

# Seismological Bulletin of Syowa Station, Antarctica 1969

Compiled by

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Seismological observation at Syowa Station in January 1969 were carried out by Mr. Mitsuo YOSHIDA and Dr. Tsuneo ETO of the 9th Japanese Antarctic Research Expedition using three-component HES seismograph and long period seismographs of three components. Mr. Minoru MASUDA of the 10th expedition succeeded the maintenance operation till January 1970. The seismographs were installed at  $69^{\circ}00.4'$  S in latitude and  $39^{\circ}35.7'$  E in longitude on Precambrian gneiss at an altitude of 21 meters MSL. The present report describes the data of 1969 and the data of the respective seismic events interpreted from the seismograms are listed in chronological order.

1. Date
2. Identified phase name with its sharpness indication (e or i) and ground motion direction (+: Up, E, N, -: Down, W, S). The phase identified by the vertical component is denoted by Z, and the phase by horizontal components is denoted by E (detected by E-W component) or N (detected by N-S component).
3. Arrival time in G. M. T.
4. Period of the phase in seconds.
5. Amplitude in millimeters.

The instrumental constants and magnification curve of HES seismographs are shown in Table 1 and Fig. 1. The seismographs are usually operated with attenuation factor  $\mu=1/5$  in the summer season and  $\mu=1/2$  in the winter season.

A three-component long period seismograph of Press-Ewing type was also install-

ed at Syowa Station. From February 1969 it was operated with a long-period galvanometer of 20 seconds, but the obtained data were unsatisfactory due to the trouble of galvanometer.

The reading data were sent to USCGS throughout the wintering period. HES seismographs were operated with  $\mu = 1/5$  from January 1 to May 29 and with  $\mu = 1/2$  from May 30 to December 31.

The seismograms were read again by Miss R. KAWASHIMA of Earthquake Research Institute.

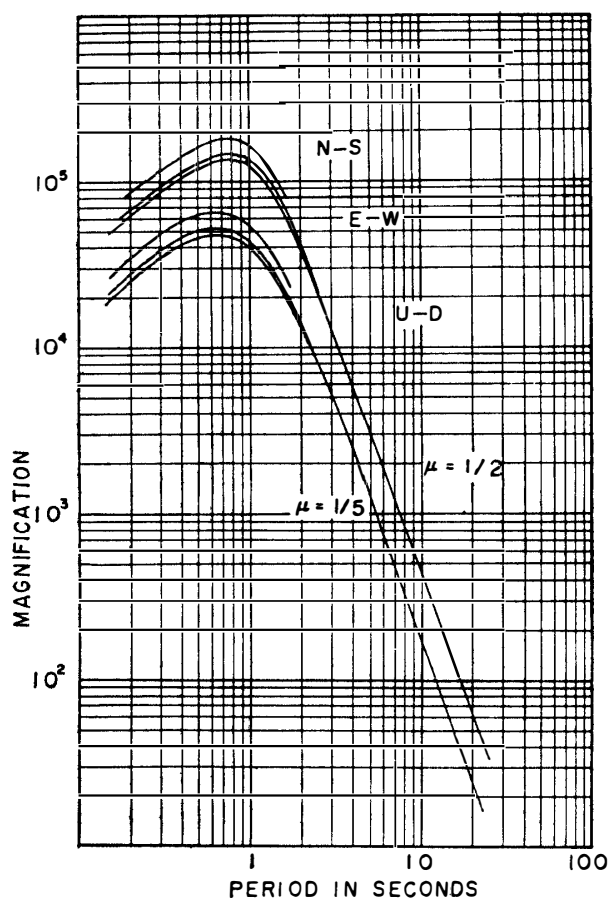


Fig. 1. Magnification curves of HES and long period seismographs.  
Long period seismographs were operated only in 1968.

Table 1. Instrumental constants of HES seismographs.

Component	Z	N-S	E-W
<b>HES</b>			
T <sub>1</sub> (s)	1.0	1.0	1.0
S <sub>1</sub> (A/mm)	$2.80 \times 10^{-5}$	$2.03 \times 10^{-5}$	$2.80 \times 10^{-5}$
R <sub>1</sub> ( $\Omega$ )	940	920	930
$\Omega_1$ ( $\Omega$ )	820	1160	920
h <sub>1</sub>	1.0	1.0	1.0
<b>1968-1969</b>			
T <sub>2</sub> (s)	1.06	1.04	1.04
S <sub>2</sub> (A/mm)	$1.47 \times 10^{-9}$	$1.20 \times 10^{-9}$	$1.35 \times 10^{-9}$
R <sub>2</sub> ( $\Omega$ )	600	650	630
$\Omega_2$ ( $\Omega$ )	1200	1200	1200
h <sub>2</sub>	1.0	1.0	1.0

T<sub>1</sub>: Period of the pendulum.

T<sub>2</sub>: Period of the galvanometer.

S<sub>1</sub>: Sensitivity of the transducer.

S<sub>2</sub>: Sensitivity of the galvanometer.

R<sub>1</sub>: Resistance of the pendulum coil.

R<sub>2</sub>: Resistance of the galvanometer coil.

$\Omega_1$ : External damping resistance of the transducer.

$\Omega_2$ : External damping resistance of the galvanometer.

h<sub>1</sub>: Damping constant of the pendulum.

h<sub>2</sub>: Damping constant of the galvanometer.

### References

- KAMINUMA, K. and S. MURAUCHI (1969): Seismological bulletin of Syowa Station, Antarctica, 1959-1962 and 1966-1968. JARE Data Rep., No. 4.
- KAMINUMA, K. (1970): Seismological bulletin of Syowa Station, Antarctica, 1968-1969. JARE Data Rep., No. 6.

January 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
02	+iPE	17	57	04.4	1.0	3.9	
	+ePN			05.4	0.8	2.5	
03-05	Extreme microseismic activity						
05	+ePE	12	39	47.0	1.6	0.8	
	+ePZ			46.5	1.2	1.0	
06	+ePE	15	42	10.9	1.4	1.5	
	-eSE			08.9	2.2	1.0	
	-ePN			10.9	1.6	4.0	
	+eSN			08.9	2.4	1.0	
	-ePZ			10.9	1.6	10.0	
	+eSZ			06.9	2.6	2.0	
08-17	Extreme microseismic activity						
18	+ePE	03	08	41.3	1.0	2.1	
	eXE			13	35.4	2.0	5.2
	eXN				35.4	2.4	6.5
	eXZ				35.4	2.8	4.0
19	+ePE	07	21	02.3	1.4	2.0	
	eXE			24	18.1	2.4	4.0
	+ePN			21	02.6	1.6	2.3
	eXN			24	07.5	1.8	1.0
	-ePZ			21	02.3	1.4	7.0
	eXZ			24	08.3	2.2	10.0
	-iPE			19	03	33.5	1.4
+iPN		03	33.5	1.6	7.8		
+eSN		13	49.3	3.8	5.4		
+iPZ		03	33.5	1.4	31.5		
-eSZ		13	49.3	1.2	2.5		
20	-ePE	14	40	04.4	1.4	1.0	
	+ePN			04.4	1.0	0.3	
	+iPZ			04.4	1.2	0.4	
22	+ePZ	01	02	21.1	1.6	1.8	
	-ePE			17	10.4	1.2	0.5
	-ePN				10.4	1.2	1.0
	+ePZ				10.4	1.0	1.0
23	Extreme microseismic activity						
24	+iPE	02	44	42.4	1.0	6.0	
	+eSE			54	06.4	2.0	8.5
	+iPN			44	42.4	0.8	2.0
	+eSN			54	07.0	1.8	9.0
	+ePZ			44	42.4	1.0	8.0
	-eSZ			54	06.8	1.8	3.8
25	-ePE	05	32	13.4	1.6	1.0	
	+ePZ			13.4	1.0	1.0	

January 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
25	-ePE	11	17	34.4	1.6	0.8
	+ePN			34.4	1.4	1.0
	+ePZ			34.4	1.6	2.0
27-29	Extreme microseismic activity					
31	+ePE	00	27	26.2	1.2	1.5
	+ePZ			26.2	1.0	0.5
	-ePE	23	00	50.2	1.0	1.0
	-ePN			50.1	0.8	1.0
	-ePZ			50.1	1.0	1.3
	+ePE	23	42	15.5	1.0	1.0
	-iPN			15.5	1.0	2.0
	-iPZ			15.5	1.0	5.0

February 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
02-03	Extreme microseismic activity					
02	-iPE	11	10	10.2	0.4	0.8
	-ePN			9.8	0.6	0.9
	-iPZ			9.7	0.6	1.7
03	-iPE	08	02	28.9	1.6	3.8
	-iSE		11	42.9	1.4	2.9
	+iPN		02	29.0	1.4	3.0
	-iSN		11	42.9	2.0	3.0
	-iPZ		02	28.7	0.8	3.5
	-eSZ		11	42.7	2.4	1.4
	03-04		Extreme microseismic activity			
04	+ePE	15	35	47.4	1.0	0.8
	-eSE		45	58.0	1.0	2.0
	-ePN		35	47.8	1.2	1.0
	+eSN		45	57.5	1.4	2.3
	+ePZ		35	47.2	1.0	1.0
	+eSZ		45	58.2	1.8	1.4
	05		+ePE	02	23	43.5
+ePN			43.2		0.6	1.2
+ePZ			43.1		0.8	1.3
06-07	Extreme microseismic activity					
07	-ePE	00	28	09.8	0.8	1.4
	-ePN			09.8	0.4	0.2
	+iPZ			09.8	0.8	1.6
07-09	Extreme microseismic activity					
10	-iPE	23	08	01.1	1.4	1.4
	+eSE		17	16.1	2.8	1.5
	-iPN		08	00.9	1.0	0.8
	+eSN		17	16.2	3.0	7.0
	-iPZ		08	00.9	0.8	2.5
	+eSZ		17	16.3	3.6	10.5
	11		-iPE	15	16	28.0
-ePN			29.0		0.4	0.8
-ePZ			29.0		0.6	1.6
11	+iPE	22	26	20.7	1.2	3.5
	-iSE		35	57.7	4.0	12.0
	-ePN		26	20.7	1.0	0.9
	+eSN		35	58.2	4.2	9.6
	-iPZ		26	20.6	1.2	9.0
	-eSZ		35	58.2	2.2	4.3

February 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
11	+ePE	22	52	43.9	1.0	0.3
	-eXE		55	30.9	1.4	0.7
	-ePN		52	43.7	1.0	0.2
	+eXN		55	30.8	3.0	1.5
	-ePZ		52	43.4	1.2	0.9
	-eXZ		55	30.8	1.8	3.2
12	-ePE	03	27	28.7	0.5	0.5
	+ePN			29.0	0.6	0.4
	-ePZ			29.1	0.6	0.7
14-15	No record					
15	-ePE	13	00	19.7	1.8	3.5
	+ePN			19.7	1.6	2.5
	+iPZ			19.3	1.0	2.2
17	+eXE	11	02	04.0	0.8	1.5
	-eXN			03.8	1.5	0.5
	+eXZ			03.6	1.2	1.0
17	-ePE	17	26	00.2	0.6	2.5
	-ePN		25	59.9	0.5	0.5
	-ePZ			59.0	1.2	2.5
20-21	Extreme microseismic activity					
20	-iPE	10	42	19.9	1.6	3.5
	-eSE		50	05.1	2.4	1.0
	+iPN		42	19.9	1.4	1.3
	-eSN		50	05.7	1.2	0.9
	+iPZ		42	19.9	1.6	9.3
	-eSZ		50	05.7	1.2	1.2
21-22	Extreme microseismic activity					
22	+ePE	00	49	21.1	1.2	1.4
	+eSE		59	47.5	4.4	5.5
	-ePN		49	21.1	1.2	1.5
	-eSN		59	48.9	6.0	7.5
	-iPZ		49	21.1	3.0	6.2
	+eSZ		59	47.6	2.4	3.0
24	+ePE	00	21	17.5	1.0	1.0
	+eSE		31	35.4	3.0	3.0
	-ePN		21	17.5	1.8	1.6
	+eSN		31	35.4	2.2	2.2
	-iPZ		21	17.2	1.0	5.6
	-eSZ		31	36.0	4.0	1.5
24-25	Extreme microseismic activity					
28-01	Extreme microseismic activity					

**March 1969**

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
04	+ePE	03	09	10.4	1.4	1.4
	-ePN			10.6	1.4	0.3
	+iPZ			10.1	0.8	1.8
04	+iPE	06	13	54.8	0.6	0.7
	-ePN			54.6	0.6	0.3
	-ePZ			54.7	1.0	0.7
05-09	Extreme microseismic activity					
12-13	Extreme microseismic activity					
14-17	Extreme microseismic activity					
19-21	Extreme microseismic activity					
21	+ePE	04	15	00.9	0.8	1.0
	+iPN			00.6	0.8	3.5
	-iPZ			00.7	0.6	2.0
21-22	No record					
23-30	Extreme microseismic activity					
31	+eXE	07	59	26.2	2.6	2.0
	+eXN			26.7	3.2	3.0
	-eXZ			26.7	2.8	6.9
31	+ePE	19	43	36.4	1.4	1.4
	+ePN			36.2	1.2	0.9
	+ePZ			36.8	1.2	6.0

**April 1969**

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
01	-ePE	15	20	46.2	1.0	1.2
	+ePN			46.6	0.7	0.4
	+ePZ			46.0	0.6	0.3
02	-iPE	07	35	41.0	0.6	1.0
	-ePN			41.4	1.0	0.3
	+iPZ			41.0	0.4	1.2
03	-ePE	15	15	16.4	1.2	1.0
	-ePN			16.9	1.2	0.6
	+iPZ			16.6	0.8	0.9
03	-iPN	20	55	43.7	0.4	0.6
	+ePZ			43.6	0.6	1.0



April 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (m m)
		h	m	s		
06	+iPE	20	14	44.4	1.0	1.2
	+ePN			44.0	1.0	1.5
	+iPZ			44.4	1.0	1.3
07	+ePE	01	27	38.6	1.2	1.5
	-eXE			30	2.0	2.8
	+ePN			27	1.2	0.5
	-eXN			30	2.0	0.6
	-ePZ			27	1.8	1.3
	+eXZ			30	1.2	0.7
08-09	Extreme microseismic activity					
09	+ePE	11	48	25.5	1.2	1.0
	+eXE			51	1.2	2.2
	+iPN			48	1.4	6.2
	+eXN			51	1.6	1.8
	-iPZ			48	1.6	10.2
	+iXZ			51	1.2	3.2
10	-eXE	16	14	38.1	1.8	3.7
	+eXN			38.4	1.0	0.2
12-19	Extreme microseismic activity					
16	+iPE	12	32	21.4	2.0	5.4
	-iPN			21.4	1.7	5.6
	+iPZ			21.1	1.6	5.8
19	+ePN	20	58	21.3	0.4	0.2
	+iPZ			21.5	0.6	1.1
20	+ePN	18	37	08.2	2.0	2.2
	+ePZ			08.8	1.0	3.8
20-21	Extreme microseismic activity					
22	+ePE	02	50	41.8	0.4	0.1
	+ePN			41.7	0.4	0.1
	+iPZ			41.3	0.4	0.2
22	-ePE	22	47	00.8	1.6	1.2
	-ePN			00.8	1.4	1.2
	+iPZ			00.8	2.0	4.0
24	+ePE	08	45	01.2	0.6	0.2
	+iPN			01.5	1.0	0.8
	+ePZ			01.4	0.8	0.2
24-25	Extreme microseismic activity					
25	+ePN	06	09	52.7	1.0	0.8

