CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA

SEISMOLOGICAL LABORATORY

BULLETIN

JANUARY -- MARCH 1948

(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'	N.,	116°52' W., h=1700 m.	Pr

c = compression
d = dilatation

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

Times given for Tucson and Boulder City are read from original records, lent by courtesy of the U.S. Coast and Geodetic Survey and the U.S. Reclamation Service.
Times for stations associated with the University of California are readings kindly supplied by Professor Byerly or his assistants.

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, California.

Date	Sta.	Phase	h	m	s	Remarks				
Jan. 1	MW	eP	02	29	13	Tu	eP	02	29	51
	R	eP			22					
	T	iP			12					
Jan. 1	P	eP	13	11	53	Tu	eP	13	10	55
	PX	eLN		17	.0					
	Pr	eP		11	51					
		e		12	11					
		e		14	02					
	T	e		12	18					
Jan. 1	Pr	eP	17	22	25					
	T	eP			34					
Jan. 1	P	eP	18	50	15					
	MW	eP			13					
	R	eP			19					
	T	eP	18	49	53					
Jan. 1	P	iPNZ	20	29	23	Tu	iP	20	29	08
		e(pP)		31	23		e		31	02
	PX	e(L)N		54	.3					
	MW	iP		29	25					
		e		31	33					
	R	iP		29	22	Deep?				
		e		31	29					
	Pr	iP		29	19					
		i			28					
		e		31	18					
		i			26					
	H	iP		29	36					
		e		31	44					
	T	iP		29	42					
		i			57					
Jan. 2	MW	eP	00	11	48	Tu	eP	00	11	35
	R	eP			48		e			53
	Pr	iP			50					
	T	eP			53					
Jan. 2	MW	eP	02	50	47	Tu	iP	02	49	50
	Pr	iP			33		i		50	10
		i			48					
		i		51	18					
	T	iP		50	17					
		e		51	17					
Jan. 2	P	eP	03	27	09	Tu	eP	03	27	23
		iNZ			23		i			34
	MW	eP			13					
		i			24					
	R	eP			18					
	Pr	eP			07					
		e			18					
	SB	eP			20					
	H	iP			27					
	T	iP			28					
Jan. 2	T	iP	10	33	09	Tu	eP	10	33	19
Jan. 2	P	eP	11	34	30	Tu	iP	11	33	27
	R	eP			25					
	Pr	iP			20					
		i			28		i			
	T	eP			52					
Jan. 2	Pr	iP	13	08	47	Tu	eP	13	08	42
Jan. 2	Pr	eP?	15	20	58	Tu	eP	15	20	24

Date	Sta.	Phase	h	m	s		Remarks
Jan. 2	P	eP	15	26	27		Tu eP 15 25 32
	PX	eLE		36	3		i 50
	MW	eP		26	28		i 30 38
	R	eP			22		e 33 46
	Pr	iP			15		
	LJ	eP			16		
	H	eP			36		
	T	iP			42		
Jan. 3	P	iPNZ	01	10	24		Tu iP 01 10 49 d
	MW	iP			23	d	e 11 08
	R	iP			26		
	Pr	iPEZ			26	d	
	LJ	eP			24		
	H	iP			30		
	T	iP			32		
Jan. 3	P	iP	07	10	05		Tu eP 07 10 18
		e		12	15		i 12 54
	MW	iP		10	08		i 13 14
		e		12	17		
	R	iP		10	07		
	Pr	iP			08		
	T	eP			03		
Jan. 3	P	iP	10	04	10		Tu eP 10 04 51
	MW	eP			10		e 05 07
	R	iP			13		
	Pr	eP			20		
		i			21		
	T	eP			09		
Jan. 3	R	eP	12	48	37		Tu eP 12 48 32
	Pr	iP			40		
		e		49	07		
	T	eP			04		
Jan. 3	T	eP	16	50	53		Tu iP 16 51 47
Jan. 4	MW	e	05	35	02		Tu eP 05 35 18
	Pr	e			04		Apia reports: P=05:24.:05,
	T	eP			03		S=05:24:27
Jan. 4	P	iPNEZ	09	07	46	c	Tu iP 09 08 09 c
		ePcP		08	06		i 26
		ipP		09	48		ipP 10 18
		isP		10	52		eS 17 40
	PX	iSNE		17	04		i 26 21
		iSPNZ			53		iP'P' 34 29
	P	eP'P'		34	40		i 36 50
	MW	iPNEZ		07	46	c	
		iPcP		08	04		USCGS: 21 S. 180, O = 08:56.5,
		ipP		09	51		h = 600 km.
		isP		10	52		BCIS: 20 3/4 S. 178 1/2 W.,
		iSNEZ		17	05		O = 08:56:38, h = 600 km.
		eP'P'		34	37		
	R	iPNEZ		07	48	c	A T
		ipP		09	51		PZ 1 2
		iSNEZ		17	08		SH 13 6
		eP'P'		34	41		
	Pr	iPNEZ!		07	49	c	
		iPcP		08	11		
		ipP		09	52		
		ipPNE			58		
		isPNZ		10	55		
		isPE		11	00		
		iSEZ		17	09		
		iSN!			10		
		iE			25		
		iSPE			50		
		eZ		37	10		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Jan. 4	LJ	iP	09	07	45	c	(continued)
		ePcP		08	03		
		epP		09	47		
		iSNE		17	03		
	SB	iPNEZ		07	42	c	
		ipP		09	46		
		iSNEZ		16	56		
	H	ePNE		07	54		
		iSNE		17	17		
	T	iP		07	54	c	
		iPNE			55		
		i		08	37		
		ipP		10	03		
		isP			56		
		iSNE		17	18		
		iP'P'		34	41		
Jan. 4	P	eP	12	38	55		Tu iP 12 38 20 d
	MW	iP			54	d	epP 50
		epP		39	25		e 39 12
	R	iP		38	51	d	
		epP		39	22		
	Pr	iP		38	47		Andes?
	T	iP		39	07	d	
Jan. 4	P	iP	13	10	13	c	Tu iP 13 10 39 c
	MW	iP			13		ipP 11 44
		epP		11	19		
	R	iP		10	17	c	
		epP		11	25		
	Pr	iP		10	17	c	
		ipP		11	22		
	T	iP		10	18	c	
		epP		11	20		
Jan. 5	Pr	iP	02	05	35		Tu iP 02 05 54
	T	iP			40		
Jan. 5	P	iP	03	50	12		Tu eP 03 50 39
		i			39		
	MW	eP			14		
		epP			33		
	R	iP			18		
		epP			37		
		i			42		
	Pr	iP			17		
		ipP			40		
		i			44		
	T	eP			16		
		epP			35		
Jan. 5	MW	eP	19	07	00		
Jan. 6	P	iP	09	08	04		Tu eP 09 07 11
	MW	iP			06		i 16
		e		10	48		i 08 09
	R	iP		08	01		i 10 17
		i		10	46		
		e		14	20		
	Pr	iP		07	54		
		i		08	19		
		e		10	41		
		e		14	19		
	T	eP		08	21		
		e		10	52		
		e		13	59		

Date	Sta.	Phase	h	m	s	Remarks
Jan. 6	P	eP	14	04	10	
	MW	eP			10	
	R	eP			12	
	Pr	e(P)			22	
	T	eP			09	
Jan. 6	P	iPNEZ	17	28	43 c	Tu iP 17 27 44 c
	PX	eSNE		33	14	A T
		iSNEZ			24	PZ 10 10
		eGN		34	40	PH 5 3 1/2
	MW	iP		28	43 c	SH 24 8
	R	ePEZ			38 c	SH 50 13
	Pr	iPNEZ!			30 c	M 100 15
	LJ	eP			30 c	
	SB	iP			55	Magnitude 6 3/4
	H	iP			54 c	USCGS: 16.5 N 98 W,
	T	iPNEZ		29	02	O = 17:23.4
	This earthquake shows a peculiar wave-group with periods of about 3 seconds, recorded on the vertical-component instruments at the following times: Pasadena, 17:36:51, Palomar, 17:36:16, Tinemaha, 17:37:35					
Jan. 6	P	iPNEZ	17	31	16	Superposed on the preceding
	MW	iPNEZ			17	Probably from same source.
	R	iP			11	A T
	Pr	iP			01	PZ 10 3
	LJ	eP			02	PH 5 3
	H	iP			29	Magnitude 7
	T	iP			35	
Jan. 6	MW	iP	17	45	18	Tu iP 17 44 20
	R	iP			13	
	Pr	iPNEZ!			05	
	LJ	iP			04	
	SB	iP			31	
	H	iP			29	
	T	iP			36	
Jan. 6	P	iP	18	05	28	Tu iP 18 04 32
	PX	iSNEZ		10	12	Aftershock; magnitude 6½–6¾
	MW	iP		05	28	A T
	R	iP			23	PZ 5 3
	Pr	iPNEZ			16	Short-period waves similar to
	LJ	iP			16	those for the earlier shock:
	SB	eP			39	Pasadena, 18:13:37, Riverside,
	H	iP			40	18:13:22, Tinemaha, 18:14:25
	T	iP			46	
Jan. 6	MW	eP	22	15	51	Tu eP 22 15 52
	Pr	eP			36	e 16 11
	T	eP			35	
		e			53	
Jan. 7	P	iP	21	02	44	Tu iP 21 03 07
	R	eP			47	e 32
		e		03	07	
	Pr	iP		02	47	
	T	iP			55	
		e		03	07	
Jan. 8	P	eP	04	30	24	
		i			50	
	R	eP			26	
		e			40	
		e			51	
	Pr	eP			29	
	T	eP			29	
		i			49	

Date	Sta.	Phase	h	m	s	Remarks
Jan. 8	P	eP	08	53	00	Tu eP 08 52 05
	R	eP		52	52	e 21
	T	eP		53	01	
Jan. 8	P	e	12	59	45	Tu eP 12 59 13
	R	eP			33	e 21
		e			44	i 13 00 51
	Pr	eP			34	e 02 15
		i			43	
	T	eP	13	00	06	
		e			19	
Jan. 8	P	iP	14	47	54	Tu eP 14 47 52
	R	eP			57	
	Pr	iP			59	
	T	iP			55	
Jan. 8	P	iP	19	19	43	Tu iP 19 19 56
	R	eP			48	
	H	iP			43	
	T	iP			41	
Jan. 8	P	eP	23	38	54	Tu iP 23 37 54
	R	eP			48	
	Pr	ePNEZ			40	
		i			47	
	H	eP		39	06	
	T	eP			11	
Jan. 9	P	iP	02	17	48	Tu iP 02 18 13
		ipP		18	03	ipP 28
	R	iP		17	51	e 20 51
		ipP		18	06	
	Pr	iP		17	52	
		ipPNZ		18	06	
		i			21	Near Apia, which reports:
	SB	iP		17	58	eP 02 07 23
	H	iP			56 c	eS 08 06
		ipP		18	11	
	T	iP		17	58 c	
		ipP		18	13	
		i			19	
Jan. 9	Pr	iP	05	16	36	Tu eP 05 16 13
	T	eP			49	
Jan. 9	Pr	eP?	08	15	05	Tu eP 08 15 13
	T	eP		14	59	Apia reports eP 08 04 06, iS 08 04
Jan. 9	P	iP	09	10	22	Tu iP 09 09 39
		ipP		11	04	
	R	iP		10	18	
		epP		11	03	Andes
	Pr	iP		10	14	
		ipP			57	
	H	eP			30	
	T	iP			35	
Jan. 9	P	e	15	10	43	Tu e 15 11 08
		i		11	04	e 15
	R	i			12	
	Pr	e		10	52	
		e		11	02	
	T	e		10	41	
		i			52	
Jan. 9	P	iPEZ	22	26	53	Tu iP 22 27 24 d
	MW	ePN			54	i 41
	R	iP			56 d	ePP 31 09
	Pr	iPNEZ			59 d	
	SB	iP			47 d	
	H	iP			52	
		i		27	31	
	T	iP		26	49	
		i		27	24	

Date	Sta.	Phase	h	m	s	Remarks
Jan. 10	P	iPNEZ	00	48	23	Tu iP 00 49 40
	PX	eLNEZ		51	4	e(S) 52 56
	R	iP		48	30	
		eS		50	29	
	Pr	eP		48	39	
	H	eP			02	
		e		50	07	
	T	iP		47	57	
		i		48	16	
		iSNEZ		49	37	
Jan. 10	P	iPNEZ	05	27	28	Tu eP 05 27 48
	PX	e(S)EZ		38.7		i 28 08
		eGNE		49.3		
	MW	ePN		27	28	USCGS: 20 S. 169 E.,
	R	iP			30	O = 05:14.5
	Pr	iPNEZ			30	BCIS: 20 S. 173 1/4 E.,
		iNZ			35	O = 05:14.9
		i			42	
	SB	eP			27	
	H	iP			31	
	T	eP			34	
		i			43	
Jan. 10	R	eP	09	37	36	Tu iP 09 36 48
	Pr	eP			31	
	T	iP			57	
Jan. 11	T	iP	08	12	04	Tu iP 08 11 08
Jan. 11	T	iP	15	47	50	Tu iP 15 48 09
Jan. 12	P	iP	04	59	17	Tu iP 04 58 36 c
	R	iP			13 c	
	Pr	iP			09	
	LJ	eP			07	
	T	iP			30 c	
Jan. 12	P	iP	10	29	49	Tu e 10 30 50
	R	iP			52	
	Pr	iP			54	
	LJ	eP			53	
	T	iP			50	
Jan. 13	P	iP	10	14	19	Tu eP 10 14 24
	R	eP			22	i 36
Jan. 13	P	eP	17	27	00	Near Apia Tu iP 17 27 33 c
	T	iP		26	52	which reports: iP 17 23 56
Jan. 13	P	iP	17	34	40 d	Tu iP 17 35 06 d
		i		35	00	i 17
		e			20	i 28
		e		38	00	i 44
	MW	ePN		34	39	
	R	iP			44 d	
		i		35	03	
	LJ	eP		34	40	
	H	iP			48 d	
		i			58	
		i		35	09	
	T	eP		34	50 d	
		i			52	
		i		35	17	
		i			33	
Jan. 13	P	iP	21	02	39	Tu iP 21 03 02
	T	iP			50 d	
Jan. 14	P	eP	02	05	06	
	T	e(P)			20	

Date	Sta.	Phase	h	m	s	Remarks
Jan. 14	P	iP	02	33	41	Tu eP 02 33 21
		i			58	i 39
	PX	iSNE		40	22	e 34 57
		iLE		43	47	e 35 36
	R	eP		33	38	USCGS: 10 S. 109 W., O = 02.25.4
		i			51	
	Pr	eP			26	A T
		i			34	PH 1/2 3
		i			40	SH 4 9
	H	e(P)			57	MH 20 20
	T	e		34	06	Magnitude about 6 1/4
		eP			04	
		e			15	
		e			21	
Jan. 15	MW	e	03	58	55	Tu e(P) 03 59 29
	R	e			52	
	Pr	e		59	00	
	T	i		58	44	
Jan. 15	P	iP	05	15	04	Tu iP 05 15 20 c
		e			52	iPP 19 24
		iPP		19	01	New Zealand
	MW	eP		15	05	VI+ at Wanganui according to
		iPP		18	58	Wellington which gives:
	R	iP		15	06 c	40.35 S., 175.0 E., O = 05:01.7,
		iPP		18	59	Magnitude 5 1/2
	Pr	iPNZ		15	06 c	
		i			28	h = 80 km.
		iNZ		18	59	
		e		19	39	
	LJ	eP		15	04 c	
	H	eP			21	
	T	eP			22	
		e			37	
		iPP		19	15	
Jan. 15	Pr	eP	10	21	21	Tu eP 10 20 37
		e			30	i 48
Jan. 15	P	iP	11	23	13	Tu iP 11 23 37
	MW	iP			14	
	Pr	iPNEZ			16 c	
		e		24	22	
	T	iP		23	22	
Jan. 15	P	iP	13	22	06	Tu iP 13 22 29 d
	MW	iP			06	
	Pr	iP			09	
	T	iP			15	
Jan. 16	P	eP	04	52	33	Tu eP 04 51 47
		e			51	i 56
	R	iP			33	i 53 13
		e			53	Andes?
	Pr	eP			18	
		i			39	
	T	iP			52	
Jan. 16	P	eP	07	11	18	Tu iP 07 10 43
	MW	iP			16	
		i			19	
	R	iP			13	
	T	iP			29	

Date	Sta.	Phase	h	m	s		Remarks				
Jan. 16	P	iPNEZ	11	17	33	c	Tu	iP	11	18	16
	PX	ePcP		18	43			i			19
		ePP		19	42			i			43
		eScP		22	42	USCGS: 52 N. 172 E.,					
		iSN		24	49	O = 11:08.5					
		iE		25	28	h = 100km.					
		eSSN		28	6						
		eLN		31		BCIS: 53 N. 176 E.,					
	MW	iP		17	32	O = 11:08.7					
		iNEZ!			34	h= 100 km.					
		i			49						
	R	eP			37						
		i			41						
		i			48						
		i			56						
	Pr	iPNZ!			43	c					
		iZ!			46						
		i			53						
		iSNE		25	09						
		eN			25						
	LJ	iP		17	43						
	SB	iP			26						
	H	eP			24						
		i			27						
		i			44						
		i			50						
		iPcP		18	37						
	T	iP		17	18	c					
		iNEZ			20						
		i			48						
Jan. 16	P	e	14	27	35		Tu	eP	14	28	13
		e		28	43			e		29	25
	MW	eP		27	30						
		e		28	43						
	R	e		27	47						
		e		28	49						
	Pr	ePNZ		27	41						
		i			49						
		i		28	53						
Jan. 16	MW	eP	15	06	32		Tu	eP	15	07	10
	R	eP			32						
	T	eP			16						
Jan. 17	MW	eP	00	45	32		Tu	iP	00	44	31
		e			38			i			38
	R	eP			27			i			44
	Pr	eP			11						
		e			17						
	T	iP			58						
		i		46	04						
Jan. 17	P	iP	02	10	05		Tu	eP	02	10	24
	PX	eLEZ		35	2			e			41
	MW	eP		10	04						
	R	iP			07						
	Pr	iP			08						
	H	eP			13						
	T	iP			13						
Jan. 17	P	eP	03	46	02						
		e			09						
	MW	eP			03						
		e			10						
	R	eP			05						
		e			14						
	Pr	eP			08						
		e			16						

			A	T
		PZ	1	3
		PH	1	3
		SH	2	4

Magnitude about 6 3/4

Date	Sta.	Phase	h	m	s	Remarks				
Jan. 17	P	eP	07	23	48	Tu	iP	07	24	20
		iNEZ			53		i			25
		iNEZ		24	00		i			32
		iPP		27	08		iPP		28	09
	PX	iSEZ		34	02					
		eSSE		39.	3					
		e		43.	5					
		eLE		49.	3					
	MW	eP		23	48					
		i			54					
		i		24	00	USCGS 15 N. 147 E.,				
		ePP		27	11	O = 07:11.3				
	R	eP		23	49					
		i		24	02					
		i			13					
	Pr	eP		23	53					
		iNEZ			58					
		iNZ		24	04					
		i			21					
		eSNE		34	16					
	LJ	eP		23	53					
		e		24	05					
	SB	eP		23	40					
		i			54					
		eSE		33	57					
	H	iP		23	51					
		i			59					
		i		24	10					
	T	eP		23	44					
		i			55					
		i		24	01					
		eSNE		34	09					
Jan. 17	P	eP	09	44	24		Tu	eP	09	43	43
	MW	eP			24						
	R	eP			19						
	T	eP			37						
Jan. 17	MW	eP	17	14	42		Tu	iP	17	14	22
	R	eP			44						
	Pr	iP			29						
	T	eP			43						
Jan. 17	MW	iP	17	29	45						
		e		30	01						
	R	iP		29	42						
		e			58						
	Pr	eP			30						
		e			48						
	T	iP			58						
		e		30	13						
Jan. 17	P	iP	17	45	19		Tu	iP	17	45	41
	MW	iP			18			i			43
		i			20						
	R	iP			19						
	Pr	iP			21						
	H	iP			25						
	T	iP			26						
Jan. 18	P	iP	01	31	08						
	MW	eP			03						
	T	eP			05						
Jan. 18	MW	eP	01	35	17		Tu	eP	01	34	29
	T	eP			24						

Date	Sta.	Phase	h	m	s		Remarks
Jan. 18	P	eP	13	52	42		Tu eP 13 53 08
		e		53	33		
	MW	eP		52	43		BCIS: 19 S. 170 E.,
	R	eP			42		O = 13:40.0
		i		53	02		
	Pr	iP		52	46		
		i		53	05		
	T	eP		52	47		
Jan. 18	P	iP	18	33	03		Tu iP 18 33 23
		ipP		34	53		ipP 35 16
	MW	iP		33	06		
		epP		34	56		
	R	iP		33	04		
		epP		34	55		
	Pr	iP		33	05		
		ipP		34	56		
Jan. 19	P	iP	01	54	44		Tu iP 01 54 51
	R	iP			43		
Jan. 19	P	iP	02	35	53	c	Tu iP 02 35 20 c
		i		36	00		i 26
		i			05		i 41
	MW	iP		35	52		i 53
		e		36	05		
	R	iP		35	50	c	
		i			58		
		i		36	08		
	Pr	iP		35	47	c	Andes
		i			56		
		i		36	02		
	LJ	eP		35	46		
		i		36	02		
	H	iP		35	59		
	T	iP		36	05	c	
		i			22		
		i			35		
Jan. 19	P	eP	06	21	02		Tu iP 06 20 42
	Pr	eP		20	55		e 54
	T	eP		21	20		
Jan. 19	P	eP	06	24	07		Tu eP 06 23 46
	MW	eP			09		
	Pr	iP			01		
	T	iP			23		
Jan. 19	P	iP	07	55	23		Tu iP 07 56 09 c
		i			32		i 19
	MW	iP			22		i 29
		e			32		i 58 28
	R	iP			27	c	
		e			35		
	Pr	iP			34	c	
		i			43		
		i			53		
	SB	iP			23		
	T	iP			04	c	
		i			12		
		i			23		
Jan. 19	T	iP	18	44	39		Tu eP 18 45 57
Jan. 20	P	iP	06	05	39		Tu iP 06 05 57 d
	MW	iP			41		
	R	iP			41		
	Pr	iPNZ			42	d	
	T	iP			48		
		e		06	05		

Date	Sta.	Phase	h	m	s		Remarks
Jan. 20	P	iP	09	56	57	d	Tu iP 09 57 13
		iNEZ			59	c	i 21
		ipP		57	11		ipP 28
		i			23		iPKKP 10 14 37
		i		58	21		
		i			48		
	PX	ePPNZ	10	00	24		
		e(S)N		07	56		Depth about 60 km.
		eE		08	.8		
		eLNE		20	.6		USCGS: 33 S. 179 E.,
	MW	iP	09	56	57		O = 09 44.0
		iNEZ		57	00		
		ipP			15		Wellington: 34 1/2 S. 177 3/4 W.,
		iPP	10	00	27		O = 09 44 1/4, magnitude 6 - 6 1/2
	R	iPNEZ	09	56	59	d	
		ipP		57	16		A T
		i		58	21		PZ 1 1/2 1 1/2
		iPP	10	00	24		PH 1 1 1/2
	Pr	iP	09	56	59	d	MH 15 20
		iNZ		57	02		
		ipP			16		Magnitude about 7
	LJ	ePNEZ		56	58		
		epP		57	12		
	SB	iPNEZ		56	55		
	H	iP		57	04		
		ipP			21		
	T	iPNEZ			06		
		i			13		
		ipP			19		
		i		58	21		
		i			36		
		ePKKP	10	14	39		
Jan. 20	T	eP	13	35	07		Tu iP 13 35 14
Jan. 20	Pr	eP	16	00	38		Tu eP 15 59 56
		e			47		i 16 00 26
	T	eP		01	06		
Jan. 20	P	iPNEZ!	20	28	19	c	Tu iP! 20 28 43 c
		ipP		29	51		i 51
	PX	e		30	42		ipP 30 18
		i		31	22		e 33 46
	MW	iPNEZ!		28	20	c	
		iPcP			30		P extremely sharp and short perio
		ipP		29	56		at all these stations
		e		31	16		
	R	iPNEZ		28	22	c	Apia reports
		ipP		29	56		
		e		31	26		eP 20 19 06
	Pr	iPNEZ!		28	21	c	S 20 34
		ipP		29	55		
		i		31	25		
	LJ	iPNEZ		28	16	c	
		ipP		29	50		
	SB	iPNEZ		28	14	c	
		ipP		29	51		
	H	iP		28	25	c	
		ipP		30	02		
	T	iPNEZ		28	28	c	
		ipP		30	06		

Date	Sta.	Phase	h	m	s		Remarks				
Jan. 21	MW	eP	03	35	37		Tu	eP?	03	35	14
		e			52			e			25
	Pr	eP			38						
		e			48						
	T	eP			13						
		i			24						
Jan. 21	P	iP	17	00	34		Tu	iP	17	00	05
	MW	eP			30			e			14
		e			34						
	R	iP			31						
	Pr	iP			31						
	T	eP			39						
		i			43						
Jan. 21	P	iP	18	28	13		Tu	iP	18	27	24
		i			45			i			44
		e		30	49			i			48
	MW	eP		28	13			i		28	12
		e			22			i		29	13
	R	iP			09						
	SB	eP			28	USCGS: 11 N. 66 W.,					
	H	iP			24	O = 18:09.1					
	T	iP			22						
		i			30	Addendum:	Pr	iPNEZ	18	28	04
Jan. 21	P	iP	22	07	01		Tu	iP	22	06	47
		i			34			i		12	56
	MW	iP			01						
	R	eP			00						
	Pr	iP		06	54						
	SB	eP		07	06						
	H	eP			13						
	T	iP			19						
Jan. 22	P	iP	11	47	30		Tu	iP	11	47	47
	R	iP			32						
	Pr	iP			32						
	T	iP			41						
		e		48	05						
Jan. 22	P	iPNEZ	13	07	44		Tu	iP	13	08	10
		iPP		10	48			i			27
	MW	iP		07	45			e		10	15
		iNEZ!			47			ePP		11	08
		ePP		10	50						
	R	iP		07	48						
		iPP		10	53						
	Pr	iPNEZ!		07	48						
		i		09	50						
		iPP		10	51						
	LJ	eP		07	47						
	SB	iP			41						
	H	iP			51						
	T	iP			53						
Jan. 22	P	iPNEZ	14	07	14 d		Tu	iP	14	07	36 d
		iPcP			21			ipP		08	13
		ipP			49			i			48
		i		08	05			i		10	11
	PX	eS		16	53			iS		17	47
		iSNE		17	01			iPKKP		25	56
		eSSN		22.3				iP'P'		34	08
		eSSSE		25.6							
		eGNE		28.7		(continued)					

Date	Sta.	Phase	h	m	s		Remarks
Jan. 22	P	eP'P'	14	34	13	(continued)	
		epP'P'			49		
		e		35	19		USCGS: 22 S. 175 W.,
	MW	iPNEZ		07	14 d		O = 13:55.3,h = 150 km
		ipP			51		
		e		08	46		BCIS: 22 1/4 S. 177 W.,
	R	iPNEZ		07	17 d		O = 13:55.3,h = 150 km
		i			38		
		ipP			54		Apia reports.
		i SNEZ		17	11		P 13 57 36
		iP'P'		34	21		S 59 12
		e			48		
	Pr	iPNEZ!		07	16 d		A T
		i			24		PZ 1 1/2 1 1/2
		i			42		PH 3/4 1
		ipPNZ!			51		pPZ 3 3
		i		08	08		SH 9 9
		eSE		17	08		
		iSN			11		Magnitude about 7
		eP'P'		34	10		
		i			54		
		i		37	29		
	LJ	iPNEZ		07	14 d		
		ipPNEZ			48		
		iSNE		17	04		
	SB	iPNEZ		07	10 d		
		ipP			48		
		iSNEZ		16	59		
	H	iPNEZ		07	20 d		
		i			30		
		ipP			59		
		eSN		17	21		
		eP'P'		34	03		
		e			51		
	T	iPNEZ		07	23 d		
		ipP		08	00		
		iSNEZ		17	25		
		eP'P'		33	56		
Jan. 22	P	iP	20	21	45 c		Tu iP 20 21 15 c
		i			58		i 25
		i		22	02		i 32
	MW	iP		21	46 c		
		i			55		
	R	iP			42 c		
		i			52		
		i			58		
	Pr	iP			39 c		
		ipP			56		Andes
		i		22	06		
	LJ	eP		21	39 c		
	SB	iP			57 c		
	H	iP			54 c		
	T	iPNEZ			58 c		
		i		22	11		
		i			15		
Jan. 22	P	iP	21	00	51 c		Tu eP 21 01 36
		ipP		01	08		epP 50
	MW	iP		00	52 c		
		ipP		01	08		
	R	iP		00	54		
		ipP		01	11		
	Pr	iP		00	57		
		ipP		01	13		
	LJ	e			12		

Date	Sta	Phase	h	m	s	Remarks
Jan. 23	P	iP	18	06	40	Tu iP 18 06 27
	MW	eP			40	
	Pr	iP			33	
	T	iP			59	
Jan. 23	P	iP	19	53	24	
		i			35	
	MW	iP			25	
		i			34	
Jan. 24	P	eP	02	59	20	Tu iP 02 58 54
		iEZ			37	i 59 03
		iSN	03	00	46	
	MW	iP	02	59	21	i(S) 50
		i			35	
	R	iP			11	
		i			29	
		i	03	00	11	
	Pr	iP	02	59	10	
		iEZ			26	
		eSN			59	
		i	03	00	01	
	SB	eP	02	59	51	
		i	03	00	01	
	T	eP	02	59	20	
		i			34	
		iSEZ			42	
Jan. 24	Pr	iP	07	24	25	Tu iP 07 23 42
		i			33	i 24 05
	T	eP			52	
Jan. 24	T	eP	08	05	59	Tu e 08 05 25
						e 06 10
Jan. 24	MW	eP	11	09	42	Tu eP 11 10 14
	Pr	iP			37	e 24
		e			46	
	T	eP			09	
		e			25	
Jan. 24	P	eP	12	35	55	Tu eP 12 36 30
	MW	eP			58	e 44
	R	iP		36	00	
	Pr	iP			04	
	T	iP		35	49	
Jan. 24	P	iP	15	10	43	Tu eP 15 11 24
	MW	eP			45	e 40
	R	iP			47	e 12 53
		i		11	03	
	Pr	iP		10	54	
		i		11	11	
		i			27	
	T	eP		10	23	
		e			39	
Jan. 24	PX	iP	18	00	59	Tu eP 18 01 27
		e		04	31	i 06 27
		iPPE		05	18	iPKKP 16 06
		iPP			30	
		iSKS		11	31	
		iSN		13	2	
		iPS		14	40	
	P	ePKKP		16	43	
		i		17	02	
	PX	iSSNE		20	0	
		iGNE		30	3	(continued)

Date	Sta	Phase	h	m	s	Remarks
Jan. 24	MW	e(P)	18	01	04	(continued)
		e		04	33	
		ePKKP		16	51	
	R	eP		01	05	
		e		04	10	
		e			50	Destructive, Philippines
		ePKKP		16	31	Magnitude about 8
		e			46	USCGS: 10N, 122 E.,
	Pr	eP	18	00	57	O = 17:46.6
		i		01	24	
		e		04	32	BCIS: 9 5 N 122.1 E.,
		i			56	O = 17:46:37
		ePKKP		16	32	
	SB	e(P)		00	59	A T
		eN		11	27	P 13 20
nts	T	eP		00	59	PPH 30 20
area		iPP		04	34	PPZ 30 20
the		e SN		11	42	SH 30 20
		iPKKP		16	46	GH 700 55.
						MH 600 20
Jan. 24	P	iPNEZ	23	13	09 d	Tu iP 23 12 10 d
		i			22	i 27
		i			28	i 34
		iPcP		16	56	i 13 47
	MW	iP		13	10 d	i 14 25
		i			31	
	R	iPNEZ			04 d	
		i			17	
		iPcP		16	54	USCGS: 19 N. 98 W.,
		i		17	11	O = 23:08.1
	Pr	iPNZ		12	57	
		i(pP)EZ		13	15	JSA: 17.8 N. 98.7 W.,
		ePcP		17	00	O = 23:08:04
	LJ	eP		12	56	h = 100 km.
		e		13	17	
	SB	iP			22	
		i			29	
		i			43	
	H	ePN			22	
		eN			47	
	T	iPNZ			28	
		i			49	
		iPcP		16	59	
		i		17	17	
Jan. 25	MW	eP	06	12	28	Tu e 06 16 50
		e		15	40	e 17 38
	T	eP		12	18	Philippines
		e		15	30	
Jan. 25	MW	iP	13	57	45.	
	R	iP			47	
	Pr	iP			50	
	T	eP			46	
Jan. 26	MW	eP	09	13	09	Tu eP 09 13 09
		e			32	e 18
	R	eP			09	
		e			15	
Jan. 26	P	e(P)	14	29	05	
	PX	eLN		54	8	
	MW	eP		28	47	Philippines?
		e		29	13	
	R	i(P)			05	USCGS: 10 N 122 E.,
		e			38	O = 14:10.8
	T	e(P)			17	

Date	Sta.	Phase	h	m	s		Remarks
Jan. 26	P	iP	19	01	24		Tu
		i			49		
		i		03	12		
		i			53		
	MW	iP		01	24		
		i			44		
		i			52		
		i		04	57		
	Pr	iP		01	36		
		iNEZ			41		
		i		02	04		
		iEZ			11		
		i		05	09		
	T	iP		00	57		
		i		01	26		
		i		04	23		
Jan. 26	Pr	iP	19	59	31		Tu
		iNEZ			34		
Jan. 26	Pr	iPNZ	20	33	46		Tu
Jan. 27	P	iP	12	09	27	d	Tu
		i			30		
		iNEZ			44		
		ipP		11	40		
		i		12	25		
		i(sP)			45		
	PX	esPPE		15	20		
		eSN		18	36		
		iSNE			46		
		iNEZ		19	08		
		i			37		
		eSSE		24	.1		USCGS: 20 S. 178 W.,
		eSSNZ		27	.1		O = 11:58.3
	P	eP'P'		36	34		h = 600 km.
		i		38	53		
	MW	iPNEZ		09	28	d	
		i			36		
		ipP		11	46		
		i(sP)		12	48		
		eSN		18	41		
		iSNE			48		
		eP'P'		36	22		
		i		38	56		
	R	iP		09	29	d	
		iNEZ			37		
		ipP		11	43		
		eSNE		18	43		
		iSNEZ			56		
	Pr	iPEZ		09	30	d	
		iEZ			38		
		ipP		11	45		
		i		12	34		
		i			56		
		iSEZ		18	54		
		iP'P'		36	28		
		i		38	49		
	LJ	eP		09	30		
		iNEZ			34		
		ipP		11	46		
		iSNE		18	47		
	SB	iNEZ		09	28	d	
		ipP		11	34		
		iSNE		18	40		(continued)

							Remarks
							A T
			PZ	3			1 1/2
			PH	4			2 1/2
			SH	30			10
Jan. 26	Pr	iP	20	00	24		Tu
		i			34		
Jan. 26	Pr	iP	20	34	43		Tu
Jan. 27	P	iP	12	09	50	d	Tu
		i			57		
		ipP		12	10		
		iS		19	26		
		iPKKP		28	04		
		i P'P'		36	24		
		i		38	39		

Date	Sta.	Phase	h	m	s		Remarks
Jan. 27	H	ePN	12	09	38		(continued)
		iNE			42		
		eSNE		18	55		
	T	iP		09	36	d	
		i			42		
		ipP		11	58		
		i		12	55		
		eSNEZ		18	57		
		iSNEZ		19	07		
Jan. 27	MW	iP	14	03	49		Tu
	R	iP			54		
	Pr	iP			51		
Jan. 28	P	iP	00	18	18		
	MW	iP			19		Tu
	R	iP			19		
	T	iP			24		
Jan. 28	P	eP	04	01	49		Tu
		e		02	38		
		e		05	12		
		iPP			53		Philippines
		i		06	21		
	PX	iSE		13	18		USCGS: 10 N, 122 E.,
		e		15	36		O = 03:47.2
		i		16	07		
		e		19	25		A T
		i		21	41		SH 1 1/2 3
		e		25	.8		MH 2 20
		eGN		31	.9		
	MW	eP		01	49		
		i		06	22		
	R	eP		01	52		
		i		06	27		
	T	iP		01	45		
		e		05	57		
		i		06	08		
Jan. 28	P	i	16	10	08		Tu
		i			23		
	MW	e		09	36		
		i		10	21		USCGS: 38 N, 68 E.,
	Pr	e		09	14		O = 15:51.3
		e			40		
	T	e			41		BCIS: 36 1/2 N. 68 E.,
		i		10	16		O = 15:51.3
Jan. 28	Pr	eP	18	55	13		Tu
		e			25		
	T	eP			40		
		e			50		
Jan. 28	MW	eP	20	36	40		Tu
	Pr	i		37	46		
	T	eP		36	11		
Jan. 28	MW	eP	22	27	36		Tu
	Pr	iP			51		
	T	iP			09		
Jan. 28	T	eP	22	58	19		Tu
Jan. 29	P	iP	03	57	59		Tu
		i		58	07		
		e			32		
	MW	iP			00		Andes
		i			07		
		i			29		
	R	iP		57	56		
		i		58	24		
		i			38		(continued)

							Remarks
							iP 14 04 12
							iP 00 18 36
							i 19 09
							i 04 06 04
							e 53
							ePKKP 16 40

Date	Sta.	Phase	h	m	s	Remarks
Jan. 29	Pr	iP	03	57	51	(continued)
		i		58	13	
		i			22	
	T	iP			13 d	
		i			25	
		i			43	
Jan. 29	R	eP	10	13	13	Tu eP 10 12 27
		e			21	
	Pr	eP?		12	53	
		e		13	18	
	T	eP			32	
Jan. 29	P	eP	13	27	37	Tu iP 13 28 08
	MW	eP			37	
	R	eP			38	
	Pr	iP			45	
	T	iP			13	
Jan. 29	MW	eP	19	03	40	Tu eP 19 04 22
		e-		04	09	
	R	eP			44	
		e			51	
	T	eP		03	19	
		e			27	
Jan. 30	P	eP	03	08	08	Tu iP 03 07 55
		i			52	
	PX	iLNZ		27	.6	
	MW	eP		08	06	
		i			12	
		i			54	
	R	eP			06	USCGS: 28 S, 113 W,
		i			20	O 02:57.7
	Pr	iP			10	
	H	eP			24	
	T	iP			29	
		e			41	
Jan. 30	MW	eP	06	46	12	Tu eP 06 47 02
		e			32	e 12
		e			51	
	R	e			36	
	Pr	eP			12	
	H	eP			16	
	T	eP		45	59	
Jan. 30	P	e	09	03	54	Tu eP 09 02 50
		e		04	14	e 04 32
	PX	eNZ		14	07	e 05 52
		eL		52	.4	
	MW	e		02	42	USCGS: 24 N, 64 E.,
		e		04	12	O = 08:43.6
	Pr	e(P)		03	13	
		e		04	27	BCIS: 25 N, 65 E.,
	H	e		02	44	O = 08:43.8
	T	e			42	
		e		03	58	
Jan. 30	MW	eP	12	54	38	Tu eP? 12 55 31
	R	eP			38	e 43
	Pr	iP			54	
	H	eP			31	
	T	iP			23	

Date	Sta.	Phase	h	m	s	Remarks
Feb. 1	P	iP	16	56	41	Tu iP 16 57 12 c
		i			51	i 28
	MW	iP			43	i 36
		i			51	
	R	iP			44	
		i			54 c	
	Pr	i			54 c	
Feb. 1	P	iP	20	40	31	Tu iP 20 40 47
		i			37	i 50
		i			43	i 56
	MW	iP			32	
		i			39	
		i			47	
	R	iP			34	
		i			40	
		i			47	
	Pr	i			39	
Feb. 1	R	eP	21	42	25	Tu iP 21 42 42
Feb. 1	MW	iP	23	55	20	Tu iP 23 55 42
	R	iP			22	e 57 27
		e		56	42	
Feb. 2	P	e(P)	05	42	20	Tu eP 05 41 34
	MW	eP			16	i 57
	R	eP			10	
	Pr	iP			06 c	
		i			11	
		i			54	
Feb. 2	Pr	iP	06	31	45	Tu eP 06 31 53
Feb. 3	P	eP	00	40	11	Tu iP 00 40 32
		i			40	i 59
	PX	eLNE	01	03		i 41 08
	MW	iP	00	40	09	
		i			37	Near Apia, which reports:
	R	iP			13	P 00 31 15
		i			39	S? 32 07
	Pr	iP			11	
	SB	eP?			03	
		i			19	
	H	e			19	
Feb. 3	P	iPEZ	06	23	06	
	MW	iP			02	
		i			04	
		i			14	
	R	iP			11	
		i			13	
	Pr	iP			12	
Feb. 3	P	iPNEZ	11	53	29	
		i			41	Tu iP 11 53 53
	MW	iP			31	i 54 05
		i			34	Small surface waves recorded at
		i			42	Pasadena
	R	iP			32	Near Apia, which reports:
		i			44	eP? 03 02 34
	Pr	iP			32	S? 03 36
		i			35	
	LJ	eP			35	
	SB	iP			27	
		i			39	
	H	eN			40	

Date	Sta.	Phase	h	m	s		Remarks
Feb. 4	P	eP	02	23	41		Tu eP 02 24 22
		e		24	44		
	PX	eLZ		32	7		
	MW	eP		23	42		
	Pr	eP			52		
	T	eP			19		
Feb. 4	P	iP	03	12	21		Tu iP 03 12 45
		i			32		i 55
	MW	iP			23		
		i			31		
		i			42		
	Pr	iP			24		
		i			35		
		i			43		Near Apia, which reports:
	LJ	eP			21		
		e			40		eP? 03 02 34
	SB	iP			16		S? 03 36
		i			25		
	H	iP			31		
		i			40		
	T	iP			33		
		i			43		
Feb. 4	P	eP	05	03	53		Tu eP 05 04 06
		e		04	03		
	MW	eP		03	54		
		e		04	03		
	Pr	eP		03	57		
	T	eP			57		
Feb. 4	MW	iP	10	49	17		Tu iP 10 49 41
		i			20		i 44
	Pr	iP			19		
		i			22		
	T	iP			25		
Feb. 5	T	eP	21	09	26		Tu eP 21 09 46
Feb. 6	P	iP	01	45	49	c	Tu iP 01 46 23
		ipP		46	41		ipP 47 15
		iSNE		56	51		
	R	iP		45	54	c	
		ipP		46	43		
	Pr	iP		45	57	c	
		ipP		46	48		
	LJ	epP			44		CMO: 20 N. 145 E.
	SB	iP		45	45		
		ipP		46	36		
	H	iPNEZ		45	48		
		ipP		46	40		
	T	iPNEZ		45	47		
		ipP		46	38		
		eSE		56	48		
Feb. 6	T	iP	06	06	52		Tu iP 06 07 07
		e		07	13		i 32
Feb. 6	R	eP	06	26	32		Tu iP 06 27 03
	T	iP			21		CMO: 38 N. 141 5 E.
Feb. 6	P	iP	13	15	09		Tu iP 13 16 14
		i			17		
		i(S)E			57		37.2 N. 117.9 W.,
	MW	ePNE			09		O = 13:14:13
	R	iPNEZ			11		Magnitude 4.2
		i			21		
		e(S)			59		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Feb. 6	Pr	iP	1	15	21		(continued)
	SB	iP			18		
		iS			54		
	H	iPZ			39	d	
		iSNEZ			58		
	T	iPNEZ			26	c	
		iSN			31		
Feb. 6	T	eP	21	20	38		Tu eP 21 24 34
Feb. 7	Pr	iP	19	19	46		Tu iP 19 19 58
	T	iP			41		
Feb. 7	Pr	iP	20	43	21		Tu iP 20 42 40 c
Feb. 9	P	iP	13	12	18		Tu iP 13 12 12
	PX	iPPNZ		16	32		i 20
		iSKSNEZ		22	55		i 34
		eSE		23	57		iPP 16 32
		iPSEZ		25	34		e 24 57
		ePPSZ		26	30		iPKKP 28 17
	P	iPKKP		28	11		i 38
	PX	eL		47	3		
	R	iP		12	16		
		iNZ		25	38		
		iPKKP		28	11		BCIS: 35.4 N. 27.2 E.
	Pr	iP		12	19	d	O = 12:58:13
		i			26		
		iPP		16	34		Destructive on Karpathos
		i		17	16		
		i		25	42		A T
		iPKKP		28	11		PPH 1/2 2 1/2
		i			32		MH 60 20
		e		32	38		
	LJ	eNE		23	06		Magnitude about 7 1/4
		iN		25	42		
	SB	iP		12	21		
	H	iPNEZ		12	11	d	
		i		28	41		
	T	iP		12	08	d	
		iPP		16	19		
		eE		22	48		
		iPKKP		28	19		
Feb. 9	P	iP	15	09	01		Tu iP" 15 12 59
		i			15		i 13 58
		iP"NEZ		12	47		i 14 40
		i(PP)EZ		13	39		iPKKP 23 08
		i		14	01		e 25 43
		i(PPP)		16	07		i 27 06
	PX	eSKSE		19	12		
	P	ePKKP		23	36		Near Halmahera
	R	eP		09	05		
		i			10		
		iP"		12	49		
		i		13	39		
		i		16	12		
		iPKKP		23	29		
	Pr	eP		09	02		
		i(pP)			33		
		iP"		12	48		
		i		13	05		
		i			24		
		i			41		
		iPKKP		23	31		
		e(SKKP)		26	38		(continued)

