

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

SIGNAL HILL
ST. GEORGES, BERMUDA



SEISMOLOGICAL BULLETIN

By
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1 January 1957 - 31 March 1957

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LAMONT GEOLOGICAL OBSERVATORY
(COLUMBIA UNIVERSITY)

Contribution No. 296

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
 seismograph: To = 12 sec.

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

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

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Date	Phase	h	m	s	Remarks
1957					
Jan.					
2	iP	00	51	00	0 = 00 39 42
	iS	01	00	12	53°N 168 1/2°W
	iSS		05	04	Dist. 73°
	iSSS		08	52	Fox Islands, Aleutian
	eLR		17	00	Islands
					Mag. 6 1/2 - 6 3/4 (Pas.)
2	i (P)	02	29	14	0 = 02 17 35
	i (S)		38	36	52 1/2°N 168°W
					Dist. 72°
					Fox Islands, Aleutian
					Islands
					Mag. 6 3/4 (Pas.)
2	eS	11	10	24	0 = 10 49 32
	eSS		14	48	52 1/2°N 168°W
	e (LQ)		23	30	Dist. 72°
	eLR		28	00	Fox Islands, aftershock
					Mag. 6 1/2 (Pas.)
3	e (P)	00	52	32	0 = 00 41 02
	e (S)	01	01	55	53°N 168°W
					Dist. 73°
					Fox Islands, aftershock
3	e	13	11	08	0 = 12 48 27
	e		12	22	44°N 130°E
					Dist. 102°
					Southern Manchuria
					h about 600 km
					Mag. 7 (Pas.)
6	e	20	54	08	0 = 20 23 37
					Near North coast of
					Mindanao, Philippine
					Islands

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Date	Phase	h	m	s	Remarks
1957					
Jan.					
9	iP	08	04	26	0 = 07 52 56
	iS		13	46	53°N 167 1/2°W
	iSS		18	26	Dist. 72°
	iSSS		22	16	Fox Islands, aftershock
	e (LQ)		27	40	Mag. 6 1/2 (Pas.)
	eLR		31	00	6 1/4 (Berk.)
15	e	04	14	34	0 = 04 09 15
	eLR		25	30	2°S 76 1/2°W Dist. 37° Ecuador h about 100 km
15	e (LQ)	21	56	00	0 = 21 40 26 11°N 86 1/2°W Dist. 30° Near coast of Nicaragua
16	e	21	24	10	
22	e	12	07	30	0 = 11 18 23 4 1/2°S 28 1/2°E Dist. 95° Belgian Congo
22	e (LR)	13	32	30	0 = 12 31 55 Santa Cruz Islands
23	e (L)	18	44	30	0 = 17 40 19 22°S 175°W Dist. 117° Tonga Islands
24	e (LR)	02	18	50	0 = 01 11 11 6°S 147°E Dist. 140° Near east coast of New Guinea h about 100 km

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Date	Phase	h	m	s	Remarks
1957					
Jan.					
24	iP	07	25	02	0 = 07 16 29
	iPP		26	54	12 1/2°S 78°W
	iS		31	48	Dist. 47°
	eSS		34	56	Near coast of Peru
	e (LR)		44	00	Mag. 6 1/2 (Pas.)(Berk.)
25	i (P)	03	49	06	0 = 03 36 47
	i (S)		58	36	51 1/2°N 177°W
	eLR	04	14	00	Dist. 77° Andreanof Islands, Aleutian Islands Mag. 6 1/2 (Pas.) 6-6 1/4 (Berk.)
28	eLR	09	18	00	0 = 08 16 19 15 1/2°S 173°W Dist. 113° Samoa Islands region Mag. 6 1/2 (Pas.)
29	e	00	09	20	0 = 23 18 51
	eLR		14	00	49°N 156°E Dist. 90° Northern Kurile Islands
29	eLR	16	54	00	0 = 15 46 35 16°S 176°W Dist. 115° Fiji Islands region
30	e (L)	16	30	00	0 = 15 29 00 20 1/2°S 174°W Dist. 116° Tonga Islands Mag. 6 - 6 1/4 (Pas.)
Feb.					
2	e (L)	12	53	30	0 = 11 45 35 21 1/2°S 170°E Dist. 131° Loyalty Islands region

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Date	Phase	h	m	s	Remarks
1957 Feb.					
3	eP	17	37	34	0 = 17 24 50
	e (PP)		40	05	53 1/2°N 159°E
	e (PPP)		41	54	Dist. 87°
	iS		48	09	Kamchatka
	eLQ	18	00	00	Mag. 6 1/2 - 6 3/4 (Pas.)
	eLR		06	00	6 1/4 (Berk.)
3	e (L)	21	56	20	0 = 21 11 53 53 1/2°N 159°E Dist. 87° Kamchatka, aftershock
3	e (L)	23	47	30	0 = 22 58 24 53 1/2°N 159°E Dist. 87° Kamchatka, aftershock
4	e	09	12	20	0 = 09 01 55
	eLR		15	00	9°N 84°W Dist. 29° Near coast of Costa Rica h about 150 km
4	e (L)	16	57	00	
5	iP	04	55	39	0 = 04 51 20
	i (PP)		56	46	25 1/2°N 45 1/2°W
	iS		58	36	Dist. 18°
	eLR		59	20	Mid-Atlantic Ocean
	eT	05	13	40	
	T Max		14	07	
6	iP	13	15	19	0 = 13 07 30
	i (PcP)		17	43	Dist. 42°
	iS		19	52	Galapagos Islands, aftershock
	eLQ		22	52	
	eLR		24	00	Mag. 6 (Pas.)

Date	Phase	h	m	s	Remarks
1957 Feb.					
6	e (L)	21	29	00	0 = 20 34 55 50°N 106°E Dist. 96° Lake Baikal region USSR
7	e (S)	16	38	36	0 = 16 17 09
	e	17	04	00	52 1/2°N 175°W Dist. 76° Andreanof Islands, Aleutian Islands h about 60 km
9	e (LR)	03	04	00	0 = 01 53 05 1 1/2°S 137 1/2°E Dist. 142° Near north coast of New Guinea
9	e (P)	07	30	08	0 = 07 23 18
	e (S)		34	48	7 1/2°N 83°W
	eLQ		36	36	Dist. 30°
	eLR		38	00	Off south coast of Panama
9	e	13	50	24	0 = 13 29 18
	e	14	00	03	34°S 180° Dist. 127° Off coast of North Island, N. Z. h about 150 km Mag. 6 1/4 (Pas.)
9	iP	16	47	06	0 = 16 38 10
	iPcP		48	56	41 1/2°N 126°W
	iS		54	09	Dist. 49°
	eLR	17	02	00	Near coast of Northern California Mag. 6 1/2 - 6 1/2 (Pas.) 5 1/4 (Berk)

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Date	Phase	h	m	s	Remarks
1957 Feb.					
10	iP i (S) eLR	05	53	25	0 = 05 47 59 35 1/2°N 35°W Dist. 25° Azores Islands region Mag. 5 3/4 (Pas.)
10	iPKP iPP iPKS iPPP iSS i i eLR	22	51	42	0 = 22 32 15 10° N 126°E Dist. 136° Mindanao foreshock, felt: Samar Mag. 6 1/2-6 3/4 (Pas.)
11	iPKP iPP iSKS e (SKKS) eSS eSSS eLR	01	34	14	0 = 01 14 44 10°N 126°E Dist. 136° Mindanao, aftershock felt: Samar Mag. 6 1/2 (Pas.)
17	iP eS eLR	15	53	21	0 = 15 46 45 16°N 96 1/2°W Dist. 33° Oaxaca, Mexico. Felt: Distrito Federal and Oaxaca h about 60 km Mag. 6 3/4-6 (Pas.)
18	iP i eS eLR eT eTmax	14	53	36	0 = 14 49 30 25 1/2°N 45 1/2°W Dist. 18° Mid-Atlantic Ocean Mag. 6 1/4-6 1/2 (Pas.)

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Date	Phase	h	m	s	Remarks
1957 Feb.					
19	e	00	08	11	0 = 23 49 52 11 1/2°S 78°W Dist. 46° Near coast of Peru, felt: Lima h about 100 km Mag. 6 1/2- 6 3/4 (Pas.)
19	e e (LQ)	08	04	18	0 = 07 43 54 36 1/2°N 22°E Dist. 70° Near south coast of Greece
19	e (L)	20	43	30	0 = 19 58 55 56°N 164°E Dist. 83° Near east coast of Kamchatka
20	e eLR	05	07	30	0 = 04 41 00 36 1/2°N 9°E Dist. 60° Northern Tunisia 13 killed, many injured and extensive property damage in Souk-El Khemis area. Also felt in Algeria
20	e (LQ)	23	15	30	0 = 21 58 23 2°N 97°E Dist. 143° Near coast of Sumatra
21	e e (LQ)	01	27	20	

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Date	Phase	h	m	s	Remarks
1957					
Feb.					
21	iP	14	41	28	0 = 14 30 06
	iS		50	54	53°N 171°W
	i		51	32	Dist. 74°
	eSS		55	39	Fox Islands, Aleutian Islands h about 100 km Mag. 6 3/4 (Pas.)
23	eL	13	44	00	0 = 13 16 51 49°N 129°W Dist. 49° Off coast of Vancouver Island
23	ePP	20	46	56	0 = 20 26 12
	ePPP		50	06	24°N 122°E
	e	21	04	22	Dist. 123°
	e		06	30	Formosa. 11 killed,
	e		08	40	many injured, and ex-
	eLR		23	00	tensive damage at Hualien and Taipei. Mag. 7 - 7 1/4 (Pas.)
28	eLR	11	43	30	0 = 11 01 05 Andreanof Islands, Aleutian Islands
March					
1	eLR	00	35	30	0 = 23 31 25 Western Indian Ocean about 800 miles off coast of Madagascar
1	eLR	02	33	55	0 = 02 15 12 Near coast of Oaxaca, Mexico

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Date	Phase	h	m	s	Remarks
1957					
March					
2	iP	00	31	48	0 = 00 27 33
	Rare from the SW				18 1/2°N 78°W
	iS		34	54	Dist. 18°
	eLR		35	30	Jamaica. Moderate property damage at Montego Bay, Kingston; 2 killed and 5 injured Mag. 6 3/4 (Pas.) 6 1/2 (Berk.)
2	e	08	33	44	0 = 09 10 24
	e		39	34	6°S 151°E
	e		42	57	Dist. 137°
	e		44	55	Near south coast of New
	e		49	05	Britain. Felt: Rabaul
	e		59	20	and Promio
	eLR	09	17	00	
3	eP	03	26	25	0 = 03 18 23
	ePcP		28	10	8 1/2°N 103°W
	ePcS		31	32	Dist. 42°
	eS		32	56	Off coast of Mexico
	eSS		36	11	Mag. 5 3/4 (Pas.)
	eLR		38	30	
5	iP	12	29	25	0 = 12 24 35
	Comp from the SE				33°N 34 1/2°W
	e		32	00	Dist. 27°
	eS		33	28	North Atlantic Ocean
	eLR		34	00	Mag 6 1/2 - 6 3/4 (Pas.)
	eT		50	20	
	eTmax		50	40	
8	iP	12	25	20	0 = 12 14 12
	iS		34	17	39 1/2°N 23°E
					Dist. 69°
					Eastern Greece, foreshock

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Date	Phase	h	m	s	Remarks
1957					
March					
8	iP	12	32	18	0 = 12 21 08
	iS		41	20	39 1/2°N 23°E
	e (SS)		46	10	Dist. 69°
	eLR		51	00	Eastern Greece; 3 dead many injured and moderate property damage at Farsala, Larissa and Volos. Mag. 6 1/4 (Pas.)
8	ePP	23	48	44	0 = 23 35 08
	eS		55	32	39 1/2°N 23°E
	e (PPS)		56	42	Dist. 69°
	eLR	00	10	00	Eastern Greece, after- shock
9	iP	14	34	24	0 = 14 22 27 51°N 175°W Dist. 77° Andreanof Islands, Aleutian Islands Seismic seawave caused destruction of two villages and \$3,000,000 damage on Oahu and Kauai, T. H. Mag. 8-8 1/2 (Pas.) 8 (Berk.)
9	iP	20	50	48	0 = 20 39 15
	iPPP		55	14	52 1/2°N 169 1/2°W
	iS	21	00	16	Dist. 74° Fox Islands, Aleutian Islands Mag. 6 3/4-7 (Pas.) 7-7 1/4 (Berk.)

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Date	Phase	h	m	s	Remarks
1957					
March					
10	iP	03	18	02	0 = 03 06 02
	ePP		20	36	52°N 176°W
	eS		27	45	Dist. 78°
	eSS		32	30	Andreanof Islands, Aleutian Islands
	eLR		42	00	Mag. 5 1/2-6 3/4 (Pas.) (Berk.)
10	eP	03	21	10	0 = 03 08 55
	iS		30	28	51 1/2°N 174°W Dist. 77° Andreanof Islands, Aleutian Islands
10	eP	11	32	30	0 = 11 20 45
	eS		41	59	52°N 171°W
	e		46	40	Dist. 74°
	eLR	12	00	00	Fox Islands, Aleutian Islands
10	iP	15	38	06	0 = 15 25 23
	iS		47	50	52°N 173°W
	eSS		52	26	Dist. 76°
	eLR	16	04	00	Andreanof Islands, Aleutian Islands Mag. 6 3/4 (Berk.)
11	iP	03	24	42	0 = 03 12 41
	iS		34	40	51°N 177°W
	iSS		39	36	Dist. 78°
	e (LR)		50	00	Andreanof Islands, Aleutian Islands Mag. 6 3/4-7 (Pas.) (Berk.)

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Date	Phase	h	m	s	Remarks
1957					
March					
11	iP	10	10	18	0 = 09 58 42
	iPP		12	57	53°N 164 1/2°W
	iS		19	42	Dist. 70°
	iSS		24	20	Fox Islands, Aleutian
	e (LQ)		28	20	Islands
	e (LR)		36	30	Mag. 6 3/4-7 (Pas.) 7-7 1/4 (Berk.)
11	iP	15	07	22	0 = 14 55 19
	iS		17	12	51 1/2°N 178 1/2°W
					Dist. 79°
					Andreanof Islands, Aleutian Islands
					Mag. 6 3/4 (Pas.) 7 - 7 1/4 (Berk.)
12	iP	07	40	39	0 = 07 28 40
	iPP		43	32	51 1/2°N 173 1/2°W
	iS		50	20	Dist. 76°
	iSS		54	12	Andreanof Islands, Aleutian Islands
	eLR	08	06	00	Mag. 6 1/4-6 1/2 (Pas.) 6 3/4-7 (Berk.)
12	iP	11	56	50	0 = 11 44 50
	iS	12	06	52	51°N 177°W
	eLR		21	00	Dist. 78°
					Andreanof Islands, Aleutian Islands
					Mag. 7-7 1/4 (Pas.) 7 1/4 (Berk.)
12	i (P)	21	30	05	0 = 21 22 45
	iPP		31	32	2 1/2°S 80°W
	iS		35	48	Dist. 38°
	i (SS)		38	33	Near coast of Ecuador
	e (LR)		40	30	

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Date	Phase	h	m	s	Remarks
1957					
March					
12	e (P)	23	57	08	0 = 23 45 25
	e (S)	00	06	56	52°N 174°W
	e (SS)		11	28	Dist. 76°
	e (LR)		22	20	Andreanof Islands, Aleutian Islands
13	eP	03	00	12	0 = 02 48 20
	iPP		03	11	52°N 171 1/2°W
	iS		09	39	Dist. 75°
	eSS		14	22	Andreanof Islands, Aleutian Islands
	e (SSS)		18	13	
	eLR		29	00	
13	i (P)	09	21	12	0 = 09 09 34
	i (S)		30	38	52 1/2°N 170°W
	i (SS)		34	42	Dist. 74°
	e (LR)		44	00	Fox Islands, Aleutian Islands
13	iP	15	54	07	0 = 15 42 05
	iS	16	03	57	51 1/2°N 179°W
	i		07	48	Dist. 79°
	iSS		09	03	Andreanof Islands, Aleutian Islands
	eSSS		13	50	
	eLR		19	00	Mag. 6 3/4 (Pas.) (Berk.)
13	iP	20	10	40	0 = 19 59 23
	iS		19	52	54°N 166°W
	eSS		24	30	Dist. 71°
	e (LQ)		27	28	Fox Islands, Aleutian Islands
	eLR		32	30	
14	eLR	02	30	30	0 = 01 52 16
					52 1/2°N 169°W
					Dist. 73°
					Fox Islands, Aleutian Islands
14	eLR	03	29	00	0 = 02 46 55
					53 1/2°N 163 1/2°W
					Dist. 69°
					Off south coast of Unimak Island

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Date	Phase	h	m	s	Remarks
1957					
March					
14	iP	14	59	46	0 = 14 47 45
	iS	15	09	35	51 1/2°N 177°W
	eLR		24	00	Dist. 78° Andreanof Islands, Aleutian Islands Mag. 7 1/2 (Pas.) 7 1/4-7 1/2 (Berk.)
14	e (S)	22	40	08	0 = 22 18 23
	e (LQ)		56	30	51 1/2°N 176°W Dist. 77° Andreanof Islands, Aleutian Islands
15	iP	03	03	34	0 = 02 52 08
	e (PPP)		09	11	53°N 167°W
	iS		12	52	Dist. 72°
	e		15	40	Fox Islands, Aleutian
	iSS		17	30	Islands
	e (SSS)		21	30	Mag. 6 3/4 (Pas.)
	eLR		27	30	6 1/2 (Berk.)
16	iP	02	46	17	0 = 02 34 12
	iS		56	12	52°N 179°W
	eSS	03	01	12	Dist. 79°
	eLR		13	00	Andreanof Islands, Aleutian Islands Mag. 6 3/4 (Pas.) 7 (Berk.)
16	e (L)	14	52	00	
17	e (LQ)	02	27	00	0 = 01 46 56 51°N 180°W Dist. 79° Andreanof Islands, Aleutian Islands

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Date	Phase	h	m	s	Remarks
1957					
March					
17	e (L)	03	31	30	0 = 02 48 36 51°N 178 1/2°W Dist. 78° Andreanof Islands, Aleutian Islands
17	iP	08	05	57	0 = 07 53 51
	iS		15	51	51°N 179°W
	eSS		20	49	Dist. 79°
	eSSS		25	53	Andreanof Islands
	e (LQ)		27	30	Aleutian Islands
	eLR		32	30	
17	e (P)	15	23	04	0 = 15 11 42
	eS		32	24	53°N 167 1/2°W
	eSS		37	03	Dist. 72°
	eSSS		40	56	Fox Islands, Aleutian
	eLQ		44	00	Islands
	eLR		50	00	
17	i (P)	16	28	34	0 = 16 17 13
	e (S)		37	28	52 1/2°N 166°W
	e (SS)		42	25	Dist. 71°
	e (L)		54	00	Fox Islands, Aleutian Islands
17	iP	22	55	57	0 = 22 44 44
	ePP		58	36	54°N 166°W
	ePPP	23	00	10	Dist. 71°
	iS		05	09	Fox Islands, Aleutian
	eSS		09	33	Islands
	i (SSS)		13	22	Mag. 6 1/2 (Pas.)
	eLQ		15	30	
	eLR		18	30	
18	iP	02	37	03	0 = 02 25 26
	iS		46	37	52 1/2°N 171°W
	eSS		51	22	Dist. 74°
	eLQ		54	50	Fox Islands, Aleutian
	eLR	03	00	00	Islands

Date	Phase	h	m	s	Remarks
1957					
March					
18	eP	05	20	40	0 = 05 08 34
	eS		30	44	51 1/2°N 179°W
	e (SS)		35	22	Dist. 79°
	eLQ		40	36	Andreanof Islands,
	eLR		45	00	Aleutian Islands
18	iPKP	21	33	40	0 = 21 14 12
	ePP		36	22	6°S 152°E
	ePKS		37	29	Dist. 137°
	ePPP		38	30	New Britain
	eSKKS		43	24	
	ePS		46	28	
	ePPS		48	30	
	e		56	08	
	eLQ	22	09	40	
	eLR		17	00	
19	e (L)	04	23	30	0 = 03 39 35 52°N 175 1/2°W Dist. 78° Andreanof Islands, Aleutian Islands
19	eP	08	25	35	0 = 08 14 10
	eS		35	23	53°N 168°W
	eSS		39	44	Dist. 72°
	e (LQ)		49	00	Fox Islands, Aleutian
	eLR		55	00	Islands
19	iP	11	40	51	0 = 11 28 50
	ePP		43	37	51°N 176 1/2°W
	ePPP		45	52	Dist. 77°
	eS		50	33	Andreanof Islands,
	eSS		55	40	Aleutian Islands
	eLR	12	07	00	
19	iP	13	02	52	0 = 12 50 51
	iS		12	33	51 1/2°N 175°W
	eLR		27	00	Dist. 77° Andreanof Islands, Aleutian Islands Mag. 6 3/4 (Pas.)

