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SDCS-ER-75-26

(1)

**SPECIAL DATA COLLECTION SYSTEM EVENT REPORT** ✓  
**Eastern Kazakh, 30 June 1975**

**J.R.Woolson, D.D.Solari, M.S.Dawkins, K.J.Hill, and R.J.Markle**  
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**September 1975**

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**VELA Seismological Center**  
**312 Montgomery Street, Alexandria, Virginia 22314**

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Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

405 601 ✓

SDCS Event Report No. 26

Eastern Kazakh, 30 June 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	Origin Time	Latitude	Longitude	$m_b$	$M_s$
NORSAR	03:26:31	47.3N	081.6E	4.9	N/A
LASA	03:26:58	48.5N	079.6E	4.6	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitude become

	03:27:07	51.2N	078.7E	4.5	N/A
--	----------	-------	--------	-----	-----

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at WH2YK, RK-ON, HN-ME, LASA and NORSAR. High level background noise precluded definite determination of signal arrivals at FN-WV and CPSO.

Analysis of the SDCS, LASA and ALPA long-period data failed to produce recognizable signals associated with this event. The north-south LP horizontal instrument at CPSO was inoperative and the LP vertical at HN-ME was pulsing due to moisture in the data coils. Long-period array data from NORSAR was unrecoverable as were the LP radial beams from LASA and ALPA.

Details of the program used to obtain beamed vertical, radial and transverse long-period data at LASA and ALPA are in the process of being reviewed. Vertical beams are probably valid while horizontal beams are questionable.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES			ELEVATION METERS	INSTRUMENTATION	
		DEG	MN	SECS		SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65	14	00.0 N	626	None	31300
		147	44	36.0 W			
CPSO	McMinnville, Tennessee	35	35	41.4 N	574	6480 V 7515 H	SL210 V SL220 H
		085	34	13.5 W			
FN-WV	Franklin, West Virginia	38	32	58.0 N	910	KS36000	KS36000
		079	30	47.0 W			
LASA	Billings, Montana	46	41	19.0 N	744	HS10	7505A V 8700C H
		106	13	20.0 W			
HN-ME	Houlton, Maine	46	09	43.0 N	213	18300	SL210 V SL220 H
		067	59	09.0 W			
NORSAR	Kjeller, Norway	60	49	25.4 N	379	HS10	7505A V 8700C H
		010	49	56.5 E			
RK-ON	Red Lake, Ontario	50	50	20.0 N	366	18300	SL210 V SL220 H
		093	40	20.0 W			
WH2YK	White Horse, Yukon	60	41	41.0 N	853	18300	SL210 V SL220 H
		134	58	02.0 W			

HYPOCENTER DETERMINATION

INPUT FOR EVENT 30 JUN 75  
 03:27:00.0 49.000N 78.000E OKM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST		
NAC	03 34 20.8	0.3	-0.1	37.5	311.7
WH2YK	03 37 48.9	0.5	0.3	65.2	17.5
RK-CN	03 39 06.1	-0.9	-0.5	78.1	355.1
HN-ME	03 39 11.2	0.5	0.5	78.8	337.1
IAC	03 39 29.5	0.4	-0.2	82.4	3.4

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
NC CCNVERGENCE	ON CALC	RUN				
03:27:05.4	50.986N	78.813E	-0. CALC	0.6	16	5
03:27:06.9	51.212N	78.704E	0. REST	0.4	4	5

CALC			REST		
2	.	2	2	.	2
1	.	0	1	.	0
0	0.	0	0	0.	0
.	.	.	.	.	.
0	0.	0	0	0.	0
0	.	0	0	.	0
0	.	0	0	.	0

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 0.97  
 MAJOR 304.8KM. MINOR 41.7KM. AZ= 178 AREA= 39965 SQ.KM. REST

DATA SUMMARY

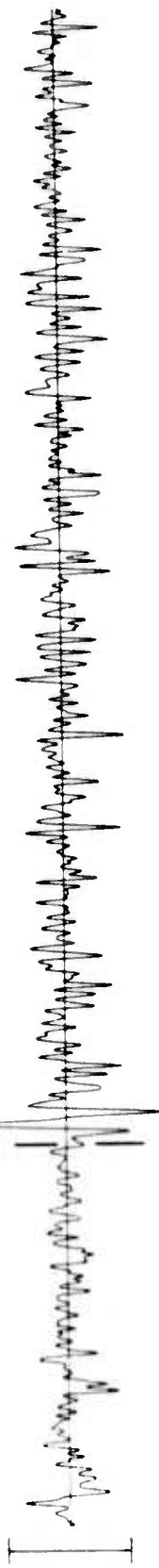
INPUT FOR EVENT 30 JUN 75  
 03:27:00.0 49.000N 78.000E OKM.