Date	Sta	Phase	h	m	s	Remarks
Feb 9	H	eP	15	09	07	(continued)
		iP"		12	48	A T
		i		13	36	P Z 1 1/2 2
		ePKKP		23	35	PPZ 1/2 1 1/2
	T	iP		08	53	Magnitude 7?
		iP EZ		12	46	
		ePKKP		23	08	
		i			43	
Feb 10	T	iP	00	02	28	Tu eP 00 03 15
Feb 10	P	iP	03	08	51	Tu iP 03 09 36
	Pr	iP		09	04	
	T	iP		08	37	
Feb 10	P	iPNEZ	03	30	02 d	Tu iP 03 31 20
		iS			29	Fresno (courtesy of
	MW	iPN			04	Mr. J.E. Meeker)
	R	iPNEZ			08 d	iP 03 29 47
		iSNE			37	iS 30 00
	Pr	iPEZ			18	
	SB	iPND			00	36°05' N, 118° 48' W.
		iSE			24	O = 03:29:28
	H	iPNEZ		29	42 c	Magnitude 4.6
		iSNE			52	
	T	iPNEZ			49 d	
		iSN		30	03	
Feb 11	T	iP	10	40	12	Tu iP 10 39 29
Feb 11	P	iP	15	48	44	Tu iP 15 49 20
	PX	eLN		57	8	
	MW	ePN		48	44	USCGS: 64 N, 147 W.
	Pr	iP			54	O = 15:41 9
	T	eP			21	
Feb 13	P	i	00	28	04	Tu i 00 28 34
	R	i			09	
	Pr	i			11	
	T	iP?		26	16	
		i		28	16	
Feb 13	P	e	05	15	33	Tu e 05 16 12
		e		16	12	e 26 58
	PX	eLEZ		39		BCIS: 35 1/2 N, 82 E.
	R	e		15	39	O = 04:56:58
	H	e			52	
	T	e			32	Magnitude 6 1/2
		e			43	
		e		27	13	
Feb 13	T	iP	06	30	00	
		e			27	
Feb 13	T	iP	15	42	56	Tu iP 15 43 11
Feb 14	P	iP	00	54	50	Tu iP 00 55 14
		e		55	04	e 24
	PX	eL	01	23		
	R	eP	00	54	53	
	Pr	iP			54	
	H	eP			58	
	T	iP			57	
Feb 14	Pr	iP	01	43	50	Tu iP 01 44 24
Feb 14	P	iP	06	27	45	Tu iP 06 28 13
		ipP		30	05	ipP 30 34
	R	eP		27	48	
		epP		30	10	
	Pr	iP		27	49	
		i			54	
		ipP		30	12	
	T	eP		27	50	
		ipP		30	13	

Date	Sta	Phase	h	m	s	Remarks
Feb 14	P	iP	09	16	19 c	Tu iP 09 16 43 c
	R	iP			21	
	Pr	iP			21 c	
	H	eP			25	
	T	iP			27	
Feb 14	Pr	i(P)	10	33	15	Tu eP 10 33 39
		i			23	
	T	eP			19	
Feb 14	P	iPNEZ	11	04	02 c	Tu iP 11 03 20 c
		ipP		06	09	ipP 05 45
	P'	iSE		13	15	e 46 29
	P	eP'P		33	29	
		e		46	10	USCGS: 27 1/2 S, 63 W.
	MW	iPNE		04	01	O = 10:52.7
	R	iPEZ		03	59 c	h = 600 km
		ipP		06	06	
		i		07	27	
	Pr	iP		03	55 c	A T
		ipP		06	01	PZ 1 1
		e		46	10	PH 3/4 1
	LJ	iP		03	54	SH 3/4 3
	SB	iPnez		04	08 c	
	H	iPNEZ			09	
		eSE		13	28	
	T	iPNEZ		04	13 c	
		ipP		06	21	
		isP		07	45	
		eP'P		33	17	
		e		46	13	
Feb 14	P	eP	12	07	04	Tu iP 12 07 35
		i			29	i 54
	R	eP?			06	i 08 12
		e			12	
	Pr	eP			06	
	SB	eP		06	57	
	H	eP		07	00	
	T	eP		06	57	
		i		07	03	
		i			22	
Feb 14	P	eP	13	28	11	Tu iP 13 28 37
	R	eP			13	i 51
	Pr	iP			14	
	T	eP			18	
Feb 14	P	eP	13	33	50 d	Tu iP 13 34 18
	PX	eL		57		e 32
	R	eP		33	53 d	Southwest Pacific
	Pr	iP			53 d	
	SB	eP			44	
	H	eP			52	
	T	eP			56 d	
Feb 14	P	i	14	18	44	Tu e(P) 14 15 55
		e		20	14	
	R	i		18	47	
		e		20	22	Two shocks?
	Pr	e(P)		15	25	
		e		18	41	
	T	e?		15	34	
		e		18	45	
		e		20	20	

Date	Sta.	Phase	h	m	s		Remarks
Feb. 14	T	eP	16	16	14		
Feb. 14	P	iP	22	09	02		Tu eP 22 09 38
	MW	ePNE			02		
	R	iP			06		USCGS: 64 N. 147 W.
	SB	eP		08	58		O = 22:02.2
	H	eP			50		
	T	eP			41		
Feb. 14	P	iP	22	10	25		Tu iP 22 09 40
	PX	iSNE		18	24		
	MW	ePN		10	30		USCGS: 9 S. 78 W.
	R	iP			20		O 22:00.5
	Pr	iP			15		
	LJ	iPNZ			18		
	SB	eP			32		
	H	iP			33		
	T	iPEZ			40		
Feb. 15	P	eP	00	39	44		Tu iP 00 39 00
		i			50		i 04 c
		e		41	32		
	MW	ePN		39	43		
	R	eP			37		
		i			42		
	Pr	iP			37		
	SB	eP			58		
	H	eP			54		
	T	iP			59	c	
		i		40	06		
Feb. 15	Pr	iP	03	40	37		Tu eP 03 40 55
	T	eP			43		
Feb. 15	P	iP	04	06	36		Tu iP 04 07 19 d
		i			44		i 13 19
	MW	ePN			37		
	R	iP			49	d	
		i			58		
	Pr	iP			47	d	
		i			57		
		e		13	00		
	LJ	iP		06	49		
	SB	eP			29		
	H	iP			23		
		i			32		
	T	iP			16	d	
		e		09	11		
		e		12	52		
Feb. 15	P	iPNEZ	15	14	06	c	Tu iP 15 14 38 c
		ipP			58		ipP 15 27
	MW	ePNE			07		
	R	iPEZ			09	c	
		ipP		15	00		
		e			18		
	Pr	iP		14	12	c	
		ipP		15	04		
	LJ	iP		14	11		CMO: 24 N. 142 E
		epPNZ		15	03		
	SB	iPNEZ		14	01	c	
		ipP			52		
	H	iPNEZ			03		
		ipP			56		
	T	iPNEZ			02	c	
		ipP			54		
		i		15	19		

Date	Sta.	Phase	h	m	s		Remarks
Feb 15	R	eP	21	18	56		Tu eP 21 18 24
		e		23	28		e 22 57
		e		24	03		
	Pr	eP		18	55		Two shocks?
		e		23	28		
		e		24	02		
	T	e?		19	13		
		e		24	01		
Feb. 16	T	iP	00	20	30		Tu iP 00 21 30
		i			39		i 39
Feb. 16	R	eP	00	43	38		Tu iP 00 44 07
	Pr	eP			35		
	T	iP			11		
		e		44	10		
Feb. 16	R	eP	05	21	33		Tu eP 05 21 49
	Pr	iP			32		
	T	eP			40		
Feb. 16	P	iP	07	25	52	c	Tu iP 07 26 37 c
	R	iP			55		ipP 27 12
		e		26	15		i 31
	Pr	iP!			02	c	
		ipP			38		
		i			55		
	LJ	iPNE			04		
	H	iP			43		
	T	iPEZ			38	c	
Feb. 16	P	iP	17	42	49		Tu eP 17 42 35
	R	iP			48		
	Pr	eP			44		
	T	iP		43	09		
Feb. 16	P	iP	22	45	42	c	Tu iP 22 45 16 c
		i			59		
	MW	iP			47	c	
	R	iP			44		
		i			56		
	T	iP		46	00		
Feb. 17	P	iP	00	09	27		Tu iP 00 10 08 c
		i			40		i 20
	MW	iP			28	c	
	R	iP			31	c	
		i			44		
	Pr	iP			38		
	T	iPEZ			14	c	
		i			27		
Feb. 17	P	iPNEZ	06	03	45		Tu eP 06 04 51
		i			51		i 05 12
		iSEZ		05	27		
	MW	iP		03	45		
		i			59		
	R	iP			52		
		i		04	00		
	Pr	iP			03		
	SB	eP		03	39		
	H	iP			30		
	T	eP			17		
		i			28		
		i(S)		04	46		
Feb 17	P	eP	11	44	03		Tu eP 11 44 44
	MW	eP			01		
	T	eP		43	46		

Date	Sta.	Phase	h	m	s		Remarks
Feb. 17	P	iP	14	04	35		Tu iP 14 05 00
	MW	iP			36		
	R	iP			38		
	T	iP			45		
Feb. 17	P	iP	20	13	46		Tu eP 20 14 19
	MW	eP			45		Near Guam, which reports:
	R	eP			48		P 20 01 42
	T	eP			47		S 02 08
Feb. 18	P	eP	06	30	01		Tu eP 06 29 54
	MW	eP			02		
	R	eP			03		
	Pr	iP			01		
	LJ	eP			11		
	H	eP			00		
	T	eP		29	55		
Feb. 18	MW	iP	06	41	40		Tu iP 06 40 56
	Pr	iP			11		Part of the preceding?
	T	iP			34		
Feb. 18	P	iP	15	02	54		Tu iP 15 03 26
		e		03	06		
	MW	iP		02	54		
	R	iP			57		
		e		0	08		
	Pr	iP			00		
		e			11		
	LJ	eP			01		
	SB	eP		02	47		
	H	eP			53		
	T	iP			51		
		e		03	11		
Feb. 18	P	iP	20	40	18	c	Tu iP 20 40 29
		i		42	18	c	i 39
	PX	ePP			51		eP P 21 09 10
		eN		43	40		
		iSNE		48	50		
		eSSNE		52	51		USCGS: 82 N. 43 E.,
		eN		53	51		O = 20:29.8
		eLEZ		57			
	P	iP P	21	09	10		BCIS: 82.3 N. 43 E.,
	MW	iP	20	40	17		O = 20:29:48
		eSNE		48	50		
		iP P	21	09	26		A T
	R	iP	20	40	18		PZ 1 1/4 4
		iP P	21	09	16		SH 5 6
		i			25		MH 35 20
	Pr	iPEZ	20	40	23	c	
		i			33		Magnitude 6 3/4
		i			45		
		eP P	21	09	15		
		i			27		
	LJ	eP	20	40	27		
	SB	eP			17		
		eSE		48	50		
	H	iP		40	05		
		eSN		48	31		
	T	iP		40	00	c	
		eSNE		48	18		
		eP P	21	10	00		

Date	Sta	Phase	h	m	s		Remarks
Feb. 19	P	iPNEZ	08	27	16		Tu iP 08 28 34
		iSNEZ		28	55		i 44
	MW	iP		27	16		
		i			25		
		iS		28	53		
	R	iP		27	22		Felt at Eureka, California
		i			29		
	Pr	ePEZ			33		Magnitude 5
	SB	eP			02		
		i			06		
		eS		28	27		
	H	eP		26	59		
		eSN		28	47		
	T	eP		26	47		
		iSNE		28	15		
Feb. 19	MW	iP	09	59	43		Tu iP 10 00 06
	Pr	iP			46		i 01 10
	T	iP			50		
Feb. 19	P	i	10	09	25		Tu iP 10 08 31 c
		ipPr			40		ipP 46
		iPcP		12	17		i 12 03
	MW	iP		09	25		eScP 16 11
		ipP			39		
		i		10	02		
		ePcP		12	17		
	R	iP		09	19		
		ipP			35		
		i			45		
		iPcP		12	15		
	Pr	iPEZ		09	13	c	
		ipPEZ			28		
		iPcP		12	12		
	H	iP		09	32		
		ipP			47		
		iPcP		12	20		
	T	iP		09	39	c	
		iPcP		12	22		
		epPcP			37		
		eScP		16	06		
		e			35		
Feb. 19	R	eP	10	44	13		Tu iP 10 44 29
	T	eP			00		
Feb. 19	MW	e	18	48	31		
	R	e			21		
Feb. 19	MW	eP	21	37	25		Tu iP 21 37 48
	T	eP			34		
Feb. 19	P	i	22	17	10		Tu e 22 17 22
		e			28		i 20 53
		i		20	29		
	MW	iP		17	11		
	R	eP			11		
		i		20	31		
	T	e		17	09		
Feb. 20	P	iP	01	32	29		Tu iP 01 31 44 c
	MW	iP			29		
	R	iP			25		
	Pr	iP			19		
	T	iP			43		
Feb. 20	P	iP	01	35	50		Tu iP 01 35 04
	MW	iP			49		
	R	iP			45		
	Pr	iP			39		
	T	iP		36	03		
		i		37	04		

Date	Sta	Phase	h	m	s		Remarks
Feb. 20	P	iP	06	07	05		Tu iP 06 07 46
	MW	iP			06		
	R	eP			10		
	Pr	iP			14		
	T	iP		06	43		
		i		07	19		
Feb. 22	P	iP	11	24	14		Tu iP 11 24 39 c
	MW	iP			14		Near Apia, which reports:
	Pr	iP			16		P 11 14 16
	T	iP			24		S 15 06
		i		25	32		
Feb. 23	P	iP	09	39	00		Tu i 09 55 51
	PX	eLEZ	10	09.3			
	R	iP	09	39	03		
	T	iP			01		
Feb. 24	R	eP	02	41	38		Tu eP? 02 41 45
		e(L)		44	44		e 53
	T	eP		41	13		e(L) 44.8
		i			31		
		eSNE		43	24		
Feb. 24	P	iP!	08	15	39	d	Tu eP 16 16 47
		iNEZ!			44		i! 49
		iSNE!		16	02		i 58
	MW	iPEZ!		15	40	d	
		iSNE		16	03		
	R	iPNEZ		15	41	d	
		iSE		16	03		
	Pr	iPNEZ!		15	39	d	
	LJ	iPNEZ!			32	d	Felt at San Diego and along the c
		iNE			36		32°30' N. 118° 33' W.,
	SB	iPNEZ!			46	c	O = 08:15:10
		i!			51		
		iSNE		16	12		Magnitude 5.3
	H	iPNZ!			09		
		iSN		17	04		
	T	iP		16	21		
		iNEZ			23		
Feb. 25	P	ipPEZ	15	17	42		Tu eP 15 17 25
	MW	eP			00		ipP 18 04
		ipP			44		
	R	eP			03		
		ipP			46		
	Pr	iP			03		
		ipPNEZ			47		
	SB	epP			43		
	H	ipP			47		
	T	eP			05		
		ipP			48		
Feb. 26	P	iP	12	43	16		Tu iP 12 43 48
	MW	eP			18		
	R	iP			24		
	Pr	iP			29		
	T	iP			34		
Feb. 26	Pr	iP	12	55	59		Tu iP 12 55 19
	T	iP		56	20		
Feb. 26	T	iP	19	32	32		
Feb. 26	T	eP	23	03	12		Tu eP 23 02 08
Feb. 27	MW	eP	02	25	43		Tu iP 02 25 33
	R	iP			41		
	Pr	eP			41		
	T	iP			48		

Date	Sta	Phase	h	m	s		Remarks
Feb. 27	P	iPNEZ	06	22	05	d	Tu eP 06 23 13
		i			09		i 16
		iSN!			33		
	MW	iP!			06	d	
		iSNE			28		
	R	iPNEZ!			08	d	32.2 N. 118.9 W.,
		iSNE			31		O = 06:21:31
	Pr	iPNEZ!			05	c	
	LJ	iPZ		21	57		Magnitude 4.9
		iSNE		22	13		
	SB	iP			12	d	
		iSN			39		
	H	iPNEZ			35		
	T	iP			48		
Feb. 28	P	iPNEZ	02	03	00		Tu iP 02 03 43
	PX	iSNEZ		07	05		
		i(I)E		08	05		
	MW	iP		03	00		USCGS: 53 1/2 N. 133 W.,
	R	iP			04		O = 01:58.1
	Pr	iP			13		
	LJ	eP			15		A T
	SB	iP		02	53		PZ 3 3
	H	iP			44		PH 3 4
	T	iP			34		SH 18 10
		eSE		06	22		MH 40 20
							MH 30 10 Magnitude
Feb. 28	P	iP	08	08	50		about 6 1/2 Tu iP 08 08 08
	MW	iP			50	d	
	R	iP			46	d	
	Pr	iP			43		
	T	iP		09	02		
Feb. 29	P	iP	04	45	21		Tu iP 04 46 05
		i			31		
	MW	iP			19		
		i			29		
	R	eP			26		
		i			34		
	Pr	iP			34		
		i			42		
	SB	eP			21		
	H	eP			03		
	T	iP		44	56		
		i		45	10		
March 1	PX	eP	01	27	07		Tu eP? 01 27 40
	P	i		31	02		i 31 15
	PX	iPPEZ			52		i 29
		iSKSNE		37	47		i 32 30
		iE		38	46		e(PS) 42 30
		i(S)NE		39	30		
		iPSNEZ		41	09		
		iSSN		47	.2		A T
		e LN		58	.1		PZ 4 16
	MW	eP		27	13		PPZ 8 8
		i		31	03		PPH 20 20
	R	eP		27	12		MH 130 20
		e		30	47		
		iPP		31	49		
	Pr	iP		27	21		Magnitude 7 1/2 - 7 3/4
		e		31	01		
		iPPNEZ			53		
		iSKSNE		37	56		
		ePSE		41	22		(continued)

Date	Sta.	Phase	h	m	s		Remarks
March 1	LJ	ePP	01	31	56		(continued)
		iSKSNE		38	23		BCIS: 4 1/4 S. 127 1/2 E.,
	H	eP		27	20		O = 01:12:28
		e		31	03		Batavia: 3.1S. 128.2 E.,
		iPP			50		Felt, Moluccas
	T	eP		27	07		
		i			32		
		e		30	40		
		iPP		31	48		
March 1	P	iPNEZ	08	12	25	d	Tu i 08 13 42
		iSN			33		i 52
	MW	iPNEZ			23	d	
		iSNE			30		34°10' N. 117° 32' W.,
	R	iPEZ			19	d	O = 08:12:13
		iSNE			23		Depth about 25 km?
	Pr	iPNEZ			33	d	Slight damage (VI) at a few poi
	LJ	iPNEZ			38	d	within 20 km; felt over a wide
		iSNE			58		extending to the coast and into
	SB	iP			45		Mojave Desert.
		iSEZ		13	10		Magnitude 4.7
	H	iPNZ		12	45	d	
		iEZ			49		
		iSNE		13	13		
	T	iPNZ		12	59	d	
		iNEZ		13	06		
		iSE			44		
March 1	P	iP	14	11	33		Tu iP 14 10 56
	MW	iP			34	d	
	R	iP			29	d	
		i			47		
	Pr	iP			24		
	H	eP			41		
	T	iP			46	d	
March 2	MW	iP	02	58	48		Tu iP 02 58 05
	R	iP			43		
	Pr	iP			39		
	T	iP		59	01		
March 2	P	eP	08	59	55		Tu eP 08 59 35
	R	eP			52		
	Pr	eP			52		
	T	eP			43		
March 3	P	ipP	02	36	06		Tu iP 02 34 41
	MW	iP		35	29		ipP 35 19
		ipP		36	04		
	R	iP		35	21		
		ipP			58		
	Pr	iP			17		
		ipP			56		
March 3	MW	iP	04	12	46		Tu iP 04 12 12
		ipP		13	14		ipP 39
	R	iP		12	46		i 50
		ipP		13	12		
March 3	PX	iP	09	24	00		Tu e(P) 09 24 42
		ePP		27	47		ePP 28 07
		iSKSE		34	43		iPKKP 39 42
		eSN		35	.8		USCGS: 18 N. 119 E.,
		ePSN		37	.5		O = 09:09.9
		e		38	19		A T
		i		39	05		PPZ 3 3
		eSSE		43	.0		GH 60 50
		eSSSN		47	.0		MH 12 20
		eGN		52			Magnitude 6 3/4
		iGNE		53	.0		
		eG2N	10	57			(continued)

Date	Sta	Phase	h	m	s		Remarks
March 3	MW	iP	09	24	03		(continued)
		i			25		
		ePP		27	23		
		ePKKP		40	11		
	R	eP		24	15		
		e		40	17		
	Pr	iP		24	07		
		i			38		
		i		27	34		
		i		28	24		
		iPKKP		39	59		
	T	iP		23	55		
		ePP		27	11		
March 3	R	iP	22	19	06		Tu iP 22 18 46
		i			11		i 52
March 4	P	iPNEZ	02	03	15	c	Tu iP 02 02 34 c
		i			38		i 43
		iEZ		04	00		i 53
	PX	iSNE		11	35		i 03 13
		eN		12	18		
		iE			42		USCGS: 10 S. 75 W.,
	MW	iPNEZ		03	16	c	O = 01:53.1
		i			37		
		i			57		A T
	R	iP			08	c	SH 3 8
		i			28		
		i			49		
	Pr	iPNEZ			06	c	
		i			13		
		i			31		
		i			49		
	LJ	ePNZ			07		
	SB	iP			30		
		i		04	03		
		i			21		
	H	eP			23		
	T	iPNEZ		03	29	c	
		i			41		
		i		04	08		
March 4	MW	eP?	06	00	08		Tu iP 06 00 33
	T	eP			02		
March 4	T	iP	06	54	27		Tu iP 06 54 29
March 5	T	iP	02	01	33		Tu iP 02 02 17
March 5	P	iP	10	12	43		
	MW	iP			44		
	R	iP			47		
	T	iP			36		
March 5	P	iP	12	46	39		Tu iP 12 47 05
	MW	iP			40		Near Apia, which reports:
	T	iP			49		iP 12 36 04, iS 12 36 41
March 5	MW	iP	16	00	53		Tu iP 16 00 08 c
	R	iP			48		
	T	iP		01	06		
March 6	P	i	04	56	43		Tu eP 04 56 49
	MW	e(P)			32		i 57 09
		i			43		
	R	eP?			35		
		i			45		
	H	e			47		
	T	e(P)			33		
		e			37		
		i			47		

Date	Sta	Phase	h	m	s	Remarks					
March 6	P	iP	05	34	34	Tu	iP	05	33	52	
	MW	iP			34						
	R	eP			30						
	T	iP			46						
March 6	P	iPNEZ	13	58	01	Tu	iP	13	58	25	
	MW	iP			01		e	14	00	25	
		e		59	58	Deep	e		01	39	
		e	14	00	54	Near Apia, which reports:					
	R	iP	13	58	02	P 13 48 54					
	SB	iP			09	S 50 16					
	H	iP			07						
	T	iPNEZ			09						
March 6	P	iP	14	08	45	Tu	iP	14	09	10	
	MW	iP			46						
	T	iP			54						
March 6	P	iP	18	28	15	Tu	iP	18	28	40	
	MW	iP			16						
March 7	P	iP	05	31	56	Tu	iP	05	32	28	
		i		32	08						
	MW	iP		31	58						
		i		32	09						
	R	iP			00						
		i			08						
	SB	iP		31	50						
		i			58						
	T	iP			52						
		i			59						
March 7	P	iP	11	23	42	Tu	iP	11	24	06	
	MW	iP			43						
	R	iP			45						
	T	iP			52						
March 7	T	e	17	09	40	Tu	e(P)	17	10	30	
							e			46	
March 7	P	e	18	31	08	Tu	i	18	31	52	
		e			13						
	MW	e			16						
	T	e		30	49						
		i			56						
March 7	P	iP	18	35	47	Tu	iP	18	36	12	d
	MW	iP			48		e		38	08	
	R	iP			51						
	T	iP			56						
March 7	P	iPNEZ	19	00	09	Tu	iP	19	00	47	
		ipPEZ			25		i			51	
	PX	iSEZ		08	10		ipP		01	04	
		eL		17	6		eP P		29	46	
	MW	iPNEZ		00	10						
		ipP			26	USCGS: 54 N. 161 E.,					
	R	iP			13	O = 18:50.2					
		ipP			29						
	LJ	e(P)			23		A	T			
		ipP			36	SH	2	7			
	SB	ipP			18						
	H	iP			01						
		ipP			16						
	T	iP	18	59	56						
		ipP	19	00	13						
March 7	T	eP	19	23	04	Tu	eP	19	23	56	
		e			19		e		24	11	
March 7	MW	iP	20	08	25	Tu	iP	20	09	02	
		e			38		e			16	
	T	iP			10						
		e			24						

Date	Sta.	Phase	h	m	s	Remarks					
March 8	P	eP	02	31	36	Tu	iP	02	31	02	
	MW	eP			34		i			09	
	R	iP			31		e			22	
	H	iP			43						
	T	iP			47						
March 8	P	iP	11	14	27	Tu	iP	11	14	51	
	MW	iP			27						
	R	iP			29						
	H	iP			32						
	T	iP			34						
March 8	P	eP	11	21	09	Tu	iP	11	21	32	
	MW	eP			10		i			41	
	R	eP			12		i			50	
	H	eP			15						
	T	eP			17						
March 8	P	i	14	43	20	Tu	iP	14	43	45	
	MW	iP			06						
		i			20						
	T	eP		42	53						
		i		43	07						
March 8	P	iPNEZ	16	20	55	Tu	eP	16	21	25	
	PX	iSE		29	58		i		22	46	
		eL		49	7		e		46	03	
	MW	iP		20	55						
		i		21	08	USCGS: 6 S, 157 E.,					
	R	iPNEZ		20	58	O = 16:07.9					
		i		21	10						
	LJ	ePNEZ			00		A	T			
	H	iPNEZ		20	57	PZ	1/2	1			
		i		21	09						
	T	iPNEZ		20	57						
		i		21	02						
		i			08						
March 8	P	iP	20	24	00	Tu	iP	20	24	25	
	MW	iP			01						
	Pr	iP			03						
	T	iP			09	d					
March 8	P	iP	21	43	46	Tu	i(P)	21	44	19	
	MW	iP			41						
	Pr	eP			45						
	T	iP			34						
March 9	T	iP	09	19	23	Tu	eP	09	18	34	
		i			31						
March 9	P	eP	19	01	19						
	PX	eE		12	32						
		eE		13	39						
		eE		17	06	USCGS: 3 S. 147 E.,					
		eE			50	O = 18 48.0					
		iSSE		19	30						
		eE		26	02		A	T			
		iGE		31	4	PZ	1/4	1			
	MW	iP		01	25	MH	30	20			
	R	eP			22	Magnitude 6 1/2					
March 9	P	iP	19	53	40						
	MW	iP			42						
	R	iP			43						
March 10	R	iP	10	36	14	Tu	iP	10	35	27	
		i(PcP)		38	29		i(PcP)		38	13	
	Pr	iP		36	09		i(ScP)		41	40	
	T	iP			33						
		i(PcP)		38	36						
		i(ScP)		42	09						

Date	Sta.	Phase	h	m	s	Remarks
March 10	P	iP	11	38	09	
	PX	eSE		48	36	
		e		49	38	
		eSSE		54	.4	USCGS 29 S. 177 E.,
		eGE	12	00	.4	O = 11 25.3
	MW	eP	11	38	09	
	R	iP			12	BCIS 21 S. 174 E.,
	Pr	eP			03	O = 11 25.3
		i			20	
	T	eP			12	A T
		i			21	PZ O.2 1
		i			33	MH 20 20 Magnitude 6 1/
March 10	P	iP"	20	22	44	Tu iP" 20 22 57
	MW	iP"			45	
	R	eP"			46	
		e		23	36	
	T	eP"		22	39	
March 11	P	iP	03	08	00	Tu iP 03 08 13 c
	MW	iP		07	59	
	R	iP		08	00	
	T	iP		07	59	
March 11	P	e	12	52	49	
		e			58	
	MW	e			45	
		e			50	
		e			59	
March 11	P	eP	13	43	31	
	MW	eP			32	
	R	eP			34	
	T	eP			34	
March 12	P	e	04	33	02	Tu eP 04 31 03
		eS		35	47	i 11
	MW	eP		32	14	iS 33 07
		e		33	01	Felt strongly in northern Texas and
	R	eP		31	59	adjacent areas (region of 36° N.
		e(S)		35	37	102° W.)
	Pr	e		32	20	
		eS		35	16	
	T	e		32	54	
		eS		35	42	
March 12	R	e?	07	39	09	Tu e 07 38 56
	Pr	i		40	35	
March 12	P	eP	10	59	59	Tu iP 10 59 18
		e	11	00	41	
	MW	iP	10	59	59	
	R	eP			54	
	Pr	iP			52	
		i	11	00	39	
	T	eP			12	
March 12	P	e	12	13	43	Tu e 12 08 08
	MW	e		08	05	
		e		11	51	
	Pr	e		08	01	
		i			36	
		e		09	13	
		i			51	
		e		13	41	
	T	e		09	36	
		e		13	25	
March 12	P	e	20	28	39	Tu e? 20 27 56
	MW	e			41	e 28 03
	R	e			33	South America
	Pr	e			31	

Date	Sta.	Phase	h	m	s		Remarks
March 13	P	eP	05	14	47		Tu eP 05 14 09
	MW	eP			47		i 16
	R	eP			43		i 35
	Pr	eP			38		South America
		i			41		
		e			57		
	T	iP		15	01		
March 13	P	iP!	05	20	08	d	Tu iP 05 20 51 d
		ipP			39		i 59
	MW	iP			08	d	ipP 21 22
		i			16		
		ipP			38		
		e			54		
	R	iP			12	d	Kamchatka?
		i			19		
		ipP			43		
		e			59		
	Pr	iPNEZ!			19	d	
		e			30		
		ipP			49		
		e		21	02		
	LJ	eP		20	22		
	SB	eP			01		
	H	iP		19	56	d	
	T	iPEZ			49	d	
		i			59		
		e		20	35		
March 13	R	iP	05	26	11		Tu iP 05 26 29
	Pr	iP			24		
	T	iP			02		
March 13	P	eP	11	07	54		Tu iP 11 07 39
		i		08	08		i 53
		e			42		i 08 20
	MW	eP		07	55		i 30
		i		08	09		
	R	iP		07	53		Very distant?
		i		08	07		
	Pr	eP		07	50		
		e		08	06		
	SB	e			12		
	T	eP			01		
		e			09		
		i			23		
March 13	P	e	16	12	18		Tu iP 16 12 41
	MW	e			29		i 59
	R	eP			23		
		e			37		
	Pr	e			23		
	T	i(P)			31		
March 13	P	eP	20	17	03		Tu e 20 18 41
		e		20	47		iP" 21 18
		iP"		21	05		iPP 22 22
	PX	ePPE			35		iPKKP 31 52
		i			49		i 32 05
		iSKSE		27	36		
		iNE		28	33		
		iPSEZ		30	50		
		i		31	20		
		iPPS		32	17		
		iSSN		36	57		
		eSSSNE		40	.6		
		eGN		47	.2		(continued)

Date	Sta.	Phase	h	m	s		Remarks
March 13	MW	iPP	20	21	37		(continued)
	R	eP		17	07		USCGS 1 N. 126 E.,
		iPP		21	41		O = 20:02.5
		iPKKP		32	07		BCIS: O = 20:02:28
	Pr	eP		17	12		A T
		e		21	10		PPZ 3/4 4
		i			32		PPH 3/4 4
		i			42		(SKKS)H 7 4
		iSKSNE		27	15		MH 15 20
		iNE		28	15		
		i			45		Magnitude 6 3/4
		iPKKP		31	31		
	LJ	e		21	36		
		eNE		27	44		
		iNE		28	41		
	SB	iNEZ			28		
	T	i		21	30		
March 14	T	iP	06	58	02		Tu iP 06 58 13
March 14	P	iPNEZ	22	07	25	d	Tu iP 22 06 48 d
		i			37		i 51
		i			43		i 07 08
	PX	iSE		16	10		i 20
		eL		28			
	MW	iP		07	26		
	R	iPEZ			23	d	
		i			33		
	Pr	iPNEZ			18		USCGS: 17 S. 75 W.,
	LJ	eP			18		O = 21:56.7
	SB	iP			35		A T
		i			53		PZ 1 1/2 3
	T	iPNEZ			39		PH 1 1/2 3
		i			42		SH 2 7
		i			50		Magnitude 6 3/4
March 15	T	eP	00	09	39		Tu eP 00 09 52
		e			51		e 10 03
March 15	P	iP	02	28	00		Tu iP 02 28 30
		i			22		epP 29 55
	MW	iP			00		e 32 02
		i			26		
		ipP		29	23		
	R	iP		28	03		
		i			35		
		e(pP)		29	35		
	Pr	iP		28	06	c	
		e			15		CMO: 32.0 N. 138.6 E.,
		i			30		h = 300 km.
	H	iP		27	55		
		epP		29	17		A T
	T	iP		27	51		PZ 1/4 1
		epP		29	15		
		i		31	02		
March 15	P	i	11	35	59		Tu iP 11 36 23
	PX	iSE		45	39		i 29
		eL		59			i 33
	MW	eP		35	56		
		i			59		USCGS: 40 N. 140 E.,
	R	eP			53		O = 11:24.1
		i		36	02		
	Pr	iP			00		
		i			07		
	SB	iP		35	54		
		i		36	06		
	T	eP			40		
		i			51		

Date	Sta.	Phase	h	m	s		Remarks
March 15	P	e	14	44	53		
	MW	iP		43	43		
		e		44	49		
	R	eP		43	45		
		i		44	24		
		i		45	09		
	Pr	iP		43	45		
		i			54		
		i		44	26		
	T	eP		43	49		
		e		44	28		
		i		48	25		
March 15	P	iP	15	17	16		Tu iP 15 17 40
	MW	iP			16	c	i 18 13
		e			52		i 24
	R	iP			18		
	Pr	iP			17		
	H	iP			21		
	T	iP			22		
		i		18	01		
March 16	P	eP	17	10	40		Tu iP 17 11 01
	PX	eEZ		16	21		e 09
		e(S)E		21	11		
		e		23	32		
		eGNE		33	2		
		eLEZ		36	8		
	MW	eP		10	39		BCIS: 21 S. 174 E.,
		e			51		O = 16:57.8
	R	eP			40		
		i			53		
	Pr	eP			35		
	T	eP			45		
		e			57		
March 17	P	iP	01	10	02		Tu iP 01 09 30
	MW	iP			03	d	i 49
	R	iP		09	59	d	i 55
		i		10	53		i 10 23
	Pr	iP		09	55		
	H	eP		10	10		Andes?
	T	iP			15	d	
March 17	P	iP	19	54	14		Tu iP 19 54 46
		i			38		e 55 06
	PX	eSN?	20	04	2		i 19
		iNE		04	31		i 28
		eSSE		09	08		i 37
		eLEZ		34	5		e 56 31
	MW	iP	19	54	14		e 57 58
		e			39		USCGS. 16 N. 146 E.
	R	iP			17		O = 09:41 6
		e			32		
	Pr	iP			19		
	H	eP			15		
	T	eP			11		
		i			33		
March 18	P	iP	15	55	58		Tu iP 15 56 50 d
	MW	iP		56	00		i 57 07
	R	iP			03		i 38
	Pr	iP			09		
	H	i(P)		55	41		
	T	iP			23		
		i			30		

Date	Sta.	Phase	h	m	s		Remarks					
March 18	P	eP	21	10	28		Tu	eP	21	10	02	
		i			32			i			25	
		i		11	21			i		11	15	
		iSNEZ			38							
	MW	eP		10	27							
		iSNE		11	39							
	R	iP		10	18							
		eSNZ		11	23							
	Pr	iPNEZ		10	07							
		iSNE		11	00							
	LJ	ePEZ		10	03							
		iSN			51							
	T	eP		11	08							
		i		12	11							
		iSNE		13	11							
March 18	P	iPNEZ	23	14	54		Tu	iP	23	15	17	d
		epP		16	57			epP		17	19	
	MW	iP		14	55	d						
		epP		16	53							
	R	iP		14	57	d						
		epP		16	59		BCIS: 22 1/2 S. 174 1/2 W.,					
	Pr	iP		14	56	d	O = 23:03.8					
		epP		16	56		h = 550 km.					
	H	iP		15	02							
	T	iP			03	d		A	T			
		i			29		PZ	0.3	1			
		epP		17	01							
March 19	T	iP	07	02	17		Tu	iP	07	02	28	
March 20	MW	iP	17	49	51		Tu	iP	17	49	03	
	R	iP			45			e			22	
	Pr	iP			42							
	T	iP		50	05							
March 20	MW	i	23	27	51		Tu	iP	23	28	09	
	R	iP			33			i			21	
		i			45			i			31	
	Pr	i?		27	59							
		i		28	10							
March 21	P	i	02	33	58		Tu	i(P)	02	32	08	
	MW	i			59	c		i!		34	19	c
	R	i		34	00							
	Pr	iNEZ!			00	c						
	H	e			04							
	T	i			06							
March 21	P	iP	19	47	57		Tu	iP	19	48	22	d
		e		48	24							
	MW	iP		47	58							
	R	iP		48	00		II-III at Apia, which reports:					
		e			26		iP	19	37	12		
		e			35		iS			37		
	Pr	iP			00							
	T	iP			06							
		i			13							
		i			35							
March 21	P	iP"	21	53	29		Tu	eP"	21	53	18	
		i			46			iP"			20	
		iPP		54	51			i			36	
		ePKKP	22	03	45			e		54	08	
	MW	iP"	21	53	29			i		55	20	
		i			46			ePKKP	22	03	57	
		iPP		54	52							
		ePKKP	22	03	46	(continued)						

Date	Sta	Phase	h	m	s	Remarks					
March 21	R	iP"	21	53	27	(continued)					
		i			44	Surface waves small.					
		ePP		54	44	h = 60 km?					
		i		55	01						
		e?	22	02	45	USCGS: 59 S. 27 W.,					
		ePKKP		03	45	O = 21:34.6					
	Pr	eP"	21	53	28						
		i			46						
		iPP		54	40						
		i			53						
		iPKKP	22	03	51						
	T	eP"	21	53	34						
		i			50						
		iPP		55	05						
		iPKKP	22	03	32						
March 22	P	iPNEZ	00	16	37		Tu	iP	00	15	58	c
		e		17	01			i		16	20	
		i			09			i			32	
		i			54			i			49	
	PX	iSNE		25	12			i		17	31	
	MW	iPNEZ		16	36							
		e			50							
		i		17	03							
		i			14	USCGS: 14 S. 75 W.,						
	R	iP		16	32	O = 00:06.3						
	R	i			52	h = 100 km.						
		i		17	10							
	Pr	iPNEZ		16	28			A	T			
		i			33		PZ	1/2	2			
		i			52		SH	1 1/2	4			
	LJ	eP			29							
	SB	eP			45							
	H	iP			46							
	T	iP			51							
		i		17	30							
March 22	P	iP	09	31	05		Tu	iP	09	30	55	
	MW	eP			06							
	R	iP			04							
	Pr	iP			04							
		i			11							
	T	iP			10							
March 22	MW	e(P)	16	51	03		Tu	e?	16	51	10	
	T	e?			07			e(P)			18	
		e(P)			13							
March 22	P	iP	19	31	19		Tu	eP	19	31	35	
		i			26			e			42	
	MW	iP			19							
		i			25							
	R	eP			19							
		e			26							
	Pr	e			25							
	T	iP			00							
		i			06							
March 22	P	iPNEZ	21	41	39		Tu	eP	21	40	43	
		ipP			49			ipP			54	
		isP			53			isP			59	
		ePcP		44	00			i		47	23	
		epPcP			10			i			47	
		eScP		48	08							
	PX	eLN		51.5		(continued)						

Date	Sta.	Phase	h	m	s		Remarks
March 22	MW	iP	21	41	40	c	(continued)
		epP			48		
		isP			54		
		iPcP		44	00		
		eScP		48	10		
	R	iP		41	31	c	
		ipP			41		
		isP			45		
		iPcP		43	57		
		ipPcP		44	08		USCGS: 11 1/2 N. 86 1/2 W.,
		e		47	41		O = 21:34.5
		e		48	04		
	Pr	iPNEZ		41	27	c	
		ipP			38		
		iPcP		43	58		
		ipPcP		44	11		
		eScP		48	04		
	LJ	eP		41	29		
		epP			39		
	T	iP			52		
		ipP		42	02		
		isP			06		
		iPcP		44	04		
March 22	P	iP	23	22	33		
	Pr	iP			45		
	T	iP			17		
March 22	P	iPNEZ	23	48	25		Tu eP 23 47 30
		isP			41		
		iPcP		50	49		
		epPcP		51	00		
	PX	eLN		59			
	MW	iP		48	25		USCGS: 11 1/2 N. 86 1/2 W.,
		ePcP		50	47		O = 23:41.2
	R	iP		48	18		
		ipP			29		
		isP			33		
		iPcP		50	44		
		epPcP			54		
	Pr	iPNEZ		48	14	c	
		ipP			25		
		iPcP		50	43		
		eScP		54	50		
	T	iP		48	38		
		iPcP		50	51		
March 23	P	iP	04	57	32		Tu iP 04 57 53 c
	MW	iP			33	c	e 58 03
	R	iP			34	c	epP 05 00 02
		ipP		59	44		
	Pr	iP		57	33	c	
		ipP		59	43		
	T	iP		57	39	c	
March 23	P	iP	05	11	55		Tu eP? 05 12 38
	MW	eP			57		
	R	eP			57		
	T	eP			54		
March 23	P	iPEZ	18	21	40		Tu iP 18 22 16
		ipPEZ		22	25		ipP 23 03
	PX	iSNE		29	55		iP'P' 50 23
		esS		31	11		ipP'P' 51 16
	P	iP'P'		50	36		(continued)

Date	Sta	Phase	h	m	s		Remarks
March 23	MW	iP	18	21	40		(continued)
		ipP		22	27		
		eP'P'		50	36		
	R	iP		21	43		
		ipP		22	30		
		eP'P'		50	35		
	Pr	iPNEZ		21	48		USCGS: 51 N. 155 E.,
		ipPEZ		22	33		O = 18:11 6
		i		23	13		h = 200 km.
		iSNE		30	14		
		eP'P'		50	38		
	LJ	eP		21	50		
	SB	eP			34		A T
		epP		22	19		SH 5 5
	T	iPNEZ		21	27		
		ipP		22	08		
		eSE		29	33		
March 23	R	eP	21	27	59		Tu eP 21 27 12
	Pr	eP			56		
March 24	Pr	iP	00	44	30		Tu iP 00 44 48
March 24	Pr	eP	02	38	00		Tu eP 02 37 46
March 24	P	iP	03	31	42		Tu iP 03 31 01
		e			57		
		i		32	53		
	MW	iP		31	43		
	R	iP			38		
	Pr	iPNEZ			32	c	
		i			48		South America
	T	iP			55		
March 24	P	iP	03	36	26		Tu iP 03 35 44
	MW	iP			25		
	R	iP			21		
		e		37	06		Aftershock?
	Pr	iPNEZ		36	16		
	T	iP			39		
March 24	P	eP"	05	38	42		Tu eP" 05 38 49
		iP"NEZ			50		iP" 39 05
		ePP		40	51		iSKP 41 45
		iSKPNZ		42	12		i 42 33
	PX	eL	06	22			USCGS: 6 S. 104 E.,
	MW	iP"	05	38	50		O = 05:19.5
		iSKP		42	13		
	R	eP"		38	37		BCIS: 6 S. 106 E.,
		iP"			51		O = 05:19.6
		iSKP		42	14		
	Pr	iP"NEZ		38	53	c	Felt at Batavia, Bandoeng, etc.
		iPPNEZ		40	44		
		i		41	10		
		iSKPNEZ		42	15		
	LJ	eP"		38	54		
		iSKP		42	18		
	T	iP"		38	49		
		iSKP		42	05		
March 24	P	eP	08	05	58		Tu iP 08 05 44
	MW	eP			57		
	R	eP			56		
	Pr	iP			59		
March 24	Pr	iP	09	55	04		Tu iP 09 55 23
March 24	Pr	iP	10	29	38		Tu iP 10 29 25
March 25	P	iP	04	48	01		Tu iP 04 48 22
	MW	iP			00		
	R	iP			03		
	H	iP			11		Southwest Pacific
	T	iP			12		

Date	Sta.	Phase	h	m	s		Remarks				
March 26	MW	iP	00	45	30		Tu	iP	00	45	55
	T	iP			39						
March 26	P	iP	01	00	20		Tu	iP	00	59	48 c
	MW	iP			21						
	R	iP			17	c					
	Pr	iP			14						
	H	iP			28						
	T	iP			32	c					
March 26	P	e	13	42	02		Tu	e	13	42	18
	T	e			05						
March 26	MW	eP	14	39	02						
	R	eP			08						
	Pr	iP			13						
	H	eP		38	52						
	T	iP			46						
March 26	MW	eP	21	02	03		Tu	iP	21	02	52 d
	Pr	iP			15						
	H	eP		01	54						
	T	iP			48						
March 26	P	iP	22	26	43	d	Tu	iP	22	27	09 d
	MW	iP			44	d	III at Apia, which reports:				
	Pr	iPNEZ			47		iP 22 15 53				
	H	iP			52		iS 16 13				
	T	iP			54	d					
March 27	MW	iP	01	58	32		Tu	iP	01	57	51
	Pr	iP			37						
	T	iP			45						
March 27	P	eP	03	50	51		Tu	eP	03	50	10
	MW	eP			50			e		51	28
		e		51	55						
	T	eP			04						
		e		52	10						
March 27	P	iP	21	11	35		Tu	e	21	13	02
	MW	iP			34						
	R	iP			41						
	H	eP			22						
		e(S)		13	09						
	T	iP		11	13						
		e(S)		12	51						
March 28	P	iP	01	42	35		Tu	iP	01	41	57
	MW	eP			32						
	R	eP			31		Damage at Sucre, according to				
	Pr	eP			25		La Paz				
		i			32						
	H	eP			41						
	T	iP			48						
March 28	P	iPNEZ	18	27	34		Tu	eP	18	29	22
		i			47			eS		31	33
		iSEZ		28	57						
	MW	iP		27	34						
		iSEZ		28	55						
	R	iP		27	40		Felt at Reno, Nevada				
		iS		28	50						
	SB	iP		27	38						
		iSNZ		28	39						
	H	iP		27	16						
		iSNEZ		28	00						
	T	eP		26	44						
		i			58						
		iSEZ		27	31						

Date	Sta.	Phase	h	m	s		Remarks				
March 28	P	iPNEZ	22	39	00		Tu	eP	22	40	32
		iSNE			45						
	R	iP			10						
	Pr	iP			20		Felt at Hollister, Calif.				
	SB	iPNZ		38	46						
		iSNEZ		39	31						
	H	iPNEZ		38	51						
		iSE		39	33						
	T	iPEZ		38	47						
		iSN		39	24						
March 28	P	eP	23	48	53		Tu	eP?	23	50	28
		iSE		49	38						
	R	iP		49	03						
	SB	iP		48	40		Central California				
		iSN		49	27						
	H	iPNEZ		48	45						
		iSEZ		49	34						
	T	iPEZ		48	40						
		iSE		49	16						
March 29	P	i	08	46	57		Tu	e	08	47	19
	MW	i			57			i			24
	R	eP			24						
		e			55						
		i		47	00						
	Pr	eP		46	26						
		i		47	03						
	T	eP		46	27						
		i		47	03						
March 29	P	iPNEZ	12	03	32	c	Tu	iP	12	03	54 c
		ipP		04	01			ipP		04	25
		ePP		06	57			ePKKP		21	12
	PX	eSN		14	06			e		23	21
		iSNE			51			eP'P'		29	19
		iE		15	57						
		eSSN		20.4							
		eGN		27.0			BCIS: 22 1/2 S. 172 E.,				
		eREZ		31.1			O = 11:50.8				
	MW	iPNEZ		03	32	c					
		ipP		04	04						
	R	iPNEZ		03	34	c		A	T		
		ipP		04	02		PZ	1	1		
	Pr	iPNEZ!		03	35	c					
		i			57						
		ipP		04	01						
		iPP		07	02						
		eSE		13	55						
		eN		14	16						
		eP'P'		29	29						
	LJ	iPNEZ		03	33	c					
	SB	iPNZ			27						
		ipP			55						
	H	iPNEZ			39	c					
		ipP		04	07						
		eSN		13	51						
		eP'P'		29	29						
	T	iPNEZ		03	39	c					
		i(PcP)			50						
		ipP		04	11						
		eSNE		14	23						
		eP'P'		29	30						

Date	Sta.	Phase	h	m	s		Remarks					
March 31	P	iP	13	33	25							
	MW	iP			23							
	R	iP			26							
		i			50							
	Pr	iP			29							
	T	eP			24							
March 31	P	iP	17	53	25	d	Tu	iP	17	53	42	d
	MW	iP			27	d		i		54	10	
	R	iP			25	d	Wellington gives:					
	Pr	iPNEZ			26	d	33 S. 178 W., O = 17:40.7					
	H	iP			32		Magnitude 5 1/2 - 6					
	T	iP			33	d						
		i			40							
March 31	MW	iP	18	58	44		Tu	iP	18	57	59	c
	R	iP			39							
	T	eP		59	07							

C. F. Richter

Sept. 22, 1948

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' N.,	116°52' W., h=1700 m.	Pr

c = compression
d = dilatation

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

Times given for Tucson and Boulder City are read from original records, lent by courtesy of the U. S. Coast and Geodetic Survey and the U. S. Reclamation Service. Times for stations associated with the University of California are readings kindly supplied by Professor Byerly or his assistants.

