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SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT  
REPORT, NORTHERN COLUMBIA, 23 JUNE 1975

K. J. Hill, et al

Teledyne Geotech

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January 1976

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**SPECIAL DATA COLLECTION SYSTEM EVENT REPORT**  
**Northern Colombia, 23 June 1975**

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**Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314**

**January 1976**

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SDCS EVENT REPORT NO. 47

Northern Colombia, 23 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:

	"P" Arrival	Origin Time	Lat.	Long.	$m_b$	$M_s$
NORSAR	05:34:47.3	05:22:40	07 N	072 W	4.4	N/A
LASA	05:31:19.0	05:22:27	05.0N	073.5W	5.0	N/A

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

05:22:26.1 05.8N 073.1W 4.7 N/A

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR. Horizontal SP channels at all SDCS stations were rotated.

No long-period signals were recorded at the SDCS stations, ALPA, LASA and NORSAR. Horizontal LP channels at WH2YK, FN-WV, CPSC and HN-ME were rotated. At RK-ON horizontal LP channels were not rotated because of numerous data spikes on the LP transverse channel. Long-period signal arrival at NORSAR was masked by signal arrival from North Atlantic Ridge event. Validity of the ALPA, LASA and NORSAR long-period vertical beams is uncertain, horizontal radial channels were not recoverable and data recovered for the transverse channels are questionable.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of IASA and NORSAP 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	MIN SECS		SHORT - PERIOD	LONG - PERIOD
ALPA	Alaska	65 14	00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, 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	18300	SL210 V SL220 H
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	855	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be 316° + 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

HYPOCENTER DETERMINATION

05:22:27.0 INPUT FOR EVENT 5.000N 23 JUN 75 73.500W 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	FFST		
CFC	05 28 03.6	0.6	0.7	31.8	240.4
FN-WV	05 29 03.2	-0.2	-0.2	33.1	350.7
HN-ME	05 30 07.5	-0.1	-0.1	40.4	5.4
PK-CN	05 31 07.7	0.1	-0.0	48.1	42.5
LAC	05 31 19.0	-0.7	-0.6	49.7	330.4
WHZYK	05 33 48.1	0.3	0.3	71.5	332.4
NAC	05 34 47.3	0.0	0.1	82.0	29.8

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LCNG.	DEPTH (KM)	SDV	IT	STA
05:22:35.3	6.024N	73.069W	60. CAIC	0.4	5	7
05:22:26.1	5.907N	73.054W	0. REST	0.4	3	7

CALC			REST		
0	5	2	0	5	2
C	C	0 0	0	0	0
C	C	0 0	0	0	0
0	C	0 0	0	0	0
C	C	0 0	0	0	0

CH2 COVERAGE ELLIPSE: 95 EFF CEN1 CCNF. LEVEL SDV= 1.12  
 MAJCF 85.7KM. MINCF 52.6KM. AZ= 18 AREA= 1416P SQ.KM. REST

DATA SUMMARY

INPUT FOR EVENT 23 JUN 75  
 05:22:27.0 5.000N 73.500W 0KM.

STA.	PHASE	ARRIVAL		INST	PER	AZI	MAGNITUDE		DIF	DIST
		TIME					MB	MS		
CEC	EP	05	28	52.6	SPZ	0.6	102.	5.41		31.8
FN-WV	EP	05	29	03.2	SPZ	0.8	15.	4.58		33.1
HI-ME	EP	05	30	05.5	SPZ	0.7	90.	5.05		40.4
RK-CN	EP	05	31	06.7	SPZ	0.5	157.	5.79		48.1
IAC	EP	05	31	19.0	AE	0.7	19.	4.68		48.7
WRZYK	EP	05	32	46.1	SPZ	0.8	5.	4.30		71.5
NAC	EP	05	34	47.3	AF	0.7	5.	4.30		82.0

CETGIN LAT. LONG. DEPTH (KM) MAG SDV STA  
 05:22:35.3 5.034N 73.069W 60. CALC 4.64 0.50 6  
 05:22:26.1 5.807N 73.054W 0. REST 4.72 0.44 6  
 RK-CN NOT USED IN CALC FUN SP AVG. MAG.  
 RK-CN NOT USED IN REST PCN SP AVG. MAG.

