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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT.
NTS EVENT 'TYBO', 14 MAY 1975

J. R. Woolson, et al

Teledyne Geotech

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September 1975

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NTS Event "TYBO", 14 May 1975

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Alexandria Laboratories

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September 1975

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SDCS Event Report No. 10

NTS Event "TYBO", 14 May 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	14:00:05	38 N	116 W	5.7	N/A
LASA	14:00:23	38.3N	114.9W	5.5	N/A
Hagfors Array, Sweden	14:00:38	43 N	112 W	6.4	4.7

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

SDCS & Arrays	14:00:02	37.3N	116.5W	5.7	4.4
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All SDCS stations were operational for this event.

Severe instrument pulsing on the long-period vertical channel at HN-ME prevented analysis. Also at HN-ME, the long-period radial calibration was distorted. The Love wave was clipped at RK-ON and tape noise caused the short-period vertical travel body wave amplitudes to be questionable. The Rayleigh wave was clipped at FN-WV and the true orientation of all FN-WV horizontal channels is unknown.

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 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	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 52 58.0 N 079 50 47.0 W	910	KS36000	KS36009
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 095 40 20.0 W	566	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 14 MAY 75
14:00:00.0 37.000N 116.000W 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	REST		
LAC	14 02 54.8	-0.4	0.3	12.1	35.7
PK-CN	14 04 47.3	0.6	-0.4	21.2	42.9
CPO	14 05 25.7	-0.0	0.8	24.9	84.4
WHZYK	14 05 38.5	0.6	1.2	26.2	330.3
PN-WV	14 06 03.2	0.0	0.2	29.1	76.0
HN-ME	14 07 10.1	0.6	-0.0	36.8	60.4
NAD	14 11 31.3	-1.3	-2.2	73.2	24.0

67 HEEPIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
14:00:14.5	37.733N	116.108W	82. CALC	0.7	4	7
14:00:01.7	37.259N	116.461W	0. REST	1.1	3	7

CAIC

1	.	1
0	.	0
0	0.	3
0	.	0
0	0.	0
0	.	0
0	0.	0

REST

1	.	1
0	.	0
0	0.	3
0	.	0
0	0.	0
0	.	0
0	0.	0

CHI2 COVERAGE ELLIPSE: 95 PER CENT CONF..LEVEL, SDV= 1.68
MAJOR 61.9KM. MINOR 37.9KM. A7= 30 AREA= 7361 SQ.KM. REST

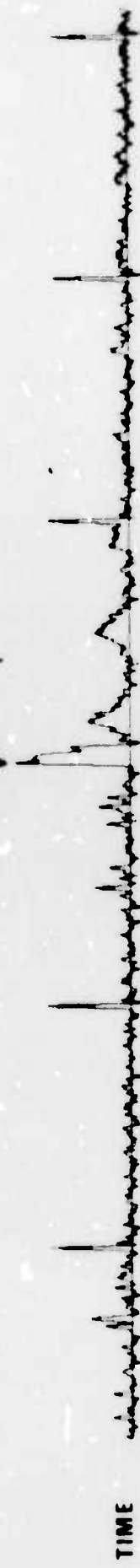
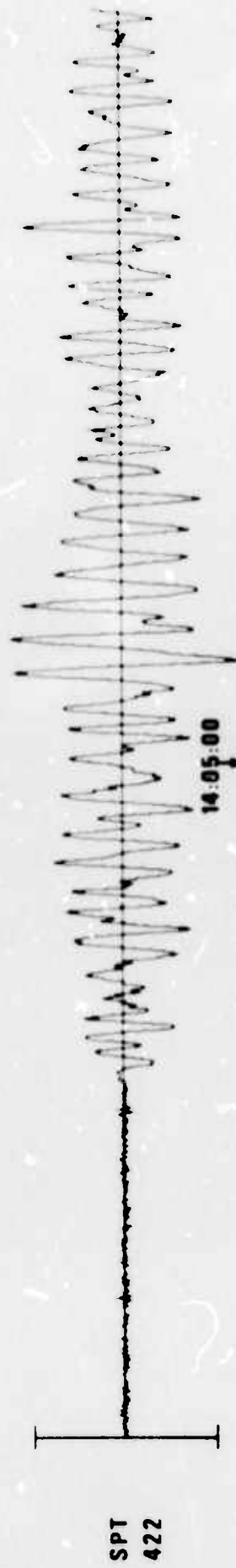
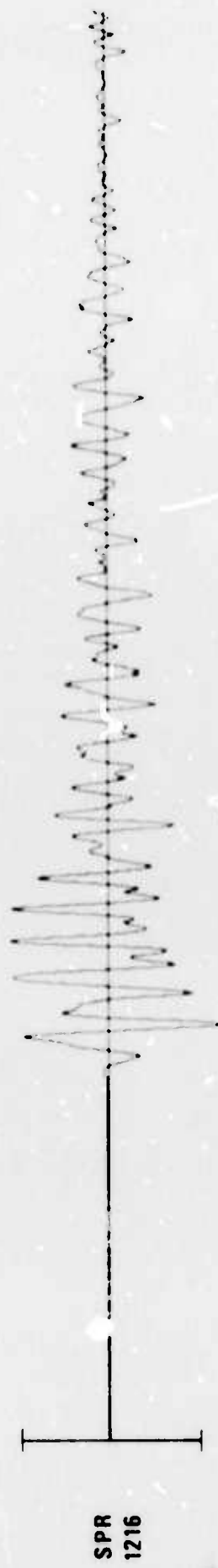
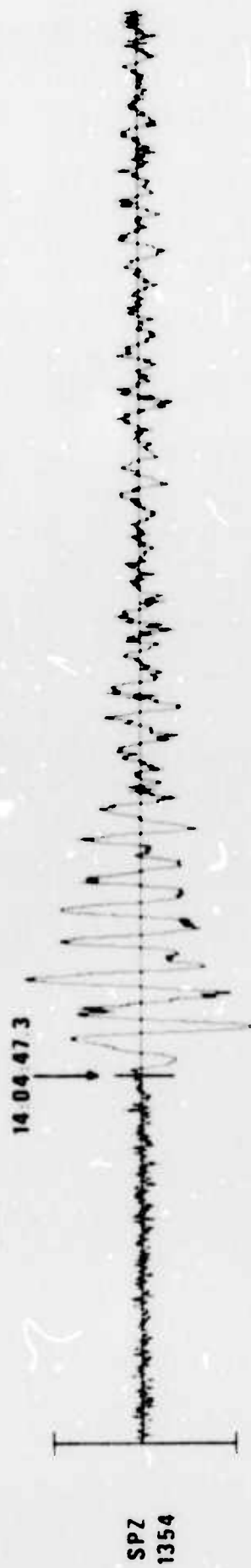
DATA SUMMARY

INPUT FOR EVENT 14 MAY 75
14:00:00.0 37.000N 116.000W 0KM.

