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SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT,
PERU, 16 AUGUST 1975

K. J. Hill, et al

Teledyne Geotech

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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Peru, 16 August 1975

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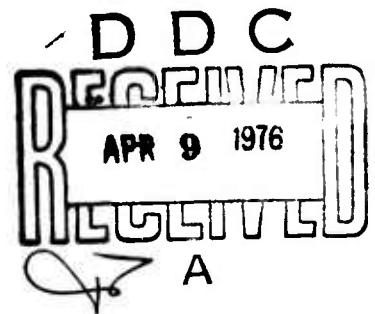
January 1976

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1

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SDCS EVENT REPORT No. 50

Peru, 16 August 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	01:06:55.4	00:53:32	09 S	075 W	5.9	N/A

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

00:53:37.2 06.0S 076.3W 5.8 4.2

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.

Long-period signals were recorded at WH2YK, CPSO, HN-ME, FN-WV, ALPA, LASA and NORSAR. RK-ON did not record LP signals for this event and was not included in this report. Horizontal LP channels at WH2YK, CPSO, HN-ME and FN-WV were rotated. Validity of the ALPA and NORSAR long-period vertical beams is uncertain and horizontal channels were not included due to program recovery problems. LASA long-period array data are recoverable in segment lengths of 6 minutes 40 seconds; two segments are included in this report.

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 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	853	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

INPUT FOR EVENT 16 AUG 75
00:53:17.0 5.000S 73.000W 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	REST		
CPC	01 01 31.8	-0.6	-0.4	42.3	348.8
FN-WV	01 01 50.4	0.9	0.9	44.4	356.4
HN-ME	01 02 51.1	0.2	-0.0	52.5	7.3
RF-CN	01 03 33.8	-0.9	-1.1	58.6	347.2
LAC	01 03 36.8	0.1	0.2	58.8	336.3
WBZYK	01 05 51.4	0.6	0.5	60.6	334.8
NAC	01 06 55.4	-0.2	-0.1	93.8	29.4

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LCNG.	DEPTH (KM)	SDV	IT	STA
00:54:06.1	5.158S	76.316W	210. CAIC	0.6	6	7
00:53:37.2	6.023S	76.302W	0. REST	0.6	3	7

CAIC				REST			
5 . 2				5 . 2			
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	0
0	.	0	0	0	.	0	0

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.02
MAJCF 81.2KM. MINCF 59.2KM. AZ= 29 AREA= 15115 SQ.KM. REST

DATA SUMMARY

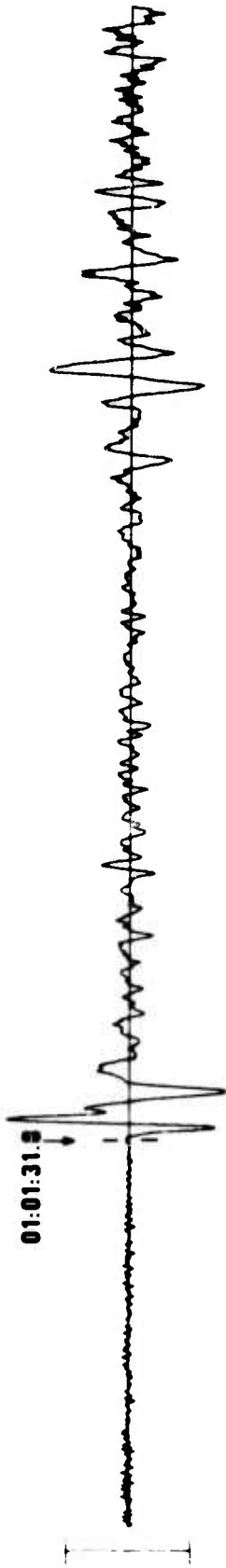
INPUT FOR EVENT 16 AUG 75
00:53:17.0 5.000S 73.000W 0KM.

STA.	PHASE	ARRIVAL		INST	FEE	A/T	MAGNITUDE		DIF	DIST
		TIME					MB	MS		
CFC	EP	01 01 31.8		SPZ	0.6	453.	5.86			42.3
CFC	IR	01 17 20.0		LPZ	22.0	46.		4.41		42.3
FN-WV	EP	01 01 50.4		SPZ	1.0	434.	5.93			44.4
FN-WV	LQ	01 15 13.0		LPT	24.0	60.				
FN-WV	LR	01 20 08.0		LPZ	21.0	15.		3.94		44.4
HN-ME	EP	01 02 51.1		SPZ	0.8	157.	5.60			52.5
HN-ME	LQ	01 17 40.0		LFT	24.0	38.				
HN-ME	LR	01 20 28.0		LPZ	22.0	40.		4.44		52.5
AK-CN	EP	01 03 33.8		SPZ	0.8	264.	5.92			58.6
IAC	EP	01 03 36.8		SAE	1.2	421.	6.12			58.8
IAC	IR	01 31 53.0		LPZ	21.0	16.		4.09		58.8
WH2YK	EP	01 05 51.4		SPZ	0.9	52.	5.17			80.6
WH2YK	IR	01 42 13.0		LPZ	20.0	20.		4.33		80.6
ALFA	LR	01 41 55.0		LPZ	23.0	4.		3.67		87.8
NAC	EP	01 06 55.4		AE	1.2	85.	5.75			93.8
NAC	IR	01 41 53.0		LPZ	21.0	18.		4.35		93.8