**April 1969**

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (m m)
		h	m	s		
26-27	No record					
27	+ePE	07	37	33.5	1.4	2.0
	-ePN			33.5	1.6	3.6
	-iPZ			33.5	1.2	9.4
27-28	Extreme microseismic activity					
28-29	No record					
30	-ePE	03	17	22.1	1.2	1.0
	+ePN			21.8	1.2	1.1
	-ePZ			22.0	1.6	1.8
30-01	Extreme microseismic activity					

**May 1969**

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (m m)
		h	m	s		
01-06	Extreme microseismic activity					
04	-ePE	12	49	21.5	2.0	2.5
	+ePN			21.8	1.6	0.4
06	+ePE	21	09	32.5	0.6	1.4
	-iPN			33.0	0.4	1.2
	-iPZ			32.5	0.4	0.8
06	+iPE	22	09	07.9	0.5	0.4
	+ePN			07.9	0.4	0.2
	+ePZ			07.8	0.4	0.2
07	-ePE	03	36	53.7	0.4	0.8
	-ePN			53.8	0.4	0.9
	+ePZ			53.7	0.6	2.6
07	+ePE	04	12	32.4	0.4	1.0
	-ePN			31.9	0.4	1.0
	-ePZ			32.5	0.6	2.2
07	-iPE	14	04	40.1	1.2	1.5
	-iPN			40.1	1.2	2.0
	-iPZ			39.9	1.4	11.0
07	+iPE	16	55	35.8	0.4	0.8
	-ePN			35.3	0.4	0.8
	-ePZ			35.8	0.6	1.2

May 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (m m)
		h	m	s		
07	+ePE	17	25	19.7	0.6	0.6
	+ePN			19.8	0.6	0.7
	-ePZ			19.8	0.6	1.3
07	+iPE	22	59	03.4	0.5	0.3
	+iPN			03.4	0.5	0.5
	+ePZ			03.5	0.6	0.6
08	+iPE	04	04	24.7	0.4	0.6
	+iPN			24.3	0.4	0.5
	-iPZ			24.6	0.6	3.6
08	+iPE	05	27	04.7	0.6	0.5
	+iPN			04.7	0.4	0.3
	-iPZ			04.7	0.4	0.2
08	+ePE	12	02	33.9	0.4	1.0
	-ePN			33.8	0.4	0.6
	+ePZ			34.1	0.6	2.2
08	+iPE	20	39	27.4	0.4	0.9
	+iPN			27.4	0.4	0.6
	-iPZ			27.4	0.4	0.9
08	+ePE	22	50	12.7	1.0	1.0
	+ePN			13.0	0.8	0.3
	+ePZ			13.0	0.8	1.5
09	+iPE	02	16	58.8	0.4	1.2
	-ePN			58.7	0.4	1.3
	-iPZ			58.8	0.4	3.5
09	-ePE	09	20	27.1	0.4	0.2
	+eXE			50.6	0.6	2.0
	+ePN			27.0	0.6	0.3
	+eXN			50.3	1.2	2.2
	-ePZ			27.0	0.7	1.2
	-eXZ			50.6	0.8	2.6
09	-ePE	23	11	51.3	0.6	1.2
	-ePN			51.3	0.6	0.2
10	+iPE	04	51	51.7	0.4	1.0
	+ePN			50.6	0.6	0.7
10	+ePE	22	17	16.1	0.6	1.1
	-ePN			16.0	0.4	0.8
11	+ePE	06	23	56.3	0.4	0.6
	-ePN			56.5	0.4	1.0
	+iPZ			56.7	0.4	2.0
11	-ePE	09	58	05.1	0.6	1.0
	+ePN			04.9	0.6	0.3
	+iPZ			05.1	0.8	2.0

May 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
11	+ePE	18	04	13.6	0.6	0.2
	+ePN			13.5	0.6	0.2
11	-ePE	20	16	20.4	0.6	0.5
	+ePN			19.8	0.8	0.9
12-13	Extreme microseismic activity					
13	+iPE	14	41	27.6	0.8	5.0
	-eXE			43	1.8	2.5
	+iSE			50	2.0	8.5
	+iPN			41	1.0	4.2
	-eXN			43	1.4	1.6
	-eSN			50	3.0	19.8
14	-ePE	19	52	44.5	1.8	0.2
	+ePZ			44.8	1.2	0.8
16	+ePE	07	15	28.6	2.0	1.0
	-ePN			28.7	2.0	3.0
	-iPZ			28.7	1.6	4.0
16-17	Extreme microseismic activity					
19	+iPE	13	48	49.0	0.4	0.4
	+iPN			49.0	0.4	0.3
	-ePZ			49.0	0.4	0.4
19	+ePE	22	16	24.2	0.6	0.4
	+ePN			24.2	0.4	0.2
	-ePZ			24.3	0.4	0.3
20	-ePE	01	13	09.4	1.2	0.6
	+eSE			22	1.4	0.5
	-ePN			13	1.2	0.8
	-eSN			22	2.0	0.5
	-iPZ			13	1.2	1.6
	-eSZ			22	2.0	0.8
20	+ePE	05	47	49.7	1.0	0.2
	+ePN			49.7	0.6	0.2
20-22	Extreme microseismic activity					
22	-ePE	16	10	19.3	0.6	0.6
	-ePN			19.3	0.6	0.8
22	-ePE	23	18	48.3	0.6	1.1
	+ePN			48.1	0.4	0.2
	-ePZ			48.1	0.4	0.4
23	-ePE	04	18	43.2	0.2	0.2
	+ePN			42.8	0.4	0.4
	-ePZ			43.2	0.4	0.6

May 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (m m)
		h	m	s		
24-25	Extreme microseismic activity					
25	+ePE	00	59	36.2	0.4	0.2
	-ePN			36.2	0.5	0.6
	-ePZ			36.0	0.6	0.2
25	-ePE	07	56	25.6	1.0	2.0
25	+ePE	20	30	07.0	1.2	1.1
	+ePN			06.6	0.6	0.4
	+iPZ			06.6	1.2	2.0
26	+ePE	03	31	27.8	0.6	0.8
	+ePN			28.2	0.6	0.4
	+ePZ			28.1	0.5	1.0
26	+ePE	03	56	06.5	0.3	0.2
	+ePN			06.1	0.4	0.4
	-iPZ			06.5	0.4	1.4
26	+ePN	05	41	58.6	1.2	0.4
	+ePZ			58.6	1.0	0.2
26	-ePE	06	12	00.1	1.4	1.0
	-ePN			00.1	1.4	0.2
26	-ePE	16	30	04.3	2.0	0.8
27	+ePE	10	00	54.6	1.4	0.8
28	+ePE	07	27	24.4	0.4	0.2
	-ePN			23.7	0.5	0.4
	-iPZ			24.4	0.4	1.2
28	+ePE	13	43	22.8	1.4	0.8
	+iPZ			22.8	1.4	2.0
29	-ePE	16	07	49.3	0.6	0.8
	+ePN			49.4	0.6	0.3
29	+ePE	16	28	59.8	1.2	1.0
	-ePN			59.9	1.4	2.0
29	-iPE	17	37	28.2	0.8	1.0
	+ePN			28.3	0.4	1.0
29	+ePE	18	52	09.6	1.2	1.0
	-ePZ			09.0	1.0	0.4

June 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
02	+ePE	12	20	42.2	0.8	0.8
	-ePN			42.3	2.2	1.8
02	+ePE	18	51	32.6	0.6	0.3
	-ePN			32.7	0.4	0.8
02	+iPE	21	12	43.1	0.4	0.5
	+ePN			43.2	0.6	0.3
03	+ePE	00	20	58.2	0.4	2.2
	-iPZ			57.8	0.4	1.8
03	+ePE	00	51	08.1	0.6	0.8
	-ePN			08.0	0.4	0.2
03	-ePE	01	33	35.8	0.4	0.2
	+ePN			35.8	0.4	0.2
03	-ePE	02	15	18.9	1.2	1.2
	-ePN			18.9	0.4	1.0
03	-ePE	19	27	46.6	0.8	0.8
	-ePN			46.7	0.6	0.5
03	+ePE	23	48	19.9	0.4	0.2
	+ePN			19.9	0.4	0.2
04	+ePN	02	22	48.2	1.2	1.0
	+ePZ			48.2	1.0	2.0
04	+ePN	02	34	22.5	0.6	0.3
04	+ePE	04	50	18.6	1.2	1.0
	-ePN			18.7	1.2	0.6
	-ePZ			18.5	1.2	1.0
04	+ePE	06	36	38.4	0.4	0.3
	+ePN			38.5	0.4	0.2
	+ePZ			38.6	0.4	1.0
04	+iPE	08	55	48.5	0.8	1.0
	+ePN			48.6	0.8	0.3
	+ePZ			48.6	0.8	1.0
04	-ePE	09	24	50.8	0.4	0.3
	-ePN			50.3	0.4	0.7
	-ePZ			50.7	0.4	0.9
04	-ePE	10	05	22.3	0.5	0.8
	+ePN			22.1	0.4	0.2
04	-ePE	14	39	16.0	0.6	1.0
	+ePN			16.0	0.6	1.0
	+ePZ			16.2	0.6	1.0

June 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
04	-ePE	15	59	42.1	0.6	0.6
	+ePN			41.8	0.3	0.2
	-ePZ			42.1	0.4	2.9
04	-ePE	16	53	36.8	1.2	1.3
	-ePN			36.4	1.0	0.8
	-ePZ			36.3	1.2	1.7
04	-ePN	17	27	20.2	1.2	1.3
	+iPZ			20.0	0.6	1.2
04	-ePE	18	51	29.6	0.6	0.6
	-ePN			30.4	0.6	0.7
	-ePZ			29.7	0.8	1.0
04	+ePE	19	26	41.7	0.3	1.2
	-ePN			41.7	0.3	1.5
	+ePZ			41.7	0.4	0.6
05	+ePE	04	37	09.3	0.4	0.5
	-ePN			09.0	0.5	0.8
	+ePZ			09.3	0.6	2.8
05	-ePE	12	28	49.2	0.4	0.8
	+ePN			49.1	0.4	0.2
	+ePZ			49.3	0.6	0.3
05	+ePE	21	24	05.8	0.6	0.6
	+ePN			05.7	0.6	0.4
	-ePZ			05.8	0.4	0.6
05	-iPE	23	37	08.1	1.2	1.5
	+ePN			08.5	0.8	1.3
	-iPZ			08.1	1.0	4.0
07	+ePE	19	37	46.1	1.0	1.0
	+ePN			46.0	1.0	0.9
08-09	No record					
09-10	Extreme microseismic activity					
10	-ePE	21	02	52.1	1.0	0.8
	+ePN			51.5	1.2	0.4
	+ePZ			51.5	1.2	0.3
10	-ePE	23	00	16.5	0.6	0.5
	+ePN			16.7	0.6	1.0
	+ePZ			16.8	0.6	0.2
11	-ePE	04	48	00.7	1.2	1.5
	+ePN			00.9	0.8	1.0
	-ePZ			00.7	1.4	1.0
11	+ePE	07	22	45.9	0.6	0.5
	-ePN			45.9	0.6	0.5
	+ePZ			46.0	0.6	0.6

June 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
13	-iPE	10	07	55.9	1.2	2.0
	-ePN			56.3	1.4	2.5
	+iPZ			55.9	1.2	10.0
14	-ePE	03	36	01.6	1.2	0.2
	+ePN			01.6	1.6	0.4
	+ePZ			01.6	1.0	0.4
14	-ePE	09	39	00.6	0.8	1.0
	+ePN			00.5	0.8	0.4
	+ePZ			00.7	0.8	1.0
14	+ePE	18	07	39.0	1.4	0.6
	-ePN			39.8	0.8	0.8
	+ePZ			40.3	1.2	1.0
14	+ePE	18	26	07.8	1.2	0.4
	-ePN			08.3	1.0	0.8
	+ePZ			08.8	0.8	1.2
14	-ePE	21	45	50.9	1.0	0.8
	+ePN			51.4	0.8	0.6
	-ePZ			51.6	1.0	0.6
15	-ePE	00	53	14.1	0.4	0.2
	-ePN			13.7	0.4	0.6
	+ePZ			13.9	0.6	0.5
15	+ePE	20	33	31.5	0.4	0.3
	+ePN			31.5	0.6	0.4
	-ePZ			31.5	0.6	1.0
15	+ePE	23	14	50.8	1.0	0.6
	+ePN			50.8	1.2	1.4
	-ePZ			50.8	1.2	1.0
16	+ePE	07	51	39.5	1.2	2.0
16-17	Extreme microseismic activity					
17	-ePE	19	44	41.9	0.8	0.6
	-eXE			45	2.0	4.5
	-ePN			44	1.6	1.8
	+eXN			45	1.8	1.0
	+iPZ			44	1.0	2.6
	-eXZ			45	2.0	2.5
17	+ePE	20	26	01.2	0.4	0.2
	-ePN			01.2	0.4	0.3
	+ePZ			01.2	0.6	0.9
18	-ePE	00	07	08.4	1.2	1.3
	+iPN			08.4	1.6	2.0
	+iPZ			08.4	1.3	4.0



June 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
18	-ePE	20	56	17.6	1.6	1.0	
	+ePN			17.4	1.6	0.9	
	+ePZ			17.6	1.2	0.6	
19	-ePE	02	58	53.0	0.6	0.3	
	-ePZ			52.9	0.8	0.6	
20	+ePE	07	27	34.0	0.6	0.7	
20	+ePE	19	23	34.6	0.5	0.7	
	+ePN			34.8	0.5	1.0	
21	+iPE	15	23	11.9	1.2	1.5	
	+eSE			15.9	1.8	1.6	
	-ePN			23	11.9	1.2	1.2
	-eSN			32	15.8	1.6	1.2
	-iPZ			23	11.9	1.4	3.8
	+eSZ			32	15.9	1.8	0.6
21	+ePE	17	09	49.3	1.2	0.6	
	-ePN			49.1	1.6	0.5	
21	+ePE	20	36	05.5	1.0	1.8	
	+ePN			05.1	1.2	0.8	
	+ePZ			05.7	1.0	2.0	
21	+ePE	22	33	27.9	0.5	0.3	
	-ePN			27.9	0.4	0.3	
	+ePZ			27.8	0.4	0.4	
22	-ePE	01	40	37.5	0.6	0.5	
	+ePZ			37.7	1.0	0.7	
22	-ePE	02	11	07.2	1.6	1.4	
	+ePZ			07.2	1.2	0.6	
22	-iPE	02	53	26.5	1.2	5.0	
	+iPZ			26.5	1.2	19.0	
22	-ePE	06	24	07.1	2.0	1.5	
	+ePZ			06.0	1.6	1.5	
22	-ePE	10	54	23.6	1.6	1.2	
	+eSE	11	05	10.0	1.8	1.0	
	-ePZ	10	54	23.6	0.8	1.3	
	-eSZ	11	05	10.0	2.0	3.8	
22-23	No record						
23-24	Extreme microseismic activity						
24-25	Extreme microseismic activity						
24	+ePE	16	12	49.6	1.0	0.8	
	+ePN			50.0	1.2	1.5	
	-ePZ			49.8	1.2	1.6	

