

DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

**National Earthquake Information Center
Waveform Catalog
August 1986**

by

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

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Introduction

This report provides a visual catalog of digitally recorded waveform data available from the event tapes produced by the United States Geological Survey's National Earthquake Information Center (NEIC). It is intended to provide the researcher with a quick index both to the availability of data and to the character of the data for each event (e.g., complexity and directionality).

The network-event tapes are a data service initiated by the NEIC in 1984. Currently, these tapes contain data from the Global Digital Seismograph Network (GDSN), the Regional Seismograph Test Network (RSTN), and the Glen Almond, Canada, SRO station. In the future, data from other high-quality stations and arrays, installed and operated by countries around the world, will be added to the event tapes as they are made available to us.

Network-event tapes contain digital data for earthquakes of magnitude 5.5 or greater in the NEIC network-day tape format. For this catalog, all available vertical component recordings in all period bands are shown, including those for stations that were saturated or nonoperational or that had some other difficulty during the event. Horizontal component records were omitted in order to minimize the size of this catalog. In general, one can expect them to be of approximately the same quality as the vertical component records at any particular time. Most of the available stations do not record short-period horizontal components. All stations that have intermediate-period recordings, however, record all three components in this band. Only long-period components are recorded continuously; short- and intermediate-period channels are recorded only when an event is detected. Horizontal components (where available) are recorded whenever the vertical component is, and never otherwise.

This report mainly consists of vertical component waveforms from all reporting stations, organized by event. The section for each event is prefaced by a station coverage map, in which stations and geography within 100° of the source are shown in an azimuthal equidistant projection centered at the epicenter. Following the coverage map, all short-period, vertical component waveforms are shown in order of increasing epicentral distance. Each short-period waveform is two minutes long and is identified by station code, start

time, and epicentral distance, Δ , in degrees. The start time is chosen to be about 15 seconds before the earliest theoretical arrival time of interest (P, Pdiff, or PKPdiff, depending on distance). The vertical scale is in microns of ground displacement at the dominant period of the instrument response, which is taken to be 1 second. Each page of waveforms is titled with the event origin date-time, the Flinn-Engdahl region name, and the component identifier (SPZ, LPZ or IPZ). Also, the depth of the event (h) in kilometers and its average body (m_b) and vertical surface wave (M_{SZ}) magnitudes are shown for convenience.

Following the short-period waveforms (SPZ), long-period vertical (LPZ) and finally intermediate-period vertical (IPZ) waveforms are shown. In each case, the format is the same as for the short-period waveforms. Fifty minutes of long-period data are shown beginning 1 minute before the theoretical first arrival, and the dominant period is taken to be 25 seconds. Four minutes of intermediate-period data are shown beginning 30 seconds before the theoretical first arrival, and the dominant period is assumed to be 1 second. Because (1) the event detection algorithm is not perfect, (2) only about half of the available stations have intermediate-period channels, and (3) one station (GAC) has no short-period recordings, it is not uncommon for stations with good long-period recordings to have no intermediate-period and perhaps no short-period recordings at all.

With the inclusion of the Network of Autonomously Registering Stations (NARS) in September 1985, it was difficult to list the name of each station in the network on the station coverage map because of their close proximity. Instead, a new symbol (\square) will be used to denote each station of the network, with the name NARS. When other networks are included with stations situated close together, a new symbol will be used to denote each station of each network. The name used will be the network name only.

Table 1. Earthquakes for August 1986 with magnitudes ≥ 5.5

	Origin Time UTC	Latitude	Longitude	Depth (km)	M _L	Magnitude M _{SZ}	Flinn-Engdahl Region Name
1.	1986 08 01 14:09:24.91	35.894° S	103.745° W	10.0	5.5	5.8	Southern Pacific Ocean
2.	1986 08 01 21:05:39.48	51.296° N	174.248° W	33.0	5.5	5.0	Andreanof Islands, Aleutian Is.
3.	1986 08 02 20:35:35.90	58.324° S	15.212° W	10.0	5.5		Southwestern Atlantic Ocean
4.	1986 08 03 13:29:10.02	51.143° N	176.782° W	33.0	5.4	5.5	Andreanof Islands, Aleutian Is.
5.	1986 08 04 22:34:37.88	46.338° N	153.219° E	33.0	5.5	5.1	Kuril Islands
6.	1986 08 06 13:56:04.61	55.065° S	129.344° W	10.0	5.1	5.5	South Pacific Cordillera
7.	1986 08 06 19:55:15.68	29.358° N	100.906° E	33.0	5.5	5.1	Sichuan Province, China
8.	1986 08 10 04:40:51.72	1.996° N	128.261° E	123.0	6.1		Halmahera
9.	1986 08 10 05:42:08.20	7.550° S	154.805° E	33.0	5.6		Solomon Islands
10.	1986 08 11 10:37:59.04	20.089° N	121.399° E	33.0	5.5	5.0	Philippine Islands Region
11.	1986 08 14 19:39:14.38	1.816° N	126.637° E	43.1	6.5	7.3	Molucca Passage
12.	1986 08 14 20:48:08.72	32.200° S	178.467° W	33.0	5.8		South of Kermadec Islands
13.	1986 08 14 22:55:07.17	2.132° N	127.042° E	33.0	5.6	5.9	Molucca Passage
14.	1986 08 15 00:41:19.77	8.713° S	124.275° E	106.8	5.8		Timor
15.	1986 08 15 07:40:44.34	1.885° N	126.568° E	33.0	5.6	5.8	Molucca Passage
16.	1986 08 16 17:19:23.06	1.839° N	126.548° E	33.0	5.7	5.9	Molucca Passage
17.	1986 08 16 21:08:27.80	1.777° N	126.569° E	33.0	5.6	5.4	Molucca Passage
18.	1986 08 17 15:27:41.17	2.289° N	127.093° E	33.0	5.9	6.3	Molucca Passage
19.	1986 08 17 15:31:19.52	2.151° N	127.330° E	33.0	6.2	6.3	Molucca Passage
20.	1986 08 17 15:52:09.62	2.208° N	126.944° E	33.0	5.6		Molucca Passage
21.	1986 08 18 01:59:56.70	20.373° S	174.348° W	33.0	5.8	5.9	Tonga Islands
22.	1986 08 18 14:16:14.43	1.759° N	126.592° E	33.0	5.5	5.2	Molucca Passage
23.	1986 08 19 00:27:40.62	8.344° N	126.594° E	75.2	5.5		Mindanao, Philippine Islands
24.	1986 08 20 07:05:02.58	5.341° S	151.332° E	90.4	5.7		New Britain Region
25.	1986 08 20 10:09:38.48	16.873° S	173.653° W	86.0	5.5		Tonga Islands
26.	1986 08 20 21:15:46.63	1.982° S	87.081° E	10.0	5.3	6.6	South Indian Ocean
27.	1986 08 20 21:23:55.07	34.504° N	91.507° E	33.0	5.4	6.5	Qinghai Province, China
28.	1986 08 21 01:35:05.57	38.841° N	73.166° E	33.0	5.6		Tajik-Xinjiang Border Region
29.	1986 08 23 23:47:48.72	34.562° S	179.337° E	33.0	6.0	6.5	South of Kermadec Islands
30.	1986 08 26 09:43:04.16	37.686° N	101.412° E	33.0	6.1	5.8	Qinghai Province, China
31.	1986 08 26 21:52:29.95	14.730° S	173.460° W	33.0	5.5	5.8	Samoa Islands Region
32.	1986 08 26 22:11:40.27	14.814° S	173.375° W	33.0	5.2	5.7	Samoa Islands Region
33.	1986 08 30 21:28:35.95	45.550° N	26.302° E	139.4	6.3	6.9	Romania
34.	1986 08 31 09:23:03.51	23.140° N	144.133° E	33.0	5.3	5.9	Volcano Islands Region

Table 2. Current network-event tape station list

Code	ID	Station	Latitude	Longitude	Elevation (m)	Type
ANMO	30	Albuquerque, New Mexico	34.95° N	106.46° W	1740.0	SRO
ANTO	31	Ankara, Turkey	39.87° N	32.79° E	883.0	SRO
BCAO	37	Bangui, Central African Republic	4.43° N	18.54° E	336.0	SRO
BDF	72	Brasilia, Brazil	15.66° S	47.90° W	1500.0	DWWSSN
BGIO	34	Bar-Giyyora, Israel	31.72° N	35.09° E	651.7	SRO
BOCO	32	Bogota, Columbia	4.59° N	74.04° W	3071.0	SRO
CHTO	33	Chiang Mai, Thailand	18.79° N	98.98° E	316.0	SRO
COL	62	College, Alaska	64.90° N	147.79° W	320.0	DWWSSN
CTAO	50	Charters Towers, Australia	20.09° S	146.25° E	357.0	ASRO
GAC	43	Glen Almond, Quebec, Canada	45.70° N	75.48° W	620.0	SRO
GDH	70	Godhavn, Greenland	69.25° N	53.53° W	23.0	DWWSSN
GRA1	302	Haidhof, Germany	49.69° N	11.22° E	500.0	GRF
GRB1	303	Brunnthal, Germany	49.39° N	11.65° E	494.0	GRF
GRC1	304	Eglofsdorf, Germany	48.99° N	11.52° E	512.0	GRF
GRFO	39	Graefenberg, Germany	49.69° N	11.22° E	500.0	SRO
GUMO	35	Guam, Mariana Islands	13.59° N	144.87° E	14.0	SRO
HON	66	Honolulu, Hawaii	21.32° N	158.01° W	2.0	DWWSSN
JAS1	64	Jamestown, California	37.93° N	120.42° W	425.0	DWWSSN
KONO	54	Kongsberg, Norway	59.65° N	9.60° E	216.0	ASRO
LEM	76	Lembang, Indonesia	6.833° S	107.62° E	1247.0	DWWSSN
LON	63	Longmire, Washington	46.75° N	121.81° W	854.0	DWWSSN
MAJO	53	Matsushiro, Japan	36.54° N	138.21° E	422.0	ASRO
NE03	203	Logumkloster, Denmark	55.045° N	9.153° E	25.0	NARS
NE04	204	Witteveen, Netherlands	52.813° N	6.668° E	17.0	NARS
NE05	205	Utrecht, Netherlands	52.088° N	5.172° E	2.0	NARS
NE06	206	Dourbes, Belgium	50.097° N	4.595° E	225.0	NARS
NE10	210	Arette, France	43.086° N	0.699° W	480.0	NARS
NE11	211	Ainzon, France	41.814° N	1.517° W	440.0	NARS
NE13	213	Puertollano, Spain	38.685° N	4.091° W	700.0	NARS
NE14	214	Granada, Spain	37.190° N	3.595° W	774.0	NARS
NE15	215	Valkenburg, Netherlands	50.867° N	5.785° E	100.0	NARS
NE16	216	Clermont-Ferand, France	45.763° N	3.103° E	80.0	NARS
NE17	217	Toledo, Spain	39.881° N	4.049° W	480.0	NARS
NRA0	301	NORESS array site A0	60.735° N	11.541° E	302.0	NRSA
NWAO	38	Mundaring (Narrogin), Australia	32.93° S	117.24° E	265.0	SRO
RSCP	81	Cumberland Plateau, Tennessee,	35.60° N	85.57° W	481.0	RSTN
RSNT	82	Yellowknife, Northwest Territories	62.48° N	114.59° W	90.0	RSTN
RSNY	84	Adirondack, New York	44.55° N	74.53° W	351.0	RSTN
RSO	85	Red Lake, Ontario	50.86° N	93.70° W	302.0	RSTN
RSSD	83	Black Hills, South Dakota	44.12° N	104.04° W	1948.0	RSTN
SLR	71	Silverton, South Africa	25.73° S	28.28° E	1348.0	DWWSSN
SNZO	42	Wellington (South Karori), New Zealand	41.31° S	174.70° E	-12.0	SRO
TATO	41	Taipei, Taiwan	24.98° N	121.49° E	53.0	SRO
TAU	74	Hobart, Tasmania	42.91° S	147.32° E	132.0	DWWSSN
TOL	73	Toledo, Spain	39.88° N	4.05° W	480.0	DWWSSN
ZOBO	51	La Paz (Zongo), Bolivia	16.27° S	68.13° W	4450.0	ASRO

ASRO - Abbreviated Seismic Research Observatory

DWWSSN - Digital World Wide Standardized Seismograph Network

GRF - Graefenberg Array

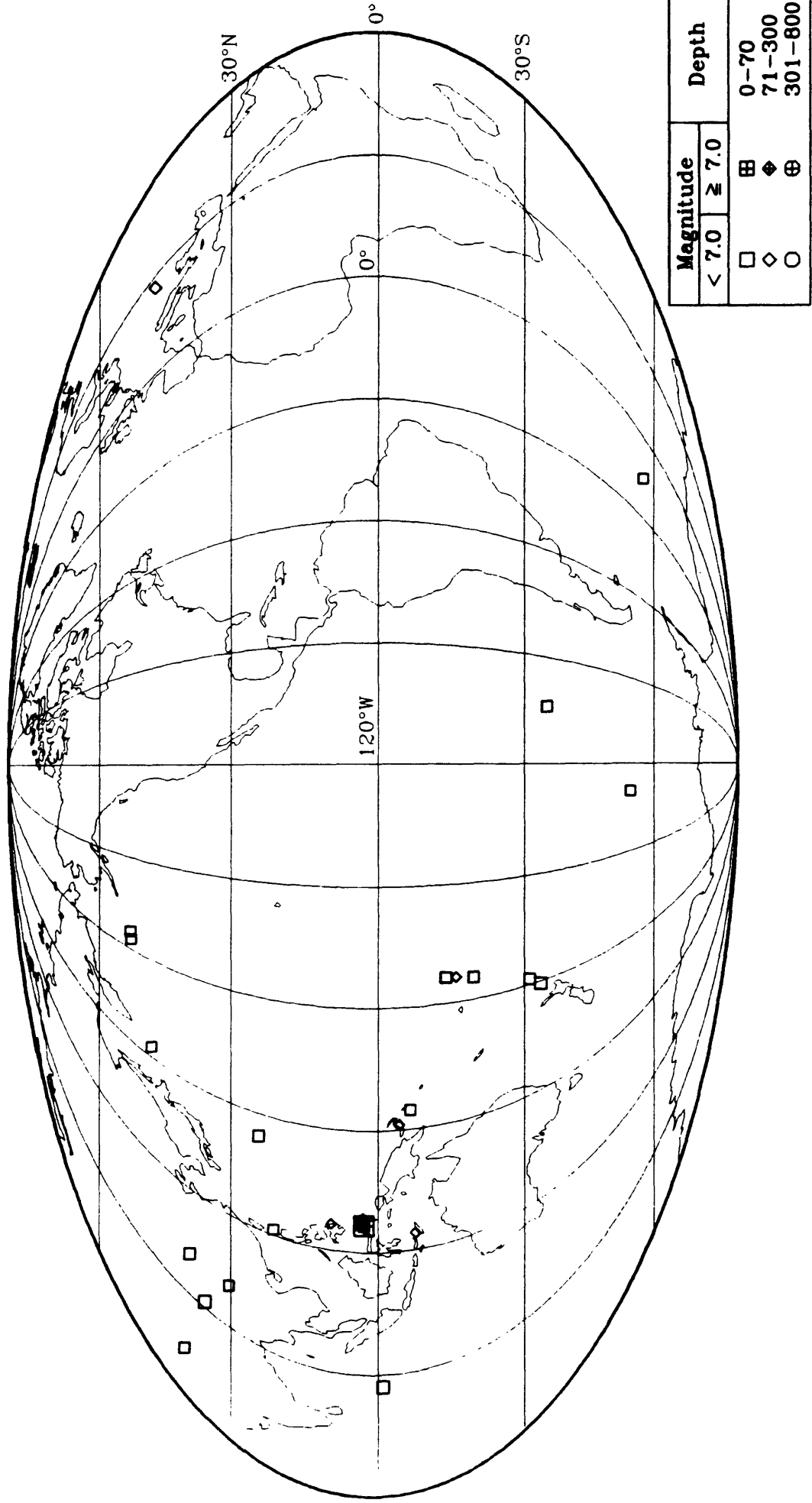
NARS - Network of Autonomously Registering Stations

NRSA - Norwegian Regional Seismic Array

RSTN - Regional Seismic Test Network

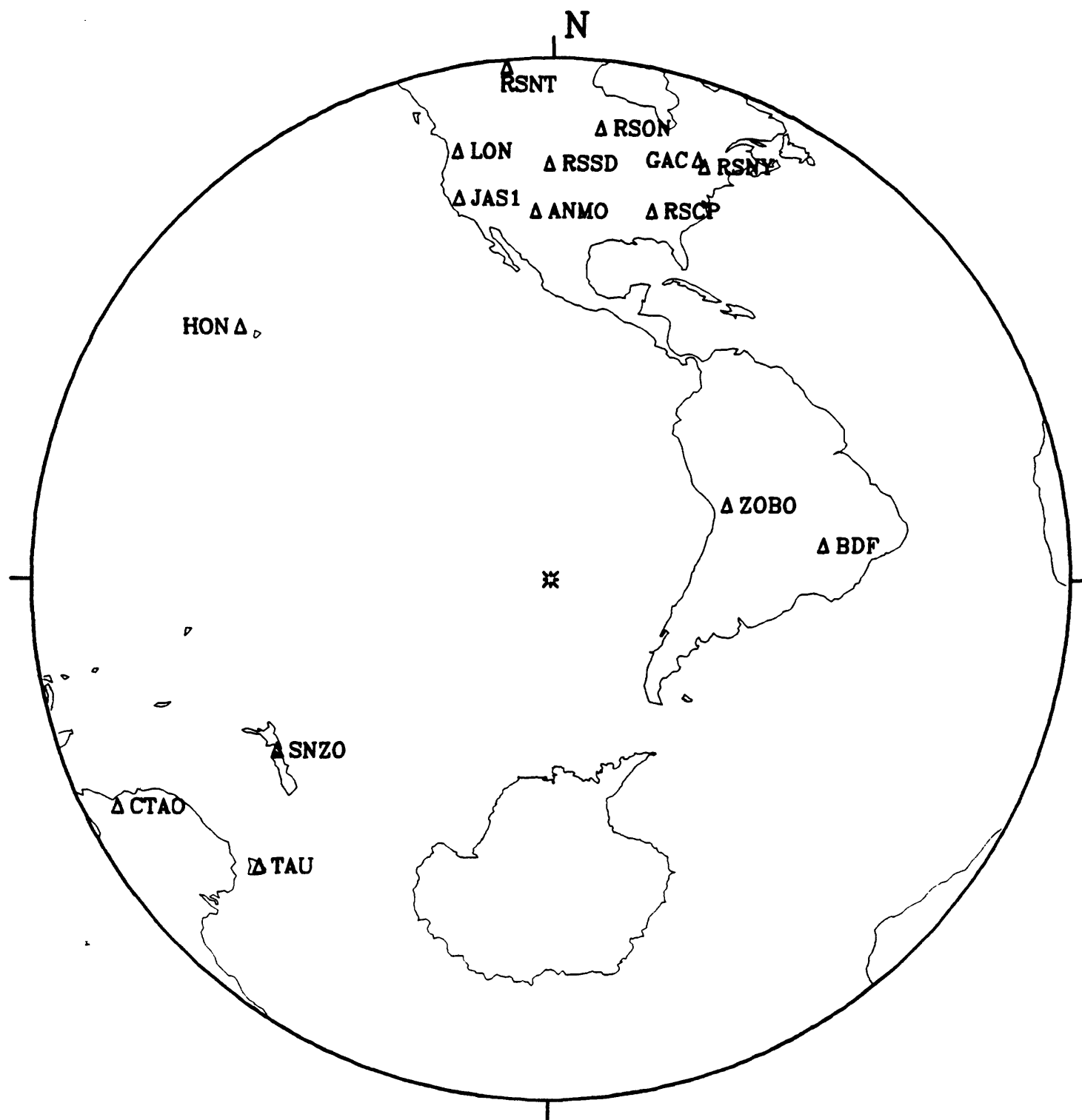
SRO - Seismic Research Observatory

EARTHQUAKES - August 1986 - MAGNITUDE ≥ 5.5



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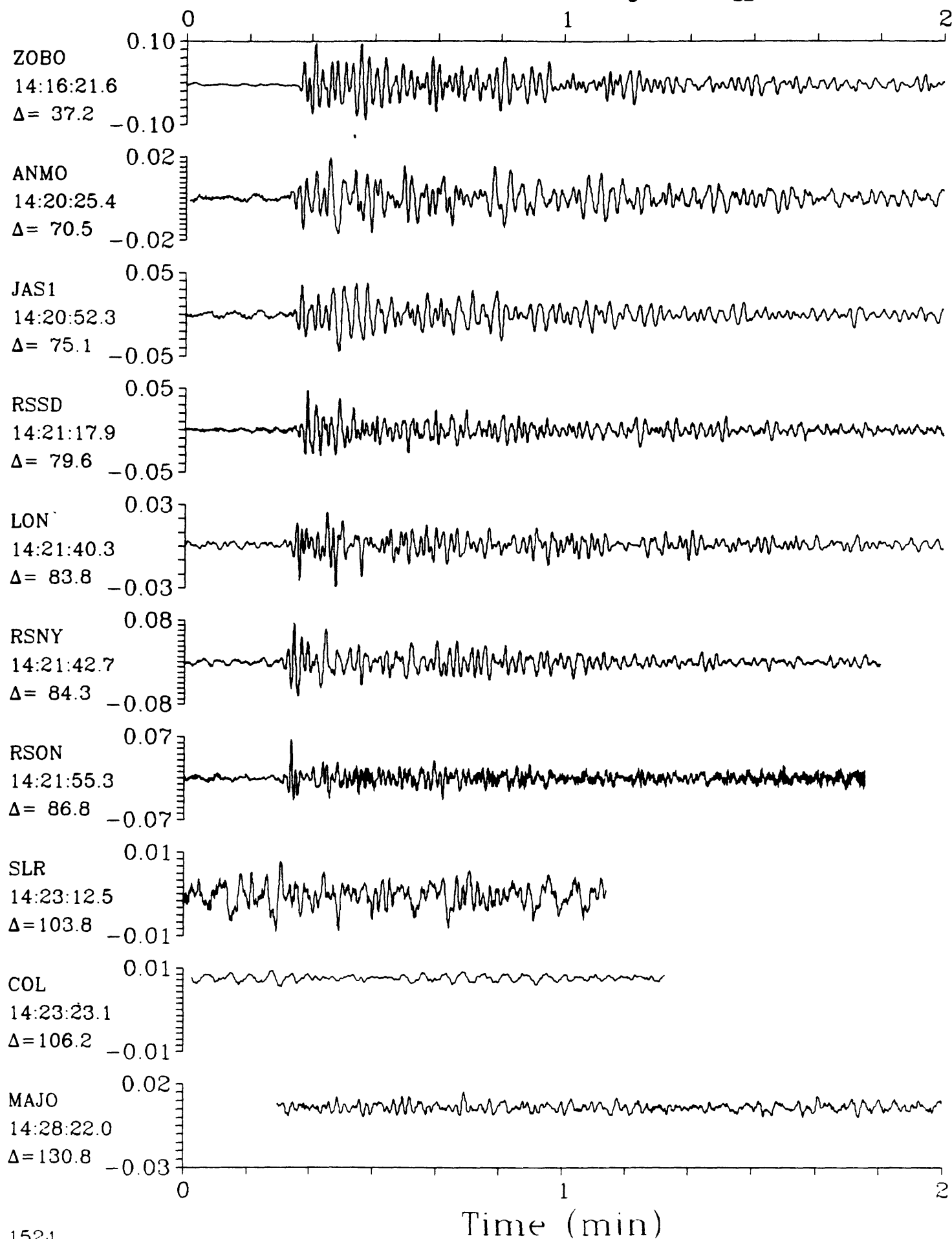
Southern Pacific Ocean



SPZ

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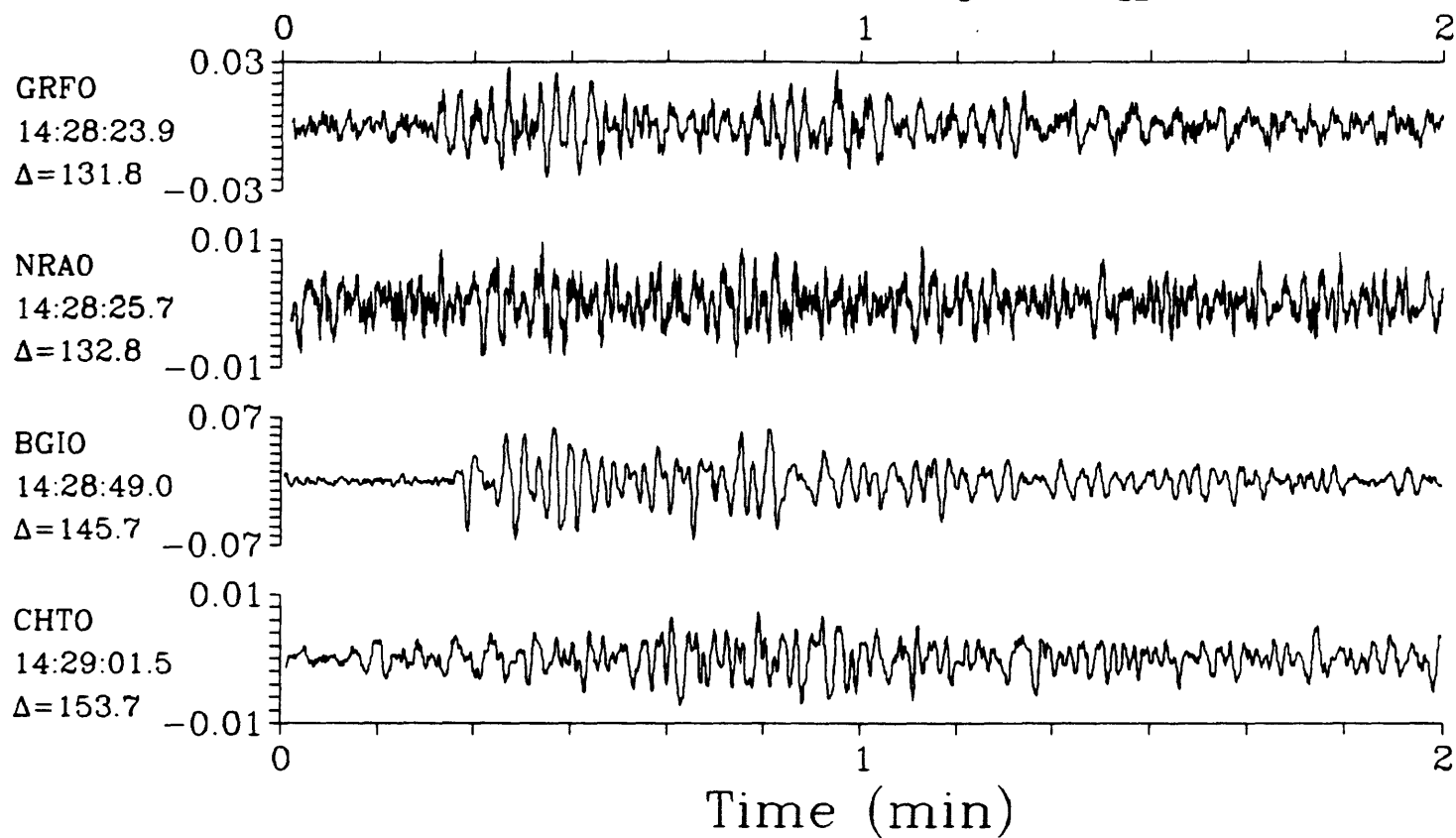
SPZ

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SPZ

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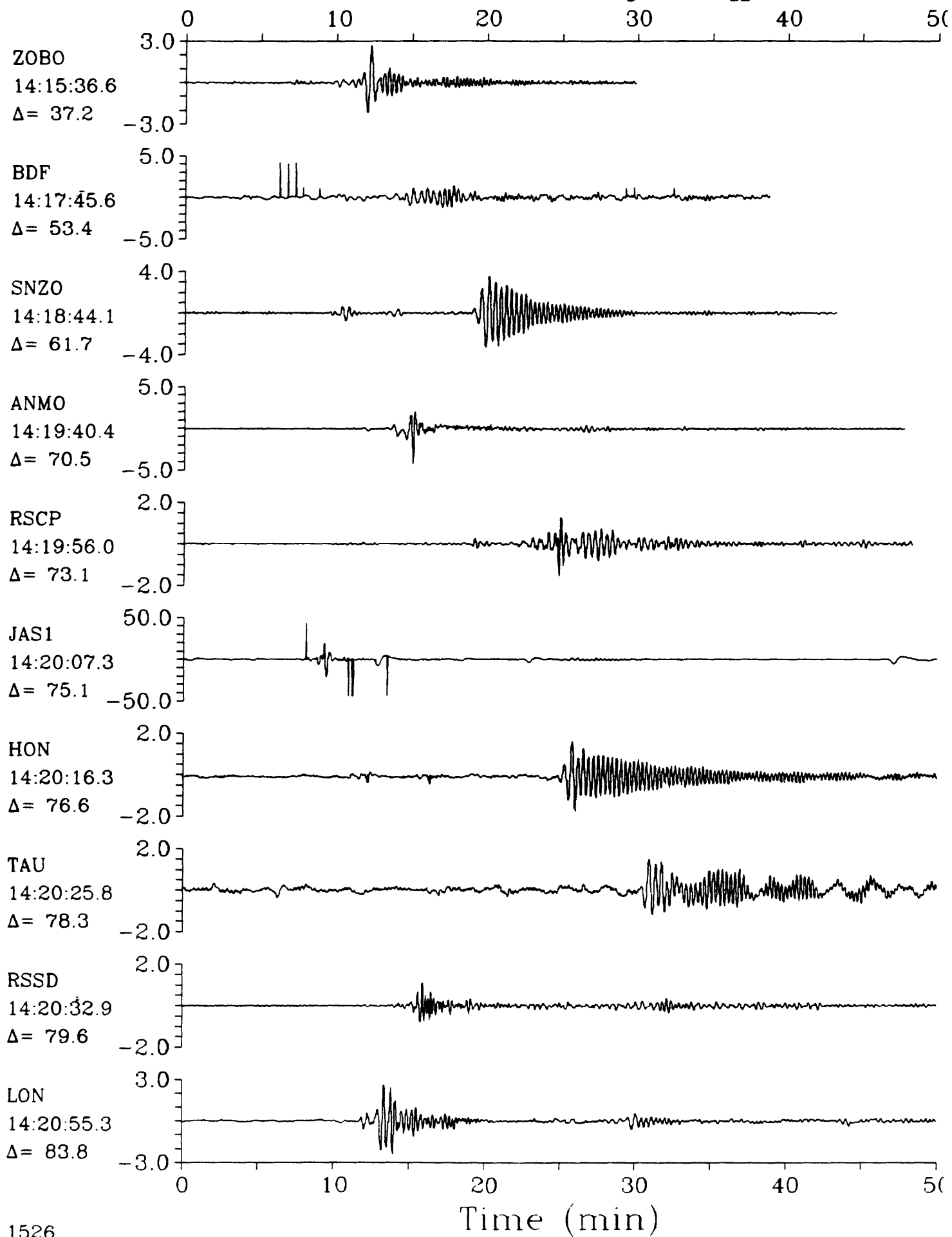
SPZ

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LPZ

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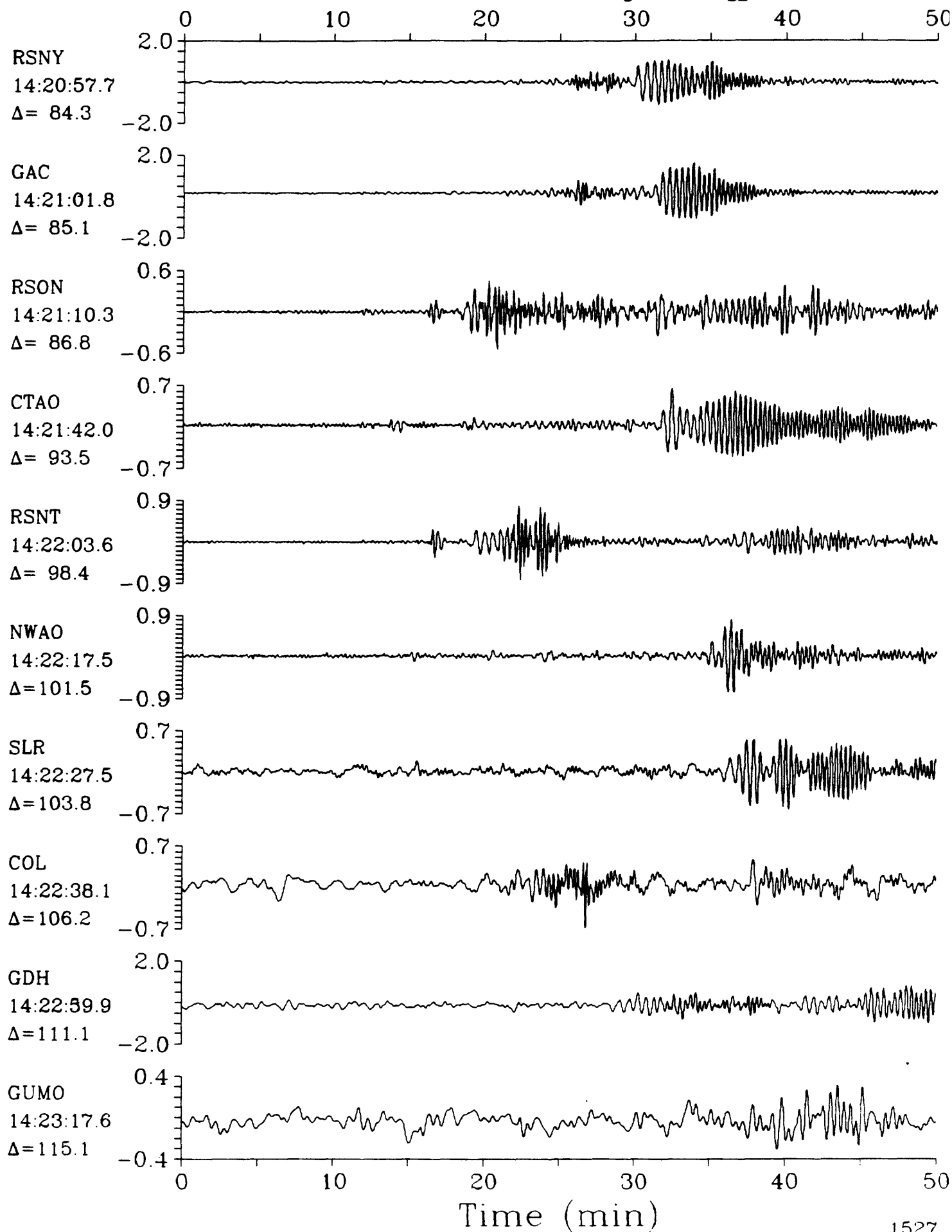
LPZ

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LPZ

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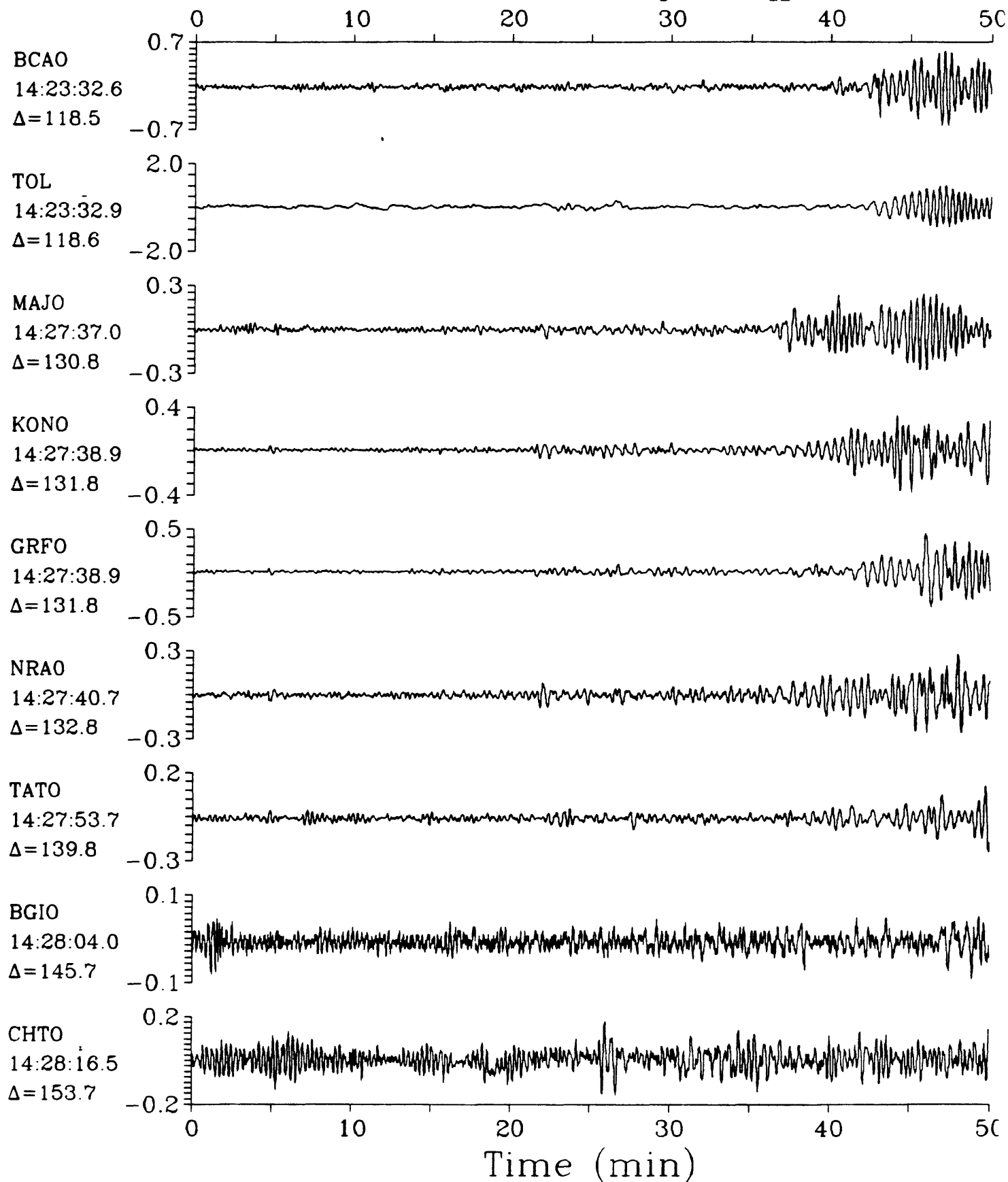
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LPZ

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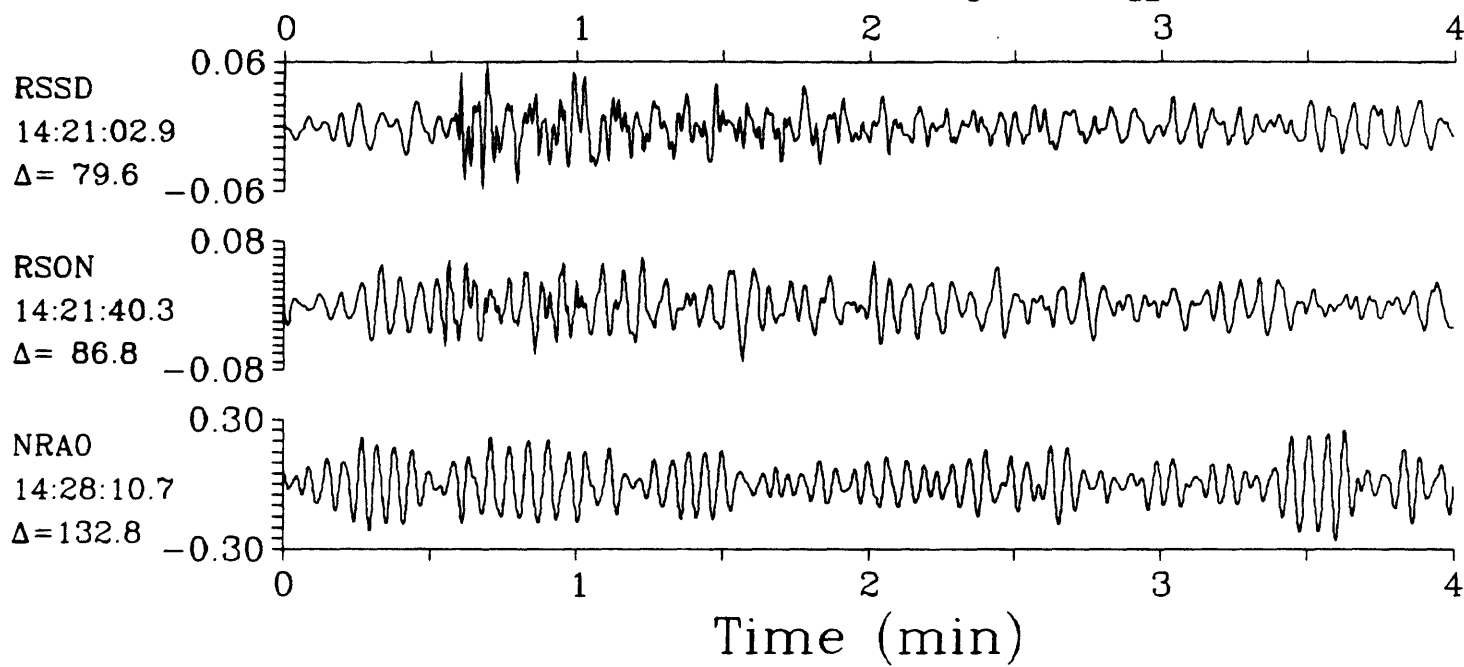
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IPZ

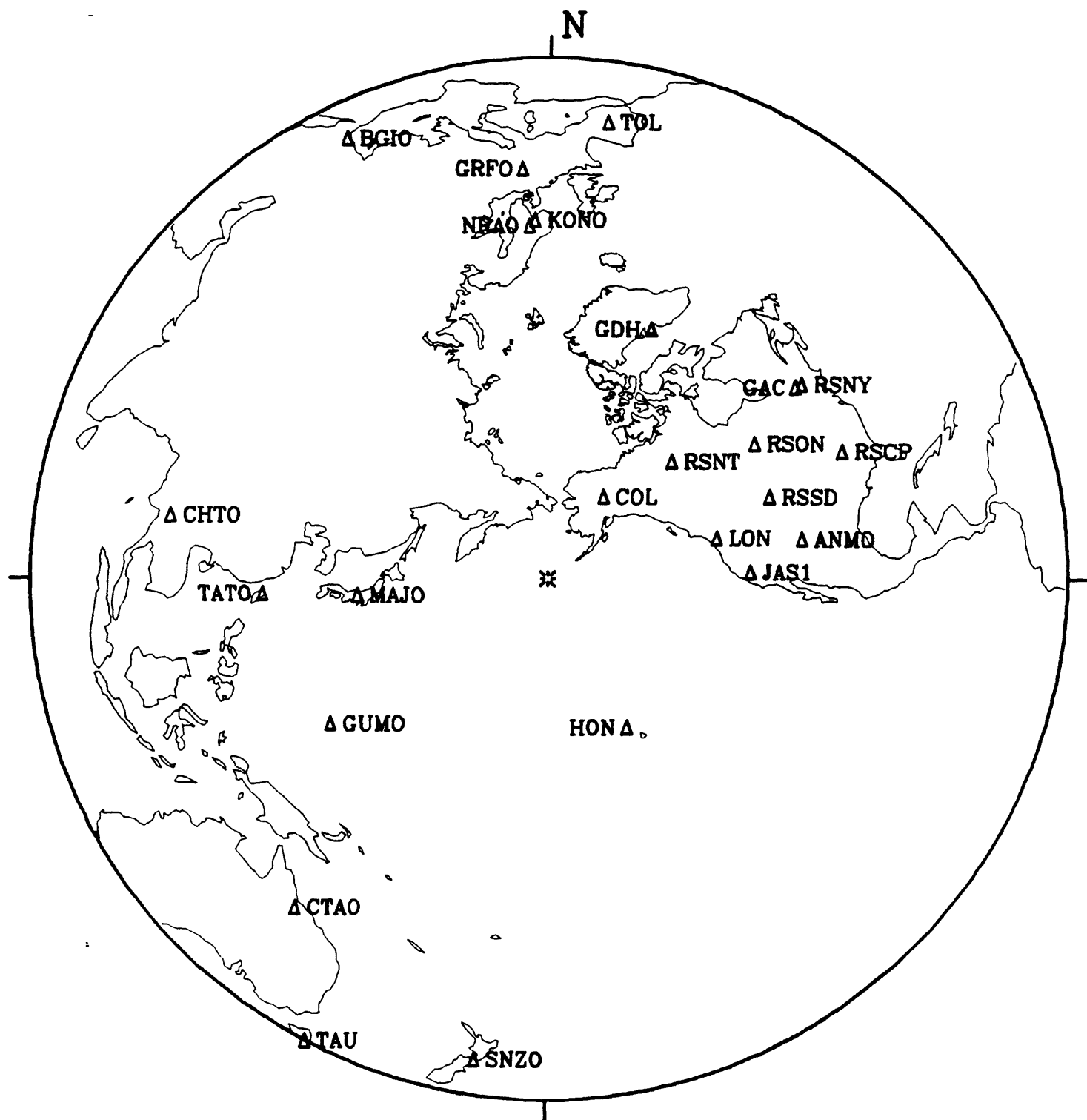
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IPZ

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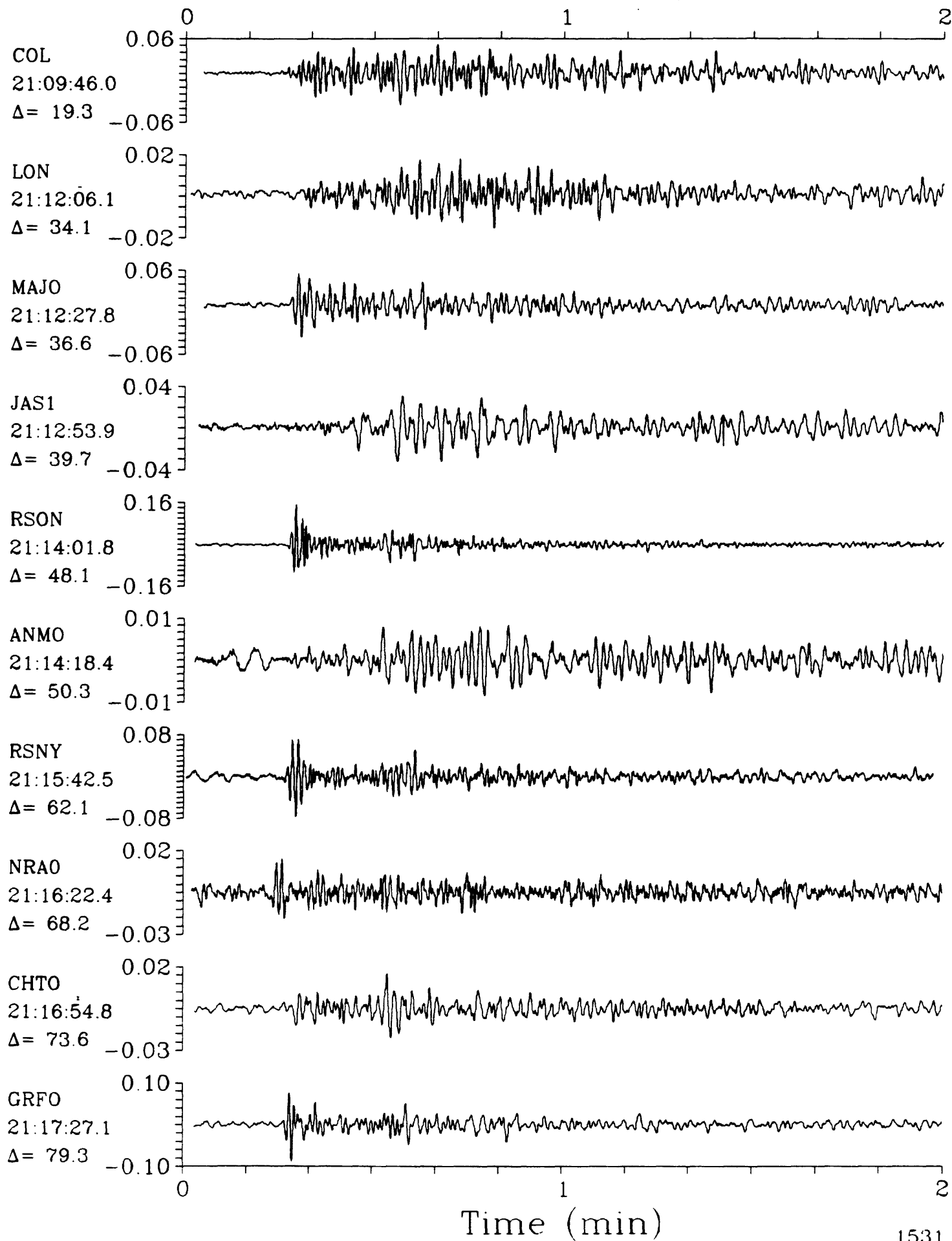
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SPZ

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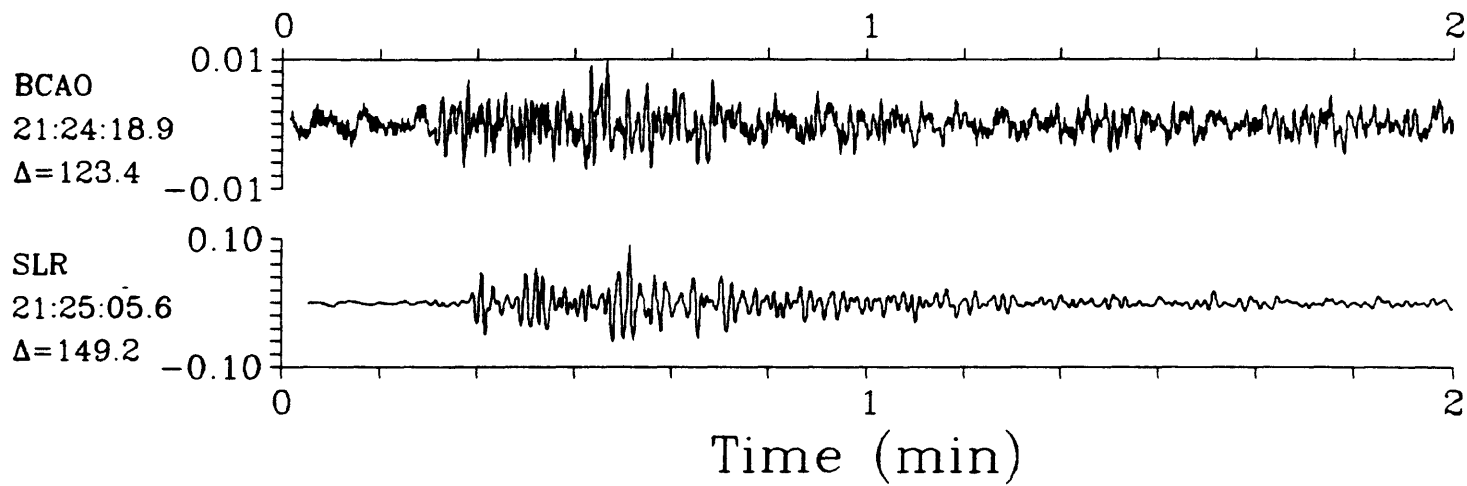
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SPZ