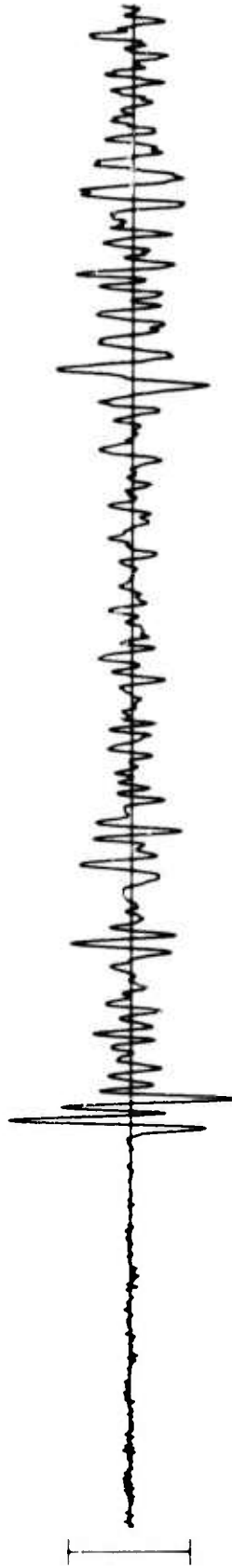
ORIGIN	LAT.	LCNG.	DEPTH (KM)	MAG	SDV	STA	UPMAG	LPSTDV	LPSTA
00:54:06.1	5.158S	76.316W	210. CAIC	5.46	0.30	7	4.17	0.3	7
00:53:37.2	6.023S	76.302W	0. REST	5.76	0.31	7	4.18	0.3	7