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, California

Date	Sta.	Phase	h	m	s		Remarks
April 1	P	iP	01	13	42		Tu eP 01 13 07
		ipP		14	12		epP 37
	MW	iP		13	42		
		ipP		14	13		
	R	iP		13	38		
		ipP		14	09		
		i			23		
	T	iP		13	54		
		ipP		14	25		
April 1	P	iP	21	27	41	c	Tu iP 21 28 06
	MW	iP			42	c	
	R	iP			44	c	
April 1	MW	i?	23	23	51		Tu e 23 23 36
	R	e?			54		e 50
		i		24	18		
April 2	P	iP	07	04	07		Tu iP 07 04 31 d
	MW	iP			08	d	
	R	iP			10	d	
	Pr	iPNE?			11	d	
	H	eP			17		
	T	iP			17	d	
April 3	R	eP	07	31	25		Tu iP 07 31 40
		e			39		i 32 11
	Pr	iP			23		Near Apia, which reports:
	T	eP			20		iP 07 21 01, iS 07 22 06
		i			33		
April 3	P	e	08	00	19		Tu e 08 01 11
		i			47		i 02 18
	MW	e			21		e 04 37
		i			58		iPKKP 11 51
		e		01	25		e 14 24
	R	e		00	18		
		e		01	04		
		e			32		Batavia gives 3.2 N. 126.6 E.,
	Pr	i			28		h=200 km.
		i		03	12		
	H	e		01	24		
	T	e		00	22		
		i		01	02		
April 3	P	iP	17	14	37		
	MW	iP			36		
	R	iP			39		
		i		15	05		
	Pr	iP		14	41		
	T	iP			37		
April 4	P	iP	03	27	04		Tu eP 03 27 32
	MW	iP			06		
		i			08		
	R	iP			06		
	Pr	iP			08		
	T	iP			04		
		i			08		
		i			17		
April 4	P	iP	16	44	16		Tu iP 16 44 39
	MW	iP			17		
April 4	P	iP	19	19	09		Tu iP 19 19 35
	MW	iP			13		Near Apia, which reports:
	Pr	iP			13		P 19 09 01, S 19 10 01
April 5	MW	eP	07	40	43		Tu iP 07 40 03 c
	R	eP			36		e(S) 42 05
		e(S)		43	17		
	T	eP		41	17		

Date	Sta.	Phase	h	m	s		Remarks
April 5	MW	eP	19	36	09		Tu iP 19 35 20
		i			23		e 39
	R	eP			05		iPcP 38 30
		i			19		i 45
		iPcP		38	45		
		i		39	00		Palomar Z light out.
	Pr	ePNE		35	58		Tinemaha disturbed at 36 m
		iNE		36	12		
	T	iPcP		38	51		
		i		39	07		
April 6	MW	iP	00	42	52		Tu iP 00 42 17 d
		iPcP		45	24		iPcP 45 13
	R	ePcP			23		
April 6	MW	iP	02	46	52		Tu iP 02 47 05
		i		47	18		i 30
	R	iP		46	51		e 37
		i		47	19		i 50 29
	T	iP		46	50		
		i		47	15		
April 6	MW	iP	11	19	16		Tu iP 11 19 33
	R	iP			17		
	T	eP			25		
April 9	P	iPNEZ	03	27	48	c	Tu iP 03 28 24 c
		e		28	33		eP'P' 56 23
	PX	eSE		36	10		
	P	eP'P'		56	31		
	R	iP		27	51	c	
		ipP		28	08		
		eP'P'		56	31		
	Pr	iPNE		27	57	c	
		eSE		36	27		
	LJ	iP		27	57	c	
	SB	iP			42	c	
	H	iPNEZ			41	c	
	T	iPNEZ			36	c	
April 10	P	eP	00	06	24		Tu eP 00 06 52
	R	eP			23		
April 10	P	eP	00	40	50		Tu eP 00 41 21
April 10	P	eP	11	01	31		
	MW	eP			30		
	R	eP			33		
	T	eP			31		
April 10	P	eP	13	50	57		Tu iP 13 49 59 d
	R	eP			50		
	T	iP		51	11		
April 10	P	eP	14	34	21		Tu eP 14 34 52
	R	eP			21		
	T	eP			12		
April 10	R	iP	16	50	08		Tu iP 16 50 31
	T	iP			11		
April 10	P	eP	22	06	45		Tu eP 22 06 06
		iSNEZ		07	47		i 10
	R	eP		06	33		i 16
		iS		07	40		iS 07 43
	Pr	eP		06	14		
		iSEZ		07	08		
	T	eNEZ		09	25		
April 11	MW	eP	11	31	57		Tu iP 11 32 22

Date	Sta.	Phase	h	m	s		Remarks
April 11	P	iP	16	08	38		Tu iP 16 09 08
	MW	iP			38		
	R	iP			39		
	Pr	iP			44		
		e		09	08		
	T	iP		08	29		
April 12	P	iP	06	21	30	c	Tu eP 06 20 36
		e		22	00		i 40
		ipP			09		ipP 21 15 c
		iScP		27	40		i 38
	MW	iP		21	30	c	i 22 09
		ipP		22	09		iScP 27 22
	R	iP		21	25	c	
		epP		22	04		
		iPcP		24	12		USCGS: 14 N. 90 1/2 W.,
		iScP		27	38		O=06:15.3, h=200 km.
	Pr	iPNEZ		21	18	c	
		ipP			57		
	T	iP			45	c	A T
		ipP		22	25		PZ O.21
		ePcP		24	20		
		iScP		27	46		
April 12	R	iP	07	59	39		Tu iP 07 58 52
	T	iP			48		i 59 03
		i			56		
April 12	P	iP	09	02	27		Tu e 09 03 08
		i			40		e 21
		i			52		
		i			59		
	PX	eE		12	55		
		e(S)E		13	28		
		eE		14	48		
		eLEZ		32			BCIS: 7 S. 152 1/2E.,
	MW	iP		02	29		O=08:49.2
		i			35		
		i			42		
	R	iP			31		
		i			37		
		i			42		
	Pr	iP			33		
		i			43		
	LJ	e			36		
	SB	e			29		
	T	iP			30		
		i			42		
		i		03	02		
April 12	Pr	iP	09	18	07		Tu iP 09 18 42
	T	eP		17	42		
April 12	MW	iP	12	05	39		Tu iP 12 05 13
	T	iP			52		
		e		06	15		
April 14	MW	iP	13	12	00		Tu iP 13 12 21
	Pr	iP			01		
	T	iP			07	c	
April 15	P	iP	07	34	05	c	Tu iP 07 34 25 c
	MW	iP			05	c	epP 33
		epP			15		isP 43
		esP			22		e 35 21
	R	iP			08	c	
		epP			19		
		esP			24		(continued)

Date	Sta.	Phase	h	m	s		Remarks
April 15	Pr	iP	07	34	07		(continued)
		isP			25		
	T	iP			15		
		esP			27		
		isP			32		
April 15	MW	iP	08	18	04		Tu iP 08 17 31
	R	iP			02		
	T	iP			16		
April 15	P	eP	19	47	55		
		i		48	17		
	MW	eP		47	56		
		i		48	18		
	R	eP		47	55		
		i		48	24		
	Pr	eP		47	56		
		i		48	26		
	SB	i			26		
	T	eP?		47	41		
April 16	MW	iP	01	08	06		Tu iP 01 08 30
	R	iP			09		
	Pr	iP			13		
April 16	MW	e	02	53	08		Tu e 02 53 44
	R	e		52	59		e 52
		e		53	11		i 55
	Pr	e			10		i 55 32
		e			19		
		e		55	42		
April 16	P	iPNEZ!	22	26	38	d	Tu iP 22 28 12
		iSNE			49		
	MW	iPNZ!			41	d	
		iSN!			51		Felt from Santa Barbara to Los
	R	iPNEZ			49	c	Angeles. Maximum reported
		iSNE		27	07		intensity VI.
	Pr	iPNEZ		26	57	c	34°01'N. 118°58' W.,
	LJ	ePEZ			56		O=22:26:24
		iSN		27	26		
	SB	iPNEZ!		26	40	d	Magnitude 4.7
		iSN			51		
	H	ePE		27	03		
	T	ePNE			16		
		iSNE		28	01		
April 17	MW	eP	00	54	55		Tu iP 00 55 48 c
	Pr	iP			59	c	
April 17	R	eP	06	26	23		Tu eP 06 25 50
	Pr	eP			27		
April 17	P	iPNEZ	16	23	58	c	Tu iP 16 24 29 c
		i		24	07		
	PX	iSEZ		34	20		
		e		35	06		Felt in Japan. Small tsunami.
		iN		39	56		USCGS: 33 N. 135 1/2 E.,
		iN		43	40		O=16:11.5
		iLN		46	05		BCIS: 33.3 N. 135.9 E.,
	MW	iP		24	00	c	O=16:11:28
		i			08		CMO: 33.1 N. 135.7 E.,
		eSNE		34	21		h=40 km.
	R	iP		24	02	c	A T
		i			11		PZ 1 1/2 1
		eSNE		34	27		PH 1/2 1
	Pr	iP		24	05		SH 10 6
		i			15		MH 40 20
		iPP		27	22		Magnitude 7 1/4
		iSNE		34	34		(continued)

Date	Sta.	Phase	h	m	s		Remarks
April 17	LJ	eP	16	24	07		(continued)
		eSNE		34	34		
	SB	iP		23	55		
		i		24	03		
		eSNE		34	09		
	H	ePN		23	56		
		eN		24	04		
		eSNE		34	11		
	T	ePE		23	53		
		eSNE		34	05		
April 17	P	iP	18	55	43	d	Tu iP 18 56 08 d
	MW	iP			45	d	
	R	iP			47		
April 18	P	iP	10	06	07		Tu iP 10 05 16
	MW	iP			06		e 32
	R	iP			02		
	Pr	iP		05	58		
April 18	P	eP	12	33	48		Tu eP 12 34 25
		ePP		37	59		ePP 38 52
	PX	eNE		52.6			ePKKP 48 43
		iLN	13	01.6			USCGS: 3 S. 137 E. O=12:19.8
	MW	eP	12	33	51		BCIS: 2 1/2 S. 137 1/2 E.,
		ePP		38	05		O=12:19:45
	R	eP		33	58		A T
	Pr	iPP		38	12		MH 30 20 Magnitude 6 3/4
April 19	P	iP	07	23	52		
	MW	iP			52	c	
	R	iP			54	c	
	Pr	iP			57		
April 20	P	e	02	17	27		Tu eP 02 16 27
	MW	eP			20		i 43
	R	eP			15		USCGS: 14 N. 92 W., O=02:11.0
	Pr	iP			09		
		i			24		
April 20	P	iP	04	41	32	d	Tu iP 04 41 50 d
	MW	iP			33	d	e 42 06
	R	iP			36	d	
		e			52		
	Pr	iPNEZ			34	d	
		e			57		
		e		43	31		
	LJ	eP		41	32		
April 21	Pr	iP	05	11	57		Tu iP 05 12 17
April 21	P	eP	02	36	02		Tu eP 02 35 25
		i			13		e 37
	MW	iP			01		
		i			12		
	R	iP		35	57		
		i		36	10		South America
	Pr	eP		35	53		
		e		36	04		
April 21	P	i(P)	12	52	23		Tu iP 12 52 57
	MW	iP			21		
		i			24		
	R	i(P)			27		
April 21	P	eP	15	33	57		BCIS: 13 1/2 N. 166 1/2 E.,
	PX	eLEZ	16	00	1		O=15:21.2
	MW	eP	15	33	54		
	R	eP			55		

Date	Sta.	Phase	h	m	s		Remarks
April 21	P	iPNEZ	20	30	26		Tu iP 20 29 35
		i			40		
		iPcP		31	40		
		iPP		32	19		West Indies
		iScP		36	07		
	PX	iSN		37	13		USCGS: 19N. 69 1/2 W.,
		iScSN		40	23		O=20:22.0
		iE		43	53		
		eLE		44.0			A T
	MW	eP		30	26		PH 3 4
		i			34		SH 25 9
		i			49		MH 300 15
		eSN		37	13		Magnitude 7 1/4
	R	iP		30	21		
		iSNE		37	03		
	LJ	eP		30	20		
		eSNE		37	00		
	SB	iP		30	37		
		eSN		37	31		
	H	iPNEZ		30	27		
		iSN		37	14		
	T	iP		30	28		
		iSN		37	21		
April 21	P	iP	20	40	44		Tu iP 20 39 49
	MW	iP			43	c	
	R	iP			38	c	
	Pr	iPNEZ			35		Aftershock
	LJ	eP			36		
	SB	iP			54	c	
	T	iP			47	c	
April 21	P	iPNEZ	21	07	35	c	Tu iP? 21 06 43 c
	MW	iP			35	c	
	R	iP			29	c	
	Pr	iPNEZ			26	c	
	LJ	eP			28		Aftershock
	SB	iP			45	c	
	H	iP			38	c	
	T	iP			38	c	
April 21	P	iP	21	14	51	c	Tu iP 21 13 57 c
	MW	iP			51	c	
	R	iP			43	c	
	Pr	iP			39		
	LJ	eP			43		Aftershock
	SB	iP		15	01	c	
	H	iP		14	52	c	
	T	iP			52	c	
April 21	P	iP	21	34	46		Tu iP 21 33 55 c
	MW	iP			46	c	
	R	iP			41	c	
	Pr	iP			37	c	Aftershock
	R	eP			39		
	SB	iP			57	c	
	T	iP			49	c	
April 21	P	iP	22	10	58		Tu iP 22 10 07 c
	MW	iP			57		
	R	iP			53		
	Pr	iPNEZ			49		
	SB	eP		11	08		
	T	iP			01	c	

Date	Sta.	Phase	h	m	s		Remarks
April 22	P	eP	00	36	38		Tu eP 00 35 49
	PX	iSN		43	31		Aftershock, West Indies
		eLN		49			A T
	MW	iP		36	40	c	PH 3/4 3
	R	iP			35	c	SH 3 7
	Pr	eP			32		MH 9 14
		iNZ			37		
	SB	iP			51		Magnitude 6 1/2
	H	iP			45		
	T	iP			43	c	
		eSN		43	36		
April 22	R	eP	04	21	09		Tu eP 04 20 22
	T	iP			16		
April 22	P	eP	10	56	24		Tu eP 10 56 19
		ePP	11	00	11		ePP 11 00 15
	MW	eP	10	56	27		
		ePP	11	00	23		Greece
	R	eP	10	56	27		BCIS: 38.5 N. 20.6 E.
		ePP	11	00	25		O=10:42:41
	Pr	iPNZ	10	56	34		
		i		57	26		
		iPP	11	00	23		
	SB	eP	10	56	31		
		ePP	11	00	29		
	T	eP	10	56	12		
April 22	P	eP	13	17	23		Tu eP 13 16 32
	MW	eP			23		
	R	iP			18		Aftershock, West Indies
	Pr	eP			15		
	T	iP			31		
April 22	T	iP	14	53	35		
April 22	T	iP	15	21	23		
April 22	MW	eP	18	58	11		Tu eP 18 57 21
	R	eP			06		
	T	iP			16	c	
April 23	P	iP	11	58	41		Tu iP 11 57 50 c
	PX	iSN	12	05	26		Aftershock, West Indies
	MW	iP	11	58	41	c	A T
	R	iP			36		SH 3 7
	Pr	iPNEZ			32	c	MH 15 15
	LJ	eP			35		USCGS: 19 N. 69 1/2 W.,
	SB	iP			52	c	O=11:50.3
	T	iP			45	c	
April 23	MW	eP	12	12	12		Tu eP 12 11 23
	R	eP			06		
	Pr	iP			05		
	T	iP			18		
April 23	P	iP	17	27	42		Tu iP 17 27 07
		i		28	10		i 24
	MW	iP		27	41		i 35
		i		28	07		
	R	iP		27	38		
		i		28	04		
April 25	R	eP	03	36	35		Tu eP 03 35 49
	T	iP			44		
April 25	MW	eP	20	41	11		Tu eP 20 41 07
		iS		42	33		iP 14
	H	eP		40	48		iS 42 38
		eS		41	52		Nevada?
	T	iP		40	43		
		iSNZ		41	44		

Date	Sta.	Phase	h	m	s		Remarks
April 26	P	iP	03	18	14		Tu iP 03 17 40
		ipP			29		i 48
	MW	iP			14	d	ipP 55
		ipP			29		i 18 15
	R	iP			11	d	
		ipP			26		Andes?
	Pr	iP			05	d	
		ipP			20		
	T	iP			26		
		ipP			41		
April 26	R	eP	09	35	40		Tu eP 09 35 22
	Pr	eP			42		Foreshock of next
April 26	P	eP	09	42	26		Tu iP 09 42 08
	MW	eP			28		USCGS: 51 N. 34 W. O = 09:32.4
	R	iP			26		
	Pr	iPNEZ			28	c	Small surface waves at Pasadena
	T	iP			17		
April 26	R	eP	10	52	12		Tu eP 10 51 55
	T	eP			01		
April 26	R	eP	11	33	37		Tu eP 11 32 51
	T	iP			47		
April 27	MW	iP	02	17	31		Tu iP 02 16 40
	R	iP			27		
April 27	P	iP	20	23	20		Tu iP 20 24 57
	MW	iP			21		
	R	iP			28		Felt at Monterey and Hollister
	SB	iP			06		Largest of swarm beginning
	T	iP			07		at 16:42
		iSN			44		
April 28	R	eP	09	17	19		Tu eP 09 17 42
	Pr	iP			20		
April 28	P	iPNEZ	12	11	17		Tu iP 12 10 30 c
		ipP			37		i 44
		iScP		16	06		i 51
	PX	eSNE		18	58		i 57
		iScSE		20	56		iScP 15 48
	MW	iP		11	18	c	e 53
		ipP			39		i 17 45
		iScP		16	06		e 19 35
	R	iP		11	14	c	e 20 22
		ipP			35		
		i			44		USCGS: 11 N. 63 W.,
		iScP		16	03		O=12:01.8, h=100 km.
	Pr	iPNZ		11	10	c	
		ipP			30		
		iScP		16	01		
		iSNE		20	50		
	LJ	eP		11	11	c	
		epP			33		
	SB	iP			28	c	
	H	iP			21		
		ipP			41		
	T	iPNEZ			23	c	
		ipP			43		
April 28	MW	eP	13	49	38		Tu iP 13 50 26 c
	R	eP			42		i 36
		e			51		i 43
		e		50	01		
	Pr	iP		49	50		
		i		50	00		
		i			08		

Date	Sta.	Phase	h	m	s		Remarks
April 29	R	iP	05	38	19		Tu eP 05 37 57
April 29	MW	iP	08	09	18		Tu iP 08 09 59
	R	iP			21		
	SB	iP			12		
April 29	P	iP	15	26	09	c	Tu iP 15 26 47 c
		ipP			36		ipP 27 15
	MW	iP			10	c	i 24
		ipP			38		
	R	iP			13	c	
		ipP			41		
	H	iP			02		
		i			42		
	T	iP		25	57		
		ipP		26	28		
		i			34		
April 29	P	iP	21	20	43		Tu iP 21 20 35
	MW	eP			43		e 21 12
	R	iP			42		e 22 17
							i 23 58
April 30	P	eP	04	20	13		Tu iP 04 19 16
	PX	eLEZ		44			e 28
	MW	iP		20	13		i 37
	R	iP			08		i 54
	Pr	iP			05		e 20 55
	T	eP			16		e 21 27
April 30	P	iP	04	43	47		Tu iP 04 43 13
	MW	iP			48		
	R	iP			44		
	T	iP			59		
April 30	Pr	iP	99	08	30		Tu iP 09 07 47
April 30	MW	iP	12	17	36		Tu iP 12 16 49
		i		18	09		
	R	iP		17	29		
April 30	R	iP	14	06	55		Tu iP 14 06 26
	Pr	iP			58		
May 1	P	iPEZ	22	52	07	c	Tu iP 22 52 44 c
		i			26		ipP 53 14
		ipP			36		
	MW	iP			07	c	
		ipP			36		
	R	iP			10	c	
		ipP			22		
		e			39		
	Pr	iPNZ			15		
		ipP			43		
		e			53		
	H	iP		51	57		
	T	iP			52		
		ipP		52	21		
May 2	P	iP	07	48	30		Tu eP 07 49 22
		ipP			50		epP 40
		e		49	09		
	MW	iP		48	30		
		ipP			50		
	R	iP			32		
		ip P			52		
	Pr	iP			37		
		ipP			57		
	H	epP			45		
	T	iP			22		
		ipP			42		

Date	Sta.	Phase	h	m	s		Remarks				
May 3	P	iP'	12	19	18	d	Tu	iP'	12	19	08
		i			27			i			14
		iPP		21	47			i			20
	MW	iP'		19	18	d					
		i			26		BCIS: 50 S. 0 E.,				
		iPP		21	47		O = 11:59.6				
	R	iP'		19	15	d					
		i			23						
	Pr	iP'			12						
		i			20						
	H	eP'			21						
		e			29						
	T	iP'			22						
		i			31						
May 3	P	eP	13	42	31		Tu	eP	13	42	14
	MW	eP			33			e			20
		e			38						
	R	eP			27						
		e			41						
	Pr	eP			26						
		i			36						
	H	i			55						
	T	i?			50						
		i			58						
May 3	P	iP'	14	02	36	d	Tu	iP'	14	02	26
		i			45			i			38
	MW	iP'			36						
		i			45		BCIS: 50 S. 0 E.,				
	R	iP'			33		O = 13:42.8				
		i			41						
	Pr	iP'			31	c					
		i			39						
	SB	eP'			39						
	H	eP'			41						
	T	iP'			41						
May 3	Pr	eP?	17	03	59		Tu	eP	17	03	21
		i		04	06			e			36
		i			14						
May 3	P	eP	17	35	59		Tu	iP	17	36	37
		e		36	14			e			46
	R	eP			02			i			52
		e			11						
		e			16						
	Pr	i			21						
	T	iP		35	45						
		i			55						
		i			59						
May 3	P	eP	21	27	39		Tu	eP	21	27	33
		ipP		28	25			epP		28	15
		e		30	16						
	MW	iP		27	40						
		ipP		28	27						
	R	eP		27	36						
		ipP		28	23						
	T	iP		27	26						
		i		28	02						
May 4	MW	iP	05	04	47		Tu	iP	05	04	17
	R	iP			45						
	T	iP		05	01						
May 5	P	eP	06	18	10		Tu	eP	06	17	59
	MW	eP			10						
	R	eP			07						
	T	eP			16						

Date	Sta.	Phase	h	m	s		Remarks				
May 5	R	eP	09	58	17		Tu	iP	09	57	50
	Pr	iP			16						
May 6	P	iP	03	03	36		Tu	iP	03	03	57 d
	MW	iP			36	d		epP		05	57
	R	iP			38						
	Pr	iPNEZ			38	d					
		ipP		05	40		Tonga region, h = 550 km.				
	H	iP		03	44	d					
	T	iP			44						
May 6	P	eP	08	43	09		Tu	eP	08	43	30
	MW	eP			09						
	R	eP			15		Near Apia, which reports				
	Pr	eP			12		P 08 32 29				
	LJ	eP			14		S 08 33 39				
	H	eP			18						
May 6	MW	iP	13	53	50		Tu	iP	13	54	14
	R	iP			53						
	Pr	iP			52						
May 6	P	iP	22	13	11		Tu	iP	22	13	53
	MW	iP			10						
	R	iP			15						
	Pr	iP			22						
	T	iP		12	52						
May 7	MW	eP	05	44	31		Tu	iP	05	45	20
	Pr	iP			44			e			33
		e			57			i			47
		i		45	06						
	T	iP		44	51						
May 7	P	e	08	16	37		Tu	eP	08	16	21
	MW	e			46			e			28
	Pr	eP			32						
		i			39						
May 7	P	iP	10	28	15		Tu	iP	10	28	39
	MW	iP			16			i			41
		i			18						
	R	iP			18						
	Pr	iP			19						
	T	iP			24						
May 7	MW	eP	13	15	25		Tu	eP	13	15	48
	R	eP			28						
	Pr	iP			28						
	T	eP			33						
May 8	P	iP	00	45	31		Tu	iP	00	44	38 c
	MW	iP			32			i		45	30
		ipP		46	09			e		48	22
		e			25			e		49	09
	R	iP		45	25						
		epP		46	02						
	Pr	iP		45	21	c					
		ipP			57						
May 8	P	iPNEZ	02	57	24	c	Tu	iP	02	58	01 c
		ipP			44			ipP			21
	MW	iP			25	c		i		59	17
		i			38			eP' P'	03	25	28
		ipP			43						
		iP' P'	03	25	44		USCGS: 46½ N. 151 E., O=02:46.5				
	R	iP	02	57	28	c					
		ipP			46		BCIS: 46.3 N. 150.5 E.,				
		iP' P'	03	25	43		O = 02:46:29				
	Pr	iPNZ	02	57	33	c					
		ipP			50						
		i		58	06						
		iP' P'	03	25	37						
		i		26	00		(continued)				

Date	Sta.	Phase	h	m	s		Remarks
May 8	SB	iP	02	57	18	c	(continued)
		i			53		JSA: 45.8 N. 150.4 E.,
	H	iP			18	c	h=250 km., O= 02:46:41
		ipP			36		CMO: 45.0 N. 150.0 E.,
		i			47		h = 250 km.
	T	iP			14		
		i			44		
May 8	P	iP	04	26	23		Tu iP 04 26 08
		i			29		i 13
	MW	iP			24		
	R	iP			21		
	Pr	iP			16		
May 8	P	iP	06	56	06		Tu iP 06 56 -28
	MW	i?			00		Apia records a shock at
		iP			07		06:46:--
	R	iP			09		
	Pr	iP			09		
	H	eP			13		
	T	iP			16		
May 8	R	e	07	31	06		Tu iP 07 31 23
	Pr	e			14		
May 8	P	iP	08	41	50		Tu iP 08 42 25
	MW	iP			51		
	R	iP			53		
	Pr	iP			59		
	H	eP			43		
	T	iP			38		
May 8	MW	eP	10	22	56		Tu eP 10 23 27
	R	iP			58		
May 9	P	iP	02	21	52		Tu iP 02 22 19 c
		i			59		i 35
		ePP		25	19		iPP 26 13
	PX	eSKSN		32.4			USCGS: 30 N. 129 E., O=02:08.8
		iNE		32	28		BCIS: 29.7 N. 130.7 E., O=02:08:52
		iSN			52		CMO: 32.0 N. 131.5 E.,
		eSSN		38.3			
		eGNE		44.9			A T
	MW	eP		21	50		PZ 1½ 2
		i			53		MH 15 20
	R	eP			53		
	Pr	iP			59		Magnitude 6 3/4
		iNEZ		22	11		
		eNE		32	44		
	LJ	eP		22	05		
	SB	eP		21	47		
	H	iP			43		
	T	iPNEZ			43		
		iNEZ			53		
		eN		32	38		
May 9	P	iP	08	28	08		
	PX	eLNZ	09	02			Near Apia, which reports:
	MW	iP	08	28	10		P 08 18 23
		i			24		S 20 07
	R	iP			10	d	
	Pr	iP			11		
	H	iP			18		
	T	iP			17		
May 9	T	iP	12	41	05		Tu iP 12 41 56
		e			28		

Date	Sta.	Phase	h	m	s		Remarks
May 10	MW	eP	07	52	29		
		e			42		
	T	iP			14		
		e			26		
May 10	P	iPNEZ	09	18	22		Tu iP 09 18 55
		epPEZ		19	07		ipP 19 44
		iNZ			12		i 20 03
	MW	iP		18	24		
		ipP		19	08		
		i			13		CMO: 28 N. 147 E.
	R	eP		18	29		
		ipP		19	16		
		iNEZ			18		
	LJ	e			18		
	SB	i			06		
	H	iP		18	22		
		i		19	10		
	T	iPEZ		18	19		
		i			37		
		ipPNEZ		19	04		
May 10	P	e	09	35	07		Tu iP 09 34 19
	MW	e			11		ipP 35 05
	Pr	eP?		34	22		
		i			59		
	T	e		35	27		
May 11	P	iPNEZ	03	08	56	c	Tu iP 03 09 23 d
		ipP		09	18		e 43
	MW	iP		08	57	c	i 50
		ipP		09	22		
	R	iP			00	c	
		ipP			23		
	Pr	iPNEZ			00	c	
		ipP			25		
		i			44		
	T	iPNEZ			00	c	
		epP			24		
May 11	P	iPNEZ!	09	06	43	c	Tu iP 09 06 05 c
		ipPNEZ			59	d	i! 06 c
		isP		07	04		ipP! 22
		i			24		i 51
	PX	i		08	11		eS 14 28
		iSEZ		15	40		iP P 35 14
		iSSN		19	51		ipP P 32
		eSSE		20	06		
		eSSSNE		23.7			
	P	iP P		34	57		
		ipP P		35	16		
	MW	iPNEZ!		06	43	c	
		ipPZ!		07	00		
		eSEZ		15	41		
		eNE		16	13		
		iP P		34	59		
		ipP P		35	16		
	R	iPNEZ!		06	39	c	
		ipP			56		
		i		07	08		
		i			12		
		eSNEZ		15	38		
		iP P		35	02		
		ipP P			16		(continued)

Date	Sta.	Phase	h	m	s		Remarks
May 11	Pr	eP	09	06	34		(continued)
		iPNZ!			35	c	
		ipPEZ!			52	d	
		isP			58		
		iN		07	15		
		iE			36		
		iSNEZ		15	29		
		i			56		USCGS: 17 S. 71 W.,
		e		28	05		O = 08:55.7
		i			25		
		iP'P'		35	00		BCIS: 17.0 S. 71.0 W.,
		ipP'P'			17		O = 08:55:45, h= 50 - 75 km.
	LJ	iP	09	06	35	c	
		ipP			51		
		isP		07	03		A T
		eSN		15	26		PZ 4 1½
		eP'P'		35	22		PZ 10 5
	SB	iP	06	06	50	c	PH 6 4
		ipP		07	07		SH 15 6
		isP			21		MH 200 40
		iSNE		15	57		
		iP'P'		34	55		Magnitude 7¼
		epP'P'		35	13		
	H	iPNEZ		06	51	c	
		ipP		07	08		
		i			40		
		eSNE		16	00		
		eP'P'		34	56		
	T	iPNEZ!		06	56		
		ipP!		07	13		
		isP!			25		
		iSNEZ		16	09		
		iP'P'		34	54		
		ipP'P'		35	12		
May 11	P	iPNEZ	09	44	48		Tu iP 09 44 11 c
		ipP		45	04		i 18
		isP			11		ipP 29
	MW	iPEZ		44	48	c	eP'P' 10 13 19
		isP		45	11		ipP'P' 36
	R	iP		44	44	c	
		ipP		45	00		
		i			11		
	Pr	iPNEZ		44	40	c	
		ipP			56		
		isP		45	03		
		e(pP'P')	10	13	25		
		e			45		
	LJ	eP	09	44	40		Aftershock
		e		45	02		
	H	iPNEZ		44	57		
		ipP		45	14		
		i			19		
	T	iPNEZ		45	01	c	
		ipP			16		
		isP			24		
May 11	P	e	12	13	39		Tu e 12 13 44
	MW	e			26		i 54
	R	e			25		
		e			50		

Date	Sta.	Phase	h	m	s		Remarks
May 11	P	iP	20	50	05		Tu eP 20 49 12
		iSE		51	21		i! 28
	MW	eP		49	56		i(S)! 50 29
		i		50	07		
		iSEZ		51	20		
	R	eP		49	49		
		i			56		
		eSEZ		51	00		
	Pr	eP		49	35		
		eS		50	41		
		iSNZ			49		
	LJ	iP		49	39		
		iSN		50	39		
May 12	P	eP	01	08	45		Tu eP 01 09 20 c
		i			55		i 29
	PX	iSNE		18	27		
		eSSN		23	21		USCGS: 38 N. 142½ E.,
		eLNE		28.3			O = 00:56.9
	MW	eP		08	46		BCIS: 38.2 N. 142.5 E.,
		i			56		O = 00:56:56
	R	eP			50		CMO: 37.8 N. 147.3 E.,
		i			59		h = 40 km.
	Pr	ePEZ			55		
		iNZ		09	04		A T
		iSNE		18	43		P H ½ 3
	LJ	e		09	06		SH 3 6
	SB	eP		08	42		MH 55 20
		i			51		
	H	eP			44		Magnitude 6 3/4
	T	eP			39		
		i			47		
May 12	P	e	01	33	23		Tu e(P) 01 33 52
	MW	eP			20		e 34 01
		e			27		
	R	e			30		CMO: 37.8 N. 142.6 E.,
	Pr	i			38		h = 40 km.
	T	eP			09		
		e			17		
May 12	P	iP	01	54	25		Tu iP 01 53 48
		epP			37		i 54 00
		i			46		i 11
	MW	iP			25	c	
		ipP			40		
		i			48		
	R	iP			21	c	
		ipP			36		
		i			41		
	Pr	eP			16		South America
		ipP			31		
		i			44		
	H	eP			34		
	T	iP			38	c	
		ipP			52		
		i		55	01		
May 12	MW	iP	12	00	55		Tu iP 11 59 58 d
	R	iP			50		
	Pr	iP			41		
		i			48		
	T	iP		01	13		
May 12	T	e(P)	12	10	09		Tu iP 12 10 30
		e			14		

Date	Sta.	Phase	h	m	s	Remarks
May 12	MW	iP	12	44	22	Tu iP 12 43 33
	R	eP			24	
May 12	MW	eP?	13	24	01	Tu iP 13 23 05
	R	i(P)		23	57	
	Pr	iP			50	
		i			57	
May 12	P	eP	14	18	24	Tu eP 14 18 58
	MW	eP			25	
	R	eP			27	
	Pr	eP			33	
	T	eP			20	
May 12	MW	eP	16	23	41	Tu eP 16 22 48
	R	eP			34	
	T	eP		24	11	
May 13	P	iP	15	02	58	Tu iP 15 03 24 d
	MW	iP			59	Felt (IV) at Apia, which reports:
	R	iP		03	01	P 14 52 04
	Pr	iP			02	S 24
	H	eP			06	
	T	iP			08	
May 13	MW	eP	21	02	24	Tu eP 21 02 55
	R	eP			24	
	T	eP			13	
May 14	MW	e	00	08	59	Tu i 00 09 11
		e		09	32	e 10 04
	R	e			00	i 25
		e			38	Deep? Felt at Ternate,
	Pr	i			48	according to Batavia
	T	e		08	57	
		i		09	27	
May 14	P	eP	13	30	58	Tu eP 13 31 33
		e		31	09	i 42
	MW	eP			00	
		i			12	CMO: 37.9 N. 142.1 E.,
	R	eP			02	h = 40 km.
		e			16	BCIS: 38.2 N. 142.5 E.,
	Pr	e			17	O = 13:19.1
	SB	e?		30	33	
	H	eP			54	
		e		31	12	
	T	eP		30	49	
		e		31	04	
May 14	MW	eP	15	28	53	Tu iP 15 29 33
		e		29	20	i 30 27
		e			31	
	R	eP			00	
	T	eP			33	
		i			40	
		i			53	
May 14	P	eP	18	50	49	Tu eP 18 51 24
		e			58	
	PX	eL	19	16.5		JSA: 43 N. 148½ E.,
	MW	eP	18	50	52	O = 18:39:40
	R	eP			56	BCIS: 44½ N. 148½ E.,
	Pr	eP		51	03	O = 18:39:40
	H	eP		50	46	
	T	eP			45	
May 14	P	iP	19	09	56	
	MW	eP			56	
	R	eP		10	00	

Date	Sta.	Phase	h	m	s	Remarks
May 14	MW	iP	19	51	52	Tu iP 19 52 15
	T	iP		52	00	
May 14	P	iPNEZ	22	38	47 d	Tu iP! 22 39 35
		i			56	i! 40
		i!		39	03	i 41 38
	PX	iPP		40	09	i 43 08
		eSE		44	07	i 45 24
		iSNE			28	
	P	iScP		45	01	
	PX	eGNE		46.7		USCGS: 54½ N. 161 W.,
	P	i		47	29	O = 22:31.7
	MW	ePNE		38	49	BCIS: 54.5 N. 161.5 W.,
		iNE		39	04	O = 22:31:41
		eSNE		44	27	
	R	iPNZ		38	52	
		i			59	A T
		i		39	08	PH 5 4
		iScP		45	04	PPH 12 8
	Pr	eP		38	58	SH 300 23
		iNEZ		39	00	GH 150 40
		i			06	MH 400 20
		iEZ			15	
		iPPE		40	10	Magnitude 7¼ – 7½
		iSE		44	53	
		iScP		45	26	
		i		46	48	
		iScSNE		49	16	
	LJ	iPNZ		39	01	
		i			18	
		eSN		44	54	
		iScP		45	09	
		eScSN		49	20	
	SB	iP		38	46	
		iScP		44	59	
		iScSN		49	05	
	H	iP		38	38	
		i			46	
		i		41	14	
		eSNE		44	10	
		iScP			57	
	T	iPNEZ		38	31	
		iNEZ!			38	
		i			46	
		i!		41	10	
		iSNEZ		44	03	
		iScPNZ			52	
		iScSE		48	49	
May 15	P	eP	02	48	54	Tu iP 02 49 38 c
		iEZ		49	03	i! 50 c
		i			08	i 50 46
		ePP		50	11	ePcP 51 27
		iPcP		51	10	i 32
		i			28	i 46
		eSEZ		54	32	
		iScP		55	19	
	PX	eLEZ		58.9		
	MW	ePN		48	57	
		eN		49	04	
	R	iP		48	58	Alaska
		i!		49	07	
		ePP		50	24	
		iPcP		51	15	
		i			30	(continued

Date	Sta.	Phase	h	m	s	Remarks
May 15	Pr	iPNEZ	02	49	04	(continued)
		iNEZ!			15	
		iSNE		54	53	
	LJ	eP		49	08	
		i			17	
	SB	iP		48	54	
	H	iP			42	
		i			52	
		iPcP		51	13	
		i			24	
	T	iPNEZ		48	35	
		i			46	
		i			50	
		i		49	35	
		iPcP		51	10	
		iSNEZ		54	03	
		iScP			50	
		i		55	07	
		e			27	
May 15	R	eP	03	52	31	Tu eP 03 53 08
		e		53	04	i 20
		iPcP		54	24	iPcP 55 04
	Pr	iP		52	40	i 15
	H	eP			21	
	T	eP			11	
		e			21	Aftershock, Alaska
		iPcP		54	40	
May 15	R	eP	05	44	01	Tu iP 05 43 12 c
	Pr	iP		43	57	ipP 31
		ipP		44	16	
	T	iP			22	
		ipP			43	
May 15	P	eP	18	01	11	Tu eP 18 00 46
	R	eP			10	
	Pr	eP			07	South America
	T	eP			22	
May 15	P	eP	18	16	54	Tu eP 18 16 34
	R	eP			54	
	Pr	eP			52	South America
	T	eP		17	10	
May 15	Pr	iP	19	38	07	Tu eP 19 37 25
	T	eP			29	
May 15	R	iP	22	43	34	Tu iP! 22 42 54 c
	Pr	iP			24	
	T	iP			54	
May 16	R	eP	10	45	04	Tu iP 10 45 37
	T	eP		44	34	i 46
		ePcP		47	08	i 47 33
May 16	R	eP	11	02	22	Tu eP 11 02 30
	T	eP			20	
May 16	P	eZ?	19	15	33	Tu iP 19 16 57
	T	iP		16	01	i 18 52
May 16	T	eP	21	28	11	Tu eP 21 28 59
		e			22	
May 17	P	iP	10	19	04	Tu iP 10 19 29
	R	iP			08	
	Pr	iP			09	
	T	iP			11	

Date	Sta.	Phase	h	m	s	Remarks
May 17	P	eP	13	46	19	Tu e 13 46 51
		i			49	
	R	eP			22	
		i			49	
	Pr	eP			24	
		i			51	
		i		47	02	
	LJ	e		46	51	
	H	e			52	
	T	eP			22	
May 17	P	iP	16	57	52	Tu iP 16 58 16 c
		e		58	03	i 32
	R	eP		57	55	
	Pr	iP			55 c	
	T	iP		58	01	
May 17	P	iPNEZ	17	55	39	Tu eP 17 56 25
		iEZ!			48	i! 26
		iPcP		58	03	i! 36
		i			14	i! 41
	PX	iSE	18	01	18	iPcP 58 21
	P	iScP			45	i 33
	PX	iSSEZ		03	59	i 59 13
		eGEZ		05.3		
	MW	ePNE	17	55	40	
	R	iP			44 d	
		i			54	
		iPcP		58	16	
		i			27	
	Pr	eP		55	49	
		iNEZ			51	
		i		56	00	USCGS: 55 N. 161 W.,
		iSNE	18	01	39	O = 17:48.6
	LJ	eP	17	55	49	
		i			54	
		i		56	03	
		eS	18	01	42	
	SB	i	17	55	51	
	H	eP			28	
		i			35	
		eSNE	18	00	58	
	T	iP	17	55	21 d	
		i			29	
		iPcP		57	56	
		eSNE	18	00	48	
		iScP		01	37	
May 18	P	iPNEZ	10	50	40 d	Tu iP 10 51 09 d
	R	iP			42 d	
	Pr	iP			45 d	
	LJ	iP			44	
	SB	iP			31 d	
	H	iP			38 d	
	T	iPNEZ			35 d	
May 18	T	iP	12	56	01	
May 19	T	eP	06	13	11	Tu eP 06 13 28
May 19	T	eP	06	31	08	Tu iP 06 31 21
May 19	T	iP	07	13	44	Tu iP 07 13 58
		i		14	22	i 14 34
May 19	T	iP	07	40	10	Tu iP 07 40 22
		i			55	i 41 08