STA.	PHASE	ARRIVAL TIME	INST	FEE	A/T	MAGNITUDE		DIR	DIST
						ME	MS		
NAC	EP	03 34 20.8	AE	0.6	22.	4.54			
WH2YK	EP	03 37 48.9	SPZ	0.6	5.	4.40			37.5
RK-ON	EP	03 30 06.1	SPZ	0.4	12.	4.67			65.2
HN-ME	EP	03 39 11.2	SPZ	0.8	11.	4.56			78.1
LAC	EP	03 39 29.5	AE	0.9	5.	4.34			78.8
									82.4

ORIGIN LAT. LONG. DEPTH (KM) MAG SDV STA  
 03:27:06.9 51.212N 78.704E 0. REST 4.50 0.13 5

WH2YK 30 JUN 75

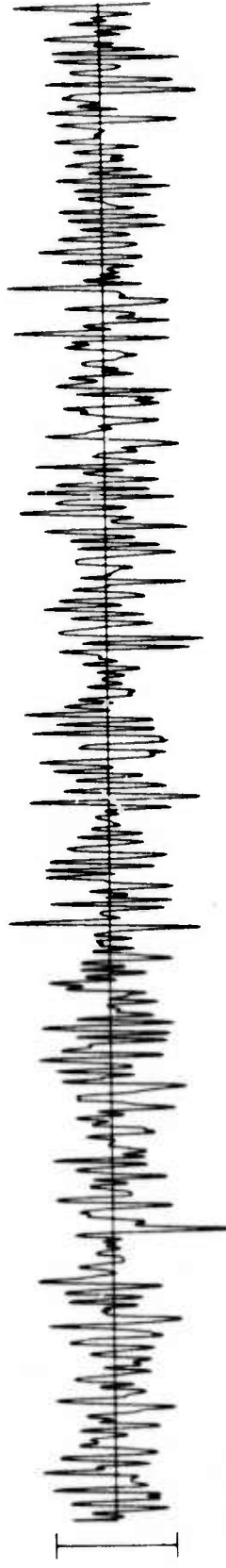
03:37:48.9



SPZ  
5.26 Mμ



SPR  
4.67 Mμ



SPT  
4.71 Mμ



TIME

03:38:00

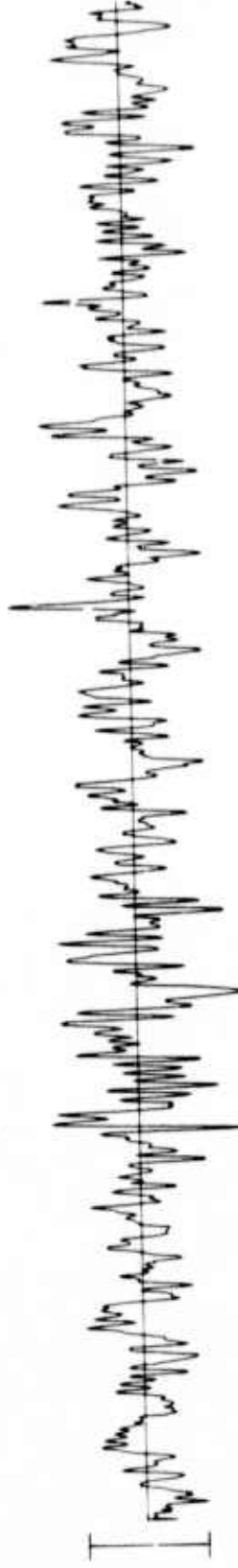
10 SEC

**RK-ON 30 JUN 75**

03:39:06.1



**SPZ  
15.84 Mp**



**SPR  
4.08 Mp**

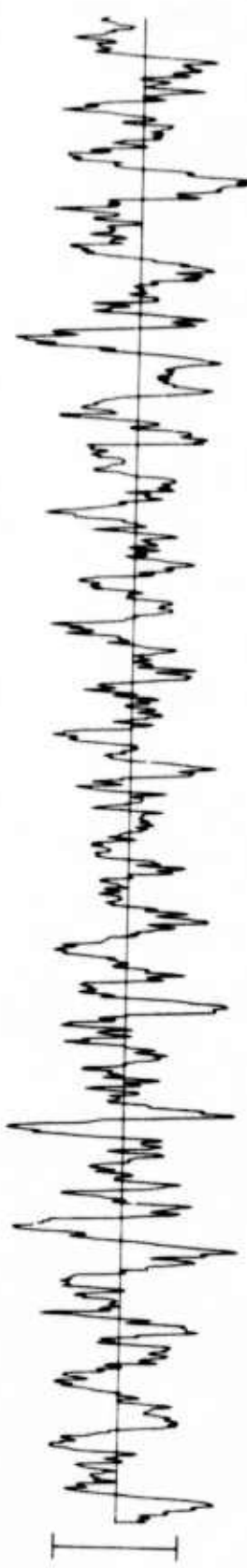
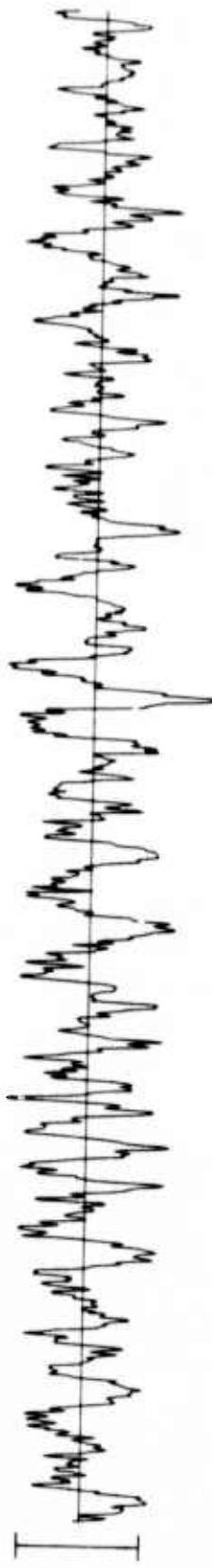
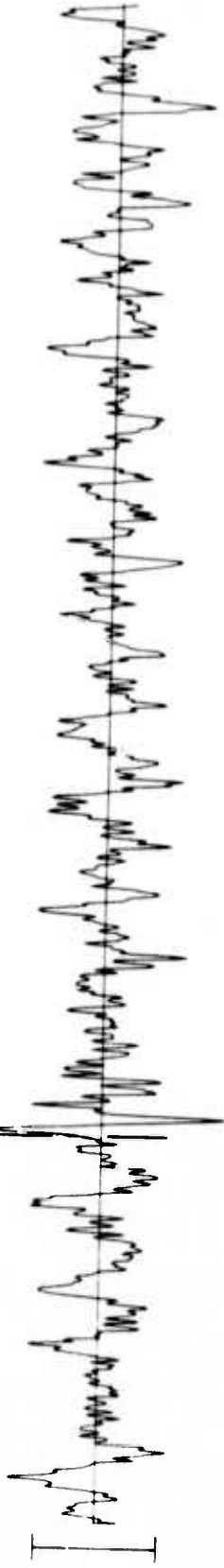