CPSO 16 AUG 75

SPZ
280.89 MHz

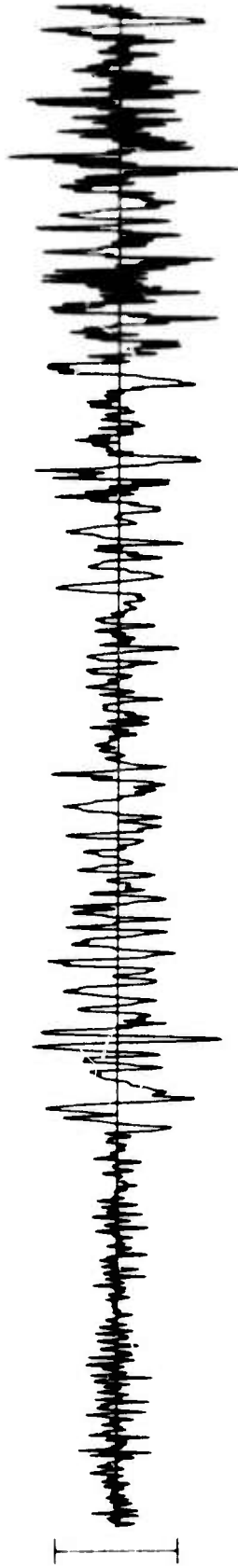


SPR
118.70 MHz



6

SPT
34.41 MHz



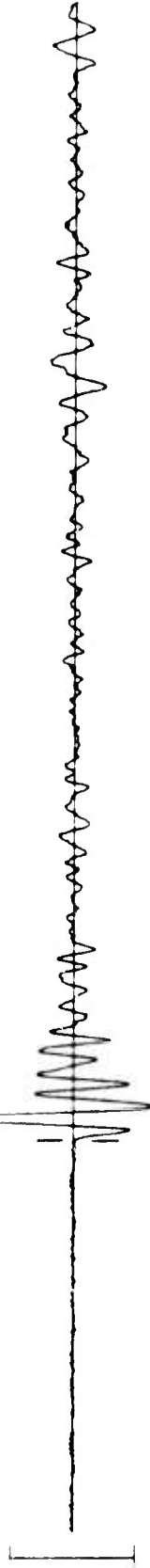
TIME



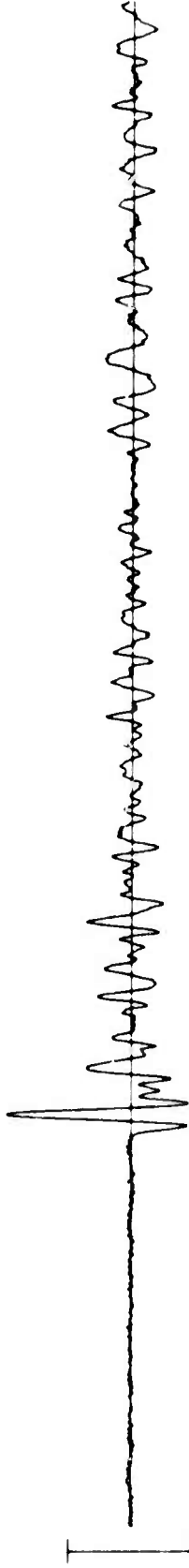
FN-WV 16 AUG 75

01:01:50.4

SPZ
269.15 Mμ

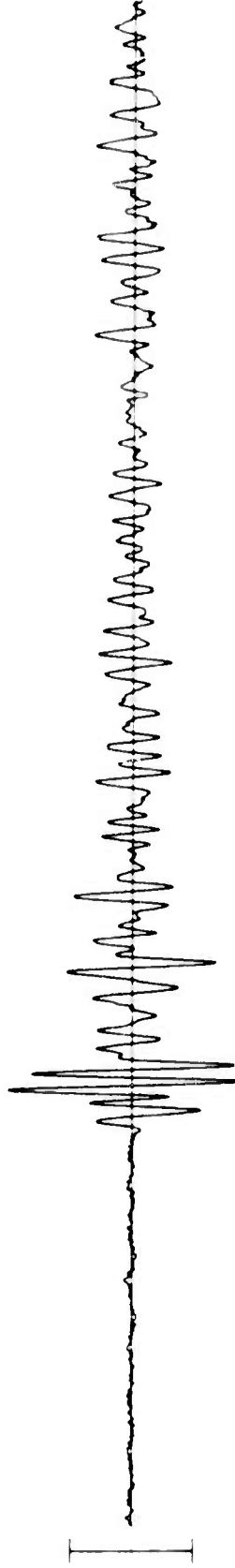