Date	Phase	h	m	s	Remarks
1957					
March					
19	eP	15	59	10	0 = 15 47 24
	ePPP	16	04	15	52°N 172 1/2°W
	eS		08	51	Dist. 77°
	eLR		22	00	Fox Islands, Aleutian Islands
19	e (P)	17	16	20	0 = 17 04 25
	e (S)		25	37	52 1/2°N 171°W
	eLR		47	00	Dist. 74° Fox Islands, Aleutian Islands
20	e (P)	00	12	10	0 = 00 00 51
	e (S)		22	16	52°N 173°W Dist. 75° Andreanof Islands, Aleutian Islands
20	i (P)	00	33	57	0 = 00 22 25
	e (S)		43	19	53°N 169°W
	e		45	08	Dist. 73°
	eLR	01	04	00	Fox Islands, Aleutian Islands
20	e (S)	03	46	47	0 = 03 25 00
	eLR	04	08	00	51 1/2°N 175 1/2°W Dist. 77° Andreanof Islands Aleutian Islands
20	e (S)	11	23	08	0 = 11 01 42
	e		27	56	52°N 172°W
	e (LQ)		40	20	Dist. 75°
	eLR		45	00	Andreanof Islands, Aleutian Islands
21	e (L)	17	40	00	0 = 16 35 28 3°S 144 1/2°E Dist. 140° Near north coast of New Guinea

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Date	Phase	h	m	s	Remarks
1957					
March					
21	e (L)	18	22	00	0 = 17 39 12 51 1/2°N 177°W Dist. 77° Andreanof Islands, Aleutian Islands
22	e	10	15	30	
22	iP iS iSS eLR	14	32 41 46 55	20 34 04 00	0 = 14 21 06 54°N 166°W Dist. 71° Fox Islands, Aleutian Islands Mag. 7 (Pas.) (Berk.)
22	eLR	20	07	00	0 = 19 44 22 37.9°N 122.6°W Dist. 47° Northern California Minor damage at Daly City and San Francisco Mag. 5 1/4-5 1/2 (Pas.)
23	i (PKP) i (PKP) e (SKKS) eLR	05	32 33 47 06	16 00 07 00	0 = 05 12 31 5 1/2°S 131°E Dist. 149° Banda Sea h about 100 km Mag. 7 (Pas.)
24	e	02	08	40	
24	iS iScS iSS eLQ eLR	08	38 41 42 43 46	40 20 12 42 50	0 = 08 22 23 51°N 130°W Dist. 50° Near north coast of Vancouver Island Mag. 6 3/4-7 (Pas.) 6-6 1/4 (Berk.)

BERMUDA-COLUMBIA UNIVERSITY

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Date	Phase	h	m	s	Remarks
1957					
March					
24	iP eS eSS eLQ eLR	11	17 27 31 35 40	44 10 56 55 00	0 = 11 06 10 52 1/2°N 169 1/2°W Dist. 74° Fox Islands, Aleutian Islands
25	eS eSS eSSS eLQ	01	00 04 08 16	12 57 30 00	0 = 00 39 22 53°N 168°W Dist. 72°
25	e (P) eS e (LQ) e (LR)	02	35 40 42 45	42 22 40 00	0 = 02 28 36 13 1/2°N 91°W Dist. 31° Near coast of Guatemala felt: San Salvador
25	e (LQ)	06	14	30	0 = 05 37 25 54°N 163 1/2°W Dist. 70° Unimak Island region, Alaska
25	e (L)	11	02	00	
25	e e e e e	18	35 38 42 48 52	28 20 30 16 28	0 = 18 25 48 Revilla Gigedo Islands group
25	e e e e e e e e eLQ eLR	21	25 31 32 33 34 37 41 46 57	16 10 04 16 28 08 26 08 30	

20

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Date	Phase	h	m	s	Remarks
1957					
March					
26	e (P)	01	40	32	
	e (S)		45	04	
	e (L)		50	10	
26	e (P)	02	21	52	0 = 02 10 15
	e (S)		30	37	54°N 165 1/2°W
	e (SS)		35	09	Dist. 70°
	e (LQ)		38	46	Fox Islands, Aleutian
	eLR		48	00	Islands
26	eP	03	16	28	0 = 03 04 55
	eS		26	04	51 1/2°N 170°W
	eSS		30	32	Dist. 74°
	e		34	08	Fox Islands, Aleutian
	e		37	36	Islands
	e		39	42	
	eLR		48	00	
27	eLR	14	06	00	0 = 13 00 27 5°S 153 1/2°E Dist. 135° Off coast of New Britain felt: Rabaul and Karoola h about 100 km
28	e (P)	20	20	32	0 = 20 08 20
	iS		29	36	51°N 171 1/2°W
	eSS		34	15	Dist. 75°
	e		37	35	Fox Islands, Aleutian
	e (LQ)		40	30	Islands
	eLR		46	00	
29	iP	05	21	43	0 = 05 10 28
	Comp. from the NW				53 1/2°N 167°W
	iPP		24	27	Dist. 71°
	iPPP		26	10	Fox Islands, Aleutian
	iS		31	10	Islands
	iSS		35	31	
	iSSS		39	32	
	eLQ		40	18	
	eLR		43	00	

BERMUDA-COLUMBIA UNIVERSITY

21

Date	Phase	h	m	s	Remarks
1957					
March					
29	iP	23	01	28	0 = 22 49 51
	i		02	50	53°N 169°W
	iS		10	32	Dist. 74°
	eSS		15	14	Fox Islands, Aleutian
	e (SSS)		19	20	Islands
	eLR		27	00	Mag. 6 - 6 1/4 (Pas.)
30	eLR	01	23	00	0 = 00 42 00 51 1/2°N 179 1/2°W Dist. 79° Andreanof Islands, Aleutian Islands
30	eLR	02	29	00	0 = 01 50 39 51 1/2°N 178°W Dist. 78° Andreanof Islands, Aleutian Islands
30	eLR	07	15	00	0 = 06 37 00 51°N 180°W Dist. 79° Andreanof Islands, Aleutian Islands
30	iP	09	28	53	0 = 09 17 00
	eS		38	32	52°N 175°W
	eLR		53	00	Dist. 77° Andreanof Islands, Aleutian Islands

**BERMUDA-COLUMBIA UNIVERSITY
SEISMOGRAPH STATION**

SIGNAL HILL
ST. GEORGES, BERMUDA



SEISMOLOGICAL BULLETIN

By

G. PIMENTEL

1 April 1957 - 31 March 1958

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LAMONT GEOLOGICAL OBSERVATORY
(COLUMBIA UNIVERSITY)

Contribution No. 445

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

2

STATION CONSTANTS, INSTRUMENTS AND ABBREVIATIONS

LATITUDE: 32° 22' 46" N
 LONGITUDE: 64° 40' 52" W
 ELEVATION: 41 METERS
 BEDROCK: CALCAREOUS AEOLIONITE

INSTRUMENTS:

THREE COMPONENT SHORT PERIOD BENIOFF SEISMOGRAPHS (N,E,Z)
 To = 1 sec., Tg = 0.2 sec.

THREE COMPONENT LONG PERIOD BENIOFF SEISMOGRAPHS (N,E,Z)
 To = 1 sec., Tg = 75 sec.

THREE COMPONENT COLUMBIA UNIVERSITY LONG PERIOD SEISMOGRAPHS (N,E,Z) TO = 15 sec., Tg = 75 sec.

TWO MILNE-SHAW HORIZONTAL SEISMOGRAPHS (NE, NW)
 To = 12 sec., V = 250

ONE COLUMBIA UNIVERSITY MICROBAROGRAPH
 To = 10 sec., Tg = 75 sec.

EPICENTRAL DATA FROM U.S. COAST AND GEODETIC SURVEY PRELIMINARY DETERMINATIONS.

ABBREVIATIONS

I = SUDDEN BEGINNING OF THE MOTION (IMPETUS)

E = GRADUAL BEGINNING OF THE MOTION (EMERSIO)

ALL TIMES ARE G. C. T.

THE BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION, FORMERLY KNOWN AS THE BERMUDA SEISMOGRAPH STATION, WAS INITIALLY SPONSORED BY THE BERMUDA GOVERNMENT, THE U. S. COAST AND GEODETIC SURVEY, THE INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS AND THE ROYAL SOCIETY OF LONDON. SINCE 1951 NEW INSTRUMENTS HAVE BEEN ADDED UNDER THE JOINT SPONSORSHIP OF THE BERMUDA GOVERNMENT AND COLUMBIA UNIVERSITY. IT IS REQUESTED THAT EXCHANGE BULLETINS AND PAPERS BE MAILED DIRECTLY TO BERMUDA.

DATE:	PHASE	H	M	S	REMARKS
1957					
APRIL 2	EP	00	51	36	ANDREANOF ISLAND, ALEUTIAN ISLANDS
	ES	01	01	07	O = 00 39 42
	ESS	01	05	42	51°N 173°W
	E	01	15	00	DIST. 75° BERMUDA
	E(LR)	01	17	30	
2	EP	20	28	45	ANDREANOF ISLAND, ALEUTIAN ISLANDS
	IS	20	38	36	O = 20 16 57
	ESS	20	43	25	51½° N, 173° W
	E(LR)	20	52	00	DIST. 75° BERMUDA
2	EP	21	39	47	ANDREANOF ISLAND, ALEUTIAN ISLANDS
	EPP	21	42	15	O = 21 27 54
	EPPP	21	44	00	51° N, 173° W
	ES	21	49	28	DIST. 75° BERMUDA
	ESS	21	54	22	
	E(LR)	22	06	00	
3	E(PcP)	17	27	35	
	E(PcS)	17	31	15	
	E(SS)	17	34	48	
	E(LR)	17	36	00	
	INTERPRETATION DOUBTFUL				
4	IP	00	23	21	NEAR COAST OF ALASKA PENINSULA.
	IPP	00	26	06	FELT KODIAK ISLAND.
	IS	00	31	48	O = 00 13 08
	ISS	00	35	46	58° N, 155½° W
	E(LQ)	00	38	46	DEPTH ABOUT 150 KM
	ELR	00	41	30	DIST. 64° BERMUDA
4	E	07	16	38	
	E	07	23	00	
	ELR	07	38	00	
4	E	11	20	28	PROBABLY SOUTHERN MENDOZA
	E	11	24	35	PROVINCE, ARGENTINA.
	E	11	28	16	O = 11 00 20
	ELR	11	32	00	
5	IP	03	01	32	FOX ISLAND, ALEUTIAN ISLANDS
	IPP	03	04	13	O = 02 49 39
	IPPP	03	05	57	52° N, 172½° W
	IS	03	10	58	MAG 6½
	ISS	03	15	57	DIST. 74° BERMUDA
	E(SSS)	03	18	20	
	ELR	03	23	00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

3

DATE	PHASE	H	M	S	REMARKS
1957					
APRIL 5	IPP	07	50	52	KERMADEC ISLANDS REGION
	iSKS	07	56	00	O = 07 30 22
	iSKKS	07	57	37	26 $\frac{1}{2}$ ^o S, 177 W
	iPS	08	00	36	MAG 6 $\frac{3}{4}$
	I	08	06	27	DEPTH ABOUT 100 KM
	eSS	08	07	16	DIST. 121 ^o BERMUDA
	E(LQ)	08	21	20	
	ELR	08	25	20	
5	iP	16	18	13	NEAR COAST OF NICARAGUA.
	iS	16	23	06	FELT EL SALVADOR.
	eLR	16	25	30	O = 16 12 20 12 $\frac{1}{2}$ ^o N, 88 ^o W DEPTH ABOUT 100 KM DIST. 29 ^o BERMUDA
7	i(PKP)	10	33	54	NEAR NORTH COAST OF NEW
	i(PKS)	10	37	14	GUINEA.
	E(PPP)	10	39	30	O = 10 14 08
	i(SKKS)	10	43	49	1 ^o S, 137 $\frac{1}{2}$ ^o E
	i(PGSPKP)	10	45	49	MAG 6-6 $\frac{3}{4}$
	i(PS)	10	47	06	DIST. 140 ^o BERMUDA
	i(PPS)	10	49	28	
	E(SS)	10	55	34	
	E	11	00	25	
	ELR	11	24	00	
8	iP	20	24	28	PANAMA - COSTA RICA BORDER.
	EPP	20	25	27	FELT BALBOA HEIGHTS.
	E(S)	20	29	40	O = 20 18 09
	ELR	20	32	00	8 $\frac{1}{2}$ ^o N, 83 ^o W MAG 6 $\frac{1}{4}$ DIST. 30 ^o BERMUDA
9	I	00	43	36	OFF SOUTH COAST OF HONSHU,
	I	00	45	05	JAPAN.
	I	00	48	20	O = 00 24 39
	I	00	49	47	30 $\frac{1}{2}$ ^o N, 138 $\frac{1}{2}$ ^o E
	I	00	51	46	MAG 6 $\frac{3}{4}$ 6 $\frac{1}{4}$
	I	00	52	23	DEPTH ABOUT 450 KM
	I	00	55	25	DIST. 113 ^o BERMUDA

4. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H	M	S	REMARKS
1957					
APRIL 9	iP	11	14	16	ANDREANOF ISLANDS, ALEUTIANS
	EPP	11	17	18	O = 11 02 12
	iS	11	24	14	51 $\frac{1}{2}$ ^o N, 178 $\frac{1}{2}$ ^o W
	ESS	11	29	08	DIST. 79 ^o BERMUDA
	ESSS	11	33	32	
	ELR	11	39	00	
9	eLR	21	02	00	FOX ISLANDS, ALEUTIANS O = 20 35 56 52 $\frac{1}{2}$ ^o N, 169 ^o W DIST. 73 ^o BERMUDA
10	E(S)	03	46	06	FOX ISLANDS, ALEUTIANS
	ELR	04	01	00	O = 03 25 20 53 ^o N, 168 ^o W DIST. 72 ^o BERMUDA
10	iP	05	19	00	NEAR COAST OF OAXACA, MEXICO.
	iS	05	24	32	O = 05 12 08
	ELR	05	27	00	15 $\frac{1}{2}$ ^o N, 98 ^o W MAG 6 $\frac{3}{4}$ -7, 6 $\frac{1}{2}$ DIST. 35 ^o BERMUDA
10	E(L)	07	42	30	GUATEMALA O = 07 28 03 14 ^o N, 91 $\frac{1}{2}$ ^o W DIST. 30 ^o BERMUDA
10	E(S)	09	31	12	ANDREANOF ISLANDS, ALEUTIANS O = 09 09 18 51 ^o N, 177 ^o W DIST. 78 ^o BERMUDA
10	iP	11	40	36	KODIAK ISLAND REGION
	iPPP	11	44	46	O = 11 29 58
	iS	11	48	48	56 ^o N, 154 ^o W
	iScS	11	50	22	MAG 7 7 $\frac{1}{4}$
	E(LQ)	11	56	07	DIST. 64 ^o BERMUDA
	ELR	11	59	00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

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DATE	PHASE	H M S	REMARKS
1957			
APRIL II	E	01 36 56	
	E	01 39 24	
	E	01 47 06	
	E	02 00 39	
	E(LR)	02 13 20	
II	E	07 13 28	SOMOA ISLANDS
	E	07 22 12	O = 06 44 33
	E	07 30 28	
	E	07 37 06	
	E	07 38 52	
	E(L)	07 40 00	
II	E	17 59 05	FOX ISLANDS, ALEUTIANS
	E(S)	18 01 35	O = 17 40 37
	E(SS)	18 06 16	52° N, 168½° W
	E(LQ)	18 09 52	DIST. 73° BERMUDA
	E(LR)	18 18 30	
I2	E(S)	04 39 47	ANDREANOF ISLANDS, ALEUTIANS
	ELR	04 55 00	O = 04 17 45 51½° N, 178½° W DIST. 79° BERMUDA
I2	E(L)	16 48 00	
I3	IP	03 52 57	OFF COAST OF VANCOUVER ISLAND,
	IPcP	03 53 52	BRITISH COLUMBIA
	IPP	03 54 55	O = 03 44 00
	IS	04 00 16	48½° N, 128° W
	ISS	04 04 10	DIST. 50° BERMUDA
	ELR	04 07 00	
I4	ISKS	07 37 20	SOUTHERN TIBET
	ISKKS	07 38 20	O = 07 11 50
	I	07 39 20	31° N, 84½° E
	IPS	07 40 36	MAG 6½
	IPPS	07 41 56	DISTANCE 110° BERMUDA
	I	07 42 37	
	I	07 47 44	
	ELR	08 02 30	

6. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
APRIL I5	IP	21 44 36	FOX ISLANDS, ALEUTIANS
	ES	21 53 50	O = 21 33 05
	ESS	21 58 56	52½° N, 167° W
	E(LQ)	22 02 00	DIST. 72° BERMUDA
	ELR	22 10 00	
I6	I	04 22 53	WESTERN JAVA SEA
	I	04 25 08	O = 04 04 04
	I	04 26 28	4½° S, 107½° E
	I	04 27 50	MAG 7½
	I	04 29 19	DEPTH ABOUT 600 KM
	I	04 31 14	DIST. 151° BERMUDA
	I	04 33 10	
	I	04 33 58	
	I	04 36 08	
	I	04 39 52	
	I	04 41 45	
	I	04 45 12	
	I	04 48 16	
I7	E(S)	09 49 08	
I7	ELR	10 05 00	
I7	EP	13 36 28	FOX ISLANDS, ALEUTIANS
	ES	13 45 52	O = 13 24 58
	ESS	13 50 20	52½° N, 169° W
	ESSS	13 54 37	DIST. 73° BERMUDA
	ELQ	13 56 26	
	ELR	14 01 00	
I7	E(P)	18 15 45	MEXICO GUATEMALA BORDER
	E(S)	18 20 40	O = 18 09 26
	ELR	18 23 30	14½° N, 92° W DIST. 30° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

7.