STA.	PHASE	ARRIVAL		INST	PER	A/Z	MAGNITUDE		DIP	DIST
		TIME					MB	MS		
LAC	EP	14 02 54.8		SPZ	0.6					
LAC	LR	14 07 55.0		LPZ	14.0					12.1
PK-ON	EP	14 04 47.3		SPZ	1.4					
PK-ON	LQ	14 12 53.0		LPT	16.0	9999.				
PK-ON	LR	14 13 42.0		LPZ	13.0	1605.		5.65		21.2
CPO	EP	14 05 25.7		SUM	0.8	1317.	6.29			24.9
CPO	LQ	14 13 45.0		LPT	17.0	769.				
CPO	LR	14 15 28.0		LPZ	14.0	1615.		5.72		24.9
WH2YK	EP	14 05 38.5		SPZ	0.9	210.	5.44			26.2
WH2YK	LQ	14 14 47.0		LPT	22.0	210.				
WH2YK	LR	14 16 55.0		LPZ	15.0	906.		5.50		26.2
PN-WV	EP	14 06 03.2		SPZ	1.4	218.	5.64			29.1
PN-WV	LQ	14 15 58.0		LPT	18.0	286.				
PN-WV	LR	14 18 05.0		LPZ	18.0	9999.				29.1
ALPA	LR	14 19 51.0		LAB	22.0	83.		4.56		33.5
HN-ME	EP	14 07 10.1		SPZ	1.4	139.	5.37			36.8
HN-ME	LQ	14 19 59.0		LPT	19.0	35.				
HN-ME	E	14 22 36.0		LPR	17.0					
NAO	EP	14 11 31.3		AB	0.9	156.	5.77			73.2
NAO	LR	14 42 07.0		LAB	23.0	22.		4.33		73.2

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
14:00:14.5	37.733N	116.108W	82. CALC	5.59	0.28	5	4.44	0.2	2
14:00:01.7	37.259N	116.461W	0. BEST	5.70	0.37	5	4.45	0.2	2