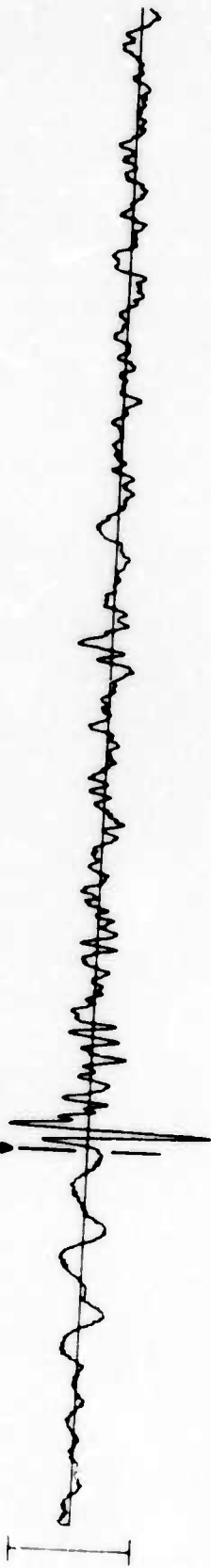
RK-ON NOT USED IN EITHER THE CALCULATED OR RESTRAINED  
 SP AVERAGE MAGNITUDE CALCULATION BECAUSE ITS MAGNITUDE  
 EXCEEDS THE SDV PARAMETERS OF THE HYPOCENTER PROGRAM.