Date	Sta.	Phase	h	m	s		Remarks
May 19	PX	eLE	10	08	50		Tu iP 10 04 46
	R	e(P)		05	59		i 05 20
	Pr	i(P)			47		iS 06 36
		i		08	12		
	T	iP		06	30	c	
May 20	P	eP	07	24	28		Tu eP 07 24 30
	T	eP			14		Atlantic
May 20	P	iP	08	43	07	d	Tu iP 08 42 30 d
		e			26		e 43 19
	R	iP			04	d	
		e			25		
	Pr	iP		42	58		
		i		43	17		
	T	iP			19	d	
		e			36		
May 20	P	iP!	15	43	28	d	Tu iP! 15 43 42
		e			49		i 46 41
		i		44	53		
	R	iP!		43	28		
		i		44	55		Very distant
	Pr	i			59		
		i		45	08		
	H	iP!		43	28		
	T	iP!			27		
		i		44	49		
		i		46	48		
May 21	P	iPNEZ	15	39	32		Tu i 15 40 59
		iSNZ		40	28		
	MW	iPEZ		39	35		
		iSNEZ		40	32		
	R	iPNEZ		39	40		
		eSE		40	42		
	Pr	iPNEZ		39	44		33.0 N. 123.5 W.,
		iSEZ		40	50		O = 15:38:28
	LJ	iPEZ		39	39		
		iSNE		40	42		Magnitude 4.8
	SB	iP		39	17		Very short periods in both
		iSNEZ		40	02		P and S
	H	iPEZ		39	48		
		iSNE		40	58		
	T	iPNEZ		39	55		
		iSNEZ		41	05		
May 21	MW	eP	18	51	10		Tu eP 18 50 59
	R	eP			08		
	Pr	iP		50	55		
	H	eP		51	24		
	T	eP			23		
May 21	P	eP	20	03	50		Tu iP 20 03 10 c
	MW	iP			51	c	
	R	iP			47		
	Pr	iP			55		
	T	iP		04	04	c	
May 22	T	iP	02	33	44		Tu iP 02 33 57 d
May 22	MW	eP	11	09	32		Tu eP 11 10 11
		e			42		i 20
	Pr	iP			44		e 12 16
	H	e			23		
	T	eP			15		
		e			26		

Date	Sta.	Phase	h	m	s		Remarks
May 22	T	eP	12	08	54		
May 22	P	eP	19	35	08		Tu eP 19 35 22
		iPP		39	14		ePP 39 40
	PX	eGN	20	01.7			
	MW	eP	19	35	05		Wellington: 42.5 S. 172.9 E.,
		iPP		39	11		O = 19:21.5
	R	eP		35	09		magnitude about 6
		ePP		39	12		Maximum intensity VII
	Pr	eP		35	07		Pasadena: A T
	T	eP			20		MH 20 20
		ePP		39	24		
May 22	P	iPNEZ!	19	44	02	c	Tu iP! 19 44 47
		i			21		i 45 11
		i			26		i 25
		iScP		49	16		iScP 49 40
	PX	eSNE		49.9			
		iScSNE		53	46		
	MW	iPNEZ!		44	03	c	
		i			27		
		iScP		49	16		
	R	iP		44	07	c	
		i			14		
		i			30		
		iScP		49	18		
	Pr	iPNEZ!		44	14		
		i			36		Aleutian Is.
		i			47		Depth 100 km?
		iE		46	13		
		iScP		49	22		
		eScSNE		53	56		
	LJ	iPNEZ		44	15	c	
	SB	iPNEZ		43	56	c	
		i		44	18		
	H	iPNEZ		43	54	c	
		i		44	10	c	
		i			20		
		i		45	26		
	T	iPNEZ!		43	49	c	
		i		44	12		
		i			20		
		i		45	24		
		iScP		49	09		
		eScSNEZ		53	37		
May 22	P	iP	19	49	50		
		ePP		53	49		
	MW	iP		49	54		Wellington 42.5 S. 172.9 E.,
		iPP		53	53		O = 19:36.3
	R	iP		49	51		Magnitude about 5 3/4
		ePP		53	55		Maximum intensity V
	Pr	iP		49	56		
		iPP		53	59		
May 23	P	iP	03	58	22		Tu iP 03 57 51
	MW	iP			22		epP 58 26
	R	iP			19		
		epP			54		
	H	eP			30		
	T	iP			34		
		epP		59	09		

Date	Sta.	Phase	h	m	s	Remarks
May 23	P	iPEZ	04	24	55	Tu iP 04 25 21
		ipP		25	17	i 50
		e			37	i 26 05
		iPPEZ		28	19	iPP 29 00
	PX	eSE		34	47	e 54 17
		iNE		35	16	
		iE		36	08	
		eGNE		47	.6	
	MW	iP		24	56	
		ipP		25	16	
	R	iP		24	59	
		ipP		25	21	
		i			40	USCGS: 18 S. 169 E.,
		iPP		28	23	O = 04:12.5, h = 200 km.
	Pr	iPNEZ		24	59	A T
		ipP		25	23	PZ ½ 1
		i			43	MH 5 20
		iPPE		28	25	
		iNE		35	11	
	H	eP		25	01	
		ipP			21	
		i			29	
		iPP		28	27	
	T	iP		25	02	
		ipP			22	
		i			46	
		iPP		28	28	
		eN		35	31	
May 23	P	iP	09	26	16	Tu iP 09 26 43
	MW	iP			17	i 48
		i			22	iPP 30 36
		iPP		29	53	
	R	iP		26	19	
	Pr	iP			22	
		iPP		29	52	
	H	eP		26	11	
	T	iP			07	
		i			12	
		i			27	
May 23	P	iP	12	13	05	Tu eP 12 13 36 d
	MW	iP			05	d
	R	iP			09	d
	Pr	iP			12	d
	SB	iP			02	
	H	iP			02	
	T	iP		12	59	d
May 23	MW	eP	12	42	52	
	R	eP			53	
	T	eP			52	
May 23	MW	eP	17	58	55	Tu eP 17 59 34
		e		59	04	
	T	eP		58	41	
		e			50	
May 23	P	ipP	20	19	39	Tu iP 20 20 15 d
	MW	eP			28	ipP 25
		ipP			38	
	R	eP			32	
		ipP			41	
	H	eP			18	
		ipP			27	
	T	iP			12	d
		ipP			22	
		i			31	

Date	Sta.	Phase	h	m	s	Remarks
May 23	MW	iP	22	55	14	Tu iP 22 55 38 c
	T	iP			22	
May 24	MW	e	10	22	03	Tu iP 10 18 47
	R	e		21	48	i 19 03
	Pr	iPNEZ			26	iS 20 17
		i			50	
May 24	MW	eP	10	28	51	Tu iP 10 29 29 d
		e		29	06	i 38
	Pr	iP		28	53	
		i		29	00	
	H	e		28	43	
	T	iP			25	
		i			35	
May 24	P	iPNEZ!	10	38	31	Tu eP 10 40 25
		iSNEZ!			35	
	MW	iPNEZ!			32	
	R	iP!			33	d
		iSNE			42	33°35' N. 118°01' W.,
	Pr	iPNEZ			39	O = 10:38:20
	LJ	iPNZ			40	Magnitude 3.6
	SB	eP			52	Felt at Huntington Beach and
	H	iP		39	08	Long Beach
	T	iP			25	
May 24	P	eP	10	45	44	Tu eP 10 46 33
	MW	eP			46	i 42
		i		46	04	i 50
		ePcP		48	22	iPcP 48 40
	R	e(P)		45	59	
		iPcP		48	23	
		iScP		51	55	
	Pr	eP		45	57	
		i		46	06	Aleutian Is?
		iPcP		48	26	
	LJ	eP		45	58	
	H	i			45	
		iPcP		48	19	
	T	eP		45	29	
		i			37	
		ePcP		48	06	
		i			16	
		iScP		51	47	
May 24	MW	iP	20	53	31	Tu iP 20 54 16 c
	R	iP			34	e 55 34
	T	iP			17	
		e			22	
		e			36	
		i(pP)		55	06	
May 25	P	iP	00	42	27	
	R	iP			32	
	Pr	iP			42	
	T	iP			21	
May 25	P	iP	02	48	33	Tu iP 02 48 56 c
	MW	iP			33	
	R	iP			35	
	Pr	iP			35	
	T	iP			43	
May 25	R	eP	04	11	16	Tu eP 04 11 40
	Pr	eP			04	Near Apia which reports
	T	eP			27	P 04 00 48, S 04 02 04

Date	Sta.	Phase	h	m	s		Remarks
May 25	P	eP"	07	29	54		Tu e 07 29 47
	PX	ePPNE		30	22		iP" 30 04
		ePPP		32	57		ePKKP 41 07
		eSKSNE		36	35		e 25
		eSN		37	47		
		ePS		39	26		
		eNE			37		USCGS: 30 N. 99½ E.,
	P	ePKKP		41	24		O = 07:11.3
		i			34		CMO: 29 N. 99 E.
	PX	eSSNE		45.3			BCIS: 30.5 N. 100.0 E.,
		eSSSNE		49.8			O = 07:11:23
		iGN		55.4			
	MW	e		30	05		A T
		iPKKP		41	43		PPZ 1 4
	R	eP"		29	53		PPH ½ 3
		iPKKP		41	34		MH 250 50
	Pr	i		30	14		MH 80 20
		ePKKP		41	18		
		i			49		Magnitude 7¼ – 7½
	H	e		29	45		
	T	eP		25	54		
		iP"		29	58		
May 25	R	iP	12	02	04		Tu iP 12 02 25
	Pr	iP			05		
	T	iP			05		
May 25	P	eP	12	37	24		Tu eP 12 36 40
		i			30		e 44
	MW	eP			24		
		e			31		
		e			56		
	R	iP			19		
		i			26		
		i		38	07		
	Pr	eP		37	19		
	H	eP			31		
	T	iP			27		
		i			34		
May 25	P	iPNEZ	15	15	57		Tu iP 15 17 09 c
	PX	eSE		18	16		i 22
		eLNZ		18.7			i 31
	MW	iPNEZ		15	57	c	i 58
	R	iPNEZ		16	03		
	Pr	iPEZ			13	c	
		iNEZ			24		USCGS: 43½ N. 127 W.,
		iN		17	13		O = 15:13.2
	SB	eP		15	45		
	H	iPNEZ			39		A T
	T	eP			27		PH 2 5
		iEZ			29		MH 3 8 Magnitude 5
May 26	R	iP	01	50	13		Tu iP 01 50 27
	Pr	iP			14		
	T	eP			15		
		e			38		
May 26	P	iPNEZ	09	23	30	d	Tu iP 09 24 12 d
		i			39		
		i			49		
		i		26	12		
	PX	iSNE		28	50		
		iE		29	07		
	P	iScPZ			56		
	PX	eLNE		30.8			(continued)

Date	Sta.	Phase	h	m	s		Remarks
May 26	MW	iP	09	23	31	d	(continued)
		i		26	13		
		iScP		30	12		
	R	iP		23	35	d	USCGS: 56 N. 156 W.,
		i			44		O = 09:16.7
		iScP		30	00		BCIS: 56½ N. 154 W.,
	Pr	iPNEZ			42	d	O = 09:16:52
		iNZ			51		
		iSNE		29	12		A T
		iScP		30	14		PH ½ 2
		iScSN		34	07		PZ ¼ 1
	LJ	eP		23	44		SH 5 9
	SB	eP			22		MH 15 20
	H	iP			20		
		e			43		Magnitude 6
		i		26	12		
	T	iPNEZ		23	12		
		i			21		
		eSNE		28	19		
		iScP		29	50		
		eScSN		33	36		
May 26	P	eP	14	02	09		Tu iP 14 01 19
	PX	eLN		05.7			
	MW	eP		02	15		
	R	eP			10		
	Pr	eP		01	57		
		i		02	11		
	H	e(P)		02	41		
	T	e(P)			48		
May 27	T	eP	06	22	58		Tu eP 06 22 02
May 27	MW	e	06	38	30		Tu eP 06 39 39
	Pr	i			44		e 51
	T	eP		37	59		
		e		38	30		
May 28	P	iPNEZ	05	46	24	c	Tu iP 05 45 45 c
		ipP			38		ipP 59
		i			54		i 46 05
		e		48	54		
	PX	iSNE		54	44		
	P	eP'P'	06	15	44		USCGS: 12 S. 77 W.,
	MW	iPNEZ	05	46	24	c	O = 05:36.2
		i			39		
		eP'P'	06	15	46		
	R	iPNEZ	05	46	20	c	
		ipP			35		A T
	Pr	iPNEZ			18	c	PZ 1 1½
		ipP			33		PH 1 2
	LJ	eP			15		pPZ 2 1½
		ipP			29		SH 2 6
	SB	eP			46		
		i		47	05		
	H	iP			33	c	
		ipP			47		
	T	iPNEZ		46	38	c	
		ipP			53		
		i			59		
May 28	T	eP	10	52	08		Tu eP 10 51 21
		i			23		e 47

Date	Sta.	Phase	h	m	s	Remarks
May 28	P	e	14	56	14	Tu e(P) 14 57 07
		e			38	
	MW	e			37	
		e		57	26	
	R	e		56	41	
	H	e			33	
	T	e			11	
		i			28	
		i			32	
May 29	MW	e	05	02	00	Tu i(P) 05 01 57
	T	iP		01	50	Rumania, deep
May 29	P	iP	05	37	56	Tu iP 05 38 30
	H	eP			33	i 39
		e			47	
	T	iP			26	
		e			36	
May 29	T	eP	14	15	25	
May 29	P	eP	19	05	07	Tu eP 19 05 48
	MW	eP			07	
		e			17	
	R	eP			02	
		e			11	
	T	e?			38	
		e			44	
May 29	R	eP	20	18	21	Tu eP 20 17 21
	T	eP			49	
May 31	P	iPNZ	03	17	24 d	Tu eP 03 18 34 d
	PX	eLE		20.3		i 42
	MW	iPNZ		17	25 d	
	R	iP			30 d	
	Pr	iPNEZ			41 d	
		i			44	
May 31	MW	eP	07	00	17	Tu iP 07 01 02
	R	eP			20	
	Pr	iP			22	
	T	iP	06	59	58	
May 31	P	iP	08	35	36	Tu iP 08 35 55 d
		epP		36	51	i 36 12
	MW	iPNZ		35	37 d	ipP 37 12
		epP		36	53	
	R	iP		35	39	
		i			47	
		ipP		36	55	
	Pr	iPNEZ		35	37	Tonga region,
		ipPNZ		36	54	h = 320 km.
		i		37	24	
	H	iP		35	44	
		epP		37	02	
	T	iP		35	45 c	
		ipP		37	02	
May 31	P	iP	15	06	57	Tu iP 15 07 13
	MW	iP			57	
	R	eP			58	
	Pr	iPNZ		07	03	
	H	eP		06	45	
	T	iP			39	
May 31	P	iP	19	30	51	Tu iP 19 31 36
	MW	iP			52	i 38
	R	iP			55	
	Pr	iPNEZ		31	03	

Date	Sta.	Phase	h	m	s	Remarks
June 1	P	iPNEZ	10	10	07 c	Tu iP 10 10 29 c
	MW	iP			07 c	
	R	iP			09 c	
	Pr	iPNEZ			09 c	
	H	iP			14 c	
	T	iPNEZ			15 c	
June 1	P	eP	19	15	20	Tu eP 19 15 23
	MW	eP			24	e 18 59
		e		17	31	
	R	eP		15	21	East Indies
	Pr	eP			29	BCIS: 6 N. 95 E.,
		e		18	42	O = 18:56.2
	T	eP		15	18	
June 2	P	iP	13	45	05	Tu iP 13 44 10
		i			12	i 26
		e			17	i 35
		e		47	48	
		iPcP		48	10	
	PX	eLNE		54.1		
	MW	iP		45	04 d	
		i			11	
	R	iP		44	58 d	
		i		45	06	
		e		47	00	
		iPcP		48	07	
	Pr	iPNEZ		44	52 d	
		iNZ		45	00	
	LJ	eP		44	52	JSA: 13 N. 94 W.,
		i		45	00	O = 13:38:50
	SB	eP			04	
		e			15	A T
	H	iP			14	PZ ↓ 1
		i			21	PH ↓ 2
	T	iPNEZ			20 d	MH 10 20
		i			27	
		iPcP		48	14	
June 2	MW	iP	22	39	42	Tu iP 22 38 58
	R	iP			38	
	T	eP			55	
June 4	P	iPNZ	07	28	06	Tu iP 07 28 02
		iSN			53	i 17
	MW	iP			07	iS 29 09
		iSN			55	
	R	eP		27	55	
		i			57	32.0 N. 115.0 W.,
		iSEZ		28	38	O = 07:27.2
	Pr	iP		27	41	
		i			45	Magnitude 4.6
	LJ	iPNEZ			42	
		iSNZ		28	44	
	H	ePEZ			39	
		iS		29	47	
	T	i		28	55	
June 5	P	e	22	32	38	Tu iP 22 33 18
	MW	e			32	i 25
	R	e			42	
	Pr	eP			49	
	T	iP			15	
		i			22	
June 6	MW	e	08	06	07	Tu e? 08 05 13
	T	eP			08	e 35
		e			25	

Date	Sta.	Phase	h	m	s		Remarks
June 6	Pr	eP	17	26	35		Tu iP 17 27 00
	T	iP		25	59		i 10
		e		26	07		i 13
June 6	P	eP	21	35	43		Tu iP 21 36 09
	R	eP			41		
		e			47		
	Pr	eP			41		
		e			47		
	T	e(P)			52		
June 7	P	iP	03	36	02		Tu iP 03 36 41 c
		e			15		i 55
		i			26		i 37 37
		i		38	56		i 39 30
	MW	iP		36	03		e 41 16
		i			24		
		e		38	48		
		i			58		
	R	eP		36	06		
		e		37	35		
		e		38	05		
		i			59		
	Pr	iP		36	13	c	
		i			18		
		i		38	48		
		i			57		
	H	eP		36	03		
		i		37	31		
	T	iPEZ		35	49	c	
		i		37	29		
		e		38	36		
June 7	P	e(P)	13	18	14		Tu eP 13 17 22
		iSE		19	28		i 34
	MW	eP		18	17		i 18 15
		eSE		19	33		Probably Gulf of California
	R	iP		18	07		Magnitude about 5
	Pr	eP		17	42		
		i			48		
		iS		18	51		
June 7	P	iPNZ	15	06	21		Tu eP 15 07 25
		iSNEZ		07	05		
	MW	iP		06	18		
		iNE			22		
		iSEZ		07	03		37°12' N. 118°42' W.
	R	iPNZ		06	20		O = 15:05:22
		eSNZ		07	02		Magnitude 4.2
	SB	eP		06	18		
		iSN			56		Felt at Bishop, Independence
	H	iPNEZ		06	47	d	and Laws, California
		iSE		07	04		
	T	iPNEZ		05	30	d	
		iSNE			36		
June 8	P	eP	03	32	51		Tu eP 03 32 44
	PX	eL	04	38.3			ePP 38 17
	MW	eP	03	32	50		
		e		34	28		Indian Ocean
	R	eP		32	49		Distant about 175°
		e			58		BCIS: 35 S. 55 E.
		ePP		38	11		O = 03:12.4
	H	eP		32	49		
	T	eP			50		

Date	Sta.	Phase	h	m	s		Remarks
June 8	P	iP	04	01	38		Tu iP 04 00 48 c
	MW	iP			37		
	R	iP			32		South America
	Pr	iPNEZ			26	c	
	T	iP			51	c	
June 8	P	eP	07	07	51		Tu iP 07 08 14
		e		08	00		i 23
	MW	eP		07	51		
	R	eP			51		Small surface waves
		e		08	00		recorded at Pasadena
	Pr	iP		07	53		
		i		08	02		
	H	eP		07	59		
		e		08	09		
	T	eP			00		
		e			10		
June 9	P	e?	02	22	13		Tu iP 02 23 05 d
		i(P)			20		i 14
	MW	iP			20		e 18
		i			29		
	Pr	iP			31		
		i			39		
		e			49		
	T	iP			06		
		e			15		
		i			19		
June 9	MW	iP	02	45	18		Tu iP 02 46 02
		i			26		i 11
	Pr	iP			28		
		i			37		
		e			47		
	T	iP			03		
		i			12		
June 9	R	eP	08	23	37		Tu eP 08 22 55
		eS		24	37		i 23 11
	Pr	eP		23	52		iS 53
		eS		24	48		
June 9	P	eP	13	21	16		Tu iP 13 21 40
	MW	eP			16		
		e			29		
	R	eP			19		
		e			32		
	Pr	iP			13		
		i			36		
	T	iP			26		
		i			39		
		i			55		
June 9	P	iP	19	48	51		Tu iP 19 48 16 c
	M W	iP			52	c	i 34
	R	eP			53		Near Apia, which reports:
	Pr	iP			53	c	iP 19 37 23, iS 19 38 06
June 9	P	iP	21	44	28	d	Tu iP 21 44 51 d
	MW	iP			28	d	
	R	iP			30		
	Pr	iP			31		
June 9	R	iP	23	49	49		Tu iP 23 48 57
		e			59		i 49 03
	Pr	eP			39		e 10
		i			48		

Date	Sta.	Phase	h	m	s	Remarks
June 12	P	eP	00	43	52	
		i		44	19	
	MW	eP		43	55	
		i		44	21	
	R	eP		43	57	
		i		44	24	
		e			41	
	Pr	iP		43	59	
		i		44	23	
	T	iP		43	56	
		e		44	08	
		e			21	
June 12	P	i	07	15	05	Tu eP 07 15 22
	MW	i		14	56	i 28
		i		15	03	
	Pr	i			06	Near Apia, which reports:
	H	e			10	iP 07 04 00
	T	eP			05	iS 04 50
		i			11	
June 12	T	iP	10	21	39	Tu iP 10 21 55
June 12	P	eP	22	45	33	Tu eP 22 46 11
	MW	iP			34	
	R	eP			39	
	Pr	eP			35	
	T	iP			20	
June 13	MW	eP	19	48	43	Tu eP 19 49 34
	R	eP			48	
	T	iP			15	
June 14	P	eP	09	28	41	Tu iP 09 27 58 d
	MW	iP			40	i 28 36
		i		29	17	i 55
		i			30	
	R	iP		28	35	
		e		29	13	
	Pr	iP		28	30	
		e		29	05	
		e			22	
	T	iP		28	53 d	
		i		29	26	
June 14	P	iP	10	10	24	Tu e 10 14 35
		i			56	
	MW	eP			24	
		i			46	
	R	eP			25	
		e			48	
		e		13	57	
	T	eP		10	23	
		e			48	
		e		14	23	
June 14	T	iP	11	06	38	Tu eP 11 07 19
June 15	Pr	iP	05	44	43	Tu eP 05 45 03
	T	iP			47	
June 15	P	iPEZ	11	57	11 d	Tu eP 11 57 42
		ipP			22	iPP 12 01 13
		i			33	eP'P' 23 21
		i			43	
		i			50	
		iPP	12	00	22	(continued)

Date	Sta.	Phase	h	m	s	Remarks
June 15	PX	iSNE	12	07	30	(continued)
		i NE			50	
		iNE		08	11	
		eSSN		12	54	
		eGN		19	2	
		iLN		23	27	
	MW	iPNEZ	11	57	12	
		ipP			25	
		i			41	
	R	iPNEZ			15	
		ipP			26	USCGS: 33½ N. 136 E.,
		i			38	O=11:44.7
	Pr	iPNEZ			18	
		ipP			30	
		i			41	A T
		iPP	12	00	36	PZ 1¼ 1½
		i			47	PH 1 2½
		eSNE		07	45	SH 2 4
		e		08	53	MH 12 20
	LJ	eP	11	57	21	
		ipP			32	Magnitude 7
	SB	eP			09	
		ipP			19	
	H	iPNEZ			08	
		ipP			17	
		eSN	12	07	23	
	T	iPNEZ	11	57	04	
		ipP			16	
		i			25	
		eSNE	12	07	17	
		eP'P'		23	44	
June 15	P	iP	16	51	30	Tu iP 16 51 52 d
	MW	iP			32	e 52 10
		i			45	e 36
	R	iP			28	
		i			43	
	Pr	iP			33	
		e			42	
		e			50	
	H	eP			38	
		e			48	
		e			54	
	T	iP			41 d	
		e			49	
June 15	P	iP	18	28	25	Tu eP 18 28 58
		e			37	
	MW	iP			26 d	
		i			34	
	R	iP			28 d	
	Pr	iP			32	
June 15	P	e	21	15	18	
	MW	e			20	
	Pr	e (P)			31	
	T	iP			22	
June 16	P	eP	00	23	16	Tu eP 00 23 50
		e			22	i 24 02
		e			27	i 10
	MW	eP			16	
		i			23	
		i			28	
	Pr	e			35	
		i			38	
	T	i			10	
		i			15	

Date	Sta.	Phase	h	m	s		Remarks				
June 16	Pr	iP	11	14	19		Tu	iP	11	14	40
	T	iP			24						
June 16	P	iP	13	38	55						
	MW	iP			57						
	Pr	iP		39	01						
	T	iP		38	57						
June 17	P	e	10	45	39		Tu	iP	10	44	38
	MW	e			38			i			45
	R	eP			23						
		e			36						
	Pr	iP			25						
		e			34						
	T	e		46	01						
June 18	P	iPNEZ	01	06	55	d	Tu	eP	01	07	24
		ipP		07	08			i		08	21
		isP			16			i		11	17
		i			38			e		26	03
		i		10	34			e		32	21
	PX	iSKSE		17	21						
		iSN			49						
		iPS		18	24						
		iPPSE		19	15		USCGS: 6 S. 155 E.,				
		eSSN		24	0		O=OO:53.9				
		eGN		30	7						
	MW	iPEZ		06	56						
		i		07	23			A T			
		eN		17	24		PZ 1 1				
	R	iP		06	58		PH 1 4				
		i		07	17		SKSH ½ 2				
		i			24		SH 4 8				
		eSKSE		17	27		GH 30 50				
	Pr	iPEZ		07	00		MH 12 20				
		i			13						
		i			20						
		i		10	36						
		i			58		Magnitude about 7				
		iSNE		17	30						
		iN		18	02						
	LJ	eP		06	57						
		e		07	17						
	H	iP		06	58						
	T	iP			58	c					
		i		07	18						
		eE		17	11						
June 18	MW	eP	04	45	25		Tu	eP	04	45	05
	R	eP			21						
June 18	P	iP	06	18	18		Tu	iP	06	17	41 d
		e			37			i			47
	MW	iP			18			e		18	13
		i			23						
	R	iP			15	d					
		i			35						
		i			45						
	Pr	iP			10						
		i			33						
	T	iP			30						
		e			40						
		i			53						
June 18	P	e	10	36	35						
	H	e(P)			28		Small earthquake felt at Ukiah,				
	T	iP			11		California				
		iS			54						

Date	Sta.	Phase	h	m	s		Remarks				
June 18	P	iP	10	37	08		Tu	iP	10	37	52
	MW	iP			09			i		38	01
		i			18			i			07
		i			30			i			14
	R	eP			12						
		i			19						
		i			26						
	Pr	iPNEZ			18	c					
		i			27						
		i			39						
	LJ	eP			18						
		e			27						
June 18	R	eP	16	59	38		Tu	iP	16	59	57
		e			47			i	17	00	23
	Pr	iP			39		Near Apia, which reports:				
		i			50		iP 16 49 20				
		e	17	00	14		iS 51 00				
	T	eP	16	59	44						
June 19	R	iP	23	07	33		Tu	iP	23	07	15
	Pr	iP			33						
	T	eP			21						
June 19	P	iP	23	24	14		Tu	eP	23	24	49
		i			29			e		25	07
	R	iP			16						
		i			32						
	Pr	iP			20						
		i			35						
	SB	eP			12						
	H	eP			14						
		i			28						
	T	iP			12						
		i			26						
June 20	P	iP	08	39	58		Tu	iP	08	40	22
	Pr	iP		40	00						
	T	iP			05						
June 20	P	eP	08	56	40		Tu	eP	08	56	10
		e		57	10			e			31
	PX	eN	09	07	1						
		eLE		19	5						
	R	eP	08	56	30						
		e			50						
	Pr	eP			27						
	T	eP			40						
		e		57	08						
June 20	P	iP	17	34	46		Tu	iP	17	33	52
		i			54			i			57
		iPcP		37	24			iPcP		37	08
	R	iP		34	40						
		i			49						
		ePcP		37	21						
	Pr	iP		34	35						
		i			45						
		ePcP		37	20						
	T	iP		35	01						
		iPcP		37	29						

Date	Sta.	Phase	h	m	s		Remarks
June 21	P	e	12	23	23		Tu i 12 24 11
	PX	e			59		i PP 25 13
		iPP		24	28		i 26 15
		iSKSE		30	46		
		ePSEZ		33.6			Batavia: 0.6 N. 128.6 E.
		eLEZ		55.7			USCGS: 3 N. 126 E.,
	R	eP		20	05		O=12:05.4
		e		24	11		
		iPP			40		A T
	T	eP		19	55		MH 10 20
		i		20	36		
		i		23	57		
		i		24	28		
June 21	R	ePP	14	16	56		Tu e 14 16 08
	T	e			02		Aftershock
June 22	R	e	21	59	30		Tu i 21 59 34
		i	22	00	26		e 22 00 51
	Pr	i			33		
June 23	R	iP	00	48	59		Tu iP 00 48 19 c
	Pr	iP			53	c	
	T	iP		49	17		
June 24	P	iP	00	00	02	c	Tu iP 00 00 21 c
	MW	iP			03	c	
	R	iP			04		
	Pr	iP			05		
	T	iP			10	c	
June 24	MW	eP	05	47	14		Tu iP 05 46 57
	R	eP			12		
	Pr	eP			09		
	T	iP			31		
June 24	MW	iP	10	51	21		Tu iP 10 51 45
	Pr	iP			23		
	T	iP			30		
June 24	R	iP	21	17	50		Tu iP 21 18 10
	T	iP		18	00		
June 25	P	iP	09	28	05	d	Tu iP 09 27 20 d
		i			20		ipP 28 03
		ipP			48		e 38
		e		29	10		
	MW	iP		28	05	d	
		i			18		
		ipP			49		
		e		29	17		
	R	iP		28	02	d	
		ipP			47		
		e		29	23		
	Pr	iPNE		27	57		
	H	eP		28	13		
	T	iP			19	d	
		ipP		29	03		
June 25	P	e	15	27	26		Tu iP 15 28 13
	MW	e			28		i 23
		iPcP		29	50		iPcP 30 08
	R	eP		27	30		i 21
		i			42		
		iPcP		29	51		
	Pr	ePNE		27	38		
	T	eP			17		
		iPcP		29	35		

Date	Sta.	Phase	h	m	s		Remarks
June 26	P	iP	01	41	49	d	Tu iP 01 42 13 d
	MW	iP			50	d	i 32
		i		42	09		i 45
	R	iP		41	52		
	Pr	iP			52	d	Apia reports a slight local shock
	SB	eP			46		with S at 01 34 11
	H	eP			58		
	T	iPEZ			58		
June 26	MW	iP	02	32	33		Tu eP 02 31 59
	R	iP			30	c	
	T	iP			45		
June 26	MW	iP	10	17	49		Tu iP 10 18 12
	T	iP			58		Near Apia
June 26	P	iPNEZ	12	15	06		Tu iP 12 15 32 d
	MW	iP			06	c	
		e		18	14		
	R	iP		15	08		
	Pr	iPNEZ!			08	c	
	LJ	iP			08		
	H	iPNEZ			10	c	
	T	iPNEZ			11	c	
June 26	Pr	iP	13	40	24		Tu iP 13 39 44
June 26	MW	iP	19	31	37		Tu iP 19 32 01
	R	eP			37		Near Apia, which reports:
	Pr	iP			39		iP 19 21 00, iS 19 21 29
June 27	P	iPNEZ	12	55	08	c	Tu iP! 12 54 12 c
		ipPEZ			20	c	i 55 12
		i			52		i 56 24
		i		56	15		
	PX	iSNEZ!	13	00	36		USCGS: 17 N. 85 W.,
		eE		03	25		O=12:48.3
		iScSNE		05	28		
		eLNE		07.1			A T
	MW	iPNEZ	12	55	08	c	PZ 7 2
		ipPZ			21		PH 6 3
		i		56	10		pPZ 3 2
	R	iPNEZ		55	02	c	SH 9 12
		i!			07		MH 15 20
		ipP!			15		
		i			37		Magnitude 7
		i		56	20		
		i			39		
	Pr	iPNEZ!		54	57	c	
		i		55	18		
		i			33		
		i		56	15		
		eN		58	54		
		iSN	13	00	14		
		eE		04	25		
		iScSN		05	24		
	LJ	iPNEZ	12	54	59	c	
		i		55	40		
		i			56		
		eSE	13	00	18		
	SB	iPNEZ	12	55	20	c	
		i			32		
		i			43		
		i		56	30		
		i			54		
		eSE	13	00	59		(continued)

Date	Sta.	Phase	h	m	s		Remarks
June 27	H	iPNEZ	12	55	13	c	(continued)
		i			27		
		i		56	46		
		i		57	32		
	T	iPNEZ		55	18	c	
		ipP!			32	d	
		iEZ		56	42		
June 27	P	iP	21	46	00		Tu iP 21 46 49
	PX	iSNE		51	26		
		eGE		54.3			USCGS: 56 N. 158 W.,
	MW	iP		46	04		O=21:39.2
	R	iP			08		
	Pr	iP			15	d	
	SB	eP		45	57		A T
	H	iP			53		MH 20 20
	T	iP			43		
June 28	P	ePNEZ	07	25	48		Tu eP 07 26 18
		i		26	00		i 30
	PX	iSE		35	59		
		eGE		46.5			
	MW	iP		25	48		
		i		26	01		Destructive at Fukui, Japan
		iPP		28	57		
	R	iP		25	51		USCGS: 36 N. 136½ E.,
		i		26	03		O=07:13.5
		iPP		29	10		
	Pr	iPNZ		25	54		A T
		iNEZ!			58		PZ 2 2
		i!		26	07		PH 2 5
		iPPEZ		29	16		SH 5 5
		eSNE		36	17		GH 100 45
		iN			43		MH 50 20
		i		37	10		
	LJ	iP		25	58		Magnitude 7¼
		i		26	07		
		eSN		36	18		
	SB	iPNZ		25	43		
	H	iPNEZ			43		
		i			52		
		iPP		28	21		
	T	iPNEZ		25	40		
		i			53		
		eSNE		35	53		
June 28	P	iP	07	32	01		Tu iP 07 32 32
	MW	iP			02		
	R	iP			04		
	Pr	iP			09		
	H	iP		31	57		
	T	iP			53		
June 28	P	eP	11	48	20		Tu iP 11 49 09
		i			28		i 17
	MW	iP			21		
		i			27		
		i			51		
	R	iP			25		
		i			33		
	Pr	iP			28		
		i			34		
	T	eP			25		
		e			31		

Date	Sta.	Phase	h	m	s		Remarks
June 28	P	eP	23	40	39		Tu iP 23 41 25
		i			49		i 32
	MW	iP			40		
		i			47		
	R	iP			43		
		i			50		
	Pr	iPNEZ			49		
		i			57		
	T	eP			19		
		i			27		
June 29	MW	eP	05	12	24		Tu eP 05 12 44
	R	eP			26		i 48
	Pr	iP			26		Near Apia which reports:
		i			39		iP 05 02 02
	T	iP			34		iS 03 42
June 29	P	iPNEZ!	10	39	56	d	Tu iP! 10 40 22 d
	PX	ipP!		40	20	d	
		isPNE			32		
		i			47		
		iSNE		49	12		V at Apia, which reports:
		iGNE		58.0			iP 10 29 06
		eR		59.8			iS 24
	MW	iPNEZ		39	57	d	
		i!		40	00		Deep
		i			16		USCGS: 16 S. 172 W.,
		eSKPP!	11	11	27		O=10:28.5
	R	iPNEZ	10	40	00	d	
		i			23		A T
		iSKPP!	11	11	28		PZ 6 2
	Pr	iPNEZ!	10	39	59	d	PH 7 5
		i!		40	04		SH 3 5
		i			19		MH 35 20
		i		42	34		
		iSE		49	22		Magnitude 7¼
		eP:P!	11	06	22		
		iSKPP!		11	30		
	LJ	iPNEZ	10	39	57	d	
		i		40	21		
	SB	iPNEZ		39	52	d	
	H	iPNE		40	06	d	
	T	iPNEZ			07	d	
		i			21		
June 29	MW	iP	11	25	30		Tu iP 11 26 04
	Pr	iP			39		
	T	iP			19		
June 29	P	iP	15	00	38	c	Tu iP 14 59 39
	MW	iP			38	c	
	R	iP			31		
	Pr	iPEZ			25	c	
		i			33		
		iNZ			42		
	T	iP			58		
June 29	P	eP	15	33	12		Tu eP 15 32 57
	MW	eP			16		
	Pr	eP			07		
	T	eP			38		

Date	Sta.	Phase	h	m	s		Remarks
June 29	P	iP	16	20	24		Tu iP 16 20 27 c
		i		22	39		i 23 50
		i		23	12		
	PX	iE		32	51		
		iE		37	48		
		eLE			55		
	MW	iP		20	24		
	R	eP			24		USCGS: 43 N. 47 E.;
		e		24	20		O=16:06.5
		i			33		
	Pr	iPNZ		20	27	c	Rome 40.3 N. 46 E.;
		i			36		O=16:06.4
		e		23	43		
		iNZ		24	42		
	T	iP		20	13	c	
June 30	P	eP	00	32	51		Tu iP 00 33 10
		ipP		33	07		iPP 31
	MW	eP		32	48		
		ipP		33	09		
	R	ipP			09		
	Pr	eP		32	49		
		ipP		33	10		
	T	ipP			16		
June 30	P	eP	12	35	00		Tu iP 12 34 46
		iPP		38	52		iPP 38 37
	PX	eNE		52.8			
		eLN	13	00	29		
	MW	eP	12	34	53		
	R	eP			52		Destructive on Leucas
		e		38	53		USCGS: 38½ N. 20½ E.;
	Pr	iP		34	53		O=12:21.2
		i		35	00		BCIS 38° 50' N. 20° 40' E.;
		e		38	10		
		e			51		
	T	iP		34	49		A T
		iPP		38	37		MH 10 20
June 30	Pr	iP	16	22	23		Tu iP 16 21 58
June 30	MW	iP	17	37	53	d	TU iP 17 38 31 d
		i		38	20		
	Pr	iP			03	d	
		i			20		
	T	iP		37	41	d	

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Date	Sta.	Phase	h	m	s		Remarks
June 30	P	ipP	23	17	28		Tu iP 23 16 49 d
	MW	eP			14		ipP 17 04
		ipP			29		i 10
		i			40		
	R	iP			11		
		epP			25		
	Pr	iP			07	d	
		ipP			26		
	T	i			41		
July 1	P	iP	01	53	27	c	Tu iP 01 54 02 c
		epP		55	10		epP 55 48
	MW	iP		53	28	c	e 56 18
		epP		55	11		
	R	iP		53	29	c	
		epP		55	11		
	Pr	iP		53	36	c	Japan?
		epP		55	24		Depth about 450 km.
	LJ	iP		53	21		
	H	iP			19		
	T	iP			15	c	
		epP		54	58		
July 1	P	iP	12	58	18		Tu iP 12 58 42
		iX			44		iX 59 09
		e		59	17		i 41
	MW	iP		58	19		
		iX			46		
	R	iP			20		Pacific
		e		59	16		Phases indicated by iX are
	Pr	iP		58	20		peculiarly sharp and of very
		iX			47		short period
		e		59	18		
	T	eP		58	28		
		e		59	27		
July 2	P	iP	02	36	58		Tu eP 02 37 29
		i		37	10		e 41 19
		e			27		
	MW	iP		36	57		
		e		37	09		
	Pr	eP			00		
	SB	eP		36	56		
	T	eP			53		
		i		37	07		
July 2	P	eP	03	03	49		Tu eP 03 04 22
	MW	eP			51		
		e		04	14		
	Pr	i			19		
	T	eP		03	49		
		e			59		
July 2	Pr	iP	10	44	20		Tu iP 10 44 40
July 2	P	eP	15	17	21		Tu eP 15 17 59
	R	eP			25		e 18 34
	Pr	eP			21		
	SB	eP			20		
	H	eP			24		
July 3	P	iP	04	23	46		Tu iP 04 23 03
		e		24	25		i 39
		e			38		i 49
	MW	iP		23	47		
		i		24	22		
	R	iP		23	40		
		e		24	17		
	Pr	iP		23	36		
		e		24	14		
		i			27		
	T	iP		23	59		
		i		24	38		

Date	Sta.	Sta.	Phase	h	m	s		Remarks
July 3		P	iPNEZ	13	01	24	c	Tu iP 13 01 49 c
			ipP		02	46		ipP 03 12
		PX	iSNE		10	38		i 04 08
		MW	iPNEZ		01	24	c	i 49
			ipP		02	47		e 05 55
			e		04	02		i 28 33
		R	iPNEZ		01	26	c	
			epP		02	47		
		Pr	iPNEZ		01	26	c	
			ipP		02	50		BCIS: 20 S. 176 W.,
			iSNEZ		10	48		O = 12:50.1, h = 400 km.
		LJ	iPNEZ		01	24		
			ipP		02	49		
		SB	eP		01	33		
		H	iPEZ			32		
			eSN		10	57		
		T	iPNEZ		01	33	c	
			epP		02	57		
July 4		P	iP	03	35	04		Tu iP 03 35 27
		MW	iP			05		
		Pr	iP			08		
		T	iP			14		
July 4		P	iP	12	28	32		Tu iP 12 27 37
		R	iP			20		
		Pr	iP			20		
July 4		P	eP	15	20	44		Tu eP 15 20 21
		PX	eLN		30	2		
		R	eP		20	40		
		Pr	iP			36		
		T	eP		21	08		
July 4		P	eP	23	25	28		Tu eP 23 25 58
		MW	eP			28		
		R	eP			28		USSR: 41.9 N. 48.8 E.
		Pr	eP			29		
July 5		P	e	14	13	09		Tu e 14 12 07
			e		15	37		
		PX	eLE		39	9		BCIS: 30½ N. 58½ E.,
		MW	e		12	57		O = 13:53.1; magnitude 5 3/4
		Pr	e		13	03		USSR: 28.8 N. 57.5 E.
			e		14	27		A T
		T	e		12	46		M 20 20
July 6		P	iP	07	04	22		Tu iP 07 04 48
		MW	iP			24		
		R	iP			25		
		Pr	eP			26		
		T	eP			33		
July 6		P	iP	11	56	41		Tu eP 11 55 10
		Pr	iP			37		
		T	iP			46		
July 6		R	eP	19	04	44		Tu eP 19 04 55
		T	iP			51		
July 7		P	eP	02	31	39		Tu eP 02 32 12
			i			48		
		PX	iSNE		41	57		USCGS: 33 N. 136 E.,
			eSSN		47	18		O = 02:19.1
			eLN		53	5		
		MW	eP		31	39		CMO: 33.0 N. 136.5 E.,
			e			50		A T
		R	eP			42		PZ 0.5 2
			i			53		PH 0.3 2½
		Pr	eP			49		SH 3 12
			i			54		M 10 20
			i		32	08		Magnitude about 6½
			iPP		35	13		(continued)

Date	Sta.	Phase	h	m	s	Remarks
July 7	T	eP	02	31	31	(continued)
		i			38	
		i			47	
July 7	P	eP	09	25	01	Tu iP 09 25 21
		e			23	i 43
	MW	eP			02	e 26 09
		i			24	
	Pr	iP			02	
		i			25	
	T	iP			11	
		i			33	
July 7	MW	iP?	23	59	45	Tu iP 23 58 51
	Pr	i(P)			30	
	T	iP	24	00	45	
		i		02	44	
July 8	P	e	04	46	40	Tu eP 04 46 14
	MW	e			53	Atlantic
	T	eP			33	
July 8	P	e	11	50	03	
	MW	eP			03	
		e			07	
	R	eP			04	
		e			11	
	T	eP			05	
July 8	P	eP	12	45	19	Tu iP 12 45 17
	PX	eLN	13	05	9	
	MW	eP	12	45	18	USCGS: 71 N. 6W.,
	R	eP			17	O = 12:34.6
	Pr	ePNEZ			23	
		i			37	BCIS: 72 N. 4 W.,
	LJ	eP			28	O = 12:34:30
	H	eP			08	USSR: 73.3 N. 5 W.
	T	eP			03	
July 8	P	iP	14	02	31	Tu e(P) 14 03 02
		i			41	
		i			47	
	MW	iP			32	USSR: 12.5 N. 145 E.
		e			40	
	R	iP			34	
		i			51	
	Pr	iP			37	
		e			43	
		e			52	
	H	iP			31	
		i			46	
	T	iP			28	
		i			37	
July 8	P	iP	17	21	03	
		i			24	
		i			44	
	MW	e(P)		20	56	
		i		21	03	
		i			26	
	R	e?		20	46	
		i(P)		21	06	
		i			28	
		i			48	
	Pr	iP			07	
		i			28	
	LJ	eP			06	
	T	e		20	44	
		i(P)		21	03	