SPR
172.56 Mμ



7

SPT
81.98 Mμ



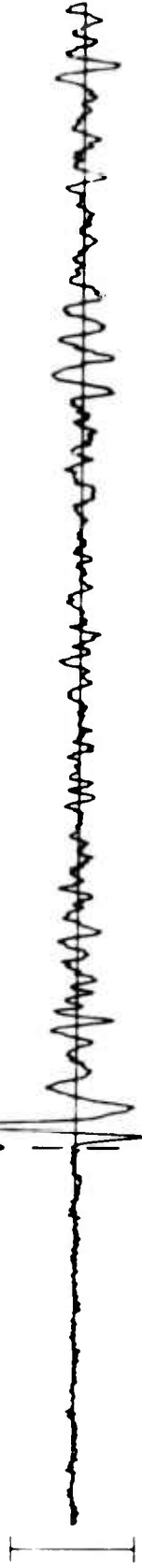
TIME



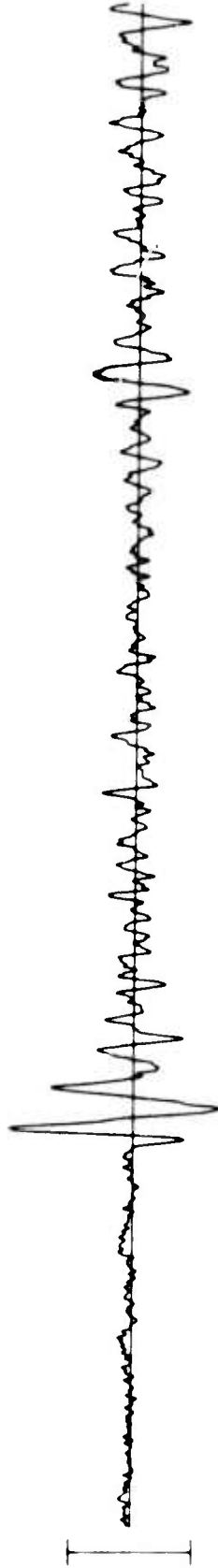
HN-ME 16 AUG 75

SPZ
138.25 Mμ

01:02:51.1



SPR
83.39 Mμ



∞

SPT
18.10 Mμ

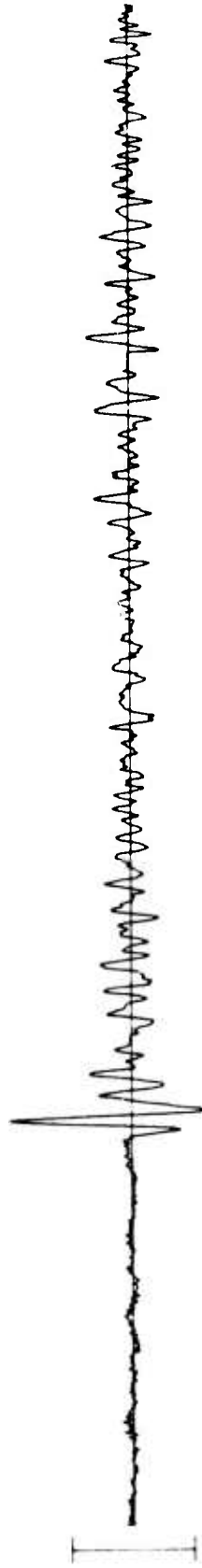
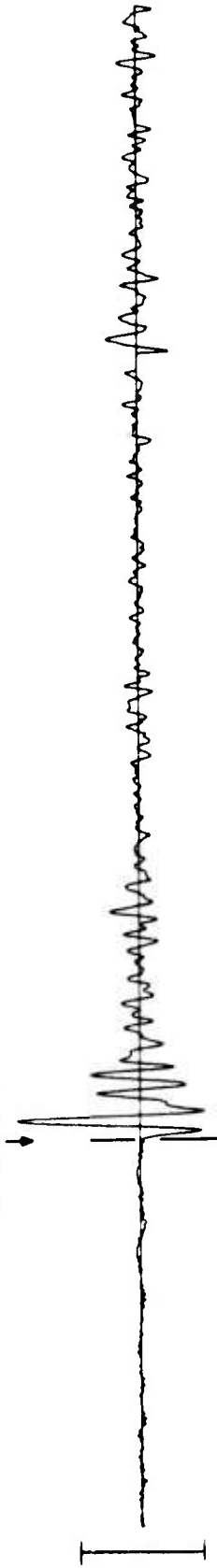