CPSO 23 JUN 75

SPZ  
66.34 MHz

05:28:52.0



SPR  
29.20 MHz



SA

SPT  
11.93 MHz



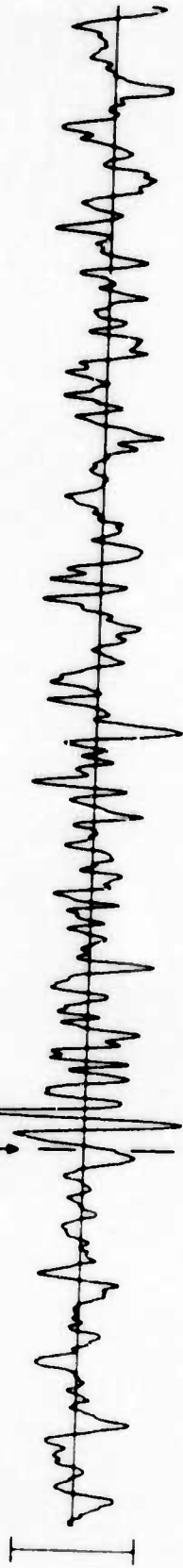
TIME



**FN-WV 23 JUN 75**

05:29:03.2

SPZ  
12.01 MY



SPR  
10.32 MY



SPT  
7.51 MY

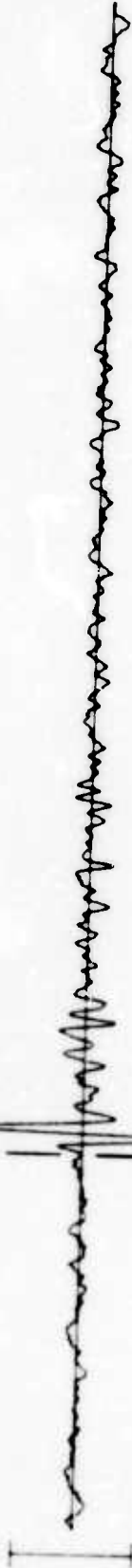


10 SEC

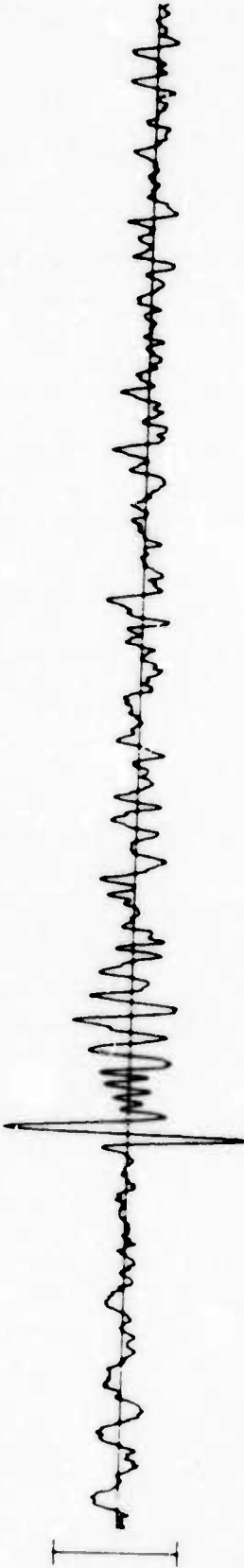
HN-ME 23 JUN 75

05:30:05.5

SPZ  
67.07 MP

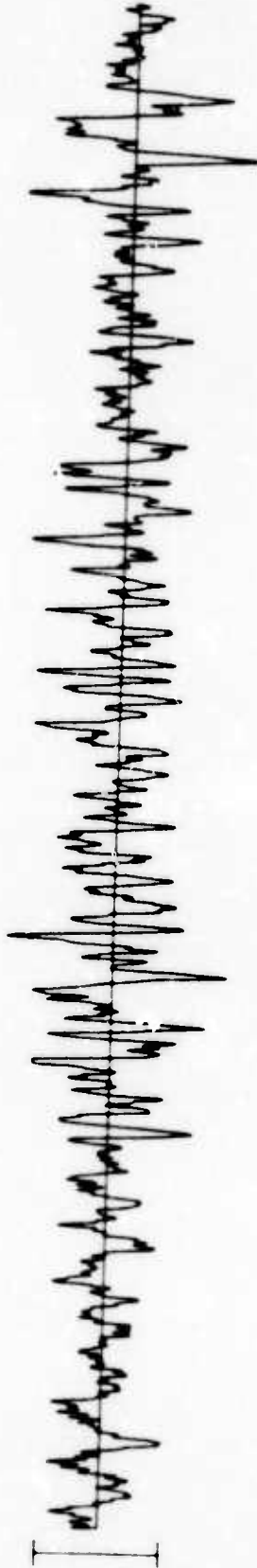


SPR  
33.85 MP



∞  
A

