

LAMONT GEOLOGICAL OBSERVATORY
COLUMBIA UNIVERSITY

PALISADES, NEW YORK



SEISMOLOGICAL BULLETIN

By

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1 January 1958 - 30 April 1958

L.G.O. Contribution No. 380

NOV 19 1959

STATION CONSTANTS, INSTRUMENTS AND ABBREVIATIONS



Latitude: 41° 00' 25" North
Longitude: 73° 54' 31" West
Elevation: 102.59 meters
Bedrock: Palisades diabase Trassic Age

INSTRUMENTS

Three component Columbia University seismographs.
To = 12 sec., Tg = 15 sec.

Three component Benioff seismographs. Short period, To = 1 sec.,
Tg = 0.2 sec. Long period To = 1 sec., Tg = 75 sec.

One Columbia University vertical seismograph. To = .33 sec.,
Tg = 0.2 sec.

Three component Columbia University visual recording seismographs,
To = 12 sec.

One Columbia University vertical seismograph for visual recording,
To = 1 sec.

Three component Columbia University long-period seismographs.
To = 15 sec., Tg = 75 sec.

Three component Columbia University long-period seismographs.
To = 30 sec., Tg = 100 sec.

Two Columbia University Microbarographs. To = 10 sec., Tg = 75 sec.

ABBREVIATIONS

i = sudden beginning of the motion (impetus)
e = gradual beginning of the motion (emersio)
Lg = short period continental surface shear wave
Rg = continental Rayleigh wave
Comp = compression
Dil = dilatation

All times are G.C.T.

Time - I.B.M. Invar pendulum clock corrected by Naval Observatory
time signals every 6 hours.

PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
Jan. 1	eLR	02	50	13	
	eLR	11	09	43	
	e	15	16	37	Fox Islands, Aleutians
	eLR	15	36	13	
2	eLR	01	13	43	
2	eLR	02	44	13	Off coast of Greece
2	iP	21	24	41	Kurile Islands
2	eP	22	42	53	Northeast of Trinidad
	eS	22	47	13	USCGS 0 = 22 35 29
	eLR	22	49	23	11 1/2°N 60 1/2°W Dist. 3523 km
3	eLR	04	50	43	
3	eLR	06	17	43	
3	eS	06	35	07	North Atlantic Ocean
	eLR	06	37	13	USCGS 0 = 06 24 31 32°N 41 1/2°W Dist. 3051 km
3	eS	07	00	43	Atlantic Aftershock
	eLR	07	02	53	USCGS 0 = 06 49 56 31°N 40 1/2°W Dist. 3188 km
3	eS	07	12	37	Atlantic Aftershock
	eLR	07	14	53	USCGS 0 = 07 02 07 31°N 40 1/2°W Dist. 3188 km
3	eS	08	06	19	Atlantic Aftershock
	eLR	08	08	37	USCGS 0 = 07 55 40 31 1/2°N 41°W Dist. 3119 km
3	eLR	08	31	01	



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Date	Phase	h	m	s	Remarks
1958					
Jan.					
3	eLR	08	46	13	Atlantic aftershock
3	e	09	01	25	
	eLR	09	05	33	
3	eS	09	36	31	Atlantic aftershock
	eLR	09	38	43	USCGS 0 = 09 25 47 31 1/2°N 40 1/2°W Dist. 3161 km
3	eLR	10	11	13	
3	eS	10	23	17	Atlantic aftershock
	eLR	10	25	13	USCGS 0 = 10 12 33 31 1/2°N 40 1/2°W Dist. 3161 km
3	eLR	10	43	43	
3	eLR	11	44	13	
3	eLR	12	08	13	
3	eLR	12	28	29	
3	eLR	13	17	57	
3	eLR	13	36	13	
3	eLR	13	43	33	
3	eLR	14	54	43	
3	eLR	16	19	14	
3	eLR	16	27	14	
3	eLR	16	36	14	
3	eLR	16	55	34	
3	eLR	17	08	04	

PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
Jan.					
3	eLR	17	23	14	
3	ePP	18	10	00	Mascarene Islands
	ePKKS	18	19	44	USCGS 0 = 17 47 12
	eSKKKS	18	24	54	22°S 65°E
	e	18	33	10	Dist, 15635 km
	eLQ	18	45	44	
	eLR	18	52	44	
3	eLR	22	08	44	
3	eLR	22	49	44	
3	eLR	23	15	44	
4	eP	06	45	34	North Atlantic Ocean
	ePP	06	46	14	USCGS 0 = 06 39 45
	eS	06	50	06	31 1/2°N 40 1/2°W
	eLQ	06	51	14	Dist, 3161 km
	eLR	06	52	34	
4	iP	08	08	55	Guerrero, Mexico
	ePP	08	09	50	USCGS 0 = 08 02 20
	eS	08	14	22	17°N 99 1/2°W
	eLQ	08	16	44	Mag 5 3/4
	eLR	08	17	44	Dist, 3619 km
	(Rg)	08	25	14	
4	eLR	09	00	44	
4	eLR	11	33	14	
4	eLR	13	12	34	
4	eLR	15	47	04	Atlantic aftershock
4	eLR	19	10	44	
4	eLR	21	36	14	
4	e	23	41	07	Off south coast of Java
	eLR	00	51	14	



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Date	Phase	h	m	s	Remarks
1958					
Jan.					
5	ePKP	08	23	33	Celebes Sea
	e	08	26	17	USCGS 0 = 08 05 11
	eSKS	08	29	44	2°N 122 1/2°E
	e	08	37	32	Depth 550 km
	ePPS	08	38	28	Dist. 14974 km
	e	08	41	34	
	e	08	46	00	
	e	08	51	18	
	eL	08	57	34	
5	eP	11	43	06	Stanovoi Mountains, Siberia
	ePP	11	46	14	USCGS 0 = 11 30 44
	eS	11	53	14	56 1/2°N 121°E
	eScS	11	53	44	Dist. 9123 km
	eSS	11	59	00	
	eSSS	12	02	54	
	eLQ	12	05	14	
	eLR	12	09	44	
6	eLR	02	40	14	Hindu Kush
6	eP	10	11	23	
6	eLQ	12	15	14	Burma
	eLR	12	17	14	
7	eLR	04	31	14	
7	eLR	06	20	14	
7	eLR	06	55	14	Tadzhik, S.S.R.
9	e	17	52	39	
	eLR	18	30	54	
10	iP	13	47	41	Fox Islands, Aleutians
	eLR	14	08	44	
11	e (PP)	13	38	27	Tonga Islands region
	e	13	39	29	USCGS 0 = 13 18 47
	e (SKS)	13	43	57	23 1/2°S 177°W
	e	13	46	01	Dist. 12733 km
	e (PS)	13	47	57	

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Date	Phase	h	m	s	Remarks
1958					
Jan.					
11	e	13	48	53	
(contd)	e (SS)	13	54	13	
	eSKKS	13	55	29	
	e (LQ)	14	11	21	
	e (LR)	14	18	57	
12	eP	15	01	04	Atlantic Ocean
	ePP	15	01	38	USCGS 0 = 14 55 09
	eS	15	05	42	31 1/2° N 41° W
	eSS	15	07	02	Dist. 3119 km
	eLR	15	07	34	
13	iP	00	13	19	Aleutian Islands
	ipP	00	13	45	USCGS 0 = 00 02 24
	i (PcP)	00	13	52	52 1/2° N 177° E
	ePPP	00	17	24	Depth 100 km
	eS	00	22	08	Dist. 7622 km
	e (SPP)	00	23	04	
	e (SS)	00	27	14	
	e (SSS)	00	30	14	
	eLR	00	33	44	
13	eS	03	05	02	Off south coast of Panama
	eLQ	03	07	44	USCGS 0 = 02 52 40
	eLR	03	09	14	7° N 83° W
					Dist. 3873 km
13	eLQ	03	42	14	
	eLR	03	49	44	
13	eLR	13	43	14	Northern Chile
13	ePKP	20	33	33	Andaman Islands
	e(PP)	20	35	22	USCGS 0 = 20 14 27
	ePKKS	20	47	24	11 1/2° N 92 1/2° E
	e	20	58	14	Dist. 14040 km
	eLR	21	11	44	
14	ePS	06	23	44	Tonga Islands
	eSS	06	29	54	USCGS 0 = 05 54 48
	eSSS	06	34	05	22° S 175° W
	eLQ	05	41	14	Dist. 12482 km
	eLR	06	48	14	



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Date	Phase	h	m	s	Remarks
1958					
Jan.					
15	iP	19	24	11	Southern Peru
	P (Z) 10 sec 11 mic				USCGS 0 = 19 24 29
	ipP	19	24	33	16 1/2°S 71 1/2°W
	isP	19	24	48	Mag 7
	iPP	19	26	20	Depth 100 km
	ePPP	19	27	38	Dist. 6368 km
	iS	19	31	51	
	eSS	19	35	44	
	eLQ	19	37	14	
	eLR	19	41	34	
15	eLR	21	52	34	
15	eLQ	23	05	14	New Hebrides Islands
	eLR	23	12	38	
16	eLR	00	08	14	
16	eLQ	04	49	14	Tonga Islands
	eLR	04	54	44	
16	eLR	12	01	44	New Hebrides Islands
16	i	17	47	28	
	eLR	17	47	44	
17	eLR	05	19	44	Spice Islands
17	e	07	48	04	Antarctic Ocean
	eSS	07	59	22	USCGS 0 = 07 15 38
	e	08	05	14	52°S 139 1/2°E
	e	08	16	44	Dist. 17207 km
	eLQ	08	19	44	
	eLR	08	27	14	
	e (LQ) ₂	08	40	14	
17	eLR	16	48	02	
18	eLR	15	55	34	North of Tristan da Cunha

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Date	Phase	h	m	s	Remarks
1958					
Jan.					
19	eP	14	14	58	Near coast of Ecuador
	iP (comp)	14	15	01	USCGS 0 = 14 07 27
	iS	14	21	06	1 1/2°N 79 1/2°W
	eLR	14	25	58	Mag 7 1/2 Depth 60 km Dist. 4410 km
19	eP	14	50	59	Ecuador aftershock
20	eP	02	31	14	Northern Chile
	eS	02	40	30	USCGS 0 = 02 19 53
	eScS	02	41	34	30 1/2°S 71 1/2°W
	eSS	02	44	54	Dist. 7916 km
	eSSS	02	48	23	
	eLR	02	51	18	
20	eP	10	07	02	Chile aftershock
	eS	10	16	30	USCGS 0 = 09 55 44
	e	10	25	14	30 1/2°S 71 1/2°W
	eLR	10	29	44	Dist. 7916 km
20	eLR	20	28	34	
21	eLR	08	41	14	Near coast of Chile
22	e	19	17	15	Near coast of Formosa
	eLR	19	24	23	
23	eLR	13	58	15	Off west coast of Norway
24	eLQ	05	12	15	Northeast of Lake Baikal,
	eLR	05	14	15	U.S.S.R.
24	iP	06	05	21	Near east coast of
	P(Z) 12 sec 2 mic				Kamchatka
	ePcP	06	05	51	USCGS 0 = 05 53 58
	ePP	06	07	59	56 1/2°N 163°E
	ePPP	06	09	49	Mag 6 1/2
	eS	06	14	35	Dist. 7968 km
	ePS	06	15	15	
	eSS	06	19	31	
	eLQ	06	22	55	
	eLR	06	26	15	



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Date	Phase	h	m	s	Remarks
1958					
Jan.					
24	eP	06	22	27	Kamchatka aftershock
	ePcP	06	22	55	USCGS 0 = 06 11 03
	e	06	25	43	56 1/2°N 163°E
	e	06	28	39	Dist. 7968 km
	e	06	29	45	
	e	06	30	11	
	ePS	06	32	07	
	e	06	34	51	
	e	06	34	13	
	eSS	06	36	27	
24	eP	18	14	50	Kormandorskie Islands
	e (PP)	18	17	45	USCGS 0 = 18 03 32
	e (S)	18	23	47	54°N 170°E
	e (SS)	18	29	11	Dist. 7858 km
	eLR	18	37	15	
24	iP	23	26	18	Kenai Peninsula, Alaska
	eS	23	33	19	USCGS 0 = 23 17 29
	e (SS)	23	37	15	60°N 152°W
	eLQ	23	38	15	Mag 6 1/4 - 6 1/2
	eLR	23	40	45	Depth 60 km
					Dist. 5553 km
25	eLR	22	20	15	
26	eLQ	04	16	15	
	eLR	04	24	15	
26	eLQ	07	18	15	Kurile Islands
	eLR	07	26	15	
26	eLQ	08	03	15	Kurile Islands
	eLR	08	10	15	
27	e (PP)	08	02	35	Samoa Islands
	eSKS	08	08	59	USCGS 0 = 07 43 58
	ePS	08	12	03	15°S 174°W
	ePPS	08	13	03	Mag 6 3/4
	eSS	08	17	59	Dist. 11924 km
	e (SSS)	08	21	45	
	eLQ	08	28	35	
	eLR	08	33	55	

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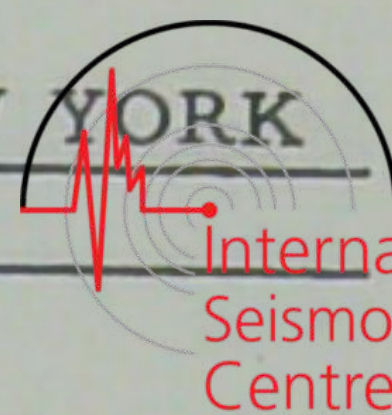
Date	Phase	h	m	s	Remarks
1958					
Jan.					
28	e	06	01	51	
	e	06	02	29	
	e	06	03	35	
29	eLQ	09	50	15	
	eLR	09	51	15	
29	eP	10	21	37	Guerrero, Mexico
	eS	10	26	55	USCGS 0 = 10 14 55
	eLR	10	30	15	16°N 99°W Dist. 3675 km
30	ePKP	06	32	32	Solomon Islands
	ePP	06	34	19	USCGS 0 = 06 13 24
	e	06	35	21	7 1/2°S 155 1/2°E
	eSKS	06	39	31	Mag 6 1/2
	eSKKS	06	41	15	Dist. 13895 km
	ePS	06	44	17	
	ePKKS	06	46	01	
	eSSP	06	51	39	
	e (SSS)	06	56	15	
	e (SSSS)	07	00	00	
	eLQ	07	04	45	
	eLR ₁	07	11	05	
	eLR ₂	08	12	45	
31	ePKP	06	51	44	North Island, New Zealand
	eLR	07	33	23	USCGS 0 = 06 32 39 40°S 176 1/2°E Dist. 14216 km
31	eLR	13	16	45	
31	e	21	55	15	
	eLR	21	58	23	
Feb.					
1	iP	16	17	47	Near coast of Ecuador
	P 10 sec 9 mic comp				USCGS 0 = 16 10 15
	iPP	16	19	21	2°N 79°W
	eS	16	23	45	Mag 6 3/4-7
	e (SS)	16	26	49	Dist. 4349 km
	eLQ	16	28	05	
	eLR	16	29	39	

Date	Phase	h	m	s	Remarks
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1958

Feb.

1	iP (comp)	18	10	12	Ecuador aftershock
	ePP	18	11	45	USCGS 0 = 18 02 39
	iS	18	16	15	2°N 79°W
	e (SS)	18	18	35	Dist. 4349 km
	eLR	18	21	15	
1	iP	20	53	19	Ecuador aftershock
	P (Z) 6 sec 4 mic comp				USCGS 0 = 20 45 45
	ePP	20	54	51	1 1/2°N 79°W
	iS	20	59	21	Mag 6 3/4
	eSS	21	02	15	Dist. 4404 km
	eLR	21	05	15	
1	eLR	23	00	55	Solomon Islands
2	eLQ	04	54	15	
	eLR	04	59	15	
2	iP	08	24	11	Kurile Islands
	ipP	08	24	25	USCGS 0 = 08 11 53
	e	08	34	03	48 1/2°N 154 1/2°E
	e	08	40	43	Mag 6 1/2-6 3/4
	e	08	41	55	Dist. 9065 km
	eLQ	08	46	15	
	eLR	08	53	15	
2	eP	08	56	49	Near coast of Ecuador
2	eLR	12	19	14	
2	eLR	20	57	54	Ryukyu Island region
3	eLR	09	23	30	Tonga Islands
3	eLR	11	35	14	
3	eLR	12	26	14	
3	eLR	14	19	06	Panama-Colombia border
3	eLR	20	20	14	Central Iran



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Date	Phase	h	m	s	Remarks
1958					
Feb.					
4	eLR	03	23	14	Banda Sea
4	eLR	08	16	44	Coast of Greenland
5	eLR	03	25	44	Turkmen, S.S.R.
5	eLR	05	40	14	
5	e	08	53	26	
	e	08	56	32	
	e	09	01	14	
	eLR	09	02	26	
5	eLR	21	25	14	
7	eLQ	05	06	25	Kormandorskie Islands
	eLR	05	16	15	
8	eLR	00	15	15	Szechwan Province, China
9	eLR	04	30	15	South of Panama
9	eLR	11	44	15	
9	eLQ	23	22	15	Mindoro, Philippine Is.
	eLR	23	27	45	
11	iPKP	01	05	52	Off south coast of Java
	e (PPP)	01	12	19	USCGS 0 = 00 46 02
	eLQ	01	50	15	9°S 107 1/2°E
	eLR	01	56	45	Dist. 16468 km
	eLR	09	16	15	
11	eLQ	13	01	15	Near coast of Guatemala
	eLR	13	02	15	
11	eLR	18	50	45	
11	eLR	22	41	15	
12	eLR	01	38	15	

