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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT -
EASTERN KAZAKH, 27 APRIL 1975

J. R. Woolson, et al

Teledyne Geotech

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8 September 1975

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J.R.Woolson, D.D.Solari, D.J.Reinhold, and R.J.Markle

Alexandria Laboratories

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September 1975

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SDCS Event Report No. 6

Eastern Kazakh, 27 April 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	05:37:05	50.2N	077.5E	5.8	
LASA	05:36:49	46.9N	079.2E	5.7	
Hagfors Array, Sweden	05:36:05	47 N	088 E	6.8	4.0

Using SDCS stations, LASA and NORSAR, the epicenter location becomes

SDCS & Arrays	05:36:59	49.9N	078.7E	5.5
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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.

The time correction at WH2YK was undeterminable due to poor radio reception. NORSAR long-period data was not recoverable because of TransAtlantic Link (TAL) transmission interference.

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES		ELEVATION METERS	INSTRUMENTATION	
		DEG	MN SECS		SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14 147 44	00.0 N 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 085 34	41.4 N 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 079 30	58.0 N 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 106 13	19.0 N 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 067 59	43.0 N 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 010 49	25.4 N 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 093 40	20.0 N 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 134 58	41.0 N 62.0 W	853	18300	SL210 V SL220 H

Notes:

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

FN-WV, RK-ON, WH2YK and HN-ME horizontal instruments are oriented radial and transverse to the Nevada Test Site. CPSO is oriented N-S and E-W. LASA, NORSAR and ALPA beams have been rotated to radial and transverse with respect to the event location.

HYPOCENTER DETERMINATION

INPUT FOR EVENT 27 APR 75
05:37:00.0 50.000N 78.000E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST		
NAO	05 44 20.7	-0.2	-0.2	38.3	313.0
WH2YK*	05 48 17.6	28.4 *	28.4 *	66.4	17.3
RK-ON	05 49 05.7	-0.6	-0.6	79.4	355.1
HN-ME	05 49 10.7	1.0	1.0	80.0	337.2
LAO	05 49 29.4	0.5	0.5	83.7	3.4
FN-WV	05 49 59.3	0.2	0.2	89.8	343.1
CPO	05 50 16.4	-0.8	-0.8	93.7	347.2

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
NO CONVERGENCE ON CALC RUN						
05:36:55.5	49.827N	78.771E	-22. CALC	0.7	16	6
05:36:59.4	49.918N	78.721E	0. REST	0.7	3	6

CALC				REST			
4	.	1		4	.	1	
1	.	0		1	.	0	
0	0.	0	0	0	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= 0.91
MAJOR 267.5KM. MINOR 48.3KM. AZ= 7 AREA= 40585 SQ.KM. REST

DATA SUMMARY

INPUT FOR EVENT 27 APR 75
05:37:00.0 50.000N 78.000E 0KM.

STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIP	DIST
		TIME					MB	MS		
NAO	EP	05	44 20.7	AB	0.7	208.	5.48			38.3
WH2YK*	EP	05	48 17.6	SPZ	0.8	105.	5.72			66.4
RK-ON	EP	05	49 05.7	SPZ	0.5	161.	5.67			79.4
HN-ME	EP	05	49 10.7	SPZ	0.9	97.	5.39			80.0
LAO	EP	05	49 29.4	AB	0.9	121.	5.78			83.7
FN-WV	EP	05	49 59.3	SPZ	1.1	36.	5.26			89.8
CPO	EP	05	50 16.4	SPZ	0.8	42.	5.45			93.7
CPO	PP	05	54 02.0	SPZ	1.0	17.				

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA
05:36:59.4	49.918N	78.721E	0. REST	5.50	0.19	6