**SPT  
5.30 Mp**

10 SEC

HN-ME 30 JUN 75

03:39:11.2



TIME

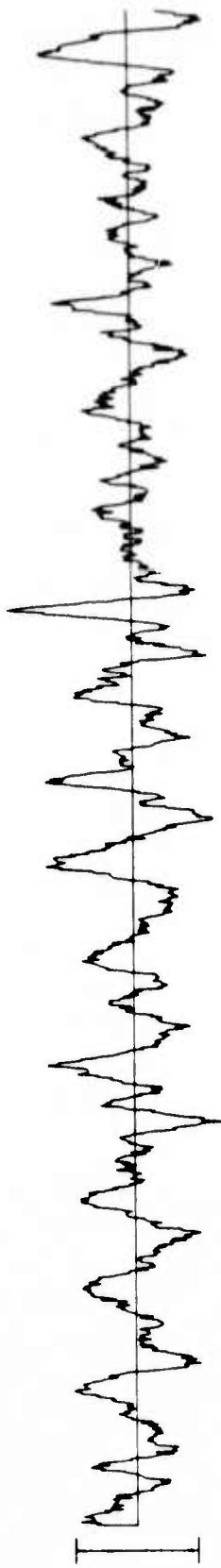


03:39:30

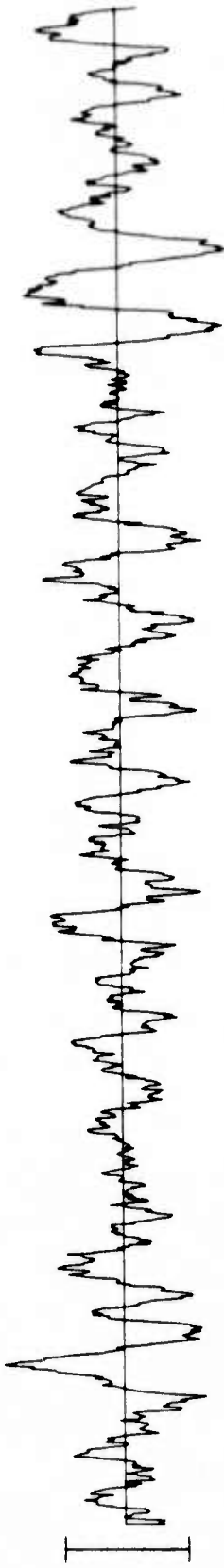
10 SEC

**FN-WV 30 JUN 75**

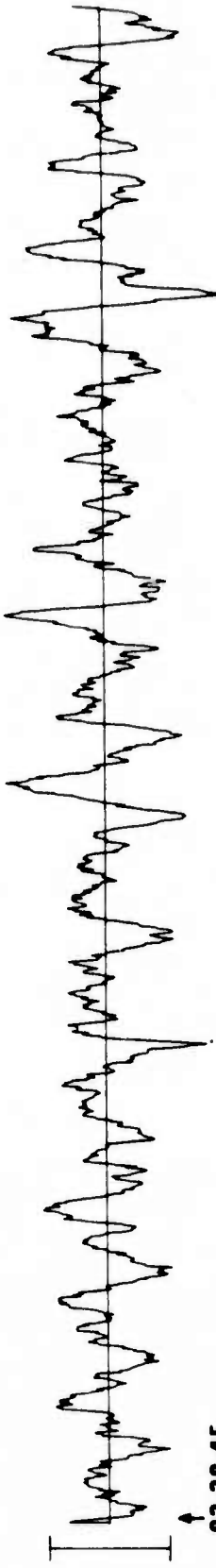
**SPZ  
13.40 M $\mu$**



**SPR  
7.15 M $\mu$**



**SPT  
11.44 M $\mu$**

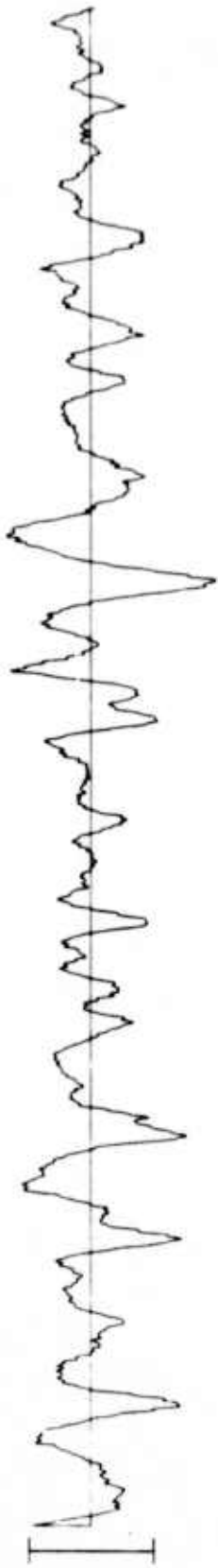


**03:39:45**

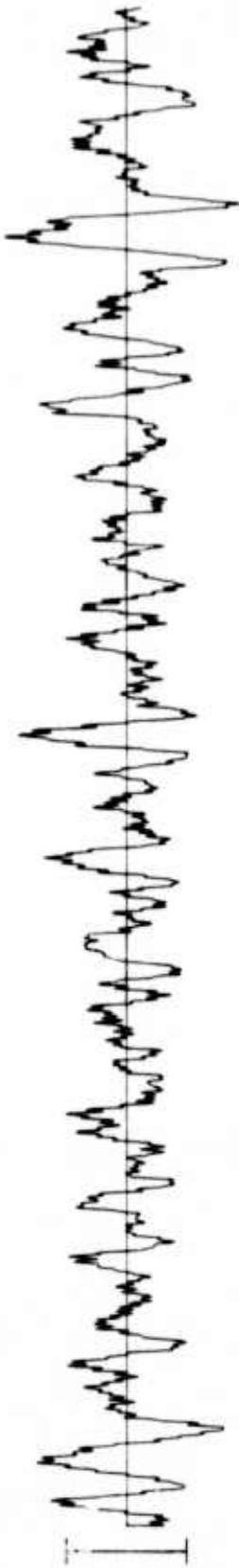
