasadena: 27°S. 63°W.,
		eZ		28	36		O=00:47:57
	R	ePZ	00	59	10		h=580 km
		iZ			14		
		epPZ	01	01	15		
		eSN		08	26		
	SB	ePZ	00	59	19		
		iNZ			22		
		eSE	01	08	43		
	T	iPNZ	00	59	23	d	
		iEZ			27		
		ipPNZ	01	01	28		
		eSNEZ		08	52		
		eP'P'Z		25	51		
		iZ		28	28		
		eZ			58		

(Continued)

Date	Sta.	Phase	h	m	s		Remarks
				(Continued)			
Nov. 30	H	ePZ	00	59	19	d	
		iNZ			23		
		ipPZ	01	01	23		
		iSNEZ		08	44		
		eP'P'Z		25	56		
	Pr	iPZ	00	59	06		
		iZ!			10		
		ipPZ	01	01	19		
		isPZ		02	13		
		eSZ		08	21		
		eP'P'Z		26	02		
Nov. 30	P	iPNEZ	05	04	58		Deep? Tu iP 05 05 41
		iZ		05	14		P much smaller at Tucson
		iZ			25		than at Pasadena
	MW	iPZ		04	59		
		iZ		05	15		
		iZ			27		
	R	iPZ		05	02		
		eZ			22		
		eZ			29		
	SB	ePZ		04	45		
	T	iPZ		05	01		
	H	iPZ			01		
	Pr	iPZ			03		
Dec. 1	P	iPNEZ	02	50	34		Tu iP 02 49 48 c
	MW	iPZ			33	c	South America
	R	iPZ			29	c	
	T	iPZ			47		
	H	ePZ			41		
	Pr	iPZ			24	c	
Dec. 1	P	iPZ	07	10	42		Tu eP 07 11 12
	MW	iPZ			43		
	R	iPZ			45		
	T	iPZ			35		
	H	ePZ			38		
	Pr	iPZ			50		
Dec. 2	P	iZ	00	27	51		Normal. Tu eP 00 27 43
		ePPZ		31	32		ePKKP 44 58
	PX	eLZ		59			Strong on North Island,
	MW	ePZ		27	28		New Zealand. Wellington:
		ePPZ		31	25		41.1°S. 175.7°E.,
	R	ePZ		27	28		O=00:14.0
		ePPZ		31	40		
	T	eZ			37		
Dec. 2	P	ePZ	16	30	03		Tu i 16 33 24
	MW	ePZ			01		
	R	ePZ			04		
Dec. 2	MW	ePZ	17	10	51		Tu eP 17 09 51
	R	ePZ			44		
	T	ePZ		11	11		
Dec. 2	P	ePZ	19	18	19		Normal. Tu eP 19 19 12
		eZ		22	37		Felt in Turkey.
	PX	eLZ	20	06			
	MW	ePZ	19	18	19		
		eZ		22	46		
	T	ePZ		18	03		
	H	ePZ			07		
Dec. 3	P	ePZ	01	27	08		Normal. Tu e 01 31 35
		eZ		30	15		e 32 12
		eZ		31	46		i 42 28
	PX	eLZ		59			Phase in 42m may be
	MW	ePZ		27	09		PKKP, or else another
		eZ		28	13		shock.
		eZ		31	28		
	R	eZ		42	46		
	T	eZ		31	26		
		eZ		42	53		
	H	ePZ		27	05		

