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UNIVERSITY OF ARKANSAS

SEISMOLOGICAL BULLETIN

Volume VII Number 1

The University Of Arkansas Seismograph Station

Operated by the University's Department of Geology

in conjunction with the

United States Coast and Geodetic Survey

FAYETTEVILLE SEISMOGRAPH STATION

Volume 7, Number 1, March, 1958

Data for January, February, March, 1958

Instruments

Vertical component - Benioff type, short period electromagnetic-galvanometric

Seismometer period - 1.1 second
Galvanometer period - 0.20 second
Damping ratio - about 20 to 1 (near critical)
Recording drum speed - 60 mm per minute

Horizontal components - Wilson-Lamison hinged types: E-W, N-S. electromagnetic-galvanometric

Seismometer period - 6.03 seconds (N-S)
5.97 seconds (E-W)
Galvanometer period - 4.1 seconds (N-S)
3.75 seconds (E-W)
Recording drum speed - 30 mm per minute

Clock - IBM, electrically wound, Invar pendulum type. Accuracy limits generally within one second.

Radio - Time signals received by a Hallicrafter SX-43 receiver

(Additional information regarding the station is given on the back cover)

Information in "Remarks" column is usually from U.S. Coast and Geodetic Survey epicenter cards. "C" following the trace amplitude indicates a compressional motion of the wave; "D" indicates dilation.

Bulletin compiled by Leonard I. Knowles, Observer

Date	Phase	CT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Jan.									
1	iP	15-15-43.2	1.3			2.0C			C&GS, 15-06-08 52N., 171½W. Aleutian Is., Fox Is. (P-H)=6100 km. ca.
2	eP	02-21-02.8	0.7			1.8			C&GS, 02-08-15 36½N., 22E. 066 South coast of Greece (P-H)=9,700 km. ca.
2	iP	21-24-15.3	1.0			2.0D			C&GS, 21-12-07 45N., 151E., Kurile Is. h about 60 km. (P-H)=8,900 km. ca.
	e(pP)	29	1.2			5.6			
3	Vert Dead								
4	eP	23-40-57	1.0			2.5			
5	iP	08-25-56.8	1.0			4.0C			
5	iP	11-43-12.2	1.0			2.8D			C&GS, 11-30-44 56½N., 121E. Stanovoi Mtn. region Siberia (P-H)=9,375 km. ca.
	elMaxEM	12-15-34		18	18		10	9	
6	e(P)	02-12-53	1.2			1.1			
6	iP	10-11-21.2	1.2			3.1D			
7	No Quakes								
8	No Quakes								
9	No Wuakes								
10	e(P)	07-18-26	1.0			1.2			
10	iP	13-46-47.6	1.1			2.0D			C&GS, 13-37-14 52N., 171W. Fox Is. Aleutian Islands (P-H)=6,060 km. ca.
	e	47-50	1.4			8.0			
10	iP	23-09-34.2	1.1			2.0D			C&GS, 22-57-12 44½N., 148 E Kurile Islands (P-H)=9,300 km. ca.
	e	10-04	1.2			2.1			
11	iP	04-58-42.7	0.8			5.0D			C&GS, 04-47-35** Kamchatka (P-H) = 7,700 km. ca.

Date	Phase	GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Jan.									
11	e(P)	06-01-41	1.2			1.4			
11	eP	13-32-29	1.0			2.0			C&GS, 13-18-47 23½S., 177W Tonga Is. Region (P-H) = 10,950 km.ca.
12	iP	15-03-18.8	1.2			2.6D			C&GS, 14-55-09 31½N, 41W Atlantic Ocean (P-H) = 4,900 km.ca.
	e(pP)	22.6	1.0			3.8			
	e(PP)	05-04	1.1			1.0			
13	iP	00-12-34.8	1.0			6.5C			C&GS, 00-02-24 52½N., 177E. Rat Is Aleutian Is. h about 100 km (P-H) - 6,700 km.ca.
	e	-17-4	2.0			1.9			
13	e(P)	01-43-33	2.1			1.0			
13	eP	13-19-51	1.2			1.7			C&GS, 13-09-40 20S., 69½W Northern Chile (P-H) = 6700 km.ca.
13	iP	20-33-45.2	0.9			1.2			
	e(PPP)	20-37-06	1.6			1.2			
14	e(P)	06-08-20	1.3			1.5			C&GS, 05-54-48 22S., 175W Tonga Is. (P-H) = 10,650 km.ca.
15	iPZEN	19-24-04.5	.9	5.0	5.0	43.C	11.0	47.5	C&GS, 19-14-29 16½S., 71½W. South Peru. h about 100 km Mag. 7 (Pas), 6-3/4 (Berk) (P-H) = 6500 km.ca.
	e(s)ZEN	-31-50	2.9	9.0	9.0	3.0	61.0	63.0	
	ELMaxEN	41-51		28.0	42.0		10.0	29.0	
16	No Quakes								
17	iP	05-34-01.6	1.0			2.5			C&GS, 05-23-08** Tucuman Prov, Argentina h about 150 km (P-H) = 7550 km.ca.
18	No Quakes								

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Jan.									
19	iPZEN	14-14-34.1	9.0	3.0	3.0	4.5 D	10.0	7.0	C&GS, 14-07-23 1½N., 79½W. near coast of Equador Mag 7½ (Pas) (Berk) (P-H) = 4150 km.ca.
	e(pP)	45	1.0			10.0			
	e(s)ZEN	20-34	1.3	?	?	2.5	?	?	
	elMaxZEN	34-47	19.0	?	?	3.0	?	?	
19	iP	14-50-36.5	1.0			2.2 D			C&GS, 14-43-24 1½N., 79½W. near coast of Equador (P-H) = 4150 km.ca.
20	iP	02-31-05.4	1.0			4.2 C			C&GS, 02-19-53 30½S., 71½W. Northern Chile (P-H) = 7850 km.ca.
	e(pP)	15	1.3			5.2			
20	iP	10-06-56.1	1.0			2.1 D			C&GS, 09-55-44 30½S, 71½W. Northern Chile (P-H) =7850 km.ca.
21	iP	08-18-13	1.3			3.5			C&GS, 08-06-56 29S, 73W, Near coast of Chile (P-H) = 7850 km.ca.
	e(S)	27-03	1.0			4.1			
22	No Quakes								
23	No Quakes								
24	iP	18-14-15	1.4			3.8 C			C&GS, 18-03-32 54N., 170E. Komandorskie Is. Region (P-H) = 7300 km.ca.
24	iP	23-25-30.1	1.1			7.5 C			C&GS, 23-17-29 60N., 152W. Kenai Pen. Alaska h about 60 km. Mag. 6¼-6½ (Pas) (P-H) = 4800 km.ca.
25	No Quakes								
26	iP	06-54-8.3	1.2			2.1			C&GS, 06-42-13 47½N., 154½E. Kurile Is. (P-H) = 8700 km. ca.
26	iP	07-40-16.0	.9			1.9			C&GS, 07-28-33 49½N., 155E. Northern Kurile Is. P-H = 8400 km.ca.

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Jan.									
26	iPZEN	16-56-33.4							
	e	40							
	e(s)ZEN	57-25							
27	eP	02-09-20	1.0			2.0			
27	eP	07-57-07	1.3			1.2			C&GS, 07-43-58 15S, 174W, Samoa Is. Mag. 6-3/4 (Pas) 6½ (Berk) (P-H) = 10,000 km.ca.
	e(s)EN	08-07-48		12.0	4.0		6.0	3.5	
	eLMaxEN	27-25		27	24		5.0	5.0	
28	iPZEN	05-57-38							
	e	-46							
	e(s)ZEN	58-42				9			
28	e(P)	13-39-07	1.0			1.0			
29	iPZEN	10-19-34	1.0	3.0	2.5	2.1	3.0	4.1	C&GS, 10-14-55 16N, 99W, near coast of Guerrero, Mex. (P-H) = 2300 km.ca.
	e(s)EN	23-24		8.0	9.0		4.0	7.0	
	EZEN	26-43	1.3	5.0	4.0	1.2	5.0	3.5	
30	No Quakes								
31	No Quakes								
Feb.									
1	iPZEN	16-17-24	1.4	3.1	10.0	2.0 C	2.2	9.2	C&GS, 16-10-15 2N, 79W, near coast of Equador Mag 6-3/4-7 (Pas) (Berk) (P-H) = 4050 km.ca.
	e	-47	1.4			4.0			
	e(s)EN	23-02		10	12		18	30	
	eLMaxEN	27-34		10	10		31	26	
	iPZEN	18-09-49.8	1.2	5.0	4.0	4.1 C	5.0	7.0	C&GS, 18-02-39 2N, 79W, Equador after shock Mag. 6-3/4-7 (Pas), 6½ (Berk) (P-H) = 4050 km.ca.
	e(s)EN	15-34		8.0	9.0		9.0	14.0	
	eLmaxFN	20.4		6.0	10.0		15.0	12.0	
	iPZEN	20-52-56.1	1.3	5.0	4.0	2.6 C	4.5	6.0	C&GS, 20-45-45 2N, 79W Equador after shock Mag. 6-3/4 (Pas) 6½ (Berk)
	e(s)EN	58-41		6.7	9.0		11.0	9.5	
2	iP	03-19-44	1.2			1.8 C			C&GS, 03-15-10 near coast of Guerrero, Mex. (P-H) = 2200 km.ca.

