

THE PENNSYLVANIA STATE UNIVERSITY
MINERAL INDUSTRIES EXPERIMENT STATION
DEPARTMENT OF GEOLOGY AND GEOPHYSICS
GEOPHYSICAL LABORATORY
Project B-130



Seismograph Report XXXVII
1 January 1966 - 20 October 1966

Code - SCP

B. F. Howell, Jr., Director
E. K. Graham, Graduate Assistant
R. H. Merkel, Graduate Assistant
D. Siskind, Graduate Assistant
S. K. Yiu, Graduate Assistant

Locality: The station is located in a vault in the College of Mineral Industries storage shed. The instruments are mounted on a concrete pillar separated from the foundations and set on subsoil. The geographic coordinates are:

$\phi = 40^{\circ} 48' 35.5''$ N $\lambda = 77^{\circ} 52' 09.8''$ W H = 353 m

The geocentric coordinates are:

$\phi = 40^{\circ} 37'$ N $\lambda = 77^{\circ} 52'$ W

Height above sphere of equal volume = -1.63 km

Please address all communications to:

Geophysical Laboratory
207 Mineral Sciences Building
University Park, Pennsylvania, U.S.A., 16802

FEB 14 1967

The State College Observatory is equipped with world-wide standard VELA-Uniform instruments. These were in continuous operation throughout the period covered by this report except for interruptions to change records and to make repairs and adjustments. The instrument calibrations were checked May 14-23, 1965 and found to be:

<u>Component</u>	<u>Seismo- meter Period (sec)</u>	<u>Galvano- meter Period (sec)</u>	<u>Damping ratio</u>	<u>Sensitivity</u>
SPN	1.007	0.78	34	50,000
SPE	.997	0.76	33	50,000
SPZ	.995	0.72	42	50,000
LPN	14.87		critical	1,500
LPE	15.04		critical	1,500
LPZ	15.0		critical	1,500

The instruments were last calibrated on September 17-24, 1965. The constants were:

SPN	1.007	0.78	17	50,000
SPE	.98	0.76	17	50,000
SPZ	1.005	0.74	17	50,000
LPN	14.9	99.75	critical	1,500
LPE	15.0	100.	critical	1,500
LPZ	15.0	100.	critical	1,500

Events marked "LOCAL" and "BLAST" are short-duration, high-frequency events with P-S times of 20 seconds or less.

Most of these are quarry blasts in Pennsylvania and adjoining states. Only the larger of the many such events recorded daily are reported, and many of the reported events not so labeled are of this nature.

The time is controlled by a crystal clock which is checked daily against radio station WWV. Time signals are recorded automatically on the SPN component.

The recorded seismograms are filed with the U. S. Coast and Geodetic Survey in Washington, D. C. Copies of individual seismograms may be obtained from them. The list which follows shows the earliest observed motion of each earthquake recorded and lists the components on which this earthquake is observable. Where readable, the direction of first motion is indicated by the following symbols:

N and S = North and South

E and W = East and West

U and D = Up and Down

i means readable to 0.1 sec. on at least 1 trace

e means not readable to 0.1 sec.

RF means record failure. No seismogram exists for this earthquake on this component.

* means earthquake recorded by this component, direction of first motion not read (no implication that it is unreadable)

- means seismogram exists but body waves not strongly or not clearly recorded. Surface waves may be clearly recorded.

On October 20, 1966 the instruments were moved to a new location. Recordings beginning on Oct. 26 will be reported in our next bulletin.

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT		PER LONG		PER		
				NS	EW	Z	NS	EW	Z	
01 JAN 66	11-29-55.2	I	N	*	D	-	-	-	-	
01 JAN 66	13-24-17.6	IP	S	*	U	S	E	U		
01 JAN 66	20-27-10	E	*	*	*	-	-	-	-	LOCAL
02 JAN 66	05-01-53.7	IP	*	*	U	-	-	-	-	
02 JAN 66	12-06-56	E	*	*	*	-	-	-	-	
03 JAN 66	21-32-50.7	I	*	*	D	-	-	-	-	BLAST
03 JAN 66	21-38-17.5	I	*	*	U	-	-	-	-	LOCAL
04 JAN 66	15-42-36	E	*	*	*	-	-	-	-	LOCAL
04 JAN 66	22-07-41.8	I	N	*	U	-	-	-	-	
04 JAN 66	22-53-01	E	*	*	*	-	-	-	-	LOCAL
05 JAN 66	16-15-33	E	*	*	*	-	-	-	-	LOCAL
05 JAN 66	20-26-11	E	*	*	*	-	-	-	-	
05 JAN 66	21-50-15.2	I	*	*	D	-	-	-	-	LOCAL
05 JAN 66	22-43-46.1	I	N	W	D	-	-	-	-	LOCAL
06 JAN 66	04-26-31.8	I	*	*	U	-	-	-	-	
06 JAN 66	20-46-25	E	*	*	*	-	-	-	-	LOCAL
07 JAN 66	16-00-08.7	IP	N	W	U	-	-	-	-	
08 JAN 66	01-02-19.6	I	*	*	D	-	-	-	-	LOCAL
08 JAN 66	18-38-08	E	*	*	*	-	-	-	-	LOCAL
08 JAN 66	19-18-12	E	*	*	*	-	-	-	-	LOCAL
08 JAN 66	20-45-05.4	I	N	*	D	-	-	-	-	LOCAL
09 JAN 66	12-53-32	E	*	*	*	-	-	-	-	LOCAL
10 JAN 66	16-43-33	E	*	*	*	-	-	-	-	LOCAL
10 JAN 66	19-22-01.7	I	*	*	U	-	-	-	-	LOCAL
10 JAN 66	22-48-17.5	I	S	*	U	-	-	-	-	
11 JAN 66	01-37-42	E	*	*	*	-	-	-	-	LOCAL
11 JAN 66	19-11-12.1	I	*	*	D	-	-	-	-	
11 JAN 66	21-27-22.0	I	*	*	D	-	-	-	-	LOCAL
12 JAN 66	12-46-	E	-	-	-	*	*	*		
12 JAN 66	14-01-26	E	*	*	*	-	-	-	-	
12 JAN 66	22-05-54.8	I	*	*	U	-	-	-	-	
13 JAN 66	10-36-07.7	IP	N	*	U	-	-	-	-	
13 JAN 66	10-52-17.0	IP	S	E	U	*	*	*		
13 JAN 66	16-02-23.7	I	*	E	D	-	-	-	-	
14 JAN 66	15-34-31	E	*	*	*	-	-	-	-	
14 JAN 66	21-32-03	E	*	*	*	-	-	-	-	LOCAL
15 JAN 66	12-08-17.1	IP	*	*	U	-	-	-	-	
15 JAN 66	12-22-21	E	*	*	*	*	*	*		
15 JAN 66	16-05-27.8	I	*	*	U	-	-	-	-	LOCAL
15 JAN 66	18-44-50.0	I	N	W	U	-	-	-	-	LOCAL
15 JAN 66	19-18-30.6	I	N	W	U	-	-	-	-	LOCAL
15 JAN 66	23-38-13.7	I	*	*	U	-	-	-	-	LOCAL
16 JAN 66	03-22-53.4	IP	*	*	U	-	-	-	-	
16 JAN 66	19-00-36.2	I	N	W	D	-	-	-	-	
16 JAN 66	19-55-52.0	I	*	*	U	-	-	-	-	
17 JAN 66	15-00-40.7	I	N	W	U	-	-	-	-	LOCAL
17 JAN 66	18-44-01.5	I	S	E	U	-	-	-	-	LOCAL
17 JAN 66	23-28-41	E	*	*	*	-	-	-	-	LOCAL
18 JAN 66	15-12-57	E	*	*	*	-	-	-	-	LOCAL
18 JAN 66	19-55-26.5	I	N	W	D	-	-	-	-	BLAST

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT		PER		LONG PER		
				NS	EW	Z	NS	EW	Z	
18 JAN 66	20-10-58.3	I	*	*	U	-	-	-		
18 JAN 66	20-28-55	E	*	*	*	-	-	-		LOCAL
18 JAN 66	22-07-39	E	*	*	*	-	-	-		LOCAL
18 JAN 66	22-15-49.0	I	*	*	U	-	-	-		LOCAL
19 JAN 66	14-25-32	E	*	*	*	-	-	-		LOCAL
19 JAN 66	15-10-11.3	I	*	*	D	-	-	-		BLAST
19 JAN 66	18-45-09.0	I	N	W	D	-	-	-		BLAST
19 JAN 66	20-14-37	E	*	*	*	-	-	-		LOCAL
19 JAN 66	21-18-33	E	*	*	*	-	-	-		LOCAL
19 JAN 66	22-05-51.4	I	N	W	U	-	-	-		BLAST
19 JAN 66	23-06-19.1	I	S	W	U	-	-	-		BLAST
20 JAN 66	14-57-10.0	IP	N	*	U	-	-	-		
20 JAN 66	16-01-26	E	*	*	*	-	-	-		BLAST
20 JAN 66	16-42-26	E	*	*	*	-	-	-		
20 JAN 66	17-38-51	E	*	*	*	-	-	-		LOCAL
20 JAN 66	18-23-02	E	*	*	*	-	-	-		LOCAL
20 JAN 66	20-31-24.8	I	S	*	U	-	-	-		BLAST
20 JAN 66	21-21-09	E	*	*	*	-	-	-		LOCAL
20 JAN 66	23-00-28	E	*	*	*	-	-	-		LOCAL
21 JAN 66	00-29-12	E	*	*	*	-	-	-		
21 JAN 66	14-33-41	E	*	*	*	-	-	-		LOCAL
21 JAN 66	15-42-03	E	*	*	*	-	-	-		LOCAL
21 JAN 66	20-11-03	E	*	*	*	-	-	-		LOCAL
21 JAN 66	20-29-31	E	*	*	*	-	-	-		LOCAL
21 JAN 66	20-49-37	E	*	*	*	-	-	-		LOCAL
21 JAN 66	21-58-46.0	I	*	*	U	-	-	-		LOCAL
22 JAN 66	07-42-55.0	IP	*	*	U	-	-	-		
22 JAN 66	14-36-00.5	IP	N	*	U	*	*	*		
22 JAN 66	16-36-49	E	*	*	*	-	-	-		LOCAL
22 JAN 66	18-40-43.5	I	N	E	U	-	-	-		
22 JAN 66	20-09-15.0	I	*	*	U	-	-	-		
23 JAN 66	02-01-45.0	IP	*	*	U	*	*	*		
24 JAN 66	21-40-42	E	*	*	*	-	-	-		LOCAL
25 JAN 66	14-50-27	E	*	*	*	-	-	-		
25 JAN 66	14-54-35	E	*	*	*	-	-	-		
25 JAN 66	17-43-12	E	*	*	*	-	-	-		LOCAL
25 JAN 66	18-15-02	E	*	*	*	-	-	-		LOCAL
25 JAN 66	19-13-44	E	*	*	*	-	-	-		LOCAL
25 JAN 66	20-21-34	E	*	*	*	-	-	-		
25 JAN 66	21-16-13	E	*	*	*	-	-	-		LOCAL
25 JAN 66	22-28-05.0	I	*	*	D	-	-	-		LOCAL
26 JAN 66	17-40-12	E	*	*	*	-	-	-		LOCAL
26 JAN 66	18-03-28	E	*	*	*	-	-	-		LOCAL
26 JAN 66	20-46-26	E	*	*	*	-	-	-		LOCAL
26 JAN 66	22-08-51	E	*	*	*	-	-	-		LOCAL
27 JAN 66	15-58-40	E	*	*	RF	-	-	-		LOCAL
27 JAN 66	16-47-50	E	*	*	RF	-	-	-		LOCAL
27 JAN 66	22-26-04	E	*	RF	RF	-	-	-		LOCAL
28 JAN 66	06-37-	E	-	-	-	*	*	*		
28 JAN 66	16-09-28	E	*	RF	*	-	-	-		LOCAL