Date	Sta.	Phase	h	m	s		Remarks
Dec. 3	T	ePZ	03	54	43		Tu iP 03 55 00
	H	iPZ			41		
Dec. 3	P	iPNEZ	06	40	05		Deep? Tu iP 06 40 27 c
	MW	iPZ			06		i 44
	R	iPZ			08		i 42 37
	T	iPZ			14	c	
	H	iPZ			12	c	
	Pr	iPZ			08	c	
Dec. 3	P	iPZ	09	46	07		Normal. Tu eP 09 47 13
		iNEZ			29		Felt from Western Nevada
		iSEZ		47	39		into California.
	MW	iPEZ		46	07		39.7°N. 119.3°W.,
		iSE		47	46		O=09:44:42
	R	ePNZ		46	12		(Epicenter and origin
		iSNEZ		47	55		time determined by Lake
	SB	iPZ		46	24		Mead Stations.)
		iSN		47	19		
	T	ePNEZ		45	25		
		iNEZ			31		
		iSNE		46	27		
	H	iPZ		45	47		
Dec. 4	P	ePZ	06	03	26		Tu iP 06 02 18
	MW	ePZ			21		
	R	ePZ			21		
	T	iPZ			50		
	H	ePZ			42		
	Pr	ePZ			12		
Dec. 4	MW	iPZ	13	19	42		Tu iP 13 18 47
	R	ePZ			35		e 19 23
	T	ePZ			57		
	Pr	iPZ			31		
Dec. 4	P	iPNZ'	15	38	32		Normal. Tu eP 15 39 02
	PX	eE		50	46		Solomon Islands?
		eLN	16	03.9			
	MW	iPZ	15	38	32		
	R	iPZ			32		
	SB	ePZ			29		
	T	ePZ			33		
	H	ePZ			33		
	Pr	iPZ			38		
Dec. 5	P	iPZ	05	35	25		Tu iP 05 34 55
	MW	iPZ			26		
	R	ePZ			24		
	T	iPZ			39		
	H	ePZ			34		
	Pr	ePZ			18		
Dec. 5	P	iPNEZ	14	35	11	c	Normal. Alaska
		iZ			40		
	PX	iSNE		40	35		
		eZ		41	27		
		eLNE		42.8			
	MW	iPNZ		35	11	c	
		eSNE		40	35		
		iZ		41	27		
	R	iPNEZ		35	16	c	
		eSN		40	40		
	SB	iPNZ		35	04		
	T	iPNZ		34	51	c	
		iZ		35	24		
		eSE		39	59		
		eZ		41	18		
	H	iPNEZ		34	58	c	
		iZ		37	45		
		eZ		41	21		
	Pr	iPZ		35	22	c	
Dec. 6	P	iPZ	15	59	44		Tu eP 15 59 49
	MW	iPZ			44		Possibly P!
	T	ePZ			49		

Date	Sta.	Phase	h	m	s		Remarks
Dec. 7	T	ePZ	02	08	52		Tu eP 02 08 46
	Pr	ePZ			28		
Dec. 7	MW	iPZ	19	49	23		Tu iP 19 48 27
	R	ePZ			17		e 49
	T	ePZ			36		
	Pr	iPZ			11		
Dec. 8	MW	iPZ	01	30	51		Tu iP 01 31 13
	T	ePZ		31	00		
	H	ePZ		30	59		
	Pr	iPZ			54		
Dec. 8	P	iPZ	11	27	06		Tu iP 11 27 31
	MW	iPZ			07		
	R	ePZ			10		
	T	ePZ			16		
	H	ePZ			14		
	Pr	iPZ			09		
Dec. 9	P	iPZ	02	47	42		Tu iP 02 48 05
	MW	iPZ			43		
	R	iPZ			46	d	
	T	iPZ			49	d	
	H	ePZ			49		
	Pr	iPZ			46	d	
Dec. 9	P	ePZ	13	09	35		Tu iP 13 09 01
	MW	iPZ			35		
	R	iPZ			32	d	
	T	iPZ			48	d	
	Pr	iPZ			27		
Dec. 9	P	iPNEZ	15	24	10		Tu iP 15 24 33c
	MW	iPNZ			11	c	
	R	ePZ			12		
	T	iPZ			17	c	
	H	iPZ			18		
	Pr	iPZ			13	c	
Dec. 9	P	iPZ	18	44	29		Tu eP 18 44 06
	MW	iPZ			29		
	T	ePZ			44		
	Pr	ePZ			24		
Dec. 9	P	iPNEZ!	22	26	27	d	Normal. Tu iP 22 27 14 d
		iNEZ			36		i 23
		eSEZ		32	21		eS 33 47
	PX	iSNE			25		USCGS: 53°N. 168°W.,
		eLN		35.3			O=22:18.8
	P	iScSNE		36	33		
	MW	iPNEZ		26	28	d	
		iEZ!			37		
		eSNEZ		32	24		
		eScSNE		36	33		
	R	iPNEZ		26	32	d	
		iNEZ			40		
		iSNE		32	34		
	LJ	ePNEZ		26	41		
		iNE			51		
		eSNE		32	50		
	T	iPNEZ		26	12	d	
		iEZ			20		
		iSNEZ		31	53		
	H	iPNZ		26	18		
		iNEZ			28		
		iZ		28	36		
		eSNE		32	07		
	Pr	iPZ		26	40	d	
		iZ			49		
		iZ		32	28		
		eSZ		32	48		