Date	Phase	GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Feb.									
2	iP	04-43-34	.8			4.2 C			
2	iP	08-23-43	1.4			6.1			C&GS 08-11-53 48½N, 158½E Kurile Is Mag. 6½ - 6-3/4 (Pas) (P-H) = 8750 km.ca.
	e(pP)	57	1.7			10.0			
3	iP	14-08-51.3	1.0			1.6 C			C&GS 14-02-20** south of Panama (P-H) = 3550 km.ca.
4	No Quakes								
5	No Quakes								
6	No Quakes								
7	No Quakes								
8	e(P)	10-35-35.2	1.1			2.1D			
9	e(P)	04-21-28	1.2			.8D			C&GS 04-15-05 8N, 79½W south of Panama. Felt: Balboa Hgts. (P-H) = 3800 km.ca.
10	No Quakes								
11	iP	01-05-45.7	1.3			3.0 C			
	e	06- 5.0	1.1			3.0			
11	e(P)	12-51-28.2	.9			1.0			C&GS 12-46-20** Near coast of Guatemala (P-H) = 2600 km.ca.
12	iP	23-53-37.0	1.0			3.0			C&GS 23-43-45 52N, 175W Andreanof Is. Aleutian Is. (P-H) = 6500 km.ca.
13	No Quakes								
14	No Quakes								
15	iP	01-59-07							C&GS 01-46-40 44N, 147E Kurile Is. Mag 6-6¼ (Pas) (P-H) = 9350 km.ca.
16	iP	06-17-02	1.0			1.5			C&GS 06-04-05 39N, 142E near coast of Honshu, Japan Mag. 6-6¼ (Pas) (P-H) = 10,000 km.ca.
	e(pP)	1.5	1.5			2.0			

Date	Phase	GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Feb.									
17	e(P)	05-36-23	1.0			0.6			
	e	46	1.4			2.0			
18	No Quakes								
19	e(P)	01-32-01	1.0			1.5D			C&GS 01-20-20 37½S, 111W South Pacific (P-H) = 8450 km.ca.
19	iPZEN	19-45-06.4	1.5	2.4	2.4	7.0 C	4.5	7.0	
	e(pP)EN	-19.0		1.5	1.3		6.0	5.0	
	e	59-28	1.1			1.5			
20	No Quakes								
21	iP	04-28-01	1.7			1.5			
	e(pP)	-15	1.2			2.1			
22	iPZE	11-00-18.5	1.9	6.0		12.0 C	9		C&GS 10-50-23 50½N, 175W Andreanof Is. Aleutian Is. (P-H) = 6500 km.ca.
	e(pP)	28.0	1.2			6.0 D			
	e(PcP)	01-04	1.5			5.0 C			
22	iP	17-14-51	18			1.0 CC			C&GS 17-05-00 50½N, 175W, Andreanof Is. Aleutian Is. (P-H) = 6500 km.ca.
23	iP	08-25-04	1.2			9.0 D			C&GS 08-14-48 27½S, 63W, Santiago del Estero Prov. Argentina h about 600 km (P-H) = 7700 km.ca.
	e(s)ZEN	33-29.5	1.3	6.0	6.0	1.0	7.0	9.0	
23	e(P)	13-43-30.5	-	-	-	-	-	-	
	e	-38.5	.5			2.0			
	e(s)	44-09	.5			3.5			
24	e(P)	12-40-47	1.0			1.0 C			C&GS 12-27-06 45N, 99E Outer Mongolia (P-H) = 11,000 km.ca.
	e(pP)	-53	1.3			2.0 C			

Date	Phase	GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Mar.									
11	iP	00-40-30	1.0			1.0			C&GS 00-25-56 25½N, 125E. Ryukyu Is. Several killed and many injured on Okinawa h about 60 km Mag. 7 (Pas) (P-H) = 12,500 km
	e	-52	1.0			2.0			
	e(p^1)ZEN	44-56	2.0	5.0	6.0	3.0	2.0	2.0	
	e(PP)ZEN	45-17	2.0	6.0	10.0	5.0	10.0	16.0	
	e(S)ZEN	51-06	2.0	8.0	12.0	1.0	11.0	18.0	
	eZEN	52-04	1.0	12	14.0	1.0	10.0	13.0	
	eZEN	54-34	1.5	10.0	8.0	1.0	7.0	7.0	
	eZEN	55-53	1.8	8.0	26.0	2.5	8.0	15.0	
	e(ss)ZEN	01-00-35	1.0	10.0	12.0	1.0	10.0	30.0	
11	iP	08-52-03	0.5			0.5			C&GS 08-47-23 14½N, 90½W, Guatemala h about 200 km (P-H) = 1750 km.ca.
	e	-42	1.0			2.0			
11	iPZEN	23-57-35	1.5	-	6.0	3.0	-	3.0	C&GS 23-53-00 17N, 98½W, Guerrero Mexico (P-H) = 2200 km.ca.
	e(s)EN	00-01-22.5		4.0	10.0		4.0	6.0	
	e(1)ZEN	05-59	2.5	6.0	7.0	1.5C	7.0	6.0	
	e	13-08.5	1.5			1.0			
12	No Quakes								
13	No Quakes								
14	No Quakes								
15	e(P)	06-39-30	1.0			1.0C			C&GS 06-27-00, 40N, 20½E Albania-Greece Border (P-H) = 9400 km.ca.
15	iP	08-37-56	1.0			1.0C			C&GS 08-34-04 32½N, 113½W, Arizona (P-H) = 1600 km.ca.
	e(1)ZEN	08-43-13	3.5	10	12	2.5	6	17	
16	No Quakes								
17	No Quakes								
18	No Quakes								
19	No Quakes								
20	iPZEN	01-47-46	1.0	2.0	2.0	10.0d	4.0	4.0	C&GS 01-38-04 51N, 173W, Fox Is. region Aleutian Is. (P-H) = 6200 km.ca.
	e(pP)	57	1.5			6.0			
	e	48-04	1.3			8.0			
	e(PP)ZEN	49-48	1.0	6.0	6.0	2.0	2.0	2.0	
	e(s)ZEN	55-37	2.0	9.0	6.0	1.0	5.0	5.0	
	elmaxEN	02-10-20		10.0	10.0		12.0	18.0	

Date	Phase	GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
Mar.									
21	iP	14-19-43	.8			2.5			C&GS 14-15-04
	e	20-16	.9			2.5			15N, 92½W, Mexico Guatemala Border
	e(s)	23-43							h about 150 km (P-H) = 2300 km.ca.
22	e(P)	16-50-45.5							
	e(s)	59-43							
23	No Quakes								
24	No Quakes								
25	iP	18-48-52	.8			2.0			C&GS 18-42-27
	e	50-00	1.2			1.5			18N, 64½W, Virgin Is. Felt.
	e	51-28	1.5			1.5			(P-H) = 3500 km.ca.
25	iP	21-46-34	1.0			3.5			
26	No Quakes								
27	iPZEN	06-10-33.4	.8	-	--	2.0C	-	-	C&GS 06-05-30**
	e(pP)	-49	1.0			2.0C			Near coast of Guatemala.
									(P-H) = 2530 km.ca.
27	e(P)	06-46-20	.5			.5			C&GS 06-35-07
									53N, 160E, near coast of Kamchatka
									(P-H) = 7850 km.ca.
28	iP	12-20-17.6	1.2			1.5D			C&GS 12-06-24
	e(PP)	24-38.6	1.2			4.0			37N, 71E, Hindu Kush
	e	25-24	1.5			2.3			h about 200 km (P-H) = 11,500 km.ca.
28	iP	13-10-50.6	.5			.5			
	e	11-21	1.2			2.5			
29	No Quakes								
30	No Quakes								
31	iPZEN	10-35-14	.5	-	-	1.5C	-	-	C&GS 10-30-56
	e(pP)ZEN	-28	1.2	-	2.0	10.0	-	8.0	17N, 93½W, Chiapas Mex. h about 100 km.
	e(S)ZEN	38-49	1.0	-	2.5	4.0	4.0	4.0	(P-H) = 2050 km.ca.

The University of Arkansas Seismograph Station is located on the University Farm, 2.5 miles northwest of the main campus at Fayetteville. Coordinates of the station are 36° 05.46′ north latitude and 94° 11.47′ west longitude. Altitude above mean sea level is 1,325 feet. The seismometer pier rests on the Boone limestone of lower Mississippian age. Approximately 2,500 feet of limestone, shale and sandstone overlie the pre-Cambrian crystalline rocks in the vicinity of the station.

University of Arkansas
Seismograph Station
Department of Geology
Fayetteville, Arkansas

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UNIVERSITY OF ARKANSAS

SEISMOLOGICAL BULLETIN

Volume VII Number 2

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FAYETTEVILLE SEISMOGRAPH STATION

Volume 7, Number 2, June, 1958

Data for April, May, June
1958

Instruments

Vertical component - Benioff type, short period electromagnetic-galvanometric

Seismometer period - 1.1 second
Galvanometer period - 0.20 second
Damping ratio - about 20 to 1 (near critical)
Recording drum speed - 60 mm per minute

Horizontal components - Wilson-Lamison hinged types: E-W, N-S. electromagnetic-galvanometric

Seismometer period - 6.03 seconds (N-S)
5.97 seconds (E-W)
Galvanometer period - 4.1 seconds (N-S)
3.75 seconds (E-W)
Recording drum speed - 30 mm per minute

Clock - IBM, electrically wound, Invar pendulum type. Accuracy limits generally within one second.

Radio - Time signals received by a Hallicrafter SX-43 receiver.

(Additional information regarding the station is given on the back cover.)

Information in "Remarks" column is usually from U.S. Coast and Geodetic Survey epicenter cards. "C" following the trace amplitude indicates a compressional motion of the wave; "D" indicates dilation.