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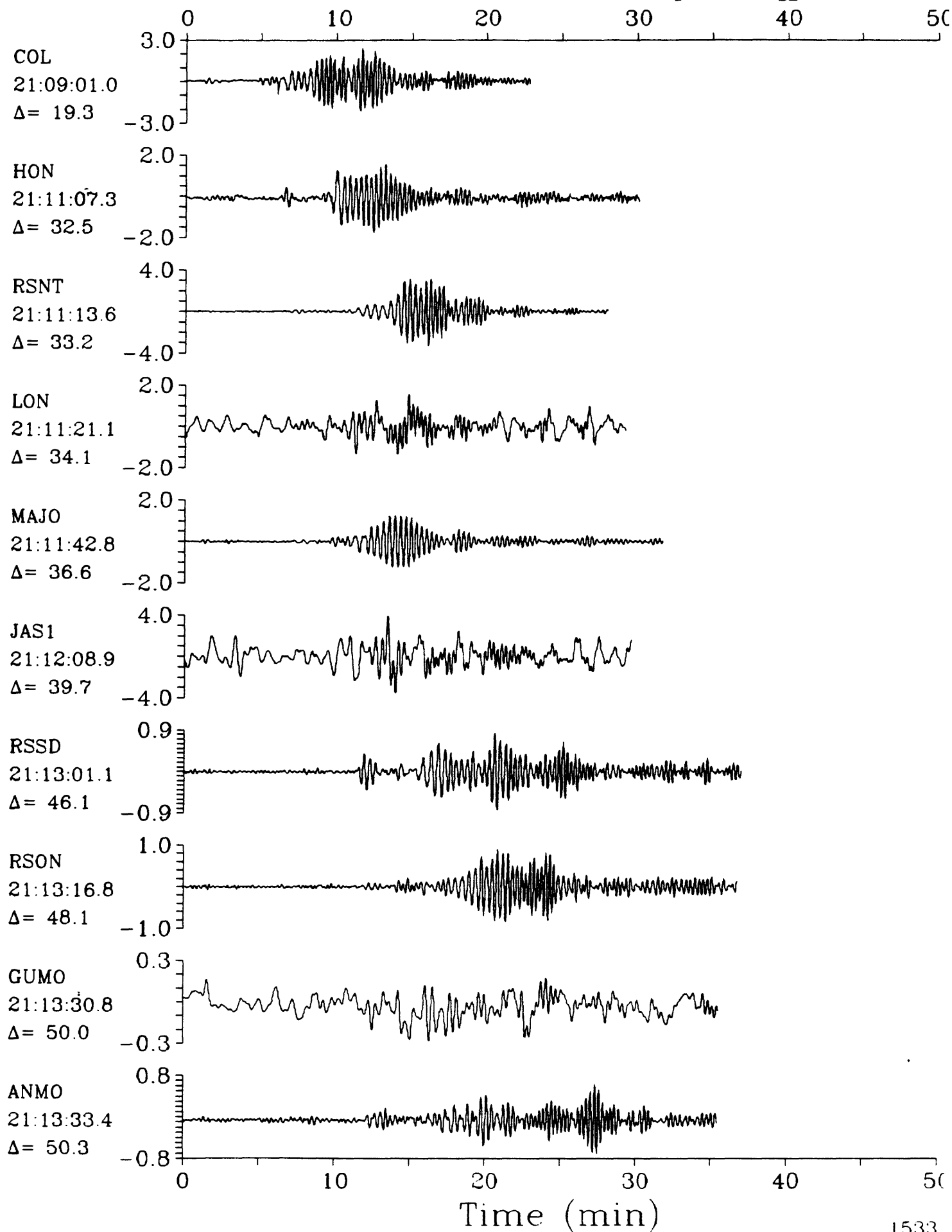
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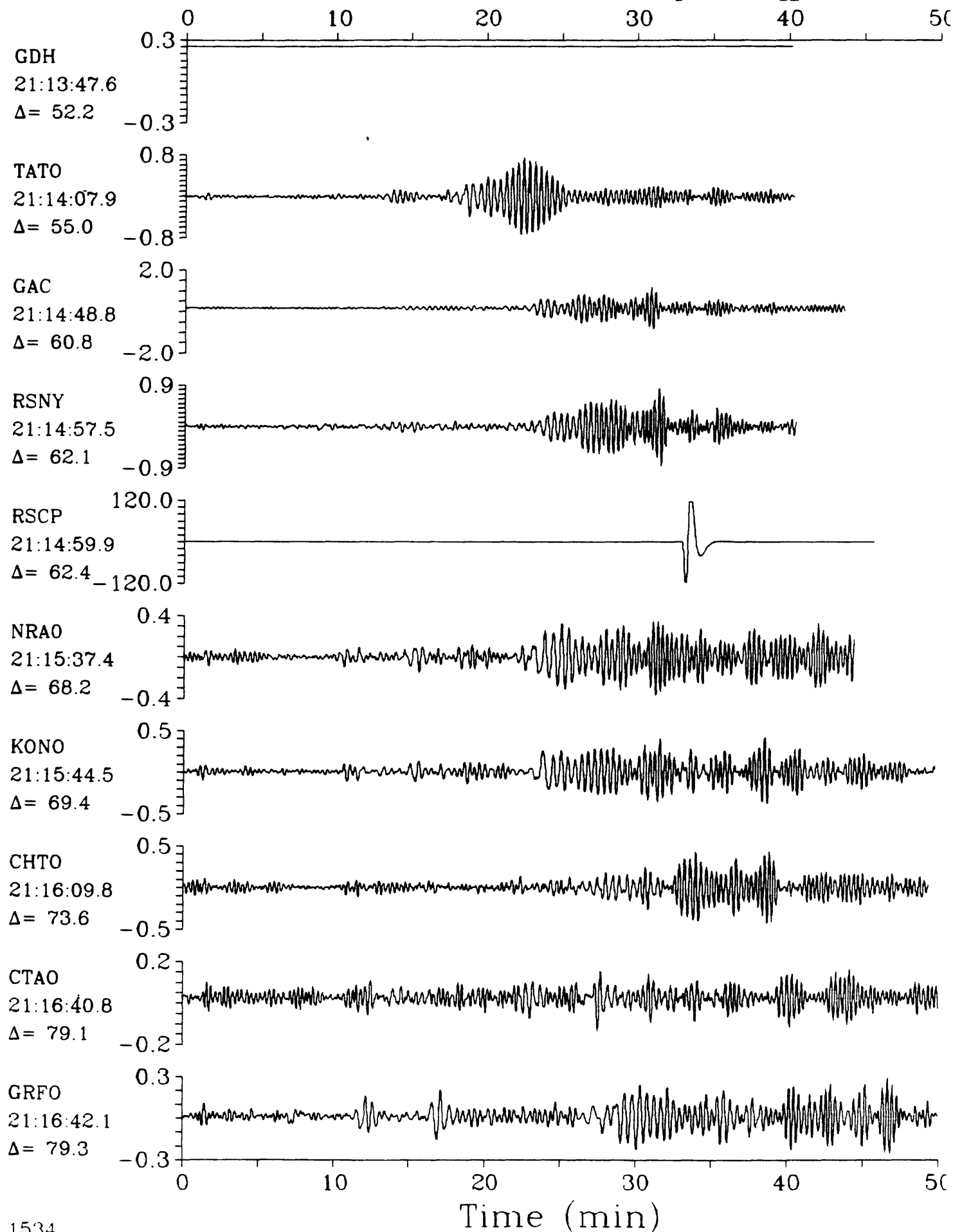
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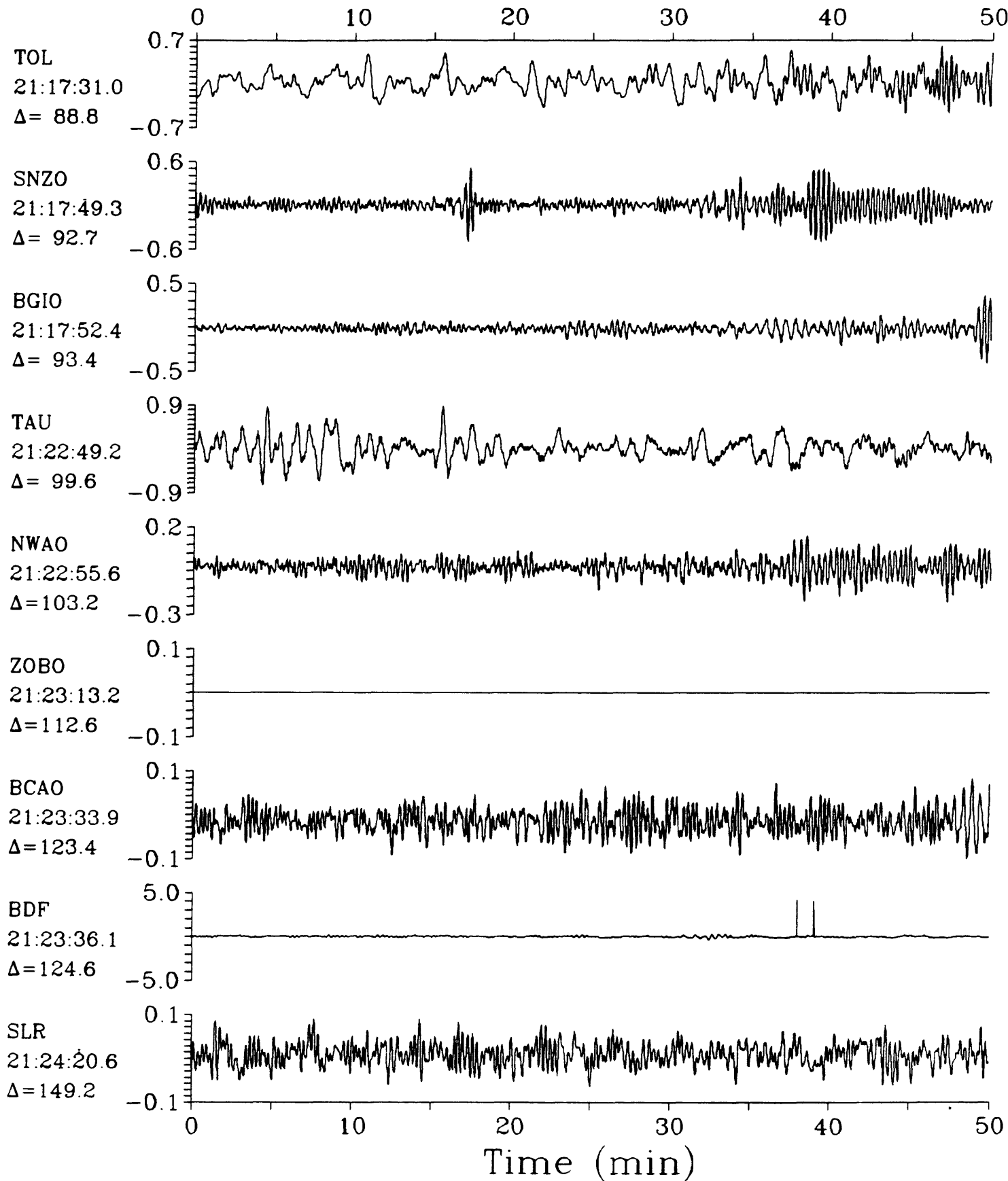
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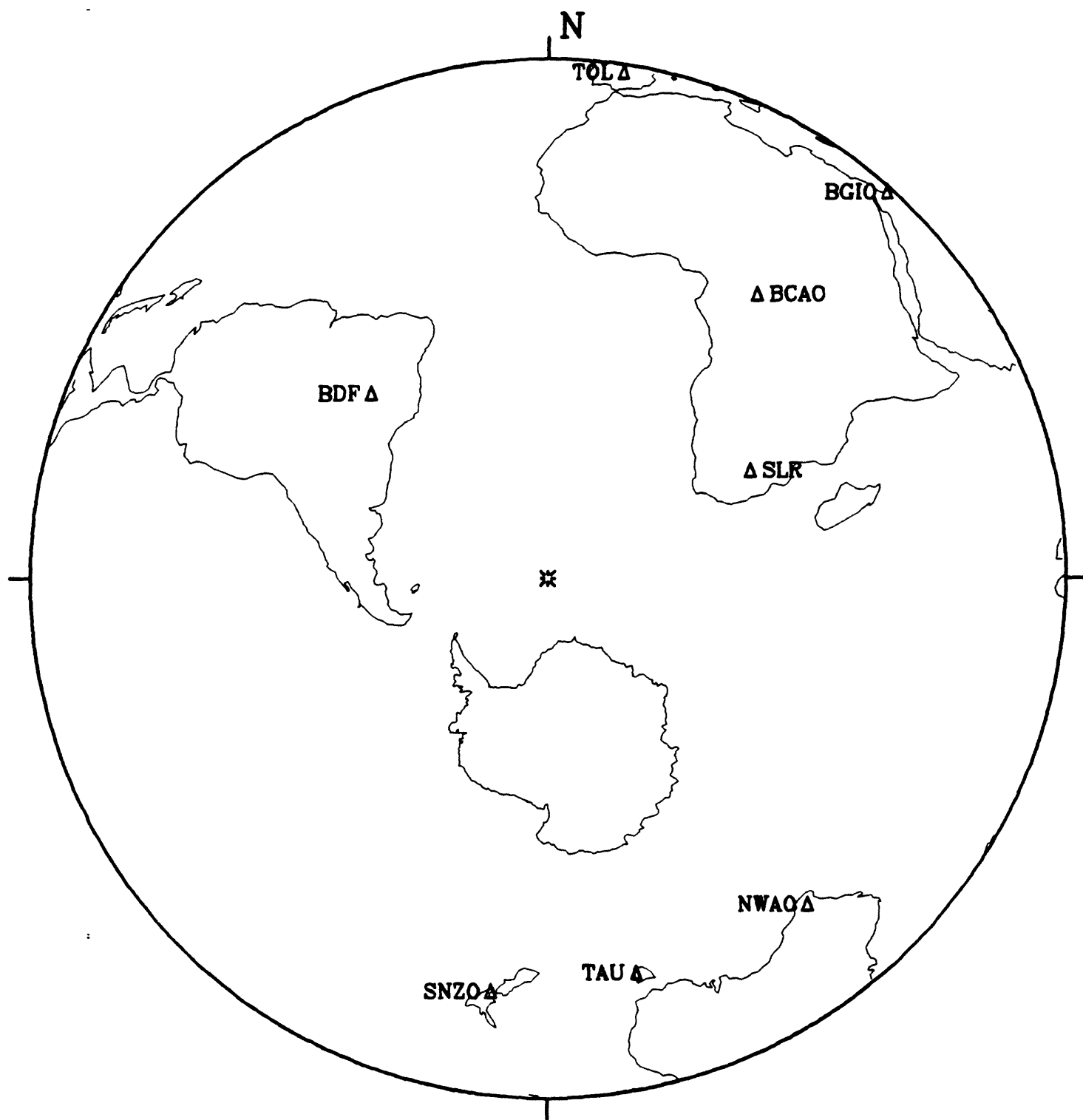
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LPZ

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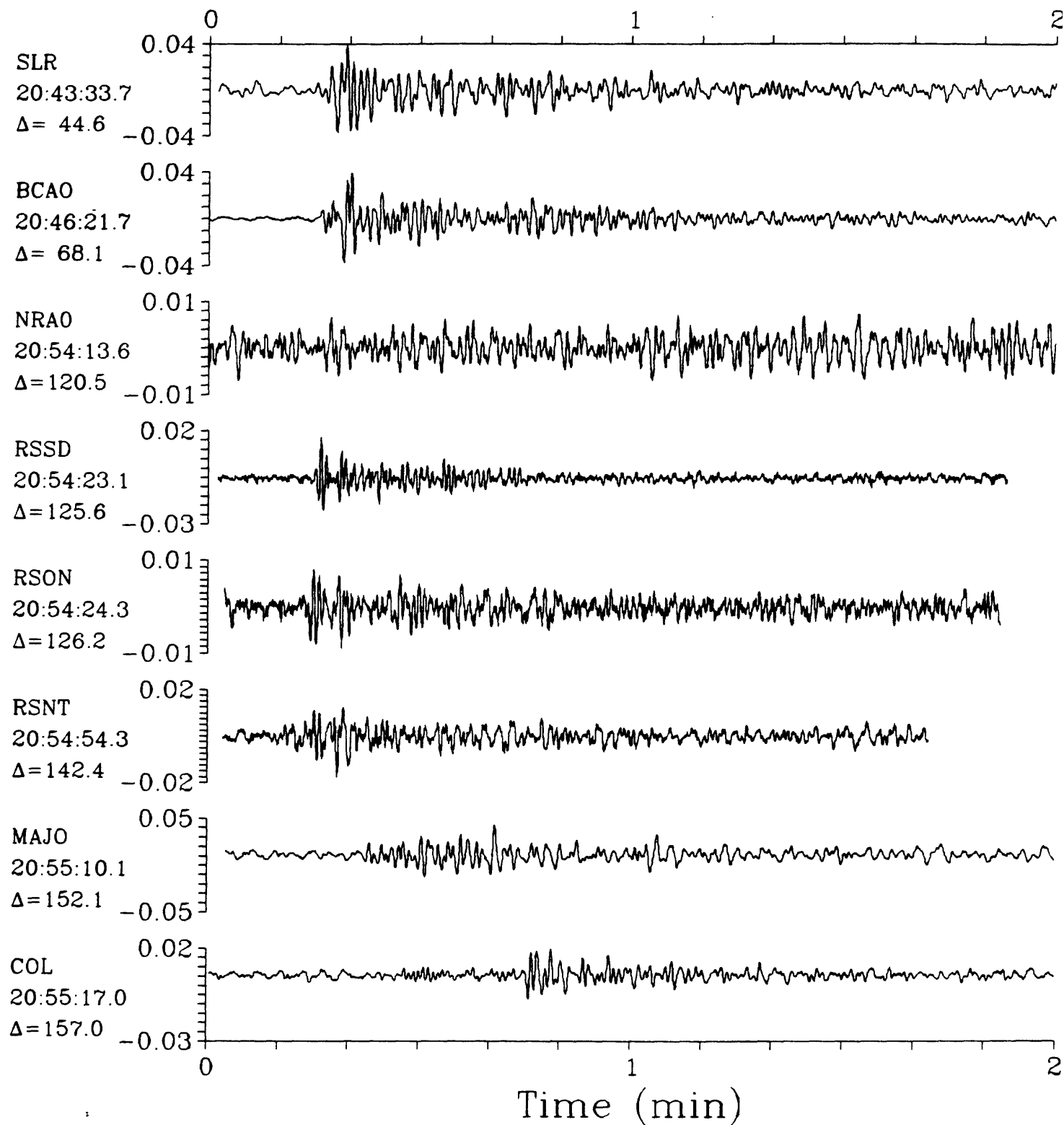
Southwestern Atlantic Ocean



SPZ

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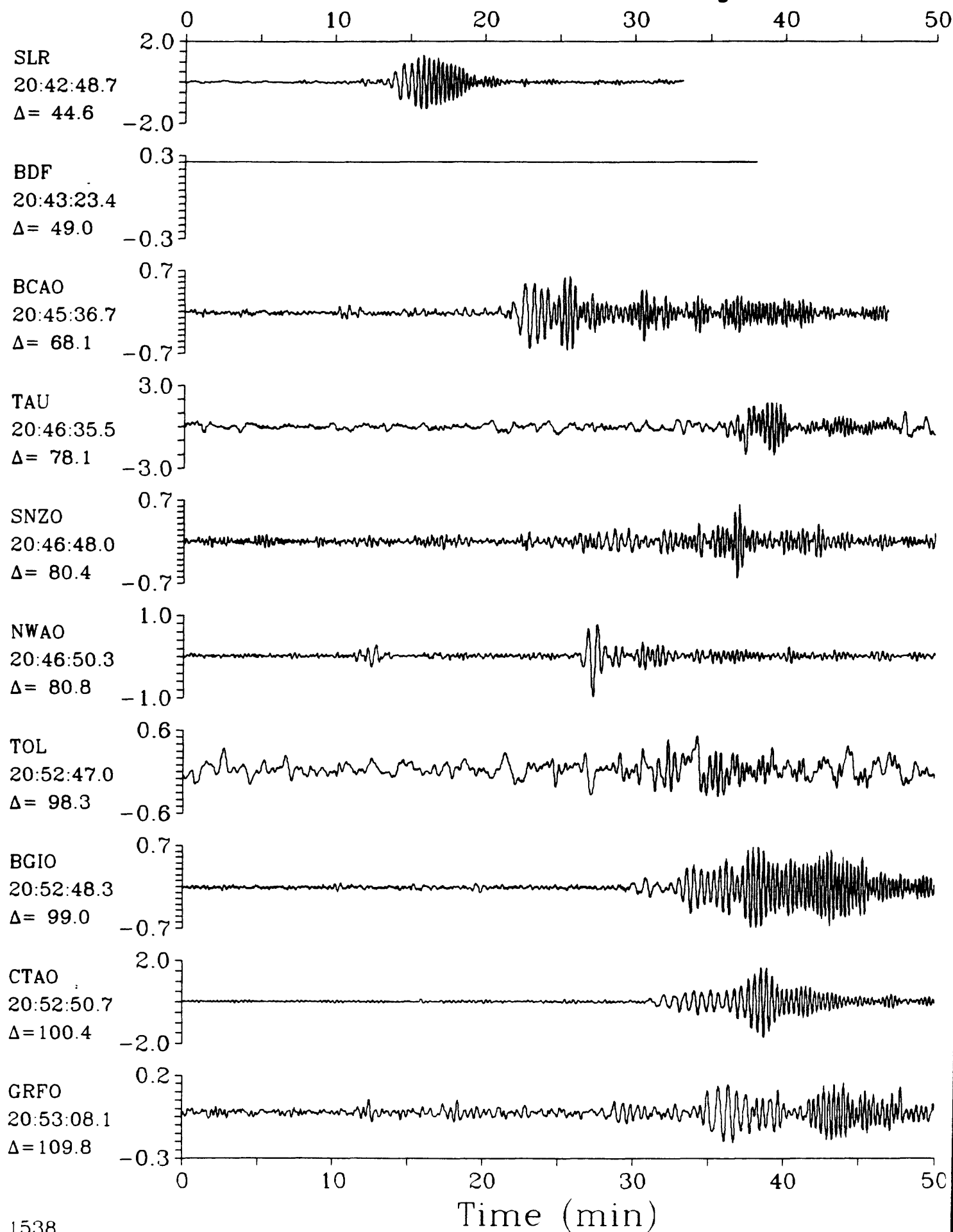
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LPZ

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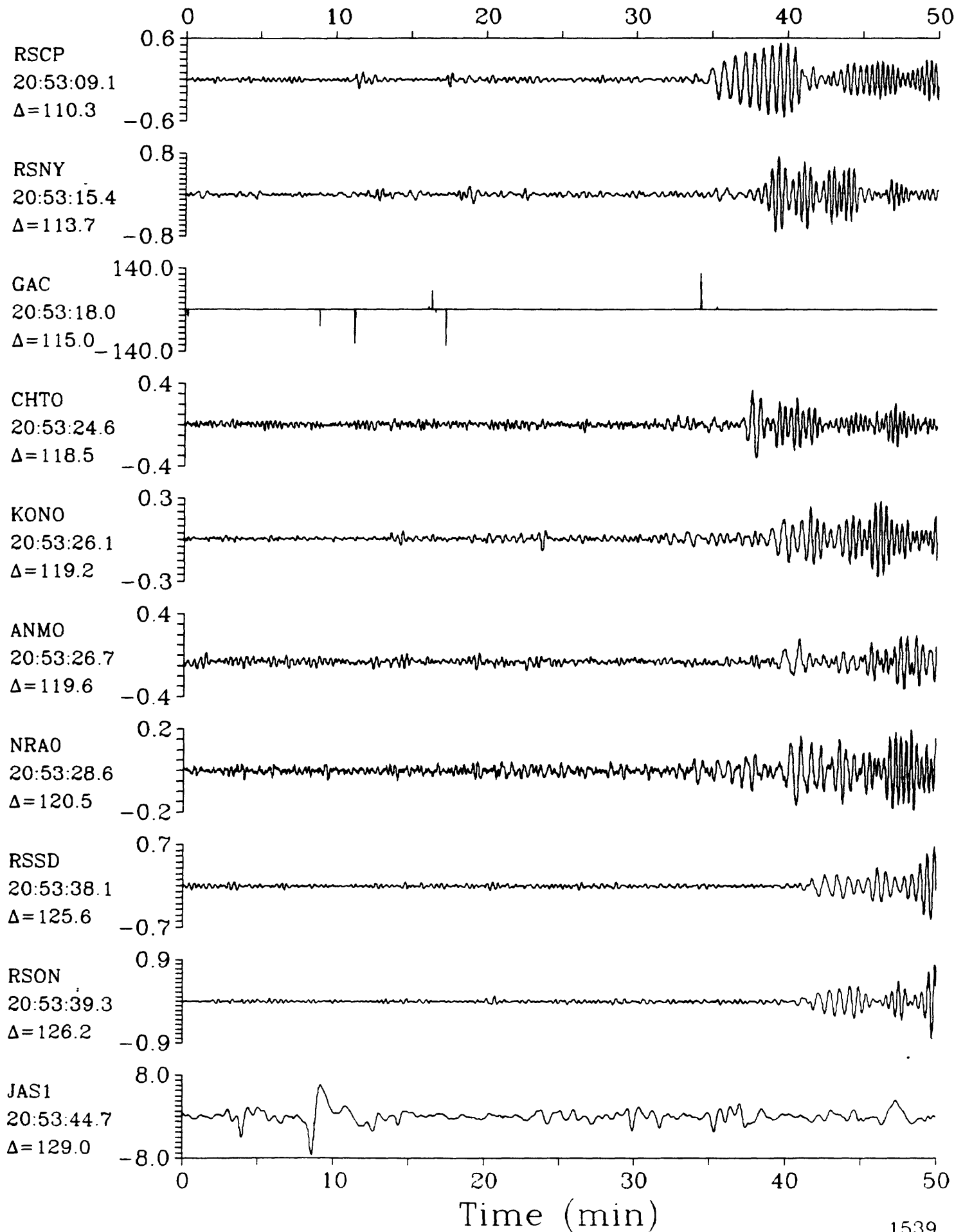
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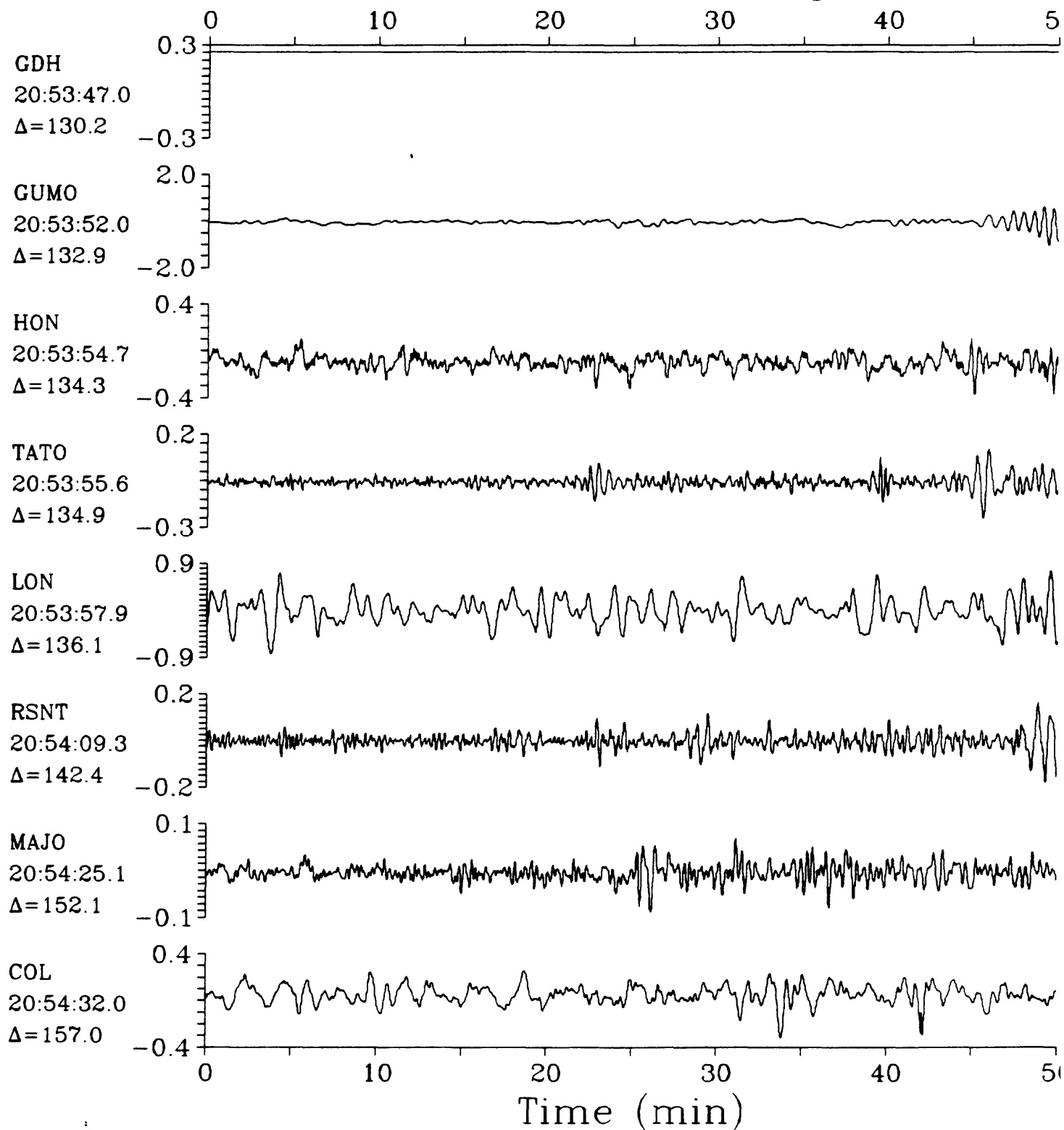
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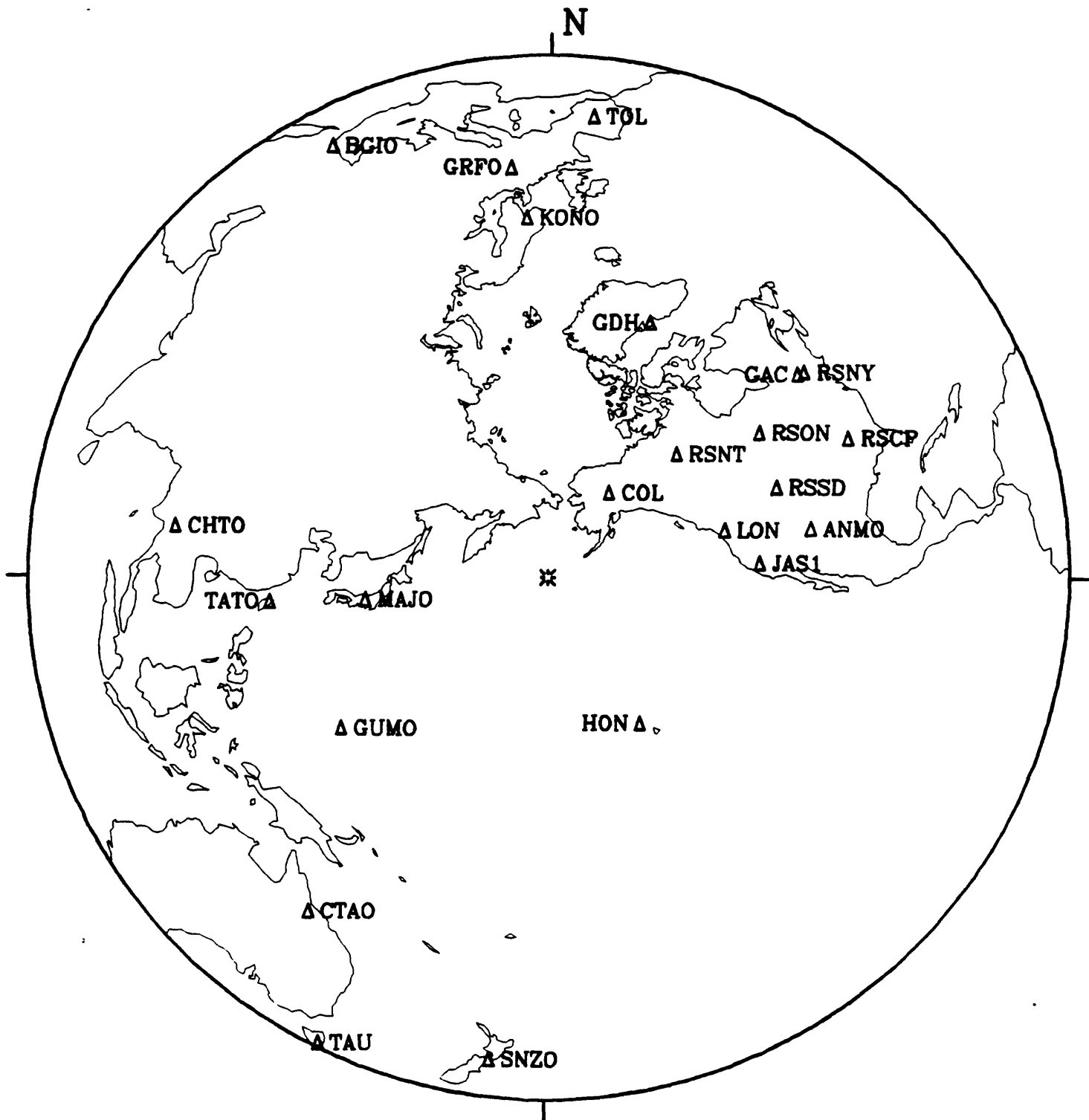
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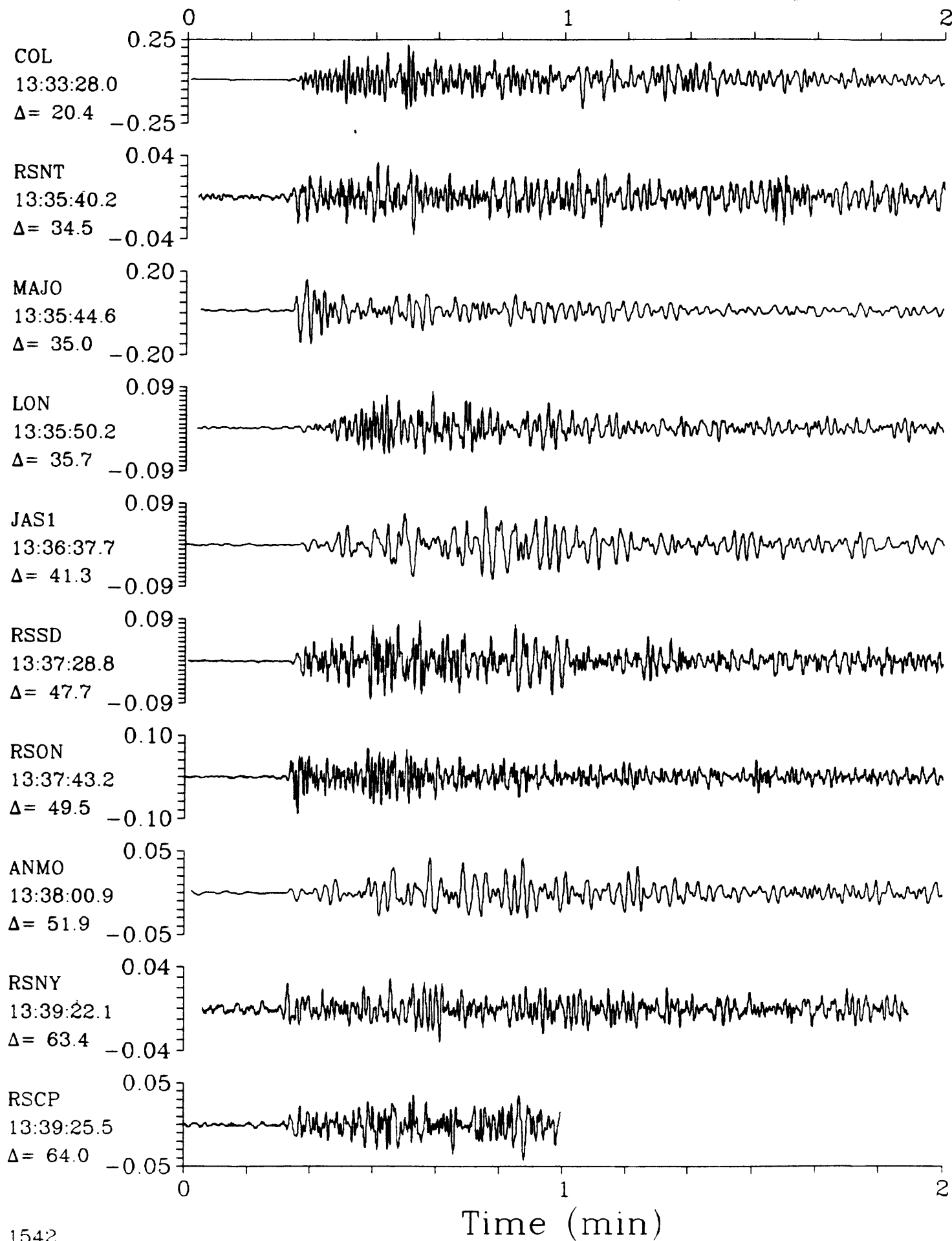
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SPZ

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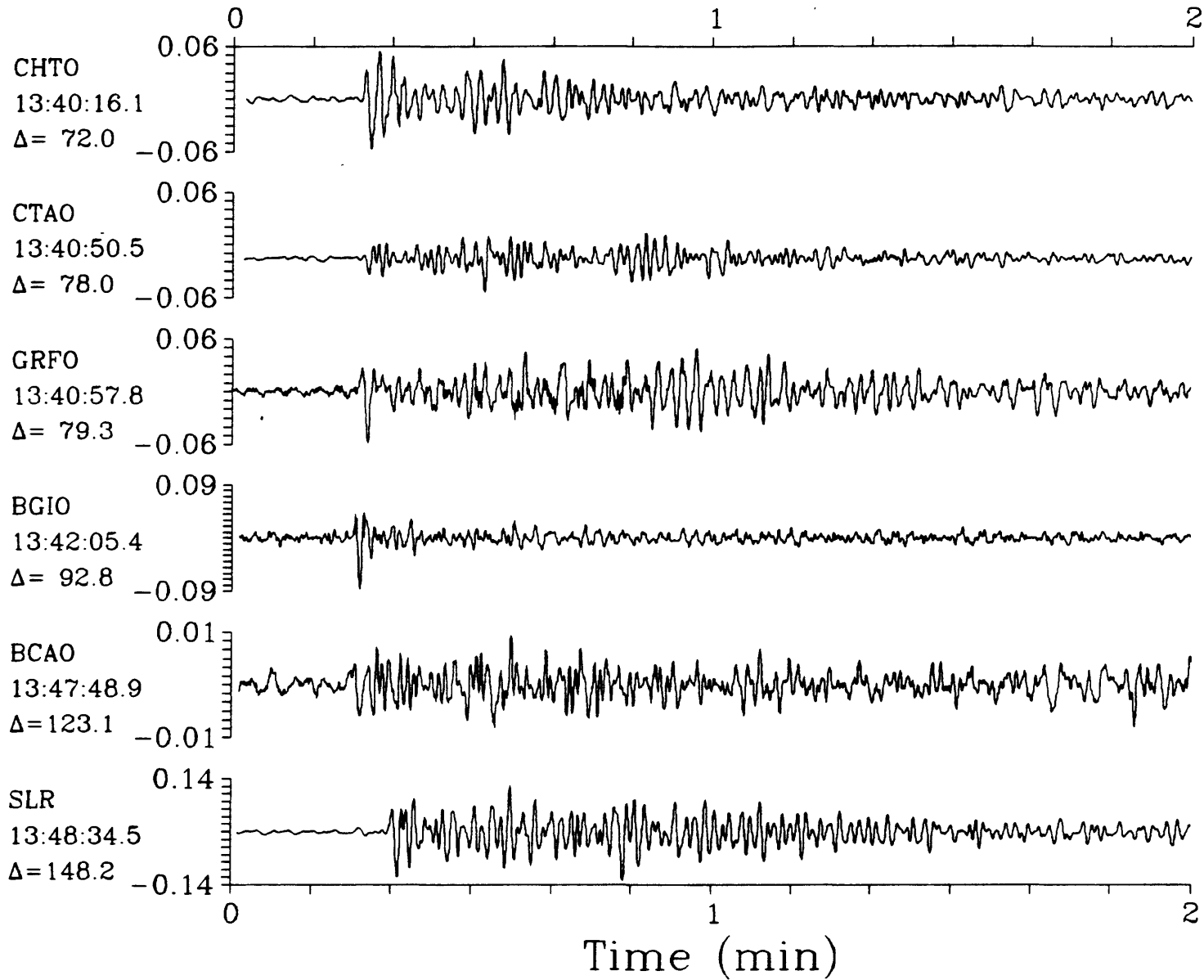
SPZ

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SPZ

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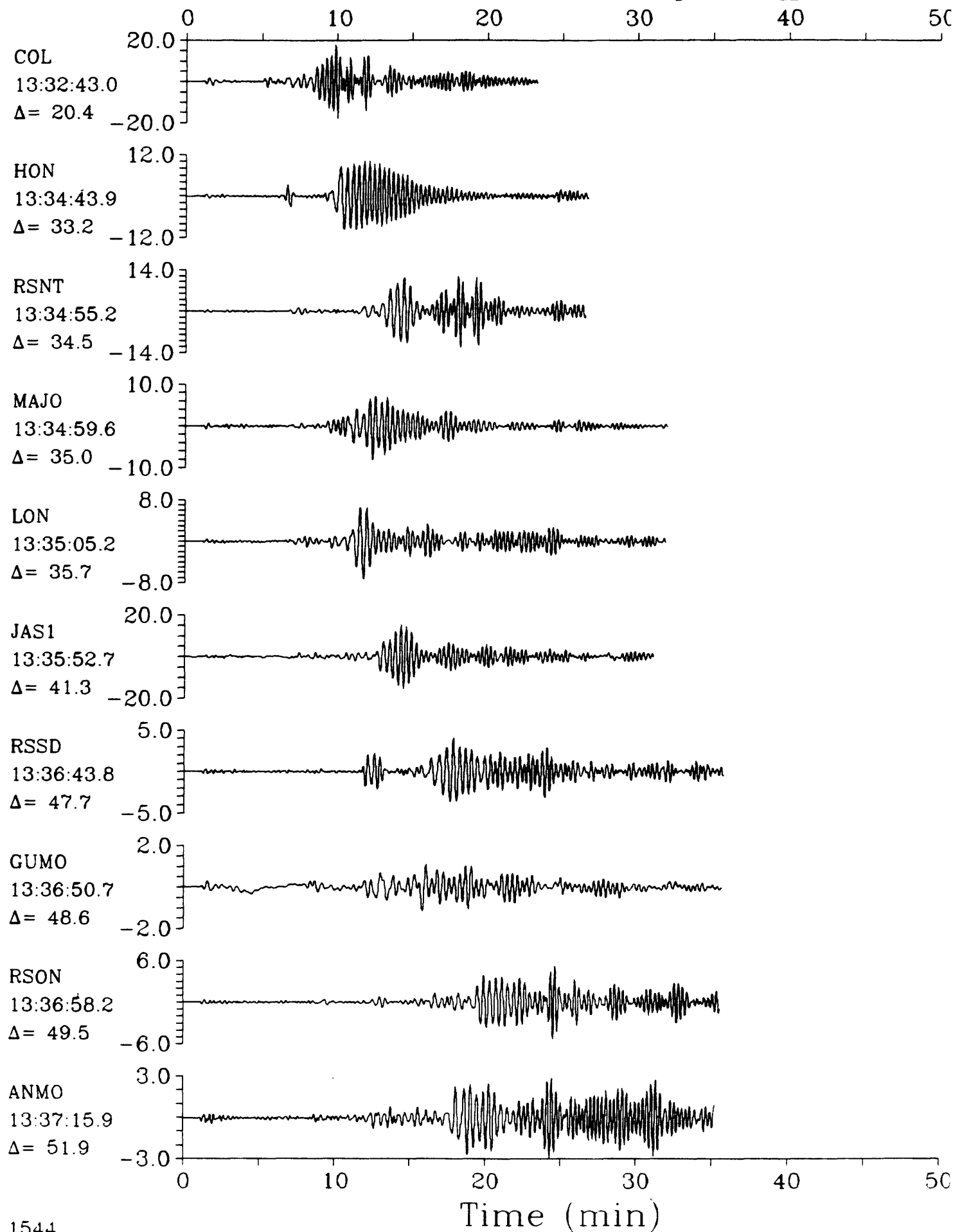
SPZ

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LPZ

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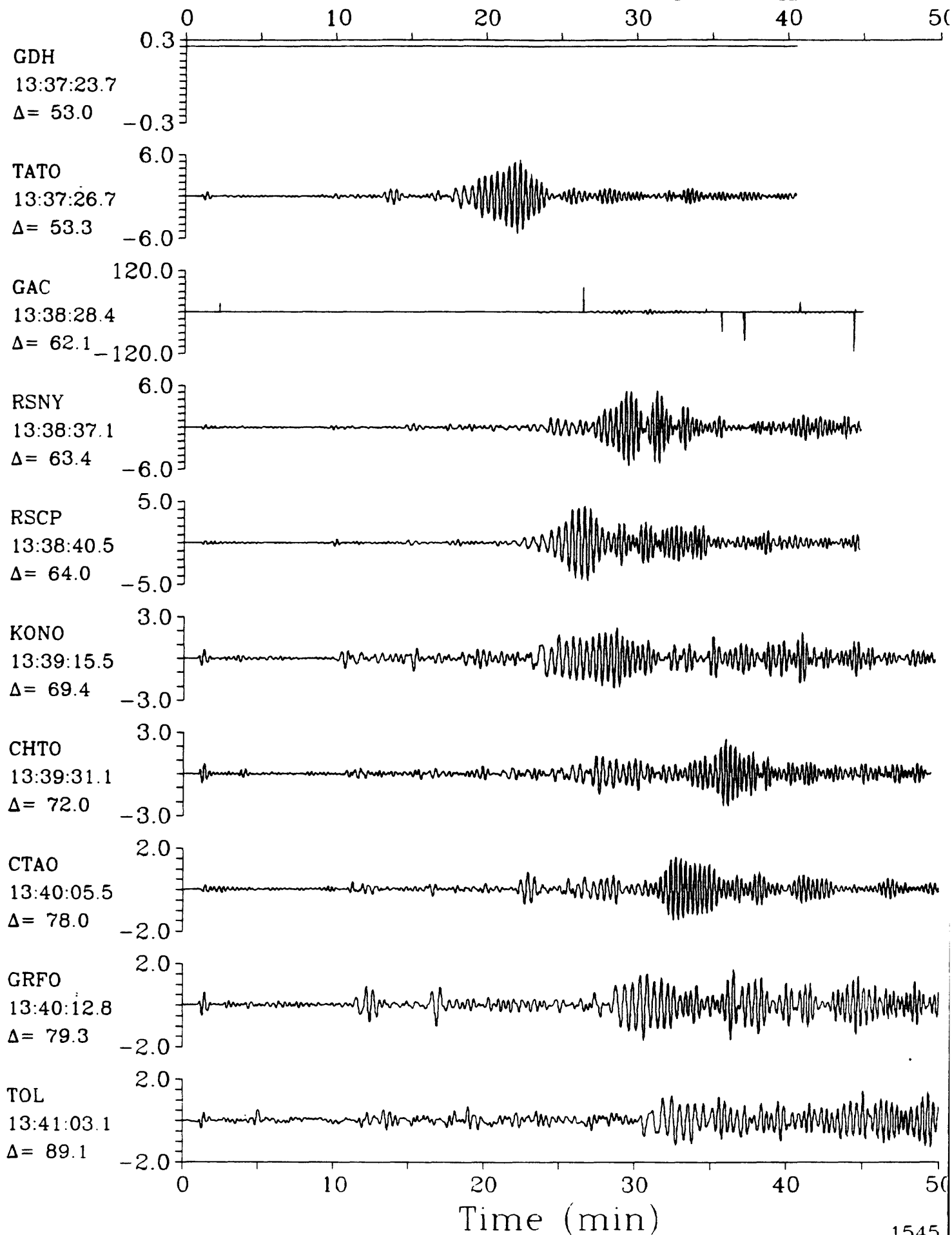
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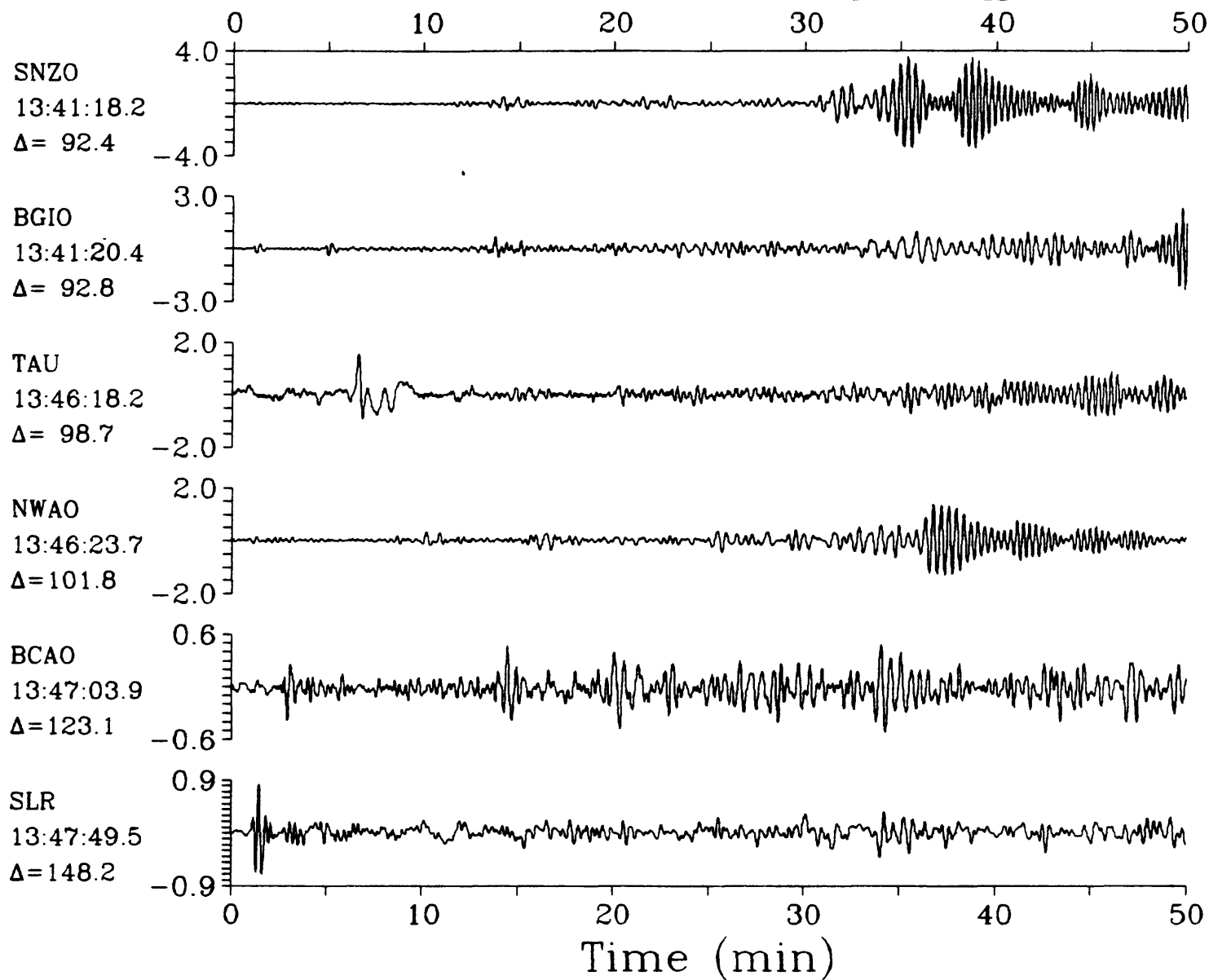
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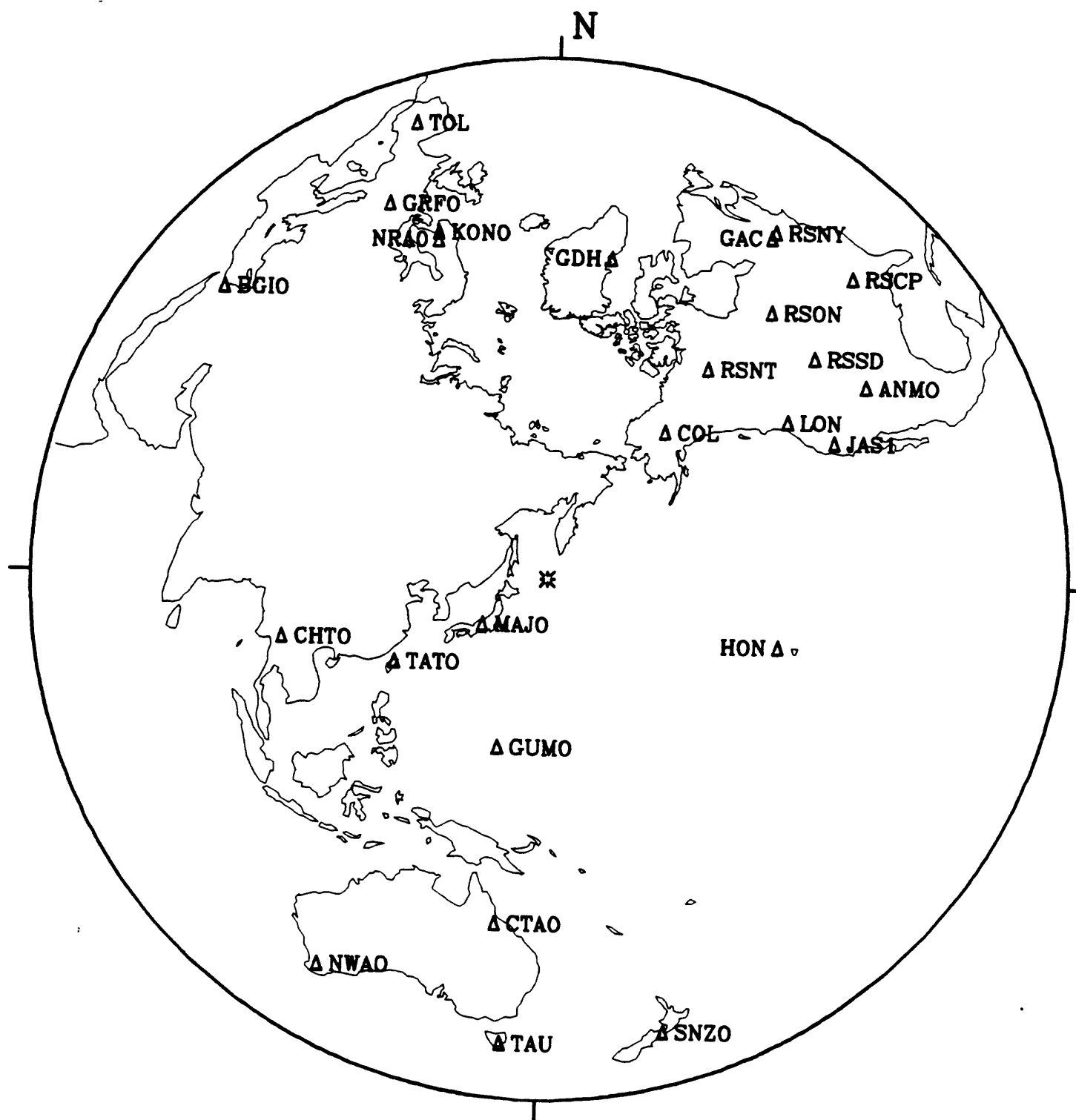
03 August 1986 13:29:10.02