WH2YK 27 APR 75

05:48:17.6

SPZ

114 m μ

SPR

52.1 m μ

SPT

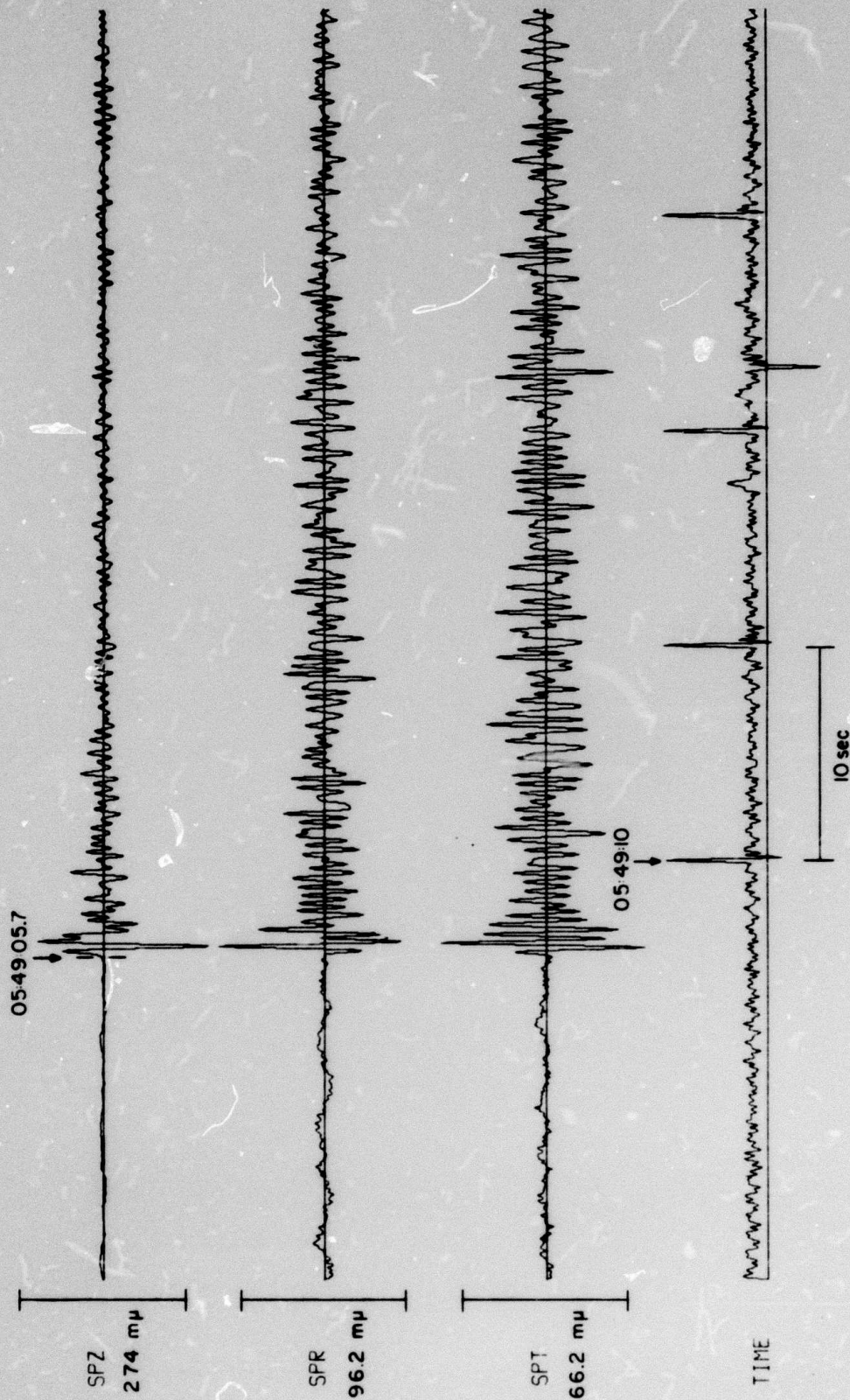
46.2 m μ

05:48:10

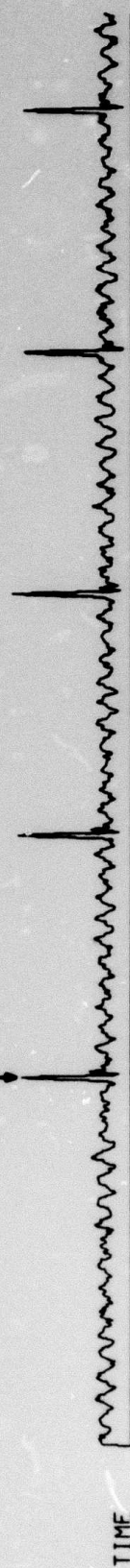
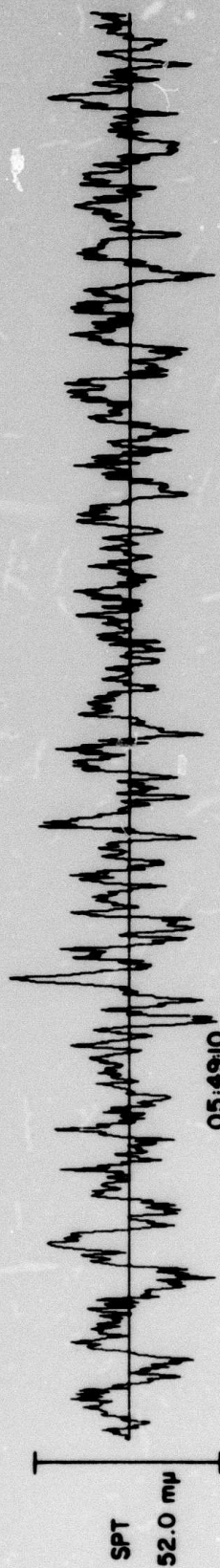
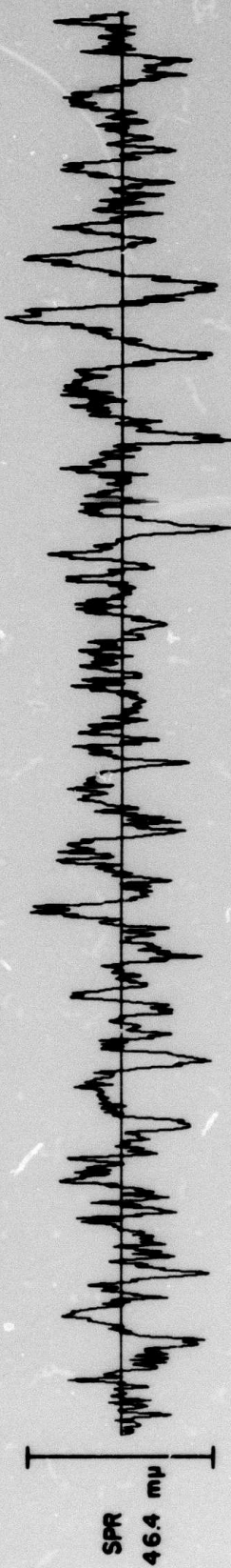
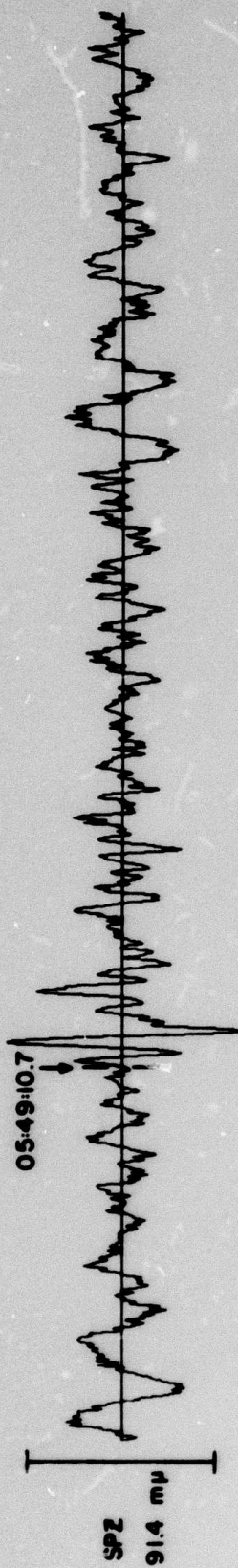
TIME