SPT  
5.50 MP



TIME

10 SEC

05:30:10



**RK-ON 23 JUN 75**

05:31:06.7

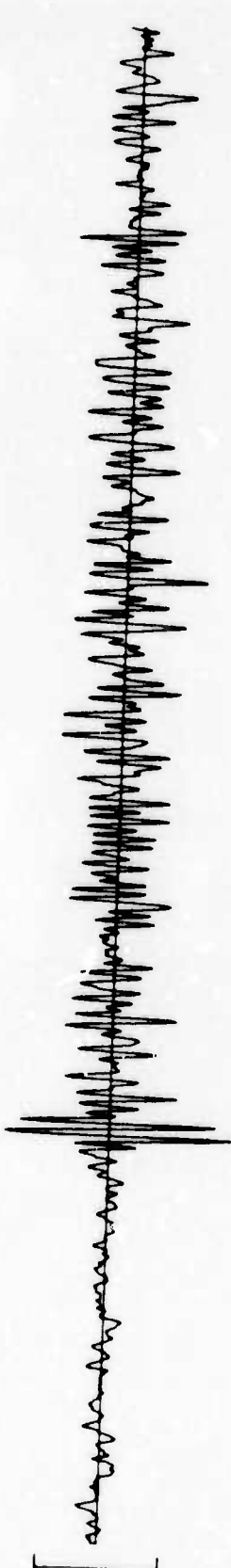
SPZ  
153.23 MP



SPR  
76.71 MP



SPT  
26.54 MP



10 SEC

WH2YK 23 JUN 75

05:33:48.1

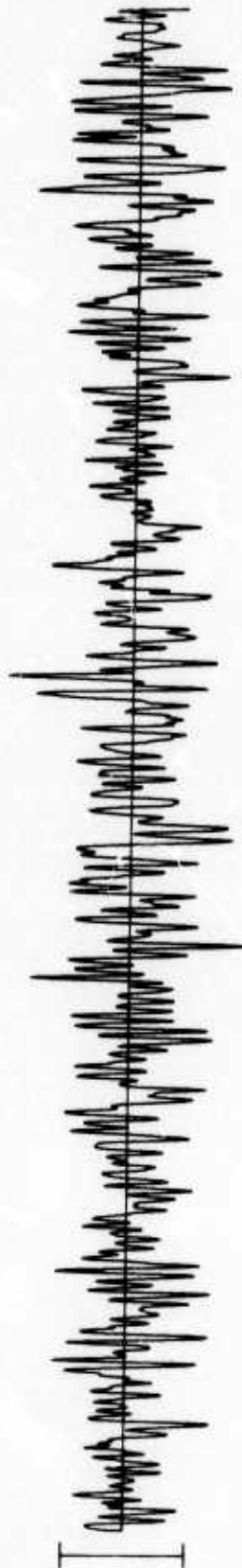
SPZ  
4.16 MF



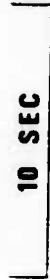
SPR  
5.06 MF



SPT  
5.09 MF



10 SEC



LASA

1.23 JUN 1975

2 5 22 27 5.0N 73.5W 33C G 5.0 103 COLOMBIA

