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VARPA Order-2897

⑥ **SPECIAL DATA COLLECTION SYSTEM EVENT REPORT.**
Eastern Kazakh SSR, (second event), 21 April 1976.

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Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

⑨ Technical rpt.

⑪ 16 Jun 1976

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⑬ AF-T/4703

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Unclassified

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SDCS EVENT REPORT NO. 101

Eastern Kazakh SSR, 21 April 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	05:10:20.6	05:02:49	49 N	080 E	5.4	N/A
Hagfors	05:10:11.1	05:03:20	52 N	076 E	6.5	N/A

Using SDCS stations and NORSAR, the epicenter location and magnitudes become

05:03:00.1 50.0N 078.7E 5.1 N/A

The programs used for LASA, NORSAR and ALPA data recovery are presently undergoing modifications. Information for LASA short-period is reported from their Teleseism Event Report; NORSAR short-period data are obtained from their bulletin. 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 all SDCS stations, LASA and NORSAR. 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.

The SDCS stations did not record long-period signals for this event and were not included in this report.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response).

ADDITIONAL INFO

NTS	WAVE SECTION
DOC	SWT SECTION
UNRECORDED	☐
JUSTIFICATION	☐
ST	☒
DISTRIBUTION/AVAILABILITY CODES	
Dist.	AVAIL. IND. BY SP/CLAL

P

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-NE	Houlton, Maine	46 09 067 59	43.0 N 09.0 W	213	KS36000	KS36000
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 02.0 W	853	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be 16° + 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

HYPOCENTER DETERMINATION

INPUT FOR EVENT 21 APR 76
05:03:00.0 50.000N 80.000E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST		
NAO	05 10 20.6	-0.1	-0.2	38.2	312.8
WH2YK	05 13 49.2	0.2	0.1	66.3	17.3
RK-ON	05 15 05.8	-0.7	-0.5	79.3	355.1
HN-ME	05 15 10.7	0.7	0.9	79.9	337.2
LAO *	05 15 30.0	1.1 *	1.0 *	83.6	3.4
FN-WV	05 15 59.5	0.3	0.3	89.7	343.1
CPSO	05 16 16.7	-0.5	-0.6	93.6	347.2

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
05:02:33.9	49.286N	78.994E	140. CALC	0.5	16	6
05:03:00.1	50.046N	78.714E	0. REST	0.6	2	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	

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 0.93
MAJOR 169.0KM. MINOR 42.7KM. AZ= 179 AREA= 22697 SQ.KM. REST

*To get a restrained run convergence LAO was not used in the
HYPOCENTER DETERMINATION.

DATA SUMMARY

INPUT FOR EVENT 21 APR 76
05:03:00.0 50.000N 80.000E 0KM.

STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
NAO	EP	05 10 20.6		AB	0.5	127.	5.28			38.2
WH2YK	EP	05 13 49.2		SPZ	0.6	31.	5.19			66.3
RK-ON	EP	05 15 05.8		SPZ	0.4	87.	5.41			79.3
HN-ME	EP	05 15 10.7		SPZ	1.0	21.	4.73			79.9
LAO *	EP	05 15 30.0		SAB	99.9	9999.				
FN-WV	EP	05 15 59.5		SPZ	0.6	10.	4.70			89.7
CPSO	EP	05 16 16.7		SPZ	0.6	24.	5.22			93.6

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA
05:02:33.9	49.286N	78.994E	0. CALC	5.08	0.25	6
05:03:00.1	50.046N	78.714E	0. REST	5.09	0.30	6