Date	Sta.	Phase	h	m	s	Remarks
Dec. 9	MW	ePZ	23	41	18	Tu eP 23 41 41
	R	ePZ			23	
	T	ePZ			27	
	H	ePZ			23	
	Pr	ePZ			21	
Dec.10	P	ePNEZ	07	59	48	Tu iP 07 58 55
	MW	ePZ			49	
	T	ePZ	08	00	17	
	H	ePZ			06	
	Pr	ePZ	07	59	30	
Dec.10	P	iPZ	08	25	28	Tu iP 08 25 52
	MW	iPZ			28	
	T	ePZ			36	
	Pr	iPZ			31	
Dec.10	MW	ePZ	21	57	13	Tu iP 21 56 19
	R	ePZ			08	
	T	ePZ			42	
	Pr	ePZ		56	44	
Dec.11	P	ePZ	02	53	06	Tu iP 02 53 05
		eZ		57	18	e 57 11
		iPKKPZ	03	09	38	Destructive in Anatolia,
	PX	eLNE		25.3		according to Ksara.
	MW	ePZ	02	53	08	
		eZ		57	06	
		iPKKPZ	03	09	39	
	R	ePZ	02	53	07	
	T	ePZ		52	56	
		ePKKPZ	03	09	51	
	H	ePZ	02	52	59	
		ePKKPZ	03	09	48	
	Pr	ePZ	02	53	10	
		ePKKPZ	03	09	37	
Dec.11	P	iPNEZ	03	33	38	Tu eP 03 32 50
		eZ		34	28	
	MW	ePZ		33	36	
	R	ePZ			32	
	T	ePZ			48	
	Pr	iPZ			28	
Dec.11	P	iPNEZ	03	44	55	Tu eP 03 44 07
		eZ		46	16	
	MW	ePZ		44	55	
	R	ePZ			48	
	T	ePZ		45	08	
	H	ePZ			02	
	Pr	ePZ		44	45	
Dec.11	P	iZ	06	18	13	Tu iP 06 18 51
	MW	eZ?			06	i 19 00
		iZ			13	
	T	eZ		17	32	
		eZ			49	
		iZ			57	
	H	iZ		18	03	
Dec.11	P	iPNEZ	07	59	11	Tu ip 07 58 17
	MW	iPZ			11	
	R	iPZ			05	
	T	ePZ			38	
	H	ePZ			29	
	Pr	iPZ		58	57	
Dec.11	P	iPNEZ	08	34	35	Tu iP 08 33 41
	MW	iPZ			35	
	R	iPZ			31	
	T	ePZ		35	03	
	Pr	ePZ		34	16	
Dec.11	P	eZ	11	20	28	Normal. Tu eP 11 16 11
	MW	ePZ		16	33	e 17 44
		eZ		20	00	e(S) 19 02
		eZ			27	Felt in Wyoming
	T	ePZ		16	11	
		eZ		19	09	

(Continued)