3 5 31 18.6 LAO P 20.8 0.9 14.7 50.2 135.5

EPX 67995

BP-B 0.6-2.0 HZ

ABN 7.5

05:31:08.6

AB 80

FAB 62

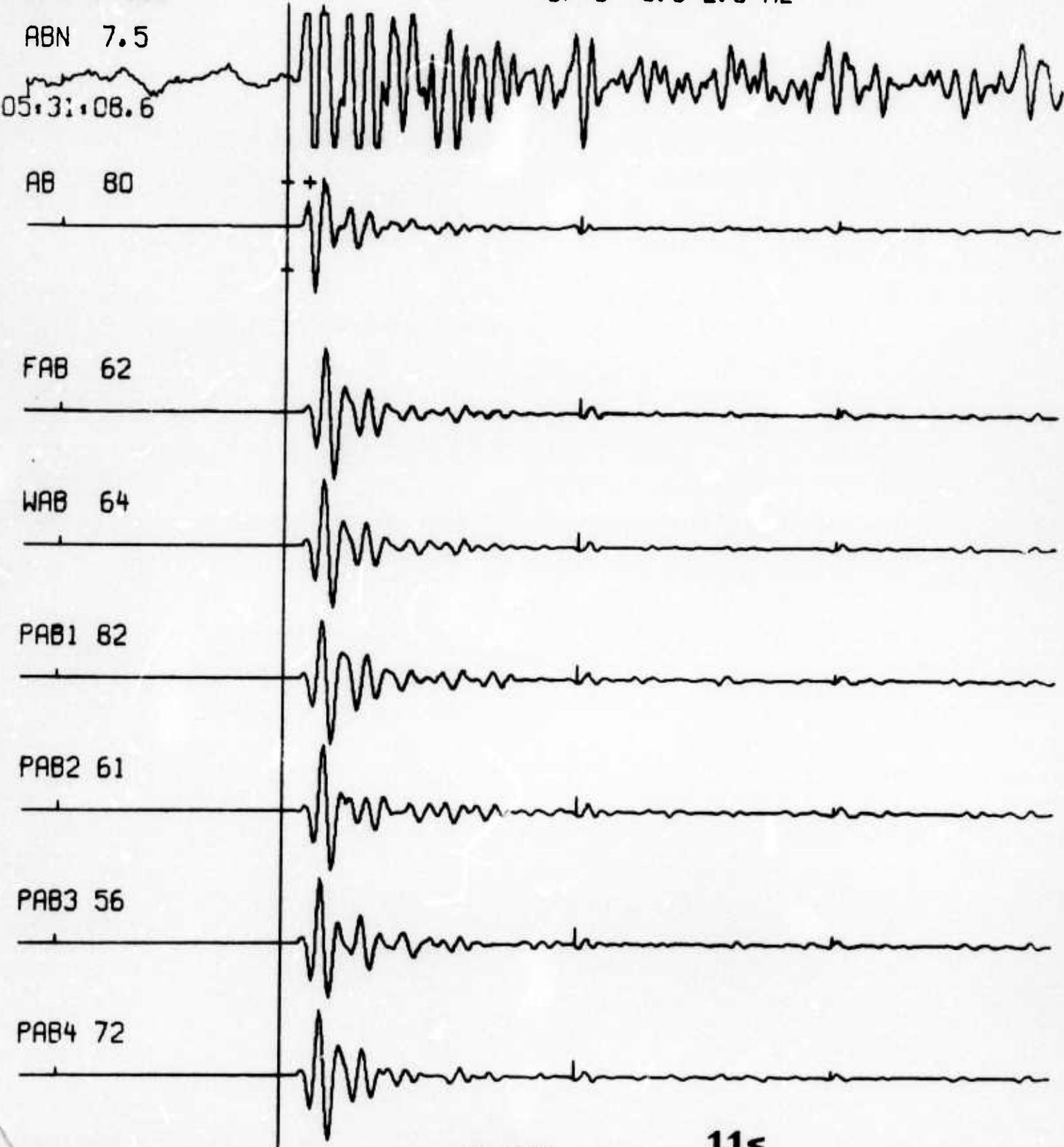
WAB 64

PAB1 82

PAB2 61

PAB3 56

PAB4 72



10 SEC

11<

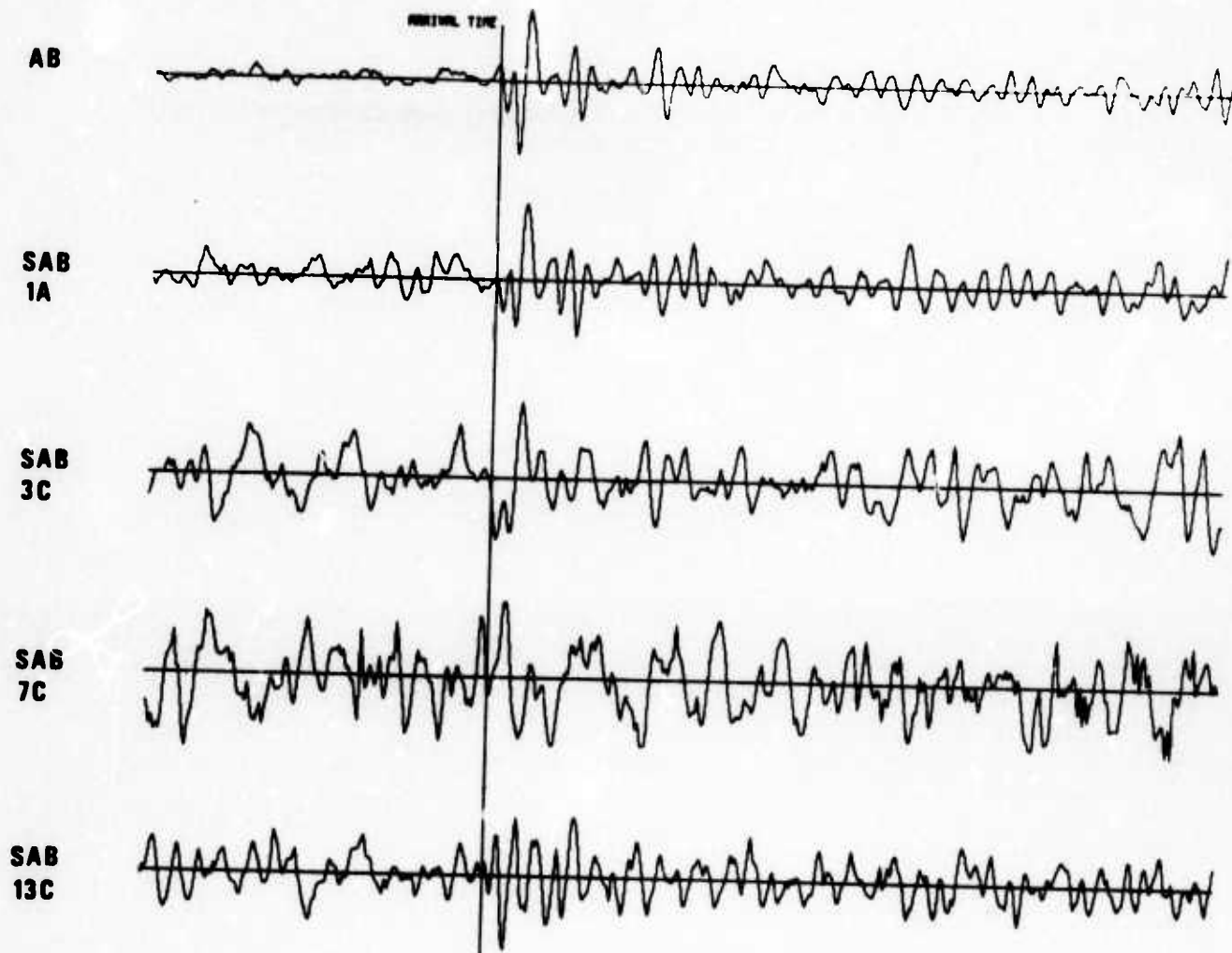
# NORSAR EVENT FILE

## 23 JUN 75

EPX NO. 68030 ARR. 5.34.47.5 7.1N 72.2W 4.3MB 33KM

DIST = 80.4 AZI = 267.4 AMP = 3.6 PER = 1.1 UMETH 2

SCALE  = 5 SECONDS



CPSO 23 JUN 75



TIME



05:40:00



