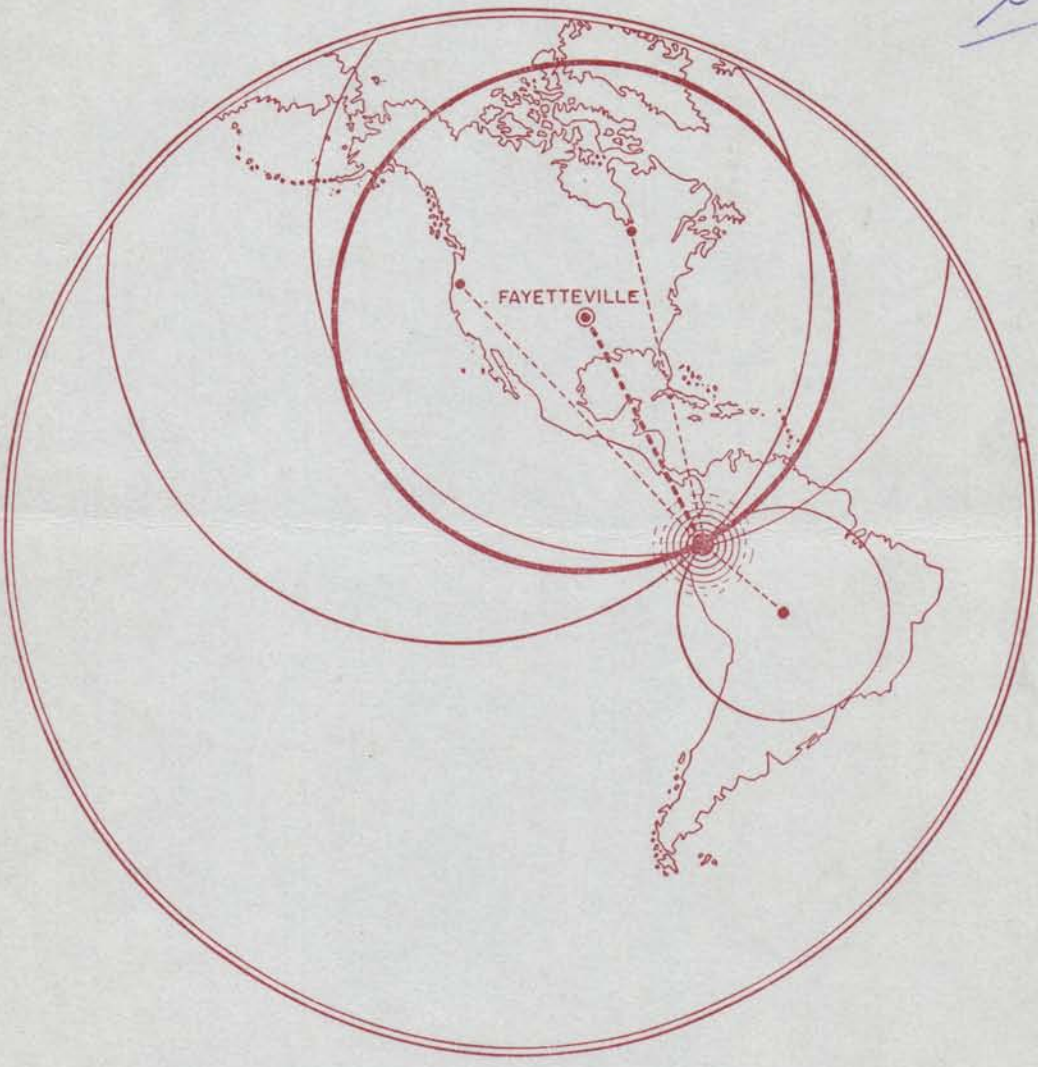


# UNIVERSITY OF ARKANSAS SEISMOLOGICAL BULLETIN

Volume VI

Number 4

copied



## 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 6, Number 4, December 1957

Data for October, November, December  
1957InstrumentsVertical component - Benioff type, short period electromagnetic-galvanometricSeismometer period - 1.1 second  
Galvanometer period - 0.20 second  
Damping ratio - about 20 to 1 (near critical)  
Recording drum speed - 60 mm per minuteHorizontal components - Wilson-Lamison hinges types: E-W,  
N-S. electromagnetic - galvanometricSeismometer 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 minuteClock - 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 Marshall F. Cole, Observer



Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
Oct. 1	<del>iP</del>	07	04	43.4	1.0			2.1C			
1	iP	23	29	26.9	0.8			4.2D			C&GS-23-20-50# 7S., 74W. Peru Brazil border (P-H)= 5300 km. ca.
2	iPZEN	12	35	12.3	1.0	3.8	4.0	3.4	10.0	8.0	C&GS- 12-27-55#
	e(pP)		19		1.0			12.5			11N., 63W.
	e(PP)EN	36	47		1.3	4.0	4.0	6.2	14.0	6.0	Venezuela fore-
	e(S)ZEN	40	53		1.8	4.0	4.0	1.5	10.0	2.0	shock, (P-H)=
	eImaxEN	49	32			22.0	20.0		10.0	21.0	4200 km. CA.
2	e(PP)	21	18	21.6	1.0			2.0D			C&GS-20-58-39#
	o.		31		1.2			4.0			6 $\frac{1}{2}$ S., 69 $\frac{1}{2}$ E. Chagos Is.
	e	21	47		1.8			2.2			(P-H)= 12500 km. Ca.
3	eP	06	46	31.7	1.3			1.1			C&GS-06-39-08# 10 $\frac{1}{2}$ N., 62 $\frac{1}{2}$ W. Venezuela after-
											shock. (P-H)= 4200 km.Ca.
4	iP	00	29	12.3	1.0			1.8C			C&GS-00-21-07# 30 $\frac{1}{2}$ N., 42W. M.d- Atlantic Ocean. (P-H)= 5000 km. Ca.
4	iPZEN	05	33	22.4	1.2	6.0	6.0	2.5C	28.0	17.0	C&GS-05-26-09#
	e(PP)ZEN	34	57		1.5	8.0	8.0	9.0	43.0	21.0	11N., 63W.
	e(S)ZEN	39	17		1.6	7.0	7.0	2.8	38.0	26.0	Venezuela h about
	eImaxZEN	49	59		15.0	18.0	16.0	3.0	79.0	83.0	60 km. (P-H)= 4100 km.Ca.
4	eP	06	13	10	0.9			1.2			C&GS-06-05-50# 11N., 62 $\frac{1}{2}$ W. Venezuela after-
											shock. (P-H)= 4200km. Ca.
5	iP	16	01	42.8	1.0			2.3D			C&GS-15-51-48# 34 $\frac{1}{2}$ N., 27E. Crete Aftershock (P-H)=6400 km. Ca.
6	iP	01	01	26.5	1.0			2.0D			C&GS-00-54-05# 11N., 62 $\frac{1}{2}$ W. Venezuela after-
											shock. (P-H)= 4200 km. Ca.

(2)

Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	A	E	N	
Oct. 6	iP	21	39	30.4	1.1			2.5C			C&GS-21-27-51# 49½N., 155E. Northern Kurile Is., h about 60 km., (P-H)= 8300 km. Ca.
7	iP	05	19	18.7	1.0			2.0C			C&GS-05-10-17# 53½N., 165W. Unimak Is. reg- ion. (P-H)= 5600 km. Ca.
7	iP	12	44	48.3	1.2			3.0C			C&GS-13-19-45# 51N., 159E. off Southeast Coast of Kamchatka. (P-H)=8000 km.Ca.
	iP	13	31	10.2	1.2			1.2C			
8	eP	05	07	43	1.0			1.8C			C&GS-06-53-31# 23½S., 63W., Northern Chile Felt Antofagasta, h about 150 km. (P-H)=6900 km.Ca.
8	iP	07	03	54	1.0			4.5D			
10	eP	01	52	25	1.0			1.2			C&GS-01-43-00# 52½N., 169½W., Fox Island, Aleutian Islands. (P-H)=6000 km.Ca.
10	iP	03	48	24	1.1			3.0C			C&GS-03-39-11# 52½N., 166½W., Fox Island, Aleutian Islands. (P-H)=5900 km.Ca.
10	eP	05	54	20	1.0			1.2			C&GS-05-44-32# 52N., 174½W., Andreanof Island. Aleutian Islands. (P-H)=6300 km.Ca.
10	iP	07	05	59	1.0			4.5C			C&GS-06-54-44# 71N., 52½E., Noraya Zemlya (P-H)=7800
10	iP	07	48	04	1.2			1.8C			C&GS-07-38-18#  52N., 174W., Andreanof Is. (P-H)=6300

(3)

Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
Oct.											
✓ 10	iP	17	40	53	1.0			3.0D			
✓ 10	iP	19	03	02	1.0			6.0			C&GS-18-53-59# 54N., 166W. Fox Island, Mag. 5 3/4 (Berk) (P-H)=6000 km.
11	eP	20	39	12	?			?			
✓ 12	ePP	19	16	30	1.1			23.00			C&GS-18-57-02# 8°S., 111 E., Near South coast of Java. (P-H)=12,500 km.
✓ 13	eP	04	30	34	1.0			2.1			C&GS-04-19-17# 52 1/2 N., 160E., Kamchatka (P-H)=8000 Km.
14	eP	17	43	59	1.1			2.3			
✓ 15	eP	04	08	11	1.0			1.3			C&GS-04-02-07# 9 N., 84 W., Costa Rica (P-H)=3100 km.
16	No Quakes										
17	iP	14	38	15.3	1.2			1.8C			C&GS-14-29-10# 46 N., 27 W., N. Atlantic Ocean. (P-H)=5600 km.Ca.
✓ 17	eP	14	46	29.4	1.2			2.0			C&GS-14-37-36# 47 N., 27 1/2 W. N. Atlantic Ocean (P-H)=5600 km.Ca.
17	iP	17	45	23.0	1.2			1.8C			C&GS-17-36-25# 46 N., 27 1/2 W. N. Atlantic Ocean (P-H)=5600 km.Ca.
✓ 18	eP	02	02	28	1.1			1.8			C&GS-01-50-50# Central Greece (P-H)=9500 km.Ca.
18	e(P)	09	40	42	1.0			1.2			
18	iP	21	48	10.2	0.8			2.7C			
	e(PP)		13		0.9			3.0			
	e(S)				1.1			1.5			



(4)

Date	Phase	Time GCT h m s	Period (secs)			Trace Amp. (mms)			Remarks
			Z	E	N	Z	E	N	
Oct. 19	eP	06-18-23	1.0			1.3			C&GS-06-13-58# Guerrero, Mex. (F-H)=2200 km.Ca.
✓ 19	e(FP)ZEN	18-48-10	1.2	4.0	4.0	1.8	3.0	3.5	C&GS-18-28-50# 23½N., 122E., E. Coast of Formosa (F-H)=10600 km. Ca.
	e(S)EN	55-51		7.0	6.0		6.0	5.0	
	eImaxEN	19-41-38		15.0	16.0		17.0	11.0	
✓ 19	iFZEN	21-54-11.9	1.1	3.0	3.0	16.50	4.0	5.0	C&GS-21-41-59# 44½ N., 146 E. Coast of Hokkaido (P-H)=9100 km.Ca.
	e(S)ZEN	22-04-17.	1.0	4.0	4.0	1.5	3.5	11.0	
✓ 20	ePEN	12-13-38		6.0	6.0		2.0	3.0	C&GS-12-04-22# 11½ N., 42 W. Atlantic Ocean. (P-H)=5800 km.Ca.
	e(S)EN	21-29		7.0	7.0		9.0	5.0	
	eImaxEN	28-52		30.0	12.0		9.0	7.0	
21	No Quakes								
✓ 22	e(P)	18-31-41	1.1			1.8			
✓ 22	e(F)	20-57-03	1.2			1.4			
✓ 23	iF	04-44-49.3	1.0			1.9			C&GS-04-38-30# 19 N., 64 W. Porto Rico (P-H)=3400 km.Ca.
✓ 23		06-06-09.5	1.0			8.0			C&GS-05-56-52# 52½ N., 169½ W., Fox Islands. (F-H)=5900 km.Ca.
24	iF	00-03-05	1.0			1.9			Oct. 23, C&GS-23-51-33# 32 S., 67 W. Argentina. (F-H)=8200 km.Ca.
✓ 24	iF	20-18-23	1.0			1.6			C&GS-20-07-17# 29 S., 69 W., Argentina. (F-H)=8200 km. Ca.
✓ 24	iF	21-48-29	1.0			1.7			C&GS-21-44-28# 25N., 109½W., Gulf of California (F-H)=1900 km.Ca.
25	No Quakes								
26	No Quakes								