10 sec

RK-CN 27 APR 75



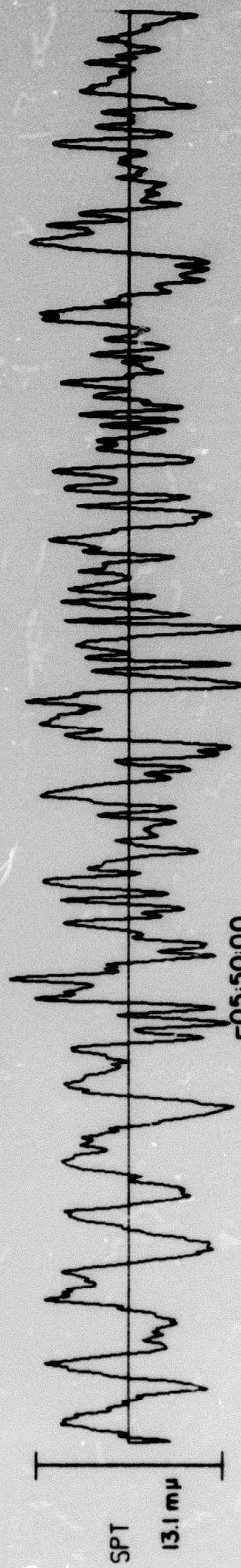
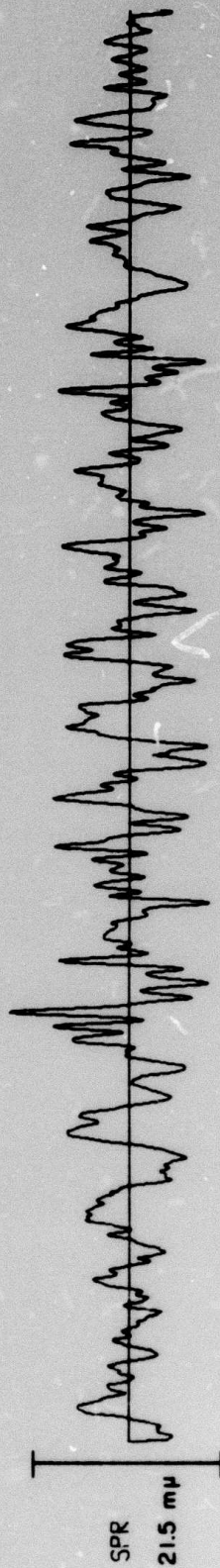
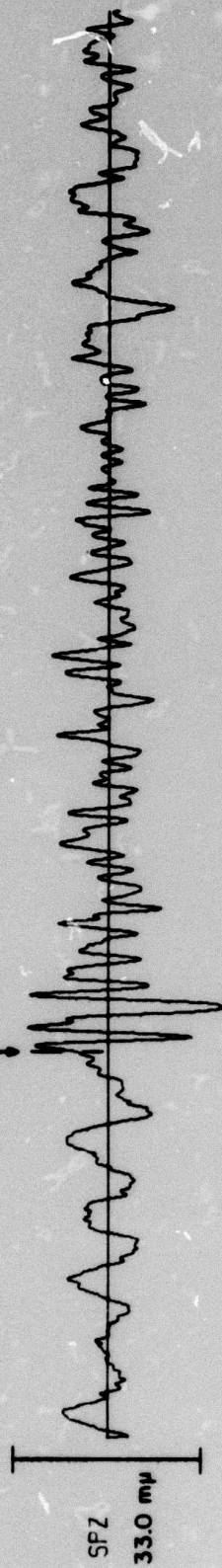
HN-ME 27 APR 75