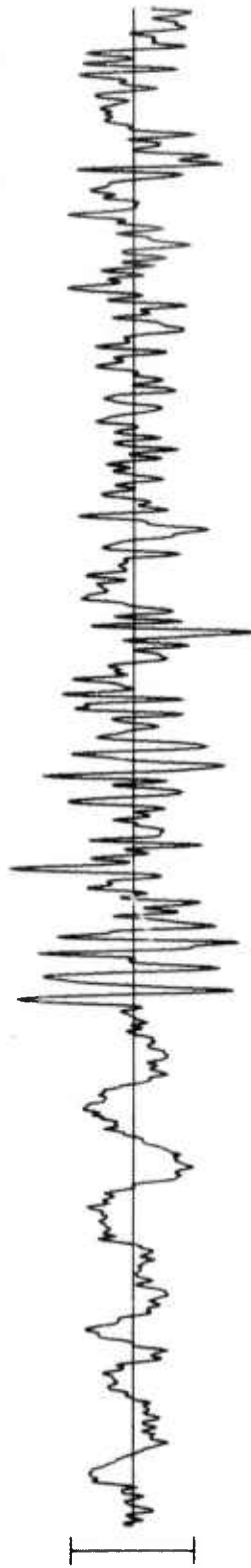
*To get a restrained run convergence LAO was not used in the
HYPOCENTER DETERMINATION.

