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SDCS-ER-76-93

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9 Technical rept.

6 (SDCS)  
SPECIAL DATA COLLECTION SYSTEM EVENT REPORT,  
Eastern Kazakh SSR, 28 March 1976.

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11 28 MAY 1976

12 18p.

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Nuclear Monitoring Research Office  
1400 Wilson Boulevard, Arlington, Virginia 22209

15 F08606-74-C-0113 ✓ ARPA Order NO-2897

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Monitored By  
VELA Seismological Center  
312 Montgomery Street, Alexandria, Virginia 22314

16 VT/4703

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405 601 LB

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Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER SDCS-ER-76-93	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle)  SPECIAL DATA COLLECTION SYSTEM (SDCS) Eastern Kazakh SSR, 20 March 1976		5. TYPE OF REPORT & PERIOD COVERED  Technical
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s)  Hill, K.J., Dawkins, M.S., and Gillispie, M.D.		8. CONTRACT OR GRANT NUMBER(s)  F08606-74-C-0013
9. PERFORMING ORGANIZATION NAME AND ADDRESS Teledyne Geotech 314 Montgomery Street Alexandria, Virginia 22314		10. PROGRAM ELEMENT PROJECT, TASK AREA & WORK UNIT NUMBERS  T/4703
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Advanced Research Projects Agency Nuclear Monitoring Research Office 1400 Wilson Blvd.-Arlington, Virginia 22209		12. REPORT DATE May 28, 1976
		13. NUMBER OF PAGES 17
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) VELA Seismological Center 312 Montgomery Street Alexandria, Virginia 22314		15. SECURITY CLASS (of this report)  Unclassified
		15a. DECLASSIFICATION DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  APPROVED FOR PUBLIC RELEASE, DISTRIBUTION UNLIMITED.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		

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SDCS EVENT REPORT NO. 93

Eastern Kazakh SSR, 20 March 1976

↳ 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:

	"P" Arrival	Origin Time	Lat.	Long.	$m_b$	$M_s$
NORSAR	04:10:55.7	04:03:33	49 N	079 E	4.8	N/A
Hagfors	04:10:45.1	04:03:49	51 N	076 E	5.2	4.5

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become: *Origin time: 04:03:39.8, Lat.: 49.8N, Long.: 077.1E,  $m_{sub} b$ : 4.9,  $M_{sub} s$ : 4.1.*

The programs used for LASA, NORSAR and ALPA data recovery are presently undergoing modifications. NORSAR short-period data are obtained from their bulletin. Both LASA and NORSAR short-period plots are included in this report; the scaling factors on the NORSAR TAL transmission plot are erroneous. The long-period array beam recovery for these stations will be resumed upon completion of these modifications.

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at WH2YK, CPSO, RK-ON, LASA and NORSAR. HN-ME and FN-WV did not record "P" arrivals for this event. All SP channels at HN-ME had polarity reversals; to correct this, mathematical inversions of the data were performed. Horizontal SP channels at all SDCS stations were rotated.

Long-period signals were recorded at CPSO, HN-ME, and FN-WV. WH2YK and RK-ON did not record long-period signals for this event. All LP channels at HN-ME had polarity reversals; to correct this, mathematical inversions of the data were performed. Horizontal LP channels at CPSO, HN-ME, FN-WV and WH2YK were rotated. Horizontal LP channels at RK-ON were not rotated because the operating gain of the LP radial channel was unknown.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA; scaling factors are indicated on the LASA short-period plot.

STATION DESCRIPTION

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

HYPOCENTER DETERMINATION

INPUT FOR EVENT                      20 MAR 76  
 04:03:33.0    49.000N    79.000E    OKM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST		
NAO	04 10 55.7	0.1	0.1	37.7	312.8
WH2YK	04 14 32.1	-0.3	-0.2	66.9	16.5
RK-ON	04 15 46.3	-0.2	-0.5	79.5	354.1
LAO	04 16 11.3	1.0	1.1	83.9	2.3
CPSO	04 16 56.6	-0.6	-0.5	93.6	345.9

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
04:04:02.0	50.787N	76.707E	139. CALC	0.6	6	5
04:03:39.8	49.780N	77.122E	0. REST	0.6	3	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 CONP..LEVEL, SDV= 0.95  
 MAJOR 201.3KM. MINOR 42.8KM. AZ= 0 AREA= 27086 SQ.KM. REST

DATA SUMMARY

INPUT FOR EVENT 20 MAR 76  
 04:03:33.0 49.000N 79.000E OKM.

STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
NAO	EP	04 10	55.7	AB	0.6	27.	4.63			37.7
WH2YK	EP	04 14	32.1	SPZ	0.8	22.	5.04			65.9
RK-ON	EP	04 15	46.3	SPZ	0.6	27.	4.89			79.5
HN-ME	LR	04 54	20.0	LPZ	20.0	15.		4.20		79.8
LAO	EP	04 16	11.3	SAB	0.6	12.	4.78			83.9
PN-WV	LR	05 00	19.0	LPZ	21.0	9.		4.03		89.7
CPSO	EP	04 16	56.6	SPZ	0.7	15.	5.01			93.6
CPSO	LR	05 02	17.0	LPZ	20.0	11.		4.13		93.6

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
04:04:02.0	50.787N	76.707E	139. CALC	4.67	0.18	5	4.11	0.1	3
04:03:39.8	49.780N	77.122E	0. REST	4.87	0.17	5	4.12	0.1	3

WH2YK 20 MAR 76

SPZ  
16.20 MU

04:14:32.1



SPR  
9.61 MU



SPT  
11.17 MU



TIME

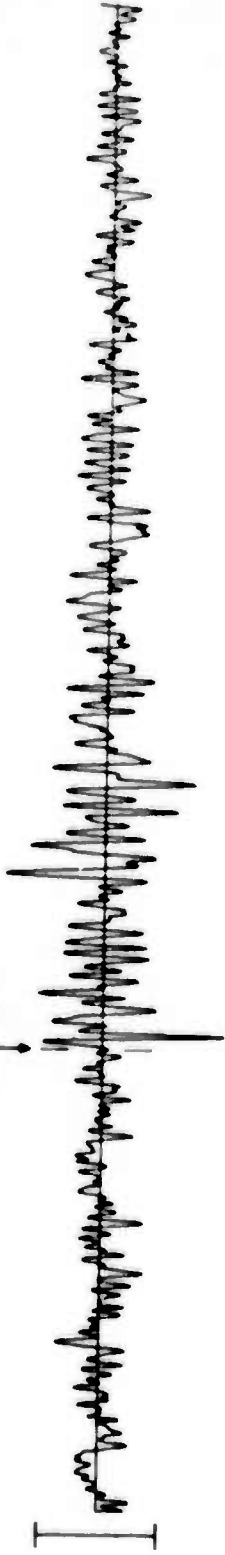




RK-ON 20 MAR 76

SPZ  
29.72 MU

04:15:46.3



SPR  
12.27 MU



SPT  
9.36 MU



TIME



HN-ME 20 MAR 76