Date	Sta.	Phase	h	m	s	Remarks
July 8	R	e	21	54	13	Tu eP 21 53 15
July 9	MW	eP	01	44	25	Tu eP 01 44 40
	T	eP			27	
July 9	MW	eP	03	58	47	Tu eP 03 58 06
	R	eP			46	
July 9	MW	iP	16	39	30	Tu iP 16 39 56
	R	iP			33	
	Pr	iP			34	
	T	iP			35	
July 9	P	iP	21	26	08	
	MW	iP			09	
	R	iP			11	
		e			26	
		e			49	
	Pr	iP			13	
		i			39	
		i			55	
	T	iP			11	
July 10	MW	eP	00	09	40	Tu eP 00 09 12
	R	iP			37	
	Pr	eP			21	
July 10	R	iP	01	44	08	Tu iP 01 43 37
	Pr	iP		43	52	e 44 02
	T	eP		44	24	
		e			50	
July 10	P	eP	13	59	38	Tu eP 13 59 51
	MW	eP			39	e 14 00 49
	T	e?			21	
		e			37	
July 11	Pr	eP	06	59	29	Tu iP 06 58 44
July 11	P	iP	19	59	50	
		iSN	20	00	37	Magnitude 4.2
	MW	iP	19	59	50	Central California
	R	iP			57	Santa Clara reports:
	H	eP			37	iP 19 58 49
	T	eP			30	iS 52
		iSE	20	00	07	
July 12	P	iP	02	54	03	Tu iP 02 54 27
		ipP			51	i 33
	MW	iP			03	ipP 55 15
		ipP			51	
	R	iP			05	d
		ipP			49	
	Pr	iPNZ			05	d
		ipP			52	
	H	iP			11	
	T	iP			12	d
		ipP		55	01	
		i			19	
July 12	MW	iP?	05	10	04	Tu iP 05 10 25
	Pr	iP		09	48	
	T	iP		10	11	
July 12	MW	eP	17	19	01	Tu iP 17 18 06
	R	eP		18	58	i 29
	Pr	iP			51	Mexico
		i		19	01	
	T	eP			20	
July 12	P	iP	18	05	24	
	MW	iP			24	
	R	iP			27	
	Pr	iP			31	
	T	iP			15	

Date	Sta.	Phase	h	m	s	Remarks				
July 12	Pr	iP	23	20	25	Tu	iP	23	20	12
July 13	P	iP	18	25	07	Tu	iP	18	25	44
		e			16					
	MW	iP			08					
		i			17					
	R	iP			10					
	Pr	iP			16					
		i			34					
	T	iP		24	51					
		i		25	01					
July 13	R	eP	20	21	45	Tu	iP	20	20	55
	Pr	iP			37					
July 14	P	eP	10	22	07	Tu	eP	10	22	40
	MW	eP			ii					
	R	eP			15					
	Pr	eP			16					
	T	eP			04					
July 14	Pr	iP	12	45	23	Tu	eP	12	45	44
July 14	P	eP	22	42	36	Tu	eP	22	47	09
	PX	iPP		47	04					
		iPSE		55	21					
		iPPSE		56	00					
		eN		59	45					
		eSSNE	23	00	41	USCGS: 4 S. 142 E.,				
		iGNE		08	.0	O = 22:28.9				
	MW	eP	22	42	38					
	R	eP			39	A T				
		e		46	28	MH 10 20				
	Pr	eP		42	44	Magnitude 6¼ - 6½				
		e		46	58					
	T	eP		43	37					
July 15	MW	iP	01	43	25	Tu	iP	01	42	28
		e			38					
		e			46					
	R	iP			21					
		e			35					
		i			42					
	Pr	eP			18					
	T	iP			37					
July 15	MW	eP	06	53	44	Tu	eP	06	52	52
	R	eP			34					
	T	eP			58					
July 15	P	eP	10	11	21	Tu	iP	10	10	21
	MW	eP			21					
	R	eP			16					
	Pr	eP			06					
		e			22					
	T	iP			46					
July 15	P	iP	11	07	49	Tu	iP	11	07	09
		i			54		i			21
	PX	iNE		08	20					
		eN		10	15	USCGS: 10 N. 104 W.,				
		f(PcP)			58	O = 11:02.0				
		iNE		12	33					
		eGN		13	.9					
		eLNE		14	.4					
	MW	iP		07	50					
		i			55					
	R	eP			44					
		i			49					
		i		11	09	(continued)				

Date	Sta.	Phase	h	m	s		Remarks				
July 15	Pr	iPNEZ	11	07	37	c	(continued)				
		i			42						
		i			56						
		e		09	26						
		i		11	10						
		i		12	27						
	LJ	eP		07	35						
	H	eP		08	05						
		i			10						
	T	eP			12						
		i			18						
July 15	P	eP	11	52	42		Tu	iP	11	52	04
	MW	eP			44						
	R	eP			37						
	Pr	eP			31						
	T	eP		53	06						
July 15	P	iP	19	30	32	c	Tu	iP	19	30	53 c
	MW	iP			33	c					
	R	iP			35	c					
	Pr	iPNEZ			35	c					
	LJ	iP			32						
	H	eP			39						
	T	iP			40	c					
July 16	P	eP	04	18	38		Tu	eP	04	17	43
		iSNEZ		19	32			i			56
	MW	eP		18	34			i(S)		18	36
		iS		19	31						
	R	iPNZ		18	22		Gulf of California?				
	Pr	eP			03						
		iSN			51						
	LJ	iP			08						
July 16	P	iP	06	18	01		Tu	iP	06	18	26 c
	MW	iP			02						
	Pr	iP			04	c					
	T	eP			10	c					
July 16	P	ePNEZ	07	18	41	d	Tu	iP	07	17	48
		ipP			56			i			59
		iPcP		21	37			i		19	58
		ipPcP			51			iPcP		21	21
	PX	eSNE		23	48						
		eLN		24	17		USCGS: 14½ N. 92 W.,				
	P	eScP		25	09		O = 07:12.5, h = 100 km.				
	PX	iScSNE		29	12						
	MW	iP		18	42	d		A	T		
		ipP			56		PZ	1	3		
		iPcP		21	36		MH	10	20		
		epPcP			52						
		eScP		25	12		Magnitude 6¼				
	R	eP		18	39						
		ipP			52						
		iPcP		21	35						
		e			50						
		eScP		25	11						
	Pr	iPNEZ!		18	30	d					
		ipPNZ			46	d					
		ePcP		21	04						
		ipPcP			18						
		iScP		25	10						
	LJ	eP		18	31						
		i			46		(continued)				

Date	Sta.	Phase	h	m	s	Remarks
July 16	SB	eP	07	18	53	(continued)
	H	eP			53	
		ipP		19	07	
		ePcP		21	41	
	T	eP		18	57	
		ipP		19	12	
		iPcP		21	40	
		ipPcP			56	
		iScP		25	21	
July 16	P	iP	07	25	53	Tu eP 07 24 57
		iNEZ			57	i 25 02
		ipPNEZ		26	08	i 16
		iPcPEZ		28	47	iPcP 28 24
		ipPcP		29	04	iS 30 25
	PX	eSN		30	59	iScP 32 10
		iN		31	05	
	P	iScP		32	29	USCGS: 14½ N. 92 W.,
		esScP			59	O = 07:19.7, h = 100 km.
		eGN		34	1	
	PX	iScSNE		36	25	
	MW	eP		25	55	
		i			58	A T
		eScP		32	31	PZ 2 1
		esScP		33	04	PH 1½ 3
	R	eP		25	50	MH 25 20
		i			53	
		iPcP		28	48	Magnitude 6 3/4
		iScP		32	28	
	Pr	iPNEZ!		25	42	d
		iNEZ!			45	
		ipP		26	00	
		iE		30	27	
		iE		32	03	
		iScP			25	
		e			59	
		eN		35	54	
		iNE		36	20	
	LJ	eP		25	42	
		i			47	
		ipP		26	03	
		iPcP		28	45	
		iScP		32	29	
	SB	eP		26	09	
	H	eP			04	
		ipP			19	
		iPcP		28	51	
	T	iPNEZ		26	10	
		ipP			27	
		iPcP		28	51	
		iScP		32	34	
		iScSEZ		36	33	
July 16	P	eP	11	12	46	Tu e 11 13 20
	MW	e			35	i 41
		e			47	
	R	e			48	
		e		13	02	
	Pr	e		12	46	
		i		13	00	
	LJ	e			09	
	H	e		12	43	
	T	eP			17	
		i			28	

Date	Sta.	Phase	h	m	s	Remarks
July 16	MW	e	12	54	16	Tu e 12 54 51
	R	e			21	e 55 09
	Pr	e			14	
		e			26	
	T	eP		53	48	
		i		54	01	
July 16	MW	e	13	13	13	Tu e 13 12 09
	Pr	e			04	e 24
		i			17	
	T	eP			34	
		i			43	
July 16	P	iP	19	07	03	Tu iP 19 07 27 d
	MW	iP			03	d i 43
	R	iP			04	d i 54
	Pr	iPNEZ			07	
	H	eP			10	
	T	iP			11	d
		e			37	
July 17	P	iP	09	37	06	Tu iP 09 36 12
		ipP			22	ipP 26
		e		39	06	i 51
		e			59	i 38 11
	MW	eP		37	06	e 39 12
		ipP			21	iScP 43 20
	Pr	iPNEZ		36	54	d
		ipPNEZ		37	08	
		e			21	JSA: 14.3 N. 90.7 W.,
	LJ	epP			00	O = 09:30:29, h = 70 km.
	H	ipP			30	
	T	eP			22	
		ipP			37	
		ePcP		40	04	
		eScP		43	44	
July 17	P	iP	14	53	12	Tu iP 14 53 38
		ipP			33	
	MW	iP			12	
		epP			35	
	Pr	iPNEZ			15	d
		i			38	
	LJ	eP			15	
	H	eP			15	
	T	iP			15	
		epP			37	
July 18	MW	e	03	19	17	Tu iP 03 18 23
		i			32	i 25
		e		21	48	ipP 38
	R	eP		19	12	iPcP 20 56
		iPcP			26	i 21 09
		i		22	08	
	Pr	iP		19	06	
		iPcP!			21	
		i		21	37	
	T	eP		19	33	
		ipP			49	
		iPcP		22	16	
		e			32	
July 18	P	iP"	07	02	04	c Tu eP" 07 02 17
		i			13	i 26
		e		03	03	e 51
		ePKKP		12	55	i 03 43
	MW	iP"		02	04	ePKKP 12 23
		e			13	i 34
		ePKKP		12	56	

(continued)

Date	Sta.	Phase	h	m	s		Remarks
July 18	R	eP"	07	02	05		(continued)
		i			16		
		e		03	14		
		ePKKP		12	50		
	Pr	eP"		02	06		
		e			17		
		i		03	09		
		ePKKP		12	42		BCIS: 2N. 121½ E.,
	LJ	eP"		02	07		O = 06:43.5
		i			19		
	H	eP"			06		USSR: O 122.OE.
	T	eP"			03		
		i			16		
		i		03	04		
		ePKKP		13	00		
July 18	R	e	10	26	01		Tu e 10 26 07
	Pr	e		25	50		
	T	e			58		
July 18	Pr	eP	13	46	22		Tu eP 13 45 27
	T	eP		47	06		
July 18	Pr	eP	20	25	18		Tu eP 20 25 27
		i			31		i 59
July 18	P	iPNEZ	22	42	52	c	Tu eP 22 43 23
		i		43	06		
		ipP			22		
	MW	iP		42	52	c	
		ipP		43	23		
	R	iP		42	55	c	
		i		43	27		
	Pr	iP		42	57	c	
		i		43	17		
		i			28		
	LJ	eP		42	55		
		e		43	18		
	SB	eP		42	47		
	H	eP			55		
	T	iP			53	c	
July 18	P	eP	23	02	55		
	MW	iP			54		
	R	eP			58		
	Pr	iP		03	00		
	T	iP		02	56		
July 19	P	iP	04	38	35		
		e			50		
	MW	iP			36		
		e			57		
	R	iP			38		
	Pr	iP			39		
	T	iP			37		
July 19	P	iP	22	32	34		Tu iP 22 31 38
		i			48		i 54
		iPcP		35	26		i 32 12
	PX	eLNE		43	.5		iPcP 35 12
	MW	eP		32	34		
		e			49		
		iPcP		35	29		
	R	eP		32	27		
		e			44		
		iPcP		35	26		
	Pr	iPNEZ		32	23	c	
		i			39		
		iPcP		35	24		(continued)

Date	Sta.	Phase	h	m	s		Remarks
July 19	LJ	eP	22	32	23		(continued)
		e			43		USCGS: 15 N. 91½ W.,
	H	iP			46		O = 22:26.3
	T	iP		32	50		A T
		iPcP		35	32		MH 1½ 20
July 20	P	eP	00	17	45		Tu eP 00 17 39
	MW	e			49		
	R	eP			46		
	T	eP		18	01		
July 20	P	eP	00	54	38	c	Tu eP 00 55 09
	PX	eNE	01	05	35		
		eLNE		22			
	MW	eP	00	54	39	c	
		i			43		
	R	eP			40	c	
		i			45		
	Pr	iPEZ			43		
		iNZ			46		
		i			54		A T
		iNZ		55	32		MH 2 20
	H	iP		54	36		
	T	eP			30		
July 20	P	eP	04	42	52		Tu eP 04 42 22
		e		43	19		i 40
	MW	eP		42	53		i 48
		e		43	09		
		i			20		
	R	iP		42	50		
		e		43	08		
		i			17		
	Pr	iP		42	46		
		i		43	04		
		i			12		
	T	iP			05		
		e			24		
		i			32		
July 20	P	iPNEZ	08	12	50		Tu e 08 14 18
		iSNEZ		13	40		
	MW	iP		12	52		
	R	iP			57		Magnitude 4.5
	Pr	iP		13	09		Near Santa Clara which reports
	SB	eP		12	36		iP 08 11 45
	H	ePEZ			37		iS 48
		i			44		
		iSNE		13	23		
	T	iPEZ			29		
		i			54		
		iSE		13	09		
July 20	P	iPNEZ!	11	13	02	c	Tu iP 11 12 23
		ipPEZ			16		ipP 39
		eNE			29		i 44
		iNEZ			47		i 13 26
		iN		14	38		i 54
		iE		15	27		i 14 35
	PX	iE		16	20		i 59
		iSNEZ		21	44		eP'P' 41 44
		isSNEZ		22	14		i 42 02
		eSSN		26	.2		i 13
		eGN		29	.6		
	P	iP'P'		41	45		USCGS: 17 S. 74½ W.,
		ipP'P'		42	07		O = 11:02.4, h = 100 km.
							(continued)

Date	Sta.	Phase	h	m	s		Remarks
July 20	MW	iPNEZ!	11	13	03	c	(continued)
		ipP			19		
		eSNE		21	49		
		eP'P'		41	46		
		epP'P'		42	06		
	R	iPNEZ		12	58	c	
		ipP		13	16		
		i			21		
		eSNE		21	41		
		iP'P'		41	43		
		epP'P'		42	00		
	Pr	iP!		12	54	c	
		i		13	03		
		ipP			09		
		i			43		
		eS		22	00		
		iP'P'		41	46		
		i		42	12		
	LJ	iPNEZ		12	55	c	
		eP'P'		41	51		Magnitude 7¼
	SB	ePNEZ		13	10	c	
		epP			25		
		e			39		
		eP'P'		41	45		
	H	iP		13	11	c	
		ipP			28		
		eP'P'		41	41		
	T	iPNEZ		13	15	c	
		i			31		
		i			38		
		eSNE		22	13		
		eP'P'		41	35		
July 20	P	eP	14	55	52		
	MW	iP			52		
	R	iP			53		
	Pr	iP			58		
	T	iP			42		
July 20	P	eP	15	26	00		
	MW	eP			00		
	R	eP		25	58		
	Pr	eP		26	00		
	T	eP			03		
July 20	P	iP	16	55	03	c	
		i			17		
		i			31		
	MW	iP			02		
	R	iP			05		
		i			14		
	Pr	iP			07		
	LJ	eP			05		
	SB	eP		54	57		
	H	eP		55	06		
	T	iP			05	d	
July 20	P	e	17	13	50		
	MW	e			51		
	R	e			53		
	Pr	e			53		
	T	e			52		
July 20	P	e	17	29	09		Tu iP 17 28 12
	MW	eP			05		i 27
	R	eP		28	47		i(S) 29 22
		e			54		
		eS		29	29		(continued)

			A	T
		PZ	10	2
		PH	6	4
		SH	4	4
		MH	30	45
		MH	15	24

Date	Sta.	Phase	h	m	s		Remarks
July 20	Pr	eP	17	28	29		(continued)
		i			41		
		eS		29	37		
	T	e		31	36		
July 21	R	iP	03	46	55		Tu iP 03 46 06
	Pr	e			44		i 14
July 21	MW	eP	08	51	26		Tu iP 08 50 30
	R	eP			22		
	Pr	eP			17		
	T	eP			49		
July 21	P	eP	11	46	38		Tu eP 11 45 35
	MW	eP			36		i 38
	R	eP			32		i 44
	Pr	eP			23		i(L) 51 08
		i			25		
	LJ	eP			18		
	H	eP			51		
	T	iP			57		
		i		47	06		
July 21	R	eP	12	03	17		Tu eP 12 02 22
	Pr	eP			18		
	T	eP			42		
July 21	Pr	eP	12	52	55		Tu eP 12 52 09
	T	eP		53	28		
July 21	P	iP	15	59	57	d	Tu iP 16 00 18 d
		ipP	16	00	12		ipP 33
	MW	iP	15	59	58	d	
		epP	16	00	12		
	R	iP	15	59	57	d	
		epP	16	00	17		
	Pr	iP	15	59	59		
		epP	16	00	13		
		e		04	09		
	LJ	eP	15	59	58		
	H	eP	16	00	03		
	T	iP			03	d	
July 21	MW	e(P)	21	51	22		Tu iP 21 51 59
		i			38		
	Pr	i(P)			41		
	T	iP			48		
July 22	P	e(S)NE	12	57	29		Tu eP 12 55 36
	MW	e(P)		56	13		i 42
		e		57	38		e(S) 56 25
	R	eP		55	54		
		e(S)		57	16		
July 22	R	iP	15	46	45		Tu iP 15 45 55
	T	iP		47	05		
July 22	T	iP	16	48	49		Tu iP 16 47 40
July 22	T	iP	17	31	55		Tu iP 17 32 05
July 22	P	e	18	01	05		Tu eP 18 00 23
	MW	eP			01		
	R	eP		00	57		
July 22	P	ePNEZ	20	09	39		Tu iP 20 10 30
	PX	iLE		13	0		
	MW	eP		09	40		USCGS: 49½ N. 130½ W.,
	R	eP			44		O = 20:05.4
	LJ	eP			56		
	SB	eP			32		
	T	eP			07		
		i			12		

Date	Sta.	Phase	h	m	s		Remarks				
July 22	P	eP	20	56	52		Tu	iP	20	57	45
	PX	iLE	21	00	14						
	MW	eP	20	56	56		USCGS: 49½ N. 130½ W.,				
	R	eP			59		O = 20:52.7				
	Pr	iP		57	08						
	SB	iP		56	34						
	T	eP			22						
July 23	P	eP	12	34	42		Tu	ePP	12	39	24
	PX	eSSNE		52.6							
		eLN	13	00.9			BCIS: 5 S. 142 E.,				
	MW	eP	12	34	44		O = 12:21.1				
	R	eP			46						
	Pr	eP			49						
	T	eP			43						
July 23	P	i	22	41	09						
		i			31						
	R	i		40	56						
	Pr	i		41	03						
		i			22						
July 24	MW	eP	02	36	24		Tu	iP	02	35	56 c
	R	eP?			04						
		e			21						
	Pr	iP			17						
	T	iP			36	d					
		i			48						
July 24	P	eP	06	17	08		Tu	iP	06	17	01
		e		20	37			i(pP)			23
	PX	iPPNZ		21	27			i			36
		i			39			iPKKP		33	32
		iSKSN		27	46						
		eNE		28	08						
		iSPNEZ		30	27						
		i			52						
	P	ePKKP		33	03						
	PX	iSSE		36	00						
		eLN		44.0							
		eLE		47.3							
	MW	eP		17	08		USCGS: 35 N. 24 E.,				
		e		30	28		O = 06:03.2				
		ePKKP		33	05						
	R	eP		17	07		USSR: 34.5 N. 24.5 E.,				
		e		30	28						
		ePKKP		33	03						
	Pr	iP		17	10						
		i			25						
		e		18	59			A	T		
		i		20	20		PPZ	½	3		
		iNZ			44		MH	20	20		
		eNZ			54		Magnitude 6½ - 6¾				
		eN		27	18						
		iSP		30	28						
		i			49						
		e		33	25						
	T	iP		16	59						
		i		17	17						
		i		21	58						
		e		30	00						
		e		33	14						
		iPKKP			38						
July 24	MW	e	13	45	45		Tu	iP	13	46	31
		e			59			e			38
	R	e			50			e			44
	Pr	i			56						
	T	e			27						
		i			56						

Date	Sta.	Phase	h	m	s		Remarks				
July 24	P	e	13	54	38		Tu	e	13	55	12
	MW	e			42						
	R	e			42						
	T	i			35						
		i			42						
July 24	P	iPNEZ!	14	34	02	d	Tu	iP	14	34	29 d
		epP		35	27			i		35	52
		e		37	03						
	PX	iSE		43	11						
	MW	iPNEZ		34	03	d					
		epP		35	27						
	R	iPNEZ		34	05	d					
		i			17						
		epP		35	27						
	Pr	iPNEZ!		34	06	d					
		ipP		35	30						
		eSE		43	18						
	LJ	iPNEZ		34	02		Tonga region,				
		epP		35	27		h = 350 km.				
	SB	iP		33	58	d					
	H	iP		34	10	d					
		i			22						
		epP		35	36						
	T	iPNEZ		34	11	d					
		epP		35	38						
July 25	P	eP	00	21	50		Tu	eP	00	22	15
	MW	eP			52		Small surface waves recorded				
	R	eP			52		at Pasadena.				
	Pr	eP			52						
	T	eP		22	01						
July 25	P	iP	04	21	36		Tu	iP	04	20	41
	R	iP			30			i			47
July 25	P	i	05	44	47		Tu	iP	05	41	54
		i		45	26			e		44	50
		i		48	10			i		48	28
		i			35			i			55
	MW	e		42	38						
		e		44	48						
		e		48	13						
	R	i		42	42						
		e		44	47		Phases clear but interpretation				
	SB	e			47		difficult. Two or three shocks?				
	H	e			47						
	T	i?		41	54		USSR: 6.5 S. 106 E.,				
		e		43	08						
		i		44	47						
		e		45	03						
		e		48	05						
		e			30						
July 26	P	iP	03	42	01	c	Tu	iP	03	41	10 c
		e			13			i			20
		i			24			i		42	40
	MW	eP			02						
		e			14		BCIS: 8 N. 78 W.,				
		e			27		O = 03:33.7				
	R	iP		41	56	c					
		i		42	09						
		e		43	34		(continued)				

Date	Sta.	Phase	h	m	s		Remarks
July 26	Pr	iP	03	41	52	c	(continued)
		i		42	04		
		i			13		
		i			26		
		e		43	32		
		i			42		
		i			52		
	T	iP		42	13		
		e			47		
July 26	T	eP	04	19	13		Tu eP 04 19 33
July 26	P	eP	06	19	26		Tu eP 06 18 34
	MW	eP			27		
	R	eP			19		
	Pr	eP			15		
	T	eP			38		
July 26	P	iP	13	05	42		Tu iP 13 05 03
		e			49		i 10
		i			53		i 19
		e		06	08		
	MW	eP		05	41		
		i			52		South America
	R	eP			38		
		i			47		
	Pr	eP			36		
		i			43		
		i			46		
		e		06	09		
	T	iP		05	56		
		i		06	02		
		i			05		
July 26	P	eP	17	34	19		Tu iP 17 33 27
		i			30		i 37
		i			35		
	PX	eLNZ		39			
	MW	iP		34	20		
		i			31		
	R	iP			15		
		i			26		
		i			32		
	Pr	eP		33	59		
		e		34	36		
	LJ	e			08		
		e			19		
	H	eP			37		
		e			49		
	T	eP			52		
		i			57		
		i		35	05		
July 26	P	iPNEZ!	17	50	27	d	Tu iP 17 51 43
		iSNEZ			46		
	MW	iPNEZ			26	d	Magnitude 4.5
		iSNE			44		35°34' N. 118°05' W.,
	R	iPNZ!			31	d	O = 17:50:00
		iSNE			54		
	Pr	iPNEZ			42	c	
		iSEZ		51	20		Felt at Weldon and other points
	LJ	iPNZ		50	53		in the Kern River area
		iSNEZ		51	30		
	SB	iPNEZ		50	31		
		iSNEZ			54		
	H	iPNEZ!		50	12	d	
		iSNE			20		
	T	iPNEZ!			27	d	
		iSN			47		

Date	Sta.	Phase	h	m	s		Remarks
July 26	P	iP	19	12	52		Tu eP 19 13 19
		i		13	09		i 36
		i			21		
	PX	eLEZ		40	.0		
	MW	iP		12	53	c	
		i		13	10		
		i			22		
	R	iP		12	55	c	Pacific
		i		13	13		
		i			21		
	Pr	iPNEZ		12	54	c	
		i		13	09		
		i			12		
	T	iP		12	56		
		i		13	14		
July 27	P	eP	12	59	50		Tu eP 12 59 10
		iSE	13	00	51		i 19
	R	eP	12	59	42		i(S) 13 00 06
		eSE	13	00	44		
	Pr	eP	12	59	23		
		iSEZ	13	00	11		
	LJ	ePNZ	12	59	24		
		iSE	13	00	11		
July 27	P	eP	17	58	10		Tu eP 17 58 41
		ipP			57		ipP 59 29
	R	eP			13		
		ipP		59	00		
	Pr	eP		58	16		
		ipP		59	03		
		e			22		
	T	iP		58	06	c	
		i			11		
		i			22		
		e			46		
		ipP			56		
July 28	P	eP	08	09	36		Tu eP 08 10 11
	MW	eP			34		
	R	iP			39		
	Pr	iP			45		
	H	iP			21		
	T	iP			14		
July 28	P	iP	08	23	41		Tu iP 08 24 16
	PX	eLE		34	.5		i 27
	MW	iP		23	41		
	R	iP			44		
	Pr	iP			50		Northern Alaska?
	LJ	eP			54		
	H	eP			27		
	T	iP			19		
July 28	Pr	iP	10	13	07	c	Tu eP 10 14 03
		e			53		
	T	eP		12	24		
July 28	Pr	iP	10	23	36		Tu eP 10 24 39
July 28	P	iP	14	29	55	d	Tu iP 14 29 03 d
		i		30	06		
	PX	iSN		35	28		
		eLNE		45			USCGS: probably 7 N. 82 W.,
	MW	iP	14	29	53	d	
		e		30	04		Damage on Coiba Island
	R	iP		29	49	d	
		e			57		(continued)

Date	Sta.	Phase	h	m	s		Remarks
July 28	Pr	iPNEZ!	14	29	44	d	(continued)
		i			48		
		i			54		
	SB	eP		30	05		
	H	eP			01		
	T	iP			07	d	
		i			14		
		i			18		
July 28	P	iP	15	13	47		Tu iP 15 12 55
	PX	iSNE		20	17		
		eLN		25			
	MW	iP		13	46		
	R	eP			38		
	Pr	iPNEZ			33		
	LJ	eP			36		
	SB	eP			57		
	H	eP			53		
	T	eP			58		
July 29	P	iP	00	44	07		Tu eP 00 44 40 d
		ipP			18		ipP 55
	MW	eP			05		i 47 10
		ipP			20		
		e		46	33		JSA: 43 N. 150 E.,
	R	iP		44	10		O = 00:33:03
		epP			22		BCIS: 42 N. 150 E.,
		e		46	29		O = 00:33.0
	Pr	eP		44	15		
		i			25		
	H	eP			01		
		epP			10		
		e		46	26		
	T	eP		43	53		
		i		44	08		
		e		46	23		
July 29	P	iP	00	47	53		Tu iP 00 48 29
		ipP		48	05		ipP 41
	MW	iP		47	53		
		ipP		48	06		
	R	iP		47	56		
		ipP		48	09		JSA: 43 N. 150 E.,
	Pr	eP		47	54		O = 00:36:50
		ipPNEZ		48	13		
	H	iP		47	46		
		ipP			58		
	T	iP			41		
		ipP			58		
July 29	MW	iP	17	26	54		Tu iP 17 27 15
	R	iP		27	07		
	Pr	iP			06		
	T	iP			02		
July 29	R	eP	19	05	54		Tu iP 19 05 09
	Pr	eP			49		Aftershock, 7 N. 82 W.
	T	eP		06	15		
July 29	R	eP	20	05	56		Tu eP 20 04 48
	Pr	eP			53		
	T	eP		06	22		Aftershock 7 N. 82 W.
July 29	R	eP	20	57	48		Tu eP 20 57 03
	Pr	eP			44		Aftershock 7 N. 82 W.
	T	eP		58	08		
July 30	R	eP	00	56	08		Tu eP 00 56 25
	Pr	eP			08		
	T	eP			11		

Date	Sta.	Phase	h	m	s		Remarks
July 30	MW	eP	02	56	06		Tu eP 02 56 35
	R	iP			08		Northern Japan
	Pr	iP		56	19		CMO: 41.0 N. 142.9 E.
	H	eP		56	00		
	T	iP		55	56		
July 30	P	iP	15	45	49		Tu iP 15 44 53 c
	MW	iP			49		i 57
	R	iP			43		i 45 12
	Pr	iP			38		
	H	iP			54		
	T	eP		46	00		
July 31	R	e	00	27	08		Tu e 00 27 47
	Pr	e		26	29		
		i			43		
	T	e			42		
July 31	MW	e?	06	20	46		Tu eP 06 21 30
	R	e		21	10		
	Pr	e			08		
	T	eP		20	41		
July 31	Pr	eP	16	26	58		Tu eP 16 26 29
	T	iP		27	28		e 44
		i			43		
July 31	P	iP	19	12	16		Tu eP 19 11 24
	PX	eSNE		18	44		i 28
		eLN		24			
	MW	iP		12	16		
	R	iP			11		
	Pr	iPNEZ			05		
		i!			08		
	LJ	iP			05		
	T	iP			29		
Aug. 1	Pr	iP	00	46	32		Tu iP 00 45 54
	T	iP			57		
Aug. 1	P	eP	03	51	04		Tu eP 03 50 32
	MW	eP			01		
	R	eP		50	59		
	T	eP		51	25		
Aug. 1	P	eP	18	32	24		Tu iP 18 31 44
	PX	eLN		39			
	MW	eP		32	20		
	R	eP			18		
	Pr	eP			11		
	T	iP			45		
Aug. 3	P	iPNEZ	09	37	34		Tu eP 09 36 40
		ePcP		39	56		i 54
	PX	eL		50			i 37 06
	MW	iP		37	34		iPcP 39 40
		e		39	57		
	R	iP		37	29		
		iPcP		39	55		Central America
	Pr	iPNEZ		37	24		
		iPcP		39	55		
	LJ	eP		37	25		
	T	eP			48		
		iPcP		40	02		
Aug. 3	P	iP	11	24	26	c	Tu eP 11 25 10
	MW	iP			26	c	i 12 c
		i			31		i 20
	R	iP			30	c	e 26 52
		i			42		
		e		26	04		
	Pr	iPNEZ		24	37	c	
	LJ	iP			38		
	H	iP			17		
	T	iP			11	c	
		i		25	59		

Date	Sta.	Phase	h	m	s		Remarks
Aug. 3	P	eP	17	24	08		Tu e 17 25 04
		e(pP)			36		
	MW	eP			09		
		e			31		
		e			37		Wellington: 6 S. 152 E.,
	R	e			34		Magnitude 6
	Pr	i			41		
	T	eP			09		
		i(pP)			36		
Aug. 4	Pr	e	05	27	24		Tu e 05 27 58
	T	e		26	53		
Aug. 4	Pr	eP	05	47	11		Tu iP 05 46 40
	T	iP			34		ipP 56
		ipP			51		
Aug. 4	T	eP	06	25	42		
		e			57		
		e		26	08		
Aug. 4	MW	e	07	04	26		Tu eP 07 03 18
		e			39		
	R	eP			15		
		i			21		
		i			35		
	Pr	e			17		
		i			24		
Aug. 4	MW	eP?	09	20	09		Tu eP 09 19 13
	R	iP			07		e 25
	Pr	iP			03		
	T	eP			35		
Aug. 4	R	iP	10	14	40		Tu iP 10 15 01
	Pr	iP			41		
	T	iP			47		
Aug. 4	P	iP	18	14	10	d	
	MW	iP			11		
	R	iP			12	d	
	Pr	iP			15	d	
	LJ	iP			17		
	SB	iP			04		
	H	iP			07	d	
	T	iP			05	d	
Aug. 5	P	iP	08	06	26		Tu iP 08 05 24
	MW	eP			26		
		e			44		
	R	iP			19		
		i			34		
		i			39		Mexico?
	Pr	iP			14		
		i			33		
	T	iP			47		
		i		07	08		
Aug. 6	R	iP?	00	18	05		Tu iP 00 18 25
	Pr	iP			07	c	
	T	iP			10		
Aug. 6	MW	e	03	41	33		Tu e 03 42 03
	T	e			22		
Aug. 6	P	iP"	03	48	50		Tu iP" 03 48 58
	MW	iP"			50		e 49 17
	R	iP"			50		Felt at Adelaide
	Pr	iP"			50		(South Australia)
	T	iP"			52		

Date	Sta.	Phase	h	m	s		Remarks
Aug. 6	P	eP	04	22	50		Tu eP 04 24 23
		i			57		iS 26 25
		iSE		23	40		
	MW	eP		22	51		
		i			57		
		eSN		23	40		
		i			42		
	R	eP			54		37°27' N. 118°35' W.,
		i		23	04		
		eSNE			47		O = 04:22:57
	Pr	eP			04		
		i			15		Magnitude 4.3
	H	iPNEZ			23	d	
		iNE!			24		Felt at Bishop, California
		iSNEZ			41		
	T	iPNEZ!		22	06	d	
		iSNE!			13		
Aug. 6	P	eP	06	26	52		Tu e 06 25 20
	MW	iP			54		e? 27 28
	R	eP			55		
	T	eP			53		
Aug. 6	P	iP	07	49	16		Tu iP 07 49 34
	R	eP			19		
	Pr	iP			18		
	T	eP			20		
Aug. 6	P	iP	08	05	04	d	Tu iP 08 05 29 d
	MW	iP			05	d	
	R	iP			07	d	
	Pr	iP			06	d	
	H	iP			11	d	
	T	iP			13	d	
Aug. 6	P	eP	10	04	54		Tu iP 10 04 05 d
		iNEZ		05	01		i! 12 d
	MW	eP		04	53		
		i		05	01		
	R	eP		04	49		
		i			56		
		e		05	16		
	Pr	iP		04	44		Felt in Colombia
		iNEZ!			51		
		i		05	05		
	LJ	i		04	51		
	SB	e		05	10		
	H	i			06		
	T	i			12		
Aug. 7	Pr	iP	10	26	27		Tu iP 10 27 55
	T	eP			52		e 28 03
		e		27	00		
Aug. 7	P	e	14	49	51		Tu iP 14 51 02
	MW	e		50	08		e 16
	Pr	e(P)			27		Comparatively nearby
	T	e(P)		49	55		
		e		50	11		
Aug. 7	P	iP	14	52	07		Tu eP 14 52 40
	PX	eSNEZ	15	02	.0		
		eLN		14	.0		USCGS: 34 N. 142. E.,
	MW	eP	14	52	11		O = 14:40.2
	R	eP			14		A T
	Pr	iP			16		MH 15 20
	LJ	eP			17		
	H	eP			02		

Date	Sta.	Phase	h	m	s		Remarks					
Aug. 8	P	iP	16	26	05		Tu	iP	16	26	30	
	MW	iP			06							
	R	iP			08							
	Pr	iP			08		BCIS: 18 S. 168½ E.,					
		i			14		O = 16:13.2					
	H	eP			10							
	T	iP			12							
Aug. 9	P	iP	06	27	54		Tu	iP	06	28	17	
	MW	iP			56							
	R	iP			57							
	Pr	iP			57	c						
	H	iP		28	01							
	T	iP			03	c						
Aug. 9	P	iPNEZ	12	36	53	c	Tu	iP	12	37	18	c
		i		37	07			i			34	
		e			21			e			48	
	MW	iPNEZ			54	c						
		i		37	07							
	R	iP		36	56	c						
		e		37	12							
	Pr	iPNEZ		36	57							
		i		37	03							
		e			14							
	LJ	iP		36	55							
	SB	eP			49							
	H	iP		37	00	c						
		i			06							
	T	iP			00	c						
		i			07							
		e			18							
Aug. 10	P	e	11	12	22							
	MW	e			20							
	R	e			26							
	Pr	e			26							
Aug. 11	P	iPNEZ	10	41	48	d	Tu	iP!	10	40	50	d
		iEZ			55							
		e(PP)		42	16							
		i(pP)NZ			19		Felt in state of Vera Cruz, Mexico					
		i(sP)			43		Depth 100 or 180 km.					
		iPcP		45	12		USCGS: 17½ N. 95½ W.,					
	PX	eSNZ		46	18		O = 10:36.2					
	MW	iPNEZ		41	48	d	h = 50 km.					
		i			54			A	T			
		i(pP)		42	17		PZ	3	2			
		i		43	15		PH	3	3			
		iPcP		45	13		MH	30	18			
	R	iPNEZ		41	42	d	Magnitude nearly 7					
		i(pP)		42	13							
		iPcP		45	12							
	Pr	iPNEZ!		41	35	d						
		iE		42	10							
	LJ	iPNEZ		41	36							
	SB	iPNEZ		42	00							
		iPcP		45	18							
	H	iPNEZ		41	58	d						
		i(pP)		42	34							
	T	iPNEZ		42	05	d						
		i			15							
		i(pP)			37							
		iPcP		45	20							

Date.	Sta.	Phase	h	m	s		Remarks					
Aug. 11	P	e	11	14	38							
	MW	e			36							
Aug. 11	P	eP	18	33	54		Tu	eP	18	34	35	
	MW	eP			56							
	Pr	eP		34	04							
	T	eP		33	41							
Aug. 12	P	iP	12	59	26		Tu	iP	12	59	48	c
	MW	iP			27			e	13	00	13	
	R	iP			29							
	Pr	iP			28							
	H	eP			32							
	T	iP			35	c						
Aug. 12	P	iP"	22	43	40		Tu	iP"	22	43	30	
		i			46			ePKKP		57	18	
		e		44	28							
	PX	ePP		45	11							
		eLNE	23	01	8							
	MW	iP"	22	43	39							
	R	iP"			38		South Atlantic					
	Pr	iP"			37							
		e		44	57							
	T	iP"		43	45							
Aug. 13	R	eP	01	01	51		Tu	eP	01	00	58	
		e			59							
	Pr	e			46							
	T	eP			35							
Aug. 13	P	iP	09	43	25		Tu	iP	09	44	08	c
		e			53							
		e		44	15							
	MW	iP		43	24							
		e			55							
		i		44	12							
	R	iP		43	29							
		i			58							
	Pr	iP			36							
		e		44	05							
	H	eP		43	12							
	T	iP			05							
		e			35							
Aug. 13	P	iP	11	24	37		Tu	iP	11	23	42	
		e			58			i			56	
		i		25	07			i		24	11	
		i			43			i			37	
		e		27	40			i		25	11	
	MW	eP		24	36							
		e			58							
		i		25	07							
	R	eP		24	32							
		i		25	04							
		e		27	39		JSA: 16 N. 94 W.,					
		i			59		O = 11:18:29					
	Pr	iPNEZ		24	24							
		i			47							
		iNZ			55							
		i		25	05							
	LJ	eP		24	29							
		i		25	00							
	H	eP		24	45							
		e		25	16		(continued)					

Date	Sta.	Phase	h	m	s		Remarks
Aug. 13	T	iP	11	24	53		(continued)
		i		25	12		
		i			23		
		e		27	44		
		e		28	11		
Aug. 14	P	iP	12	37	50		Tu eP 12 38 21
	MW	iP			51		
	R	iP			55		
	Pr	iP			56		
	H	eP			49		
	T	iP			48		
Aug. 14	P	eP	17	07	48		Tu iP 17 08 21
		epP		08	00		ipP 33
	PX	eLEZ		31			
	MW	eP		07	49		
		epP		08	02		
	R	eP		07	51		
		epP		08	04		
	Pr	iP		07	56		
		ipP		08	08		
	LJ	e			05		CMO: 36.4 N. 141.2 E.,
	SB	e		07	53		h = 40 km.
	H	eP			44		
		epP			56		
	T	eP			39		
		ipP			53		
Aug. 14	P	iP	17	14	53		
	MW	iP			54	d	
	R	iP			56		
	H	iP			49		
	T	iP			45		
Aug. 14	R	eP	20	14	31		Tu eP 20 14 47
	Pr	eP			33		Wellington: 35.2 S. 179.3 E.,
		i			44		O = 20:01.6, magnitude 5 ca
Aug 14	P	eP	23	52	22		Tu eP 23 52 40
	MW	eP			28		
	R	eP			26		Wellington: 35.3 S. 179.2 E.,
	Pr	eP			28		O = 23:39.6, magnitude 5¼ ca
Aug. 15	P	eP	01	27	13		Tu eP 01 27 28
	MW	eP			14		Wellington: 35.4 S. 179.3 E.,
	R	eP			12		O = 01:14.3, magnitude 5½
	Pr	eP			12		
Aug. 15	P	iP	05	46	01		Tu e(P) 05 45 58
	MW	iP			02		
	R	iP			04		
	Pr	iP			07		
	H	iP		45	58		
	T	iP			55		
Aug. 15	MW	eP	17	02	45		Tu eP 17 03 07
		i		03	09		e 24
	R	eP		02	47		
	T	eP			53		
Aug. 15	T	eP?	19	47	21		Tu iP 19 47 34
Aug. 16	P	eP	01	08	03		Tu iP 01 08 30
	MW	eP			03		
	R	iP			06		
	Pr	iP			07		
	T	iP			07		

Date	Sta.	Phase	h	m	s		Remarks
Aug. 16	P	iP	03	30	37	c	Tu iP 03 31 02 c
	MW	iP			38	c	e 32 23
		i			44		
	R	iP			39	c	Near Apia, which reports:
	Pr	iP			40	c	P 03 20 48
	LJ	iP			35		S 21 47
	H	iP			44		
	T	iP			45	c	
Aug. 16	P	iP	05	45	08		Tu iP 05 44 14
		ePcP		47	34		i 19
	MW	iP		45	07		iPcP 47 18
		ePcP		47	36		
	R	iP		45	02		
		iPcP		47	33		
	Pr	iP		44	58		
		iPcP		47	31		
	T	iP		45	21		
		iPcP		47	40		
Aug. 16	P	eP	10	56	47		Tu iP 10 56 14
		epP		57	42		epP 57 06
	MW	iP		56	47		
		epP		57	39		Andes?
	Pr	eP		56	39		
		epP		57	33		
	H	eP		56	56		
	T	iP			58		
		epP		57	56		
Aug. 16	MW	e	11	03	28		Tu iP 11 04 14
	Pr	i			40		
	T	e			27		
Aug. 16	P	eP	14	04	02		Wellington: 39.15 S. 178.0 E.,
	MW	eP			02		O = 13:50.8, Magnitude 4 ¾-5.
	Pr	iP			04		Felt at Gisborne and Wairoa.
Aug. 17	P	iP	05	32	36		Tu eP 05 33 16
		e		33	00		e 42
	MW	iP		32	36		
		e		33	00		
	R	iP		32	39		
		i		33	04		
	Pr	iP		32	46		
		e		33	02		
	H	eP		32	24		
	T	eP			16		
		i			40		
Aug. 17	P	eP?	17	20	44		Tu eP 17 21 20
		e			51		e 34
		e		21	16		
	MW	e?		20	37		CMO: 35.2 N. 142.8 E.,
		e		20	47		h = 50 km.
	R	e			49		BCIS: O = 17:08.8
	Pr	eP			57		
		e		21	22		
	T	eP		20	30		
		e			55		
Aug. 17	P	eP	19	13	53		Tu iP 19 14 27
	MW	eP			53		e 47
	R	eP			56		
	Pr	eP		14	00		
	T	eP		13	54		