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT PER			LONG PER			
				NS	EW	Z	NS	EW	Z	
28 JAN 66	20-10-09	E	*	*	*	-	-	-		LOCAL
28 JAN 66	20-18-25.0	I	*	*	U	-	-	-		BLAST
28 JAN 66	22-49-50.0	IP	*	*	U	-	-	-		
29 JAN 66	14-46-06.9	IP	*	*	U	-	-	-		
29 JAN 66	19-15-55	E	*	*	*	-	-	-		LOCAL
29 JAN 66	20-33-39	E	*	*	*	-	-	-		LOCAL
31 JAN 66	22-23-27	E	*	*	RF	-	-	-		LOCAL
01 FEB 66	07-34-58	E	*	RF	RF	-	-	-		
02 FEB 66	19-37-28	E	*	RF	*	-	-	-		LOCAL
02 FEB 66	21-02-29	E	*	RF	*	-	-	-		LOCAL
02 FEB 66	21-29-55.2	I	S	RF	U	-	-	-		LOCAL
02 FEB 66	22-34-26	E	*	RF	*	-	-	-		LOCAL
03 FEB 66	00-57-33.8	IP	RF	RF	D	-	-	-		
03 FEB 66	06-06-57.1	IP	RF	RF	U	-	-	-		
03 FEB 66	19-28-31	E	*	RF	*	-	-	-		LOCAL
03 FEB 66	20-32-40.7	I	*	RF	D	-	-	-		LOCAL
03 FEB 66	21-16-57	E	*	RF	D	-	-	-		LOCAL
03 FEB 66	21-55-26.0	I	*	RF	U	-	-	-		LOCAL
04 FEB 66	16-59-26	E	*	*	*	-	-	-		LOCAL
04 FEB 66	19-50-36	E	*	*	*	-	-	-		LOCAL
04 FEB 66	21-49-08.8	I	*	*	D	-	-	-		LOCAL
05 FEB 66	00-53-44	E	*	*	*	-	-	-		LOCAL
05 FEB 66	02-13-10.1	IP	S	E	D	*	*	*		
05 FEB 66	03-09-22.5	I	*	*	U	-	-	-		
05 FEB 66	13-35-21	E	*	*	*	-	-	-		LOCAL
05 FEB 66	16-27-50.9	IP	S	W	U	*	*	*		
05 FEB 66	22-06-34.1	IP	S	W	U	-	-	-		
05 FEB 66	23-44-27.3	IP	N	E	U	-	-	-		
06 FEB 66	04-18-25	E	*	*	*	-	-	-		
06 FEB 66	20-30-01	E	*	*	*	-	-	-		LOCAL
06 FEB 66	23-24-03	E	*	*	*	-	-	-		LOCAL
06 FEB 66	23-30-40.6	IP	N	E	U	-	-	-		
07 FEB 66	04-43-19	E	*	*	*	*	*	*		
07 FEB 66	13-13-46	E	*	*	*	-	-	-		LOCAL
07 FEB 66	15-54-17.6	I	*	*	U	-	-	-		LOCAL
07 FEB 66	18-59-36	E	*	*	*	-	-	-		LOCAL
07 FEB 66	20-07-01	E	*	*	*	-	-	-		LOCAL
07 FEB 66	20-45-13.0	I	N	W	D	-	-	-		
07 FEB 66	23-48-	E	-	-	-	*	*	*		
08 FEB 66	16-52-54	E	*	*	*	-	-	-		LOCAL
08 FEB 66	17-00-08	E	*	*	*	-	-	-		
08 FEB 66	18-31-59	E	*	*	*	-	-	-		LOCAL
08 FEB 66	21-37-14	E	*	*	*	-	-	-		LOCAL
08 FEB 66	22-27-29.5	I	*	E	U	-	-	-		LOCAL
08 FEB 66	22-31-08.0	I	*	*	U	-	-	-		BLAST
09 FEB 66	01-01-19	E	*	*	*	*	*	*		
09 FEB 66	04-58-51	E	*	*	*	*	*	*		
09 FEB 66	07-38-26.1	IP	*	E	U	-	-	-		
09 FEB 66	14-09-56.0	I	*	*	U	-	-	-		
09 FEB 66	15-23-04.0	IP	*	*	U	-	-	-		

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT PER		LONG PER				
				NS	EW	Z	NS	EW	Z	
09 FEB 66	17-44-49	E	*	RF	*	-	-	-		
09 FEB 66	21-26-09	E	*	RF	*	-	-	-		LOCAL
09 FEB 66	21-37-08	E	*	RF	*	-	-	-		
10 FEB 66	12-47-41.0	I	*	RF	D	-	-	-		
10 FEB 66	14-39-45	E	*	RF	*	*	*	*		
10 FEB 66	16-31-12	E	*	RF	*	-	-	-		
10 FEB 66	17-57-34	E	*	RF	*	-	-	-		LOCAL
10 FEB 66	18-43-42	E	*	RF	*	-	-	-		LOCAL
10 FEB 66	20-13-15	E	*	RF	*	-	-	-		LOCAL
10 FEB 66	22-45-51	E	*	RF	*	-	-	-		
10 FEB 66	22-52-43	E	*	RF	*	-	-	-		
11 FEB 66	15-44-12	E	*	RF	*	-	-	-		LOCAL
11 FEB 66	19-18-11.2	I	RF	*	U	-	-	-		LOCAL
11 FEB 66	19-35-07.7	I	*	*	D	-	-	-		
12 FEB 66	04-32-29	E	RF	*	*	-	-	-		
12 FEB 66	19-10-55.0	I	S	W	U	-	-	-		BLAST
12 FEB 66	19-55-41	E	*	*	*	-	-	-		LOCAL
12 FEB 66	21-59-10.5	I	S	E	U	-	-	-		LOCAL
13 FEB 66	05-10-47.1	IP	S	E	U	-	-	-		
13 FEB 66	06-19-13	E	*	*	*	-	-	-		
13 FEB 66	06-34-44	EP	*	*	*	-	-	-		
13 FEB 66	06-55-07	E	*	*	*	-	-	-		
13 FEB 66	11-39-	E	-	-	-	*	*	*		
13 FEB 66	23-25-11	E	*	*	*	-	-	-		
14 FEB 66	14-49-06	E	*	*	*	-	-	-		LOCAL
14 FEB 66	21-21-19.0	I	*	*	U	-	-	-		
14 FEB 66	22-21-55.2	I	N	W	U	-	-	-		
15 FEB 66	16-08-32	E	*	*	*	-	-	-		LOCAL
15 FEB 66	21-10-13.3	I	S	W	D	-	-	-		
15 FEB 66	22-12-42	E	*	*	*	-	-	-		
16 FEB 66	03-37-14	EP	*	*	*	*	*	*		
16 FEB 66	12-08-19	E	*	*	*	-	-	-		
16 FEB 66	19-47-32	E	*	RF	*	-	-	-		LOCAL
16 FEB 66	21-48-54.0	I	*	RF	U	-	-	-		LOCAL
17 FEB 66	12-08-35.5	IP	*	RF	U	*	*	*		
17 FEB 66	20-31-26	E	*	*	*	-	-	-		LOCAL
18 FEB 66	20-40-37	E	*	*	*	-	-	-		LOCAL
18 FEB 66	21-04-30.3	I	*	*	U	-	-	-		LOCAL
18 FEB 66	22-48-45.3	I	S	W	U	-	-	-		
19 FEB 66	17-37-42	E	*	*	*	-	-	-		
19 FEB 66	20-20-12	E	*	*	*	-	-	-		
19 FEB 66	23-27-21	E	*	*	*	-	-	-		
20 FEB 66	16-43-56.1	I	S	W	U	-	-	-		
21 FEB 66	01-12-	E	-	-	-	*	*	*		
21 FEB 66	19-32-55	E	*	*	*	-	-	-		
21 FEB 66	19-51-17	E	*	*	*	-	-	-		
21 FEB 66	21-03-21	E	*	*	*	-	-	-		LOCAL
21 FEB 66	22-14-11.5	I	*	*	U	-	-	-		
22 FEB 66	05-06-32.9	IP	N	*	U	*	*	*		
22 FEB 66	18-48-13.0	I	*	*	U	-	-	-		LOCAL

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT		PER		LONG PER		
				NS	EW	Z	NS	EW	Z	
22 FEB 66	19-12-36	E	*	*	*	-	-	-		
22 FEB 66	21-20-43	E	*	*	*	-	-	-		
23 FEB 66	16-07-43	E	*	*	*	-	-	-		LOCAL
23 FEB 66	16-40-08	E	*	*	*	-	-	-		LOCAL
23 FEB 66	22-04-48.5	I	RF	*	D	-	-	-		
24 FEB 66	15-16-54	E	RF	*	*	-	-	-		
24 FEB 66	15-56-30.4	I	RF	*	U	-	-	-		LOCAL
24 FEB 66	20-01-38.3	I	RF	*	D	-	-	-		
24 FEB 66	20-10-12	E	RF	*	*	-	-	-		LOCAL
24 FEB 66	22-33-24	E	RF	*	*	-	-	-		
24 FEB 66	23-01-37.5	I	RF	*	D	-	-	-		
25 FEB 66	02-57-09	E	RF	*	*	-	-	-		
25 FEB 66	16-57-26	E	RF	*	*	-	-	-		LOCAL
25 FEB 66	19-17-44	E	*	*	*	-	-	-		
25 FEB 66	19-44-28	E	*	*	*	-	-	-		
25 FEB 66	20-24-12.3	I	*	*	*	-	-	-		BLAST
25 FEB 66	21-19-39.5	I	*	*	D	-	-	-		BLAST
25 FEB 66	23-39-	E	-	-	-	*	*	*		
26 FEB 66	00-44-47.3	IP	N	*	U	-	-	-		
26 FEB 66	08-00-10	E	*	*	*	-	-	-		
26 FEB 66	18-58-37	E	*	*	*	-	-	-		
26 FEB 66	22-25-36.7	I	*	*	D	-	-	-		
27 FEB 66	16-41-12.6	IP	*	*	U	-	-	-		
27 FEB 66	20-51-04.0	IP	*	*	U	-	-	-		
28 FEB 66	02-14-45.0	IP	*	*	U	-	-	-		
28 FEB 66	15-18-49	E	*	*	*	-	-	-		
28 FEB 66	16-17-12	E	*	*	*	-	-	-		BLAST
28 FEB 66	18-31-39.9	I	*	*	U	-	-	-		LOCAL
28 FEB 66	19-00-32	E	*	*	*	-	-	-		LOCAL
28 FEB 66	20-00-12	E	*	*	*	-	-	-		LOCAL
28 FEB 66	21-49-38.2	I	N	*	D	-	-	-		
28 FEB 66	22-41-12	E	*	*	*	-	-	-		
01 MAR 66	13-15-05.0	I	*	*	D	-	-	-		
01 MAR 66	21-54-16.0	I	*	*	U	-	-	-		LOCAL
02 MAR 66	12-02-23.7	I	*	*	U	-	-	-		
02 MAR 66	15-54-04	E	*	*	*	-	-	-		
02 MAR 66	18-11-43	E	*	*	*	-	-	-		LOCAL
03 MAR 66	03-37-34.9	IP	N	*	U	-	-	-		
03 MAR 66	15-36-54.3	I	N	W	U	-	-	-		LOCAL
03 MAR 66	16-58-28	E	*	*	*	-	-	-		LOCAL
03 MAR 66	17-32-57.6	I	N	E	U	-	-	-		BLAST
03 MAR 66	19-01-59	E	*	*	*	-	-	-		LOCAL
03 MAR 66	20-56-53.3	I	*	*	U	-	-	-		LOCAL
03 MAR 66	21-19-57.3	I	S	*	U	-	-	-		BLAST
03 MAR 66	22-34-54.7	I	N	W	D	-	-	-		BLAST
03 MAR 66	22-54-54	E	*	*	*	-	-	-		LOCAL
04 MAR 66	15-50-27.8	I	S	E	U	-	-	-		BLAST
04 MAR 66	17-17-42.5	I	N	E	D	-	-	-		LOCAL
04 MAR 66	19-42-05	E	*	*	*	-	-	-		LOCAL
04 MAR 66	20-51-35	E	*	*	*	-	-	-		LOCAL

DATE	GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON						REMARKS
			SHORT PER			LONG PER			
			NS	EW	Z	NS	EW	Z	
05 MAR 66	00-59-	E	-	-	-	*	*	*	
05 MAR 66	16-58-34	E	*	*	*	-	-	-	
05 MAR 66	17-50-39	E	*	*	*	-	-	-	
05 MAR 66	17-56-48.1	I	N	W	D	-	-	-	LOCAL
05 MAR 66	19-25-18.7	I	S	*	D	-	-	-	LOCAL
05 MAR 66	20-35-33.4	I	N	E	U	-	-	-	LOCAL
05 MAR 66	20-45-50	E	*	*	*	-	-	-	
06 MAR 66	02-42-	E	-	-	-	*	*	*	
06 MAR 66	18-58-	E	-	-	-	*	*	*	
07 MAR 66	01-28-34.3	IP	*	*	D	-	-	-	
07 MAR 66	02-01-	E	-	-	-	*	*	*	
07 MAR 66	09-26-	E	-	-	-	*	*	*	
07 MAR 66	16-27-22	E	*	*	*	-	-	-	LOCAL
07 MAR 66	18-19-26	E	*	*	*	*	*	*	
07 MAR 66	20-20-16	E	*	*	*	-	-	-	
07 MAR 66	21-47-13	E	*	*	*	-	-	-	LOCAL
07 MAR 66	21-56-	E	-	-	-	*	*	*	
07 MAR 66	22-05-13	E	*	*	*	-	-	-	
07 MAR 66	22-40-16	E	*	*	*	-	-	-	LOCAL
08 MAR 66	01-15-	E	-	-	-	*	*	*	
08 MAR 66	06-00-18.0	I	*	*	D	*	*	*	
08 MAR 66	18-18-02	E	*	*	*	-	-	-	
08 MAR 66	20-32-53.0	I	N	W	U	-	-	-	LOCAL
08 MAR 66	20-56-15.2	IP	N	E	U	*	*	*	
08 MAR 66	22-15-01.5	I	N	W	U	-	-	-	LOCAL
09 MAR 66	18-56-18.3	I	N	E	U	-	-	-	LOCAL
09 MAR 66	19-54-01	E	*	*	*	-	-	-	LOCAL
09 MAR 66	22-08-50	E	*	*	*	-	-	-	LOCAL
09 MAR 66	22-57-18.8	I	N	*	U	-	-	-	BLAST
09 MAR 66	23-33-16.2	IP	N	W	U	-	-	-	
10 MAR 66	01-18-57	E	*	*	*	-	-	-	
11 MAR 66	01-58-34.5	IP	N	*	U	-	-	-	
11 MAR 66	10-29-33.9	IP	N	E	D	-	-	-	
11 MAR 66	15-22-45	E	*	*	*	-	-	-	
12 MAR 66	16-45-44.0	IP	S	*	U	*	*	*	
12 MAR 66	20-46-20	E	*	*	*	-	-	-	LOCAL
13 MAR 66	16-34-09.7	I	*	*	U	-	-	-	
14 MAR 66	15-51-56.0	I	N	E	U	-	-	-	LOCAL
14 MAR 66	19-37-00.9	I	RF	*	D	-	-	-	LOCAL
14 MAR 66	20-00-34.3	I	RF	*	D	-	-	-	
14 MAR 66	20-47-08.7	I	RF	*	D	-	-	-	LOCAL
14 MAR 66	21-28-20.5	I	RF	*	D	-	-	-	LOCAL
14 MAR 66	22-50-35.5	I	RF	*	U	-	-	-	LOCAL
15 MAR 66	14-33-41.1	I	RF	*	U	-	-	-	BLAST
15 MAR 66	16-13-19	E	RF	*	*	-	-	-	
15 MAR 66	19-04-55.0	I	*	*	D	-	-	-	LOCAL
15 MAR 66	19-48-49.1	I	N	*	U	-	-	-	
15 MAR 66	21-23-40	E	*	*	*	-	-	-	LOCAL
15 MAR 66	21-58-06	E	*	*	*	-	-	-	
15 MAR 66	22-55-06.4	I	*	*	U	-	-	-	LOCAL