(5)

Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
<del>Oct. 27</del>	eF	18	33	48	1.1			1.5			
✓ 27	iPZEN	22	43	27.3	1.0	5.0	5.0	10.0C	15.0	14.0	C&GS-22-32-25#
	e(P)ZEN	44	08		1.1	6.0	6.0	8.0	14.0	13.0	56 N., 161 E.,
	e(S)ZEN	52	18		1.4	8.0	8.0	3.0	7.0	7.0	Kamchatka. (F-H)=7600 km.Ca.
27	eP	23	11	37	1.2			1.3			
28	iF	06	01	46.8	1.1			1.8			C&GS-05-55-35## Panama. (F-H)= 3300 km. Ca.
28	iF	14	23	11.9	1.2			1.6			
29	iF	00	20	22.5	1.1			2.0C			
29	e(F)	06	51	16	1.3			1.5			
✓ 30	iF	01	56	02.8	1.2			1.5C			C&GS-01-43-03# 36 N., 27½ E., Dodecanese Is. (F-H)=10000 km.Ca.
✓ 30	iF	02	22	37.3	1.2			1.7C			C&GS-02-13-08# 53 N., 167 W., Fox Islands, (F-H)=6000 km.Ca.
✓ 30	eP	07	43	24	1.1			1.7			C&GS-07-30-20# 36 N., 27½ E., Dodecanese Islands (F-H)=10000 km.Ca.
30	eF	23	31	27	0.9			2.0			
✓ 31	iF	02	49	53.8	1.0			3.5C			
31	eP	07	54	02	1.2			1.3			
✓ 31	iPZEN	10	14	16.2	1.0	4.0	4.0	9.5	5.0	7.0	C&GS-10-07-54#
	e(S)ZEN	19	27		1.8	12.0	12.0	2.5	30.0	30.0	6½ N., 83 W.,
	eLmaxEN	32	02			20.0	14.0		36.0	24.0	off Coast of Panama (F-H)=3500 km.Ca.
31	eP	10	58	11	0.9			1.2			
31	eF	16	32	14	1.4			1.3			C&GS-16-24-17# 1½ N., 86 W., Galapagos Is. (F-H)=4700 km.Ca.