June 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
25-26	Extreme microseismic activity					
26-27	Extreme microseismic activity					
27	-ePE	18	19	56.6	0.8	0.4
	-ePZ			57.1	1.0	0.8
28	+ePE	18	54	16.6	0.4	0.7
	+ePN			16.4	0.4	0.3
	-ePZ			16.9	0.4	1.7
29	-ePE	10	45	55.1	1.0	1.3
	+eSE			55	1.6	0.8
	+iPN			45	1.0	4.0
	+eSN			55	2.0	0.8
	+iPZ			45	1.0	11.0
	+eSZ			55	1.4	0.3
29	-ePE	16	00	35.2	1.2	0.6
	-ePN			35.7	1.2	0.6
	+ePZ			35.2	1.0	0.6
29	-ePE	17	17	12.1	1.2	0.5
	+eXE			18	2.0	1.0
	+iPN			17	1.6	2.2
	+eXN			18	2.4	2.0
	+iPZ			17	1.2	3.0
	+eXZ			18	1.8	1.3
29	+ePE	17	58	37.3	1.4	0.6
	+ePN			37.8	1.8	0.6
	+ePZ			37.5	1.4	0.6
29	-ePE	22	05	39.1	0.6	0.3
	-ePN			39.5	1.0	1.1
	-ePZ			39.1	0.6	0.5
30	+ePE	05	17	03.5	0.8	0.4
	-ePN			03.2	1.4	0.8
	-ePZ			03.8	1.0	0.7
30	+ePE	17	18	46.1	1.6	0.6
30	+iPE	18	33	33.1	1.2	0.6
	-ePN			33.2	1.2	0.4
	-iPZ			33.1	1.2	1.5
30	-ePE	22	46	24.9	1.0	0.5
	+ePN			25.4	0.6	0.2
	+ePZ			25.1	1.0	0.8

July 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
01	+ePE	19	37	47.1	1.6	0.6
	+ePN			47.1	1.2	0.6
03	+ePE	06	12	59.7	0.4	0.4
	+ePN			59.7	0.4	0.5
	-ePZ			59.7	0.4	0.4
04	+ePE	03	48	21.7	0.6	0.4
	+ePN			21.5	1.2	0.6
	-ePZ			21.6	0.6	0.6
04	+ePE	10	47	30.9	1.6	0.6
	+ePN			30.9	1.2	0.4
	-ePZ			30.9	1.4	0.8
04	-ePE	12	10	15.9	0.4	0.7
	+ePN			15.8	0.4	1.4
	-ePZ			15.7	0.6	1.2
04	-ePE	13	45	45.8	0.4	0.3
	-ePN			45.4	0.4	0.4
	-ePZ			45.9	0.5	1.2
04	-ePE	14	54	11.4	1.4	1.5
	-ePN			10.9	1.4	0.8
	+ePZ			11.0	1.4	1.4
04	-ePE	23	02	30.7	1.4	1.0
	+ePN			30.8	1.4	0.6
	+ePZ			30.7	1.2	1.0
05	+ePE	01	56	45.4	2.0	2.5
	-ePZ			45.4	1.6	6.3
05	+ePE	23	12	39.6	0.8	0.6
	-ePN			40.0	0.6	0.9
06	+ePE	06	14	01.2	1.0	1.0
06	+ePE	06	25	56.2	0.5	0.4
	-ePN			56.1	0.5	0.6
	+ePZ			56.0	0.8	3.2
06	+ePE	07	50	50.5	1.0	1.3
	+ePN			50.4	1.0	1.8
07	+ePE	00	25	42.5	0.8	1.0
	-ePN			42.4	0.8	1.6
	+ePZ			42.4	1.0	1.3
07-08	Extreme microseismic activity					
08	+ePE	20	55	01.7	1.2	0.7
	+ePN			01.7	1.8	0.6
	+ePZ			01.8	1.8	0.8

July 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
09	-ePE	00	15	24.4	0.4	1.0
	+ePN			24.4	0.4	0.9
	-ePZ			24.4	0.4	0.8
09	-ePE	00	43	21.7	0.6	0.6
	+ePN			21.7	0.6	1.0
	+ePZ			21.8	0.6	0.6
09	-ePZ	02	15	34.3	1.2	1.4
09	+ePE	03	14	27.4	1.8	0.6
	+ePN			26.7	1.4	0.6
	+iPZ			27.2	1.8	0.8
09	+ePE	05	41	16.6	1.8	1.0
	-ePN			16.8	1.4	0.8
	-ePZ			16.7	1.4	2.0
09	+ePE	11	02	39.3	0.4	0.8
	-ePN			39.3	0.4	1.0
	-ePZ			39.3	0.6	0.5
09	-ePE	23	04	17.1	1.6	1.5
	+ePN			17.1	1.2	0.6
	-ePZ			16.5	1.2	1.3
10	+ePE	07	26	31.5	0.6	0.4
	+ePN			31.3	0.8	0.6
	-ePZ			31.5	0.6	0.5
10	-ePE	08	54	03.7	1.0	1.2
	+ePN			03.8	0.8	0.5
	-iPZ			03.7	1.0	2.1
10	+ePE	15	30	43.4	0.8	0.8
	+ePN			43.5	0.6	0.4
	+ePZ			43.5	0.8	1.2
11	+ePE	04	29	07.8	0.6	0.9
	-ePN			07.3	0.4	0.8
	-ePZ			07.7	0.4	1.1
11	-ePE	05	30	49.1	0.6	0.8
	+ePN			49.0	0.4	0.7
	+ePZ			49.1	0.4	1.0
11	+ePE	23	06	44.1	0.4	0.2
	+ePN			43.7	0.6	0.6
	+ePZ			43.8	0.4	0.3
11	+ePE	23	20	21.1	1.0	1.0
	+ePN			21.0	0.8	0.4
	+ePZ			20.6	1.2	0.8
12	-ePE	06	08	01.2	1.6	0.6
	-ePZ			02.2	1.2	1.2

July 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
12	+ePE	06	36	52.5	1.2	0.6
12	+ePZ	11	36	47.7	0.4	0.3
12	-ePE	11	56	08.8	1.2	0.6
	+ePZ			08.8	1.0	1.0
12	+ePE	13	28	06.0	1.4	0.6
	+ePN			05.9	1.0	0.3
	+ePZ			06.0	0.4	1.2
12	-ePE	13	28	18.2	1.4	1.0
	+iPN			18.2	0.8	1.3
	+iPZ			18.2	0.8	7.3
12	+ePE	13	37	21.0	2.0	0.6
	+ePZ			21.0	1.6	0.4
12-13	Extreme microseismic activity					
14	+iPE	02	17	05.2	0.6	3.6
	+iPN			05.2	0.6	1.6
	+iPZ			05.3	0.6	4.2
16	+iPE	08	36	29.3	1.6	8.7
	-iPN			29.3	1.6	2.5
	-iPZ			29.3	2.0	32.0
16	+ePE	15	14	38.1	1.0	0.6
	+ePN			38.3	0.6	0.3
	+ePZ			38.1	1.0	3.4
17	-ePE	03	58	00.8	0.5	1.2
	-ePN			00.8	0.4	1.5
	-ePZ			00.7	0.6	1.5
17	-ePE	18	47	13.8	1.6	1.4
	+ePN			13.5	1.6	1.0
	+ePZ			13.6	1.4	0.6
17	+ePE	20	23	45.7	0.8	0.6
	+ePZ			46.0	1.0	0.6
17	+ePE	22	35	30.9	1.0	0.6
	-ePN			30.9	1.0	1.3
	+ePZ			30.7	0.8	0.8
17	-ePE	23	14	25.5	1.2	0.2
	-ePN			25.5	1.4	0.8
	+ePZ			26.3	1.2	0.6
18	-ePE	03	13	07.5	0.6	0.4
	+ePN			07.9	0.6	0.3
	+ePZ			07.9	0.6	1.1

July 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
18	+ePE	03	17	30.7	0.4	0.5
	+ePN			30.2	0.4	0.2
	-ePZ			30.7	0.5	1.1
18	-ePE	03	28	28.5	0.8	0.6
	+ePZ			28.7	1.0	0.6
18	+ePE	03	42	05.7	0.6	0.4
18	+ePE	04	05	24.8	1.6	0.3
18	+ePE	04	20	51.5	1.0	0.8
	-ePN			51.5	1.0	0.3
	-ePZ			51.4	1.0	1.8
18	+ePE	05	43	40.0	1.4	0.3
	-ePZ			40.0	1.4	1.2
18	+ePE	05	53	34.4	1.6	0.2
	-ePZ			34.2	1.4	1.3
18	-ePE	09	14	37.5	1.0	1.0
	-ePN			37.7	1.4	0.6
	+ePZ			37.6	1.2	0.7
18	+ePE	09	44	38.0	1.6	0.2
	+ePN			37.6	1.8	0.8
	-ePZ			37.7	1.6	0.6
18	+ePE	11	04	23.8	1.0	1.0
	+ePN			23.8	0.8	0.3
	+ePZ			23.6	0.8	0.6
18	-ePE	14	18	40.2	1.2	1.2
	+ePN			41.5	0.8	0.8
	-ePZ			40.2	1.2	1.1
18	+iPE	23	29	05.2	1.2	1.4
	+ePN			05.4	1.4	0.6
	+iPZ			05.2	1.2	2.8
19	-ePE	03	56	42.9	0.4	0.2
	+ePN			42.7	0.4	0.4
	-ePZ			42.5	0.4	0.6
19	-iPE	05	07	06.1	1.0	1.3
	-eSE		17	14.1	2.4	1.4
	-ePN		07	06.1	0.8	0.6
	+eSN		17	14.2	3.4	3.0
	-iPZ		07	06.1	1.2	3.8
	-eSZ		17	14.1	3.2	1.0
	20		+ePE	04	15	10.6
+iPN		10.7	1.2			1.0

July 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
20	-ePE	12	21	20.8	0.8	0.8
	-ePZ			20.8	0.6	0.7
20	+iPE	20	17	15.0	1.6	1.5
	-eSE			38.2	2.2	1.5
	-iPN			15.0	1.6	2.5
	-eSN			38.5	2.2	1.0
	-iPZ			15.0	1.8	8.4
	+eSZ			38.2	2.0	0.3
	20			+eXE	23	57
+eXN		07.9	2.0	1.0		
+eXZ		07.9	2.2	1.0		
21	+ePE	01	12	36.9	0.8	0.5
	+ePZ			37.7	0.6	0.2
21	-ePE	01	19	27.9	0.8	0.5
	+ePN			28.1	0.8	0.3
	+ePZ			28.1	0.8	1.2
21	+ePE	04	51	06.3	0.8	0.6
	+ePZ			06.1	1.0	1.2
21	-ePE	10	43	23.4	1.4	0.7
	+iPZ			23.3	1.0	1.0
21	+ePE	12	07	59.2	1.2	1.0
	+ePZ			59.3	1.0	0.5
21	+ePE	16	50	46.3	1.4	1.4
	+ePZ			46.1	1.2	1.0
21	-ePE	21	45	46.9	0.8	0.8
21	+ePE	22	19	36.5	0.6	0.3
	+ePN			36.6	0.8	0.4
	-iPZ			36.6	0.6	1.5
22	+ePE	10	13	45.1	0.8	0.6
	-ePN			45.7	0.8	0.7
	+ePZ			45.3	1.0	0.6
22	+ePE	14	10	31.6	1.6	0.2
	-ePN			31.4	1.8	1.2
	+ePZ			31.1	1.2	0.8
22	+ePE	17	27	01.8	1.4	1.0
	+ePN			01.4	1.2	0.4
	+iPZ			01.3	1.2	1.0
22	+ePE	20	07	34.3	1.4	0.6
	+ePN			33.8	1.4	0.4
	+iPZ			33.8	1.4	1.6

July 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
23	+ePE	00	04	18.7	0.6	0.3
	-ePN			18.6	0.8	1.8
	+ePZ			18.6	0.8	2.0
23	+iPE	08	13	18.0	0.8	0.6
	+eSE			22	1.8	1.4
	-iPN			13	1.0	1.5
	-eSN			22	1.8	1.9
	-iPZ			13	1.0	5.8
	+eSZ			22	1.4	1.0
	24			-ePE	12	46
-iPN		45.6	2.4	3.0		
+iPZ		45.6	2.4	5.6		
24	+ePE	15	53	46.0	0.6	0.6
	+ePZ			45.4	1.0	1.4
24	-ePE	16	32	11.0	1.4	1.6
	-ePN			11.0	1.2	1.0
	+ePZ			11.0	1.2	3.2
24	+ePE	16	38	37.3	1.0	0.8
	+ePZ			36.6	1.2	1.1
25	+ePE	06	17	01.5	0.8	1.2
	-eXE			19	2.4	3.2
	-ePN			17	0.8	0.8
	-eXN			19	2.2	1.4
	+iPZ			17	0.8	3.8
	-eXZ			19	2.4	13.5
	25			+iPE	06	25
-iPN		31.1	2.0	11.5		
+iPZ		31.4	1.6	3.5		
25	+ePE	13	47	13.5	1.2	0.8
	-ePN			13.5	1.4	0.7
	-ePZ			13.5	1.8	4.0
25	+ePE	17	35	30.5	0.6	0.5
	+ePN			30.8	0.8	0.7
	+ePZ			31.1	0.8	0.6
26	-ePE	00	16	19.6	0.8	0.4
	+eXE			19	1.2	1.6
	+ePN			16	0.6	0.3
	+eXN			19	1.8	2.1
	-ePZ			16	0.8	1.0
	-eXZ			19	1.4	4.0
	26			-ePE	02	20
+ePN		31.9	0.8	0.3		
-ePZ		31.9	1.0	1.3		



July 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
26	+ePE	08	38	22.4	0.8	1.0
	-ePN			22.4	1.0	1.3
	+ePZ			22.4	1.0	1.2
26	+ePE	16	14	09.6	1.8	0.8
	-ePN			09.6	1.6	1.2
	+ePZ			09.7	1.0	0.6
26	-ePE	18	50	31.8	0.8	0.4
	+ePN			32.2	0.8	1.0
	+ePZ			31.6	1.0	0.7
26	+ePE	20	59	49.4	1.2	0.3
	+ePN			49.2	0.8	0.2
	+ePZ			49.1	0.8	0.6
27	+eXE	02	26	54.3	2.0	1.0
	-eXN			54.3	2.0	1.5
	-eXZ			54.3	2.2	4.3
28	+ePE	19	24	06.0	0.6	0.6
	+ePN			05.6	1.0	0.3
	-ePZ			06.2	1.0	1.0
28	-ePE	19	29	42.0	0.8	0.7
	-ePN			41.2	1.0	0.4
	-ePZ			42.2	0.8	0.6
29-30	Extreme microseismic activity					
31	-ePN	17	17	00.5	1.4	0.4
	+ePZ			00.5	1.4	1.0

