SDCS-ER-76-79

SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
NTS Event "MUENSTER", 03 January 1976

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SDCS EVENT REPORT NO. 79

NTS Event "MUENSTER", 3 January 1976

'Muenster'

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	19:26:31.9	19:15:05	38 N	116 W	5.9	N/A
Hagfors	19:26:40.1	19:15:02	38 N	116 W	6.4	N/A

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

19:15:01.3	37.3N	116.4W	6.0	6.1

All SDCS stations were operational during this period.

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 is obtained from their bulletin. The long-period array beam recovery for these stations will be resumed upon completion of these modifications.

Short-period signals associated with this event were recorded at WH2YK, CPSO, HN-ME, FN-WV, LASA and NORSAR. RK-ON short-period data were not recoverable because the analog tape change occurred at this time. All SP channels at HN-ME had polarity reversals; to correct this, mathematical inversions of the data were performed. Horizontal SP channels at WH2YK, HN-ME, FN-WV and CPSO were rotated.

Long-period signals were recorded at WH2YK, CPSO, HN-ME and FN-WV. RK-ON long-period data were not recoverable because the analog tape change occurred at this time. All LP channels at HN-ME had polarity reversals; to correct this, mathematical inversions of the data were performed. Horizontal LP channels at WH2YK, CPSO, FN-WV and HN-ME were rotated.

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

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 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

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.

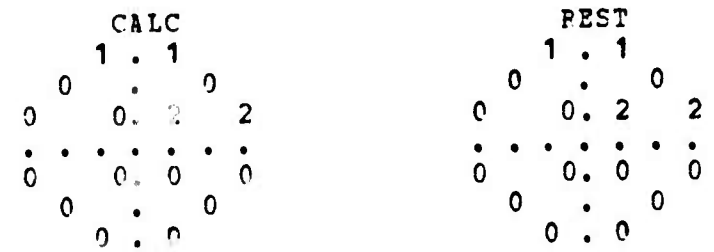
HYPOCENTER DETERMINATION

INPUT FOR EVENT 3 JAN 76
19:15:00.0 37.000N 116.000W 0KM.

STA.	ARRIVAL	RESIDUALS CALC	RESIDUALS REST	DIST. REST	AZ. REST
LAO	19 17 53.1	-0.1	0.0	12.0	35.5
CPSO	19 20 24.0	-0.0	0.4	24.8	84.6
WH2YK	19 20 37.3	0.1	0.4	26.2	339.2
FN-WV	19 21 01.7	-0.1	-0.0	29.0	76.1
HN-ME	19 22 08.9	0.3	-0.0	36.7	60.4
NAO	19 26 31.9	-0.3	-0.8	73.2	24.1

67 HEFFIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
19:15:09.2	37.533N	116.171W	48. CALC	0.2	3	6
19:15:01.3	37.290N	116.355W	0. REST	0.4	3	6