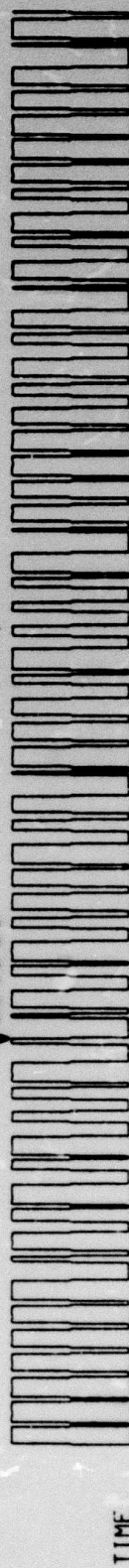
10 sec

FN-WV 27 APR 75

05:49:59.3



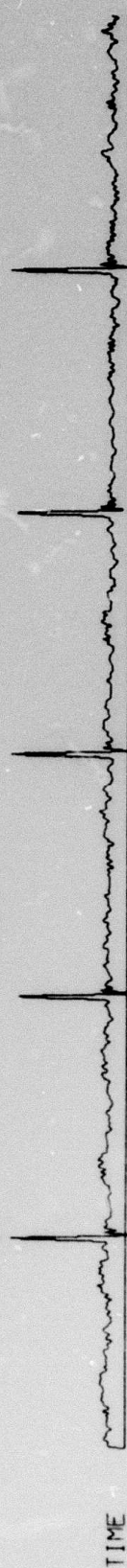
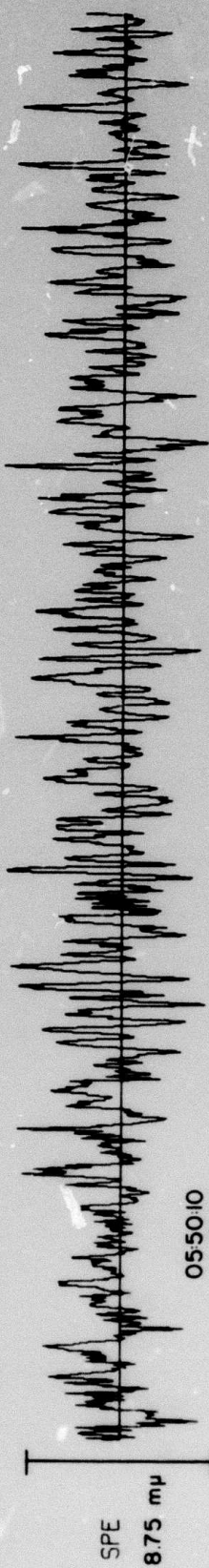
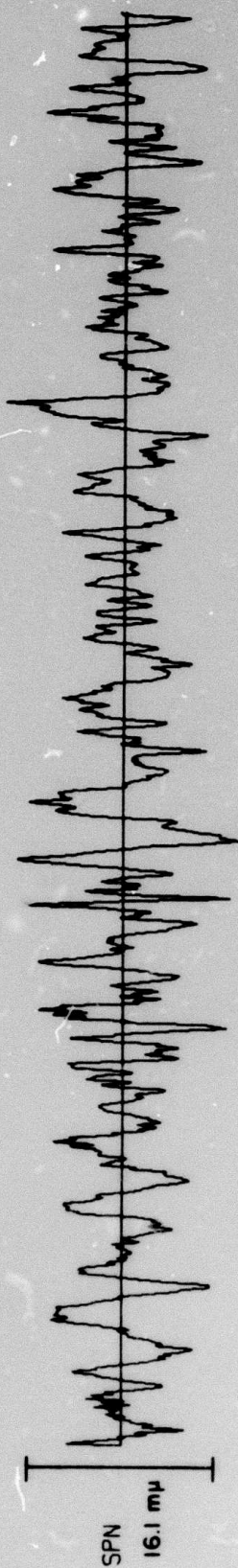
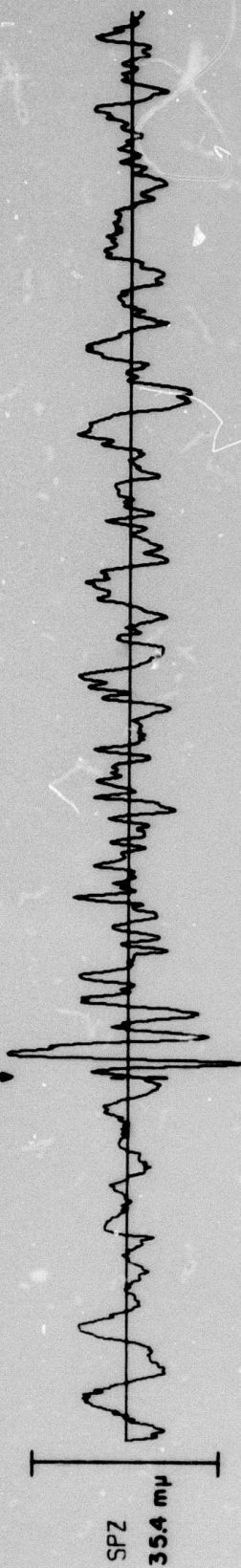
05:50:00