LPZ

Andreanof Islands, Aleutian Is. $h=33.0$ $m_b=5.4$ $M_{sz}=5.5$ 

04 August 1986 22:34:37.88

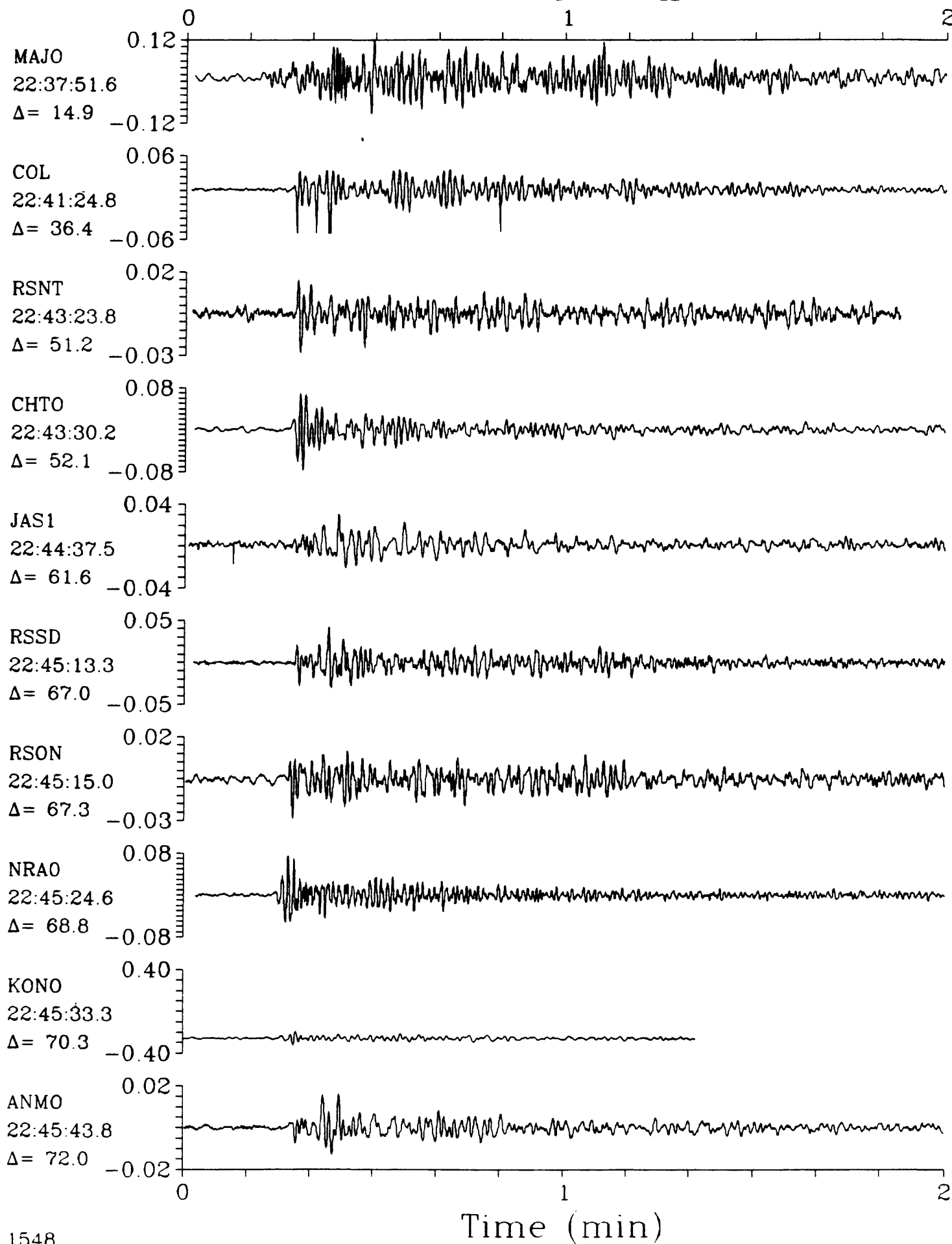
Kuril Islands



SPZ

04 August 1986 22:34:37.88
Kuril Islands $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$

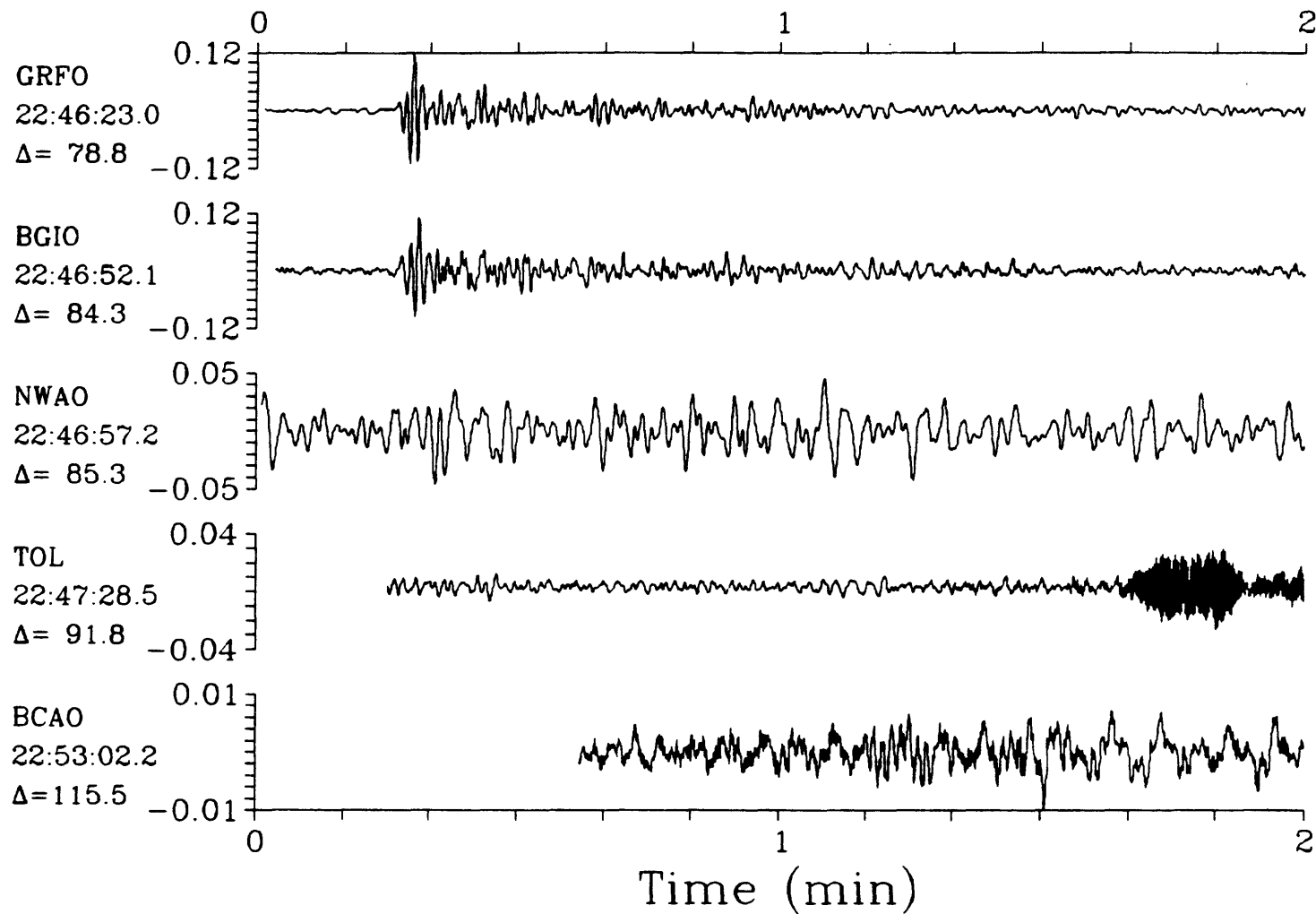
SPZ



SPZ

04 August 1986 22:34:37.88
Kuril Islands $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$

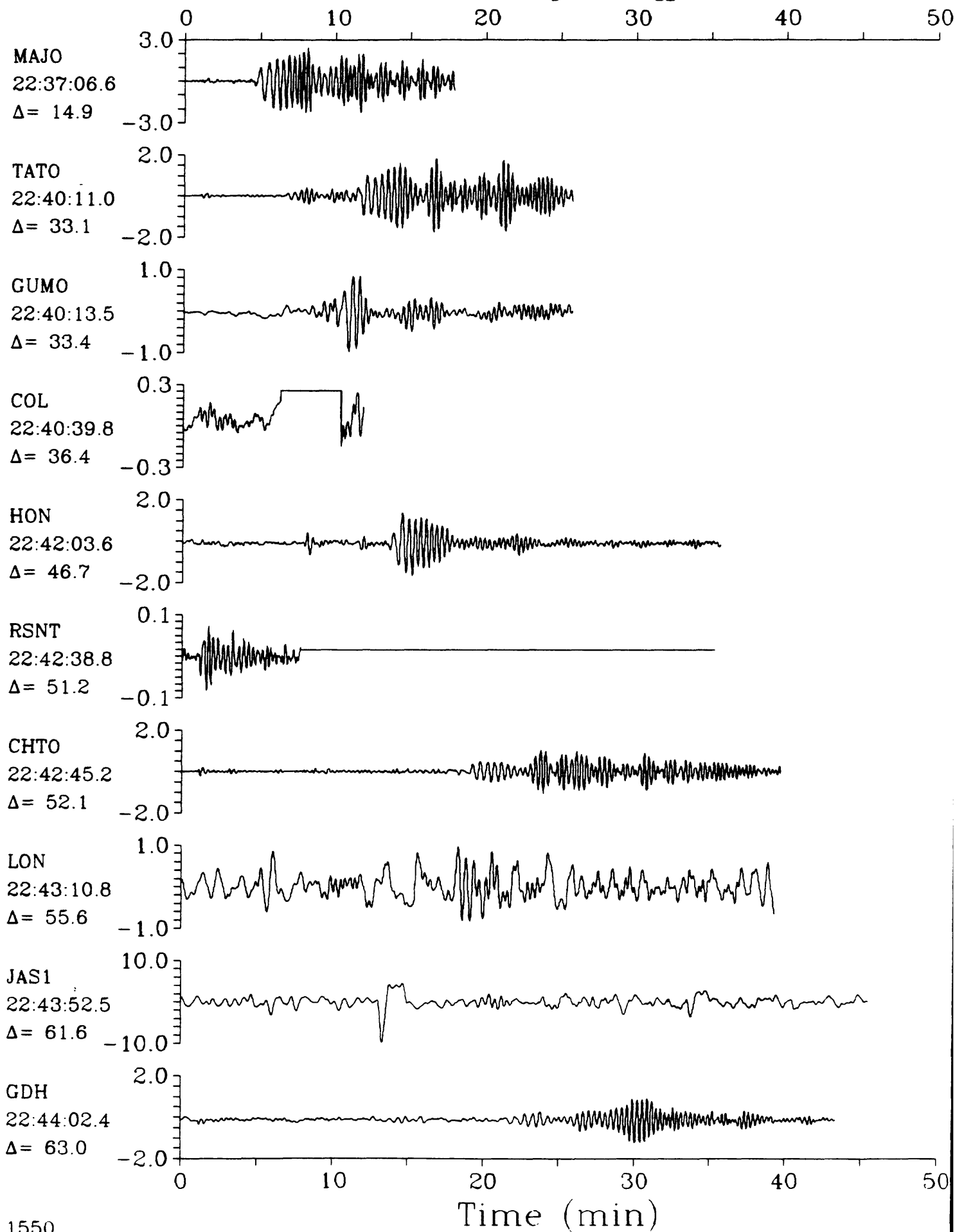
SPZ



LPZ

04 August 1986 22:34:37.88
Kuril Islands $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$

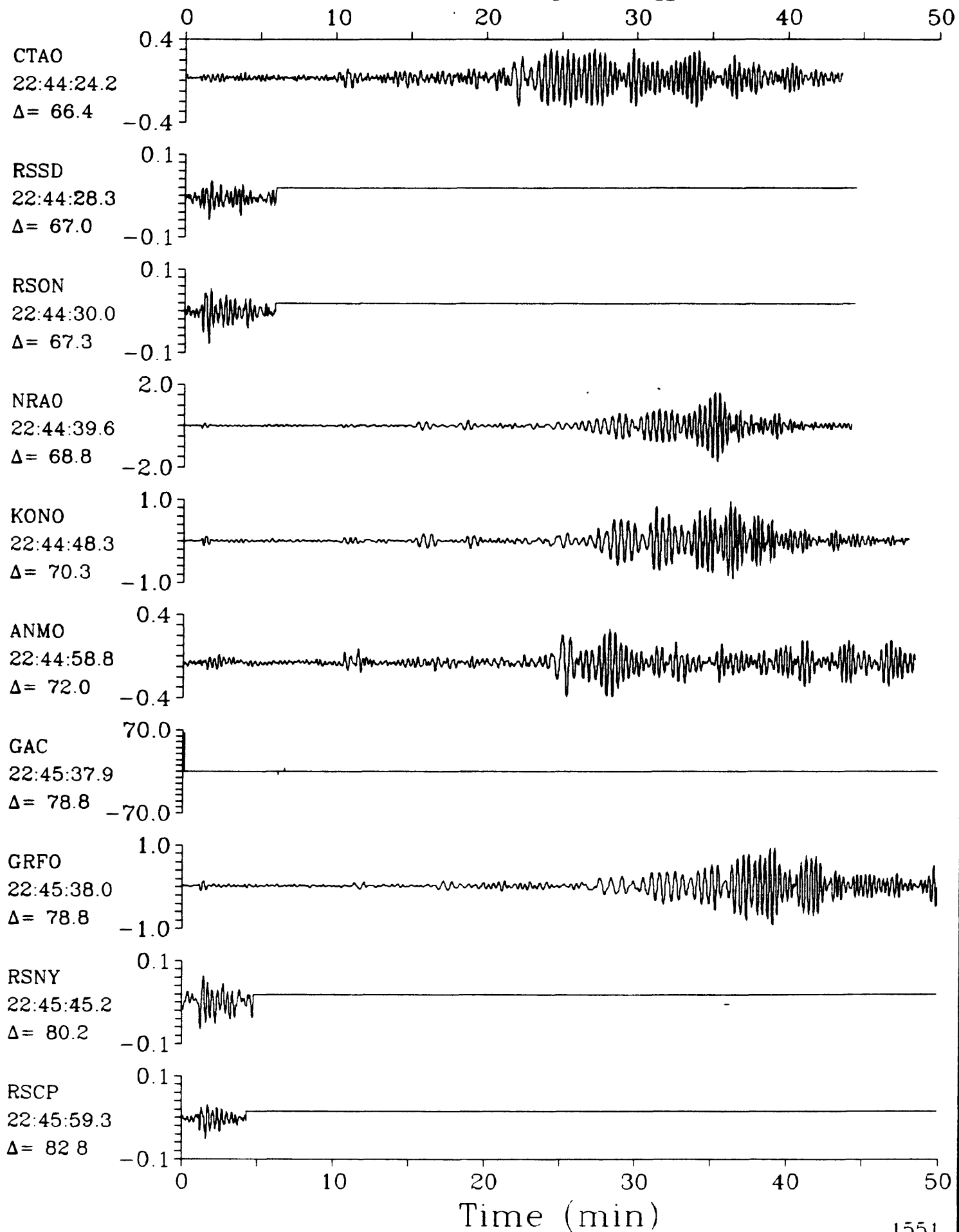
LPZ



LPZ

04 August 1986 22:34:37.88
Kuril Islands $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$

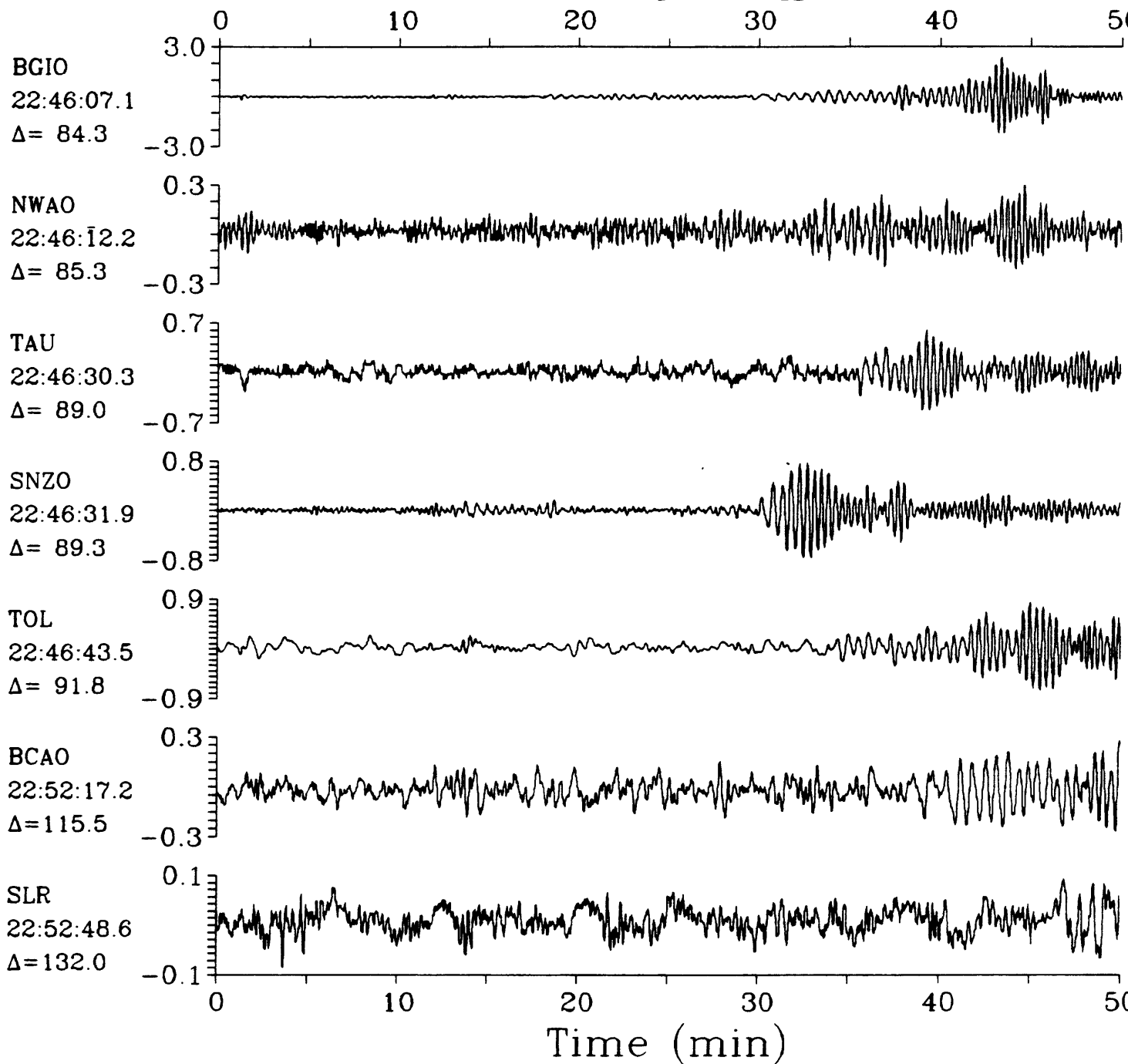
LPZ



LPZ

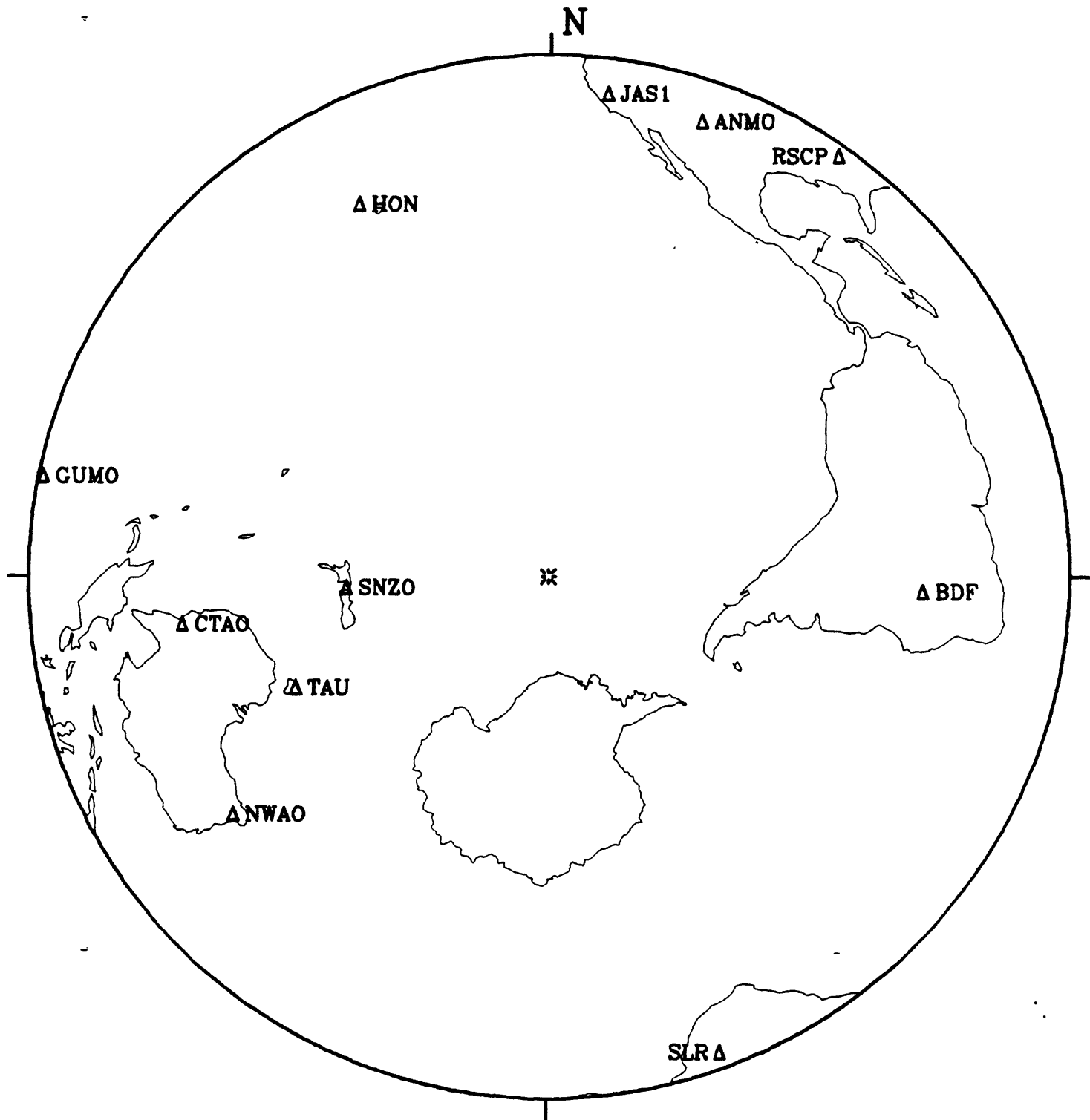
04 August 1986 22:34:37.88
Kuril Islands $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$