Bulletin compiled by Leonard I. Knowles, Observer

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
April									
1	No Quakes								
2	No Quakes								
3	iP	08-32-56	1.2			3.0D			C&GS - 08-25-43 1½N., 79 W. Near Coast of Ecuador (P-H)=4100 km. ca.
4	No Quakes								
5	No Quakes								
6	No Quakes								
7	iPZEN	15-39-08	1.2	5.0	6.0	6.0D	4.0	8.0	C&GS - 15-30-38 66½ N., 157 W. Alaska Mag. 7 (Pas), 7¼ - 7½ (Berk) (P-H)=5200 km. ca.
	e(pP)ZEN	50.5							
	e(PPP)ZEN	41-56							
	e(S)EN	45-58							
	e(L)ZEN	51-49							
	eImaxZEN	16-00-06	9.0	14.0	20.0	85	120	180	
7	iP	18-18-00	1.5			2.0			C&GS - 18-05-02 38½ N., 143 E., Near Coast of Honshu, Japan (P-H)=10,000 km.ca.
	e(pP)	11	2.0			4.0			
8	iP	00-22-43	1.0			1.0			C&GS - 00-14-20 66½ N., 155½ W. Alaska (P-H)=5000 km. ca.
	eZEN	37-41	2.0	5.0	6.0	1.5	5.0	4.0	
	eZEN	39-00	4.0	7.0	11.0	2.0	25.0	18	
8	iP	04-42-15	1.0			2.0D			C&GS - 04-35-21 7 N., 73 W.,Columbia (P-H)=3800 km. ca.
8	iP	17-22-13	1.0			1.0			C&GS - 17-17-05** El Salvador (P-H)=2700 km. ca.
9	iPZEN	06-22-16.5	1.5	2.0	3.2	4.0C	1.0	2.0	C&GS - 16-15-12 56½ N., 139 W. Gulf of Alaska (P-H)=4000 km. ca.
	eEN	34-55		6.0	4.0		10.0	10.0	

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
April									
10 ✓	iP	01-55-47	.5			1.0			C&GS - 01-44-34 53 N., 160½ E. Kamchatka (P-H)=7800 km.ca.
10 ✓	iP	12-03-02	.5			1.0			C&GS - 11-50-05 38½ N., 143 E. Honshu, Japan (P-H)=10,000 km.ca.
10 ✓	iPZEN	13-29-10	1.0			7.0C			C&GS - 13-18-47 Northern Chile h about 150 km. (P-H)=7100 km.ca.
	e(pP)	42	1.3			5.0			
	e	30-03	1.0			2.5			
10 ✓	iP	23-20-48	1.5			1.5D			C&GS - 23-12-47 4½ S., 107 W. about 1000 mi. west of Galapagos Mag.6 (Pas), 6 - 6¼ (Berk) (P-H)=4800 km.ca.
11 ✓	iP	01-11-04	.8			1.0D			C&GS - 00-58-13 38½ N., 142½ E. Off Coast Honshu, Japan (P-H)=10,000 km.ca.
11 ✓	iPZEN	23-23-15	1.0	2.0	4.5	9.0D	2.0	3.0	C&GS - 23-11-19 48 N., 152½ E. Kurile Is. Mag.6½(Pas) (P-H)=8900 km.ca.
	e	51	1.5			7.0			
	e(S)ZEN	32-50	3.0	8.0	5.0	1.0	9.0	11.0	
12	iPZEN	10-28-57	1.2	4.0	4.0	2.0D	2.0	2.0	C&GS - 10-24-55** Gulf of California Mag.5½ (Pas), (P-H)= 2000 km.ca.
	e(pP)	29-04	1.0			4.0			
	e(S)ZEN	33-47	3.0	4.0	4.0	2.5	10.0	15.0	
12 ✓	iPZEN	11-51-00	2.0	2.0	3.0	18.0	19.0	17.0	C&GS - 11-46-58 26½ N., 111 W. Gulf of Baja California Mag.6½ (Pas) 6 (Berk) (P-H)=1900 km.ca.
	e(S)ZEN	54-21	2.0	8.0	9.0	5.0	7.0	15.0	
	e(L)ZEN	55-20							
	e(L)ZEN	56-09	4.0	8.0	8.0		140.0	150.0	

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
April									
13	iP	09-15-49	1.0			2.0			C&GS - 09-07-24
	eZEN	30-14		6.0	6.0		3.5	4.0	66 N., 156 W. Alaska
	eLMaxZEN	36-00	11.0	10.0	12.0	3.5	22.0	45.0	Mag. 6½ (Pas), 6(Berk)
									(P-H)=5200 km.ca.
13	iPZEN	12-40-21	1.2			3.0	2.0	2.5	C&GS - 12-29-07
	e(S)En	49-32		16.0	14.0		7.0	4.0	53 N., 161 E. Near
	eLMax	13-06-10		22.0	20.0		8.0	8.0	Coast of Kamchatka
									(P-H)=7800 km.ca.
14	iP	03-01-42	1.2			2.0C			
14	iPZEN	21-39-45	1.5			5.0			C&GS - 21-32-28
	e(S)ZEN	45-31		8.0	16.0	2.0	30.0	35.0	1 N., 79½ W. Near
	e(L)EN	48-12		14.0	10.0		33.0	33.0	Coast of Ecuador
									(P-H)=4200 km.ca.
14	iP	22-55-48	.5			1.0			C&GS - 22-48-33
	e	58-13	1.0			1.0			1 N., 79½ W.
									Ecuador Aftershock
									Mag. 6½-6 3/4 (Pas)
									(P-H)=4200 km.ca.
15	iPZEN	01-38-00	2.5	4.0	4.0	5.0	3.0	5.0	C&GS - 01-30-43
	e(PPP)ZEN	39-43	2.0	4.0	4.0	2.0	3.0	5.0	1 N., 79½ W.
	e(S)ZEN	43-35	2.0	8.0	8.0	1.0	7.0	8.0	Ecuador Aftershock
									(P-H)=4200 km.ca.
15	iP	03-58-25	1.0			1.5			C&GS - 03-52-39
	eZEN	38	1.0	4.0	4.0	4.0D	2.5	6.0	9 N., 84 W. Off
	e	46	1.0			9.0			West Coast of Costa
	e(S)ZEN	04-03-26	2.0	6.0	12.0	1.5	8.0	12.0	Rica Mag. 6 3/4
									(Pas), (Berk)
									(P-H)=3200 km.ca.
16	No Quakes								
17	iP	13-45-54	1.2			2.5C			
	e	46-08	1.0			2.5			
18	No Quakes								
19	iP	04-07-23.5	1.4			2.5			C&GS - 04-03-26
	e(L)	12-28	2.3			10.0			26½ N., 110½ W.
									Gulf of California
									Mag. 6 (Pas)
									(P-H)=1900 km.ca.

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
April									
20	No Quakes								
21	iPZEN	22-56-53.5				52.0	2.0	3.0	
	e(S)ZN	23-00-13	1.0		4.0	7.0		8.0	
22	No Quakes								
23	e(P)	03-09-53	1.5			2.0			
24	iP	18-15-52	1.2			2.5C			C&GS - 18-09-14
	e	17-10	1.5			1.5			5N., 83 W. Pacific Ocean (P-H)=3600 km.ca.
27	iP	17-30-10	1.5			2.0C			C&GS - 17-17-39 $42\frac{1}{2}$ N., $143\frac{1}{2}$ E. Hokkaido, Japan h about 100 km. (P-H)=9600 km.ca.
27	iP	18-48-30	1.5			5.0D			C&GS - 18-38-10
	e(sP)	49-25	1.0			1.0			23 S., 66 W. Argentina h about 200 km. (P-H)=7100 km.ca.
27	iP	19-13-11	.5			.5			C&GS - 19-03-50
	e	14- 7	1.0			1.0			$51\frac{1}{2}$ N., 169 W. Fox Is. (P-H)=6000 km.ca.
28	iP	02-18-04	1.2			1.5			
28	iP	08-04-34	1.0			.8			
	e(S)ZEN	08-37	2.0	2.0	4.0	1.5	1.5	4.0	
28	iPZEN	11-56-41	1.5			2.2C			C&GS - 11-47-40
	e(pP)	46	1.5			10.0			11 S., 74 W. Peru
	e(PP)	58-42	1.5			3.0			Mag. $6\frac{1}{2}$ (Pas)
	e(S)EN	12-03-50		10.0	8.0		6.0	5.0	$6\frac{1}{4}$ - $6\frac{1}{2}$ (Berk) (P-H)=5600 km.ca.
29	No Quakes								

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
April 30	iP	14-18-21	1.0			4.5C			C&GS - 14-08-00 21 S., 67½ W. Portugal, Felt Lisbon (P-H)=6900 km.ca
30	iPZEN	19-37-40	1.0			10.0D			C&GS - 19-27-32 21 S., 67½ W. Bolivia h about 150 km. Mag. 6 (Pas) (P-H)=6800 km.ca.
	e(sP)	38-09	1.5			4.0			
	e(S)EN	45-56		6.0			2.0		
May 2	iP	20-33-54	1.5			2.5C			C&GS - 20-29-20 17 N., 99½ W. Mexico Mag. 6¼ - 6½ (Pas) (P-H)=2200 km.ca.
3	No Quakes								
4	No Quakes								
5	No Quakes								
6	iP	00-00-24	1.5			1.5D			C&GS - 5 May, 23-53-29
	eLmaxZEN	00-11-35	3.0	4.0	4.0	2.5	9.0	8.0	57½ N., 136½ W. Alaska (P-H)=4000 km.ca.
7	iP	08-54-48	0.5			0.5			
	e(S)ZN	55-42	0.5			11.0			
8	iPZEN	12-51-11	0.5			9.0C			C&GS - 12-40-46
	e(S)EN	59-42		10.0	4.0		11.0	6.0	24 S., 67 W. Argentina, Mag. 6¼-6½ (Pas), 6 (Berk) (P-H)=7000 km.ca.
	eEN	13-00-48		10.0	12.0		10.0	6.0	
9	iPZEN	00-51-04	1.8		3.0	2.5D		3.0	C&GS - 00-44-12 1½ N., 94½ W. Galapagos Is. Mag. 6 (Pas) (P-H)=4000 km.ca.
9	iP	02-53-51	1.5			2.0			