10 sec

CPSO 27 APR 75

05:50:16.4



10 sec

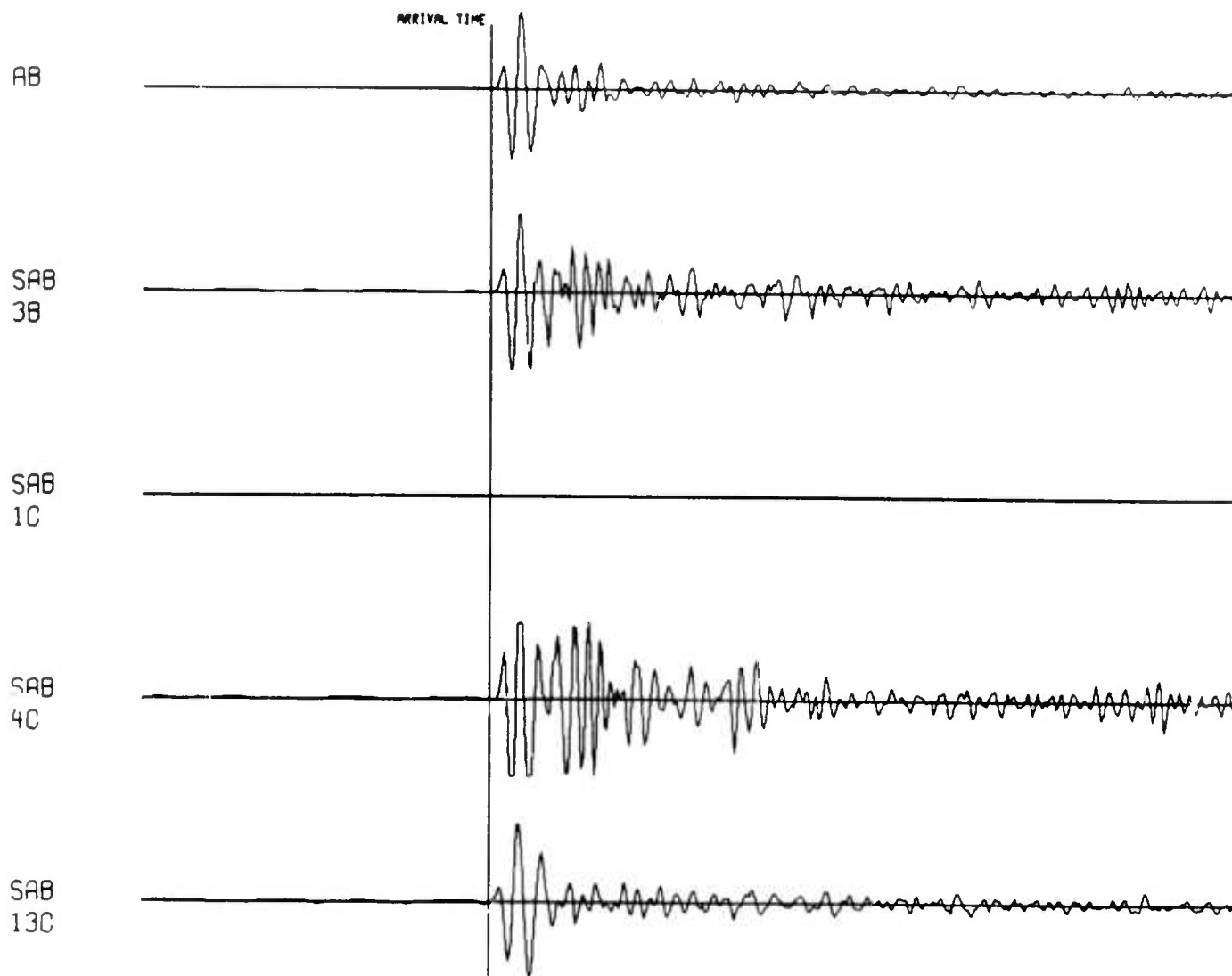
NORSAR EVENT FILE

1975 APR 27

EPX NO. 97710 ARR. 5.44.20.6 50.3N 77.3E 5.8MB 33KM

DIST = 37.4 AZI = 75.4 AMP = 143.1 PER = 0.9 UMETH 2

— = 5 SECONDS



LASA