TIME

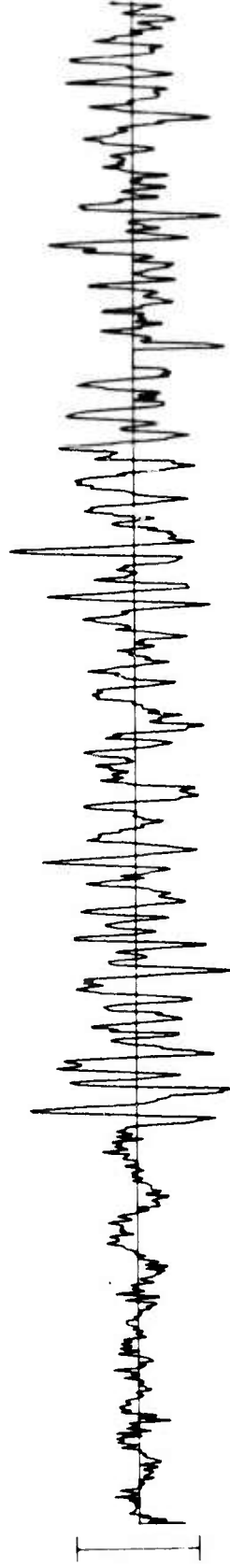


RK-ON 16 AUG 75

01:03:33.8



6



10 SEC

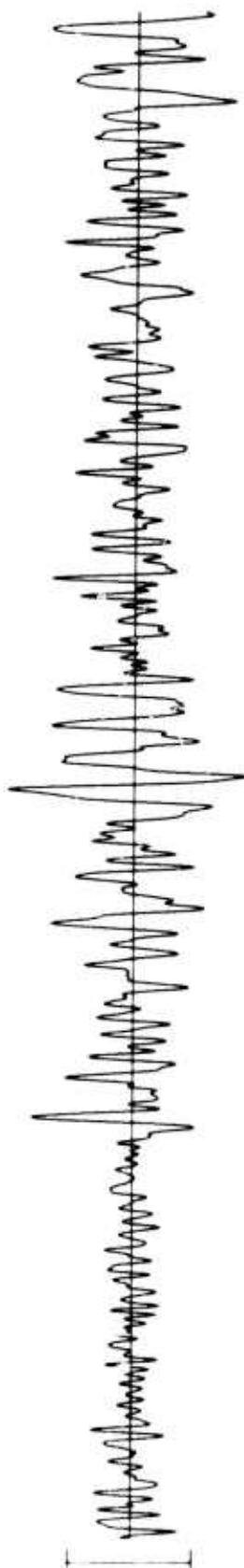
WH2YK 16 AUG 75

SPZ
38.46 Mμ

01:05:51.4

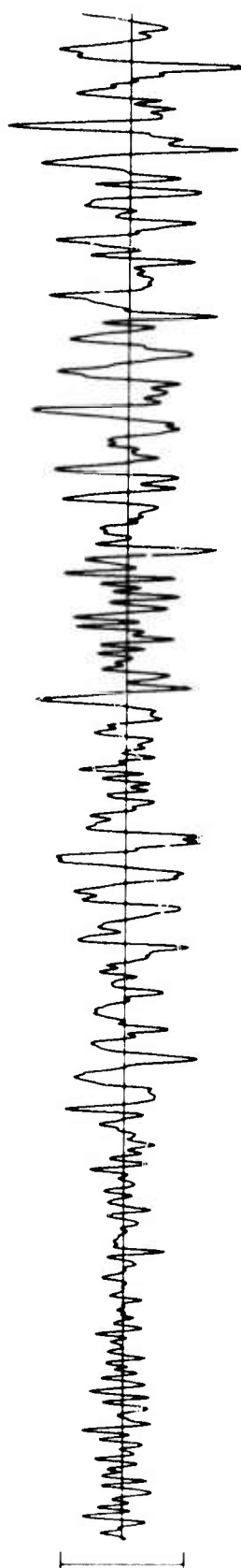


SPR
22.78 Mμ

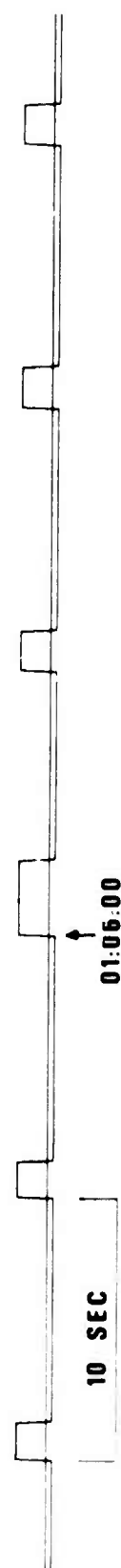


10

SPT
18.53 Mμ