FN-WV 23 JUN 75

LPZ  
717.91 MHz



14  
LPR  
948.00 MHz



LPT  
260.60 MHz



05:33:55

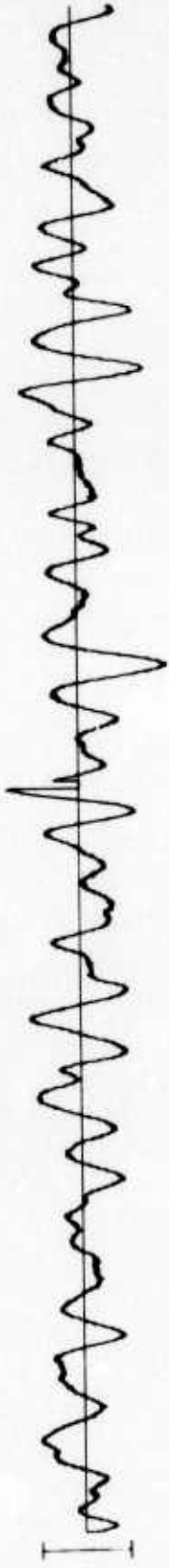
2 MIN

HN-ME 23 JUN 75

Lpz  
QUESTIONABLE



LPR  
487.82 MP



LPT  
858.13 MP



15A

TIME



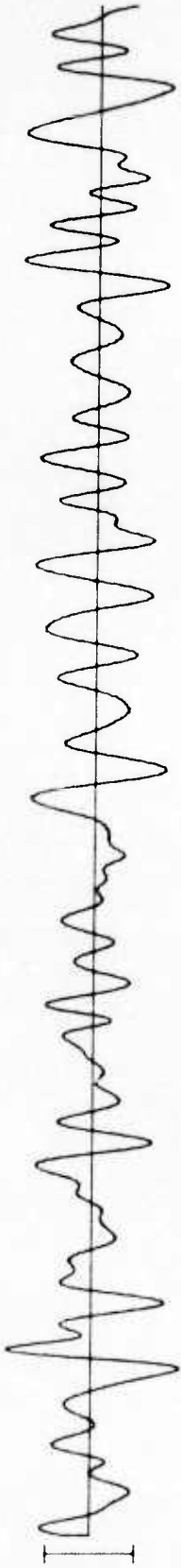
2 MIN

05:45:00

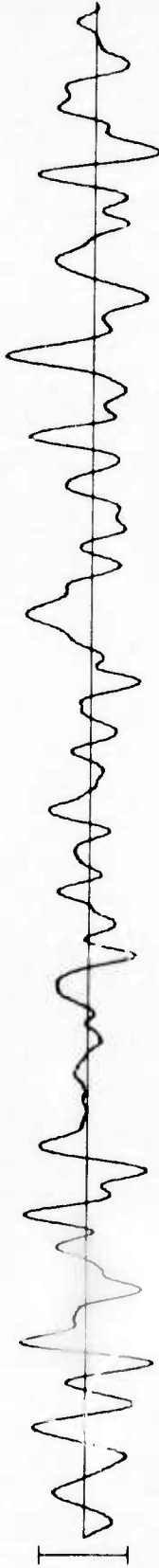
INSTRUMENT NOT RESPONDING PROPERLY

RK-ON 23 JUN 75

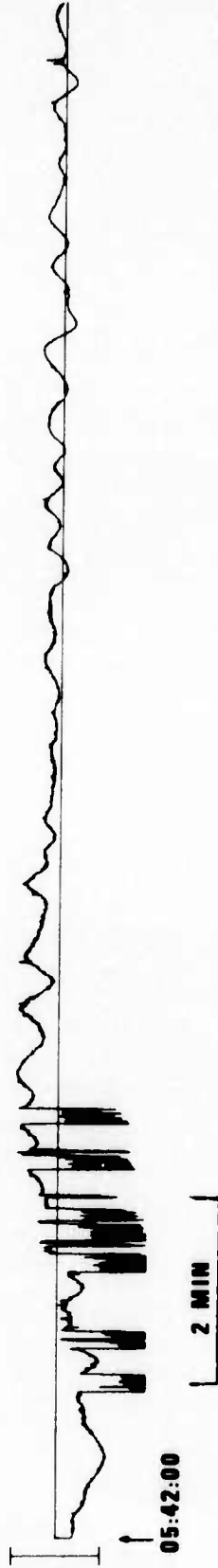