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
01	-ePE	12	17	43.5	0.8	0.3
	+ePN			43.5	1.0	1.0
	-ePZ			43.5	0.8	1.2
01	-ePE	22	10	19.8	1.4	1.5
	+ePN			19.8	1.8	0.6
	-ePZ			19.8	1.4	1.0
02	+ePE	02	14	16.9	0.4	0.2
	+ePN			16.7	0.4	0.3
	+ePZ			17.2	0.8	0.7
02	+ePZ	04	43	26.7	0.8	0.4

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
02	+ ePE	10	54	09.5	0.8	0.2	
	+ ePN			10.4	0.8	0.2	
	- ePZ			09.5	0.8	0.6	
02	- ePE	15	43	00.0	0.7	0.6	
03	+ ePE	00	35	43.0	1.4	0.4	
	+ iXE			44.6	1.2	0.7	
	- eSE			46	14.6	4.2	0.5
	+ ePN			35	41.6	2.0	0.3
	- iXN				44.6	1.2	1.3
	+ eSN			46	14.8	3.6	1.0
	+ ePZ			35	41.6	1.6	1.0
	- iXZ				44.6	1.2	4.7
	03			+ ePE	03	19	04.8
- ePN		04.4	0.4	0.3			
+ ePZ		04.3	0.6	0.4			
03	+ iPE	22	01	24.0	0.6	0.6	
	- ePN			24.2	1.0	1.2	
	+ iPZ			24.0	0.6	2.2	
04	+ ePE	03	04	04.8	0.8	0.4	
	- ePN			05.4	1.0	1.0	
	- ePZ			05.1	0.6	1.0	
04	- ePZ	10	43	14.5	1.2	0.5	
	+ eXZ						
04	- iPE	17	30	50.2	1.2	3.6	
	+ iSE			40	17.7	1.8	9.5
	+ iPN			30	50.2	1.0	1.0
	- eSN			40	17.7	2.4	7.5
	+ iPZ			30	50.2	1.4	11.0
	+ eSZ			40	17.9	1.4	1.4
	04			+ ePZ	17	57	02.3
+ eXZ		59	42.2	1.6			2.0
04	+ iPE	18	59	57.3	0.6	0.7	
	+ ePN			57.3	0.6	0.5	
	+ iPZ			57.3	0.8	1.0	
05	- ePE	16	45	34.4	1.0	1.2	
	+ eXE			41.4	2.0	8.0	
	- eSE			56	29.9	2.4	1.4
	+ ePN			45	34.4	1.2	1.2
	- eXN				41.6	1.8	5.4
	- eSN			56	29.8	3.0	2.6
	+ ePZ			45	34.4	1.6	5.2
	- eXZ				41.6	1.6	21.0
	- eSZ			56	29.8	2.0	1.5
05	- eXE	17	56	36.4	1.4	0.6	
	+ eXN			36.4	1.4	1.0	

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)		
		h	m	s				
06	-ePE	02	02	35.3	1.0	0.4		
	+ePN			35.3	1.0	0.5		
	+iPZ			35.2	1.0	2.0		
07	+ePE	07	05	43.5	1.4	0.8		
	+ePN			43.7	1.4	0.6		
	-ePZ			43.6	1.4	3.2		
07-08	Extreme microseismic activity							
08	-iPE	20	56	30.9	1.2	1.4		
	-eXE			26.2	1.6	5.0		
	+iSE			21	06	31.6	2.4	4.5
	+ePN			20	56	30.9	1.6	1.0
	+eXN				57	26.0	2.2	3.8
	+eSN			21	06	31.5	2.0	1.8
	+iPZ			20	56	31.0	1.4	8.0
	+eXZ				57	26.2	1.6	10.3
	+eSZ			21	06	31.5	2.4	2.2
09	-ePN	15	22	24.2	1.0	0.6		
	-ePZ			24.2	0.8	0.6		
10	-ePZ	00	04	40.3	0.8	1.3		
10	-ePZ	00	55	16.7	1.0	1.0		
10	-ePE	05	13	10.8	1.0	0.4		
	-ePN			09.9	1.4	1.0		
	-ePZ			10.1	1.4	1.2		
11	+ePE	09	32	02.1	1.2	0.4		
	+ePZ			02.7	1.0	0.3		
11	+ePE	10	00	41.3	0.6	0.5		
	+ePN			41.1	0.6	0.6		
	+ePZ			41.0	0.6	0.7		
11	-ePE	21	46	33.7	1.4	0.6		
	+eXE			47	07.1	1.6	1.2	
	+ePN			46	33.0	2.0	0.2	
	-eXN			47	07.0	1.8	2.0	
	+ePZ			46	33.7	1.6	0.6	
	-eXZ			47	07.0	1.8	8.8	
	12			-ePE	00	05	55.0	0.8
+eXE		56.3	1.2	1.7				
-eSE		16	24.2	3.0			1.0	
+ePN		05	55.0	1.0			0.3	
-eXN			56.2	1.0			1.0	
-eSN		16	24.2	2.6			1.5	
+iPZ		05	55.0	1.0			2.0	
-eXZ			56.0	1.2			6.5	
+eSZ		16	24.0	1.6			1.0	

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
12	-eXE	05	20	31.3	1.8	2.0
	+eXN			31.2	1.4	1.2
	+eXZ			31.6	3.0	1.2
12	-ePE	08	21	34.3	1.2	1.2
	-eXE			58.0	1.2	3.0
	+ePN			34.0	1.4	1.2
	+eXN			58.0	1.0	1.5
	+ePZ			34.0	1.4	1.2
	+eXZ			58.0	1.6	4.3
12	+ePZ	08	50	48.0	1.0	0.4
12	-ePE	12	34	18.0	1.6	1.2
	-ePN			18.6	1.6	0.6
	+iPZ			18.1	1.4	1.5
12	-ePE	18	56	14.0	1.4	0.4
	+ePN			14.0	1.2	0.4
	+ePZ			14.2	1.2	1.2
12	-ePE	19	39	05.4	0.6	0.6
	+ePN			06.1	1.0	1.0
	-ePZ			05.7	1.0	0.7
12	+ePE	19	58	21.0	1.0	0.3
	-ePN			21.0	1.4	0.4
	+ePZ			21.0	1.4	0.7
12	+ePE	21	03	13.3	0.8	0.6
	-ePN			13.4	0.8	0.6
	-ePZ			13.4	1.4	0.6
13	-ePE	16	34	43.4	0.6	0.5
	+ePN			43.5	0.8	0.4
	-ePZ			43.8	0.6	0.4
13	+ePE	19	57	22.4	1.2	0.5
13	+ePE	20	38	02.4	0.6	0.6
	+ePN			02.5	0.6	0.3
	+ePZ			03.0	0.8	0.8
13	+ePE	22	27	01.0	1.2	0.3
	+ePN			00.0	1.2	0.5
	-ePZ			01.2	1.2	1.6
13	+ePE	23	16	29.4	0.8	0.3
	-ePN			29.7	0.8	0.4
	-ePZ			29.4	1.2	1.6
14	+ePE	00	42	30.2	0.8	0.3
	+ePN			30.5	1.2	0.6
	-ePZ			30.2	0.8	1.2

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
14	-ePE	14	38	25.2	1.2	1.0
	+ePN			25.3	1.2	0.7
	+ePZ			25.3	1.0	1.5
14-15	Extreme microseismic activity					
16	+iPE	18	39	27.3	0.8	0.8
	-ePN			27.4	0.8	0.8
	+iPZ			27.3	0.8	2.0
16	+ePE	19	18	59.0	0.6	0.6
	-ePN			59.2	1.0	0.8
	-ePZ			59.0	0.6	0.6
16	-ePE	23	02	10.7	1.0	0.5
	-ePN			10.8	0.8	0.5
	+ePZ			10.8	1.0	0.8
17	+ePE	07	31	16.0	1.0	0.4
	-ePN			16.0	1.4	0.7
	-ePZ			16.2	1.2	3.6
17	+iPE	09	20	34.0	1.0	1.5
	-eXE			37.5	1.6	3.2
	-ePN			34.3	0.8	1.0
	+eXN			37.5	1.2	1.4
	-ePZ			35.2	1.0	0.5
	+eXZ			37.7	1.6	2.1
17	+ePE	10	47	01.8	1.0	1.2
	+ePN			01.7	1.2	1.5
	+ePZ			01.8	1.2	1.0
17	+ePE	12	13	56.4	1.4	0.4
	+eXE			17	1.2	0.8
	+ePN			13	1.4	0.6
	-eXN			17	1.2	0.5
	-ePZ			13	1.4	1.8
	-eXZ			17	1.2	3.0
17	+ePE	22	02	55.5	0.6	0.4
	+ePN			55.5	0.8	0.2
	+ePZ			55.5	0.8	0.8
18	+ePE	01	13	30.5	0.4	0.1
	+ePN			30.4	2.0	1.5
	+ePZ			30.8	2.0	2.8
18	-ePE	03	04	57.5	1.2	0.6
	-ePN			57.4	1.6	1.8
	-ePZ			57.3	1.6	3.5
18	-ePE	07	50	18.0	1.2	0.5
	+ePN			18.0	1.2	0.5
	+iPZ			18.0	1.4	2.7

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
19	+ePE	01	50	49.1	1.0	0.5	
	-ePZ			49.0	0.8	0.7	
19	+ePE	07	08	58.5	0.6	0.6	
	+ePN			58.5	0.6	0.4	
	+ePZ			58.4	0.6	0.4	
19	-ePZ	09	09	09.0	1.2	1.2	
19	+ePN	17	35	31.8	1.0	0.3	
	+eXN			41.8	2.2	7.0	
	+ePZ			31.7	0.8	0.8	
	+eXZ			41.8	1.8	14.8	
19	+ePE	19	56	41.0	0.6	0.6	
	+ePN			41.0	0.4	0.6	
	-ePZ			41.0	0.6	0.5	
20	-ePE	00	45	24.4	1.0	0.5	
	-ePN			24.5	1.0	0.5	
	+ePZ			24.6	1.0	0.8	
20	-ePE	08	09	23.4	0.6	0.6	
	-eXE			12	48.0	2.0	0.7
	-ePN			09	23.5	1.2	0.3
	+eXN			12	48.2	1.6	1.4
	+ePZ			09	23.4	0.8	1.2
	+eXZ			12	48.2	1.4	1.0
20	+ePE	08	30	04.7	0.6	0.2	
	+ePZ			04.6	0.6	0.5	
21	+ePE	03	46	46.6	1.4	0.4	
	+ePN			46.6	1.2	0.4	
	+ePZ			46.5	1.0	0.4	
21-22	Extreme microseismic activity						
22	-ePE	09	42	05.2	1.4	0.4	
	+ePN			05.0	1.8	0.4	
	+ePZ			05.4	1.0	0.6	
23	+ePE	09	05	50.8	0.5	0.7	
	-ePN			50.9	0.5	0.8	
	-ePZ			50.8	0.6	0.9	
23	-ePE	17	47	06.8	0.8	0.4	
	-ePN			06.4	1.0	0.6	
23	+ePE	19	09	03.0	1.4	0.4	
	+eSE			11	58.8	0.6	1.8
	-iPN			09	03.0	1.6	2.2
	-eSN			11	58.7	1.0	0.5
	+iPZ			09	03.0	1.6	1.6
	+eSZ			11	58.8	1.0	3.2

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
24	+ ePE	00	37	17.3	0.4	0.6
	- ePN			17.0	0.4	0.6
	- iPZ			17.3	0.4	1.3
24	- ePE	04	08	21.4	0.8	0.9
	- ePN			22.0	1.2	0.9
	- ePZ			22.2	1.4	0.4
24	- ePE	06	02	07.2	1.2	1.2
	- ePZ			07.0	1.2	1.4
24	- ePE	09	39	15.2	1.4	0.5
	+ ePN			15.2	1.2	0.4
	+ iPZ			15.0	1.4	1.0
24	- ePE	10	58	43.6	1.0	0.4
	+ ePN			43.6	1.0	0.3
	+ ePZ			43.6	0.8	1.2
24	+ ePE	13	56	39.0	0.4	0.6
	- ePN			38.3	0.4	0.6
	- ePZ			38.9	0.4	1.4
24	+ eXN	18	03	51.0	2.4	1.5
25	- ePE	11	29	27.6	1.6	0.6
	+ ePZ			27.4	0.8	0.4
25	- ePE	21	45	06.7	1.0	0.6
	+ ePN			06.8	1.0	0.3
	+ iPZ			06.8	1.0	1.2
25	- ePE	23	15	29.7	0.6	0.3
	- ePN			30.1	0.6	0.4
	+ ePZ			30.0	0.8	1.0
26	+ ePE	00	51	38.2	1.0	0.5
	+ ePN			38.7	1.4	0.6
26	- ePE	17	11	07.0	1.0	0.5
	+ ePN			06.8	1.4	0.4
	+ iPZ			06.0	1.2	2.0
26	- ePZ	19	26	07.3	0.8	1.3
26	+ ePE	20	04	40.0	1.0	0.3
	- ePN			39.8	1.0	0.2
26	+ ePE	20	41	12.2	1.2	0.4
	+ ePN			12.0	1.2	0.4
	+ ePZ			11.8	1.2	0.7
27	- ePE	03	12	14.2	1.0	0.8
	+ ePN			14.6	0.8	0.8
	+ ePZ			14.7	0.8	1.2

August 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
27	+eXE	07	38	20.0	0.8	1.3
	-eXN			20.3	1.2	1.5
	+eXZ			20.0	1.0	1.3
27	-ePE	13	34	48.0	1.6	1.5
	+ePN			48.1	1.4	1.4
	+ePZ			47.0	1.6	3.0
27	-ePZ	19	42	02.9	1.0	0.4
28	+ePE	03	50	12.8	0.8	0.4
	-ePN			12.6	0.8	0.3
	+ePZ			12.5	1.0	0.5
28	-ePE	05	50	30.4	0.6	0.5
	+ePN			30.4	0.8	0.7
	-ePZ			30.2	0.6	1.0
28	+eXE	11	50	40.0	1.0	1.0
	-eXN			40.0	1.4	0.8
	-eXZ			40.1	1.4	1.0
28	-ePE	14	05	59.6	1.4	0.4
	+eSE		15	37.2	4.4	0.5
	+ePN		05	59.4	1.4	0.7
	+eSN		15	37.3	4.6	0.7
	+ePZ		05	59.2	1.6	1.2
28	+ePE	17	01	42.1	2.2	0.7
	+eSE		11	22.1	3.6	0.7
	-ePN		01	42.1	2.2	1.5
	+eSN		11	22.2	2.6	0.5
	-ePZ		01	42.1	2.2	2.6
	-eSZ		11	22.6	2.0	0.7
28	-ePE	22	20	23.6	0.6	0.3
	+ePN			23.6	0.8	0.3
	+ePZ			23.6	1.2	0.3
29	-ePE	19	50	45.6	1.0	0.6
	+ePN			45.6	1.0	0.4
	+ePZ			45.4	1.0	0.8
30	-ePE	03	20	41.2	1.6	1.2
	+ePN			41.1	1.2	0.8
	-ePZ			41.1	1.0	0.8
30	-ePE	13	04	44.2	1.2	1.0
	+ePN			44.4	1.0	0.4
	-iPZ			44.7	1.0	0.9
30	+ePE	16	57	24.3	0.8	1.0
	-ePN			24.6	1.0	1.0
	+ePZ			24.6	1.0	0.4