12		PALISADES, NEW YORK			
Date	Phase	h	m	s	Remarks
1958					
Feb.					
12	eLQ	07	27	15	New Britain
	eLR	07	34	45	
12	iP	23	54	29	Aleutian Islands
	P (Z) 6 sec 1.25 mic comp				USCGS 0 = 23 43 45
	i	23	54	44	52°N 175°W
	ePP	23	56	55	Mag 6
					Dist. 7220
13	iS	00	03	07	
	eScS	00	04	23	
	eSS	00	07	37	
	eSSS	00	10	45	
	eLQ	00	11	51	
	eLR	00	13	47	
15	eP	01	59	32	Kurile Islands
	eSKS	02	10	04	USCGS 0 = 01 46 40
	eSS	02	16	08	44°N 147°E
	eLQ	02	25	04	Mag 6 - 6 1/4
	eLR	02	29	46	Dist. 9754 km
16	e	06	27	46	Near coast of Honshu, Japan
	eS	06	28	32	USCGS 0 = 06 04 05
	ePS	06	29	56	39°N 142°E
	eSS	06	35	16	Mag 6 - 6 1/4
	eLQ	06	42	26	Dist. 10441
	eLR	06	50	46	
16	eLR	23	25	16	Off north coast of Iceland
17	eP	05	31	48	Hindu Kush
	e sP	05	33	00	USCGS 0 = 05 18 35
	ePP	05	35	44	35 1/2°N 70°E
	epPP	05	36	48	Depth 200 km
	eSKS	05	41	56	Dist. 10782
	e	05	43	20	
	ePPS	05	45	20	
	e (SSP)	05	49	56	
	e	05	51	46	
	e	05	58	40	
	eLR	06	03	46	

PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
Feb.					
18	eLR	08	30	16	
18	ePP	13	41	40	Kermadec Islands
	e	14	01	28	USCGS 0 = 13 21 20
	eLR	14	17	16	31°S 178 1/2°W Dist. 13,335 km
18	eLQ	20	36	36	Batan Islands
	eLR	20	45	16	
19	eLQ	01	54	46	South Pacific Ocean
	eLR	01	55	36	
19	iPKP	19	45	08	Near south coast of Java
	ePPS	20	01	25	USCGS 0 = 19 25 21
	e	20	08	25	8°S 108°E
	eSSS	20	13	37	Dist. 16,355 km
	eSSSS	20	17	05	
	eLR	20	38	47	
20	eLR	05	01	47	Batan Islands
20	eLR	10	07	17	Batan Islands aftershock
21	eLR	03	44	31	Off coast of Peru
21	eLQ	06	47	23	
	eLR	06	50	31	
21	eLQ	14	00	55	Off coast of Ecuador
	eLR	14	09	15	
22	iP	11	01	15	Aleutian Islands
	P (Z) 12 sec 7.5 mic				USCGS 0 = 10 50 23
	iPcP	11	01	43	50 1/2°N 175°W
	ePP	11	03	43	Mag 6 3/4
	ePPP	11	05	23	Dist. 7316 km
	eS	11	10	03	
	ePPS	11	10	45	
	eSS	11	14	33	
	eSn	11	17	23	
	eLQ	11	17	31	
	eLR	11	21	33	



Date	Phase	h	m	s	Remarks
1958					
Feb.					
22	iP	13	32	38	Aleutian aftershock
22	iP	17	15	45	Aleutian aftershock
	e	17	38	26	USCGS 0 = 17 05 00
	eLR	17	41	30	51 1/2°N 174 1/2°W
					Dist. 7223 km
22	eP	19	45	02	
	eLR	20	10	46	
22	eP	20	03	58	
23	e	00	46	40	
	eLQ	01	14	26	
	eLR	01	21	24	
23	eP	08	25	00	Santiago del Estro
	epPcP	08	27	20	Province, Argentina
	eS	08	33	20	USCGS 0 = 08 14 48
	esS	08	36	40	27 1/2°S 63°W
	e	08	42	00	Depth 600 km
	e	08	45	16	Dist. 7663 km
23	e	09	35	34	
	e	09	38	26	
	eLR	09	42	16	
23	eLR	11	05	16	Batan aftershock
23	eLR	20	01	15	
23	eLR	21	17	45	
24	eLR	08	38	33	
24	eP	12	40	25	Outer Mongolia
	eSKS	12	50	59	USCGS 0 = 12 27 06
	ePS	12	52	51	45°N 99°E
	eSS	12	58	03	Dist. 10,468 km
	eLQ	13	07	15	
	eLR	13	10	45	
24	eLR	22	14	46	Tonga Islands



PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
Feb.					
25	eP	02	07	43	Rat Islands, Aleutians
	eS	02	16	38	USCGS 0 = 01 56 40
	eLQ	02	24	28	51 1/2°N 179 1/2°E
	eLR	02	27	46	Dist. 7558 km
25	eLR	16	02	15	New Britain
27	eLR	08	31	16	
27	eLQ	10	59	16	
	eLR	11	00	46	
27	ePP	23	47	54	Batan aftershock
	e	23	52	00	USCGS 0 = 23 27 49
	eSKKS	23	54	42	21°N 120°E
	e	23	55	36	Dist. 13,007 km
	ePS	23	57	36	
	ePPS	23	58	34	
	eSS	00	03	38	
	eLQ	00	14	44	
	eLR	00	18	22	
28	eP	10	00	50	Mid-Atlantic Ocean
	ePP	10	01	38	USCGS 0 = 09 54 53
	eS	10	05	34	27°N 44°W
	eLQ	10	06	14	Dist. 3147 km
	eLR	10	07	44	
28	eLR	12	28	38	
28	e	19	34	09	
	e	19	34	30	
	e	19	34	34	
Mar.					
1	eLR	00	51	57	Atlantic Ocean
					S. W. of St. Helena Island
1	eLR	04	29	13	
1	e	09	22	33	Near coast of Peru
	eLQ	09	26	37	USCGS 0 = 09 05 40
	eLR	09	31	13	13 1/2°S 76 1/2°W
					Dist. 6037 km

Date	Phase	h	m	s	Remarks
Mar.					
1	eLR	13	24	57	
1	eLR	17	36	13	El Salvador
1	e	17	44	37	
	e	17	44	52	
2	eLR	07	56	13	
3	eLR	00	59	49	Guatemala
3	eLR	05	01	13	
3	eLR	08	24	13	
3	eP	16	29	36	Kormandorskie Islands
	ePP	16	32	12	USCGS 0 = 16 18 17
	ePPP	16	33	56	55 1/2°N 166 1/2°E
	eS	16	38	50	Mag 6 1/4-6 1/2
	eSKS	16	39	39	Dist. 7900 km
	eSS	16	43	24	
	e SSS	16	46	42	
	e	16	47	12	
	e	16	48	52	
	eLR	16	50	52	
3	eP	17	44	06	Kormandorskie aftershock
	eLR	18	06	24	
4	eS	02	04	22	Near coast of Ecuador
	e	02	07	30	USCGS 0 = 01 50 09
	eLR	02	10	24	1/2°S 81°W
					Dist. 4650 km
4	eLR	09	44	12	
5	eL	20	26	11	Fox Islands
6	eLR	08	01	41	
8	eLR	19	10	31	
8	eP	20	21	56	Central Chile
	eLR	20	46	11	



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Date	Phase	h	m	s	Remarks
1958					
Mar.					
9	eP	08	18	26	Aleutian Islands
	e	08	22	43	USCGS 0 = 08 07 30 51 1/2°N 178 1/2°W Dist. 7448 km
9	eLR	08	25	29	
9	ePP	10	42	45	Kermadec Islands
	eSP	10	52	25	USCGS 0 = 10 22 25
	ePPS	10	54	11	34°S 178 1/2°W
	e	10	55	11	Mag 6 1/2 - 6 3/4
	eSS	10	59	41	Depth 60 km
	e	11	02	45	Dist. 13,509 km
	e	11	08	11	
	e	11	11	11	
	e	11	13	35	
	eLR ₁	11	18	27	
	eLR ₂	12	15	41	
10	e	08	08	29	Aleutians
	e	08	09	08	
11	e (P)	00	40	47	Ryukyu Islands
	ePKP	00	44	15	USCGS 0 = 00 25 56
	epPP	00	45	23	25 1/2°N 125°E
	eSKS	00	51	41	Mag 7
	ePS	00	54	47	Depth 60 km
	isSS	01	01	11	Dist. 12,403 km
	e(sSSS)	01	05	31	
	e	01	08	47	
	e	01	12	23	
	eLR	01	19	11	
11	e (PS)	14	29	25	New Hebrides Islands
	e	14	36	53	USCGS 0 = 13 59 00
	eLR	14	55	11	13°S 167°E Dist. 13,379 km
11	eP	23	59	34	Guerrero, Mexico
	e(PP)	00	00	46	USCGS 0 = 23 53 00
	e (S)	00	04	58	17°N 98 1/2°W
	e	00	08	10	Dist. 3555 km
	eLR	00	11	50	



Date	Phase	h	m	s	Remarks
1958					
Mar.					
14	e	00	13	40	Masbate Island,
	ePPS	00	21	30	Philippine Islands
	e	00	32	58	USCGS 23 49 23
	e	00	35	34	12 1/2°N 123 1/2°E
	e	00	41	20	Dist. 13,830 km
	eLQ	00	43	10	
	eLR	00	48	40	
15	e	01	00	40	Near east coast of Formosa
	eLQ	01	13	40	USCGS 0 = 00 24 01
	eLR	01	18	40	23°N 121 1/2°E
					Dist. 12,758 km
15	eLQ	06	57	58	Albania-Greece border
	eLR	07	02	10	
15	eLQ	08	49	58	Arizona
	eLR	08	53	10	
15	eLR	20	06	50	New Britain
15	e	20	51	59	Lesser Antilles
	e	20	56	01	USCGS 0 = 20 46 23
					18°N 64°W
					Dist. 2721 km
17	eLR	22	48	39	Near northeast coast of New Guinea
18	iP	22	30	42	Fox Islands foreshock
	i	22	30	54	USCGS 0 = 22 20 02
	e	22	38	29	50 1/2°N 173°W
	eS	22	39	33	Dist. 7200 km
	eLQ	22	48	09	
	eLR	22	52	09	
19	eLR	05	03	09	
20	iP	01	48	44	Aleutian Islands
	P(Z) 6 sec 1.5 mic dil				USCGS 0 = 01 38 04
	ePcP	01	49	18	51°N 173°W
	ePP	01	51	09	Mag 6 1/2
	iS	01	57	23	Dist. 7168 km

(continued)

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Date	Phase	h	m	s	Remarks
1958					
Mar.					
20	(continued)				
	iPS	01	57	39	
	iScS	01	58	29	
	e(SS)	02	01	45	
	eLQ	02	04	33	
	eLR	02	08	29	
20	eLR	06	34	29	
20	e	15	43	01	Solomon Islands
	eLR	15	48	09	USCGS 0 = 14 47 05 10°S 161°E Dist. 13,652 km
21	eLR	14	34	25	
21	eLR	15	06	09	
22	eLR	07	24	09	
22	ePP	10	31	19	Burma-Pakistan border
	e (PS)	10	40	33	USCGS 0 = 10 11 27
	eSS	10	46	59	23 1/2°N 94 1/2°E
	e	10	51	39	Dist. 12,779 km
	eLR	11	06	23	
23	eLQ	05	07	39	
	eLR	05	14	09	
23	e	20	24	04	Andreanof Islands,
	eLR	20	47	35	Aleutians
24	eLR	01	54	31	Loyalty Islands region
24	eLR	23	48	56	
25	eP	18	47	48	Virgin Islands
	eS	18	52	10	USCGS 0 = 18 42 27
	e	18	53	48	18°N 64 1/2°W
	eLR	18	54	48	Dist. 2705 km
	t (max)	19	11	19	



Date	Phase	h	m	s	Remarks
1958					
Mar.					
25	eLR	20	06	38	New Hebrides Islands
27	e	06	17	27	Near coast of Chiapas, Mexico
	eLR	06	20	31	
28	e	12	32	55	Hindu Kush
	eLR	12	44	25	
29	eLR	07	31	37	
30	eLR	18	18	59	Fiji Islands region
30	eLR	23	34	07	Tonga Islands
31	esP	10	37	25	Chiapas, Mexico
	ePP	10	37	51	USCGS 0 = 10 30 56
	eS	10	41	40	17°N 93 1/2°W
	eSS	10	43	12	Depth 100 km
	eLR	10	44	46	Dist. 32 58 km
31	eLQ	16	15	18	
	eLR	16	17	54	
31	eLR	20	25	32	
31	e	21	14	54	
	e	21	17	14	
	eLR	21	19	22	
April					
1	eLR	07	19	06	
2	eLR	17	18	36	Aleutian Islands
3	eLQ	02	52	36	Albania
	eLR	02	57	06	
3	eLQ	08	43	32	Near coast of Ecuador
	eLR	08	44	46	
4	eLR	03	17	06	New Britain Island region

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Date	Phase	h	m	s	Remarks
1958					
April					
4	eLQ	08	08	36	New Britain aftershock
	eLR	08	12	36	
4	eLQ	16	31	22	New Britain aftershock
	eLR	16	37	30	
5	eLR	05	51	20	
6	eLR	06	18	06	
6	eLR	11	53	26	
7	eLR	04	02	46	
7	iP	15	39	40	Alaska USCGS 0 = 15 30 38 66 1/2°N 157°W Mag 7 Dist. 5622 km
	iPP	15	41	42	
	iS	15	46	50	
8	eP	00	23	18	Alaska aftershock USCGS 0 = 00 14 20 66 1/2°N 155 1/2°W Dist. 5557 km
	e (SS)	00	34	19	
	eLQ	00	36	05	
	eLR	00	38	25	
	Lg	00	42	39	
8	eLQ	04	27	21	
	eLR	04	29	05	
8	eLR	04	52	35	Colombia
8	eLR	10	45	15	Afghanistan
8	eLR	14	41	41	
8	eLR	17	31	25	
8	eLR	20	22	45	
9	iP	06	23	21	Gulf of Alaska USCGS 0 = 06 15 12 56 1/2°N 139°W Dist. 4880 km
	eS	06	29	51	
	eSS	06	33	05	
	eLQ	06	34	17	
	eLR	06	36	05	
	Lg	06	38	25	

Date	Phase	h	m	s	Remarks
1958					
April					
10	eLR	01	28	05	
10	eLR	10	34	05	
10	eLR	11	34	35	Outer Mongolia
10	iP	13	29	09	Northern Chile
	eS	13	37	35	USCGS 0 = 13 18 47
	e	13	40	45	24°S 69°W
	eLR	13	47	25	Depth 150 km Dist. 7210 km
10	eLR	16	26	36	
10	eLR	18	13	46	
10	eP	23	22	22	About 1000 miles west
	ePP	23	24	26	of Galapagos Islands
	eS	23	29	50	USCGS 0 = 23 12 47
	eSS	23	33	30	4 1/2°S 107°W
	e (SSS)	23	35	18	Mag 6
	eLR	23	38	18	Dist. 6057 km
11	e	01	22	16	
	eLR	01	45	42	
11	e	04	10	16	Mexico
	eLR	04	13	28	USCGS 0 = 03 58 28 17°N 94°W Dist. 3285
11	eLR	05	02	00	
11	eP	17	37	42	Aleutian Islands
	eL	18	07	06	USCGS 0 = 17 27 00 52°N 174°W Dist. 7163 km
11	e	18	05	57	Aleutian aftershock

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Date	Phase	h	m	s	Remarks
1958					
April					
11	eP	23	23	41	Kurile Islands
	iP	23	23	44	USCGS 0 = 23 11 26
	ePP	23	26	50	47 1/2°N 153 1/2°E
	ePPP	23	28	46	Mag 6 1/2
	e (PPPP)	23	30	10	Depth 100 km
	eS	23	33	44	Dist. 9157 km
	eSP	23	34	38	
	eSS	23	39	16	
	e	23	40	46	
	eLQ	23	45	14	
	eLR	23	51	26	
12	e	10	37	14	Gulf of California
	eLQ	10	39	06	USCGS 0 = 10 24 55
	eLR	10	41	06	Mag 5 1/2
12	eP	11	53	45	Gulf of California
	e (PP)	11	54	46	USCGS 0 = 11 46 58
	eS	11	59	06	26 1/2°N 111°W
	eSS	12	01	06	Mag 6 1/2
	eLR	12	03	18	Dist. 3758 km
12	eLQ	14	14	06	Kyukyu Islands
	eLR	14	19	06	
12	eLQ	15	53	06	
	eLR	15	55	58	
13	eLQ	02	14	06	Alaska
	eLR	02	14	54	
13	eLQ	04	50	06	Outer Mongolia
	eLR	04	55	06	
13	eP	09	16	21	Alaska
	ePP	09	18	16	USCGS 0 = 09 07 24
	eS	09	23	32	66°N 156°W
	eSS	09	27	18	Mag 6 3/4
	eLQ	09	28	22	Dist. 5591 km
	eLR	09	30	46	
	Rg	09	36	40	



Date	Phase	h	m	s	Remarks
1958					
April					
13	eP	12	40	50	Near coast of Kamchatka
	ePP	12	43	16	USCGS 0 = 12 29 07
	ePPP	12	45	26	53°N 161°E
	eS	12	50	22	Mag 6 1/2
	eSS	12	55	16	
	eSSS	12	58	36	Dist. 8346 km
	eLQ	13	00	30	
	eLR	13	04	46	
14	iP	03	02	10	Kurile Islands
14	e	03	32	06	Alaska
	eLR	03	38	06	USCGS 0 = 03 12 25
					66°N 155°W
					Dist. 5546 km
14	eLR	06	46	06	
14	e	13	32	36	
	e	13	37	12	
	e	13	40	22	
	eLR	13	43	06	
14	eLQ	17	08	14	Outer Mongolia
	eLR	17	11	06	
14	eLR	18	44	06	Near east coast of Kamchatka
14	iP	21	40	09	Near coast of Ecuador
	p (Z) 10 sec 5.5 mic comp from SW				USCGS 0 = 21 32 28
					1°N 79 1/2°W
	ePP	21	41	46	Mag 6 3/4-7
	iS	21	46	06	Dist. 4465 km
	iSS	21	49	18	
	eLQ	21	50	10	
	eLR	21	52	50	
14	eP	22	56	12	Ecuador aftershock