**10 SEC**

CP-SO 30 JUN 75

SPZ  
13.28 Mp



SPR  
11.07 Mp



SPT  
3.57 Mp



TIME



03:40:40

10 SEC

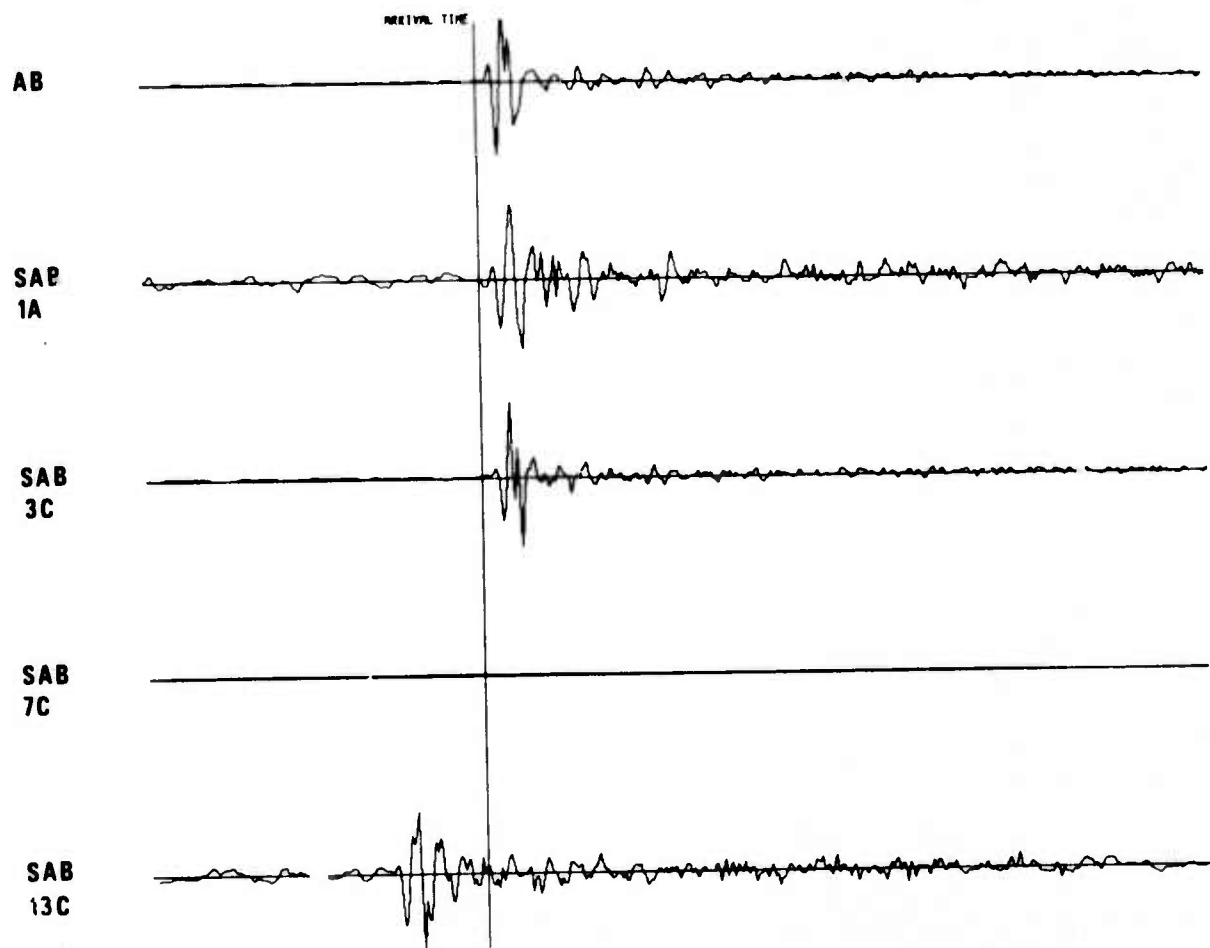
NORSAR EVENT FILE

1975 JUN 30

EPX NO. 22090 ARR. 3.34.20.4 47.3N 81.6E 4.9MB 33KM

DIST = 41.5 AZI = 75.7 AMP = 19.3 PER = 1.0 UMETH 2

SCALE  = 5 SECONDS



LASA

1 30 JUN 1975

2 3 26 57 48.5N 79.6E 330 C 4.4 329 EASTERN KAZAKH SSR