**August 1969**

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
30	+ePE	19	24	23.3	1.2	1.0
	+ePN			22.8	0.8	0.2
	+ePZ			22.8	1.0	0.2
30	+ePE	23	45	02.5	0.4	0.3
	+ePN			02.1	0.4	0.4
	-ePZ			02.3	0.4	1.0
31	+ePE	00	08	50.1	1.4	0.4
	-ePZ			50.1	1.6	2.0
31	+ePE	09	55	59.8	1.4	1.0
31	+ePE	20	10	54.8	1.6	1.0
	-ePN			55.0	1.6	1.3
	-ePZ			54.8	1.6	4.0

**September 1969**

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
01	+ePE	08	22	51.1	1.6	2.0	
	+eSE			17.2	4.3	1.0	
	+iPN			22	50.8	1.6	0.4
	+eSN			29	17.2	3.3	0.5
	+iPZ			22	50.8	1.4	1.5
	-eSZ			29	17.1	2.0	1.0
	01			-iPE	08	57	44.9
-ePN		44.8	1.0	1.0			
-ePZ		45.2	0.8	1.2			
01	-ePN	10	44	12.8	1.4	1.0	
	-ePZ			12.8	1.2	1.6	
01	+ePE	13	14	39.2	1.0	0.4	
	-ePN			39.4	1.0	0.6	
	+ePZ			39.5	1.0	0.5	
01	-ePE	15	50	00.1	0.6	0.4	
	+ePN			00.2	0.8	0.4	
	-ePZ			00.2	1.0	0.7	
01	-ePE	19	07	20.0	1.0	1.0	
	-ePN			20.0	0.8	0.6	
	-ePZ			20.1	0.8	0.6	
02	-iPE	03	58	02.1	1.0	4.5	
	-eSE	04	07	03.9	2.2	3.5	
	+ePN	03	58	03.0	1.0	5.2	

September 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
02	+eSN	04	07	03.0	2.2	4.2
	-iPZ	03	58	02.1	1.0	7.5
	+eSZ	04	07	03.9	1.6	3.0
02	-ePE	10	34	46.1	1.0	0.6
	-ePZ			46.1	1.0	1.2
02	+ePZ	16	17	53.7	1.0	1.2
02	+iPZ	16	47	53.8	0.8	7.0
02	+ePN	18	58	32.0	1.2	0.6
	+ePZ			32.6	0.6	0.4
03	+ePE	01	01	19.7	1.0	0.2
	+ePN			19.5	1.2	0.2
	+iPZ			19.4	1.2	0.8
03	+ePN	05	25	18.7	1.2	0.4
	+ePZ			17.9	1.2	0.6
03	+ePE	14	21	22.9	0.8	0.6
	-ePN			23.1	0.8	0.5
	+ePZ			22.9	0.8	0.2
04	+ePE	08	59	50.3	1.0	1.6
	+ePN			50.5	1.0	1.0
	-ePZ			50.3	1.0	2.0
04-05	Extreme microseismic activity					
05	+ePE	13	54	19.5	1.2	0.4
	-ePN			19.7	1.2	0.6
	-ePZ			19.7	1.4	0.6
05	-ePE	20	55	40.9	1.6	1.0
	+ePN			41.7	1.4	0.3
	+ePZ			41.3	1.4	0.4
05	+ePE	21	12	36.1	1.0	0.4
	-ePN			36.3	1.0	1.0
	-ePZ			36.1	1.0	1.8
06	+ePE	15	03	03.6	1.4	1.0
	-eSE		13	36.6	4.0	1.6
	+ePN		03	03.6	1.4	1.0
	+eSN		13	36.0	5.6	1.5
	-ePZ		03	03.6	1.2	1.2
	+eSZ		13	35.6	2.0	1.4
06	+ePE	17	21	10.4	1.8	0.7
	+eSE		31	41.1	3.8	1.0
	+ePN		21	10.0	1.8	0.8
	-eSN		31	39.9	3.8	1.6
	-ePZ		21	10.6	1.6	2.4
	-eSZ		31	41.3	2.6	0.8

September 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
07	+ePE	03	19	06.3	1.6	0.4
	-ePN			06.2	1.8	0.6
	-ePZ			05.9	1.8	2.0
07	-ePE	08	53	29.3	1.0	0.4
	-ePN			29.5	1.4	0.8
	+ePZ			29.0	0.8	0.7
07-08	Extreme microseismic activity					
07	+ePE	20	18	34.1	1.0	1.5
	+ePN			34.0	2.0	2.6
	-ePZ			34.1	1.8	1.5
08	-ePE	12	58	46.8	1.4	1.5
	+ePN			46.8	1.2	0.6
	+ePZ			46.9	1.4	2.3
09	-ePE	01	34	01.7	0.6	0.6
	+ePN			01.7	0.8	0.4
	+ePZ			01.6	0.6	0.4
09	-ePE	03	48	07.1	0.8	1.4
	-ePN			07.1	0.6	0.6
	-ePZ			07.4	0.6	2.0
09	-ePE	05	34	41.8	1.4	1.2
	+ePN			41.7	1.4	0.4
	+ePZ			41.7	1.6	0.6
09	-ePE	21	59	31.1	0.8	0.8
	-ePN			31.4	0.6	0.8
	+ePZ			31.6	0.8	0.4
10	+ePE	03	00	37.6	1.2	1.0
	+ePN			37.5	1.0	0.4
	+ePZ			37.5	1.0	0.3
10	-ePE	08	15	46.2	1.4	1.5
	-ePN			47.2	1.6	0.5
	+ePZ			46.4	1.0	0.6
10	-ePE	20	28	40.2	1.2	1.0
	-ePN			40.2	1.0	0.4
	-ePZ			40.2	1.0	0.4
10	-ePE	21	19	39.0	1.2	0.6
	-ePZ			39.0	1.2	1.5
10	-ePE	22	06	12.4	1.0	0.4
	+ePN			12.2	0.8	0.4
	-ePZ			12.2	0.8	0.6
11	-ePE	06	35	54.6	1.0	0.6
	+ePN			55.0	0.8	0.4
	-ePZ			54.9	1.0	1.0

September 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
11	-ePE	19	38	12.5	0.6	0.4	
	+ePN			12.0	1.0	0.6	
	+ePZ			12.1	1.2	0.4	
11-12	Extreme microseismic activity						
11	-ePE	19	08	33.3	0.8	0.8	
	-ePN			33.1	1.0	0.7	
	+ePZ			33.4	1.0	1.0	
12	-ePE	03	27	26.4	1.4	0.6	
	+ePN			26.4	1.4	1.0	
	-ePZ			26.1	1.2	1.2	
12	+ePE	09	17	19.7	1.4	1.8	
	-ePN			19.6	1.4	2.4	
	-ePZ			19.5	1.6	6.3	
12-13	Extreme microseismic activity						
13	+ePN	00	55	31.3	1.0	1.3	
13	-iPE	11	04	29.9	1.0	2.3	
	+eSE			14	14.9	2.2	0.8
	-iPN			04	29.9	1.0	0.5
	+eSN			14	14.7	2.4	1.8
	-iPZ			04	29.9	1.0	7.0
	-eSZ			14	14.6	2.2	0.6
13-14	Extreme microseismic activity						
14	-ePE	14	15	45.9	1.4	2.0	
	+ePN			45.7	1.2	1.6	
	-ePZ			45.4	1.4	1.4	
15	-ePE	04	20	19.8	1.4	0.8	
	+ePN			20.2	1.4	0.8	
	+ePZ			19.8	1.0	0.9	
15	-ePE	07	26	12.8	1.0	0.4	
	+ePN			12.8	1.0	0.4	
	-ePZ			12.8	1.0	1.3	
15	+ePE	13	29	42.0	1.2	0.6	
	+ePN			42.2	1.0	0.7	
	+ePZ			42.2	1.2	1.0	
15	-ePE	15	05	34.2	1.2	0.4	
	+ePN			34.2	1.2	0.6	
	+iPZ			34.2	1.2	2.0	
16	+ePE	14	01	10.9	0.8	0.4	
	+ePN			11.9	1.2	0.6	
	-ePZ			11.2	1.2	1.0	

September 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
16	+iPE	14	49	39.5	1.2	1.6
	+iPN			39.5	1.4	1.4
	+iPZ			39.5	1.4	12.2
17	+ePE	01	38	54.3	1.4	1.2
	-ePN			53.6	1.4	1.0
	-ePZ			54.2	1.2	0.4
17	-ePE	09	16	40.8	1.2	0.5
	+ePN			40.6	1.2	0.6
	-ePZ			41.0	1.4	0.7
17	+ePE	18	07	59.2	1.2	0.3
	+ePN			58.9	1.2	0.2
	+ePZ			58.9	1.0	0.8
17	-ePE	18	59	36.4	1.2	0.3
	+ePN			36.2	1.2	0.2
	+ePZ			36.4	1.0	0.8
18	+ePE	12	10	26.7	1.2	0.3
	-ePN			25.7	1.4	0.2
	-ePZ			25.5	1.2	0.8
19	-iPE	01	42	45.9	1.0	0.9
	-eSE			53	1.4	0.6
	+ePN			42	1.0	0.3
	+eSN			53	1.6	0.4
	+iPZ			42	1.0	2.8
	-eSZ			53	1.6	0.4
	+ePE			03	46	17.6
+ePN	17.9	0.8	0.4			
+iPZ	17.7	1.0	0.8			
19	+ePE	05	11	46.1	1.0	0.4
	+ePN			46.3	0.8	0.2
	+ePZ			46.0	1.0	1.0
19	+ePE	05	39	03.3	1.0	0.6
	+ePN			03.3	1.0	0.4
	+ePZ			03.5	1.0	0.8
19	-ePE	14	49	40.8	1.4	0.4
	-ePN			40.3	1.4	0.8
	-ePZ			40.3	1.4	1.0
19	+ePE	17	15	12.1	1.0	0.4
	-ePN			12.1	1.2	0.8
	-ePZ			12.4	1.2	0.7
19	-ePE	20	51	48.1	1.4	1.0
	+ePN			48.3	1.4	0.4
	+ePZ			48.1	1.2	0.5
20	+ePE	10	21	12.5	1.0	0.6
	-ePZ			12.6	1.2	2.0

September 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
21	-iPE	02	12	20.2	1.2	1.6
	-eSE		21	45.2	2.4	1.0
	-ePN		12	20.2	1.0	0.6
	-eSN		21	45.6	2.6	1.4
	-iPZ		12	20.2	1.0	4.2
	+eSZ		21	44.8	2.8	0.6
21	+ePE	07	24	28.9	1.4	0.7
	+ePZ			28.6	1.2	1.1
21	+ePE	07	43	56.9	1.0	0.6
	-ePZ			55.8	1.0	0.6
21	+ePE	18	33	28.2	1.0	1.0
	+ePN			28.2	0.8	0.2
	+ePZ			28.9	0.8	0.4
21	+ePE	19	44	17.4	1.2	0.7
	-ePN			17.4	1.0	0.8
	-ePZ			17.8	1.0	1.0
21	-ePE	21	27	12.6	1.2	0.3
	-ePN			12.6	1.0	0.6
	+ePZ			12.6	1.0	0.7
22	+ePE	00	51	57.5	1.0	0.8
	-ePN			57.2	0.8	0.4
	+ePZ			56.7	0.8	0.4
22	-ePE	01	58	28.6	1.8	0.7
	+eSE	02	08	38.2	4.0	1.6
	+eSN		08	37.8	4.2	2.0
	+ePZ	01	58	28.6	2.0	1.0
	+eSZ	02	08	37.5	5.0	0.5
22	-ePE	01	51	07.2	1.4	1.2
	-ePN			07.2	1.2	0.6
	+ePZ			08.2	1.4	1.8
22	-ePE	08	24	47.4	1.2	0.8
	-ePN			47.2	1.0	0.5
	-ePZ			47.4	1.0	0.6
22	+ePE	10	24	15.2	1.4	0.4
	-ePN			15.8	1.4	0.6
	+ePZ			15.2	1.4	0.7
22	+ePE	14	00	44.0	1.0	0.4
	+ePN			44.5	1.6	1.0
	+ePZ			44.0	1.6	1.4
22-23	Extreme microseismic activity					
24	+ePE	11	43	31.4	1.0	0.8
	-ePN			31.8	0.8	0.6
	+ePZ			31.8	0.8	0.6

September 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
24	+eXZ	18	20	15.1	3.0	1.0
24	+ePE	20	13	09.0	1.2	0.8
	-ePN			08.5	1.2	1.0
	+ePZ			08.8	1.2	0.6
24	+ePE	23	40	22.5	0.6	0.2
	+ePN			22.3	1.0	0.3
	+ePZ			22.5	1.0	1.0
25	+ePE	02	19	02.2	1.6	0.6
	-ePN			02.5	1.4	0.4
	-ePZ			02.2	1.2	0.4
25	-ePE	06	01	53.2	0.8	0.6
	-ePN			52.7	1.0	0.6
	-ePZ			53.2	0.8	0.8
25	-ePE	06	08	18.7	0.8	1.0
	-iPZ			18.4	0.8	1.0
25	+ePE	12	11	46.5	1.0	0.4
	-ePN			46.4	0.8	0.4
	-ePZ			46.3	0.8	1.2
26	+ePE	08	31	59.2	1.6	0.6
	-ePN			59.2	1.6	0.6
	+ePZ			59.4	1.6	0.4
26	-ePE	08	36	35.4	0.6	0.6
	+ePN			35.8	0.6	0.5
	+ePZ			35.9	0.8	1.5
27	+ePE	09	10	07.5	0.8	0.6
	-ePN			07.5	0.8	0.5
	+iPZ			07.5	0.8	0.8
27	+ePE	09	11	12.2	1.4	1.5
	+eXE		12	46.9	2.2	5.5
	+eSE		21	20.5	3.2	1.5
	-ePN		11	12.1	1.4	1.0
	-eXN		12	47.0	2.0	4.8
	+eSN		21	20.5	3.0	3.8
	+ePZ		11	12.1	1.2	1.5
	-eXZ		12	47.3	2.4	8.8
	+eSZ		21	19.9	4.0	2.0
27	+iPE	19	25	18.5	1.0	0.6
	-ePN			18.3	1.0	0.5
	-iPZ			18.5	1.2	2.2
28	+ePE	10	12	58.8	1.0	0.5
	-ePN			59.2	1.0	0.6
	-ePZ			58.8	0.8	0.6