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
May 9	iPZEN	04-51-36.5	1.0	.5	.5	46.0	4.0	7.0	C&GS - 04-40-20
	e	59	1.0			7.0			31 S., 65½ W.
	e	52-20	1.0			7.0			Argentina
	e(S)ZEN	05-00-41	2.0	5.0	4.0	1.5	9.0	6.0	Mag. 6 3/4 (Pas)
									(P-H)=7600 km.ca.
10	iP	23-02-52.5	1.4			1.5D			C&GS - 22-54-40
	eZEN	04-51	1.5		4.0	2.0		1.5	65 N., 152½ W.
	eZEN	18-00	4.0	14.0	14.0	4.0	45.0	45.0	Alaska
									Mag. 6¼- 6½ (Pas)
									(P-H)=4900 km.ca.
11	iPZEN	05-32-07	1.5		4.0	2.5D		1.5	C&GS - 05-23-54
	eZEN	45-10	1.0	6.0	6.0	1.0	3.5	4.0	65 N., 152½ W.
	eZEN	47-01		14.0	15.0		55.0	45.0	Alaska
									Mag. 6¼-6½ (Pas)
									(P-H)=4900 km.ca.
11	iP	08-57-17	1.0			1.0			
	e	58-20	1.5			1.0			
11	iP	14-07-18	1.5			1.0			
12	iP	05-47-40	.5			.5D			C&GS - 05-38-16
	e(PcP)	48-48	1.0			1.0			52 N., 169½ W.
									Fox Is. Aleutians
									(P-H)=6000 km.ca.
12	iP	17-03-18	1.3			1.5			C&GS - 16-50-05
	e	04-18	1.0			1.0			31 N., 140½ E.
									Honshu, Japan
									h about 150 km.
									(P-H)=10,100 km.ca.
13	No Quakes								
14	iP	17-45-23	1.0			1.5			C&GS - 17-41-18
	e(S)	48-30	1.0			1.0			Quebec Prov., Canada
	e(Lr)	50-05	1.0			4.0			(P-H)=2000 km.ca.
	e(Lt)	53-03	1.5			1.5			
15	No Quakes								

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
May 16	iP	20-27-14	1.2			1.5C			C&GS - 20-21-09 18 N., 68½ W. Mona Passage (P-H)=3300 km.ca.
17	iP	08-43-21	1.0			2.5C			
17	iP	15-48-30	2.0			1.5			C&GS - 15-38-20 51 N., 179 W. Andreanof Is. (P-H)=6700 km.ca.
17	iP	17-57-03	1.0			1.5C			C&GS - 17-43-45 18½ S., 174½ W. Tonga Is. (P-H)=10,200 km.ca.
18	No Quakes								
19	No Quakes								
20	No Quakes								
21	iP	15-17-08	.7			2.5D			
	e(S)	22-07	1.5			1.0			
22	No Quakes								
23	No Quakes								
24	iP	23-09-59	1.0			2.5			C&GS - 23-04-42
	e(S)ZEN	14-20	2.0	4.0	6.0	1.0	1.5	1.5	40½ N., 125 W.
	e(Lq)ZEN	17-07	1.0	3.0	4.0	1.0	2.5	3.0	Off Cape Mendocino Mag. 4 3/4 (Pas)(Berk) (P-H)=2700 km.ca.
25	iP	00-45-23	1.0			1.5D			
25	iP	15-04-31	1.0			2.5			C&GS - 14-54-30
	e(S)EN	12-33		5.0	5.0		2.0	2.0	51½ N., 177 W. Andreanof Is. Aleution Is. (P-H)=6500 km.ca.

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
May									
25	iPZEN	21-19-30	1.5	2.0	2.5	7.0D	2.0	6.0	C&GS - 21-11-45
	e(S)ZEN	25-30	1.5	4.0	4.0	1.5	2.0	4.5	3 S., 77 W. Ecuador-Peru Border h = 100 km., Mag. 6½ (Pas) 6¼-6½ (Berk) (P-H)=4600 km.ca.
26	iPZEN	08-57-33	1.0	2.0	3.0	5.0C	1.0	2.0	C&GS - 08-49-47
	e(PcP)	09-00-16	1.5			1.0			3 S., 77 W. Ecuador-Peru After-
	eZEN	09-07-25	2.5	4.0	4.0	1.0	1.5	1.0	shock, h = 100 km. (P-H)=4600 km.ca.
26	iPZEN	11-05-54	.5			1.5D			C&GS - 10-56-30 53 N., 169½ W. Fox Is., Aleutian Is. Mag. 5½-5 3/4 (Berk) (P-H)=5800 km.ca.
27	iP	18-40-23	1.0			8.0C			C&GS - 18-27-23 36½ N., 27½ E. Dodecanese Is. (P-H)=10,000 km.ca.
28	No Quakes								
29	iPZEN	07-03-45	.5		1.0	12.0D		5.0	C&GS - 06-59-11
	e(S)ZEN	07-41	1.0	3.0	5.0	2.5	4.0	6.0	16½ N., 97½ W.
	e(L)ZEN	10-36	2.0	5.0	5.0	1.5	3.0	3.0	Oaxaca, Mexico (P-H)=2200 km.ca.
30	iPZEN	18-14-10	.8	1.0	2.0	4.0	1.5	2.5	
	e(S)EN	21-40		5.0	5.0		2.5	3.0	
31	eP	19-46-40	.5			1.0			C&GS - 19-32-30
	e(S)EN	57-26		15.0	7.0		18.0	5.5	15 S., 169 E. New
	eEN	20-06-10		20.0	16.0		25.0	11.0	Hebrides, Mag. 7½ (Pas) 7¼-7½ (Berk) (P-H)=11,400 km.ca.
June									
1	eP	03-45-39	1.0			2.5C			
1	iP	04-11-22	1.0			5.0C			C&GS - 04-00-06 52½ N., 160 E. Kamchatka (P-H)=7900 km.ca.

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
June									
1	iP	10-50-04	.5			2.5			C&GS - 10-40-17
	e(sP)	37	1.0			2.0			18 S., 69 W.
	e(PcP)	50	1.2			3.0			Bolivia-Chile Border, h=150 km. (P-H)=6400 km.ca.
1	iP	18-28-54	1.2			2.5D			C&GS - 18-21-17
	e(Lq)EN	42-30		5.0	5.0		2.5	4.0	60½ N., 143½ W. Alaska (P-H)=4500 km.ca.
1	iP	19-57-28	1.0			3.0D			C&GS - 19-47-05
	e	58-09	1.2			1.5			19 S., 64½ W. South Bolivia (P-H)=6900 km.ca.
2	No Quakes								
3	No Quakes								
4	iP	14-39-03	1.0			1.2C			C&GS - 14-29-50
	e(S)EN	46-26		5.0	8.0		4.0	3.5	52½ N., 167 W. Fox Is., Mag. 6-6¼ (Pas) 6 (Berk) (P-H)=5800 km.ca.
5	eP	13-29-23	.5			1.5			C&GS - 13-23-46**
	e	30-46	2.0			1.0			50 mi. off Coast
	e(L)	42-32	1.5			1.0			Nicaragua (P-H)=2900 km.ca.
6	iPZEN	09-17-20	1.0	4.0	4.0	7.0C	4.0	7.0	C&GS - 09-11-18
	e(PP)ZEN	18-26	1.2	4.0	4.0	8.0	6.0	20.0	8 N., 85 W. Costa
	e(S)ZEN	22-14	1.5	9.0	16.0	3.0	12.0	20.0	Rica off Coast
	eLMaxEN	28-18		22.0	24.0		18.0	28.0	Mag. 6½-6 3/4 (Pas) (P-H)=3200 km.ca.
6	iPZEN	19-21-58	1.0		2.5	2.0	1.0	1.5	C&GS - 19-15-28
	e(pP)ZEN	22-05	1.0	4.0	4.0	4.5	2.0	4.0	5½ N., 82½ W.
	e(PP)ZEN	22-53	1.0	5.0	5.0	4.0	3.0	4.0	South of Costa Rica
	e(S)EN	27-22		4.0	8.0		2.5	5.0	Mag. 6 (Pas) (P-H)=3600 km.ca.
6	iP	22-50-10	.8			1.0			C&GS - 22-44-05
	e(PP)ZEN	51-00	1.2	2.0	3.0	1.5	1.0	2.0	8 N., 84½ W. Off
	e(S)EN	54-56		10.0	10.0		4.0	4.0	Coast of Costa Rica
	eLMaxEn	57-24		6.0	5.0		3.5	2.5	(P-H)=3300 km.ca

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
June									
7	iP	09-32-25	1.0			2.5C			
8	iP	00-48-03	1.0			2.5D			C&GS - 00-38-52
	e(pP)	12	1.0			3.0			53 N., 167 W. Fox
	e(PcP)	49-15	1.0			2.5			Is. Aleutian Is.
									Mag. $6\frac{1}{2}$ - 6 3/4 (Pas)
									(P-H)=5800 km.ca.
8	iP	16-01-58	1.2			2.5C			C&GS - 15-52-23
	e(pP)	02-07	1.5			3.0			16 S., 75 W. Near
									Coast Southern Peru
									(P-H)=6000 km.ca.
8	iP	21-19-42	1.0			1.0			C&GS - 21-09-23
									17 N., $34\frac{1}{2}$ W.
									Atlantic Ocean
									(P-H)=6500 km.ca.
9	No Quakes								
10	No Quakes								
11	No Quakes								
12	iP	12-00-13	1.0			2.0D			
12	iPZEN	21-02-16	1.0			2.5D			C&GS - 20-52-57
	e(pP)	27	1.5			5.0			53 N., 167 W. Fox
	e(S)EN	09-39		6.0	12.0		5.0	5.0	Is., Aleutian Is.
	eLMaxEN	29-43		16.0	14.0		18.0	18.0	(P-H)=5800 km.ca.
13	iP	11-18-30	1.8			2.0			
	e	21-21	2.0			1.5			
14	No Quakes								
15	iP	15-07-03	.5			1.0C			C&GS - 14-54-37
	e(pP)	09-08	2.5			2.8			18 S, $178\frac{1}{2}$ W.
									Fiji Is., h=600 km.
									Mag. $6\frac{1}{4}$ (Pas)
									(P-H)=10,400 km.ca.
16	iP	14-37-08	1.0			3.0			C&GS - 14-31-59
	e	36	1.5			3.0			13 N., $88\frac{1}{2}$ W.
	e	38-23	2.0			1.0			Near Coast of El
	e(L)	43-46	2.0			1.0			Salvador, h=100 km.
									(P-H)=2600 km.ca.