DATE	PHASE	H	M	S	REMARKS
1957					
APRIL 18	E(S) E(LR)	00	37	20	FOX ISLANDS, ALEUTIANS O = 00 16 17 52° N, 171° W DIST. 74° BERMUDA
18	E(S) ELR	07	21	44	ANDREANOF ISLANDS, ALEUTIANS O = 07 00 06 51½° N, 176° W DIST. 77° BERMUDA
19	E	06	02	00	
19	E	09	19	30	SOLOMAN ISLANDS O = 08 39 37 6½° S, 155½° E DIST. 133° BERMUDA
19	IP RARE FROM N.W. iPcP ePP ePPP eS eSS e(SSS) e(LR)	15	56	27	FOX ISLANDS O = 15 44 53 51½° N, 168½° W DIST. 72° BERMUDA
19	IP RARE FROM THE N.W. iPPP iS iSS eSSS ELR	22	30	53	FOX ISLANDS, ALEUTIANS O = 22 19 26 52° N, 166½° W MAG 7-7½ DIST. 72° BERMUDA
20	E E E E E	07	13	00	SOUTH PACIFIC OCEAN O = 06 48 04 54½° S, 148½° E DIST. 147° BERMUDA
20	E E E	12	53	04	NEAR COAST OF NEW GUINEA O = 12 30 37 6° S, 147½° E DIST. 140° BERMUDA

8. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H	M	S	REMARKS
1957					
APRIL 21	IP iPP iS E(LQ) ELR ET ET MAX.	21	18	07	COLOMBIA-VENEZUELA BORDER O = 21 12 26 7° N, 72° W MAG 6½-6¾ DIST. 26° BERMUDA
23	IP EPP ePPP iS EScS ESS ELQ ELR	22	08	46	NORTHERN CHILE-ARGENTINE BORDER O = 21 12 35 27° S, 68° W DIST. 60° BERMUDA
24	IP iPPP iS iPPS ISS ELQ ELR	19	21	47	TURKEY FORESHOCK O = 19 10 05 36° N, 26½° E MAG 6½-7 7-7½ DIST. 75° BERMUDA
25	IP COMP. FROM THE N.E. i(P) IPP iPPP E I iS ESS ELQ ELR	02	37	13	NEAR SOUTH COAST OF TURKEY. 15 KILLED AT FETHIYE, TURKEY. MANY INJURED AND EXTENSIVE PROPERTY DAMAGE THROUGHOUT SOUTH-EASTERN TURKEY AND THE ISLAND OF RHODES. ALSO FELT ON CYPRUS, CAIRO, AND THE DODECANESE ISLANDS. O = 02 25 36 36½° N, 29° E MAG 7-7½ 7½ DIST. 75° BERMUDA
25	IP EPP ePPP iS ESS ELQ ELR	07	27	06	ANDREANOF ISLANDS, ALEUTIANS O = 07 15 15 52° N, 173½° W DIST. 76° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

9.

DATE	PHASE	H M S	REMARKS
1957			
APRIL 25	iPKP E(LR) INTERPRETATION DOUBTFUL	10 36 10 11 31 30	OFF COAST OF NEW GUINEA O = 10 16 18 4½° S, 134° E DIST. 146° BERMUDA
25	i(PKP)	11 25 42	MOLUCCA PASSAGE O = 11 06 02 1½° N, 126° E DIST. 144° BERMUDA
25	E(LR)	14 40 30	NEAR SOUTH COAST OF ALASKA O = 14 07 58 60½° N, 145° W DIST. 58° BERMUDA
25	E(S) ELR	18 07 28 18 22 30	ANDREANOF ISLANDS, ALEUTIANS O = 17 45 14 51½° N, 180° DIST. 79° BERMUDA
25	E(LR)	22 18 00	IMPERIAL COUNTY CALIFORNIA FELT O = 21 57 36 33° N, 115½° W MAG 5.4 5½-6 DIST. 42° BERMUDA
25	E(P) E(S) ELR INTERPRETATION DOUBTFUL	22 32 06 22 38 08 22 45 00	IMPERIAL COUNTY CALIFORNIA FELT O = 22 24 11 33½° N, 115½° W MAG 5.3 5½-6 DIST. 42° BERMUDA
26	E	02 43 00	HINDU KUSH O = 02 11 52 37° N, 70½° E DEPTH ABOUT 200 KM DIST. 99° BERMUDA
26	E(P) E(S) ELR	06 45 16 06 55 16 07 08 00	TURKEY AFTERSHOCK O = 06 33 32 36½° N, 29° E DIST. 75° BERMUDA

10. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
APRIL 26	E(L) ELR	10 51 50 10 55 30	NEAR SOUTH COAST OF ALASKA O = 10 23 17 60° N, 147° W DIST. 58° BERMUDA
26	ELR	15 55 00	KURILE ISLANDS O = 15 08 22 45° N, 148° E DIST. 97° BERMUDA
27	E	01 00 00	NEAR COAST OF CELEBES O = 00 09 47 O 121½° E DEPTH ABOUT 60 KM DIST. 146° BERMUDA
27	E	03 20 00	FOX ISLANDS, ALEUTIANS O = 02 39 24 53° N, 166° W DIST. 71° BERMUDA
27	E	05 05 00	NEAR COAST OF CHILE FELT SANTIAGO O = 04 19 20
27	ELR	13 28 00	ANDREANOF ISLANDS, ALEUTIANS O = 12 48 45
28	iPKP iPP iPKS iPPP iSKKS iPS ePPS ESS E(SKSSKS) E(PKPSKS) E ELR	01 43 11 01 46 07 01 47 48 01 48 40 01 52 24 01 56 30 01 57 40 02 04 13 02 05 01 02 08 35 02 09 41 02 28 00	OFF COAST OF MINDANAO, P.I. O = 01 23 40 7° N, 127° E MAG 5½ - 6 DIST. 138° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

11.

DATE	PHASE	H M S	REMARKS
1957			
APRIL 28	eLR	11 38 00	SOLOMAN ISLANDS O = 10 36 41 6° S, 155° E DEPTH ABOUT 60 KM DIST. 133° BERMUDA
28	eP	15 00 25	FOX ISLANDS
	eS	15 09 49	O = 14 48 52
	eSS	15 14 30	52½° N, 168½° W
	eSSS	15 18 17	DIST. 73° BERMUDA
	eLQ	15 20 00	
	eLR	15 24 00	
29	e(P)	04 41 37	FOX ISLANDS
	eS	04 51 01	O = 04 30 04
	e(PPS)	04 52 44	52½° N, 168½° W
	eSS	04 55 38	DIST. 73° BERMUDA
	e(LQ)	04 59 36	
	eLR	05 06 30	
29	e(PKP)	21 16 02	OFF SOUTH COAST OF JAVA
	e(PKP ₂)	21 16 36	O = 20 55 57
	e	21 18 28	9° S, 107° E
	e(PKS)	21 20 07	DIST. 155° BERMUDA
	e(PP)	21 20 48	
	e(PPP)	21 24 12	
	e(SKKKS)	21 28 16	
	e(SS)	21 39 44	
	eLR	22 16 00	
MAY 1	eS	23 49 19	FOX ISLANDS, ALEUTIANS
	eSS	23 54 05	O = 23 28 09
	eLQ	23 58 07	52½° N, 171° W
	eLR	00 03 30	DIST. 74° BERMUDA
2	e(LQ)	02 42 54	FOX ISLANDS, ALEUTIANS
	eLR	02 54 00	O = 02 22 18 54° N, 166° W DIST. 70° BERMUDA

12. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
MAY 2	eP	04 03 08	BAFFIN BAY
	ePP	04 04 23	O = 03 55 34
	iS	04 09 06	72° N, 67½° W
	eSS	04 11 23	MAG 6½-6¾ 6
	eLR	04 13 00	DIST. 39° BERMUDA
2	iPP	10 52 18	SOUTH PACIFIC OCEAN
	iPPP	10 54 43	O = 10 34 14
	iSKS	10 58 48	56½° S, 123° W
	iPS	11 01 24	DIST. 101° BERMUDA
	e(PPS)	11 03 00	
	iSS	11 06 50	
	eSKKS	11 11 16	
	eLQ	11 16 40	
	eLR	11 19 00	
2	iP	11 40 49	FOX ISLANDS, ALEUTIANS
	iS	11 50 08	O = 11 29 13
	e	11 58 35	52½° N, 169° W
	e(L)	12 06 30	DIST. 73° BERMUDA
2	iP	11 50 26	FOX ISLANDS, ALEUTIANS
	e(PPP)	11 54 52	O = 11 38 52
	iS	11 59 49	52½° N, 169° W
	iSS	12 04 33	DIST. 73° BERMUDA
	eLR	12 13 20	
2	iPKP	21 55 20	FLORES SEA
	iPP	21 57 49	O = 21 36 25
	iPPP	22 01 21	7½° S, 120° E
	eSKS	22 02 26	DEPTH ABOUT 600 KM
	eSKKS	22 05 13	DIST. 140° BERMUDA
	ePS	22 08 52	
	eSKSSKS	22 18 36	
	e	22 23 36	
	e	22 27 47	
3	e	07 32 36	ANDREANOF ISLANDS, ALEUTIANS
	e	07 46 12	O = 07 10 25
	eLR	07 51 00	51° N, 179½° E DIST. 79° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

13.

DATE	PHASE	H M S	REMARKS
1957			
MAY 3	E	12 37 42	
	ELR	12 51 30	
4	E(PKP)	10 38 32	WESTERN NEW GUINEA
	E(PKS)	10 42 13	O = 10 05 45
	E(SKS)	10 46 10	3½° S, 137° E
	E(SKKS)	10 48 00	DIST. 143° BERMUDA
	E(PPS)	10 54 14	
	ELR	11 16 00	
			(INTERPRETATION DOUBTFUL)
5	E(LQ)	01 48 30	
6	E(LR)	11 59 30	ANDREANOF ISLANDS, ALEUTIANS O = 11 18 15 52° N, 173° W DIST. 76° BERMUDA
7	I(S)	01 31 22	OFF COAST OF ECUADOR
	ELR	01 34 00	O = 01 18 28 1° N, 85½° W DIST. 38° BERMUDA
7	E(S)	05 58 44	ANDREANOF ISLANDS, ALEUTIANS
	E(LQ)	06 11 40	O = 05 36 32
	ELR	06 16 00	51½° N, 179½° E DIST. 80° BERMUDA
7	E	22 12 00	
8	I(PKP)	20 33 00	FIJI ISLANDS
	E(PKS)	20 36 31	O = 20 09 55
	E(SKKS)	20 40 57	15½° S, 179° E
	E	20 42 36	DEPTH ABOUT 400 KM
	ELR	21 04 00	DIST. 120° BERMUDA
			INTERPRETATION FAIR
11	ELR	08 08 30	ANDREANOF ISLANDS, ALEUTIANS O = 07 30 22 51½° N, 178½° W DIST. 78° BERMUDA

14 BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
MAY 12	IP	05 01 28	SANDWICH ISLANDS REGION
	EPP	05 05 25	O = 04 47 44
	EPPP	05 07 16	DIST. 98° BERMUDA
	E	05 10 40	
	E(SKS)	05 12 08	
	E(SS)	05 19 28	
	ELR	05 33 00	
12	E	07 02 00	NORTHERN SAKHALIN
	E(L)	07 35 00	O = 06 48 27 53° N, 142° E DIST. 90° BERMUDA
12	E	11 49 00	NEAR SOUTH COAST OF JAVA
	E	11 49 50	O = 11 29 07
	E	11 55 29	8½° S, 107½° E
	E	11 57 36	DIST. 154° BERMUDA
	E	12 03 36	
	E	12 14 24	
	E	12 17 20	
	ELR	12 50 00	
15	E(P)	02 17 13	CHIAPAS, MEXICO
	E(S)	02 22 06	O = 02 11 05
	E(SS)	02 23 00	17½° N, 93½° W
	E(LQ)	02 23 40	DEPTH ABOUT 100 KM
			INTERPRETATION DOUBTFUL DIST. 30° BERMUDA
17	E(P)	20 50 30	REVILLA GIGEDG ISLANDS REGION
	E(PP)	20 52 07	O = 20 42 40
	E(PcS)	20 56 37	
	I(S)	20 57 00	
	E(LQ)	20 58 40	
	ELR	21 01 00	
18	IP	05 35 49	FOX ISLANDS, ALEUTIANS
	EPP	05 38 40	O = 05 24 01
	EPPP	05 40 29	51° N, 171° W
	IS	05 45 28	DIST. 76° BERMUDA
	ISS	05 50 17	
	ISSS	05 54 10	
	E(LQ)	05 57 20	
	ELR	05 59 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

15.

DATE	PHASE	H	M	S	REMARKS
1957					
MAY 19	EP	07	26	34	ABOUT 800 MILES WEST OF
	IS	07	34	00	GALAPAGOS ISLANDS
	E(LQ)	07	39	00	O = 07 17 20
	ELR	07	41	30	
19	IP	21	06	36	NEAR COAST OF NICARAGUA
	IS	21	11	31	O = 21 00 36
	ELR	21	14	30	12° N, 87° W DEPTH ABOUT 100 KM DIST. 29° BERMUDA
20	EP	02	03	00	ANDREANOF ISLANDS, ALEUTIANS
	EPPP	02	08	26	O = 01 50 54
	ES	02	13	08	54° N, 180°
	ESS	02	18	24	DIST. 78° BERMUDA
	ESSS	02	23	32	
	E(LQ)	02	25	40	
	ELR	02	29	00	
20	ELR	06	53	00	OFF COAST OF COSTA RICA O = 06 38 30
20	E(T)	17	32	36	
20	EP	21	39	17	DIST. 22° BERMUDA
	ES	21	43	17	
	ELR	21	44	30	
21	EPKP	01	31	10	MARIANA ISLANDS REGION
	EPKP	01	32	03	O = 01 11 58
	EPP	01	32	26	21½° N, 144° E
	EPPP	01	35	07	DEPTH ABOUT 100 KM
	ISKS	01	37	30	DIST. 120° BERMUDA
	ISKS	01	38	52	
	IPKKP	01	41	36	
	IPS	01	42	30	
	ESS	01	48	22	
	ESSS	01	52	48	
	ESSSS	01	56	16	
	ELR	02	07	00	

16. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H	M	S	REMARKS
1957					
MAY 22	EP	13	41	50	ANDREANOF ISLANDS, ALEUTIANS
	EPP	13	44	48	O = 13 29 44
	EPPP	13	46	44	50° N, 177° W
	ES	13	51	50	MAG 6½
	ESS	13	56	48	DIST. 79° BERMUDA
	ELQ	14	00	00	
	ELR	14	04	00	
24	IP	02	44	00	COLOMBIA
	IPP	02	44	48	O = 02 37 37
	IS	02	49	00	3° N, 76½° W
	ELR	02	52	00	MAG 6½ 6½ DIST. 31° BERMUDA
24	IP	03	48	06	FOR ISLANDS, ALEUTIANS
	IS	03	57	16	O = 03 36 33
	ESS	04	01	52	53° N, 167½° W
	E(LQ)	04	05	08	MAG 6-6½
	ELR	04	10	00	DIST. 72° BERMUDA
26	NOTE: SEVERAL UNDETERMINED AFTERSHOCKS ON THIS DAY				
26	E	04	38	00	FOX ISLANDS, ALEUTIANS
	E(L)	04	56	00	O = 04 16 44
26	IP	06	45	09	BOLU PROVINCE, TURKEY.
	RARE FROM THE EAST				
	ES	06	54	44	53 KILLED, 70 INJURED AND
	ESS	06	59	38	MAJOR PROPERTY DAMAGE
	E(L)	07	02	14	O = 06 33 31
	ELR	07	08	00	41° N, 31° E MAG 7 DIST. 74° BERMUDA
26	ELR	17	07	00	CERAM ISLAND REGION
	O = 15 53 30				
	3° S, 131° E				
	DIST. 147° BERMUDA				
27	E(L)	11	11	00	OFF COAST OF COLOMBIA
	O = 10 55 16				
	4° N, 83° W				
	DIST. 34° BERMUDA				