CHI2 COVERAGE ELLIPSE: 95 PER CENT CONF..LEVEL, SDV= 1.69
MAJOR 67.1KM. MINOR 37.9KM. AZ= 31 AREA= 7993 SQ.KM. REST

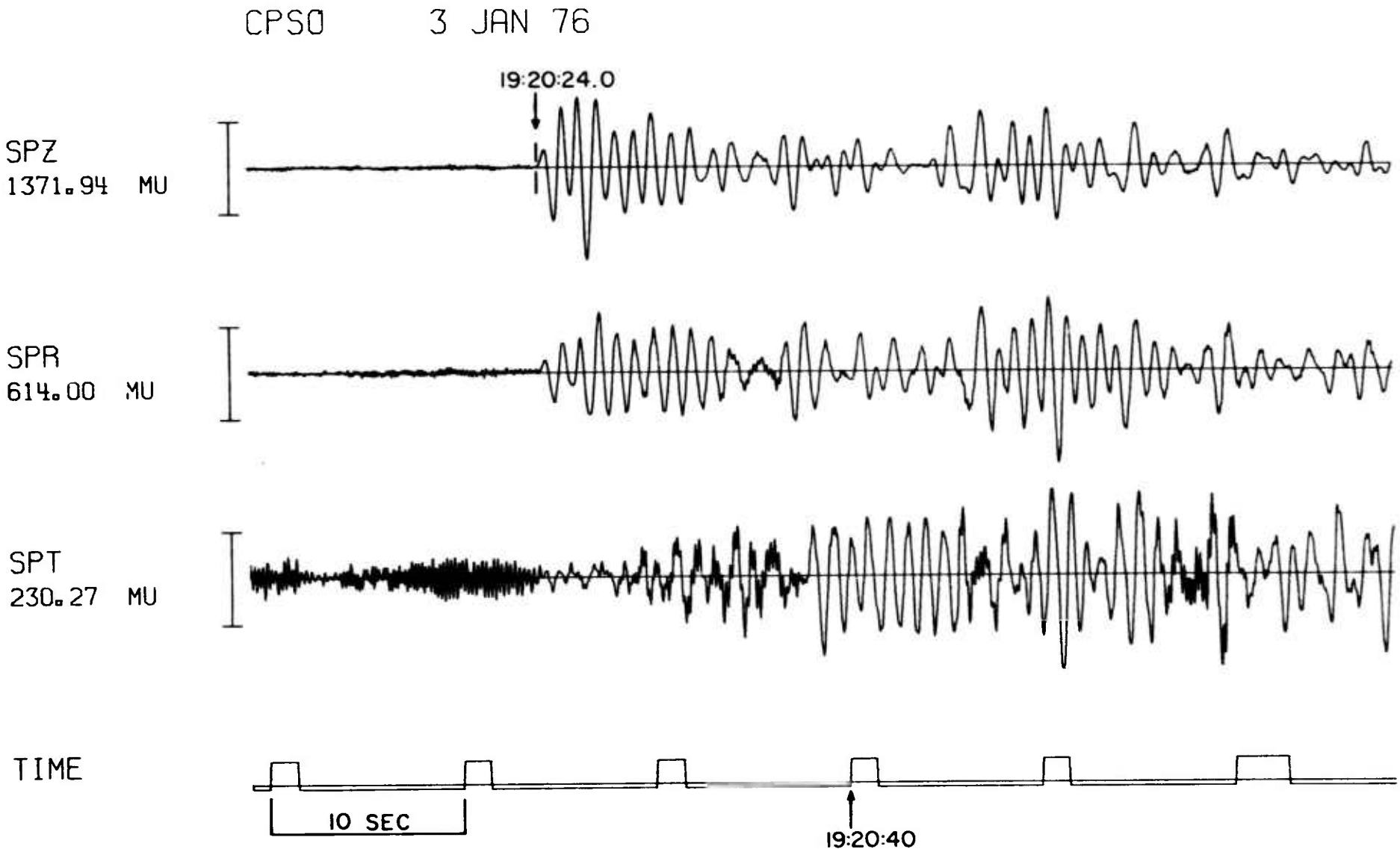
DATA SUMMARY

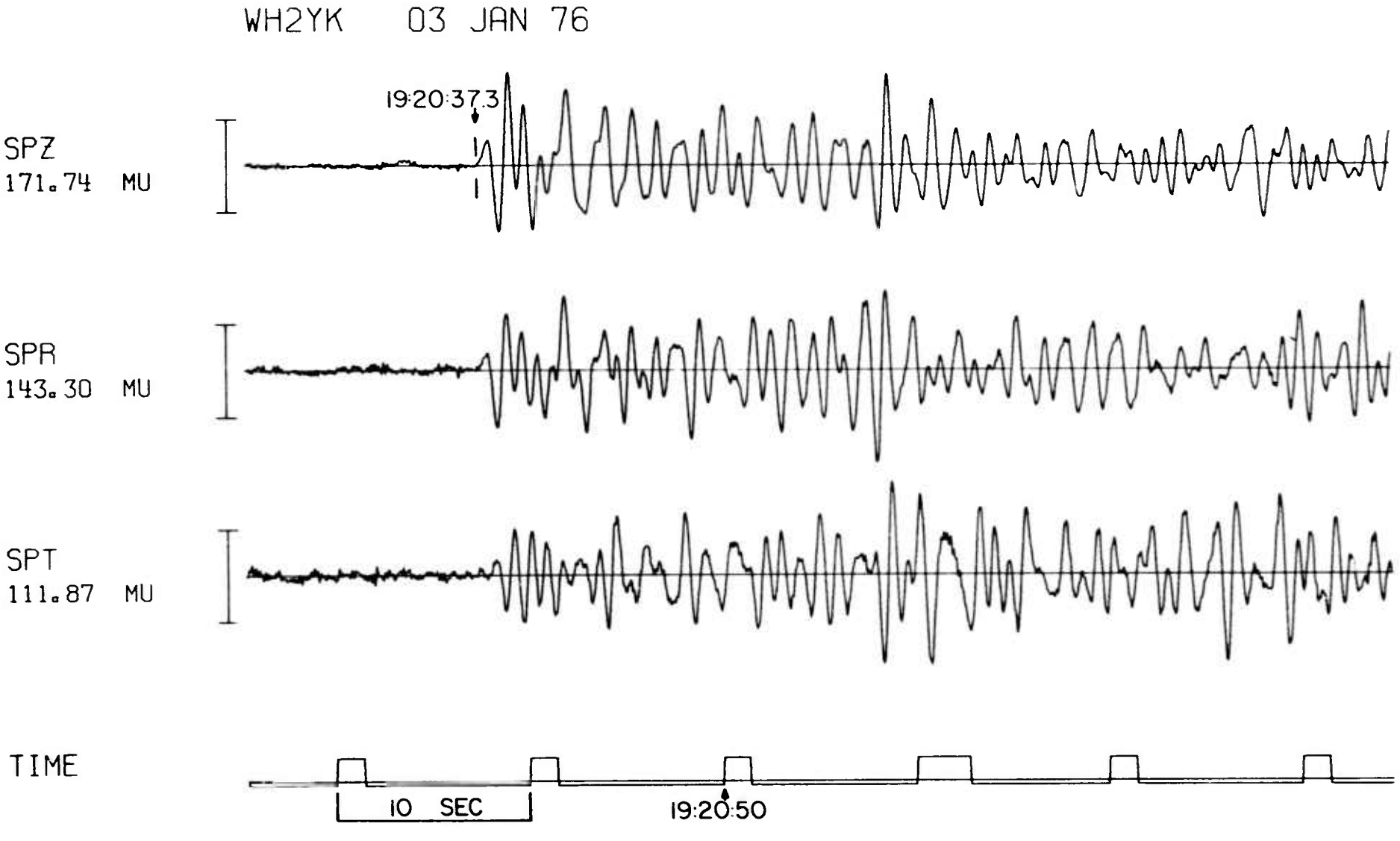
INPUT FOR EVENT 3 JAN 76
19:15:00.0 37.000N 116.000W 0KM.