LPZ



06 August 1986 13:56:04.61

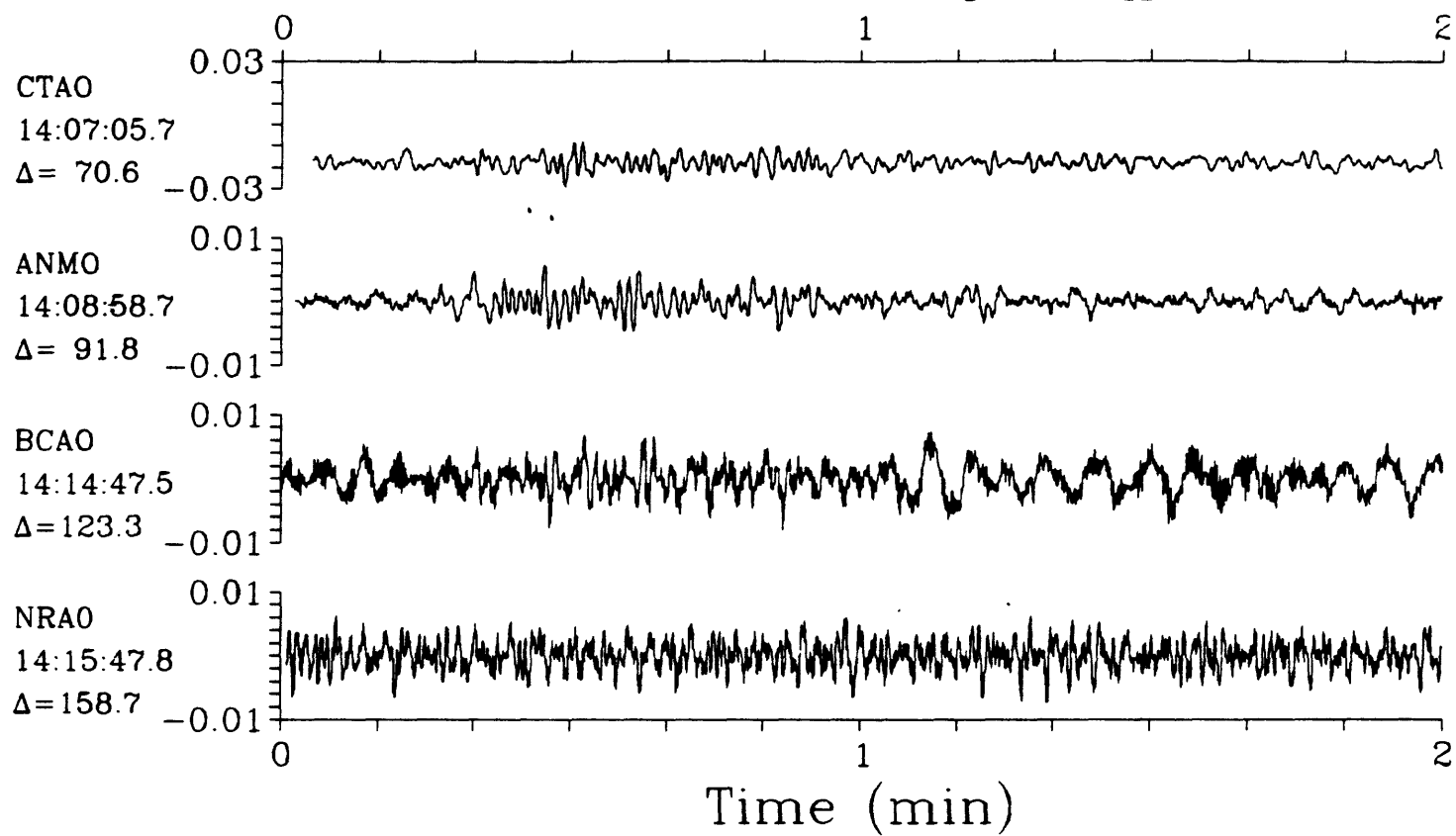
South Pacific Cordillera



SPZ

06 August 1986 13:56:04.61

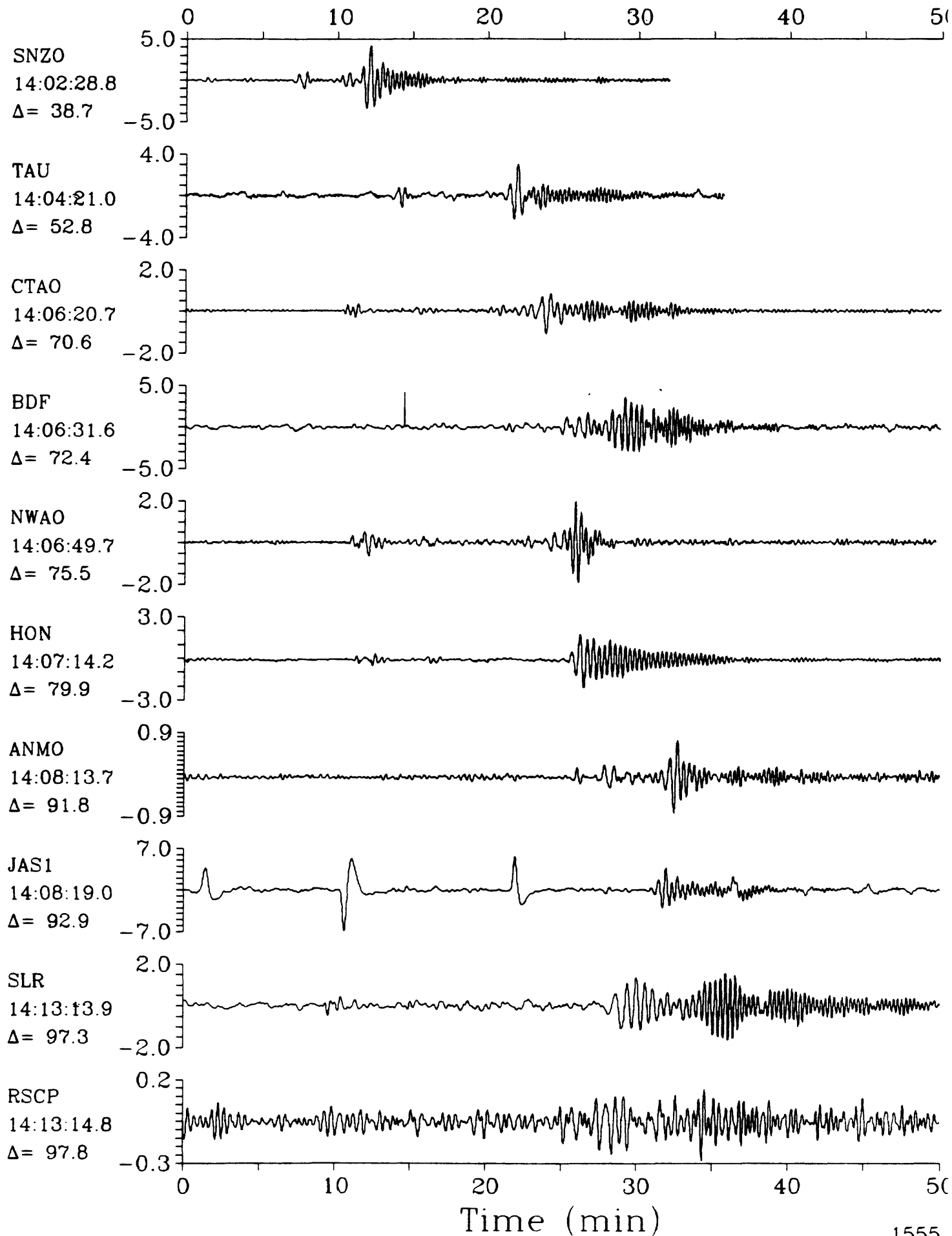
SPZ

South Pacific Cordillera $h=10.0$ $m_b=5.1$ $M_{sz}=5.5$ 

LPZ

06 August 1986 13:56:04.61

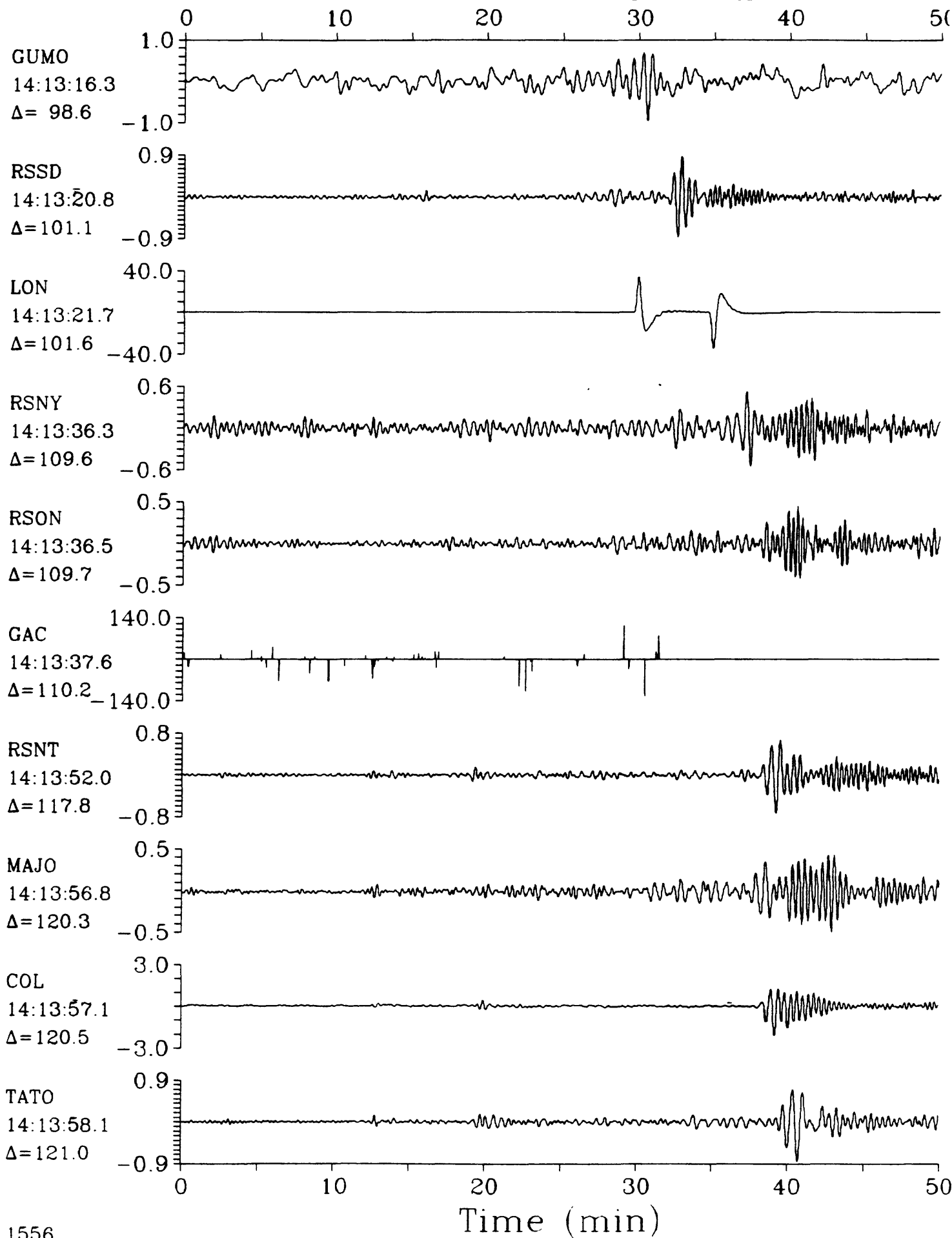
LPZ

South Pacific Cordillera $h=10.0$ $m_b=5.1$ $M_{sz}=5.5$ 

LPZ

06 August 1986 13:56:04.61

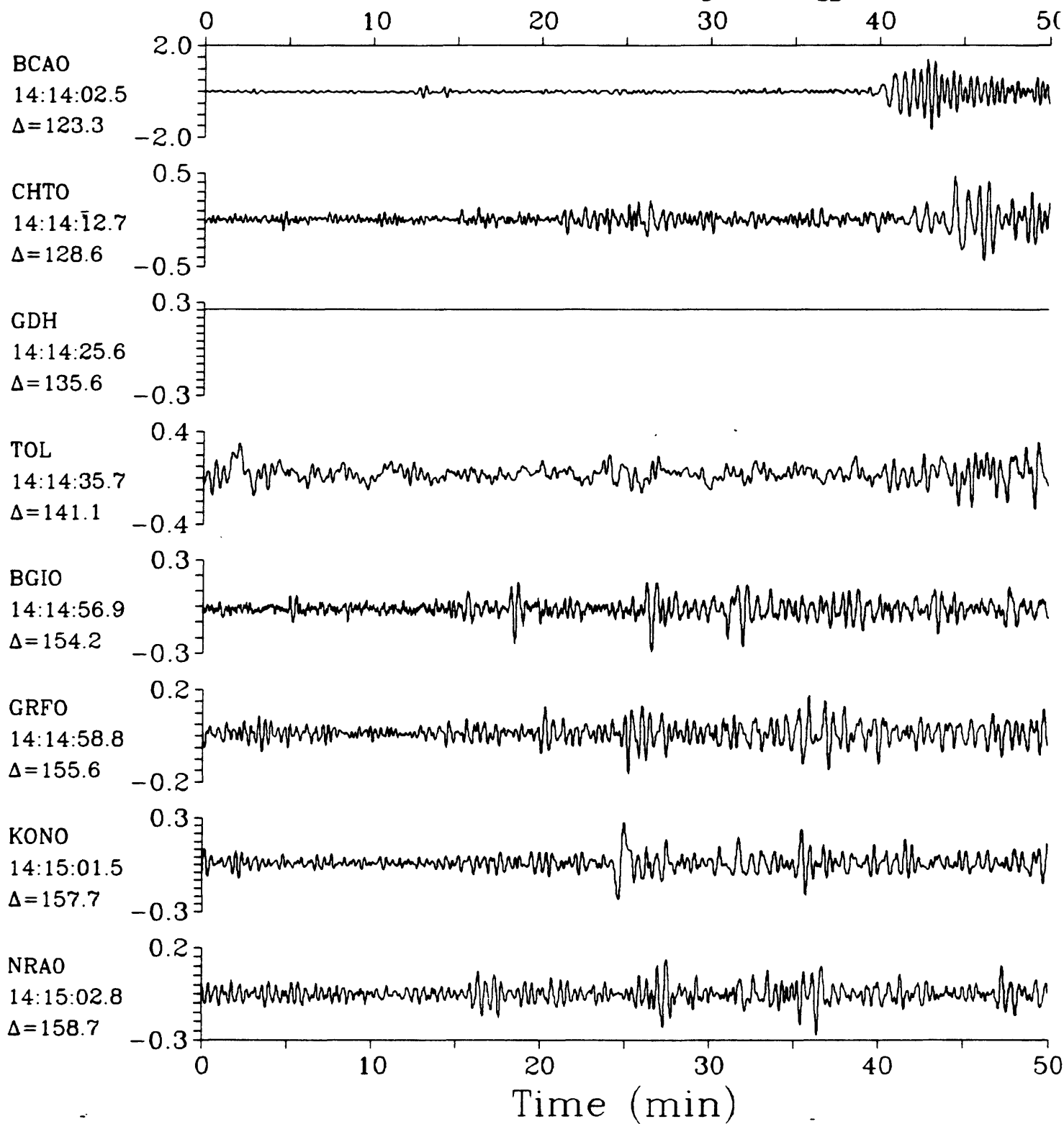
LPZ

South Pacific Cordillera $h=10.0$ $m_b=5.1$ $M_{SZ}=5.5$ 

LPZ

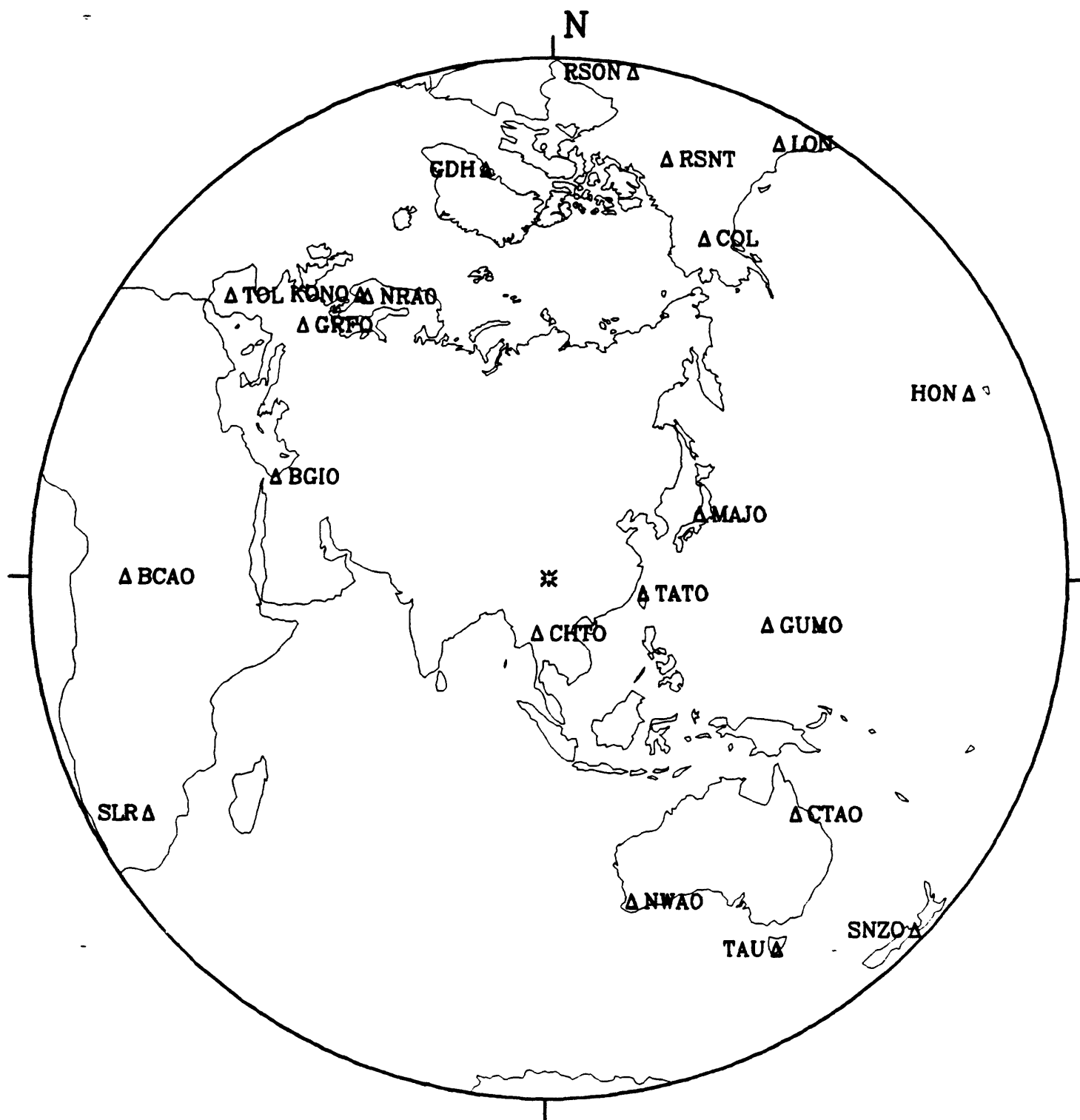
06 August 1986 13:56:04.61

LPZ

South Pacific Cordillera $h=10.0$ $m_b=5.1$ $M_{sz}=5.5$ 

06 August 1986 19:55:15.68

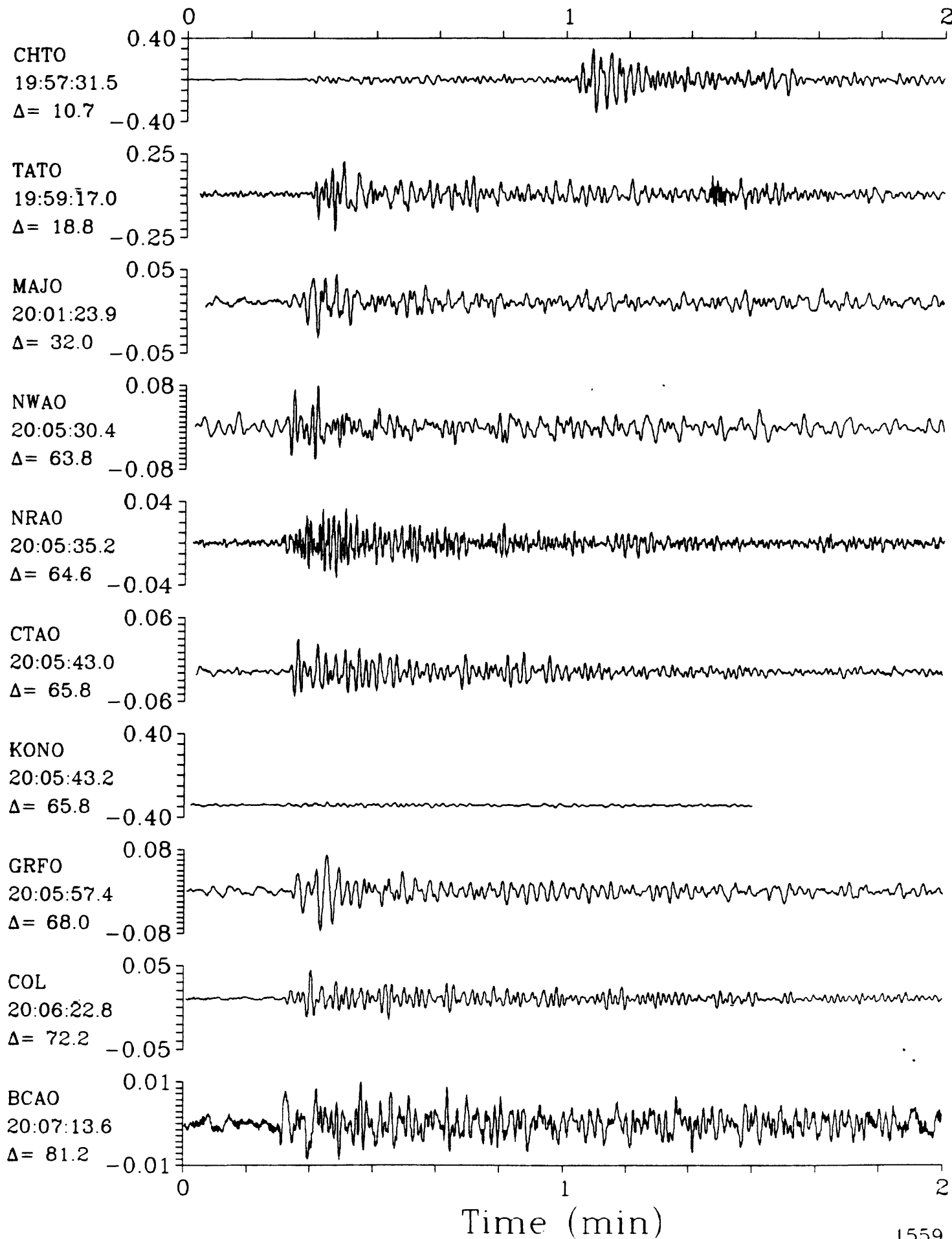
Sichuan Province, China



SPZ

06 August 1986 19:55:15.68

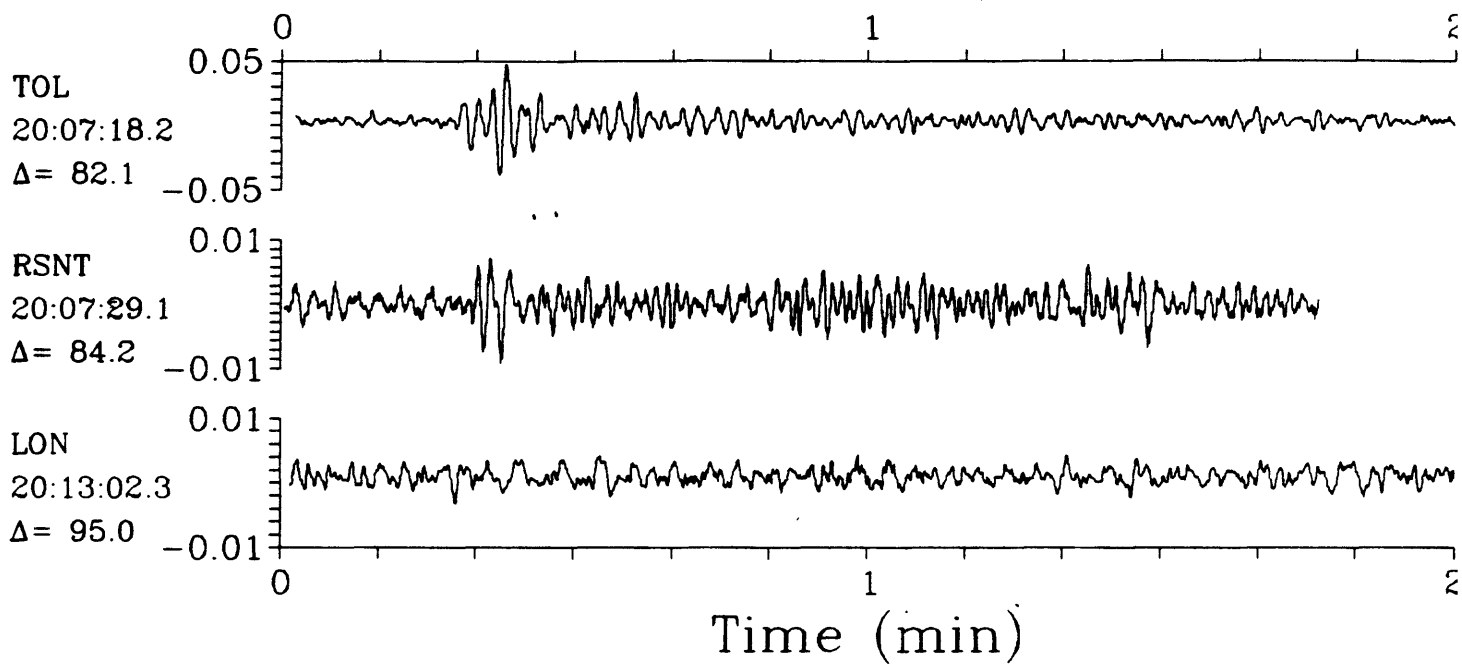
SPZ

Sichuan Province, China $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$ 

SPZ

06 August 1986 19:55:15.68

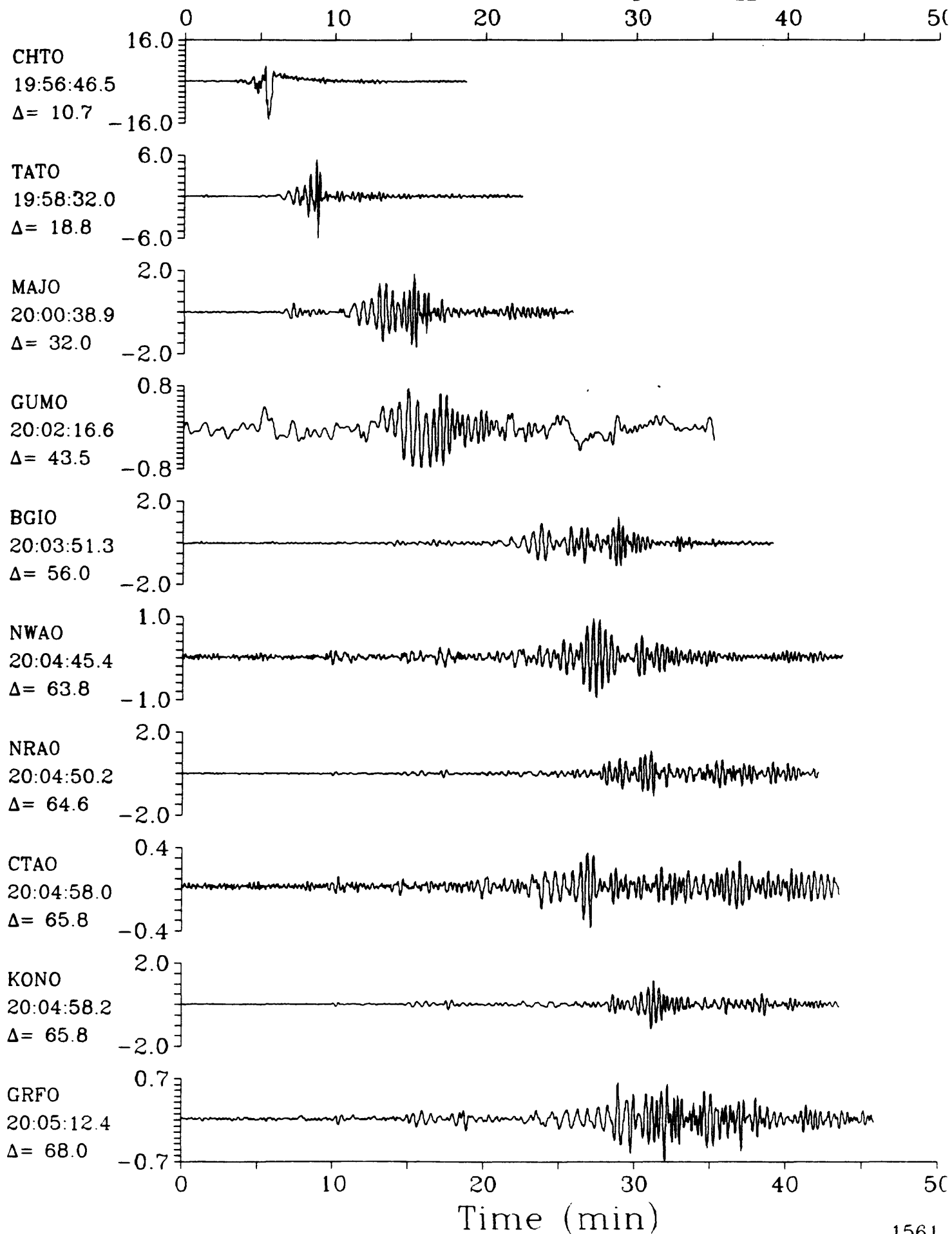
SPZ

Sichuan Province, China $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$ 

LPZ

06 August 1986 19:55:15.68

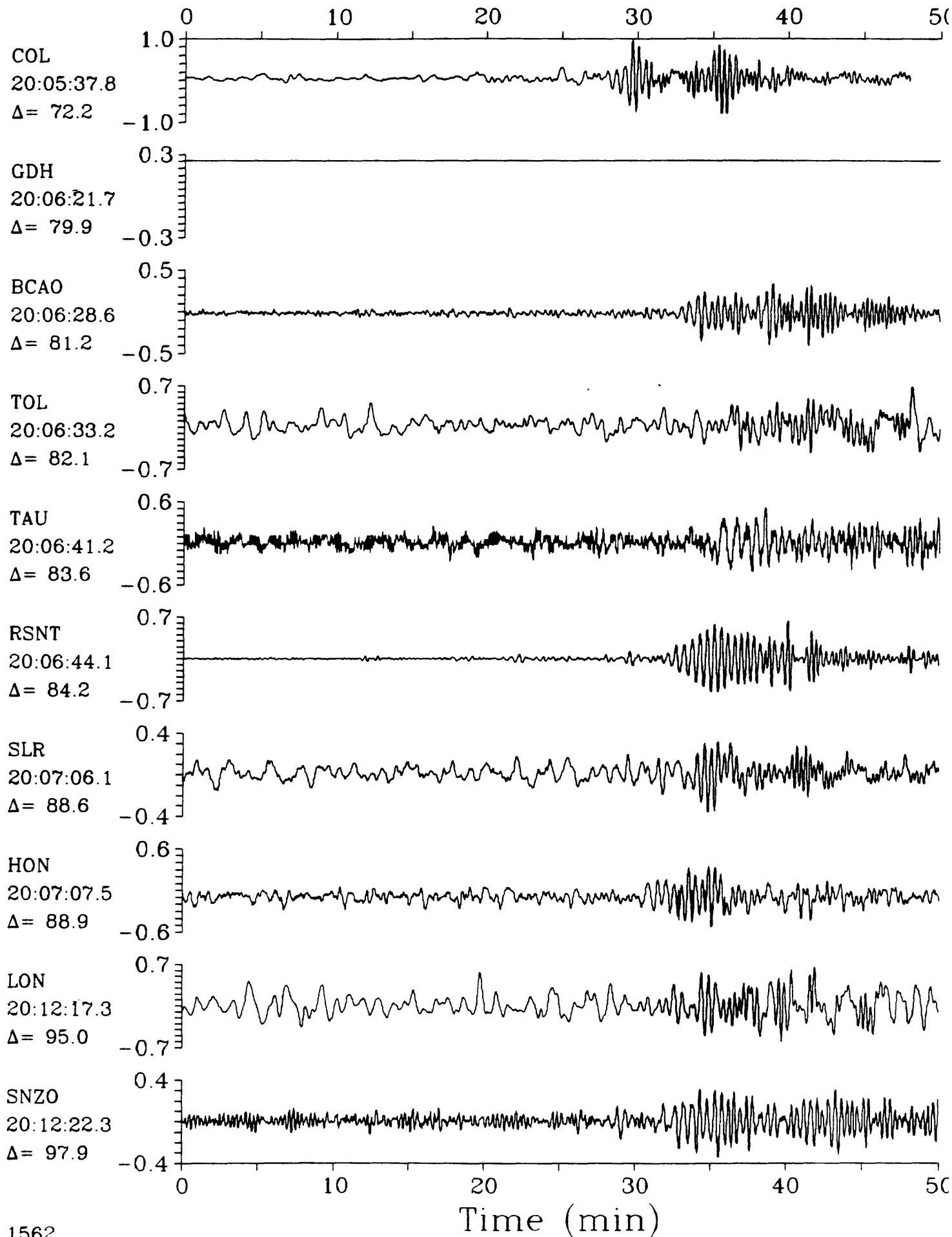
LPZ

Sichuan Province, China $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$ 

LPZ

06 August 1986 19:55:15.68

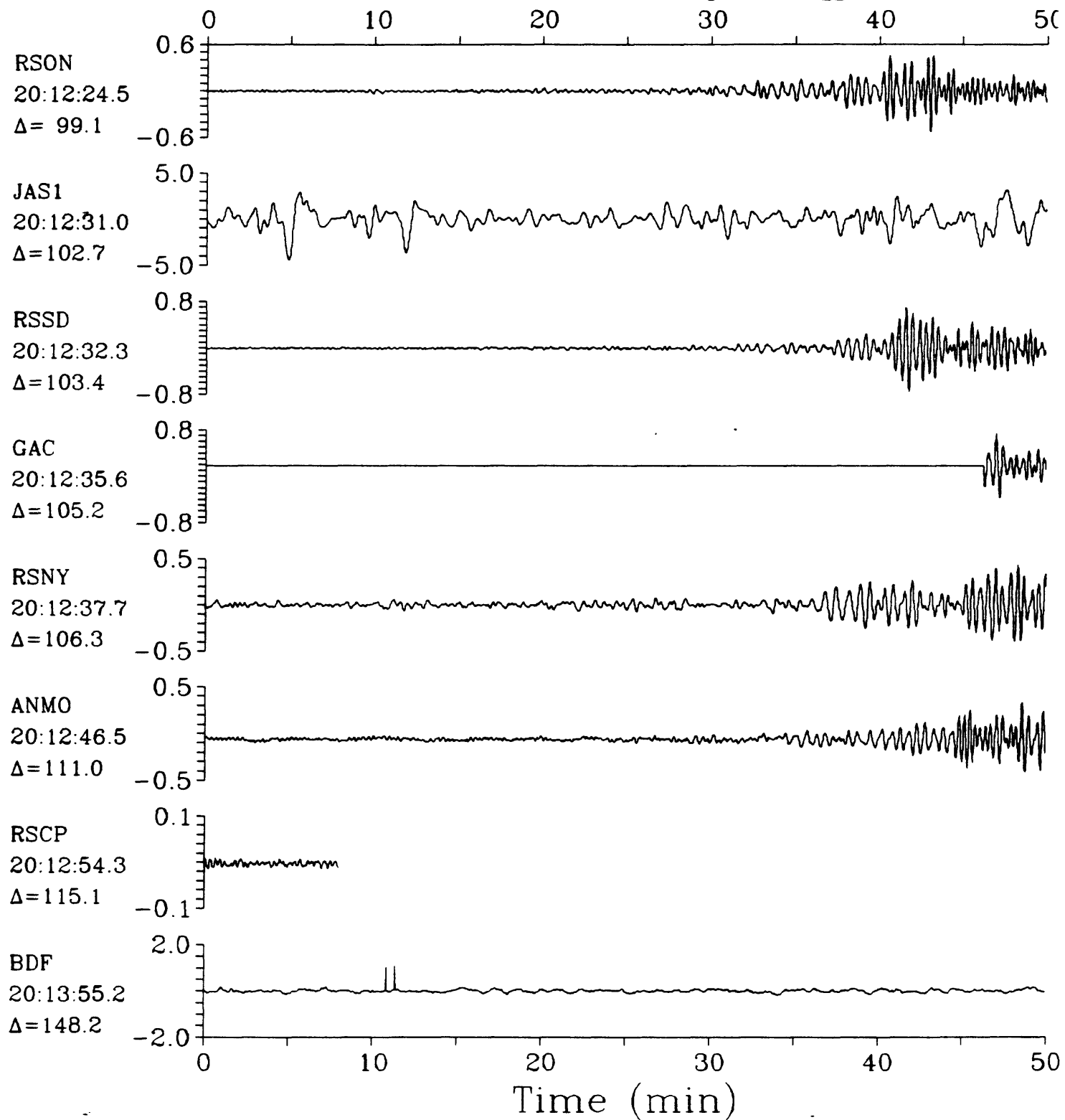
LPZ

Sichuan Province, China $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$ 

LPZ

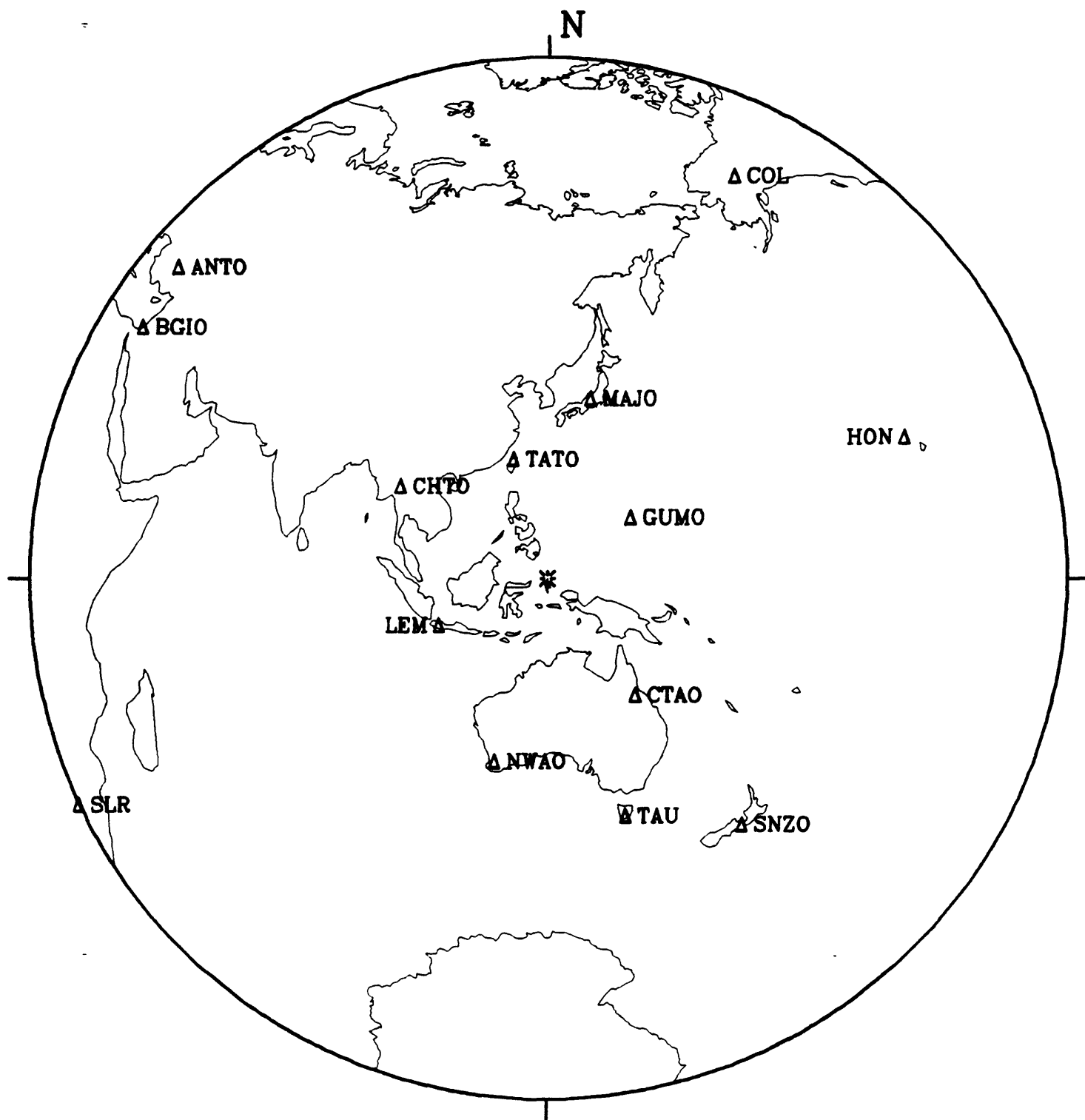
06 August 1986 19:55:15.68

LPZ

Sichuan Province, China $h=33.0$ $m_b=5.5$ $M_{sz}=5.1$ 

10 August 1986 04:40:51.72

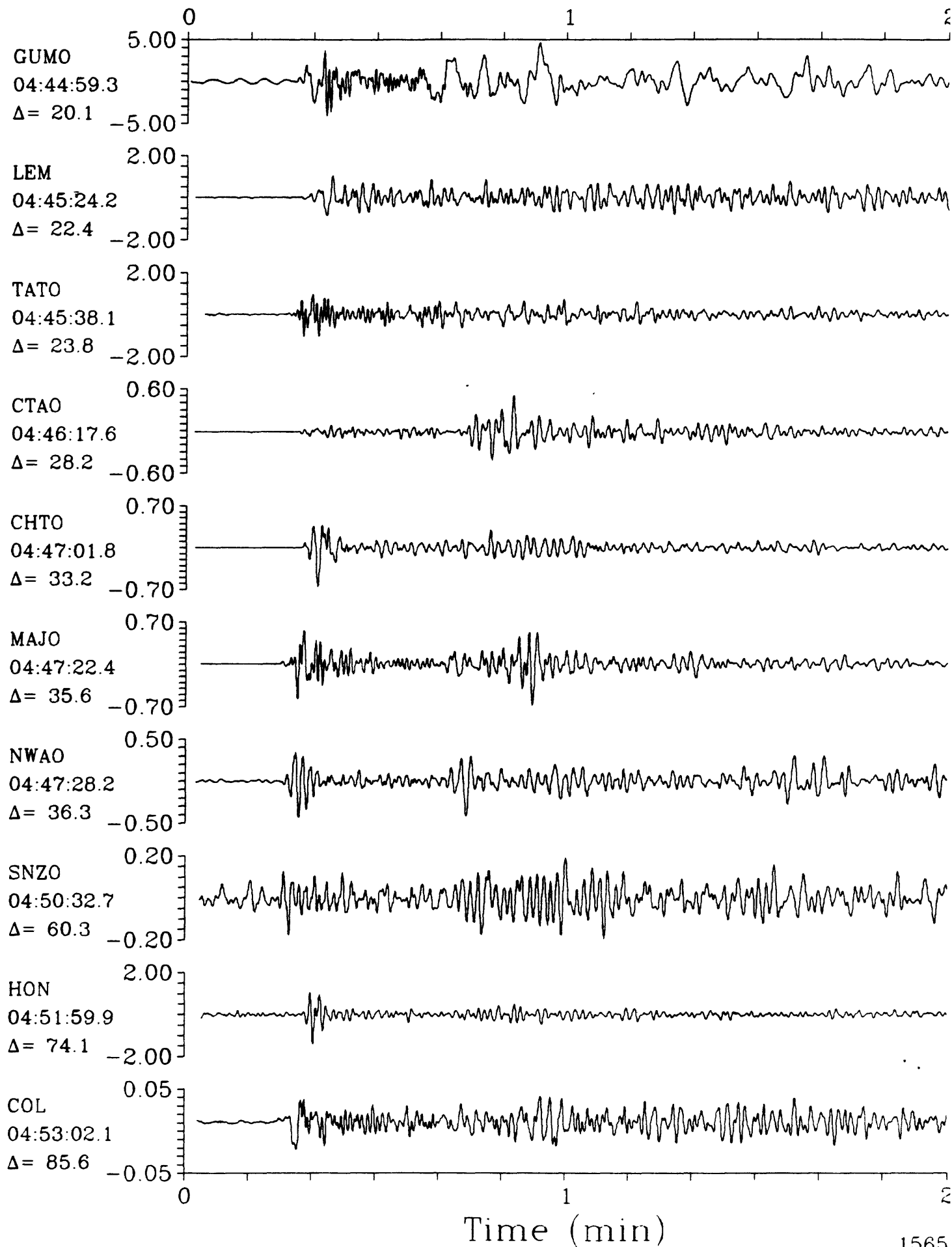
Halmahera



SPZ

10 August 1986 04:40:51.72
Halmahera $h=123.0$ $m_b=6.1$

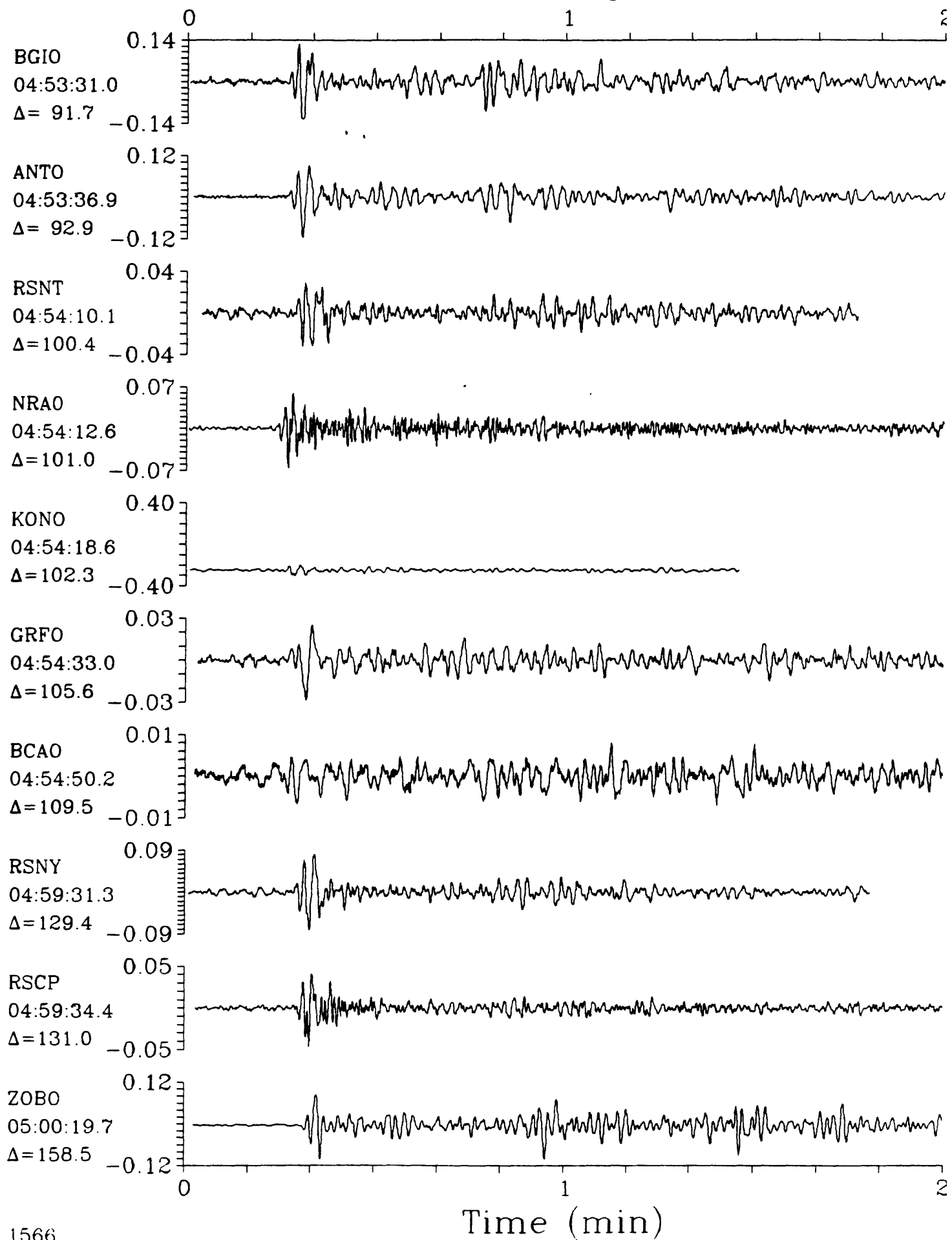
SPZ



SPZ

10 August 1986 04:40:51.72
Halmahera $h=123.0$ $m_b=6.1$

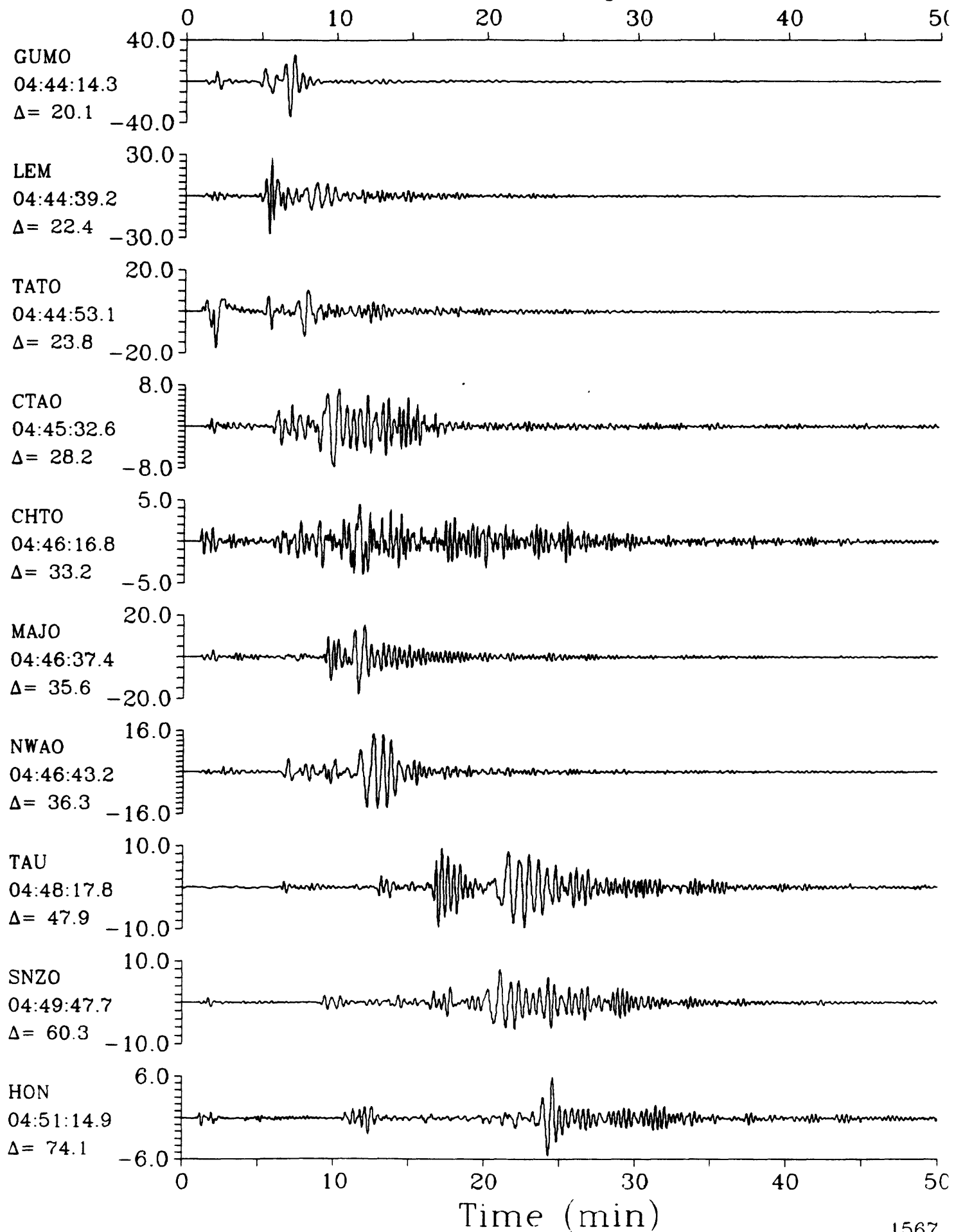
SPZ



LPZ

10 August 1986 04:40:51.72
Halmahera $h=123.0$ $m_b=6.1$

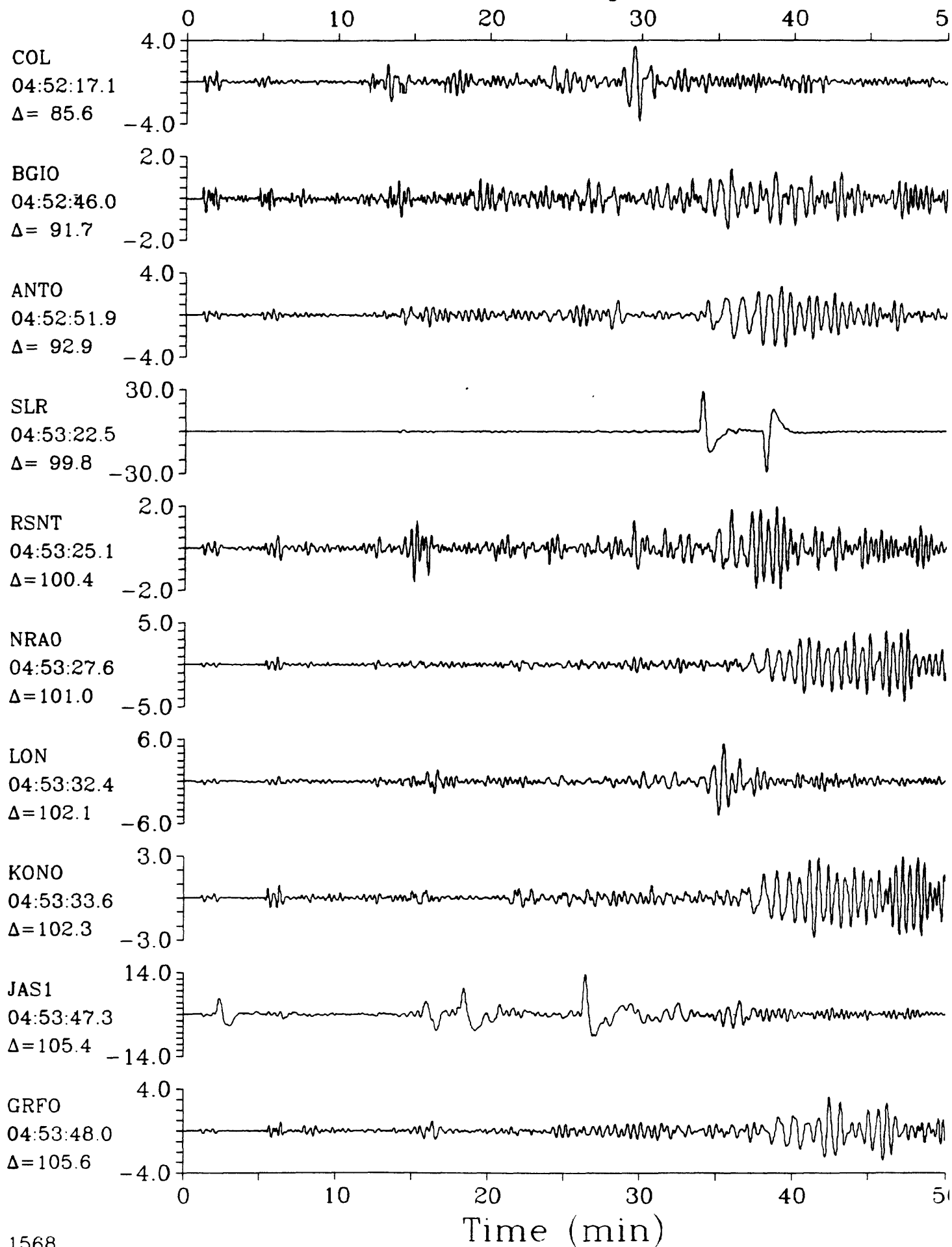
LPZ



LPZ

10 August 1986 04:40:51.72
Halmahera $h=123.0$ $m_b=6.1$

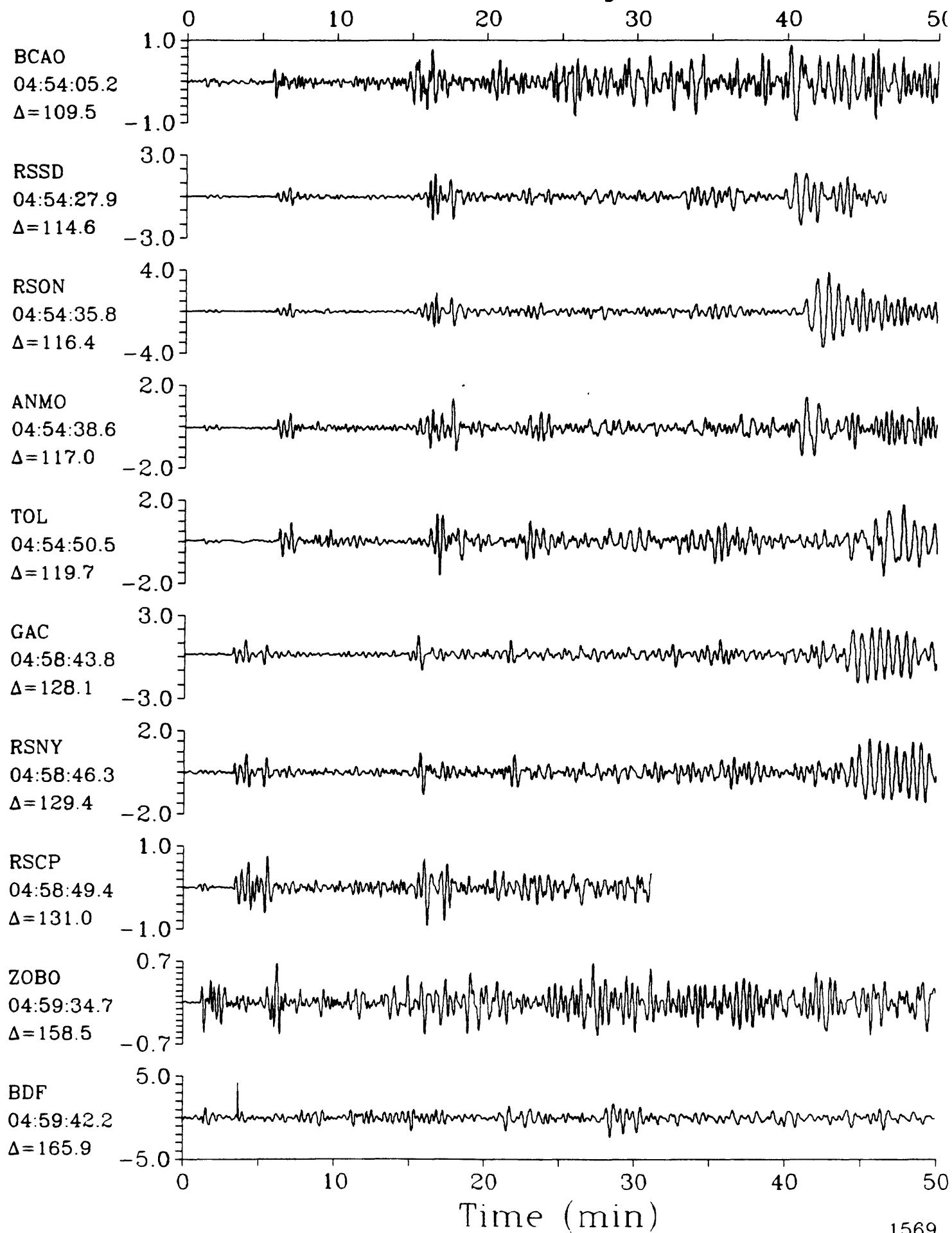
LPZ



LPZ

10 August 1986 04:40:51.72
Halmahera $h=123.0$ $m_b=6.1$

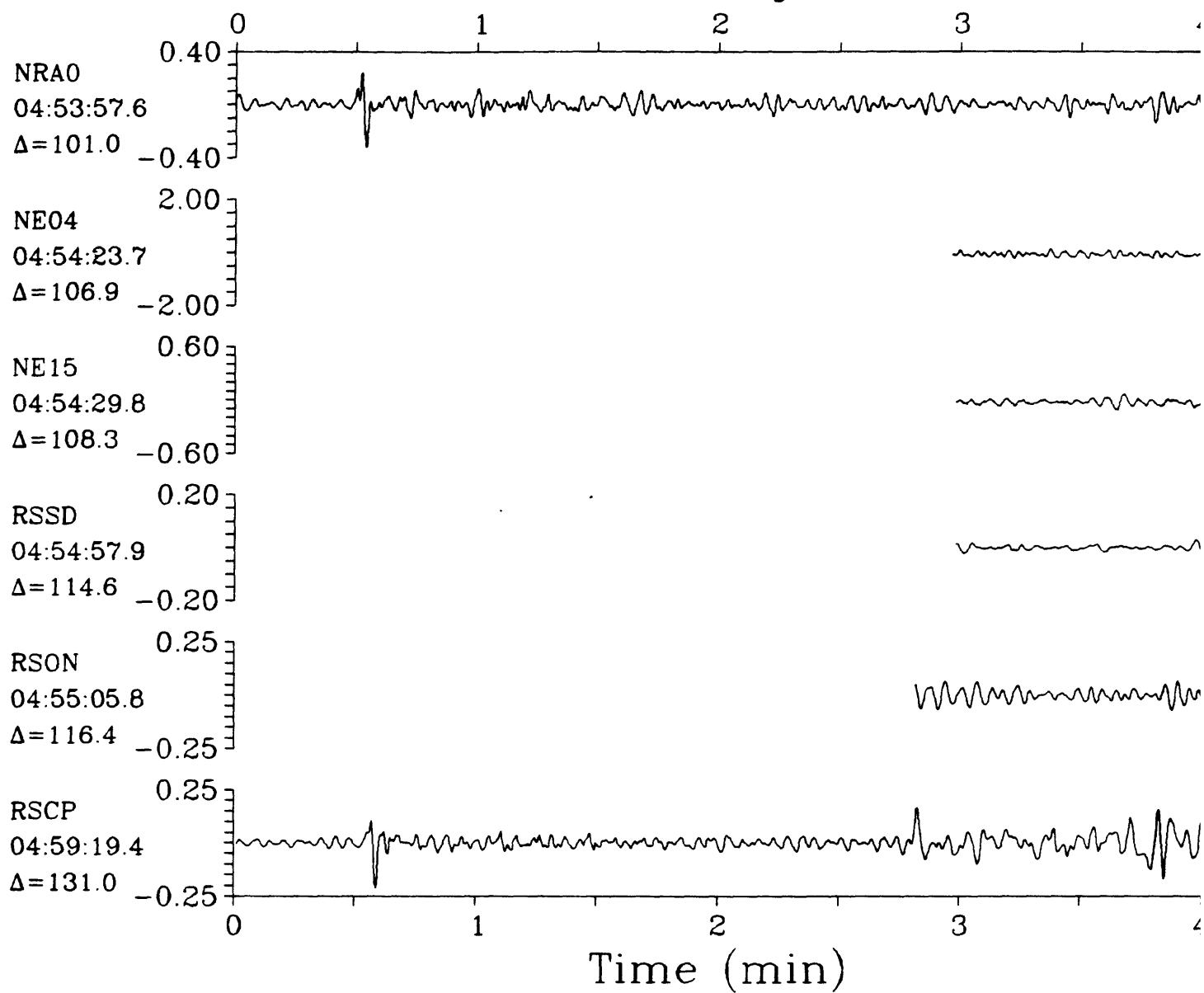
LPZ



IPZ

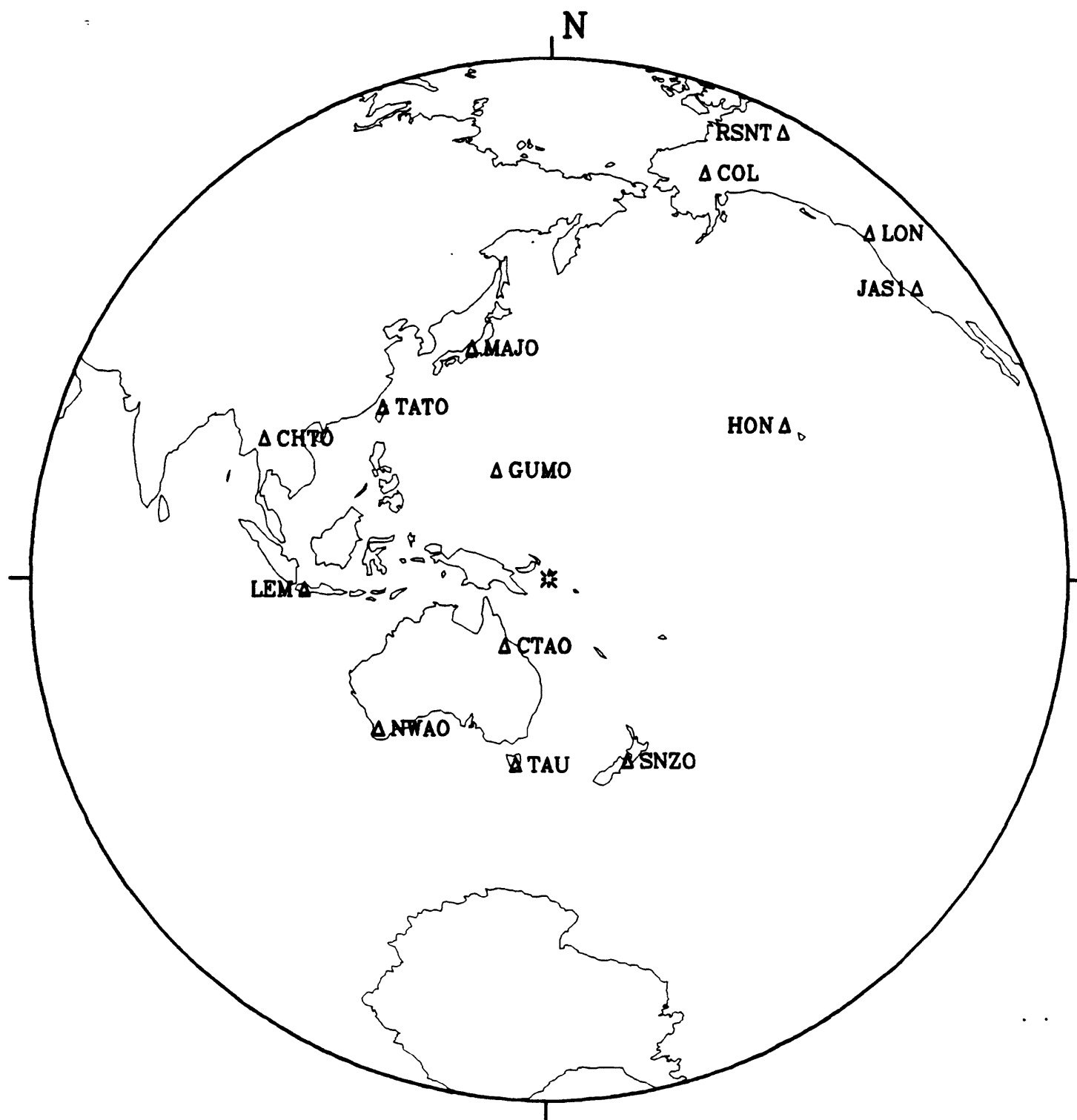
10 August 1986 04:40:51.72
Halmahera $h=123.0$ $m_b=6.1$

IPZ



10 August 1986 05:42:08.20

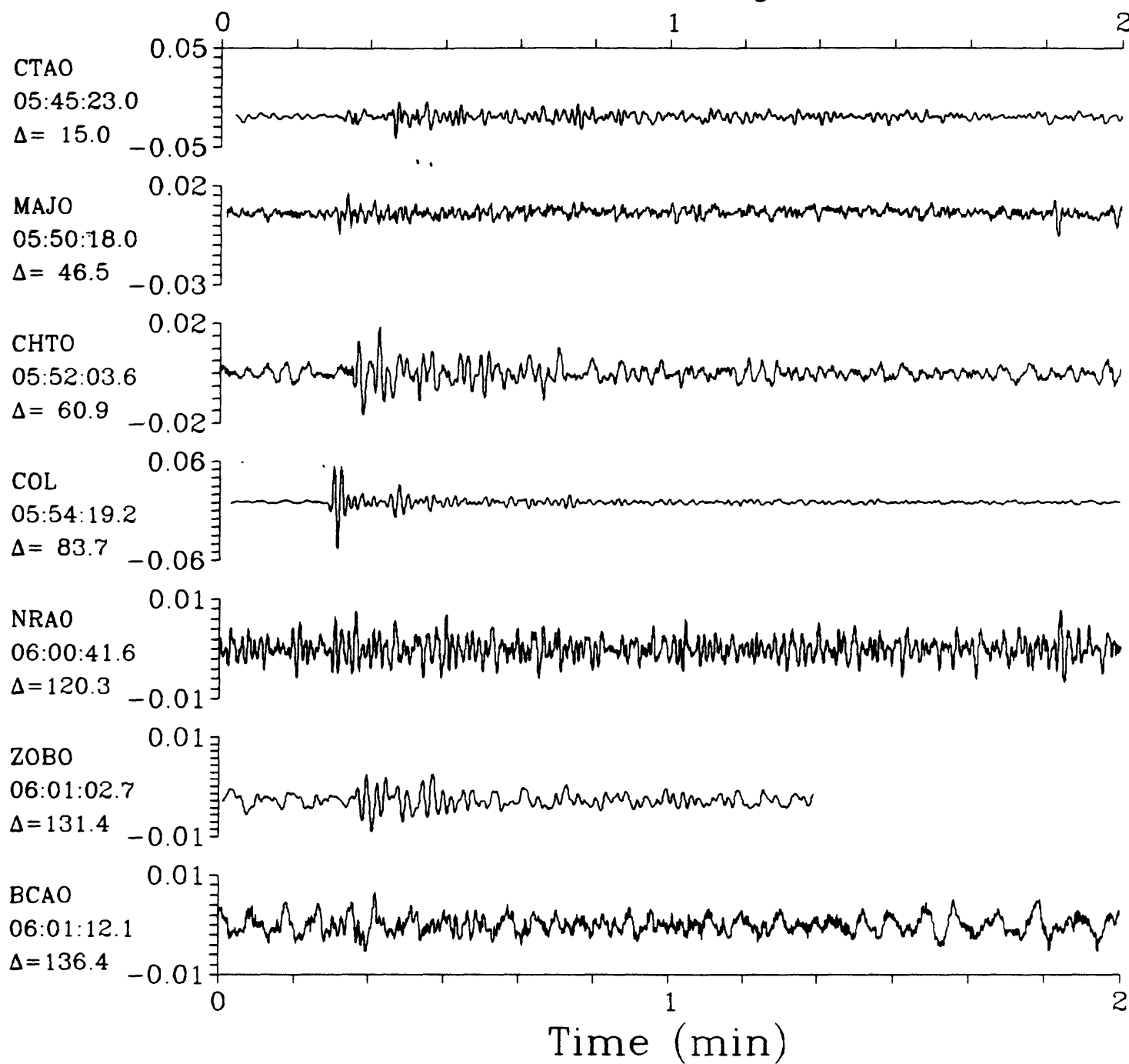
Solomon Islands



SPZ

10 August 1986 05:42:08.20
Solomon Islands $h=33.0$ $m_b=5.6$

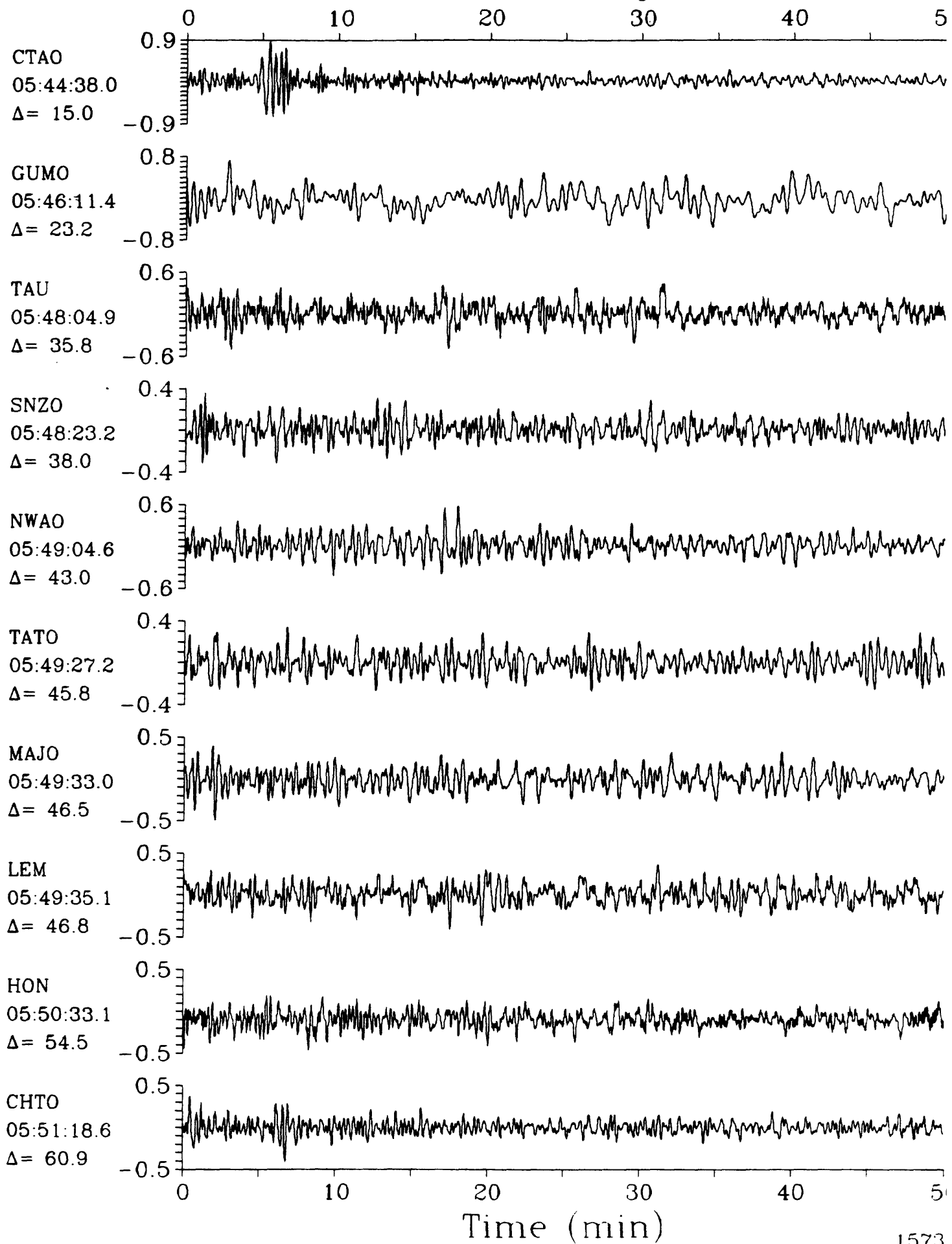
SPZ



LPZ

10 August 1986 05:42:08.20
Solomon Islands $h=33.0$ $m_b=5.6$

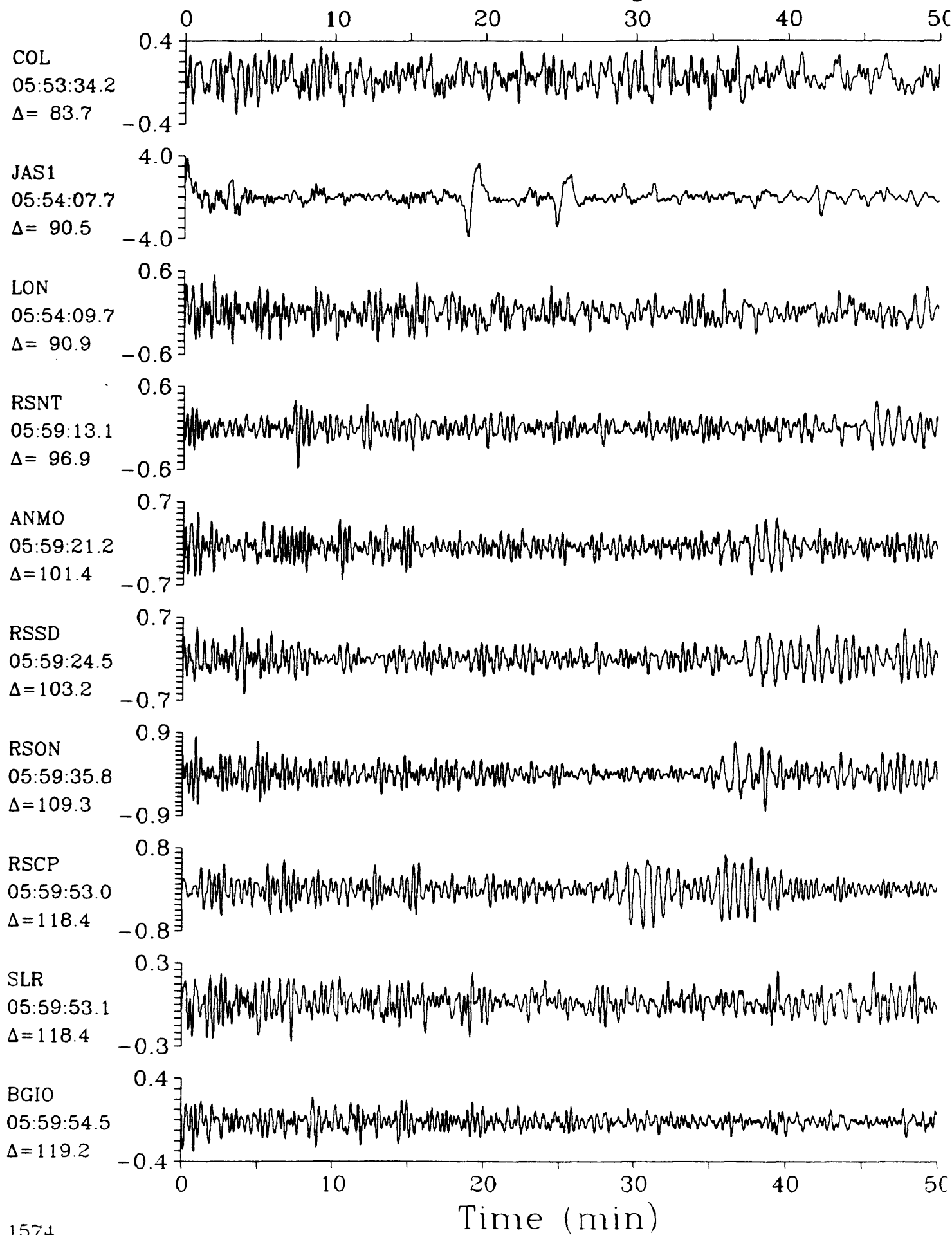
LPZ



LPZ

10 August 1986 05:42:08.20
Solomon Islands $h=33.0$ $m_b=5.6$

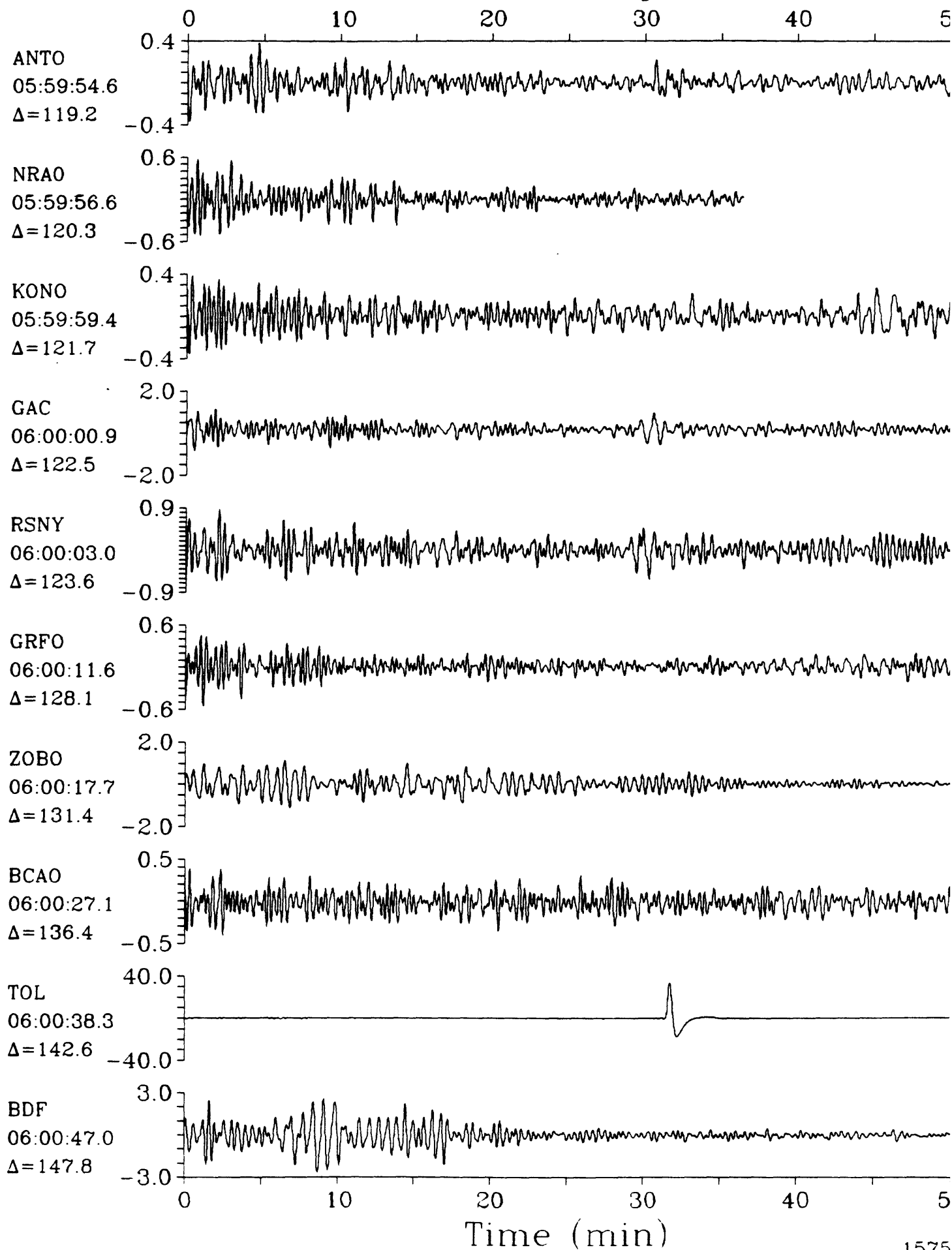
LPZ



LPZ

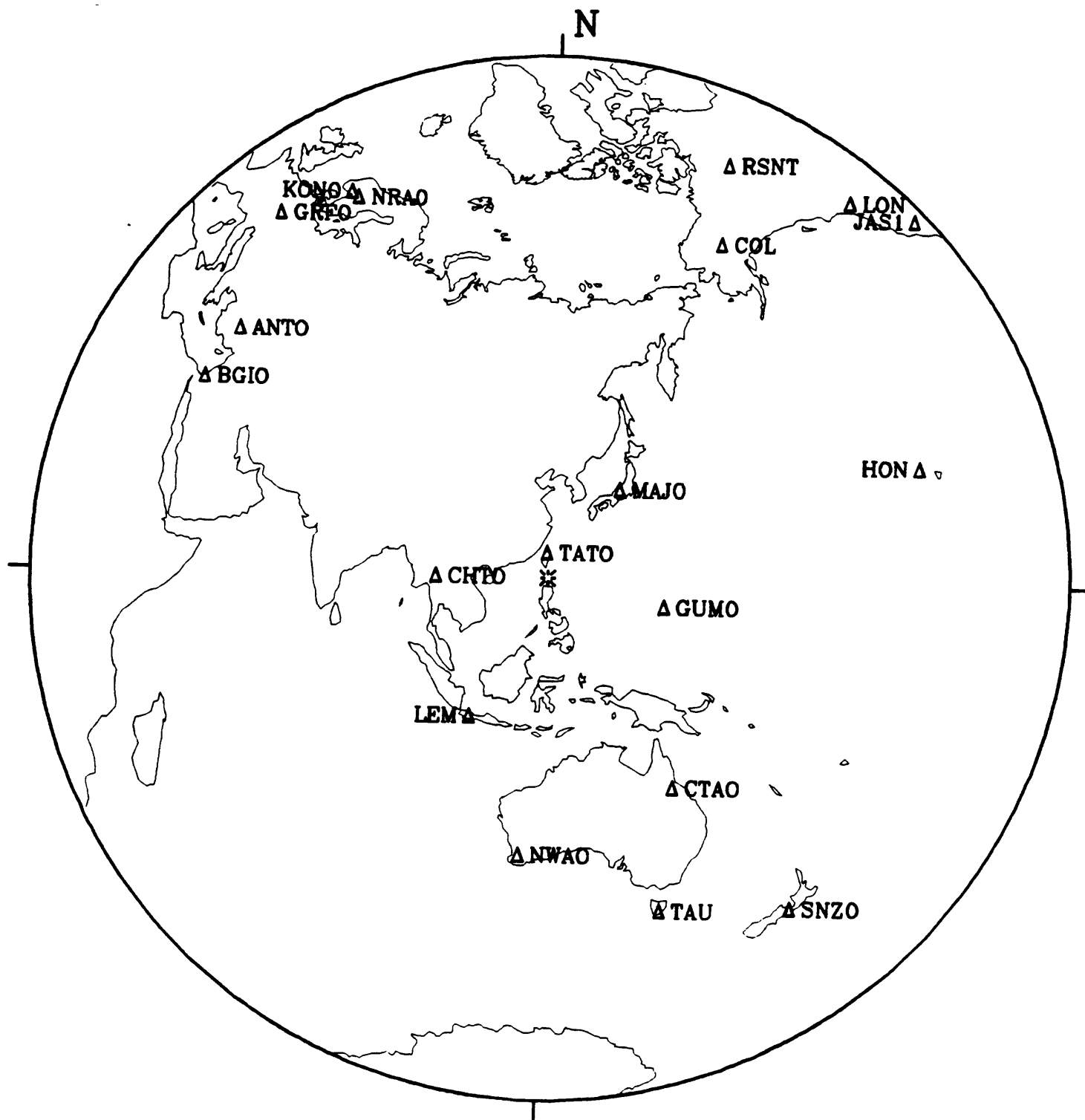
10 August 1986 05:42:08.20
Solomon Islands $h=33.0$ $m_b=5.6$