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

17

DATE	PHASE	H M S	REMARKS
L1957			
MAY 27	E(L)	II 33 00	TURKEY AFTERSHOCK FELT O = II 01 26 40 $\frac{1}{2}$ ^o N, 31 ^o E DIST. 74 ^o BERMUDA
27	E(L)	20 42 00	FOX ISLANDS, ALEUTIANS O = 19 57 56 52 ^o N, 170 $\frac{1}{2}$ ^o W DIST. 74 ^o BERMUDA
28	E	01 17 30	TURKEY AFTERSHOCK O = 00 09 45 40 $\frac{1}{2}$ ^o N, 31 ^o E DIST. 74 ^o BERMUDA
28	E(L)	01 56 00	SAMOA ISLANDS O = 00 19 10
28	E	06 16 00	PAKISTAN-BURMA BORDER
	E	06 21 00	O = 05 51 30
	E	06 28 00	25 $\frac{1}{2}$ ^o N, 95 ^o E
	ELR	06 49 00	DIST. 119 ^o BERMUDA
29	E(P)	07 36 48	PACIFIC NORTH OF EASTER ISLAND
	IS	07 45 51	O = 07 26 07
	ESS	07 48 39	14 ^o S, 112 ^o W
	ELQ	07 53 07	DIST. 66 ^o BERMUDA
	ELR	07 57 00	
30	E(PP)	00 38 49	TONGA ISLANDS
	E(SKS)	00 44 35	O = 00 18 52
	E(SKKS)	00 46 42	20 ^o S, 175 ^o W
	E(PS)	00 48 28	DIST. 125 ^o BERMUDA
	E(SS)	00 54 52	
	ELR	01 17 00	
			INTERPRETATION DOUBTFUL
30	E(L)	20 40 00	NEAR SOUTH COAST OF HOKKAIDO, JAPAN O = 19 49 25 41 $\frac{1}{2}$ ^o N, 143 ^o E DIST. 102 ^o BERMUDA

18. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
L1957			
MAY 31	E(L)	00 02 00	
31	E(LQ)	01 02 00	
31	I(P)	02 25 43	SANTIAGO DEL ESTERO PROVINCE, ARGENTINA
			RARE FROM THE S.W.
	I(PPP)	02 28 35	O = 02 16 27
	E(PPP)	02 31 13	27 $\frac{1}{2}$ ^o S, 63 ^o W
	I(S)	02 33 10	MAG 6 $\frac{1}{2}$ -6 $\frac{1}{2}$ 6 $\frac{1}{2}$
	I(SS)	02 34 36	DEPTH ABOUT 600 KM
	I(SS)	02 36 20	DIST. 61 ^o BERMUDA
	E(SSS)	02 38 32	
	E(SSS)	02 40 25	
			INTERPRETATION DOUBTFUL
31	E	03 31 34	UNIMAK ISLAND REGION
	E	03 35 04	O = 03 10 18
	E	03 43 16	54 ^o N, 163 $\frac{1}{2}$ ^o W
	E(L)	03 45 00	DIST. 69 ^o BERMUDA
31	EP	22 04 00	NEAR COAST OF COLOMBIA
	EPP	22 05 04	O = 21 57 46
	IS	22 09 00	3 $\frac{1}{2}$ ^o N, 77 ^o W
	ESS	22 10 14	DEPTH ABOUT 100 KM
	ELR	22 12 30	DIST. 31 ^o BERMUDA
31	EP	22 29 25	ANDREANOF ISLANDS,
	ES	22 39 18	ALEUTIANS
	ELR	22 57 00	O = 22 17 10 51 ^o N, 179 $\frac{1}{2}$ ^o W DIST. 79 ^o BERMUDA
JUNE 1	E(L)	01 52 00	
I	E(LQ)	06 02 00	NORTHERN TURKEY AFTERSHOCK O = 05 26 56 40 $\frac{1}{2}$ ^o N, 31 ^o E DIST. 74 ^o BERMUDA
I	E	12 12 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

19

DATE	PHASE	H M S	REMARKS
1957			
JUNE 1	EP	19 42 46	GALAPAGOS ISLANDS
	EPP	19 44 16	O = 19 35 03
	ES	19 48 52	1° N, 91° W
	ELQ	19 51 50	DIST. 41° BERMUDA
	ELR	19 53 30	
I	E	23 43 00	
2	E(L)	22 07 00	NEAR EAST COAST OF KAMCHATKA O = 21 21 45 52½° N, 160° E DIST. 88° BERMUDA
3	E	00 23 00	EASTERN JAVA O = 23 00 29
4	E	09 03 00	
4	E	17 24 29	FIJI ISLANDS
	E	17 29 06	O = 17 05 02
	E	17 30 33	17½° S, 178° W
	E	17 31 38	MAG 6¼-6½
	E	17 33 32	DEPTH ABOUT 550 KM DIST. 118° BERMUDA
4	E(LR)	21 38 00	CENTRAL SUMATRA O = 20 18 05
4	E(LR)	23 37 00	
5	IP	07 22 28	NORTH ATLANTIC OCEAN
	IS	07 27 26	O = 07 16 17
	ELR	07 30 00	52° N, 35° W DIST 30° BERMUDA
5	E(L)	08 57 00	SOUTHERN ALASKA O = 08 26 53

20. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
JUNE 5	E(P)	14 10 26	OFF EAST COAST OF KAMCHATKA
	E(L)	14 41 00	O = 13 57 42 53° N, 162½° E DIST. 86° BERMUDA
5	E(P)	22 25 20	NORTHWEST OF ISLAND OF
	E(S)	22 35 40	TRISTAN DA CUNHA
	ELR	22 50 30	O = 22 12 55 36° S, 16° W DIST. 83° BERMUDA
6	E(LR)	04 09 00	ANDREANOF ISLANDS ALEUTIANS O = 03 30 22 52° N, 178° W DIST. 78° BERMUDA
6	E(LR)	06 19 00	FOX ISLANDS, ALEUTIANS O = 05 38 27 52° N, 171½° W DIST. 75° BERMUDA
6	E(LR)	16 16 00	
6	E(LR)	20 58 00	MOLUCCA PASSAGE O = 19 49 47 3° N, 126½° E DIST. 142° BERMUDA
8	E(L)	04 38 00	BISMARCK SEA O = 03 23 33 3° S, 147½° E DIST. 138° BERMUDA
8	E(LR)	07 15 00	NEW IRELAND O = 06 07 47 2½° S, 150° E DIST. 135° BERMUDA
8	E(L)	23 32 00	LOYALTY ISLANDS O = 22 26 17 19½° S, 168° E DIST. 131° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

21.

DATE	PHASE	H M S	REMARKS
1957			
JUNE 10	E	01 23 16	SUMBAWA ISLAND
	E	01 24 10	O = 00 59 54
	E	01 30 06	9° S, 117° E
	E	01 34 28	DIST. 156° BERMUDA
	E	01 43 00	
	E	01 49 20	
II	E(PKP)	15 10 48	KERMADEC ISLANDS, FELT
	E(PP)	15 11 52	RAOUL ISLAND
	E(PPP)	15 15 33	O = 14 49 47
	E(SKS)	15 17 23	30° S, 178° W
	E(PS)	15 20 33	MAG 6 $\frac{3}{4}$ -7 6 $\frac{3}{4}$
	E(PPS)	15 24 13	DEPTH ABOUT 100 KM
	E(SS)	15 27 20	DIST. 123° BERMUDA
	E	15 30 24	
	E	15 35 28	
	E	15 36 36	
	E(LR)	15 45 00	
			INTERPRETATION DOUBTFUL
II	E(LR)	19 50 00	NEAR COAST OF LUZON, PHILIPPINE ISLANDS. MODERATE PROPERTY DAMAGE AT VIGAN. FELT THROUGHOUT NORTHERN AND CENTRAL LUZON. O = 18 49 24 18° N, 120 $\frac{1}{2}$ ° E DIST. 129° BERMUDA
12	E(LR)	00 40 00	ANDREANOF ISLANDS, ALEUTIANS O = 23 53 57 52° N, 176° W DIST. 77° BERMUDA
12	E(LR)	09 23 00	NEAR SOUTH COAST OF HOKKAIDO, JAPAN. O = 08 28 34 41 $\frac{1}{2}$ ° N, 142 $\frac{1}{2}$ ° E DIST. 102° BERMUDA

22. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
JUNE 13	iP	10 52 36	ANDREANOF ISLAND, ALEUTIANS
	COMP. FROM N.W.		O = 10 40 38
	iPP	10 55 30	51 $\frac{1}{2}$ ° N, 175° W
	iS	11 02 23	MAG 7
	eSS	11 07 16	DIST. 78° BERMUDA
	E(LQ)	11 11 30	
	E(LR)	11 17 00	
14	iP	06 36 18	ANDREANOF ISLANDS, ALEUTIANS
	i(P)	06 36 28	O = 06 24 20
	iS	06 46 02	52° N, 175 $\frac{1}{2}$ ° W
	E	06 49 02	MAG 6 $\frac{1}{2}$
	eSS	06 50 44	DIST. 77° BERMUDA
	eLQ	06 55 10	
	eLR	07 00 00	
15	E(PKP)	01 03 35	INDIAN OCEAN
	E(PP)	01 06 00	O = 00 44 15
	E(PKS)	01 07 11	34° S, 56° E
	E(SKKS)	01 12 44	MAG 6 - 6 $\frac{1}{2}$
	E(PS)	01 16 12	DIST. 132° BERMUDA
	E(ScSPKP)	01 18 49	
	E(SS)	01 23 30	
	eLR	01 47 30	
15	eP	18 30 04	FOX ISLANDS, ALEUTIANS
	eS	18 39 35	O = 18 18 20
	eSS	18 44 20	52° N, 171° W
	eLR	18 54 00	MAG 6 DIST. 74° BERMUDA
16	E(LR)	12 34 00	
17	E	06 42 12	SAMOA ISLANDS REGION
	E	06 43 24	O = 06 16 44
	E	06 46 07	15° S, 173 $\frac{1}{2}$ ° W
	E	07 09 30	MAG 5 $\frac{3}{4}$
	E(LR)	07 13 30	DIST. 113° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

23.

DATE	PHASE	H M S	REMARKS
1957			
JUNE 18	E(PKP)	02 31 37	GULF OF MARTABAN, BURMA
	E(PP)	02 33 48	O = 02 12 12
	E(PKS)	02 34 56	14 $\frac{1}{2}$ ^o N, 96 ^o E
	E(ScSPKP)	02 46 34	DIST. 128 ^o BERMUDA
	E(SS)	02 50 45	
	E(L)	03 13 30	
	E(LR)	03 20 00	
18	EPKP	15 07 33	BURMA AFTERSHOCK
	EPP	15 09 44	O = 14 48 17
	EPKS	15 11 00	14 ^o N, 96 ^o E
	EPS	15 19 44	DIST. 130 ^o BERMUDA
	EPPS	15 21 41	
	E(ScSPKP)	15 22 46	
	E(S)	15 27 40	
	ELR	15 50 00	
18	E(PKP)	18 15 31	LOYALTY ISLANDS REGION
	E(PKS)	18 18 52	O = 17 56 03
	E(PPP)	18 20 20	25 ^o S, 170 ^o E
	E(SKKS)	18 23 52	MAG 6
	E(PPS)	18 29 39	DIST. 132 ^o BERMUDA
	E	18 31 04	
	E(SKKS)	18 31 42	
	E(SS)	18 36 00	
	E	18 37 52	
	E	18 40 26	
	ELR	18 57 00	
	INTERPRETATION DOUBTFUL		
19	E(PP)	01 50 03	TONGA ISLANDS
	E(SKS)	01 55 39	O = 01 29 48
	E(SKKS)	01 57 00	24 ^o S, 175 $\frac{1}{2}$ ^o W
	E(PS)	02 00 00	MAG 6 $\frac{1}{2}$ - 6 $\frac{1}{2}$
	E(SS)	02 06 20	DIST. 120 ^o BERMUDA
	E(SKKKS)	02 10 15	
	E(SSS)	02 15 15	
	ELR	02 25 00	

24. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
JUNE 19	EPP	08 22 02	FIJI ISLANDS
	EPP	08 22 29	O = 08 01 30
	EPPP	08 25 00	16 $\frac{1}{2}$ ^o S, 176 $\frac{1}{2}$ ^o E
	EPS	08 32 11	MAG 6 $\frac{1}{2}$ 6 $\frac{1}{2}$
	EPPS	08 33 29	DIST. 122 ^o BERMUDA
	ESS	08 38 58	
	ELQ	08 53 00	
	ELR	08 57 00	
20	E(PP)	01 26 51	MARIANA ISLANDS
	E(PPP)	01 30 24	O = 01 06 25
	E(SKS)	01 32 04	20 ^o N, 145 $\frac{1}{2}$ ^o E
	E(PS)	01 36 29	DIST. 120 ^o BERMUDA
	E(SKKKS)	01 47 24	
	E(LQ)	01 55 00	
	E(L)	02 02 00	
21	E(LR)	19 28 30	KURILE ISLANDS REGION
			O = 18 38 03
			48 ^o N, 155 ^o E
			DIST. 91 ^o BERMUDA
22	IP	06 25 27	NEAR COAST OF CHAIPAS, MEXICO.
	COMP. FROM THE S.W.		FELT TEHUANTAPEC, SAN SALVADOR
	EPPP	06 27 21	O = 06 19 06
	IS	06 30 46	16 ^o N, 94 ^o W
	E(LQ)	06 32 00	MAG 6 $\frac{1}{2}$
	ELR	06 34 30	DIST. 32 ^o BERMUDA
22	EP	19 27 39	MID ATLANTIC OCEAN
	IS	19 32 13	O = 19 22 22
	ELR	19 34 30	16 ^o N, 45 $\frac{1}{2}$ ^o W
	ET	19 52 22	DIST. 24 ^o BERMUDA
	ET MAX.	19 52 44	
23	I(PKP)	00 10 01	NEAR NORTH COAST OF NEW GUINEA
	E	00 12 23	O = 23 50 23
	E	00 13 50	1 $\frac{1}{2}$ ^o S, 137 ^o E
	E	00 14 37	MAG 7 $\frac{1}{2}$ 7-7 $\frac{1}{2}$
	E	00 16 00	DIST. 142 ^o BERMUDA
	E	00 18 00	
	E	00 19 30	
	E	00 25 55	
	E	00 27 05	
	E	00 31 32	
	E(LR)	00 56 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

25.

DATE	PHASE	H M S	REMARKS
1957			
JUNE 23	E(P)	03 36 29	NEAR COAST OF SOUTH-EASTERN
	E(S)	03 44 29	ALASKA. FELT SITKA
	E(SS)	03 48 16	O = 03 27 02
	E(LQ)	03 53 40	58 $\frac{1}{2}$ ^o N, 137 ^o W
	E(LR)	03 56 00	MAG 5 $\frac{1}{2}$ - 5 $\frac{3}{4}$ DIST. 54 ^o BERMUDA
24	E(P)	09 56 07	MEXICO AFTERSHOCK
	E(S)	10 01 28	FELT TEHUANTAPEC
	E(LQ)	10 02 10	O = 09 49 47
	E(LR)	10 04 30	16 ^o N, 94 ^o W DIST. 32 ^o BERMUDA
26	E(L)	04 01 00	
27	IP	00 22 39	NORTHEAST OF LAKE BAIKAL,
	IPP	00 26 24	USSR. DAMAGE AT CHITA
	EPPP	00 28 19	O = 00 09 28
	ES	00 33 43	56 $\frac{1}{2}$ ^o N, 116 ^o E
	EPS	00 34 54	MAG 7 $\frac{1}{2}$ 7 $\frac{1}{2}$ -7 $\frac{3}{4}$
	ESS	00 40 00	DIST. 92 ^o BERMUDA
	E(SSS)	00 44 00	
	ELR	00 50 00	
28	E(L)	01 40 00	LOYALTY ISLANDS
28	E	05 19 26	FOX ISLANDS, ALEUTIANS
	E	05 24 12	O = 04 58 03
	E(L)	05 37 00	
29	IP	07 59 43	FOX ISLANDS REGION, ALEUTIANS
	EPPP	08 04 40	O = 07 48 18
	ES	08 09 07	51 $\frac{1}{2}$ ^o N, 166 ^o W
	ESS	08 13 40	DIST. 73 ^o BERMUDA
	ELQ	08 17 50	
	E(LR)	08 25 00	

26 BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
JULY 1	E	19 51 16	INDIA-BURMA BORDER
	E	19 55 15	O = 19 30 16
	E	19 56 32	25 ^o N, 94 ^o E
	E	19 57 48	DIST. 118 ^o BERMUDA
	E	20 00 40	
	E	20 02 20	
	E	20 06 36	
2	IP	00 55 28	NORTHERN IRAN. APPROXIMATELY
	COMP. FROM N.E.		1500 DEAD AND EXTENSIVE
	IPP	00 58 52	PROPERTY DAMAGE THROUGHOUT
	IPPP	01 01 00	NORTHERN IRAN.
	IS	01 06 00	O = 00 42 23
	ESS	01 12 47	36 ^o N, 53 ^o E
	ELQ	01 19 25	MAG 7 $\frac{1}{2}$ - 7 $\frac{3}{4}$
	ELR	01 23 00	DIST. 90 ^o BERMUDA
3	E(S)	02 11 16	NEAR SOUTH COAST OF
	E(L)	02 33 00	KAMCHATKA
			O = 01 47 40
			52 ^o N, 159 ^o E
			DIST. 92 ^o BERMUDA
3	E(L)	09 37 00	NEAR COAST OF SOUTH-EASTERN
			ALASKA
			O = 09 09 14
			58 ^o N, 137 ^o W
			DIST. 55 ^o BERMUDA
3	EP	12 36 56	ANDREANOF ISLANDS, ALEUTIANS
	EPP	12 39 56	O = 12 24 37
	IS	12 46 51	50 $\frac{1}{2}$ ^o N, 179 ^o W
	ESS	12 52 02	MAG 6-6 $\frac{1}{4}$ 5 $\frac{3}{4}$
	ELQ	12 57 00	DIST. 79 ^o BERMUDA
4	E(L)	22 50 30	ARIZONA-MEXICO FORESHOCK
			O = 22 25 13
			32 ^o N, 113 ^o W
			DIST. 40 ^o BERMUDA
4	E(L)	23 49 00	ARIZONA-MEXICO FORESHOCK
			O = 23 27 12
			31 ^o N, 114 ^o W
			DIST. 41 ^o BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

27.