1 27 APR 1975

2 5 36 49 46.9N 79.2E 336 8 5.7 329 EASTERN KAZAKH SSR
3 5 49 29.8 LAO P 66.2 0.9 22.9 86.8 356.3

EPX 51510

BP-B 0.6-2.0 HZ

ABN 8

05:49:19.8

AB 160

FAB 160

PAB1 100

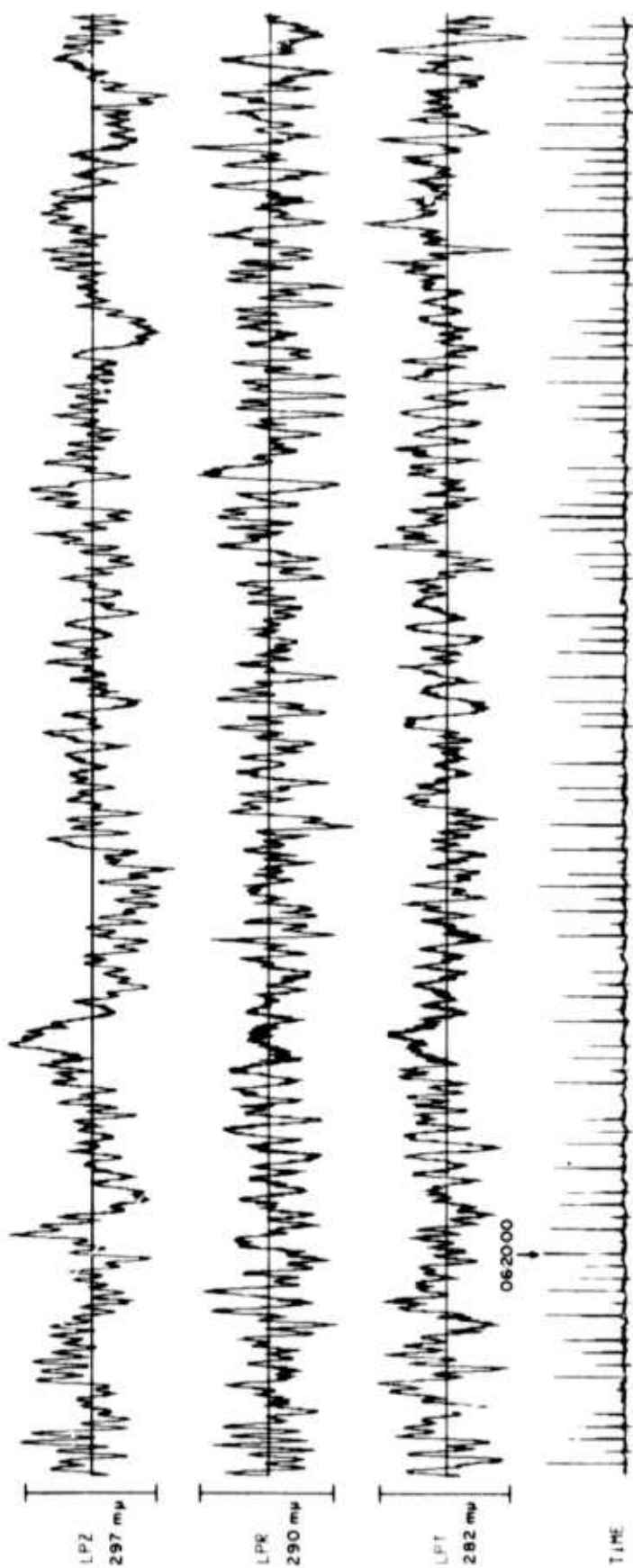
PAB2 160

PAB3 170