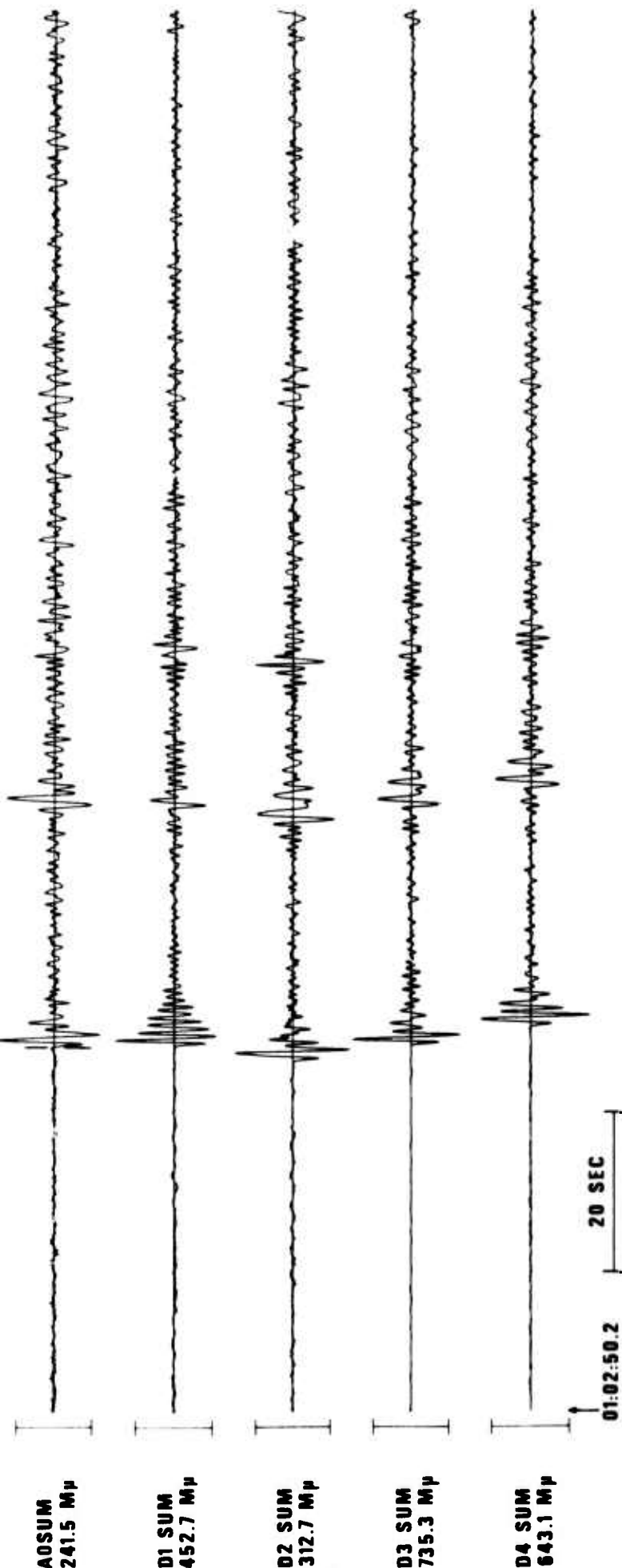


TIME



LASA INFINITE VELOCITY SUBARRAY SUMS 16 AUG 75

01:03:36.8

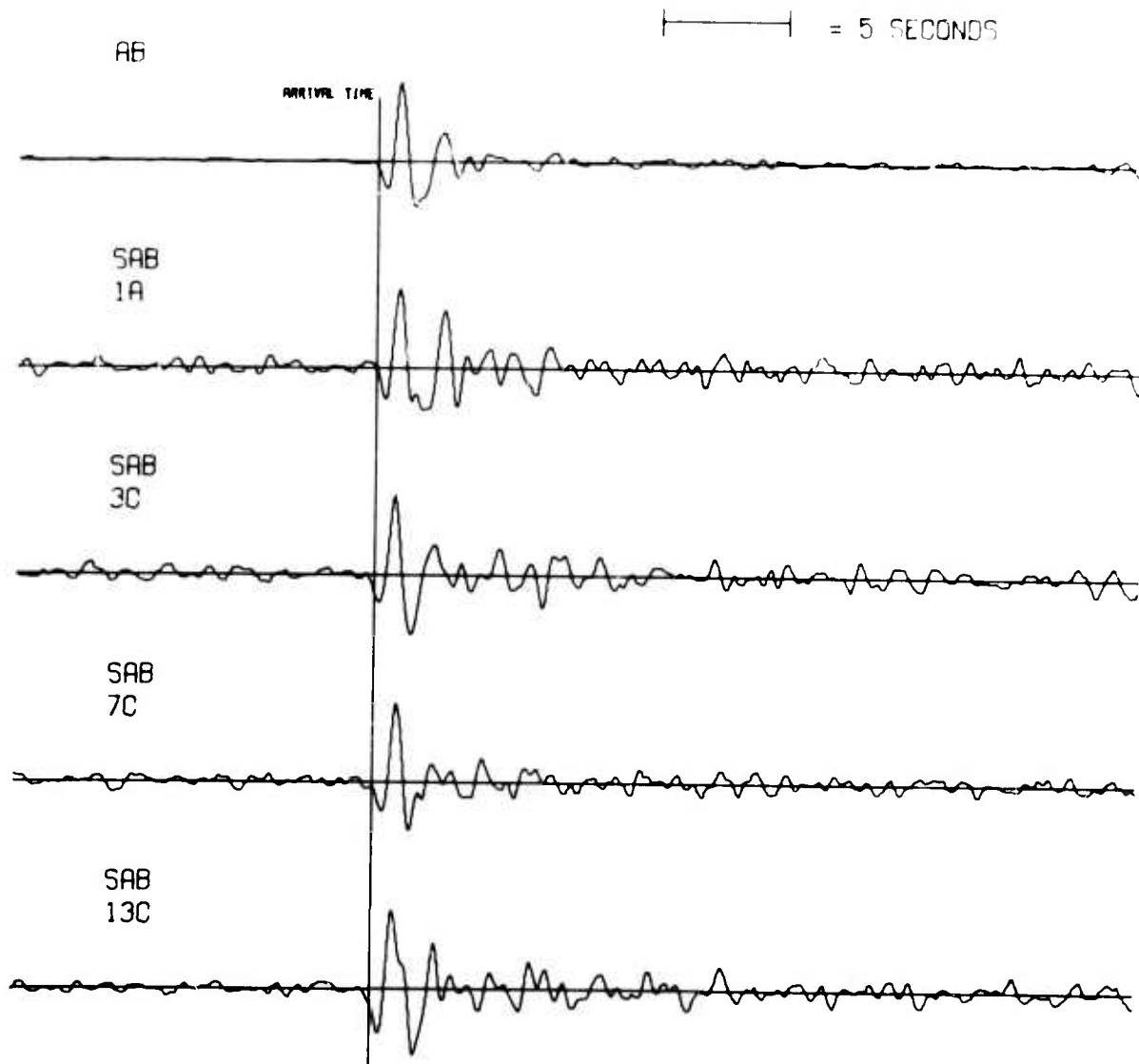


NORSAR EVENT FILE

1975 AUG 16

EPX NO. 16280 ARR. 1.6.55.6 4.3S 72.8W 5.4MB 33KM

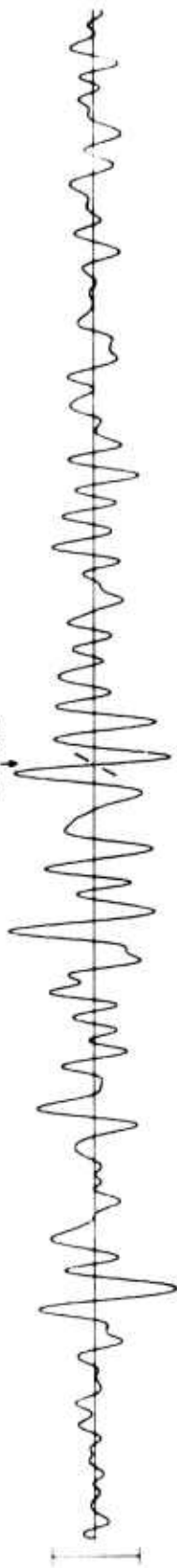
DIST = 90.6 AZI = 262.3 AMP = 28.3 PER = 1.3