Date	Sta.	Phase	h	m	s		Remarks
Aug. 18	P	eP	19	13	56		Tu eP 19 15 19
		iSNE		15	28		
	PX	eLN		15	8		Felt at Eureka, California.
	MW	eP		13	57		Magnitude 5.
	R	ePNEZ		14	04		Shock in Asia Minor in same hour
	Pr	ePNEZ			16		not recorded at these stations.
	SB	eP		13	50		
		eSEZ		15	02		
	H	iPEZ		13	45		
	T	iPNEZ			35		
		iSE		14	48		
Aug. 18	R	eP?	21	25	52		Italy. Tu iP 21 25 34
Aug. 18	PX	eLNEZ	23	30			Tu eP 23 20 07
	Pr	eP?		20	45		Mexico
Aug. 19	P	eP	01	27	10		Tu eP 01 26 33
	PX	eLNE		35	0		
	MW	eP		27	11		
	R	eP			05		
	Pr	iP			00		JSA: region of 1.5 N. 90 W.,
		i			13		O = 01:19:26
	H	eP			22		
	T	eP			28		
		e		29	13		
		e		30	34		
Aug. 19	P	iP	05	46	27		Tu eP 05 45 52
		ipP			55		
	R	iP			23		
		ipP			50		
	T	iP			40		
		epP		47	06		
Aug. 19	P	e	08	00	49		Tu eP 08 00 07
	MW	e			41		
	R	e			47		
	Pr	i			47		
	T	eP		01	10		
Aug. 19	P	iP"	11	08	22		Tu eP" 11 08 13
		e			51		ePKKP 19 03
		e		09	48		
	MW	eP"		08	22		
	R	iP"			20		South Atlantic
		i			43		
		e		09	45		
	Pr	iP"		08	19		
		e		09	29		
		i			41		
	H	eP"		08	26		
	T	iP"			27		
		e		10	01		
		ePKKP		18	35		
Aug. 19	P	eP	11	27	36		Tu eP 11 27 27
	MW	eP			39		Possibly P'P' of the preceding
	R	eP			36		
	Pr	eP			41		
Aug. 19	P	iPNEZ	13	57	34	c	Tu iP 13 58 13
		ipPEZ			55		ipP 35
		iPcP		59	16		iPcP 59 14
		i	14	02	00		i 14 00 39
	PX	iSNE		03	03		iScP 03 58
		eNE			25		
	P	iScP			40		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Aug. 19	MW	iP	13	57	35		(continued)
		ipP		58	02		
		iScP	14	03	40		
	R	iP	13	57	37		
		ipP			58		
		iScP	14	03	40		
	Pr	iPNEZ	13	57	44		
		ipP		58	06		
		iPcP		59	19		USCGS: 62 N. 151 W.,
		e	14	02	57		O = 13:50.8, h = 100 km.
		iScP		03	42		
		e		05	56		A T
	SB	iP	13	57	29		PZ 1 1½
	H	iPEZ			21		PH ½ 1½
		ipP			42		
	T	iPNEZ			12		
		ipP			34		
		i			46		
		iScP	14	03	31		
Aug. 19	P	iPNEZ	20	07	09	c	Tu iP 20 06 18 c
		i			27		i 28
		iPPEZ		08	49		i 07 54
	PX	iSNE		13	44		
		eSSNE		17	1		USCGS: 5 N. 82 W.,
		eLNE		21	0		O = 19:59.0
	MW	iP		07	07	c	
	R	iP			03	c	
	Pr	iPNEZ!		06	58	c	A T
		i		07	06		PZ ½ 1
		iPP		08	33		PH 1 1
	SB	iP		07	18		SH 1½ 3
	H	iP			16		
	T	iPNEZ			22	c	
Aug. 19	P	eP	22	48	52		Tu iP 22 47 58
	MW	eP			51		i 48 10
	Pr	iP			40		
	T	eP		49	09		
Aug. 20	P	e(P)	06	51	47		Tu iP 06 51 01
		i			55		
	MW	i			54		
	R	eP			47		
	Pr	iPNEZ			42		
	T	eP		52	06		
Aug. 20	P	iP	07	41	54	c	Tu iP 07 41 43 c
	MW	iP			53	c	
	R	iP			50	c	
	Pr	iP			51		
	H	eP			55	c	
	T	iP			58	c	
Aug. 20	P	eP	13	26	14		Tu eP 13 25 29
		iSNZ		27	15		i 40
	MW	eP		26	14		iS 26 12
		eSNE		27	17		
	R	iP		26	05		Magnitude 4.5
		iSEZ		27	01		
	Pr	iP		25	38		
		iSN		26	26		

Date	Sta.	Phase	h	m	s	Remarks
Aug. 20	P	eP	16	03	48	Tu iP 16 03 12
	MW	eP			49	
	R	eP			50	
		e		04	05	
	Pr	iP		03	51	
		e		04	03	
	T	eP		03	58	
		e		04	11	
Aug. 20	P	e	19	04	37	Tu e 19 04 45
	PX	eE		30		
	MW	e		04	33	BCIS: 7 N. 127½ E.,
	R	e		05	08	O = 18:45.9
	Pr	e			08	USSR: 3.5 N. 125 E.
	T	e		04	32	
Aug. 20	P	iP	22	49	23	Tu iP 22 49 41
	MW	iP			23	Wellington: 32 S. 177 W.,
	R	iP			24	magnitude 6-6½
	T	iP			32	
Aug. 21	MW	eP	08	58	08	Tu iP 08 58 01
	T	eP		57	59	Italy
Aug. 21	P	eP	09	49	56	Tu eP 09 49 17
		iEZ		50	01	i 30
		iSNZ			56	i(S) 50 08
	MW	ePNEZ		49	57	
		iSNEZ		50	59	Gulf of California?
	R	eP		49	45	Magnitude 4.5
		eSE		50	40	
Aug. 21	P	i(P)	21	10	43	Tu iP 21 11 14
	MW	iP			53	
	R	iP			49	
	Pr	eP			48	
	T	iP			39	
Aug. 22	P	i	04	21	04	Tu iP 04 21 37
	MW	eP			00	i 46
		e			05	
	R	eP			00	
		e			08	
	Pr	i			11	
	H	e		20	57	
	T	eP			50	
		e			54	
		e		21	14	
Aug. 22	P	iP	06	21	31	Tu iP 06 20 57 d
	MW	iP			32 d	
	R	iP			28	
	Pr	eP			24	
	H	eP			37	
	T	iP			43	
Aug. 22	P	e	10	29	50	Tu eP 10 28 13
	R	e			07	e(S) 52
	Pr	eP		28	24	
		eS		29	12	
Aug. 22	R	eP	16	48	41	Tu iP 16 49 01
	Pr	iP			42	
	T	iP			47	
Aug. 23	Pr	iP	03	13	27	Tu iP 03 12 59
	T	eP			14	

Date	Sta.	Phase	h	m	s		Remarks				
Aug. 23	P	eP	12	01	31		Tu	iP	12	01	32
		e			36			i			36
	MW	eP			31						
	Pr	iP			34						
		i			40						
	H	eP			19						
		e			26						
	T	eP			13						
		i			20						
Aug. 23	Pr	e	12	43	23		Tu	e	12	43	47
	T	e			26						
Aug. 23	R	iP	18	19	45		Tu	eP	12	18	45
	Pr	iP			33			iS		20	46
	T	eP		20	30						
Aug. 24	P	e	08	23	17		Tu	e	08	23	06
	MW	e			18						
	R	e			08		USSR: 4 N. 97 E.				
	T	e		22	59						
Aug. 24	P	iP	09	55	17		Tu	iP	09	55	39 c
	MW	iP			16						
	R	iP			20						
	Pr	iP			18						
	T	iP			24						
Aug. 25	MW	iP	02	25	33						
	R	iP			35						
	Pr	iP			39						
	H	iP			30						
	T	iP			27						
Aug. 25	R	iP	03	27	49		Tu	iP	03	27	18
	T	iP		28	05						
Aug. 25	P	iP	06	21	21	c	Tu	iP	06	20	47 c
		iNEZ			22	c		i			58
		i			28			i		21	02
		i			41			eP'P'		48	34
	PX	iSNE		31	15						
		eLN		39							
	P	iP'P'		48	32						
		eP'P'P'	07	08	17						
	MW	iPNEZ	06	21	21	c	USCGS: 24 S. 63 W.,				
		i			35		O = 06:09.4				
	R	iP			17	c					
		iNEZ!			19						
		i			31			A	T		
		eP'P'		48	24		PZ	4	2½		
		eP'P'P'	07	08	28		PH	5	3		
	Pr	iP	06	21	13	c	SH	4	6		
		i!			17		MH	45	20		
		i			30						
		eSE		30	55		Magnitude 7½				
		eP'P'		48	27						
		eP'P'P'	07	08	24						
	LJ	iP	06	21	15						
		eSNE		30	59						
	SB	eP		21	27						
	H	iP			28						
		eSNE		31	29						
	T	iP		21	31	c					
		iNEZ			33						
		eSN		31	36						
		eP'P'		48	20						

Date	Sta.	Phase	h	m	s		Remarks
Aug. 25	R	iP	13	36	08		Tu iP 13 35 38
	T	iP			23		
Aug. 25	P	iPNEZ	20	01	06	d	Tu iP 20 00 31 d
		i			23		ipP 01 10
		i			35		e 29 04
		ipP			48		
	MW	iP			07	d	
		i			23		
		i			35		
	R	iP			03		
		i			21		
		ipP			44		
	Pr	iPNZ		00	59	d	
		i		01	19		
		ipP			39		Andes; depth about 150 km.
	LJ	eP		00	59		
		i		01	19		
	H	eP			14		
		epP			54		
	T	iP			18		
		i			48		
Aug. 26	MW	iP	05	22	50		Tu iP 05 23 14 c
	Pr	iP			53		
	T	iP			57		
Aug. 26	P	iP	09	00	41		
	MW	iP			41		
	R	iP			44		
	Pr	iP			46		
	T	eP			42		
Aug. 26	MW	iP	09	47	33		Tu iP 09 47 53 c
	R	iP			35		
	Pr	iP			35	c	
	T	iP			41		
Aug. 26	MW	e	10	07	50		Tu eP 10 04 40
	R	e			33		iS 05 52
	Pr	eP		05	42		
		eSN		07	14		
Aug. 26	P	e	11	06	47		Tu iP 11 03 39
	MW	e			43		i 53
	R	e			31		iS 04 54
	Pr	eP		04	34		
		e		05	59		
		iSNEZ		06	04		
	LJ	e		07	03		
Aug. 26	P	iP	11	41	38		Tu iP 11 42 03 c
	MW	iP			39		
	Pr	iP			41		Pacific?
	T	eP			48		
Aug. 26	P	eP	11	46	50		Tu iP 11 46 09 c
	MW	iP			52		
	R	iP			45		South or Central America?
	Pr	eP			39		
	T	eP		47	01		
Aug. 26	P	iPEZ	14	20	03		
	PX	e(S)E		30	4		
		eLNZ		40	1		
	MW	iP		20	05		
	R	eP			02		
	Pr	iP			00		
		i			06		Near Apia, which reports:
	H	iP			07		P 14 09 09
	T	iP			08		S 59

Date	Sta.	Phase	h	m	s		Remarks
Aug. 26	P	iPNEZ	20	49	29	c	Tu iP 20 50 00 c
		ipP		51	17	d	i 27
		isP		52	21		ipP 51 49
	PX	eSNE		59	03		
	P	eP'P'	21	18	20		
	MW	iPNEZ	20	49	30	c	
		ipP		51	18		
	R	iPNEZ		49	31	c	South of Japan
		ipP		51	20		h = 500 km.
		eP'P'	21	18	08		
	Pr	iPNZ	20	49	36	c	A T
		i			44		PZ ½ 1
		ipP		51	23	d	
		i		53	02		
		eS		59	04		
		iSNE			13		
	LJ	iP		49	37		
		epP		51	24		
	SB	iP		49	24	c	
		epP		51	07		
	H	iPNEZ		49	26	c	
		eSN		58	59		
	T	iPNEZ		49	23	c	
		i			41		
		i		52	39		
		eSNE		58	55		
Aug. 26	P	iP	21	06	36	c	Tu iP 21 07 07 c
		ipP		08	25		epP 08 57
		eSN		16	12		
	MW	iP		06	37	c	
		epP		08	26		Aftershock
	R	iP		06	39	c	
		epP		08	35		
	Pr	iP		06	40	c	
		ipP		08	29		
		eSNE		16	15		
	SB	eP		06	30		
	H	iP			34	c	
	T	iPEZ			30	c	
		ipP		08	18		
Aug. 27	P	iP	00	31	37		Tu iP 00 32 09
	MW	iP			38	c	
	R	iP			40		
	Pr	iP			44		
	T	iP			31		
Aug. 27	P	iP	01	33	37	c	
		e			43		
	MW	iP			37	c	
	R	iP			39	c	
	Pr	iP			41		
		i			48		
	LJ	eP			41		
	T	iP			38	c	
Aug. 27	MW	eP	04	24	00		Tu iP 04 23 07
	Pr	iP		23	48		
	T	eP		24	18		
Aug. 27	P	eP	08	38	56		Tu iP 08 38 03
	MW	iP			56		
	Pr	iP			44		

Date	Sta.	Phase	h	m	s		Remarks
Aug. 27	MW	eP	10	57	32		Tu iP 10 57 26 c
	R	eP			31		BCIS: 42.0 N. 19.4 E.,
	Pr	iP			34		O = 10:44:06
	T	eP			22		
Aug. 27	P	e	14	03	11		
	MW	e			13		
	R	e			14		
	Pr	e			20		
		i			27		
	T	e			14		
Aug. 27	P	iPNEZ	17	00	13	d	Tu iP 16 59 42 d
		i			28		i 17 00 01
		epP			54		i 16
	PX	iSE		09	58		
	MW	iP		00	14	d	
	R	iPNEZ			10	d	
		i			19		Deep
		ipP			53		USCGS: 25 S. 68 W.,
	Pr	iPNEZ!			06	d	O = 16:48.4
		i			31		BCIS: 28 3/4 S. 66¼ W.,
		i		01	01		O = 16:48.5, h = 250 km.
		i		02	49		
		eSE		09	46		A T
	LJ	iP		00	06		PZ 1 1
	SB	eP			20		
	H	iPNEZ			21	d	
		i			35		
		epP		01	04		
	T	iPNEZ!		00	25	d	
		i			34		
		ipP		01	06		
		eSE		10	20		
Aug. 28	P	eP	02	37	40		Tu eP 02 38 18
		i			46		i 24
		i			53		
	PX	eSNE		45	3		
	MW	eP		37	40		
		i			46		USCGS: 57 N. 161 E.,
	R	eP			44		O = 02:27.8
		i			50		BCIS: 56 N. 165 E.,
	Pr	eP			48		O = 02:27:52
		iNEZ			51		
	H	eP			31		
		i			37		
	T	eP			25		
		i			31		
Aug. 28	P	eP	09	39	42		Tu eP 09 40 06
	MW	eP			40		i 11
	R	eP			44		
	Pr	eP			43		Near Apia, which reports:
		i			48		P 09 28 43
	H	eP			54		S 29 06
	T	eP			48		
		i			55		
Aug. 28	P	iP	12	26	14	c	Tu iP 12 36 37 c
		i			23		e 13:03 33
	MW	iP			16	c	BCIS: 20 S. 175 W.,
	R	iP			16	c	O = 12:24.5
	Pr	iPNEZ!			18	c	Apia reports:
	LJ	eP			15		P 12 26 05
	SB	eP			11	c	S 27 12
	H	iP			23		
	T	iP			25	c	

Date	Sta.	Phase	h	m	s		Remarks
Aug. 28	P	eP	13	48	24		
	MW	eP			23		
	R	eP			25		
	Pr	eP			28		
	T	eP			25		
Aug. 29	P	iP	11	11	25		Tu iP 11 11 50
	MW	iP			26		
	R	iP			29		
	Pr	iP!			28		
Aug. 29	Pr	iP	12	05	40		Tu iP 12 05 59 c
	T	iP			47		
Aug. 29	P	e	14	57	24		Tu eP 14 58 12
		e			38		
	MW	e			34		
	R	e			38		
	T	iP			19		
Aug. 29	MW	eP	16	46	11		
	R	iP			23		
Aug. 29	P	iPNEZ	17	49	07	d	Tu iP 17 49 32 d
		i			32		
		i			54		USCGS: 15½ N. 171 W.,
	PX	eSNE		58	33		O = 17:37.8
		iE			57		
		eLN	18	06	9		IV at Apia, which reports:
	MW	iP	17	49	07	d	iP 17 38 15
	R	iP			10	d	iS 33
	Pr	iPNEZ			10	d	
		i			27		A T
		i		50	09		MH 4 20
	LJ	eP		49	07		
	SB	eP			03		
	H	iP			16		
	T	iPEZ			17	d	
		i			24		
Aug. 29	P	iPNEZ	18	41	12	d	Tu iP 18 40 13
	MW	iP			10	d	
	R	iP			05	d	
	Pr	iPNEZ		40	55	d	
		i		41	02		
	LJ	iP		40	52		USCGS: 16 N. 107 W.,
	SB	eP		41	21		O = 18:36.4
	H	iP			26		
	T	iPNEZ			35	d	
Aug. 29	P	eP	23	42	29		Tu iP 23 42 58
	MW	eP			29		i(pP) 43 10
	R	eP			31		i 20
	Pr	eP			36		CMO: 30.2 N. 132.2 E.,
	T	iP			21	d	BCIS: 28 N. 132 E.,
		i(pP)			34		O = 23:29.6
Aug. 30	P	iP	01	05	22	c	Tu iP 01 05 46 c
	MW	iP			22	c	
	R	iP			26		
	Pr	iP			25	c	
	T	iP			30	c	
Aug. 30	P	eP	07	14	47		Tu eP 07 15 22
		i			58		i 34
	MW	eP			46		
		i			58		
	R	eP			49		
		i		15	02		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Aug. 30	Pr	iP	07	14	55		(continued)
		i		15	07		
	LJ	i			08		
	H	e		14	51		
	T	eP			34		
		i			46		
Aug. 30	P	iPNEZ	19	35	48	d	Tu iP 19 36 18 d
	MW	iP			48	d	
	R	ePN			49		South of Japan
	Pr	ePE			53		USSR: 27 N. 143.5 E.,
	LJ	iP			55	d	h = 100 km.
	SB	iP			42	d	
	H	iP			46	d	
	T	iPNZ			43	d	
Sept. 1	Pr	iP	00	16	14		Tu iP 00 15 33
	T	eP			19		
Sept. 1	P	iPNEZ	00	34	53		Tu iP 00 35 15 c
	MW	iP			51		
	R	iP			53		
	Pr	iP			54	c	
	T	iP		35	00	c	
Sept. 1	P	e	19	20	16		Tu iP 19 18 45
	PX	eLNE		22	5		
	R	e		20	12		
	Pr	eP		18	53		
		e		19	57		
	T	eP		20	24		
Sept. 1	P	eP	19	56	11		Tu iP 19 55 05
	PX	iLNE		58	28		i(S) 57 03
	MW	iP		56	09		
	R	eP			03		
	Pr	iP		55	53	c	A T
	T	iP		56	43		MH 50 10
Sept. 1	P	iP	20	29	32		
		ipP			57		
	MW	iP			33		
		ipP			58		
	R	iP			35		
		ipP		30	00		Pacific
	Pr	iP		29	37		
		epP			59		
	T	iP			31		
Sept. 2	P	iP	20	18	34		
		ipP		19	08		
	MW	eP		18	34		
		epP		19	08		
	R	iP		18	36		
		i		19	11		
	Pr	iP		18	38		
		e		19	14		
	T	eP		18	33		
		i		19	09		
Sept. 2	P	e	23	52	19		Tu eP 23 49 27
	PX	ISKSNE		59	45		e 52 45
		eN	24	04	21		e 54 06
		iSSNE		06	29		USCGS: 10 N. 125 E.,
		eLNE		17	8		O = 23:34.7
	MW	e(P)		49	21		A T
		e		53	03		MH 5 20
	R	e			24		magnitude about 7
	Pr	i			41		
	T	eP		48	27		
		e		52	29		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 3	P	iPNEZ	09	50	41	d	Tu iP 09 50 07 d
		epP		51	08		i 48
		i			22		i 56
	MW	iP		50	40	d	i 51 06
		epP		51	09		
		i			20		Depth 110 km.
	R	iP		50	37	d	USCGS: 18 S. 72 W.,
		ipP		51	05		O = 09:39.9 h about 100 km.
	Pr	iPNEZ		50	33	d	JSA: 20.7 S. 68.5 W.,
		i			49		O = 09:39:29
		ipP		51	00		h = 125 km.
		isP			12		
		i			37		
	H	iP		50	48		
		epP		51	16		
		e			29		
	T	iPNEZ		50	53	d	
		ipP		51	21		
		i			33		
Sept. 3	P	iP	21	32	04		Tu iP 21 32 40 d
		ipP			18		i 49
	MW	iP			00	d	i 58
		ipP			19		
	R	iP			04	d	
		ipP			21		
	T	iP			40	d	
		ipP			57		
Sept. 4	P	eP'	15	29	05		Tu eP' 15 29 03
		i			20		i 07
		ePP		34	20		ePP 33 53
		i			51		
		eSSN		57	5		
		eSSSE	16	06	1		
		eLE		22	1		
	MW	eP'	15	29	05		
		ePP		34	20		
	R	eP'		29	07		BCIS: 35 S. 55 E.,
		i			20		O = 15:09.0
	Pr	eP'			10		
		ePP		34	20		
	H	eP'		29	14		
		i			21		
	T	eP'			13		
		i			20		
		ePP		34	29		
Sept. 5	P	iP	02	08	24		Tu iP 02 08 39 c
	MW	iP			25		ipP 10 37
	R	iP			27		
		epP		10	25		
	T	iP		08	33	c	
Sept. 5	P	iPNEZ	10	12	02	c	Tu iP 10 12 33 c
		ipP		13	32		ePP 16 10
		e		15	20		
	MW	iP		12	02	c	CMO: 29.6 N. 139.8 E.,
		epP		13	34		h = 300 km.
	R	iP		12	04	c	
	Pr	iP			09	c	
		epP		13	40		
		e		15	33		
	H	iP		11	58		
	T	iP			54	c	
		ipP		13	34		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 5	P	eP	15	31	49		Tu iP 15 30 59
	R	eP			46		
	Pr	iP			36		
	T	eP		32	09		
Sept. 6	PX	eLZ	06	06	.9		Tu eP 05 55 24
	R	e	05	55	57		
	T	e		56	19		
Sept. 6	P	eP	06	54	23		Tu iP 06 54 51 d
	R	eP			27		Near Apia, which reports:
	Pr	iP			28		P 06 43 54
	T	eP			33		S 44 29
Sept. 6	P	iP	08	21	48	c	Tu iP 08 21 14 c
		ipP		22	19		ipP 43
	PX	iSN		31	11		
		eLNE		43	.0		
	MW	iP		21	48	d	USCGS: 24½ S. 68½ W.,
		i		22	20		O = 08:10.2, h = 100 km.
	R	iP		21	44	c	
		i		22	08		
		i			16		
		i		23	16		
	Pr	iPNZ		21	40	d	
		i		22	11		
		iSN		31	01		
	H	ePZ		21	55	c	
		e		22	25		
	T	iP		22	00	c	
		i			16		
		eSN		31	39		
Sept. 6	P	eP	08	53	41		Tu iP 08 54 05
	MW	eP			39		
	R	eP			41		Apia reports:
	Pr	iP			45		P 08 43 22
	H	eP			47		S 44 32
	T	iP			50		
Sept. 6	P	eP	11	36	37		Tu iP 11 37 02
	MW	iP			35		Near Apia, which reports:
	R	eP			38		P 11 25 54
	Pr	iP			48		S 26 21
	H	eP			44		
	T	iP			46		
Sept. 6	MW	e	15	07	09		Tu eP 15 06 11
	R	e			05		
	Pr	eP		06	58		
		i		07	05		
	T	e			30		
Sept. 6	P	iPNEZ	16	41	14	d	Tu iP 16 40 20 d
		i(pP)			45		i(pP) 56
		i		42	07		i 41 14
		i			31		i 44 46
	MW	iP		41	13	d	
		i(pP)			46		Deep
	R	iP			09		USCGS: 14 N. 93½ W.,
		e			24		O = 16:35.1
		i(pP)			42		
		iPcP		44	19		
		i			37		
		e			53		
	Pr	iPNEZ		41	02	d	
		i			23		
		i(pP)			34		
		i		44	41		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Sept. 6	SB	e	16	41	25		(continued)
	H	iP			23		
		i(pP)			56		
	T	iP		41	30	c	
		iPcP		44	25		
Sept. 6	P	iP	18	09	47	d	Tu iP 18 10 12 d
	MW	iP			49	d	
	R	iP			50	d	
	Pr	iP!			50	d	
	H	iP			55		
	T	iP			55		
Sept. 7	P	iP	04	43	14		Tu iP 04 43 40 c
	MW	iP			15		Near Apia, which reports:
	R	iP			17		P 04 32 41
	Pr	iP			18		S 33 13
	H	eP			18		
Sept. 7	P	eP"	08	33	27		Tu eP 08 30 08
		iPP			57		iP" 33 33
		epPP		34	41		iPP 34 07
	MW	eP		30	29		ipPP 35 08
		eP"		33	26		i 22
		iPP			56		iPKKP 44 25
		epPP		34	45		i 35
		ePKKP		44	35		
	R	eP"		33	29		
	Pr	iPP			44		Hindu Kush
		iPP		34	08		BCIS: 36.5 N. 70.5 E.,
		e			50		O = 08:15:20, h = 220 km.
		iPKKP		44	32		
	H	e		33	27		
		e			50		
	T	eP		29	14		
		e		30	57		
		e		32	35		
		iPP		33	37		
Sept. 8	MW	eP?	07	10	45		Tu iP 07 09 50 c
	T	eP			54		
Sept. 8	P	iPNEZ!	15	21	02	d	Tu iP 15 21 25 d
		i			13		iP' 48 25
	PX	iSNE		30	47		
		iN		33	.1		
		iN		35	.1		
		iGN		39	05		USCGS: 21 S. 174 W.,
		iPKKP		40	37		O = 15:09.2
	P	iP'P'		48	33		Small sea wave at Pago Pago
	MW	iPNEZ		21	03	d	A T
		eSN		30	51		PZ 3 1
		iPKKP		40	47		PH 2 3½
		eP'P'		48	16		SH 140 14
	R	iPNEZ		21	04	d	MH 250 20
		iSN		30	52		Magnitude 7¼
		eP'P'		48	22		A list of small aftershocks
	Pr	iPNEZ!		21	05	d	appears at the end of this
		eSE		30	56		issue (page 133)
		iSNEZ			58		
		iPKKP		40	18		
		eP'P'		48	21		
	SB	iP		20	59	d	
		iSNE		30	39		
		eP'P'		48	26		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Sept. 8	H	iPNEZ	15	21	44	d	(continued)
		iSN		30	59		
		eP'P'		48	18		
	T	iPNE		21	43	d	
		iSNE		31	13		
		eP'P'		48	25		
Sept. 9	R	eP	18	30	58		
	Pr	eP			56		
	T	eP		31	06		
Sept. 10	R	eP	01	31	15		Tu eP 01 31 26
	T	eP			14		
Sept. 10	P	eP	12	13	07		Tu iP 12 13 30
	R	eP			08		i 48
	Pr	iP			09		e 14 14
		e			56		i 36
		i		14	27		
	H	iP		13	15		
		e		14	00		Pacific?
	T	iP		13	17		Shock in Central Asia in same
		i		14	05		hour.
Sept. 10	P	iPNEZ	13	59	48	c	Tu iP 14 00 22 c
		i			53		i(pP) 37
		i(pP)	14	00	03		i 01 04
		i			28		
	PX	iSNE		08	57		
		iNE		09	21		
		iSSN		13	44		
		eSSE		14	4		USCGS: 44 N. 146½ E.,
		eGN		17	4		O = 13:48.5
	P	iP'P'		27	49		
	R	iP	13	59	50	c	CMO: 42.6 N. 147.5 E.,
		i(pP)	14	00	04		A T
		i			36		PH 2 3
		e		03	01		SH 5 5
		eSE		09	03		MH 25 20
		eP'P'		27	47		
	Pr	iP	13	59	56		Magnitude 7¼
		i	14	00	01		
		i(pP)			13		
		iSE		09	16		
		iSN			40		
		iN		10	24		
		iP'P'		27	46		
	SB	eP	13	59	39		
		i			53		
		i	14	00	06		
	H	iP	13	59	42		
		i			52		
		i(pP)	14	00	09		
		eSE		08	45		
		iN		09	07		
	T	iP	13	59	37	c	
		i(pP)			52		
		eSE	14	08	32		
		eP'P'		28	17		
Sept. 10	P	eP	15	45	04		Tu iP? 15 45 06
	R	eP			06		e 40
	Pr	eP			06		e 52
	T	eP			15		
Sept. 10	H	eP	20	08	10		Tu eP 20 08 25
	T	iP			12		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 10	P	eP	23	34	35		Tu eP 23 34 52
	MW	eP			32		i 35 09
	R	eP			30		
	Pr	eP			26		
	T	eP			40		
Sept. 11	P	ePP	09	10	27		Tu eP 09 05 10
		e		11	02		iPP 10 44
	MW	ePP		10	27		
		i		11	02		BCIS: 37.7 N. 23.2 E.,
	R	e		10	59		O = 08:52:41, h = 130 km.
	Pr	i		11	02		
	H	eP		06	12		
		ePP		10	34		
	T	eP		06	10		
		e			38		
Sept. 11	P	iP	13	44	39		Tu iP 13 44 59 d
	MW	iP			40	d	
	R	iP			42	d	
	Pr	iP			41	d	
	H	eP			47		
	T	iP			49		
Sept. 11	MW	eP	16	13	25		Tu eP 16 13 48
	Pr	eP			26		
	H	eP			32		Pacific
	T	eP			34		
Sept. 11	P	iP	23	41	53		Tu iP 23 42 17
	MW	iP			54		
	Pr	iP			56		
	T	iP		42	05		
Sept. 12	P	iPNEZ	03	31	36		Tu iP 03 31 59 c
		i			59		i 32 24
	PX	eSN		41	05		
		iSE			28		
		eLN		50			
	MW	iP		31	37	c	
	R	iPNE			41		
	Pr	iPNZ			39	c	
		i			50		
		i		32	00		BCIS: 21 S. 174 W.,
	SB	iP		31	33		O = 03:19.8
	H	iP			44		
		i		32	04		
	T	iPNEZ		31	44	c	
		e		32	04		
		eSN		41	50		
Sept. 12	P	iP	06	35	28		Tu iP 06 35 51
		e			51		i 36 08
	MW	iP			29	d	
		e			51		
	R	ePNE			31		Tonga region.
	Pr	iPNEZ			31	d	Depth 550 km?
		i			51		
		e(pP)		37	29		
		e		38	15		
	SB	iP		35	24	d	
	H	iP			34		
	T	iPNEZ			37	d	
		e			56		
		i		36	02		
		e(pP)		37	37		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 12	Pr	iP	08	04	51		Tu iP 08 04 29
	T	eP		05	30		
Sept. 12	T	eP	18	16	58		Tu eP 18 16 21
Sept. 12	P	iP	19	57	05		Tu iP 19 57 43
	MW	iP			06		
	R	iP			07		
	T	iP		56	52		
		i		57	20		
Sept. 13	P	iP	14	21	37		Tu iP 14 22 00 d
		i			50		
	MW	iP			38		
		i			51		
	R	eP			39		
		i			53		
	Pr	iP			39		Apia reports:
		i			53		P 14 11 34
	H	e			46		S 12 50
	T	iP			47	d	
		i		22	01		
Sept. 13	MW	eP	16	01	22		Tu eP 16 01 53
	Pr	eP			31		
	T	eP			33		
Sept. 13	P	eP	21	13	57		Tu iP 21 13 04
	PX	eLE		21	8		i 14
	MW	eP		13	57		
		e		14	06		
	R	eP		13	52		USCGS: 13½ N. 93 W.,
		e		14	00		O = 21:07.6
	Pr	iP		13	45		
		i			54		
	T	iP		14	15		
		i			23		
Sept. 13	P	ePNE	22	20	51		Tu iP 22 20 19
		iSN		21	47		iS 21 14
		iE			50		Gulf of California? Smaller
		iE			57		similar shocks at 18:07, and
		iE		22	05		at 05:04 Sept. 14. All charac-
	MW	eP		20	46		terized at Pasadena by three
		eNE			48		distinct sharp impulses in the
		iSNZ		21	49		E component.
	R	eP		20	34		
		iS		21	33		
	Pr	iP		20	22		
		iS		21	04		
Sept. 14	P	iPNEZ	08	24	43	c	Tu iP 08 25 06 c
		i			58		i 27
	PX	eSNE		34	27		i 35
	MW	iP		24	44	c	
		i		25	00		Aftershock of Sept. 8,
	R	iP		24	45	c	21 S. 174 W.
		i		25	02		BCIS: O = 08:12.9
	Pr	iPNEZ		24	47	c	
		i		25	13		
	SB	eP		24	39		
	H	iP		25	01	c	
	T	iP		24	53		
		i		25	14		
Sept. 14	P	iP	17	06	19		
	MW	iP			19		
	R	iP			21		
	Pr	iP			24		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 14	P	iP	20	14	47		Tu iP 20 15 10
	MW	iP			48		i 53
	R	iP			50		
	Pr	iP			50		
	T	iP			58		
Sept. 14	P	eP	20	20	41		Tu iP 20 21 24
	MW	e			09		i 48
		i			36		
		i		21	14		
	R	iP		20	45		
	Pr	eP			51		
	T	e			20		
Sept. 14	P	eP	21	42	31		Tu eP 21 41 56
		e		43	14		e 42 38
	MW	eP		42	31		
		e		43	14		
	R	iP		42	28		
		i			58		
		i		43	11		
	Pr	eP		42	20		
		i			32		
	T	iP		42	43		
		i		43	25		
		e		44	32		
		e		45	08		
Sept. 15	P	eP	16	57	52		Tu iP 16 58 15
	MW	iP			53		i 28
		e		58	05		
	R	eP		57	54		
		e		58	06		
	Pr	iP		57	55		
		i		58	08		
Sept. 16	Pr	iP	01	46	34		
		i			41		
Sept. 16	MW	iP	02	45	00		Tu iP 02 45 38
	R	iP			03		e 57
		i			29		
		i			40		
	Pr	iP			09		
		i			27		
	T	iP		44	48		
		i		45	11		
Sept. 16	Pr	iP	04	35	52		Tu iP 04 35 11
							i 26
							i 30
Sept. 16	P	iP	06	01	27		Tu iP 06 01 50
	T	iP			35		e 02 10
Sept. 16	MW	eP	08	22	22		Tu eP 08 22 44
	Pr	eP			22		e 23 30
	T	eP			08		
Sept. 16	P	eP	12	19	35		Tu eP 12 18 44
	Pr	iP			26		
	T	eP			49		
Sept. 17	P	iP	04	32	22		Tu iP 04 31 54 c
	MW	iP			22		i 32 14
		e			43		i 20
	R	eP			19		
		e			40		
	Pr	iP			15		
		i			36		
	T	iP			34		
		i			54		

Date	Sta.	Phase	h	m	s		Remarks					
Sept. 17	P	iP	09	54	02		Tu	iP	09	53	25	
		e			27			e			51	
	MW	iP			02							
		i			27							
		i			39							
	R	iP		53	59							
		i		54	23							
		i			35							
	Pr	iP		53	54							
	T	iP		54	14							
		i			40							
Sept. 18	P	iPNEZ	08	03	05	d	Tu	iP	08	02	31	d
		e			34			i			50	
	MW	iP			05	d		i			55	
		i			33							
		i			54							
	R	iP			02	d						
		i			31		South America					
	Pr	iP		02	56	d						
		i		03	11							
		i			25							
	SB	eP			11							
	H	iP			12	d						
		e			41							
	T	iPNEZ			16	d						
Sept. 18	P	iPNEZ	08	43	50		Tu	iP	08	42	56	c
		e		44	08			i		43	12	
	MW	eP		43	49		USCGS: 8 N. 84 W.,					
		e		44	08		O = 08:36.1					
	R	iP		43	45		BCIS: 9 N. 84½ W.,					
		i		44	10		O = 08:36:08					
	Pr	iPNEZ		43	47	c						
	T	iP		44	03							
		i			20							
Sept. 18	P	iP	16	07	41		Tu	iP	16	08	02	c
	MW	iP			41							
	Pr	iP			43	c						
Sept. 18	P	iP	21	46	15		Tu	iP	21	46	34	c
	MW	iP			15	c						
	R	iP			18							
	Pr	iP			17	c						
	T	iP			23							
Sept. 19	P	eP	01	40	37		Tu	iP	01	40	04	
		i			40			i			24	
		i		41	29			i			51	
	MW	iP		40	38							
		e		41	32							
	R	iP		40	36							
		i		41	23							
	T	iP		40	50							
		e		42	00							
Sept. 19	P	eP	04	57	15		Tu	iP	04	57	34	
	MW	eP			15							
	R	eP			14							
	Pr	iPNEZ			15							
	H	eP			21							
	T	eP			23							
Sept. 19	P	eP	06	22	29		Tu	iP	06	23	14	c
	PX	iSE		29	11							
		eLNE		32.9			USCGS: 52 N. 178 W.,					
	MW	eP		22	30	c	O = 06:14.1					
		i			38							
		i			48		(continued)					

Date	Sta.	Phase	h	m	s		Remarks					
Sept. 19	R	eP	06	22	35	c	(continued)					
	Pr	iPNEZ			41	c						
		i			45							
		iSNEZ		29	34							
	SB	i		22	26							
	H	eP			21							
	T	iP			16	c						
Sept. 19	MW	iP	08	29	59		Tu	iP	08	30	20	
	Pr	iP		30	01							
	T	iP			08							
Sept. 19	MW	eP	12	43	01		Tu	eP	12	43	28	
	T	iP		42	36							
Sept. 19	P	iP	20	28	04		Tu	iP	20	28	25	
	MW	iP			05							
	R	iP			06							
	Pr	iP			07							
	H	eP			12							
	T	iP			14							
Sept. 19	T	eP	21	54	09		Tu	eP	21	54	19	
Sept. 20	R	eP	00	23	28		Tu	eP	00	23	55	
	Pr	eP			23							
	T	eP			41							
Sept. 21	T	iP	01	13	17							
Sept. 21	P	eP	14	59	03		Tu	iP	14	59	25	
	MW	eP			02							
	R	eP			05		Apia reports:					
	Pr	eP			05		P	14	48	59		
		i			10		S		50	17		
	T	iP			17							
Sept. 21	P	iP	15	31	09		Tu	iP	15	31	32	c
	MW	iP			10	c						
	R	iP			12	c						
	Pr	iP			22							
	T	iP			16	c						
Sept. 21	P	eP"	17	52	53		Tu	eP	17	51	50	
		e		53	11			eP"		53	04	
		e		56	11			i		56	30	
		e			38			i			51	
	PX	eE		57	45							
	MW	eP		51	19							
		eP"		52	54		Distance 140°?					
		e		56	11							
		e			37		Northeast Indian Ocean?					
	R	eP		51	24							
		iP"		52	54							
		i		56	13							
	Pr	eP		51	14							
		eP"		53	04							
		i		56	15							
		i			42							
	H	eP"		52	52							
		i		53	14							
	T	iP"		52	50							
		i		56	05							
Sept. 21	P	eP	23	48	20		Tu	iP	23	48	38	
	MW	eP			21							
	R	iP			23							
	Pr	iP			21							
	T	eP			30							

Date	Sta.	Phase	h	m	s		Remarks
Sept. 22	P	iPNEZ	00	04	43	d	Tu iP 00 05 15 d
	MW	iP			44	d	
	R	iP			47	d	
	Pr	iP			50		
	SB	iP			37		
	H	iP			42		
	T	iPNEZ			39	d	
Sept. 22	R	eP	02	33	26		Tu eP 02 33 46
		e			39		i 34 07
	Pr	iP			25		
		i			38		
	T	eP			33		
		e			54		
Sept. 22	P	eP	05	13	13		Tu iP 05 13 59 d
		e			22		i 14 07
	MW	eP			13		
		e			21		
	R	eP			18		
		e			27		
	Pr	iP			23	d	
		i			32		
	T	iP		12	56	d	
		i		13	04		
Sept. 22	P	iPNEZ	07	29	27	d	Tu iP 07 28 53 d
		i			43		i 29 04
		i		30	23		i 44
	MW	iPNEZ		29	26	d	
		i			37		
		i		30	20		JSA: 23.9 S. 66.0 W.,
	R	iPEZ		29	23	d	O = 07:18:02
		i		30	10		h = 200 km.
	Pr	iPNZ		29	19	d	USCGS: 22 S. 68 W.,
		i		30	10		O = 07:18.0
	SB	iP		29	32	d	h = 100 km.
	H	iPNEZ			34	d	
	T	iPNEZ			38	d	
		i			48		
		i			55		
		i		30	06		
Sept. 22	P	iP	17	32	21		Tu iP 17 32 43 d
	MW	iP			22		
	Pr	iP			23	c	
	T	iP			30		
Sept. 22	P	eP	21	36	53		Tu iP 21 35 59 d
	MW	eP			57		i 36 10
	R	eP			49		JSA: 17.8 N. 81.9 W.,
	Pr	eP			42		O = 21:29:48
	T	eP		37	02		
Sept. 23	P	eP	01	04	17		Tu iP 01 04 50
		e			25		e 56
	MW	eP			17		i 05 06
		e			27		
	R	eP			19		CMO: 40.8 N. 143.7 E.,
	Pr	eP			24		h = 60 km.
		i			32		
	H	eP			20		
	T	eP			06		
Sept. 23	P	eP	08	36	04		Tu iP 08 36 27
	MW	eP			04		
	R	iP			07		
	Pr	iP			04		
	T	iP			15		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 23	P	eP	12	45	04		Tu iP 12 45 25 d
	MW	eP			03		
	R	iP			05	d	
	Pr	iP			03	d	Southwest Pacific
		i			08		
	T	iP			09		
Sept. 23	P	eP	15	22	20		Tu eP 15 22 37
	MW	eP			24		BCIS: 42 N. 147½ E.,
	Pr	eP			28		O = 15:11.0
	T	eP			23		
Sept. 23	P	eP	22	51	33		Tu iP 22 51 05
		iS		52	30		i(S) 52 01
	R	eP		51	25		
	Pr	eP			09		Gulf of California?
		i			14		
		iS			53		
Sept. 23	P	eP	00	33	47		Tu iP 00 33 15
		iSNZ		34	48		i(S) 34 15
	MW	eP		33	46		
	R	eP			35		Gulf of California?
	Pr	eP			23		
		i			26		
		iS		34	06		
Sept. 24	P	e	23	46	04		Tu e 23 46 42
	MW	e			07		CMO: 22 N. 122 E
Sept. 25	T	eP	15	34	23		Tu iP 15 32 47
							iS 35 15
Sept. 26	P	iPNEZ	01	12	07	c	Tu iP 01 12 36
		ipPNEZ			41		ipP 13 08
	PX	iSE		22	47		
		eLE		41			
	MW	iPNEZ		12	08	c	Depth 90 km.
		i			34		
		ipP!			41		BCIS: 8½ S. 160 E.,
	R	iPNEZ			10	c	O = 00:59.2
		ipP!			44		
	Pr	iPNEZ!			13	c	
		i			42		
		ipPNEZ!			47		
		eSE		23	02		
	SB	iP		12	03		
		ePP			35		
	H	iP			10		
		ipP			45		
	T	iPNEZ			08		
		ipP			44		
Sept. 26	P	i	06	01	51		Tu iP 06 01 55
	MW	i(P)			41		i 02 04
		i			49		e 10 17
	H	eP			30		e 11 35
		e			40		
	T	iP			24		
		i			33		
Sept. 26	P	eP	18	25	53		Tu eP 18 25 59
	MW	eP			53		
	H	eP		26	02		
	T	eP			06		
Sept. 26	MW	eP	21	20	53		Tu iP 21 21 11
	R	eP			49		
	H	eP			57		
	T	eP			54		

Date	Sta.	Phase	h	m	s		Remarks
Sept. 27	P	iP	04	14	52		Tu iP 04 15 16
	MW	iP			53		
	R	iP			55		
	Pr	iP			55		
	H	eP			58		
	T	eP			57		
Sept. 27	P	i	05	50	25		Tu iP 05 49 36
	MW	eP			10		i 50
		i			25		i 50 47
	R	iP			07		i 51 08
		i			22		
	Pr	i			19		
	H	eP			19		
		e			34		
	T	iP			23		
		i			36		
Sept. 27	P	iP"NEZ	21	32	52		Tu eP" 21 32 50
		ipP"EZ		35	13		i 33 06
		e		46	13		i 49
	MW	iP"		32	52	c	i 35 25
		i			57		i! 38
		ePP		34	57		i 36 15
		ipP"		35	13		i 46
		e		45	33		i 37 37
	R	iP"		32	53	c	e 38 28
		ipP"		35	16		e 51
		e		45	38		e 40 34
	Pr	iP"NZ		32	55	c	e 44 36
		ipP"NEZ!		35	18		i 45 11
		e		45	34		
		i		46	04		Interpretation doubtful, probably near 5 S. 110 E, O = 21:14 h = 600 km.
	SB	eP"		32	50		
	H	iP"			51		
		ipP"		35	13		
	T	iP"EZ		32	49		
		ipP"		35	08		
		e		45	43		
Sept. 28	P	eP"	21	55	26		Tu iP" 21 55 35
		e		58	59		i 57 30
	PX	e	22	05	28		e 58 07
	P	e		06	02		i 59 03
	PX	eNE		12	12		e 22 00 41
		iNE			48		
		eLNE		27	30		
	MW	eP"	21	55	24		USCGS: 23 N. 94 E., O = 21:36.6
		i		58	59		
	R	iP"		55	25		JSA: 22.9 N. 94.4 E., O = 21:36:53 h = 100 km.
		i		58	52		
	Pr	eP"		55	29		
	T	eP"			24		
		e		56	12		
		e		58	46		
Sept. 29	MW	iP	02	15	46		Tu iP 02 15 13
	R	iP			43		
	T	iP			57		
Sept. 29	Pr	iP	04	20	19		Tu iP 04 20 38
Sept. 30	P	iP	02	14	50		Tu iP 02 15 13 c
		i		15	00		i 30
		i			07		Apia reports:
	MW	iP		14	50		P 02 04 42
		i		15	11		S 05 50

(continued)

Date	Sta.	Phase	h	m	s		Remarks
Sept. 30	R	iP	02	14	53	c	(continued)
		i		15	09		
		i			36		
	Pr	iPEZ		14	48		
		i		15	32		
	SB	eP		14	55		
	H	iPNEZ			58	c	
	T	iPNEZ		15	00	c	
		i			27		
		i			45		
Sept. 30	MW	eP	03	08	53		Tu eP 03 08 43
	R	eP			53		e 09 15
	Pr	eP			47		
	T	eP		09	15		Part of next?
		e			22		
		e			50		
Sept. 30	MW	iP	03	12	42		Tu iP 03 13 02
	R	iP			43		e 14 55
	Pr	iP			43		
	H	eP			48		Part of preceding?
	T	iP			50		
Sept. 30	P	iP	14	44	42		Tu iP 14 45 03 c
		ipP		45	02		i 25
	MW	iP		44	41		
		ipP		45	04		
	R	iP		44	44	c	
		ipP		45	06		
	Pr	iPEZ		44	43	c	
		ipPEZ		45	06		
	H	iP		44	49	c	
		ipP		45	11		
Sept. 30	P	iP	16	01	02		Tu iP 16 01 29
	MW	iP			02		
	R	iP			04		
	Pr	iP			08		
Sept. 30	P	iP	19	03	40		Tu eP? 19 04 10
	MW	iP			41		
	R	iP			42	d	
	Pr	iP			46	d	
		e			55		
	H	iP			36		
	T	iP			33		

The following are times of P at Pasadena for small aftershocks of the earthquake of September 8, 1948, for which the corresponding time was 15:21:02.