DATE	GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON						REMARKS
			SHORT PER			LONG PER			
			NS	EW	Z	NS	EW	Z	
16 MAR 66	12-37-	E	-	-	-	*	*	*	
16 MAR 66	13-38-36	E	*	*	*	-	-	-	
16 MAR 66	15-27-57	E	*	*	*	-	-	-	LOCAL
16 MAR 66	17-24-17	E	*	*	*	-	-	-	
16 MAR 66	19-44-39.0	I	N	E	D	-	-	-	
16 MAR 66	21-12-17.3	I	N	W	D	-	-	-	LOCAL
16 MAR 66	21-41-49.7	I	S	*	U	-	-	-	LOCAL
16 MAR 66	22-15-17	E	*	*	*	-	-	-	
16 MAR 66	23-15-43	E	*	*	*	-	-	-	LOCAL
17 MAR 66	11-53-12.3	IP	*	*	U	-	-	-	
17 MAR 66	16-07-57.5	IP	*	*	D	*	*	*	
17 MAR 66	18-05-44.2	I	N	W	U	-	-	-	
17 MAR 66	20-51-53.1	I	N	W	D	-	-	-	BLAST
17 MAR 66	21-41-53	E	*	*	*	-	-	-	
17 MAR 66	23-04-58.0	I	N	W	U	-	-	-	BLAST
18 MAR 66	14-55-51.5	I	S	E	D	-	-	-	
18 MAR 66	21-27-04.4	I	S	*	U	-	-	-	BLAST
18 MAR 66	21-33-19.7	I	*	*	D	-	-	-	BLAST
18 MAR 66	23-19-45.6	I	*	*	U	-	-	-	BLAST
19 MAR 66	15-16-10.4	I	*	*	U	-	-	-	BLAST
20 MAR 66	02-00-08	E	*	*	*	*	*	*	
20 MAR 66	06-02-48.0	IP	N	E	U	-	-	-	
20 MAR 66	10-20-21.5	IP	*	*	U	*	*	*	
20 MAR 66	19-03-	E	-	-	-	*	*	*	
21 MAR 66	16-28-37.5	I	S	*	U	-	-	-	LOCAL
21 MAR 66	20-56-19.3	I	*	*	U	-	-	-	
21 MAR 66	21-03-53	E	*	*	*	-	-	-	
21 MAR 66	21-42-10	E	*	*	*	-	-	-	
21 MAR 66	23-11-58.5	I	*	*	U	-	-	-	
22 MAR 66	08-33-26.3	IP	*	*	U	*	*	*	
22 MAR 66	18-01-02	E	*	*	*	-	-	-	
22 MAR 66	20-30-29.3	I	*	*	U	-	-	-	BLAST
22 MAR 66	21-12-14.5	I	*	*	D	-	-	-	BLAST
22 MAR 66	22-45-45.3	I	*	*	U	-	-	-	BLAST
23 MAR 66	00-22-	E	*	*	*	*	*	*	
23 MAR 66	05-16-55.3	IP	S	E	D	*	*	*	
23 MAR 66	16-08-03	E	*	*	*	-	-	-	
23 MAR 66	21-56-56	E	*	*	*	-	-	-	BLAST
23 MAR 66	22-04-10.5	I	*	*	D	-	-	-	BLAST
23 MAR 66	22-38-16.3	I	*	*	D	-	-	-	BLAST
23 MAR 66	23-06-25	E	*	*	*	-	-	-	BLAST
24 MAR 66	09-23-	E	-	-	-	*	*	*	
24 MAR 66	18-59-45	E	*	*	*	-	-	-	LOCAL
24 MAR 66	19-15-05	E	*	*	*	-	-	-	LOCAL
24 MAR 66	20-22-07.4	I	*	*	U	-	-	-	
24 MAR 66	20-56-57	E	*	*	*	-	-	-	LOCAL
24 MAR 66	22-04-05.3	I	*	*	U	-	-	-	LOCAL
24 MAR 66	22-32-33	E	*	*	*	-	-	-	LOCAL
25 MAR 66	15-14-58.7	I	*	*	U	-	-	-	LOCAL
25 MAR 66	15-58-25	E	*	*	*	-	-	-	LOCAL

DATE			GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON						REMARKS
					SHORT PER			LONG PER			
					NS	EW	Z	NS	EW	Z	
25 MAR 66			20-40-03.1	I	*	*	U	-	-	-	LOCAL
25 MAR 66			23-21-52.5	I	*	*	U	-	-	-	LOCAL
26 MAR 66			15-04-	E	-	-	-	*	*	*	
26 MAR 66			15-19-42	E	*	*	*	-	-	-	
26 MAR 66			16-40-42.3	I	*	*	U	-	-	-	LOCAL
26 MAR 66			19-46-07.5	I	*	*	U	-	-	-	LOCAL
26 MAR 66			21-28-20.2	I	*	*	U	-	-	-	LOCAL
26 MAR 66			21-41-56.0	I	*	*	U	-	-	-	
27 MAR 66			19-00-08.6	IP	N	*	U	*	*	U	
28 MAR 66			15-37-31.2	I	*	*	U	*	*	*	
28 MAR 66			17-27-41	E	*	*	*	RF	*	*	
28 MAR 66			17-50-32	E	*	*	*	-	-	-	LOCAL
28 MAR 66			21-31-42.5	I	*	*	D	-	-	-	BLAST
28 MAR 66			22-30-06	E	*	*	*	-	-	-	LOCAL
29 MAR 66			16-48-19	E	*	*	*	-	-	-	LOCAL
29 MAR 66			19-41-13.2	I	*	*	U	-	-	-	BLAST
29 MAR 66			20-58-04	E	*	*	*	-	-	-	LOCAL
29 MAR 66			21-08-51	E	*	*	*	-	-	-	
29 MAR 66			21-55-44.0	I	*	*	U	-	-	-	LOCAL
29 MAR 66			22-43-36	E	*	*	*	-	-	-	LOCAL
30 MAR 66			12-47-08.4	IP	*	W	U	RF	*	*	
30 MAR 66			15-02-50	E	*	*	*	-	-	-	
30 MAR 66			18-23-42.2	I	*	*	U	-	-	-	LOCAL
30 MAR 66			21-38-31.5	I	*	*	U	-	-	-	LOCAL
30 MAR 66			21-53-04.3	I	*	*	D	-	-	-	LOCAL
31 MAR 66			06-06-	E	-	-	-	*	*	*	
31 MAR 66			15-17-40	E	*	*	*	-	-	-	LOCAL
31 MAR 66			16-17-08.8	I	*	*	U	-	-	-	LOCAL
31 MAR 66			17-35-10	E	*	*	*	-	-	-	
31 MAR 66			20-13-18.9	I	*	*	U	-	-	-	BLAST
31 MAR 66			23-03-46.8	I	*	*	U	-	-	-	BLAST
01 APR 66			14-42-38	E	*	*	*	-	-	-	
01 APR 66			15-50-45	E	*	*	*	-	-	-	
02 APR 66			01-58-41.0	IP	S	E	D	*	*	*	
02 APR 66			02-17-09	E	*	*	*	-	-	-	
02 APR 66			14-42-28.0	I	*	*	U	-	-	-	LOCAL
02 APR 66			15-49-31	E	*	*	*	-	-	-	
03 APR 66			20-00-54	E	*	*	*	-	-	-	
04 APR 66			05-57-28	E	*	*	*	-	-	-	
04 APR 66			19-55-59.0	IP	N	*	U	*	*	*	
04 APR 66			20-14-07.8	I	*	*	U	-	-	-	LOCAL
04 APR 66			21-16-44	E	*	*	*	-	-	-	
05 APR 66			18-09-19.6	I	*	*	U	-	-	-	LOCAL
05 APR 66			21-36-21.1	I	*	*	U	-	-	-	LOCAL
05 APR 66			22-09-21.0	I	*	*	U	-	-	-	
05 APR 66			22-54-03	E	*	*	*	-	-	-	BLAST
06 APR 66			03-20-38	E	*	*	*	-	-	-	
06 APR 66			04-16-	E	-	-	-	*	*	*	
06 APR 66			19-29-16	E	*	*	*	-	-	-	LOCAL
06 APR 66			22-37-32.0	I	*	*	D	-	-	-	

DATE		GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON						REMARKS	
				SHORT PER			LONG PER				
				NS	EW	Z	NS	EW	Z		
06	APR	66	23-15-47	E	*	*	*	-	-	-	
06	APR	66	23-30-38	E	*	*	*	-	-	-	LOCAL
07	APR	66	02-52-59	E	*	*	*	-	-	-	LOCAL
07	APR	66	17-29-30.2	I	*	*	D	-	-	-	LOCAL
07	APR	66	18-38-25.7	I	*	*	U	-	-	-	LOCAL
07	APR	66	19-32-21	E	*	*	*	-	-	-	LOCAL
08	APR	66	01-58-30.0	IP	S	W	U	S	*	U	
08	APR	66	05-36-25	E	*	*	*	-	-	-	
08	APR	66	05-59-08	E	*	*	*	-	-	-	
08	APR	66	09-27-51	E	*	*	*	-	-	-	
08	APR	66	22-19-43.2	IP	*	*	D	*	*	*	
08	APR	66	23-57-49.8	IP	*	*	U	-	-	-	
09	APR	66	02-40-46.0	IP	N	*	U	-	-	-	
09	APR	66	02-48-31.8	I	*	*	U	*	*	*	
09	APR	66	19-00-04.5	IP	*	*	D	-	-	-	
09	APR	66	20-17-23.5	IP	*	*	D	*	*	*	
10	APR	66	10-40-08	E	*	*	*	-	-	-	
10	APR	66	16-47-34.3	IP	*	E	U	-	-	-	
10	APR	66	22-33-58.7	I	*	*	U	*	*	*	
11	APR	66	15-08-53.4	I	*	*	D	-	-	-	
11	APR	66	17-23-42.3	IP	*	*	U	*	*	*	
11	APR	66	18-03-49.5	I	*	*	U	-	-	-	BLAST
11	APR	66	20-31-04.8	I	*	*	D	-	-	-	BLAST
11	APR	66	21-11-31.5	I	*	*	U	-	-	-	BLAST
11	APR	66	23-09-08.1	IP	N	E	U	*	*	*	
12	APR	66	16-35-34	E	*	*	*	-	-	-	
12	APR	66	23-49-39.7	IP	N	*	U	*	*	U	
13	APR	66	03-47-15.5	IP	N	*	U	*	*	*	
13	APR	66	15-19-07	E	*	*	*	-	-	-	
13	APR	66	18-34-38.0	I	*	*	U	-	-	-	LOCAL
13	APR	66	19-30-08	E	*	*	*	-	-	-	
14	APR	66	06-30-03.4	I	*	*	D	-	-	-	
14	APR	66	15-55-03	E	*	*	*	-	-	-	
14	APR	66	16-23-58.2	I	*	*	U	-	-	-	LOCAL
14	APR	66	17-23-52.0	I	*	*	U	-	-	-	LOCAL
14	APR	66	20-23-37	E	*	*	*	-	-	-	
14	APR	66	21-19-03	E	*	*	*	-	-	-	
15	APR	66	13-27-04	E	*	*	*	-	-	-	
16	APR	66	01-36-05.0	IP	N	W	U	*	*	U	
16	APR	66	07-18-13	E	*	*	*	-	-	-	
16	APR	66	11-37-00.8	IP	*	*	U	-	-	-	
16	APR	66	17-08-06.7	I	N	W	D	-	-	-	LOCAL
16	APR	66	19-12-14	E	*	*	*	-	-	-	
16	APR	66	20-31-52	E	*	*	*	-	-	-	LOCAL
16	APR	66	20-50-32.5	I	N	W	U	-	-	-	LOCAL
16	APR	66	22-38-57.9	I	N	*	U	-	-	-	
16	APR	66	23-48-28	E	*	*	*	-	-	-	
17	APR	66	17-06-41	E	*	*	*	*	*	*	
18	APR	66	15-30-06.7	I	S	E	U	-	-	-	LOCAL
18	APR	66	16-57-13.8	I	*	*	U	-	-	-	LOCAL