3 3 39 29.0 LAO P 2.1 0.6 22.4 85.2 356.1

EPX 38870

BP-B 0.6-2.0 HZ

ABN 8.6

03:39:19.0

AB 13

FAB 12

WAB 12

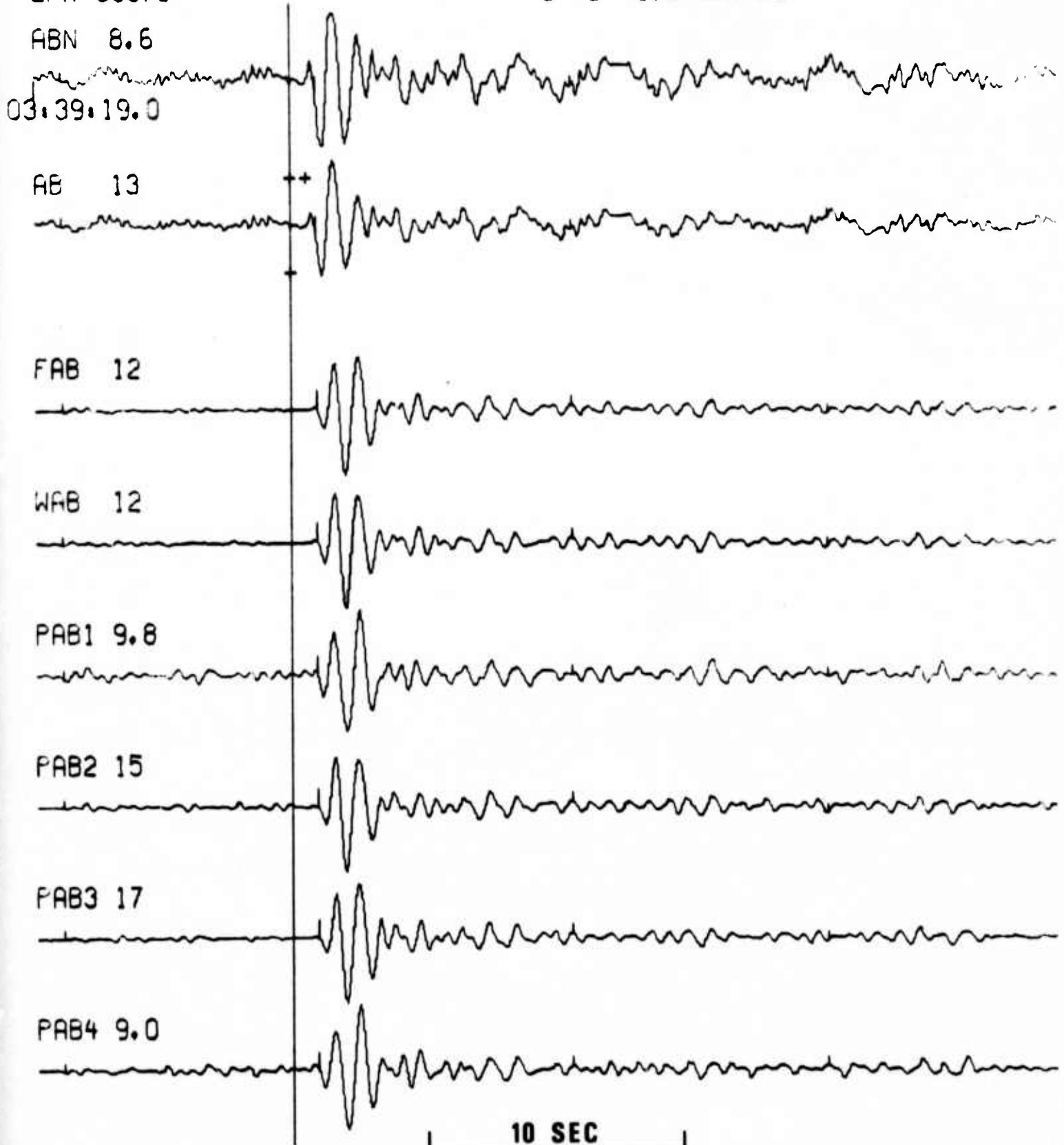
PAB1 9.8

PAB2 15

PAB3 17

PAB4 9.0

10 SEC



WH2YK 30 JUN 75



LPZ  
166.44 MHz



LPR  
602.30 MHz



LPT  
413.10 MHz

TIME



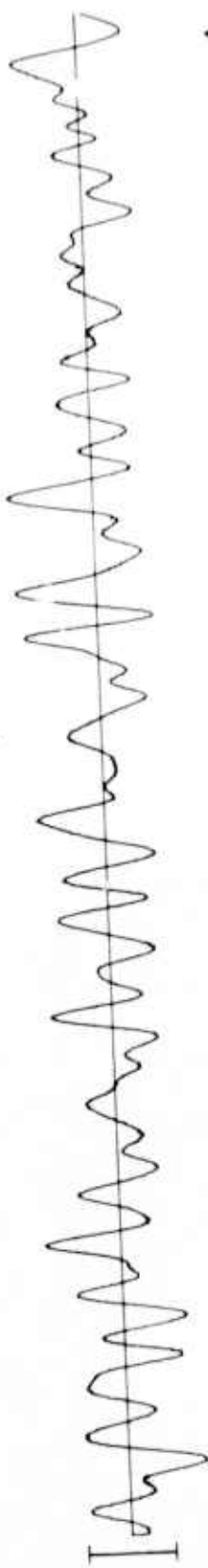
04:00:00

2 MIN

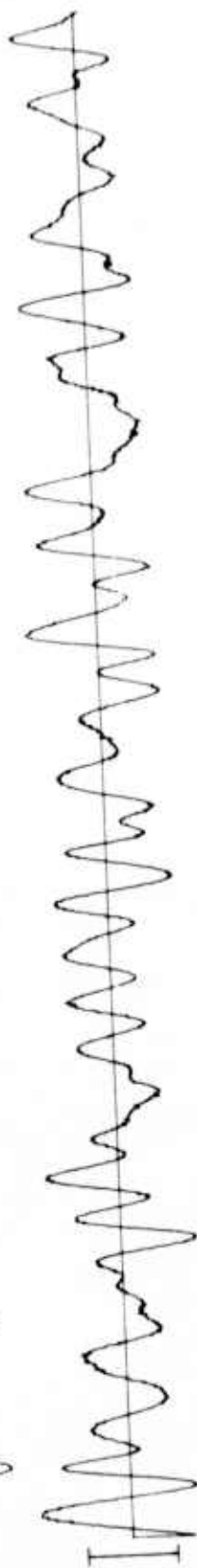
RK-ON 30 JUN 75



LPZ  
235.95 MP