DATE	PHASE	H M S	REMARKS
1957 JULY 5	E(L)	01 19 00	ARIZONA-MEXICO BORDER O = 00 58 00 32° N, 114° W DIST. 41° BERMUDA
5	E(L)	13 32 00	KERMADEC ISLANDS O = 12 33 56 28½° S, 179° W DIST. 123° BERMUDA
5	E(L)	16 18 00	EASTERN BELGIAN CONGO O = 15 32 00
7	E(S) E(L)	06 21 22 06 38 00	TURKEY O = 05 58 50 39° N, 40° E DIST. 80° BERMUDA
7	E	07 48 10	
7	E(PP) E(PKS) E(PPS) E(SKKS) E(LR)	16 34 11 16 35 51 16 45 16 16 49 25 17 14 00	SOLOMON ISLANDS O = 16 11 15 6½° S, 156° E MAG 6½ DIST. 133° BERMUDA INTERPRETATION DOUBTFUL
9	IPKP IPKS ELR	10 17 51 10 21 42 11 13 45	NEAR SOUTH COAST OF SUMATRA O = 09 58 09 6° S, 104° E DEPTH ABOUT 60 KM DIST. 152° BERMUDA
9	E(LR)	23 12 00	
10	E(LR)	05 22 00	FOX ISLANDS, ALEUTIANS O = 04 42 48 52½° N, 170° W DIST. 74° BERMUDA

28. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957 JULY 10	IP RARE FROM THE S.W. IPP IPcP IS ELR	09 10 24 09 11 05 09 13 18 09 15 00 09 18 00	NEAR COAST OF PANAMA O = 09 04 08 8° N, 82½° W MAG 6½-6¾ 6¾-7 DIST. 30° BERMUDA
12	E(L)	16 23 00	
12	E	17 54 00	
12	E(LR)	22 06 00	BISMARCK SEA O = 20 56 18 3° S, 148½° E DIST. 136° BERMUDA
13	E(S) E(PPS) E(SSS) ELR	01 20 37 01 21 18 01 29 28 01 35 00	FOX ISLANDS, ALEUTIANS O = 00 59 28 52° N, 169½° W DIST. 74° BERMUDA
13	E(LR)	10 25 00	SAMOA ISLANDS REGION O = 09 32 05 15° S, 173° W DIST. 113° BERMUDA
13	ELR	14 57 00	SAMOA ISLANDS REGION O = 13 58 45 14½° S, 173½° W DIST. 114° BERMUDA
13	E(L) E(T)	20 15 00 20 30 04	
14	E(LR)	03 16 00	KURILE ISLANDS O = 02 26 54 46° N, 151½° E DIST. 95° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

29.

DATE	PHASE	H M S	REMARKS
1957			
JULY 14	IPKP	06 42 39	TONGA ISLANDS REGION
	IPP	06 44 20	O = 06 23 50
	I	06 45 21	27½° S, 177° W
	ISKS	06 49 25	MAG 7-7½ 6½
	ISKKS	06 50 48	DEPTH ABOUT 200 KM
	IPKKP	06 52 00	DIST. 122° BERMUDA
	IPPS	06 55 14	
	IPKKS	06 56 30	
	ISS	07 00 42	
	IPKPPKP	07 02 30	
	E(SSS)	07 05 40	
	ELR	07 24 00	
I4	IPKP	08 29 51	KERMADEC ISLANDS
	IPKP	08 30 11	O = 08 10 45
	IPP	08 31 52	30° S, 177° W
	IPKS	08 33 00	MAG 6½-7
	ISKS	08 36 55	DIST. 123° BERMUDA
	IPS	08 41 45	
	ISS	08 48 40	
	ELR ₁	09 08 00	
	ELR ₂	10 14 00	
I7	E	06 39 56	NORTHERN CHILE
	E(LR)	06 44 00	O = 05 12 53
I7	I(PKP)	11 29 21	SANTA CRUZ ISLANDS
	I(PP)	11 31 27	O = 11 10 10
	I(PKS)	11 32 44	11° S, 167° E
	I(PS)	11 41 35	MAG 6½-6¾ 6¾
	I(PPS)	11 44 09	DIST. 120° BERMUDA
	E(SS)	11 49 11	
	E(SSS)	11 53 30	
	ELR	12 10 00	
I7	E(S)	18 58 08	MID ATLANTIC OCEAN
	E(LQ)	19 04 30	O = 18 39 58
			1° S, 13° W
			DIST. 64° BERMUDA
I8	E(L)	01 55 00	FOX ISLANDS, ALEUTIANS
	E(LR)	01 59 00	O = 01 19 52
			53° N, 170° W
			DIST. 73° BERMUDA

30.

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
JULY 18	E	12 32 00	SOUTH OF HONSHU, JAPAN
			O = 12 06 39
			30° N, 139° E
			DEPTH ABOUT 400 KM
			DIST. 113° BERMUDA
	I8	E(L)	19 51 00
	I9	E(LR)	14 01 00
			NEAR NORTH COAST OF FORMOSA. FELT TAIPEH
			O = 13 02 05
			25° N, 122½° E
			DIST. 122° BERMUDA
	I9	E(LR)	22 50 00
			NORTHERN NEW GUINEA. FELT LUMI AND AITAPE
			O = 21 36 46
			3½° S, 142° E
			DIST. 141° BERMUDA
	20	E(LR)	10 49 00
	21	IP	06 10 22
		ES	06 15 12
		ELR	06 18 52
			NEAR COAST OF GUATEMALA
			O = 06 04 11
			14½° N, 92° W
			MAG 5½ - 6
			DEPTH ABOUT 100 KM
			DIST. 31° BERMUDA
	21	E	20 46 30
			KERMADEC ISLANDS REGION
			O = 19 37 10
			28° S, 175° W
			DEPTH ABOUT 150 KM
			DIST. 120° BERMUDA
	22	E	06 38 06
			KERMADEC ISLANDS REGION
			O = 06 16 52
			33½° S, 178° W
			DIST. 125° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

31.

DATE	PHASE	H M S	REMARKS
1957			
JULY 22	E(LR)	07 15 00	KERMADEC ISLANDS AFTERSHOCK O = 06 21 50 34° S, 177½° W DIST. 125° BERMUDA
22	E(L)	14 37 00	FOX ISLANDS, ALEUTIANS O = 13 57 41 53° N, 167° W DIST. 71° BERMUDA
23	IP I EPP EPPP IS ESS ELR	00 57 11 00 58 47 01 00 18 01 01 43 01 07 03 01 12 47 01 22 00	ANDREANOF ISLANDS, ALEUTIANS O = 00 45 12 52° N, 177° W MAG 6½ DIST. 78° BERMUDA
24	IP EPPP IS ESS E(SSS) ELR	02 07 56 02 12 00 02 16 16 02 21 07 02 27 20 02 31 00	CENTRAL CHILE-ARGENTINA BORDER SLIGHTLY DEEPER THAN NORMAL O = 01 57 25 30° S, 70½° W MAG 6½ DIST. 63° BERMUDA
24	I(P) E(S)	10 57 34 11 05 28	SANTIAGO DEL ESTERO PROVINCE, ARGENTINA. FELT: ANTOFAGASTA, CHILE O = 10 47 25 27° S, 65° W DIST. 60° BERMUDA
24	E(PP) E(PKS) E(LR)	11 24 00 11 25 07 12 06 00	NEW HEBRIDES ISLANDS O = 11 02 30 20° S, 169° E MAG 6½ DIST. 131° BERMUDA

32. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
JULY 25	IP IS ESS ELR	07 54 30 08 04 23 08 09 12 08 19 00	ANDREANOF ISLANDS, ALEUTIANS O = 07 42 25 51° N, 177° W MAG 6½ DIST. 78° BERMUDA
26	E(LR)	07 55 00	OFF NORTH COAST OF NORTH ISLAND, NEW ZEALAND O = 06 49 42 35° S, 180° DIST. 126° BERMUDA
27	E(LR)	15 50 00	TONGA ISLANDS O = 14 45 28 20° S, 174½° W DIST. 116° BERMUDA
27	E(L)	19 55 00	NEW BRITAIN REGION O = 18 43 01 6½° S, 151½° E DIST. 138° BERMUDA
27	E(LR)	21 48 00	ANDREANOF ISLANDS, ALEUTIANS O = 20 59 21 51½° N, 180° DIST. 79° BERMUDA
28	IP	08 46 57	GUERRERO, MEXICO. 66 DEAD, MANY INJURED. HEAVY PROPERTY DAMAGE IN MEXICO CITY AND ACAPULCO O = 08 40 04 17° N, 99° W MAG 7½ 7½-7½ DIST. 35° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

33.

DATE	PHASE	H M S	REMARKS
1957			
JULY 28	ELR	13 50 00	MEXICO AFTERSHOCK O = 13 34 20 17½° N, 99° W Dist. 35° BERMUDA
29	E(P) E(S) ELR	00 18 16 00 24 05 00 28 00	MEXICO AFTERSHOCK O = 00 11 20 17° N, 99° W Dist. 35° BERMUDA
29	IP COMP. FROM THE S.W. IPP IPPP IS ISS ISSS ELR	17 25 00 17 27 12 17 28 24 17 32 41 17 36 30 17 39 06 17 43 00	NEAR COAST OF CHILE FELT: ANTOFAGASTA O = 17 15 14 23½° S, 71½° W MAG 7-7½ 6½ Dist. 57° BERMUDA
AUG. 1	E(S) E E(LR)	22 26 04 22 28 04 22 31 00	NEAR COAST OF MEXICO O = 22 13 40 16° N, 97° W Dist. 34° BERMUDA

34. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
AUG. 3	E E(L)	09 25 10 09 30 00	KERMADEC ISLANDS REGION O = 08 15 45 28° S, 176½° W Dist. 122° BERMUDA
4	I(PP) E(SKKS) E(PPS) E E(SS) ELR	01 01 38 01 08 26 01 13 11 01 18 28 01 20 00 01 43 00	NEAR NORTH COAST OF NEW GUINEA O = 00 39 12 3½° S, 145° E Dist. 140° BERMUDA
4	IP IS E(LQ) ELR	06 13 35 06 19 32 06 22 05 06 23 00	MEXICO AFTERSHOCK O = 06 06 36 17° N, 100° W MAG 6½ Dist. 35° BERMUDA
4	E(P) E(S) E(LQ) E(L)	11 35 26 11 41 20 11 43 41 11 46 00	MEXICO AFTERSHOCK O = 11 28 24 17° N, 99½° W Dist. 35° BERMUDA
4	I(P) E(PPP) E(S) I E(SS) E(LR)	14 23 18 14 25 24 14 28 44 14 29 10 14 31 39 14 33 30	MEXICO AFTERSHOCK O = 14 16 18 17° N, 99½° W MAG 6½ Dist. 35° BERMUDA
4	E E E E E ELR	21 37 17 21 41 32 21 45 25 21 49 48 21 53 25 21 58 46 22 04 00	PRINCE EDWARD ISLAND REGION O = 21 08 51 45° S, 35° E Dist. 118° BERMUDA
5	E(L)	05 30 00	TONGA ISLANDS O = 04 29 27 24½° S, 176° W Dist. 120° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

35.

DATE	PHASE	H M S	REMARKS
1957 AUG 5	E	13 58 00	
5	E E(LR)	17 47 06 17 50 00	NEAR COAST OF OAXACA, MEXICO DEPTH ABOUT 100 KM O = 17 34 54
7	E	04 25 00	
8	E E(LR)	04 54 04 04 58 36 05 03 00	REVILLA GIGEDO ISLANDS O = 04 44 20
8	E	19 46 36	
8	E(S) E E(L)	22 52 16 22 56 23 22 59 00	ASCENSION ISLAND REGION O = 22 33 05 7° S, 13° W DIST. 64° BERMUDA
9	E E E E E E E E ELR	02 50 34 02 52 47 02 55 10 02 59 10 03 01 04 03 02 31 03 04 11 03 06 11 03 11 00 03 40 30 03 43 00	NEW GUINEA O = 02 29 20 2° S, 137° E DIST. 143° BERMUDA
9	E(L)	19 10 00	
10	E	03 35 12	FIJI ISLANDS REGION O = 02 18 38 21½° S, 179½° W DEPTH ABOUT 600 KM DIST. 122° BERMUDA

36. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957 AUG. 10	E E E(L)	04 22 36 04 24 30 04 55 00	TONGA ISLANDS O = 03 55 46 17° S, 172° W DIST. 113° BERMUDA
10	E E(T)	07 11 16 07 31 32	
10	E(L)	21 57 00	
11	E	05 27 20	NORTH ISLAND, NEW ZEALAND O = 05 12 40 38½° S, 177° E DIST. 130° BERMUDA
11	E(PP) E E E E E ELR	21 59 44 22 01 12 22 07 38 22 11 27 22 15 26 22 17 28 22 23 00 22 38 00	NEW HEBRIDES ISLANDS O = 21 38 05 17½° S, 169° E MAG 6½ DIST. 130° BERMUDA
12	E	08 44 00	NEAR EAST COAST OF KAMCHATKA O = 07 58 05 52½° N, 160½° E DIST. 93° BERMUDA
15	EP ES ELR	08 38 52 08 43 39 08 45 30	NEAR NORTH COAST OF PANAMA FELT ISTHMUS OF PANAMA O = 08 32 56 10° N, 80° W DIST. 26° BERMUDA
15	E(LR)	18 01 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

37.

DATE	PHASE	H M S	REMARKS
1957			
AUG. 15	E(PP)	21 06 35	SOLOMON ISLANDS REGION
	E(PPP)	21 09 12	0 = 20 45 20
	E	21 12 22	4½° S, 155° E
	E	21 15 36	DEPTH ABOUT 550 KM
	E	21 17 28	DIST. 133° BERMUDA
	E(SS)	21 23 15	
	ELR	21 52 00	
			INTERPRETATION DOUBTFUL
I6	E(PP)	03 48 25	NEW BRITAIN REGION
	E(PS)	04 00 02	FELT: RABAU, NAMATANAI,
	E(SS)	04 06 12	LONDOLOVIT AND KAROOLA
	ELR	04 28 30	0 = 03 26 05 5° S, 154° E DIST. 134° BERMUDA
I6	E(PP)	12 19 48	NEW BRITAIN REGION
	E(SKS)	12 23 40	FELT: RABAU, NAMATANAI,
	E(SKKS)	12 26 04	LONDOLOVIT AND KAROOLA
	E(PPS)	12 30 44	0 = 11 57 16
	E(SS)	12 37 19	5° S, 155° E
	ELR	12 59 00	DIST. 133° BERMUDA
			INTERPRETATION DOUBTFUL
I6	E(LR)	19 06 00	
I6	IP	23 39 54	PACIFIC OCEAN
	IPP	23 41 29	0 = 23 31 55
	I	23 44 13	10½° N, 104° W
	IS	23 46 14	MAG 6½-6¾
	ISS	23 49 12	DIST. 42° BERMUDA
	ELR	23 51 00	
I8	E(LR)	07 35 00	SOUTH PACIFIC OCEAN 0 = 06 34 25
I8	E	08 59 31	PHILIPPINE ISLANDS
	E	09 04 06	0 = 08 36 57
	E	09 08 35	12° N, 124° E
	E	09 09 11	DIST. 135° BERMUDA
	E	09 12 18	
	E	09 13 06	
	E	09 17 16	
	E	09 21 20	
	E(L)	09 32 00	
	ELR	09 37 00	

38. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
AUG. 18	E(P)	21 17 55	MEXICO AFTERSHOCK
	E(S)	21 23 00	0 = 21 10 42
	E(LQ)	21 25 30	16½° N, 99° W
	ELR	21 27 00	DIST. 34° BERMUDA
I8	EP	21 55 36	NORTHERN KURILE ISLANDS
	IPP	21 59 10	0 = 21 42 30
	IS	22 06 28	50° N, 157° E
	ESS	22 12 20	MAG 6½
	E(SSS)	22 15 25	DIST. 90° BERMUDA
	E(SSSS)	22 19 00	
	ELR	22 23 00	
I9	E(PP)	11 56 22	SOLOMAN ISLANDS FORESHOCK
	E(PKS)	11 57 25	0 = 11 34 36
	E(PPS)	12 08 20	10° S, 161° E
	E	12 19 10	MAG 6½
	EL	12 36 00	DIST. 132° BERMUDA
	ELR	12 47 00	
I9	EP	21 43 37	FOX ISLANDS, ALEUTIANS
	EPP	21 46 30	0 = 21 31 55
	ES	21 53 15	51½° N, 171° W
	E(L)	22 09 00	DIST. 74° BERMUDA
	E(LR)	22 13 00	
20	EPP	06 48 48	SOLOMAN ISLANDS FORESHOCK
	EPKS	06 49 56	0 = 06 27 07
	EPPP	06 51 09	10° S, 161° E
	ESKKS	06 55 50	MAG 6-6½
	E	06 57 48	DIST. 132° BERMUDA
	EPPS	07 00 50	
	E	07 02 00	
	ESS	07 06 31	
	ELR	07 28 00	
20	EPKP	12 21 18	SOLOMAN ISLANDS
	EPP	12 23 36	0 = 12 01 54
	EPKS	12 24 42	10° S, 161° E
	E(SKS)	12 29 28	MAG 6½-6¾
	EPS	12 33 34	DIST. 132° BERMUDA
	EPPS	12 35 35	
	E(ScSPKP)	12 36 50	
	E	12 46 46	
	ELR	13 02 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

39.

DATE	PHASE	H	M	S	REMARKS
1957					
AUG. 21	E	20	09	00	FOX ISLANDS, ALEUTIANS O = 19 31 08 51 $\frac{1}{2}$ ° N, 171° W DIST. 74° BERMUDA
22	I(PKP) E(LR)	08 09	14 15	48 00	MOLUCCA PASSAGE O = 07 55 06 1° N, 126° E DIST. 144° BERMUDA
23	E(PKP) E(PP) E(PPP) E(SKKS) E EPPS E E(SS) E(LQ) ELR	02 02 02 02 02 02 02 02 02 03	19 22 25 28 32 34 35 39 58 02	56 25 47 52 00 00 15 44 20 00	NEW BRITAIN AFTERSHOCK. FELT: RABAU, KOKOPO, NAMATANAI, SOHANO, LONDOLOVIT AND AROPA O = 02 00 05 6° S, 154 $\frac{1}{2}$ ° E MAG 6 $\frac{1}{2}$ DIST. 135° BERMUDA INTERPRETATION DOUBTFUL
23	E(LR)	21	16	00	
24	E(LR)	00	21	00	
26	IP COMP. FROM THE S. IPP EPcS IS I IScS ESS ESSS ELR	11 11 11 11 11 11 11 11 11 11	37 39 43 45 46 47 49 51 54	56 50 24 14 52 44 00 39 00	SOUTHERN BOLIVIA O = 11 28 50 19° S, 63° W MAG 6 $\frac{1}{4}$ - 6 $\frac{1}{2}$ DIST. 52° BERMUDA
26	IP IPP E IS E(LQ) ELR	14 14 14 14 14 14	06 07 10 11 14 16	03 21 54 58 36 00	NEAR COAST OF ECUADOR FELT: WESTERN ECUADOR O = 13 58 48 2° S, 81° W MAG 6 DIST. 39° BERMUDA

40. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H	M	S	REMARKS
1957					
AUG. 26	E(PP) E(PPS) ELR	20	15	40	SOLOMON ISLANDS REGION FELT: RABAU AND LONDOLOVIT O = 19 53 33 5 $\frac{1}{2}$ ° S, 154° E DEPTH ABOUT 100 KM DIST. 135° BERMUDA
28	E E E(LR)	08 08 09	49 56 20	29 25 00	KERMADEC ISLANDS REGION O = 08 19 10 28 $\frac{1}{2}$ ° S, 175° W DIST. 120° BERMUDA
28	E E E E(LQ) E(LR)	23 23 23 00 00	45 47 52 17 26	28 12 32 00 00	MARIANA ISLANDS O = 23 22 21 21° N, 145° E DIST. 120° BERMUDA
30	ELR	17	07	00	TADSHIK, USSR O = 16 17 56 39° N, 73° E DIST. 98° BERMUDA
30	E(LR)	21	14	00	BATAN ISLANDS REGION O = 20 04 01 20 $\frac{1}{2}$ ° N, 121 $\frac{1}{2}$ ° E DIST. 127° BERMUDA
31	E(LR)	12	57	00	OUTER MONGOLIA O = 12 01 06 49° N, 100° E DIST. 97° BERMUDA
SEPT. 2	E(PP) E(SKS) E(PS) ELR	00 00 00 01	20 25 30 01	20 48 17 00	MARIANA ISLANDS O = 23 59 54 18° N, 147 $\frac{1}{2}$ ° E DIST. 120° BERMUDA
2	E(L)	06	37	00	NEW HEBRIDES

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

41.