DATE	GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON						REMARKS
			SHORT PER			LONG PER			
			NS	EW	Z	NS	EW	Z	
18 APR 66	17-51-15	E	*	*	*	-	-	-	
18 APR 66	19-46-14.3	I	*	*	D	-	-	-	LOCAL
18 APR 66	21-00-57	E	*	*	*	-	-	-	
19 APR 66	16-04-34.4	I	*	*	D	-	-	-	LOCAL
19 APR 66	17-02-21	E	*	*	*	-	-	-	
19 APR 66	17-09-23	E	*	*	*	-	-	-	LOCAL
19 APR 66	20-43-25.5	I	*	*	U	-	-	-	BLAST
19 APR 66	20-09-06	E	*	*	*	-	-	-	LOCAL
19 APR 66	23-12-17	E	*	*	*	-	-	-	LOCAL
20 APR 66	13-44-01	E	*	*	*	-	-	-	
20 APR 66	15-14-30.7	I	*	*	U	-	-	-	LOCAL
20 APR 66	15-38-50	E	*	*	*	-	-	-	LOCAL
20 APR 66	16-54-36	E	*	*	*	*	*	*	
21 APR 66	14-05-04	E	*	*	*	-	-	-	
21 APR 66	16-56-35	E	*	*	*	-	-	-	LOCAL
21 APR 66	21-11-52	E	*	*	*	-	-	-	LOCAL
21 APR 66	22-03-04	E	*	*	*	-	-	-	LOCAL
22 APR 66	00-05-03	E	*	*	*	-	-	-	
22 APR 66	03-18-32.0	I	*	*	U	*	*	*	
22 APR 66	10-24-34.5	I	*	*	D	-	-	-	
22 APR 66	15-05-15	E	*	*	*	-	-	-	
22 APR 66	23-36-05.0	IP	N	W	D	*	*	D	
23 APR 66	00-28-42	EP	*	*	*	*	*	*	
23 APR 66	07-08-40	E	*	*	*	-	-	-	
23 APR 66	09-16-00.3	IP	*	*	U	*	*	*	
23 APR 66	18-45-30.5	I	*	*	U	-	-	-	LOCAL
23 APR 66	19-43-41.5	I	*	*	U	-	-	-	LOCAL
23 APR 66	20-49-51	E	*	*	*	-	-	-	LOCAL
23 APR 66	21-54-33	E	*	*	*	-	-	-	LOCAL
23 APR 66	22-54-54	E	*	*	*	-	-	-	LOCAL
24 APR 66	19-33-08	E	*	*	*	-	-	-	LOCAL
25 APR 66	19-21-35.5	I	*	*	U	-	-	-	LOCAL
26 APR 66	00-23-30.7	I	*	*	U	-	-	-	LOCAL
26 APR 66	14-12-22.8	I	*	*	U	-	-	-	LOCAL
26 APR 66	20-10-17.9	I	*	*	D	-	-	-	LOCAL
26 APR 66	20-37-26	E	*	*	*	-	-	-	LOCAL
26 APR 66	21-46-51.0	I	*	*	U	-	-	-	LOCAL
27 APR 66	21-01-16	E	*	*	*	-	-	-	
27 APR 66	21-42-24.5	I	*	*	U	-	-	-	LOCAL
28 APR 66	17-49-	E	-	-	-	*	*	*	
29 APR 66	01-55-55.1	IP	*	*	U	*	*	*	
29 APR 66	15-10-19	E	*	*	*	-	-	-	
29 APR 66	22-52-58.7	I	*	*	U	-	-	-	LOCAL
30 APR 66	01-01-44	E	*	*	*	-	-	-	
30 APR 66	13-07-33	E	*	*	*	*	*	*	
30 APR 66	18-09-21.6	I	*	*	D	-	-	-	LOCAL
30 APR 66	21-46-24	E	*	*	*	-	-	-	
01 MAY 66	16-31-29.0	IP	S	E	D	S	*	D	
02 MAY 66	10-52-	E	-	-	-	*	*	*	
04 MAY 66	17-45-39.8	I	*	*	U	-	-	-	LOCAL

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT			LONG			
				NS	EW	Z	NS	EW	Z	
04 MAY 66	18-19-55.0	I	*	*	D	-	-	-	-	LOCAL
04 MAY 66	20-05-28.6	I	*	*	U	-	-	-	-	LOCAL
04 MAY 66	23-49-37.6	I	*	*	U	-	-	-	-	LOCAL
05 MAY 66	02-26-24.0	I	*	*	D	-	-	-	-	LOCAL
05 MAY 66	14-50-	E	-	-	-	*	*	*	*	
05 MAY 66	20-44-00.2	I	*	*	D	-	-	-	-	BLAST
05 MAY 66	22-49-15.6	I	*	*	U	-	-	-	-	BLAST
06 MAY 66	14-28-03.1	I	*	*	U	-	-	-	-	BLAST
07 MAY 66	16-43-58.5	I	RF	RF	U	RF	RF	-	-	LOCAL
07 MAY 66	18-58-07	E	RF	RF	*	RF	RF	-	-	LOCAL
09 MAY 66	00-54-52.0	IP	RF	RF	U	RF	*	*	*	
09 MAY 66	20-26-49	E	*	RF	*	-	-	-	-	LOCAL
10 MAY 66	14-53-06	E	*	RF	*	-	-	-	-	LOCAL
10 MAY 66	21-22-17	E	*	RF	*	-	-	-	-	LOCAL
10 MAY 66	21-59-23.3	I	*	RF	D	-	-	-	-	LOCAL
11 MAY 66	14-29-38.1	IP	*	RF	U	*	*	*	*	
11 MAY 66	17-13-30	E	*	*	*	-	-	-	-	LOCAL
11 MAY 66	18-47-46.7	I	*	*	D	-	-	-	-	
11 MAY 66	19-45-29	E	*	*	*	-	-	-	-	LOCAL
11 MAY 66	20-23-52	E	*	*	*	-	-	-	-	LOCAL
11 MAY 66	21-51-38.0	IP	*	*	U	*	*	*	*	
12 MAY 66	14-48-31	E	*	*	*	-	-	-	-	LOCAL
12 MAY 66	18-54-39.3	I	*	*	D	-	-	-	-	LOCAL
13 MAY 66	13-36-08.8	IP	S	*	D	*	*	*	*	
13 MAY 66	19-10-28	E	*	RF	*	-	-	-	-	LOCAL
14 MAY 66	15-36-31.3	I	*	RF	*	-	-	-	-	LOCAL
14 MAY 66	19-51-43.8	I	*	*	D	-	-	-	-	LOCAL
14 MAY 66	20-34-06.3	I	*	*	U	-	-	-	-	
15 MAY 66	14-56-45.7	IP	*	*	U	*	*	U	U	
16 MAY 66	03-05-35	E	*	*	*	-	-	-	-	
16 MAY 66	18-26-13	E	*	*	*	-	-	-	-	LOCAL
16 MAY 66	20-52-11.4	I	*	*	D	-	-	-	-	BLAST
17 MAY 66	00-45-21	E	*	*	*	-	-	-	-	LOCAL
17 MAY 66	17-10-47.5	I	N	*	D	-	-	-	-	
17 MAY 66	18-59-37	E	*	*	*	-	-	-	-	LOCAL
17 MAY 66	19-17-09	E	*	*	*	-	-	-	-	LOCAL
17 MAY 66	19-30-59.0	I	*	*	U	-	-	-	-	LOCAL
17 MAY 66	20-25-44.6	I	*	*	D	-	-	-	-	LOCAL
17 MAY 66	21-47-56.9	I	*	*	U	-	-	-	-	LOCAL
17 MAY 66	22-46-49.3	I	*	*	U	-	-	-	-	LOCAL
18 MAY 66	00-05-18.0	I	D	*	*	-	-	-	-	LOCAL
18 MAY 66	07-38-17.4	I	D	N	*	*	*	*	*	
18 MAY 66	15-02-56	E	*	*	*	-	-	-	-	LOCAL
18 MAY 66	16-44-59	E	*	*	*	-	-	-	-	
18 MAY 66	17-54-25.4	I	*	*	D	-	-	-	-	LOCAL
18 MAY 66	19-36-55.0	I	N	E	U	-	-	-	-	BLAST
18 MAY 66	22-06-35.6	I	N	W	D	-	-	-	-	BLAST
19 MAY 66	07-16-06.1	IP	N	E	U	*	*	U	U	
19 MAY 66	14-02-36.2	IP	*	E	U	*	*	*	*	
19 MAY 66	15-13-05	E	*	*	*	-	-	-	-	

			GMT OF	TYPE	OBSERVABLE ON						SCP PAGE- 12
			FIRST	OF	SHORT			LONG			
DATE			MOTION	ONSET	NS	EW	Z	NS	EW	Z	REMARKS
19 MAY 66	18-41-15.9	I	*	*	U	-	-	-			LOCAL
19 MAY 66	19-36-29.4	I	*	*	U	-	-	-			LOCAL
19 MAY 66	20-01-58.2	I	*	*	D	-	-	-			LOCAL
19 MAY 66	21-04-54	E	*	*	*	-	-	-			BLAST
20 MAY 66	06-33-22	E	*	*	*	-	-	-			
20 MAY 66	09-34-04.9	IP	*	*	U	*	*	*			
20 MAY 66	11-55-39.0	I	*	*	U	-	-	-			
21 MAY 66	16-55-19.4	I	N	*	U	-	-	-			BLAST
21 MAY 66	18-42-07	E	*	*	*	-	-	-			LOCAL
21 MAY 66	20-34-58.8	I	N	*	D	-	-	-			BLAST
21 MAY 66	21-28-30.4	I	S	E	U	-	-	-			LOCAL
22 MAY 66	07-49-18.1	IP	S	W	U	*	*	*			
22 MAY 66	18-00-01	E	*	*	*	-	-	-			LOCAL
22 MAY 66	23-19-11	E	*	*	*	-	-	-			
23 MAY 66	11-57-57.0	I	*	*	U	*	*	*			
23 MAY 66	15-40-21.3	I	*	*	U	-	-	-			LOCAL
23 MAY 66	17-17-26	E	*	*	*	-	-	-			LOCAL
23 MAY 66	18-56-27.4	I	*	*	D	-	-	-			LOCAL
23 MAY 66	22-46-33.7	I	*	*	D	-	-	-			LOCAL
24 MAY 66	05-56-12.2	I	-	E	D	-	-	-			
24 MAY 66	13-38-47	E	*	*	*	-	-	-			
24 MAY 66	20-26-08	E	*	*	*	*	*	*			
24 MAY 66	20-38-35.3	I	N	E	U	-	-	-			LOCAL
24 MAY 66	20-44-12.5	I	*	S	U	-	-	-			LOCAL
24 MAY 66	22-35-12.4	I	N	W	U	-	-	-			BLAST
25 MAY 66	08-48-20	E	*	*	*	-	-	-			
25 MAY 66	13-40-12.4	IP	*	*	D	*	*	*			
25 MAY 66	17-04-23	E	*	*	*	-	-	-			
25 MAY 66	19-39-04	E	*	*	*	-	-	-			
25 MAY 66	20-35-20.7	I	*	*	D	-	-	-			BLAST
25 MAY 66	23-12-04.0	I	S	*	U	-	-	-			
26 MAY 66	00-13-27	E	*	*	*	-	-	-			
26 MAY 66	15-39-06	E	*	*	*	-	-	-			
26 MAY 66	16-16-28.0	I	N	E	D	-	-	-			LOCAL
26 MAY 66	16-32-31.4	I	N	E	D	-	-	-			LOCAL
26 MAY 66	18-11-17.8	I	S	E	U	-	-	-			BLAST
26 MAY 66	18-46-54	E	*	*	*	-	-	-			LOCAL
26 MAY 66	19-05-39.8	I	N	*	D	-	-	-			BLAST
26 MAY 66	19-30-48.0	I	N	W	D	-	-	-			BLAST
26 MAY 66	20-22-33	E	*	*	*	-	-	-			LOCAL
26 MAY 66	20-29-13	E	*	*	*	-	-	-			BLAST
27 MAY 66	15-05-54	E	*	*	*	-	-	-			LOCAL
27 MAY 66	15-35-25	E	*	*	*	-	-	-			LOCAL
27 MAY 66	15-59-46.5	I	*	*	U	-	-	-			LOCAL
27 MAY 66	19-10-28.5	I	*	*	U	-	-	-			BLAST
27 MAY 66	19-29-10.8	I	*	*	U	-	-	-			LOCAL
27 MAY 66	20-11-44.8	I	*	*	U	-	-	-			LOCAL
27 MAY 66	20-44-06.7	I	*	*	D	-	-	-			BLAST
27 MAY 66	22-50-25.6	I	*	*	U	-	-	-			BLAST
28 MAY 66	13-55-39	E	*	*	*	-	-	-			LOCAL