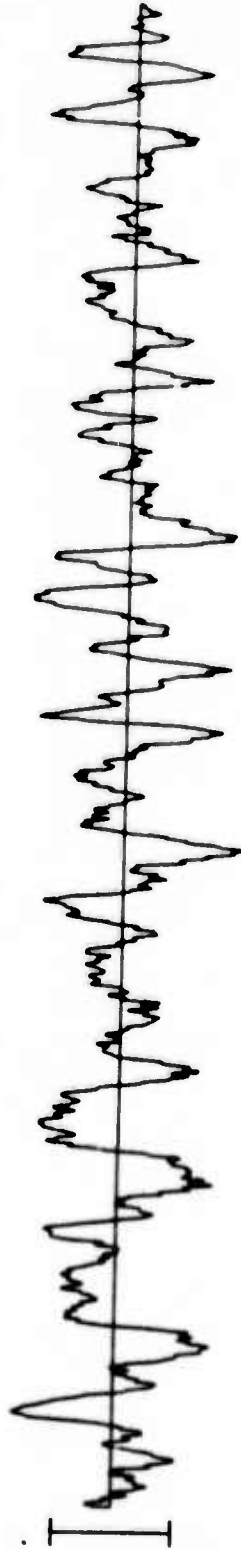
SPZ  
38.01 MU



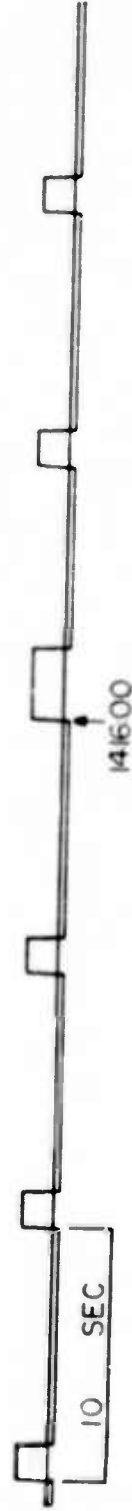
SPR  
31.89 MU



SPT  
26.78 MU

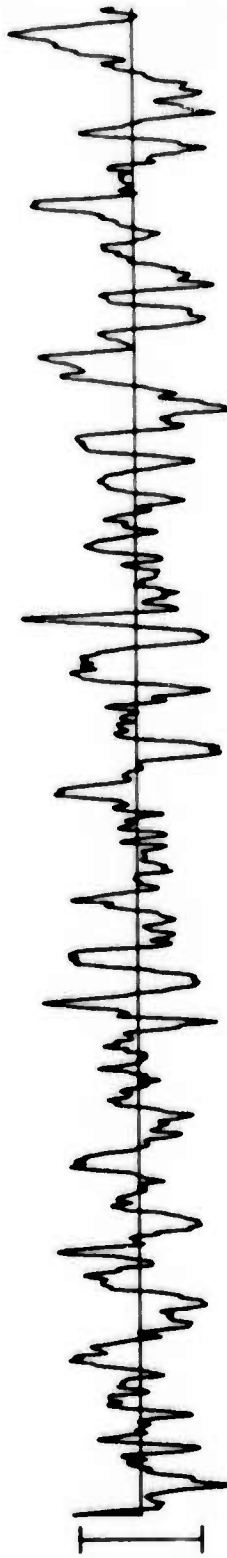


TIME

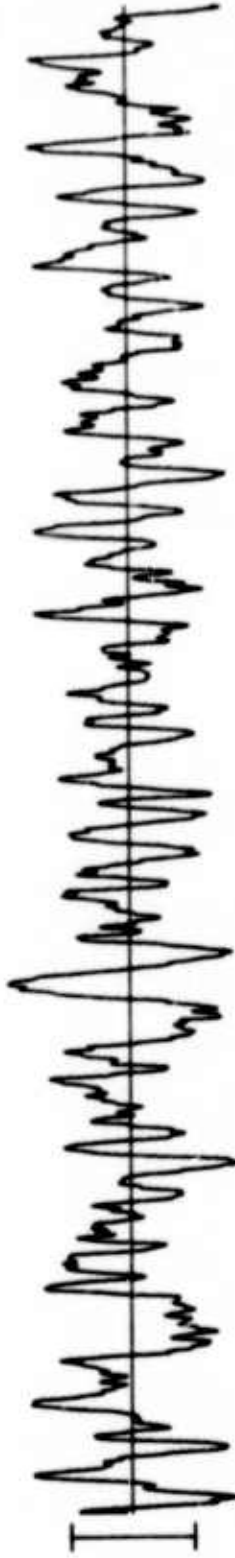


FN-WV 20 MAR 76

SPZ  
9.22 MU



SPR  
6.65 MU



SPT  
8.68 MU

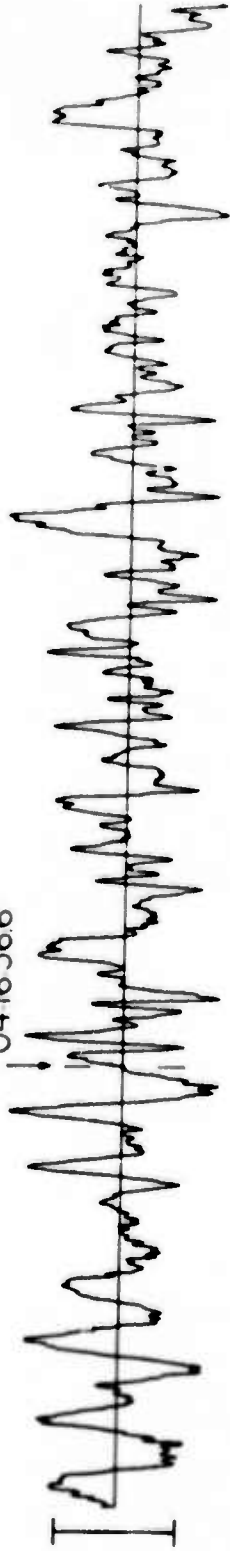


TIME



CPSO 20 MAR 76

0416566



SPZ  
11.76 MU



SPR  
8.86 MU