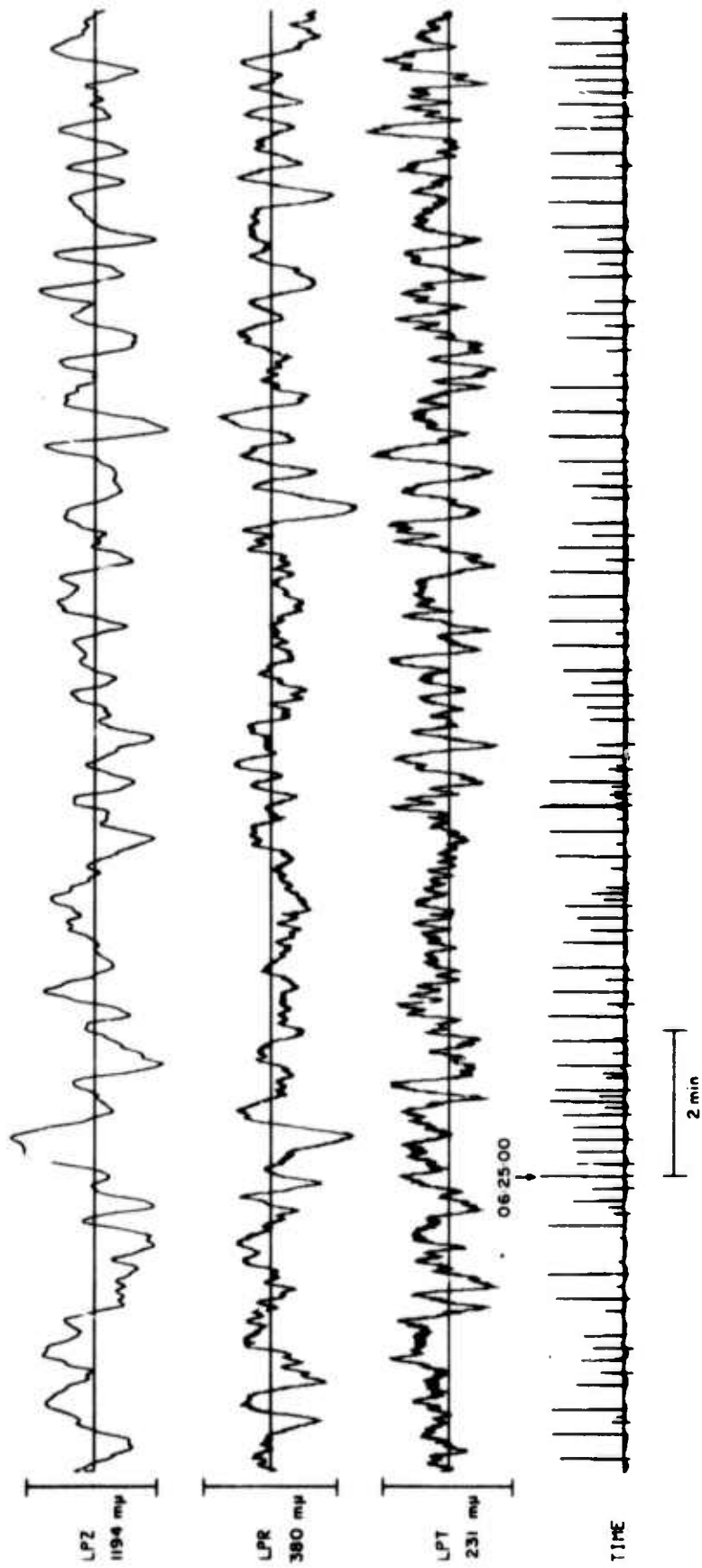
PAB4 97

10 sec

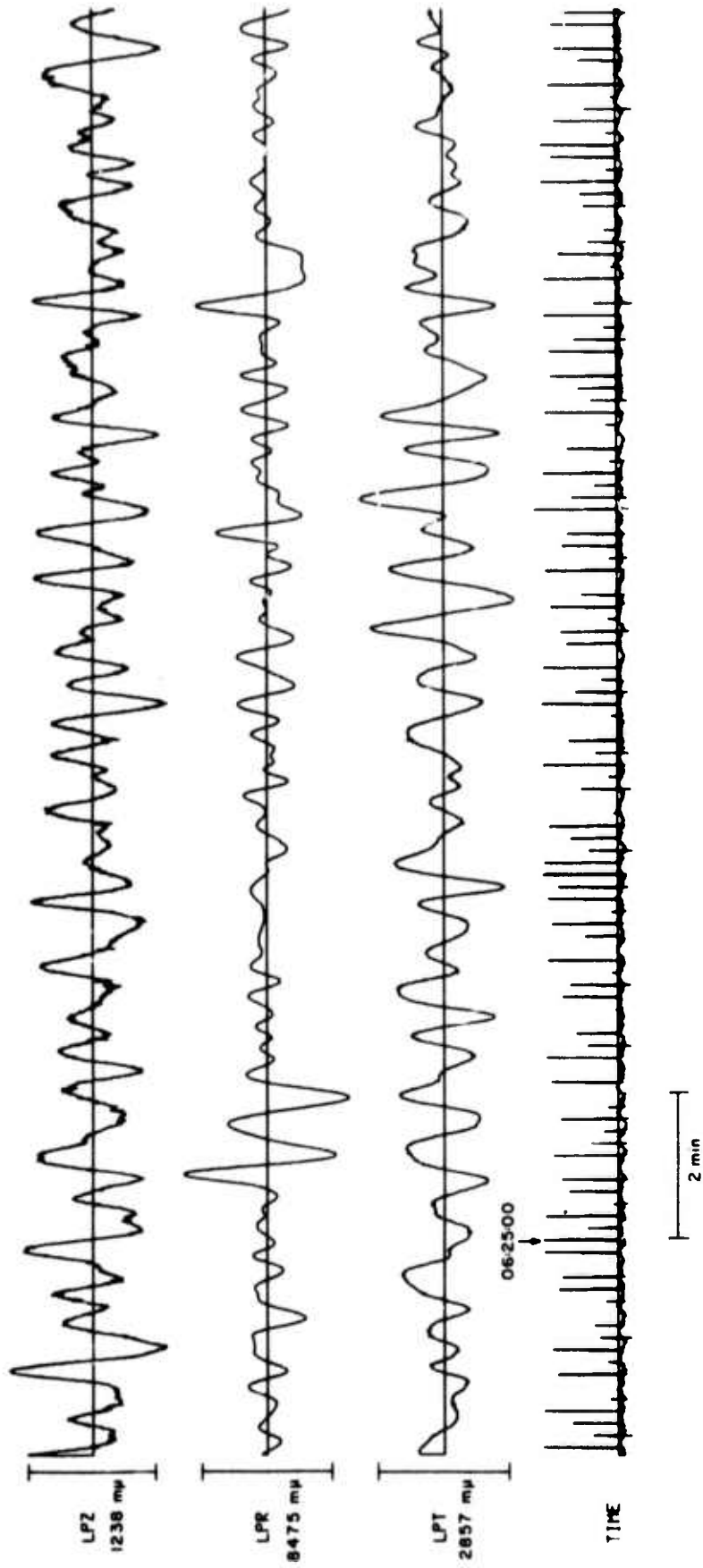
WH2YK 27 APR 75



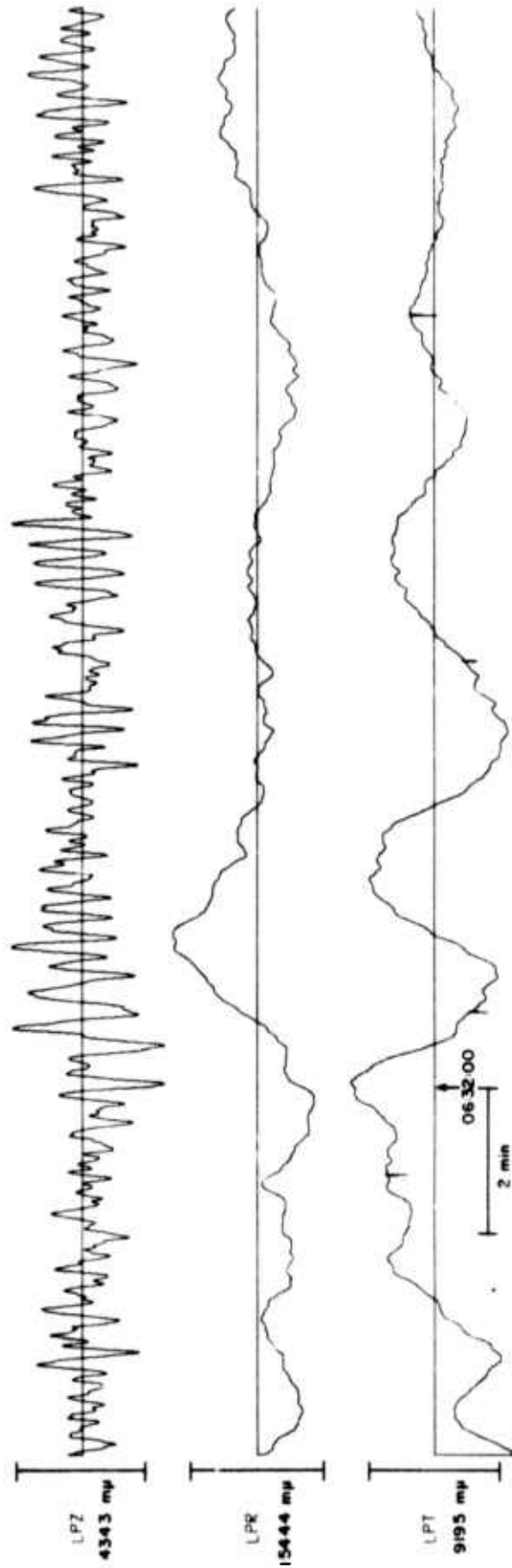
RK-ON 27 APR 75



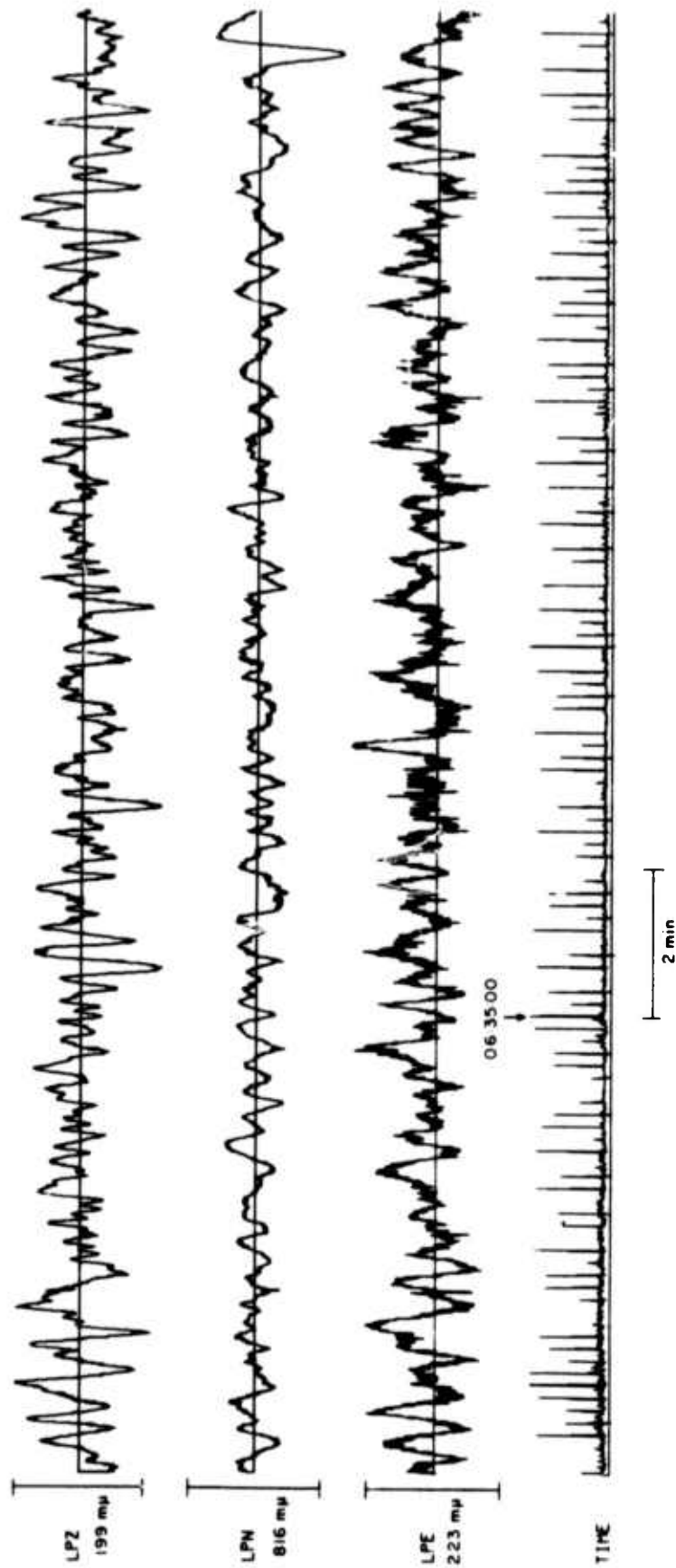
HN-ME 27 APR 75