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT PER			LONG PER			
				NS	EW	Z	NS	EW	Z	
28 MAY 66	18-10-56	E	*	*	*	-	-	-		LOCAL
28 MAY 66	19-01-25.5	I	*	*	U	-	-	-		LOCAL
28 MAY 66	23-00-51.8	I	*	*	U	-	*	*		
29 MAY 66	20-08-30	E	*	*	*	-	-	-		LOCAL
30 MAY 66	03-16-11.3	IP	N	*	U	*	*	*		
30 MAY 66	19-43-26	E	*	*	*	-	-	-		
30 MAY 66	20-19-15.5	I	*	*	D	-	-	-		
31 MAY 66	04-34-20	E	*	*	*	-	-	-		
31 MAY 66	06-19-50.4	I	S	W	D	-	-	-		
31 MAY 66	15-05-45	E	*	*	*	-	-	-		LOCAL
31 MAY 66	15-11-38.2	I	S	W	D	-	-	-		LOCAL
31 MAY 66	19-56-04	E	*	*	*	-	-	-		LOCAL
31 MAY 66	20-35-43.5	I	*	*	D	-	-	-		BLAST
01 JNE 66	02-44-54.3	IP	*	*	U	-	-	-		
01 JNE 66	13-42-	E	-	-	-	*	*	*		
01 JNE 66	14-13-34	E	*	*	*	-	-	-		LOCAL
01 JNE 66	17-08-56.0	I	N	W	D	-	-	-		LOCAL
01 JNE 66	18-23-54.1	I	*	*	U	-	-	-		
01 JNE 66	19-43-09.0	I	*	*	U	-	-	-		BLAST
01 JNE 66	19-55-18	E	*	*	*	-	-	-		
01 JNE 66	20-34-50.8	I	*	*	U	-	-	-		BLAST
01 JNE 66	20-53-10.1	I	*	*	D	-	-	-		BLAST
02 JNE 66	03-38-50.8	IP	N	W	D	N	W	D		
02 JNE 66	07-26-49	E	*	*	*	-	-	-		
02 JNE 66	15-10-45.0	I	*	E	U	-	-	-		
02 JNE 66	15-36-08.0	IP	S	W	U	*	*	*		
02 JNE 66	15-58-27.6	I	N	W	D	-	-	-		LOCAL
02 JNE 66	17-36-21	E	*	*	*	-	-	-		BLAST
02 JNE 66	17-44-09	E	*	*	*	-	-	-		
02 JNE 66	18-31-35	E	*	*	*	-	-	-		LOCAL
02 JNE 66	20-38-53	E	*	*	*	-	-	-		LOCAL
02 JNE 66	22-21-00.4	I	*	*	U	-	-	-		
02 JNE 66	22-57-01	E	*	*	*	-	-	-		
03 JNE 66	14-06-08.4	IP	S	E	U	*	*	*		
03 JNE 66	16-37-51.0	I	N	W	U	-	-	-		BLAST
03 JNE 66	17-02-20	E	*	*	*	-	-	-		LOCAL
03 JNE 66	19-48-26.8	I	S	*	U	-	-	-		BLAST
03 JNE 66	19-54-06	E	*	*	*	-	-	-		
03 JNE 66	20-05-07	E	*	*	*	-	-	-		LOCAL
03 JNE 66	21-07-53.2	I	S	E	U	-	-	-		BLAST
03 JNE 66	21-32-26.8	I	N	W	U	-	-	-		BLAST
03 JNE 66	23-07-39.0	I	S	W	U	-	-	-		
04 JNE 66	06-28-21.0	IP	S	W	U	-	-	-		
04 JNE 66	17-18-03	E	*	*	*	-	-	-		
04 JNE 66	18-00-38.0	I	*	W	D	-	-	-		LOCAL
04 JNE 66	18-17-05	E	*	*	*	-	-	-		
05 JNE 66	00-00-36.5	IP	*	E	U	*	*	U		
06 JNE 66	07-59-28.0	IP	S	W	U	S	W	U		
06 JNE 66	19-46-41.9	I	*	*	U	-	-	-		BLAST
06 JNE 66	20-31-24.0	I	*	*	D	-	-	-		BLAST

			GMT OF	TYPE		OBSERVABLE ON						
			FIRST	OF		SHORT			PER LONG PER			
DATE			MOTION	ONSET	NS	EW	Z	NS	EW	Z	REMARKS	
06 JNE 66	21-06-08.1	I	*	*	U	*	*	*				
06 JNE 66	22-54-04.6	I	*	*	U	-	-	-			BLAST	
07 JUN 66	01-09-17.7	IP	N	E	U	N	*	U				
07 JUN 66	12-32-41.2	I	*	*	U	-	-	-				
07 JUN 66	14-18-18.3	IP	N	E	U	*	*	*				
07 JUN 66	15-24-14.0	IP	S	*	U	*	*	*				
07 JUN 66	19-58-34.9	I	*	*	D	-	-	-				
07 JUN 66	21-20-15.9	I	*	*	U	-	-	-			BLAST	
07 JUN 66	23-33-49	E	*	*	*	-	-	-			LOCAL	
08 JUN 66	00-34-29.5	I	*	*	D	-	-	-				
08 JUN 66	11-42-37	E	*	*	*	-	-	-			LOCAL	
08 JUN 66	16-47-35.5	I	*	*	U	-	-	-				
08 JUN 66	20-07-16	E	*	*	*	-	-	-				
08 JUN 66	20-15-38	E	*	*	*	-	-	-			LOCAL	
08 JUN 66	21-36-25.6	I	*	*	D	-	-	-			LOCAL	
08 JUN 66	21-36-25.6	I	*	*	D	-	-	-			BLAST	
08 JUN 66	23-28-17	E	*	*	*	-	-	-			LOCAL	
09 JUN 66	00-34-41	E	*	*	*	-	-	-				
09 JUN 66	13-54-08	E	*	*	*	-	-	-			LOCAL	
09 JUN 66	15-24-03.5	I	*	*	U	-	-	-			LOCAL	
09 JUN 66	15-51-56.9	IP	*	*	D	-	-	-				
10 JUN 66	08-22-59.9	I	*	*	U	-	-	-				
10 JUN 66	14-21-08.6	I	S	*	U	-	-	-				
10 JUN 66	19-22-15.4	I	*	*	U	-	-	-				
11 JUN 66	02-44-04.8	IP	N	E	U	*	*	*				
11 JUN 66	18-24-16.3	I	*	*	D	-	-	-				
11 JUN 66	19-11-17.7	I	*	*	D	-	-	-			LOCAL	
11 JUN 66	21-45-05	E	*	*	*	-	-	-			LOCAL	
12 JUN 66	20-24-34.6	I	*	*	D	-	-	-			LOCAL	
13 JUN 66	08-03-	E	-	-	-	*	*	*				
13 JUN 66	13-49-14.5	I	S	E	U	-	-	-			LOCAL	
13 JUN 66	17-57-21	E	*	*	*	-	-	-			LOCAL	
13 JUN 66	18-26-52.0	IP	*	E	U	*	*	*				
13 JUN 66	19-06-49	I	*	*	U	-	-	-				
13 JUN 66	20-06-22.5	I	*	*	U	-	-	-				
13 JUN 66	20-37-42.7	I	*	*	U	-	-	-			LOCAL	
13 JUN 66	20-46-59.6	I	N	*	D	-	-	-			BLAST	
13 JUN 66	21-56-27.4	I	*	*	U	-	-	-				
13 JUN 66	22-48-17.0	I	N	S	U	-	-	-			LOCAL	
14 JUN 66	15-35-01	E	*	*	*	-	-	-			LOCAL	
14 JUN 66	18-33-07.7	I	*	*	U	-	-	-			LOCAL	
14 JUN 66	19-16-40	E	*	*	*	-	-	-			LOCAL	
14 JUN 66	19-26-35.6	I	*	*	D	-	-	-			LOCAL	
14 JUN 66	20-49-57.2	I	*	*	U	-	-	-			BLAST	
14 JUN 66	21-53-25.3	I	*	*	U	-	-	-			LOCAL	
15 JUN 66	01-18-35.0	IP	*	*	D	*	*	*				
15 JUN 66	01-51-39.4	I	*	*	U	*	*	*				
15 JUN 66	17-11-03	E	*	*	*	-	-	-			LOCAL	
15 JUN 66	18-18-14	E	*	*	*	*	*	*				
15 JUN 66	20-26-18.4	I	*	*	D	-	-	-			BLAST	

DATE			GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON						REMARKS
					SHORT PER			LONG PER			
					NS	EW	Z	NS	EW	Z	
15 JUN 66			21-30-15	E	*	*	*	-	-	-	LOCAL
16 JUN 66			10-20-44.3	I	*	*	U	*	*	*	
16 JUN 66			16-16-39.1	I	*	*	D	-	-	-	LOCAL
16 JUN 66			18-32-42	E	*	*	*	-	-	-	LOCAL
16 JUN 66			19-00-22	E	*	*	*	-	-	-	LOCAL
16 JUN 66			22-33-51.7	I	*	*	D	-	-	-	
16 JUN 66			22-49-51	E	*	*	*	-	-	-	
17 JUN 66			01-19-03	E	*	*	*	-	-	-	
17 JUN 66			01-23-31.6	I	*	*	U	-	-	-	
17 JUN 66			13-07-08.1	I	*	*	U	-	-	-	
17 JUN 66			18-04-24	E	*	*	*	-	-	-	LOCAL
17 JUN 66			19-11-15	E	*	*	*	-	-	-	
17 JUN 66			20-37-07.6	I	*	*	D	-	-	-	BLAST
17 JUN 66			21-57-44	E	*	*	*	-	-	-	LOCAL
18 JUN 66			01-14-56.4	I	*	*	D	-	-	-	
18 JUN 66			15-59-29	E	*	*	*	-	-	-	LOCAL
18 JUN 66			18-06-55.0	I	*	*	D	-	-	-	LOCAL
19 JUN 66			00-29-12	E	*	*	*	-	-	-	
19 JUN 66			08-11-21	E	*	*	*	-	-	-	
19 JUN 66			15-50-20.9	IP	N	E	U	-	-	-	
19 JUN 66			19-39-11.3	IP	N	E	U	-	-	-	
20 JUN 66			01-34-52	E	*	*	*	-	-	-	
20 JUN 66			16-01-56.2	I	S	W	U	-	-	-	LOCAL
20 JUN 66			18-37-43.3	I	N	W	U	-	-	-	LOCAL
20 JUN 66			19-35-17	E	*	*	*	-	-	-	LOCAL
20 JUN 66			21-47-11	E	*	*	*	-	-	-	LOCAL
20 JUN 66			22-28-45.0	I	S	E	U	-	-	-	LOCAL
21 JUN 66			00-44-03	E	*	*	*	-	-	-	
21 JUN 66			15-35-21	E	*	*	*	-	-	-	
21 JUN 66			18-17-27	E	*	*	*	-	-	-	
21 JUN 66			19-09-53.5	I	N	*	U	-	-	-	BLAST
21 JUN 66			20-20-49.7	I	S	*	D	-	-	-	BLAST
21 JUN 66			23-18-20.1	IP	N	W	U	-	-	-	
22 JUN 66			07-16-51.4	IP	S	*	U	*	*	*	
22 JUN 66			11-47-10.9	IP	N	W	D	-	-	-	
22 JUN 66			12-02-	E	-	-	-	*	*	*	
22 JUN 66			14-00-32	E	*	*	*	-	-	-	LOCAL
22 JUN 66			16-05-17	E	*	*	*	-	-	-	
22 JUN 66			18-54-34	E	*	*	*	-	-	-	
22 JUN 66			20-07-19.3	I	*	*	U	-	-	-	BLAST
22 JUN 66			20-47-30.8	IP	N	E	U	N	E	U	
22 JUN 66			22-58-16.5	I	*	*	U	-	-	-	LOCAL
23 JUN 66			05-14-14.9	IP	S	E	D	-	-	-	
23 JUN 66			15-24-47	E	*	*	*	-	-	-	LOCAL
23 JUN 66			17-57-03	E	*	*	*	-	-	-	
23 JUN 66			19-49-37.3	I	*	*	D	-	-	-	LOCAL
24 JUN 66			05-59-58	E	*	*	*	-	-	-	
24 JUN 66			15-33-15.3	I	N	E	D	-	-	-	LOCAL
24 JUN 66			15-45-27.3	I	N	W	D	-	-	-	LOCAL
25 JUN 66			16-00-14	E	*	*	*	-	-	-	LOCAL