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Date	Phase	h	m	s	Remarks
1958					
April					
15	iP	01	38	23	Ecuador aftershock
	P (Z) 8 sec 2 mic comp from SW				USCGS 0 = 01 30 43
	ePP	01	39	54	1°N 79 1/2°W
	iS	01	44	26	Dist. 4465 km
	eSS	01	47	22	
	eLQ	01	48	54	
	eLR	01	51	06	
15	iP	03	59	22	Off west coast of Costa Rica
	P (Z) 5 sec 1 mic comp				USCGS 0 = 03 52 39
	eS	04	04	38	9°N 84°W
	e (PcS)	04	05	26	Mag 6 3/4
	eLQ	04	07	36	Dist. 3682 km
	eLR	04	09	06	
15	eP	04	15	25	
15	eP	07	37	24	
15	eLQ	10	53	06	Near coast of Luzon
	eLR	11	00	06	
15	eLR	07	18	40	
16	eLR	22	03	06	
17	eLQ	02	54	06	Solomon Islands region
	eLR	02	58	06	
17	eLQ	06	15	24	
	eLR	06	17	06	
17	eLR	07	19	26	Solomon Islands region
17	ePP	10	25	42	New Britain
	e (PKS)	10	27	06	USCGS 0 = 10 04 46
	eSKS	10	30	58	5 1/2°S 152°E
	eSKKS	10	32	50	Dist. 14,000 km
	ePS	10	35	52	
	eSS	10	42	54	
	eLQ	10	58	06	
	eLR	11	05	06	

Date	Phase	h	m	s	Remarks
1958					
April					
17	eLQ	14	21	22	Off coast of Costa Rica
	eLR	14	22	52	
18	eLR	03	48	27	Kurile Islands
18	eLR	09	30	01	
18	eLR	10	04	19	New Guinea
18	eLR	22	52	07	
19	eLR	02	44	55	
19	eP	04	10	08	Gulf of California USCGS 0 = 03 03 26 26 1/2°N 110 1/2°W Mag 6 Dist. 3717 km
	eS	04	15	35	
	eSS	04	17	29	
	eLQ	04	19	47	
	eLR	04	21	07	
	Rg	04	23	47	
19	eLR	05	51	37	
20	eLR	06	42	07	
20	eLR	10	44	37	
20	eLR	22	03	07	
21	eLR	05	09	37	
21	e (SKS)	20	40	07	Samoa Islands region USCGS 0 = 20 14 47 15°S 174 1/2°W Mag 6 1/2 Dist. 11,966 km
	ePS	20	42	57	
	e (SS)	20	49	07	
	e (SSS)	20	52	37	
	e	20	56	37	
	eLQ	20	59	23	
	eLR	21	05	07	
21	iPKP	22	56	51	Sumatra USCGS 0 = 22 37 18 4 1/2°S 104°E Mag 6 1/2 Dist. 15,968 km
	i	22	57	11	
	iPP	23	00	14	
	e	23	01	07	
	e	23	01	37	

(continued)

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Date	Phase	h	m	s	Remarks
1958					
April					
21 (continued)					
	ePPP	23	03	23	
	e	23	04	29	
	e	23	12	13	
	e	23	13	41	
	e (SS)	23	18	31	
	e	23	19	19	
	eLQ	23	38	37	
	eLR	23	43	27	
22	eLR	06	29	27	Fiji Islands region
22	eLR	10	13	27	Celebes
22	eL	21	26	20	Solomon Islands
23	eP	03	10	17	Kurile Islands
	ePP	03	13	47	USCGS 0 = 02 57 40
	eS	03	20	41	45°N 152°E
	e (PS)	03	21	29	Dist. 9452 km
	eSS	03	26	25	
	e	03	30	47	
	eLQ	03	32	35	
	eLR	03	37	07	
23	e	15	46	13	Fiji Islands region
	eLR	16	02	23	USCGS 0 = 15 11 39
					15 1/2°S 176°W
					Dist. 12, 127 km
23	eLR	20	11	51	New Britain
24	ePP	13	30	17	Loyalty Islands
	ePS	13	41	37	USCGS 0 = 13 09 41
	eSS	13	47	07	22°S 170 1/2°E
	e	13	51	19	Dist. 13, 694 km
	eLR	14	08	19	
24	iP	18	16	26	Pacific Ocean
	eS	18	22	11	USCGS 0 = 18 09 14
	eSS	18	24	41	5°N 83°W
	eLQ	18	25	31	Dist. 4089 km
	eLR	18	26	47	

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Date	Phase	h	m	s	Remarks
1958					
April					
25	eLR	01	53	37	
25	eP	08	45	40	Aleutian Islands
	eLR	09	10	07	USCGS 0 = 08 35 06 51 1/2°N 171 1/2°W Dist. 7050 km
25	eLR	19	42	07	
26	e	00	16	23	
	eLQ	00	19	47	
	eLR	00	22	07	
26	eLR	01	58	07	Kurile Islands region
26	eLQ	10	17	07	New Hebrides Islands
	eLR	10	22	37	
27	eLR	02	13	51	
27	eLR	09	06	19	Tonga Islands region
27	eLR	18	01	07	Near east coast of Hokkaido, Japan
27	eP	19	14	09	Aleutian Islands
	e	19	14	31	USCGS 0 = 19 03 50
	ePPP	19	18	01	52 1/2°N 169°W
	eS	19	22	27	Dist. 6846 km
	e	19	23	19	
	eSS	19	26	43	
	e (SSS)	19	29	27	
	eLQ	19	30	23	
	eLR	19	33	07	
28	eLR	02	25	37	
28	eLR	07	21	37	
28	eLR	08	17	37	Northern Gulf of California

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Date	Phase	h	m	s	Remarks
1958					
April					
28	iP	11	56	55	Peru
	P (Z) 8 sec 1.7 mic dil				USCGS 0 = 11 47 40
	e	11	57	35	11°S 74°W
	ePP	11	58	57	Mag 6 1/2
	iS	12	04	11	Dist. 5754 km
	e	12	04	55	
	eSSS	12	08	53	
	eLQ	12	11	47	
	eLR	12	14	37	
28	eLR	19	45	07	
28	eLR	13	58	07	
29	eLR	22	16	08	
30	e	14	23	00	Off coast of Portugal
	eLQ	14	25	38	USCGS 0 = 14 08 00
	eLR	14	27	08	37 1/2°N 14°W
					Dist. 5086 km

IGY MICROSEISM DATA



PALISADES, NEW YORK

Date	Type	oh		o6h		12h		18h		Remarks
	<u>K</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	Vert. Comp. To = 12 sec Tg = 15 sec
1958										
Jan.										
1	b	0.3	4.4	0.4	4.2	0.3	4.7	0.4	3.4	
2	b	0.6	4.0	1.1	3.7	0.9	3.8	0.6	4.4	
3	b	0.9	4.3	0.8	4.8	1.0	5.2	0.7	4.8	Int. Day Data
4	b	1.3	5.4	1.1	5.5	0.8	5.0	1.0	5.6	" " "
5	b	1.3	5.5	0.7	6.0	0.6	4.8	1.3	6.0	
6	b	1.3	5.8	2.0	6.6	1.1	6.8	1.3	6.7	
7	b	0.9	5.3	0.9	6.0	1.3	7.0	1.5	7.8	
8	b	1.3	4.5	-	-	-	-	3.0	4.6	Earth. Interf.
9	b	2.0	5.4	1.8	5.8	1.0	4.9	1.0	5.5	
10	b	1.2	5.0	0.8	4.7	0.8	5.4	0.7	4.3	
11	c	0.7	4.8	0.7	5.2	0.5	5.0	0.5	4.3	
12	c	0.5	3.5	0.7	3.9	0.6	4.0	0.7	4.5	
13	b	0.5	5.5	0.8	5.7	1.1	6.5	0.8	5.2	
14	c	0.6	6.3	0.2	4.6	0.4	5.5	0.3	3.8	
15	b	0.7	3.7	1.3	4.2	1.3	3.7	1.3	3.8	
16	b	-	-	1.8	5.1	1.0	5.1	1.2	5.4	
17	b	1.5	5.4	1.2	5.2	0.9	4.7	1.0	4.0	
18	b	1.0	4.5	0.5	4.9	0.8	4.0	1.1	4.8	
19	b	1.1	3.9	0.9	4.9	1.0	4.8	-	-	Int. Day Data
20	b	0.6	4.6	0.8	4.1	0.9	4.7	0.8	5.5	" " "
21	b	0.9	4.8	0.8	4.6	0.6	4.9	0.5	5.5	
22	b	0.6	4.6	0.6	5.7	0.8	5.4	0.9	5.2	
23	b	1.2	3.7	1.1	5.3	1.2	4.5	1.0	4.4	
24	b	1.2	4.5	1.3	4.9	1.1	5.0	-	-	
25	b	-	-	-	-	-	-	-	-	No data
26	b	-	-	-	-	-	-	0.8	5.4	" "
27	b	1.7	5.2	1.3	5.1	1.3	4.8	1.3	4.7	
28	c	0.8	5.7	0.8	4.7	1.1	5.4	0.6	3.8	
29	b	1.4	7.2	1.3	5.2	1.2	5.2	1.8	5.2	
30	b	2.1	5.1	1.3	4.8	2.0	6.0	2.1	6.7	
31	b	1.0	5.6	1.3	6.4	0.9	6.0	1.0	5.7	
Feb.										
1	b	1.2	4.9	0.7	4.9	0.9	6.8	-	-	
2	b	2.1	4.5	1.8	5.2	2.1	4.9	1.4	5.5	
3	b	1.8	5.0	2.3	6.5	2.3	6.5	1.3	5.4	
4	b	1.4	5.7	0.9	4.9	1.2	5.0	1.2	4.7	

IGY MICROSEISM DATA



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PALISADES, NEW YORK

Date	Type	0h		06h		12h		18h		Remarks
	<u>K</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	Vert. Comp.
										To = 12 sec Tg = 15 sec
1958										
Feb.										
5	b	1.0	4.7	1.5	5.8	1.3	5.5	0.8	7.0	
6	b	1.5	7.0	1.3	6.5	1.6	7.0	1.5	7.0	
7	b	1.8	7.0	2.0	7.0	1.1	6.8	1.3	6.1	
8	b	1.3	7.0	1.3	6.8	1.8	4.0	1.0	3.7	
9	b	1.1	4.5	1.1	5.1	1.4	5.1	1.4	4.8	
10	b	1.1	5.3	1.1	4.6	1.2	6.0	1.0	6.0	Int. Day Data
11	b	0.8	4.7	1.2	4.6	1.8	5.1	0.7	5.2	
12	b	0.7	6.2	0.6	5.7	0.6	5.8	0.8	4.8	
13	b	-	-	0.2	2.9	0.6	3.3	0.7	3.1	
14	b	-	-	0.7	4.4	1.8	5.2	1.7	5.8	
15	b	1.9	5.9	1.2	5.3	1.3	6.0	0.8	4.9	
16	b	0.8	5.0	0.6	4.9	1.6	4.9	3.8	3.8	
17	b	3.2	5.0	2.4	4.7	1.8	5.5	1.1	5.8	
18	b	1.3	6.0	1.3	5.4	0.9	5.7	1.3	4.9	Int. Day Data
19	b	1.0	4.7	0.7	5.1	0.8	4.2	0.7	4.9	" " "
20	b	0.8	5.1	0.5	4.9	0.6	4.3	0.4	3.8	
21	b	0.8	4.5	0.8	5.1	1.7	6.0	1.6	6.2	
22	b	1.3	6.5	1.4	6.0	-	-	0.7	7.2	
23	b	0.6	4.9	0.3	3.1	0.3	4.0	0.5	3.8	
24	b	0.5	3.9	0.4	4.6	0.8	4.8	0.8	5.3	
25	b	0.4	5.3	0.4	5.1	0.4	5.3	0.5	4.0	
26	b	0.5	3.7	0.6	4.5	0.5	4.2	0.7	5.1	Int. Day Data
27	b	1.0	4.7	0.7	4.9	1.0	5.0	1.1	5.2	
28	b	-	-	-	-	0.8	4.3	1.1	4.1	
Mar.										
1	a	1.1	4.6	1.0	4.4	1.2	4.4	1.1	5.2	
2	a	1.4	5.3	0.7	4.8	0.9	4.7	1.1	4.9	
3	b	1.1	4.8	0.9	5.4	0.5	5.2	0.7	5.8	
4	b	0.5	5.3	0.4	4.1	0.5	3.6	0.8	3.8	
5	b	0.7	5.3	1.2	7.0	1.1	6.8	1.1	6.5	
6	b	0.7	5.1	0.7	4.8	0.6	5.0	0.8	5.6	
7	b	0.6	4.8	0.4	5.5	0.5	6.1	0.5	4.4	
8	b	0.9	6.8	1.4	7.1	1.3	5.2	1.0	4.7	
9	b	0.8	6.1	0.8	5.5	-	-	0.6	5.0	
10	b	0.6	5.2	0.5	6.5	0.4	5.8	0.3	5.5	
11	b	0.3	4.3	0.6	5.5	0.4	5.1	0.4	5.5	
12	b	-	-	0.4	5.8	0.3	5.3	0.3	4.1	

IGY MICROSEISM DATA



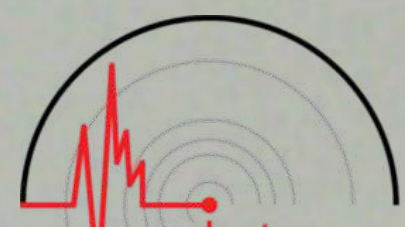
International
Seismological
Centre

PALISADES, NEW YORK

3

Date	Type	0h		06h		12h		18h		Remarks
	<u>K</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	Vert. Comp. To = 12 sec Tg = 15 sec
1958										
Mar.										
13	b	0.3	4.8	0.3	5.1	0.4	4.3	0.2	4.7	
14	b	0.3	4.2	0.3	4.5	0.6	3.2	0.9	4.1	
15	b	1.3	3.7	1.9	4.1	2.2	4.8	2.5	5.4	
16	b	2.0	5.2	1.7	4.8	1.7	5.1	2.0	5.2	
17	b	1.9	5.2	1.8	5.1	1.1	5.1	0.6	4.5	
18	b	0.7	4.3	0.7	5.0	0.8	4.6	0.5	4.7	
19	b	0.6	4.6	0.5	5.2	0.3	4.1	0.5	5.0	
20	b	0.4	3.3	0.7	3.9	1.1	3.2	1.8	4.8	Int. Day Data
21	a	-	-	-	-	-	-	3.1	5.8	" " "
22	b	2.6	4.0	1.2	4.7	1.2	4.4	1.0	4.6	
23	b	0.9	4.4	1.2	4.0	1.1	4.2	0.9	5.0	
24	b	1.0	4.4	0.6	4.4	0.7	4.8	0.5	5.0	
25	a	0.7	5.0	0.9	6.2	0.8	6.2	0.9	7.0	
26	a	1.0	7.0	0.7	5.7	0.5	6.4	1.3	4.1	
27	a	1.3	4.6	1.2	4.4	1.5	4.3	1.4	4.6	
28	a	1.2	4.4	0.8	4.4	1.2	4.6	1.2	6.5	Int. Day Data
29	b	1.2	6.3	0.8	5.2	0.6	3.8	0.4	6.3	
30	b	0.4	5.2	0.5	5.3	0.4	5.2	0.3	6.1	
31	b	0.6	5.8	0.3	4.7	0.5	4.8	0.4	5.3	
April										
1	a	0.5	5.2	0.6	5.1	1.6	4.3	1.9	4.7	
2	a	1.7	5.3	1.7	5.3	1.7	5.5	1.9	5.4	
3	c	2.3	4.0	1.3	5.0	2.2	5.2	1.8	6.4	
4	b	1.3	6.8	1.8	5.2	0.9	5.6	0.8	5.9	
5	b	0.9	5.7	0.7	5.8	0.6	6.5	0.5	4.4	
6	a	0.5	6.2	0.4	4.9	0.4	4.7	0.9	5.6	
7	b	0.8	4.3	0.7	4.4	0.9	4.2	-	-	
8	b	0.8	4.3	0.6	4.3	0.8	4.3	0.7	4.0	
9	b	0.3	4.7	0.3	5.1	0.6	3.4	0.5	4.0	
10	b	0.3	4.3	0.3	4.4	0.3	4.6	0.3	5.3	
11	a	-	-	0.3	4.7	0.4	4.2	0.8	4.3	
12	a	1.3	4.2	0.9	3.7	-	-	0.6	4.1	
13	b	0.8	4.2	0.8	4.6	0.6	4.2	0.4	4.0	
14	b	0.3	4.4	0.3	4.7	0.2	3.8	0.2	4.3	
15	b	-	-	-	-	0.3	4.4	0.2	3.8	
16	b	0.3	5.0	0.3	4.9	0.3	3.9	0.5	4.9	

IGY MICROSEISM DATA



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PALISADES, NEW YORK

Date	Type	0h		06h		12h		18h		Remarks
	<u>K</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	<u>u</u>	<u>sec</u>	Vert. Comp. To = 12 sec Tg = 15 sec
1958										
April										
17	b	0.5	5.0	0.4	5.1	-	-	0.4	4.9	
18	b	0.5	4.5	0.6	5.7	0.6	5.4	0.4	4.8	Int. Day Data
19	b	0.4	5.0	0.3	4.7	0.3	5.3	0.3	4.3	" " "
20	a	0.4	4.8	0.5	4.6	1.7	5.2	2.7	5.7	" " "
21	a	2.3	6.4	1.4	5.8	1.3	5.8	1.2	6.1	
22	a	0.9	5.5	0.6	6.1	0.6	4.7	0.8	5.2	
23	b	0.5	4.7	0.5	5.0	0.6	5.1	0.4	4.6	
24	b	0.5	4.1	0.5	4.4	0.6	4.7	0.3	5.2	
25	b	0.3	4.4	0.3	4.9	0.2	4.2	0.3	4.4	
26	b	0.1	3.3	0.2	4.3	0.3	4.4	0.3	4.9	
27	b	0.3	4.7	0.2	3.5	0.2	4.6	0.3	4.0	
28	b	0.2	3.3	0.2	3.1	-	-	0.2	2.9	
29	b	0.1	3.1	0.2	2.8	0.2	3.2	0.2	3.5	
30	b	0.2	3.1	0.3	3.1	0.3	2.9	0.4	3.4	