CPS0 16 AUG 75

01:17:20

LPZ
579.74 Mp



LPR
1045.50 Mp

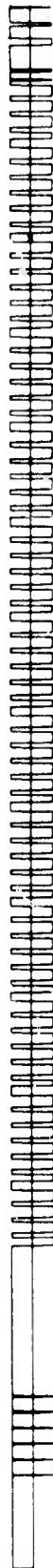


LPT
718.88 Mp



13

TIME



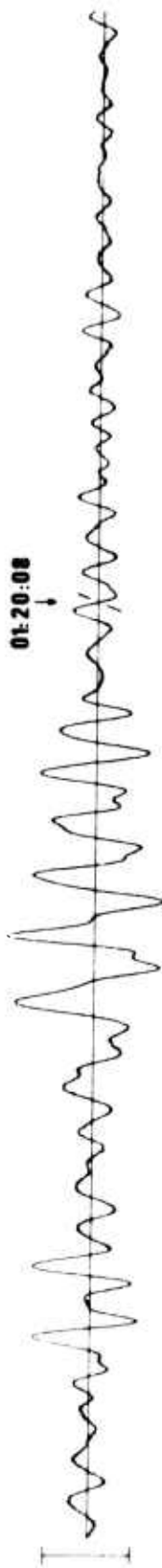
2 MIN

01:20:00

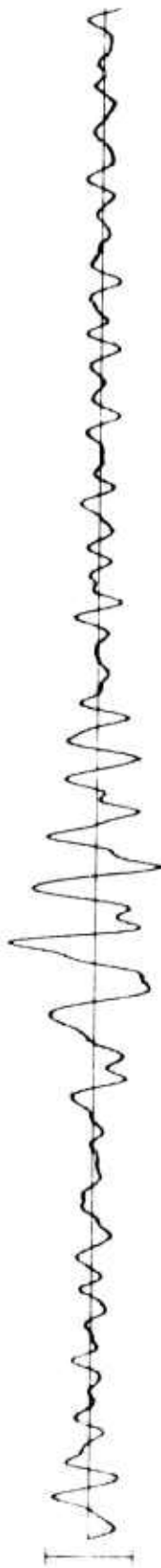


FN-WV 16 AUG 75

LPZ
629.2 MHz



LPR
551.6 MHz



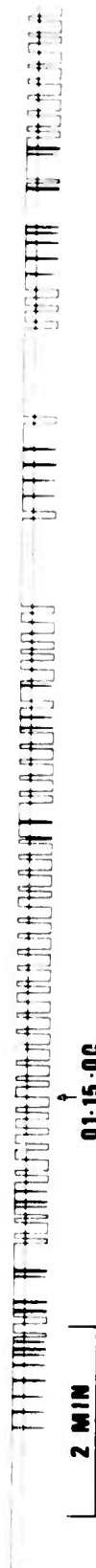
LPT
808.0 MHz

01:15:13



14

TIME

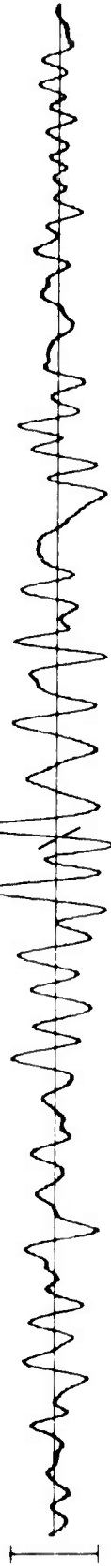


2 MIN

01:15:00

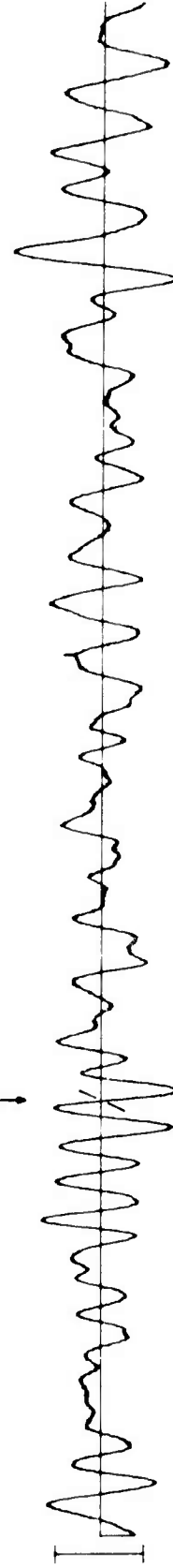
HN-ME 16 AUG 75

01:20:28



15

01:17:40



TIME



2 MIN

01:20:00