Date	Sta.	Phase	h	m	s	Remarks
				(Continued)		
Dec.11	Pr	ePZ		16	31	
		eZ		19	45	
Dec.12	MW	ePZ	05	28	26	Tu eP 05 27 31
	R	ePZ			20	
	Pr	ePZ?			12	
Dec.12	P	ePZ	05	37	40	Tu eP 05 36 46
	MW	iPZ			41	e 39 21
	R	ePZ			35	
	T	ePZ		38	08	
	H	ePZ		37	57	
	Pr	ePZ			25	
Dec.12	P	ePZ	13	58	40	Normal. Tu iP 05 57 50 d
		iNEZ!			44 c	
	PX	eLNE	14	03.5		
	MW	ePZ	13	58	39	
		iNEZ			44	
	R	ePNZ			34	
		iZ			39	
	T	iPNZ		59	12 d	
	H	iPZ			02	
	Pr	iPZ		58	25	
		iZ			31	
Dec.13	P	iPZ	05	41	03	Tu iP 05 41 35
		iZ			25	
	MW	iPZ			03	
		eZ			20	
		eZ			27	
	R	iPZ			07	
	T	iPZ		40	57	
	H	iPZ		41	00	
	Pr	iPZ			09	
		eZ			31	
Dec.13	P	iPNEZ	08	52	21 c	Deep! Tu iP 08 52 57 c
		ipPZ		54	08	epP 54 46
		iZ			47	e 55 08
		iSNZ	09	00	17	eS 09 01 25
		iP'P'Z		21	12	eP'P' 20 55
	MW	iPNEZ	08	52	23	Sea of Okhotsk
		ipPZ		54	09	h=500 km
		eZ			58	
		eSNE	09	00	16	
		eP'P'Z		21	12	
	R	ePNZ	08	52	26 c	
		epPZ		54	13	
		eZ			55	
		eSN	09	00	21	
	T	iPNEZ	08	52	09 c	
		iZ			56	
		pPZ		53	55	
		iZ		55	57	
		eSN		59	51	
		ePKKPZ	09	21	17	
	H	iPNEZ	08	52	14	
		epPZ		54	00	
		eZ			38	
		eSN		59	59	
	Pr	iPZ		52	31 c	
		ipPZ		54	19	
		eZ			29	
		eSZ	09	00	33	
Dec.13	P	ePZ?	19	27	20	Normal. Tu e 19 31 30
		eZ		31	19	e 32 35
	PX	eLZ	20	03.6		
	MW	eZ	19	31	16	
	T	eZ			47	
	Pr	eZ			57	

Date	Sta.	Phase	h	m	s	Remarks
Dec. 14	P	ePZ	14	10	02	Tu eP 14 09 25
	MW	iPZ			03	
	R	ePZ		09	59	
	T	ePZ		10	01	
	Pr	iPZ		09	58	
Dec. 14	P	ePZ	15	28	43	Normal. Tu eP 15 28 23
	PX	eLZ		42.2		
Dec. 14	R	ePZ	16	37	28	Tu iP 16 38 34
		eZ			37	
	T	iPZ		36	55	
	Pr	iPZ		37	38	
Dec. 15	P	iPNEZ	09	17	51	Normal. Tu iP 09 17 03
		iNEZ			57	i 09
		eSNE		24	59	USCGS: 0.1°N. 81.3°W.,
	PX	eLNE		30.7		O= 09:09.1
	MW	iPZ		17	51	
		iNZ			57	
		iZ		18	03	
	R	ePZ		17	46	
		iZ			52	
	T	ePZ		18	04	
		iNEZ			11	
		iZ			17	
	H	iZ			09	
	Pr	iPZ		17	41	
		iZ			49	
Dec. 15	P	iPZ	09	20	56	Aftershock. Tu iP 09 20 08
	MW	iPZ			55	
	R	iPZ			51	
	T	iPZ		21	10	
	Pr	iPZ		20	46	
Dec. 15	P	ePNEZ	14	28	58	
	MW	iPZ			58	
	R	iPZ			53	
	T	ePZ?		29	11	
	Pr	iPZ		28	47	
Dec. 15	MW	iPZ	15	38	09	Tu iP 15 37 22
Dec. 15	MW	iPZ	16	04	08	Tu iP 16 03 06
	R	ePZ			02	
Dec. 15	R	ePZ	20	43	38	Tu iP 20 42 53
	T	iPZ?			53	
Dec. 16	P	iPZ	02	18	19	Tu iP 02 18 42
	MW	iPZ			20	
	T	iPZ			26	
	H	iPZ			25	
Dec. 16	P	ePNEZ	02	53	33	Normal. Tu iP 02 52 45
		eZ		54	19	
	PX	eLZ	03	09.2		Aftershock. Ecuador
	MW	iPEZ	02	53	33	
	R	ePZ			28	
	T	ePEZ			47	
	H	ePZ			47	
	Pr	ePZ			21	
Dec. 16	P	ePZ	04	20	12	Tu 04 19 21
		iNZ			15	
	MW	ePZ			12	
	R	iPZ			10	
	T	iPNEZ			44	
	H	ePZ			34	
	Pr	ePZ		19	57	
Dec. 16	P	iPZ	09	25	27	Tu eP 09 25 51
	MW	iPZ			27	
	R	ePZ			31	
	T	iPZ			48	
	H	ePZ			36	
	Pr	ePZ			30	