Palisades, New York

INTERNATIONAL DAYS - MICROSEISM READINGS

1

Type		00		01		02		03		04		05		06		07		08		09		10		11	
Date	k	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec
1958																									
Jan.																									
3	b	0.9	4.3	0.8	4.4	0.7	4.8	0.8	4.6	1.0	4.6	1.0	4.2	0.8	4.8	-	-	0.8	4.4	0.8	4.8	0.6	3.9	0.7	4.8
4	b	1.3	5.4	0.9	4.9	0.9	5.8	1.0	5.3	0.8	5.7	1.1	5.8	1.1	5.5	-	-	1.0	5.3	-	-	1.4	6.0	1.1	5.1
19	b	1.1	3.9	1.0	4.4	1.0	4.0	0.8	5.0	1.1	4.8	1.3	4.3	0.9	4.9	1.1	4.7	0.9	4.0	0.9	4.7	1.1	4.6	1.0	4.5
20	b	0.6	4.6	0.9	4.5	1.0	4.9	1.0	4.2	0.8	4.4	0.8	4.8	0.8	4.1	0.9	4.4	0.8	4.9	0.8	4.0	0.9	4.1	0.8	5.0
Feb.																									
10	b	1.1	5.3	1.7	5.5	1.8	4.9	1.6	5.5	1.7	5.3	1.4	5.1	1.1	4.6	1.0	5.1	1.3	5.1	0.9	4.9	0.9	4.1	1.1	5.7
18	b	1.3	6.0	1.2	5.4	1.1	5.0	1.1	5.0	1.9	5.1	1.1	5.2	1.3	5.4	1.2	5.8	0.8	4.8	1.3	5.9	1.1	5.7	1.2	5.0
19	b	0.9	5.8	0.8	4.8	1.1	5.4	1.0	5.4	1.1	5.7	1.1	5.6	1.0	5.2	1.2	5.5	0.8	5.1	0.8	5.0	0.6	5.0	0.7	4.7
26	b	0.5	3.7	0.4	4.2	0.5	4.0	0.7	4.4	0.5	4.3	0.6	4.0	0.6	4.5	0.7	4.3	1.1	4.4	0.7	4.7	0.7	5.0	0.7	4.5
Mar.																									
20	b	0.4	3.3	0.5	2.8	-	-	-	-	-	-	0.6	4.3	0.7	3.9	0.7	4.7	0.8	4.1	1.1	4.2	1.1	3.8	0.8	4.3
21	a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	a	1.2	4.4	1.1	3.9	0.7	4.1	0.8	4.9	1.0	4.1	0.8	4.1	0.8	4.4	1.1	4.2	0.6	4.3	0.9	4.5	1.2	4.3	0.8	4.7
Apr.																									
18	b	0.5	4.5	0.6	5.8	0.6	5.5	0.5	4.8	0.6	5.3	0.7	5.7	0.6	5.7	0.6	4.9	0.6	4.9	0.5	5.1	0.6	5.6	0.4	5.4
19	b	0.4	5.0	0.5	5.0	0.5	4.8	0.5	0.9	0.4	5.4	-	-	0.3	4.7	0.3	4.4	0.3	4.4	0.5	5.4	0.4	5.4	0.5	5.7
20	a	0.4	4.8	0.5	4.6	0.6	4.5	0.7	4.7	0.4	4.8	0.3	4.2	0.5	4.6	1.7	5.6	1.6	5.2	1.5	5.3	1.7	5.9	1.7	5.6

		INTERNATIONAL DAYS - MICROSEISM READINGS																		Palisades, New York							
		12		13		14		15		16		17		18		19		20		21		22		23			
Date	k	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	sec	u	
1958																											
Jan.																											
3	b	1.0	5.2	0.6	4.9	0.8	4.8	0.7	4.9	0.9	4.5	0.8	4.9	0.7	4.8	0.9	5.6	0.8	5.1	0.8	5.2	0.9	5.8	1.0	5.2	1.0	
4	b	0.8	5.0	0.8	5.2	1.3	5.9	1.3	6.0	0.8	5.6	1.2	5.2	1.0	5.6	1.0	5.2	1.3	5.0	1.3	5.1	0.9	6.2	1.3	5.0	1.3	
19	b	1.0	4.8	0.8	4.3	1.1	4.4	-	-	-	-	-	-	-	-	0.8	4.5	0.9	4.6	1.0	4.5	0.7	3.9	0.8	4.5	0.8	
20	b	0.9	4.7	0.8	4.3	0.8	4.7	0.7	4.5	0.6	5.2	0.8	4.8	0.8	5.5	0.6	5.3	0.8	4.8	0.8	5.3	0.6	4.5	0.7	5.4	0.7	
Feb.																											
10	b	1.2	6.0	0.8	5.7	1.0	5.5	0.8	5.4	0.8	5.6	0.8	5.6	1.0	6.0	1.1	5.6	1.0	5.0	1.1	5.8	0.8	5.6	0.8	5.6	0.8	
18	b	0.9	5.7	1.0	4.9	1.3	5.7	1.1	4.7	1.0	4.3	1.0	4.6	1.0	6.3	1.0	5.3	1.0	4.5	1.0	5.2	1.1	5.8	1.2	5.5	1.2	
19	b	0.8	4.8	0.8	4.4	0.8	4.3	0.6	4.4	0.6	4.2	0.9	4.3	0.7	4.9	0.7	5.4	0.8	5.0	-	-	0.6	5.2	0.8	4.9	0.8	
26	b	0.5	4.2	1.1	4.9	1.1	4.9	0.8	4.8	0.8	5.4	0.9	4.9	0.7	5.1	0.8	5.2	1.2	5.5	0.8	4.7	1.2	4.4	0.8	4.7	0.8	
Mar.																											
20	b	1.1	3.2	1.4	4.0	1.1	4.0	1.4	5.1	2.0	3.4	1.7	4.7	1.8	4.8	1.8	5.0	-	-	-	-	-	-	-	-	-	
21	a	-	-	-	-	-	-	-	-	2.7	4.4	2.3	5.9	3.1	5.8	2.6	5.2	2.0	5.0	2.2	4.6	1.6	4.7	2.3	4.6	2.3	
28	a	1.2	4.6	0.7	5.2	1.2	4.9	1.1	5.5	1.4	4.9	1.5	5.8	1.2	6.5	1.3	4.9	1.1	5.8	1.1	5.8	1.0	6.4	1.0	6.3	1.0	
Apr.																											
18	b	0.6	5.4	0.4	5.4	0.4	5.4	0.6	5.4	0.5	5.1	0.4	5.2	0.5	4.8	0.6	4.7	0.4	5.2	0.3	5.4	0.3	4.8	0.5	4.8	0.5	
19	a	0.3	5.3	0.4	4.5	0.3	4.8	0.5	4.6	0.4	5.1	0.3	4.7	0.3	4.3	0.3	4.7	0.4	4.5	0.4	4.6	0.6	4.8	0.4	4.6	0.4	
20	a	1.7	5.2	1.8	5.7	1.8	5.4	2.0	5.8	2.2	5.3	1.3	5.8	2.7	5.7	1.7	6.6	1.7	6.7	2.2	5.9	2.2	6.2	2.3	6.0	2.3	

5.5.6

LAMONT GEOLOGICAL OBSERVATORY
COLUMBIA UNIVERSITY
PALISADES, NEW YORK



SEISMOLOGICAL BULLETIN

By

BRYAN L. ISACKS

1 May 1958 - 31 August 1958

L.G.O. Contribution No. 399

STATION CONSTANTS, INSTRUMENTS AND ABBREVIATIONS

Latitude: 41° 00' 25" North

Longitude: 73° 54' 31" West

Elevation: 102.59 meters

Bedrock: Palisades diabase Triassic Age

INSTRUMENTS

Three component Columbia University seismographs.
To = 12 sec., Tg = 15 sec.

Three component Benioff seismographs. Short period, To = 1 sec.,
Tg = 0.2 sec. Long period To = 1 sec., Tg = 75 sec.

One Columbia University vertical seismograph. To = .33 sec.,
Tg = 0.2 sec.

Three component Columbia University visual recording seismographs,
To = 12 sec.

One Columbia University vertical seismograph for visual recording
To = 1 sec.

Three component Columbia University long period seismographs.
To = 15 sec., Tg = 75 sec.

Three component Columbia University long-period seismographs.
To = 30 sec., Tg = 100 sec.

Two Columbia University Microbarographs. To = 10 sec., Tg = 75 sec.

ABBREVIATIONS

i = sudden beginning of the motion (impetus)

e = gradual beginning of the motion (emersio)

Lg = short period continental surface shear wave

Rg = continental Rayleigh wave

Comp. = compression

All times are G.C.T.

Dil. = dilatation

Time - I.B.M. Invar pendulum clock corrected by Naval Observatory
time signals every 6 hours.

PALISADES, NEW YORK

1

Date	Phase	h	m	s	Remarks
1958					
May					
1	eLR	00	25	38	
1	eP	00	44	08	New Hebrides Islands
	ePKP	00	47	44	USCGS 0 = 00 29 15
	epPKP	00	48	40	13 1/2°S 167 1/2°E
	ePP	00	49	12	Depth about 200 km
	epPKS	00	52	18	Mag 6 1/4
	e (SKKS)	00	55	56	Dist. 120°
	ePS	00	58	58	
	eSPP	00	59	50	
	ePPS	01	00	26	
	eSSP	01	05	40	
	e (sPSS)	01	07	08	
1	e (PPPP)	01	09	16	
	e	01	10	18	
	e (SSSS)	01	13	38	
	eLQ	01	17	38	
	eLR	01	22	40	
	LR from WNW				
1	eLR	04	38	08	
1	eLR	13	39	08	Volcano Islands
1	eLR	19	01	09	
1	eLR	21	48	09	
2	e	16	48	12	
	i	16	49	29	
2	e	19	42	39	
	e	19	44	50	
2	eP	20	35	54	Near coast of Guerrero,
	eS	20	41	19	Mexico
	eSS	20	43	06	USCGS 0 = 20 29 18
	eScS	20	46	25	16 1/2°N 99°W
	eLR	20	48	24	Mag 6 1/4 - 6 1/2
					Dist. 32.6°
3	e	07	28	49	Molucca Passage
	eLR	07	41	25	

2		PALISADES, NEW YORK			
Date	Phase	h	m	s	Remarks
1958					
May					
3	e	08	22	13	
	e	08	22	57	
	e	08	31	39	
	eLR	08	34	53	
	LR from SE				
3	e	14	07	45	
	e	14	08	15	
3	eLR	20	56	29	Greece
4	eLR	00	51	39	
4	eLR	11	20	39	
4	eLR	20	25	39	
5	eLR	06	06	49	Iran-Iraq border
5	eLR	07	21	01	Belgian Congo
5	eLR	14	09	09	Andreanof Islands
5	eLR	18	07	09	
5	eLR	23	17	53	
6	eP	00	01	29	Andreanof Islands,
	ePP	00	03	16	Aleutians Islands
	eS	00	07	55	USCGS 0 = 23 53 29
	eSS	00	10	39	57 1/2°N 136 1/2°W
	eLQ	00	11	40	Dist. 42.4°
	eLR	00	13	25	
	Lg	00	15	21	
	LR from NW				
6	e	01	38	09	Andreanof Islands
	eLR	01	44	09	
6	eLR	04	52	49	
6	eLR	12	20	09	

3		PALISADES, NEW YORK			
Date	Phase	h	m	s	Remarks
1958					
May					
6	eLR	14	39	10	
6	eLR	17	05	10	
7	eLR	07	43	40	
7	eLR	15	33	40	Afghanistan-Pakistan border
7	eLR	22	35	10	Kamchatka region
8	eLR	03	01	22	North Atlantic Ocean 45 1/2°N 28°W
8	eLR	06	46	40	
8	iP	12	51	13	Salta Province, Argentina
	iPcP	12	51	28	USCGS 0 = 12 40 46
	epP	12	51	57	24°S 67°W
	esP	12	52	10	Depth 200 km
	esPP	12	54	34	Mag 6 1/4 - 6 1/2
	iS	12	59	40	Dist. 65°
	eScS	13	00	30	
	esS	13	00	50	
	esPPS	13	01	16	
	esScS	13	02	10	
	eSS	13	03	49	
	eSSS	13	06	56	
	eSSSS	13	08	15	
	eLR	13	09	18	
8	eLR	18	17	10	
9	eP	00	52	20	Galapagos Islands region
	eS	00	58	50	USCGS 0 = 00 44 12
	eScS	01	02	14	1 1/2°N 94 1/2°W
	eLR	01	04	58	Mag 6
	LR from SSW				
9	eP	02	52	27	Dodecanese Islands
	eSS	03	07	10	USCGS 0 = 02 40 46
	e (SSS)	03	10	46	36 1/2°N 27 1/2°E
	eLR	03	16	54	Dist. 74.5°

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
9	eLR	04	44	54	
9	iP	04	51	36	Cordoba-LaRioja Province,
	e	04	52	34	Argentina
	eS	05	00	42	USCGS 0 = 04 40 20
	eS	05	00	42	31°S 65 1/2°W
	eScS	05	01	40	h = 100 km
	eSS	05	05	16	Mag 6 3/4
	eLQ	05	08	44	Dist. 72.1°
	eLR	05	11	10	
	LR from S				
9	eLR	19	32	09	
10	eLR	00	42	09	
10	eLR	10	22	39	
10	eP	23	03	27	Central Alaska
	ePP	23	05	24	USCGS 0 = 22 54 40
	e	23	05	49	65°N 152 1/2°W
	ePPP	23	06	19	Mag 6 1/4 - 6 1/2
	ePcS	23	08	56	Dist. 49°
	eS	23	10	21	
	eSS	23	14	09	
	eLQ	23	15	09	
	eLR	23	17	21	
	Lg	23	19	57	
	Rg	23	24	09	
	LR from NW				
11	eP	05	32	44	Central Alaska
	ePP	05	34	35	USCGS 0 = 05 23 54
	e(PPP)	05	35	17	65°N 152 1/2°W
	ePcS	05	37	49	Mag 6 1/4 - 6 1/2
	eS	05	39	39	Dist. 49°
	eSS	05	43	29	
	eLQ	05	44	09	
	eLR	05	46	29	
	Lg	05	49	13	
	Rg	05	53	21	
	LR from NW				

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
11	e (P)	08	57	00	
11	e	09	26	21	Central Alaska aftershock
	eLQ	09	33	57	
	eLR	09	36	09	
11	eLQ	09	41	39	
	eLR	09	48	23	
11	e (S)	10	13	39	
	eLR	10	18	09	
11	e	12	31	09	Central Alaska aftershock
	eLR	12	33	53	
11	eLR	12	59	39	
11	eLR	13	48	25	
11	e	18	31	37	Marshall Islands region
	eLR	18	38	09	
12	eP	05	48	44	Fox Islands, Aleutians
	eS	05	56	57	USCGS 0 = 05 38 16
	ePPS	05	57	16	52°N 169 1/2°W
	eScS	05	58	31	Dist. 62.1°
	eSS	06	01	23	
	eLQ	06	07	53	
	eLR	06	11	39	
	LR from NW				
12	eLR	17	39	09	South of Honshu, Japan
12	eLR	19	22	30	Marshall Islands
12	i (P)	21	20	50	Peru
	eScP	21	25	52	6 1/2°S 75 1/2°W
	eS	21	27	42	USCGS 0 = 21 12 16
	eSS	21	31	33	Depth 150 km
	eLQ	21	32	10	Dist. 47.3°
	eLR	21	34	25	
12	eLR	22	43	49	Fox Islands, Aleutians

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
12	eLR	23	40	09	
13	eLR	01	23	17	
13	eLR	04	16	53	
13	eLR	06	16	09	
13	eLR	06	58	09	
13	eLR	10	36	09	
13	eLQ	11	43	09	
	eLR	11	46	09	
13	eLR	23	01	09	
14	ePP	04	19	07	New Ireland
	ePPS	04	30	29	USCGS 0 = 03 58 09
	eSS	04	36	17	4 1/2°S 153°E
	eLQ	04	50	09	Dist. 124.5°
	eLR	04	56	09	
14	eLR	13	41	40	Andaman Islands region
14	iP	17	42	52	Quebec Province, Canada
	iS	17	44	03	USCGS 0 = 17 41 18
	eLQ	17	44	29	47°N 77°W
	eLg	17	44	31	Dist. 6.4°
	eLR	17	44	57	
	LR from NNW				
15	iP	04	35	28	Andreanof Islands
	i (PcP)	04	35	42	Aleutians
	eS	04	44	09	USCGS 0 = 04 24 50
	eSS	04	49	09	51 1/2°N 173 1/2°W
	eLQ	04	53	09	Dist. 64.4°
	eLR	04	55	21	
	LR from NW				
15	eLR	06	56	09	

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
15	eLR	07	58	09	Santa Cruz Islands
15	eLR	10	39	09	New Hebrides Islands
15	eLR	16	46	39	New Hebrides Islands
16	iP	02	14	44	Andreanof Islands,
	e (S)	02	23	22	Aleutian Islands
	eL	02	35	49	USCGS 0 = 02 04 06
					52°N 173 1/2°W
					Dist. 64.2°
16	eL	04	49	09	
16	iP	20	26	23	Mona Passage
	ePP	20	26	52	USCGS 0 = 20 21 09
	eS	20	30	31	18°N 68 1/2°W
	e	20	30	42	Dist. 23.4°
	e	20	30	54	
	e	20	31	01	
	eLR	20	31	25	
16	e	23	27	53	
	eLR	23	34	49	
17	eLR	05	56	09	Libya
17	ePP	07	23	29	Bismarck Sea
	ePS	07	33	29	USCGS 0 = 07 02 25
	ePPS	07	35	10	3°S 147 1/2°E
	e	07	36	29	Dist. 126.9°
	eSS	07	40	39	
	e	07	41	13	
	e	07	43	50	
	e	07	49	17	
	e	07	52	00	
	eLR ₁	07	58	09	
	eLR ₂	08	51	57	
17	eLR	11	59	57	