Date	Phase	Time GCT h m s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
June									
17	No Quakes								
18	iP	01-24-17	1.0			1.5			C&GS 01-15-02
	e	25-32							68½ N., 16 W. Off North Coast of Iceland
									(P-H)=5800 km.ca.
18	iP	06-45-31	.5			1.0			C&GS - 06-40-40
									14½ N., 94 W.
									Off South Coast of Mexico
									(P-H)=2500 km.ca.
19	iPZEN	05-29-40	1.2	2.0	2.0	6.0	2.0	2.0	C&GS - 05-18-00
	e	31-30	2.0			2.5			49½ N., 156 E.
	e(S)ZEN	39-35	2.0	4.0	5.0	1.0	4.0	4.5	Kurile Is., Mag. 6½ (Pas) 6 - 6¼ (Berk)
									(P-H)=8500 km.ca.
20	No Quakes								
21	No Quakes								
22	No Quakes								
23	No Quakes								
24	iP	00-28-35	1.0			7.0			
	e	29-53	1.5			2.0			
	e(PPP)	31-57	2.0			1.5			
25	No Quakes								
26	iPZEN	04-49-24	.5	3.0	3.0	18.0C	3.0	4.0	C&GS - 04-38-12
	e(pP)ZEN	54	2.0	3.0	3.0	12.0	3.0	4.0	54½ N., 159½ E.
	e(S)ZEN	58-22	3.0	6.0	5.0	1.5	10.0	3.0	Kamchatka
	e(PPs)ZEN	59-24	3.0	5.0	5.0	1.5	7.0	6.0	Mag. 6¼ -6½ (Pas)
									(P-H)=7800 km.ca.
27	iPZEN	05-49-39	1.0	3.0	2.5	6.0C	4.0	1.5	C&GS - 05-44-28
	e(pP)ZEN	50	1.5	3.0	2.5	7.0	2.5	8.0	13 N., 88½ W.
	e(S)EN	53-54		5.0	6.0		4.0	8.0	Near Coast of El Salvador, h=60 km.
									Mag. 6 (Pas)
									(P-H)=2600 km.ca.

Date	Phase	Time GCT h	m	s	Period (secs) Z	E	N	Trace Amp. (mms) Z	E	N	Remarks
June 28	No Quakes										
29	iPZEN	03-	35-	05	.5	4.0	3.0	4.0	1.5	2.0	C&GS - 03-25-42
	e(PPP)ZN		38-	37	1.0		3.0	3.0		3.0	15½ S., 70½ W.
	e(S)ZEN		42-	40		6.0	6.0		3.0	4.0	Southern Peru
											h about 150 km.
											Mag. 6½ (Berk)
											(P-H)=5900 km.ca.
30	iP	08-	55-	31	.5			6.0C			C&GS - 08-42-33
	e(PP)		58-	35	1.5			1.0			36½ N., 27½ E.
	e(PPP)	09-	00-	43	2.0			1.0			Dodecamese Is.
	e(S)ZEN	09-	05-	46	2.0	3.0	4.0	1.5	3.0	3.0	(P-H)=10,000 km.ca.
	eZEN		06-	13	2.0			2.0			
30	iP	14-	09-	35	.8			2.0D			
	eZEN		22-	21	1.5	3.0	3.0	2.0	1.0	1.5	
30	iP	18-	39-	43	1.2			2.0D			C&GS - 18-26-20
	e(S)EN		50-	18		7.0	8.0		3.0	3.0	31N., 141½ E.
											South of Honshu,
											Japan
											(P-H)=10,400 km.ca.

The University of Arkansas Seismograph Station is located on the University Farm, 2.5 miles northwest of the main campus at Fayetteville. Coordinates of the station are 36° 05.46′ north latitude and 94° 11.47′ west longitude. Altitude above mean sea level is 1,325 feet. The seismometer pier rests on the Boone limestone of lower Mississippian age. Approximately 2,500 feet of limestone, shale and sandstone overlie the pre-Cambrian crystalline rocks in the vicinity of the station.

University of Arkansas
Seismograph Station
Department of Geology
Fayetteville, Arkansas

UNIVERSITY OF ARKANSAS

SEISMOLOGICAL BULLETIN

Volume VII Number 3

The University Of Arkansas Seismograph Station

Operated by the University's Department of Geology

in conjunction with the

United States Coast and Geodetic Survey

FAYETTEVILLE SEISMOGRAPH STATION

Volume 7, Number 3, September, 1958

Data for July, August, September

1958

Instruments

Vertical component - Benioff type, short period electromagnetic-galvanometric

Seismometer period - 1.1 second
Galvanometer period - 0.20 second
Damping ratio - about 20 to 1 (near critical)
Recording drum speed - 60 mm per minute

Horizontal components - Wilson-Lamison hinged types: E-W, N-S. electromagnetic-galvanometric

Seismometer period - 6.03 seconds (N-S)
5.97 seconds (E-W)
Galvanometer period -4.1 seconds (N-S)
3.75 seconds (E-W)
Recording drum speed - 30 mm per minute

Clock - IBM, electrically wound, Invar pendulum type. Accuracy limits generally within one second.

Radio - Time signals received by a Hallicrafter SX-43 receiver.

(Additional information regarding the station is given on the back cover.)

Information in "Remarks" column is usually from U.S. Coast and Geodetic Survey epicenter cards. "C" following the trace amplitude indicates a compressional motion of the wave; "D" indicates dilation.

Bulletin compiled by Leonard I. Knowles, Observer

Date	Phase	Time GCT h	m	s	Period(sec) Z	E	N	Trace Amp.(mms) Z	E	N
July										
1	C & GS 05-53-07; 51½ N, 176½ W.; Andreanof Is. Aleutian Is; Mag. 6 (Pas), (Berk); (P-H) -6450 km. ca.									
	iPZEN	06	-03	-04	1.5	3.0	3.0	4.0C	2.0	2.0
	e(pP)		-05	-10	1.8			1.5		
	e(PPP)		-06	-48	2.0			1.0		
	e(S)EN		-10	-50		4.0	6.0		1.0	2.5
2	C & GS 00-44-38; 52½ N., 158 E.; Near coast of Kamchatka; h about 60 km; (P-H) -7850 km. ca.									
	iP	00	-55	-53	1.0			2.0		
3	iP	06	-05	-18	.5			.5		
4										
5										
6	iP	07	-02	-52	1.5			1.5		
6	C & GS 16-03-14; 66 N., 155 W.; Central Alaska; (P-H)-5100 km. ca.									
	eP	16	-11	-40	1.0			1.0		
	eEN		-26	-20		4.0	4.0		2.0	2.0
	iP	18	-35	-06	1.5			1.5		
	eZEN		-40	-16	2.0	3.5	4.0	1.5	2.0	2.0
7	C & GS 05-16-04; 50½ N. 180 E., Andreanof Is. Aleutian Is.;(P-H)-6700 km. ca.									
7	iP	05	-26	-17	1.5			1.5		
	e		-27	-01	1.0			2.0		
8	iPZEN	23	-08	-18	1.0	4.0	3.0	4.0	1.5	1.5
	eZEN		-12	-20	3.0	4.0	4.0	1.5	1.0	1.5
9	iP	01	-27	-46	.5			1.0		
9	C & GS 15-18-20, 14½ N., 91½ W.; Guatemala., h. about 100 km.; (P-H) - 2400 km. ca.)									
	iPZEN	15	-23	-07	1.2	1.0	3.0	1.0	1.0	1.0
	e(S)ZEN		-27	-04	1.5	3.0	3.0	1.0	2.0	2.0

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace Amp.(mms) Z	E	N
July										
10	C & GS 58½ N., 136 W.; Southeastern Alaska, Several killed, moderate damage; Mag 7 3/4-8 (Pas) 8 (Berk); (P-H)-3950 km. ca.									
	iPZEN	06	-22	-51	1.5	3.0	6.0	7.0C	15.0	15.0
	e(PP)ZEN		-23	-18		8.0			35.0	
	e(S)ZEN		-28	-34		18.0			100.0	
11	C & GS 07-43-05; 51 N., 175 W.; Andreanof Is. Aleutian Is.;(P-H)-6500 km. ca.									
	iP	07	-52	-58	1.0			1.5		
11	C &GS 19-10-20; 21 S., 69 W., Northern Chile; Mag 6½(Berk) 6½(Pas); (P-H)-7900 km. ca.									
	iPZEN	19	-20	-41	1.2	1.5	2.0	7.0C	1.5	3.0
	e(pP)ZEN			-54	1.5	2.0	2.0	8.0	2.0	3.0
	e(S)ZEN		-29	-01	2.0	8.0	8.0	2.0	4.0	5.0
12	C & GS 00-48-30;-5 S., 106½ W.; Pacific Ocean; Mag 6 (Berk)Pas; (P-H)- 4800 km. ca.									
	iPZEN	00	-56	-24	1.5	3.0	3.0	1.5	1.0	2.0
	e(S)ZEN	01	-02	-24	3.0	8.0	4.0	1.0	3.0	2.0
13										
14										
15										
16	C & GS 03-52-39; 51½ N., 176½ W., Andreanof Is. Aleutian Is.; (P-H) -6500 km. ca.									
	iP	04	-02	-38	1.5			2.0C		
16	C & GS 12-54-18; 29½S., 113 W.; South Pacific Ocean; Mag 6 (Berk); (P-H) - 7600 km. ca.									
	iP	13	-05	-17	1.5			1.5C		
17	C & GS 05-37-06; 40½ N., 23 E.; North Greece, minor damage at Salonica; (P-H) -9400 km. ca.									
	iP	05	-49	-43	1.2			2.0D		