LPR  
880.64 MP



LPT  
802.16 MP

↑  
04:06:50

┌───┐  
2 MIN

HN-ME 30 JUN 75

INSTRUMENT  
PULSE

LPZ  
UNKNOWN

LPR  
2770.43 MP

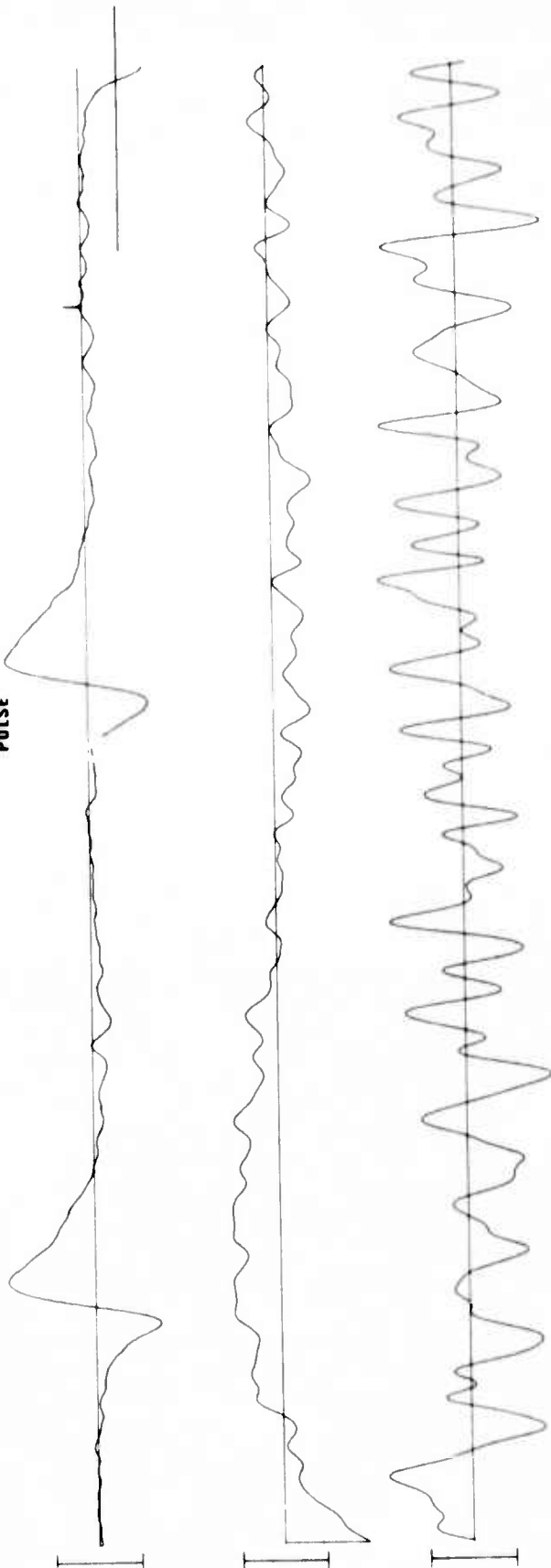
LPT  
1409.53 MP

TIME

2 MIN

INSTRUMENT AND CALIBRATION PROBLEMS

04:17:00



FN-WV 30 JUN 75

LPZ  
1444.20 MP



LPR  
3273.52 MP



LPT  
7694.88 MP

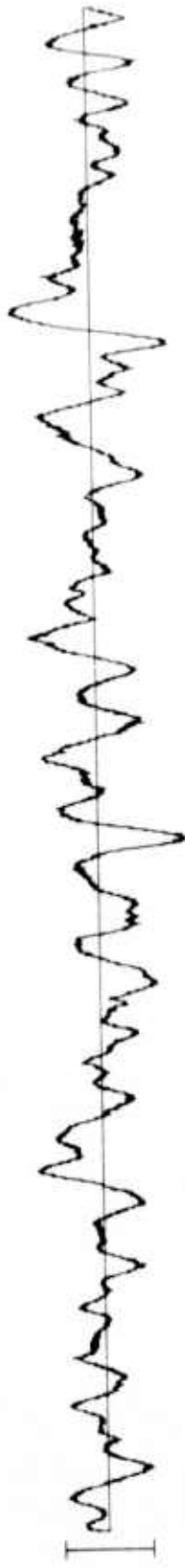
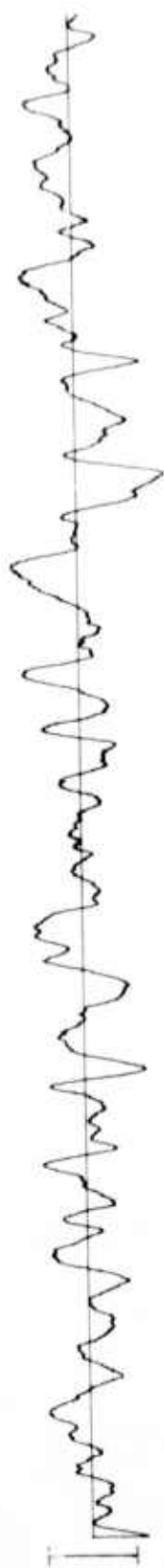