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
17	eP	15	49	18	Andreanof Islands,
	eS	15	58	17	Aleutian Islands
	e	16	03	29	USCGS 0 = 15 38 20
	eLR	16	10	21	51°N 179°W
	LR from NW				Dist. 67.5°
17	eLR	17	48	43	
17	eLR	18	35	29	Tonga Islands
18	eP	02	48	15	New Hebrides Islands
	ePP	02	53	13	USCGS 0 = 02 32 52
	e (PKS)	02	54	47	13°S 167°E
	ePPP	02	55	55	Mag 6 1/4 - 6 1/2
	e	02	56	31	Dist. 120.3°
	eSKS	02	58	43	
	ePKKP	03	02	05	
	ePS	03	03	01	
	e	03	03	21	
	ePPS	03	04	27	
	ePKKS	03	05	55	
	eSS	03	09	39	
	i	03	10	11	
	e	03	13	57	
	e	03	23	09	
	eLQ	03	23	49	
	eLR ₁	03	29	09	
	eLR ₂	04	24	09	
18	eLR	10	08	09	
18	eP	12	36	39	New Hebrides aftershock
	ePP	12	41	39	USCGS 0 = 12 21 18
	e (PKS)	12	42	53	13°S 167°E
	eSKS	12	47	14	Mag 6 - 6 1/4
	eSKKS	12	48	41	Dist. 120.3°
	ePKKP	12	50	20	
	ePS	12	51	25	
	ePPS	12	53	00	
	eSS	12	58	15	
	e	12	58	41	
	e	13	02	27	

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
18 (contd.)					
	e	13	06	23	
	e	13	08	13	
	eLQ	13	12	09	
	eLR ₁	13	17	25	
	eLR ₂	14	13	34	
19	ePP	00	26	19	New Hebrides aftershock
	ePS	00	36	15	USCGS 0 = 00 06 00
	e	00	39	25	13°S 167°E
	e (SS)	00	43	15	Dist. 120.3°
	e	00	48	01	
	e	00	51	57	
	eLQ	00	56	49	
	eLR ₁	01	02	09	
	eLR ₂	02	00	09	
	LR ₁ from WNW				
20	eLR	01	15	09	
20	e	06	13	01	South of Fiji Islands
	eLR	06	49	09	
20	eLR	11	37	09	
20	eLR	15	38	40	
20	eLR	17	28	10	
20	eLR	20	06	10	
20	eLR	22	50	10	
21	eLR	00	14	40	
21	eLR	00	25	10	
21	eLR	05	42	40	South coast of Formosa
21	eLR	10	48	10	

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
21	eLR	12	07	10	
21	ipP	14	14	07	Leeward Islands
	ePcP	14	18	40	USCGS 0 = 14 08 18 h = 150 km 17 1/2°N 63°W Dist. 25.2°
22	eLR	02	52	10	Kenai Peninsula, Alaska
22	eLR	05	46	40	
22	eLR	06	39	10	
22	eLR	09	14	10	
22	eLR	10	28	10	
22	eP	11	43	40	Andreanof Islands
	eLR	12	03	34	USCGS 0 = 11 32 50 50 1/2°N 175°W Dist. 65.8°
22	eLR	14	32	10	
22	ePPS	15	40	49	Bismarck Sea
	e (SS)	15	46	49	USCGS 0 = 15 08 00
	eLQ	16	01	57	3°S 146°E
	eLR ₁	16	07	39	Dist. 127.9°
	LR ₁ from NW				
	eLR ₂	16	57	09	
	LR ₂ from SE				
22	eLR	22	38	09	Fox Islands, Aleutians
23	eLQ	04	27	09	
	eLR	04	29	09	
	LR from NW				
23	eLR	05	39	09	
23	eLR	07	04	39	Idaho

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
23	eLR	08	35	09	
23	eLR	11	29	09	
24	eLR	02	24	57	
24	eLR	08	42	29	
24	eLR	10	58	09	
24	ePP	23	13	23	Off Cape Mendocino,
	eS	23	17	51	California
	eSS	23	20	49	USCGS 0 = 23 04 42
	eLQ	23	21	09	40 1/2°N 125°W
	eLR	23	22	53	Mag 4 3/4
	Lg	23	25	00	Dist. 38.2°
	LR from NW				
25	e	00	43	25	
25	iP	00	46	15	Andreanof Islands,
	eS	00	54	57	Aleutian Islands
	eScS	00	56	09	USCGS 0 = 00 35 23
	eSS	00	58	45	51 1/2°N 177°W
	e	01	00	09	Mag 5 1/2 - 5 3/4
	eLQ	01	02	25	Dist. 66.2°
	eLR	01	10	35	
	LR from NW				
25	eP	00	47	23	
25	eLR	03	43	09	
25	eLR	06	47	39	
25	eLR	10	45	09	
25	iP	15	05	22	Andreanof Islands
	eS	15	14	09	USCGS 0 = 14 54 30
	e (SS)	15	19	00	51 1/2°N 177°W
	eSSS	15	21	50	Dist. 66.2°
	eLR	15	25	10	
	LR from NW				

12					PALISADES, NEW YORK
Date	Phase	h	m	s	Remarks
1958					
May					
25	eLR (NW)	17	44	28	Samoa Islands region
25	eLR	18	31	10	Near west coast of Kyushu, Japan
25	iP	21	19	49	Ecuador-Peru border
	P (Z) comp. 6 sec 1.5 mic				region
	i	21	19	59	USCGS 0 = 21 11 45
	epP	21	20	12	3°S 77°W
	esP	21	20	22	h = 100 km
	e	21	20	46	Mag 6 1/2
	ePcP	21	21	20	Dist. 43.9°
	ePcS	21	25	34	
	iS	21	26	22	
	e	21	28	10	
	eLQ	21	29	34	
	eLR	21	30	10	
26	eLR	05	40	30	
26	iP	08	57	51	Ecuador-Peru aftershock
	e	08	57	58	USCGS 0 = 08 49 47
	epP	08	58	10	3°S 77°W
	e	08	58	14	h = 100 km
	esP	08	58	24	Dist. 43.9°
	ePP	08	59	50	
	eS	08	04	20	
	e (SS)	08	07	44	
	eLQ	08	08	10	
	eLR	08	10	58	
26	eP	11	06	50	Fox Islands, Aleutians
	P (Z) comp 6 sec 1.5 mic				USCGS 0 = 10 56 30
	ePcP	11	07	32	53°N 169 1/2°W
	ePP	11	09	00	Mag 6 - 6 1/4
	e	11	09	40	Dist. 61.6°
	e (PcS)	11	11	14	
	iS	11	15	05	
	ePPS	11	15	34	
	e	11	15	56	
	eScS	11	16	30	
	e (SS)	11	19	38	
	eLQ	11	22	50	
	eLR	11	26	10	
	LR from NW				

13					PALISADES, NEW YORK
Date	Phase	h	m	s	Remarks
1958					
May					
27	eLR	01	07	10	
27	eLR	02	28	40	
27	eLR	06	22	10	
27	eLR	12	26	10	
27	eL	16	11	39	
27	eLR	21	47	39	
27	ePKS	23	55	17	North coast of New Guinea
28	e (PS)	00	04	25	USCGS 0 = 23 32 43
	e (PPS)	00	06	07	5 1/2°S 146°E
	e	00	07	09	Dist. 129.8°
	e	00	10	39	
	eLR	00	16	09	
	LR from NW				
29	eLR	03	04	09	
29	eP	07	05	40	Oaxaco, Mexico
	e	07	05	49	USCGS 0 = 06 59 11
	e (S)	07	10	33	16 1/2°N 97 1/2°W
	eSS	07	12	39	Dist. 31.8°
	eLR	07	13	49	
	LR from S				
29	eLR	14	36	39	
29	e	21	54	05	
	eLR	21	57	15	
30	eLR	06	13	09	
30	eLR	06	48	09	Solomon Islands
30	eLR	14	13	09	
30	eLR	17	05	29	North coast of Formosa
					h = 100 km

14 PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
May					
30	iP	18	15	11	Fox Islands, Aleutians
	e (PcP)	18	16	33	USCGS 0 = 18 04 50
	ePPP	18	19	03	52 1/2°N 169°W
	iS	18	23	29	Mag 6 - 6 1/4
	eScS	18	24	59	Dist. 61.6°
	e (SS)	18	27	47	
	eLQ	18	31	09	
	eLR	18	34	09	
	LR from NW				
31	eLR	03	17	39	
31	eLQ	04	27	21	
	eLR	04	30	09	
31	eLR	07	53	25	
31	eLR	10	11	39	Georgia, S.S.R.
31	eP	19	47	49	New Hebrides Island
	e	19	50	51	USCGS 0 = 19 32 30
	ePKP	19	51	26	15°S 169°E
	i	19	51	31	Mag 7 1/2
	iPP	19	52	53	Dist. 120.1°
	e (PKS)	19	54	30	
	eSKS	19	58	25	
	eSKKS	19	59	53	
	e (PKKP)	20	01	01	
	ePS	20	02	39	
	ePPS	20	04	09	
	eSS	20	09	29	
	eLQ	20	22	39	
	eLR	20	28	39	
	LR from WNW				
June					
1	e	02	54	19	
	eLQ	02	56	21	
	eLR	02	59	09	
	LR from NW				

PALISADES, NEW YORK 15					
Date	Phase	h	m	s	Remarks
1958					
June					
1	i (P)	04	11	51	Near coast of Kamchatka
	e (S)	04	21	09	USCGS 0 = 04 00 06
	e	04	25	23	52 1/2°N 160°E
	eLQ	04	30	19	Dist. 75.8°
	eLR	04	36	09	
	LR from NW				
1	eLR	13	39	39	Near north coast of New Guinea
1	eS	18	36	23	Alaska
	e (SS)	18	39	57	USCGS 0 = 18 21 17
	eLQ	18	42	13	60 1/2°N 143 1/2°W
	eLR	18	44	45	Dist. 45.7°
	LR from NW				
2	eLR	02	26	39	
	LR from SW				
2	eLR	08	42	59	
2	eLR	10	02	09	
2	eLR	12	56	09	
3	eLR	02	25	38	Andreanof Islands, Aleutians
3	eLR	07	40	38	
3	eLR	09	39	08	
3	eP	19	47	16	New Hebrides Islands
	ePKP	19	50	44	USCGS 0 = 19 31 52
	ePP	19	52	14	15°S 168°E
	eSKS	19	57	48	Mag 6 1/2
	eSKKS	19	59	12	Dist. 120.8°
	e (PKKP)	20	00	24	
	e	20	02	00	
	ePS	20	02	08	
	e	20	02	22	
	ePPS	20	03	32	
	ePKKS	20	04	31	
	(continued)				

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
June				
3 (continued)				
	eSS	20	08	48
	e (SKSSKS)	20	12	08
	e	20	16	16
	e	20	17	38
	eLQ	20	22	44
	eLR ₁	20	27	44
	eLR ₂	21	23	48
	LR ₁ from WNW			
	LR ₂ from ESE			
4	eLR	01	16	08
4	eLR	04	06	08
4	eP	14	40	03
	e (PcP)	14	40	15
	ePP	14	42	16
	eS	14	48	18
	e (PPS)	14	49	08
	eScS	14	49	48
	eSS	14	52	16
	eSSS	14	55	08
	eLQ	14	57	38
	eLR	15	02	08
	LR from NW			
4	eLR	23	28	08
5	eLR	02	54	08
5	eLR	03	13	08
5	eLR	04	02	08
5	eLR	04	45	08
5	ePP	08	41	24
	ePS	08	51	20
	e (SS)	08	58	08
	e (SSS)	09	02	28
	e	09	11	28
	eLR	09	17	28
	LR from W			

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
June				
5	eLR	10	44	08
5	eLR	10	55	56
5	eLR	13	39	38
6	eP	09	18	03
	iP	09	18	07
	P (Z) comp 7 sec 2mic			
	i	09	18	16
	iPP	09	19	20
	iS	09	23	33
	eLQ	09	26	16
	eLR	09	27	20
	LR from SSW			
6	e (S)	14	51	12
	eLQ	14	53	38
	eLR	14	55	28
	LR from SSW			
6	e (S)	16	04	24
	eLQ	16	06	52
	eLR	16	08	28
	LR from SSW			
6	eP	19	22	38
	ePP	19	24	00
	eS	19	28	26
	e (PcS)	19	29	16
	eLQ	19	30	56
	eLR	19	33	24
	LR from SSW			
6	eP	22	50	54
	eS	22	56	22
	ePcS	22	56	52
	eLQ	22	59	18
	eLR	23	00	40
	LR from SSW			
7	eLQ	03	44	48
	eLR	03	46	18

18		PALISADES, NEW YORK			
Date	Phase	h	m	s	Remarks
1958					
June					
7	eLR	08	04	38	
7	eLQ	10	54	08	
	eLR	10	56	08	
7	eLR	14	07	38	South of Tasmania
7	eLR	18	53	08	
7	eLR	19	28	08	
8	iP	00	49	00	Fox Island, Aleutians
	e	00	49	14	USCGS 0 = 00 38 52
	ePP	00	51	16	53°N 167°W
	ePPP	00	52	48	Mag 6 -1/2 - 6-3/4
	iS	00	57	14	Dist. 60.3°
	ePS	00	57	38	
	e (PPS)	00	58	12	
	eScS	00	58	48	
	eSS	01	01	08	
	eLQ	01	05	38	
	eLR	01	07	38	
	LR from NW				
8	eLR	16	20	17	Near coast of south Peru
8	eLR	17	13	27	
8	eP	21	18	11	Atlantic Ocean
	ePP	21	20	15	USCGS 0 = 21 09 23
	eS	21	25	13	7°N 34 1/2°W
	e	21	28	02	Dist. 48.7°
	e (SS)	21	28	57	
	eLQ	21	29	37	
	eLR	21	31	27	
	LR from SSE				
9	eLR	02	49	47	
9	eLR	06	30	37	
9	eLR	08	19	59	

PALISADES, NEW YORK						19
Date	Phase	h	m	s	Remarks	
1958						
June						
9	eLQ	16	30	07	Fox Islands, Aleutians	
	eLR	16	32	17		
	LR from NW					
10	eS	00	28	53	Fox Islands, Aleutians	
	eSS	00	33	07	USCGS 0 = 00 10 30	
	eLQ	00	41	37	53°N 167°W	
	eLR	00	42	37	Dist. 60.3°	
	LR from NW					
10	ePS	04	30	07	Kermadec Islands	
	e (SS)	04	36	59	USCGS 0 = 04 00 04	
	eLQ	04	50	07	30 1/2°S 177°W	
	LR from WSW				Dist. 118.6°	
10	eLQ	07	49	07	Western Iran	
	eLR	07	56	37		
11	eLR	04	40	50		
11	eLR	22	26	47		
12	eP	12	00	57	Off coast of Costa Rica	
	eS	12	06	25	USCGS 0 = 11 54 04	
	eSS	12	08	37	7 1/2°N 84 1/2°W	
	eLR	12	09	37	Mag 6 - 6 1/4	
	LR from SSW				Dist. 34.7°	
12	eP	21	03	08	Fox Island, Aleutians	
	eS	21	11	23	USCGS 0 = 20 52 57	
	eScS	21	13	03	53°N 167°W	
	eSS	21	15	17	Mag 6 1/2	
	eLQ	21	19	07	Dist. 60.3°	
	eLR	21	21	37		
	LR from NW					
12	i	21	35	42		
	i	21	35	56		
12	eP	21	43	47	Fox Island, Aleutians	
13	eLQ	12	13	30	South of Australia	
	eLR	12	18	00		

20		PALISADES, NEW YORK			
Date	Phase	h	m	s	Remarks
1958					
June					
13	eLQ	15	38	07	
	eLR	15	40	37	
14	eLQ	02	39	07	
	eLR	02	40	07	
14	eLR	12	59	27	
14	eLR	19	18	37	Marshall Islands
14	eLR	22	10	07	
15	eLR	02	02	37	
15	e	03	08	41	
	eLR	03	22	07	
15	eLR	10	11	07	
15	ePKS	11	55	19	Near coast of New Guinea
	ePS	12	04	17	USCGS 0 = 11 32 38
	eLQ	12	27	19	9°S 150°E
	eLR	12	34	07	Dist. 129.8°
15	epP	15	10	23	Fiji Islands
	esP	15	11	21	USCGS 0 = 14 54 37
	e (pPP)	15	14	45	18°S 178 1/2°W
	ePPP	15	15	55	Depth 600 km
	eSKS	15	18	09	Mag 6 1/4
	e	15	19	15	Dist. 112.5°
	e	15	20	05	
	esSKS	15	22	03	
	ePKKP	15	23	07	
	ePPS	15	24	23	
	e	15	25	55	
	eSS	15	28	07	
	e	15	30	43	
	eSSS	15	32	13	
	e	15	40	07	
	e	15	41	55	
	e (LR)	15	45	19	
	LR from NW				