Sept. 8		Sept. 9	
	16 14 56		05 40 28
	16 24 18		06 16 18
	16 33 27		06 21 02
	16 40 22		07 01 49
	16 59 03		07 17 50
	17 15 55		12 32 19
	17 23 43		12 36 13
	17 42 50		14 12 00
	18 01 41		14 16 34
	18 27 05		
	19 06 34		
	19 28 56		
	19 38 04		
	20 08 26		
	20 11 34 d		
	22 40 42		

C. F. Richter
June 1, 1949

Note

Station coördinates and other information given on pages 3 and 48 for 1948 are correct. More detailed information will be found on page 3 of the 1947 issue.

Increased publication expense will make it necessary to present future issues of this Bulletin in more condensed form, probably omitting some of the data for auxiliary stations. It is hoped that the same style and page size can be retained.

Date	Sta.	Phase	h	m	s		Remarks					
Oct. 1	P	iPNEZ	11	38	19	d	Tu	iP!	11	37	19	d
		ipPNEZ			39			ipP			40	
		e(sP)			56			i		43	03	
		e		39	05			i			26	
		iPcP		42	05							
		ipPcP			22							
	PX	iSNE			36							
		eGN		44	.1							
		eMN	12	08	.0							
	MW	iPNEZ	11	38	19							
		ipP			36		USCGS: 17 N 99 W					
		i			41		O = 11:33.1					
		i		39	08		h = 100 km.					
		iPcP		42	05							
	R	iPNEZ!		38	13	d		A	T			
		ipP			29		PH	2	3			
		i			34		PZ	3	3			
		iPcP		42	04		pPZ	4	2			
		i			15		SH	3½	7			
		i			20							
	Pr	iP!		38	04							
		i			17		Magnitude 6½					
		i			24							
		iPcP		42	03							
	LJ	iPNEZ		38	05	d						
		i			25							
	SB	eP			30							
		i			58							
	H	iPNEZ			29	d						
		i			44							
		i			50							
		i		39	04							
		i			54							
		iPcP		42	06							
	T	iPNEZ		38	37							
		ipP			53							
		iPcP		42	09							
		i			25							
Oct. 1	MW	eP	11	57	49		Tu	iP	11	57	03	
	R	eP			50							
	Pr	iP			38							
	T	eP			34							
Oct. 1	P	eP	22	58	13		Tu	iP	22	58	35	
	MW	eP			13			i		59	16	
		e			51							
	R	iP			15		Southwest Pacific					
		i			28							
		i			53							
	Pr	iP			16							
		i			53							
Oct. 2	P	eP	00	15	48		Tu	iP	00	14	56	
	MW	iP			49			i		15	14	
		e		16	04			i			25	
	R	iP		15	42							
		e			55							
	Pr	iP			35							

Date	Sta.	Phase	h	m	s		Remarks
Oct. 2	P	iP	04	57	12		Tu iP 04 57 24
	MW	iP			12		i 58 18
	R	iP			13		e 36
	H	eP			12		
		e		58	01		
Oct. 2	P	iP	06	46	46		Tu iP 06 47 10 c
	MW	iP			48	c	
	R	eP			48		
	H	iP			54	c	
Oct. 2	P	iPEZ	14	34	37		Tu iP 14 34 56 c
	MW	iP			38		ipP 35 11
	R	iP			40		i 15
		ipP			53		
	SB	eP			34		
	H	iPNZ			46		
		i			52		Tonga region
		epP			58		
Oct. 2	P	eP	14	46	03		Tu eP 14 46 21
	MW	eP			02		i 33
	H	eP			21		
Oct. 2	P	iP	16	04	25		Tu eP 16 03 24
		i			34		i 38
		i			40		i(L) 07 46
	MW	iP			26		Mexico
	R	eP			17		
		i			20		
	H	iPNZ			39		
Oct. 3	P	iP	07	01	01		
	MW	iP			00		
	R	iP			05		
	Pr	iP			07		Pacific
	LJ	eP			06		
	SB	eP?			10		
	H	eP			02		
Oct. 3	P	eP	14	49	56		Tu eP 14 48 57
	MW	eP			57		
	R	eP			51		
	Pr	iP			44		
	H	iP		50	10		
Oct. 3	MW	i(P)	17	22	10		Tu iP 17 22 55
		i			28		ipP 23 11
	R	e?			09		i 16
		i			33		
Oct. 4	P	eP	10	26	28		
	MW	iP			30		
	R	iP			32		
Oct. 5	P	eP	00	58	11		Tu e 00 59 20
	MW	iP			11		
		e			42		
	R	iP			13		
Oct. 5	P	iP	12	12	03		Tu iP 12 13 17
	MW	iP			07		
	R	iP			09		
	Pr	iP			35		
	H	eP		11	49		

Date	Sta.	Phase	h	m	s		Remarks
Oct. 5	PX	eP	20	26	33		Tu eP 20 26 44
		iPP		30	54		i 30 44
		i		32	54		iPKKP 41 42
		iPPP		33	16		
		iSKSNZ		37	12		
		eS		38	34		
		iPSN		40	17		Destructive in Turkmen
		iPPS		41	26		S.S.R. and Iran
		iPKKP			50		USCGS: 38 N 58 E,
		eSSN		46	3		O = 20:12.1
		iN		50	6		BCIS: 37.6 N 57.8 E
		eLN	21	02	6		O = 20:12:07
		eW2N	22	11	5		
	MW	e	20	30	04		A T
		i			44		PZ 4 18
	R	e	20	26	31		PPZ 12 18
		e		29	31		PPH 8 18
		ePKKP		41	53		MH 90 70
	Pr	e	20	29	41		
		i		30	42		Magnitude 7½
		i			55		
		e		32	28		
		i		37	10		
		iPKKP		41	49		
		e		43	42		
	SB	e	20	29	32		
Oct. 6	P	iP	23	02	03		Tu iP 23 02 25
	MW	iP			05		
	Pr	iPNZ			06		
	LJ	e(P)			04		
	H	iP			10		
	T	iP			13		
Oct. 7	P	iPNEZ	18	54	05	c	Tu iP 18 54 27
		eNZ			23		i 50
		e			28		
	MW	iP			06	c	
		i			25		
		i			33		
	R	iP			09	c	
		i			32		
	Pr	iP			08	c	
		e			32		
		e			44		
	H	iP			14	c	Pacific
		i			38		
		i			51		
	T	iPEZ			15	c	
		i			40		
		i		55	01		
		i			07		
Oct. 8	P	eP	06	49	38		Tu iP 06 50 02
	MW	eP			40		
		e			54		
		e		50	01		Near Apia, which reports:
		e			20		P 06 39 40
	R	iP		49	42		S 40 56
		e		50	18		
	Pr	iP		49	41		
		e			55		
		e		50	18		
	H	eP		49	47		
	T	iP			49		

Date	Sta.	Phase	h	m	s		Remarks					
Oct. 8	P	iPEZ	09	16	40	d	Tu	iP	09	17	28	d
		e			54			i			41	
		e		17	04			i			52	
		i		18	34							
	MW	iP		16	41	d						
		i			51							
		i		17	04							
	R	iP		16	45	d						
		i		17	08							
	Pr	iPNZ		16	52	d						
		i		17	06							
		i			17							
	LJ	iP		16	52	d						
		i		17	06							
	SB	eP		16	31							
	H	iP			33	d						
		e			45							
		e			57							
		i		18	35							
		i			49							
	T	iP		16	26	d						
		i			50							
		e		17	04							
Oct. 8	MW	e	19	20	36		Tu	i	19	20	35	
	R	e			24							
	Pr	e		16	20		BCIS: 28 N 105 E,					
		e		19	56		O = 19:01.9					
	T	e		16	03							
		e		20	26							
Oct. 9	T	eP	05	20	57		Tu	eP	05	21	09	
		i		21	12			i			57	
Oct. 9	MW	iP	07	44	23		Tu	iP	07	45	01	
		ipP			31			ipP			12	
	R	iP			22							
		ipP			33							
		i			38							
	Pr	i			42							
	LJ	i			43							
	H	eP			05							
		epP			17							
	T	iP		43	58	c						
		epP		44	10							
Oct. 9	P	iP	17	38	42		Tu	iP	17	39	14	c
	MW	iP			42	c						
	R	iP			45	c						
	Pr	iP			49	c						
	T	iP			31	c						
Oct. 9	P	eP	18	34	11		Tu	iP	18	33	53	
	MW	eP			12							
	R	eP			09							
	Pr	iP			09							
	SB	eP			28							
	H	eP			23							
Oct. 9	P	eP	21	53	27							
		e			59							
	MW	eP			27							
		e		54	02							
	R	eP		53	24							
		e			59							
	Pr	iP			23							
	T	eP			39							
		e		54	15							

Date	Sta.	Phase	h	m	s		Remarks					
Oct. 10	P	eP	13	28	44		Tu	eP	13	27	49	
	MW	eP			43							
	R	eP			37							
	Pr	iP			33							
	T	eP			57							
Oct. 11	MW	eP	02	48	33		Tu	iP	02	48	55	
	R	eP			34							
	Pr	eP			35							
	T	eP			37							
Oct. 11	MW	eP	04	18	48		Tu	eP	04	19	10	
	R	iP			50							
	Pr	iP			50							
Oct. 11	P	e	14	21	03							
	MW	e			01							
	R	e		20	53							
		e		21	08							
	Pr	eP		20	54							
		e		21	04							
		i			12							
	LJ	e		21	15							
Oct. 12	MW	eP	01	23	50							
		e		24	06							
	R	eP		23	53							
		e		24	07							
		e			12							
Oct. 12	P	eP	02	47	38		Tu	iP	02	48	02	
	MW	eP			38							
	R	eP			40		BCSF: 19 S 170 E,					
	Pr	iP			41		O = 02:34.9					
	SB	eP			46							
	T	eP			43							
Oct. 12	MW	iP	02	52	18		Tu	eP	02	52	50	
	R	iP			20							
Oct. 12	P	eP	02	52	53		Tu	iP	02	53	17	
	MW	eP			54							
	R	iP			56		Near 19 S 170 E					
	Pr	iP			57							
	LJ	eP			55		Addendum:					
	SB	eP			51		MW	eP	03	33	22	
	T	iP		53	00							
Oct. 12	R	eP	03	33	25							
	Pr	iP			32							
	T	eP?		32	42							
		i		33	09							
Oct. 12	P	iPNEZ	13	49	49	d	Tu	iP!	13	50	14	d
		i		50	03			e		51	30	
		ipP		51	16							
		i			44							
		e		52	43		Tonga region, h = 400 km.					
	MW	iP		49	49	d						
		i		50	00							
		epP		51	16							
	R	iP		49	52	d						
		i		50	02							
		epP		51	18							
		e		52	46							
	Pr	iPNZ!		49	53	d						
		i		50	12							
		ipP		51	20							
		e			54							

(continued)

Date	Sta.	Phase	h	m	s		Remarks
Oct. 12	LJ	iP	13	49	46	d	(continued)
	SB	eP			43	d	
	H	iP			55	d	
		epP		51	26		
	T	iPEZ		49	58	d	
		e		50	49		
		e		51	10		
		e(pP)			28		
Oct. 13	MW	e	12	58	26		Tu e 12 59 14
	R	e			43		i 27
		i			57		
	Pr	e			42		
		i			51		
	T	e			13		
		i			27		
Oct. 14	P	eP	06	47	03		Tu iP 06 47 23 d
	MW	iP			02		
	R	iP			04		
	Pr	iP			05		
	T	iP			12	d	
Oct. 14	P	iP	10	59	05		Tu iP 10 59 43 d
	MW	iP			05		
	R	eP			09		
	Pr	iP			15		
	T	iP		58	52		
Oct. 14	P	iP	11	57	39		Tu eP 11 58 05
		e		58	01		
	MW	iP		57	39		
		e		58	00		
	R	iP		57	41		
		i		58	02		
	Pr	iP		57	43		
	LJ	eP			41		
	H	eP			41		
	T	iP			42		
Oct. 14	P	iPNEZ!	21	53	50	c	Tu iP! 21 54 11 c
		i		54	50		i 22
		ipP		56	04		ipP 56 25
		i			08		
		esP		57	00		
		e			16		
	MW	iPNEZ!		53	51	c	
		i		54	07		Tonga region, h = 650 km.
		i			37		
		epP		56	04		A T
		i			09		PZ ½ 1
		isP		57	02		
	R	iPNEZ!		53	52	c	
		ipP		56	07		
		isP		57	11		
	Pr	iPNZ!		53	53	c	
		i		54	08		
		epP		56	07		
		i			10		
		isP		57	11		
		i			20		
		e		58	21		
	LJ	iP		53	49	c	
		i		54	04		
		epP		56	05		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Oct. 14	SB	eP	21	53	46	c	(continued)
		epP		55	59		
	H	ePNEZ		53	43	c	
		ipP		56	11		
		esP		57	07		
	T	iPNEZ!		53	58	c	
		i		54	07		
		ipP		56	19		
		esP		57	19		
		eSEZ	22	03	23		
Oct. 15	P	eP	11	02	34		Tu eP 11 03 17
		e			48		
	MW	iP			33		
		e			46		
	R	iP			36		
		i			48		
	Pr	iP			41		
		i			46		
		i			55		
	H	eP			30		
	T	iP			27		
		i			41		
Oct. 15	P	eP"	23	02	44		Tu eP" 23 02 34
		i		03	01		e 03 45
		iPP		04	36		ePKKP 12 56
	PX	iSE		21	15		
		eLE		35	5		
	MW	eP"		02	40		USCGS: 60 S 20 W,
	R	iP"			43		O = 22:43.8
	Pr	iP"			43		
		i			55		
		i		03	11		A T
		i		04	13		MH 10 20
	T	iP"		02	51		
		ePP		04	36		
Oct. 16	P	e(P)	02	08	41		Tu eP 02 09 05
	PX	eLEZ		35			
	MW	e(P)		08	43		BCIS: 20½ S 169½ E,
	R	e(P)			44		O = 01:55.9
	Pr	iPNZ			45		
	T	eP			40		
		i			56		
Oct. 16	P	iP	04	43	27	d	Tu iP 04 43 50 d
		i			33		
	MW	iP			27	d	
		i			34		
	R	iP			29	d	New Hebrides
		i			36		BCIS: O = 04:30.7
	Pr	iP			30	d	
		i			34		
		i			36		
	LJ	eP			28		
	H	eP			32	d	
	T	iP			34	d	
		i			41		
Oct. 16	P	iPNEZ	04	53	52	d	Tu iP 04 54 38 d
		i		54	25		iPcP! 56 29
		ePcP		56	13		
	MW	iP		53	52	d	Alaska?
		i		54	03		
		e			48		
		iPcP		56	10		(continued)

Date	Sta.	Phase	h	m	s		Remarks				
Oct. 16	R	iP	04	53	56	d	(continued)				
		i		54	03						
		i		56	12						
	Pr	iPNZ		54	04	d					
		i			14						
		i			20						
		iPcP		56	15						
	LJ	iP		54	05	d					
	SB	iP		53	44						
	H	iP			42						
		i		54	17						
		iPcP		56	06						
	T	iPEZ		53	36	d					
		i			48						
		e		54	20						
		iPcP		56	05						
Oct. 16	P	e	14	40	13						
	MW	eP			10						
		e			18						
	R	eP			13						
	Pr	eP			15						
Oct. 17	P	eP	02	34	38		Tu	eP	02	34	35
	MW	eP			38			e		35	07
	R	eP			36						
	Pr	eP			31						
	T	eP			49						
Oct. 18	T	eP	03	13	25						
Oct. 19	MW	eP	03	19	11						
	T	eP		18	45						
Oct. 19	T	iP	03	56	38						
Oct. 19	T	eP	22	32	20		Tu	eP	22	33	11
Oct. 19	T	iP	22	36	01		Tu	eP	22	36	52
		i			09						
Oct. 20	R	eP	02	56	46		Tu	eP	02	54	54
Oct. 20	P	eP	03	24	23		Tu	eP	03	25	05
	MW	eP			27						
	R	eP			26						
	Pr	eP			32						
	T	iP		24	09						
		i			18						
Oct. 20	MW	eP	08	20	56		Tu	eP	08	21	13
	R	eP			48						
	Pr	eP			50						
	T	eP			53						
Oct. 20	P	eP	11	07	56		Tu	eP	11	08	19
	MW	eP			57						
	R	eP			59						
	Pr	eP		08	03						
	T	iP			08						
		e			59						
		e		10	13						
Oct. 20	P	eP	11	19	48		Tu	iP	11	20	26
	MW	iP			49						
	R	eP			52						
	Pr	eP			57						
	T	iP			35						

Date	Sta.	Phase	h	m	s		Remarks				
Oct. 21	P	iP	02	01	13		Tu	e	02	05	33
	PX	eLE		34	.1						
	MW	eP		01	13						
	R	iP			16						
	Pr	iP			18						
		e		02	03						
		e		05	02						
		e			25						
	H	e		01	15						
	T	iP			14						
Oct. 21	P	iP	02	07	37						
		e		08	30						
	MW	iP		07	36						
	R	eP			40						
	Pr	eP			43						
	T	eP			38						
Oct. 21	P	iP	02	38	35		Tu	iP	02	38	04 c
	MW	iP			35						
	R	iP			32						
	Pr	iP			28						
	T	iP			47	c					
		e		39	29						
Oct. 21	MW	eP	04	18	54						
	R	eP			56						
	T	eP			55						
Oct. 21	P	eP	04	36	07		Tu	iP	04	36	25
	MW	eP			07						
	R	eP			10						
	Pr	eP			10						
	T	eP			18						
Oct. 21	P	iP	04	57	05	c	Tu	iP	04	56	10 c
		e			37			i			15
		iPcP		59	38			i			24
		iScP	05	03	15			i		57	14
	PX	eLN		05				iPcP		59	21
	MW	iP	04	57	05	c		iScP	05	02	55
		i			27						
		ePcP		59	38						
		eScP	05	03	27						
	R	iP	04	57	00	c					
		i			19		USCGS: 12½N 88 W,				
		iPcP		59	37		O = 04:50.2				
		eScP	05	03	14						
	Pr	iP	04	56	54	c		A	T		
		i		57	18		PZ	0.1	0.7		
		i			21		MH	5	20		
		iPcP		59	33		Magnitude about 5 3/4				
		iScP	05	03	12						
	H	eP	04	57	14						
		ePcP		59	42						
	T	iP		57	19	c					
		i			44						
		iPcP		59	43						
		iScP	05	03	22						
		e		04	10						
Oct. 21	P	eP	05	14	41			Tu	e?	05	15 11
		i		15	43						
		iPP		17	16		USCGS: 8 S 155 E				
		e		18	11		O = 05:01.8				
	PX	eSE		25	54						
		iPPSE		26	59			A	T		
		eLN		39			PZ	0.5	2		
	MW	eP		14	43		MH	20	20		
		iPP		17	17		Magnitude 6½				
	R	iP		14	46						
		ePP		17	18		(continued)				

Date	Sta.	Phase	h	m	s	Remarks
Oct. 21	Pr	iP	05	14	46	(continued)
		ePP		17	15	
	T	eP		14	46	
Oct. 21	P	eP	07	08	18	Tu iP 07 08 44
		e			33	e 09 06
		e			43	
	MW	eP			17	Near Apia, which reports
		e			31	P 06 58 45
		e			46	
	Pr	eP			21	
	T	eP			33	
Oct. 21	P	eP	08	44	56	
	PX	eL	09	18		
	MW	eP	08	44	57	
	R	iP		45	01	
	Pr	iP			02	
	T	eP			00	
Oct. 21	P	eP	12	34	15	Tu iP 12 34 52
	MW	eP			15	
	Pr	eP			24	
	T	iP			00	
Oct. 21	P	ePP	14	42	12	Tu eP 14 38 05
	PX	eLNZ	15	07	4	ePP 42 05
	MW	eP	14	38	11	Readings given as PP may be P
		ePP		42	11	of second shock
	Pr	iP		38	07	
		i		39	22	
		ePP		42	09	
Oct. 21	MW	iP	14	52	36	Tu iP 14 53 13
		e			46	e 21
	T	iP			20	
		e			28	
Oct. 21	MW	iP	15	24	57	Tu iP 15 25 33
	T	iP			42	
		e			51	
Oct. 21	T	iP	17	44	54	
		i		45	03	
Oct. 21	MW	eP	18	01	56	Tu iP 18 01 20
	R	eP			53	
	Pr	iP			55	
	T	eP		02	20	
Oct. 21	T	iP	21	08	30	
		e			37	
Oct. 21	T	iP	21	18	01	
		e			10	
Oct. 21	MW	iP	22	00	11	Tu iP 22 00 48
		i			20	i 57
	R	eP			15	
	T	iP	21	59	57	
		i	22	00	05	
Oct. 22	MW	eP	02	19	13	
	T	iP		18	59	
		i		19	13	
Oct. 22	P	eP	02	34	53	Tu iP 02 35 30
	R	eP			57	
	T	iP			39	
		i			47	
Oct. 22	T	iP	04	04	39	Tu eP 04 05 30
		i			47	
Oct. 22	P	iP	14	17	24	Tu iP 14 18 01
	MW	iP			25	
		i			31	
	R	iP			27	
		i			35	(continued)

Date	Sta.	Phase	h	m	s		Remarks
Oct. 22	Pr	iP	14	17	33		(continued)
		i			50		
	LJ	iP			35		
	H	iP			16		
		e			25		
	T	iP			10		
		i			18		
Oct. 22	P	iP	15	31	56		
	MW	iP			56		
	R	eP			56		
	Pr	eP			58		
Oct. 22	P	eP	16	29	15		
	MW	iP			17		
	R	eP			19		
	Pr	eP			20		
Oct. 22	P	eP	19	07	16		
	R	eP			18		
		e			33		
	T	iP			19		
		e			34		
Oct. 22	P	iP	21	02	46		
	R	iP			48		
		i		03	04		
		e			13		
	Pr	iP		02	50		
	T	iP			49		
		e		03	04		
Oct. 23	P	iP	04	34	20		Tu iP 04 35 03 d
		i			36		
	MW	iP			21	d	
		i			37		
	R	iP			24		
		i			40		
		e			52		
	Pr	iPNZ			30	d	
		i			46		
		i			58		
	LJ	eP			33		
	SB	eP			17		
	H	iP			08		
		i			23		
	T	iP			06	d	
		i			19		
		i			22		
		i			35		
Oct. 23	P	eP	05	01	06		Tu e 05 05 18
	MW	eP			05		
	R	eP			10		
	H	iP		00	42		
	T	iP			34		
Oct. 23	P	eP	11	31	16		
	MW	eP			17		
	R	eP			19		
	T	eP			19		
Oct. 23	MW	iP	11	49	36		Tu iP 11 49 02
	R	iP			32		e 27
	T	iP			48		
Oct. 23	P	iP	15	55	39	d	Tu iP 15 56 16 d
		i			47		i 25
		i			52		
	MW	iP			40	d	
		i			48		
		i			59		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Oct. 23	R	iP	15	55	43	d	(continued)
		i			50		
		i		56	04		
	Pr	iPNZ		55	48	d	
		i			57		
	LJ	iP			49	d	
		i			57		
	SB	eP			33		
		e			41		
	H	iP			31	d	
		i			39		
	T	iPNEZ			24	d	
		i			33		
		i			46		
Oct. 23	P	eP	18	12	30		
		e			37		
	MW	iP			31		
		i			40		
	R	iP			33		
		e			39		
	Pr	eP			34		
Oct. 23	R	iP!	21	12	37		
		i			47		
	Pr	eP			34		
	T	iP			42		
Oct. 24	P	eP	17	09	10		Tu eP 17 09 33
	MW	eP			11		i 38
		e			17		
	R	eP			13		
		i			20		
	Pr	iP			14		Southwest Pacific
		i			20		
	H	eP			16		
	T	eP			17		
Oct. 24	MW	eP	17	27	47		Tu iP 17 28 10
	R	iP			50		
	Pr	iP			50		
	T	iP			58		
Oct. 25	T	eP	04	31	32		Tu e 04 36 31
Oct. 25	P	eP	08	54	02		Tu eP 08 54 08
	MW	eP			04		
	R	iP			03		
	Pr	iP			05		
	H	eP		53	56		
Oct. 25	P	iP	10	12	11		Tu iP 10 11 37
	MW	iP			12		
	R	iP			08		
	Pr	iP			05		
	T	eP			24		
Oct. 25	MW	iP	12	15	32		Tu eP 12 16 09
	T	eP			17		
Oct. 25	MW	iP	12	36	09		Tu iP 12 36 47
	T	iP		35	55		
Oct. 25	P	iP	12	39	41		Tu iP 12 40 19
		i			51		i 29
	MW	iP			41		
		i		40	00		
	R	iP		39	44		
	Pr	iP			50		
	LJ	eP			52		
		e		40	02		
	H	iP		39	31		
	T	iP			27		
		i			34		

Date	Sta.	Phase	h	m	s		Remarks
Oct. 26	P	eP	08	23	54		Tu iP 08 24 17
	MW	eP			56		Near Apia, which reports
	R	eP			57		P 08 13 48
	Pr	iP			57		S 14 05
	LJ	eP		24	03		
	H	eP			03		
Oct. 26	MW	iP	09	53	46		Tu iP 09 54 24
	T	iP			30		
Oct. 26	MW	eP	14	07	39		Tu eP 14 06 51
	Pr	iP			32		
	T	eP		08	00		
Oct. 26	P	iP	20	05	06		Tu iP 20 05 35 d
		e			18		i 49
	MW	eP			07		
		e			16		
	R	eP			08		
	Pr	eP			11		CMO: 34.6 N 131.9 E.
	SB	eP			01		
	H	iP			01		
		e			12		
	T	iP		04	58	d	
		i		05	07		
Oct. 27	P	iPNEZ	18	46	40		Tu iP 18 45 53 c
		iNEZ			42		i! 55
		i			55		i 46 10
	MW	iPNEZ			40		i 21
		e			51		i 41
	R	iP			36	c	
		i			47		
		i			52		
		i		47	45		
	Pr	iP		46	33	c	
		iNZ!			34		
		i			45		USCGS: 17 N 61 W,
	LJ	eP			34		O = 18:37.3
		e		47	41		
	SB	eP		46	49		
	H	iPNEZ			40		
		e			55		
	T	iPNEZ			44	c	
		i			49		
		i			58		
Oct. 27	P	eP	23	17	00		Tu eP 23 16 15
	R	eP			01		e 26
	Pr	iP		16	55		
Oct. 28	P	iP	00	43	17		Tu e! 00 44 31
	MW	eP			18		
	R	eP			24		
	Pr	e			39		
	H	eP			06		
Oct. 28	P	eP	14	21	05		Tu iP 14 22 27
	MW	eP			03		
	R	eP			12		
	Pr	eP			12		
	H	eP		20	52		
	T	eP			36		
Oct. 28	P	ePNEZ	14	33	02		Tu iP 14 34 17
		i			10		i 25
	MW	iP			02		
		i			12		
	R	iP			09		
		i			19		
	Pr	iP			22		
		i			33		
	H	eP		32	45		
	T	iP			36		

Date	Sta.	Phase	h	m	s		Remarks				
Oct. 28	P	eP	20	57	25		Tu	iP	20	57	58 c
		ipP			34			i!		58	10
		isPEZ!			40						
		e		58	05		Depth about 50 km.				
	PX	iSE	21	07	13		USCGS: 36 N 141 E,				
		isSNEZ			42		O = 20:45.4				
		eLNE		17	.7		BCIS: 36½ N 141 E,				
	MW	iP	20	57	27	c	O = 20:45:32, h = 100 km.				
		ipP			37		CMO: 36.2 N 141.3 E				
		isP			41		A T				
	R	iP			28	c	PZ ½ 1½				
		epP			38		sPZ 2 3				
		isP			40		sPH 1½ 3				
	Pr	iP		57	33	c	SH 2½ 4				
		ipP			41		MH 12 20				
		isPNZ!			49						
		i		58	01		Magnitude about 6 3/4				
		i			15						
	LJ	iP		57	36	c					
		isP			50						
	H	iP		57	21	c					
		ipP			31						
		isP			38						
	T	iP			17	c					
		ipP			27						
		isP			31						
Oct. 29	P	eP	03	18	30		Tu	eP	03	17	55
		ipP			57			ipP		18	21
	MW	eP			31			i			43
		ipP			57		USCGS: 19 S 71 W,				
	Pr	eP			23		O = 03:07.4				
		e			42		h = 100 km.				
		ipP			49						
	LJ	e			46						
	T	eP			42						
		ipP		19	11						
Oct. 29	P	iPNEZ	10	12	34	c	Tu	iP!	10	13	56 c
	MW	iP			36	c					
	Pr	iPNZ!			37	c	Southwest Pacific				
	LJ	iP			34	c					
	T	iP			44	c					
Oct. 29	P	iPNEZ	11	13	58	d	Tu	iP	11	13	19 c
		iPcP		16	43			i		14	14
	PX	eLE		22	.4			iPcP		16	32
	MW	iP		14	00	d					
		iPcP		16	42		Dilatations at P and MW preceded by				
	Pr	iPNZ		13	48		small compressions				
		e		15	02						
	LJ	eP		13	46		USCGS: 5 N 101 W, O = 11:07.4				
	H	eP		14	08						
	T	iP			22						
		iPcP		16	50						
Oct. 29	P	eP	14	52	06		Tu	iP	14	51	53
	MW	iP			06			i			57
		i			11						
	Pr	iP			00		Probably west of Easter Island				
		i			05						
	T	iP			27						
		i			32						
Oct. 30	P	iP	05	01	29	c	Tu	iP	05	02	00 c
	MW	iP			31	c					
	R	iP!			32	c					
	Pr	iP			37	c					
	H	iP			27						
	T	iP			22						

Date	Sta.	Phase	h	m	s		Remarks				
Nov. 1	P	e	10	00	21		Tu	eP	09	59	16
	PX	eLE		02	.9			i			44
	MW	e		00	24			iS	10	01	07
	R	e			10						
	Pr	eP			06						
		i			10						
		e		02	55						
	LJ	e		00	08						
	T	e			53						
Nov. 1	P	eP	11	47	20		Tu	iP	11	46	12
	PX	eLE		50				i			38
	MW	iP		47	21			iS		47	57
	R	eP			13		JSA: 28 N 109 W,				
	Pr	iPNZ			03		O = 11:44:50				
		e		49	41						
	LJ	eP		46	53						
	H	e		47	44						
	T	eP			51						
Nov. 1	P	ePNEZ	12	15	36		Tu	iP	12	16	14 d
		i			45			i			25
	PX	eL		31				eP'P'		45	13
	P	eP'P'		45	22			i			30
		e			39						
	MW	iP		15	36	d					
		i			49						
	R	eP			39	d					
		i			51		USCGS: 57 N 161 E,				
	Pr	iPNZ			45		O = 12:05.8				
		i			54		CMO: 56 N 161 E				
	LJ	eP			47		BCIS: 57 N 163 E,				
		i			58		O = 12:05:53				
	SB	eP			29						
	H	eP			27	d					
		i			39						
	T	iPNEZ			21	d					
		i			32						
		i			37						
Nov. 1	P	iPEZ	23	59	44	c	Tu	iP	24	00	29 c
		e			57			i			43
	MW	iP			44	c		iPcP		01	51
		i			54			i		02	06
		i			59						
	R	iP			48	c					
		i	24	00	00						
		i			02						
		iPcP		01	48		Aleutian Islands?				
	Pr	iPNZ!	23	59	55	c	Depth 50 km?				
		i	24	00	09						
		iPcP		01	39						
		i		02	03						
	LJ	i(P)	23	59	55						
	SB	eP			35						
		e			49						
	H	iP			34	c					
		i			50						
		i			57						
	T	iP			29	c					
		iPcP	24	01	41	c					
Nov. 1	P	iPEZ	01	38	43		Tu	iP	01	39	30 c
	MW	iP			44	c					
	R	iP			49	c					
	Pr	iP!			56	c					
	LJ	iP			56						
	H	iP			34						
	T	iP			28	c					

Date	Sta.	Phase	h	m	s		Remarks				
Nov. 2	P	eP	10	45	39		Tu	iP	10	46	17 d
	MW	iP			40	d					
	R	iP			45						
	Pr	eP			51						
	T	iP			25	d					
Nov. 2	P	eP	14	53	05		Tu	eP	14	52	49
		ipP			23			ipP			36
	MW	eP			06						
		epP			23						
	R	eP			00						
		epP			17						
	Pr	iP		52	57						
		ipP		53	15						
	T	eP			09						
		epP			27						
Nov. 2	P	eP	16	48	59		Tu	iP	16	49	23
		iNEZ		49	09			i			39
		eSNE			53			iS		50	44
		iSNZ			54						
	MW	eP		48	59						
		i		49	09						
		eSNE			51						
	R	iP		48	54						
		i		49	02		Near Boulder City				
		iSNZ			39		Magnitude 3.9				
	Pr	eP		48	57						
		i		49	07						
		iS			40						
	LJ	i			18						
		iSN		50	03						
	H	iPNEZ		48	54						
		iSNZ		49	27						
	T	eP		48	56						
		iEZ		49	01						
		iS			31						
Nov. 2	MW	eP	21	38	18						
	R	eP			12						
	Pr	iP			07						
Nov. 2	P	eP	22	29	35		Tu	eP	22	30	17
		epP		30	09			epP			52
	MW	eP		29	36						
		ipP		30	11						
	R	eP		29	39						
		epP		30	14						
	Pr	ipP		30	21						
	LJ	epP			24						
	T	iP		29	15						
		e			44						
Nov. 3	P	iSNEZ	02	34	59		Tu	eP	02	33	00
	MW	eP		33	48			i			15
		i		34	13			iS		34	02
		iS			59						
	R	iP		33	35		Magnitude 4 3/4				
		iS		34	43						
	Pr	eP		33	24						
		i			33						
		iSNZ		34	21						
	LJ	eP		33	26						
		iSNZ		34	18						

Date	Sta.	Phase	h	m	s		Remarks				
Nov. 3	P	eP	05	31	40		Tu	iP	05	32	04 d
		iEZ			49			i			10
		i			59			i			14
		i		33	22						
		iPP		35	12						
	PX	eSNE		42	27						
		iN			44						
		ePSEZ		43	28		USCGS: 20½ S 169½ E,				
		eSSE		47	3		O = 05:18.9				
		eGNE		54	5						
		eR		58	7			A	T		
	MW	eP		31	42		PZ	1½	3		
		iNEZ			50		PH	1½	4		
		i		32	00		G	50	45		
	R	iP		31	43	d	MH	25	20		
		i			51						
		iEZ!			53						
	Pr	iPNZ			44	d	Magnitude 6.8				
		iNZ!			53						
		i		32	03						
		i			55						
		iPP		35	18						
		i(S)N		42	46						
	LJ	eP		31	42						
		i			51						
	SB	eP			46						
		e		32	04						
	H	eP		31	47						
		iNEZ			57						
		i		32	07						
	T	eP		31	47	d					
		i			53						
		i		32	04						
Nov. 3	MW	eP	05	35	11		Tu	iP	05	35	31
	R	iP			11						
	Pr	iP			12		Aftershock				
	T	iP			15						
Nov. 3	R	eP	05	49	39		Tu	eP	05	50	05
		e			44			e			08
	T	eP			43						
		e			48						
Nov. 3	R	eP	07	08	16		Tu	eP	07	08	37
	Pr	eP			17						
Nov. 3	MW	eP	07	30	57		Tu	eP	07	31	19
		e		31	06						
	R	eP		30	59						
	Pr	iP		31	01						
	T	eP			02						
Nov. 3	T	iP	08	26	43		Tu	iP	08	27	00
Nov. 3	MW	eP	16	25	17		Tu	eP	16	25	24
	R	iP			18			e			39
		e			27						
		e			33						
	T	iP			11						
Nov. 4	Pr	iP	04	44	52	c	Tu	iP	04	45	27 c
Nov. 4	P	e	04	51	44		Tu	e	04	52	32
	MW	e			42						
	R	e			47						
	Pr	e			54						

Date	Sta.	Phase	h	m	s		Remarks
Nov. 4	P	iP	13	27	57	d	Tu iP 13 28 35 d
		i		28	02		i 39
		i			16		i 29 06
	MW	iP		27	58	d	i 13
		i		28	08		
		i			31		
	Pr	iP			08	d	Deep?
		i			25		Probably Kurile Islands
	LJ	iP			08		
		i			32		
	SB	eP		27	54		
		i		28	07		
	T	iPNEZ		27	43		
		i			50		
Nov. 4	P	iP	17	20	59		Tu iP 17 20 18
		e		21	01		i 26
		e			21		i 32
		i			47		
	MW	iP		20	59		
		e		21	11		
	Pr	eP		20	51		
		i			54		
Nov. 5	P	eP	08	45	17		Tu iP 08 45 40
		e			23		i 47
	MW	eP			18		
	R	iP			18		
		i			27		
	Pr	iP			20		BCIS: 20½ S 169½ E,
		i			25		O = 08:32.5
	H	eP			21		
		e			26		
	T	iP			25		
		i			31		
Nov. 5	P	iP	17	20	05		Tu iP 17 20 43 d
		i			13		i 52
	MW	iP			06		i 21 05
		i			14		
		e			24		
	R	eP			07		
		i			17		
		e			31		
	H	eP		19	56		
	T	iP			51	d	
		i			59		
Nov. 5	P	iP	19	22	37		Tu iP 19 22 59 d
	MW	iP			40	d	
	R	iP			40	d	
	Pr	iP			40		
	H	iP			44		
	T	iP			46		
Nov. 6	P	iPEZ	14	21	44	d	Tu iP 14 22 07
		i			51		i 16
	MW	iP			45	d	
	R	iP			46	d	
		i			51		BCIS: 20½ S 169½ E,
	Pr	iPNZ			48	d	O = 14:08.9
	LJ	eP			46		
	H	eP			50	d	
		e		22	01		
	T	iP		21	51		
		i			58		

Date	Sta.	Phase	h	m	s		Remarks
Nov. 6	P	iP	23	58	34		Tu iP 23 57 51 c
		epP	24	00	33		ipP 59 49
		isP		01	26		e 24 01 20
	MW	iP	23	58	32	c	
		ipP	24	00	35		
		esP		01	26		South America
	R	iP	23	58	28	c	Depth near 600 km.
		ipP	24	00	32		O = 23:49.0
		esP		01	24		
	Pr	iP	23	58	23		
		ipP	24	00	23		
		esP		01	20		
	T	iP	23	58	43	c	
		ipP	24	00	49		
		isP		01	34		
Nov. 8	R	eP	02	54	18		Tu eP 02 54 40
	Pr	eP			19		
Nov. 8	P	iP	04	46	25	d	Tu iP 04 47 03 d
		i			31		i 13
		i			35		i(pP) 33
	MW	iP			26	d	
		i			31		
		i(pP)			55		
	R	iP			29	d	
		i			38		
		i		47	02		
	Pr	iP		46	34		Deep?
		i			43		
	SB	eP			18		
	H	iP			27	d	
		i			34		
		i			43		
Nov. 8	P	iPNEZ	18	02	41	c	Tu iP 18 03 05 c
	MW	iP			42	c	i 23
	Pr	iPNZ!			44	c	i 52
		i		03	04		i 04 18
		i			15		
	LJ	iP		02	41	c	Apia reports:
	SB	eP			37		iP 17 53 54
	H	iPNEZ!			48	c	iS 55 46
	T	iPNEZ			50	c	
Nov. 9	P	eP	06	39	48		
	MW	iP			49		
	R	eP			51		
	Pr	iP			51		
Nov. 9	P	eP	20	39	50		Tu iP 20 39 22 c
		i		40	00		i! 34
		iSE		41	01		
		iNEZ			03		
	MW	iP		39	54		Gulf of California?
		iNZ		40	00		Magnitude 6
		iSE		41	02		
	R	iP		39	46		
		iEZ			52		
		iSE		40	48		
	Pr	eP		39	28		
		iN			36		
		i			39		
	LJ	iNZ		39	36		
		iSEZ		40	21		
	T	iP		39	48		
		iSNE		42	37		

Date	Sta.	Phase	h	m	s		Remarks				
Nov. 9	P	eP	20	49	32		Tu	iP	20	49	08
		iSNZ		50	45			i!			19
	MW	iP		49	44						
		iSEZ		50	47		Aftershock				
	R	eP		49	25		Magnitude 5½				
		iEZ			35		Numerous smaller aftershocks follow				
		iSEZ		50	31						
	Pr	iPNZ		49	23						
	LJ	eP			15						
		iEZ			20						
		iSE		50	01						
	T	iP			39						
		eSE		52	22						
Nov. 9	P	e	03	41	55		Tu	e	03	42	14
	MW	e			55		BCIS: 3 N 125 E,		i		36
							O = 03:22.8		e	43	40
Nov. 10	P	iP	13	10	35	d	Tu	iP	13	11	08
		i			43			i			16
		i		11	06			i			36
		i			22			i			46
		e			34						
	MW	iP		10	35	d					
		i			44						
		i		11	06						
		i			15						
	R	iP		10	38	d					
		i			46		Region of Japan				
		i		11	04		CMO: 30.4 N 141.4 E,				
		i			17		h = 250 km.				
		i			41						
	Pr	iP		10	43						
		i			52						
	LJ	eP			37						
	SB	eP			29						
		e			37						
	T	iP			28						
		i			37						
		i			58						
Nov. 11	P	iP	07	16	43	d	Tu	iP	07	16	17 d
		ipP		17	09			ipP			42
		isP			20			isP			54
	MW	iP		16	44	d					
		ipP		17	10						
	R	iP		16	40	d					
		ipP		17	06		Andes?				
		isP			23		Depth 100 km.				
	Pr	iP		16	37	d					
		ipP		17	03						
	H	iP		16	51	d					
		ipP		17	18						
	T	iPNEZ		16	56						
Nov. 11	P	iP'	07	51	48		Tu	iP'	07	51	34
		i		52	03			i			46
		i			21			i			50
		e		55	26			i		52	17
	MW	iP'		51	49			i			29
		i		52	01			i		55	39
		i			05						
		i			33						
		e		55	27						
	R	iP'		51	46						
		i			57						
		i		52	01		(continued)				

Date	Sta.	Phase	h	m	s		Remarks				
Nov. 11	Pr	eP'	07	51	47		(continued)				
		e			56						
		i		52	01						
	H	iP'		51	23		Very distant				
		i			36						
	T	eP'			59						
		i		52	14						
		i			34						
Nov. 11	P	eP	12	51	15		Tu	iP	12	50	23 c
		epP			32			ipP			41
	MW	eP			16						
		epP			33						
	R	e?			28						
	Pr	iP			05	d					
		ipP			20						
		i			31						
	T	iP			33						
		ipP			48						
Nov. 11	P	eP	20	33	33		Tu	eP	20	34	17
	MW	eP			28						
	R	eP			40						
	Pr	eP			48						
	H	e			30						
Nov. 11	MW	eP	04	54	26		Tu	iP	04	53	36
	R	eP			22						
	Pr	eP			16						
Nov. 12	P	iP	17	45	32		Tu	iP	17	45	57
	PX	e(S)E	18	06	55			i		46	07
		eLEZ		09				i			17
	MW	iP	17	45	33						
		e			52						
		e		46	46						
	R	iP		45	34		BCIS: 22 S 174 W,				
		i			46		O = 17:33.6				
		e			54						
	Pr	iP			37						
		e			41						
	H	eP			41						
	T	iP			44						
		i			55						
Nov. 12	MW	iP	22	13	41		Tu	iP	22	14	05
	Pr	iP			43						
Nov. 13	P	ePEZ	07	12	17		Tu	iP	07	12	39
		eSNE		21	55			i		13	35
		eLZ		36							
	MW	iP		12	16		BCIS: 18 S 175 W,				
	R	iP			16	d	O = 07:00.4				
	Pr	eP			12		JSA: 19.6 S 175.1 W,				
	SB	eP			11		O = 07:00:30				
	H	eP			22						
	T	iP			27						
Nov. 13	MW	iP	18	57	23		Tu	iP	18	56	30
	R	iP			18						
	Pr	iP			11	c					
Nov. 13	P	eP	23	00	21		Tu	iP	23	00	45 d
		i			25			i		01	02
	PX	iSE		10	10						
	MW	iP		00	22		Irregular surface waves at Pasade				
		i			26		Apia reports:				
	R	eP			23		P 22 50 14				
	Pr	eP			24		S 51 22				
		i			30						
		i			42						
	H	i			30						
	T	iP			30						
		i			35						