RK-ON 14 MAY 75



10 SEC

CPS0 14 MAY 75

SPZ
1107

14.05.25.7

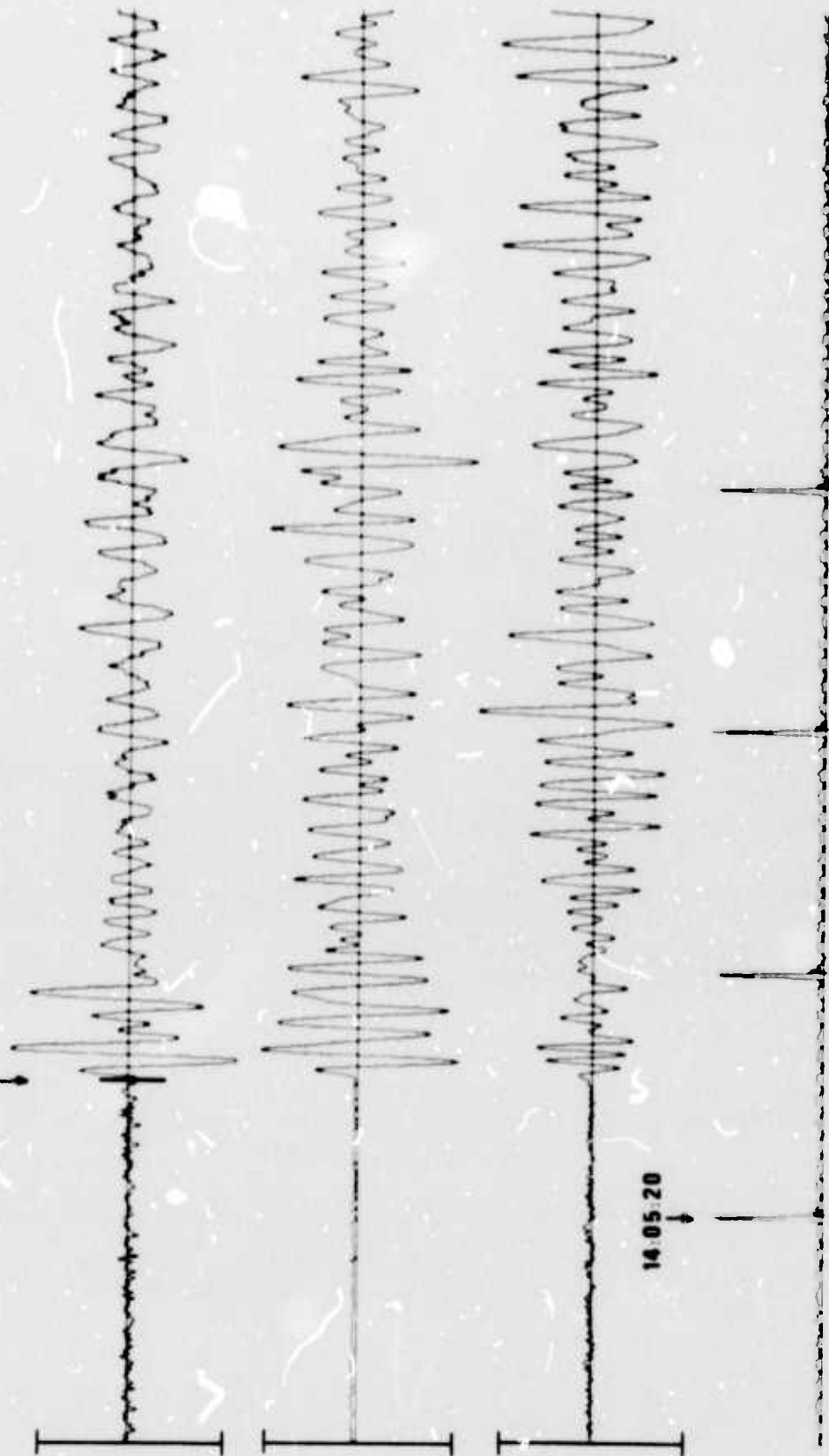
SPR
376

SPT
241

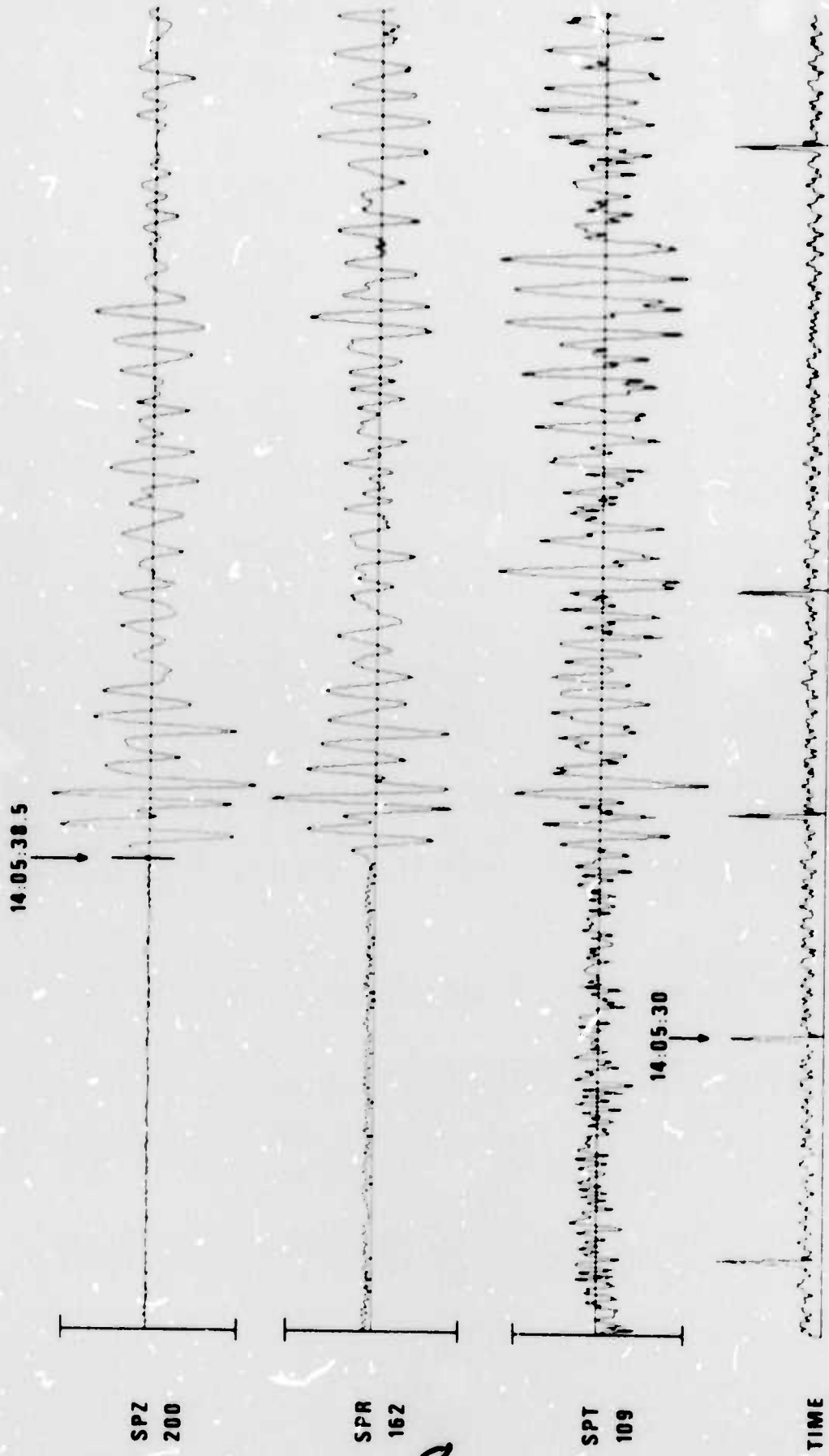
14.05.20

TIME

10 SEC



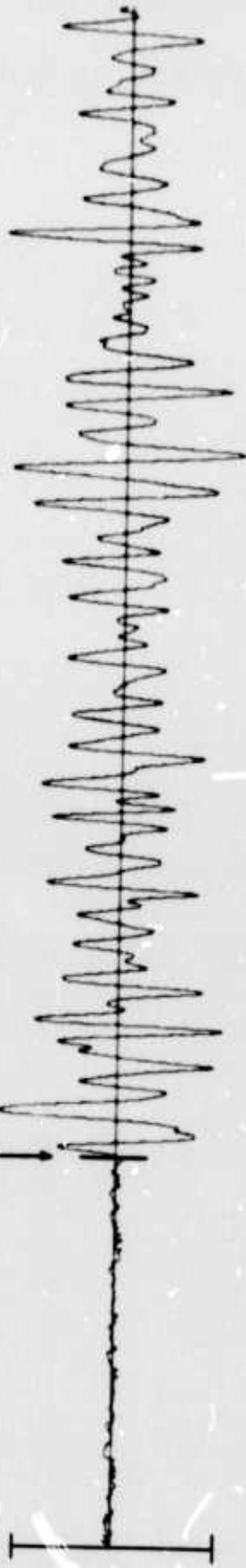
WH2YK 14 MAY 75