Date	Sta.	Phase	h	m	s	Remarks
Dec. 16	MW	iPZ	18	15	40	Tu iP 18 14 53
	R	ePZ			36	
	T	ePZ			55	
	Pr	ePZ			31	
Dec. 17	PX	eLZ	02	03.8		Normal.
	MW	eP"Z	01	27	38	Wellington: 58°S. 143°E.,
	T	eP"Z			39	O=01:08.3
Dec. 17	P	iPNEZ	15	08	56	Tu iP 15 10 05
		eSNZ		09	58	Near Markleeville,
	MW	ePZ		08	54	Alpine Co., Calif.
	R	ePZ			58	Felt in California and
		iSZ		10	15	Nevada.
	T	iPNEZ		08	15	38°44'N. 119°41'W.,
		iNEZ			19	O=07:07:42
		iSNE			46	(By Lake Mead Stations)
	H	iPNEZ			31	
		iSNE		09	14	
Dec. 17	R	ePZ	20	41	39	Tu iP 20 41 58
	T	ePZ			43	
	H	ePZ			42	
Dec. 17	R	ePZ	21	01	00	Tu eP 21 01 24
	T	ePZ		00	50	
	Pr	ePZ		01	03	
Dec. 18	T	ePZ	19	24	40	Tu iP 19 24 51
Dec. 18	P	iPZ	21	10	53	Tu iP 21 10 07
		iZ		16	22	
	MW	iPZ		10	54	
		iZ		16	21	
	R	ePZ		10	48	
		eZ		16	15	
	T	iPZ		11	07	
		iZ		16	33	
	Pr	iPZ		10	43	
Dec. 19	PX	eLZ	01	24.5		Normal.
	MW	ePZ		08	05	
	T	ePZ			06	
	H	ePZ			07	
	Pr	ePZ		07	58	
Dec. 19	MW	iPZ	06	16	13	Tu iP 06 15 40
	R	ePZ			06	
	T	iPZ			24	
	H	ePZ			20	
Dec. 19	P	iPZ	10	19	26	Tu eP 10 19 47
	MW	iPZ			28	i 22 01
	R	ePZ			29	
	T	ePZ			36	
	H	ePZ			34	
	Pr	iPZ			30	
		iZ		22	13	
Dec. 19	P	iPNEZ	22	06	44	
	MW	iPZ			45	
	R	ePZ			49	
	Pr	iPZ			52	
Dec. 19	P	ePNZ	23	22	44	Normal? Tu eP 23 23 15
		iNE		23	04	i 34
		iZ			17	i 45
	PX	eSE		32	43	Japan
		eLZ		44		31.5°N. 142.5°E.,
	MW	iPZ		22	43	O=23:10:42
		iZ		23	05	h= 75 km
	R	ePZ		22	45	
	SB	ePZ			37	
	T	ePZ			31	
	H	ePZ			36	
	Pr	ePZ			49	