Date	Phase	Time GcT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
Nov.											
1	iP	15	15	27.6	1.0						
2	iPZEN	07	25	36.7	1.0			29.00			C&GS-07-20-58# 15 N., 93 1/2 W., Chiapas, Mexico h about 100 km. (P-H)=2400 km.Ca.
	e(S)EN		29	36	1.0			5.0			
2	e(F) eImaxEN	18	48	59 19-23-39	1.3	20.0	21.0	1.5	5.0	4.0	C&GS-18-30-24# 13 S., 166 1/2 E. New Hebrides Is. (P-H)=11700 km.Ca.
3	eP	01	39	19	1.0			1.4			
3	e(F)	02	33	50	1.0			1.3			
3	e(F)	11	05	42	1.2			1.3			
3	e(P)	17	45	58	1.1			1.3			
4	eP	02	40	22	1.0			1.5			C&GS-02-30-30# 52 N., 175 1/2 W. Andreanof Is. (P-H)=6300 km.Ca.
5	eP	14	19	55	0.5			1.0			
5	iP	20	01	20.6	1.0			2.5D			C&GS-19-51-15# 51 N., 178 1/2 W. Andreanof Is. (P-H)=6400 km.Ca.
6	eP	05	09	32	1.2			1.3			
6	iP	13	25	07.7	1.2			2.1C			C&GS-13-12-53# 45 N., 149 1/2 E. Kurile Is. (P-H)=9000 km.Ca.
7	Vertical Dead										
8	e(F)	18	36	42	0.5			1.0			
9	No Quakes										
10	eP	07	13	23	1.0			1.2			
10	iP	10	27	33.9	1.2			10.3			C&GS-10-21-14# 8 N., 74 1/2 W. Northern Columbia (P-H)=3700 km.Ca.
	e(pP)		28	07	1.2			7.5			
11	e(F)	08	58	20	1.0			1.1			
11	eP	14	07	17	2.5			2.1			
11	iP	19	25	15.5	0.9			4.00			
	e(pP)		26		1.0			6.1			
	e(s)		31	51	1.5			1.6			
12	iP	01	07	39.2	1.0			4.2D			
12	iP	08	56	32.4	1.0			2.6D			
13	eP	10	55	43	1.0			1.2			
	e		59	22	1.2			1.1			
13	eP	17	56	04	1.3			1.2			
	e(pP)		29		2.0			2.5			



Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
Nov. 14	Vertical Dead										
15	Vertical Dead										
16	iP	01-58-45.8			1.1			4.0C			C&GS-01-48-48# 51 $\frac{1}{2}$ N., 177 W., Andreanof Is. (P-H)=6500 km.Ca.
16	iP	05-11-31.9			1.1			2.5C			C&GS-05-06-46# 17 N., 85 W. off Coast of Honduras (P-H)=2300 km.Ca.
16	eP e(s)	23-49-52 55-13			1.2 2.5			1.5 2.7			
17	e(F) e	04-40-07 55-25			1.3 1.4			1.2 1.5			
17	iP	06-09-16.3			0.9			17.5C			C&GS-05-57-48# 49 N., 148 $\frac{1}{2}$ E. Sea of Okhotsk h about 350 km. (P-H)=8600 km.Ca.
17	eP eZEN eLmaxZEN	06-47-29 52-37 54-27			1.4 2.1 2.0	3.0 3.0 6.0		1.9 2.9 2.3	6.5 6.5 15.0	9.0 9.0 11.0	C&GS-06-43-00## Baja California (P-H)=2200 km.Ca.
18	iP	10-22-09.4			1.1			1.2D			C&GS-10-12-00# 51 $\frac{1}{2}$ N., 179 $\frac{1}{2}$ W., Andreanof Is. (P-H)=6300 km.Ca.
19	No Quakes										
20	1PZEN e(S)EN eLmaxEN	12-49-24.4 56-41 13-11-34			0.6	4.0 6.0 16.0	4.0 6.0 17.0	3.1C	6.3 11.5 15.0	3.0 7.2 18.0	C&GS-12-40-23# 54 N., 165 W. Unimak Islands (P-H)=5600 km.Ca.
21	No Quakes										
22	No Quakes										
23	iP	01-07-55.1			1.1			3.8C			C&GS-00-58-33# 52 $\frac{1}{2}$ N., 168 W. Fox Islands (P-H)=5900 km.CA.
24	eP	01-35-40			1.0			1.2			C&GS-01-25-35# 51 N., 177 $\frac{1}{2}$ W. Andreanof Islands (P-H)=6400 km.Ca.

Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
Nov. <del>24</del>	eP	09	52	49	1.0			1.1			C&GS-09-43-36# 79 N., 20 W., N.E. Coast Green- Land. (F-H)=5800 km.Ca.
<del>24</del>	eP	20	09	48	0.5			1.0			
<del>25</del>	iP	04	19	01.5	1.0			2.3C			C&GS-04-11-09# 62½ N., 151 W. Alaska (F-H)=4600 km.Ca.
<del>25</del>	iP	09	17	28.2	1.0			1.8C			
<del>25</del>	iP	22	54	24.4	1.1			2.0C			
<del>25</del>	e	57	58		2.0			2.1			
<del>26</del>	iP	05	29	25.9	1.1			1.8C			
<del>26</del>	e	32	05		2.0			1.9			
<del>26</del>	eP	08	28	00	1.2			1.3			C&GS-08-15-27 # 40 N., 23 E. Greece (F-H)=9400 km.Ca.
<del>26</del>	iP	11	45	40.1	1.2			2.1C			C&GS-11-35-44# 51½ N., 176 W. Andreanof Is. (F-H)=6300 km.Ca.
28	No Quakes										
29	iP	18	03	27.9	1.0			4.5D			
29	iP	22	29	43.6	?			128.0D			C&GS-22-19-38#
	e(S)	37	59		3.0			15.0			21 S., 66 W.,
	eLmax	59	01		3.0			19.5			Southern Bolivia h about 200 km. (F-H)=6900 km.Ca.
30	iP	19	40	38.8	0.9			2.5D			



Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
Dec. 1	eP	01	12	28	1.1			1.5			C&GS-01-00-26# 47½ N., 153½ E. Kurile Islands (P-H)=8800 km.Ca.
2	No Quakes										
3	iP e	21-56-11- 57-07			1.0 0.9			7.5C 2.8			C&GS-21-46-18# 52 N., 169 W., Fox Island (P-H)=6200 km.Ca.
3	iP	23-41-20			0.9			2.5			C&GS-23-31-16# 51 N., 178½ W., Andreanof Is. (P-H)=6300 km.Ca.
4	iPZEN	03-51-28			1.3	5.0	5.0	2.5C	6.0	8.0	C&GS-03-37-45# 45½ N., 99½ E. Outer Mongolia M=7 3/4-8 (Berk) (P-H)=10600 km.Ca.
	e(PF)ZEN	03-55-09			1.7	6.0	6.0	4.5	12.0	10.5	
	eLmaxZEN	04-38-26			16.0	23.0	22.0	15.0	85.0	100.0	
	eLZEN	41-54			15.2	24.0	24.0	13.0	60.0	65.0	
4	eP	13-33-46			1.0			1.3			C&GS-13-20-08# 45 N., 101½ E. Outer Mongolia (P-H)=10,800 km.Ca.
5	No Quakes										
6	No Quakes										
7	ePP	03-37-33.5			1.1			2.1D			C&GS-03-16-43# 6½ S., 123½ E. Flores Sea. h about 550 km. (P-H)=13600 km.Ca.
7	iP e(S) e	08-28-45.8 32-28 46			1.0 1.2 1.2			7.5D 2.6 5.3			C&GS-08-24-03# 15 ½ N., 92 W. Guatamala (P-H)=2300 km.Ca.
7	iP	22-24-18.5			1.0			2.5C			C&GS-22-18-49# 13½ N., 82 W., off east Coast of Nicaragua (P-H)=2800 km.Ca.
8	No Quakes										
9	iP ePF	22-14-54.0 16-12			1.4 1.4			2.2D 2.5			C&GS-22-07-43# 65½ N., 133 W., Yukon (P-H)=4000 km.Ca.