WH2YK 21 APR 76

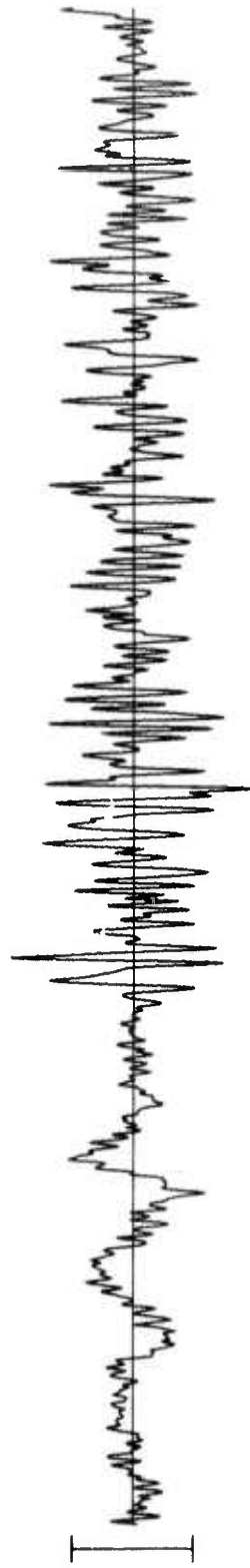
SPZ
31.09 MU



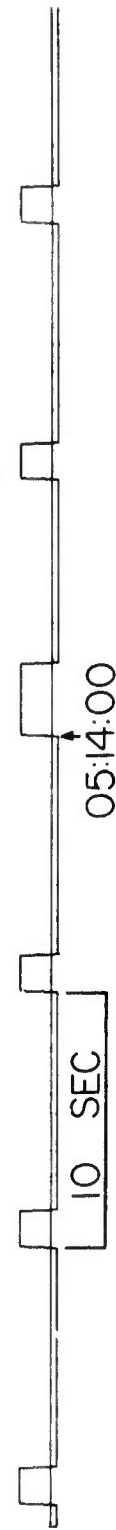
SPR
12.02 MU



SP
12.98 MU

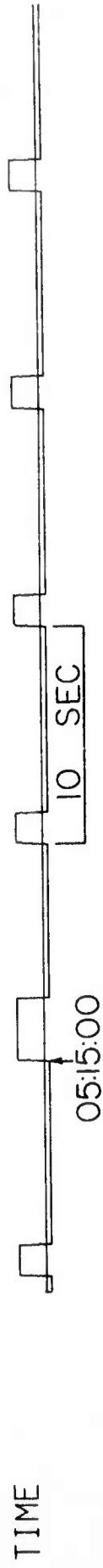
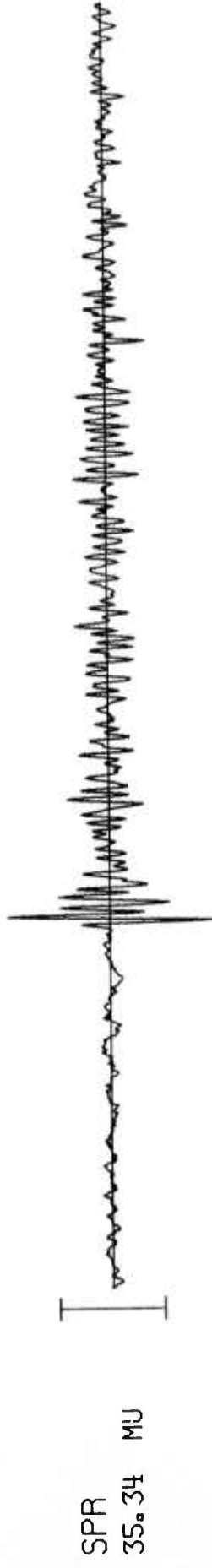
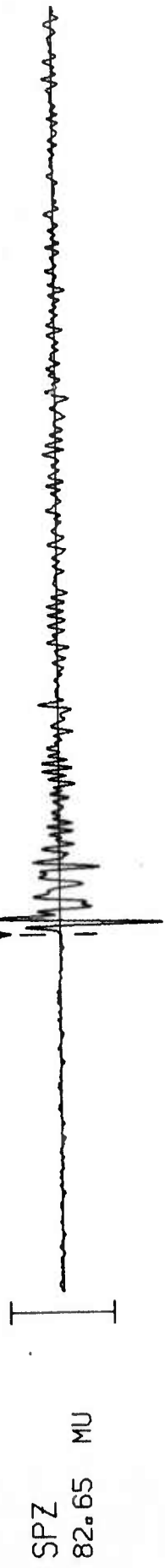


TIME

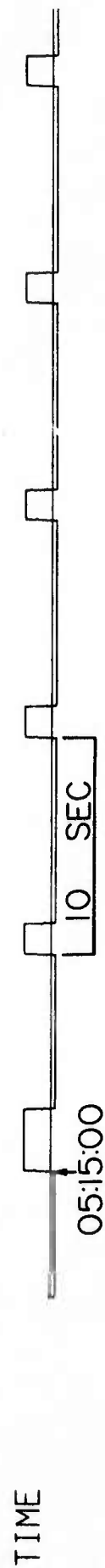
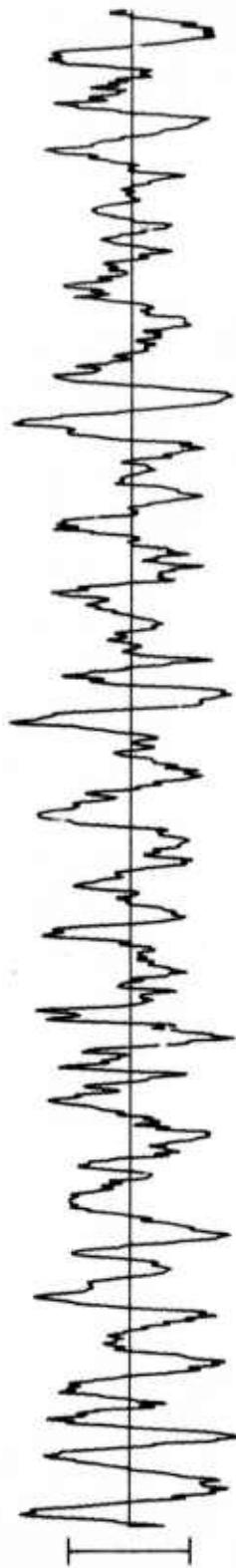