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace (Amp)mms Z	E	N
July										
17	C & GS 13-48-45; 57½ N., 137 W.; Alaska, felt Sitka;(P-H)-3700 km. ca.									
	eP	13	-55	-32	.5			.5		
	eZEN	14	-07	-00	2.0	2.0	4.0	2.0	3.0	2.0
17	C &GS 19-02-10; 51 N., 176 W.; Andreanof Is. Aleutian Is.; (P-H)-6500 km. ca.									
	iP	19	-12	-10	1.0			1.5		
17	C & GS 19-27-36; 51 N., 177 W.; Andreanof Is. Aleutian Is.; (P-H)-6500 km. ca.									
	iP	19	-39	-34	2.0			1.5		
17	C & GS 20-59-17; 51 N., 177½W.; Andreanof Is. Aleutian Is.; (P-H)-6500 km. ca.									
	iPZEN	21	-09	-20	2.0			3.0	2.0	2.0
18	C & GS 00-39-18; 51 N., 176½ W.; Andreanof Is. Aleutian Is.; Mag 5 3/4 (Berk); (P-H) -6500 km. ca.									
	iPZEN	00	-49	-16	.5	4.0	4.0	.5	2.0	2.0
	e(S)EN		-57	-18		5.0	4.0		2.0	3.0
18	C & GS 01-47-21; 4 S., 78 W.; Equador-Peru Border h. about 100 km.; (P-H) -4600 km. ca.									
	iP	01	-55	-10	.8			6.0		
19	iP	06	-48	-59	1.0			2.0		
19	C & GS 14-57-24; 41 N., 143½ E.; Near south coast of Hokkaido, Japan; (P-H)-9700 km. ca.									
	iP	15	-10	-10				1.5		
19	C & GS 17-23-20; 51½ N., 176 W.; Andreanof Is. Aleutian Is.; (P-H)-6500 km. ca.									
	iP	17	-33	-17	1.0			1.5		

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace (Amp)mms Z	E	N
July										
19	iP	18	-35	-55	.5			1.0		
20	C & GS 11-43-57; 31½ S., 71 W.; Central Chile, felt Santiago, Valparaiso, San Antonio and in La Serena; (P-H)-7700 km. ca.									
	iP	11	-55	-05	1.2			2.5		
	e		-56	-49	2.0			1.0		
21	C & GS 07-24-58; 44½ N., 147½ E.; Kurile Is.; Mag 6-6¼ (Berk) (P-H)-9200 km. ca.									
	iP	07	-37	-20	1.0			4.0C		
	e (S)EN		-47	-15		3.0	4.0		3.0	3.0
21	C & GS 09-39-06; 12 N., 89 W.; Near coast of El Salvador; (P-H)-2950 km. ca.									
	iP	09	-44	-29	1.5			5.0C		
	e		-46	-32	2.5			1.5		
21	C & GS 14-37-18; 51½ N., 178 W.; Andreanof Is. Aleutian Is.; Mag 6¼ (Berk); (P-H)-6500 km. ca.									
	iPZEN	14	-47	-21	1.2	4.1	3.0	8.0D	4.0	3.0
	e(S)ZEN		-55	-25	3.0	6.0	6.0	2.0	5.0	5.0
	e(SeS)EN		-57	-07	6.0	3.0			5.0	2.0
22										
23	C &GS 10-27-19; 31 N., 142 E.; South of Honshu, Japan;(P-H)-10,250 km. ca.									
	iP	10	-40	-45	1.5			1.5		
24	iP	14	-17	-31	1.0			2.0		
	e(pP)			-43	1.5			2.5		
	e		-18	-48	2.0			1.5		
25										
26	iP	06	-33	-41	2.2			2.5		
	e		-36	-17	3.0			1.5		
26	C &GS 17-37-09, 13½ S., 69 W.; Peru-Bolivian Border; about 650 km.; Mag 7-7¼ (Pas) 7½ (Berk);(P-H)-5200 km. ca.									
	iPZEN	17	-45	-43					30	30
	e(S)ZEN		-52	-21					70	80
	e(Lq)ZEN		-59	-52	20	18			60	50

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace(Amp) mms Z	E	N
July										
27	C & GS 03-21-56; 45½ N., 148 E.; Kurile Is.; (P-H)-9100 km. ca.									
	iP	03	-34	-13	1.0			1.5		
	e			-50	1.5			2.0		
28	iP	10	-59	-08	.5			2.0		
28	C &GS 18-33-45; 26½ S., 115½ W.; South Pacific Ocean west of Easter Island; (P-H)-7300 km. ca.									
	iP	18	-44	-31	1.5			1.5		
29	C & GS 21-37-25; 4 N., 26½ W.; Atlantic Ocean; (P-H)-7700 km. ca.									
	iP	21	-48	-34	1.2			6.0C		
30										
31										
August										
1	C &GS 05-37-50; 16 S., 176½ W.; Fiji Is. region h. about 450 km.; (P-H) -9400 km. ca.									
2										
3										
4										
5										
6	C &GS 09-51-24; 24½ S., 63 W.; Salta Prov. Argentina, h. about 550 km; (P-H) -6500 km. ca.									
	iP	10	-01	-28	1.0			15.0		
6	C & GS 21-09-09; 17 S., 173 W.; Tonga Is.; Mag 6 3/4 (Pas)6½ (Berk); (P-H)-10,000 km. ca.									
	iP	21	-22	-17	1.5			2.5		

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace(Amp.)mms Z	E	N
August										
7	C &GS 00-46-43; Southeastern Wyoming; felt Albany County; (P-H)-1200 km. ca.									
	rP	00	-49	-22				1.5		
	e(Lr)		-52	-12	.5			4.0		
7	eP	06	-05	-16	.2			1.0		
			-06	-37	.1			3.5		
8										
9										
10										
11	eP	20	-46	-00	1.2			2.0		
12	C &GS 15-35-40; off coast of Oaxaco, Mexico, h. about 100 km.; (P-H) -2300 km. ca.									
	iP	15	-40	-17	.8			2.5C		
12	C &GS 16-23-42; 27 N., 110½ W.; Gulf of California; (P-H)-1900 km. ca.									
	iPZEN	16	-27	-35	1.8			2.5C		
	e(S)ZEN		-32	-37	3.0	4.0	4.0	7.0	15.0	25.0
13	C &GS 10-46-47; Andreanof Is. Aleutian Is.; (P-H)-6500 km. ca.									
	iP	10	-56	-52	1.0			1.5C		
14	C &GS 14-55-10; 52 N., 175 W., Andreanof Is. Aleutian Is.; Mag 6½ (Pas) 6¼-6½ (Berk); (P-H)-6400 km. ca.									
	iP	15	-05	-01	1.5			5.0C		
15	C &GS 06-20-53; 7 N., 73 W., Northern Columbia; felt, h. about 200km. (P-H)-3700 km. ca.									
	iP	06	-27	-31	.5			10.0C		
	e		-28	-04	.8			3.0		
	e		-30	-00	1.0			2.5		

Date	Phase	Time GCT h m s	Period (sec) Z	E	N	Trace(Amp.)mms Z	E	N
August								
15	C &GS 19-55-39; 53 N., 160½ E.; Near east coast of Kamchatka, h. about 60 km.; Mag 6 3/4 (Pas); (P-H)-7600 km. ca.							
	iP	20 -06 -50	1.2			15.0C		
16								
17								
18	C &GS 06-44-14, 30½N., 114 W.; Gulf of California; Mag 5½ (Pas); (P-H)-1900 km. ca.							
	iP	06 -48 -16	1.5			2.0D		
	e(S)	-53 -27	2.5			2.5		
19	C &GS 16-06-18; 51½ N., 175½ W.; Andreanof Is. Aleutian Is.; (P-H)-6400 km. ca.							
	iP	16 -16 -12	1.0			1.8C		
	iP	16 -40 -50	1.0			4.5C		
20	C & GS 09-20-10; 53½ N., 159½ E.; Kamchatka; (P-H) 7700 km. ca.							
	iP	09 -31 -25	.9			1.5C		
21	C &GS 12-19-00; 53 N., 168½ W.; Fox Is. Aleutian Is.; (P-H) -5600 km. ca.							
	iP	12 -28 -16	1.0			1.5C		
22								
23								
24								
25								
26								
27	C &GS 13-09-03; 53½ N., 159½ E.; Kamchatka; (P-H)-7650 km. ca.							
	iP	13 -20 -16	1.0			3.0		

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace (Amp.)mms Z	E	N
August										
27	C & GS 15-16-35; 38 N., 20½ E.; Near west coast of Greece; (P-H)-9600 km. ca.									
	iP	15	-29	-13		1.0			2.2	
	e		-30	-44		2.0			2.1	
28	C &GS 09-36-06; 23½ S., 69½ W.; Chile, Argentina border; Minor damage at Las Melosas, Chile; (P-H)-8100 km. ca.									
	iP	09	-47	-40		1.4			2.0D	
29										
30	C &GS 18-38-18; 27½ N., 112 W.; Gulf of California; (P-H)-4900 km. ca.									
	iP	18	-42	-22		1.0			1.0	
	e(S)		-47	-20						
31	C & GS 23-00-16, 63 N., 144½ W.; Central Alaska; (P-H)-4900 km. ca.									
	iP	23	-08	-27		.8			1.2	
	e		-09	-16.3		1.0			1.0	
	e(S)		-22	-06		2.0			1.5	
	e(Lq)		-25	-11		3.0			2.5	
September										
1										
2	C & GS 20-07-04, 15 N., 92½ W.; Near coast of Oaxaco, Mexico; (P-H)-2400 km. ca.									
	iP	20	-11	-53		1.5			1.7	
3	C &GS 03-44-24; 0, 18 W. Atlantic Ocean (P-H)-8800 km. ca.									
	iP	03	-56	-29		1.0			2.0	
3	iP	04	-07	-53		1.0			2.0	
3	iP	08	-08	-11		1.0			1.0	
4	C & GS 06-58-52, 51½ N., 177½ E., Rat Islands Aleutian Is; (P-H)-6800 km. ca.									
	iP	06	-48	-31		1.0			1.5	