September 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
28	+ePE	10	29	28.4	1.2	0.4	
	-ePN			28.4	1.2	0.8	
	-iPZ			28.4	1.2	2.0	
28	+ePE	18	11	42.0	1.0	0.3	
	+ePN			42.4	0.8	0.3	
	-ePZ			42.0	0.8	0.7	
29	-ePE	06	17	09.7	1.0	0.8	
	+ePN			09.3	1.6	0.8	
	+ePZ			09.5	1.0	1.0	
29	+ePE	11	57	10.5	1.0	1.0	
	+ePN			09.7	1.4	1.0	
	-ePZ			09.3	1.0	1.0	
29	-iPE	16	32	10.6	1.4	2.6	
	-eSE			16.6	2.4	1.5	
	+iPN			10.6	1.4	1.0	
	-eSN			17.0	2.0	1.0	
	+iPZ			10.6	1.4	6.5	
	+eSZ			17.0	2.4	1.4	
	+ePE			20	10	43.3	0.8
+eSE	19	19	59.3	3.4	4.0		
+iPN	10	10	43.5	1.0	4.0		
-eSN	19	19	58.8	3.0	1.2		
-iPZ	10	10	43.5	1.0	7.8		
-eSZ	19	19	59.2	2.4	1.6		
30	-ePE	03	23	02.2	0.8	0.4	
	+iPN			02.2	0.8	0.5	
	+iPZ			02.2	0.8	1.8	
30	+ePE	04	23	00.1	1.6	1.2	
	-eSE			39.6	3.4	1.5	
	-ePN			23	00.0	1.6	4.2
	-eSN			32	39.6	2.8	2.5
	-ePZ			23	00.0	1.8	10.7
	+eSZ			32	39.4	2.8	1.0
	+ePN			05	28	42.0	1.0
+ePZ	05	28	41.9	1.0	0.8		
30	+ePN	12	58	38.0	1.0	0.8	
	-ePZ			38.2	0.8	0.8	
30	+ePE	18	03	25.2	1.2	0.4	
	+eSE			07.2	3.2	1.5	
	+ePN			03	24.2	1.2	0.4
	-eSN			13	07.2	3.4	3.0
	+ePZ			03	25.4	1.2	0.7
	+eSZ			13	07.2	3.4	1.0



October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
01	-ePE	00	09	19.6	1.0	0.4
	+ePN			19.6	1.0	0.6
	+ePZ			19.6	1.0	1.3
01	-ePE	05	18	34.1	1.0	1.0
	+eSE			29	3.2	0.6
	-ePN			18	1.0	0.8
	+eSN			29	3.0	1.0
	-iPZ			18	1.0	3.5
	-eSZ			29	2.4	0.8
	+ePE			05	56	46.1
+iPN			46.1	1.0	0.8	
+iPZ			46.1	1.0	1.6	
01	-ePE	06	11	03.3	0.8	1.0
	-ePN			03.3	0.8	0.6
	-ePZ			03.3	1.0	3.5
01	-ePE	08	41	04.0	1.0	0.4
	+ePN			04.0	0.8	0.2
	+ePZ			03.7	1.0	0.4
01	-ePE	19	58	41.3	0.8	3.3
	+eSE			20	5.2	5.6
	+ePN			19	0.6	2.0
	-eSN			20	6.2	5.5
	+ePZ			19	1.0	2.5
02	-ePE	22	26	08.6	1.4	5.0
	-eXE			29	1.6	1.3
	-ePN			26	1.2	5.5
	+eXN			29	2.2	3.0
	-ePZ			26	1.0	3.5
	+eXZ			29	2.0	5.0
03	-ePE	01	44	57.4	0.8	0.5
	+eXE			45	1.4	3.0
	-ePN			44	1.0	0.8
	-eXN			45	1.4	7.0
	-ePZ			44	1.0	2.8
	-eXZ			45	1.4	5.4
03	+eXE	01	54	29.0	2.4	0.5
	+eXN			29.0	3.0	0.8
03	-ePE	08	40	44.4	1.2	0.6
	+ePN			44.3	1.0	0.2
	-ePZ			44.4	1.2	1.0
03	-ePE	15	51	26.7	1.2	0.7
	+ePZ			26.7	1.2	1.5
04	+ePE	06	59	53.7	0.6	0.3
	+ePZ			53.4	0.8	0.3

October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
04	-ePE -ePZ	08	01	54.3	0.6	0.4
				54.4	0.6	1.0
04	+ePE +ePZ	09	03	18.0	1.6	0.3
				17.0	1.8	0.5
05	-ePE -ePN +ePZ	05	08	35.6	1.2	0.3
				35.5	0.8	0.3
				35.5	0.8	0.4
05	-ePE -iPZ	15	34	20.5	0.8	0.5
				20.4	0.8	1.8
05	+ePE -ePZ	20	58	45.4	1.0	0.6
				45.4	1.0	3.0
05	-ePE -ePN +ePZ	21	32	02.2	1.6	0.6
				02.4	1.6	0.3
				02.0	1.4	0.5
06	-ePE -ePN -ePZ	10	13	30.4	1.2	0.8
				30.2	1.2	0.3
				30.2	1.0	0.8
06	-ePE +ePZ	13	01	47.8	1.0	0.4
				47.8	1.0	1.2
07	-ePE	02	16	43.6	1.0	0.5
07	-ePZ	11	00	24.5	1.8	2.2
07	+ePE +ePZ	18	54	31.6	0.6	0.2
				31.5	0.6	0.3
07	+ePE +iPZ	19	26	30.7	0.8	0.8
				30.9	1.0	1.2
07	-eXE +eXZ	23	47	37.2	1.2	0.3
				37.0	1.6	0.3
08	-ePE -eXE -iPZ +eXZ	02	55	10.6	1.0	0.5
				51.8	1.2	1.6
			55	10.6	0.8	0.9
				51.9	1.6	1.4
08	+ePE +iPZ	14	49	48.9	1.0	0.3
				48.9	1.0	2.5
08	-ePE +iPZ	15	53	05.8	0.6	0.2
				05.7	0.6	1.0
08	+ePE +ePZ	22	06	03.6	1.6	1.2
				03.4	1.2	0.6
08	+eXE +eXZ	23	57	11.1	2.4	0.8
				11.1	1.8	0.3

October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
09	-ePE +ePZ	01	12	02.5	1.6	1.0
				02.1	1.0	0.4
09	+ePE -ePZ	02	10	01.3	0.4	0.4
				01.6	0.4	0.3
09	+ePE -ePZ	08	20	09.5	1.4	0.3
				08.5	1.2	0.8
09	-ePE +ePZ	15	41	41.8	1.4	0.3
				41.8	1.2	0.3
09	-ePE -ePZ	16	25	08.0	1.0	0.2
				08.2	1.2	1.0
10	-ePE +ePZ	00	43	37.5	1.2	0.6
				37.5	1.0	0.8
10	-iPE +ePZ	06	58	29.5	1.0	1.2
				29.5	1.0	1.0
10	+iPE +iPZ	08	56	56.4	0.6	0.8
				56.4	0.8	1.2
10	-ePE +ePZ	18	53	30.2	1.2	1.2
				30.5	1.0	1.1
11	+ePE -ePZ	05	07	29.9	1.0	0.8
				30.2	1.2	1.6
11	-ePE +ePZ	07	00	55.2	1.0	0.4
				55.4	1.0	0.4
11	+ePE +ePZ	09	23	14.1	0.6	0.2
				14.0	1.0	0.2
11	+ePE -ePZ	11	24	42.4	1.2	0.3
				42.2	1.2	1.8
12	-ePE +eXE -ePZ +eXZ	01	58	49.9	1.2	0.5
				59	3.0	1.4
				58	1.0	1.0
				59	2.6	1.0
12	+ePE +ePZ	02	34	04.1	0.8	0.2
				04.2	1.0	0.4
12	-ePE +iPZ	03	43	47.7	1.0	0.3
				47.6	1.0	1.5
12	-ePE +ePZ	07	13	53.8	1.0	1.2
				54.1	0.8	1.2
12	+ePE +ePZ	08	04	49.1	1.0	0.5
				49.3	1.2	0.2

October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (m m)
		h	m	s		
12	+ePE	11	13	01.7	0.4	0.5
	-ePZ			01.6	0.6	0.4
13	+ePE	07	08	11.4	0.8	0.4
	+eXE			21.7	1.6	4.0
	+eSE			18	2.8	2.2
	+ePZ			08	0.6	0.4
	+eXZ			09	1.4	11.3
	+eSZ			18	2.6	0.8
13	+iPE	14	50	28.0	0.6	0.8
	+iPZ			28.0	0.8	0.9
14	+iPE	07	19	37.5	1.4	2.1
	+iPN			37.6	1.2	2.4
	-iPZ			37.6	1.0	13.5
14	+ePE	19	08	26.5	1.2	1.0
	-ePN			26.1	1.2	1.6
	+iPZ			26.2	1.0	1.4
15	+ePE	00	11	33.9	1.8	0.6
	-ePN			34.1	2.0	1.3
	+ePZ			33.4	1.8	1.2
15	+ePE	01	20	22.0	1.2	0.6
	+ePN			21.3	1.0	0.4
	+ePZ			21.3	1.0	1.2
15	-ePE	05	54	37.0	1.2	0.3
	+ePZ			37.1	0.4	0.2
15	-ePE	09	59	58.7	1.2	1.0
	+ePZ			58.8	0.4	0.2
16	+eXE	04	31	58.6	2.4	1.0
	+eXZ			57.9	1.8	0.5
16	-ePE	11	22	46.4	1.5	2.0
	-eXE			26	1.0	0.7
	-ePZ			22	1.6	0.7
	-eXZ			26	1.0	1.0
17	-ePE	01	38	43.6	1.2	0.6
	-eXE			42	2.0	3.0
	-iSE			49	3.8	2.7
	+iPZ			38	1.0	3.0
	+eXZ			42	2.0	6.5
	+eSZ			49	2.6	0.8
17	+ePE	02	05	50.6	2.6	2.5
17	+ePE	06	14	18.4	1.0	1.0
	-ePZ			17.4	0.8	0.9
17	+ePE	08	22	48.4	1.4	0.2
	+ePZ			48.4	1.4	0.4

October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
17	-ePE	13	47	15.2	1.0	0.5	
	+iPZ			15.2	1.0	2.8	
17	+ePE	14	08	45.0	1.6	0.6	
	+ePZ			45.0	1.6	0.6	
17	+ePE	16	35	18.6	0.8	0.5	
	+eXE			07.2	1.2	0.4	
	+ePN			18.6	0.8	0.5	
	-eXN			07.0	1.6	0.5	
	+ePZ			18.5	0.8	0.6	
	+eXZ			07.0	1.8	1.0	
	+ePE			21	20	36.4	1.0
+ePZ			36.4	1.0	1.3		
18	+ePE	05	01	28.6	1.0	0.4	
	-ePZ			28.6	0.8	0.4	
18	-ePE	05	04	53.4	0.8	0.6	
	+ePZ			53.5	0.8	1.2	
18	+iPE	09	03	53.6	1.2	2.5	
	+iPZ			53.6	1.0	2.6	
19	+ePE	01	31	32.5	1.4	0.6	
	-ePZ			32.5	1.2	0.6	
19	-ePE	12	39	06.2	1.2	0.4	
	+ePZ			06.3	1.0	0.5	
19	-ePE	19	38	39.0	1.4	0.6	
	-ePN			39.4	1.2	2.0	
	+ePZ			39.3	1.2	2.0	
20-21	Extreme microseismic activity						
21	-ePE	03	56	26.4	1.6	0.8	
21	+ePE	10	40	31.7	1.0	0.3	
21	-ePE	12	03	19.2	1.4	0.4	
	+eXE			33.6	1.2	0.3	
	+ePZ			19.1	1.2	0.2	
	-eXZ			33.8	1.4	2.0	
21	+ePE	19	10	56.4	1.4	2.0	
	-ePZ			56.4	1.2	0.8	
21	+ePE	21	13	33.2	1.6	0.5	
	+eXE			56.3	1.4	2.1	
	+ePZ			13	33.2	1.6	1.4
	-eXZ			56.3	1.4	8.2	
22	-ePE	06	11	23.2	1.4	1.2	
	-ePZ			23.1	1.0	1.4	

October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
22	-ePE +iPZ	07	25	16.0	1.0	0.4
				15.8	1.0	1.0
22	+ePE +iPZ	09	35	25.1	1.2	0.6
				24.7	0.8	0.9
22	+ePE +ePZ	10	29	14.2	0.6	0.3
				14.1	0.6	1.2
22	+ePE +iPZ	10	34	02.5	1.0	0.5
				02.4	1.0	2.4
22	+ePE +ePZ	12	31	37.2	1.0	0.3
				37.2	0.8	0.7
22	-ePE +ePZ	12	36	10.8	1.0	0.6
				11.7	0.6	0.3
22	+ePE -ePN +ePZ	21	55	00.1	1.0	0.4
				01.0	1.0	0.4
				01.1	0.6	0.4
22	-ePE -ePN +iPZ	23	11	05.9	1.4	1.2
				05.6	1.6	1.3
				05.1	1.6	1.5
23	+iPE +eSE +iPZ -eSZ	01	45	36.1	1.6	2.3
				50	2.8	1.3
				45	1.6	3.2
				50	2.0	1.0
23	-ePN +ePZ	21	18	18.3	0.6	0.5
				18.1	0.6	1.6
24	-ePE +ePN +ePZ	00	03	44.1	0.6	0.4
				45.1	0.6	0.4
				44.7	0.6	0.4
24	+iPE -eSE -iPN -eSN -iPZ -eSZ	00	38	21.7	0.8	0.4
				47	1.6	1.2
				38	0.8	0.8
				47	2.2	0.5
				38	0.6	2.7
				47	3.0	0.8
24	-ePE +eXE +ePN +eXN +ePZ +eXZ	13	18	12.3	1.6	4.0
				18.2	1.6	1.4
				18	1.2	1.5
				18.1	1.8	3.5
				18	1.2	2.0
				18.3	1.6	5.0
25	-ePE	04	18	06.5	0.8	0.4
25	+ePE +ePZ	07	59	55.2	0.8	0.8
				55.2	0.8	0.5

October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
25	+ePE	13	17	04.0	1.0	0.6
	+ePZ			04.0	1.0	0.5
25	+ePE	13	34	56.1	1.0	1.0
	+ePZ			56.2	0.8	0.6
26	+ePE	00	30	43.4	1.6	0.5
26	+ePE	03	57	01.2	1.4	1.2
	+ePZ			00.9	1.0	1.8
26	+eXE	05	31	03.2	1.8	1.6
26	+ePE	06	50	58.4	1.0	0.5
	-ePZ			58.5	1.6	3.0
26	+ePE	08	03	40.4	1.0	0.8
26	+ePE	14	03	43.9	1.0	0.8
26	+ePE	21	37	40.2	1.0	0.3
	-ePZ			40.8	1.6	3.0
26	+ePE	21	43	19.8	1.2	1.0
	-eXE		46	19.2	2.0	8.5
	+eSE		53	28.8	14.2	2.3
	+ePZ		43	19.8	2.6	6.2
	-eXZ		46	19.2	2.0	8.5
	-eSZ		53	26.2	15.0	5.0
26	+ePE	22	26	33.2	1.6	1.4
26	+eXE	23	20	24.8	1.8	1.0
27	+ePE	06	58	20.2	0.4	0.3
27-28	No record					
28-29	Extreme microseismic activity					
29	+ePE	12	37	37.9	1.8	0.4
29	+ePE	20	40	48.5	0.8	0.7
29	+iPE	22	21	29.6	1.0	0.5
	+iPN			29.6	0.8	0.4
	+iPZ			29.6	1.0	3.8
29	-ePE	22	52	05.3	1.4	0.8
	-ePN			05.9	1.8	1.0
	+ePZ			05.7	1.2	0.7
30	-ePE	00	24	27.8	1.6	0.5
	+ePN			27.8	1.6	0.5
	+ePZ			27.8	1.6	2.0