LPZ  
1288.28 MP



LPR  
1139.25 MP



LPT  
5224.58 MP

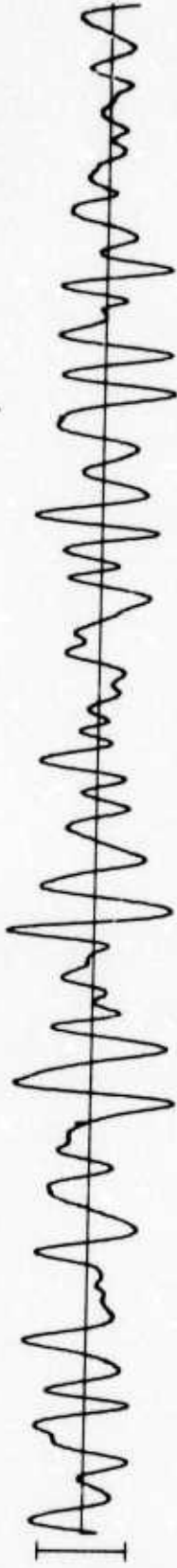


WH2YK 23 JUN 75

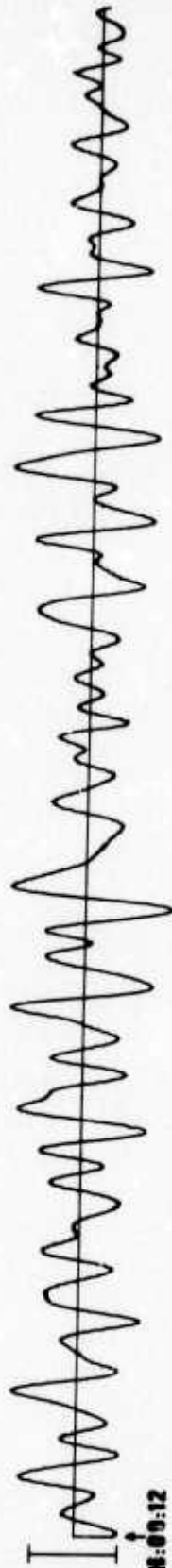
LPT  
132.51 MP



LPT  
545.49 MP



LPT  
592.99 MP



96:00:12

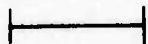
2 MIN

17

**LASA LONG PERIOD BEAMS 23 JUN 75**

LP VERTICAL

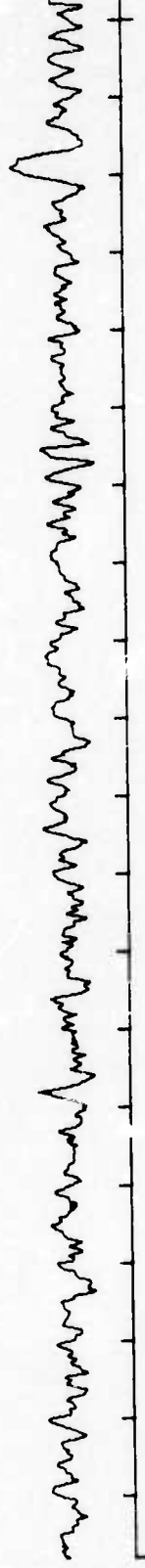
92.59 Mμ



18  
Λ

LP TRANSVERSE

101.28 Mμ



1 MIN