PALISADES, NEW YORK						21
Date	Phase	h	m	s	Remarks	
1958						
June						
15	ePKS	17	43	37	Near coast of New Guinea	
	e	17	55	07	USCGS 0 = 17 20 56	
	e (SS)	18	00	07	9 1/2°S 150°E	
	eLQ	18	17	07	Dist. 130.3°	
	eLR	18	26	07		
	LR from NW					
16	e	08	47	37	Fiji Island region	
	eLQ	08	58	27		
	eLR	09	04	55		
	LR from NW					
16	eLQ	14	43	07	Near coast of El Salvadore	
	eLR	14	46	37		
17	eLR	06	09	07		
17	eLR	13	19	37		
17	eSS	19	40	39	Volcano Islands	
	e	19	45	11	USCGS 0 = 19 06 43	
	eLQ	19	52	07	25°N 142 1/2°E	
	eLR	19	58	07	Depth about 60 km	
	LR from NW				Dist. 105.6°	
17	eLQ	22	12	37		
	eLR	22	14	37		
18	eP	01	22	47	Off north coast Iceland	
	ePP	01	24	20	USCGS 0 = 01 15 02	
	eS	01	28	57	68 1/2°N 16°W	
	eSS	01	31	59	Dist. 40.9°	
	eLQ	01	32	51		
	eLR	01	34	07		
	LR from NE					
18	eS	02	37	19	Iceland aftershock	
	eSS	02	40	23	USCGS 0 = 02 23 27	
	eLQ	02	41	31	60°N 16°W	
	eLR	02	43	07	Dist. 41.0°	
	LR from NE					

22		PALISADES, NEW YORK			
Date	Phase	h	m	s	Remarks
1958					
June					
18	ePP	04	43	24	Iceland aftershock
	eS	04	48	02	USCGS 0 = 04 34 04
	eSS	04	51	00	69°N 16°W
	eLQ	04	51	37	Dist. 41.0°
	eLR	04	53	07	
	LR from NE				
18	eS	06	52	15	Off south coast Mexico
	eLR	06	56	23	USCGS 0 = 06 40 40
	LR from SW				
					Dist. 31.7°
					14 1/2°N 94°W
18	eLR	17	35	07	
18	eLR	20	06	07	
19	iP	05	30	08	Kurile Islands
	P (Z) 8 sec 1 mic comp from NW				
	ipP	05	30	26	USCGS 0 = 05 18 00
	ePP	05	33	11	49 1/2°N 156°E
	ePPP	05	34	53	Depth about 50 km
	e	05	36	28	Mag 6 1/2
	eS	05	40	05	Dist. 79.8°
	esS	05	40	22	
	esScS	05	40	57	
	e	05	42	37	
	eSS	05	45	15	
	eSS)	05	46	15	
	e	05	49	45	
	e	05	53	07	
	eLR	05	55	07	
	LR from NW				
19	eLR	14	58	07	
19	eSS	18	45	51	South of Tasmania
	eSSS	18	51	39	USCGS 0 = 18 02 15
	eLR	19	14	41	52 1/2°S 140°E
	LR from SW				
					Dist. 154.3°
19	eLR	10	05	07	Near coast of Guerrero, Mexico
20	eLR	00	38	13	

PALISADES, NEW YORK						23
Date	Phase	h	m	s	Remarks	
1958						
June						
20	eSKS	01	12	59	Samoa Island region	
	ePS	01	15	53	USCGS 0 = 00 47 58	
	eSS	01	21	45	16°S 173°W	
	eLQ	01	32	07	Dist. 107.1°	
	eLR	01	38	37		
	LR from WSW					
20	eLR	14	53	37		
20	eLR	17	59	37		
20	eLR	20	09	37	Off coast of Kyushu, Japan	
21	eLQ	02	36	37	North Atlantic Ocean	
	eLR	02	37	37		
22	eLR	00	09	47		
22	eLR	05	41	07		
23	eP	05	23	07	Outer Mongolia	
	ePS	05	35	15	USCGS 0 = 05 10 03	
	eLQ	05	49	37	49°N 102°E	
	eLR	05	54	07	Dist. 90.3°	
	LR from ENE					
23	eLR	23	25	07		
	LR from NW					
24	iPKP	00	28	45	Near south coast of Java	
	i (PKP)	00	28	59	USCGS 0 = 00 09 18	
	ePP	00	32	07	8 1/2°S 112°E	
	e (SKS)	00	35	59	Depth 200 km	
	eSP	00	42	21	Dist. 147.2°	
	ePPS	00	45	07		
	eSSS	00	57	33		
	eLQ	01	12	07		
	eLR	01	18	27		
	LR from NW					
24	eLR	03	47	07		

24 PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
June					
24	eSKS	05	12	17	Western Sinkiang Province,
	e (PS)	05	14	07	China
	eLR	05	33	47	USCGS 0 = 04 48 15
	LR from NE				40 1/2°N 78 1/2°E
					Dist. 95.1°
24	eLR	06	37	37	Italy
24	eP	06	48	59	Off coast of Chile
	ePP	06	52	22	BCIS 0 = 06 36 24
	eS	06	59	43	47°S 80°W
	ePS	07	00	40	Dist. 85°
	eSS	07	05	17	
	eLQ	07	12	27	
	eLR	07	16	37	
	LR from SSE				
	eLQ ₂	07	31	37	
24	eLR	08	46	49	
24	eLR	20	06	18	
25	eLR	01	56	06	
25	eLR	02	39	46	
25	eLR	03	14	06	
25	eLR	04	36	06	
25	ePKP	09	55	46	Near north coast of
	ePP	09	57	46	New Guinea
	ePKS	09	59	18	USCGS 0 = 09 36 30
	e	09	59	46	3°S 144 1/2°E
	ePS	10	07	41	Mag 6 1/4 - 6 1/2
	ePPS	10	09	29	Dist. 128.8°
	eSS	10	15	28	
	e (SSS)	10	19	32	
	e	10	26	18	
	eLQ	10	30	06	
	eLR	10	35	22	
	LR from NW				
25	eLR	13	42	46	New Britain

PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
June					
25	eLR	23	49	06	
26	eLQ	00	17	06	
	eLR	00	19	06	
26	iP	04	49	50	Kamchatka
	P(Z) comp 6 sec 0.7 mic.				USCGS 0 = 04 38 12
	ipP	04	50	21	54 1/2°N 159 1/2°E
	esP	04	50	34	Depth greater than normal
	ePP	04	52	30	Mag 6 1/2 - 6 3/4
	ePPP	04	54	30	Dist. 74.5°
	ePPPP	04	55	52	
	eS	04	59	12	
	eSP	04	59	47	
	esS	05	00	06	
	esPS	05	00	38	
	eSS	05	04	06	
	eSSS	05	07	26	
	eLQ	05	10	36	
	eLR	05	13	18	
	LR from NW				
26	eLR	08	38	26	Ryukyu Islands
26	eLR	14	26	06	
26	eLR	18	40	47	
26	eLR	20	30	37	
26	ePP	23	47	37	South of Honshu, Japan
	eSKS	23	54	05	USCGS 0 = 23 29 32
	ePS	23	57	15	31°N 141 1/2°E
27	eSS	00	01	59	Dist. 101.2°
	eLQ	00	15	07	
	eLR	00	20	07	
	LR from NW				
27	iP	05	50	43	Near coast of El Salvadore
	P (Z) 5 sec 0.4 mic comp from SW				Slight damage in southern
	ipP	05	50	59	El Salvadore
	esP	05	51	13	USCGS 0 = 05 44 28
	ePP	05	51	37	13°N 88 1/2°W

(continued)

26 PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
June					
27 (continued)					
	eS	05	55	37	Depth about 60 km
	eLQ	05	57	55	Mag 6
	eLR	05	58	55	Dist. 30.7°
	LR from SSW				
27	eLR	19	19	07	
28	eLR	03	04	37	
28	eLR	06	02	37	
28	ePP	08	52	17	Kermadec Islands
	ePS	09	01	55	BCIS 0 = 08 32.0
	eSS	09	08	28	28°S 175°W
	eLQ	09	21	07	Dist. 116°
	eLR	09	26	07	
	LR from WSW				
28	eLR	12	32	27	
28	ePS	19	58	07	Marshall Islands
	e	20	08	07	USCGS 0 = 19 29 58
	eLR	20	18	37	12°N 162°E
	LR from NW				
29	eP	03	35	10	Southern Peru
	epP	03	35	47	USCGS 0 = 03 25 42
	epPcP	03	36	47	15 1/2°S 70 1/2°W
	eS	03	42	43	Depth about 150 km
	esS	03	43	51	Mag 6 1/2 (Bark.)
	eScS	03	44	42	Dist. 56.3°
	esScS	03	45	53	
	eLR	03	49	27	
	LR from SSW				
29	eLR	08	03	07	
29	e (PP)	09	33	07	Tonga Islands
	e (SKS)	09	39	55	USCGS 0 = 09 14 37
	ePS	09	42	43	16 1/2°S 172°W
	e (SS)	09	48	47	Dist. 106.7°
	eLR	10	05	27	
	LR from W				

PALISADES, NEW YORK						41
Date	Phase	h	m	s	Remarks	
1958						
June						
29	eLR	13	31	37	Samoa Island region	
29	eLR	19	24	07		
30	eLR	00	19	07		
30	eLR	03	03	37		
30	eLR	08	03	07		
30	eLR	08	03	07		
30	iP	08	54	12	Dodecanese Islands	
	e (PcP)	08	54	45	USCGS 0 = 08 42 33	
	e (S)	09	03	39	36 1/2°N 27 1/2°E	
	ePS	09	04	15	Dist. 74.5°	
	eSS	09	08	07		
	eSSS	09	12	27		
	eLR	09	18	07		
	LR from ENE					
30	e	09	15	24		
30	i (SS)	14	16	23	Baffin Bay	
	e (ScS)	14	18	49	USCGS 0 = 14 02 08	
	eLR	14	20	17	73°N 69 1/2°W	
	LR from NE					Dist. 32.4°
30	ePP	18	44	27	South of Honshu, Japan	
	eSKS	18	50	49	USCGS 0 = 18 26 20	
	ePS	18	53	19	31°N 141 1/2°E	
	eSS	18	58	43	Mag 6 3/4	
	eLR	19	13	37	Dist. 101.2°	
	LR from NW					
July						
1	iP	06	03	56	Andreanof Islands, Aleutians	
	P (Z) comp 6 sec 0.7 mic				USCGS 0 = 05 53 07	
	e	06	04	13	51 1/2°N 176 1/2°W	
	ePcP	06	04	22	Mag 6	
	e (PP)	06	05	57	Dist. 66.0°	
	ePcS	06	08	25		
	eS	06	12	42		
	(continued)					

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
July				
1	(continued)			
	ePS	06	12	59
	eScS	06	14	03
	eSS	06	17	27
	eLQ	06	20	07
	eLR	06	24	31
	LR from NW			
2	eLR	01	21	07
				Near east coast of Kamchatka
2	eLR	03	09	27
2	e	05	16	11
	eLR	05	32	51
				Fiji Islands
2	eLR	13	43	07
2	eLR	17	31	07
				Samoa Island region
2	eLR	18	19	07
3	e	06	05	07
	ePP	06	07	25
	ePKS	06	08	21
	e	06	16	59
	e (PPS)	06	19	27
	e (SS)	06	25	55
	eLQ ₁	06	43	19
	eLR	06	51	17
	LR from SE			
	e (LQ ₂)	07	17	31
3	eLR	09	31	47
3	eS	10	49	07
	ePS	10	50	49
	ePPS	10	51	58
	eSS	10	56	33
	e	10	57	07
	eSSS	11	00	37
	eLQ ₁	11	07	07
	eLR	11	14	19
	eLQ ₂	12	06	37
				Pacific Ocean USCGS 0 = 10 23 02 55°S 126°W Dist. 105.4°

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
July				
3	eLR	17	37	37
3	e (PP)	19	07	55
	eSS	19	12	37
	eLR	19	15	27
				Off coast of El Salvadore felt in western El Salvadore USCGS 0 = 19 00 36 12°N 89 1/2°W Depth 100 km Dist. 32.0°
3	e	20	09	27
	eLR	20	12	37
3	e	22	21	27
	eLQ	22	24	37
	eLR	22	26	37
4	e (SS)	00	54	07
	e	01	07	51
	eLQ	01	08	22
	eLR	01	12	37
				Tonga Islands USCGS 0 = 00 19 28 19°S 173 1/2°W Dist. 109.3
4	eLR	03	28	07
4	eLR	04	14	37
4	e	11	32	15
	eLQ	11	35	37
	eLR	11	37	37
4	eLR	17	15	57
4	ePP	18	55	29
	e	18	55	43
	ePKS	18	56	37
	ePKS	18	56	57
	eSKS	19	00	21
	ePS	19	05	25
	ePPS	19	07	11
	eSS	19	12	51
	e	19	13	17
	e	19	23	27
	eLQ	19	28	37
	eLR	19	37	27
	LR from N			

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
July					
4	eLR	22	23	07	
5	eLR	02	24	37	
5	eLR	03	39	53	
5	eLR	05	22	07	
5	eLR	05	55	17	
5	eLR	07	23	07	
5	eLR	10	22	07	
5	eLR	12	01	37	
5	eLR	19	22	37	
6	eLR	00	12	43	
6	eLR	02	49	43	
6	eLR	04	58	17	Alaska Peninsula
6	eLR	07	04	25	
6	eLR	08	23	07	
6	eLR	08	31	31	
6	eLR	09	05	37	
6	eSS	16	22	55	Central Alaska
	eLR	16	26	19	USCGS 0 = 16 03 14
	Rg	16	32	55	66°N 155°W
	LR from NW				Dist. 49.9°
6	eLR (SW)	18	49	23	Gulf of California
6	eLQ	19	45	43	
	eLR	19	47	27	
6	eLR	20	02	57	

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
July					
6	eLR	22	19	37	
7	eLR	00	25	07	South of Honshu, Japan
7	e (S)	04	15	07	
	eLQ	04	18	07	
	eLR	04	19	37	
	LR from SE				
7	eP	05	27	07	Andreanof Islands, Aleutians
	eS	05	36	13	USCGS 0 = 05 16 04
	e (SS)	05	41	00	50 1/2°N 180°
	eLQ	05	44	07	Dist. 68.3°
	eLR	05	49	07	
	LR from NW				
7	eLR	10	04	27	
7	eLR	14	14	08	Andreanof Islands
7	e	15	29	56	
	eLR (SW)	15	40	38	
7	eLR (S)	17	45	00	
8	eLR	01	33	08	
8	eLR	03	56	08	
8	eLR	04	03	50	
8	eS	06	33	37	Tonga Islands
	eSS	06	41	18	USCGS 0 = 06 06 28
	eLQ	05	64	08	21 1/2°S 174°W
	eLR	07	00	46	Dist. 111.2°
	LR from SW				
8	eLR	11	09	48	
8	eLR	13	29	08	
8	eLR	20	36	52	

32		PALISADES, NEW YORK			
Date	Phase	h	m	s	Remarks
1958					
July					
8	ePKP	23	07	56	India Ocean, northeast of Prince Edward Islands USCGS 0 = 22 48 36 43°S 41 1/2°E Mag 6 Dist. 132.4°
	ePP	23	10	20	
	ePS	23	20	48	
	e	23	28	38	
	eLR	23	49	22	
9	eLR	02	09	20	
9	eLQ	05	42	38	
	eLR	05	44	08	
9	eLR	07	05	08	
9	eLR	12	54	08	
9	e (P)	15	24	14	Guatemala USCGS 0 = 15 18 20 14 1/2°N 91 1/2°W Depth 100 km Dist. 30.3°
	e (S)	15	29	55	
	eLQ	15	32	52	
	eLR	15	34	58	
10	e	01	33	46	
	e	01	38	33	
	e	01	46	34	
	eLR	01	48	44	
	LR from S				
10	eLR	02	13	43	
10	eP	06	23	50	Southeastern Alaska USCGS 0 = 06 15 51 58.6°N 137.1°W Mag 8 Dist. 42.64°
	iP	06	24	01	
	e	06	25	10	
	ePP	06	25	28	
	ePcP	06	25	41	
	iS	06	30	21	
	i	06	30	54	
	eLQ	06	32	40	
	eLR ₁	06	35	20	
	P from NW				
	eLR ₄	11	42	09	
	eLR ₅	12	31	20	

PALISADES, NEW YORK						33
Date	Phase	h	m	s	Remarks	
1958						
July						
10	e	10	39	26		
10	e	12	49	01		
	e	12	51	25		
	eLR	12	51	59		
10	e	13	38	37		
10	e	15	17	53	Southeastern Alaska	
	eLR	15	23	22		
10	eLR	17	26	13		
10	eLR	17	58	21		
10	eLR	22	00	50		
10	eLR	23	00	39		
11	eLR	00	18	52		
11	eLR	01	20	13		
11	eLR	02	12	15		
11	eLR	03	56	41		
11	eLR	07	13	36		
11	eLR	07	43	06		
11	eLR	08	16	33	Andreanof Islands, Aleutian Islands	
11	iP	19	20	43	Northern Chile	
	i	19	21	04	USCGS 0 = 19 10 20	
	ePP	19	23	06	21°S 69°W	
	ePPP	19	24	27	Mag 6 1/2	
	eS	19	29	04	Dist. 61.9°	
	ePS	19	29	16		
	eScS	19	30	30		
	e	19	38	00		
	eLR	19	40	52		
	LR from SE					

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PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
July					
12	eP	00	57	55	Pacific Ocean
	ePP	01	00	05	USCGS 0 = 00 48 30
	eS	01	05	35	5°S 106 1/2°W
	eScS	01	07	44	Mag 6
	eSS	01	09	15	Dist. 54.6°
	eSSS	01	11	15	
	eLQ	01	11	14	
	eLR	01	14	14	
12	eS	02	48	54	Pacific Ocean
	e (SSS)	02	54	48	USCGS 0 = 02 31 55
	eLR	02	57	48	4 1/2°S 105 1/2°W
					Dist. 53.7°
12	eLR	04	16	28	Marshall Islands
12	e	19	13	40	
	eLR	19	19	00	
12	e	23	21	34	
	eLR	23	25	00	
13	eLR	02	13	34	
13	eLR	05	41	14	
13	eLR	07	00	40	
13	eP	08	18	02	Alaska aftershock
	ePP	08	19	46	USCGS 0 = 08 10 02
	eS	08	24	26	58.3°N 136.9°W
	eSS	08	27	20	Felt at Sitka
	eLQ	08	29	20	Mag 5 1/2- 5-3/4 (Berkeley)
	eLR	08	30	06	Dist. 42.60°
13	eLR	11	48	46	
13	e	12	20	50	Solomon Islands
	e	12	24	10	USCGS 0 = 12 03 50
	ePPS	12	33	52	10°S 161 1/2°E
	eLR	13	00	20	Depth 100 km
					Dist. 122.4°