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace(Amp.)mms Z	E	N
September										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14	C & GS 14-21-37, 56½ N., 120½ E.; Stanovoi Mtn. Region, Siberia; Mag 6¼-6½ (Pas); (P-H)-9350 km. ca.									
	iP	14	-34	-04	1.5			3.0D		
	e(S)EN		-45	-02		6.0	5.0		2.0	4.0
14	iP	21	-51	-39	1.2			2.0		
15	iP	20	-03	-27	1.0			1.0		
	e			-45	.5			8.0		
	eZEN		-05	-59	.5	1.0	1.0	8.0	3.0	2.0
	eEN		-07	-07	5.8	5.0			20.0	25.0
16										
17										
18	C & GS 14-41-40, ½ N., 30 W.; Mid-Atlantic Ocean; (P-H)-7600 km.ca.									
	iP	14	-52	-49	1.0			1.5		
18	C & GS 21-24-42; 9½ S., 80 W.; off coast of Peru; (P-H)-5400 km.ca.									
	iP	21	-33	-13	1.0			4.0C		
19										

Date	Phase	Time GCT h	m	s	Priod (sec) Z	E	N	Trace (Amp.)mms Z	E	N
September										
20	C & GS 10-34-00, 15½ N., 46 W.; Atlantic Ocean; (P-H)-5400 km. ca.									
	iP	10	-42	-35	1.0			1.0D		
20	C & GS 17-18-43; about 400 miles south of Fiji Islands; (P-H)-6000 km.ca.									
	e(P)	17	-28	-06	.8			1.0		
	eZE		-39	-09	2.0	8.0		2.5	4.0	
21	C & GS 05-45-10; 38 N., 143 E., Honshu, Japan; (P-H)-10,000 km. ca.									
	iP	05	-58	-12	1.0			2.0		
22	iP	05	-51	-34	1.5			1.5C		
22	iP	07	-18	-46	1.0			2.0D		
22	C & GS 19-05-44; 33½ S., 177½ W.; Kermadec Is. Region; (P-H)-11,400 km. ca.									
	iP	19	-19	-51	2.0			1.0		
23										
24	C & GS 03-44-14; 59½ N., 143½ W., Gulf of Alaska; Mag 6¼ (Berk) (Pas); (P-H)-4350 km. ca.									
	iP	03	-51	-44	1.2			1.0D		
	e(S)ZEN		-59	-20	2.5	8.0	8.0	1.0	4.0	5.0
	e(Lq)ZEN	04	-05	-53		7.0	8.0		8.0	8.0
25	C & GS 07-20-02; 9 N., 39½ W., Atlantic Ocean; Mag 6½ (Pas) 6¼-6½ (Berk) (P-H)-6300 km. ca.									
	iPZEN	07	-29	-50	1.0	4.0		1.0C	4.0	
	e(S)ZEN		-37	-53	1.5	6.0	6.0	1.5	7.0	4.0
25	C & GS 20-24-44; 36 S., 98 W., Pacific Ocean southeast of Easter Island; (P-H)-8150 km. ca.									
	iP	20	-36	-12	1.0			3.0C		
26)										
27)										
28)	No Quakes									
29)										
30)										

The University of Arkansas Seismograph Station is located on the University Farm, 2.5 miles northwest of the main campus at Fayetteville. Coordinates of the station are 36° 05.46′ north latitude and 94° 11.47′ west longitude. Altitude above mean sea level is 1,325 feet. The seismometer pier rests on the Boone limestone of lower Mississippian age. Approximately 2,500 feet of limestone, shale and sandstone overlie the pre-Cambrian crystalline rocks in the vicinity of the station.

University of Arkansas
Seismograph Station
Department of Geology
Fayetteville, Arkansas

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UNIVERSITY OF ARKANSAS

SEISMOLOGICAL BULLETIN

Volume VII Number 4

The University Of Arkansas Seismograph Station

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United States Coast and Geodetic Survey

FAYETTEVILLE SEISMOGRAPH STATION

Volume 7, Number 4, December, 1958

1958

Seismic Instruments

Vertical component - Benioff type, short period electromagnetic-galvanometric

Seismometer period - 1.1 second
Galvanometer period - 0.20 second
Damping ratio - about 20 to 1 (near critical)
Recording drum speed - 600 mm per minute

Horizontal components - Wilson-Lamison hinged types: E*W, N-S. electromagnetic-galvanometric

Seismometer period - 6.03 seconds (N-S)
5.97 seconds (E-W)
Galvanometer period- 4.1 seconds (N-S)
3.75 seconds (E-W)
Recording drum speed - 30 mm per minute

Clock - IBM, electrically wound, Invar pendulum type. Accuracy limits generally within one second.

Radio - Time signals received by a Hallicrafter SX-43 receiver. (Additional information regarding the station is given on the back cover).

Information in "Remarks" column is usually from U.S. Coast and Geodetic Survey epicenter cards. "C" following the trace amplitude indicates a compressional motion of the wave; "D" indicates dilation.

Bulletin compiled by Leonard I. Knowles, Observer

(31)

Date	Phase	Time GCT hh m ss	Period (sec) Z E N	Trace Amp.(mms) Z E N
October				
1	iP	09 -49 -00	1.2	1.5D
1	iP	17 -56 -20	1.0	6.0D
2				
3				
4				
5				
6				
7	iP	13 -02 -18	1.5	2.0D
7	C & GS 15-23-55; West Central Bolivia (P-H) -6500 km. ca.			
	iP	15 -33 -55	.5	6.0
8				
9				
10	C &GS 08-30-17; 35 N., 160 E near east coast of Kamchatka (P-H) - 7800 km. ca.			
	iP	08 41 32	.5	10.0
11	C & GS 00-41-35, 65½ N., 132½ W, Yukon Territories (P-H)-4100 km. ca.			
	iP	00 -48 -48	1.5	1.0
	e(S)ZEN	01 01 17	2.5	1.5
11	C & GS 02-00-40, 53 N., 159½ E; near east coast of Kamchatka (P-H)-7900 km. ca.			
	iP	02 -11 -56	.5	3.0
11	iP	14 -48 09	.5	3.0
12				
13	iP	11 -16 -53	1.0	1.5C

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace Amp(mms) Z	E	N
October										
14										
15	iP	15	-18	-58	.5			3.0		
	e		21	-12	1.2			1.5		
16	iP	06	-04	-09						
	e(L)ZEN		-09	-21						
17										
18	C & GS 06-34-17, 7 N, 66½ W., Columbia-Venezuela border (P-H) -3800 km. ca.									
	iP	06	-41	-08	1.0			2.5C		
18	iP	16	-28	-40	.8			2.0		
19										
20										
21	iP	16	-00-	25	.5			2.5C		
22										
23										
24										
25										
26										
27	iP	18	-44	-15	.5			2.5D		
27 28	iP	19	-31	-55	1.0			2.0C		
29	iP	00	-00	-21	2.0			1.5D		
29	C & GS 07-44-10, 51½N., 179½E., Andreanof Is. Aleutians; Mag. 6¼ (Pas) 6½ (Berk)									
	iPZEN	07	-54	-10	2.0	3.0	3.0	5.0C	2.0	2.0
	e(S)ZEN	08	-02	-35	1.5	10.0	5.0	1.5	7.0	4.0
	e(L)ZEN		-05	-29	2.0	4.0	6.0	2.5	2.0	7.0

Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace Amp.(mms) Z	E	N
October										
30	iP	15	-04	-10	1.2			1.5D		
	e		-05	-34	1.5			1.5		
	e(S)EN		-09	-00	4.0			2.0		
31	C & GS 07-10-00; 22 N., 109 W.; Gulf of California (P-H) - 2200 km. ca.									
	iP	07	-14	-29	1.2			2.0		
	eEN		-17	-53		8.0	8.0		3.0	3.0
	e(S)ZEN		-19	-43	1.5	5.0	5.0	2.0	10.0	10.0
November										
1										
2	C &GS 10-44-47; 51½ N., 175 W., Andreanof Is. Aleutian Is. (P-H) -6500 km. ca.									
	iP	10	54	-40	1.0			1.5C		
3										
4	C & GS 08-28-28, 28 N., 140½ E. Bonin Islands region; (P-H) - 10,600 km. ca.									
	iP	08	-42	-06	1.2			1.0C		
	e		-44	-37	1.5			1.5		
4	C & GS 09-16-44, 7 N., 73 W.; Columbia, H. about 150 km.; (P-H)-3700 km. ca.									
	iP	09	-23	-26	0.5			5.0		
	e		-25	-55	1.3			2.0		
4	C & GS 22-54-46, 50 S., 115 W., South Pacific Ocean; Mag. 6(Pas); (P-H)-9500 km. ca.									
	iP	23	-07	-36	1.5			1.5C		
5										
6	C & GS 22-58-10; 44½ N., 148½ E.; Kurile Islands; Mag. 8-8¼ (Pas) (Berk) H about 100 km.; Minor seismic sea wave; (P-H)-8900 km. ca.									
	iPZEN	23	-10	-26	-	10.0	10.0	-	70.0	80