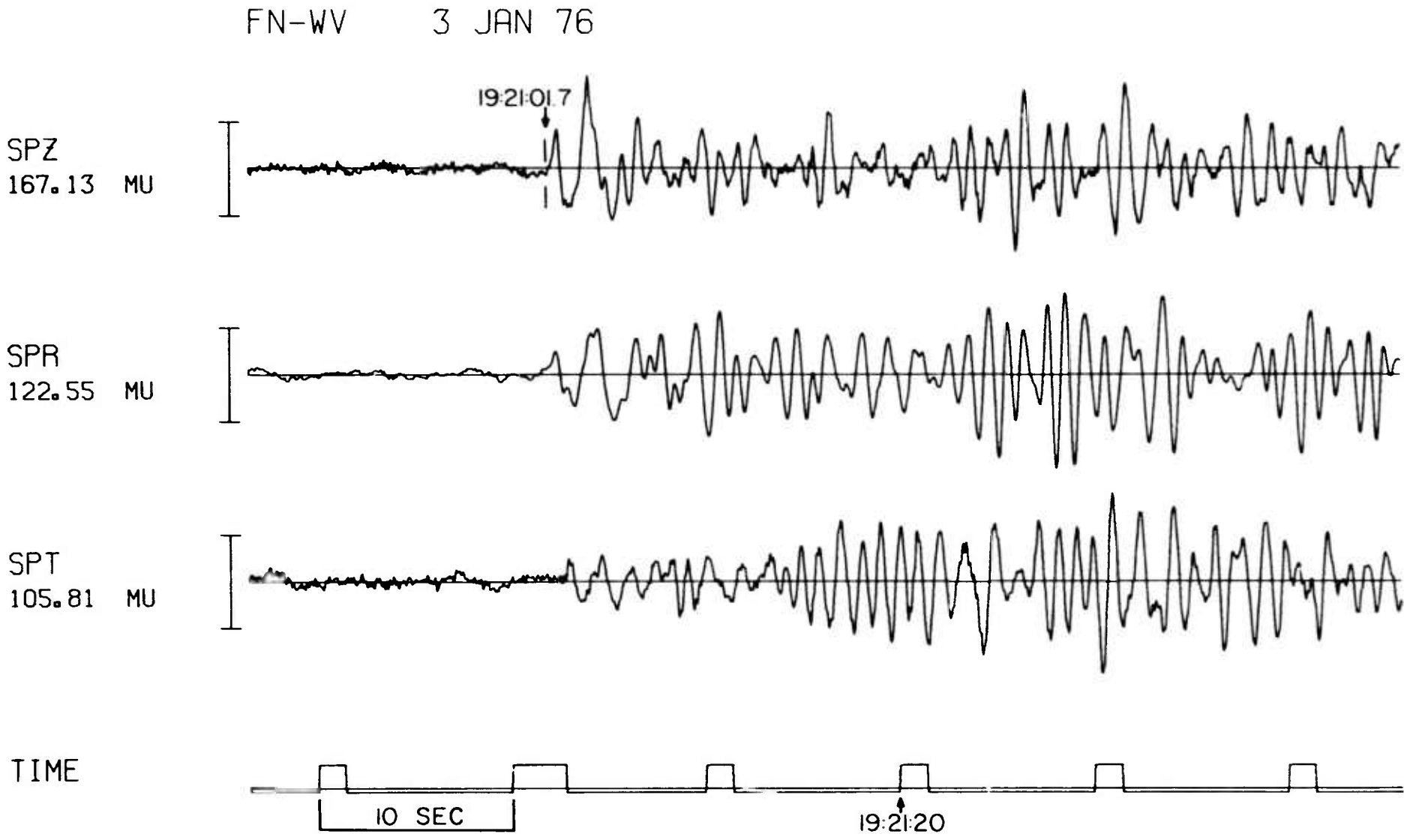
STA.	PHASE	ARRIVAL TIME	INST	PER	A/T	MAGNITUDE MB	MS	DIR	DIST
LAO	EP	19 17 53.1	SRB	0.0	0.				
CPSO	EP	19 20 24.0	SPZ	1.0	2425.	6.54			24.8
CPSO	LQ	19 28 41.0	LPT	15.0	9132.				
CPSO	LR	19 30 23.0	LPZ	13.0	13744.		6.65		24.8
WH2YK	EP	19 20 37.3	SPZ	0.9	247.	5.52			26.2
WH2YK	LQ	19 29 45.0	LPT	18.0	2661.				
WH2YK	LR	19 31 45.0	LPZ	17.0	3506.		6.08		26.2
FN-WV	EP	19 21 01.7	SPZ	0.9	160.	5.50			29.0
FN-WV	LQ	19 30 54.0	LPT	17.0	5095.				
FN-WV	LR	19 32 52.0	LPZ	15.0	5803.		6.35		29.0
HN-ME	EP	19 22 08.9	SPZ	0.8	1443.	6.39			36.7
HN-ME	LQ	19 34 55.0	LPT	19.0	3174.				
HN-ME	LR	19 37 54.0	LPZ	15.0	1142.		5.74		36.7
NAO	EP	19 26 31.9	AB	0.9	274.	6.02			73.2