LPZ



11 August 1986 10:37:59.04

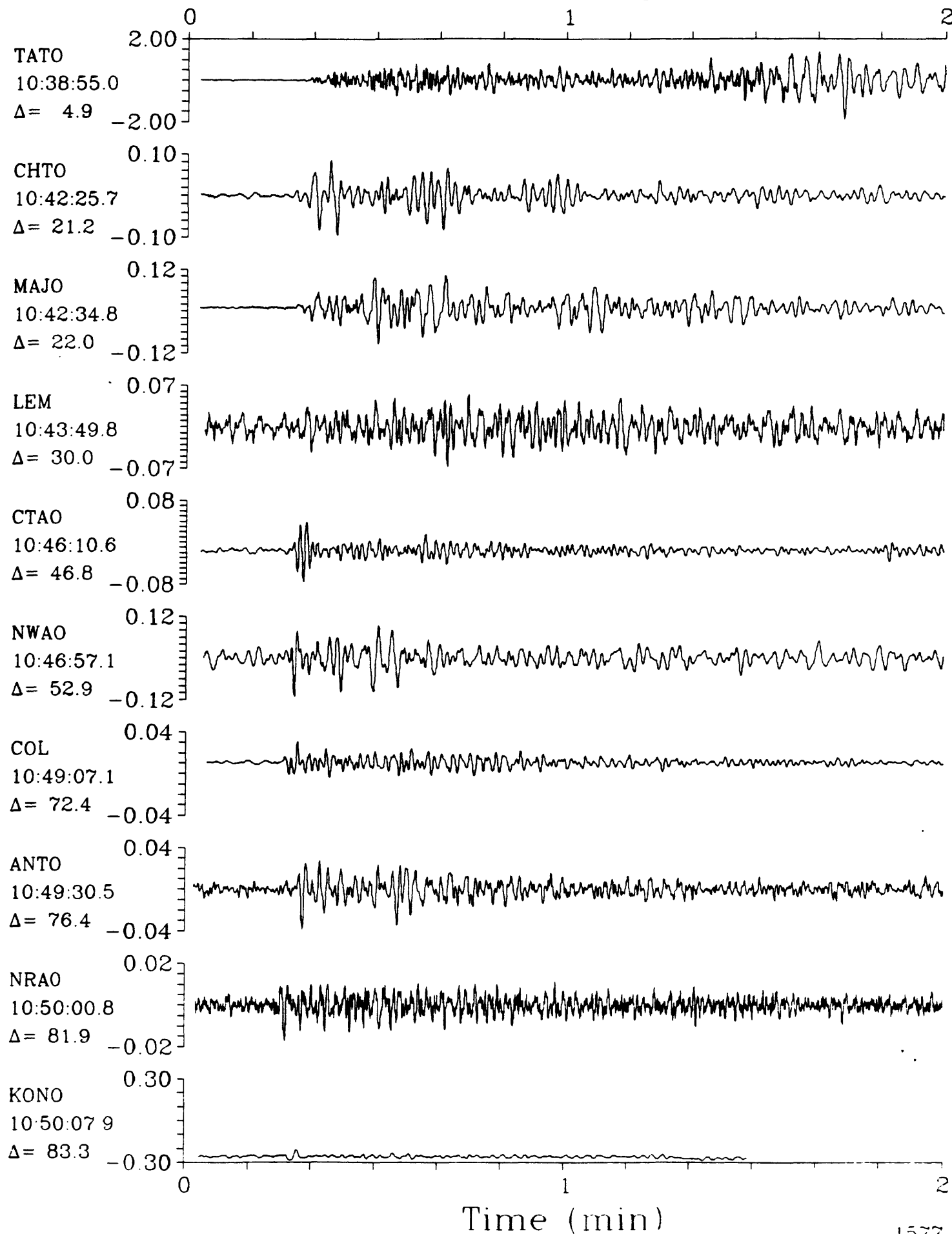
Philippine Islands Region



SPZ

11 August 1986 10:37:59.04

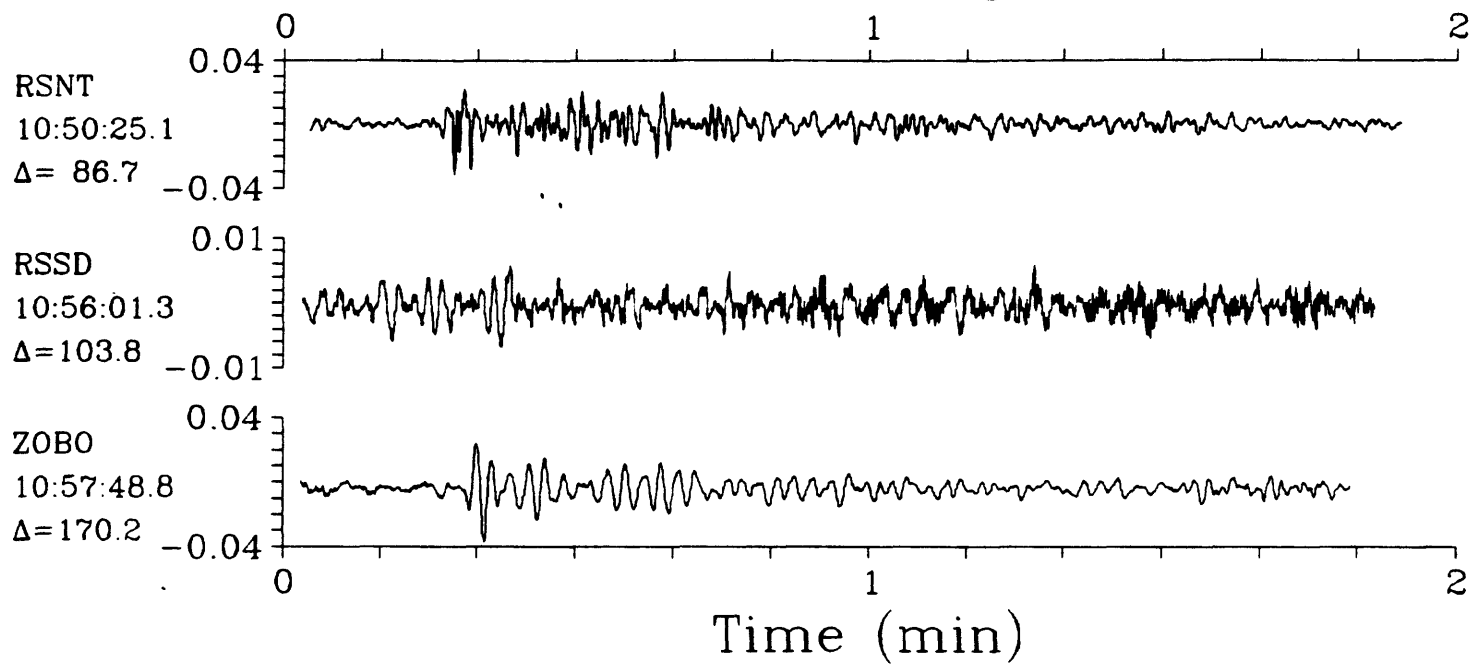
SPZ

Philippine Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.0$ 

SPZ

11 August 1986 10:37:59.04

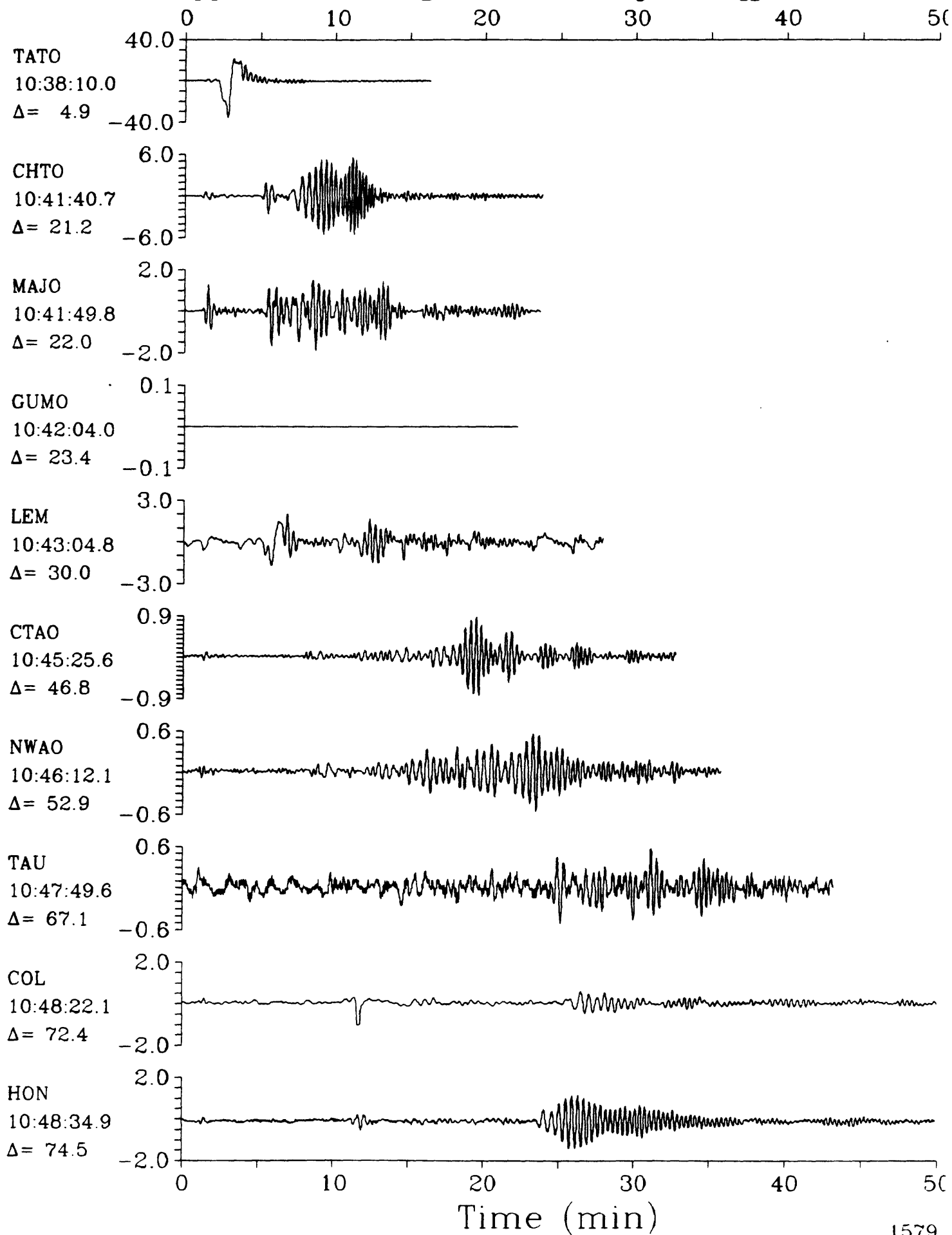
SPZ

Philippine Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.0$ 

LPZ

11 August 1986 10:37:59.04

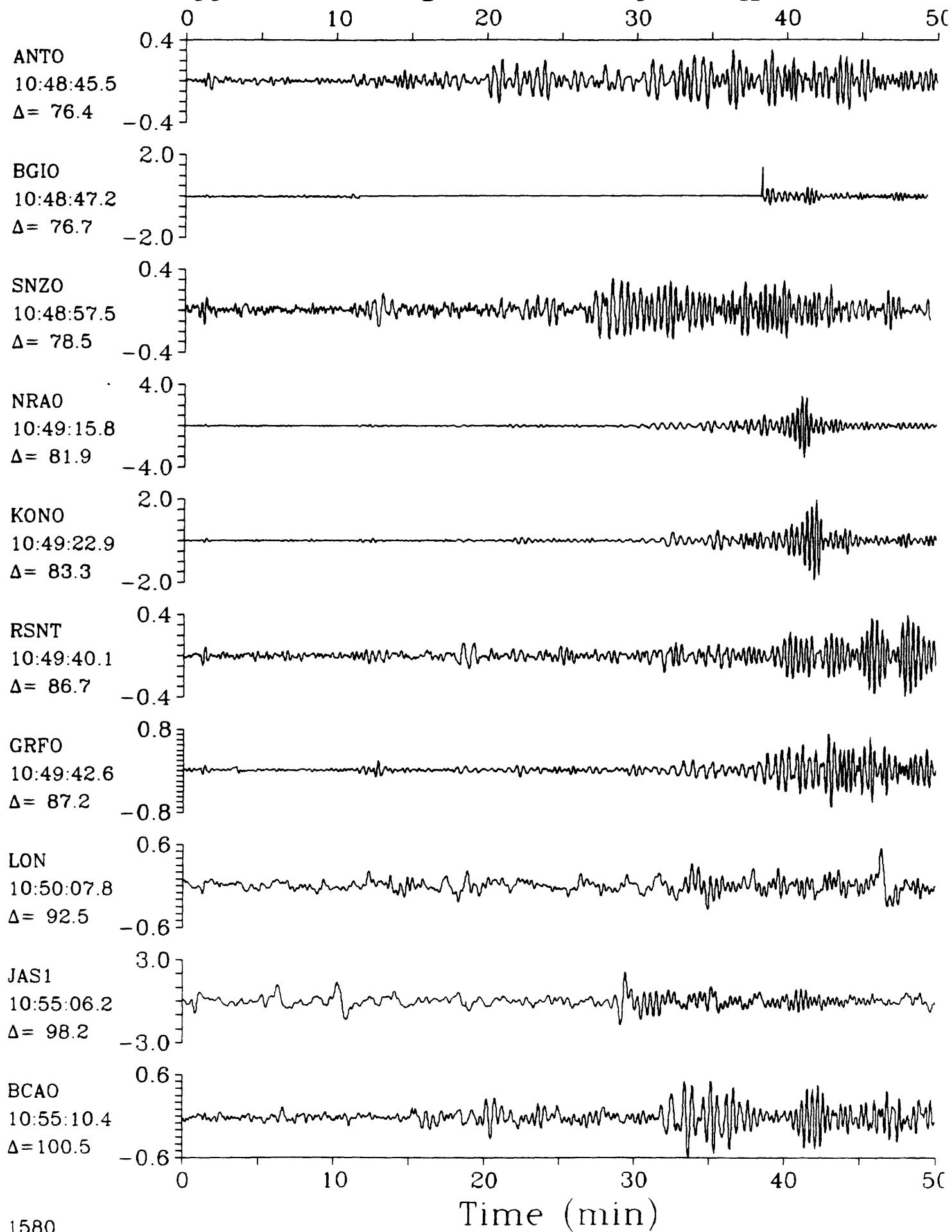
LPZ

Philippine Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.0$ 

LPZ

11 August 1986 10:37:59.04

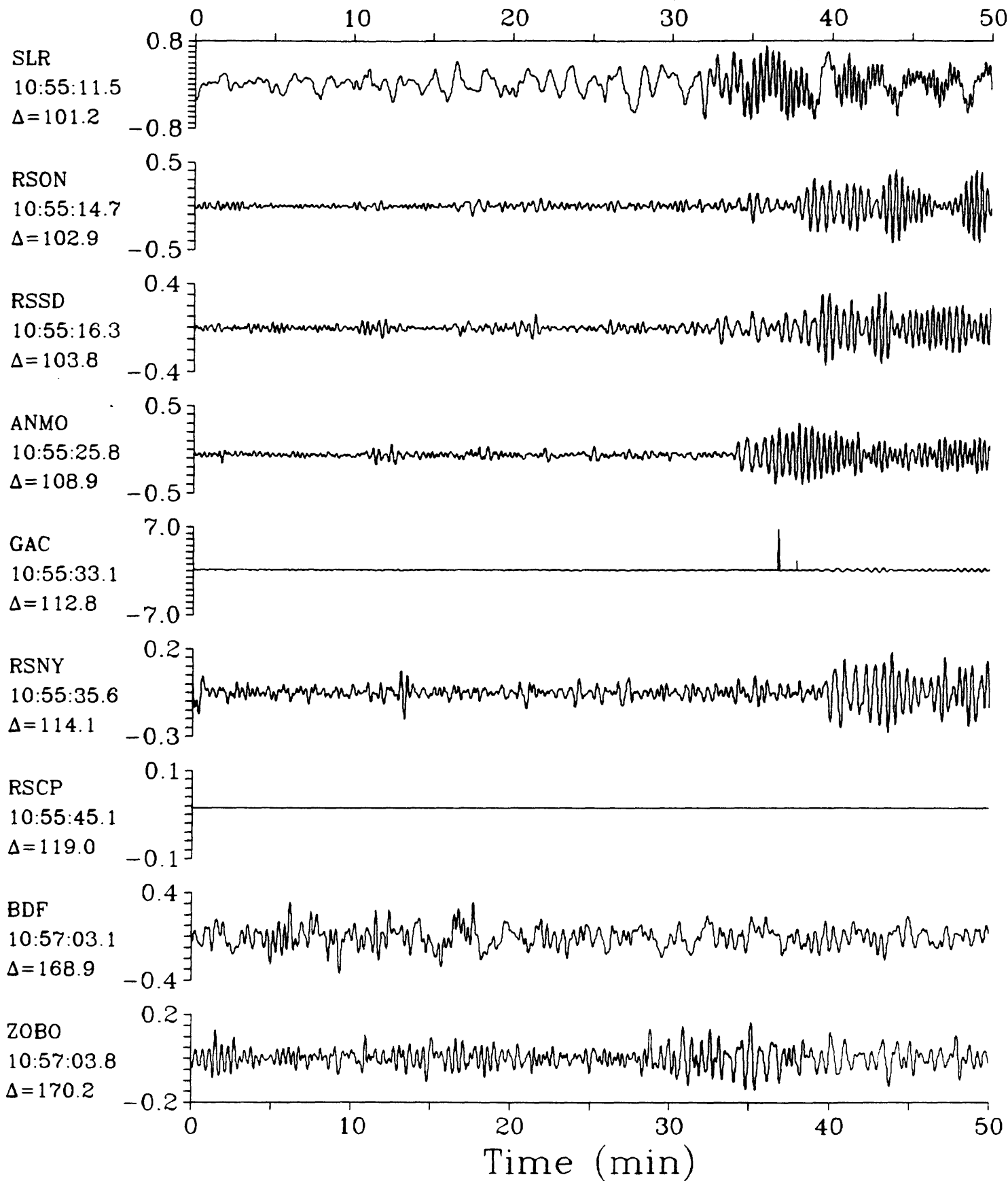
LPZ

Philippine Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.0$ 

LPZ

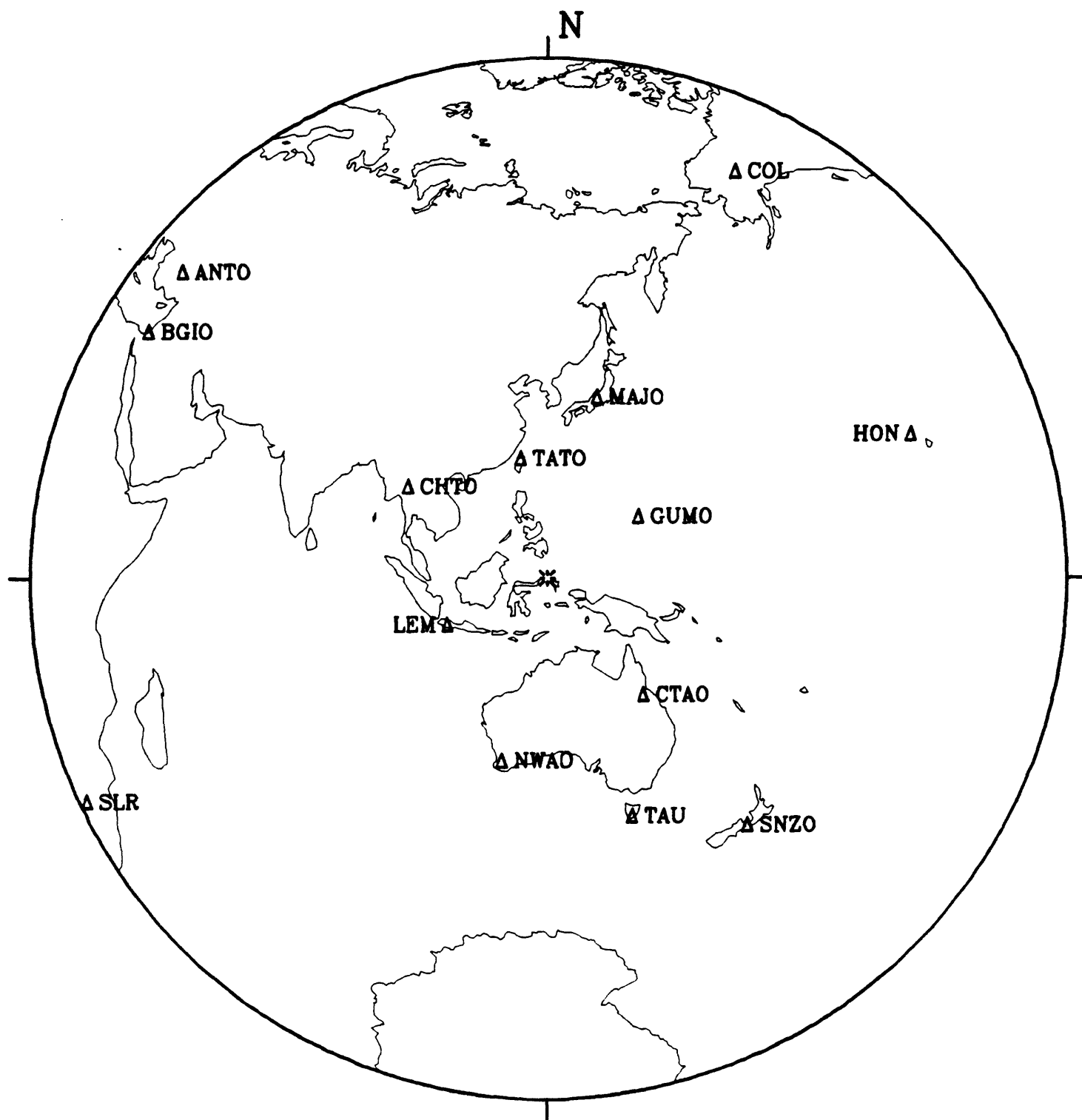
11 August 1986 10:37:59.04

LPZ

Philippine Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.0$ 

14 August 1986 19:39:14.38

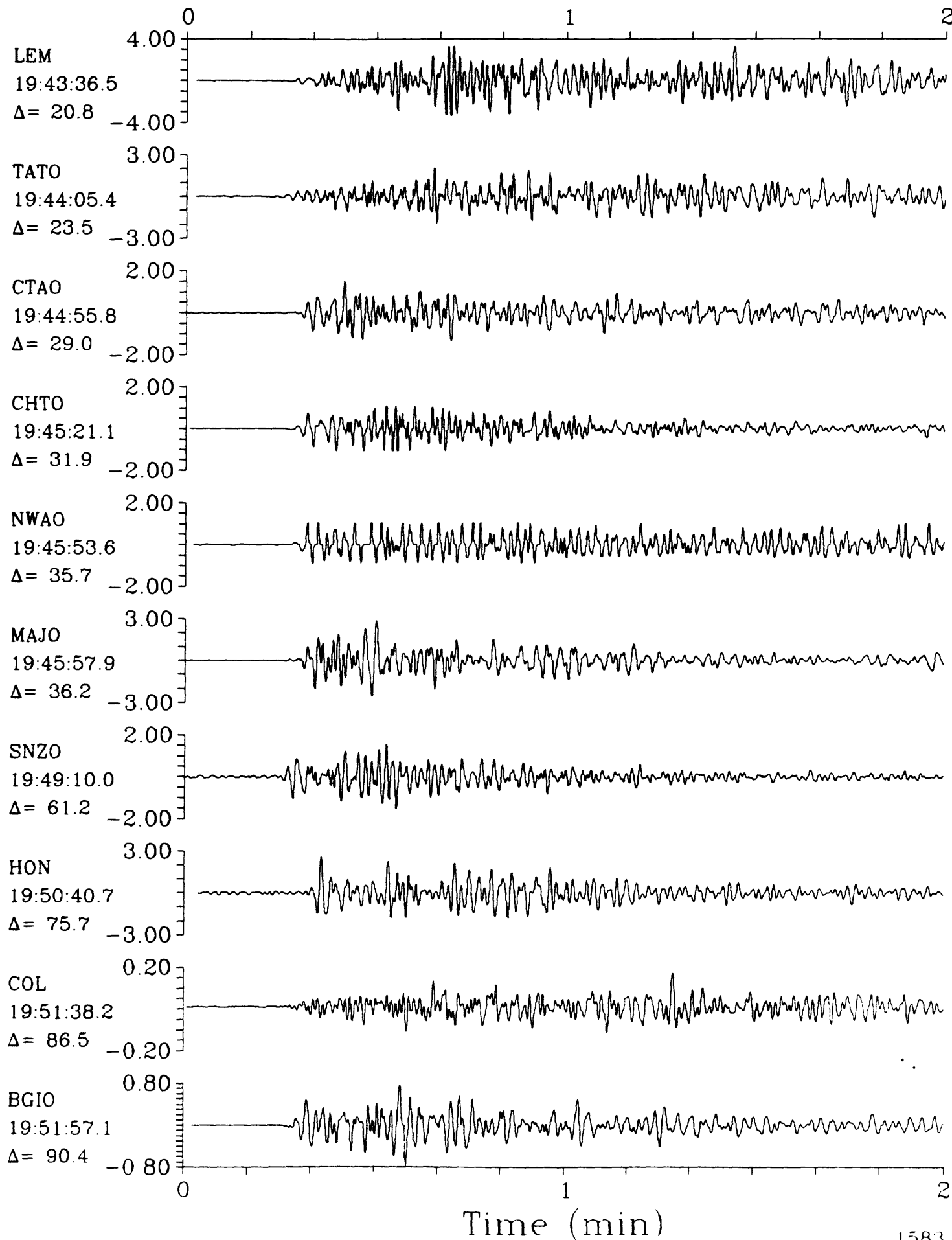
Molucca Passage



SPZ

14 August 1986 19:39:14.38
Molucca Passage $h=43.1$ $m_b=6.5$ $M_{SZ}=7.3$

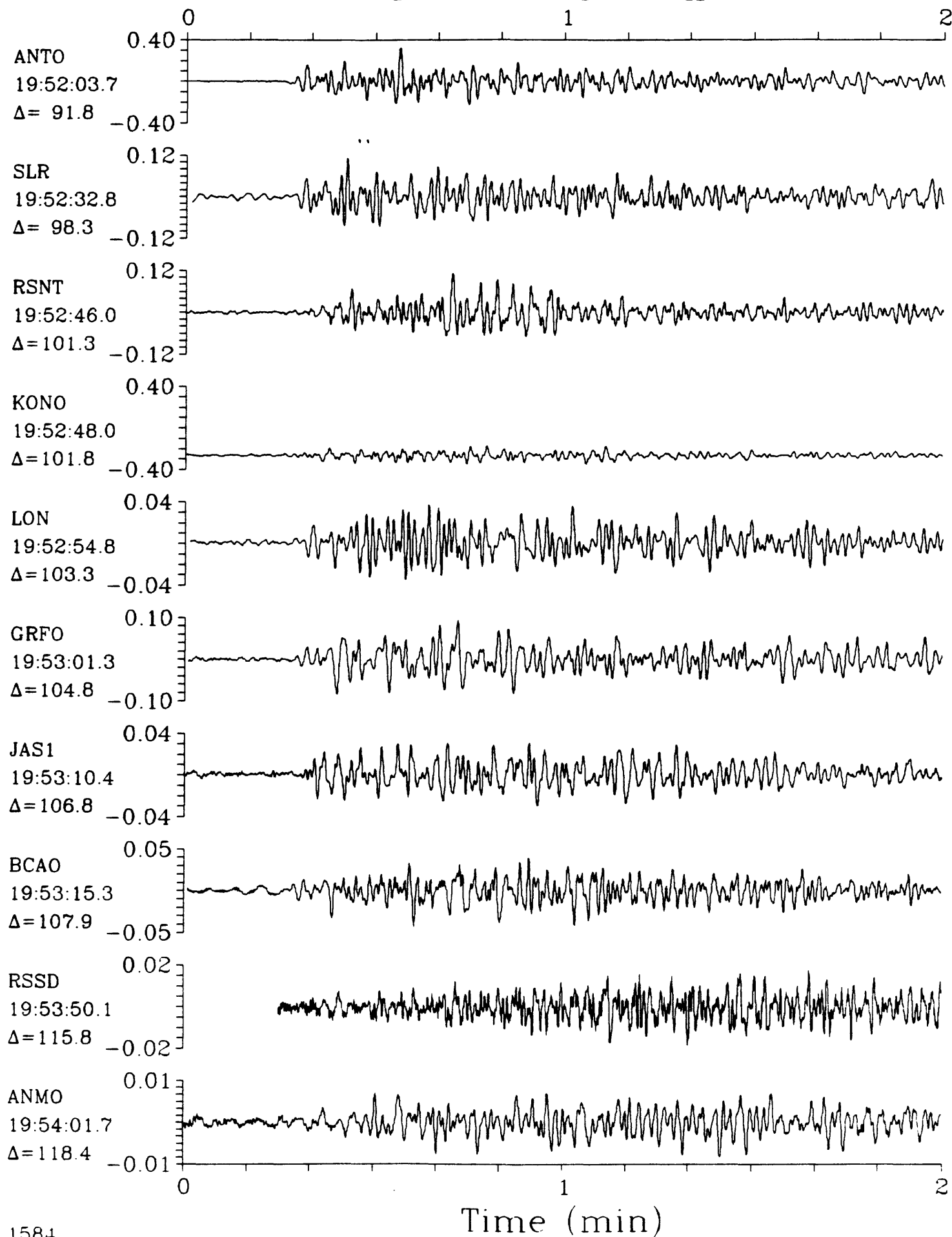
SPZ



SPZ

14 August 1986 19:39:14.38

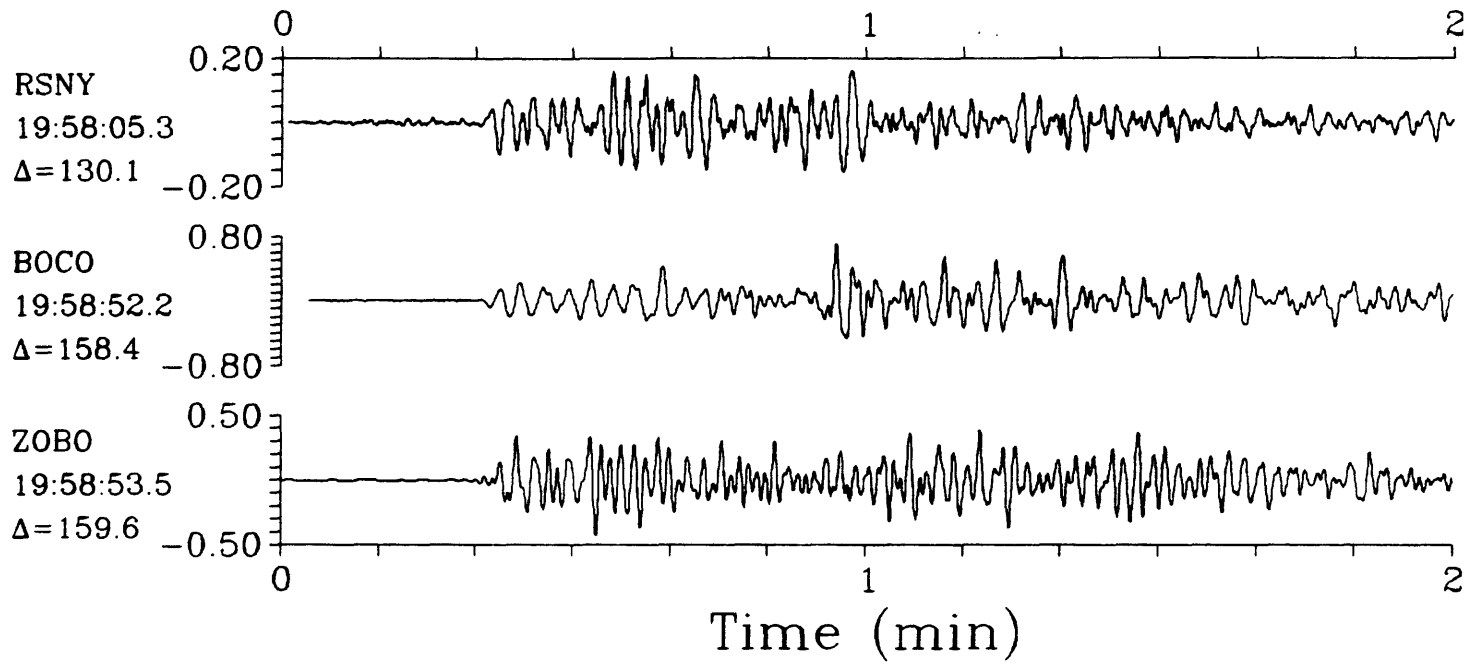
SPZ

Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$ 

SPZ

14 August 1986 19:39:14.38

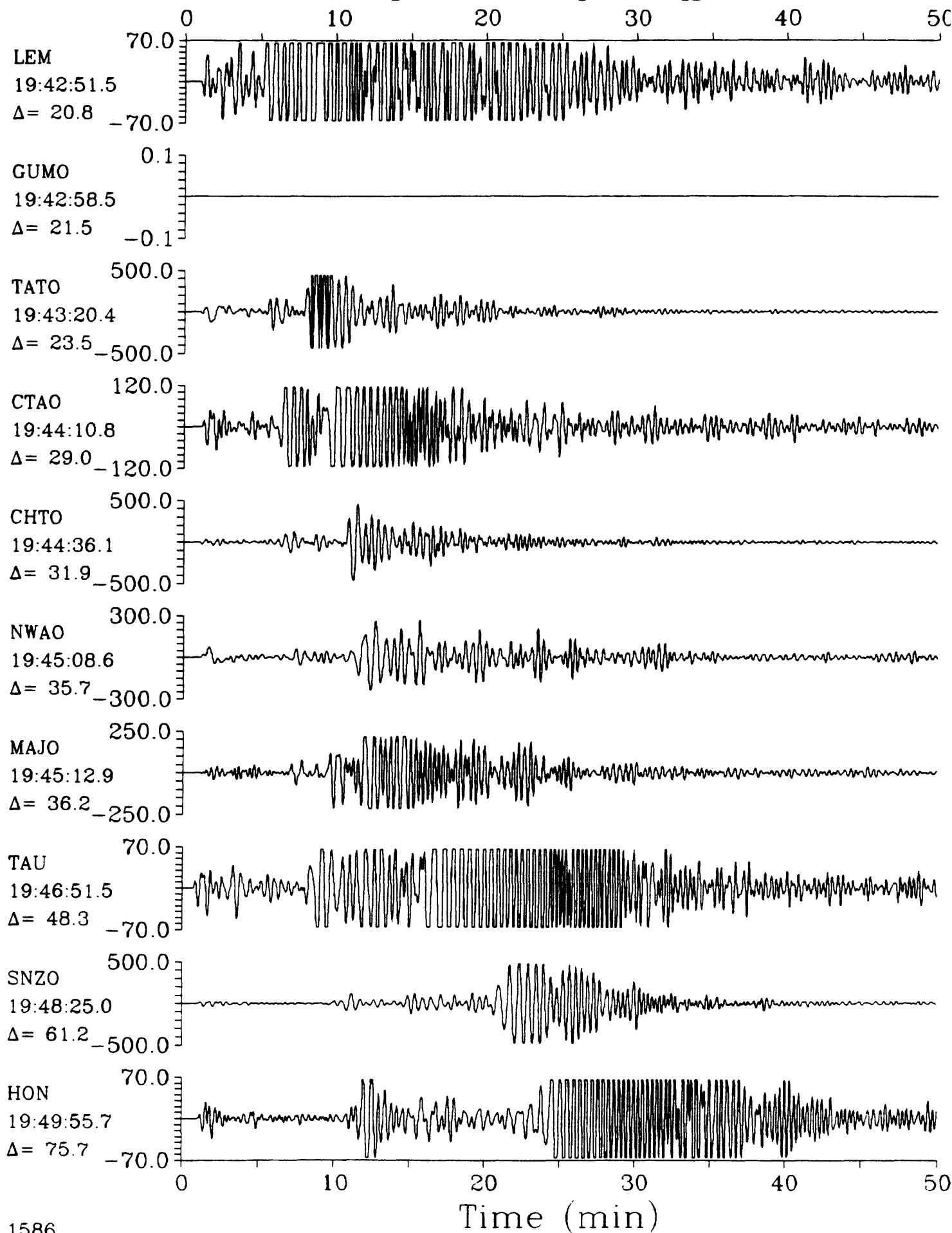
SPZ

Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$ 

LPZ

14 August 1986 19:39:14.38

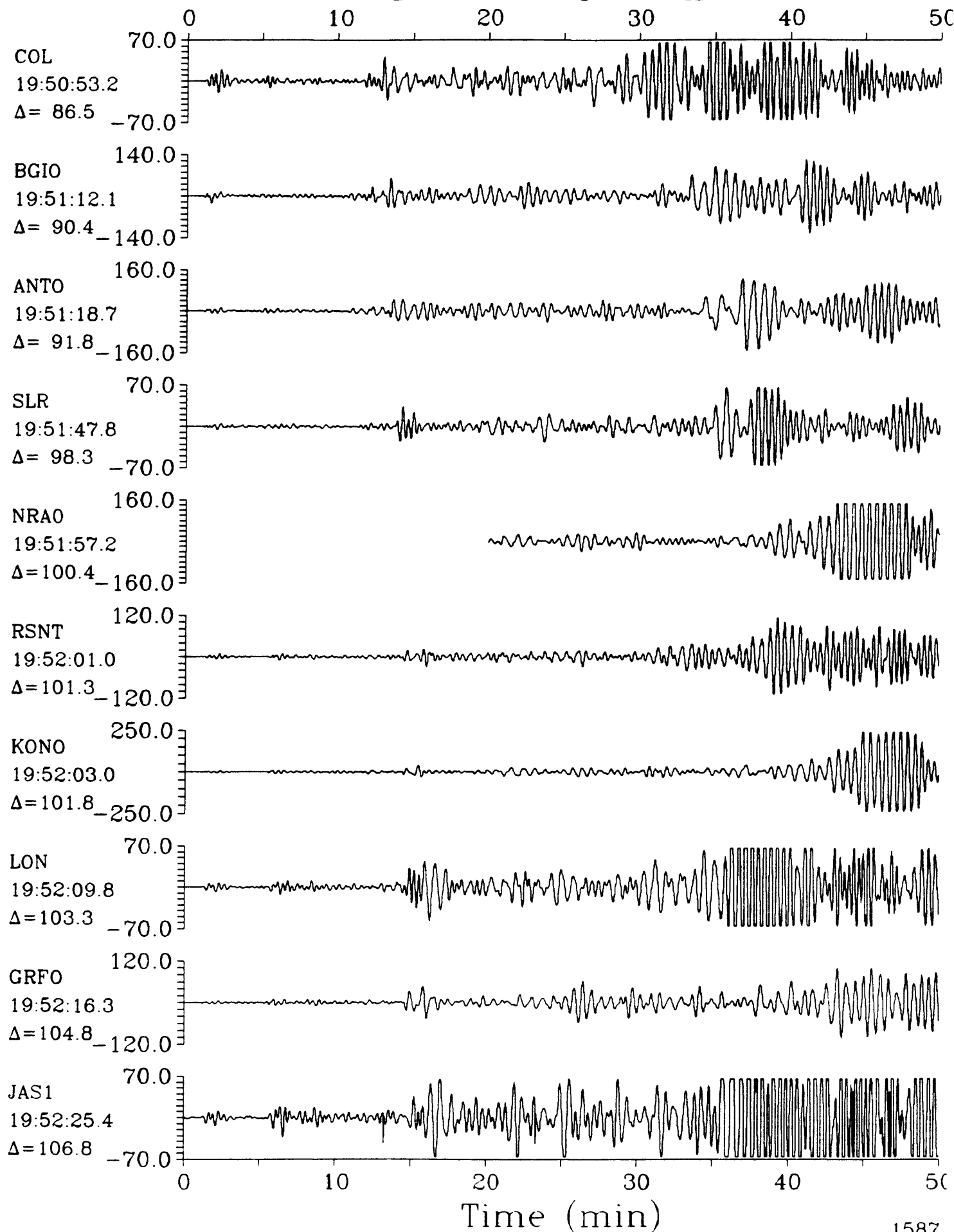
LPZ

Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$ 

LPZ

14 August 1986 19:39:14.38

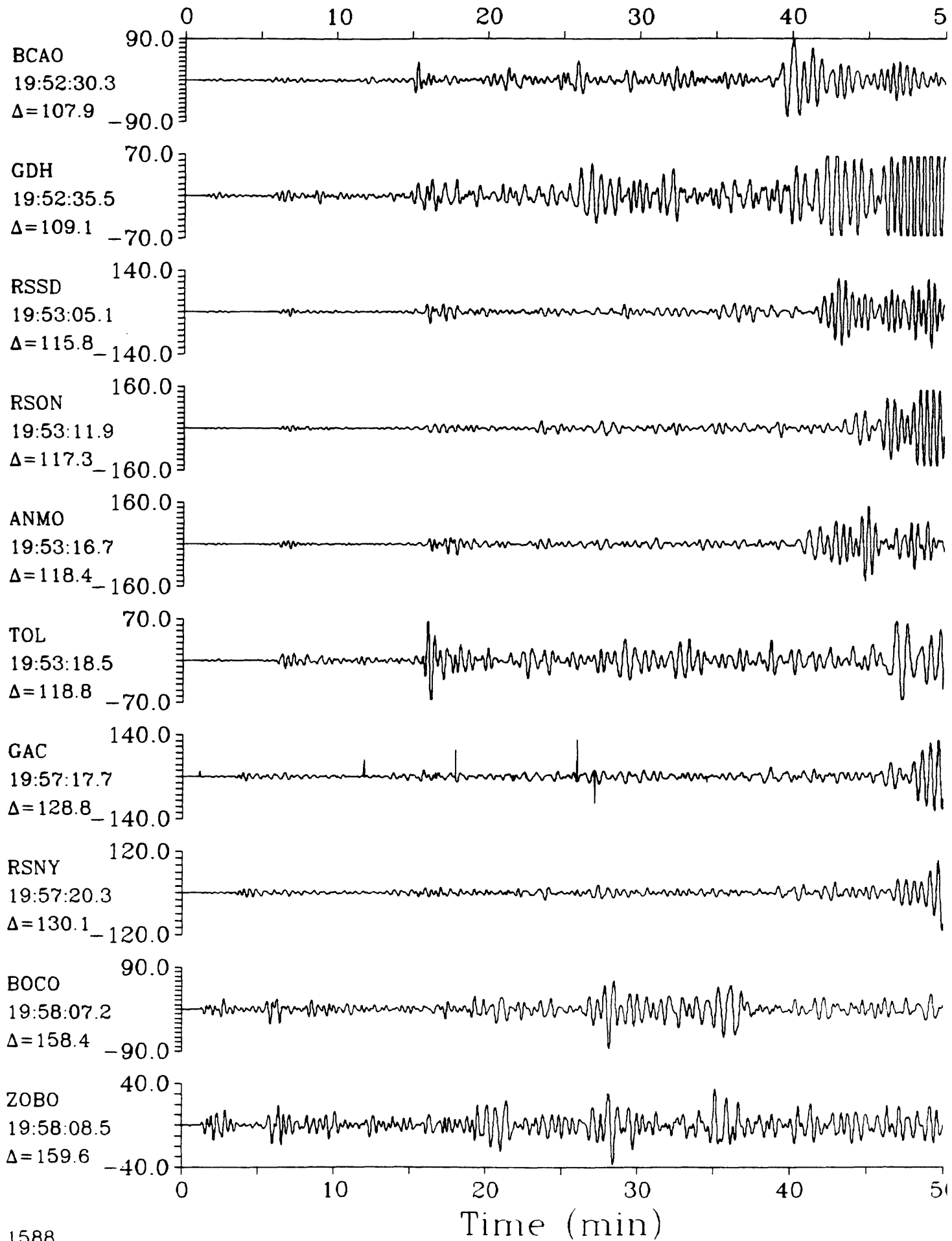
LPZ

Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$ 

LPZ

14 August 1986 19:39:14.38

LPZ

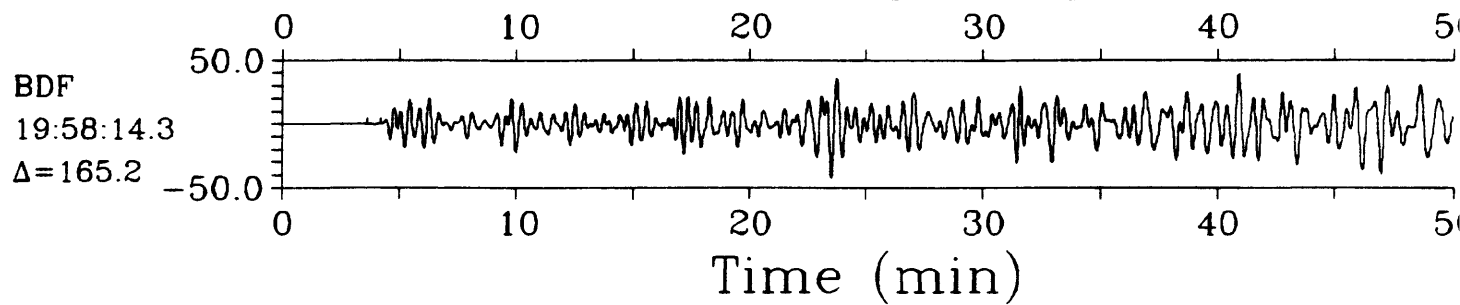
Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$ 

LPZ

14 August 1986 19:39:14.38

LPZ

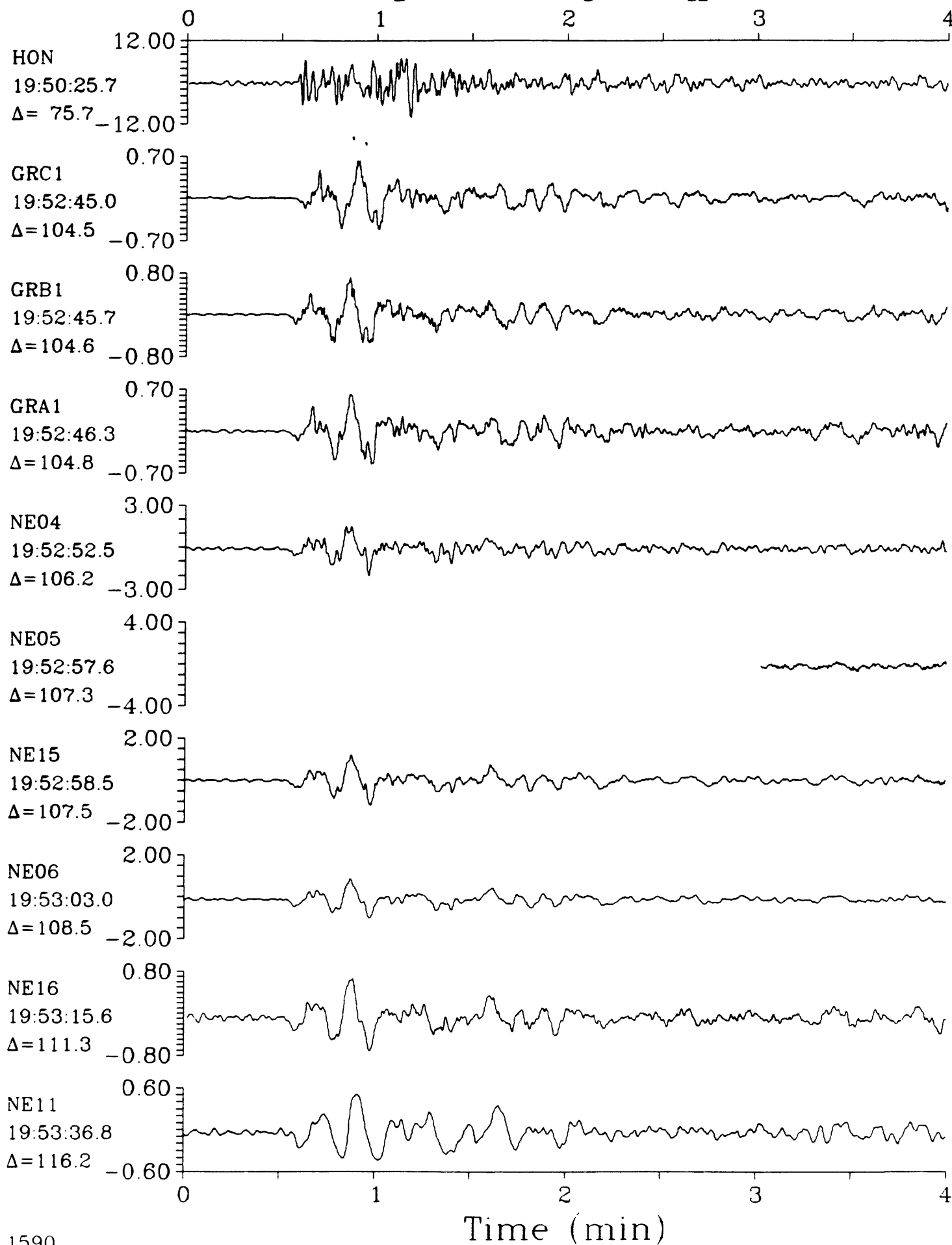
Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$



IPZ

14 August 1986 19:39:14.38

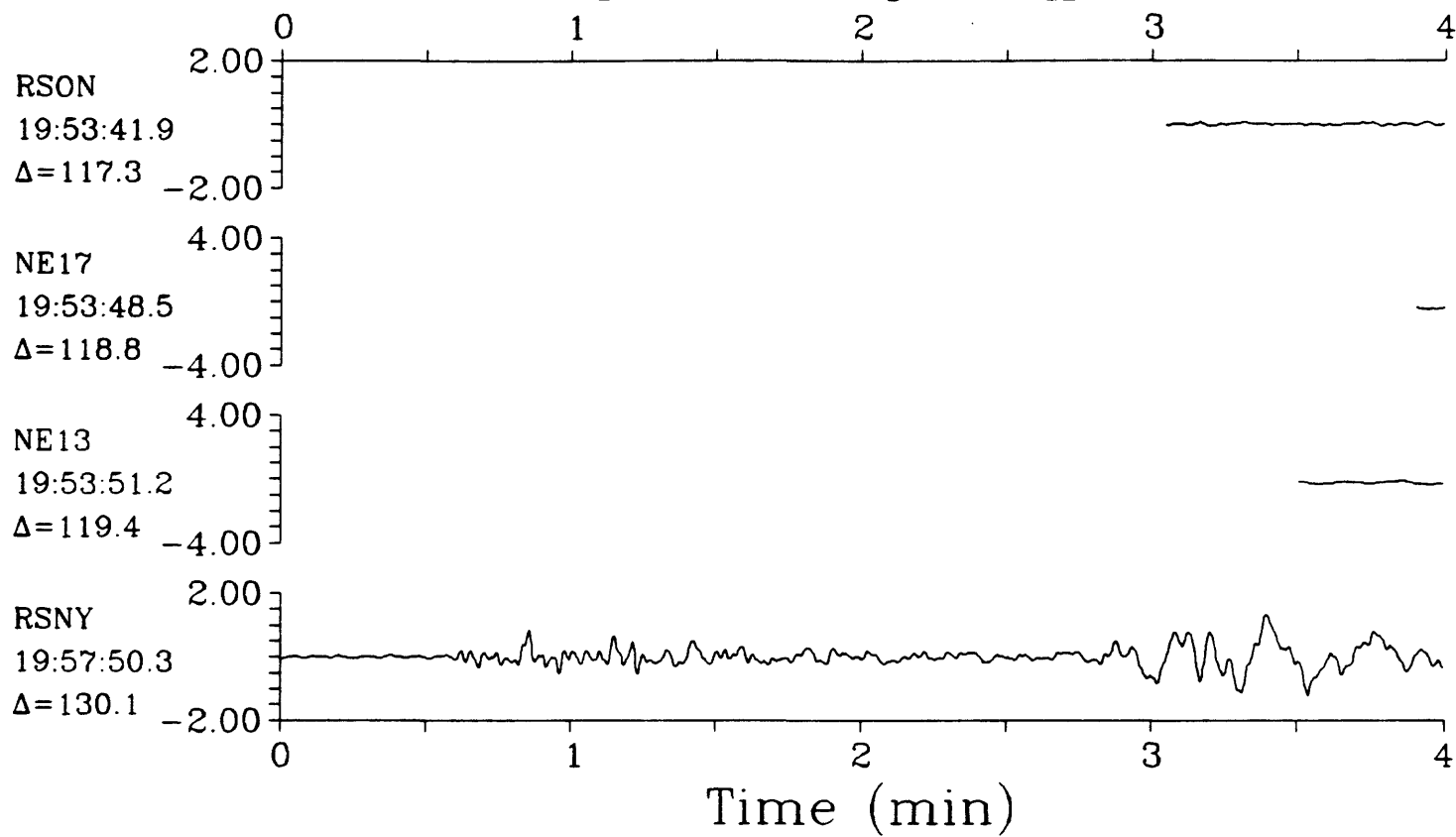
IPZ

Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$ 

IPZ

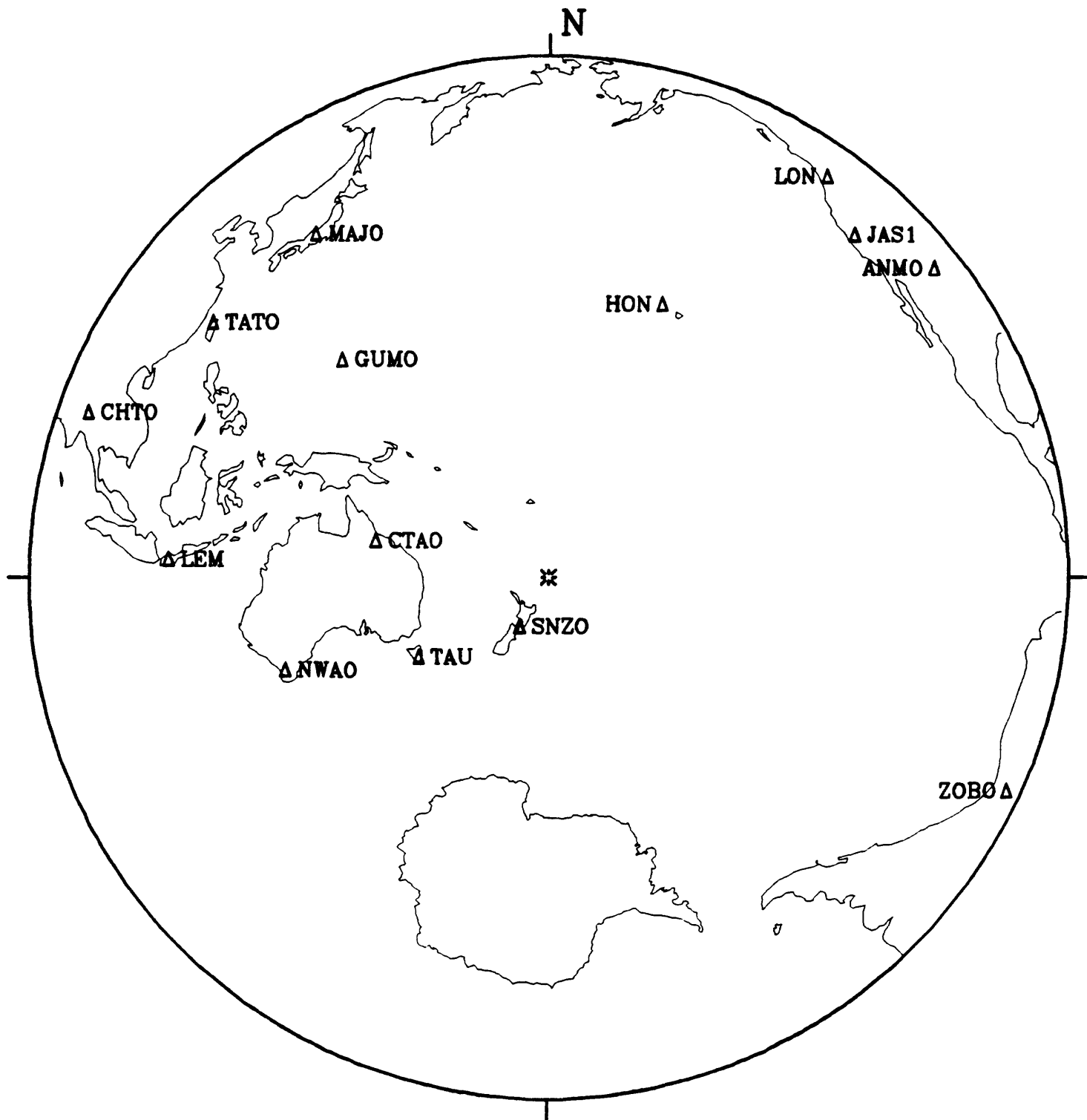
14 August 1986 19:39:14.38

IPZ

Molucca Passage $h=43.1$ $m_b=6.5$ $M_{sz}=7.3$ 

14 August 1986 20:48:08.72

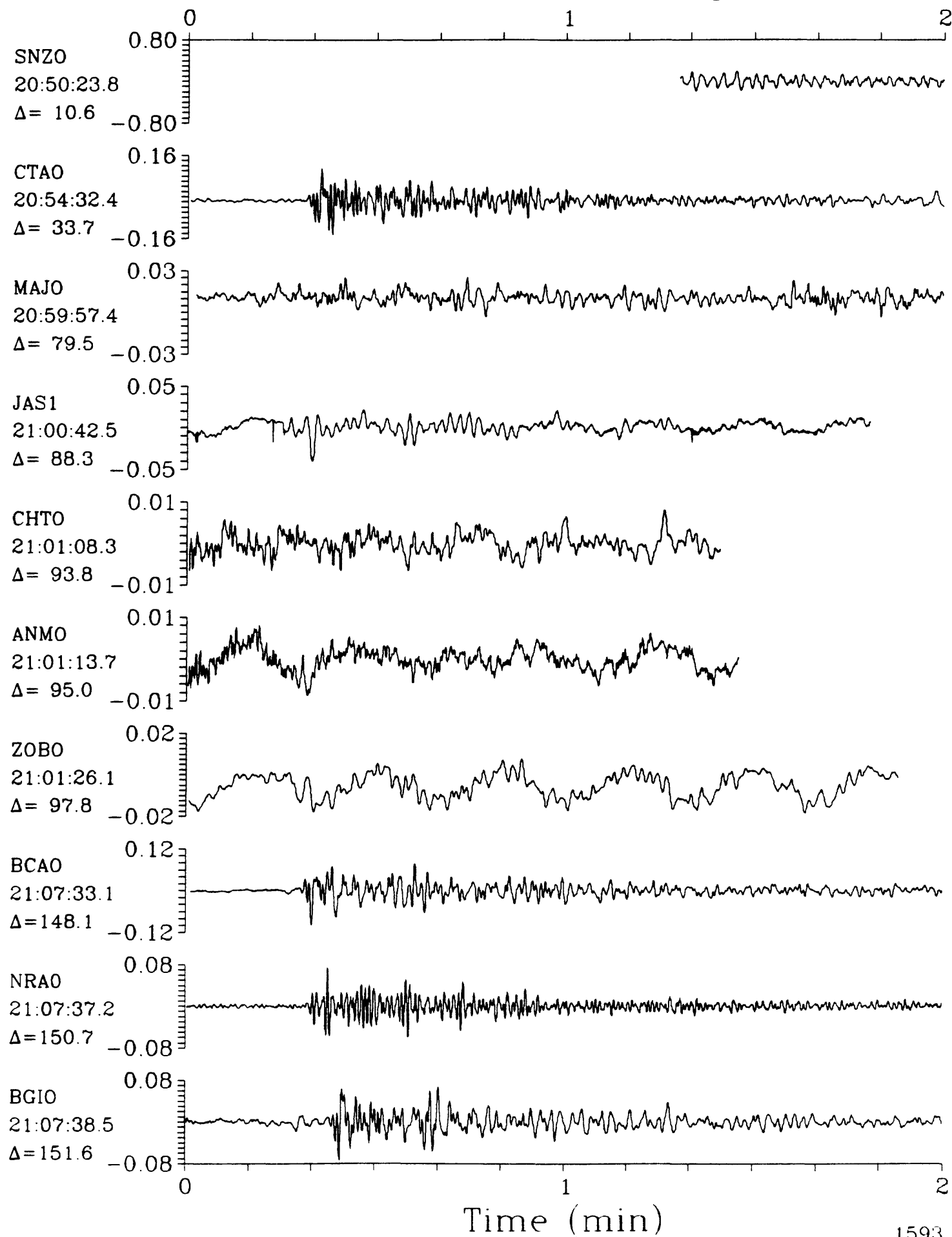
South of Kermadec Islands



SPZ

14 August 1986 20:48:08.72

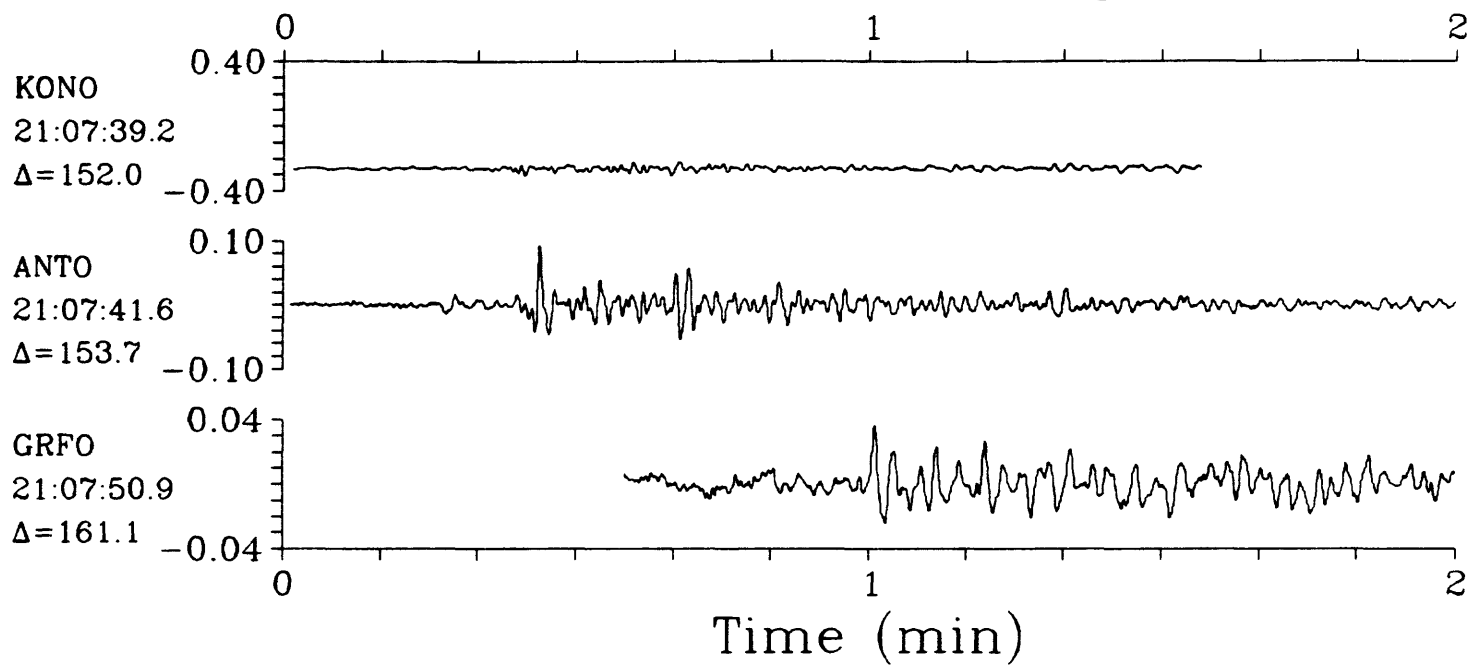
SPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