Date	Sta.	Phase	h	m	s		Remarks					
Nov. 14	P	eP	02	50	46		Tu	eP	02	51	09	
	MW	eP			46			e			18	
		i			58			i			20	
	R	eP			49							
		i			59							
	Pr	eP			49							
		i			59							
	H	eP			54							
		e		51	05							
	T	eP?		50	48							
		i			55							
Nov. 14	MW	eP	04	26	05		Tu	eP	04	26	46	
	Pr	eP?			04			e			55	
		e			09							
	H	e		25	55							
	T	e(P)			37							
Nov. 14	P	iP	06	27	22	d	Tu	iP	06	27	56	d
		i			39			ipP		28	09	
		i			54			i			27	
	MW	iP			22	d	CMO: 36.9 N 141.6 E					
		ipP			36		BCIS: 42 N 142 E,					
		e		28	09		O = 06:15:					
	R	iP		27	25	d	JSA: 39.0 N 141.8 E,					
		ipP			39		O = 06:15:40					
		e			51							
	Pr	iP			30		Addendum:					
		i			42		T	iP	06	27	28	
	SB	eP			16							
		epP			29							
	H	iP			18							
		ipP			31							
		e			54							
	T	iP			13							
Nov. 14	MW	iP	10	37	43		Tu	iP	10	38	15	
	R	iP			46							
	Pr	iP			50							
Nov. 14	P	iP	14	01	49		Tu	iP	14	02	11	
		e			55			i			22	
		i		02	00			i			34	
	MW	iP		01	50							
		e			56							
		i		02	01							
	R	eP		01	51							
		e			57							
		e		02	02							
	Pr	eP		01	50		Apia reports:					
		i			57		P 13 54 00					
		e		02	01							
	H	eP		01	57							
		e		02	08							
	T	eP		01	59							
		i		02	05							
		i			12							
Nov. 14	P	eP	17	51	35		Tu	iP	17	51	05	
		e			54			i			24	
	MW	iP			35			i			31	
		e			55							
	R	iP			31							
		e			50							
	Pr	iP			27							
		i			28							
		e			40							
		e			52							
	H	eP			43							
	T	iP			47							

Date	Sta.	Phase	h	m	s		Remarks					
Nov. 14	P	iP	20	47	47		Tu	iP	20	48	08	
	R	iP			49							
	Pr	iP			50							
Nov. 15	P	iP	05	01	17	c	Tu	iP	05	01	48	
		e			25			i		05	27	
		epP		02	54							
	MW	iP		01	18							
		epP		02	58							
	R	iP		01	14	c						
	Pr	iP			23		CMO: 29.8 N 139.0 E,					
		epP		03	03		h = 370 km.					
	SB	eP		01	11							
	H	eP			13							
	T	iP			15							
		i			33							
		epP		02	52							
Nov. 15	P	iP	10	35	59		Tu	iP	10	36	45	c
	MW	iP			59	c		i		37	09	
		e		36	21							
		e			44							
	R	eP			04	c						
	Pr	iPNZ			11	c						
		e			34							
		e			41							
		e		37	02							
	H	iP		35	50							
	T	iP			44							
		i		36	09							
Nov. 15	MW	iP	10	44	55		Tu	eP	10	44	22	
Nov. 15	MW	eP	13	26	19		Tu	iP	13	26	41	
	R	iP			20							
	Pr	iP			21							
Nov. 16	P	iP	04	31	54		Tu	iP	04	32	32	
		e		32	06			i			47	
		e			16			e			57	
	MW	iP		31	55							
		i		32	04							
		e			19							
	R	eP			01							
		e			11							
	Pr	iP			03							
		e			15							
	H	eP		31	45							
	T	iP			39							
		e		32	04							
Nov. 16	P	eP	22	01	33		Tu	iP	22	01	56	
	MW	iP			34			i		02	05	
		i			42			i			27	
		e		02	06			e		03	11	
	R	eP		01	35			e			36	
		i			44							
		e		02	08							
	Pr	iP		01	35							
		i			40							
		e		02	07							
		e?		07	37							
	T	eP?		01	31							
		i			42							
Nov. 17	P	eP	01	15	29		Tu	iP	01	16	41	
	MW	eP			30							
	R	e			33							
	Pr	i			47							

Date	Sta.	Phase	h	m	s		Remarks				
Nov. 17	MW	e	01	26	53		Tu	eP	01	25	17
	R	e		27	06			e		26	23
Nov. 17	R	eP	17	56	47		Tu	iP	15	57	06
	Pr	iP			44			i			09
	H	eP			49						
Nov. 18	P	iP	13	14	57		Tu	iP	13	14	34
	MW	iP			57	d					
	R	iP		15	00						
	Pr	iP			07						
	LJ	eP			07						
	H	iP		14	48						
	T	iP			42						
Nov. 18	P	iP	13	33	50		Tu	iP	13	33	10
		i		34	19			i			55
	MW	iP		33	51	d		i		35	08
		i		34	20						
	R	iP		33	46	d					
		i		34	17						
	Pr	iP		33	41						
		i		34	14						
	H	iP		33	57						
		i		34	24						
	T	iP			02						
Nov. 19	P	iPNEZ	01	11	52	c	Tu	iP	01	10	58 c
	PX	epP		12	11			i		11	15
		isP			26			i			43
		iPP		13	27			i		12	04
		i			39			i!			33
		iPcP!		14	00			i		13	02
		iSNE		18	02			i			26
		eLNE		22	5						
	MW	iPNEZ		11	52	c					
		i		13	03						
		iPP			27						
	R	iPNEZ		11	46	c					
		i		13	33						
		iPcP			57		Depth 80 km.				
		i		14	13		USCGS: 9 N 84 W,				
	Pr	iPNZ!		11	41	c	O = 01:04:35,				
		iN			56		h = 100 km.				
		i			59						
		i!		12	15			A	T		
		iNZ			32		PZ	6	3		
		i			49		PH	6	4		
		i			56		SH	10	16		
		i		13	36		MH	40	40		
		iSN		17	41		MH	40	23		
	LJ	ePNEZ		11	40	c					
		i			53		Magnitude 7.0				
		i		12	05						
		i			20						
		i			54						
		iPP		13	18						
		i			35						
	SB	iPNEZ		12	03	c					
		i			40						
		e		14	38		(continued)				

Date	Sta.	Phase	h	m	s		Remarks
Nov. 19	H	ePNEZ	01	11	59	c	(continued)
		e		13	15		
		e			39		
	T	iPNEZ		12	05	c	
		i			28		
		i			36		
		i			56		
		ePP		13	39		
		iPcP		14	02		
		i			23		
Nov. 19	P	iP	21	37	54		Tu iP 21 38 18 d
	MW	iP			55		Near Apia, which reports:
	R	iP			57		P 21 28 06
	Pr	iPNZ			57		S 55
	LJ	eP			54		
	H	eP		38	02		
	T	eP			02		
Nov. 20	P	iP	04	14	13		Tu iP 04 13 32
	MW	iP			12		ipP 15 40
	R	iP			09		e 17 21
		epP		16	11		
	Pr	iP		14	02		
		ipP		16	04		
		i		17	00		Depth 650 km.
	H	iP		14	21		South America
		ipP		16	11		(Western Brazil?)
	T	iP		14	25		
		ipP		16	30		
		i		17	15		
Nov. 20	P	iP	07	04	14	c	Tu iP 07 04 38 c
	MW	iP			15		e(pP) 06 52
	R	iP			17	c	
		e(pP)		06	29		Tonga region;
	Pr	iP		04	17	c	depth 600 km?
		i(pP)		06	37		Apia reports:
	H	iP		04	21	c	iS 06 55 23
	T	iP			22	c	
		i			38		
Nov. 20	P	iP	08	26	01	c	Tu iP 08 25 04 d
		i			16		
		eLNZ		31	1		
	MW	eP		26	00		
		i			03		
		i			15		JSA: 18 N 106 W,
		e			50		O = 08:21:32
	R	iP		25	56		
		i		26	07		
	Pr	iPNZ		25	47		
		i			54		
	H	iP		26	17		
	T	iPNEZ			26		
Nov. 20	P	iP	10	20	42		Tu iP 10 21 18 d
		e		21	15		i 27
	MW	iP		20	42	d	i 37
		e		21	15		i 51
		e			34		e 22 08
		i		22	10		
	R	iP		20	44	d	
		e		21	16		
	Pr	iP		20	51		
		i		21	30		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Nov. 20	H	eP	10	20	35		(continued)
		e		21	08		Kurile Islands.
	T	iP		20	30		Depth 130 km?
		i			37		
		i		21	02		
Nov. 20	MW	iP	22	29	43		Tu eP 22 29 08
	R	iP			41		
Nov. 21	P	iP	04	28	15		Tu iP 04 27 39 d
	MW	iP			15	d	e 28 07
	R	iP			11	d	
		i			40		
Nov. 21	P	iPNEZ!	19	22	49	c	Tu eP 19 23 15
		i		23	15		i 17
		ipP!			32		ipP 24 01
		i			54		iPKKP 40 44
		e		25	15		eP'P' 48 50
	PX	i(S)E		32	34		
		eSP		33	46		Depth 180 km.
		esSN		34	.2		JSA: 13.1 S 166.4 E,
		iSPPE		34	29		O = 19:10:34, h = 200 km.
		e		35	09		
		iE			12		BCIS: 14 S 167 E,
		eLN		45	.4		O = 19:10:31, h = 200 km.
	MW	iP		22	50		
		i		23	11		A T
		ipP			34		PZ 2 2
		i		24	38		PZ 6 7
		e		27	01		pPZ 3 5
	R	iP		22	50		SH 1½ 6
		i!			52		SPPH 2 6
		ipP		23	35		
	Pr	iPNZ		22	53	c	
		i			58		Surface waves small and irregular
		i		23	03		
		ipP!			38		Magnitude 7.0
		i		24	03		
		i		25	05		
		e		26	17		
	LJ	eP		22	51	c	
		ipP		23	36		
		i			53		
	SB	eP		22	48	c	
		ipP		23	31		
	T	iPEZ		22	56		
		i		23	08		
		ipP			42		
ov. 22	MW	iP	02	42	13		Tu iP 02 42 51
ov. 22	P	iP	09	15	27		Tu iP 09 16 13
		i			38		i 22
	PX	eLN		26	.3		i 29
	MW	iP		15	28		USCGS: 51 N 180
	Pr	iPNZ			36		O = 09:06.8
		i			56		
	LJ	iP			39		
	SB	eP			19		
	H	iP			22		
	T	iP			14		
ov. 22	MW	iP	12	11	01		Tu iP 12 11 45
	Pr	iP			11		
		e			17		
		i			30		
	T	eP		10	47		

Date	Sta.	Phase	h	m	s		Remarks
Nov. 22	Pr	iP	20	57	42		Tu iP 20 57 00
		i					i 13
Nov. 22	P	iP	23	43	19	c	Tu iP 23 43 30 c
	MW	iP			20	c	i 40
		i			29		i 48
	R	iP			20	c	
		i			29		
	Pr	iP			25	c	
		i			33		BCIS: 82½ N 20 E,
		i			45		O = 23:33.0
	H	eP			08		A T
		e			18		PZ 0.3 2
	T	iP			02	c	
		i			11		
Nov. 23	R	e	00	41	41		Tu i 00 40 48
		e			44		i 41 07
		i			54		i 18
		i		42	03		
	Pr	i		41	55		
Nov. 24	P	iP	06	45	23	d	Tu iP 06 44 47 d
		e			47		e 45 40
		i		46	00		
		i			19		Deep?
	MW	iP			24	d	South America?
		e		46	02		
	R	iP		45	20	d	
		i			39		
		i			46		
		i		46	01		
	Pr	iPNZ		45	15	d	
		i			52		
	LJ	e			21		
	H	iP			30	d	
	T	iPNEZ			36	d	
Nov. 25	P	iPEZ	14	57	45		Tu iP 14 58 11
		ipPEZ		58	54		ipP 59 22
		e	15	01	40		
	MW	iP	14	57	46		
		ipP		58	55		
		e	15	01	10		Tonga region, depth 300 km.
	R	iP	14	57	49		
		ipP		58	59		Apia reports:
	Pr	iPNZ		57	48		iP 14 47 50
		ipP		58	58		iS 48 43
	LJ	iP		57	47		
		ipP		58	55		
	H	iP		57	52		
		ipP		59	03		
	T	iPNEZ		57	54		
		ipP		59	03		
Nov. 26	P	iP	03	32	22		Tu iP 03 32 47
	MW	iP			23		
	R	iP			25		
	Pr	iP			25		
	T	iP?		31	48		
Nov. 26	Pr	iP	04	44	33		Tu iP 04 44 52

Date	Sta.	Phase	h	m	s		Remarks
Nov. 26	P	iP	05	50	12		Tu i 05 50 50
		ipP			30		ePP 54 52
		i			34		iPKKP 06 06 44
	PX	e		53	01		e 09 33
		iPP		54	10		e 14 18
		i			26		
		iSKSNE	06	00	42		
		eSNE		01	43		
		ePSNE		02	46		Depth 70 km.
		eSSNE		08	.1		USCGS: 5 S 145 E,
		eLN		19	.2		O = 05:36.5
		iLEZ		21	.4		
		eW2EZ	07	49	.9		JSA: 5.0 S 145.6 E,
	MW	iP	05	50	13		O = 05:36:36
		ipP			32		
		i			36		
		i		54	04		
		ePP		54	14		A T
	R	iP	05	50	15	c	PZ 0.3 1½
		ipP			33		pPZ 3/4 4
		ePP		53	55		SKSH 4 7
		i		54	07		MH 20 20
		i			32		
		iPKKP	06	07	09		
		i		15	02		Magnitude 7.0
	Pr	iP	05	50	18		
		i			28		
		ipP			35		
		ePP		54	33		
		iPKKP	06	07	08		
		e			22		
	LJ	eP	05	50	24		
	T	iP			44		
		ipP			32		
		ePP		53	59		
Nov. 27	P	iPNZ	06	24	06	d	Tu iP 06 23 30 d
		i			34		ipP 58
		i			45		
	MW	iP			07	d	
		ipP			35		
	R	iPEZ!			02	d	
		ipP!			30		
		i			43		Andes?
	Pr	iP		23	58		Depth 110 km.
		i		24	38		
	H	iP		24	14		
	T	iP			18		
		ipP			47		
Nov. 27	P	iP	06	42	40	c	Tu iP 06 42 18
		i			52		i 25
	Pr	iP			32		i 30
		i			46		i 43 08
		i		43	03		Southeast Pacific
Nov. 27	Pr	i	20	59	56		
		i	21	00	27		
Nov. 28	P	eP	01	55	49		
		i			54		
	MW	eP			49		
	R	eP			56		
	Pr	iP		56	02		
	T	eP		55	25		

Date	Sta.	Phase	h	m	s		Remarks
Nov. 28	P	eP	12	26	48		
	MW	iP			50		
	R	eP?			58		
	T	iP			58		
Nov. 28	MW	i(P)	16	44	37		
Nov. 28	P	e	22	02	21		Tu e 22 03 19
	MW	e			26		BCIS: 27 N 94 E,
	H	e			40		O = 21:43.1
Nov. 28	P	iPNEZ	23	56	39	d	Tu iP 23 57 03 d
		ipP			51		ipP 16
		i		57	08		i 27
	MW	iP		56	39	d	
		ipP			52		
	R	iP			41	d	
		ipP			55		Depth 40 km.
	Pr	iP			42	d	Near Apia, which reports:
		i			51		iP 23 45 57
		ipP			55		iS 46 21
	SB	eP			34	d	
	H	iP			46	d	
	T	iP			49	d	
Nov. 29	P	iP	02	15	53		Tu iP 02 16 15 c
	MW	iP			54		
	R	iP			56	c	
	Pr	iP			55		
	H	iP		16	00		
	T	iP			02	c	
Nov. 30	P	iPNEZ	08	40	27	d	Tu iP 08 39 55 d
		e		41	44		i 40 05
		i(pP)EZ		42	28		i(pP) 41 55
	PX	iSNEZ		49	48		e(S) 48 46
	MW	iP		40	27	d	
		e		41	52		A T
		i(pP)		42	29		PZ 0.2 1
		iSN		49	46		pPZ 0.2 1
	R	iP		40	23	d	SH 2 4
		e		41	46		
		i(pP)		42	25		
		eSN		49	41		
	Pr	iPNZ		40	20		
		i(pP)NZ		42	24		
		iSN		49	37		
	LJ	eP		40	20		
		e(pP)		42	21		Depth 600 km?
		eSN		49	34		South America
	SB	eP		40	33		
	H	iP			34		
	T	iP			37		
		e		41	52		
		i(pP)		42	40		
Dec. 2	P	eP	04	38	33		Tu eP 04 39 13
		i			35		i 19
		i			45		i 45
		i			50		i 41 20
	MW	eP			32		
		i			35		
		i			47		
		i		39	10		
	R	eP		38	36		
		i			39		
		i			49		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Dec. 2	Pr	eP	04	38	43		(continued)
		i			46		
	H	eP			20		
	T	eP			13		
		i			15		
		i			32		
Dec. 2	MW	eP	18	38	02		Tu eP 18 37 25
		i			06		e 38 13
		i			39		
	R	eP		37	58		
		i		38	06		
		i			33		
	Pr	eP		37	48		
	T	e		38	50		
Dec. 3	Pr	iP	06	54	22		Tu eP 06 54 41
Dec. 4	P	iPNEZ!	00	26	38	c	Tu iP! 00 25 32
		i		27	58		
		i		28	40		Numerous small after shocks.
		iGNE			50		USCGS: 21½ N 106½ W,
	MW	iPNEZ		26	38	c	O = 00:22.8
	R	iPNEZ			31	c	Pasadena: 22 N 106½ W,
		i		29	30		O = 00:22:48
	Pr	iPNZ!		26	22	c	Magnitude 6.9
	LJ	iPNEZ			20	c	A T
	SB	iPNEZ			52	c	PH 15 3
	H	iPNEZ			57	c	PH 50 8
	T	iPNEZ		27	08	c	PZ 70 8
		i		32	52		MH 300 40
							MH 800 12
Dec. 4	R	iP	00	32	01		Short periods; part of preceding?
	T	iP			33		
Dec. 4	R	iP	02	42	16		Tu eP 02 41 14
Dec. 4	P	iP	02	47	21		Tu iP 02 46 17
	MW	iP			21		
	R	eP			14		
	Pr	iP			05		
	LJ	eP			09		Aftershock
	SB	eP			36		
	H	eP			39		
	T	iP			51		
Dec. 4	P	iP	02	53	13		
	MW	iP			11		
	R	iP			07		Aftershock
	Pr	iP		52	53		
	H	eP		53	28		
	T	iP			38		
Dec. 4	P	iP	03	56	36		Tu eP 03 55 30
	MW	iP			39		
	R	eP			28		Aftershock
	Pr	iP			20		
	H	eP			51		
	T	eP		57	05		
Dec. 4	R	iP	07	57	11		Tu iP 07 55 08
	T	iP			41		Aftershock
Dec. 4	P	iP	16	01	12		Tu iP 16 00 04
	MW	iP			09		
	R	eP			03		
	Pr	iP		00	52		Aftershock
	H	iP		01	28		
	T	iP			38		

Date	Sta.	Phase	h	m	s		Remarks
Dec. 4	P	e	16	38	15		Tu eP 16 38 46
	PX	eL		49	4		i 49
	MW	eP		38	02		i 56
		e			17		
	R	e?			11		
		e			23		BCIS: 55 N 170 W,
	Pr	eP?			14		O = 16:30.5
		i			20		
		i			28		
	H	e			11		
	T	e(P)		37	48		
		i			52		
		i		38	06		
Dec. 4	P	i	20	41	07		Tu i 20 38 09
		i			55		i 39 09
	MW	i			09		i 41 28
		i		42	18		i 42 15
	R	i		38	27		i 59
		i		39	27		e 43 30
		i		41	10		
		i			58		
	Pr	i			13		
		i			31		
		e			40		
		i		42	00		Two shocks?
	H	e		41	07		
		i			52		
	T	i			01		
		i			49		
Dec. 4	P	iPNEZ!	23	43	43	c	Tu iP! 23 44 29 d
		iSNE!		44	05		
	MW	iPNEZ!		43	42	c	33°53'N 116° 20' W,
	R	iPNZ!			32	c	O = 23:43:17
	Pr	iPNZ!			31	d	Magnitude 6.7
	LJ	iPNEZ!			40	d	
	SB	iP		44	02		
	H	ePNEZ		43	58		
		iNEZ			59		
	T	iPNEZ!		44	11	d	

Reports collected by the U.S.C.G.S. indicate that this shock was felt over an area of about 55000 sq. mi. (140000 km.²) in California, Arizon and Nevada. Minor damage ocurred in the towns of Palm Springs, Desert Hot Springs, and Indio. Aftershocks numerous, but relatively small.

Dec. 5	P	iPNEZ!	00	07	47	c	Tu iP 00 08 33
		iSNE		08	07		
	R	iPNEZ		07	36	c	Aftershock;
		iSNE			47		magnitude 4.9
	Pr	iP!			34		
Dec. 5	P	iPNEZ	00	43	01	c	Tu iP 00 43 55
		iSE			21		Aftershock;
	R	iPNEZ!		42	49	c	magnitude 4.6
		iSNE		43	00		
	Pr	iP!		42	49	c	
Dec. 5	P	iPNEZ	00	51	22	c	Tu iP 00 52 11
		iSN			41		
	R	iPNEZ!			11	c	Aftershock;
		iSEZ			21		magnitude 4.4
	Pr	iP!			10	d	
Dec. 5	P	iP	06	45	01		Tu eP 06 45 03
	PX	eSKSNE		55	40		USCGS: 53 S 158 E, O = 06:26.4
		iGN	07	13	25		A T
	MW	iP	06	45	00		MH 40 50
	R	eP		44	50		MH 60 30
	H	eP		45	19		MH 30 20
	T	eP			15		Magnitude 6 3/4

Date	Sta.	Phase	h	m	s		Remarks
Dec. 6	P	iPNEZ!	02	46	33	c	Tu eP 02 47 21
		iSE			49		Aftershock of Dec. 4, 23h;
	R	iPNEZ!			22		magnitude 4.3
	Pr	iPNZ			24		
Dec. 6	P	e	12	23	30		Tu e 12 23 51
		e			54		i 24 13
	PX	eLN		50.	1		e 25
	MW	e		23	28		
		e			36		
		e			53		
	R	e			33		USCGS: 16 S 168 E,
		e			54		O = 12:10.4
	Pr	e			33		BCIS: 17 S 166½ E,
		e			56		O = 12:10.6
	T	e			29		
		e			37		A T
		e			57		MH 10 20
Dec. 7	P	iP	09	23	46	c	Tu iP 09 22 55 c
		i		24	05		i 23 15
		i			46		
	MW	iP		23	45	c	
		i		24	13		
	R	iP		23	41	c	USCGS: 18 N 69½ W,
		i		24	13		O = 09:15.3
	Pr	iPNZ		23	37	c	
		i			51		
	H	iP			48		
	T	iPNEZ			50	c	
		i		24	17		
Dec. 7	P	eP	14	05	29		Tu iP 14 05 50
		e		06	03		i 06 27
	MW	iP		05	30		
		e		06	06		
	Pr	iP		05	33	d	
		e		06	04		
	LJ	e			00		
	T	iP		05	36		
		e		06	12		
Dec. 7	Pr	e(P)	16	31	22		Tu e 16 31 43
	T	eP			24		
Dec. 7	MW	eP	21	16	09		Tu eP 21 16 37
	R	eP		15	57		
	Pr	eP			57		
	T	eP		16	09		
Dec. 8	P	iP	01	16	18		Tu eP 01 16 50
	T	iP			03		
Dec. 8	MW	iP?	03	19	54		Tu iP 03 20 10
	R	iP			54		Wellington: 34 S 179 E,
	T	iP		20	02		O = 03:07.2
							h = 160?, M = 5 3/4 - 6
Dec. 8	Pr	iP	17	47	01		Tu iP 17 47 20
	T	iP		46	42		
Dec. 8	P	iPNEZ	22	33	45	d	Tu iP 22 33 09 d
		ipP		34	17		ipP 40
		isP			26		
		i			44		
	MW	iPNEZ		33	45	d	
		ipP		34	14		
		i			35		Andes?
		i			39		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Dec. 8	R	iP	22	33	41	d	(continued)
		ipP		34	09		
		i			22		
		i			39		
		e		35	10		
	Pr	iPNZ		33	37	d	
	LJ	iP			36	d	
	SB	eP			30		
	H	iP			51	d	
		epP		34	22		
	T	iPNEZ		33	57	d	
		epP		34	26		
Dec. 10	P	iP	06	39	05		Tu iP 06 39 26 d
	MW	iP			05		
	R	iP			08		
	Pr	iP			07		
	T	iP			14		
Dec. 10	P	iP	09	51	58		Tu iP 09 52 35
		i		52	13		
	MW	iP		51	57		
		i		52	14		
	R	eP		51	45		
	Pr	iPNZ		52	06		
	LJ	eP		51	47		
	SB	eP			52		
	H	eP			49		
	T	iP			44		
Dec. 10	R	e	10	21	06		Tu e 10 21 24
	T	e			14		P, P? of preceding?
Dec. 10	P	iPNEZ!	20	43	23	c	Tu iP 20 44 10
		iSNE			42		Aftershock of Dec. 4, 23h,
	R	iPNEZ!			11	c	magnitude 4.4
		iSNE			22		
	Pr	iPNZ!			10	d	
Dec. 11	P	iP	03	13	27	c	Tu iP 03 13 44
		ipP			43		ipP 14 02
	MW	eP			29		i 13
		epP			43		
	R	iP			29	c	
		ipP			45		Near New Zealand
		i			58		
	Pr	iPNZ			28	c	
		i			38		
		ipP			45		
	H	eP			34		
		epP			50		
	T	iP			36		
		ipP			53		
Dec. 11	P	iP	05	12	34		Tu iP 05 11 31
	MW	eP			36		
	R	eP			36		
	Pr	eP			19		
	H	eP			55		
	T	iP		13	06		
Dec. 11	P	iPNEZ!	16	12	45	c	Tu eP 16 13 35
		iSN		13	03		Aftershock of Dec. 4, 23h;
	R	iPNEZ!		12	33	c	magnitude 4.5
		iSNE			44		
	Pr	iP!			32	d	

Date	Sta.	Phase	h	m	s		Remarks
Dec. 12	MW	iP	01	30	46		Tu iP 01 30 13 d
	R	iP			42	d	ipP 40
		epP		31	10		i 53
		i			23		Andes?
	Pr	iP		30	38		
	H	eP			54	d	
	T	iP			58	d	
		epP		31	25		
		e			39		
Dec. 12	P	iP	06	32	13	d	Tu iP 06 32 34 d
		ipP		34	16		ipP 34 44
	MW	iP		32	13	d	
		epP		34	16		
	R	eP		32	16	d	
		epP		34	18		
	Pr	iPNZ		32	15	d	Tonga region.
		epP		34	17		Depth about 550 km.
	LJ	eP		32	11		
	H	eP		32	20	d	
		epP		34	24		
	T	iP		32	21	d	
		epP		34	25		
Dec. 12	P	eP	06	48	28		Tu iP 06 48 51
		epP			39		ipP 49 03
	MW	eP			27		
		ipP			39		
	R	eP			30		BCIS: 17 S 166½ E,
		epP			42		O = 06:35.6
	Pr	ePNZ			30		
		ipP			43		
	H	eP			33		
		ipP			47		
	T	iP			33		
Dec. 12	P	iP	09	32	01		Tu iP 09 31 32
	MW	iP			01		
	R	iP		31	59		Small dilatations followed by large
	Pr	iP			55		compressions at all stations.
	LJ	eP			49		
	H	iP		32	09		
	T	iP			13		
Dec. 12	P	iPNEZ	13	26	06	d	Tu iP 13 26 49 d
		ipPEZ			17		i 27 03
		i			28		
		ePP		27	40		
		e		31	35		
	PX	iSNE		33	10		USCGS: 52 N 178 W,
		eScSE		36	00		O = 13:17.3
		eSSN		37	00		
		eLNE		38	.5		A T
	MW	iPNEZ		26	07	d	PZ 1 1½
		ipP			18		PH 4 6
		i			31		MH 10 20
	R	iP			11	d	
		ipP			21		
		i			35		
		i		27	32		
	Pr	iPNZ		26	17	d	
		ipP			28		
		i			41		
		iS		33	31		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Dec. 12	LJ	eP	13	26	18		(continued)
	SB	eP		25	59		
	H	iPEZ			58	d	
		ipP		26	08		
	T	iPNEZ		25	53	d	
		i(pP)		26	00		
		i			02		
		eSN		32	44		
Dec. 12	P	e	15	29	33		Tu eP 15 29 35
	MW	eP			28		e 41
		i			33		
	R	eP			29		
		i			36		
	Pr	iP			31		
		i			39		
	T	eP			22		
		i			28		
Dec. 13	P	iP	02	40	02	c	Tu iP 02 40 38
		e			16		
	MW	iP			03	c	
		e			17		BCIS: O = 02:30.6;
	R	eP			04		probably an aftershock of
		e			19		Dec. 10, 09h.
	Pr	iP			11	c	
		e			25		
	T	iP		39	49	c	
		e		40	01		
		i			11		
Dec. 13	P	iP	23	04	29		Tu iP 23 04 52 d
	MW	iP			31		
	R	eP			32		
	Pr	iP			33	d	
	T	iP			38		
Dec. 14	P	eP	09	36	04		Tu iP 09 36 50 c
		epP			18		ipP 37 05
		i			26		
	MW	iP			04		
		ipP			19		
		i			26		
	R	iP			09		
		i			28		
	Pr	iP			15		
		ipP			29		
	T	iP		35	48		
		i		36	06		
Dec. 14	P	iPNEZ	11	28	43	c	
	MW	iP			44	c	
		i			51		
		i		29	06		
	R	iP		28	46	c	
		i			53		
	Pr	iP			49	c	
	LJ	iP			47		
	T	iP			46		
Dec. 14	MW	iP	16	21	42		
	R	iP			43		
	Pr	iP			49		
	T	iP			35		
Dec. 15	R	eP	02	19	41		Tu iP 02 20 02
	Pr	iP			41		
	T	iP			47		

Date	Sta.	Phase	h	m	s		Remarks
Dec. 15	P	iPNEZ	19	23	39	c	Tu iP 19 24 11 c
		ipP		24	36		ipP 25 09
		i			50		i 23
		isP		25	06		i 33
	PX	iSKSNE		33	38		i 53
		iSNEZ			46		
		iSPNE		34	39		
		eSSNE		39	30		USCGS: 22 N 143 E,
		eGN		46			O = 19:11.4, h = 200 km.
	MW	iP		23	40	c	JSA: 22.0 N 142.4 E,
		ipP		24	38		O = 19:11:50, h = 250 km.
		eSNEZ		33	46		CMO: 24 N 144 E, deep.
	R	iP		23	43	c	Pasadena 22 N 142½ E,
		ipP		24	41		O = 19:11:26, h = 240 km.
		eS		33	52		
	Pr	iPNZ!		23	47	c	
		ipP		24	43		A T
		eSN		33	52		PZ 1 1
		iN		34	03		PH ½ 1
	LJ	iP		23	47	c	SH 8 5
		ipP		24	49		
	SB	eP		23	35	c	Magnitude 7.0
		ipP		24	32		
	H	iP		23	38	c	
		ipP		24	34		
		eSE		33	38		
	T	iPNEZ!		23	35	c	
		ipP		24	33		
		eSNEZ		33	36		
Dec. 15	P	i	22	03	34		Tu iP 22 03 45
	MW	i			34		i(pP) 04 10
	R	iP			14		
		i(pP)			37		
	Pr	iP			19		Earlier motion, probably extraneous,
		i(pP)			42		at Pasadena.
	H	iP			03		
		i(pP)			27		Japan?
	T	iP		02	59		
		i(pP)		03	23		
Dec. 15	P	iP	22	39	12	c	Tu iP 22 39 48 c
		ipP			42		ipP 40 19
	MW	iP			13	c	
		ipP			43		Addendum:
	R	iP			16	c	R ipP 22 29 46
	Pr	iP			21		Kurile Islands?
		ipP			51		
	T	iP			02	c	
		ipP			32		
Dec. 16	P	ePNEZ	07	30	15		Tu eP 07 30 39
	PX	eSNE		40	02		USCGS: 20 S 179 W,
		eLNE		49	.7		O = 07:18.2
	MW	eP		30	15		BCIS: 21 S 176 W,
	R	eP			18		O = 07:18.2
	Pr	iPNZ			19		PZ 0.5 1
	H	eP			25		MH 25 30
	T	eP			25		Magnitude about 6½
Dec. 17	T	iP	09	37	13		Tu iP 09 38 25
Dec. 17	T	iP	10	28	24		Tu iP 10 28 57
Dec. 17	MW	i	11	39	40		Tu iP 11 38 50
	T	e(P)		40	03		JSA: 7.4 N 81.3 W,
		i			12		O = 11:31:31

Date	Sta.	Phase	h	m	s		Remarks
Dec. 18	MW	e	14	26	04		BCIS: 18 S 168 E,
	R	e			00		O = 14:13.3
Dec. 18	MW	iP	22	49	44		Tu iP 22 50 07
	Pr	iP			45		
	T	eP			51		
Dec. 18	P	iPNEZ!	23	45	41	d	Tu iP 23 46 42
	MW	iPNEZ!			39	d	i 47 09
		iSNE			55		i(S) 48 14
	Pr	iPNZ!			46	d	34°57' N 116°57' W,
	H	iPNEZ			42	c	O = 23:45:17, magnitude 4.4
		iSNE		46	01		Reported felt at Hinkley, Helendale
	T	iPEZ		45	56	c	and Victorville.
Dec. 19	P	eP	04	09	02		Tu iP 04 08 29
		ipP			13		ipP 40
	MW	eP			01		
		ipP			13		
	R	eP		08	59		
		ipP		09	10		Andes?
	H	eP			11		
		epP			21		
	T	iP			14		
		ipP			26		
Dec. 20	P	iPNEZ	04	43	35	c	Tu eP 04 45 05
	SB	iPNE			19		Near 35.8 N 121.5 W,
		iSN			46		O = 04:42.8
	H	iPEZ			32		Magnitude 4.5
	T	iPNEZ!			34		
Dec. 20	P	eP	18	52	44		Tu e 18 53 20
	MW	eP			43		
	T	eP			32		
Dec. 20	P	eP	20	53	02		
		e			17		
	MW	eP			04		
		e			16		BCIS: 5 S 148 E,
	R	eP			07		O = 20:39.5
		e			16		
		e			19		
	T	eP			02		
Dec. 20	P	iP	23	21	03		
	MW	eP			03		
	T	iP		20	54		
		i		21	07		
Dec. 21	MW	iP	16	44	41		Tu eP 16 45 06
		i		45	10		
	R	eP		44	44		
		e		45	09		Southwest Pacific
	Pr	iP		44	46		
		i		45	14		
	T	iP		44	47		
		e		45	15		
Dec. 21	MW	eP	17	49	26		Tu iP 17 48 32
	Pr	iP			46		i 50
	T	iP			41		i 54
Dec. 21	P	eP	20	21	56		Tu iP 20 21 04
		e		22	10		e 19
		i			32		i 23
	MW	iP		21	56		Deeper than normal?
		e		22	08		USCGS: 19 N 69.5 W,
		i			15		O = 20:13.4
		i			44		
		i		23	20		(continued)

Date	Sta.	Phase	h	m	s		Remarks
Dec. 21	Pr	iP	20	21	48	c	(continued)
		i		22	07		
		e		23	40		
	LJ	eP		21	48		
	T	iP			59		
		i		22	07		
		e			15		
		i			25		
Dec. 21	MW	iP	21	41	35		
	T	iP			38		
		e			53		
Dec. 22	Pr	iP	00	40	25		Tu iP 00 41 00
		e			42		i 16
	T	eP			08		
Dec. 22	Pr	eP	05	47	07		Tu iP 05 47 21 d
	T	i			01		
		i			08		
Dec. 22	P	iP	15	51	21		Tu iP 15 50 52
	MW	iP			20		
	Pr	iP			15		
Dec. 23	P	iP	07	24	38		Tu eP 07 24 54
	MW	iP			37		i 25 08
		e			53		i 14
		i			58		i 30
		iPP		27	48		USCGS: 30 S 177 W,
	Pr	iPNZ		24	40		O = 07:12.1
	H	iP			46		
Dec. 23	P	iPNEZ	08	50	41	c	Tu iP 08 51 20 c
		iPcP		51	42		
	PX	eSE		58	14		USCGS: 56 N 166 E,
		iSN			24		O = 08:41.3
		eSSNE	09	02.2			Pasadena: 55½ N 166 E,
		eGNE		03.9			O = 08:41:17, h = 60 km.
	MW	iPNEZ	08	50	42		Magnitude 6 3/4
		eSN		58	24		
	Pr	iPNZ		50	52		A T
		iSN		58	44		PZ 4 3
	LJ	iPNEZ		50	51		PH 2 3
		eSN		58	44		SH 7 8
	SB	eP		50	35		MH 25 20
	H	iP			33		
	T	iPNEZ			27		
		eSNE		57	57		
Dec. 23	P	iP	15	35	34		Tu iP 15 36 14
		i			50		i 38 58
	PX	eLE		43			i 39 09
	MW	iP		35	36		
		iPcP		40	00		
		iScP		43	28		
	Pr	iP		35	45		
		i			57		
	H	eP			26		
	T	iP			21		
		i			28		
		i			36		
		ePcP		40	30		
		iScP		43	16		
Dec. 23	P	iP	18	58	45		Tu iP 18 59 25 c
	MW	iP			46		
	Pr	iP			56		
	H	iP			37		
	T	iPEZ			31		

Date	Sta.	Phase	h	m	s		Remarks
Dec. 24	P	iP	04	53	53		Tu iP 04 54 32 c
	MW	iP			53	c	iScP 05 00 05
		eScP		59	42		
	Pr	iP		54	03	c	
		iScP		59	46		
	T	iP		53	37	c	
		iScP		59	48		
Dec. 24	P	e	07	40	25		Tu iP 07 40 16
	MW	e			14		
	T	iP			29		
		e			47		
Dec. 26	P	iPNEZ	07	23	56	c	Tu iP 07 23 21
		ipP		24	11		ipP 36
		eSN		33	15		i 49
	MW	iP		23	56	c	USCGS: 22½ S 69 W,
		ipP		24	11		O = 07:12.5, h = 100 km.
	R	ePNE		23	51		
	Pr	iP			48		A T
		i		24	09		PZ 1½ 1½
	LJ	eP		23	46		SH 2½ 5
	H	ePNE		24	04		
	T	iPNEZ			07		Magnitude 6 3/4 - 7
		i			25		
Dec. 26	P	iP	08	56	40	c	Tu iP 08 57 05 c
	MW	iP			40	c	Near Apia, which reports:
	Pr	iP			45	c	P 08 47 37
	T	iP			48	c	S 49 05
Dec. 27	T	eP	04	15	05		Tu iP 04 15 20
Dec. 28	P	iPNEZ	00	28	01	c	Tu iP 00 28 29 c
		i			56		
	MW	iP			03	c	
		i			44		
	Pr	iPNZ			07	c	
		i			46		
	T	iPNEZ			06	c	
Dec. 28	P	eP	02	27	06		Tu eP 02 28 31
		iSE		28	36		Magnitude 4.7
	H	iPNE		26	49		Felt at Reno and Verdi, Nevada.
		eSNE		27	38		Similar smaller shocks at
	T	iP		26	28		01h 12m and 05h 28m
		i			32		
Dec. 28	P	eP	19	07	57		Tu eP 19 07 24
	Pr	iP		08	07		
	T	eP			32		
Dec. 29	P	e	05	59	27		Region of 55 S 160 W
	PX	eGE	06	25	1		A T
							MH 8 20
Dec. 29	P	eP	06	40	51		Tu eP 06 41 14
	MW	eP			55		
	Pr	eP			57		
	T	e			45		
Dec. 19	P	eP	11	02	43		Tu iP 11 03 09 d
	MW	eP			43		e 30
		i		03	02		Near Apia, which reports:
	R	eP		02	45		P 10 51 30
	Pr	eP			44		S 52 12
	T	iP			53	d	

Date	Sta.	Phase	h	m	s		Remarks
Dec. 29	P	iP	12	54	53		Tu eP 12 56 01
		iSNE		56	12		
	MW	iP		54	52		Damage at Verdi and Reno, Nevada
	R	iP			58		Magnitude 6.0
		iSN		56	28		USCGS: 39.5 N 120.2 W
	Pr	iPNZ		55	08		O = 12:53:29
	SB	eP		54	50		
		iSN		56	01		
	H	ePNE		54	34		
		iNE!			37		
		iSNE		55	27		
	T	eP		54	15		
		iSNE			54		
Dec. 29	P	iP	20	19	57		Tu eP 20 20 29
		i		20	46		e 21 11
	MW	eP		19	55		e 18
		e		20	45		
	Pr	eP		19	55		
	T	iP			53		
		e		20	39		
		i			45		
Dec. 30	MW	iP	04	21	52		Tu iP 04 22 30
		i		22	06		
	T	eP		21	39		
		e			52		
Dec. 30	P	iPNEZ!	23	54	20	c	Tu iP 23 55 19 c
	PX	iNEZ		55	10		
		eGN		57	.8		USCGS: 51.5 N 130.0 W,
		i(S)E		58	05		O = 23:49:53 A T
	MW	iPNEZ		54	21	c	PZ 5 2
	R	iP			24		PZ 20 12
	Pr	iPNZ			34		PH 15 8
	LJ	iPNE			38		SH 12 6
	SB	ePNZ			15		MH 80 20
	H	iPNE			33		MH 100 14
	T	iPNEZ			50	c	Magnitude 6.6
Dec. 31	R	eP	06	43	34		Tu eP 06 44 41
	Pr	iP			46		Aftershock
	T	iP			02		
Dec. 31	MW	eP	07	16	54		Tu iP 07 16 02
	R	eP			44		
	Pr	iP			43		Central America
	T	iP		17	01		
Dec. 31	P	iP	07	40	16		Tu iP 07 39 23
	R	iP			07		
	Pr	iP			04		Central America
	T	iP			22		
Dec. 31	P	iPNEZ	14	36	34		Tu eP 14 38 05
		iSE		37	08		Felt along the coast from Monterey
	SB	ePNZ		36	18		Bay to Point Arguello.
		iSN			50		Magnitude 4.6
	H	ePE			31		
	T	iPNEZ			34	c	
		iSE		37	10		

C. F. Richter
Marion Reid
August 2, 1949

Appendix

Larger shocks of 1948

Epicenters, origin times, depths and magnitudes revised by B. Gutenberg

		Lat.	Long.	Depth	Magnitude
Jan. 4	08 56 37	20 3/4 S	179 W	600 km.	7.1
Jan. 6	17 23 26	17 N	98 W	80 km.	7
Jan. 6	17 25 58	17 N	98 W	80 km.	7
Jan. 22	13 55 21	22 S	177 W	140 km.	7.0
Jan. 24	17 46 30	10 1/2 N	122 E	normal	8.2
Jan. 27	11 58 28	20 1/2 S	178 W	630 km.	7.2
Jan. 28	03 47 21	1 1/2 N	126 1/2 E	80 km.	7.2
Feb. 9	12 58 15	35 1/2 N	27 E	40 km.	7.1
Feb. 9	14 54 22	0	122 1/2 E	160 km.	7.2
Mar. 1	01 12 28	3 S	127 1/2 E	50 km.	7.5
Mar. 3	09 09 54	18 1/2 N	119 E	normal	7.2
Mar. 13	20 02 35	1 1/2 N	126 1/2 E	60 km.	7.1
Apr. 17	16 11 28	33 N	135 3/4 E	normal	7.3
Apr. 21	22 22 02	19 1/4 N	69 1/4 W	40 km.	7.3
May 11	08 55 41	17 1/2 S	70 1/4 W	70 km.	7.1
May 14	22 31 43	54 1/2 N	161 W	normal	7.5
May 25	07 11 21	29 1/2 N	100 1/2 E	normal	7.3
June 28	07 13 30	36 1/2 N	136 E	normal	7.3
June 29	10 28 37	15 1/2 S	174 W	60 km.	7.0
July 20	11 02 17	17 S	75 W	70 km.	7.1
Aug. 25	06 09 27	23 1/2 S	65 W	50 km.	7.1
Sept. 2	23 34 50	10 N	125 1/2 E	normal	7.0
Sept. 8	15 09 11	21 S	174 W	normal	7.8
Sept. 10	13 48 34	43 1/2 N	147 E	40 km.	7.1
Oct. 5	20 12 05	37 1/2 N	58 E	normal	7.3
Nov. 19	01 04 24	10 N	83 1/2 W	80 km.	7.0
Nov. 21	19 10 28	13 1/2 S	167 E	180 km.	7.0
Nov. 26	05 36 37	5 S	145 E	70 km.	7.0
Dec. 15	19 11 26	22 N	142 1/2 E	240 km.	7.0