			GMT OF	TYPE	OBSERVABLE ON						SCP PAGE- 16
			FIRST	OF	SHORT PER			LONG PER			
DATE			MOTION	ONSET	NS	EW	Z	NS	EW	Z	REMARKS
25 JUN 66	17-30-30.0	IP	N	E	U	-	-	-			
25 JUN 66	19-47-53.3	I	*	*	U	-	-	-			
25 JUN 66	20-06-51	E	*	*	*	-	-	-			LOCAL
27 JUN 66	10-59-27.6	I	*	*	D	*	*	*			
27 JUN 66	15-49-22.2	I	N	*	D	-	-	-			BLAST
27 JUN 66	15-57-53.2	I	N	*	U	-	-	-			BLAST
27 JUN 66	16-59-44	E	*	*	*	-	-	-			LOCAL
28 JUN 66	04-15-35.5	I	*	*	D	-	-	-			
28 JUN 66	04-26-	E	*	*	*	*	*	*			
28 JUN 66	04-37-52.0	I	*	W	U	*	*	*			
28 JUN 66	20-47-24.7	I	*	*	U	-	-	-			BLAST
28 JUN 66	21-43-13	E	*	*	*	-	-	-			LOCAL
29 JUN 66	13-32-10.0	I	*	*	D	-	-	-			LOCAL
29 JUN 66	15-40-23.0	I	*	*	U	-	-	-			LOCAL
29 JUN 66	19-28-16	E	*	*	*	-	-	-			LOCAL
29 JUN 66	20-11-09	E	*	*	*	*	*	*			
29 JUN 66	20-37-43	E	*	*	*	-	-	-			LOCAL
29 JUN 66	22-44-	E	-	-	-	*	*	*			
30 JUN 66	15-29-03	E	*	*	*	-	-	-			LOCAL
30 JUN 66	22-21-09.5	IP	N	E	U	*	E	U			
01 JUL 66	06-05-06	E	*	*	*	*	*	*			
01 JUL 66	18-45-17	E	*	*	*	-	-	-			LOCAL
01 JUL 66	20-23-28.1	I	N	E	U	-	-	-			
01 JUL 66	20-38-28	E	*	*	*	-	-	-			LOCAL
02 JUL 66	04-50-31	E	*	*	*	-	-	-			
02 JUL 66	16-11-02.6	I	*	*	U	-	-	-			BLAST
02 JUL 66	16-27-05.0	I	N	E	U	-	-	-			LOCAL
02 JUL 66	21-33-04	E	*	*	*	-	-	-			LOCAL
03 JUL 66	04-05-17.5	IP	S	E	U	*	*	*			
04 JUL 66	03-06-30.6	IP	N	E	U	*	*	*			
04 JUL 66	12-23-08.1	I	*	*	D	*	*	*			
04 JUL 66	18-44-21.1	IP	N	E	U	*	E	U			
04 JUL 66	21-14-03.2	I	*	*	U	*	*	*			
05 JUL 66	02-32-25.0	I	*	*	D	*	*	*			
05 JUL 66	21-19-35.9	I	N	E	U	-	-	-			LOCAL
06 JUL 66	00-15-31.2	I	N	*	D	-	-	-			
06 JUL 66	16-34-11	E	*	*	*	-	-	-			LOCAL
06 JUL 66	18-55-56	E	*	*	*	-	-	-			LOCAL
06 JUL 66	20-23-58.3	I	*	*	D	-	-	-			LOCAL
07 JUL 66	10-02-29	E	*	*	*	-	-	-			BLAST, LAKE SUPERIOR
07 JUL 66	15-47-39	E	*	*	*	-	-	-			
07 JUL 66	19-22-19.0	I	*	*	U	-	-	-			LOCAL
07 JUL 66	20-29-05.2	I	*	*	D	-	-	-			LOCAL
07 JUL 66	21-27-18	E	*	*	*	-	-	-			LOCAL
08 JUL 66	09-32-30	E	*	*	*	*	-	-			BLAST, LAKE SUPERIOR
08 JUL 66	08-32-30	E	*	*	*	*	-	-			BLAST, LAKE SUPERIOR
08 JUL 66	16-00-07	E	*	*	*	-	-	-			LOCAL
08 JUL 66	19-58-30	E	*	*	*	-	-	-			LOCAL
08 JUL 66	20-47-13.5	I	*	*	U	-	-	-			LOCAL
08 JUL 66	22-50-03.4	I	*	*	D	-	-	-			LOCAL

Seismology
Centre

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS	SCP	PAGE- 17
				SHORT			LONG					
				NS	EW	Z	NS	EW	Z			
09 JUL 66	08-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
09 JUL 66	09-32-30	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
09 JUL 66	17-56-16.8	I	*	*	D	-	-	-		LOCAL		
09 JUL 66	18-54-23.5	I	*	*	D	-	-	-		LOCAL		
09 JUL 66	19-06-57.6	I	*	*	D	-	-	-		LOCAL		
10 JUL 66	08-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
10 JUL 66	09-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
10 JUL 66	16-31-56.8	I	*	*	U	*	*	*				
10 JUL 66	23-08-36.0	I	*	*	U	-	-	-				
11 JUL 66	01-21-12.3	I	N	*	U	-	-	-				
11 JUL 66	08-32-29.9	I	*	*	U	-	-	-		BLAST, LAKE SUPERIOR		
11 JUL 66	09-32-30	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
11 JUL 66	15-17-26.0	I	*	*	U	-	-	-		LOCAL		
11 JUL 66	16-58-01.2	I	*	*	U	-	-	-		LOCAL		
11 JUL 66	21-12-57.5	I	*	*	U	-	-	-		LOCAL		
11 JUL 66	23-38-	E	-	-	-	*	*	*				
12 JUL 66	03-08-03	E	*	*	*	-	-	-				
12 JUL 66	08-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
12 JUL 66	09-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
12 JUL 66	18-20-24	E	*	*	*	-	-	-				
12 JUL 66	19-04-01.0	IP	S	W	U	*	*	*				
13 JUL 66	08-26-58.2	IP	N	E	D	*	*	*				
13 JUL 66	08-32-	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
13 JUL 66	09-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
14 JUL 66	00-35-13.4	I	S	*	D	-	-	-				
14 JUL 66	08-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
14 JUL 66	09-32-30	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
14 JUL 66	12-26-52.3	IP	S	E	U	*	*	*				
14 JUL 66	18-18-09.3	I	N	*	U	-	-	-				
15 JUL 66	08-05-41.8	I	*	*	U	-	-	-				
15 JUL 66	08-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
15 JUL 66	09-32-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
15 JUL 66	16-27-06	E	RF	*	*	-	-	-		LOCAL		
15 JUL 66	17-33-25	E	RF	*	*	-	-	-		LOCAL		
15 JUL 66	20-59-21	E	RF	*	*	-	-	-				
16 JUL 66	15-31-02	E	*	*	*	-	-	-		LOCAL		
16 JUL 66	15-40-20	E	*	*	*	-	-	-		LOCAL		
17 JUL 66	08-54-49	E	*	*	*	-	-	-				
18 JUL 66	09-02-29	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
18 JUL 66	10-02-29.5	I	*	*	U	-	-	-		BLAST, LAKE SUPERIOR		
18 JUL 66	15-27-33	E	*	*	*	-	-	-				
18 JUL 66	17-28-42	E	*	*	*	-	-	-				
18 JUL 66	20-31-14.2	I	S	W	U	-	-	-		LOCAL		
19 JUL 66	01-52-02.5	IP	N	E	U	*	*	*				
19 JUL 66	08-32-30	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
19 JUL 66	09-32-30	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
19 JUL 66	19-30-51.5	IP	N	W	U	*	*	U				
20 JUL 66	08-32-30	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		
20 JUL 66	09-13-13	E	*	*	*	-	-	-				
20 JUL 66	09-32-30	E	*	*	*	-	-	-		BLAST, LAKE SUPERIOR		

			GMT OF	TYPE	OBSERVABLE ON						SCP PAGE- 18
			FIRST	OF	SHORT PER			LONG PER			
DATE			MOTION	ONSET	NS	EW	Z	NS	EW	Z	REMARKS
21 JUL 66	08-32-30	E	*	*	*	-	-	-			BLAST, LAKE SUPERIOR
21 JUL 66	09-12-38	E	*	*	*	-	-	-			
21 JUL 66	09-32-30	E	*	*	*	-	-	-			BLAST, LAKE SUPERIOR
21 JUL 66	10-13-08	E	*	*	*	-	-	-			
21 JUL 66	14-37-40.8	I	*	*	D	-	-	-			
22 JUL 66	08-32-29	E	*	*	*	-	-	-			BLAST, LAKE SUPERIOR
22 JUL 66	09-32-30	E	*	*	*	-	-	-			BLAST, LAKE SUPERIOR
22 JUL 66	20-04-09	E	*	*	*	-	-	-			LOCAL
23 JUL 66	03-48-16.9	IP	N	E	U	-	-	-			
23 JUL 66	08-32-30	E	*	*	*	-	-	-			BLAST, LAKE SUPERIOR
23 JUL 66	09-32-30	E	*	*	*	-	-	-			BLAST, LAKE SUPERIOR
30 JUL 66	18-22-38	E	RF	*	*	-	-	-			
30 JUL 66	18-46-19.6	I	RF	*	U	-	-	-			LOCAL
31 JUL 66	20-23-17.2	I	*	*	U	-	-	-			LOCAL
31 JUL 66	21-45-50	E	*	*	*	-	-	-			LOCAL
01 AUG 66	06-36-47.3	I	*	*	D	-	-	-			
01 AUG 66	21-20-03.9	IP	*	*	U	*	*	*			
02 AUG 66	14-37-36	E	*	*	*	-	-	-			
02 AUG 66	15-44-40.4	I	N	W	U	-	-	-			LOCAL
02 AUG 66	16-52-14	E	*	*	*	-	-	-			
02 AUG 66	17-27-51.8	I	S	*	U	-	-	-			LOCAL
03 AUG 66	14-56-07.5	I	S	*	U	-	-	-			LOCAL
03 AUG 66	17-24-22	E	*	*	*	-	-	-			
03 AUG 66	17-52-40.6	I	N	E	D	-	-	-			
04 AUG 66	15-33-25.9	I	N	*	U	-	-	-			LOCAL
04 AUG 66	20-37-00.5	I	S	E	U	-	-	-			LOCAL
05 AUG 66	05-29-	E	-	-	-	*	*	*			
05 AUG 66	21-10-22.5	I	N	*	U	-	-	-			LOCAL
05 AUG 66	23-23-09.5	I	S	*	U	-	-	-			LOCAL
06 AUG 66	14-47-09.5	IP	S	W	D	-	-	-			
06 AUG 66	14-56-10	E	*	*	*	-	-	-			
06 AUG 66	21-15-30.5	IP	N	W	U	-	-	-			
07 AUG 66	02-23-20.6	IP	N	W	D	N	W	D			
07 AUG 66	14-20-04.5	IP	*	*	D	-	-	-			
08 AUG 66	08-09-23.4	I	*	*	D	*	*	D			
08 AUG 66	10-08-25.7	IP	S	E	D	-	-	-			
08 AUG 66	20-15-33.2	I	*	*	D	-	-	-			
09 AUG 66	13-40-22	E	*	*	*	-	-	-			LOCAL
09 AUG 66	19-20-00.2	I	N	E	U	-	-	-			LOCAL
09 AUG 66	20-33-04.9	I	N	*	U	-	-	-			LOCAL
09 AUG 66	21-34-13.0	I	*	S	U	-	-	-			LOCAL
10 AUG 66	13-29-	E	-	-	-	*	*	*			
10 AUG 66	14-43-53	E	*	*	*	-	-	-			
10 AUG 66	16-50-09.3	I	N	S	D	-	-	-			LOCAL
10 AUG 66	17-24-29	E	*	*	*	-	-	-			
10 AUG 66	21-31-08.4	I	S	E	U	-	-	-			LOCAL
11 AUG 66	06-02-	E	-	-	-	*	*	*			
11 AUG 66	10-55-59.9	IP	*	*	U	*	*	*			
11 AUG 66	16-57-55	E	*	*	*	-	-	-			LOCAL
11 AUG 66	22-04-52	E	*	*	*	-	-	-			