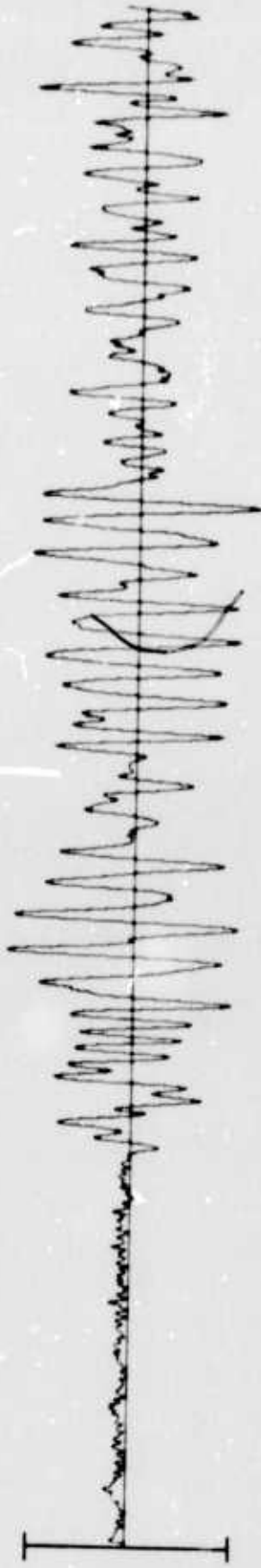
FN-WV 14 MAY 75

14:06:03.2

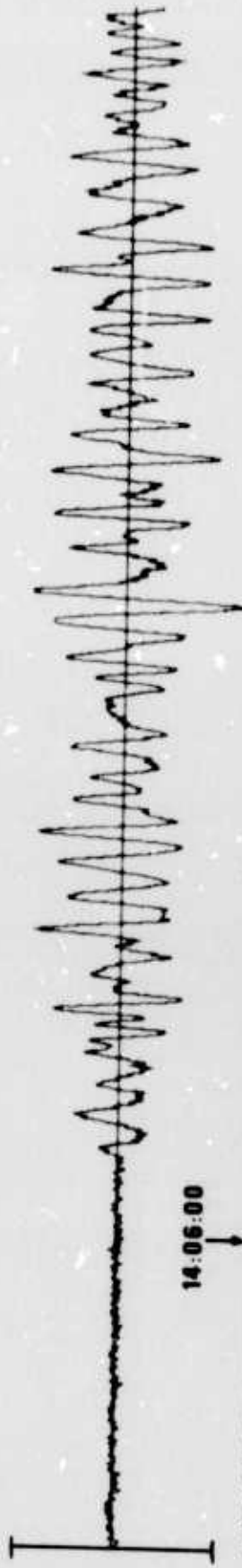
SPZ
166



SPR
113

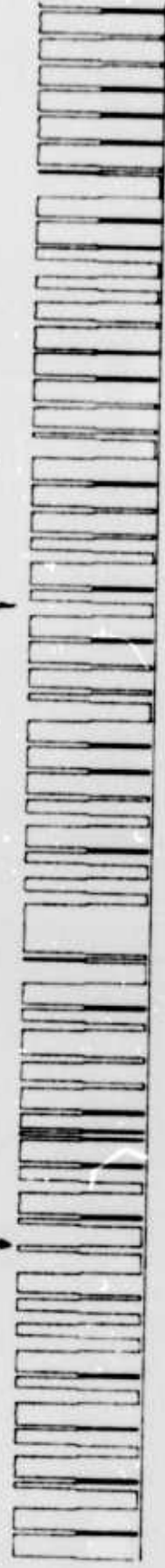


SPT
126



14:06:00

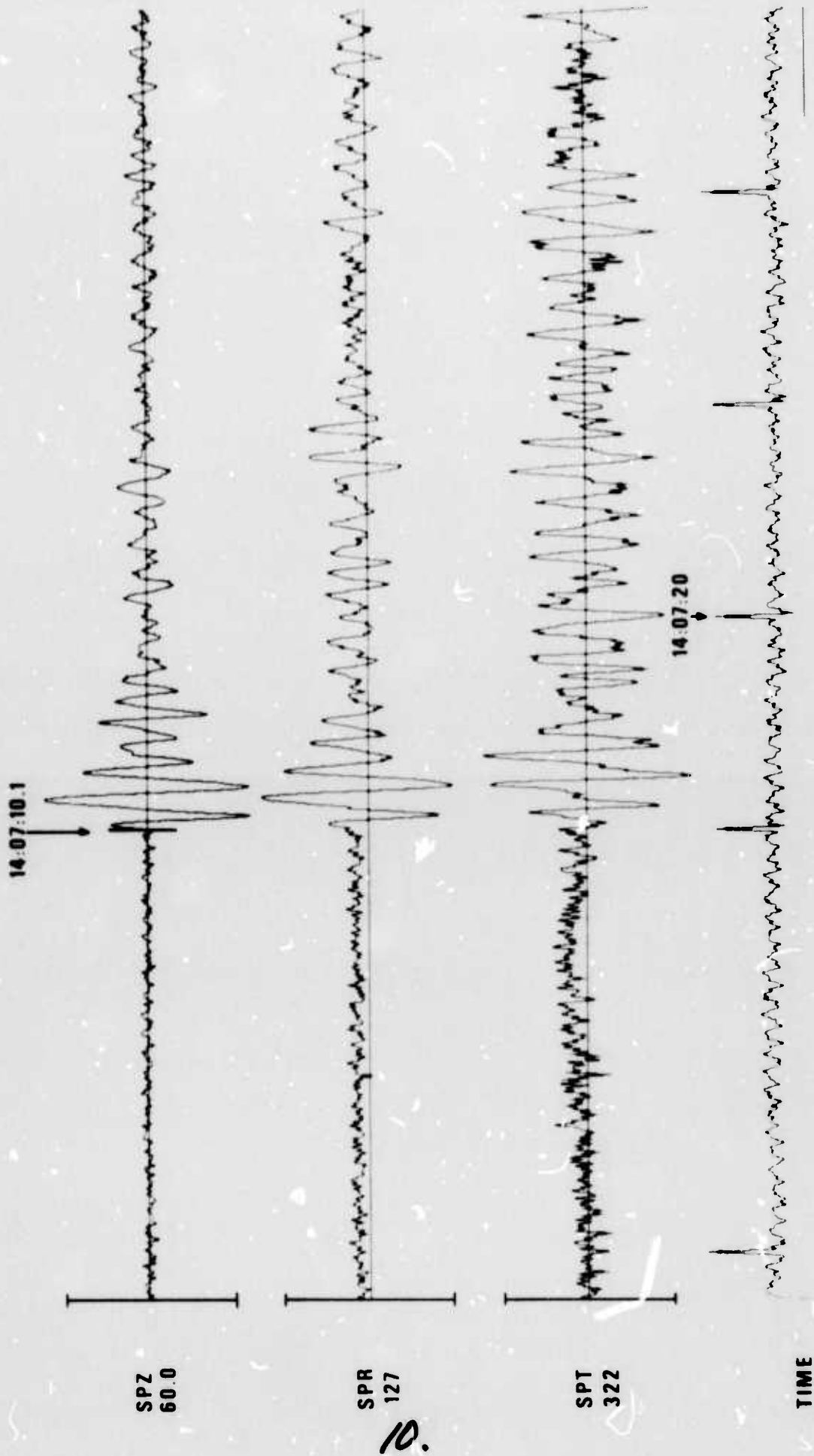
TIME



10 SEC

9.