October 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
30	+ePN	02	38	19.9	0.6	0.3
30	-ePE	06	48	04.8	1.0	0.6
	+ePN			04.8	1.4	0.2
	-ePZ			04.6	1.2	0.4
30	+ePE	12	47	17.3	0.8	0.3
	+ePN			17.3	1.0	0.3
	-ePZ			17.3	1.2	0.8
30	+ePE	17	26	33.4	1.6	0.7
	-ePN			33.3	1.6	1.0
	+ePZ			32.8	1.0	0.6
31	+ePE	07	40	40.5	1.4	1.0
	-ePN			40.5	1.6	1.2
	+iPZ			40.0	1.2	0.8
31	-ePE	07	46	59.5	1.6	0.5
	+ePN			59.5	1.4	0.3
	+ePZ			59.0	1.6	1.2
31	-ePE	11	40	20.4	1.4	0.8
	-ePN			20.5	1.0	0.6
	+ePZ			20.7	1.0	0.8
31	+ePE	11	52	51.7	1.4	0.5
	-eXE			55	3.4	1.6
	+eSE	12	03	33.7	6.0	1.5
	-ePN	11	52	51.0	1.6	0.7
	+eXN	12	03	55	3.8	1.0
	-eSN			34.5	5.6	1.0
	-ePZ	11	52	51.5	1.8	3.0
	+eXZ	12	03	55	4.6	3.5
	+eSZ			34.0	2.2	2.8

November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)		
		h	m	s				
01	+ePE	08	03	36.6	1.0	0.3		
	+ePZ			36.4	1.0	0.6		
01	+ePE	11	27	39.0	1.0	0.3		
	+eXE			31	2.6	2.0		
	-ePN			27	1.4	0.4		
	+eXN			31	2.6	1.8		
	-ePZ			27	1.6	1.6		
	+eXZ			31	13.8	39.0	1.6	1.6
						13.8	2.8	1.5



November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
01	+ePE	12	32	20.4	0.6	0.2
	+ePN			20.4	1.0	0.3
	-ePZ			20.4	1.0	0.4
01	-ePE	15	38	31.8	0.6	0.4
	+ePZ			31.2	1.2	0.8
01	-ePE	19	22	08.9	1.2	0.5
	+ePZ			09.1	1.2	0.4
01	-ePE	22	53	32.2	1.4	1.0
	-ePZ			32.4	1.4	1.0
01	+ePE	23	19	27.9	0.8	0.5
	-ePZ			28.2	0.8	1.4
02	-ePE	19	04	48.1	1.2	1.3
	+iPZ			48.1	1.4	2.7
03	-ePE	03	38	39.3	1.2	0.6
	+iPZ			39.2	1.0	1.0
03	+ePE	06	56	10.3	1.0	0.3
	+ePZ			10.5	1.0	1.8
03	+ePE	07	28	34.8	0.6	0.6
03	+ePE	07	42	03.3	1.0	0.3
	+ePZ			03.3	1.2	0.4
03	+ePE	18	46	04.5	1.4	0.8
	+ePZ			04.7	1.6	0.4
03	-ePE	20	12	43.9	1.2	0.8
	-iPZ			43.9	1.2	0.8
03-04	Extreme microseismic activity					
04	+ePE	04	02	27.8	1.2	0.5
04-05	Extreme microseismic activity					
05	+ePE	18	13	46.8	1.4	0.7
06	+ePE	04	03	52.5	1.0	0.4
06	+ePZ	13	34	05.3	1.0	0.4
06-07	Extreme microseismic activity					
07	-ePE	04	09	41.8	1.0	1.5
	+ePZ			42.0	1.0	1.5
07	+ePE	12	57	09.9	1.2	0.3
	+ePN			10.1	1.2	0.2
	+ePZ			09.9	0.8	0.3

November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
07	-ePE	18	47	33.6	1.0	1.7
	+iSE		58	03.5	4.0	2.0
	-ePN		47	33.7	1.0	2.2
	+iSN		58	03.3	4.0	3.4
	+ePZ		47	33.6	1.0	7.3
	+eSZ		58	03.3	3.8	1.5
07	+ePE	21	23	40.6	1.4	0.5
	+ePN			40.5	1.4	1.6
08	-iPE	01	54	27.2	1.4	1.0
	+eSE	02	05	04.0	3.2	0.7
	+iPN	01	54	27.2	1.4	1.5
	-eSN	02	05	04.4	6.0	2.2
	+iPZ	01	54	27.2	1.4	3.0
	+eSZ	02	05	04.2	3.0	1.0
08	+ePE	02	12	21.1	1.0	1.2
	-ePN			21.1	1.0	2.3
	-ePZ			21.1	1.0	4.2
08	+ePE	10	31	18.3	1.0	0.5
	+ePN			19.0	1.4	0.8
	-ePZ			19.1	1.6	1.5
08	+ePE	15	05	58.2	1.0	0.2
	+ePN			59.1	0.6	0.3
	+ePZ			58.5	0.6	1.4
08	-ePE	22	08	00.7	1.2	1.2
	-ePN			00.8	1.0	0.7
	-ePZ			00.7	1.0	2.0
09	-ePE	06	16	58.7	1.0	1.2
	+ePN			58.9	0.8	0.8
	+ePZ			59.0	0.8	0.4
09	+ePE	06	55	07.8	1.0	0.8
	+ePN			07.7	0.6	0.4
	-ePZ			08.0	0.6	0.7
09	-iPE	09	20	17.5	1.2	2.0
	-eSE		30	23.6	1.6	1.4
	+iPN		20	17.5	1.2	2.0
	+eSN		30	23.8	2.4	1.7
	+iPZ		20	17.5	1.4	7.8
	+eSZ		30	23.7	1.6	0.4
09	-ePE	09	55	46.0	0.8	0.6
	-ePN			47.0	1.2	1.0
	+ePZ			46.2	1.0	0.3
09	+ePE	15	56	06.0	1.2	0.5
	+ePN			06.0	1.2	0.2
	+ePZ			06.0	1.2	0.3

November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
09	-ePE	19	41	14.6	1.0	0.2	
	+ePN			14.5	1.0	0.2	
	+ePZ			14.6	1.0	0.7	
10	-ePE	07	21	46.3	0.8	0.5	
	-ePN			46.1	0.8	0.5	
	+ePZ			46.3	0.8	1.0	
10	-ePE	16	54	56.4	1.0	1.2	
	+ePN			56.4	0.8	0.8	
	+ePZ			56.7	1.0	1.2	
10	+ePE	18	35	36.7	1.2	0.4	
	+ePN			36.6	1.4	0.4	
	-ePZ			36.6	1.2	1.7	
10	-ePE	18	57	41.9	0.8	0.4	
	+ePN			41.9	1.0	0.2	
	+ePZ			42.4	1.0	0.4	
10	-ePE	20	06	47.1	1.0	1.0	
	+ePN			47.1	1.4	0.4	
	+ePZ			47.1	1.4	0.5	
11	-ePE	05	04	55.9	0.8	0.5	
	-ePN			55.8	1.0	0.5	
	+ePZ			55.8	0.8	0.6	
11	+iPE	07	07	03.9	0.8	0.6	
	+iPN			03.8	0.8	0.3	
	+iPZ			03.9	0.6	2.0	
11	+ePE	09	03	27.0	1.0	0.5	
	+ePN			27.0	0.6	0.2	
	-ePZ			27.2	0.8	0.7	
11-12	Extreme microseismic activity						
11	-ePE	15	37	02.5	1.2	0.7	
	+ePN			02.5	1.0	0.4	
	+ePZ			01.8	1.0	0.5	
11	-ePE	18	09	29.1	1.4	1.0	
	+iPN			29.1	1.6	0.8	
	+iPZ			29.1	1.4	1.5	
11	-ePE	20	02	57.0	0.6	0.5	
	-eXE			10.3	1.8	6.2	
	+ePN			02	57.0	1.0	0.4
	+eXN			08	09.7	1.6	2.6
	-iPZ			02	57.0	0.8	1.5
	-eXZ			08	10.2	1.4	6.3
11	-ePE	20	04	23.0	1.6	1.0	
	+ePN			23.0	1.6	1.0	
	-ePZ			23.3	1.4	1.0	

November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
11	-ePE	21	09	36.0	0.6	1.2	
	-iPN			36.0	0.8	4.6	
	+ePZ			36.0	0.8	4.7	
12-13	Extreme microseismic activity						
12	-ePE	15	53	11.5	1.8	1.3	
	-ePN			12.2	1.8	1.0	
	+ePZ			11.9	1.6	1.4	
13	-ePE	08	02	48.5	2.0	2.5	
13	+ePE	15	47	12.9	1.2	0.3	
	+eXE			45.6	1.4	0.5	
	-ePZ			47	12.9	1.4	0.2
	-eXZ			50	45.6	1.0	1.0
14	-ePE	19	53	03.4	1.4	1.0	
	+iPZ			03.5	1.4	1.6	
14	+iPE	07	50	12.0	1.6	1.0	
	-eSE	08	00	18.6	2.6	4.2	
	-iPZ	07	50	12.0	1.6	5.2	
	-eSZ	08	00	18.8	2.4	1.8	
15	+ePE	05	24	09.6	1.8	0.6	
	+ePZ			09.8	1.2	0.2	
16	-ePE	16	29	39.5	0.8	0.2	
	+ePZ			39.5	0.6	0.3	
16	+ePE	19	25	09.7	1.4	1.2	
	-ePZ			09.7	1.4	1.0	
17	-ePE	02	58	29.3	1.0	1.2	
	+ePZ			29.3	1.2	2.0	
17	+ePE	03	09	27.4	0.6	0.4	
	+ePZ			27.3	0.8	0.8	
17	+ePE	03	21	49.3	0.6	0.3	
	+ePZ			49.2	1.0	1.2	
17	-ePE	10	37	30.1	1.6	1.2	
18	-ePE	09	37	56.5	1.4	1.5	
	-ePZ			56.5	1.4	1.5	
18	+ePE	12	20	08.0	1.4	1.4	
	+ePZ			08.5	1.2	0.8	
18	+ePE	13	48	59.4	1.4	1.0	
	+ePZ			59.5	1.0	0.4	
18	+ePE	20	58	16.7	1.6	0.4	
	+ePZ			16.5	1.0	0.6	

November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
19	-iPE	09	06	02.4	1.4	0.8	
	+iPZ			02.4	1.4	2.6	
19	+ePE	13	07	25.2	1.4	1.2	
	+ePZ			25.2	1.0	0.4	
19	+ePE	15	19	10.1	1.2	1.5	
	-ePZ			09.7	0.8	0.8	
20	+ePE	04	27	11.7	0.6	0.4	
	+ePZ			12.2	1.8	1.0	
20	+eXE	11	04	26.3	1.0	1.3	
	+eXZ			27.3	1.0	0.8	
20	+ePE	11	53	37.0	1.4	0.3	
	-ePZ			36.9	1.2	2.0	
20-21	Extreme microseismic activity						
20	-ePE	18	10	08.8	0.6	0.7	
	+ePZ			08.9	1.2	1.3	
21	+ePE	02	17	45.1	2.0	4.5	
	-eSE			27	51.1	4.2	8.0
21	+ePZ	11	50	05.8	1.4	0.6	
21	+ePE	15	01	30.4	1.0	0.4	
	-eXE			02	55.8	2.0	4.0
	+ePZ			01	29.8	1.0	0.6
	+eXZ			02	55.8	2.2	2.4
21	+ePE	16	59	09.7	1.0	0.4	
22	+ePE	01	41	29.0	0.8	0.4	
22	+ePE	03	48	04.2	0.8	0.2	
22	-ePE	04	27	59.9	1.0	0.3	
22	-ePE	05	12	05.9	1.0	0.4	
22-23	Extreme microseismic activity						
22	+iPE	23	29	45.0	1.6	8.0	
	+eSE			40	10.7	3.6	2.3
23	-ePE	06	32	32.7	1.0	1.0	
23	-ePE	10	48	12.4	1.6	1.0	
23	+ePE	22	31	34.0	0.8	0.5	
	+ePN			34.2	0.6	0.4	
	+ePZ			33.8	0.6	0.4	

November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
23	+ePE	23	05	13.9	1.4	0.4
24	+iPE	04	37	03.2	1.2	1.4
	-eSE		41	27.4	2.8	1.0
	-iPN		37	03.2	1.2	0.8
	-eSN		41	27.2	2.6	0.8
	+iPZ		37	03.2	1.2	2.5
	-eSZ		41	26.6	1.6	1.0
24	-ePE	06	39	41.0	1.0	0.8
	-ePN			41.0	0.8	0.5
	+ePZ			41.5	0.8	0.4
24	+ePE	07	39	00.4	1.0	0.6
	-ePN			00.0	1.0	0.7
	+ePZ			38	59.8	1.0
24	+ePE	13	09	19.5	1.0	0.2
	+ePN			19.7	0.6	0.6
	+ePZ			19.6	0.6	0.4
24	-ePZ	21	33	47.7	1.4	1.2
24	+iPE	21	43	09.9	1.2	1.5
	+eSE		52	39.5	1.4	0.5
	-iPN		43	09.9	1.2	2.2
	-eSN		52	39.1	1.6	0.7
	-iPZ		43	09.9	1.2	9.2
	+eSZ		52	39.1	1.4	0.5
25	+ePE	04	59	32.6	1.6	1.1
	+ePN			31.9	1.6	1.5
	-ePZ			31.7	1.8	4.2
25	+ePE	06	09	55.1	1.6	0.4
25	+ePE	23	53	01.7	1.2	0.8
	+ePN			00.9	1.2	0.6
	+iPZ			01.1	1.2	1.0
26	+ePE	08	55	22.4	1.0	0.4
	+ePN			22.4	0.8	0.3
	-ePZ			22.5	0.8	0.4
26	+ePE	12	56	46.8	1.6	1.0
	+eSE	13	07	11.0	2.2	0.5
	+ePN	12	56	46.8	1.6	1.0
	-eSN	13	07	11.3	2.4	1.3
	+ePZ	12	56	46.8	1.6	5.0
	+eSZ	13	07	11.4	2.0	0.5