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Date	Phase	Time GCT h	m	s	Period (sec) Z	E	N	Trace Amp.(mms) Z	E	N	
November											
7	C &GS 04-59-50, 44½ N., 149 E., Kurile Is.										
	iP	05	-12	-13	.5			4.0			
	e			-25	.5			8.0			
7	C &GS 07-40-36, 44½ N., 149 E., Kurile Is.										
	iP	07	-53	-00	.5			6.0			
7	iP	17	-45	-07	1.5			1.5D			Kurile Is.
7	iP	19	-26	-51	1.5			1.5D			Kurile Is.
8	C &GS 02-41-09 38½ N., 88 W., Illinois-Indiana Border; Felt Illinois, Indiana, Missouri and Kentucky										
	iP	02	-42	-35	.5			2.0			
8	C &GS 09-22-53, 52 N., 159½ E.; off South coast of Kamchatka (P-H)-8000 km. ca.										
	iP	09	-34	-16	1.5			2.0			
9	C &GS 03-14-47, 44 N., 148½ E., Kurile Islands (P-H)-9300 Km. ca.										
	iP	03	27	-11	.5			4.0			
10											
11	iP	11	-25	-32	1.0			1.0			
12	C &GS 17-44-11, 44 N., 148½ E., Kurile Islands; (P-H) -9300 km. ca.										
	iP	17	-56	-36	1.0			1.5D			
12	C &GS 20-23-26, 44½N., 149E., Kurile Is.; Mag 6 3/4-7 (Pas) (P-H) -9300 km. ca.										
	iPZLN	20	-35	-47	1.0	3.0	2.0	25C	6.0	5.0	
	e(S)ZEN		-45	-57	2.0	19.0	18.0	21.5	25.0	25.0	
13	iP	03	-08	-49	.5			2.0C			Kurile Ts.

Date	Phase	Time GCT h	m	s	Period (Sec) Z	E	N	Trace Amp.(mms) Z	E	N
November										
13	iP	04	-17	-01	1.0			5.0C Kurile Is.		
13	C & GS 05-59-53, 43½N, 139 E.; off west coast of Hokkaido, Japan; (P-H) -9400 km. ca.									
	iP	06	-12	-44	.8			1.0C		
13	iP	09	-13	-11	.5			1.0		
14	C &GS 05-04-25; 36 S., 102 W.; South Pacific Ocean (P-H)-8000 km. ca.									
	iP	05	-15	-52	1.5			1.5		
14	iP	05	-47	-14	1.0			4.0		
14	iP	05	-51	-19	1.5			1.5		
14	C &GS 15-22-16, 13 N., 86 W.; Nicaragua; H about 100 km; felt Managua; (P-H)-2700 km. ca.									
	iP	15	-27	-30	1.0			1.0		
15	C & GS 05-42-42; 38 N., 22½ E.; Southern Greece; felt (P-H)-9700 km. ca.									
	iP	05	-55	-22	1.0			1.0C		
15	iP	09	-13	-08	1.0			11.0C		
	e(pP)			-28	1.0			11.0		
16	iP	04	-59	-52	1.0			1.5		
16	C &GS 06-15-30; 15½ S., 174 W., Samoa Is. region; (P-H)-9100 km. ca.									
	iP	06	-27	-49	1.5			2.0		
16	C &GS 17-44-48; 16 S., 172 W.; Samoa Is. region; Mag 6¼(Pas); (P-H)-10,000 km. ca.									
	iP	17	-57	-49	1.0			1.5		
17										

Date	Phase	Time GCT h	m	s	Phase (Sec) Z	E	N	Trace Amp.(mms) Z	E	N
November										
18	C & GS 07-45-20, 50½N., 179 E; Andreanof Is., Aleutian Is; (P-H)-6500 km. ca.									
	iP	07	-55	-23	1.2				2.0C	
19	C &GS 01-35-06; 27½S, 63½ W., Santiago del Estero Province Argentine; H about 600 km.; (P-H)-7600 km. ca.									
	iPZEN	01	-45	-20	.5				15.0	
	e(S)		-53	-45	1.5				2.0	
19	C & GS 09-23-45; 44 N., 149 E; Kurile Islands (P-H)-9300 km. ca.									
	iPZEN	09	-36	-07	.5			4.0		
19	C &GS 15-02-15; 60½ N., 150½ W.; Kerrai Peninsula, Alaska; H about 60 km;(P-H)-4700 km. ca.									
	iP	15	-10	-10	1.0				2.5D	
20	C &GS 05-36-33; 52 N., 159½ E; off coast of Kamchatka; (P-H)-8100 km. ca.									
	iP	05	-47	-55	1.0				1.0	
20	C &GS 14-18-04; 45 N., 149½ E; Kurile Is.; H about 60 km; (P-H)-9000 km. ca.									
	iP	14	-30	-15	1.5				5.0C	
	e			-28	1.5				7.0	
21										
22	iP	00	-24	-00	1.0			5.0		
23										
24	C &GS 22-26-49; 16 N., 61 W.; Leeward Islands; felt St. Johns Antigua;(P-H)-3950 km. ca.									
	iP	22	-33	-48	.5				10.0C	

Date	Phase	Time GCT h	m	s	Phase (sec) Z	E	N	Trace Amp(mms) Z	E	N
November										
25	iP	13	-34	-21	1.2			3.0D		
26	iP	00	-36	-50	1.2			2.5		
27										
28										
29										
30	C &GS 01-32-41; 32 N., 137½E; South coast of Honshu, Japan; Mag.6(Pas);(P-H)-10,300 km. ca.									
	iP	01	-46	-00	1.0			5.0		
December										
1	C &GS 03-21-17; 32.3 N., 115.8W; California-Mexico border; minor damage at Calexico, El Centro and San Diego; felt throughout southern California and Western Arizona; Mag. 5.7 (Pas); (P-H) -2050 km. ca.									
	iP	03	-25	-32	1.0			4.0		
	e(S)ZEN		-31	-52	1.8		3.8	4.0		4.0
2										
3										
4	C &GS 12-34-34; 14 N., 91½W.; Off coast of Guatemala; H about 100 km;(P-H)-2500 km. ca.									
	iP	12	-39	-25	1.0			1.4		
4	C &GS 19-19-23; 11½ N., 86½ W; Near coast of Nigaragua; H about 100 km.;(P-H)-2800 km. ca.									
	iP	19	-24	-47	1.5			3.0		
5										
6	C &GS 09-33-45; 6½ N., 83W; South of Panama; Mag.6-6¼ (Pas);(P-H)-3500 km. ca.									
	iP	09	-40	-05	.5			3.0		

Date	Phase	Time GCT h	m	s	Phase (sec) Z	E	N	Trace Amp.(mms) Z	E	N
December										
7										
8	C &GS 12-08-23; 44 N., 149½E; Kurile Islands;(P-H)-9200 km. ca.									
	iP	12	-20	-42	1.2			2.0		
9	iP	19	-29	-31	1.0			3.0		
10	iP	07	-17	-00	1.0			1.0		
	e(S)ZEN		-21	-17	2.0	6.0	6.0	3.0	3.5	4.0
10	C & GS 21-49-20; 24½N., 109 W.; Gulf of California; Mag. 5 3/4 (Pas)(Berk);(P-H)-1900 km. ca.									
	iPZEN	21	-53	-23	1.5	3.0	3.0	1.0	2.0	3.0
	e(L)ZEN		-58	-17	2.0	10 ≠	10 ≠	2.0	60.0	120 ≠
11	C & GS 08-22-20; 23½N, 109W; Gulf of California; (P-H)-1900 km. ca.									
	iP	08	-26	-32	.8			1.5		
	e(L)ZEN		-31	-35						
12										
13										
14	C &GS 07-11-25; 35 S., 108½W;South Pacific Ocean; Mag; 6(Pas);(p-H)-8000 km. ca.									
	iP	07	-22	-52	.8			2.0		
14	C &GS 13-26-51; 23N., 108W;Lower Gulf of California; (P-H)-2000 km. ca.									
	iP	13	-31	-00	.5			.5		
15										
16										
17										
18										

Date	Phase	Time GCT h	m	s	Phase(sec) Z	E	N	Trace Amp (mms) Z	E	N
December										
19	C & GS 11-14-40; 16 S., 72 W.; Southern Peru; H about 100 km; (P-H)-6000 km. ca.									
	iP	11	-24	-14		.5			2.5	
20										
21	C &GS 05-46-26; 44½N, 81E; Western Sinkiang Province, China; (P-H)-11,000 km. ca.									
	iP	06	-00	--11		1.2			1.0	
22										
23	C &GS 06-27-15; 2N., 79W; Near west coast of Colombia; (P-H)-4000 km. ca.									
	iP	06	-34	-23		1.5			2.5	
24										
25										
26										
27										
28	C &GS 05-34-36, 29½ N., 80 E., Western Nepal-India border; (P-H)- 12,200 km. ca.									
	iP	05	-20	-09		1.0			1.5	
29	C &GS 10-44-50; Off coast of Guerro, Mexico; H about 100 km; (P-H)-2200 km. ca.									
	iP	10	-40	-20		1.0			1.0C	
30	C &GS 08-37-56; 35½S., 105½W; South Pacific Ocean; Mag 6(Pas); (P-H)-8100 km. ca.									
	iP	08	-49	-16		1.0			4.0D	
31										

The University of Arkansas Seismograph Station is located on the University Farm, 2.5 miles northwest of the main campus at Fayetteville. Coordinates of the station are 36° 05.46′ north latitude and 94° 11.47′ west longitude. Altitude above mean sea level is 1,325 feet. The seismometer pier rests on the Boone limestone of lower Mississippian age. Approximately 2,500 feet of limestone, shale and sandstone overlie the pre-Cambrian crystalline rocks in the vicinity of the station.

University of Arkansas
Seismograph Station
Department of Geology
Fayetteville, Arkansas