Date	Sta.	Phase	h	m	s		Remarks
Dec.20	P	ePZ	00	10	38		Tu eP 00 11 09
	R	eZ?			52		
	T	ePZ			30		
	H	ePZ			34		
	Pr	ePZ			45		
Dec.20	P	ePNZ	03	07	11		Tu iP 03 07 34
	MW	iPZ			12		
	T	iPNEZ			22		
	H	ePZ			20		
	Pr	iPZ			14		
Dec.20	P	iZ	04	46	42		Tu eP 04 47 01
	MW	ePZ			30		e 12
		eZ			41		
	R	ePZ			32		
		eZ			44		
	T	ePZ			20		
		iZ			32		
	H	iPZ			24		
	Pr	ePZ			33		
		eZ			58		
Dec.20	P	ePZ?	14	16	56		Normal. Tu iP 14 17 01
		iPZ		17	04		Destructive at Erbaa,
		iZ		20	17		Central Anatolia
		iPPNZ		21	11		
	PX	eSKSNE		27	36		Major earthquake
		ePSNE		30	21		(Magnitude 7)
	P	ePKKPZ		33	07		
	PX	eSSN		35.7			
		eLN		51			
	MW	iPZ		17	06		
		iPPZ		21	09		
		eSKSZ		27	38		
	T	iPNZ		16	51		
		eZ		17	23		
	H	ePZ		16	55		
	Pr	ePZ		17	06		
		iPPZ		21	25		
		eZ		27	55		
Dec.20	P	ePZ	15	46	28		Tu iP 15 45 35
	MW	ePZ			26		
	T	iPZ			39		
	H	iPZ			34		
	Pr	ePZ			14		
Dec.21	P	ePZ	05	39	05		
	MW	iPZ			06		
	H	ePZ			05		
Dec.21	P	iPNEZ	13	09	45	c	Tu iP 13 10 19 c
		iEZ		11	35		eP' P' 40 38
	PX	iSN		18	13		
	MW	iPNEZ		09	45	c	
		iNZ		11	35		
	T	iPZ		09	33	c	
		iZ			59		
		eSN		17	42		
	H	iPZ		09	38	c	
		iZ			45		
		eSN		17	58		
	Pr	iPZ		09	54	c	
Dec.21	P	iPZ	16	56	05		Tu eP 16 55 12
	R	ePZ			00		
	T	ePZ			20		
		eZ		58	20		
	Pr	iPZ		55	55		
Dec.21	P	ePZ	21	37	03		Tu e 21 41 30
	MW	iPZ			06		
	R	ePZ			09		
	T	iPZ		36	57		
	H	ePZ		37	02		
	Pr	eZ			12		

Date	Sta.	Phase	h	m	s		Remarks
Dec.22	P	iPZ	00	41	32		Tu iP 00 41 55
	MW	iPZ			33		
	R	ePZ			36		
	T	iPZ			37		
	H	ePZ			36		
	Pr	iPZ			36		
Dec.22	P	iPZ	04	26	14		Normal. Tu iP 04 26 39
		eZ		28	50		Near Apia, which reports
	PX	eZ		35	35		iP 04 15 31
		iNE			48		eS 04 16 23
		eLNE		44.5			Wellington gives:
	MW	ePZ		26	16		16.5°S. 174°W.,
	R	iPZ			17		O=04:14.6
	T	ePNEZ			24		
	H	ePNEZ			23		
	Pr	ePZ			17		
Dec.22	P	iPZ	06	33	06		Normal. Tu eP 06 32 15
	PX	eLN		45.5			
	MW	ePZ		33	06		
	R	ePZ			01		
	T	ePZ			19		
	H	ePZ			14		
	Pr	ePZ		32	57		
Dec.22	P	iPZ	13	32	17		Tu iP 13 32 43
		eZ?			59		i 33 33
		eZ		33	09		
	MW	iPZ		32	18	c	
		eZ		33	07		
	R	iPZ		32	21	c	
		eZ		33	10		
	T	iPNEZ		32	22	c	
	H	ePZ			22	c	
	Pr	iPZ			23	c	
		iZ		33	15		
Dec.22	P	iPZ	15	39	52		Tu iP 15 40 38
	MW	iPZ			51		
	R	ePZ			46		
		eZ			54		
	T	iPZ			38	d	
	H	ePZ			44		
		eZ			54		
	Pr	ePZ		40	01		
		iZ			14		
Dec.22	MW	iPZ	16	34	35		Tu e 16 39 56
		eZ		35	03		
		eZ		39	20		
	R	ePZ		34	35		
		eZ		35	09		
	T	ePZ		34	33		
		eZ		35	06		
		eZ		38	45		
	Pr	ePZ		34	33		
		eZ		35	05		
Dec.23	P	ePZ	00	57	21		Tu eP 00 56 29
	MW	ePZ			21		
	T	ePZ			34		
	Pr	ePZ			10		
Dec.23	P	ePNEZ	01	21	00		Tu eP 01 20 08
	PX	eLN		33			
	MW	ePZ		21	00		
	T	ePNEZ			12		
	Pr	iPZ		20	49		