November 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)	
		h	m	s			
26	-ePE	14	40	02.1	1.2	0.6	
	-eSE		49	40.8	1.6	0.8	
	+iPN		40	02.1	1.2	0.6	
	+eSN		49	40.8	1.6	0.4	
	+iPZ		40	02.1	1.2	1.5	
	+eSZ		49	40.6	1.6	2.0	
26	+ePE	18	32	00.8	1.0	0.6	
	-eSE		42	44.8	1.6	0.4	
	-ePN		32	01.8	1.4	1.0	
	-eSN		42	44.8	1.8	1.2	
	-ePZ		32	01.8	1.4	1.0	
	+eSZ		42	44.8	2.2	0.4	
26	+ePE	21	30	40.0	1.2	0.4	
	-ePN			40.0	1.2	0.6	
	+ePZ			39.8	0.8	0.4	
26	-ePE	22	47	18.6	1.4	0.4	
	+ePN			18.4	1.4	0.2	
	+ePZ			18.6	1.4	0.8	
27	+ePE	13	02	33.0	1.4	0.3	
	-ePN			32.7	1.8	0.6	
	-ePZ			32.7	1.6	1.2	
27-28	Extreme microseismic activity						
28	-iPE	13	59	30.0	1.4	1.6	
	+eSE		09	36.1	1.8	1.7	
	+ePN		13	59	30.1	1.0	0.5
	+eSN		14	09	36.1	1.6	0.8
	+iPZ		13	59	30.0	1.2	4.0
	+eSZ		14	09	36.3	2.2	1.0
28	+ePE	14	25	59.8	1.4	0.6	
	-ePN			59.6	1.6	1.3	
	+ePZ			59.1	1.4	0.7	
29	-ePE	00	43	54.7	0.8	1.4	
	+ePN			54.9	0.8	1.5	
	+ePZ			54.9	0.6	0.3	
30	-ePE	17	10	27.7	1.6	0.6	
	+ePZ			27.7	1.2	2.2	
30	-ePE	23	24	46.0	0.8	0.7	
	+ePZ			45.9	0.8	0.8	

December 1969

Date	Comopnent and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
01	+ePE	20	40	50.5	0.8	0.8
	-eXE		46	30.5	2.2	2.0
	+eSE		51	15.9	2.6	3.0
	+ePZ		40	50.5	0.8	1.0
	+eXZ		46	30.7	1.6	0.8
	+eSZ		51	15.7	1.6	0.7
02	-ePE	09	04	06.8	0.6	0.9
	-ePZ			06.8	0.6	0.4
02-03	Extreme microseismic activity					
02	-ePE	15	58	20.6	1.2	0.7
	+ePZ			20.5	1.0	1.4
02	+iPE	18	10	21.6	1.6	0.8
	+eSE		20	40.0	3.0	0.3
	-iPZ		10	21.6	1.6	2.2
	-eSZ		20	40.2	4.6	1.8
02	+ePE	19	35	08.7	0.6	0.4
	-ePZ			08.7	0.6	0.4
02	+ePE	23	41	55.4	0.4	0.2
	+ePZ			55.6	0.4	0.7
03	+ePE	04	46	27.3	1.2	0.6
03	-ePE	04	49	36.5	1.4	0.4
	-ePZ			36.1	1.2	0.5
03	+ePE	09	11	58.6	1.4	0.5
	-ePZ			58.4	1.8	1.6
03	+ePE	09	28	58.6	0.6	0.5
	+ePZ			58.3	0.8	0.4
04	+ePE	15	34	01.7	0.6	0.3
	+ePN			01.7	0.6	0.4
	+ePZ			01.8	0.6	0.4
04	-ePE	22	34	18.8	1.0	1.2
	-ePN			18.8	1.0	0.7
	-ePZ			19.1	0.8	1.0
05	-ePE	05	00	59.1	0.8	1.4
05	-ePE	17	19	38.4	1.2	0.8
	-ePN			38.4	1.2	1.0
	+ePZ			38.5	1.4	3.6
05	-ePE	21	22	49.8	1.0	1.4
	+ePN			49.9	1.0	1.1
	-ePZ			49.5	0.8	1.0



December 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
06	-ePE	07	18	04.0	1.4	0.6
	+ePN			05.4	1.8	0.6
	+ePZ			04.0	1.4	0.8
06	+ePE	14	59	55.0	1.6	0.4
	-ePN			54.8	1.8	0.4
	+ePZ			54.5	1.8	0.7
06	+ePE	16	55	54.6	0.4	0.4
	+ePN			54.5	0.4	0.4
	-ePZ			54.4	0.4	0.3
07	-ePE	04	08	05.0	1.2	0.7
	+ePN			05.0	1.2	0.6
	+iPZ			04.8	1.2	2.1
07	-ePE	08	03	55.8	1.0	0.3
	-ePN			55.8	1.2	0.8
	+iPZ			55.6	1.0	0.8
07	-ePE	13	45	01.0	1.2	1.0
	+eSE			55	1.2	0.4
	+ePN			45	1.0	0.7
	-eSN			55	1.2	0.5
	+iPZ			45	1.0	1.3
	+eSZ			55	1.6	0.7
07	-ePE	20	44	58.0	0.8	0.6
	+ePN			58.5	0.8	0.6
	-ePZ			57.9	0.8	1.0
08	+ePE	03	47	27.4	2.0	2.0
08	-ePE	05	17	12.0	1.0	1.0
	+ePN			12.0	1.0	0.4
	+iPZ			12.0	1.0	2.0
08	-ePE	09	50	06.2	1.0	0.8
	-ePN			06.5	1.0	1.0
	+iPZ			06.2	0.8	2.0
08	-ePE	11	37	13.9	0.8	1.5
	-ePN			14.0	0.8	0.8
	+ePZ			13.9	0.8	0.6
08	+ePE	23	39	00.3	1.0	0.6
09	+ePE	03	38	40.0	1.2	1.0
	-ePN			40.2	1.2	0.8
	-ePZ			40.1	1.2	3.0
09	+ePE	09	06	54.2	1.0	0.7
	+ePN			54.4	0.6	0.2
	+ePZ			54.6	1.0	0.8

December 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
09	+ePE	12	37	53.2	1.0	1.6
	-ePN			53.3	1.0	2.0
	+ePZ			53.0	1.2	2.0
09	+ePE	14	01	28.4	0.8	0.6
	+ePN			28.2	1.2	0.8
	+ePZ			28.2	1.2	0.3
09-10	Extreme microseismic activity					
10	+ePE	12	53	31.5	1.0	0.3
	+iPN			31.3	0.8	0.3
	+iPZ			31.3	0.8	1.2
10-11	Extreme microseismic activity					
10	+eXE	20	06	51.7	1.4	2.5
	+eXN			51.7	1.4	3.0
	-eXZ			51.8	1.8	6.0
11	-ePE	10	43	10.1	1.2	0.3
	-ePN			09.8	1.4	0.4
	+ePZ			10.1	1.2	0.6
11	+ePE	16	11	27.0	1.0	0.4
	+ePN			26.8	1.2	0.5
	+ePZ			27.6	1.2	0.3
11	-ePE	17	08	05.5	0.8	0.4
	-ePN			05.6	0.8	0.4
	-iPZ			05.5	1.0	1.3
11	+ePE	18	47	16.8	1.0	0.2
	-ePN			17.4	1.4	0.5
	+ePZ			17.8	1.0	0.7
11	+ePE	22	14	42.7	0.8	0.6
	-ePN			42.1	0.8	1.0
	+ePZ			42.4	1.0	1.0
11	+ePE	23	09	01.4	0.6	0.3
12	-ePE	00	31	22.4	1.2	1.0
	+ePN			22.4	1.2	0.3
	+ePZ			22.3	1.2	0.8
12	+ePE	04	11	26.6	0.8	0.6
	-ePN			27.4	1.2	0.7
	+ePZ			27.5	0.8	0.6
13	-ePE	04	16	51.8	1.0	0.7
	+iPZ			52.0	0.8	1.3
13	-ePE	05	41	07.1	0.8	0.8
	+ePN			07.2	0.6	0.3
	+ePZ			07.1	0.6	1.8

December 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
13	-ePE	14	16	45.6	0.5	0.7
	+ePN			45.6	0.5	1.3
	-ePZ			45.6	0.5	0.8
13	-ePE	20	53	23.4	1.0	0.3
	-ePN			23.4	1.2	0.4
	-ePZ			23.2	1.2	0.7
13	-ePE	21	43	59.9	1.0	0.8
	+ePN			59.9	0.8	0.2
	-iPZ			59.9	0.8	1.6
14	-ePE	02	55	10.8	1.0	1.5
	-eSE	03	05	33.0	4.0	2.3
	-ePN	02	55	11.2	1.2	2.4
	+eSN	03	05	33.8	3.4	2.7
	+ePZ	02	55	11.0	1.0	9.0
14	-ePE	18	49	07.9	1.4	0.5
	-iPN			07.8	1.6	1.3
	+iPZ			07.8	1.6	2.5
15	+ePE	13	37	19.1	1.0	0.4
	+ePN			19.2	1.0	0.8
	+ePZ			19.2	0.8	0.8
15	+ePE	18	53	07.4	1.4	0.7
	+ePN			08.0	1.4	0.3
	+ePZ			07.8	1.2	0.6
16	+ePE	00	54	07.8	1.2	1.5
	-ePN			08.4	1.2	0.6
	+ePZ			08.4	1.0	1.0
16	-ePE	15	16	19.2	0.8	0.6
	-ePN			19.6	1.0	0.4
	+ePZ			19.4	1.0	2.0
16	-ePE	19	13	28.8	1.0	0.6
17	-ePE	07	42	58.8	1.4	0.7
	-ePN			59.0	1.4	2.2
	+ePZ			58.9	1.4	2.2
17	+ePE	09	15	29.1	1.2	0.4
	-ePN			28.9	1.0	0.7
	-ePZ			29.0	1.0	2.8
17	+ePE	15	19	38.2	1.0	0.4
	+ePN			38.2	1.0	0.5
	+iPZ			38.1	1.0	2.0
17	+ePE	20	53	18.6	1.0	0.8
	-iPN			18.6	0.6	0.2
	-iPZ			18.6	0.8	1.0

December 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
18	+ePE	06	22	05.6	1.4	0.6
	-eXE		23	15.6	1.6	0.4
	-ePN		22	05.6	1.4	0.8
	-eXN		23	15.4	2.4	1.6
	+ePZ		22	05.4	1.0	0.4
	-eXZ		23	15.7	2.2	2.2
18	+ePE	13	50	47.7	0.6	0.2
	+eXE		53	45.9	1.2	0.9
	-ePN		50	47.7	1.0	0.4
	+eXN		53	46.1	2.2	0.7
	+ePZ		50	47.6	1.0	0.3
	+eXZ		53	46.1	2.4	2.0
18	-ePE	19	19	38.7	1.0	0.8
	+ePN			38.6	0.8	0.2
	+iPZ			38.6	0.8	1.0
18	+ePE	22	44	19.1	0.8	0.2
	+ePN			18.9	0.8	0.6
	-ePZ			19.3	0.8	0.7
19	+ePN	08	00	35.9	1.0	0.7
	-ePZ			36.1	1.0	0.6
20	-ePE	01	32	41.4	1.6	0.8
	-ePN			41.4	1.4	0.2
	-ePZ			41.7	1.0	0.3
20	-ePE	07	02	55.4	0.8	0.4
	-ePN			55.4	1.0	0.7
	+ePZ			55.6	0.8	0.6
20	+ePE	07	08	33.9	1.2	1.2
	+ePN			35.1	1.0	0.4
	+ePZ			35.2	1.2	0.6
20	+eXE	13	27	41.1	1.6	1.5
	-eXZ			41.4	1.8	1.8
20	-ePE	22	21	01.0	1.0	0.4
	+ePZ			00.8	1.2	0.3
21	+ePE	00	41	16.1	0.8	0.3
	-ePZ			16.0	1.2	1.4
21	-ePE	17	48	22.0	0.8	0.6
	+ePZ			22.4	1.0	1.8
21	-ePE	20	52	25.3	1.0	0.6
	+ePZ			25.0	1.0	0.7
21	-ePE	22	12	11.4	1.2	1.3
	-ePZ			11.9	1.2	1.0

December 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (mm)
		h	m	s		
21	+ePE +ePZ	22	58	04.5	1.6	0.6
				04.9	1.4	0.7
22	+ePE +ePZ	00	18	21.1	0.8	0.6
				21.1	0.6	0.8
22	-ePE +ePZ	09	00	13.9	0.8	0.3
				14.0	0.8	0.3
22	-ePE +ePN +ePZ	15	05	07.8	1.0	0.5
				07.8	1.0	0.8
				07.8	1.0	1.2
22	+ePE -ePN -ePZ	16	39	01.5	1.0	0.5
				01.6	1.0	0.3
				01.6	1.2	0.6
22	+ePE +ePN +ePZ	17	05	36.6	1.0	1.3
				37.3	0.8	0.2
				36.3	1.0	0.5
22	+ePE +ePN +ePZ	17	59	17.3	1.0	0.5
				17.3	1.4	0.4
				17.0	1.4	0.6
22	-ePE -ePN +ePZ	19	07	09.9	0.8	0.6
				09.6	1.4	0.5
				09.8	1.2	1.0
22	-ePE -ePN -ePZ	21	03	41.5	1.6	0.7
				41.5	1.8	0.8
				41.6	1.8	1.8
23	-ePE -ePN +ePZ	09	23	20.3	1.2	0.8
				20.3	1.2	0.4
				20.3	1.0	1.2
23	+ePE +ePN +ePZ	13	42	48.9	1.4	1.5
				48.1	1.4	1.0
				48.1	1.4	3.0
23-24	Extreme microseismic activity					
24	+ePE -ePZ	14	39	02.1	1.0	0.3
				02.4	1.0	0.4
24-25	Extreme microseismic activity					
24	+ePE -ePZ	23	45	18.9	0.8	1.0
				19.4	1.0	1.0
25-26	Extreme microseismic activity					

December 1969

Date	Component and phase	Arrival time			Period (seconds)	Amplitude (m m)
		h	m	s		
25	+ePE	21	50	15.4	1.0	1.0
	-eXE		51	22.7	2.4	3.0
	-eSE	22	00	40.6	3.6	4.0
	+ePZ	21	50	15.4	1.0	2.0
	-eXZ		51	22.9	2.0	6.0
	-eSZ	22	00	40.9	5.5	3.5
26-28	Extreme microseismic activity					
28	+ePE	11	50	15.0	1.4	1.5
	+ePN			15.7	1.4	1.0
	+ePZ			15.7	1.8	0.4
28-29	Extreme microseismic activity					
29	+ePE	10	12	57.1	1.4	1.5
	+ePN			57.5	1.0	0.4
	+ePZ			57.6	1.4	1.0
29-30	Extreme microseismic activity					
29	+ePE	19	45	16.9	1.4	1.0
	-ePN			17.9	1.6	1.0
	+ePZ			17.1	1.2	0.6
29	+ePE	19	54	30.4	0.6	1.0
	-ePN			30.4	0.6	0.8
	+ePZ			31.1	0.6	1.0
30	+ePE	06	53	00.3	1.2	0.8
	-ePN			00.7	1.2	1.8
	+ePZ			00.7	1.0	2.6
30	-ePE	11	30	12.9	1.0	1.0
	-ePN			13.5	1.0	0.7
	+iPZ			12.9	1.0	0.8
30-31	Extreme microseismic activity					
30	+iPE	23	50	07.3	1.2	4.5
	-eSE		59	25.8	3.6	4.5
	-ePN		50	07.3	1.0	1.0
	+eSN		59	25.8	3.4	2.4
	-iPZ		50	07.3	1.2	13.2
	-eSZ		59	25.8	3.2	2.0