TIME



2 MIN

CP-SO 30 JUN 75

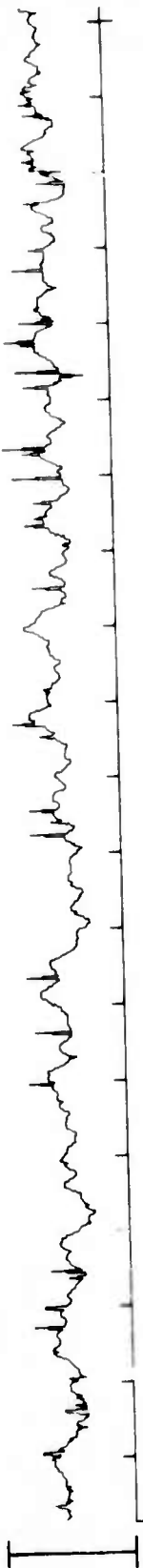


**ALPA LONG-PERIOD BEAMS 30 JUN 75**

LP VERTICAL  
94.28 Mμ



LP TRANSVERSE  
57.94 Mμ



03:53:08.0

1 MIN

RADIAL CHANNEL NOT RECOVERABLE

**LASA LONG-PERIOD BEAMS 30 JUN 75**

**LP VERTICAL**

**96.77 Mμ**



**LP TRANSVERSE**

**68.83 Mμ**



**04:05:22.0**

**1 MIN**

**RADIAL CHANNEL NOT RECOVERABLE**