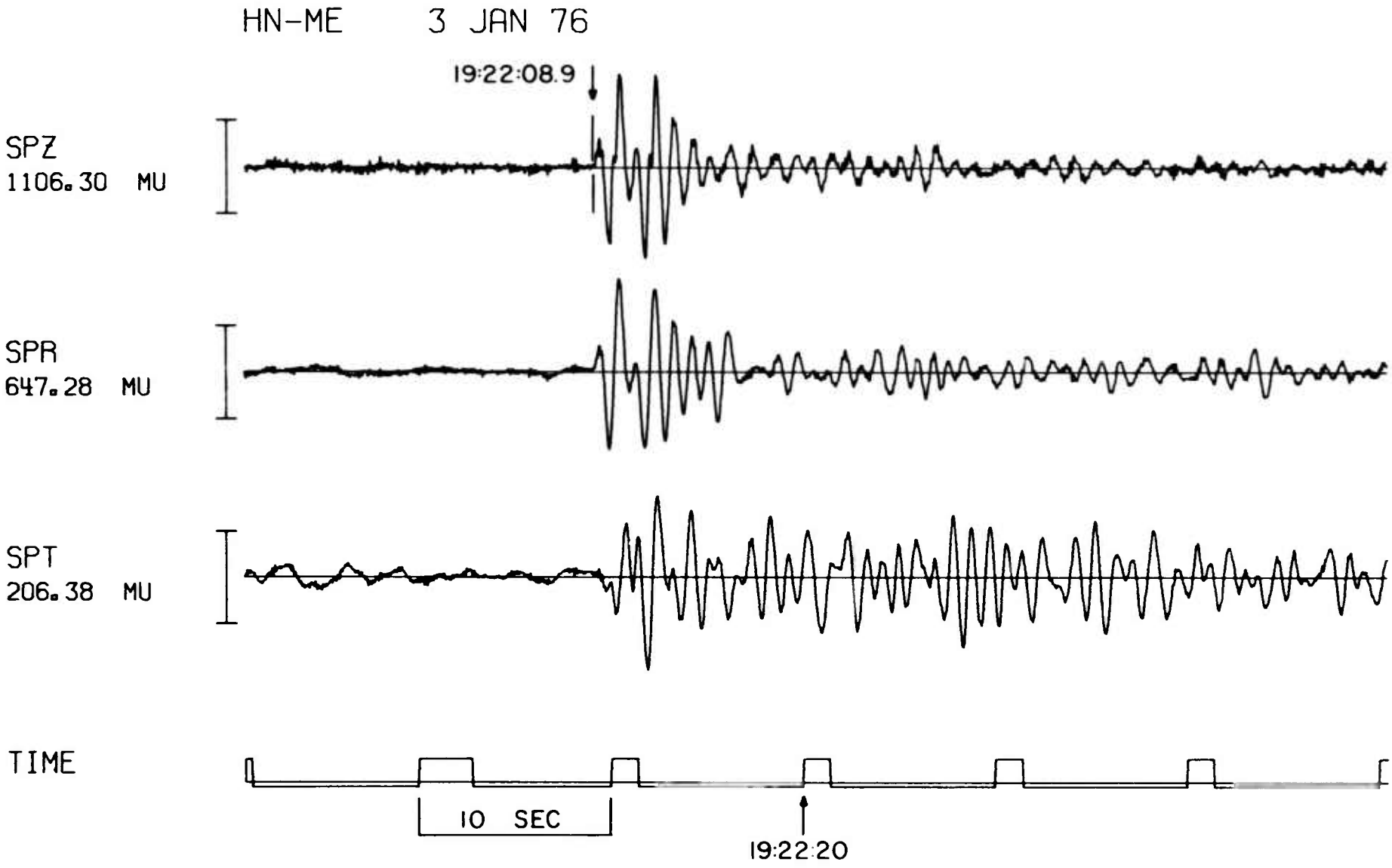
ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
19:15:09.2	37.533N	116.171W	48. CALC	5.93	0.51	5	6.08******		1
19:15:01.3	37.290N	116.355W	0. REST	5.99	0.48	5	6.08******		1