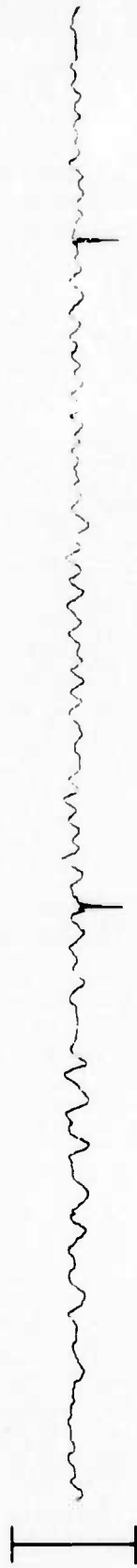


05:43:12

**RADIAL CHANNEL NOT RECOVERABLE**

**ALPA LONG PERIOD BEAMS 23 JUN 75**

**LP VERTICAL  
123.32 MHz**



**19**

**LP TRANSVERSE  
144.70 MHz**



**1 MIN**

**↑  
05:57:59**

**RADIAL CHANNEL NOT RECOVERABLE**

**NORSAR LONG PERIOD BEAMS 23 JUN 75**

**LP VERTICAL  
103.18 MP**



**202**

**LP TRANSVERSE  
206.96 MP**



**1 MIN**

**06:00:06**

**RADIAL CHANNEL NOT RECOVERABLE**