SPZ

14 August 1986 20:48:08.72

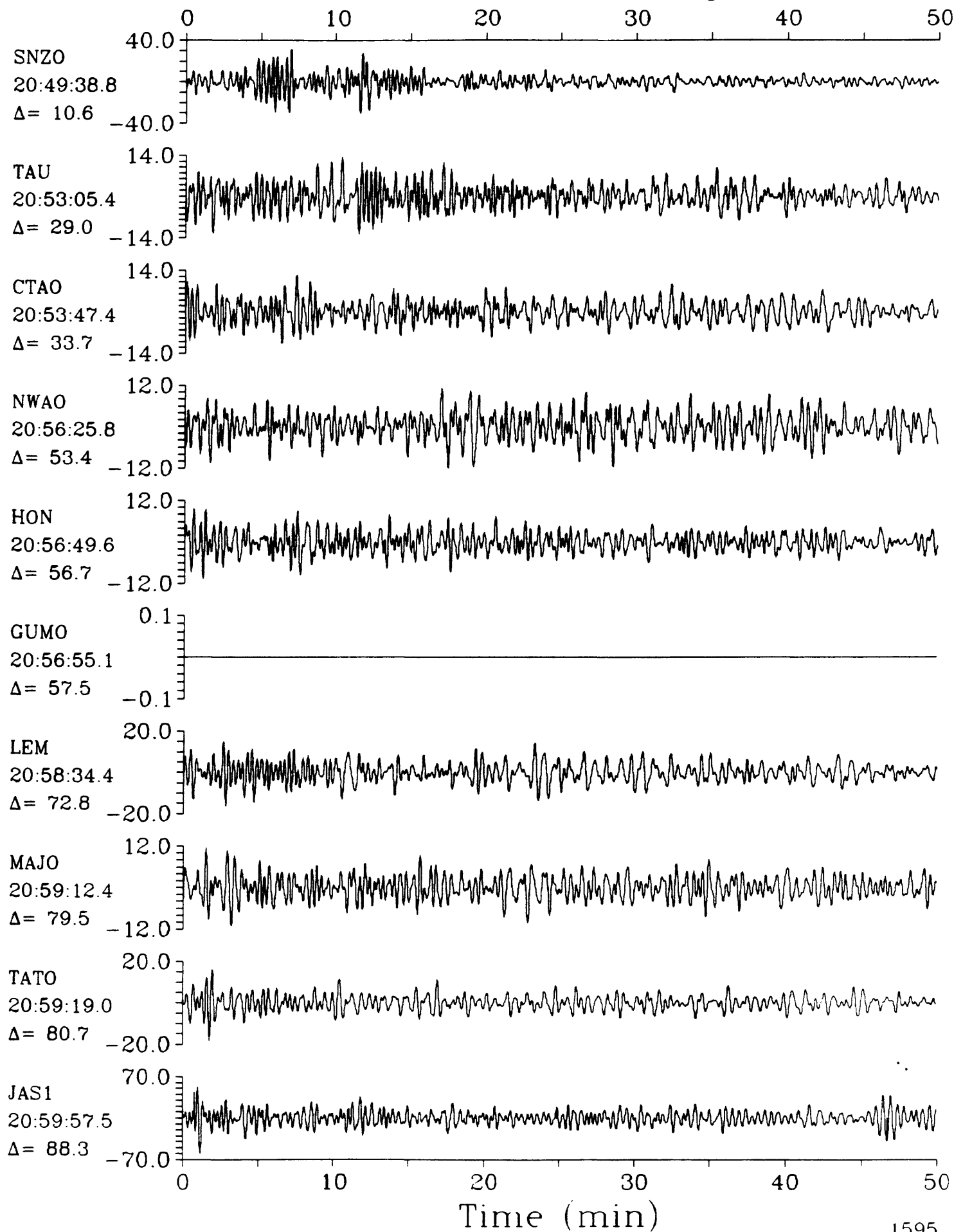
SPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

LPZ

14 August 1986 20:48:08.72

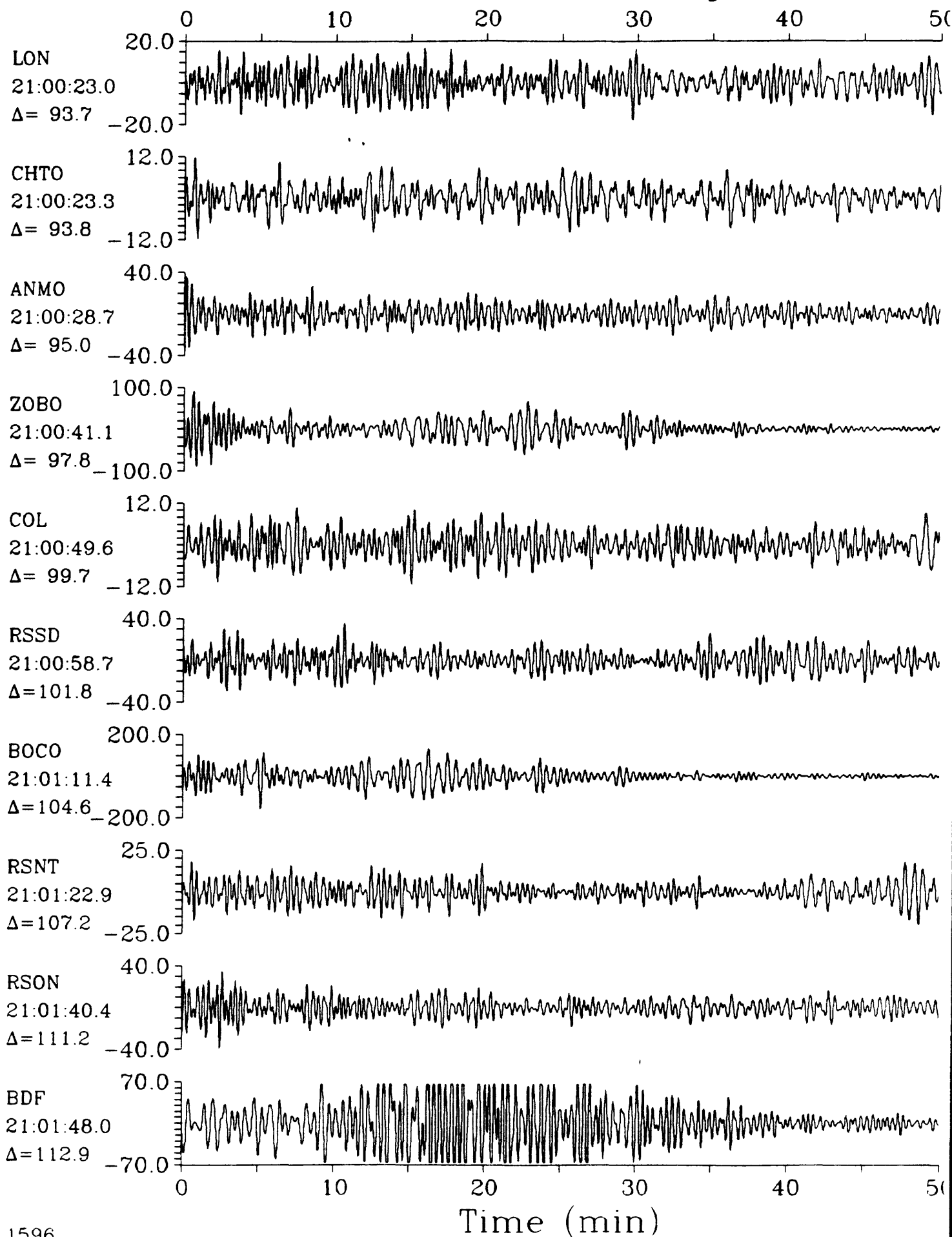
LPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

LPZ

14 August 1986 20:48:08.72

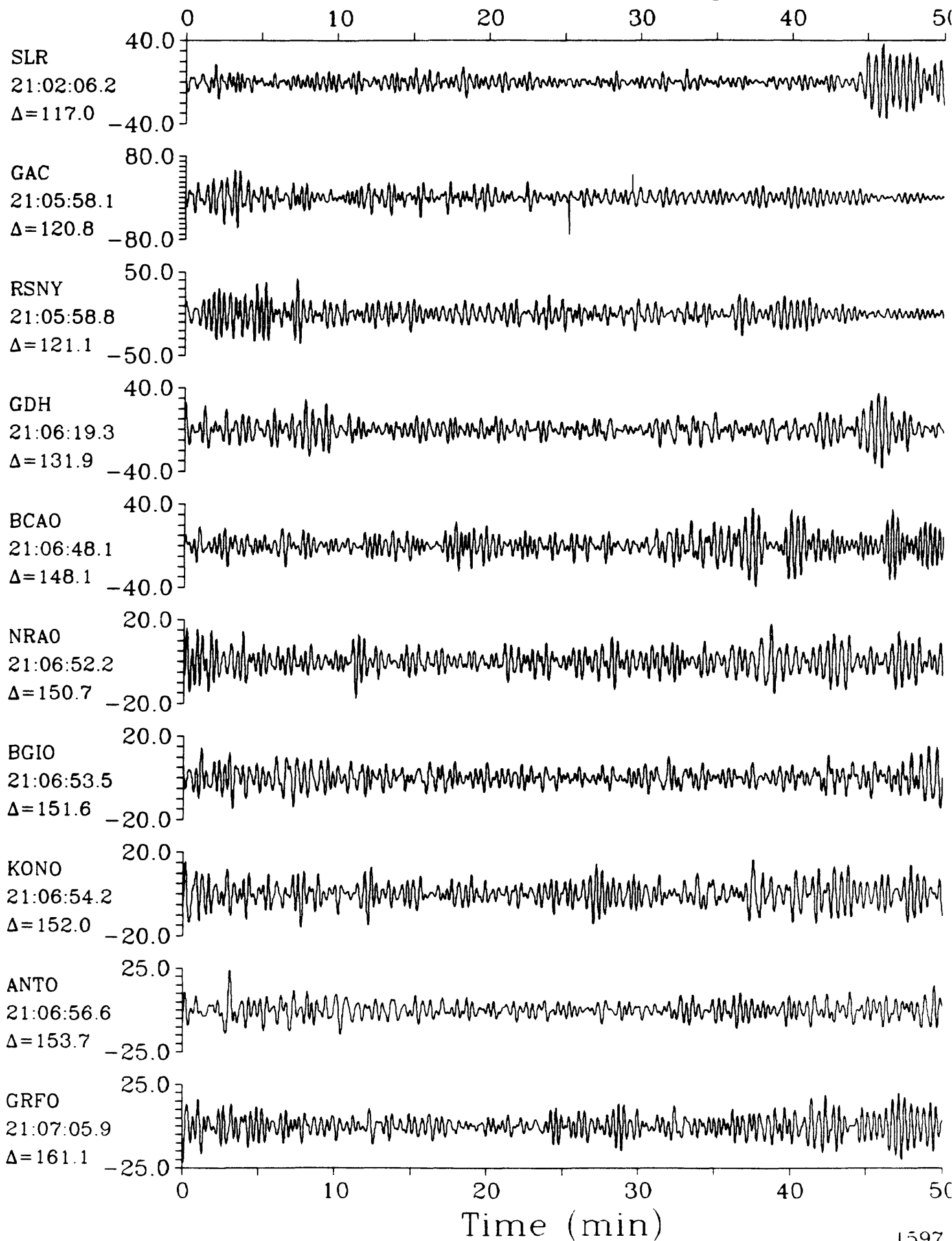
LPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

LPZ

14 August 1986 20:48:08.72

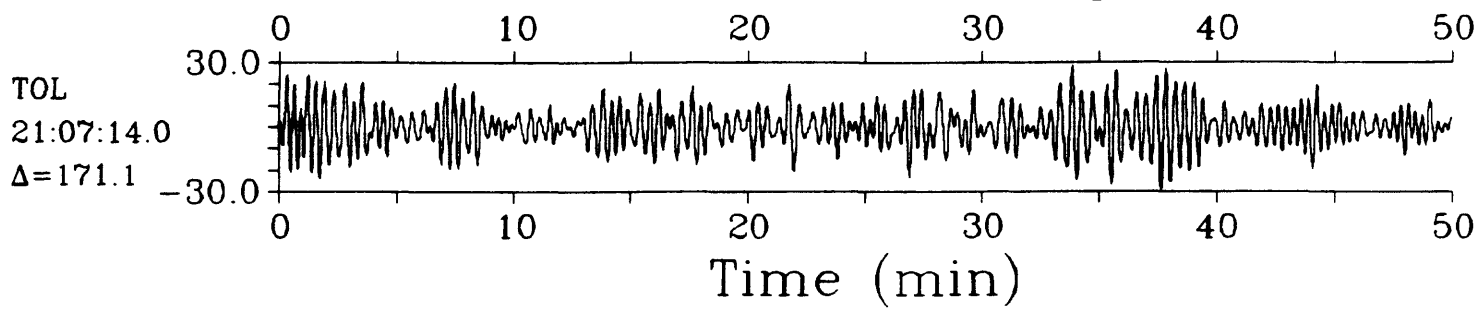
LPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

LPZ

14 August 1986 20:48:08.72

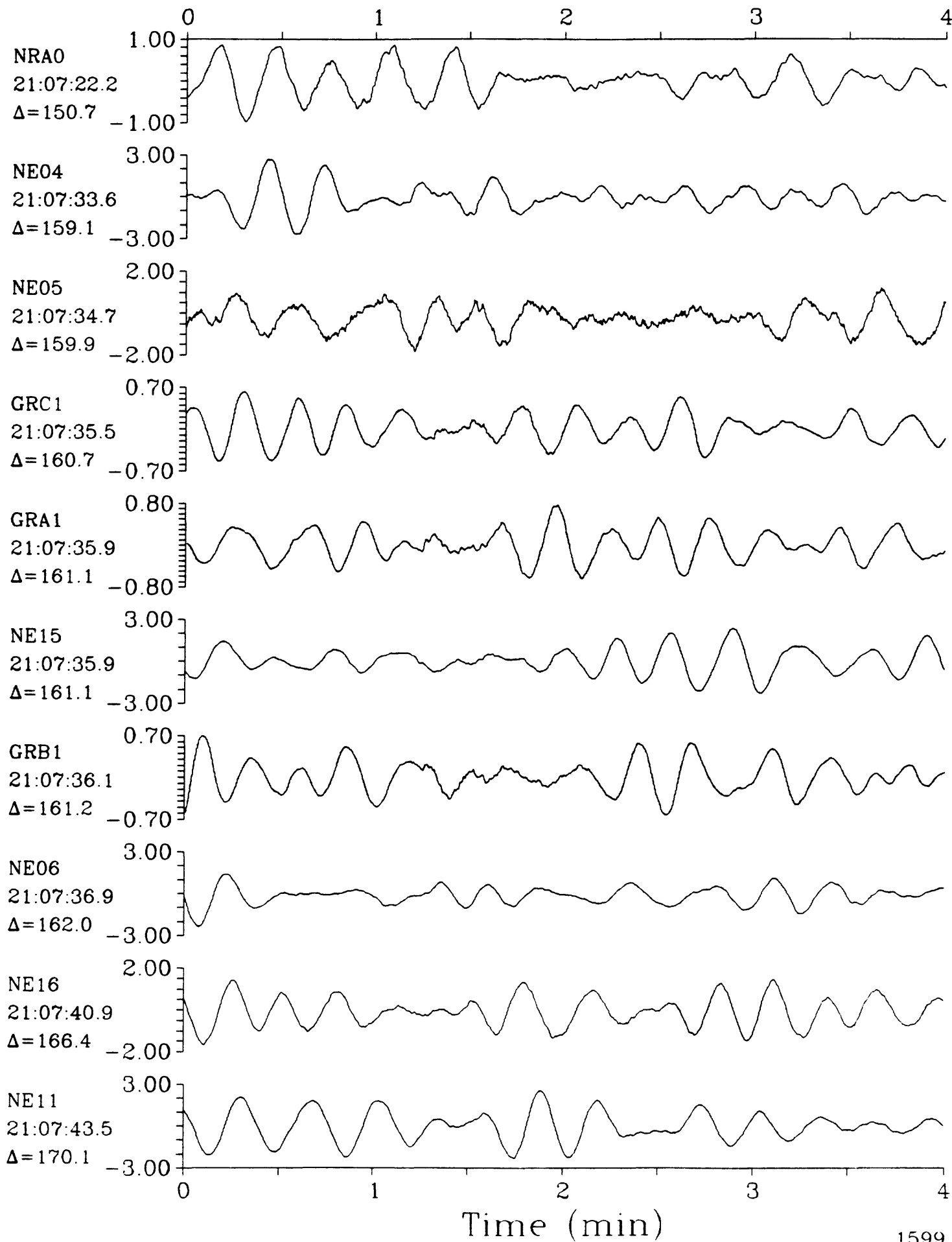
LPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

IPZ

14 August 1986 20:48:08.72

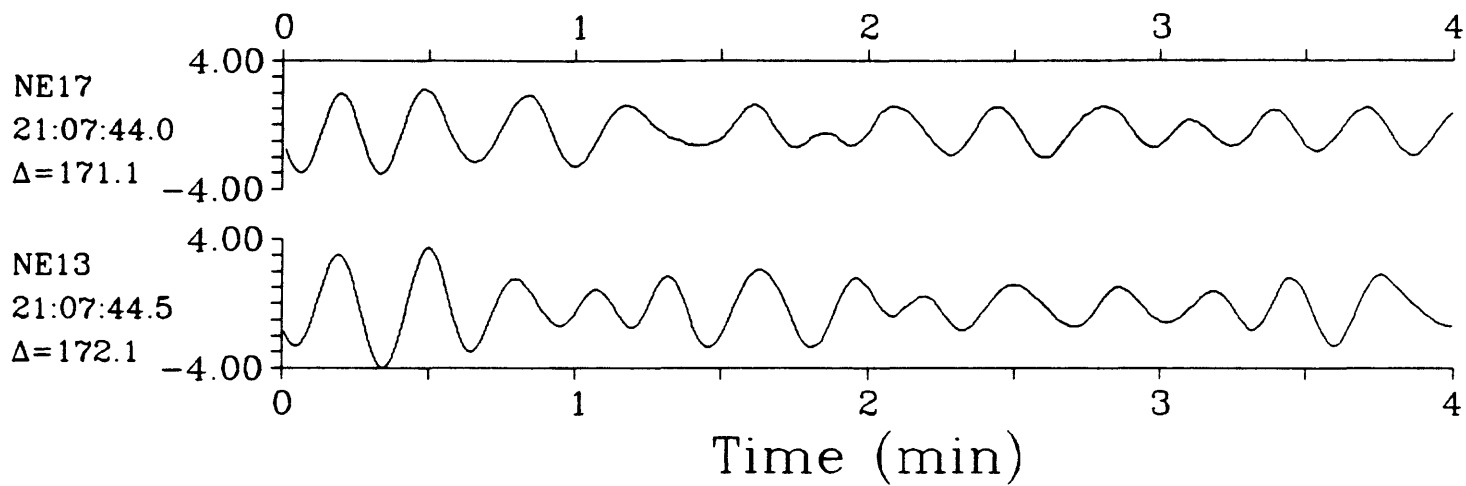
IPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

IPZ

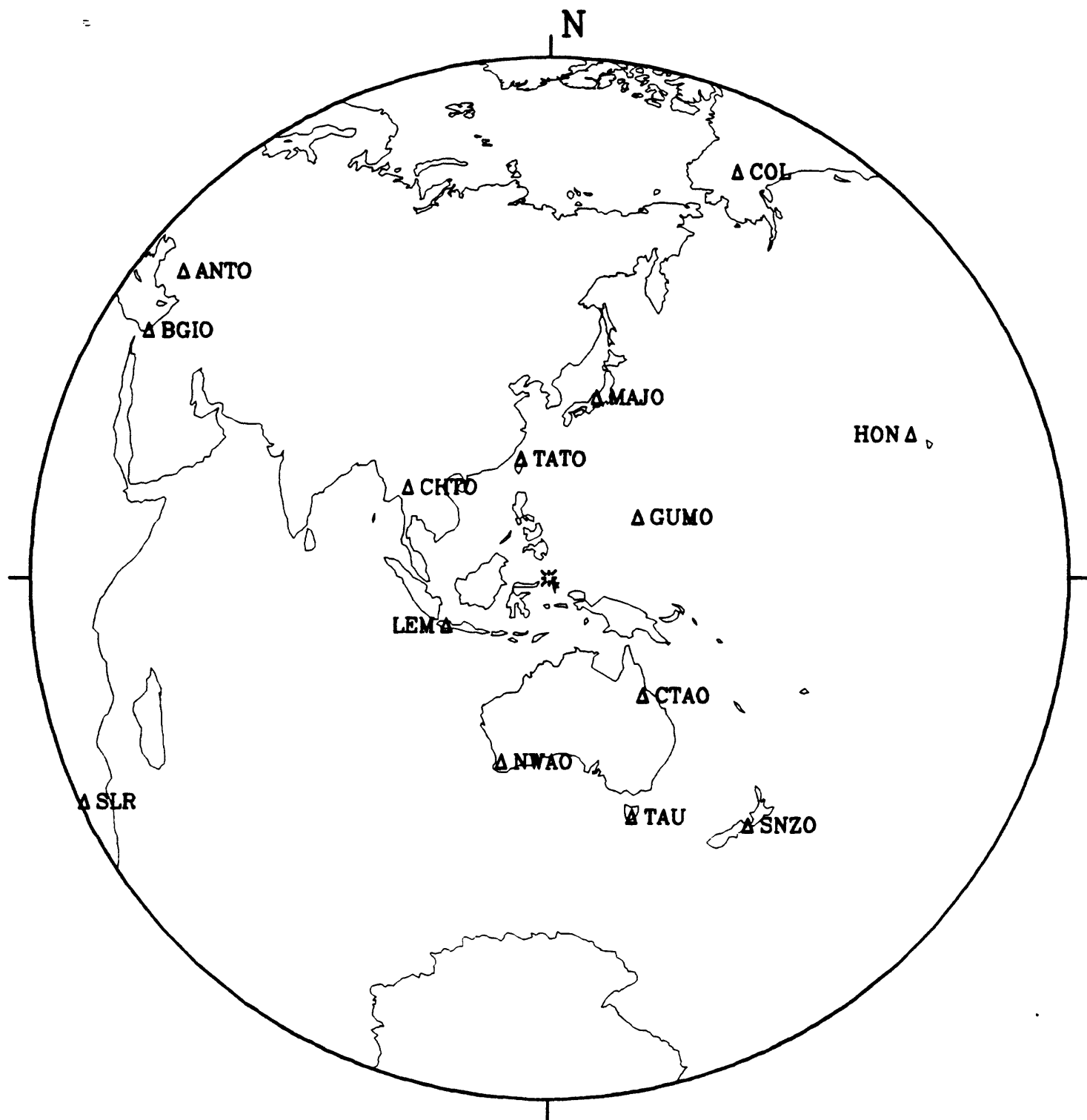
14 August 1986 20:48:08.72

IPZ

South of Kermadec Islands $h=33.0$ $m_b=5.8$ 

14 August 1986 22:55:07.17

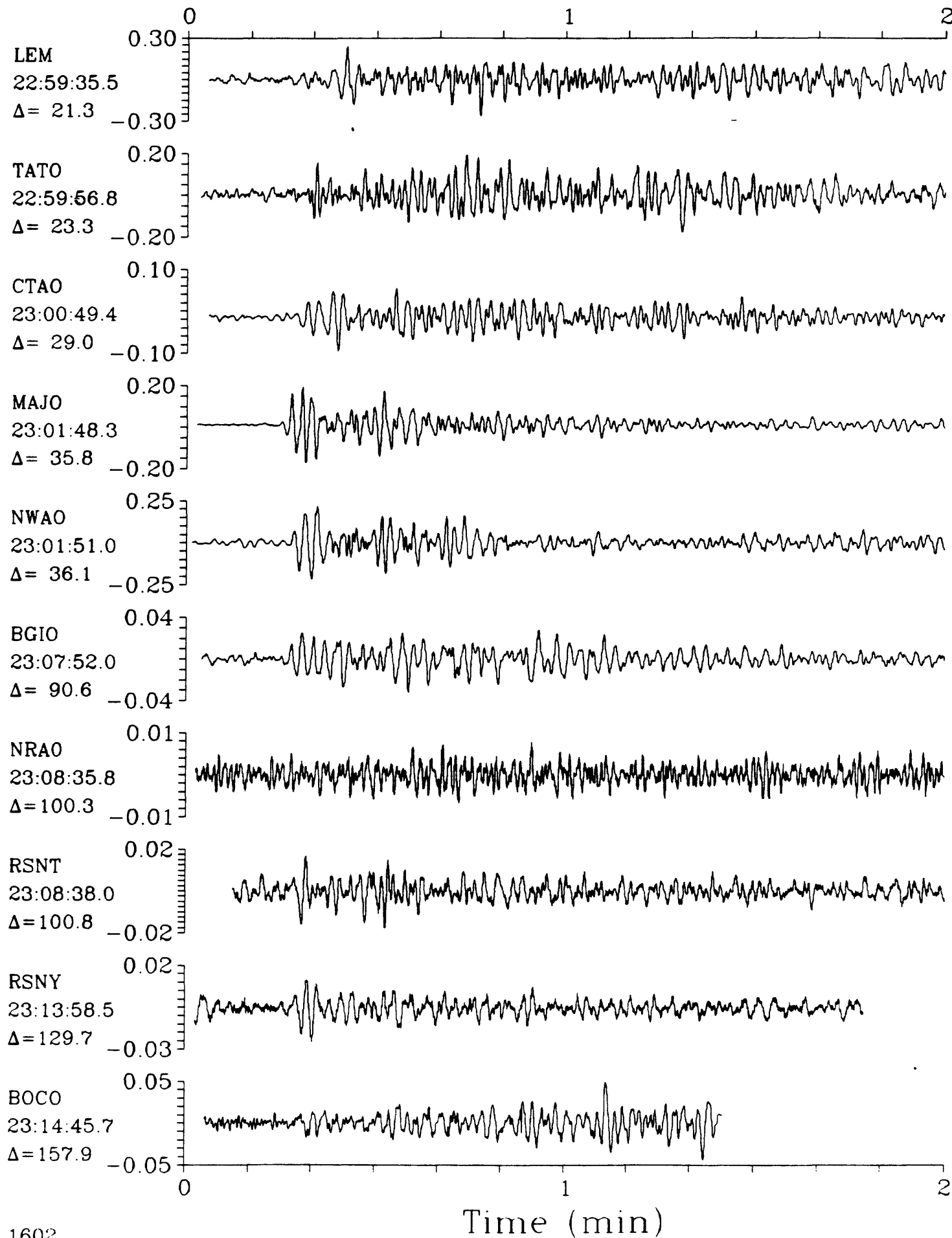
Molucca Passage



SPZ

14 August 1986 22:55:07.17

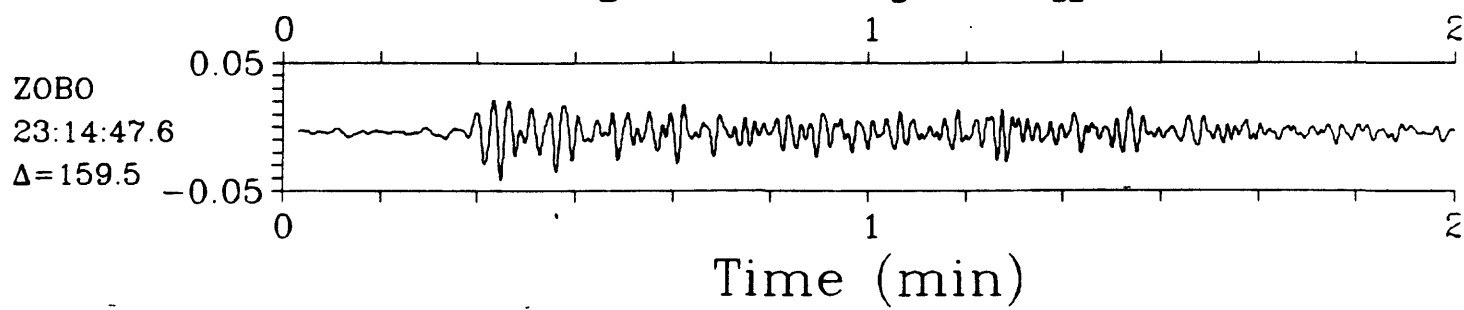
SPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{SZ}=5.9$ 

SPZ

14 August 1986 22:55:07.17

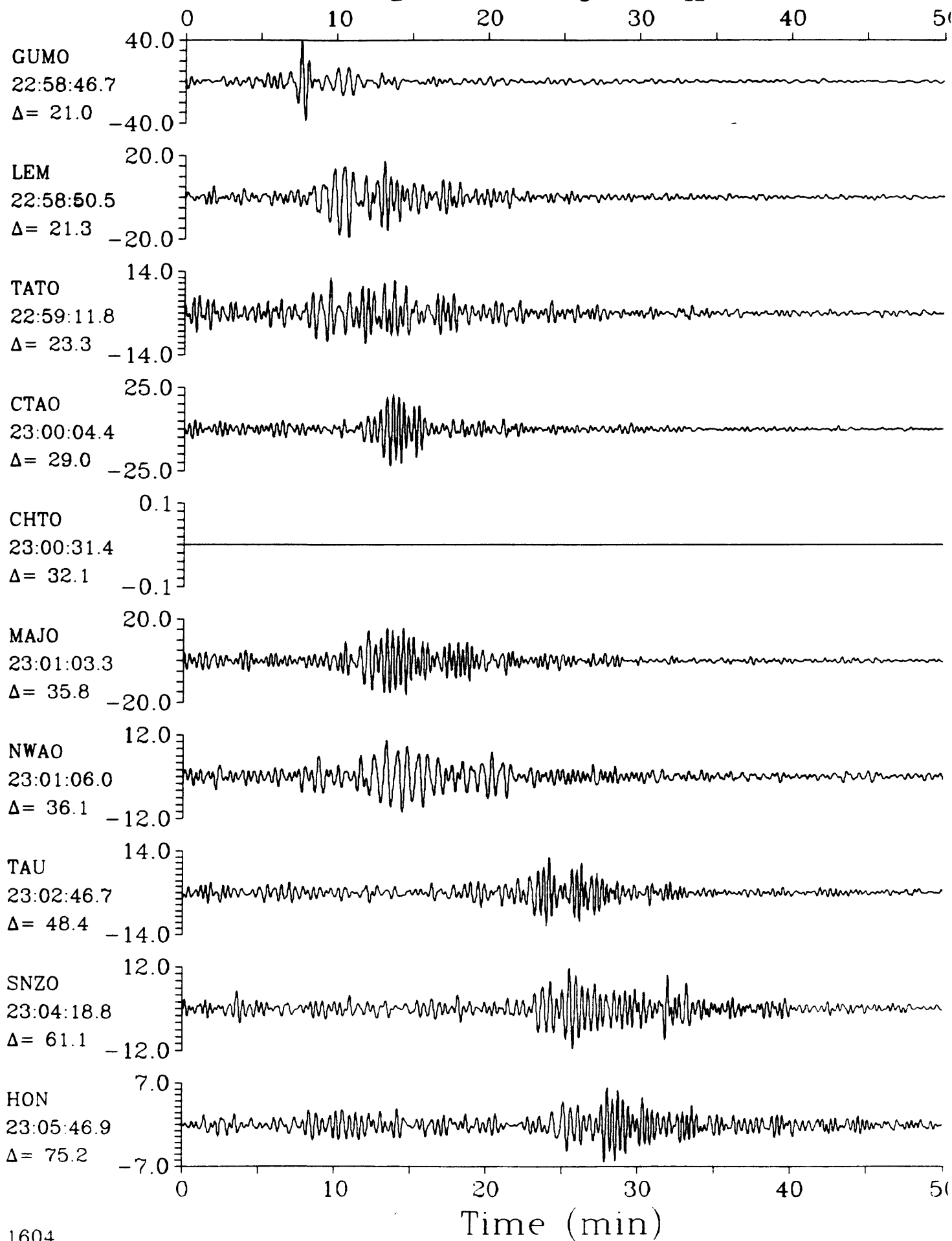
SPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.9$ 

LPZ

14 August 1986 22:55:07.17

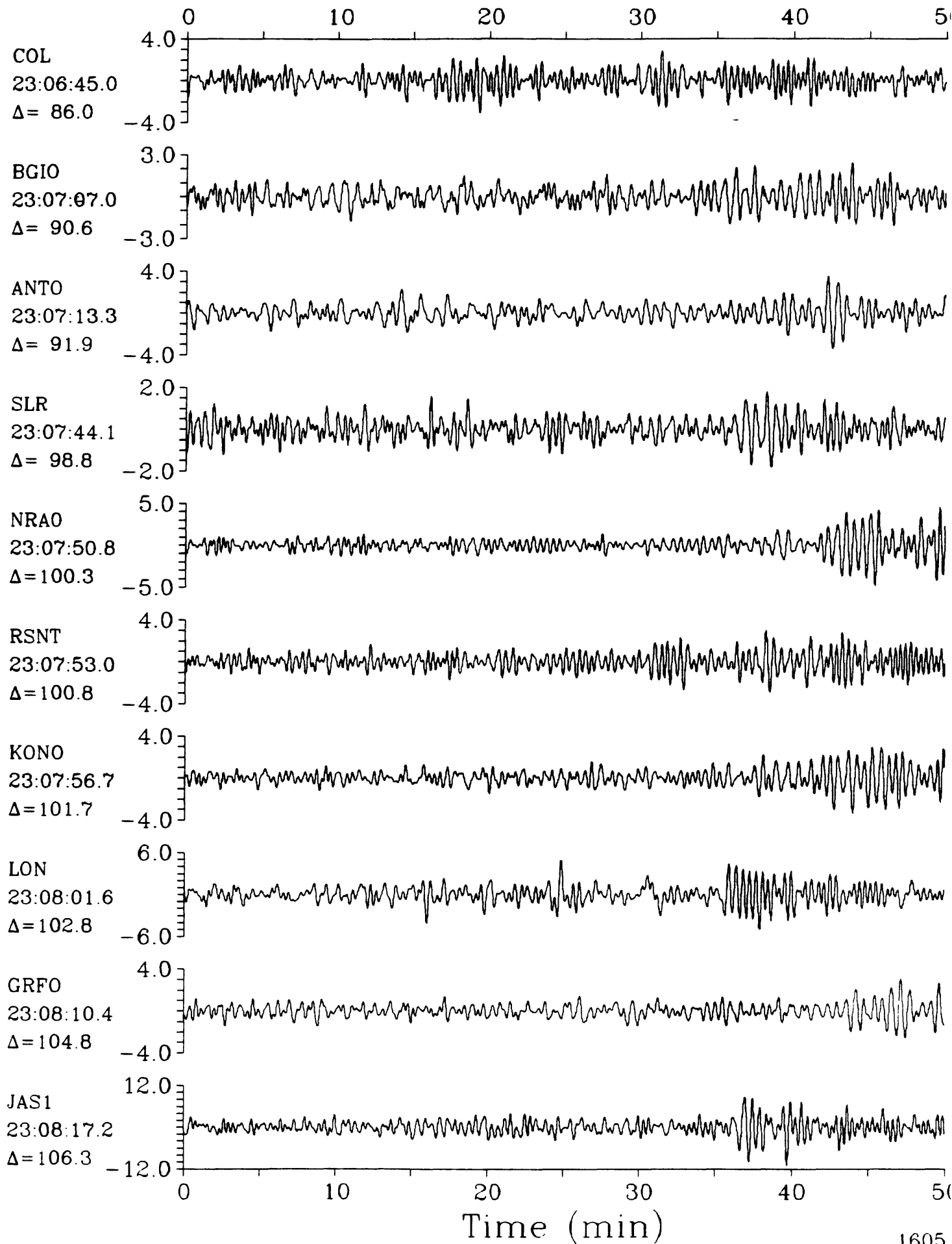
LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.9$ 

LPZ

14 August 1986 22:55:07.17

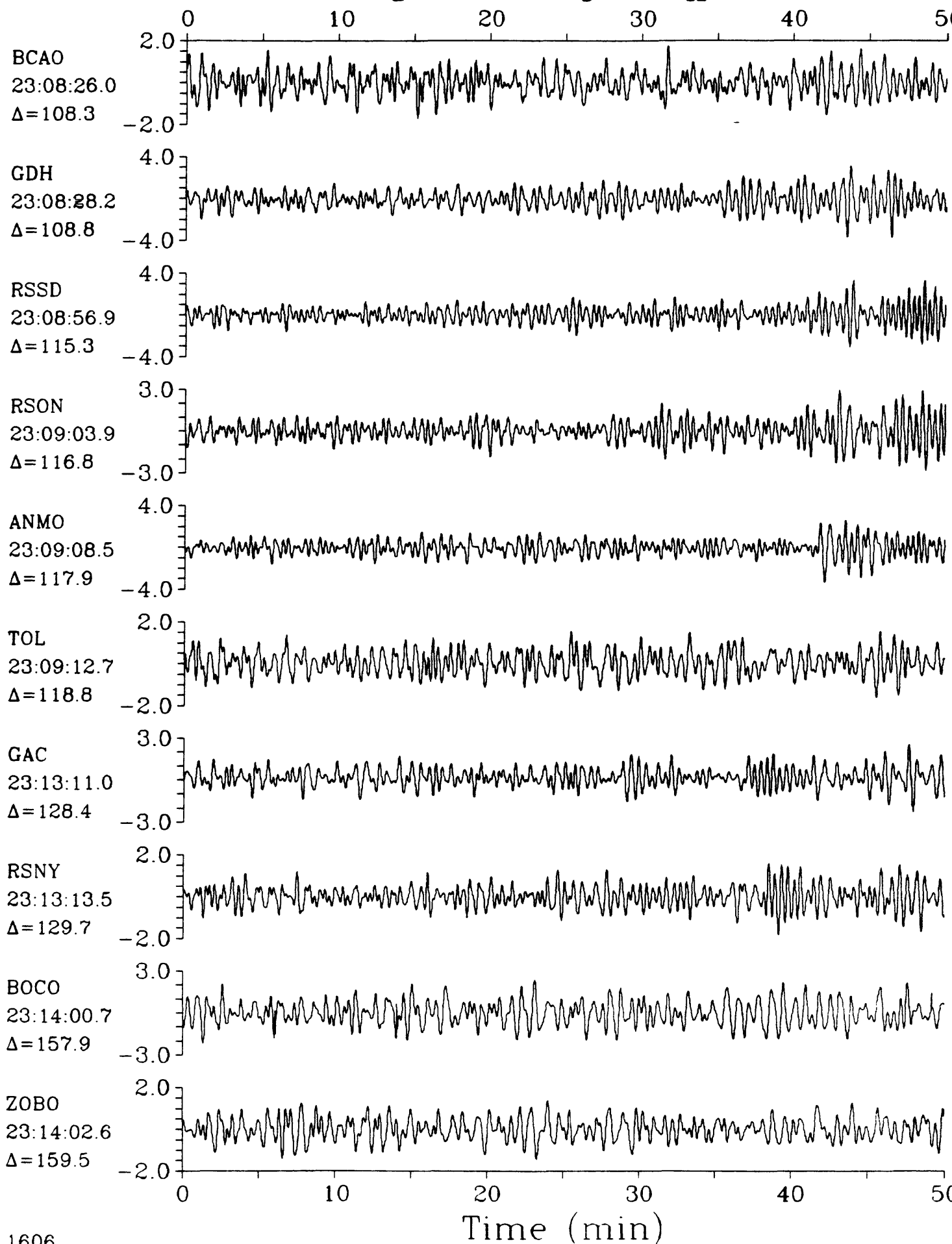
LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.9$ 

LPZ

14 August 1986 22:55:07.17

LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{SZ}=5.9$ 

LPZ

14 August 1986 22:55:07.17

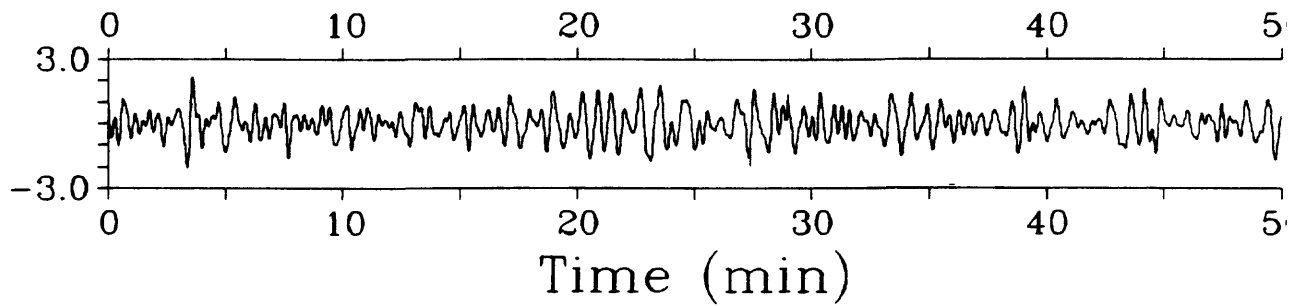
LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.9$