HN-ME 14 MAY 75



LASA

1 14 MAY 1975

2 14 0 23 38.2N 114.9W

3 14 2 54.7 LAO P

OG D 5.8 37 NEVADA

192.4 1.1 6.2 10.6 220.7

EPX 87262

BP-6 0.6-2.0 HZ

ABN 50

14:02:44.7

AB 250

FAB 230

PAB1 230

PAB2 250

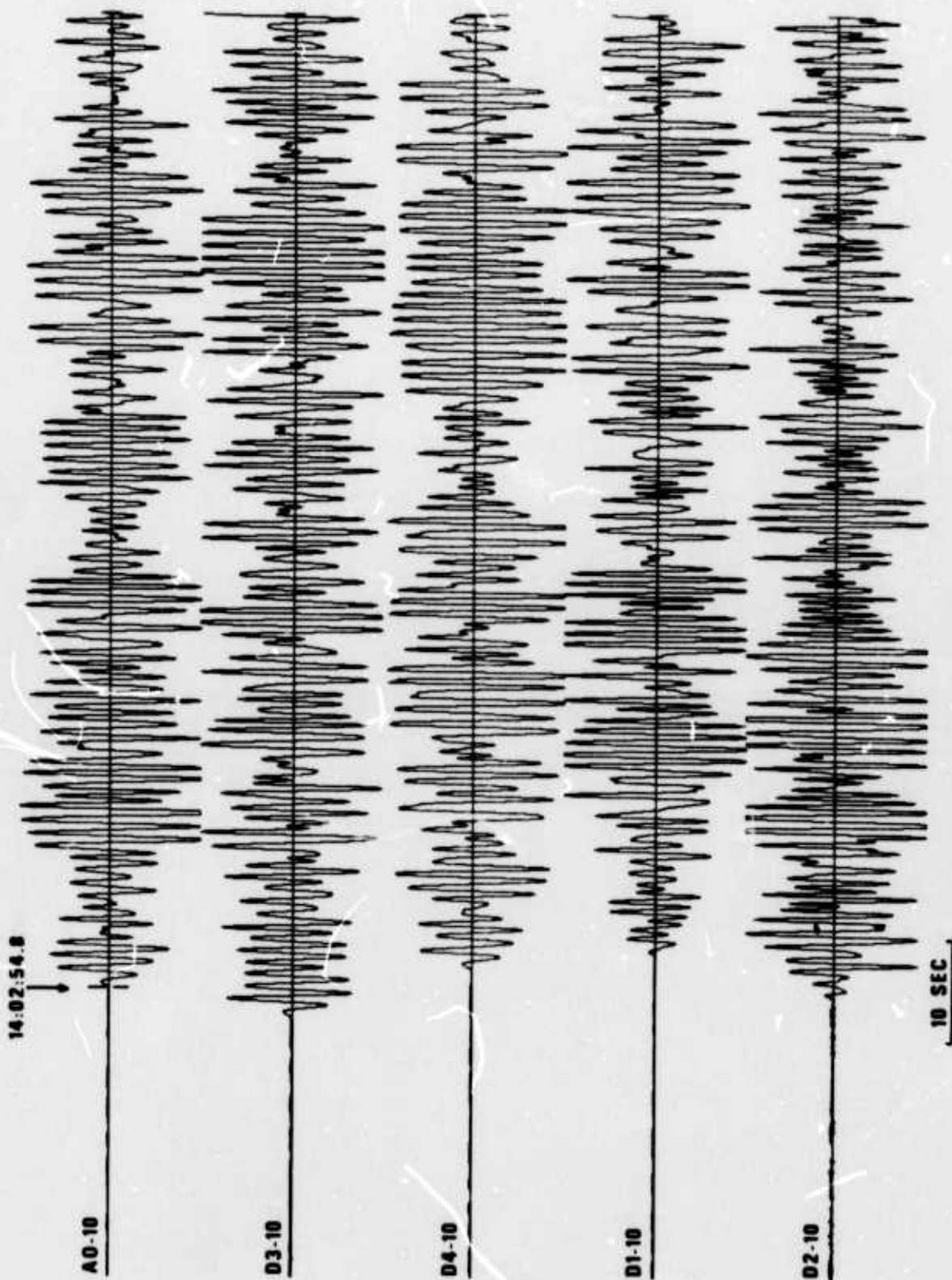
PAB3 210

PAB4 310

10 sec

//

LASA (INDIVIDUAL SHORT-PERIOD INSTRUMENTS) 14 MAY 75



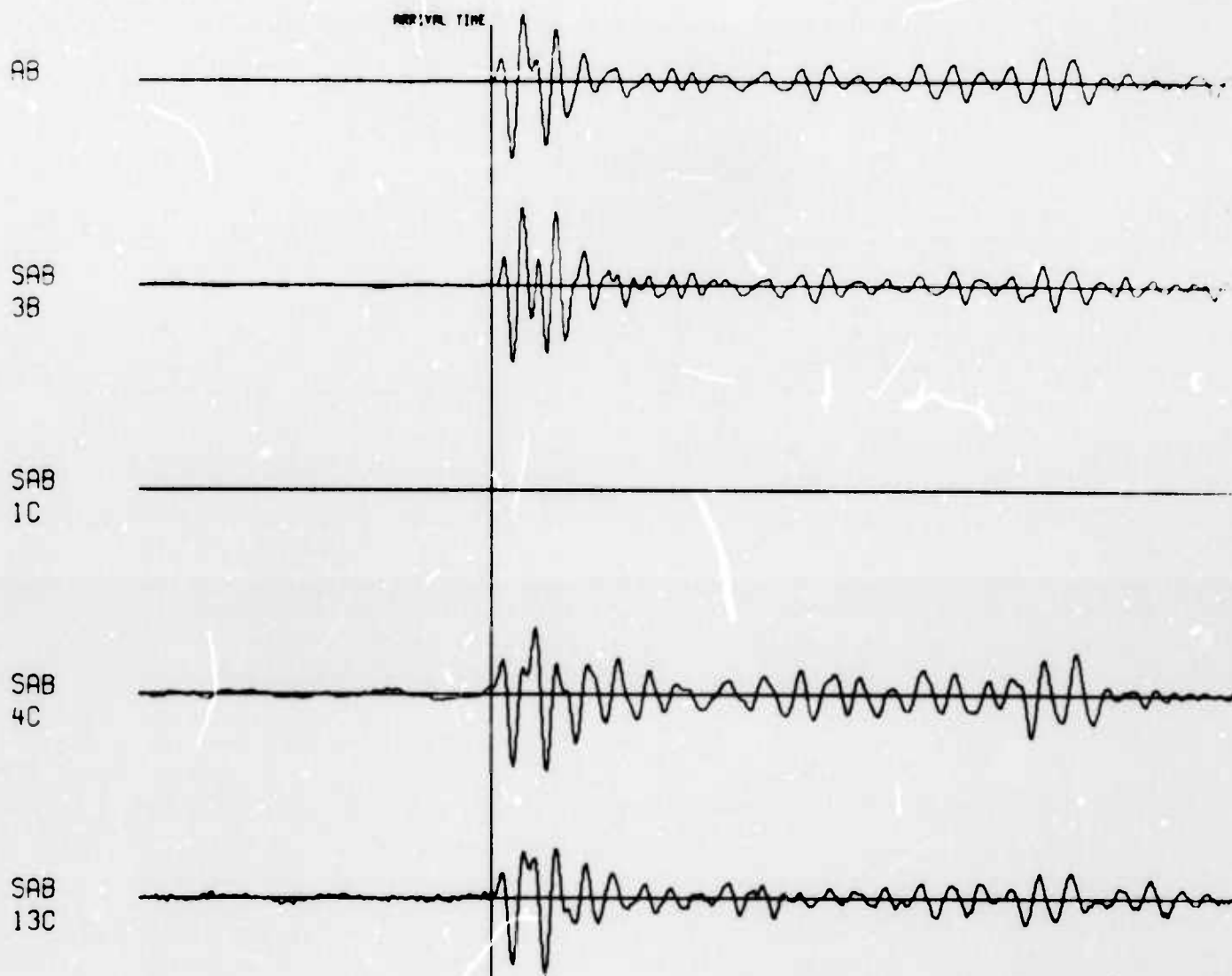
(NO AMPLITUDE DETERMINATIONS MADE DUE TO UNRESOLVED SCALING PROBLEMS)