DATE	PHASE	H M S	REMARKS
1957			
SEPT 2	EPP	10 06 00	SAMOA ISLANDS
	ESKS	10 11 36	O = 09 46 30
	ESKKS	10 13 09	15° S, 173½° W
	EFS	10 15 30	MAG 6-6½
	EPPS	10 16 48	DIST. 114° BERMUDA
	ESS	10 22 20	
	E	10 25 52	
	E	10 39 28	
	ELR	10 44 00	
2	IP	14 31 43	FOX ISLANDS, ALEUTIANS
	IS	14 41 07	O = 14 20 13
	ESS	14 46 00	51½° N, 168° W
	E(LQ)	14 57 48	DIST. 73° BERMUDA
	ELR	15 03 00	
2	E	21 52 54	HINDU KUSH
	E	21 55 20	O = 21 37 36 37° N, 71° E DEPTH ABOUT 200 KM DIST. 99° BERMUDA
3	E(LQ)	07 09 00	SANTA CRUZ ISLANDS
	E(LR)	07 15 00	O = 06 06 42 12° S, 167° E DIST. 129° BERMUDA
3	E(LQ)	17 03 00	OFF COAST OF OREGON, U.S.A.
	E(LR)	17 07 00	
4	EL	02 32 00	SANTA CRUZ ISLANDS
			O = 01 31 23 12° S, 167½° E DIST. 128° BERMUDA
4	E	05 19 00	SOUTH INDIAN OCEAN ABOUT
	E(L)	05 45 00	1000 MILES NORTHEAST OF KERGUELEN ISLANDS O = 04 33 51
4	E(L)	20 41 00	FOX ISLANDS, ALEUTIANS

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

42.

DATE	PHASE	H M S	REMARKS
1957			
SEPT. 4	E	22 41 40	
	E	22 47 25	
	E(L)	23 04 00	
5	E(P)	04 09 28	PROBABLY ATLANTIC OCEAN
	E(S)	04 12 39	
	E(LR)	04 13 00	
	E(T)	04 27 34	
	E(T) MAX	04 28 47	
5	E(L)	08 17 00	NEAR EAST COAST OF KAMCHATKA O = 07 25 19 53½° N, 160½° E DIST. 93° BERMUDA
5	E(P)	08 39 12	PROBABLY ATLANTIC OCEAN
	E(S)	08 41 16	
	E(LR)	08 42 00	
	E(T)	08 52 12	
	E(T) MAX	08 53 40	
6	EP	00 27 00	CHILE-BOLIVIA BORDER
	EPP	00 27 35	O = 00 17 55
	ES	00 34 16	20° S, 68° W
	ESCS	00 36 36	DEPTH ABOUT 100 KM
	ESS	00 37 47	DIST. 53° BERMUDA
	E(LQ)	00 39 25	
6	EP	05 06 44	ANDREANOF ISLANDS, ALEUTIANS
	ES	05 16 40	O = 04 54 37
	ESS	05 21 40	51° N, 177° W
	E(LQ)	05 27 40	DIST. 78° BERMUDA
	E	05 33 30	
	E	05 38 00	
	ELR	05 41 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

43.

DATE	PHASE	H M S	REMARKS
1957			
SEPT. 9	E(PKP)	00 33 38	SOUTH INDIAN OCEAN
	E(PP)	00 38 00	0 = 00 13 30
	E(SKS)	00 40 15	48° S, 100° E
	E(SKKKS)	00 41 47	DIST. 161° BERMUDA
	E(ScSPKP)	00 45 41	
	E(PPS)	00 49 16	
	E(SS)	00 51 18	
	E(SSS)	00 56 16	
	E	01 04 40	
	E	01 08 28	
	E	01 09 37	
	ELR	01 25 00	
9	E(PKP)	09 20 28	FIJI ISLANDS REGION
	E(PP)	09 21 25	0 = 09 00 33
	E(PS)	09 30 19	15° S, 176½° W
	E(PPS)	09 31 38	DIST. 115° BERMUDA
	ESS	09 36 40	
	ELR	09 54 00	
			INTERPRETATION DOUBTFUL
12	IP	00 33 24	ABOUT 100 MILES NORTH OF
	ELR	00 37 40	HONDURAS. FELT: HAVANA, CUBA
			0 = 00 28 02
			17½° N, 85° W
			DIST. 24° BERMUDA
14	IP	17 14 02	NEAR COAST OF ECUADOR
	IPP	17 15 24	0 = 17 08 49
	IS	17 19 56	1½° S, 80½° W
	ESS	17 22 40	DIST. 38° BERMUDA
	EScS	17 24 12	
	E(L)	17 26 00	
	ELR	17 29 00	
15	E	04 41 55	NEAR NORTH COAST OF JAVA
	E	04 45 48	0 = 04 22 34
	E	04 47 20	5½° S, 108° E
	E	04 49 15	DEPTH ABOUT 300 KM
	E	04 50 26	DIST. 154° BERMUDA
15	E(LR)	19 44 00	SOLOMON ISLANDS. FELT: RABOUL AND KAROOLA
			0 = 18 42 20
			6° S, 153½° E
			DEPTH ABOUT 150 KM
			DIST. 136° BERMUDA

44. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
SEPT. 15	E(P)	21 29 24	PROBABLY ATLANTIC OCEAN
	E(T)	21 43 32	
	E(T MAX.)	21 44 05	
18	E(LQ)	18 53 00	FOX ISLANDS, ALEUTIANS
			0 = 18 15 10
			52½° N, 168° W
			DIST. 73° BERMUDA
19	ELR	17 57 00	SVALBARD REGION
			0 = 17 20 02
			79½° N, 3° E
			DIST. 55° BERMUDA
24	IPKP	08 40 38	NEAR SOUTH COAST OF MINDANAO,
	IPP	08 43 40	PHILIPPINE ISLANDS. FELT:
	IPPP	08 46 48	KOROR
	E(PcSPKP)	08 52 28	0 = 08 21 05
	IPPS	08 55 40	5½° N, 127½° E
	ISS	09 01 20	MAG 7½
	ELR ₁	09 21 00	DIST. 140° BERMUDA
	ELR ₂	09 52 00	
25	E	05 59 50	NEAR AZORES ISLANDS
			0 = 05 50 56
			34° N, 38½° W
			MAG 6½ - 6½
			DIST. 23° BERMUDA
26	E(L)	08 19 00	NEAR COAST OF CHIAPAS, MEXICO
			0 = 08 03 50
26	E(L)	13 50 00	GUATEMALA-MEXICO BORDER
			0 = 13 35 22
			15° N, 92½° W
			DEPTH ABOUT 150 KM
			DIST. 31° BERMUDA
26	ELR	19 56 00	MINDANAO AFTERSHOCK
			0 = 18 46 41
			6° N, 126½° E
			DIST. 140° BERMUDA
27	I	04 28 19	SPICE ISLANDS
	E	04 30 39	0 = 04 08 23
	E	04 34 20	1° S, 127° E
	E	04 38 32	DIST. 146° BERMUDA
	E	04 41 48	
	E	04 45 53	
	E	04 48 07	
	E	04 50 32	
	ELR	05 15 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

45.

DATE	PHASE	H M S	REMARKS
1957			
SEPT. 27	ELR	07 16 00	SPICE ISLANDS AFTERSHOCK O = 05 56 50 1° S, 127° E DIST. 146° BERMUDA
27	ELR	11 55 00	FOX ISLANDS, ALEUTIANS O = 11 16 52 52½° N, 169° W DIST. 73° BERMUDA
28	E(PP) E(PPP) E(SKKS) E(PS) E(PPS) E E(SS)	00 46 20 00 48 38 00 53 20 00 55 11 00 56 30 00 58 20 01 01 34	OFF SOUTH COAST OF HONSHU, JAPAN O = 00 27 31 30½° N, 137½° E MAG 6½ DEPTH ABOUT 500 KM DIST. 113° BERMUDA
28	ELR	05 28 00	NEAR NORTH COAST OF NEW GUINEA O = 04 11 23 3° S, 135½° E DIST. 145° BERMUDA
28	I(P) E I I I I I I I E	14 36 32 14 37 52 14 39 24 14 41 21 14 43 57 14 45 22 14 48 00 14 49 26 14 51 00	FIJI ISLANDS O = 14 20 00 20½° S, 178° W MAG 7½ 7-7½ DEPTH ABOUT 650 KM DIST. 120° BERMUDA
29	ELR	03 10 00	SOUTH PACIFIC OCEAN O = 02 08 55 64½° S, 172½° W DIST. 125° BERMUDA

46. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
SEPT. 29	E E E E E E E E E	08 33 23 08 34 40 08 36 16 08 37 34 08 39 18 08 43 20 08 45 09 08 46 10 08 49 40 08 52 24	SOUTH OF FIJI ISLANDS O = 08 12 22 25° S, 178½° W MAG 6½ DEPTH ABOUT 600 KM DIST. 122° BERMUDA
29	E(LR)	18 50 00	
30	E(LR)	11 21 00	SOUTH OF HONSHU, JAPAN O = 11 02 36 29½° N, 140° E DIST. 113° BERMUDA
Oct. 1	E(P) E(S) ELR E T	23 11 22 23 13 46 23 14 00 23 26 08	PROBABLY ATLANTIC OCEAN
2	IP RARE FROM THE S. I IS ELR E(T)	12 32 52 12 35 10 12 36 46 12 38 00 12 47 00	VENEZUELA FORESHOCK FELT: TRINIDAD O = 12 27 55 11° N, 63° W MAG 6½-6¾ DIST. 22° BERMUDA
2	ELR	21 30 00	CHAGOS ISLANDS O = 20 58 39 6½° S, 69½° E DIST. 130° BERMUDA
3	I(PKP)	06 18 02	NEW GUINEA O = 05 58 12 4° S, 134° E DIST. 146° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

47

DATE	PHASE	H M S	REMARKS
1957			
Oct. 3	IP	06 44 11	VENEZUELA AFTERSHOCK
	IS	06 48 12	O = 06 39 08
	ELR	06 49 00	10 $\frac{1}{2}$ ^o N, 62 $\frac{1}{2}$ ^o W DIST. 21 ^o BERMUDA
4	IP	00 25 42	MID-ATLANTIC OCEAN
	ES	00 29 28	O = 00 21 07
	ELR	00 30 00	30 $\frac{1}{2}$ ^o N, 42 ^o W DIST. 20 ^o BERMUDA
4	IP	05 30 56	NEAR COAST OF VENEZUELA
	RARE FROM THE SSW		O = 05 26 09
	IS	05 34 57	11 ^o N, 63 ^o W
	E(LR)	05 36 00	MAG 7 6 $\frac{1}{2}$ DEPTH ABOUT 600 KM DIST. 21 ^o BERMUDA
4	E	20 51 06	
	E	20 54 00	
	E	20 58 00	
	ELR	20 59 00	
5	ES	00 17 44	RAT ISLAND, ALEUTIANS
	ESS	00 22 51	O = 23 55 45
	ELQ	00 28 30	53 ^o N, 178 ^o E
	ELR	00 33 00	DIST. 79 ^o BERMUDA
5	E	08 27 00	
5	E(LR)	16 15 00	CRETE AFTERSHOCK
			O = 15 51 48
			34 $\frac{1}{2}$ ^o N, 27 ^o E
			DIST. 74 ^o BERMUDA
5	E(LR)	23 32 00	AFGHANISTAN-TADZHIK BORDER
			O = 22 40 44
			38 ^o N, 69 $\frac{1}{2}$ ^o E
			DIST. 98 ^o BERMUDA

48. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
Oct. 6	IP	00 59 09	VENEZUELA AFTERSHOCK
	IS	01 03 02	O = 00 54 05
	ELR	01 04 00	11 ^o N, 62 $\frac{1}{2}$ ^o W DIST. 23 ^o BERMUDA
7	E(L)	05 46 00	UNIMAK ISLAND REGION
			O = 05 10 17
			53 $\frac{1}{2}$ ^o N, 165 ^o W
			DIST. 70 ^o BERMUDA
8	E	12 14 00	
	EL	12 18 00	
9	ELR	05 34 00	
10	E(S)	02 04 03	FOX ISLANDS, ALEUTIANS
	E	02 12 20	O = 01 43 00
	ELR	02 20 00	52 $\frac{1}{2}$ ^o N, 169 $\frac{1}{2}$ ^o W DIST. 74 ^o BERMUDA
10	ELR	08 21 00	ANDREANOF ISLANDS, ALEUTIANS
			O = 07 38 18
			52 ^o N, 174 ^o W
			DIST. 76 ^o BERMUDA
10	ELR	15 26 00	NEW GUINEA
10	EP	19 05 16	FOX ISLANDS, ALEUTIANS
	ES	19 14 26	O = 18 53 59
	E(SS)	19 18 44	54 ^o N, 166 ^o W
	E(LQ)	19 22 20	MAG 5 $\frac{1}{2}$
	ELR	19 28 00	DIST. 71 ^o BERMUDA
12	ELR	17 34 00	SANDWICH ISLANDS REGION
			O = 16 46 30

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

49.

DATE	PHASE	H M S	REMARKS
1957			
Oct. 12	I(PKP)	19 17 03	NEAR SOUTH COAST OF JAVA
	I(PP)	19 21 07	O = 18 57 02
	E(PPP)	19 24 39	8° S, 111° E
	E	19 26 33	DIST. 155° BERMUDA
	E(SKKS)	19 28 17	
	E(SKSP)	19 31 24	
	E(PPS)	19 34 20	
	E(SKSP)	19 36 08	
	ELR	20 12 00	
12	ELR	23 09 00	NORTHEAST OF NEW GUINEA
13	I(P)	04 32 08	OFF SOUTHEAST COAST OF
	I(S)	04 42 43	KAMCHATKA
	E(SS)	04 48 20	O = 04 19 17
	E(SSS)	04 54 20	52½° N, 160° E
	E(LQ)	04 57 30	DIST. 92° BERMUDA
	ELR	05 01 00	
13	IPKP	20 52 44	ANTARCTIC OCEAN, SOUTHWEST OF
	IPP	20 56 00	MACQUARIE ISLAND
	ISKKS	21 02 57	O = 20 33 01
	E	21 09 56	60° S, 151° E
	E(SS)	21 15 34	DIST. 143° BERMUDA
	E	21 18 47	
	E	21 35 32	
	ELR	21 40 00	
14	ELR	17 58 00	GUERRERO, MEXICO
15	E	04 13 00	NEAR SOUTH COAST OF COSTA RICA
	E	04 14 56	O = 04 02 07
	ELR	04 17 00	9° N, 84° W DIST. 29° BERMUDA
17	ELR	14 44 00	NORTH ATLANTIC FORESHOCK O = 14 29 18 46° N, 27° W DIST. 32° BERMUDA

50. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
Oct. 17	ELR	17 51 00	NORTH ATLANTIC AFTERSHOCK O = 17 36 25 46° N, 27½° W DIST. 32° BERMUDA
17	ELR	21 17 00	PROBABLY NORTH ATLANTIC OCEAN
19	IPP	18 49 35	NEAR EAST COAST OF FORMOSA.
	EPKS	18 51 15	SEVERAL KILLED AT HOTAI AND
	ESKKS	18 56 30	SLIGHT DAMAGE AT TAIPEI
	E(PKKP)	18 57 34	O = 18 28 50
	E(PKKS)	19 02 26	23½° N, 122° E
	EScSPKP	19 03 38	MAG 6½ - 6¾
	ESS	19 06 26	DIST. 124° BERMUDA
	E	19 09 49	
	E	19 11 00	
	ELQ	19 19 25	
	ELR	19 25 00	
20	IP	12 10 40	ATLANTIC OCEAN
	IPP	12 11 39	O = 12 04 22
	I	12 14 56	11½° N, 42° W
	IS	12 15 38	DIST. 30° BERMUDA
	ESS	12 17 00	
	ELR	12 18 00	
	ET	12 52 15	
	ET MAX.	12 55 46	
20	ELR	18 28 00	
20	ELR	19 28 00	
20	E	21 05 00	
	EL	21 12 00	
20	EL	21 44 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

51.