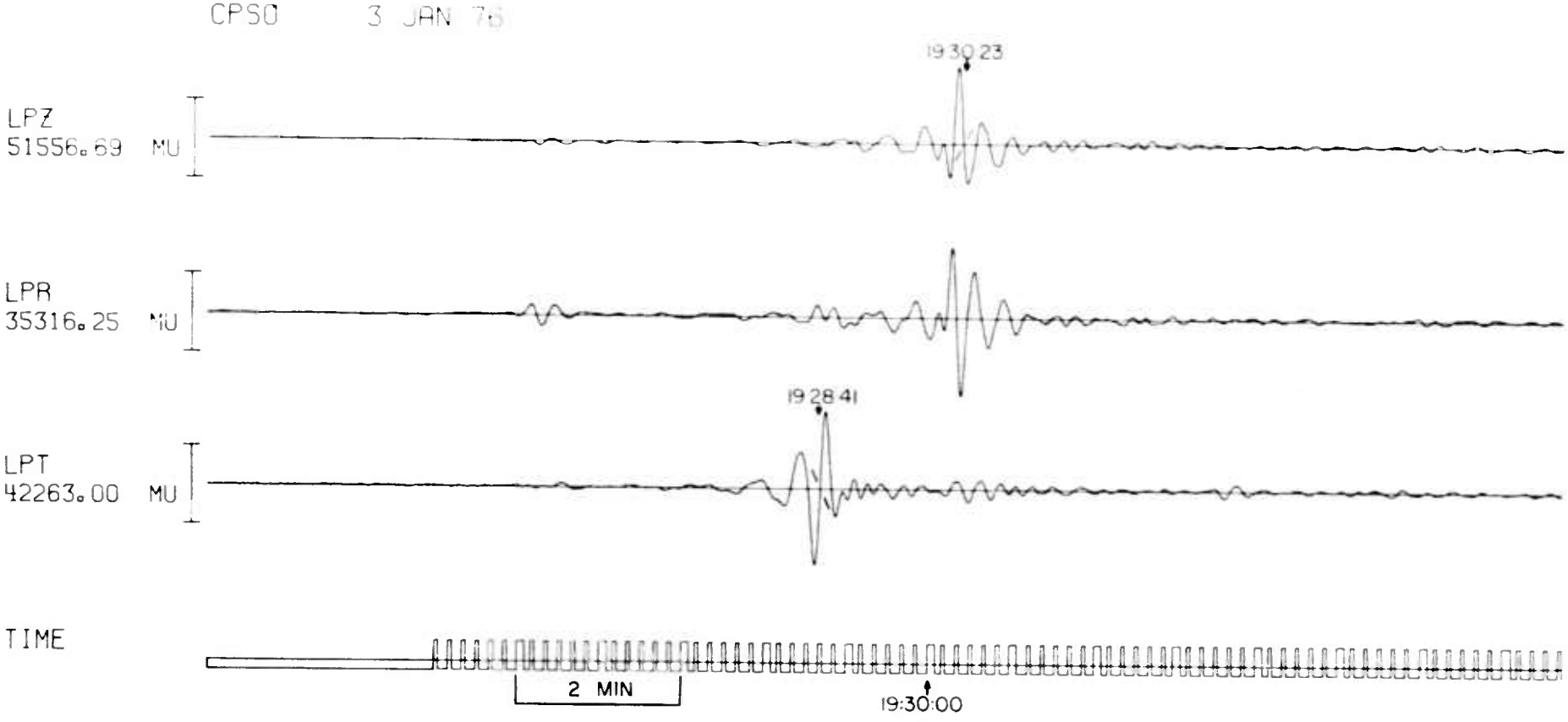
Average long-period magnitude (M_S) is based on Rayleigh wave observations in the period range of 17 to 23 seconds per cycle.