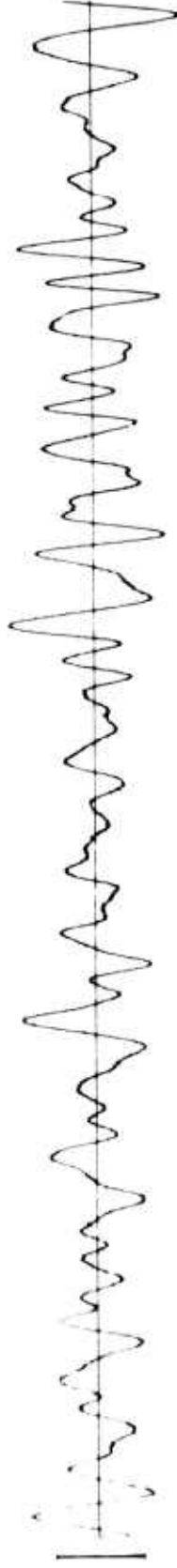
WH2YK 16 AUG 75

LPZ
215.19 MHz

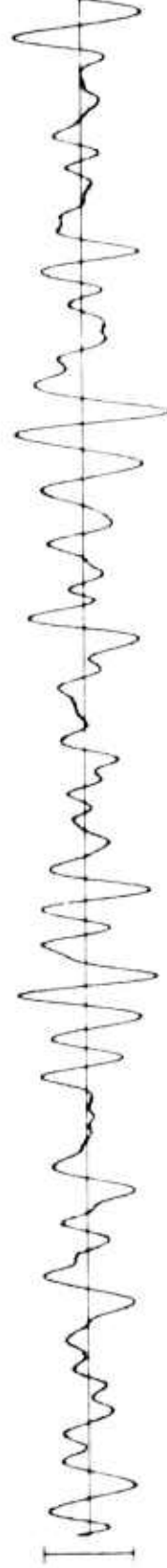
01:42:13



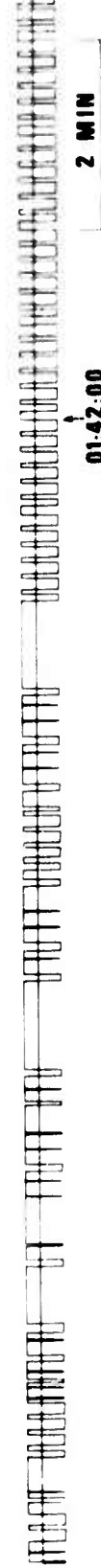
LPR
84.54 MHz



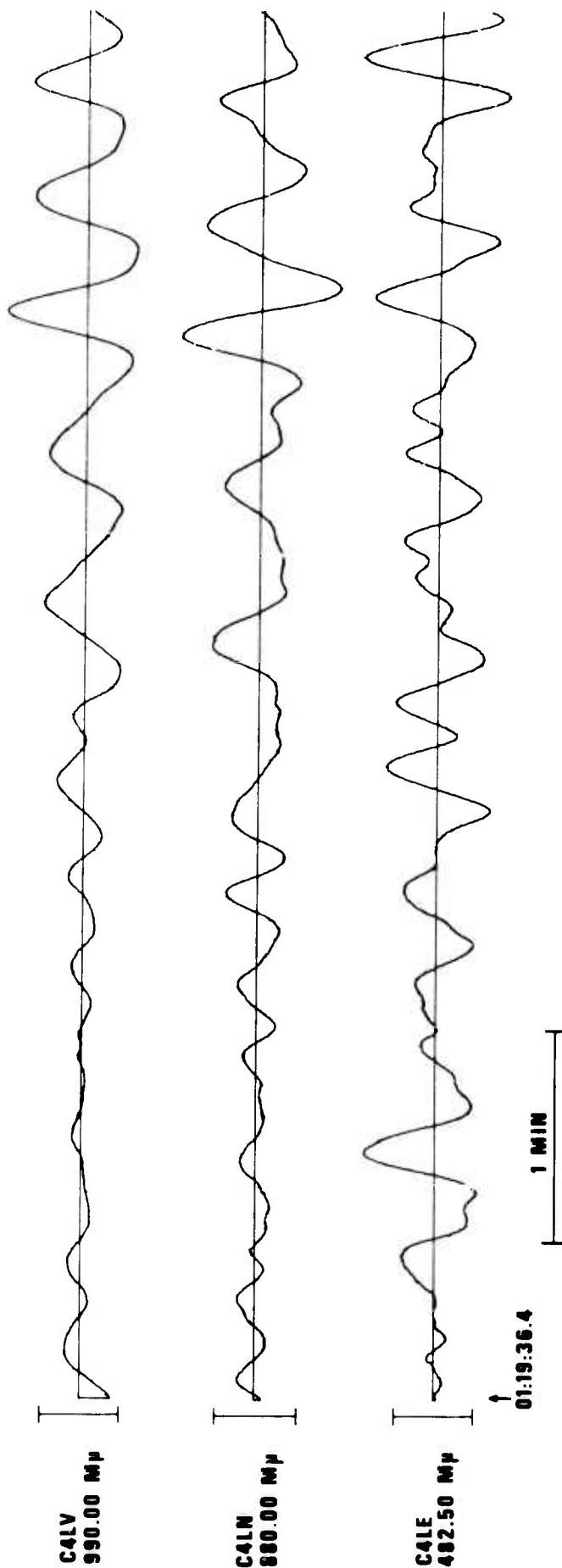
LPT
132.48 MHz



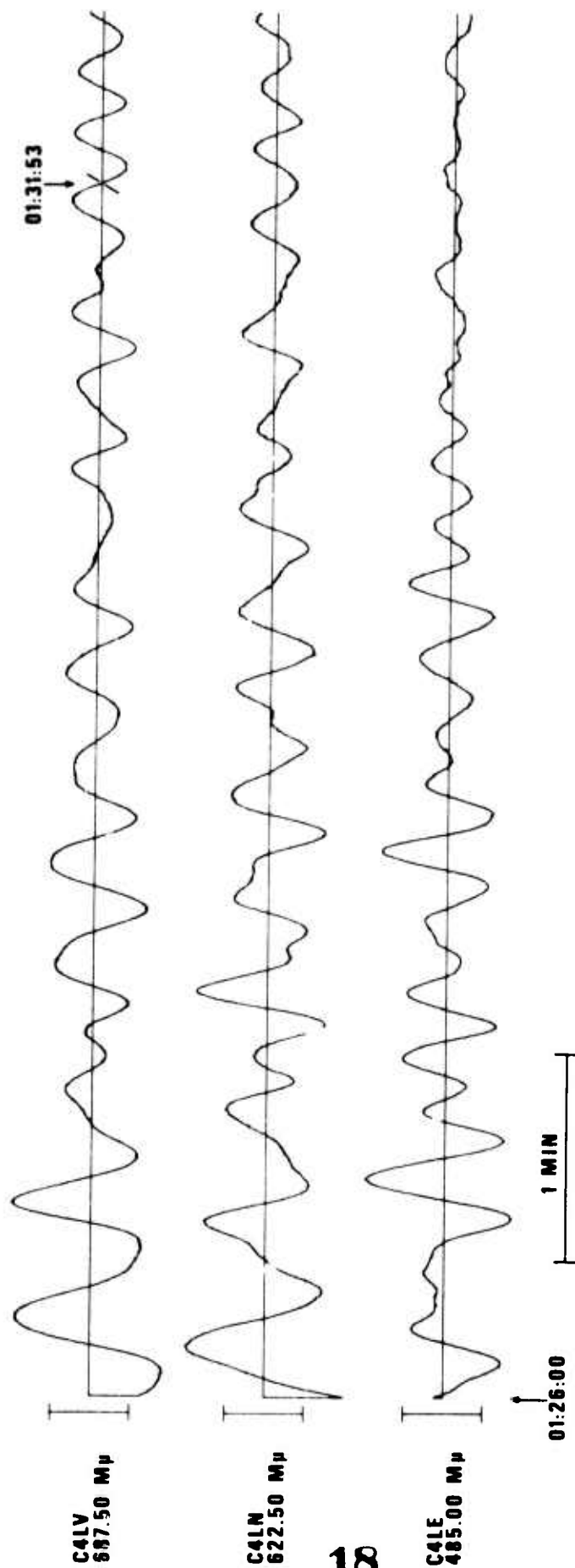
TIME



LASA LONG PERIOD C4 SUBARRAY (SEGMENT 1) 16 AUG 75



LASA LONG PERIOD C4 SUBARRAY (SEGMENT 2) 16 AUG 75



ARRAY LONG PERIOD VERTICAL BEAMS 16 AUG 75

NORSAR

LP VERTICAL
623.27 MHz

01:41:53

01:35:12

1 MIN

19

ALPA

LP VERTICAL
160.94 MHz

01:41:55

01:33:35

1 MIN