PALISADES, NEW YORK

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Date	Phase	h	m	s	Remarks
1958					
July					
13	eLR	14	17	15	
13	eLR	15	26	16	
13	eLR	17	20	46	
13	e	19	53	10	
	eLR	19	57	50	
13	e	21	21	30	
13	e	23	27	02	Kormandorski Islands
	e	23	30	40	USCGS 0 = 23 04 28
	e (SSS)	23	33	06	55°N 168°E
	e	23	33	14	Dist. 70.8°
	eLR	23	38	20	
14	e	03	16	28	Southern Alaska
	e (LR)	03	20	42	
14	e	05	44	50	Near coast of California
	e (LR)	05	47	56	
14	e (LR)	07	22	02	
14	e	09	49	02	
	eLR	09	54	06	
14	e (LR)	11	12	18	
14	eLR	18	38	30	
14	eLR	20	54	10	
15	e	01	29	40	
	e	01	31	38	
	e	01	35	58	
	eLR	01	37	10	
15	eLR	02	16	34	

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PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
July					
15	e	06	19	23	Southeastern Alaska
	e	06	21	42	USCGS 0 = 05 59 34
	eLR	06	22	30	60°N 140 1/2°W Dist. 44.2°
15	eLR	07	08	20	
15	eS	08	20	32	Near coast of Crete
	e (SS)	08	24	53	USCGS 0 = 07 59 18
	eSSS	08	28	35	35 1/2°N 23 1/2°E
	eLR	08	32	17	Dist. 74.5°
15	eLR	08	45	58	
15	eLR	09	31	25	
15	eLR	10	51	51	
15	eLR	14	32	42	
15	eLR	15	21	30	
15	eLR	16	25	46	
15	eLR	20	26	56	
15	eLR	23	17	30	
16	e	00	48	14	
	e	00	53	50	
	eLR	00	59	50	
16	eLR	02	19	24	Andreanof Islands, Aleutian Islands
16	eP	04	03	30	Andreanof Islands, Aleutian Islands
	e	04	05	10	
	ePP	04	05	58	USCGS 0 = 03 52 39
	eS	04	12	14	51 1/2°N 176 1/2°W
	eSS	04	16	40	Dist. 66.0°
	eLQ	04	20	07	
	eLR	04	25	18	
	LR from NW				

PALISADES, NEW YORK

Date	Phase	h	m	s	Remarks
1958					
July					
16	eP	13	06	27	South Pacific Ocean
	eS	13	16	23	USCGS 0 = 12 54 18
	eSSS	13	24	58	20 1/2°S 113°W
	eLR	13	29	30	Mag 6 (Berk.)
	LR from SSW				
					Dist. 78.9°
16	eLR	16	22	10	
16	ePP	17	14	45	Santa Cruz Islands
	ePS	17	24	35	USCGS 0 = 16 54 17
	ePKKS	17	27	20	12°S 166 1/2°E
	e	17	30	15	Dist. 120.0°
	ePKPPKP	17	31	42	
	eSSS	17	35	10	
	e	17	41	14	
	e	17	44	40	
	eLR	17	50	32	
	LR from NE				
16	ePKPPKP	19	17	44	Santa Cruz Islands
	e	19	27	10	USCGS 0 = 18 40 21
	e (LR)	19	36	20	12°S 166 1/2°E
					Dist. 120.0°
16	e	21	25	20	
	e (LR)	21	37	40	
17	eLR	00	22	30	
17	eP	05	48	18	Northern Greece
	ePP	05	50	40	USCGS 0 = 05 37 06
	eS	05	57	28	40 1/2°N 23°E
	eSS	06	02	00	Dist. 69.3°
	e (SSS)	06	05	20	
	eLQ	06	07	00	
	eLR	06	11	00	
17	eLR	11	49	46	
17	e	14	06	30	Southeastern Alaska
	eLR	14	08	40	

38					PALISADES, NEW YORK
Date	Phase	h	m	s	Remarks
1958					
July					
17	iP	19	13	03	Andreanof Islands,
	ePP	19	15	37	Aleutian Islands
	e	19	16	30	USCGS 0 = 19 02 10
	eS	19	21	46	51°N 176°W
	eSS	19	26	02	Mag 5 3/4 (Berk.)
	e	19	26	37	Dist. 66.0°
	eSSSS	19	29	31	
	eLQ	19	30	03	
	eLR	19	34	38	
	LR from NW				
17	iP	19	40	28	Andreanof Islands,
					Aleutian Islands
					USCGS 0 = 19 29 36
					51°N 177°W
17	iP	21	10	13	Andreanof Islands,
	ePcP	21	10	38	Aleutian Islands
	e	21	11	21	USCGS 0 = 20 59 17
	ePcS	21	14	48	51°N 177 1/2°W
	eS	21	19	00	Mag 6 (Berk.)
	e	21	24	16	Dist. 66.8°
	eSSS	21	26	54	
	eLQ	21	28	10	
	eLR	21	30	20	
	LR from NW				
18	iP	00	50	08	Andreanof Islands,
	iPcP	00	50	38	Aleutian Islands
	i	00	51	48	USCGS 0 = 00 39 18
	e (PP)	00	52	24	51°N 176 1/2°W
	ePcS	00	54	44	Mag 5 3/4 (Berk.)
	eS	00	59	00	Dist. 66.3°
	ePS	00	59	24	
	e (ScS)	01	00	28	
	eSS	01	03	14	
	e	01	04	06	
	eSSS	01	06	28	
	eSSSS	01	07	20	
	eLQ	01	10	10	
	eLR	01	11	04	
	LR from NW				

39					PALISADES, NEW YORK
Date	Phase	h	m	s	Remarks
1958					
July					
18	i (p)	01	55	33	Ecuador-Peru border
	iPP	01	57	13	USCGS 0 = 01 47 21
					4°S 78°W
					Depth 100 km
					Dist. 44.9°
18	e (LR)	04	13	30	
18	eLR	08	25	22	
18	eLR	10	10	59	
18	eLR	12	28	20	
18	e (LR)	12	49	04	
18	eP	17	12	04	Southeastern Alaska
	ePP	17	13	49	USCGS 0 = 17 03 58
	e	17	15	28	58 1/2°N 138 1/2°W
	e (S)	17	19	06	Dist. 43.4°
	e	17	24	10	
	eLR	17	27	04	
	eLg	17	29	06	
18	e	21	58	20	Ryukyu Islands region
	ePS	22	07	04	USCG 0 = 21 38 05
	e (PPS)	22	08	34	25 1/2°N 124°E
	eSS	22	12	46	Dist. 111.8°
	eLR	22	20	30	
19	i (PKP)	06	49	24	New Guinea
	esPKP	06	50	22	USCGS 0 = 06 30 19
	ePP	06	51	50	4°S 138 1/2°E
	ipPP	06	52	28	Depth 150 km
	esPP	06	52	38	Dist. 133.0°
	epPKS	06	53	50	
	epPS	07	02	36	
	esPPS	07	04	40	
	e	07	05	22	
	esSS	07	10	14	
	esSSS	07	15	24	
	e	07	25	00	
	e (LR)	07	31	30	

40					PALISADES, NEW YORK
Date	Phase	h	m	s	Remarks
1958					
July					
19	eLR	11	58	22	
19	e	15	22	48	Near south coast of
	eLR	15	41	25	Hokkaido, Japan
19	iP	17	34	09	Andreanof Islands,
	eLR	17	58	12	Aleutian Islands
					USCGS 0 = 17 23 20
					51 1/2°N 176°W
					Dist. 65.7°
19	i	18	30	47	Spice Islands
	i	18	31	09	USCGS 0 = 18 16 52
	ePKP	18	36	14	0° 129 1/2°E
	e	18	39	18	Dist. 134.0°
	ePKS	18	39	48	
	e	18	40	31	
	e (PPP)	18	41	20	
	eSKS	18	43	30	
	e	18	44	30	
	e (SKKS)	18	45	00	
	e	18	46	57	
	e	18	47	13	
	ePS	18	49	05	
	e	18	50	25	
	ePPS	18	50	40	
	e	18	51	54	
	ePKPPKP	18	54	15	
	e	18	55	54	
	eSS	18	56	25	
	e	19	01	00	
	eSSS	19	01	37	
	eSSSS	19	07	42	
	eLQ	19	13	38	
	eLR	19	20	06	
	LR from NW				
19	eLR	23	58	10	Spice Islands aftershock
20	eLR	04	13	33	

PALISADES, NEW YORK					41
Date	Phase	h	m	s	Remarks
1958					
July					
20	eP	11	55	16	Central Chile
	ePP	11	58	02	USCGS 0 = 11 43 47
	eS	12	04	33	31 1/2°S 71°W
	eSS	12	09	17	Dist. 72.2°
	eLR	12	13	05	
20	eLR	16	24	25	
21	eLR	01	47	05	
21	eLR	04	34	46	
21	eLR	05	16	10	
21	e	06	00	35	
	e	06	03	46	
	e	06	06	20	
	eLR	06	08	39	
21	iP	07	37	47	Kurile Islands
	e	07	39	23	USCGS 0 = 07 24 58
	e (PPP)	07	42	46	44 1/2°N 147 1/2°E
	ePPP	07	43	09	Dist. 87.1°
	e	07	48	08	
	eS	07	48	21	
	e (ScS)	07	48	44	
	ePS	07	49	19	
	eSS	07	54	20	
	eSSS	07	57	47	
	eLQ	08	01	00	
	eLR	08	06	43	
	LR from NW				
21	e	09	51	06	Near coast of El Salvador
	eLR	09	52	58	
21	eLR	11	20	40	
21	iP	14	48	13	Andreanof Islands,
	ePP	14	50	36	Aleutian Islands
	ePcS	14	52	54	USCGS 0 = 14 37 18
	iS	14	57	04	51 1/2°N 178°W
	(continued)				

42 PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
July					
21	eSS	15	01	20	Mag 6 1/4 (Berk.)
(contd.)	e	15	02	16	Dist. 66.7°
	eSSS	15	04	42	
	eLQ	15	05	42	
	eLR	15	08	50	
	LR from NW				
21	e	19	28	18	New Hebrides Islands
21	eLR	20	34	42	
21	eLR	23	40	00	
22	eLR	00	09	00	
22	eLR	03	31	00	
22	e	04	20	00	
22	i (P)	05	19	00	Andreanof Islands,
	eLR	05	41	00	Aleutian Islands
22	eLR	08	16	00	
22	eLR	08	59	00	
22	e	11	03	00	
22	e	23	02	14	Gulf of Alaska
	eLR	23	12	00	
23	eLR	02	45	10	
23	eP	10	41	10	South of Honshu, Japan
	e	10	41	42	USCGS 0 = 10 27 19
	ePP	10	45	25	31°N 142°E
	e	10	45	48	Dist. 101.0°
	ePPP	10	47	44	
	eSKS	10	51	46	
	eS	10	52	44	
	eSS	10	59	46	
	e	11	07	34	
	e	11	09	24	
	eLQ	11	13	02	
	eLR	11	17	55	
	LR from NNW				

PALISADES, NEW YORK 43					
Date	Phase	h	m	s	Remarks
1958					
July					
23	eLR	18	15	16	Off coast of Nicaragua
23	eLR	19	04	48	
23	eLR	19	56	00	
24	eLR	06	31	30	
24	eLR	08	19	48	
24	iP	13	18	26	Fox Islands, Aleutians
	eS	13	26	53	USCGS 0 = 13 08 05
	eSS	13	31	03	52 1/2°N 170°W
	eSSS	13	33	40	Dist. 62.1°
	eLR	13	38	04	
24	eLR	15	40	00	
24	eLR	19	15	50	
24	eLR	22	55	38	
25	eLR	00	05	40	
25	eLR	01	27	25	
25	e	01	17	00	
	e	01	41	58	
	e	02	07	30	
	e	02	19	48	
25	eLR	02	44	40	
25	eLQ	03	59	10	
	eLR	04	00	28	
25	e (LR)	09	27	04	
25	e (LR)	10	19	32	
25	eLR	12	54	24	
25	eLR	18	58	49	Molucca Passage

44					PALISADES, NEW YORK
Date	Phase	h	m	s	Remarks
1958					
July					
26	eLR	00	02	51	
26	e	06	32	59	South Indian Ocean
	ePKP	06	33	23	USCGS 0 = 06 13 50
	ePP	06	35	45	40°S 45 1/2°E
	ePKS	06	36	42	Dist. 134.7°
	e	06	38	19	
	e	06	39	39	
	e	06	45	39	
	ePPS	06	47	54	
	eSS	06	53	49	
	eSSS	06	58	34	
	eLQ	07	09	39	
	eLR	07	15	35	
	LR from SE				
	eLQ ₂	07	47	59	
	eLR ₂	08	00	17	
26	eLR	09	36	09	South Pacific Ocean
26	eLR	12	43	09	
26	iP	17	45	42	Peru-Bolivia border
	P (Z) 6 sec 4.5 mic dil from S				USCGS 0 = 17 37 09
	iPcP	17	46	37	13 1/2°S 69°W
	i	17	47	11	Depth 650 km
	ipP	17	47	39	Mag 7 - 7 1/4
	iPP	17	48	05	Dist. 54.4°
	iS	17	52	40	
	e	17	53	25	
	esS	17	54	27	
	e	17	55	51	
	eSS	17	56	17	
	eLR	18	01	39	
	LR from SSW				
27	eLQ	04	03	39	Kurile Islands
	eLR	04	09	09	

PALISADES, NEW YORK					45
Date	Phase	h	m	s	Remarks
1958					
July					
27	ePKS	17	42	15	South Indian Ocean
	eSS	18	00	27	USCGS 0 = 17 19 03
	e (SSS)	18	05	09	28 1/2°S 62°E
	eLQ	18	17	53	Dist. 142.1°
	eLR	18	25	37	
	LR from E				
28	eLR	02	26	39	New Britain
28	eLR	06	15	39	
28	eLR	11	32	39	
28	eLR	13	21	33	
28	e	15	10	09	
28	e	15	42	13	
28	eLQ	16	05	09	
	eLR	16	07	57	
28	eLR	16	54	09	
	LR from NE				
29	eLR	01	48	09	
29	eLR	07	32	39	
29	eLQ	08	22	09	
	eLR	08	24	09	
29	eSKKS	11	15	39	Tonga Islands
	e	11	16	39	USCGS 0 = 10 49 27
	ePS	11	18	21	20 1/2°S 175 1/2°W
	e (SS)	11	24	39	Dist. 111.7°
	eLQ	11	37	03	
	eLR	11	42	01	
	LR from SW				
	eLR ₂	12	56	39	

Date	Phase	h	m	s	Remarks
1958					
July					
29	iP	21	47	01	Atlantic Ocean
	P (Z) 4 sec. 1.6 mic.				USCGS 0 = 21 37 25
	ipP	21	47	15	4°N 26 1/2°W
	e	21	51	09	Depth 50 km
	e (S)	21	55	00	Dist. 56.2°
	eLQ	22	00	09	
	eLR	22	02	35	
	LR from SSE				
30	eP	03	00	01	Kurile Islands
	ePPP	03	05	15	USCGS 0 = 02 47 17
	eSKS	03	10	25	44 1/2°N 148 1/2°E
	e (S)	03	10	55	Dist. 86.7°
	ePS	03	11	29	
	eSS	03	16	29	
	eLQ	03	24	09	
	eLR	03	29	09	
	LR from NW				
30	ePP	05	06	21	New Guinea
	e	05	07	03	USCGS 0 = 04 44 53
	e	05	07	27	2 1/2°S 140°E
	ePKS	05	07	34	Dist. 131.0°
	ePKS	05	07	53	
	e	05	08	04	
	ePPP	05	09	14	
	e (SKKS)	05	13	49	
	ePS	05	16	27	
	ePPS	05	18	23	
	e	05	19	37	
	e (SS)	05	24	14	
	e	05	24	51	
	e	05	26	45	
	eLR	05	45	19	
	LR from NW				
	eLR	06	30	09	
	LR ₂ from SE				
30	eLR	08	25	09	South of Honshu, Japan
30	eLR	10	41	09	

Date	Phase	h	m	s	Remarks
1958					
July					
30	eSKS	15	34	33	South Pacific Ocean
	ePS	15	36	37	About 1800 miles south-
	eSS	15	41	53	west of Easter Island
	eLQ	15	51	35	USCGS 0 = 15 10 18
	eLR	15	56	57	BCIS - 48°S 120°W
	LR from SW				Dist. 97.6°
31	eP	02	14	29	Andreanof Islands, Aleutians
	eS	02	23	17	USCGS 0 = 02 03 45
	eScS	02	24	15	51 1/2°N 174 1/2°W
	eLR	02	39	39	Dist. 65.0°
	LR from NW				
31	eP	02	37	06	Andreanof Islands,
	eLR	03	00	29	Aleutian Islands
	LR from NW				
31	eLR	04	30	31	
31	eLQ	08	01	09	
	eLR	08	03	37	
31	eLR	16	12	39	Southern Alaska
31	eLR	18	45	09	
Aug.					
1	eP	05	51	38	Fiji Islands region
	esP	05	53	44	USCGS 0 = 05 37 50
	ePP	05	56	14	16°S 176 1/2°W
	e (pPP)	05	58	13	Depth 450 km
	ePPP	05	58	39	Dist. 109.7°
	eSKS	06	01	20	
	e	06	01	48	
	e	06	03	19	
	esSKS	06	04	30	
	eSP	06	05	09	
	ePS	06	05	34	
	e	06	05	55	
	e	06	06	15	
	ePPS	06	06	56	
	esSP	06	07	44	
	(continued)				