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				SHORT		PER		LONG PER		
				NS	EW	Z	NS	EW	Z	
12 AUG 66	00-18-42		E	*	*	*	*	*	*	
13 AUG 66	18-41-06.3		I	N	*	U	-	-	-	LOCAL
14 AUG 66	04-56-27		E	*	*	*	-	-	-	
15 AUG 66	03-04-30.5		IP	N	*	D	-	-	-	
15 AUG 66	13-44-41.9		IP	S	E	U	*	*	*	
15 AUG 66	17-48-38		E	*	*	*	-	-	-	
16 AUG 66	02-23-33.0		I	*	*	U	-	-	-	
16 AUG 66	04-59-39.6		I	*	*	U	*	*	U	
16 AUG 66	18-08-26.9		IP	N	*	U	*	*	U	
16 AUG 66	19-48-17		E	*	*	*	-	-	-	
17 AUG 66	21-09-32.5		IP	N	E	U	*	*	*	
18 AUG 66	06-48-52.0		I	*	*	U	-	-	-	
18 AUG 66	09-30-17		E	*	*	*	*	*	*	
18 AUG 66	10-39-09.3		IP	N	E	U	N	E	U	
18 AUG 66	14-52-58		E	*	*	*	*	*	*	
19 AUG 66	03-18-15		E	*	*	*	*	*	*	
19 AUG 66	11-33-04.0		IP	*	*	U	-	-	-	
19 AUG 66	12-34-34.2		IP	*	*	U	*	*	U	
19 AUG 66	14-06-50.8		I	*	*	U	-	-	-	
20 AUG 66	07-51-23.7		IP	S	W	D	-	-	-	
20 AUG 66	09-45-12.2		IP	N	E	U	-	-	-	
20 AUG 66	12-11-33.3		IP	*	W	U	*	*	*	
20 AUG 66	12-37-24		E	*	*	*	-	-	-	
21 AUG 66	01-42-21		E	*	*	*	-	-	-	
21 AUG 66	05-19-21.1		I	*	*	U	-	-	-	
22 AUG 66	14-31-26		E	*	*	*	-	-	-	LOCAL
22 AUG 66	17-27-20.3		I	*	*	U	-	-	-	LOCAL
22 AUG 66	18-00-58		E	*	*	*	*	*	*	
22 AUG 66	19-42-45		E	*	*	*	-	-	-	
22 AUG 66	20-30-54		E	*	*	*	-	-	-	BLAST
23 AUG 66	20-50-05		E	*	*	*	-	-	-	LOCAL
24 AUG 66	07-27-21.5		IP	N	E	D	*	*	*	
24 AUG 66	17-31-11		E	*	*	*	-	-	-	
24 AUG 66	19-41-47.4		I	*	*	U	-	-	-	
25 AUG 66	10-36-04		E	*	*	*	-	-	-	
25 AUG 66	23-29-10.8		IP	N	E	U	-	-	-	
26 AUG 66	10-04-		E	-	-	-	*	*	*	
26 AUG 66	10-28-36.2		I	*	*	U	*	*	*	
26 AUG 66	17-38-05.4		I	*	*	U	-	-	-	
26 AUG 66	20-03-20.6		I	S	*	U	-	-	-	
27 AUG 66	00-21-39.5		I	*	*	D	-	-	-	
28 AUG 66	07-48-15.3		IP	S	W	U	*	*	*	
28 AUG 66	10-20-56.2		IP	S	W	D	-	-	-	
29 AUG 66	18-38-04.7		I	*	*	U	-	-	-	
29 AUG 66	22-39-12.0		I	*	*	U	-	-	-	
30 AUG 66	20-29-13.1		IP	N	W	D	*	*	*	
30 AUG 66	23-43-53.7		IP	N	W	U	*	*	*	
01 SEP 66	14-34-29.6		I	*	*	U	-	-	-	
01 SEP 66	17-05-15		E	*	*	*	-	-	-	
01 SEP 66	23-27-31.9		IP	N	E	D	-	-	-	

DATE	GMT OF FIRST MOTION		TYPE OF ONSET	OBSERVABLE ON						REMARKS
				NS	EW	Z	NS	EW	Z	
02 SEP 66	08-08-11		E	*	*	*	*	*	*	
03 SEP 66	16-31-38		E	*	*	*	*	*	*	
03 SEP 66	16-31-38		E	*	*	*	*	*	*	
04 SEP 66	05-47-46.6		I	*	*	U	-	-	-	
04 SEP 66	22-16-09		E	*	*	*	*	*	*	
05 SEP 66	08-59-10.7		I	*	*	U	-	-	-	
06 SEP 66	20-29-09.0		I	*	*	D	-	-	-	LOCAL
06 SEP 66	21-32-39.3		I	*	*	U	-	-	-	LOCAL
07 SEP 66	20-25-20		E	*	*	*	-	-	-	
07 SEP 66	20-39-53		E	*	*	*	-	-	-	LOCAL
08 SEP 66	21-34-52.0		IP	*	*	U	*	*	U	
09 SEP 66	02-44-18.6		I	S	E	D	-	-	-	
09 SEP 66	18-52-		E	-	-	-	*	*	*	
09 SEP 66	20-26-10		E	*	*	*	-	-	-	LOCAL
10 SEP 66	15-24-13.4		I	*	*	U	-	-	-	LOCAL
10 SEP 66	22-03-52.5		I	*	*	U	*	*	*	
11 SEP 66	01-58-10		E	*	*	*	*	*	*	
11 SEP 66	17-44-36.7		IP	N	W	U	*	*	U	
12 SEP 66	11-48-27.0		I	*	*	U	*	*	U	
12 SEP 66	16-47-29.4		IP	*	*	D	*	*	D	
12 SEP 66	20-47-04		E	*	*	*	-	-	-	
13 SEP 66	17-35-03		E	*	*	*	-	-	-	
13 SEP 66	18-43-01		E	*	*	*	-	-	-	QUARRY BLAST
13 SEP 66	20-32-33.1		I	*	*	U	-	-	-	QUARRY BLAST
14 SEP 66	23-36-30		E	*	*	*	*	*	*	
15 SEP 66	08-10-08.3		IP	S	E	U	-	-	-	
15 SEP 66	12-10-		E	-	-	-	*	*	*	
16 SEP 66	13-32-06		E	*	*	*	-	-	-	
17 SEP 66	18-22-29		E	*	*	*	-	-	-	
17 SEP 66	23-30-20.8		IP	N	E	U	-	-	-	
18 SEP 66	05-35-20		E	*	*	*	-	-	-	
18 SEP 66	20-57-32.1		IP	S	E	U	-	-	-	
19 SEP 66	21-56-22.0		I	S	W	U	-	-	-	QUARRY BLAST
19 SEP 66	22-08-52.6		I	S	E	U	-	-	-	QUARRY BLAST
20 SEP 66	22-51-17.7		I	*	*	D	-	-	-	LOCAL
21 SEP 66	18-26-01		E	*	*	*	-	-	-	
21 SEP 66	20-29-02.9		I	*	*	D	-	-	-	QUARRY BLAST
22 SEP 66	19-03-25.5		I	N	E	D	-	-	-	
22 SEP 66	19-09-39.9		I	N	W	D	*	*	*	
26 SEPT 66	22-47-20		E	*	*	*	-	-	-	LOCAL BLAST
27 SEPT 66	18-13-20		E	*	*	*	-	-	-	
28 SEPT 66	14-18-13.9		I	*	*	U	*	*	*	
28 SEPT 66	15-45-56		E	*	*	*	-	-	-	
28 SEPT 66	15-52-57		E	*	*	*	-	-	-	
29 SEPT 66	15-14-01.8		I	*	*	U	-	-	-	
29 SEPT 66	18-59-44		E	*	*	*	-	-	-	
30 SEPT 66	00-15-38		E	*	*	*	-	-	-	
01 OCT 66	14-50-14		E	*	*	*	-	-	-	
01 OCT 66	15-02-33		E	*	*	*	-	-	-	
02 OCT 66	07-34-01.5		IP	N	S	D	*	*	*	

DATE	GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON									REMARKS
			SHORT PER			LONG PER						
			NS	EW	Z	NS	EW	Z				
02 OCT 66	11-33-21.1	I	N	*	U	-	-	-				
02 OCT 66	12-18-28	E	*	*	*	-	-	-				
03 OCT 66	02-35-07	E	*	*	*	-	-	-				
04 OCT 66	19-59-18.4	I	*	*	U	-	-	-				
05 OCT 66	21-10-52	E	*	*	*	-	-	-				
07 OCT 66	16-13-42.6	IP	N	*	U	*	*	*				
07 OCT 66	19-38-32	E	*	*	*	-	-	-				
07 OCT 66	21-04-21.8	IP	N	*	D	-	-	-				
08 OCT 66	14-00-51	E	*	*	*	-	-	-				
08 OCT 66	17-54-19.1	I	N	W	D	-	-	-				
09 OCT 66	08-16-41	E	*	*	*	*	*	*				
09 OCT 66	08-26-26	E	*	*	*	*	*	*				
10 OCT 66	05-50-22.0	I	N	*	U	-	-	-				
10 OCT 66	06-44-16	E	*	*	*	*	*	*				
11 OCT 66	05-50-22.0	I	N	*	U	-	-	-				
11 OCT 66	06-44-16	E	*	*	*	*	*	*				
12 OCT 66	00-26-16.0	IP	N	*	D	*	*	D				
12 OCT 66	20-26-18.0	IP	N	E	D	*	*	*				
13 OCT 66	02-24-01.5	IP	*	E	U	*	*	*				
13 OCT 66	15-53-51.8	IP	S	RF	D	-	-	-				
13 OCT 66	18-55-13.7	I	*	RF	U	*	*	*				
14 OCT 66	01-54-34.2	I	*	RF	U	*	*	*				
16 OCT 66	06-58-47.0	I	N	*	U	-	-	-				
17 OCT 66	11-10-	E	-	-	-	*	*	*				
17 OCT 66	21-50-58.0	IP	N	RF	U	N	W	U				
17 OCT 66	23-13-22.3	I	N	RF	U	*	*	*				
17 OCT 66	23-14-38.5	I	N	RF	U	*	*	*				
17 OCT 66	23-55-49.8	I	N	RF	U	*	*	*				
19 OCT 66	08-12-47.1	IP	N	RF	U	*	*	U				

We acknowledge with thanks receipt of the following bulletins and other publications between 18 January 1966 and 30 November 1966:

- Ankara, Turkey, Weekly readings, 48-52, 1965; Nos. 1-46, 1966.
- Apia, Samoa, Mag. results for 1961.
- Australia, Dept. of Nat'l. Dev., Obs. Rep. Vol. 13, 9/65 to 12/65; Vol. 14, 1/66 to 6/66; Seis. Bull. 1958-59.
- Barcelona, Spain, Seis. Bull. No. 49, 1965.
- Beni-Abbes, France, Seis. Bull., Nov, 1965; Apr, 1966; Bull. Mensuel 2, 1964.
- Bergen, Norway, Seis. Bull. Sept-Dec, 1961; Sept, 1962; Dec, 1963; Om Nøyaktigheten av gravimetrisk dybdebestemmelse av et myrområde i Fyllingsdalen Ved Bergen. Refraksjons-seismiske undersøkelser på Jaæren.
- Berkley, Calif., Seis. Bull. Vols. 33(2) to 34(1).
- Caracas, Venezuela, Bull. Seis. Mensual, July-Dec, 1965; Jan-Apr, 1966.
- Cine, Turkey, Weekly readings, 48, 1965; 1-46, 1966.
- Copenhagen, Denmark, Seis. Sta. Bull. July-Dec, 1961.
- Corvallis, Oregon, Seis. Bull. No. 7, Jan-Mar, 1965.
- Fayetteville, Ark., Seis. Bull. Vols. XIII and XIV.
- Greece, Seis. Sta. Network, Prel. Bull., Sept-Dec, 1965; Jan-Mar, 1966; May-July, 1966.
- Istanbul, Turkey, Weekly readings, 1/66 - 47/66; 49/66; 51/66; 52/66.
- Japan Meteo. Ag., Seis. Bull., July 1964 - June 1965.
- Jerusalem, Israel, Prov. Rds. Bull. 110-133; Seis. Bull. Jan-Aug, 1965.
- Kakioka, Japan, Rep. of the Geomag. and Geoelect. Obs. 1957-59; 1960-1964.
- Kandilli Obs., Turkey, Prel. Seis. Rds. 1/66; 3-5/66; 7-40/66.
- Kastamonu, Turkey, Weekly readings, 48-52, 1965; 1-46, 1966.
- Kobe, Japan, Bull. Marine Obs. No. 176, Mar, 1966; Seis. Bull. July-Dec, 1964; Jan-Apr, 1965.
- Kongsberg, Norway, Seis. Bull. 9-62; 12-63.
- LaPaz, Bolivia, Seis. Bull. Jan-Mar, 1965; Prel. Rds. 8-66.
- Lisbon, Portugal, Seis. Bull., 1965 (3-6); 1966 (1-2).
- Ljubljana, Yugoslavia, Prel. Seis. Bull., Jan-Dec, 1965.
- Lwiro, Katana, Afrique Centrale, Prel. Bull., Jan-Oct, 1966; Seis. Sta. Bull., Vol. 9-10, 7-61 to 6-62.
- Madison, Wisconsin, Seis. Bull. Jan-Dec, 1963; Geophy. Polar Res. Seis. Bull., Jan-May, 1963.
- Manila, Philippines, July-Nov, 1965; Jan-June, 1966.
- Mexico, Inst. Geofis. Seis. Servicio, Aug-Dec, 1965; Jan-June, 1966.
- Morgantown, W. Va., Seis. Rpt. XXIX, XXX.
- Montreal, Canada, Bull. of Geophys. No. 18, May, 1966.
- Moscow, Russia, Seis. Bull. Nos. 3-6, Mar-June, 1965.
- Ottawa, Canada, Dom. Obs., Seis. Bull. Jul-Dec, 1963; Jan-Dec, 1964.
- Padova, Italy, Publication N 97; Pub. 84.
- Pasadena, Calif., Prel. Bull. No. 158-168.
- Praha, Czechoslovakia, Seis. Bull., 1962.