Date	Sta.	Phase	h	m	s		Remarks
Dec.23	P	iPNEZ	05	32	52	d	Tu iP 05 33 17 d
		eZ		33	30		e 33 49
	MW	iPZ		32	53	d	Felt at Apia, which reports
		eZ		33	25		iP 05 22 20
	R	iPZ		32	55		iS 05 22 51
		eZ		33	28		and gives:
	T	iPZ			00		15.9°S.173.3°W.,
		eZ			39		O=05:21:39
	H	ePZ		32	59		
		iZ		33	30		
	Pr	iPZ		32	55	d	
		iZ		33	32		
Dec.23	P	iPNEZ	14	12	00	c	Normal. Tu eP 14 12 27
	PX	eZ		15	38		e 16 25
		eE		24.3			e 28 50
		eLN		37.5			Solomon Islands?
	MW	iPNEZ		12	01	c	
	R	iPNZ			03	c	
	T	iPZ			01	c	
	H	iPZ			00	c	
	Pr	iPZ			05		
Dec.24	R	ePZ	07	27	45		Tu eP 07 27 12
	T	ePZ		28	22		
Dec.24	P	ePZ	09	56	18		Normal. Tu eP 09 55 53
	PX	eLE	10	06			
	MW	ePZ	09	56	18		
	R	ePZ			12		
	LJ	ePN			12		
	T	ePZ			46		
		eZ		58	17		
Dec.24	MW	iPZ	18	19	28		Tu iP 18 20 13
	T	iPEZ			13		i 22
		iZ			23		
Dec.25	MW	iPZ	08	07	05		
	T	iPZ			12		
	H	ePZ			11		
Dec.26	P	iPNEZ	12	40	16		Normal? Tu iP 12 39 24 c
		iEZ			28		e 41 02
	PX	eZ		42	05		USCGS:9.0°N.75.0°W.,
		eSEZ		47	03		O=12:31.8
		iE			16		Damage in Colombia,
		eLZ		49			(Cartagena,etc)
	MW	iPEZ		40	16		
	R	iPZ			11		
	LJ	ePNE			07		
	T	iPZ			26		
		iZ			38		
		iZ		41	57		
		eNE		42	39		
	H	ePZ		40	20		
		iZ		41	54		
		eN		50	22		
	Pr	iPZ		40	12	c	
		iZ			24		
		eSZ		46	51		
Dec.27	P	iPZ	16	46	09		Tu iP 16 46 53
	MW	iPZ			06		i 47 03
		iZ			20		
	R	eZ			26		
	T	iPNEZ		45	52		
		iZ		46	04		
		iZ			14		
	H	ePZ		45	57		
		eZ		46	12		
	Pr	iPZ!		46	17		
		iZ			23		
		eZ			30		

Date	Sta.	Phase	h	m	s		Remarks
Dec.27	P	iPZ	16	52	09		Tu iP 16 52 43
	PX	iSNEZ	17	02	15		Japan
		eLZ		16			
	MW	iPZ	16	52	09		
	R	ePZ			13		
	T	iPNEZ			02		
	H	ePZ			05		
	Pr	iPZ			17		
Dec.27	P	ePZ	21	00	03		Tu eP 20 59 50
	MW	ePZ			08		
	R	ePZ			07		
	T	iPZ			08		
	H	ePZ			05		
Dec.28	P	iPZ	03	16	31		Tu iP 03 16 58
	MW	ePZ			31		Felt at Apia, which
	R	ePZ			34		reports
	T	ePZ			42		iP 03 05 41
	H	ePZ			39		iS 06 02
	Pr	iPZ			34		
Dec.28	P	ePZ	11	45	01		Tu eP 11 44 24
		eZ			07		e 30
	MW	ePZ			02		
	R	eZ		44	49		
	T	eZ		45	09		
	Pr	eZ		44	43		
Dec.28	T	iPZ	17	49	41		Tu eP 17 48 34
	H	ePZ			35		
	Pr	iPZ			19		
Dec.29	P	iPZ	03	55	33		Normal Tu iP 03 55 25 c
		eZ		59	13		i 57 41
	PX	eLE	04	27			e 58 56
	MW	ePZ	03	55	33		Destructive in Albania
		eZ		59	11		
	R	ePZ		55	32		
	T	ePNZ			22		
	H	ePZ			25		
		eZ		58	58		
	Pr	ePZ		55	34		
		eZ		58	54		
Dec.29	P	iPNEZ!	04	46	24	c	Tu iP 04 47 01
		iZ			57		i 36
		iZ		48	44		Kurile Islands?
		iE		54	49		
		eP:P:Z	05	15	18		
	MW	iPNEZ	04	46	24	c	
		iZ			57		
	R	iPZ			27	c	
	LJ	ePNE			35		
	T	iPNEZ			11	c	
		iZ		47	27		
	H	iPNEZ		46	16	c	
		eZ		47	26		
	Pr	iPZ		46	32	c	
		iZ		47	07		
		eZ		48	49		
Dec.29	P	eZ	06	51	04		Tu eP 06 51 30
	MW	ePZ		50	53		
		eZ		51	06		
	R	ePZ		51	00		
	T	iPZ		50	43		
	H	ePZ			50		
Dec.29	P	ePZ	06	58	11		Tu eP 06 57 18
	MW	ePZ			10		
	T	ePZ			18		
	H	ePZ			16		
	Pr	iPZ			00		