DATE	PHASE	H M S	REMARKS
1957			
Oct. 21	E ELR	00 36 00 01 17 00	SANTA CRUZ ISLANDS O = 00 17 25 11° S, 167° E DEPTH ABOUT 100 KM DIST. 128° BERMUDA
21	EL	14 35 00	NORTH ATLANTIC OCEAN O = 14 25 46 34° N, 38° W DIST. 22° BERMUDA
21	EL	22 56 30	
22	EL	06 26	
23	EP ES ELQ ELR ET ET MAX.	04 41 43 04 43 52 04 44 40 04 45 00 04 55 12 04 55 42	PUERTO RICO, FELT O = 04 38 30 19° N, 64° W DIST. 14° BERMUDA
23	IP E(PPP) IS ISS ELR	06 08 27 06 13 00 06 17 51 06 22 33 06 32 00	FOX ISLANDS, ALEUTIANS O = 05 56 52 52½° N, 169½° W MAG 6½ DIST. 73° BERMUDA
24	iPP iPKS iPS iScSPKP ESS ELR ₁ ELR ₂	00 39 00 00 40 13 00 49 20 00 51 49 00 56 34 01 15 00 02 10 00	NEW HEBRIDES ISLANDS O = 00 17 37 14½° S, 167½° E MAG 6½ DIST. 130° BERMUDA
24	E E E E ELR	20 25 44 20 27 16 20 29 42 20 33 00 20 40 00	LA RIOJA PROVINCE, ARGENTINA. MODERATE DAMAGE AT VILLA CASTELLI, VINCHINA AND JAQUE O = 20 07 17 29° S, 69° W DIST. 63° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
Oct. 24	IP iPP IS ESS ELR	21 52 03 21 53 37 21 58 02 22 01 07 22 03 00	GULF OF CALIFORNIA O = 21 44 28 25° N, 109½° W MAG 6 DIST. 39° BERMUDA
25	E(S) E(SS) ELR	04 58 38 05 03 36 05 14 00	FOX ISLANDS, ALEUTIANS O = 04 37 35 52½° N, 169½° W DIST. 74° BERMUDA
25	IP iPP IS ISS ESSS ELQ ELR	10 16 34 10 20 12 10 27 23 10 33 10 10 36 44 10 40 00 10 43 00	NEAR SOUTH COAST OF KAMCHATKA O = 10 03 32 50½° N, 156½° E MAG 6½ - 6½ DIST. 90° BERMUDA
26	iPKP iPP iPPP iPS ELR	14 36 46 14 40 15 14 43 50 14 50 39 15 33 00	BORNEO O = 14 16 57 2° S, 116° E DIST. 148° BERMUDA
27	IP IS IPS ISS ELQ ELR	22 45 00 22 55 06 22 56 46 23 00 30 23 06 00 23 10 00	KAMCHATKA O = 22 32 25 56° N, 161° E MAG 6½ - 6½ DIST. 84° BERMUDA
30	E(L)	02 25 00	DODECANESE ISLANDS FELT: ISLE OF KARPATOS O = 01 43 03 36° N, 27½° E DIST. 74° BERMUDA
30	E(L)	08 05 00	DODECANESE ISLANDS FELT: ISLE OF KARPATOS O = 07 30 20 36° N, 27½° E DIST. 74° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

53.

DATE	PHASE	H M S	REMARKS
1957			
Oct 31	I(P)	10 14 16	OFF COAST OF PANAMA. FELT:
	I(S)	10 19 20	BALBOA HEIGHTS, AND ON BOARD
	ELR	10 21 00	S.S. HAI HUANG
			INTERPRETATION DOUBTFUL
			O = 10 07 54
			6 $\frac{1}{2}$ ^h N, 83 ^o W
			MAG 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ 6 $\frac{3}{4}$
			DIST. 31 ^o BERMUDA
31	IP	16 31 23	GALAPAGOS ISLANDS REGION
	IPP	16 32 43	O = 16 24 17
	IS	16 37 07	1 $\frac{1}{2}$ ^o N, 86 ^o W
	ELQ	16 39 30	DIST. 37 ^o BERMUDA
	ELR	16 41 00	
Nov. 1	ELR	15 06 00	GUATEMALA
			O = 14 54 12
I	E(L)	20 05 30	
2	ELR	07 35 00	NEAR COAST OF CHIAPAS, MEXICO
			O = 07 20 58
			15 ^o N, 93 $\frac{1}{2}$ ^o W
			DEPTH ABOUT 100 KM
			DIST. 31 ^o BERMUDA
2	IPKS	18 53 00	NEW HEBRIDES ISLANDS
	IPPS	19 03 37	O = 18 30 24
	EScSPKP	19 04 35	13 ^o S, 166 $\frac{1}{2}$ ^o E
	ESS	19 09 38	DIST. 130 ^o BERMUDA
	EL	19 28 30	
	ELR ₁	19 31 00	
	ELR ₂	20 20 00	
6	ELR	14 08 00	KURILE ISLANDS
			O = 13 12 53
			45 ^o N, 149 $\frac{1}{2}$ ^o E
			DIST. 97 ^o BERMUDA
7	E	03 20 24	SOUTH PACIFIC OCEAN
	E	03 26 36	O = 02 58 53
	ELR	03 33 00	24 ^o S, 112 $\frac{1}{2}$ ^o W
			DIST. 73 ^o BERMUDA

54. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
Nov. 7	E	06 51 20	SOUTH PACIFIC OCEAN
	E	06 56 30	O = 06 21 56
	ELR	07 13 00	57 $\frac{1}{2}$ ^o S, 143 $\frac{1}{2}$ ^o W
			DIST. 111 ^o BERMUDA
10	EPKP	02 55 46	SOLOMON ISLANDS
	EPP	02 58 33	O = 02 36 21
	IPKS	02 59 14	7 ^o S, 155 $\frac{1}{2}$ ^o E
	ESKS	03 02 33	DIST. 134 ^o BERMUDA
	ESKKS	03 05 26	
	EPS	03 08 20	
	EPPS	03 10 25	
	E	03 17 20	
	E	03 20 39	
	E	03 21 54	
	E	03 28 56	
	E	03 34 00	
	ELR ₁	03 36 00	
	ELR ₂	04 42 00	
10	EPP	06 11 36	NEAR NORTHEAST COAST OF
	EPKS	06 12 14	NEW GUINEA
	ESKKS	06 18 33	O = 05 48 57
	EPS	06 21 48	6 $\frac{1}{2}$ ^o S, 147 ^o E
	EPPS	06 24 19	DIST. 141 ^o BERMUDA
	E(SKKS)	06 25 16	
	ESS	06 29 30	
	E(SKSSKS)	06 31 11	
	ELR ₁	06 53 00	
	ELR ₂	07 38 00	
10	E	10 33 00	NORTHERN COLOMBIA
			O = 10 21 14
			8 ^o N, 74 $\frac{1}{2}$ ^o W
			DIST. 26 ^o BERMUDA
10	E	19 49 49	NEAR EAST COAST OF HONSHU,
	ELR	20 10 30	JAPAN. FELT: TOKYO
			O = 19 20 05
			34 ^o N, 139 $\frac{1}{2}$ ^o E
			DIST. 109 ^o BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

55.

DATE	PHASE	H M S	REMARKS
1957 Nov. II	ELR	18 38 00	NEAR COAST OF GUERRERO, MEXICO. FELT: ACAPULCO O = 18 20 38
I2	ELR	00 12 00	CAYMAN ISLAND O = 00 03 02 19° N, 81½° W DIST. 20° BERMUDA
I2	ELR	02 40 00	NEW BRITAIN. FELT: WALINDI O = 01 31 40 6° S, 149½° E DIST. 139° BERMUDA
I3	IPKP IPP IPKS ISKKS ISKKS EPS EPPS EScSPKP E E ELR	17 41 41 17 43 48 17 45 06 17 48 48 17 50 32 17 53 44 17 55 10 17 56 50 17 59 30 18 01 06 18 19 00	KERMADEC ISLANDS REGION O = 17 22 41 33° S, 179° W MAG 6½ - 6¾ DIST. 126° BERMUDA
I5	E(L)	00 49 00	
I5	E(L)	01 05 00	
I5	EL	03 52 00	
I5	E(S) E(SS) ELR	06 28 14 06 33 00 06 47 00	FOX ISLANDS, ALEUTIANS O = 06 06 55 52° N, 171½° W DIST. 75° BERMUDA

56. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957 Nov. I5	E E E E E(LR)	08 33 12 08 38 40 08 43 16 08 50 20 08 55 36 09 00 00	MINDANAO ISLAND, PHILIPPINE ISLANDS FELT: DIPOLOG, DUMAGUETE AND MAMBAJAO O = 07 52 25 8½° N, 124° E DIST. 138° BERMUDA
I5	E(LR)	13 36 00	SOUTH OF HONSHU, JAPAN. FELT: TOKYO O = 12 01 37 34° N, 141° E DIST. 108° BERMUDA
I5	IP IS ESS E(LQ) ELR	06 43 26 16 54 10 17 00 00 17 07 15 17 11 00	NEAR EAST COAST OF KAMCHATKA O = 16 30 29 51½° N, 158° E DIST. 91° BERMUDA
I6	E(LR)	01 12 00	
I6	IP IS ELR	02 00 47 02 10 40 02 25 00	ANDREANOF ISLANDS, ALEUTIANS O = 01 48 48 51½° N, 177° W DIST. 78° BERMUDA
I6	EL	05 17 00	OFF NORTH COAST OF HONDURAS O = 05 06 46 17° N, 85° W DIST. 27° BERMUDA
I7	ELR	00 07 00	SONORA, MEXICO
I7	ELR	07 05 00	BAJA, CALIFORNIA O = 06 43 00 MAG 6
I7	E(S) E(SS) E(LQ) E(LR)	16 03 31 16 08 21 16 13 13 16 21 00	SOUTHERN CHILE-ARGENTINA BORDER O = 15 41 22 INTERPRETATION DOUBTFUL

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

57.

DATE	PHASE	H M S	REMARKS
1957			
Nov. 18	EP	10 24 08	ANDREANOF ISLANDS, ALEUTIANS
	ES	10 34 06	O = 10 12 00
	ESS	10 39 08	51 $\frac{1}{2}$ ^o N, 179 $\frac{1}{2}$ ^o W
	E(SSS)	10 44 07	DIST. 79 ^o BERMUDA
	E(LQ)	10 47 00	
	ELR	10 51 00	
19	E	23 02 00	
	E	23 20 00	
20	IP	12 51 39	UNIMAK ISLAND
	EPP	12 54 24	O = 12 40 23
	IS	13 00 51	54 ^o N, 165 ^o W
	ISS	13 05 10	MAG 6 $\frac{1}{4}$ -6 $\frac{1}{2}$
	E(LQ)	13 08 20	DIST. 70 ^o BERMUDA
	ELR	13 12 00	
23	EP	01 10 08	FOX ISLANDS, ALEUTIANS
	ES	01 19 24	O = 00 58 33
	ESS	01 24 05	52 $\frac{1}{2}$ ^o N, 168 ^o W
	E(LQ)	01 27 48	DIST. 73 ^o BERMUDA
	ELR	01 32 00	
25	EP	19 04 25	OFF COAST OF OREGON
	ES	19 11 50	O = 18 55 12
	E(SS)	19 16 00	44 ^o N, 130 ^o W
	ELR	19 19 00	DIST. 52 ^o BERMUDA
25	EP	20 41 32	OREGON AFTERSHOCK
	ES	20 48 56	O = 20 32 25
	ELR	20 56 00	44 $\frac{1}{2}$ ^o N, 129 $\frac{1}{2}$ ^o W DIST. 51 ^o BERMUDA
25	E(S)	22 33 42	OREGON AFTERSHOCK
	ELR	22 45 00	O = 22 16 44 45 ^o N, 130 ^o W DIST. 51 ^o BERMUDA

58. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
Nov. 25	IPKP	22 54 49	NEAR EAST COAST OF BORNEO
	IPKS	22 58 12	O = 22 35 00
	ISKS	23 01 47	1 $\frac{1}{2}$ ^o S, 116 ^o E
	E(SKSP)	23 08 54	DIST. 148 ^o BERMUDA
	E(SKSSKS)	23 18 16	
	E	23 28 00	
	E(LR ₁)	23 33 00	
	E(LR ₂)	23 53 00	
26	IPKP	05 29 55	NEAR EAST COAST OF BORNEO
	IPKS	05 33 20	O = 05 10 00
	ISKS	05 36 50	2 ^o S, 116 ^o E
	ISKKS	05 39 30	DIST. 148 ^o BERMUDA
	I(SKSP)	05 43 40	
	IPPS	05 46 44	
	ESS	05 52 22	
	I(SKSSKS)	05 53 34	
	E	05 55 52	
	E	05 57 46	
	ELR	06 22 00	
26	E(S)	11 57 54	ANDREANOF ISLANDS, ALEUTIANS
	E(SS)	12 01 13	O = 11 35 44
	ELR	12 15 00	51 $\frac{1}{2}$ ^o N, 176 ^o W DIST. 77 ^o BERMUDA
26	E	23 38 00	NEAR COAST OF NICARAGUA
			O = 23 24 03
			11 $\frac{1}{2}$ ^o N, 86 $\frac{1}{2}$ ^o W
			DEPTH ABOUT 100 KM
			DIST. 29 ^o BERMUDA
28	IPKP	21 09 22	NEW HEBRIDES ISLANDS
	IPP	21 11 35	O = 20 50 10
	IPKS	21 12 48	15 ^o S, 168 $\frac{1}{2}$ ^o E
	E(SKS)	21 17 20	DIST. 129 ^o BERMUDA
	E(SsSP)	21 20 12	
	E(ScSPKP)	21 24 28	
	E(SS)	21 29 04	
	E(SKSSKS)	21 31 10	
	ELR ₁	21 52 00	
	ELR ₂	22 40 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

59.

DATE	PHASE	H M S	REMARKS
1957			
Nov. 29	eLR	19 04 00	
29	IP	22 28 41	SOUTHERN BOLIVIA. SLIGHT
	RARE FROM THE S.		DAMAGE IN NORTHERN CHILE.
	I(PcP)	22 29 39	O = 22 19 38
	I(PPP)	22 31 42	21° S, 66° W
	ES	22 35 57	MAG 7 $\frac{3}{4}$ -8 7 $\frac{1}{2}$
	I	22 37 30	DEPTH ABOUT 200 KM
	E(SS)	22 39 30	DIST. 53° BERMUDA
	E(LR)	22 43 30	
30	E(S)	22 18 37	KURILE ISLANDS
	E(SS)	22 25 04	O = 21 54 10
	E(LQ)	22 31 24	47° N, 154° E
	E(LR)	22 38 20	DIST. 93° BERMUDA
			INTERPRETATION DOUBTFUL
Dec. 1	E	01 25 00	KURILE ISLANDS
	E	01 33 32	O = 01 00 26
	eLR	01 53 00	47 $\frac{1}{2}$ ° N, 153 $\frac{1}{2}$ ° E
			DIST. 92° BERMUDA
3	eLQ	22 25 00	FOX ISLANDS, ALEUTIANS
			O = 21 46 18
			52° N, 169° W
			DIST. 73° BERMUDA
4	IP	03 51 39	OUTER MONGOLIA
	IPP	03 55 32	O = 03 37 45
	IPPP	03 58 00	45 $\frac{1}{2}$ ° N, 99 $\frac{1}{2}$ ° E
	I(SKS)	04 01 45	MAG 7.9 7 $\frac{3}{4}$ -8
	EPS	04 05 09	DIST. 101° BERMUDA
	I(SS)	04 10 52	
	E	04 14 25	
	E(LR)	04 26 00	
7	E(LQ)	08 35 00	GUATEMALA
			O = 08 24 03
			15 $\frac{1}{2}$ ° N, 92° W
			DIST. 29° BERMUDA

60. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
Dec. 7	E(P)	22 24 54	OFF EAST COAST OF NICARAGUA
	I(S)	22 28 53	O = 22 18 49
	eLR	22 30 00	13 $\frac{1}{2}$ ° N, 82° W
			DIST. 24° BERMUDA
9	eLR	22 34 00	YUKON
			O = 22 07 43
			65 $\frac{1}{2}$ ° N, 133° W
			DIST. 52° BERMUDA
10	I(PKP)	14 55 25	SOLOMON ISLANDS
	I(PP)	14 58 00	O = 14 35 57
	I(SKS)	15 01 50	6° S, 154 $\frac{1}{2}$ ° E
	I(PS)	15 08 04	MAG 6 $\frac{3}{4}$ 6 $\frac{1}{2}$ -6 $\frac{3}{4}$
	I(PPS)	15 10 10	DIST. 135° BERMUDA
	I	15 11 14	
	I	15 21 12	
	I	15 33 30	
	E(LR)	15 37 00	
13	I(S)	20 47 30	FOX ISLANDS, ALEUTIANS
	I(SS)	20 52 15	O = 20 26 22
	I	20 56 07	52 $\frac{1}{2}$ ° N, 170° W
	eLR	21 04 00	DIST. 74° BERMUDA
16	IP	17 36 36	VANCOUVER ISLANDS
	IPP	17 38 22	O = 17 27 47
	IS	17 43 42	50° N, 127° W
	IScS	17 46 20	DIST. 49° BERMUDA
	ISS	17 47 29	
	eLR	17 52 00	
17	IP	05 23 24	NEAR EAST COAST OF KAMCHATKA
	I(PP)	05 26 24	O = 05 10 11
	I(PPP)	05 28 40	43 $\frac{1}{2}$ ° N, 162° E
	E(SKS)	05 33 16	MAG 6 $\frac{3}{4}$
	E(PPS)	05 36 27	DIST. 94° BERMUDA
	E(L)	05 45 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

61.

DATE	PHASE	H M S	REMARKS
1957			
DEC. 17	IP	14 06 08	SANTA CRUZ ISLANDS
	IPKP	14 09 16	O = 13 50 12
	I(PP)	14 11 20	12 $\frac{1}{2}$ ^o S, 166 $\frac{1}{2}$ ^o E
	I	14 11 57	MAG 7 $\frac{3}{4}$
	I(PS)	14 21 18	DEPTH ABOUT 100 KM
	IS	14 28 00	DIST. 130 ^o BERMUDA
	E(LR)	14 56 00	
18	E(S)	02 20 30	VENEZUELA
	E(LR)	02 22 00	O = 02 11 40 11 ^o N, 63 $\frac{1}{2}$ ^o W DIST. 21 ^o BERMUDA
20	I(S)	11 37 50	CENTRAL CHILE
	I(SCS)	11 39 12	O = 11 18 42
	I(SS)	11 41 57	30 $\frac{1}{2}$ ^o S, 71 ^o W
	E(LQ)	11 44 38	DIST. 64 ^o BERMUDA
	E	11 47 16	
	E(LR)	11 51 00	
23	IP	12 39 32	ATLANTIC OCEAN
	IS	12 43 43	O = 12 34 03
	ELR	12 45 10	35 ^o N, 36 $\frac{1}{2}$ ^o W DIST. 24 ^o BERMUDA
25	IP	16 30 57	VENEZUELA
	IS	16 35 05	O = 16 26 01
	ELR	16 36 30	10 $\frac{1}{2}$ ^o N, 62 $\frac{1}{2}$ ^o W DIST. 22 ^o BERMUDA
27	E(LQ)	09 07 00	
28	IP	14 45 39	BOLIVIA
	IPP	14 47 43	O = 14 36 40
	IS	14 53 01	18 ^o S, 64 $\frac{1}{2}$ ^o W
	E(SS)	14 57 00	DIST. 51 ^o BERMUDA
	ELR	14 59 00	

62. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1957			
DEC. 31	E(S)	10 33 56	NORTH ATLANTIC OCEAN
	E(SS)	10 36 28	O = 10 21 35
	ELR	10 37 30	58 ^o N, 32 ^o W DIST. 34 ^o BERMUDA
31	IP	13 06 29	NORTH ATLANTIC OCEAN
	E(S)	13 10 04	O = 13 02 20
	ET	13 23 14	25 ^o N, 46 ^o W
	ET MAX.	13 24 16	DIST. 18 ^o BERMUDA
31	ELR	15 34 00	OFF COAST OF SOUTH ISLAND, NEW ZEALAND O = 14 28 15 45 ^o S, 165 $\frac{1}{2}$ ^o E DIST. 139 ^o BERMUDA
1958			
JAN. 1	ELR	15 50 05	FOX ISLANDS, ALEUTIANS O = 15 06 08 52 ^o N, 171 $\frac{1}{2}$ ^o W DIST. 75 ^o BERMUDA
2	ELR	01 29 00	NEW BRITAIN O = 00 21 22 5 ^o S, 152 ^o E DIST. 136 ^o BERMUDA
2	E(P)	22 40 23	NORTHEAST OF TRINIDAD.
	E(S)	22 44 19	FELT: TOBAGO
	ELR	22 45 00	O = 22 35 29 11 $\frac{1}{2}$ ^o N, 60 $\frac{1}{2}$ ^o W DIST. 21 ^o BERMUDA
3	ELR	04 46 00	
3	EP	06 29 03	NORTH ATLANTIC OCEAN
	E(S)	06 32 32	O = 06 24 31
	ELR	06 33 00	32 ^o N, 41 $\frac{1}{2}$ ^o W
	E(T)	06 49 00	DIST. 20 ^o BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

63.