SPT  
7.14 MU

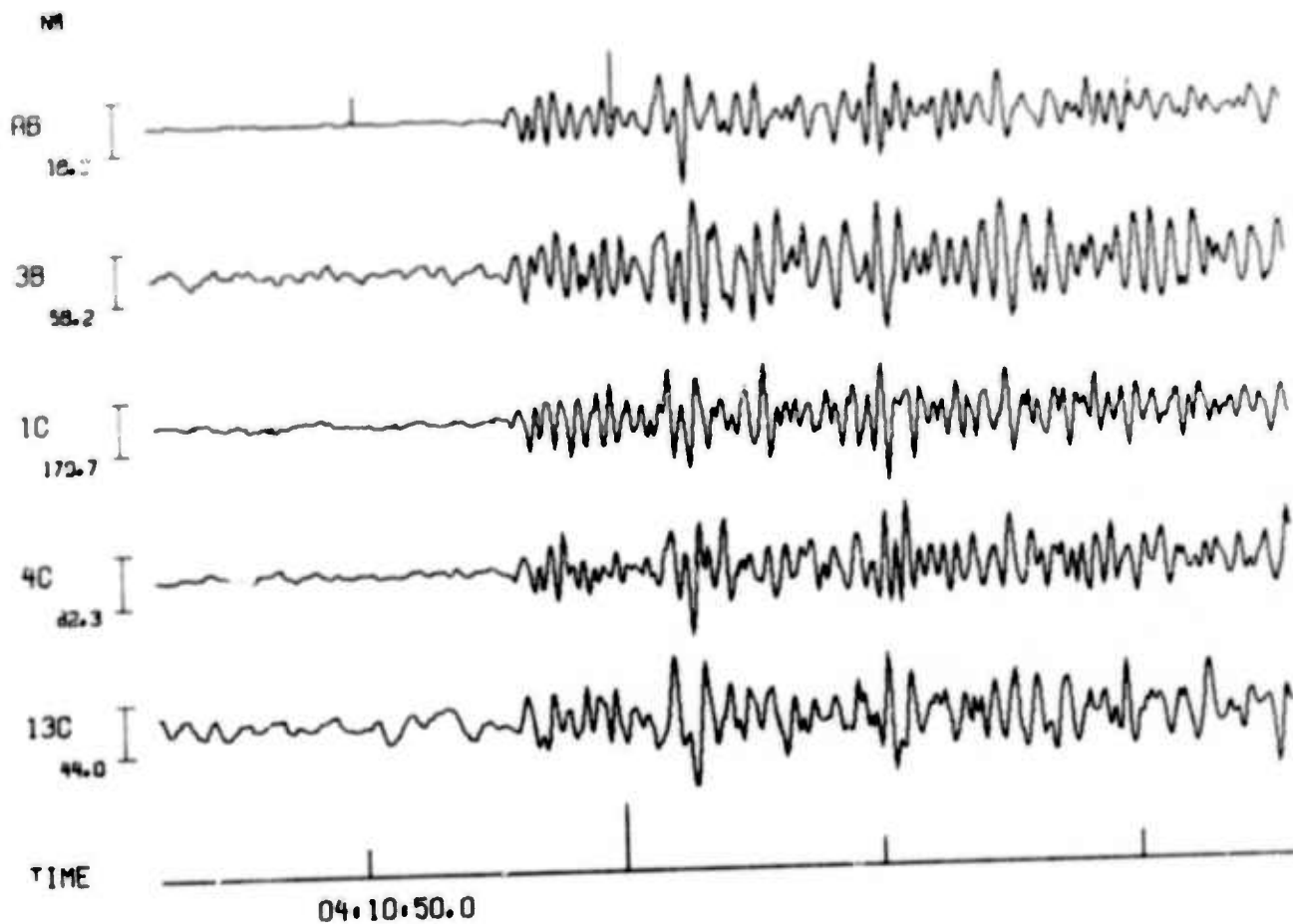
TIME



041700

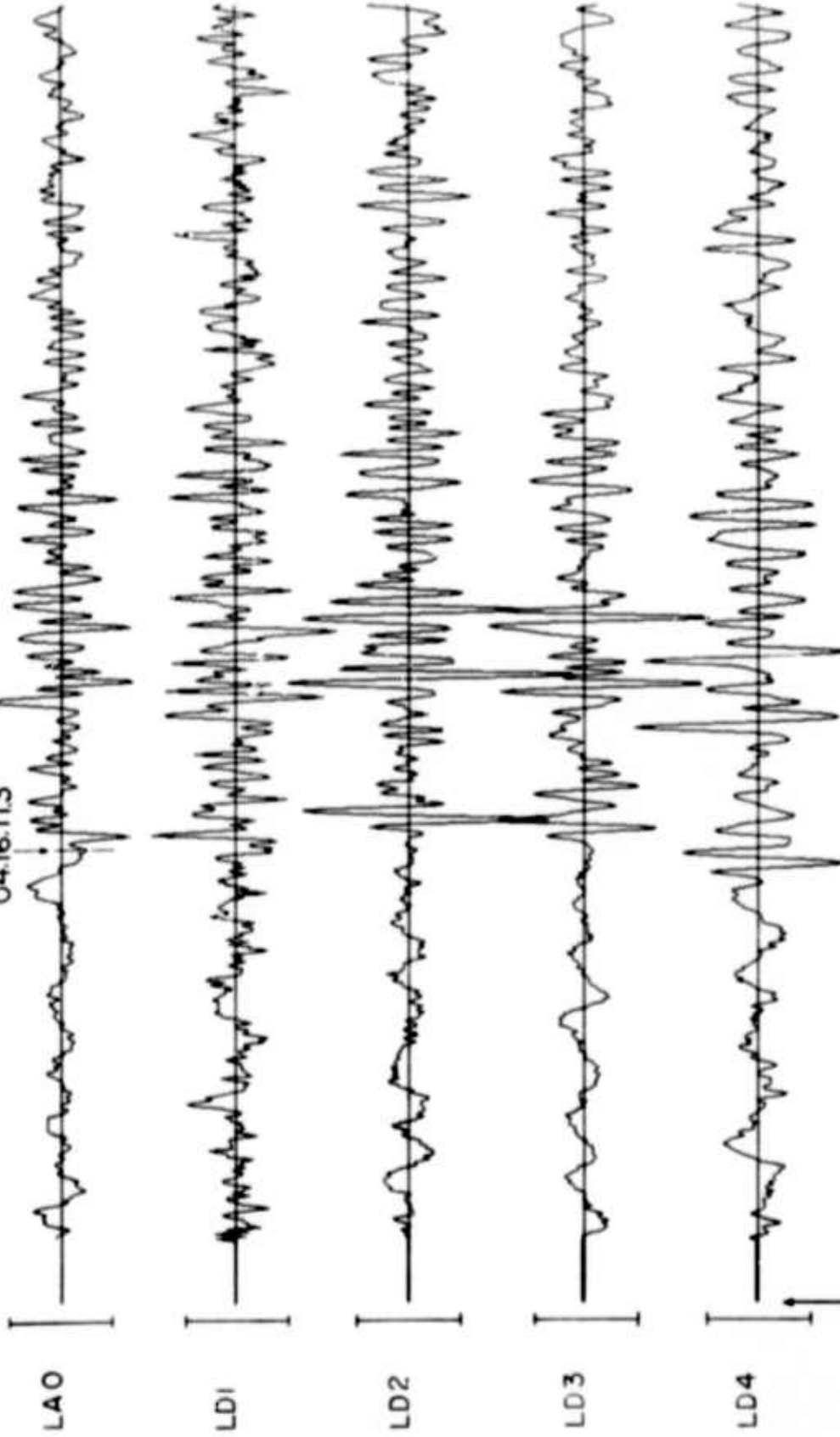


EPX 3246C    NORSAR    20 MAR 1976  
ORIGIN 04.03.33 48.9N 78.9E 4.5 MB  
329 EASTERN KAZAKH SSR  
 $\Delta = 43.1$      $BAZ = 78.0$      $C = 13.8$  KM/SEC  
ERRORS = 0



LASA INFINITE VELOCITY SUBARRAY SUMS 20 MAR 76

04:16:11.3



04:15:50 [ 10 SEC ]

ALL SCALING FACTORS 21.15 MU.