RK-ON 21 APR 76

05:15:05.8

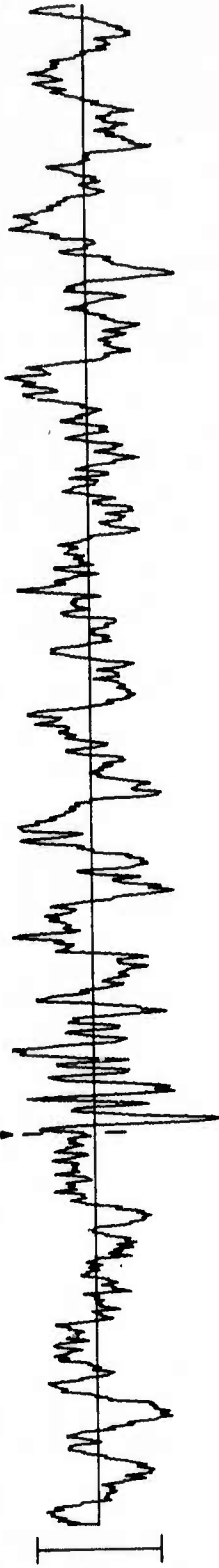


HN-ME 21 APR 76
05:15:10.7



FN-WV 21 APR 76
05:15:59.5

SPZ
8.96 MU



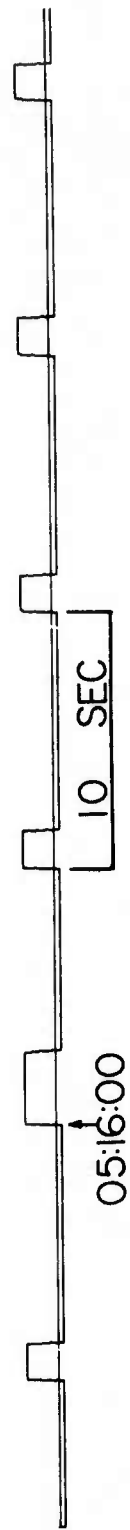
SPR
5.77 MU



SPT
5.38 MU



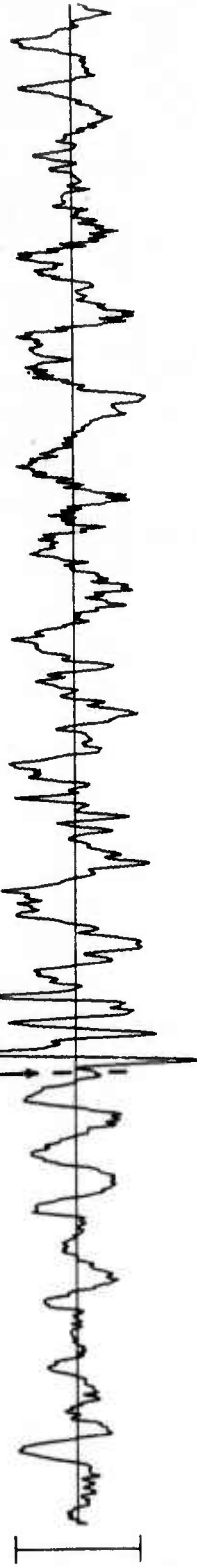
TIME



CPS0 21 APR 76

05:16:16.7

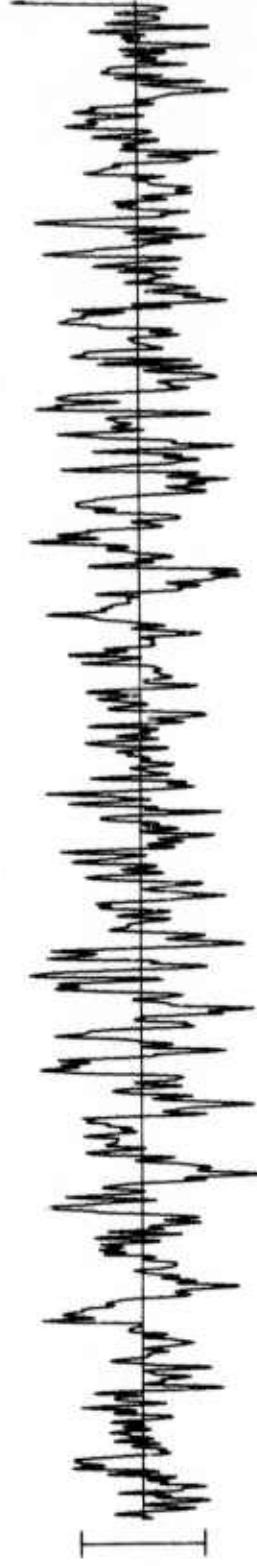
SPZ
13.09 MU



SPR
6.98 MU



SPT
4.24 MU



TIME



05:16:00