BDF

23:14:08.8

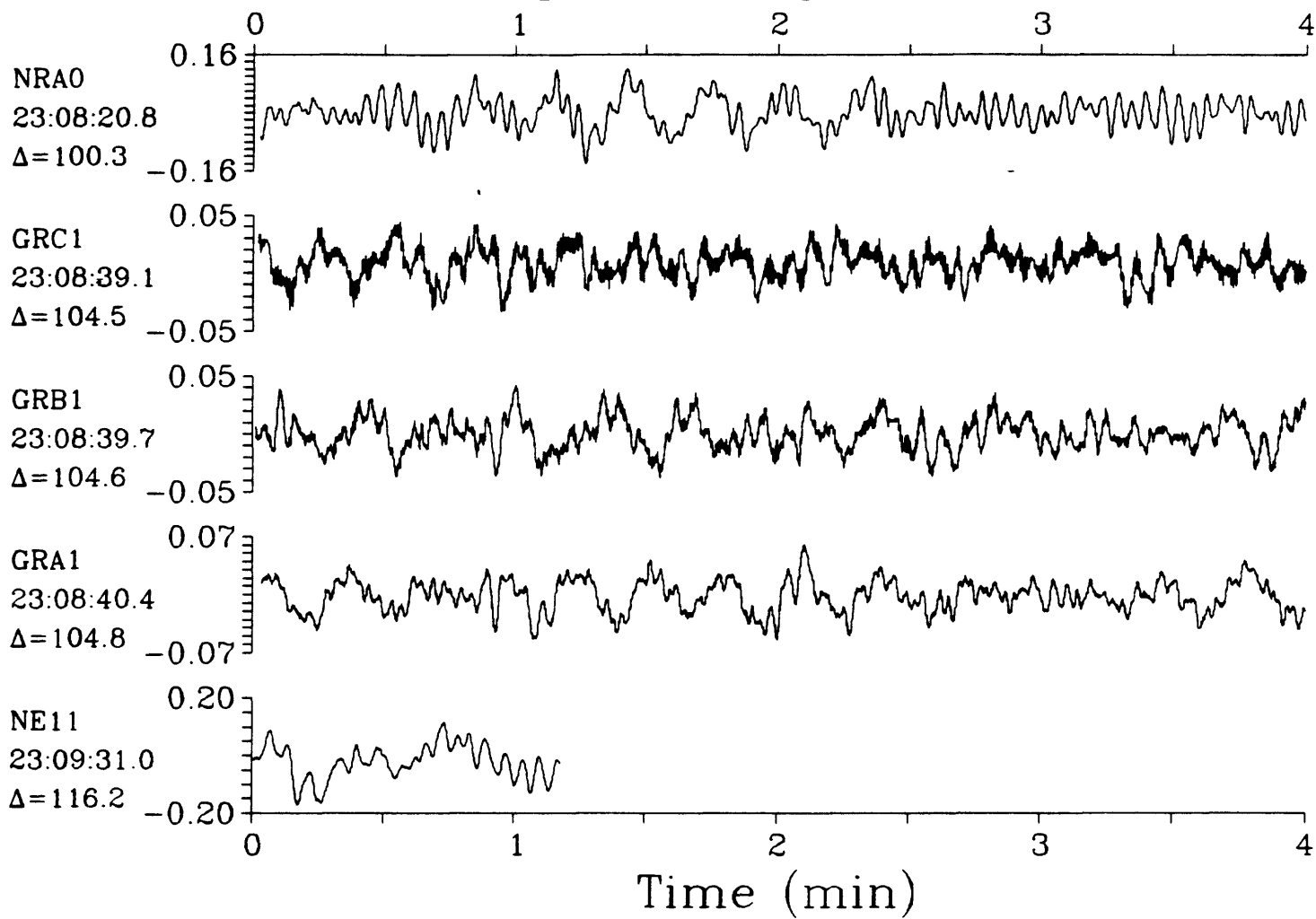
$\Delta=165.7$



IPZ

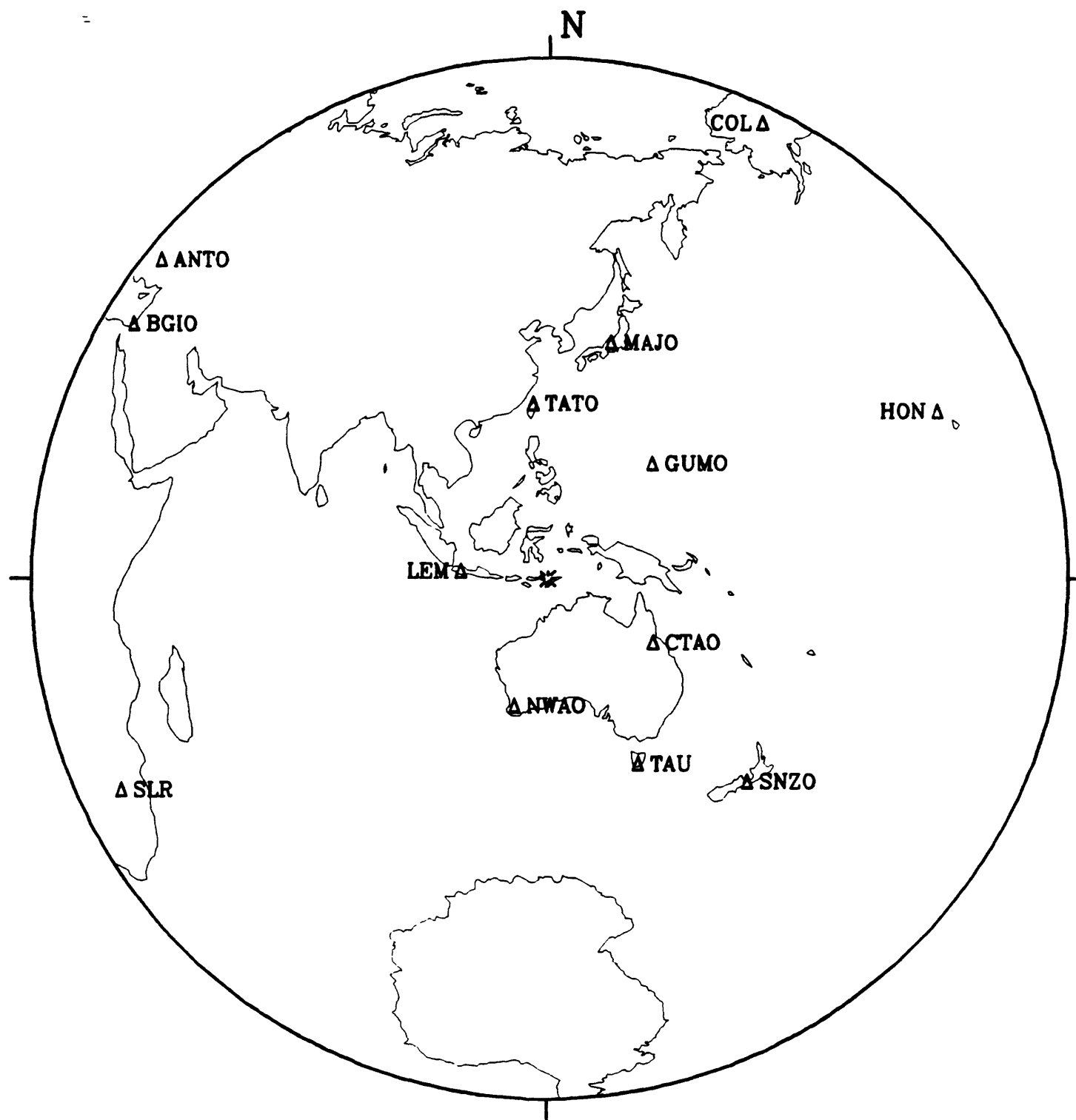
14 August 1986 22:55:07.17

IPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.9$ 

15 August 1986 00:41:19.77

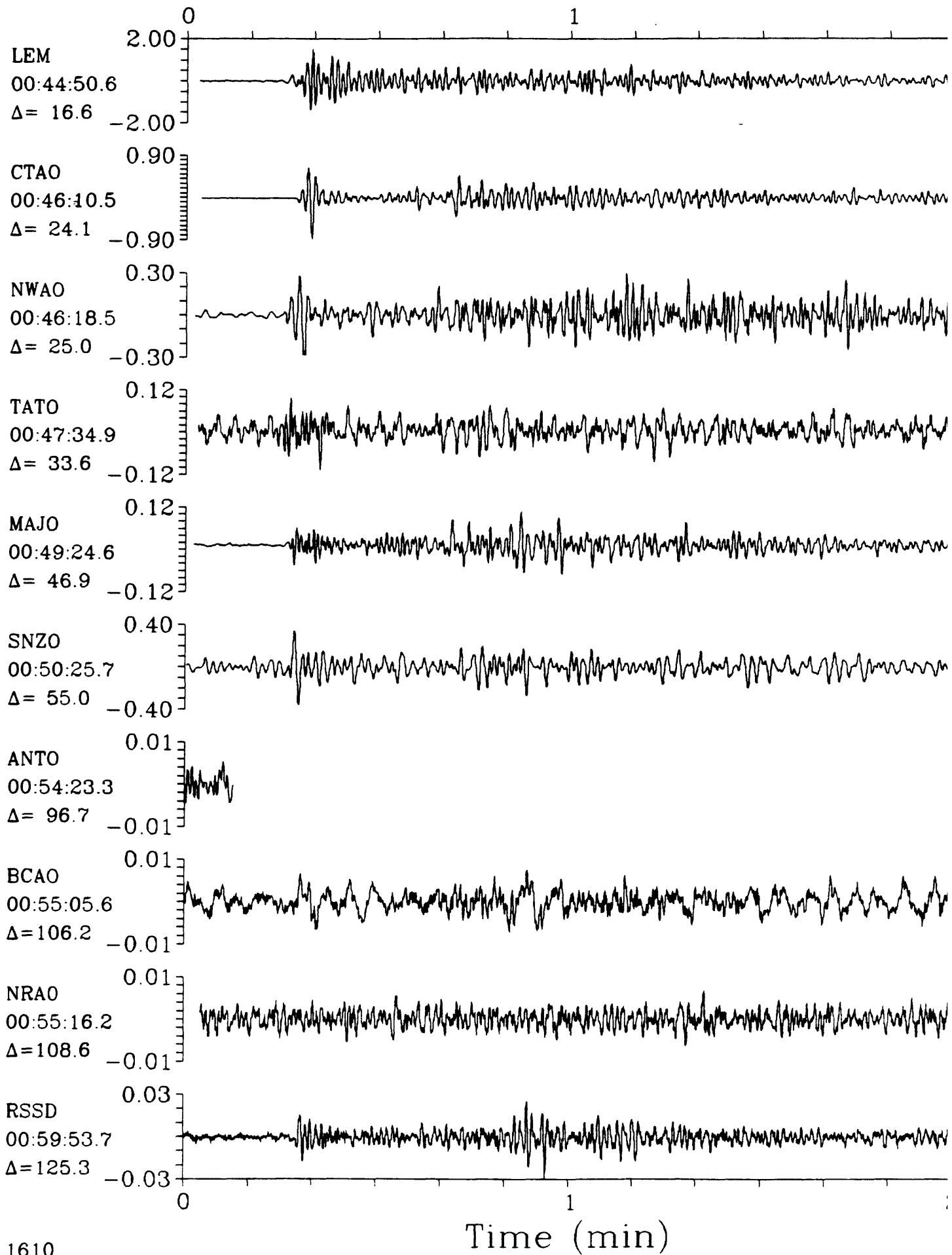
Timor



SPZ

15 August 1986 00:41:19.77

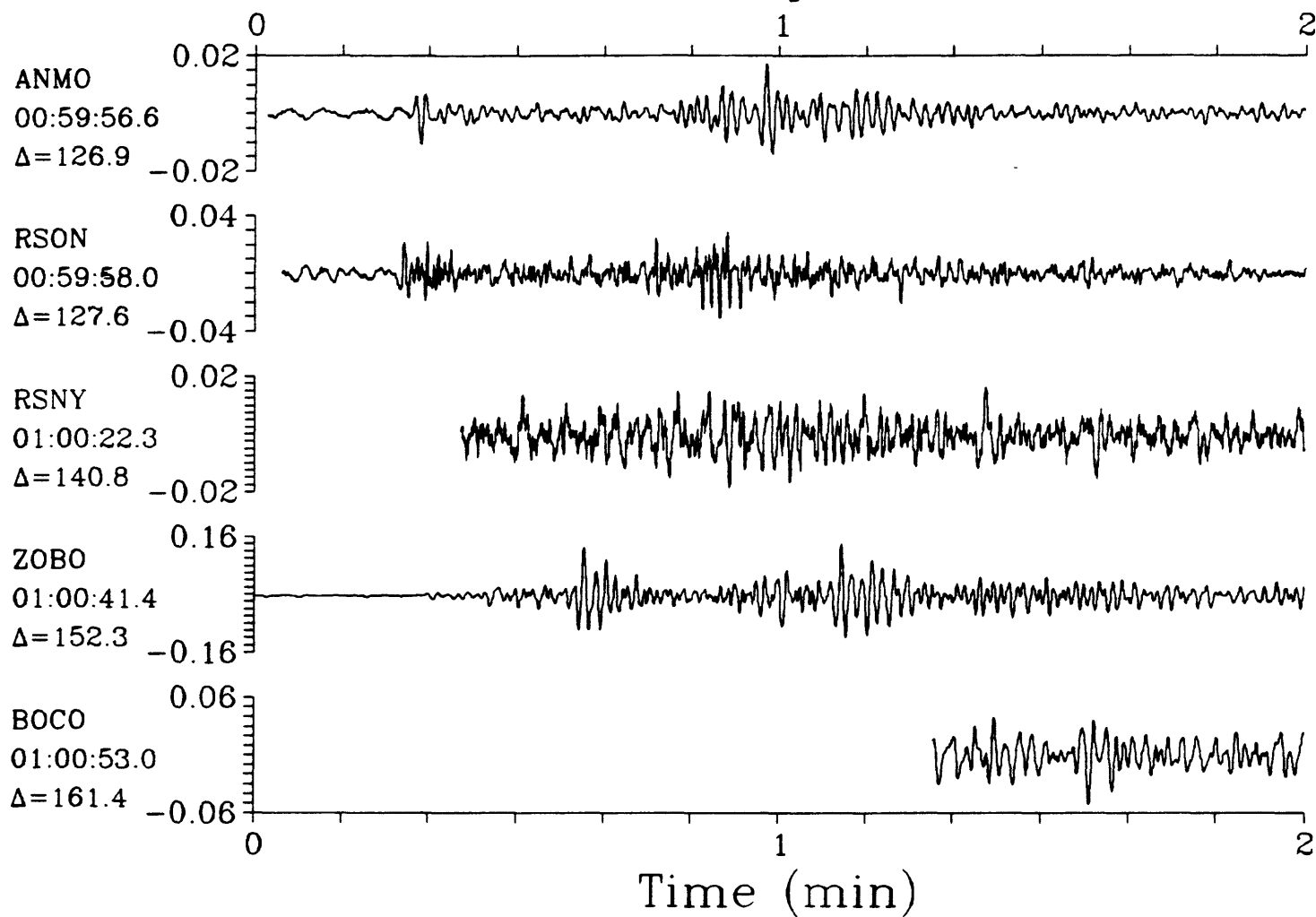
SPZ

Timor $h=106.8$ $m_b=5.8$ 

SPZ

15 August 1986 00:41:19.77

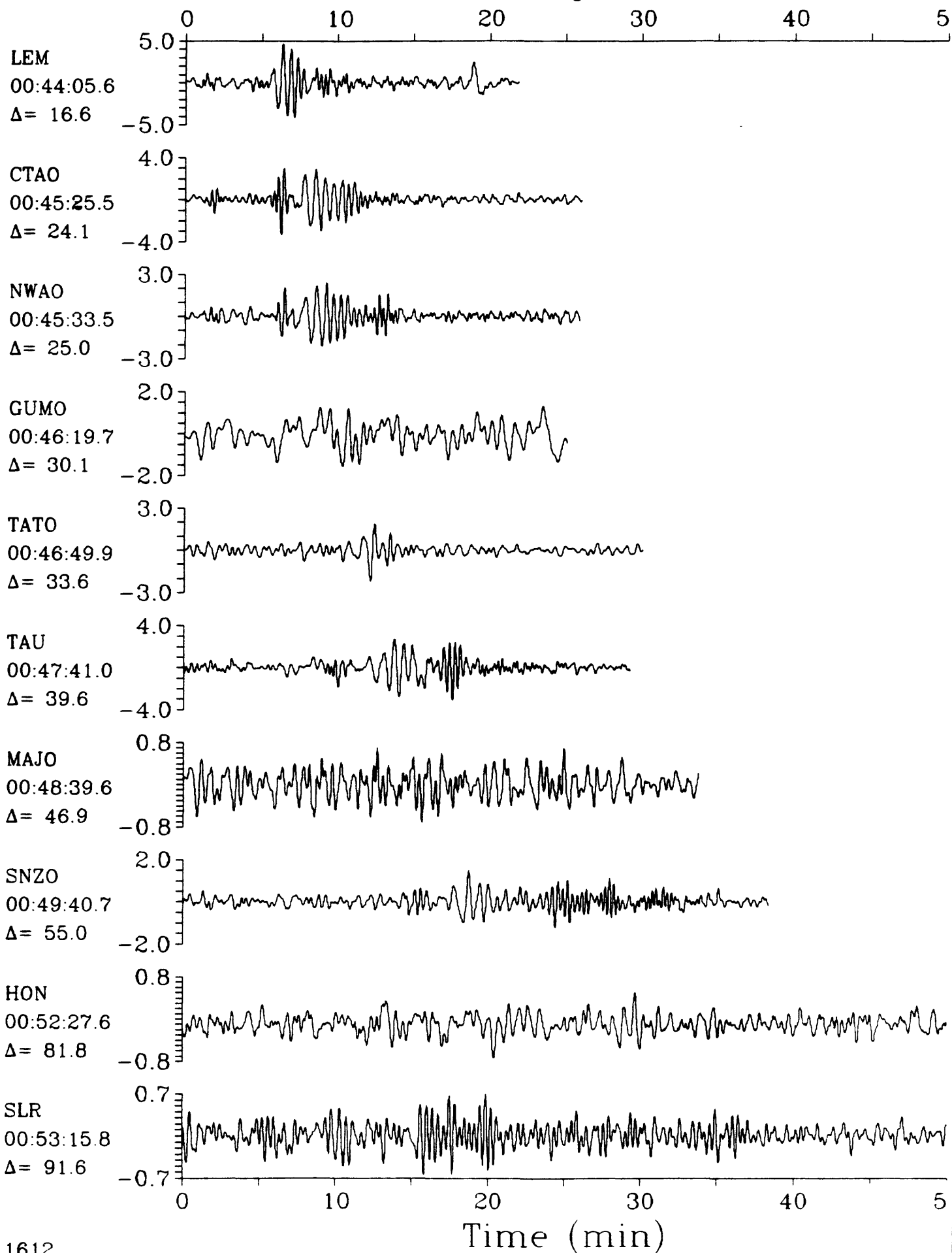
SPZ

Timor $h=106.8$ $m_b=5.8$ 

LPZ

15 August 1986 00:41:19.77

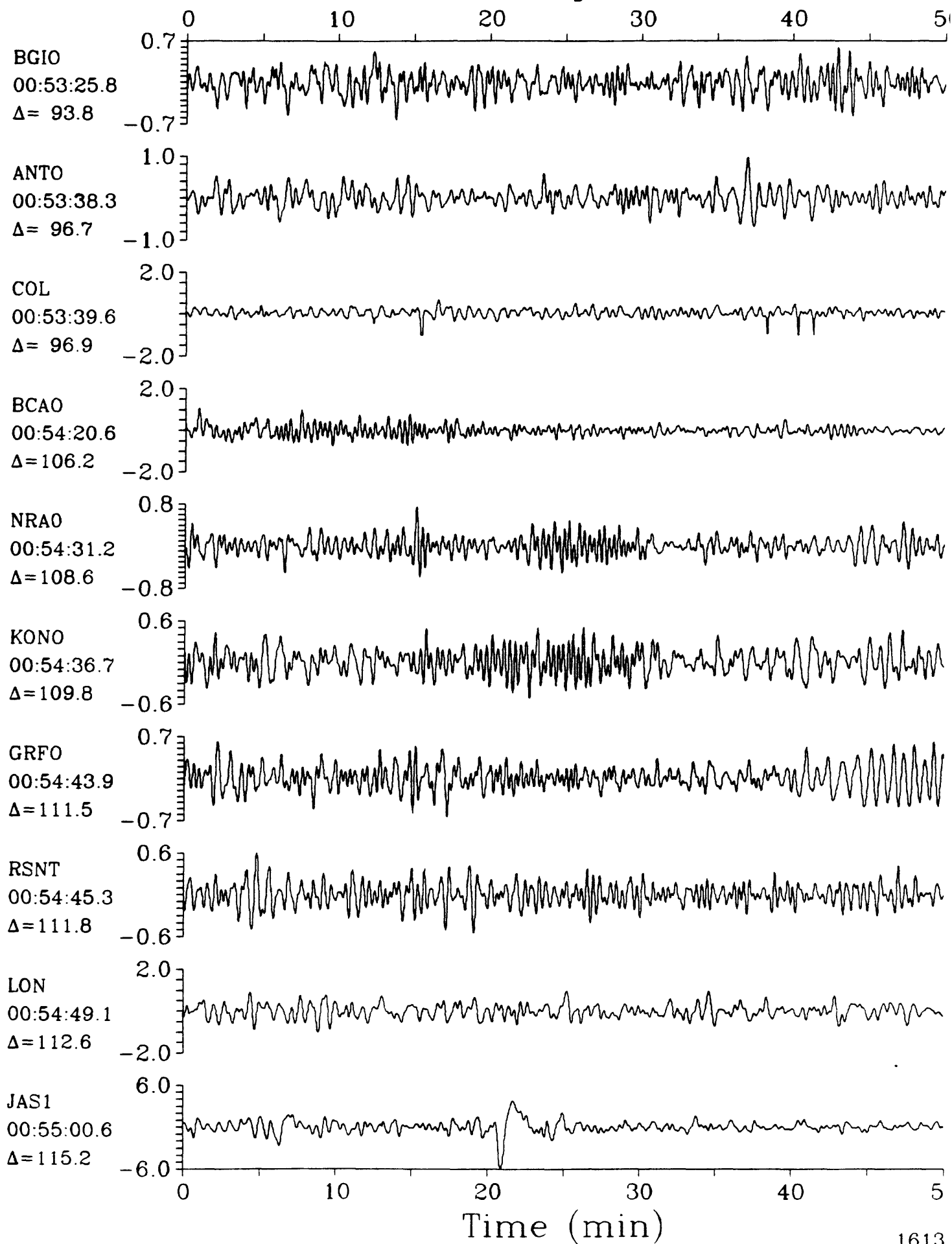
LPZ

Timor $h=106.8$ $m_b=5.8$ 

LPZ

15 August 1986 00:41:19.77

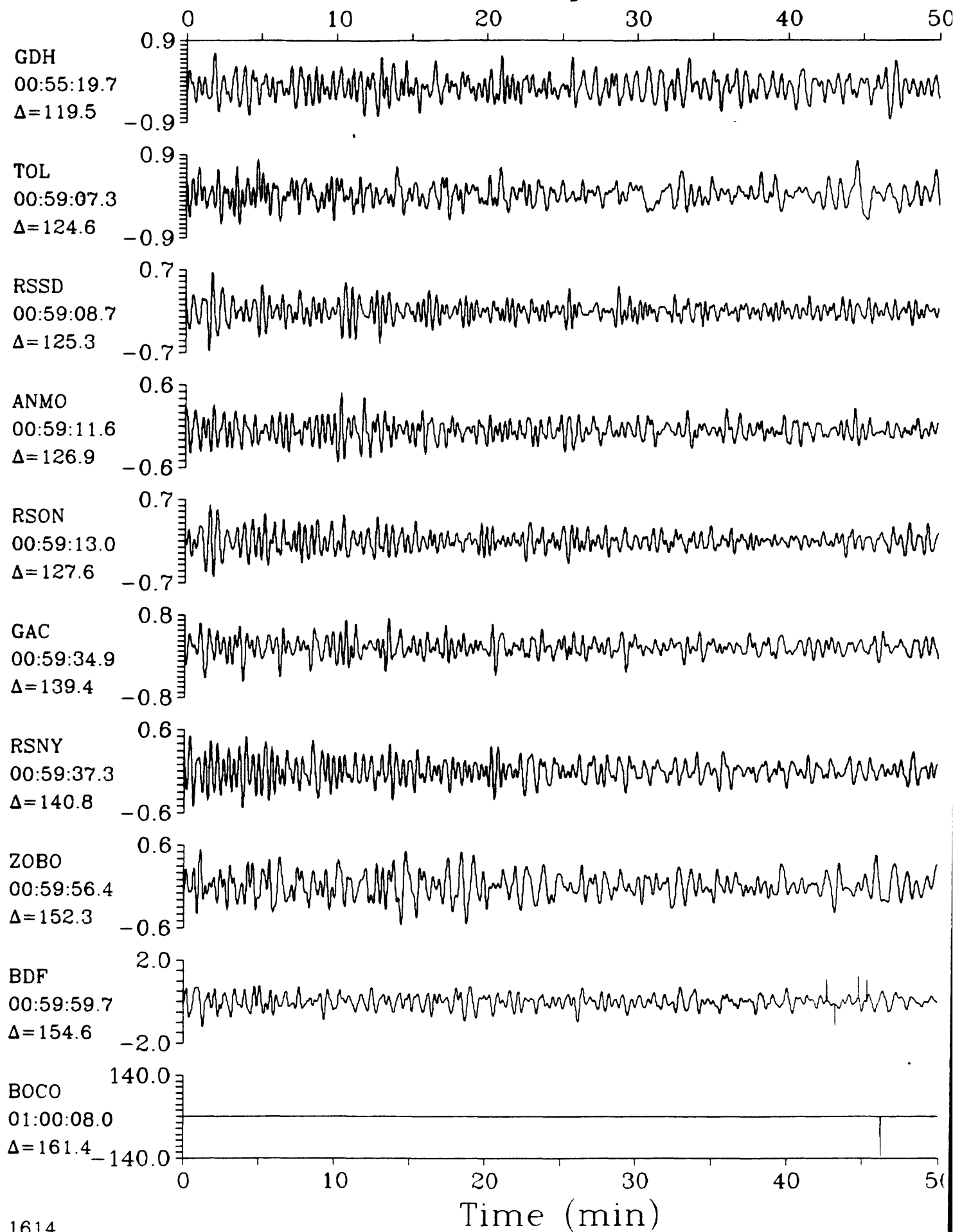
LPZ

Timor $h=106.8$ $m_b=5.8$ 

LPZ

15 August 1986 00:41:19.77

LPZ

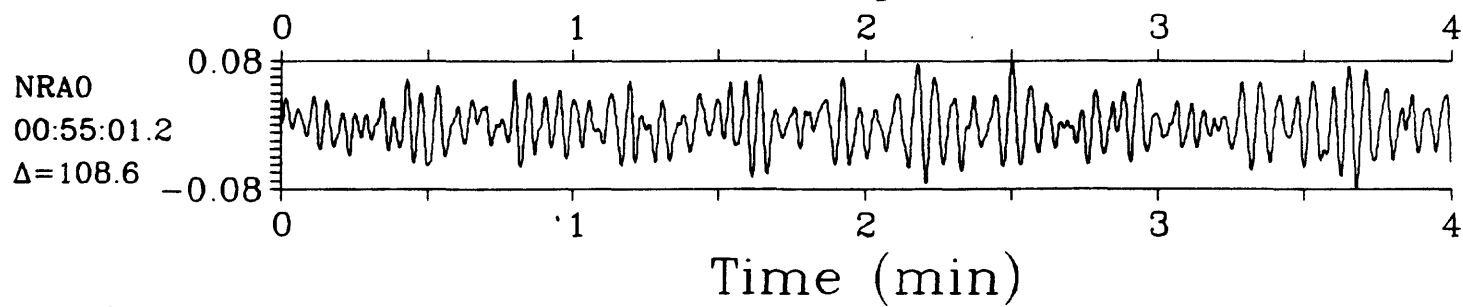
Timor $h=106.8$ $m_b=5.8$ 

IPZ

15 August 1986 00:41:19.77

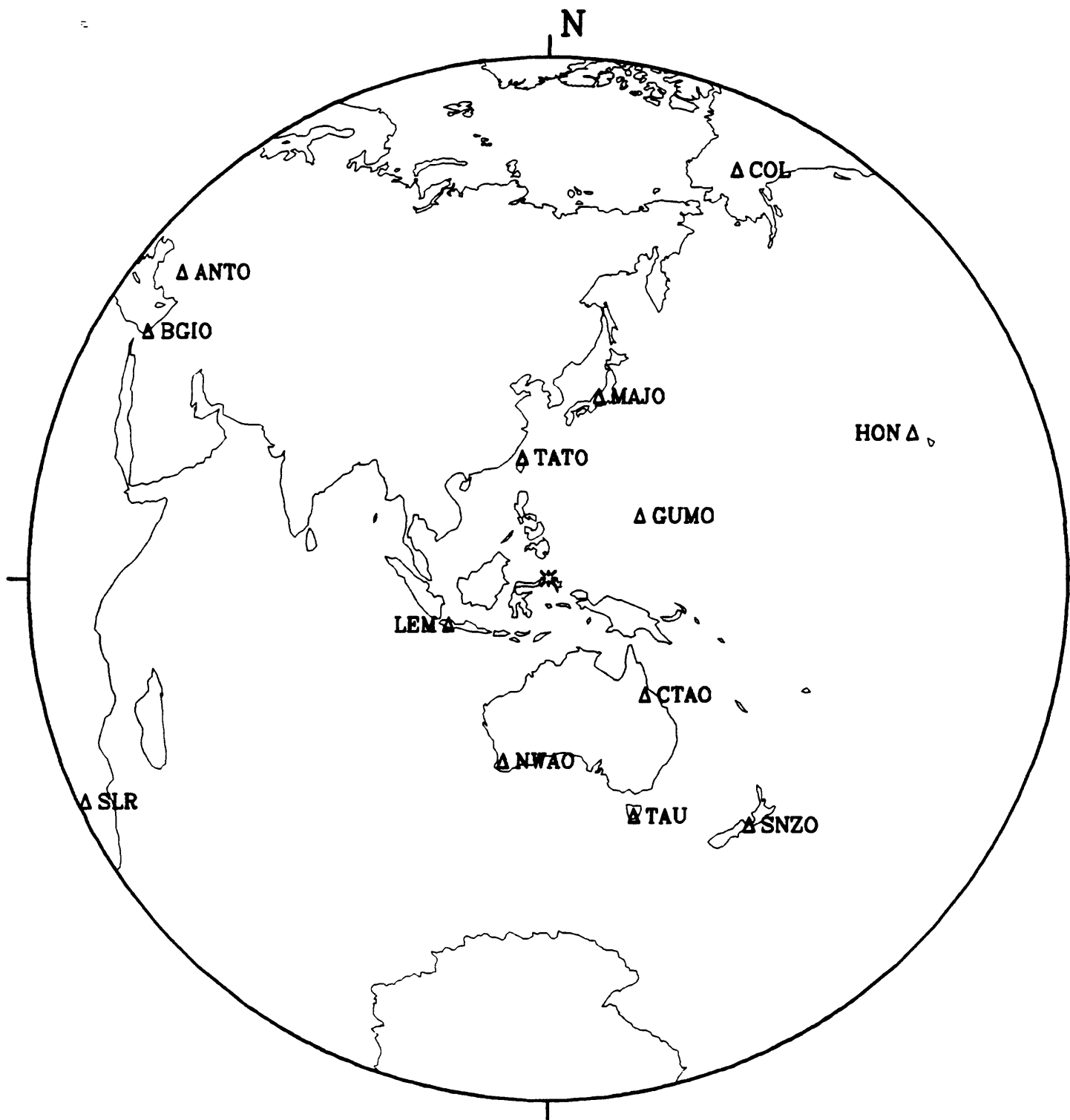
IPZ

Timor $h=106.8$ $m_b=5.8$



15 August 1986 07:40:44.34

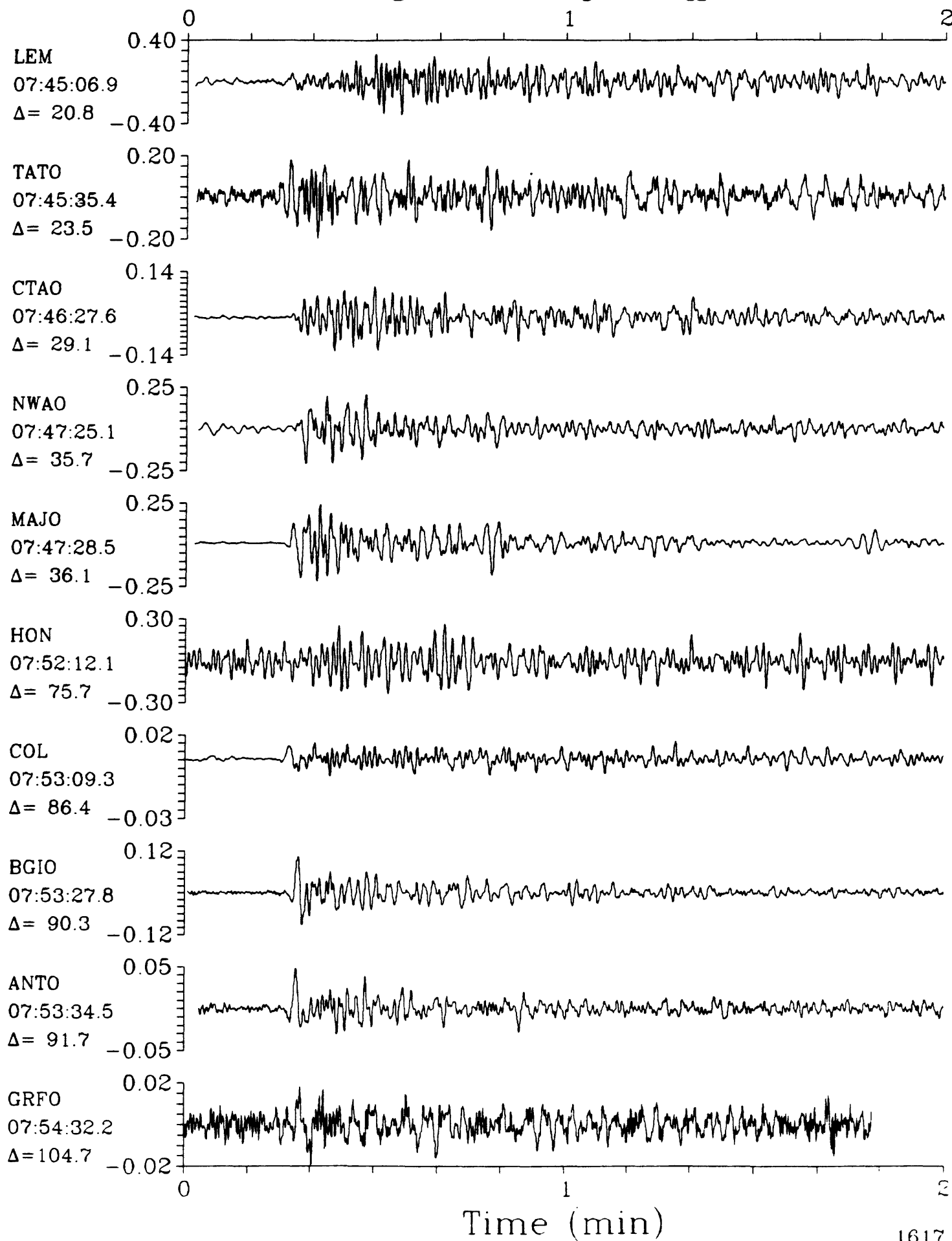
Molucca Passage



SPZ

15 August 1986 07:40:44.34

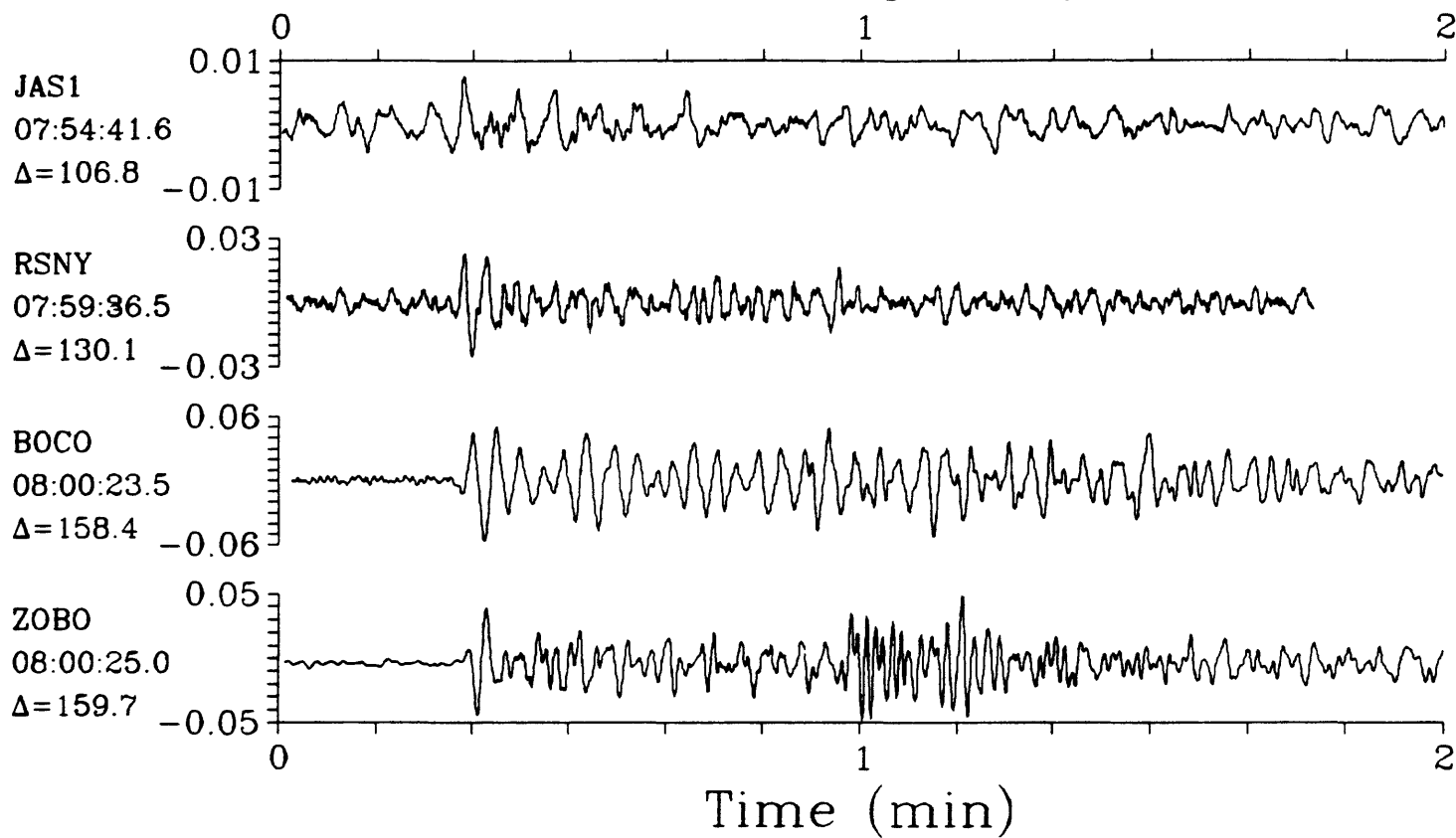
SPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.8$ 

SPZ

15 August 1986 07:40:44.34

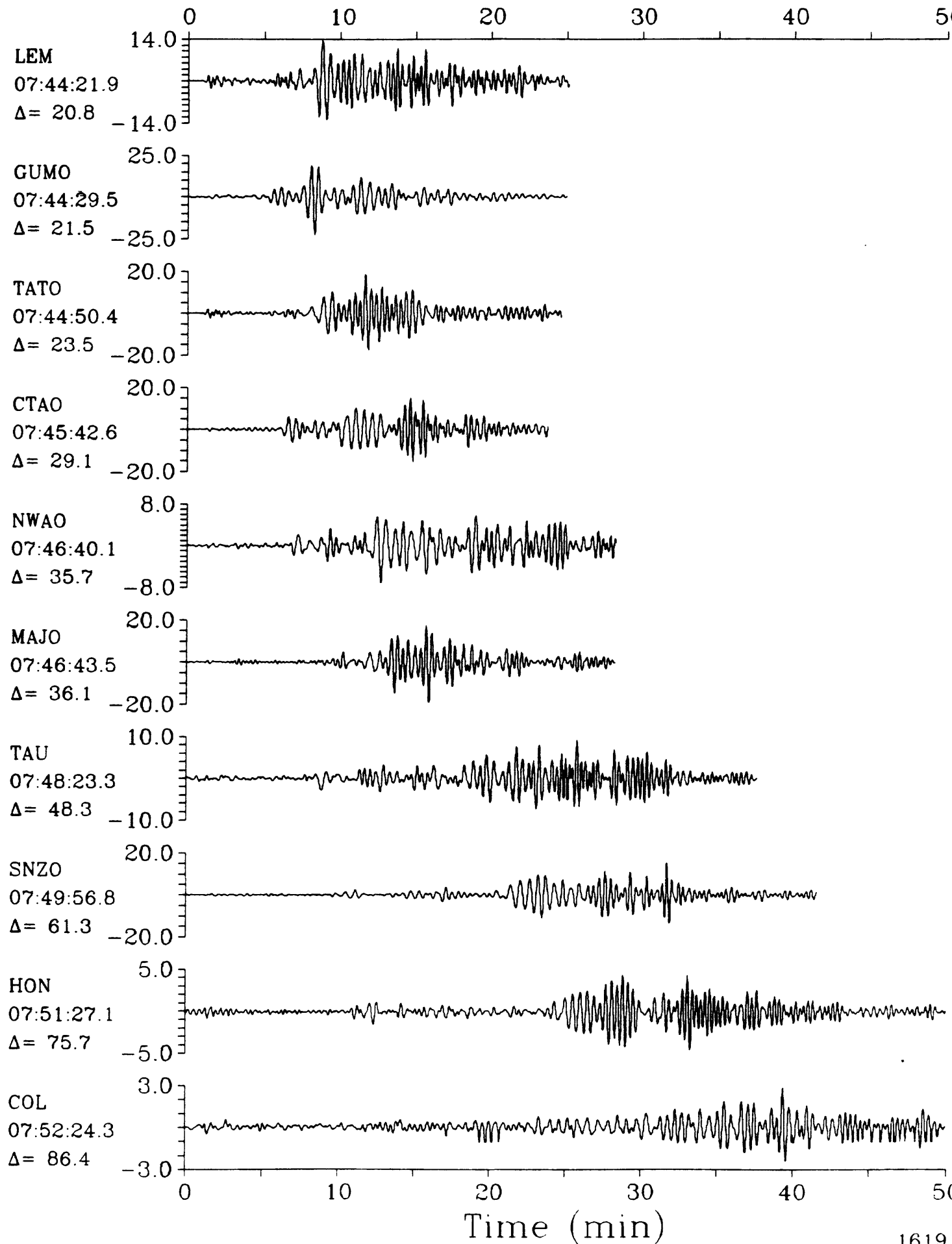
SPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.8$ 

LPZ

15 August 1986 07:40:44.34
Molucca Passage $h=33.0$ $m_b=5.6$ $M_{SZ}=5.8$

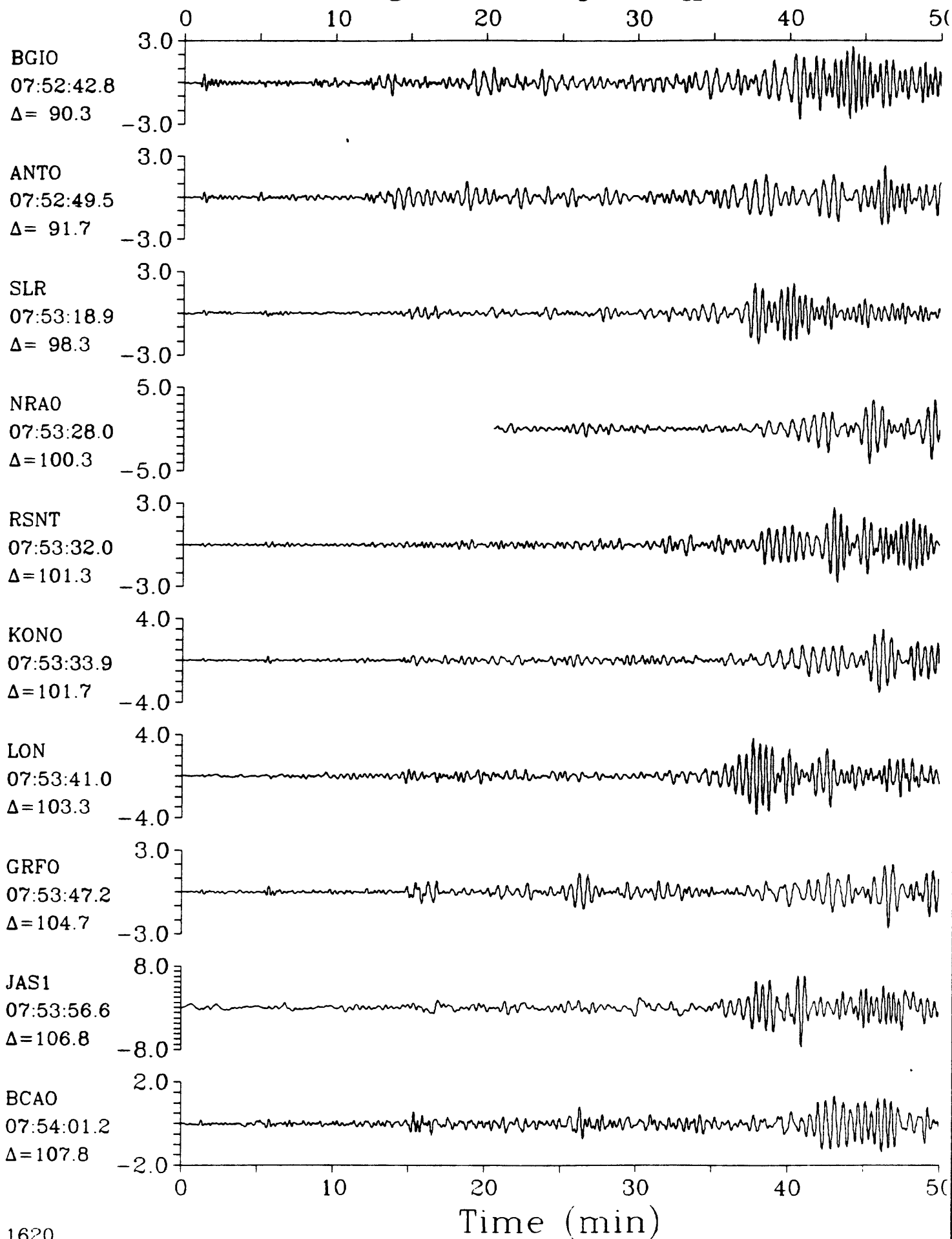
LPZ



LPZ

15 August 1986 07:40:44.34

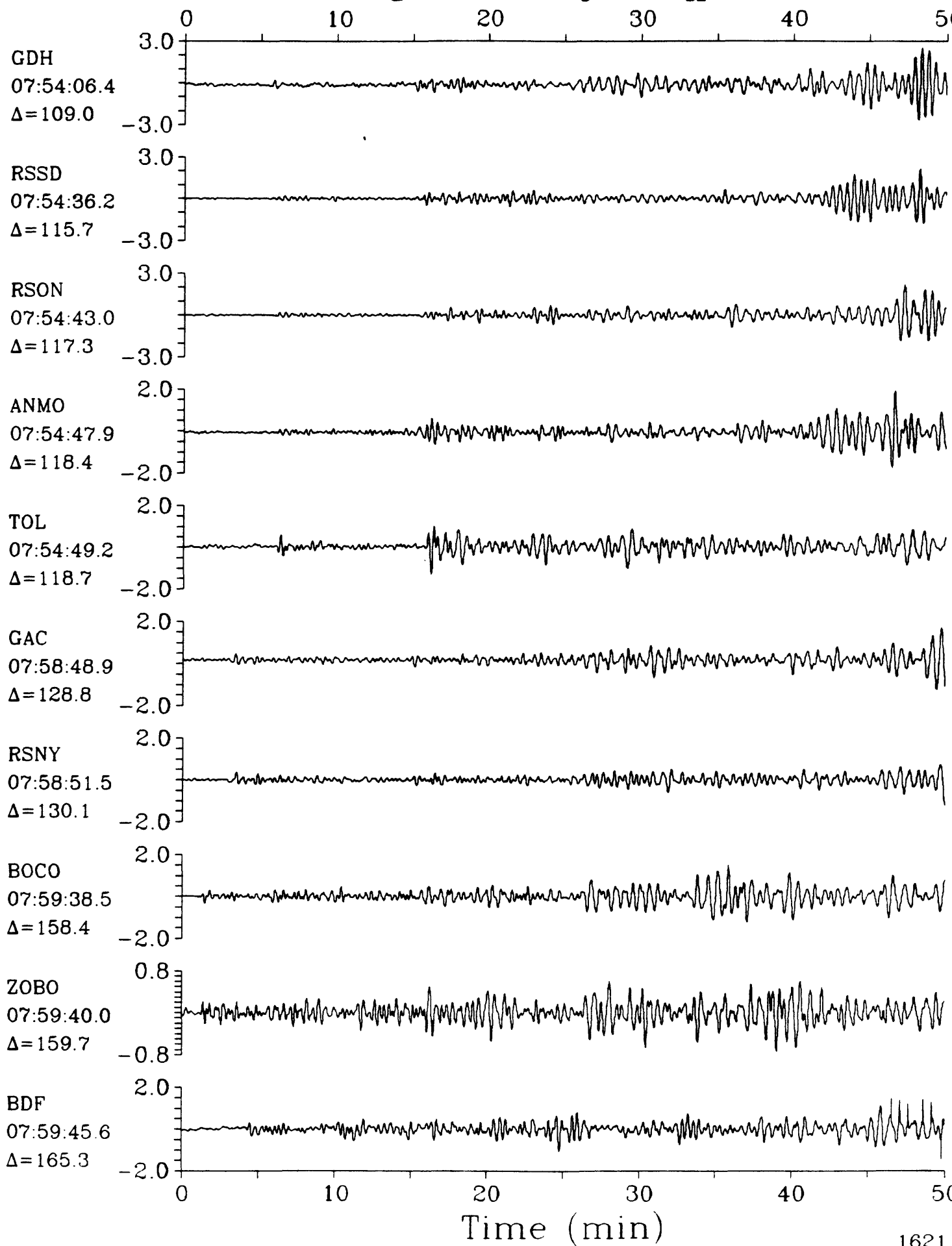
LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.8$ 

LPZ

15 August 1986 07:40:44.34

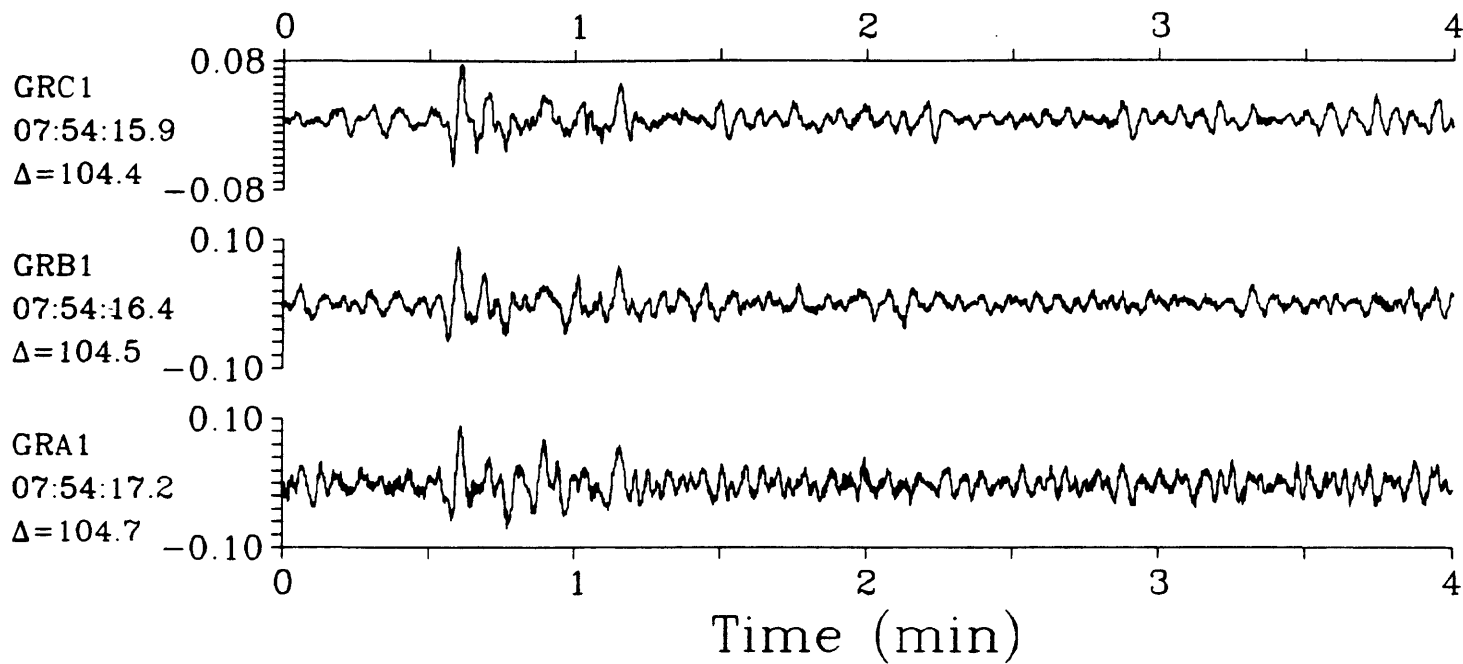
LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.8$ 