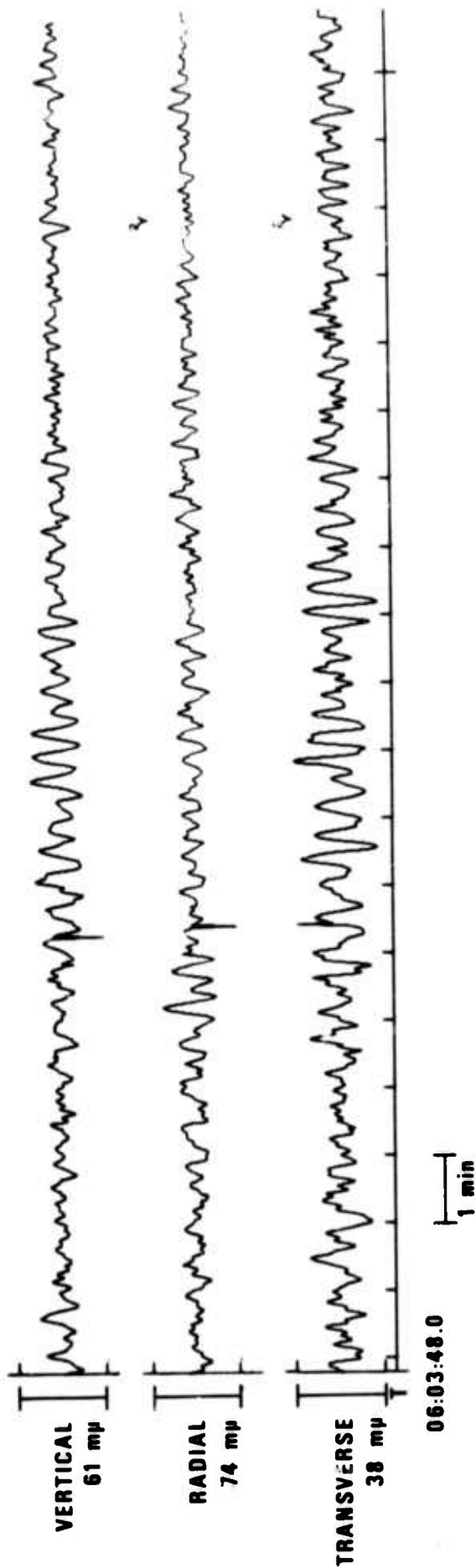
FN-WV 27 APR 75



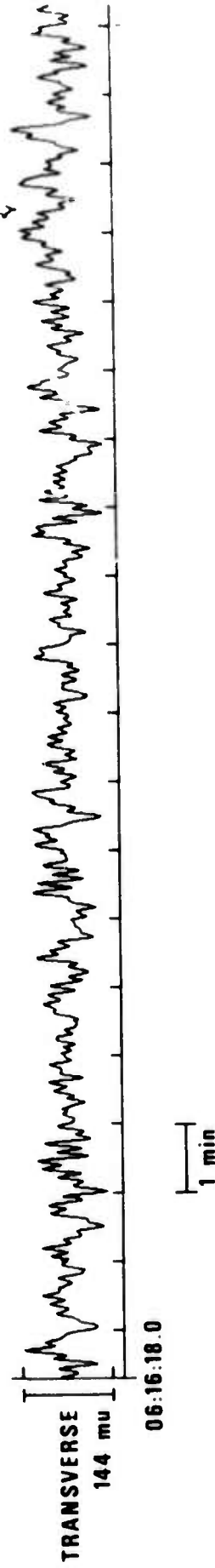
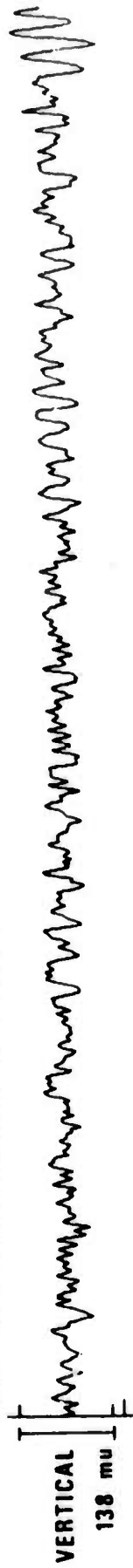
CPS0 27 APR 75



ALPA LONG PERIOD BEAMS 27 APRIL 75



LASA LONG PERIOD BEAMS 27 APRIL 75



06:16:18.0

1 min