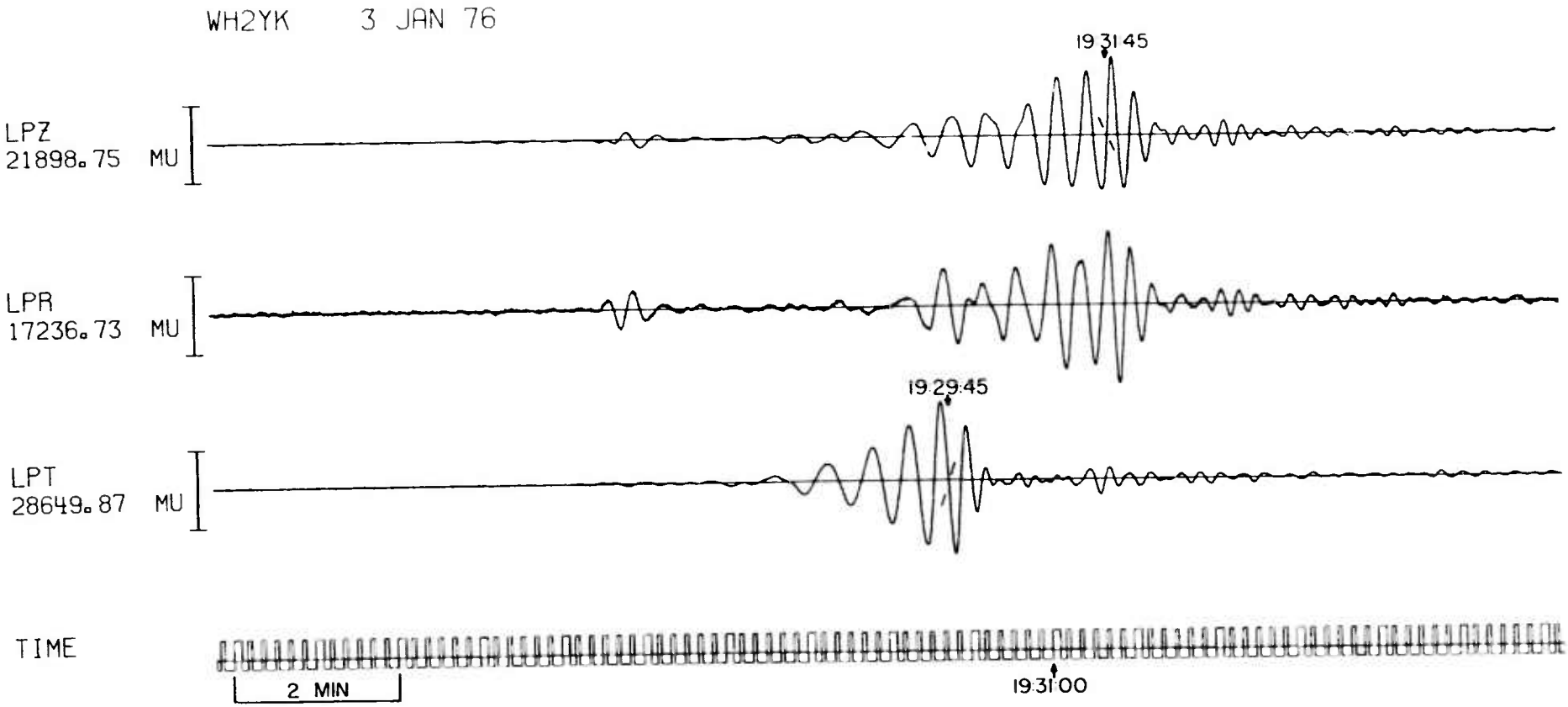

CPSO 3 JAN 76
19:20:24.0
SPZ
1371.94 MU
SPR
614.00 MU
SPT
230.27 MU
TIME
10 SEC
19:20:40

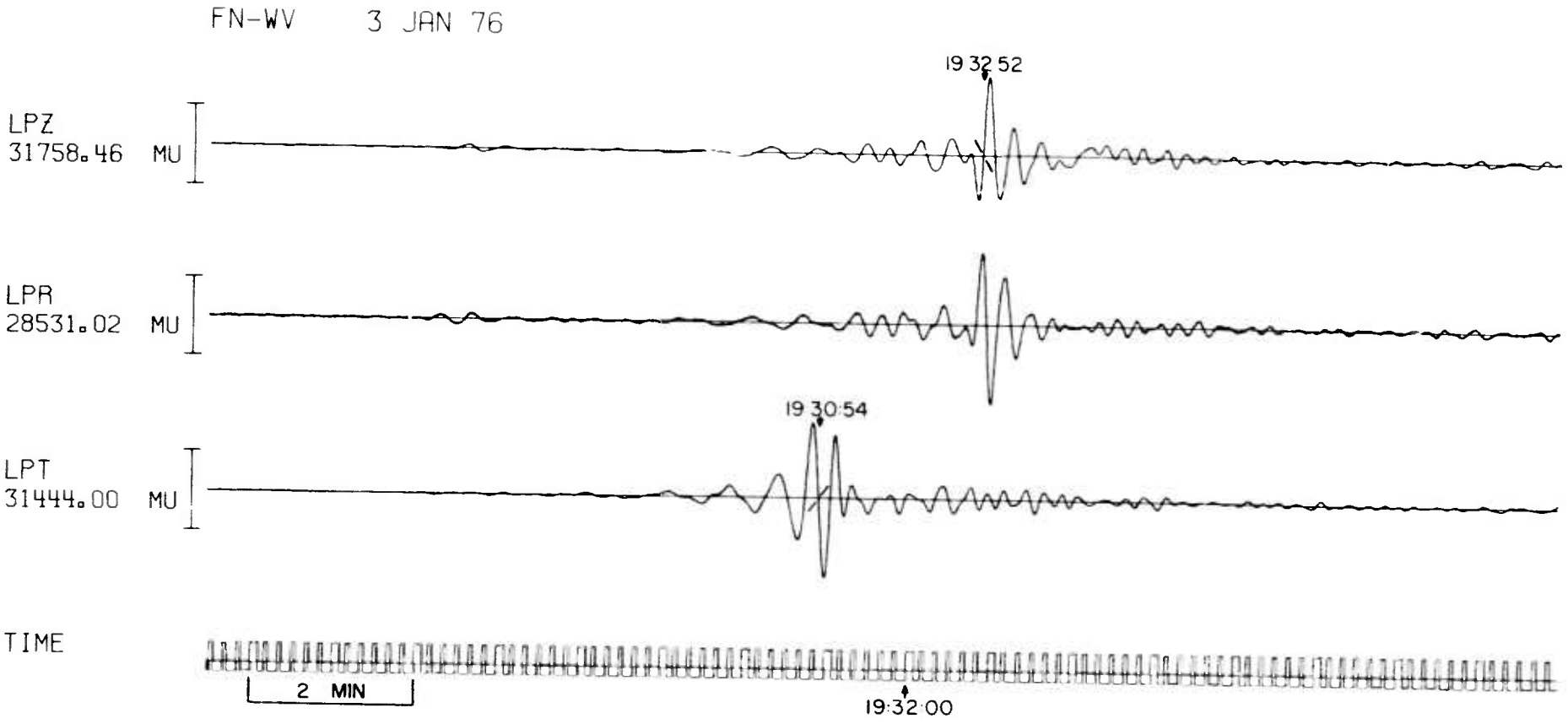

WH2YK 03 JAN 76
19:20:37.3
SPZ
171.74 MU
SPR
143.30 MU
SPT
111.87 MU
TIME
10 SEC
19:20:50

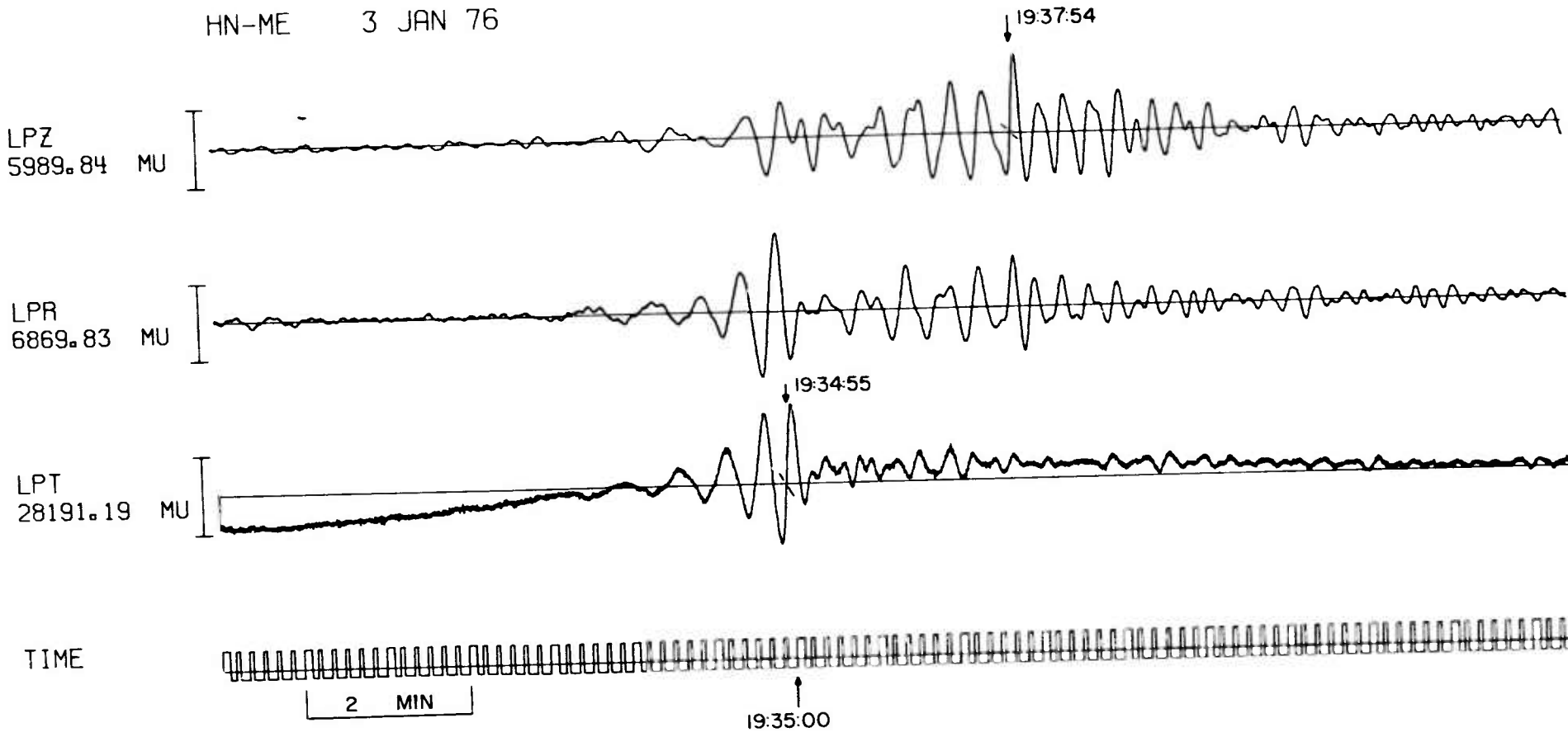

FN-WV 3 JAN 76
19:21:01.7
SPZ
167.13 MU
SPR
122.55 MU
SPT
105.81 MU
TIME
10 SEC
19:21:20


HN-ME 3 JAN 76
19:22:08.9
SPZ
1106.30 MU
SPR
647.28 MU
SPT
206.38 MU
TIME
10 SEC
19:22:20


CPSO 3 JAN 76
19 30 23
LPZ
51556.69 MU
LPR
35316.25 MU
19 28 41
LPT
42263.00 MU
TIME
2 MIN
19:30:00


WH2YK 3 JAN 76
19:31:45
LPZ
21898.75 MU
LPR
17236.73 MU
19:29:45
LPT
28649.87 MU
TIME
2 MIN
19:31:00


FN-WV 3 JAN 76
19 32 52
LPZ
31758.46 MU
LPR
28531.02 MU
19 30 54
LPT
31444.00 MU
TIME
2 MIN
19:32:00


HN-ME 3 JAN 76
19:37:54
LPZ
5989.84 MU
LPR
6869.83 MU
19:34:55
LPT
28191.19 MU
TIME
2 MIN
19:35:00