DATE	PHASE	H M S	REMARKS
1958			
JAN. 3	EP	06 54 36	NORTH ATLANTIC OCEAN
	E(S)	06 58 28	O = 06 49 56
	ELR	06 59 00	31° N, 40½° W
	E(T)	07 15 00	DIST. 21° BERMUDA
3	EP	07 06 54	NORTH ATLANTIC OCEAN
	E(S)	07 10 21	O = 07 02 07
	ELR	07 11 00	31° N, 40½° W
	ET	07 26 40	DIST. 21° BERMUDA
	ET MAX.	07 27 20	
3	E(P)	08 00 25	NORTH ATLANTIC OCEAN
	E(S)	08 04 25	O = 07 55 40
	ELR	08 05 00	31½° N, 41° W
			DIST. 20° BERMUDA
3	ELR	08 29 00	PROBABLY NORTH ATLANTIC OCEAN
3	ELR	08 42 00	NORTH ATLANTIC OCEAN
			O = 08 33 31
			32½° N, 41° W
			DIST. 20° BERMUDA
3	E	08 58 26	PROBABLY NORTH ATLANTIC OCEAN
	E	09 02 06	
	ELR	09 02 40	
3	EP	09 30 26	NORTH ATLANTIC OCEAN
	ELR	09 34 30	O = 09 25 47
			31½° N, 40½° W
			DIST. 21° BERMUDA
3	E(P)	10 17 23	NORTH ATLANTIC OCEAN
	ELR	10 21 30	O = 10 12 33
			31½° N, 41° W
			DIST. 20° BERMUDA

64. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1958			
JAN II	EPP	13 39 16	TONGA ISLANDS REGION
	ESKS	13 44 30	O = 13 18 47
	ESKKS	13 45 54	23½° S, 177° W
	EPS	13 49 00	DIST. 120° BERMUDA
	EPPS	13 50 00	
	E(PKKS)	13 52 14	
I2	IP	14 59 50	ATLANTIC OCEAN
	E(S)	15 03 39	O = 14 55 09
	ELR	15 04 00	31½° N, 41° W
	ET	15 19 42	DIST. 20° BERMUDA
I3	E(P)	00 15 13	RAT ISLANDS, ALEUTIANS
	E(S)	00 24 24	O = 00 02 24
			52½° N, 177° E
			DEPTH ABOUT 100 KM
			DIST. 80° BERMUDA
I3	ELR	03 06 00	OFF SOUTH COAST OF PANAMA
			O = 02 52 40
			7° N, 83° W
			DIST. 31° BERMUDA
I3	ELR	04 56 00	SANTA CRUZ ISLANDS
			O = 02 54 37
			11° S, 166° E
			DEPTH ABOUT 100 KM
			DIST. 129° BERMUDA
I4	E(LQ)	07 00 00	TONGA ISLANDS
			O = 05 54 48
			22° S, 175° W
			DIST. 118° BERMUDA
I5	IP	19 23 11	SOUTHERN PERU. EXTENSIVE
	COMP. FROM THE SW		PROPERTY DAMAGE, 21 KILLED,
	IPP	19 25 19	90 INJURED.
	IPcS	19 28 22	O = 19 14 29
	IS	19 30 17	16½° S, 71½° W
	EScS	19 33 00	MAG 7 6½
	ELQ	19 35 00	DEPTH ABOUT 100 KM
	ELR	19 37 00	DIST. 49° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

65.

DATE	PHASE	H M S	REMARKS
1958			
JAN 15	E	22 38 23	NEW HEBRIDES ISLANDS
	E	22 46 00	O = 22 15 44
	E	22 48 50	13 $\frac{1}{2}$ ^o S, 167 ^o E
	E	22 54 52	DIST. 130 ^o BERMUDA
	E	22 57 08	
	ELR ₁	23 18 00	
	ELR ₂	00 07 00	
16	ELR	12 09 00	NEW HEBRIDES ISLANDS O = 11 03 32 14 ^o S, 167 ^o E DIST. 132 ^o BERMUDA
16	E(L)	21 50 00	
17	E(L)	08 28 00	ANTARCTIC OCEAN
	ELR	08 40 00	O = 07 15 38 52 ^o S, 139 $\frac{1}{2}$ ^o E DIST. 153 ^o BERMUDA
18	E(S)	15 37 08	NORTH OF TRISTAN DA CUNHA
	ELR	15 50 00	O = -15 14 26 29 ^o S, 13 ^o W DIST. 79 ^o BERMUDA
19	IP	14 14 09	NEAR COAST OF ECUADOR. I4 KILLED,
	COMP. FROM THE SW		MANY INJURED, EXTENSIVE PROPERTY
	IPP	14 15 10	DAMAGE AT LAS ESMERALDAS, LAS
	IPcP	14 16 18	PALMAS AND GUAYAQUIL. SEISMIC
	E	14 17 14	SEA WAVES: LAS ESMERALDAS AND
	E	14 18 23	GUAYAQUIL.
	IS	14 19 20	O = 14 07 23
	ESS	14 21 40	1 $\frac{1}{2}$ ^o N, 79 $\frac{1}{2}$ ^o W MAG 7 $\frac{1}{2}$ DIST. 34 ^o BERMUDA
20	E(S)	02 38 49	NORTHERN CHILE
	E(SS)	02 43 00	O = 02 19 53
	E(LQ)	02 46 10	30 $\frac{1}{2}$ ^o S, 71 $\frac{1}{2}$ ^o W
	E(LR)	02 51 00	DIST. 64 ^o BERMUDA

66. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1958			
JAN. 22	ELR	19 33 00	NEAR EAST COAST OF FORMOSA. FELT: TAIPEI O = 18 29 11 23 ^o N, 121 $\frac{1}{2}$ ^o E DEPTH ABOUT 200 KM DIST. 124 ^o BERMUDA
23	ELR	14 00 00	OFF WEST COAST OF NORWAY O = 13 35 03 65 ^o N, 6 $\frac{1}{2}$ ^o E DIST. 53 ^o BERMUDA
23	E(LQ)	17 00 00	
24	IP	06 06 28	NEAR EAST COAST OF KAMCHATKA
	EPP	06 09 31	O = 05 53 58
	EPPP	06 10 54	56 $\frac{1}{2}$ ^o N, 163 ^o E
	IS	06 16 44	MAG 6 $\frac{1}{2}$
	ESS	06 22 00	DIST. 83 ^o BERMUDA
	E(LQ)	06 27 00	
	ELR	06 31 00	
24	ELR	19 50 00	KOMANDORSKIE ISLANDS REGION O = 18 03 32 54 ^o N, 170 ^o E DIST. 82 ^o BERMUDA
24	E(PPP)	23 31 26	KENAI PENINSULA, ALASKA
	E(S)	23 35 55	FELT: ANCHORAGE
	E(SS)	23 39 48	O = 23 17 29
	E(LQ)	23 42 00	60 ^o N, 152 ^o W
	E(LR)	23 46 00	MAG 6 $\frac{1}{2}$ - 6 $\frac{1}{2}$ DEPTH ABOUT 60 KM DIST. 61 ^o BERMUDA
27	I(PKS)	08 07 16	SAMOA ISLANDS
	E(SKS)	08 09 42	O = 07 43 58
	I(SKKS)	08 10 54	15 ^o S, 174 ^o W
	E(PS)	08 13 03	MAG 6 $\frac{1}{2}$ -6 $\frac{3}{4}$
	E(PPS)	08 14 28	DIST. 114 ^o BERMUDA
	E(SS)	08 19 46	
	E(LQ)	08 36 00	
	E(LR)	08 43 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

67.

DATE	PHASE	H M S	REMARKS
1958			
JAN. 29	eLR	10 31 00	NEAR COAST OF GUERRERO, MEXICO O = 10 14 55 16° N, 99° W DIST. 35° BERMUDA
30	E(PKS)	06 35 46	SOLOMON ISLANDS
	E	06 36 25	O = 06 13 24
	E(SKS)	06 39 31	7½° S, 155½° E
	E(PcPPKP)	06 40 36	MAG 6½
	E(PS)	06 45 29	DIST. 134° BERMUDA
	E(ScSPKP)	06 48 00	
	E	06 58 48	
	eLR ₁	07 14 00	
	eLR ₂	08 12 00	
31	E(LR)	22 05 00	
FEB. I	IP	16 16 57	NEAR COAST OF ECUADOR
	COMP. FROM THE SW		FELT: ESMERALDAS
	IPP	16 18 04	O = 16 10 15
	IS	16 22 17	2° N, 79° W
	E(LQ)	16 25 00	MAG 6½-7
	E(LR)	16 27 00	DIST. 34° BERMUDA
I	IP	18 09 22	ECUADOR AFTERSHOCK
	EPP	18 10 27	FELT: ESMERALDAS
	ES	18 14 46	O = 18 02 39
	E(LQ)	18 16 30	2° N, 79° W
	ELR	18 18 00	MAG 6½-7 6½ DIST. 34° BERMUDA
I	IP	20 52 30	ECUADOR AFTERSHOCK
	COMP. FROM THE SW		O = 20 45 45
	IPP	20 53 35	1½° N, 79° W
	IS	20 57 56	MAG 6½ 6½
	E(LQ)	21 00 00	DIST. 34° BERMUDA
	ELR	21 01 30	
7	E(LR)	05 21 00	KOMANDORSKIE ISLANDS O = 04 37 33 55° N, 167° E DIST. 83° BERMUDA

68. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1958			
FEB. 8	eLR	00 24 00	SZECHWAN PROVINCE, CHINA O = 23 23 30 31½° N, 104° E DIST. 115° BERMUDA
9	E(S)	04 24 51	SOUTH OF PANAMA
	E	04 28 00	FELT: BALBOA HEIGHTS
	E	04 29 43	O = 04 15 05
	eLR	04 30 00	8° N, 79½° W DIST. 27° BERMUDA
II	eLR	02 13 00	
II	eLR	13 01 00	NEAR COAST OF GUATEMALA O = 12 46 20
12	eLR	07 42 00	NEW BRITAIN O = 06 34 59 5° S, 151½° E DIST. 136° BERMUDA
12	eLR	08 30 00	NEW BRITAIN O = 07 21 37 6° S, 151½° E DEPTH ABOUT 100 KM DIST. 137° BERMUDA
12	IP	23 55 44	ANDREANOF ISLANDS, ALEUTIANS
	EPPP	23 59 44	O = 23 43 45
	IS	00 05 25	52° N, 175° W
	ESS	00 10 00	MAG 6 5½-6
	E(LQ)	00 14 50	DIST. 76° BERMUDA
	E	00 18 30	
	ELR	00 23 00	
16	E(S)	06 30 16	NEAR COAST OF HONSHU, JAPAN
	ELR	07 03 00	O = 06 04 05 39° N, 142° E MAG 6-6½ DIST. 105° BERMUDA

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

69.

DATE	PHASE	H M S	REMARKS
1958			
FEB. 22	IP	II 02 29	ANDREANOF ISLANDS, ALEUTIANS
	RARE FROM THE NW		O = IO 50 23
	IPP	II 05 21	50 $\frac{1}{2}$ ° N, 175° W
	IPPP	II 07 15	MAG 6 $\frac{3}{4}$
	IS	II 12 18	DIST. 78° BERMUDA
	ISS	II 17 12	
	ELQ	II 21 33	
	ELR	II 26 00	
22	E(S)	I7 26 40	ANDREANOF ISLANDS, ALEUTIANS
	E(L)	I7 48 00	O = I7 05 00
	E(LR)	I7 51 00	51 $\frac{1}{2}$ ° N, 174 $\frac{1}{2}$ ° W
			DIST. 76° BERMUDA
23	E	OI 36 00	
	ELR	OI 45 00	
	E(T)	OI 51 01	
23	E(PKP)	08 24 06	SANTIAGO DEL ESTERO PROVINCE,
	E(SKS)	08 31 32	ARGENTINA
	E(SKKS)	08 33 00	O = 08 14 48
	E(PS)	08 35 43	27 $\frac{1}{2}$ ° S, 63° W
	E(PPS)	08 36 54	DEPTH ABOUT 600 KM
	E	08 39 00	DIST. 61° BERMUDA
			INTERPRETATION DOUBTFUL
24	ELR	I3 I6 00	OUTER MONGOLIA
			O = I2 27 06
			45° N, 99° E
			DIST. 101° BERMUDA
25	E(P)	02 18 51	
	E(S)	02 29 10	
	ELR	02 37 00	
27	ELR	II 02 00	
27	EPKP	23 46 44	BATAN AFTERSHOCK
	IPP	23 49 00	O = 23 27 49
	IPKS	23 50 18	21° N, 120° E
	IPPP	23 51 39	DIST. 126° BERMUDA
	ISKKS	23 55 54	
	IPKKP	23 57 05	
	IPS	23 58 42	
	IPPS	00 00 13	
	E(LQ)	00 27 25	
	ELR	00 30 00	

70. BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1958			
FEB. 28	IP	09 59 13	MID ATLANTIC OCEAN
	COMP. FROM THE SE		O = 09 54 53
	E(PPP)	10 00 03	27° N, 44° W
	IS	10 02 36	DIST. 19° BERMUDA
	ELR	10 03 30	
	ET	10 16 40	
	ET MAX	10 18 02	
28	E(P)	10 41 00	PROBABLY MID ATLANTIC OCEAN
	E(S)	10 43 20	
	E(LR)	10 43 50	
28	E(P)	I2 22 13	
	E(LR)	I2 26 00	
	E(T)	I2 40 12	
	E T MAX	I2 40 36	
28	E(P)	I3 06 40	
MAR. 3	IP	I6 30 41	KOMANDORSKI ISLANDS
	EPP	I6 33 49	O = I6 18 17
	IS	I6 40 54	55 $\frac{1}{2}$ ° N, 166 $\frac{1}{2}$ ° E
	ISS	I6 46 15	MAG 6 $\frac{1}{2}$ -6 $\frac{3}{4}$
	E(LQ)	I6 50 30	DIST. 83° BERMUDA
	ELR	I6 55 00	

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

71.

DATE	PHASE	H M S	REMARKS
1958 MARCH 9	EPP	10 43 28	KERMADEC ISLANDS REGION
	E SKS	10 48 32	O = 10 22 25
	E PS	10 53 32	34° S, 178½° W
	E SS	11 01 16	MAG 6½-6¾
	ELR	11 20 00	DEPTH ABOUT 60 KM DIST. 126° BERMUDA
II	IPKP	00 45 02	RYUKYU ISLANDS. SEVERAL
	IPP	00 46 30	KILLED AND MANY INJURED
	IPKS	00 48 25	ON OKINAWA. FELT STRONGLY
	IPPP	00 49 24	ON MIYOKO AND ISHIGAKI
	I(SKS)	00 51 31	O = 00 25 26
	I(SKS)	00 52 25	25½° N, 125° E
	E(SKKKS)	00 54 30	MAG 7
	IPS	00 56 16	DEPTH ABOUT 60 KM
	IPPS	00 57 26	DIST. 121° BERMUDA
	I(PCPPKP)	00 58 12	
	E(PKKS)	00 59 12	
	E SS	01 03 00	
	E(LR)	01 14 00	
12	E(P)	00 00 00	GUERRERO, MEXICO
	E(S)	00 05 30	O = 23 53 00
	ELR	00 09 00	17° N, 98½° W DIST. 34° BERMUDA
14	E	00 15 00	MASBATE ISLAND,
	E	00 34 00	PHILIPPINE ISLANDS
	E(LQ)	00 45 25	O = 23 49 23
	ELR	00 56 00	12½° N, 123½° E DIST. 134° BERMUDA
15	ELR	01 28 00	NEAR EAST COAST OF FORMOSA O = 00 24 04 23½° N, 122° E DIST. 124° BERMUDA
15	ELR	08 55 00	ARIZONA O = 08 34 04 32½° N, 113½° W DIST. 40° BERMUDA

72.

BERMUDA-COLUMBIA UNIVERSITY SEISMOGRAPH STATION

DATE	PHASE	H M S	REMARKS
1958 MARCH 15	ELR	20 15 00	NEW BRITAIN. FELT: RABAU O = 19 06 10 5° S, 152° E DIST. 136° BERMUDA
18	E	22 41 36	FOX ISLANDS FORESHOCK
	E	22 44 52	O = 22 20 02
	E(L)	22 56 30	50½° N, 173° W
	E(LR)	23 01 00	DIST. 76° BERMUDA
20	IP	01 49 54	FOX ISLANDS REGION, ALEUTIANS
	IP	01 50 31	O = 01 38 04
	I(PP)	01 53 16	51° N, 173° W
	IS	01 59 35	DIST. 76° BERMUDA
	ISS	02 04 29	
	ISSS	02 08 35	
	ELQ	02 11 00	
	ELR	02 14 00	
25	IP	18 45 44	VIRGIN ISLANDS FELT
	IS	18 48 07	O = 18 42 27
	ELR	18 48 50	18° N, 64½° W
	ET	18 59 30	DIST. 14° BERMUDA
	ET MAX.	18 59 52	
27	ELR	06 21 00	NEAR COAST OF GUATEMALA O = 06 05 30
31	ES	21 15 13	LEEWARD ISLANDS
	ELR	21 16 00	O = 21 09 01
	ET	21 27 32	17½° N, 60° W
	ET MAX.	21 28 34	DIST. 15° BERMUDA