WH2YK 20 MAR 76

LPZ  
159.83 MU



LPR  
197.29 MU



LPT  
184.20 MU

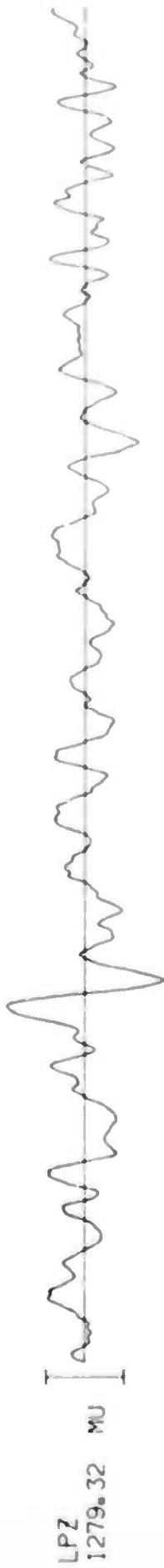


TIME



04:45:00

RK-0N 20 MAR 76



TIME





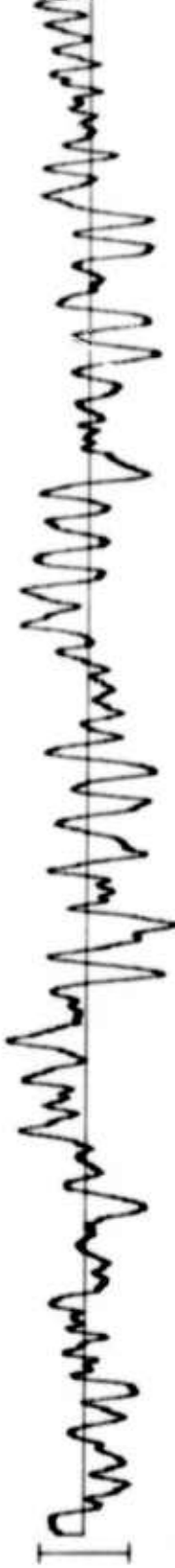
HN-ME 20 MAR 76

04:54:20

Lpz  
143.46 MU



LPR  
121.53 MU



LPT  
144.03 MU



TIME

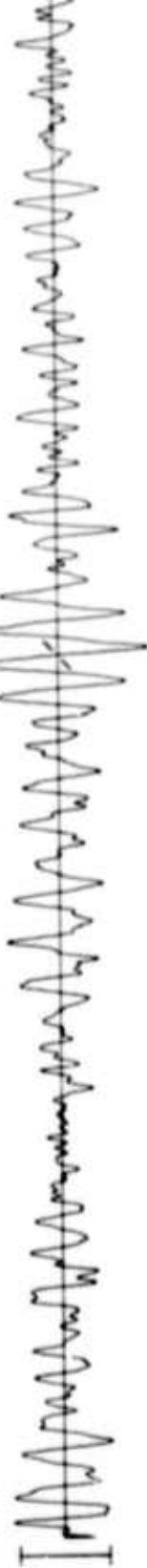


2 MIN

04:50:00

FN-WV 20 MAR 76

05:00:19



LPZ  
88.49 MU



LPR  
230.95 MU



LPT  
208.16 MU



TIME

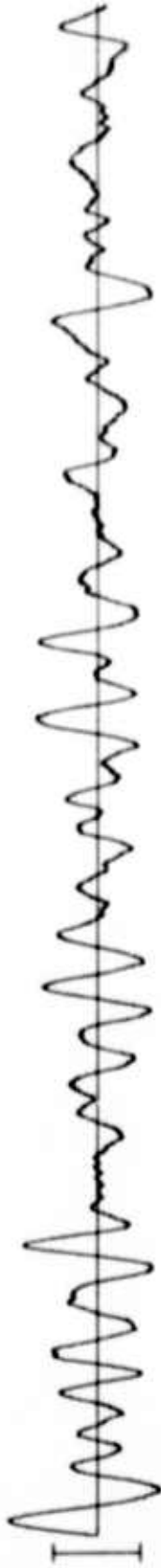
CPSO 20 MAR 76

050217

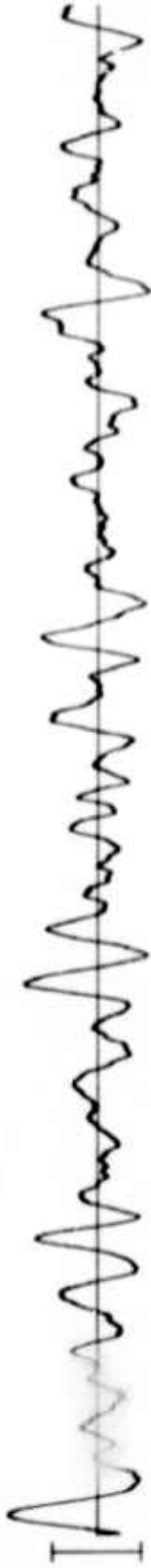
LPZ  
123.15 MU



LPR  
530.63 MU



LPT  
402.89 MU



TIME



050000