NORSAR EVENT FILE 1975 MAY 14

EPX NO. 43940 ARR. 14.11.31.3 38.2N 115.6W 5.7MB 33KM

DIST = 72.1 AZI = 318.2 AMP = 108.3 PER = 1.3 UMETH 2

— = 5 SECONDS



NORSAR WESTERN NORTH AMERICA SUBARRAY BEAMS TRANSMITTED ONLINE

3C

7C

13C

14-11-21

10 sec

INTERRUPTED TRANSMISSION

THIS PRESENTATION HAS TESTED VALIDITY ONLY FOR RELATIVE SUBARRAY ARRIVAL TIME

14.

RK-ON 14 MAY 75

LPZ
7813

14 13 42

5.
LPR
559

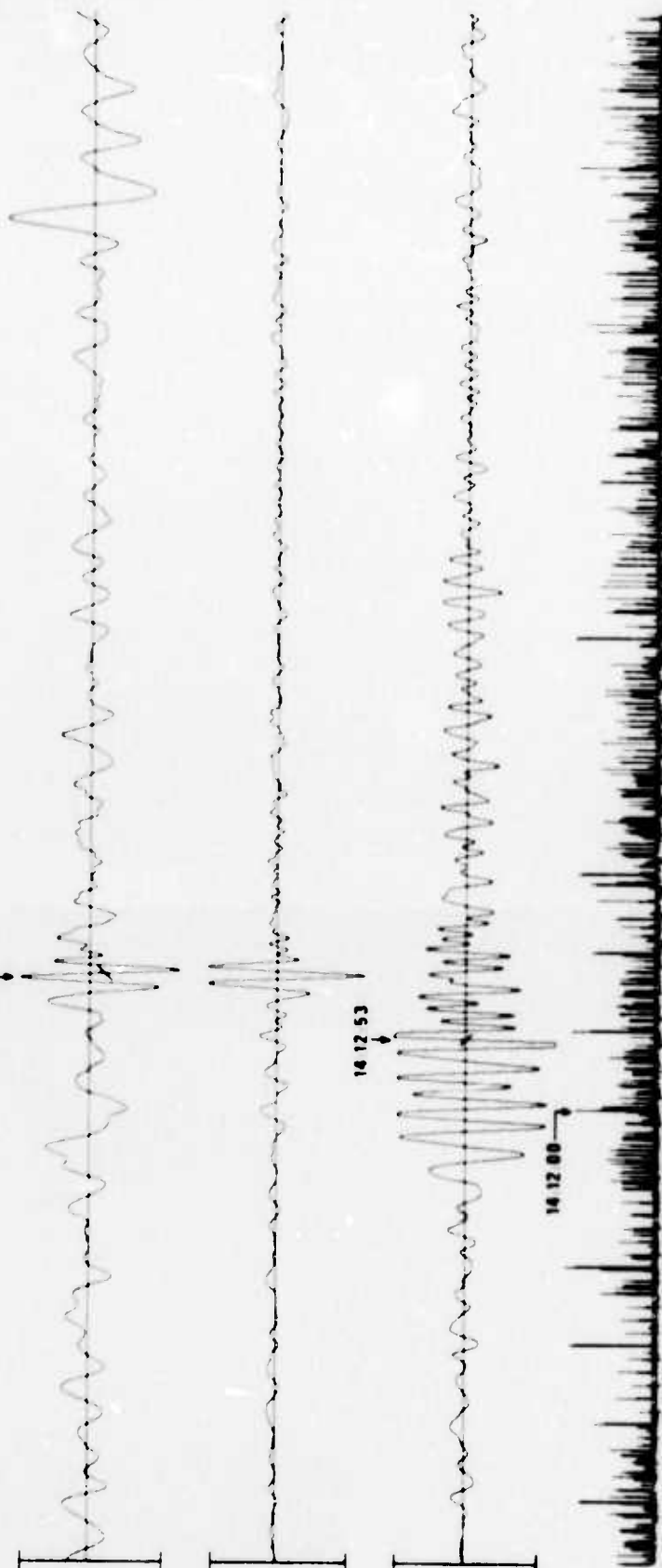
14 12 53

LPT
UNKNOWN

14 12 00

TIME

2 MIN



CPSO 14 MAY 75

LPZ
116618

14 15 28

LPR
9794

14 13 45

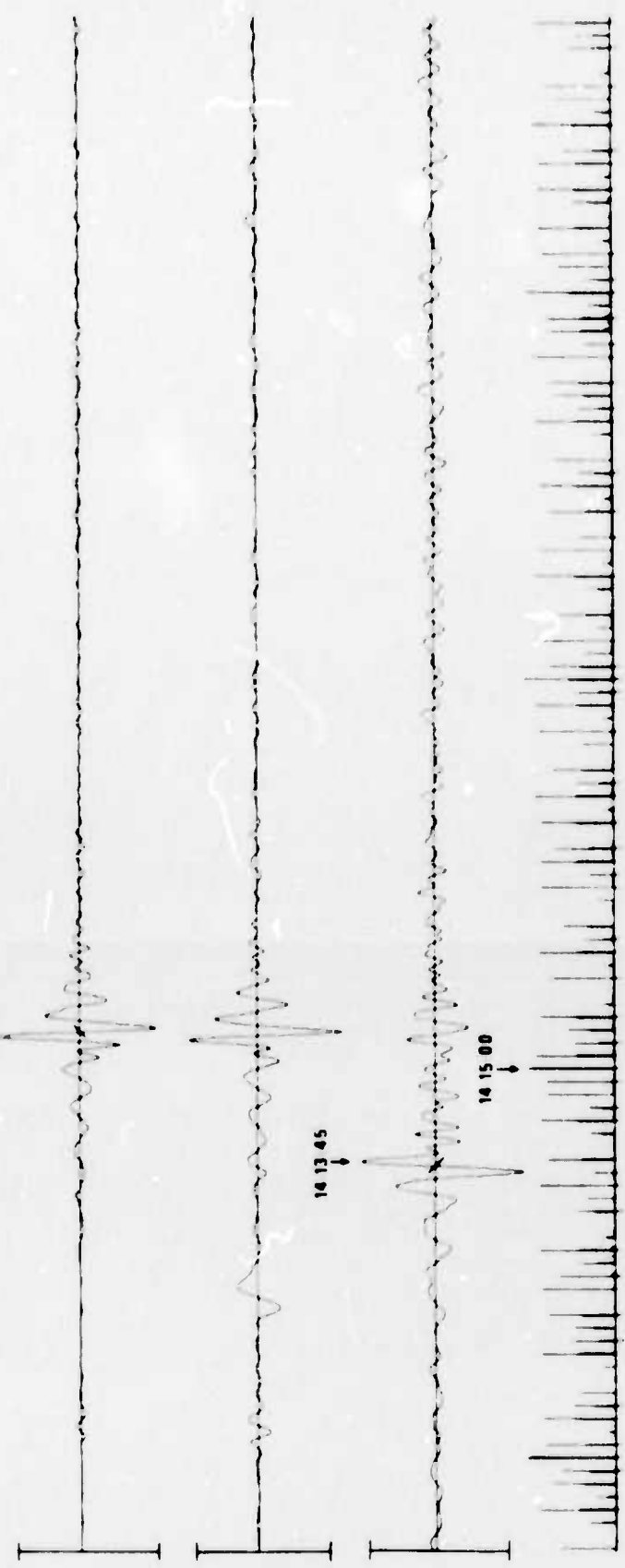
LPT
9751

14 15 00

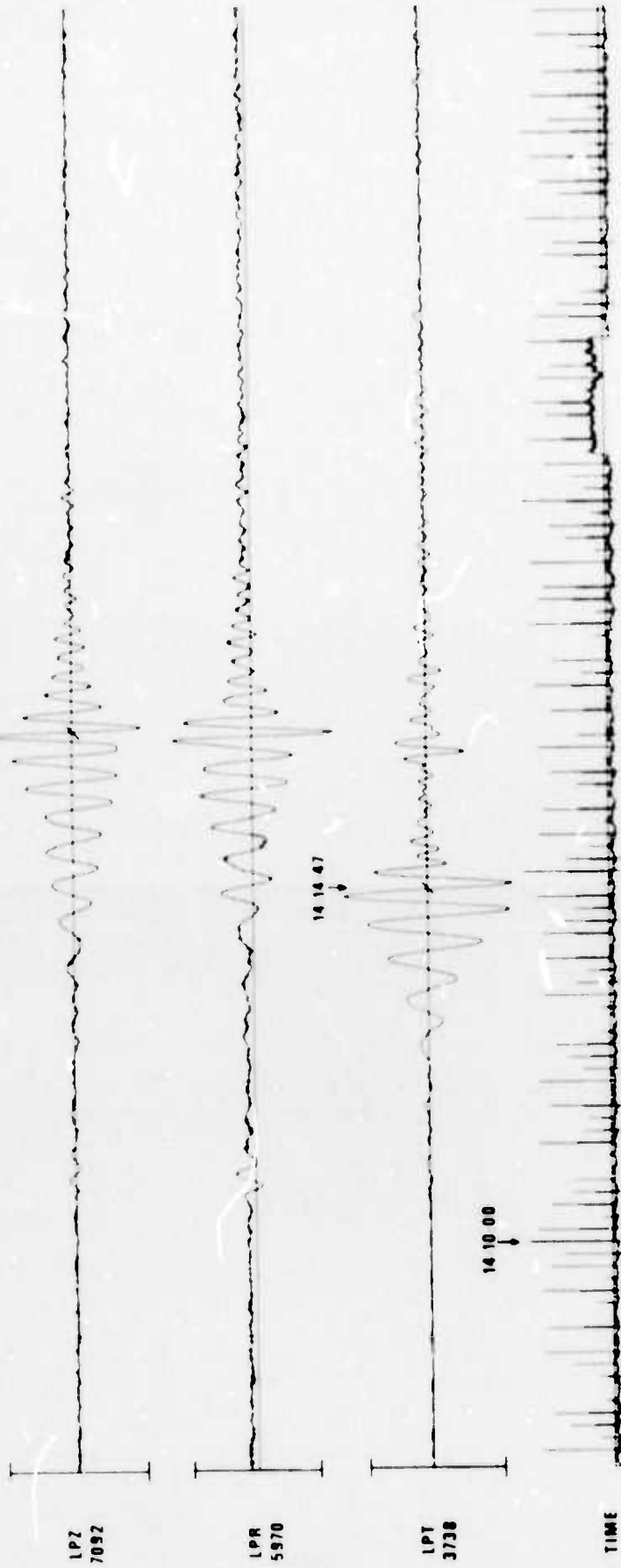
TIME

2 MIN

16.