48					PALISADES, NEW YORK
Date	Phase	h	m	s	Remarks
1958					
Aug.					
1	e	06	08	30	
(contd.)	eSSP	06	11	26	
	e	06	13	45	
	e	06	18	09	
	e (L)	06	23	49	
	L from W				
1	eLR	10	54	09	
1	eLR	11	32	39	
1	eLR	22	57	25	
2	eLQ	04	58	49	Off coast of Oaxaca,
	eLR	05	00	25	Mexico
3	ePKP	01	24	06	Fiji Islands region
	ePP	01	25	15	USCGS 0 = 01 06 24
	epPP	01	27	06	21 1/2°S 179°W
	ePPP	01	28	01	Depth 550 km
	e	01	32	15	Mag 6 1/4 ~ 6 1/2
	eSP	01	33	57	Dist. 114.9°
	e	01	35	55	
	eSPP	01	37	07	
	eSS	01	40	33	
	ePKPPKP	01	43	21	
	e (sSSS)	01	48	13	
	e	01	54	39	
	eLQ	01	57	25	
	eLR	02	02	55	
	LR from W				
3	eLR	05	44	21	
3	eLR	06	57	09	
3	eLR	10	29	09	
3	eLR	16	16	39	
4	ePKP	04	32	24	Banda Sea
	iPKP	04	32	34	USCGS 0 = 04 13 19
	(continued)				

PALISADES, NEW YORK					49
Date	Phase	h	m	s	Remarks
1958					
Aug.					
4	epPKP	04	33	11	6°S 130°E
(contd.)	eSKP	04	35	51	Depth 150 km
	ePKS	04	36	14	Dist. 139.1°
	epPKS	04	36	34	
	esPKS	04	36	59	
	eSKS	04	39	19	
	e	04	43	14	
	epPS	04	46	29	
	epPPS	04	48	24	
	e	04	49	34	
	eSKKS	04	50	34	
	e	04	52	14	
	e	04	53	33	
	eSSP	04	54	12	
	e	04	55	55	
	e	04	57	29	
	eSSS	04	59	04	
	e	05	09	48	
	e (LQ)	05	13	49	
	eSSS	05	16	20	
	eLR	05	18	09	
	LR from NW				
4	eLR	17	10	57	
5	eLR	03	44	00	
5	eLR	09	01	39	
5	e	17	58	09	Tonga Island region
	eLR	18	17	09	
6	eLR	04	12	09	
6	eLR	08	02	09	
6	eLR	10	14	29	Salta Province, Argentina
6	eLR	11	02	09	

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
Aug.					
6	eP	21	23	29	Tonga Islands
	ePP	21	28	07	USCGS 0 = 21 09 09
	eSKS	21	34	13	17°S 173°W
	eSKKS	21	34	49	Mag 6 3/4
	ePS	21	37	13	Dist. 107.7°
	ePPS	21	38	29	
	eSS	21	43	21	
	eSSS	21	47	09	
	eLQ	21	53	39	
	eLR	22	00	23	
	LR from WNW				
7	e	00	59	09	Southeastern Wyoming
	eLR	01	01	09	
7	eL	09	41	09	
7	eLR	12	28	09	
8	eLR	07	57	09	
8	eLR	13	29	09	Hindu Kush
9	ePP	13	06	25	South Atlantic Ocean, abt.
	ePS	13	15	27	750 miles NE of Sandwich
	eSS	13	21	13	Island
	eLQ	13	30	39	USCGS 0 = 12 47 55
	eLR	13	36	05	
	LR from SE				
10	eSS	18	43	39	New Britain region
	eLQ	18	57	59	USCGS 0 = 18 05 54
	eLR	19	04	09	3 1/2°S 151 1/2°E
	LR from NW				
11	eLR	00	40	29	
11	e (PKPPKP)	08	31	17	New Hebrides Island
	eLQ	08	44	45	USCGS 0 = 07 53 12
	eLR	08	51	39	18°S 168 1/2°E
	LR from NE				
11	eLR	09	51	39	
11	eLR	21	31	59	Off coast of Sumatra
	eLR	21	41	09	
12	eLR	08	16	39	

PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
Aug.					
12	eP	08	26	43	Andreanof Islands,
	eLQ	08	46	09	Aleutians
	eLR	08	49	39	USCGS 0 = 08 15 59
	LR from N				
	51 1/2°N 175°W				
	Dist. 65.2°				
12	eLR	11	11	39	
12	e	15	29	09	
	e	15	33	41	
	e	15	36	39	
	e	15	47	09	
	eLR	15	50	09	
12	eS	16	35	49	Gulf of California
	eLQ	16	38	39	USCGS 0 = 16 23 42
	eLR	16	41	09	27°N 110 1/2°W
	LR from WSW				
	Dist. 33.1°				
12	ePKP	19	44	30	Molucca Passage
	ePP	19	47	01	USCGS 0 = 19 25 05
	ePKS	19	48	05	0° 126 1/2°E
	ePPS	19	58	55	Dist. 135.2°
	eSS	20	05	09	
	eSSS	20	10	09	
	eLQ ₁	20	22	09	
	eLR	20	29	39	
	eLQ ₂	20	58	39	
	LR from NW				
13	eLR (NW)	00	11	39	
13	eLR (NW)	01	10	39	Near coast of New Britain
13	ePKS	04	13	29	Molucca Passage
	ePPS	04	24	33	USCGS 0 = 03 50 35
	eSS	04	30	39	1/2°N 126°E
	e (SSS)	04	36	09	Dist. 134.9°
	eLQ	04	49	09	
	eLR	04	55	39	
	LR from NW				

52	PALISADES, NEW YORK				
Date	Phase	h	m	s	Remarks
1958					
Aug.					
13	eSS	08	05	25	Northern Afghanistan
	eLQ	08	16	39	USCGS 0 = 07 33 29
	eLR	08	19	09	36 1/2°N 66 1/2°E
	LR from NE				Dist. 94.8°
13	eLR	11	05	09	
13	eLR (NW)	11	20	09	Andreanof Islands, Aleutian Islands
13	eP	20	23	56	Andreanof Islands
	P (Z) 7 sec 2.5 mic.				USCGS 0 = 20 13 00
	ePcP	20	24	25	51°N 177 1/2°W
	eS	20	32	53	Dist. 66.8°
	S (Z) 6 sec 2 mic.				
	ePPS	20	33	15	
	eSS	20	37	11	
	e	20	37	49	
	eSSS	20	40	14	
	e	20	40	49	
	eLQ	20	42	09	
	eLR	20	47	09	
	LR from NW				
14	eLR	00	06	09	
14	eLR (NW)	03	19	09	Marianas Islands
14	eLQ	07	57	09	
	eLR	07	58	30	
	LR from SW				
14	eLQ	10	34	09	Tonga Islands region
	eLR	10	40	09	
	LR from SW				
14	eLQ	12	02	21	Iran
	eLR	12	08	47	
	LR from SE				

Centre

PALISADES, NEW YORK					53
Date	Phase	h	m	s	Remarks
1958					
Aug.					
14	iP	15	05	55	Andreanof Islands
	P (Z) 6 sec 5.5 mic.				USCGS 0 = 14 55 10
	i (PcP)	15	06	07	52°N 175°W
	e (PP)	15	08	05	Mag 6 1/2
	iS	15	14	37	Dist. 64.9°
	iScS	15	15	45	
	e	15	17	50	
	eSS	15	18	49	
	e	15	19	39	
	eSSS	15	21	41	
	e	15	22	39	
	eLQ	15	24	21	
	eLR	15	28	57	
	LR from NW				
14	iP	15	28	53	Andreanof Islands
15	eLR	00	12	09	
15	ePP	02	48	01	New Britain
	eLQ	03	19	39	USCGS 0 = 02 26 51
	eLR	03	26	09	6°S 150 1/2°E
	LR from NW				
15	iP	06	27	23	Northern Colombia
	esP	06	28	17	USCGS 0 = 06 20 53
	eS	06	32	33	7°N 73°W
	ePcS	06	33	37	Depth 200 km
	eSS	06	35	09	Dist. 33.9°
	eLR	06	37	09	
	LR from SW				
15	iP	20	07	18	Near east coast of
	P (Z) 10 sec 2 mic. comp. from NW				Kamchatka
	ePP	20	10	14	USCGS 0 = 19 55 39
	ePPP	20	11	56	53°N 160 1/2°E
	e	20	14	26	Depth 60 km
	iS	20	16	52	Mag 6 3/4
	eSS	20	21	43	Dist. 75.2°
	eLQ	20	25	20	
	eLR	20	30	38	
	LR from NW				

Date	Phase	h	m	s	Remarks
1958					
Aug.					
15	iPKP	22	48	09	Celebes
	P(Z) 10 sec. 1.5 mic.				USCGS 0 = 22 29 17
	iSKP	22	51	28	1 1/2°N 125°E
	isPKS	22	52	48	Depth 200 km
	eSKKS	22	57	16	Mag 6-3/4 - 7
	e	22	58	44	Dist. 134.3°
	epPS	23	02	04	
	eSS	23	08	08	
	eSSS	23	13	08	
	eLQ	23	25	00	
	eLR	23	33	00	
15	iP	22	51	28	Celebes
16	e (PP)	11	33	18	
	e (SKS)	11	39	14	
	e (PS)	11	41	12	
	e (PPS)	11	42	48	
	e (SS)	11	49	38	
	eLQ	12	00	08	
	eLR	12	07	00	
	LR from W				
16	iP	13	28	39	Andreanof Islands
	P (Z) 8 sec. 1.2 mic comp.				USCGS 0 = 13 17 52
	from NW				51 1/2°N 176°W
	iS	13	37	26	Mag 6 - 6 1/4
	eScS	13	38	28	Dist. 65.7°
	eSS	13	41	22	
	e	13	42	28	
	eSSS	13	44	38	
	eLQ	13	48	08	
	eLR	13	52	20	
	LR from NW				
16	eLQ	18	11	12	
	eLR	18	13	58	
16	eP	19	26	37	Iran
	P (Z) 10 sec 1.7 mic comp.				USCGS 0 = 19 13 45
	e	19	29	28	34 1/2°N 48°E
	ePPP	19	32	00	Dist. 87.8°
	eSKS	19	37	00	
	(continued)				

Date	Phase	h	m	s	Remarks
1958					
Aug.					
16	ePS	19	38	24	
(contd.)	eSS	19	43	08	
	e	19	48	08	
	eLQ	19	52	08	
	eLR	19	55	32	
	LR from ENE				
	eLQ ₂	20	42	20	
17	eLR (SW)	02	58	38	
17	eLR (NE)	05	04	08	
17	eLR (NE)	05	15	08	
17	eLR	06	42	08	
17	iP	09	19	23	Andreanof Islands
	iS	09	28	08	USCGS 0 = 09 08 35
	eScS	09	29	06	51 1/2°N 176°W
	e (SS)	09	32	43	Dist. 65.7°
	eSSS	09	35	30	
	eLQ	09	38	38	
	eLR	09	43	08	
	LR from NW				
17	eP	11	01	29	Andreanof Islands
	eLR (NE)	11	27	28	
17	eP	11	26	59	Andreanof Islands
17	iP	09	19	23	Andreanof Islands
	iS	09	28	08	USCGS 0 = 09 08 35
	eScS	09	29	06	51 1/2°N 176°W
	e (SS)	09	32	43	Dist. 65.7°
	eSSS	09	35	30	
	eLQ	09	38	38	
	eLR	09	43	08	
	LR from NW				
17	eP	11	01	29	Andreanof Islands
	eLR (NE)	11	27	28	
17	eP	11	26	59	Andreanof Islands

56 PALISADES, NEW YORK					
Date	Phase	h	m	s	Remarks
1958					
Aug.					
17	ePP	18	22	23	Bismarck Sea
	e (PKS)	18	24	28	USCGS 0 = 18 01 05
	e (PKKP)	18	30	38	3°S 145 1/2°E
	ePS	18	32	20	Dist. 128.2°
	ePPS	18	34	00	
	eSS	18	39	48	
	eSSS	18	44	08	
	eLQ	18	54	16	
	eLR ₁	19	00	08	
	eLR ₂	19	50	08	
	LR ₁ from NW				
17	ePP	21	31	48	Kermadec Islands region
	ePS	21	41	44	USCGS 0 = 21 11 09
	ePPS	21	43	18	35 1/2°S 179 1/2°W
	e (PKKS)	21	44	08	Dist. 123.0°
	eSS	21	48	52	
	eLQ	22	02	08	
	eLR	22	08	08	
	LR from NW				
18	eLQ	06	11	50	
	eLR	06	14	32	
	LR from WSW				
18	eLQ	06	16	48	Upper Gulf of California
	eLR	06	19	38	Mag 5 1/4
	LR from WSW				
18	eLQ	06	59	24	Gulf of California
	eLR	07	01	38	
	LR from WSW				
18	eLQ	10	28	52	Panama-Colombia border
	eLR	10	32	52	
	LR from SE				
18	eLR	17	51	08	

PALISADES, NEW YORK 57					
Date	Phase	h	m	s	Remarks
1958					
Aug.					
19	ePS	05	15	44	Fiji Islands region
	e (SS)	05	22	25	USCGS 0 = 04 45 45
	eSSS	05	26	28	19°S 175°E
	eLQ	05	34	48	Dist. 118.0°
	eLR	05	40	38	
	LR from NW				
19	e	16	39	53	Andreanof Islands,
	eLR	16	43	12	Aleutians
19	eSKS	22	14	28	New Ireland Island
	eSKKS	22	15	56	USCGS 0 = 21 48 07
	ePS	22	19	02	1°S 149 1/2°E
	eSS	22	25	48	Dist. 124.7°
	e	22	28	44	
	e	22	33	34	
	eLQ	22	40	02	
	eLR	22	45	14	
	LR from N				
20	ePP	04	00	31	New Hebrides Islands
	e	04	01	40	USCGS 0 = 03 40 07
	e (PKS)	04	02	13	14°S 167°E
	e	04	05	32	Mag 6 1/2 - 6 1/2
	eSKS	04	06	08	Dist. 120.9°
	eSKKS	04	07	34	
	ePS	04	10	24	
	e	04	13	50	
	e (SS)	04	17	36	
	eSSS	04	21	20	
	eLR	04	36	08	
	LR from NW				
20	e	09	40	16	Near east coast of
	eLR	09	46	22	Formosa
21	eS	00	30	36	Southern Bolivia
	e	00	31	29	USCGS 0 = 00 12 53
	eSS	00	34	28	20°S 65°W
	eSSS	00	37	24	Depth 300 km
	eLR	00	41	00	Dist. 61.3°

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
Aug.				
21	ePS	01	38	20
	eSS	01	44	44
	e (LQ)	01	55	12
	eLR	02	02	40
	LR from SW			
21	eLR	04	57	14
	LR from SW			
21	eLR	06	50	31
	LR from NW			
21	epP	21	14	08
	esP	21	14	38
	e (pPP)	21	18	36
	e (sPP)	21	19	08
	eSKS	21	23	33
	eSKKS	21	24	33
	esSKS	21	25	16
	eSP	21	27	04
	ePS	21	27	28
	eSS	21	33	08
	e	21	36	13
	eLQ	21	45	08
	e (LR)	21	51	38
	LR from W			
22	eLR	01	28	08
22	eLR	04	06	08
22	eLR	21	12	53
				Andreanof Islands
22	eLQ	23	09	51
	eLR	23	15	07
	LR from NW			New Britain
23	eLR	02	38	07
23	eLR (NW)	08	56	47
				Santa Cruz Islands

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
Aug.				
23	eP	22	07	29
	ePPP	22	11	20
	eS	22	16	03
	eLQ	22	23	17
	eLR	22	28	37
	LR from NW			
24	eLR	01	14	37
24	eLR	03	39	37
24	eLR (SE)	05	00	07
24	eLR (S)	05	57	37
25	eLR	07	28	07
				Tonga Islands region
25	eLR	09	33	37
				Loyalty Islands region
25	eL	14	09	46
25	eLQ	16	30	48
	eLR	16	32	54
	LR from NE			
25	eL	19	07	48
26	eLR	05	55	06
				Near coast of Honshu, Japan
26	e	12	58	28
	e	13	05	24
	eLQ	13	11	46
	eLR	13	17	06
	LR from NW			
26	eLQ	19	02	25
	eLR	19	08	05
	LR from NW			
26	ePP	23	52	05
27	eSS	00	08	29
				New Hebrides Islands
				USCGS 0 = 23 23 20
				14°S 167°E
				Dist. 121.0°

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
Aug.				
26	ePS	23	53	37
27	e (PKKP)	00	02	01
	eSSS	00	04	25
	eLR	00	21	05
27	eS	02	42	19
	eSS	02	46	05
	eLQ	02	47	59
	eLR	02	50	13
	LR from SSW			
27	eLR	06	01	35
27	eP	15	27	45
	iPcP	15	28	00
	iS	15	36	55
	eScS	15	37	45
	eSS	15	41	15
	eSSS	15	44	33
	eLQ	15	46	13
	eLR	15	49	35
	LR from NE			
27	eLR	21	16	37
28	eLR	05	02	53
28	e	07	59	45
	eLR	08	03	05
28	eLR	10	14	27
28	eLR	17	36	45
28	eLR	18	45	05
29	eLQ	02	39	35
	eLR	02	41	05
29	ePKPPKP	13	02	13
	eLQ	13	18	25
	eLR	13	20	49
	LR from NW			

PALISADES, NEW YORK				
Date	Phase	h	m	s
1958				
Aug.				
30	eP	18	45	07
	eS	18	50	30
	eLQ	18	52	21
	eLR	18	54	23
	Lg	18	56	05
	Rg	18	59	05
	LR from SSW			
30	eLR	21	15	05
30	eLR	22	03	49
31	eLR	00	14	35
31	e	08	49	49
	eLQ	08	52	05
	eLR	08	54	05
	LR from W			
31	e	15	49	17
	e	15	50	09
	e	15	52	35
	e (LR)	15	52	57
31	eLR	17	18	05
31	eP	23	08	39
	P (Z) 4 sec 1.5 mic comp			
	from NW			
	ePP	23	10	29
	eS	23	15	23
	eSS	23	18	45
	eLQ	23	20	05
	eLR	23	21	53
	Lg	23	24	01
	Rg	23	27	25
	LR from NW			