Date	Sta.	Phase	h	m	s	Remarks
Dec. 29	MW	iPZ	07	34	25	
	T	iPZ			36	
		eZ		35	05	
	H	iPZ		34	32	
Dec. 29	P	ePZ	11	32	07	Tu iP 11 32 26
	MW	ePZ			08	
	R	ePZ			10	
	T	ePZ			17	
	Pr	ePZ			11	
		iZ			26	
Dec. 29	P	ePZ	23	21	55	Normal. Tu iP 23 21 42
		iNEZ			58	Southeast Pacific?
	PX	eLNZ		39		
	MW	iPZ		21	56	
	R	ePZ			53	
	T	ePNEZ		22	15	
		iZ			24	
		eN		25	55	
	H	ePZ		22	09	
	Pr	ePZ		21	50	
Dec. 30	T	ePZ	08	57	06	Tu iP 08 57 17 c
	H	ePZ			04	
	Pr	iPZ			00	
Dec. 31	P	iPZ	02	08	43	Tu iP 02 09 22
	MW	iPZ			43	
	T	iPZ			29	
	H	ePZ			35	
	Pr	iPZ			52	
Dec. 31	P	ePZ	02	24	49	Tu iP 02 25 20
	MW	ePZ			50	
	T	eZ		25	03	
	H	ePZ		24	59	
		iZ		25	16	
	Pr	ePZ		24	52	
Dec. 31	P	iPEZ	12	14	22	Normal? Tu iP 12 13 42
		iZ			36	USCGS: 18.1N. 47.0 W.,
		iZ		15	01	O=12:03.7
	PX	iSE		23	05	
		eLN		30.1		
	P	eP'P'Z		43	11	
	MW	ePZ		14	20	
		eP'P'Z		43	09	
	R	ePZ		14	24	
	SB	ePZ			32	
	LJ	ePE			20	
	T	iPEZ			21	c
		iZ			39	
		eP'P'Z		42	48	
	H	iPEZ		14	22	
	Pr	iPZ			17	
		iZ			36	
		iZ		15	03	
		eP'P'Z		43	14	
Dec. 31	MW	ePZ	19	08	13	
		eZ			39	
	R	eZ?			16	
		eZ			43	
	T	ePZ			13	
		eZ			20	
	Pr	ePZ?			20	
		eZ			43	
Dec. 31	P	ePZ	19	24	44	Normal. Tu eP 19 24 03
	PX	eLZ		40		
	MW	ePZ		24	40	
	R	ePZ			41	
	T	ePZ			43	
	Pr	iPZ			39	

C. F. Richter
Aug. 1, 1944

Appendix

Larger shocks of 1942 (deep focus excluded)

Epicenters, origin times, and magnitude revised from all available data by B. Gutenberg.

	O	Lat.	Long.	Magnitude
Jan.	27 13:29:13	4 3/4 S.	135 1/2 E.	7.1
Apr.	8 15:40:24	13 1/2 N.	121 E.	7.6
May	14 02:13:18	0 3/4 S.	81 1/2 W.	8
June	18 09:30:56	9 N.	142 E.	7.0
June	24 11:16:29	41 S.	175 1/2 E.	7.1
Aug.	6 23:36:59	14 N.	91 W.	7.5
Aug.	24 22:50:32	15 S.	75 W.	8 1/4
Oct.	20 23:21:43	9 N.	122 1/2 E.	7.1
Nov.	10 11:41:27	49 1/2 S.	32 E.	7 3/4
Dec.	20 14:03:01	40 N.	37 1/2 E.	7.3