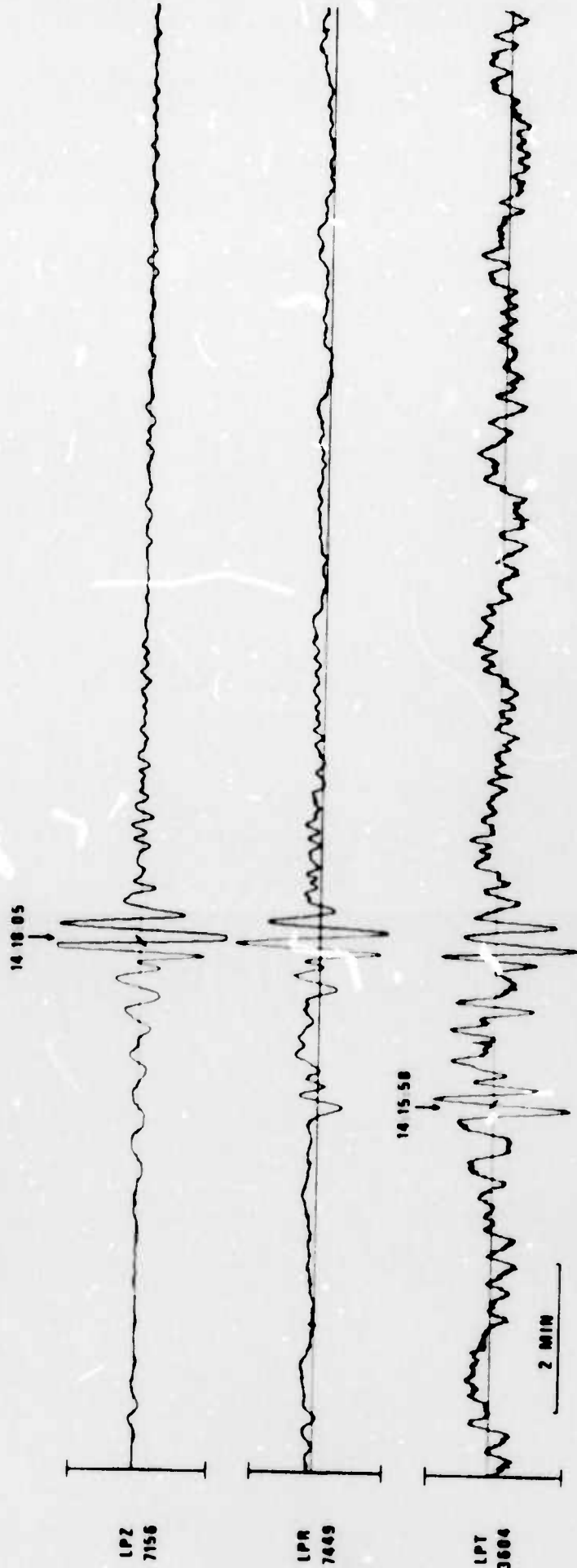


WH2YK 14 MAY 75



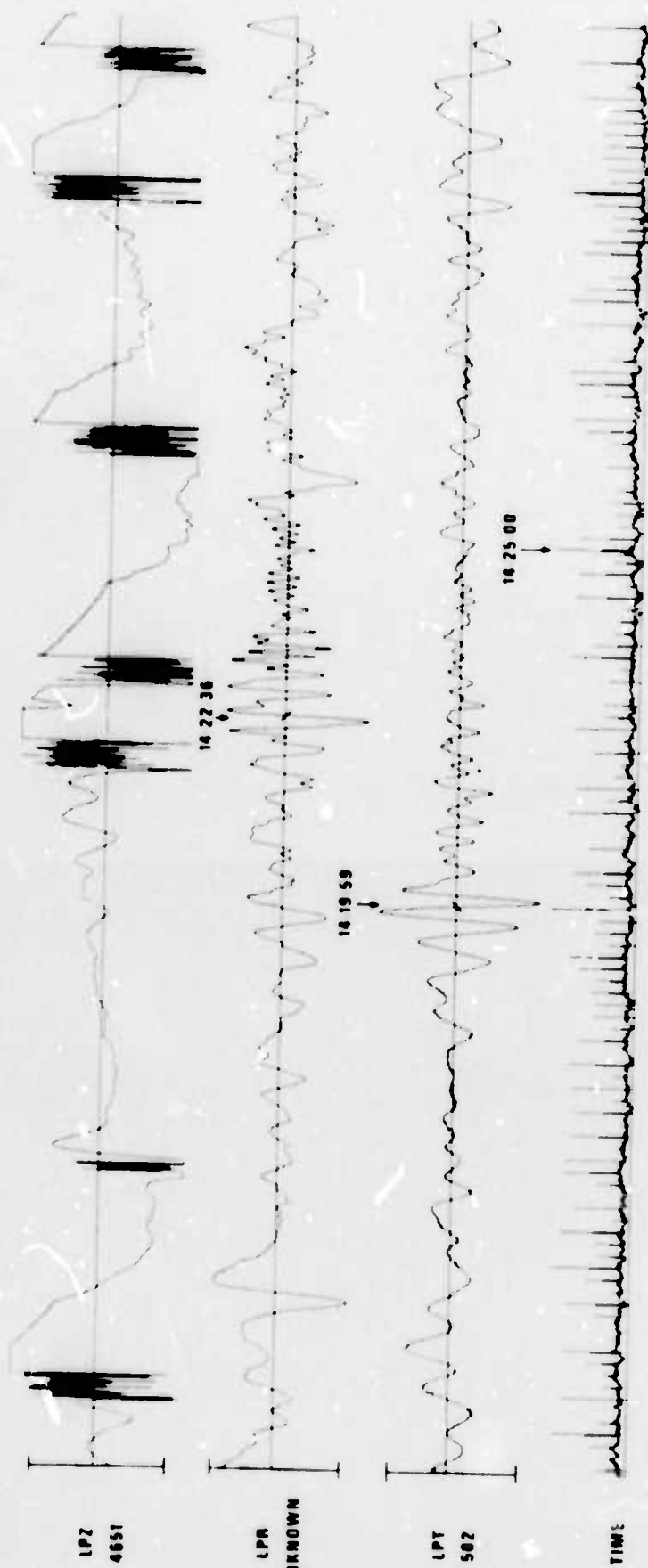
17.

FN-WV 14 MAY 75



18.

HN-ME 14 MAY 75



19.

LASA C4 SUBARRAY

14 MAY 75

14:07:55

LPZ

LPN

LPE

14:02:00

2 min

(No amplitude determinations made due to unresolved scaling problems.)

20.

ALPA LONG PERIOD BEAMS 14 MAY 75

14:19:51

LP VERTICAL
1910 mV

LP RADIAL
1580 mV

LP TRANSVERSE
1850 mV

1 min

14:11:51

HORIZONTAL ROTATION QUESTIONABLE

21.

NORSAR LONG PERIOD BEAMS 14 MAY 75

14:42:07

LP VERTICAL

508 mμ

LP RADIAL

366 mμ

LP TRANSVERSE

128 mμ

11 min

14:31:56

22.