Date	Phase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
Dec.											
9	EPZEN	22	25	40	1.1			1.9			
	e		22	13	1.3			2.5			
10	eP	15	05	52	1.2			2.5			
11	No Quakes										
12	Vertical Dead										
13	iP	01	38	29.7	1.3			16.0C			
	eLmaxEn		02	22-05		18.0	16.0		15.0	12.0	C&GS-01-31-57# Columbia h=100 km. (P-H)=3700 km.Ca.
13	eP	01	59	03	1.2			1.8			
			02	22-05	1.5			1.6			
13	iP	20	38	45.7	1.1			2.0			
14	iP	23	43	22.6	0.9			1.8D			
	e			39	1.2			2.8			
15	No Quakes										
16	iPZEN	17	33	35.1	1.2	4.0	4.0	10.0C	13.0	14.0	C&GS-17-27-47#
	e(S)ZEN		38	50	1.8	6.0	6.0	2.5	14.0	13.0	50 N., 127 W.,
	eZEN		42	10	2.0	8.0	8.0	2.5	10.0	11.0	Vancouver Island
	eZEN			41	3.1	8.0	8.0	6.2	31.0	24.0	(P-H)=3100 km.Ca.
17	iPZEN	05	21	18.7	0.8	4.0	4.0	1.5C	?	2.9	C&GS-05-10-11#
	e			44	1.8	5.0	5.0	7.4	5.0	6.0	43 $\frac{1}{2}$ N., 162 E.,
	e(S)EN		30	22							Kanchatka
	eLmaxZEN										(P-H)=7700 Km.Ca.
17	iPZEN	14	04	13.8							C&GS-13-50-05# 12 S., 167 E. Santa Cruz Is. (P-H)=11600 km.Ca.
17	eP	14	19	46	1.2			1.5			
	e		20	18	1.3			2.0			
18	No Quakes										
19	iP	04	16	34.6	0.8			5.0D			C&GS-04-11-13# Nicaragua (P-H)=2800 km.Ca.
19	iP	04	25	47.6	0.8			2.3D			
20	iP	10	26	24.6	1.0			2.0D			C&GS-10-16-20## Andreanof Is. (P-H)=6500 km. Ca.
20	ip	11	29	53.3	1.0			2.5C			C&GS-11-18-42# 30 $\frac{1}{2}$ S., 71 W., Central Chile (P-H)=7800 km.Ca.



Date	PHase	Time GCT			Period (secs)			Trace Amp. (mms)			Remarks
		h	m	s	Z	E	N	Z	E	N	
<del>Dec.</del> 21	eF	19	20	40	1.1			1.5			
22	No Quakes										
✓ 23	iP	12	42	34	0.9			12.0			C&GS-12-34-03 35 N., 36½ W. Atlantic Ocean (F-H)=5200 km.Ca.
<del>23</del>	eP	19	02	02	0.6			6.0			
<del>23</del>	eP	13	24	43	0.6			11.0			
24	eP	15	50	46	0.6			16.0			C&GS-15-40-04# N. Chile (F-H)=7200 km.Ca.
✓ 25	iP	16	33	23.5	1.0			2.8D			C&GS-16-26-0k# 10½ N., 62½ W. Venequela (F-H)=4200 km.Ca.
✓ 26	iP	12	26	14.6	1.1			2.5D			C&GS-12-20-35# 41½ N., 127 W. Off coast California (F-H)=2900 km. Ca.
27	No Quakes										
✓ 28	eP	14	46	50	1.0			1.9			C&GS-14-36-40# 18 S., 64½ W. Bolivia (F-H)=6700 km.Ca.
✓ 28	eP	19	14	26	1.0			1.4			C&GS-19-01-22 16S., 172W., Touga (F-H)=10000 km.Ca.
29	iP	00	29	09	1.2			2.8D			
29	iP e(pP)	15	23	13 26	1.1 1.3			3.9C 2.1			C&GS-15-12-08## Coguimbo Prov. Chile (F-H)=9400 km.Ca.
30	iP	14	55	10	0.9			1.5C			
✓ 31	iP	14	47	09	1.2			2.0D			