Raman, Turkey, Weekly readings 48-52, 1965; 1-45, 1966.
Rome, Italy, Seis. Bull. Def., Sept-Dec, 1964; Jan, 1965;
Salt Lake City, Utah, Seis. Bull., July-Sept, 1964.
Sapporo, Japan, Series VII(Geophys.) Vol. II, No. 3, Mar,
1966.
Strasbourg, France, Annales Inst. Phys. Globe 1959, 1960
Bull. Mensuel, Oct, 1963 - Feb, 1964; Bull. Seis.,
Oct-Nov, 1965, Jan-Apr, 1966.
Stuttgart, Germany, Seis. Bull., 1965.
Taiwan, China, Weather Bureau, Seis. Bull. Vol. 10 (1-4);
11(1-3), 12(2-4).
Toyko, Japan, Bull. of Internat'l. Inst. Seis. and Earthquake
Engr. Vol. 2, 1965; Records of Oceanographic Works, Vol.
8, No. 2, Feb, 1966; Jn. of Geomag. and Geoelect. Vol. 18,
No. 1, 1966.
Trieste, Italy, Bull. of Geofisica, Vol. VIII, June, 1966.
U.S.C.G.S., Antarctic Seis. Bull., Oct, 1965; Mar, 1966;
South Pole, Apr-Dec, 1961; Seis. Bull. 294-300 Jun-Dec,
1965; Prelim. det. epicenters 93-65 to 100-65; 1-66 to
35-66; 37-65 to 75-66; Earthquake data report 76-66 to
80-66; Summary of Prelim. Sets, Jan-July, 1964; Sept-
Feb, 1965; Apr-Sept, 1965; Nov-June, 1966; Aug, 1966.
Wellington, New Zealand, Seis. Report, E-142, 1961.

The Geophysical Laboratory
Department of Geology and Geophysics
201-218 Mineral Sciences Building
University Park, Pa., U.S.A., 16802
B. F. Howell, Jr., Director
30 November 1966

THE PENNSYLVANIA STATE UNIVERSITY
MINERAL INDUSTRIES EXPERIMENT STATION
DEPARTMENT OF GEOLOGY AND GEOPHYSICS
GEOPHYSICAL LABORATORY
Project B-130

Seismograph Report XXXVIII

26 October 1966 - 30 April 1967

Code - SCP

B. F. Howell, Jr., Director

G. D. Cline Graduate Assistant

C. A. Newton, Graduate Assistant

W. E. Rankin, Graduate Assistant

S. K. Yiu, Graduate Assistant

Locality: The station is located in the basement of Deike Building. The instruments are mounted on concrete pillar separated from the foundations and set on bedrock (limestone). The geographic coordinates are:

$\phi = 40^{\circ} 47.65'$ N $= 77^{\circ} 51.95'$ W H = +352 m

The geocentric coordinates are:

$\phi = 40^{\circ} 36'$ N $= 77^{\circ} 52'$ W H = +1 m

Please address all communications to:

Geophysical Laboratory
207 Mineral Sciences Building
University Park, Pennsylvania, U.S.A., 16802

JUN 12 1967

The State College Observatory is equipped with world-wide standard VELA-Uniform instruments. These were in continuous operation throughout the period covered by this report except for interruptions to change records and to make repairs and adjustments. The instruments were last calibrated on November 16, 1966. The constants were:

<u>Component</u>	<u>Seismo- meter Period (sec)</u>	<u>Galvano- meter Period (sec)</u>	<u>Damping ratio</u>	<u>Sensitivity</u>
SPN	1.0	0.79	17	50,000
SPE	1.0	0.78	17	50,000
SPZ	1.0	0.75	17	50,000
LPN	15.0	100.	critical	3,000
LPE	15.0	100.	critical	3,000
LPZ	15.0	100.	critical	3,000

On January 6, 1967 the long period sensitivities were reduced to 1500.

Events marked "LOCAL" and "BLAST" are short-duration, high-frequency events with P-S times of 20 seconds or less. Most of these are quarry blasts in Pennsylvania and adjoining states. Only the larger of the many such events recorded daily are reported, and many of the reported events not so labeled are of this nature.

The time is controlled by a crystal clock which is checked daily against radio station WWV. Time signals are recorded automatically on the SPN component.

The recorded seismograms are filed with the U. S. Coast and Geodetic Survey in Washington, D. C. Copies of individual seismograms may be obtained from them. The list which follows shows the earliest observed motion of each earthquake recorded and lists the components on which this earthquake is observable. Where readable, the direction of first motion is indicated by the following symbols:

N and S = North and South

E and W = East and West

U and D = Up and Down

i means readable to 0.1 sec. on at least 1 trace

e means not readable to 0.1 sec.

RF means record failure. No seismogram exists for this earthquake on this component.

* means earthquake recorded by this component, direction of first motion not read (no implication that it is unreadable)

- means seismogram exists but body waves not strongly or not clearly recorded. Surface waves may be clearly recorded.

DATE	GMT OF FIRST MOTION	TYPE OF ONSET	OBSERVABLE ON SHORT PER LONG PER									REMARKS	SCP
			NS	EW	Z	NS	EW	Z					
27 OCT 66	06-08-18.9	IP	RF	E	D	RF	RF	*					
27 OCT 66	06-37-18	E	RF	*	*	RF	RF	RF					
27 OCT 66	14-48-	E	RF	-	-	RF	RF	*					
28 OCT 66	23-13-	E	RF	RF	RF	RF	RF	*					
29 OCT 66	03-14-	E	RF	RF	RF	RF	RF	*					
29 OCT 66	15-51-	E	-	-	-	RF	RF	*					
03 NOV 66	11-42-27.7	IP	*	*	U	RF	RF	*					
03 NOV 66	16-29-38.5	IP	*	E	D	RF	RF	*					
05 NOV 66	11-58-59.3	IP	S	E	D	-	-	-					
05 NOV 66	13-00-37.3	IP	N	E	D	*	*	*					
05 NOV 66	18-15-16	E	*	*	*	-	-	-					
05 NOV 66	19-12-	E	-	-	-	*	*	*					
05 NOV 66	23-15-53.0	I	S	E	U	-	-	-					
13 NOV 66	02-55-32.2	IP	N	E	D	*	*	*					
13 NOV 66	14-31-10.7	I	*	*	U	-	-	-					
14 NOV 66	13-06-27.6	I	RF	*	U	-	-	-					
15 NOV 66	21-31-34.6	I	S	E	U	-	-	-					
18 NOV 66	09-24-13.5	I	*	*	U	*	*	*					
18 NOV 66	19-13-	E	-	-	-	*	*	*					
18 NOV 66	19-57-	E	-	-	-	*	*	*					
18 NOV 66	21-32-42.2	I	S	W	U	-	-	-			LOCAL BLAST		
19 NOV 66	07-24-23.6	IP	*	E	U	*	*	*					
19 NOV 66	21-27-46.5	I	S	W	U	-	-	-			LOCAL BLAST		
20 NOV 66	09-40-29.8	IP	N	E	U	-	-	-					
20 NOV 66	19-45-31	E	*	*	*	-	-	-					
21 NOV 66	12-31-41	E	*	*	*	-	-	-					
21 NOV 66	13-02-20	E	*	*	*	-	-	-					
22 NOV 66	06-41-31.0	IP	S	E	U	*	*	*					
22 NOV 66	09-03-19.6	I	*	*	U	*	*	*					
22 NOV 66	12-19-25.5	I	*	*	U	*	*	*					
22 NOV 66	20-25-07	E	*	*	*	-	-	-			LOCAL		
22 NOV 66	20-54-30	E	*	*	*	-	-	-			LOCAL		
22 NOV 66	21-46-00.3	I	*	*	U	-	-	-			LOCAL BLAST		
23 NOV 66	03-13-	E	-	-	-	*	*	*					
24 NOV 66	07-02-24.5	I	*	*	U	*	*	*					
24 NOV 66	16-58-04.4	I	RF	*	U	*	*	*					
26 NOV 66	02-29-02.2	IP	RF	E	D	-	-	-					
26 NOV 66	21-35-58.9	I	*	*	U	-	-	-			LOCAL BLAST		
27 NOV 66	04-18-58.4	IP	*	E	U	*	RF	*					
27 NOV 66	04-23-49	E	*	*	*	-	-	-					
27 NOV 66	13-42-15	E	*	*	*	-	-	-			LOCAL		
27 NOV 66	20-21-47.5	I	S	RF	U	*	RF	*					
28 NOV 66	07-39-37	E	*	RF	*	*	RF	*					
29 NOV 66	09-11-05	E	RF	*	*	RF	RF	*					
29 NOV 66	19-45-05	E	*	*	*	-	-	-					
29 NOV 66	22-46-	E	-	-	-	*	RF	*					
30 NOV 66	23-36-07	E	*	*	*	-	-	-					
01 DEC 66	04-37-40.1	IP	N	W	U	*	*	*					
02 DEC 66	05-29-00	E	*	*	*	-	-	-					
03 DEC 66	16-52-26.0	I	N	E	D	-	-	-					

			GMT OF	TYPE		OBSERVABLE ON						SCP PAGE-
			FIRST	OF		SHORT PER			LONG PER			
DATE			MOTION	ONSET	NS	EW	Z	NS	EW	Z	REMARKS	
04 DEC 66	19-26-43	E	*	*	*	-	-	-				
04 DEC 66	21-29-42	E	*	*	*	-	-	-			LOCAL	
05 DEC 66	20-01-11	E	*	*	*	-	-	-				
05 DEC 66	21-30-00.8	I	S	E	D	-	-	-			LOCAL BLAST	
07 DEC 66	17-30-13.0	I	N	W	D	-	-	-				
07 DEC 66	23-59-37.9	IP	S	W	D	-	-	-				
09 DEC 66	16-55-00.5	IP	N	S	D	*	*	*				
10 DEC 66	12-57-29.3	IP	N	E	U	N	E	U				
10 DEC 66	19-00-	E	-	-	-	*	*	*				
11 DEC 66	20-50-	E	-	-	-	*	*	*				
14 DEC 66	03-54-09.5	IP	N	*	U	-	-	-				
14 DEC 66	21-26-50.6	IP	*	*	U	*	*	*				
15 DEC 66	21-50-32	E	*	*	*	-	-	-			BLAST	
16 DEC 66	21-30-07	E	*	*	*	-	-	-			BLAST	
17 DEC 66	06-07-14.5	I	*	*	U	-	-	-				
17 DEC 66	20-03-51.2	I	*	*	D	-	-	-			LOCAL	
17 DEC 66	21-21-53.3	I	*	*	U	-	-	-			BLAST	
19 DEC 66	18-33-20.7	IP	*	*	*	-	-	-			LOCAL	
19 DEC 66	18-49-15.6	I	*	*	U	-	-	-			LOCAL	
19 DEC 66	19-40-18.8	IP	*	*	S	-	-	-			LOCAL	
19 DEC 66	21-27-52.1	IP	N	E	D	-	-	-			LOCAL	
20 DEC 66	12-36-58.9	IP	S	E	D	*	-	-				
20 DEC 66	12-45-07.0	IS	*	*	*	S	W	*				
20 DEC 66	15-36-10.4	IP	N	E	U	*	*	*				
20 DEC 66	17-07-57.0	EP	*	*	*	-	-	-			BLAST	
20 DEC 66	20-56-55.8	IP	*	*	D	-	-	-				
21 DEC 66	17-29-32.8	IP	*	*	D	-	-	-			BLAST	
21 DEC 66	21-25-15.7	IP	*	E	D	-	-	-			BLAST	
24 DEC 66	17-19-24.0	EP	*	*	*	-	-	-			LOCAL	
24 DEC 66	21-13-43.2	IP	*	*	*	-	-	-			LOCAL	
24 DEC 66	22-37-36.0	IP	*	*	D	-	-	-			IS AT 22-38-02.0	
27 DEC 66	17-06-02.8	IP	N	E	D	-	-	-			BLAST	
27 DEC 66	17-53-11.7	EP	*	*	*	-	-	-			BLAST	
27 DEC 66	20-53-57.2	EP	*	*	U	-	-	-			BLAST	
28 DEC 66	08-13-53.4	IP	N	*	U	N	W	U				
28 DEC 66	21-03-33.0	EP	*	*	*	-	-	-			BLAST	
28 DEC 66	21-54-34.8	IP	S	E	D	-	-	-			BLAST	
29 DEC 66	21-04-26.8	IP	N	E	U	-	-	-			BLAST	
30 DEC 66	16-36-23.8	IP	N	E	RF	-	-	-			BLAST	
30 DEC 66	19-08-01.0	IP	S	E	U	-	-	-			BLAST	
30 DEC 66	19-48-01.0	IP	N	E	*	-	-	-			BLAST	
30 DEC 66	19-49-18.6	IP	S	*	U	-	-	-			BLAST	
30 DEC 66	20-13-50.5	EP	*	*	*	-	-	-			BLAST	
30 DEC 66	23-34-23.8	IP	S	*	U	-	-	-			BLAST	
31 DEC 66	18-41-37.8	IP	*	*	D	*	*	*			BLAST	
31 DEC 66	22-34-07.0	E	*	*	*	*	*	*				
01 JAN 67	07-19-47.0	E	*	*	*	*	*	*				
01 JAN 67	22-28-00.0	E	-	-	-	*	*	*				
02 JAN 67	07-04-01.3	I	*	*	U	-	-	-				
02 JAN 67	20-55-00.0	E	-	-	-	*	*	*				