IPZ

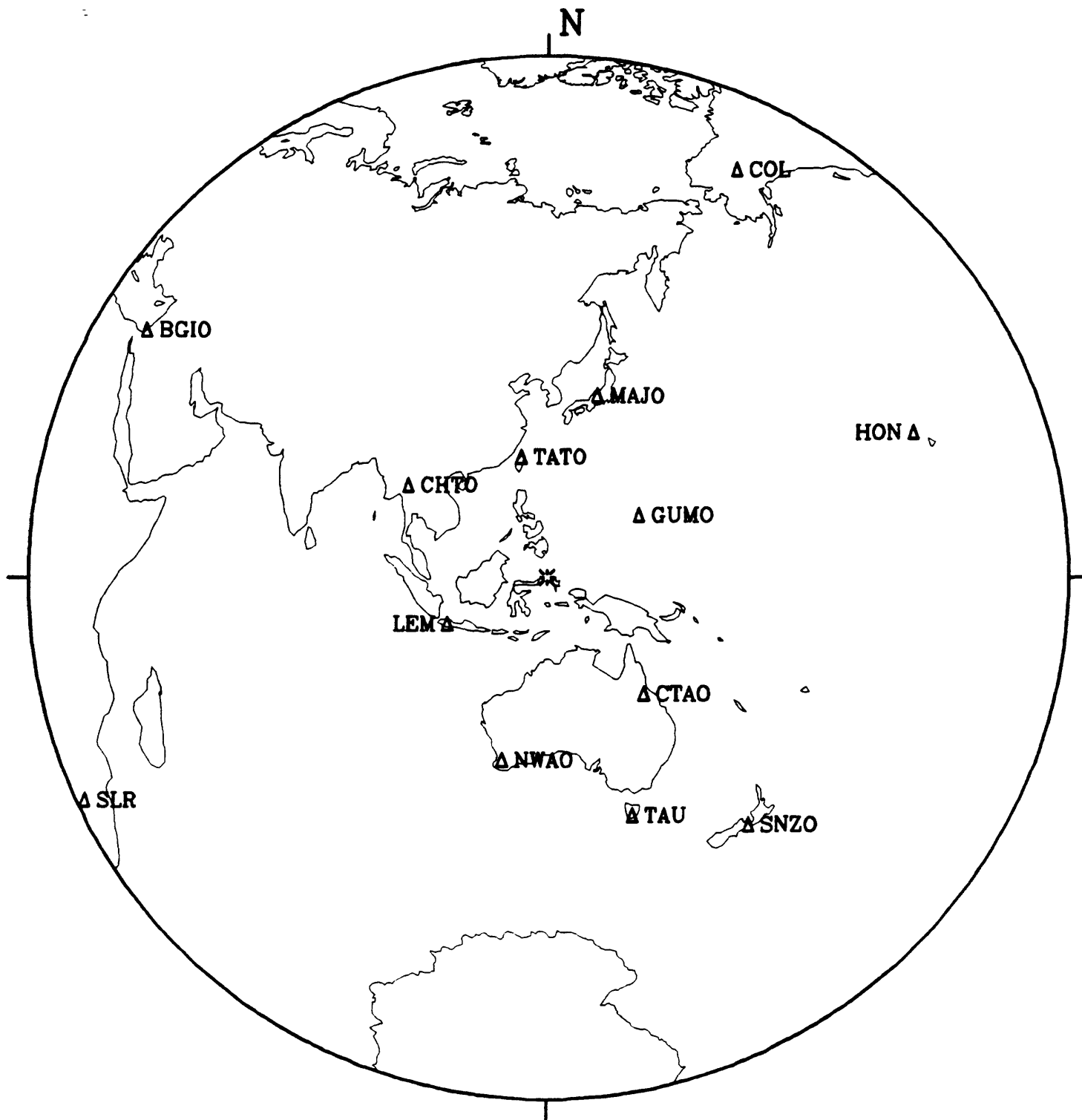
15 August 1986 07:40:44.34

IPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{SZ}=5.8$ 

16 August 1986 17:19:23.06

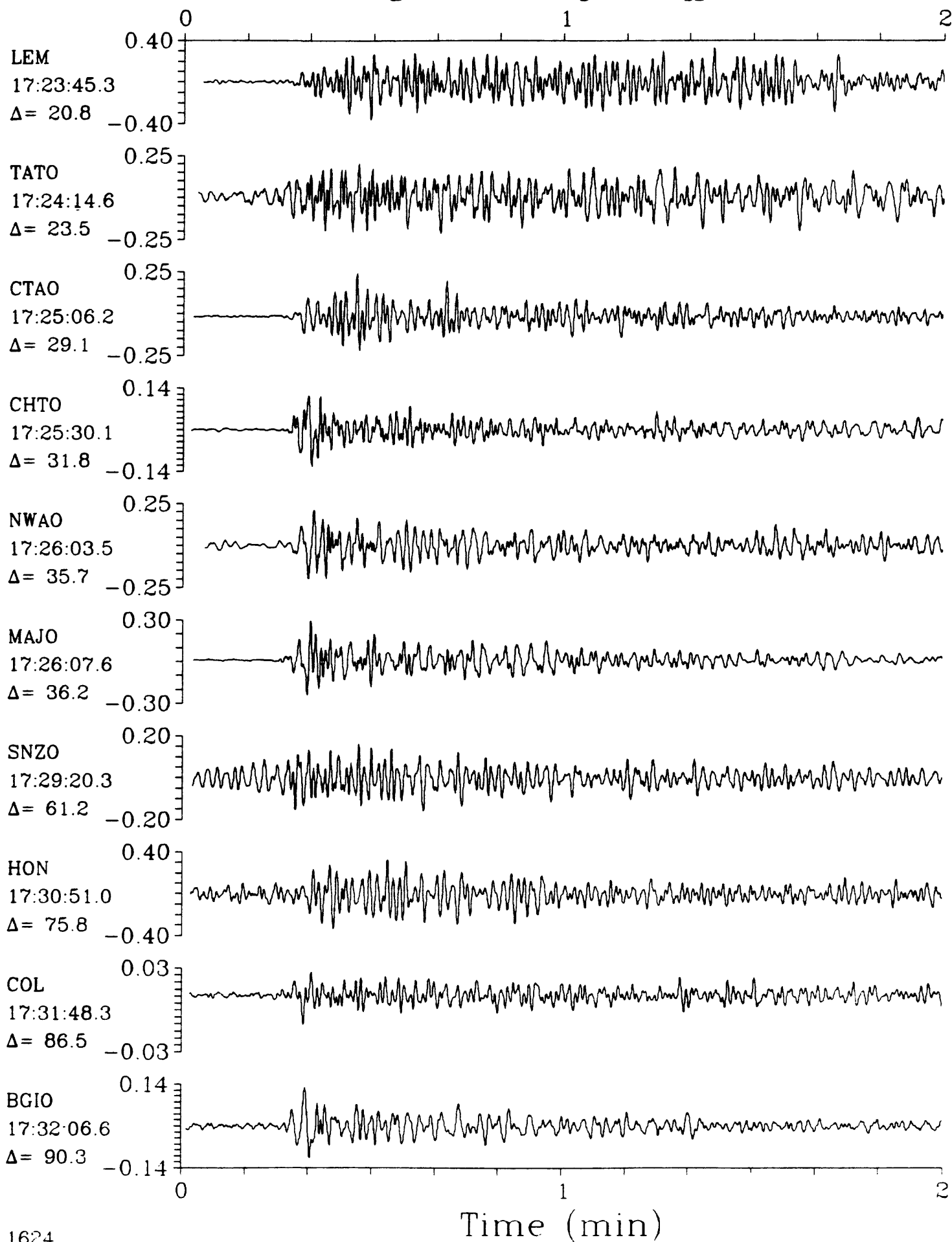
Molucca Passage



SPZ

16 August 1986 17:19:23.06

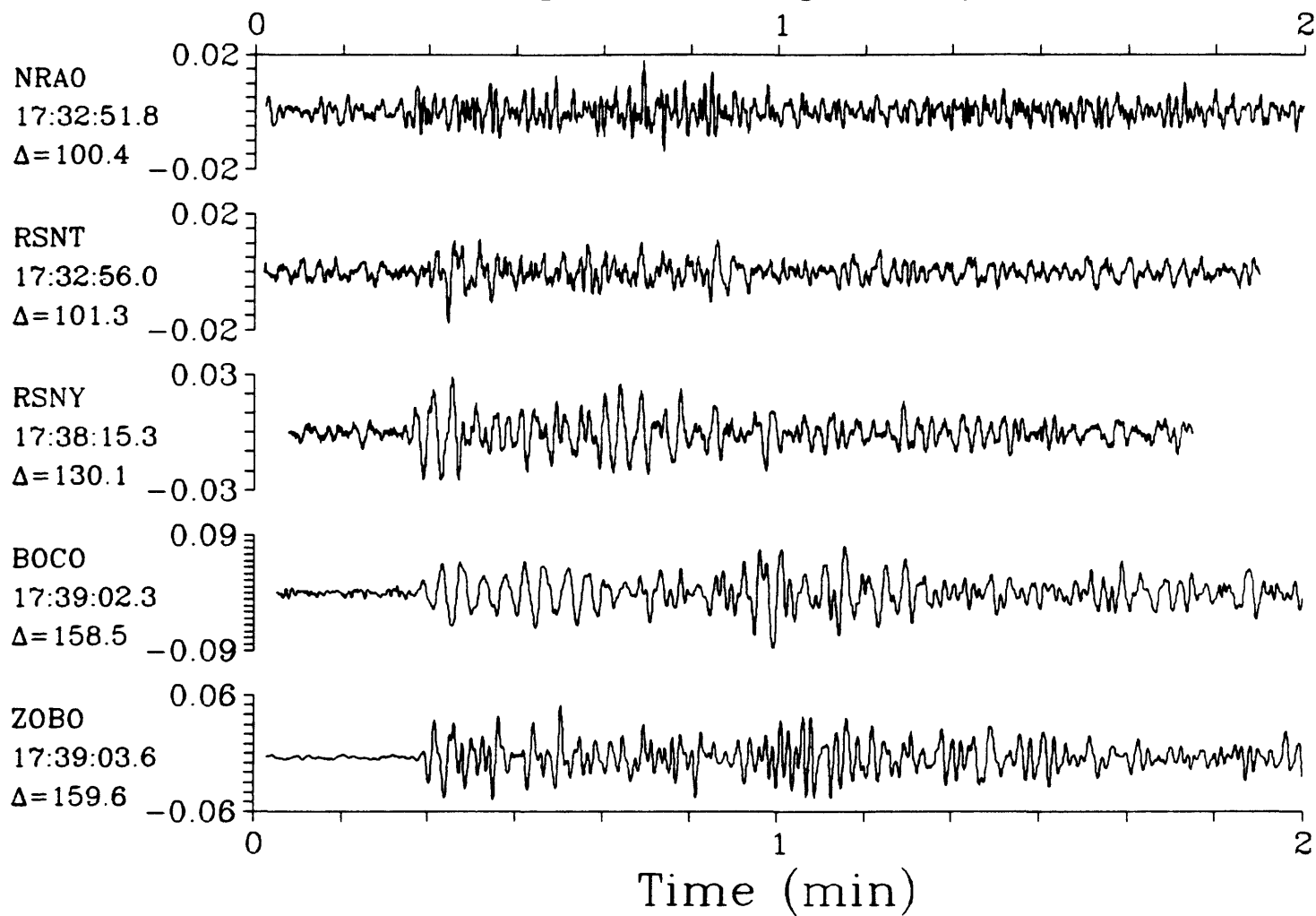
SPZ

Molucca Passage $h=33.0$ $m_b=5.7$ $M_{sz}=5.9$ 

SPZ

16 August 1986 17:19:23.06

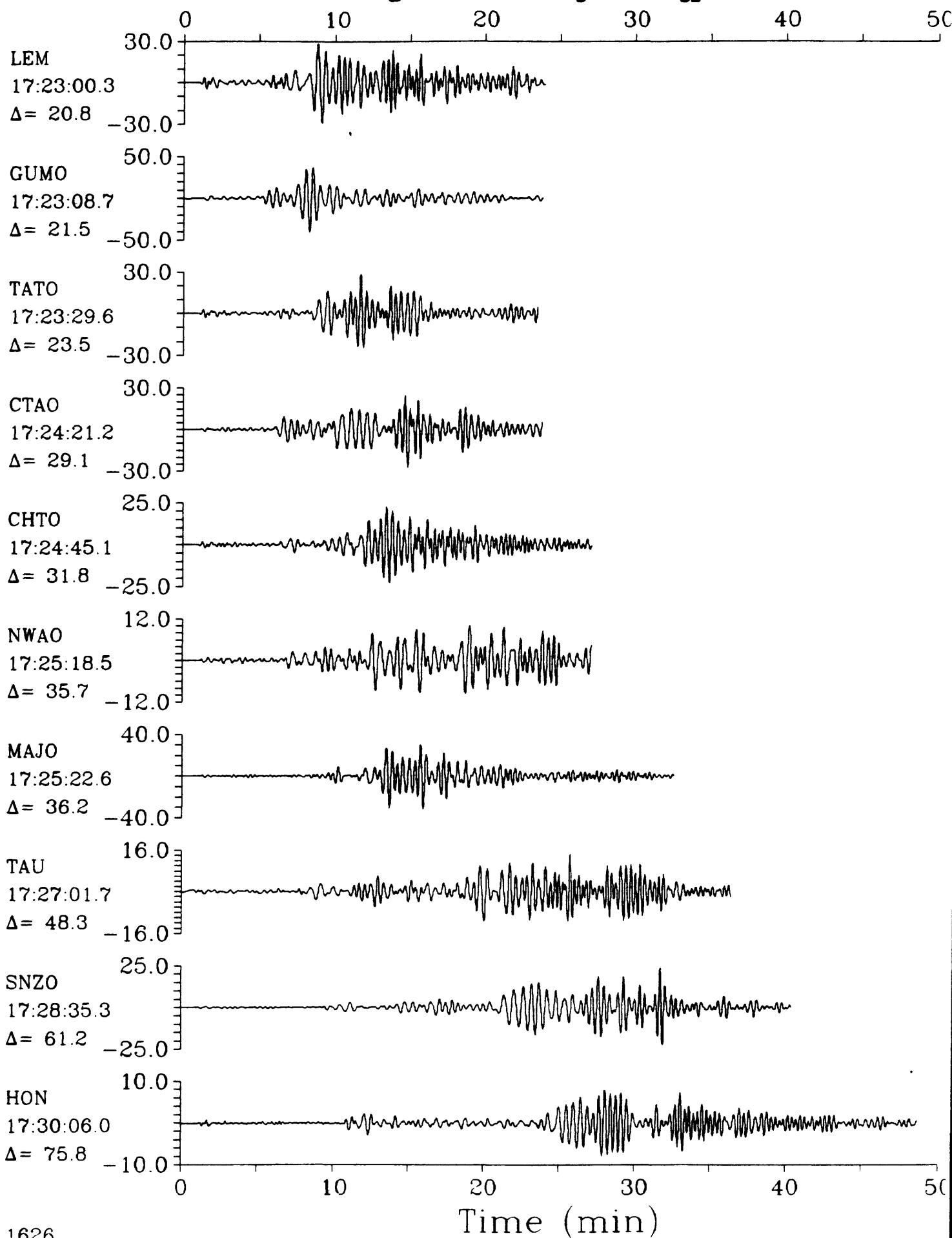
SPZ

Molucca Passage $h=33.0$ $m_b=5.7$ $M_{sz}=5.9$ 

LPZ

16 August 1986 17:19:23.06

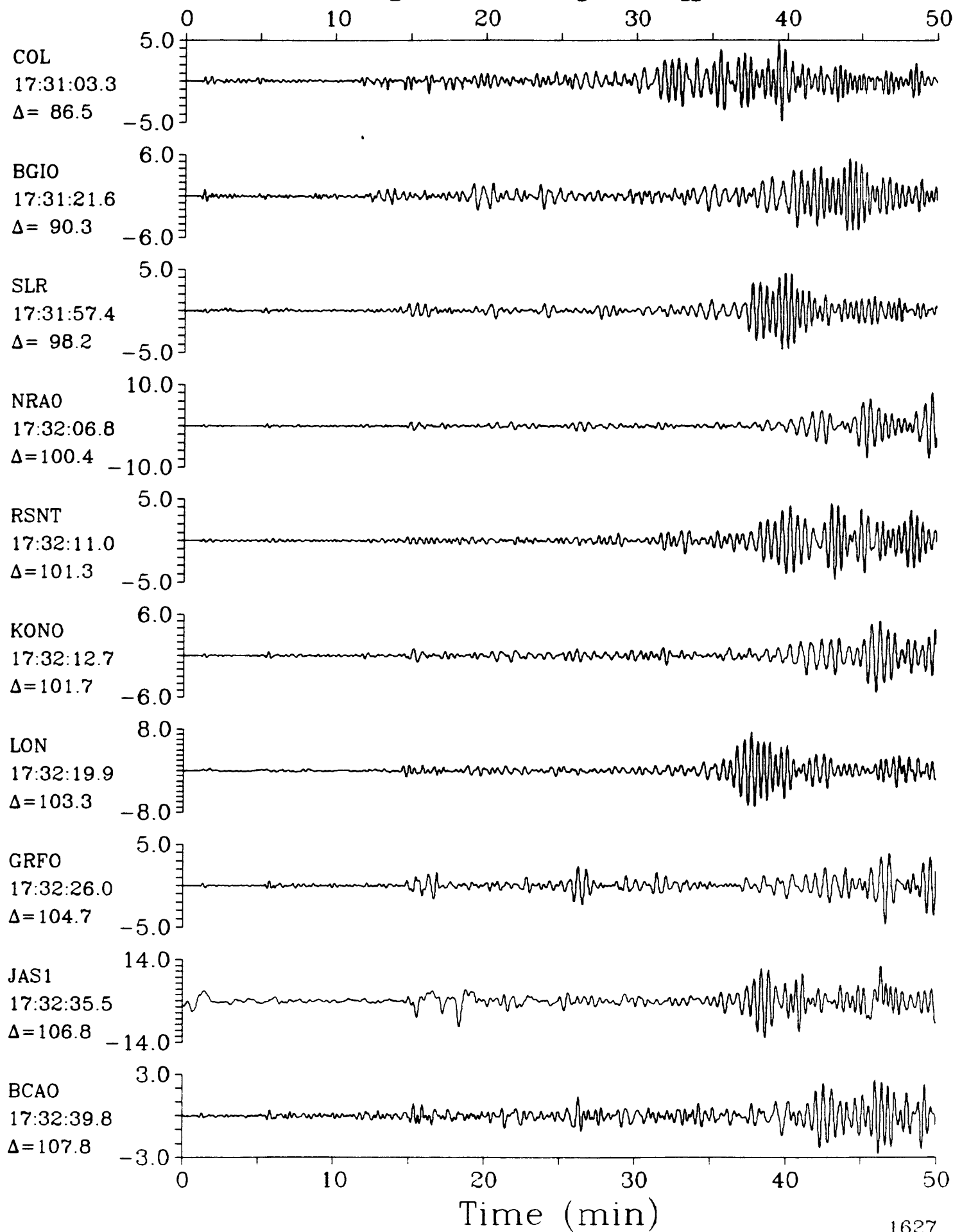
LPZ

Molucca Passage $h=33.0$ $m_b=5.7$ $M_{sz}=5.9$ 

LPZ

16 August 1986 17:19:23.06

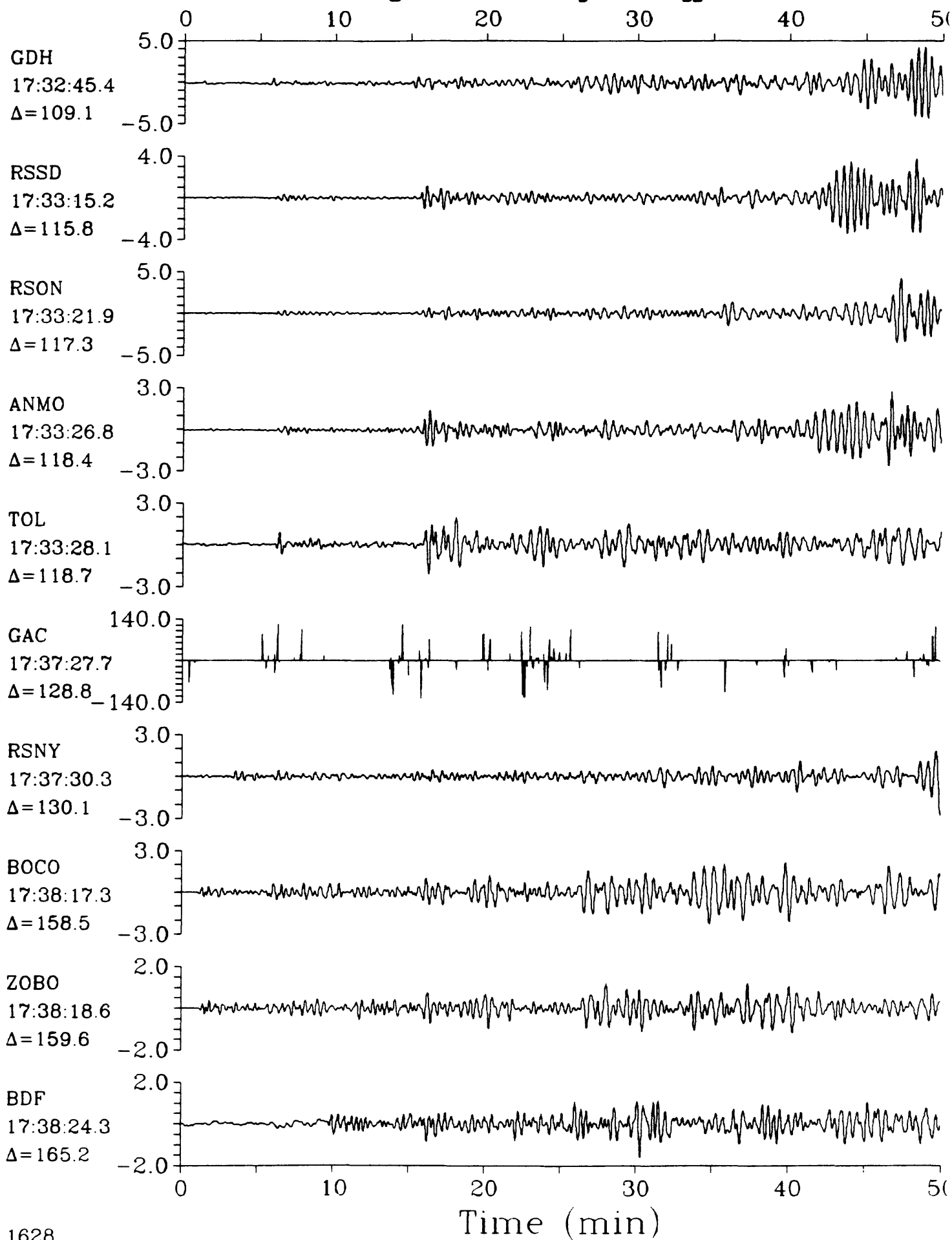
LPZ

Molucca Passage $h=33.0$ $m_b=5.7$ $M_{sz}=5.9$ 

LPZ

16 August 1986 17:19:23.06

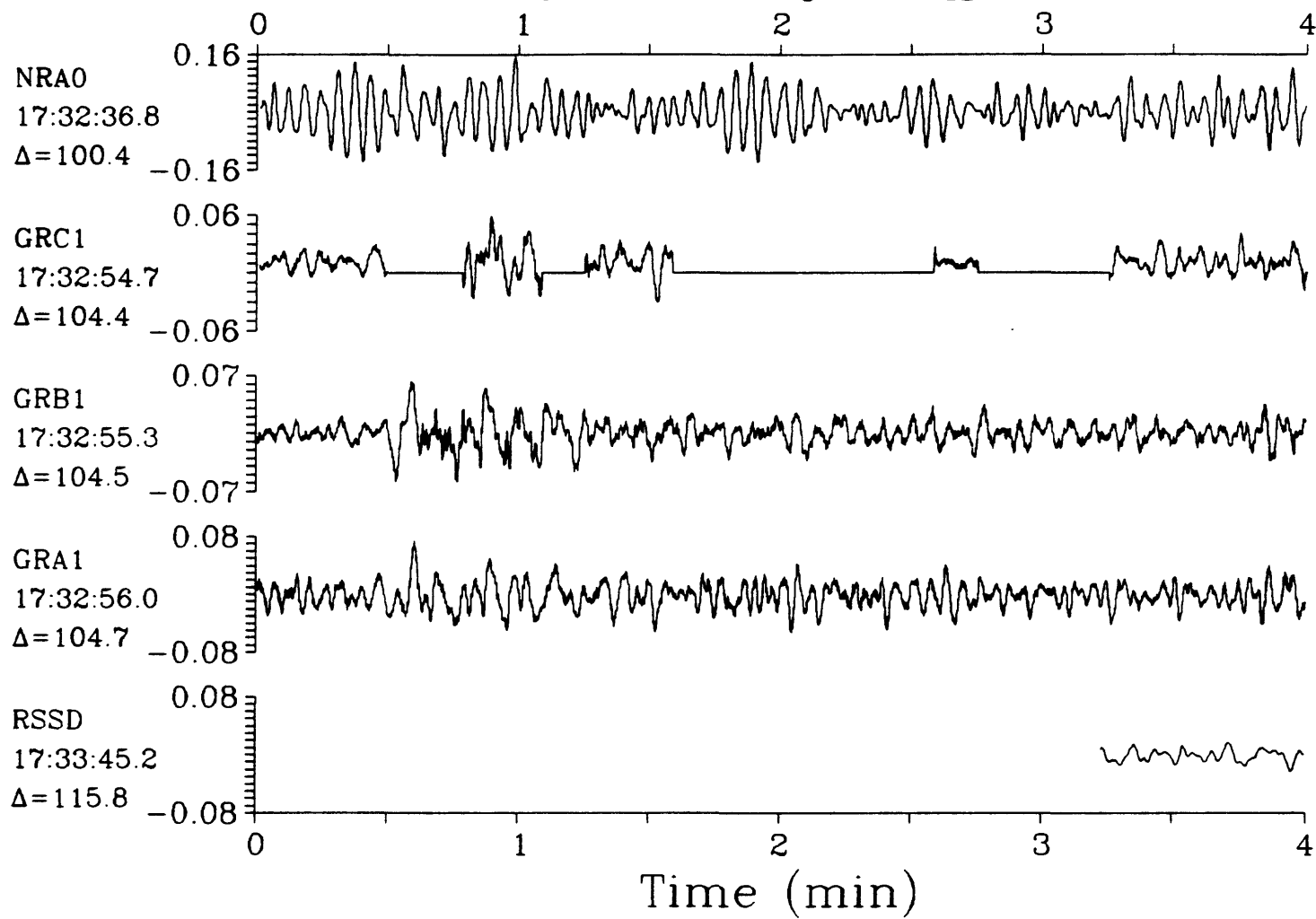
LPZ

Molucca Passage $h=33.0$ $m_b=5.7$ $M_{sz}=5.9$ 

IPZ

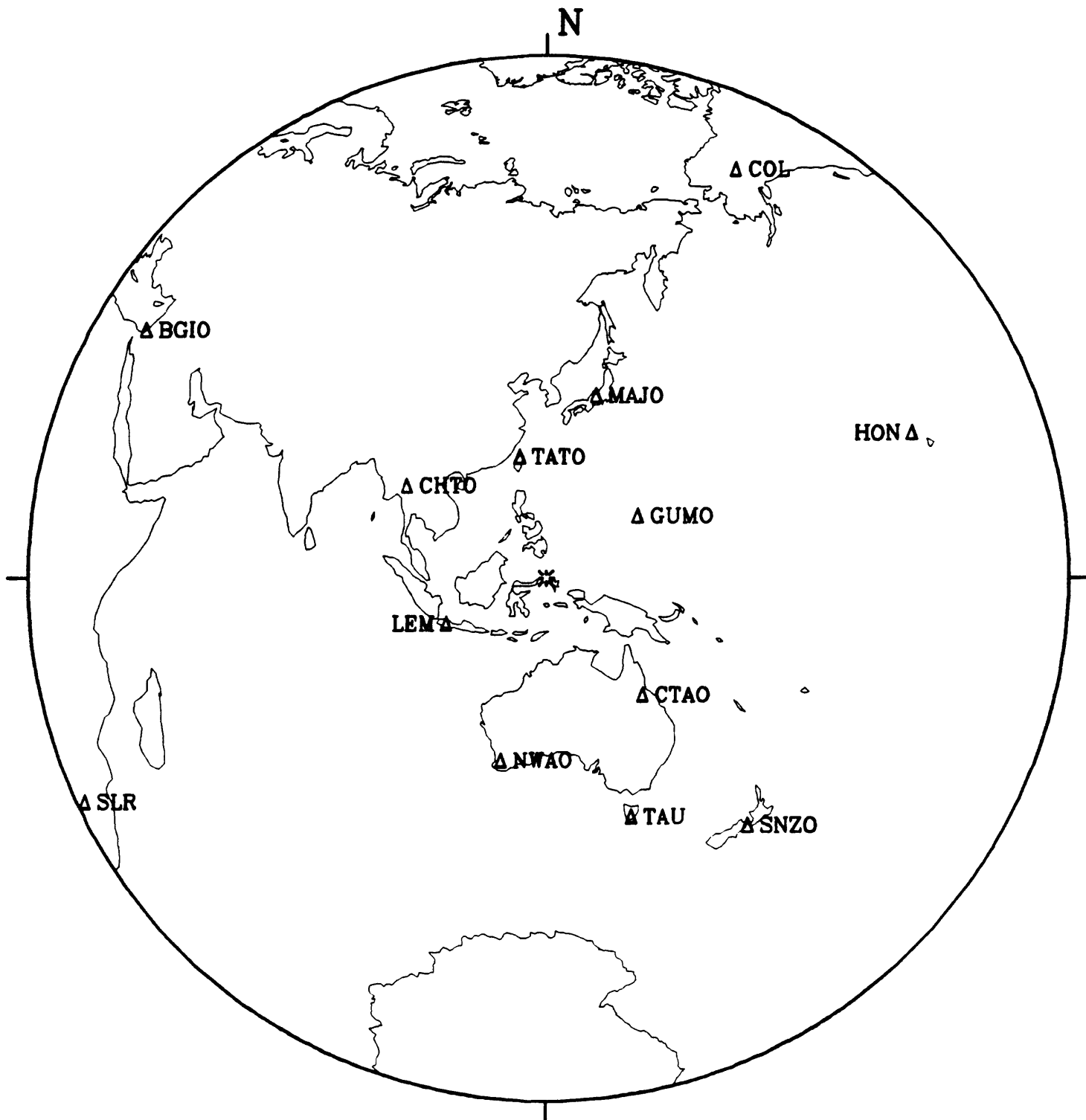
16 August 1986 17:19:23.06

IPZ

Molucca Passage $h=33.0$ $m_b=5.7$ $M_{sz}=5.9$ 

16 August 1986 21:08:27.80

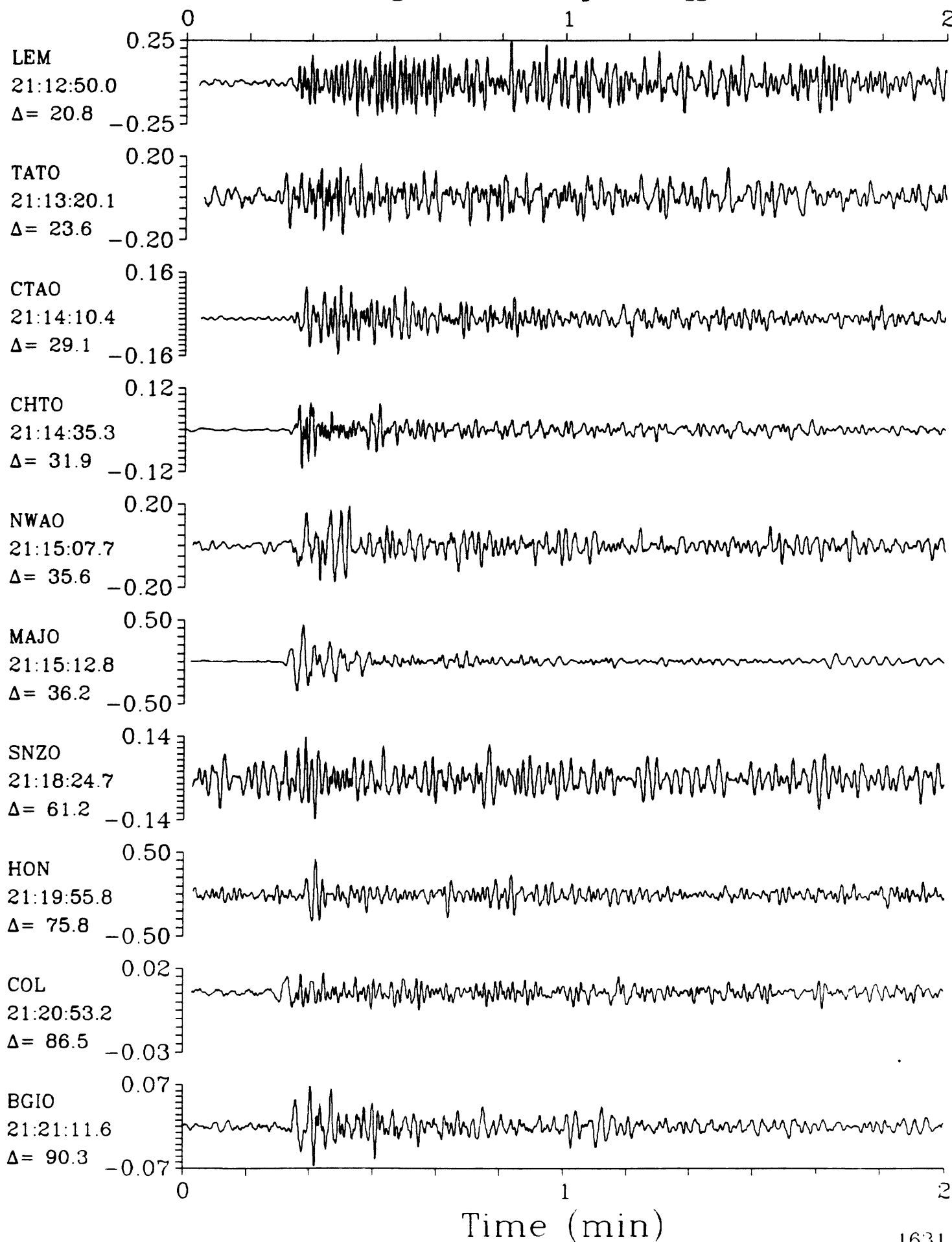
Molucca Passage



SPZ

16 August 1986 21:08:27.80
Molucca Passage $h=33.0$ $m_b=5.6$ $M_{SZ}=5.4$

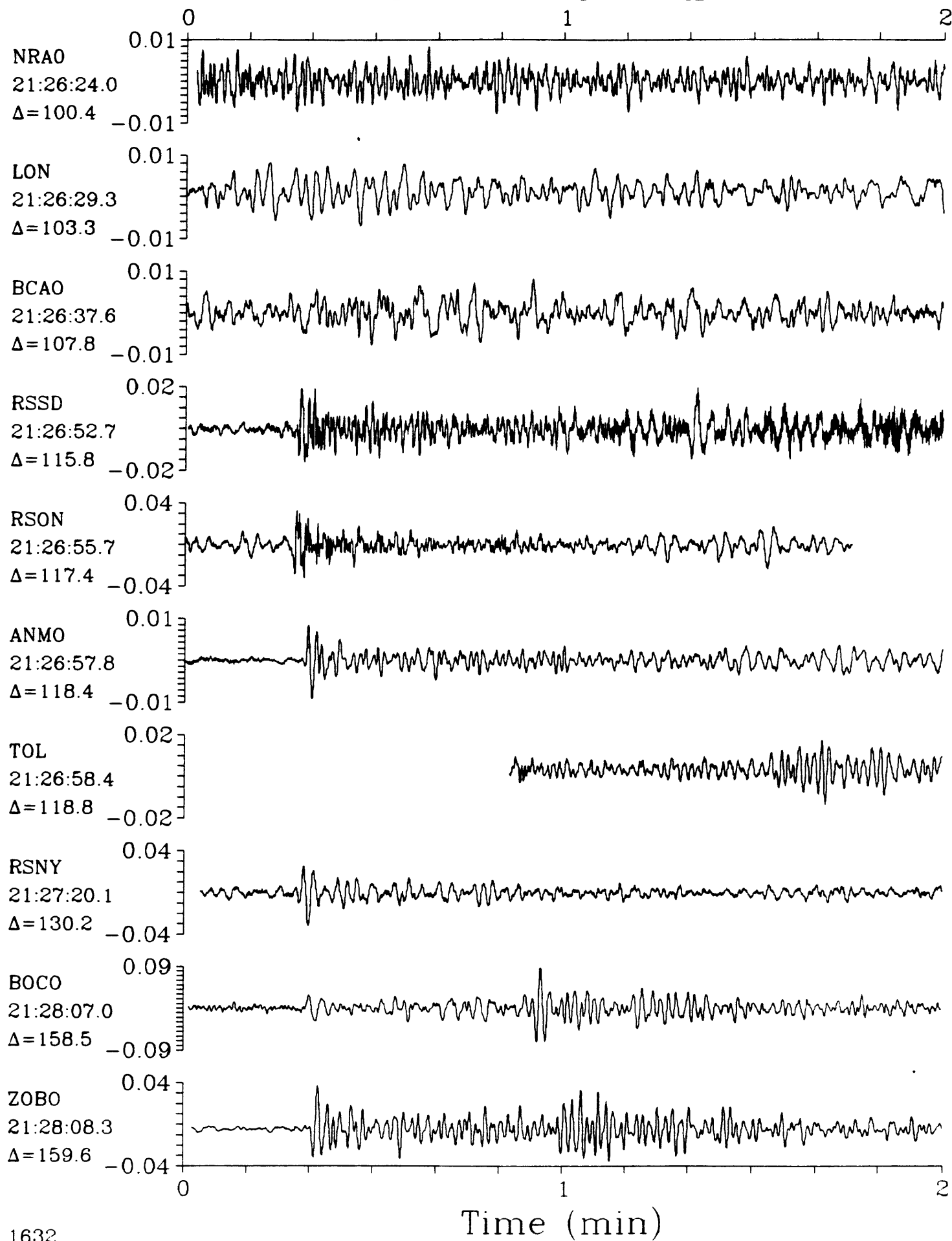
SPZ



SPZ

16 August 1986 21:08:27.80

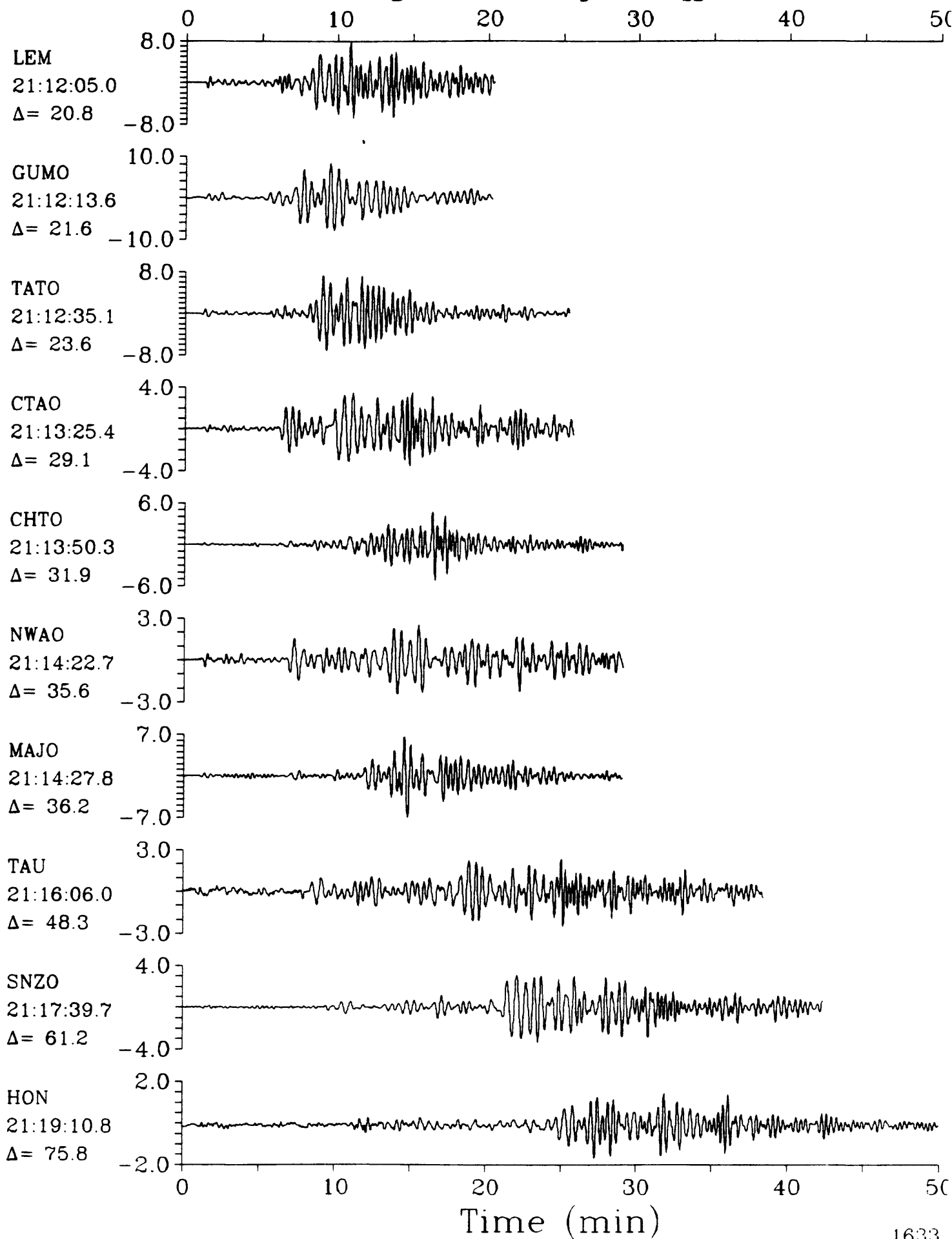
SPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{SZ}=5.4$ 

LPZ

16 August 1986 21:08:27.80

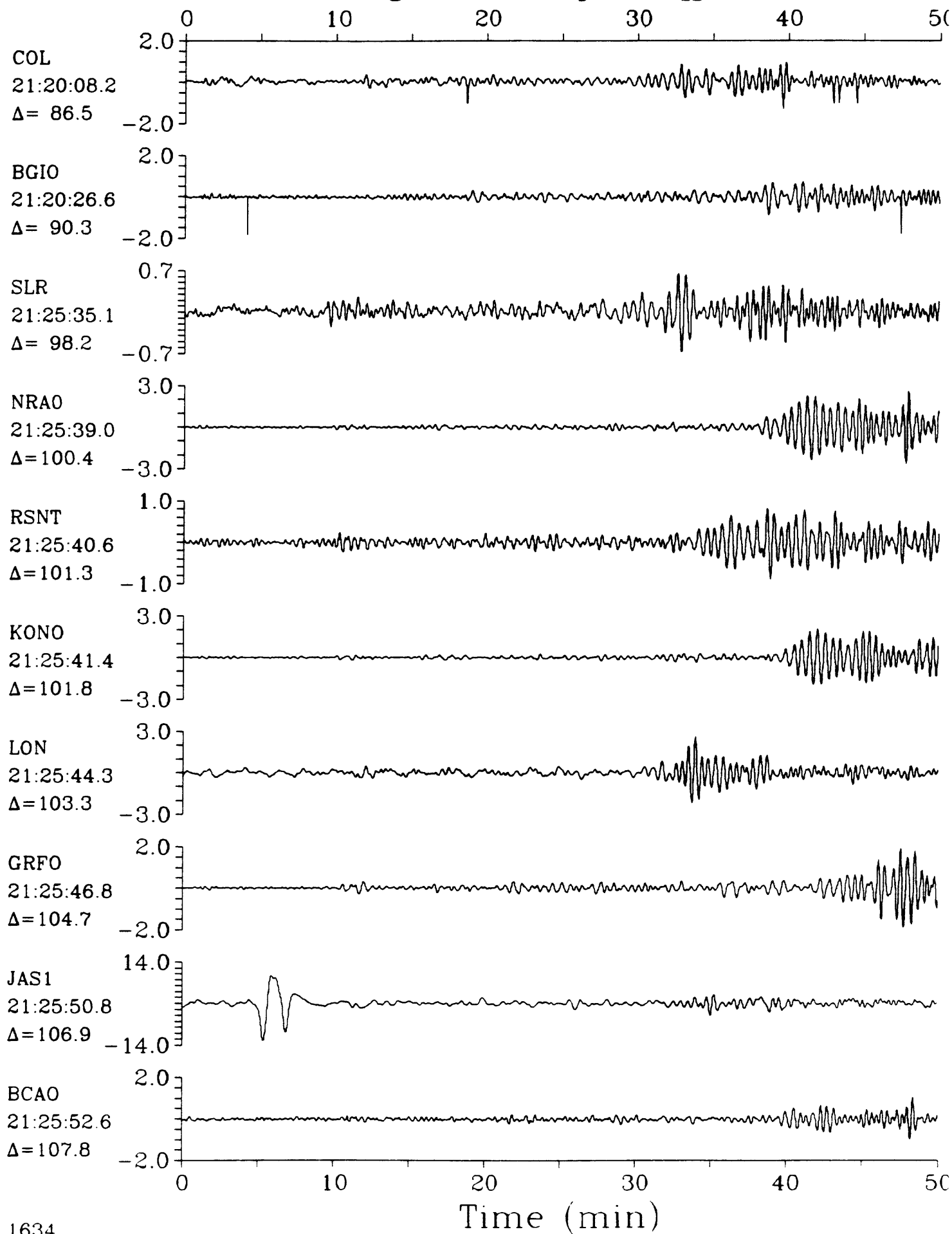
LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{SZ}=5.4$ 

LPZ

16 August 1986 21:08:27.80

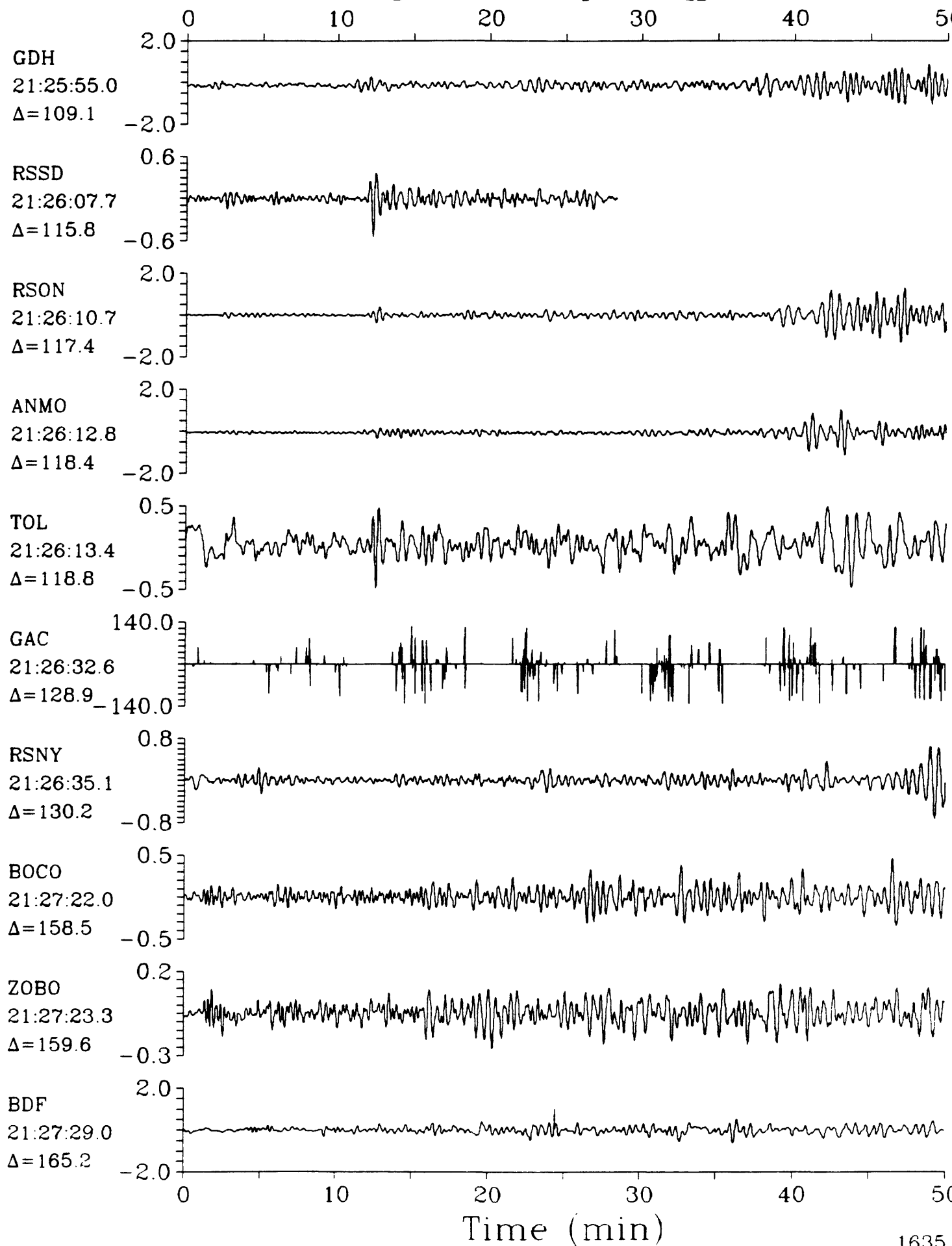
LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.4$ 

LPZ

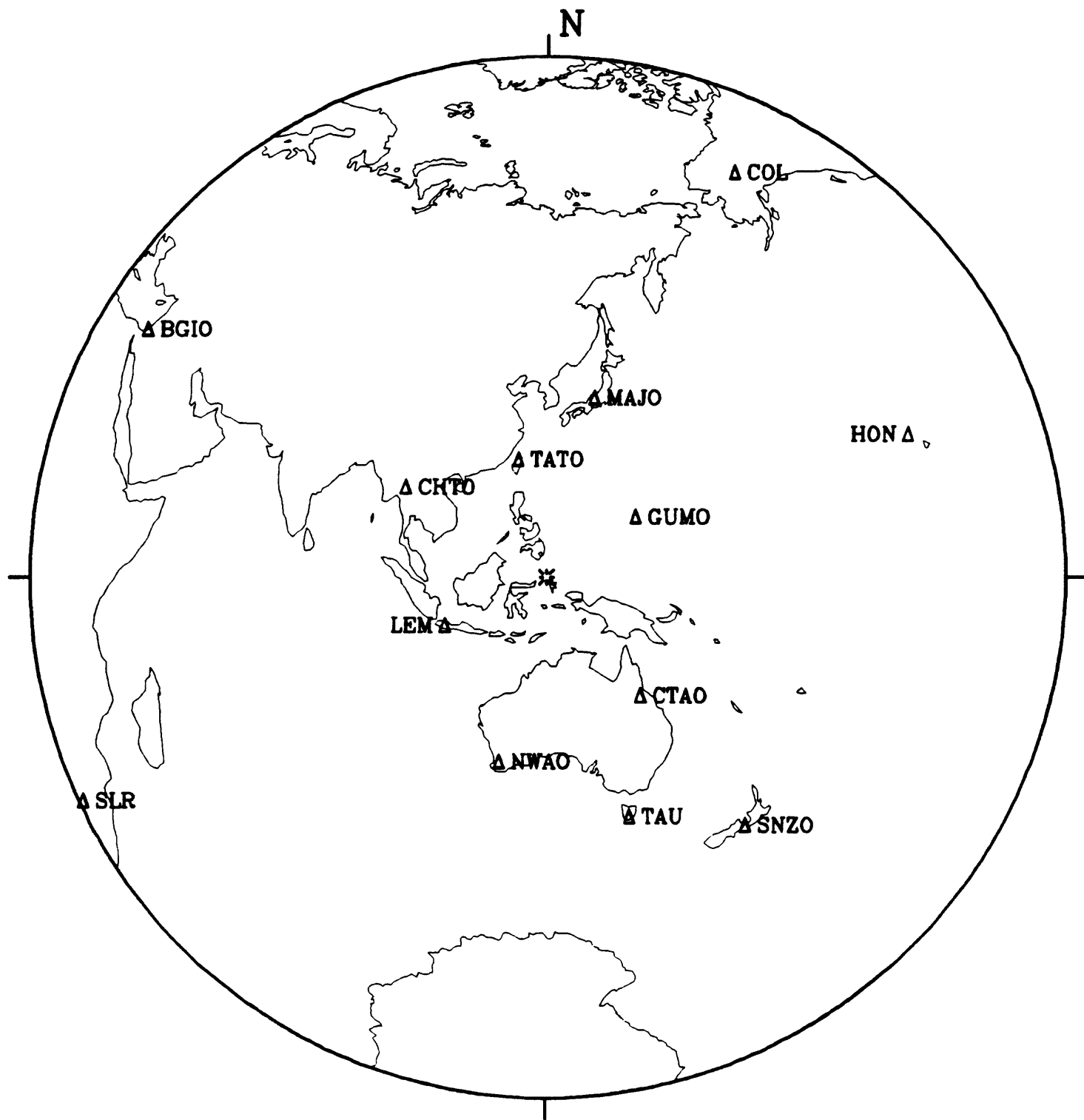
16 August 1986 21:08:27.80

LPZ

Molucca Passage $h=33.0$ $m_b=5.6$ $M_{sz}=5.4$ 

17 August 1986 15:27:41.17

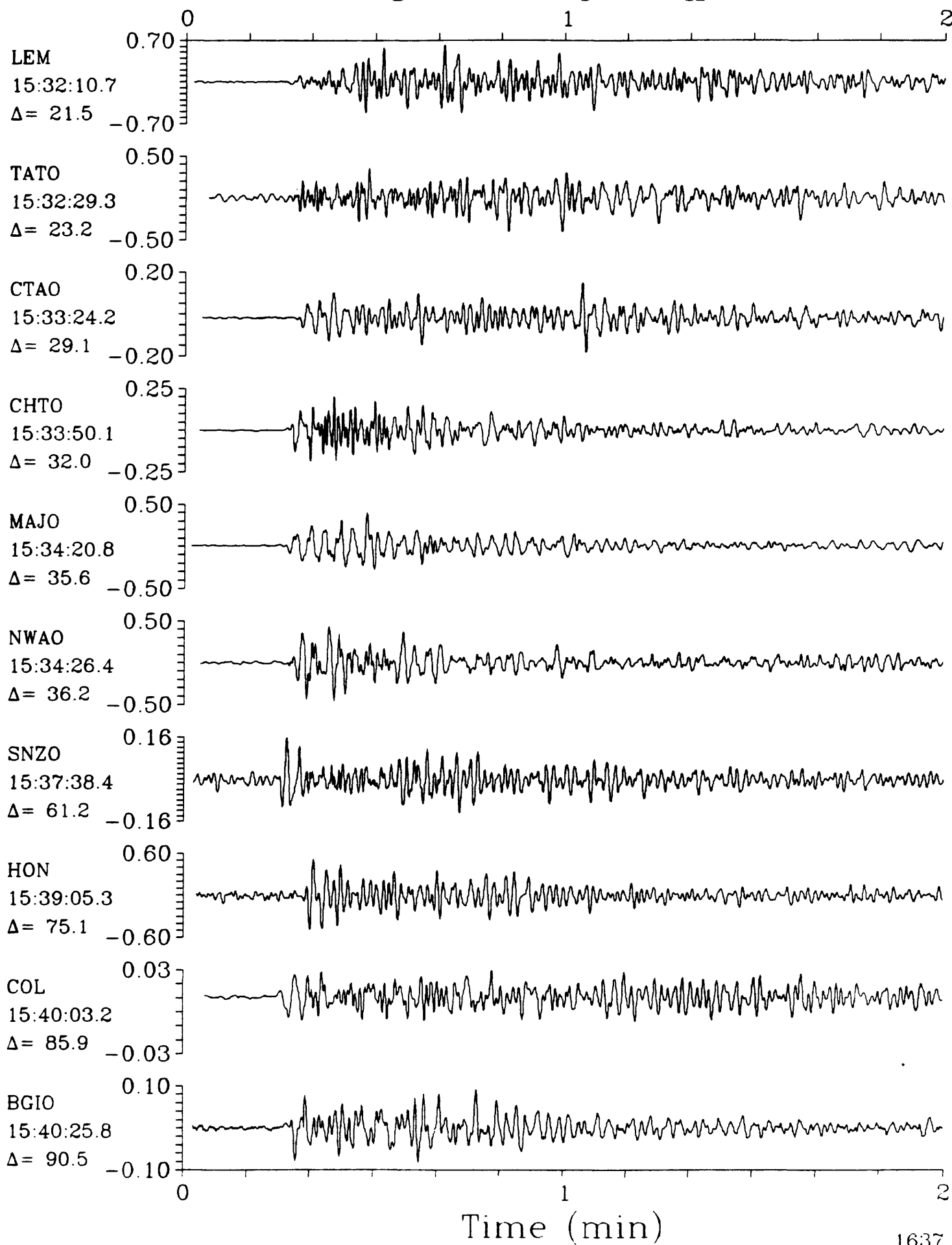
Molucca Passage



SPZ

17 August 1986 15:27:41.17

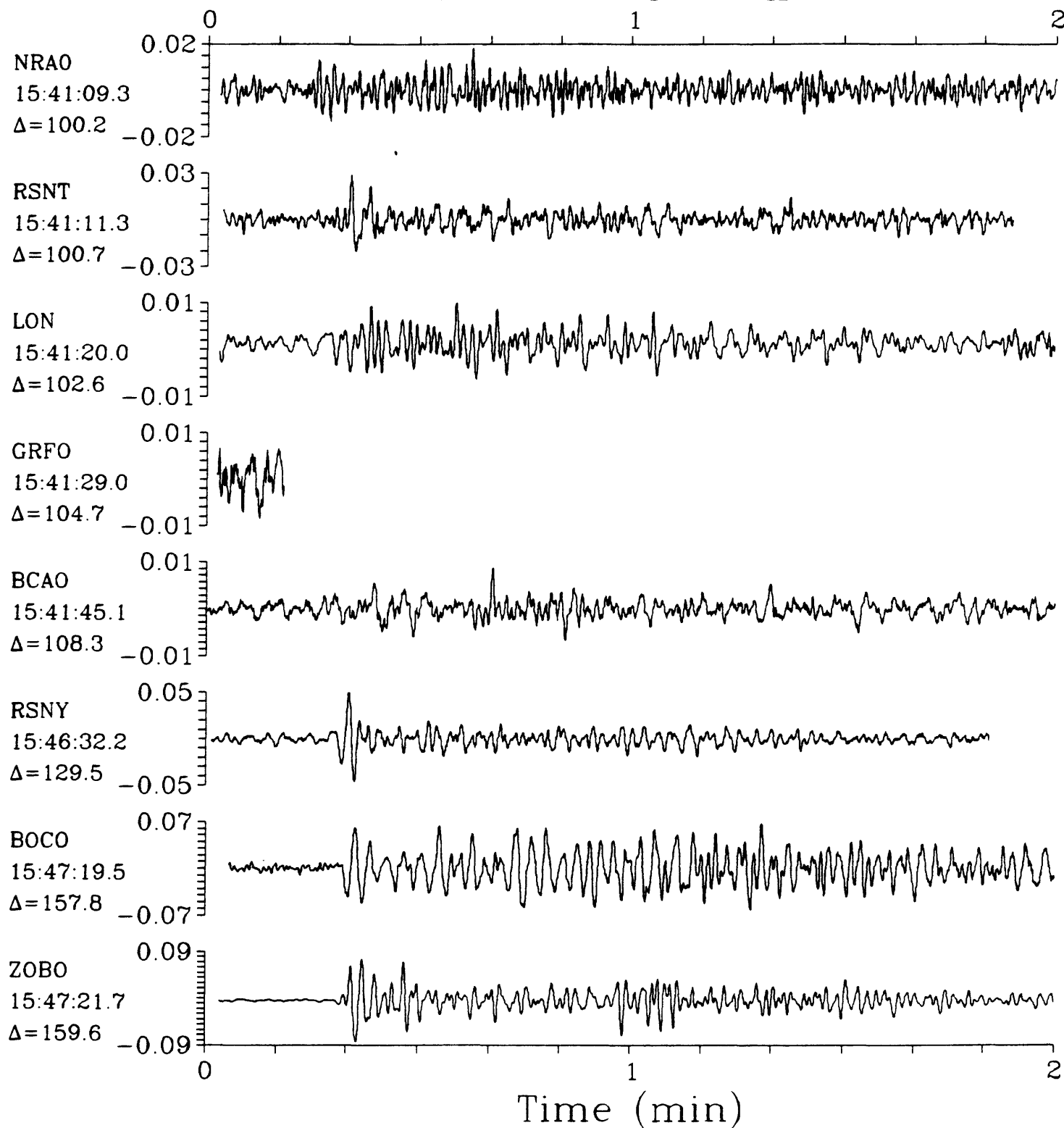
SPZ

Molucca Passage $h=33.0$ $m_b=5.9$ $M_{sz}=6.3$ 

SPZ

17 August 1986 15:27:41.17

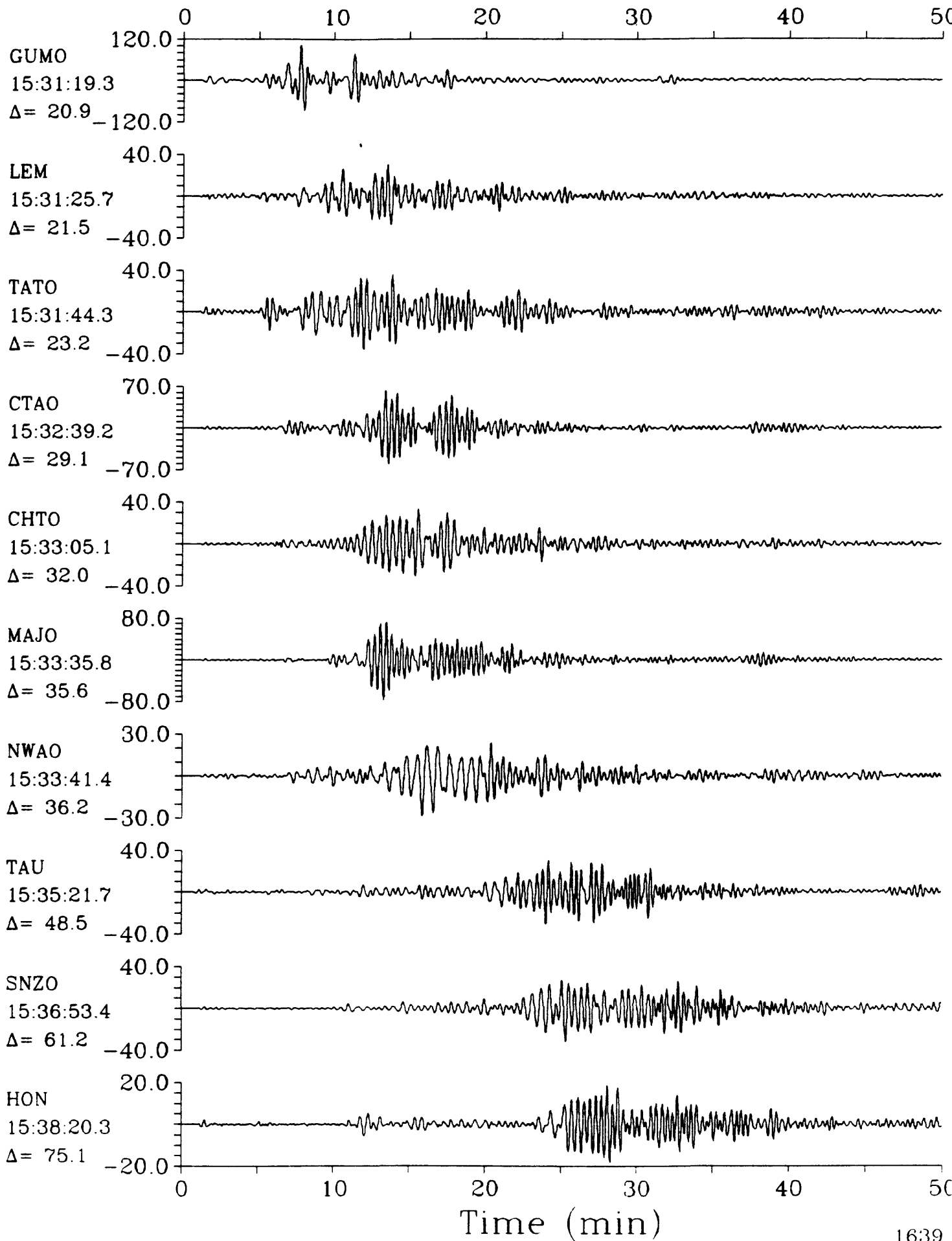
SPZ

Molucca Passage $h=33.0$ $m_b=5.9$ $M_{sz}=6.3$ 

LPZ

17 August 1986 15:27:41.17

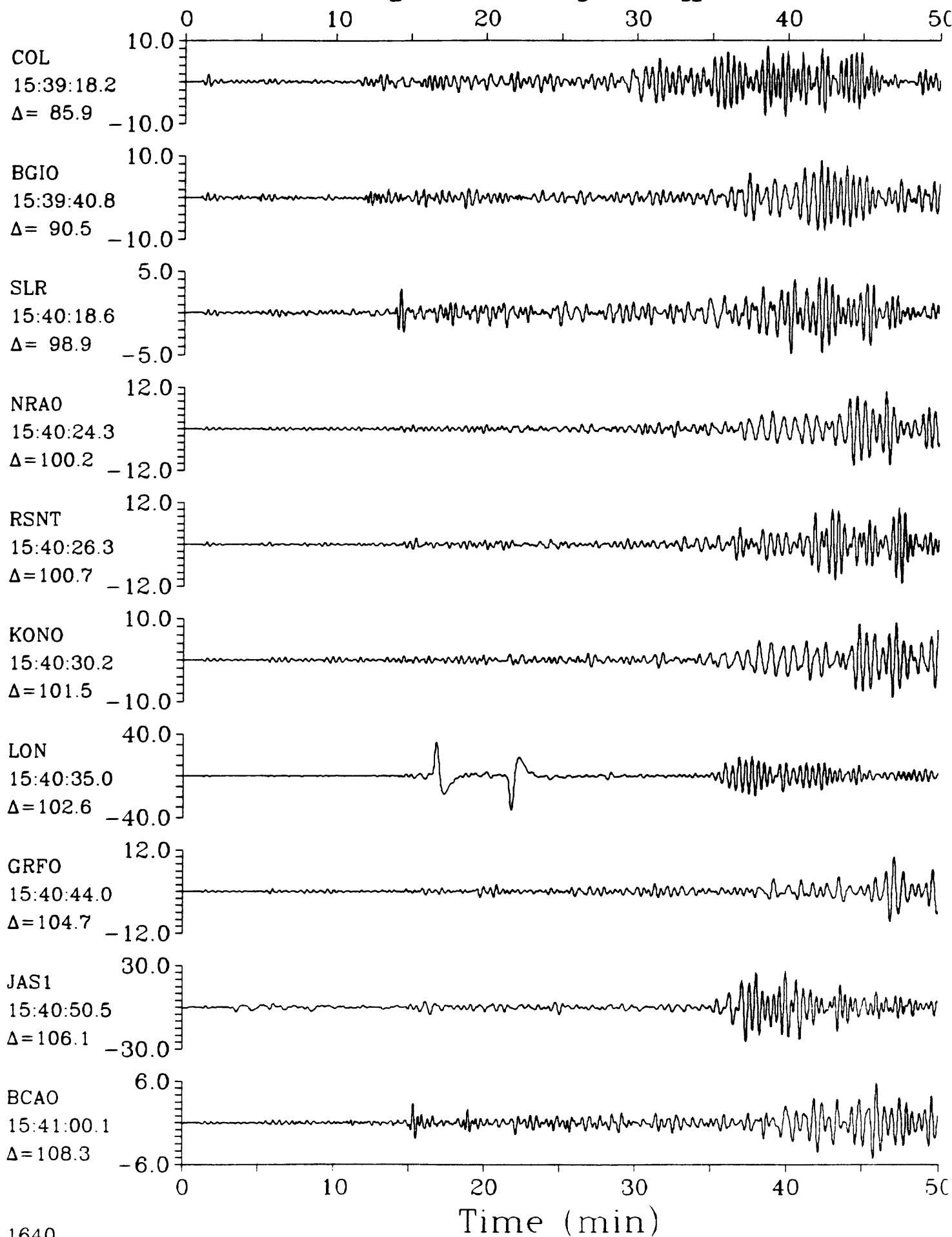
LPZ

Molucca Passage $h=33.0$ $m_b=5.9$ $M_{SZ}=6.3$ 

LPZ

17 August 1986 15:27:41.17

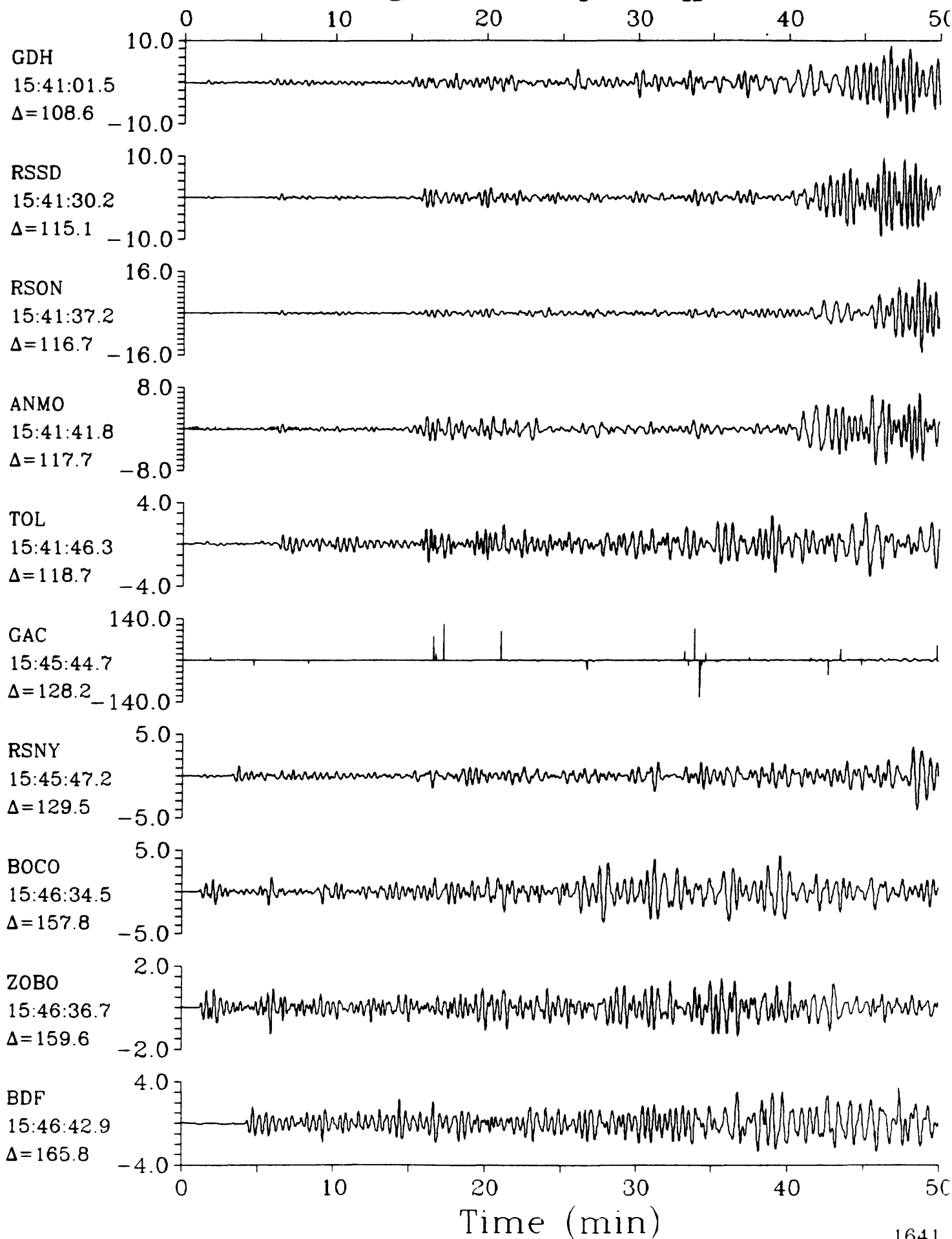
LPZ

Molucca Passage $h=33.0$ $m_b=5.9$ $M_{sz}=6.3$ 

LPZ

17 August 1986 15:27:41.17

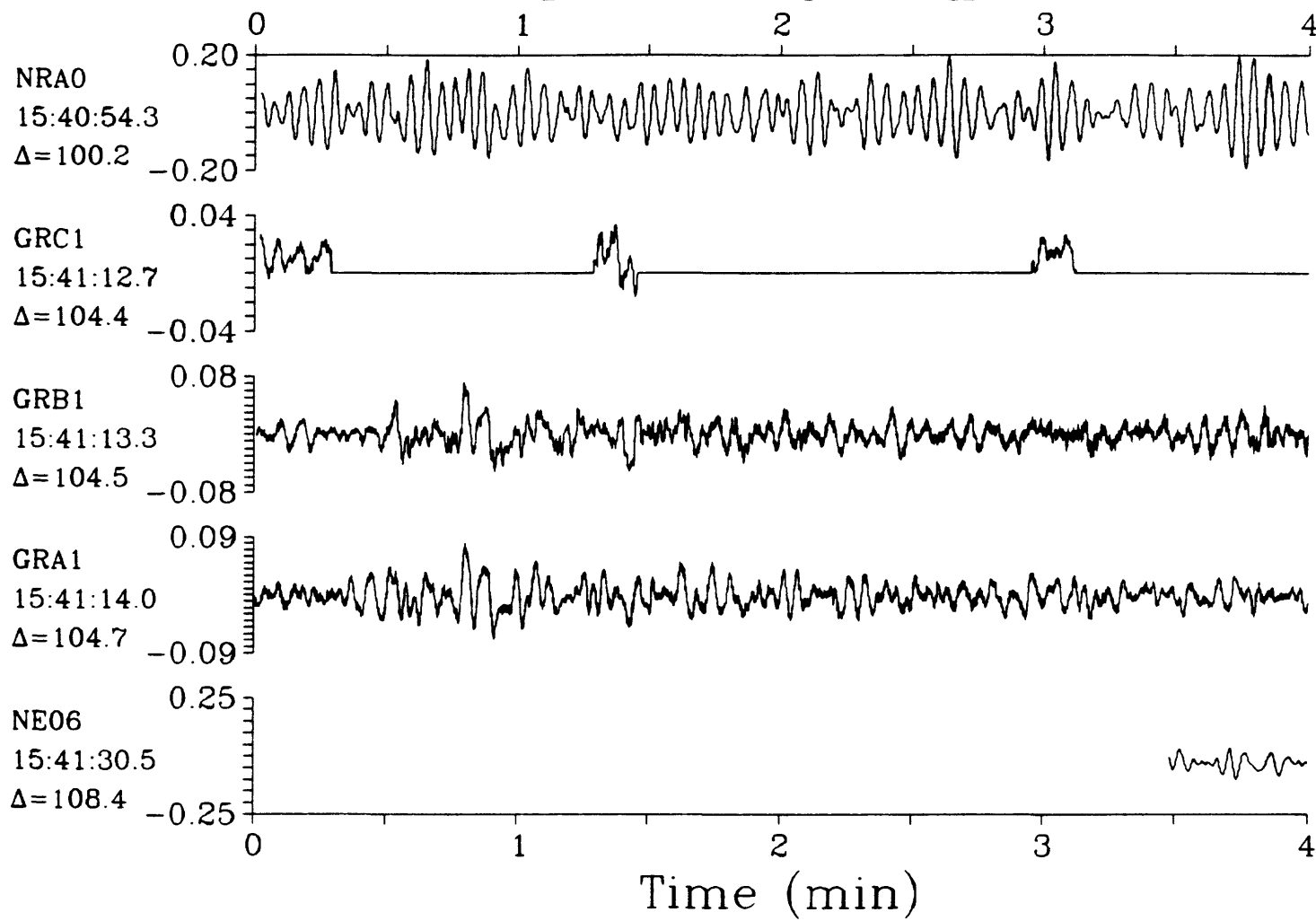
LPZ

Molucca Passage $h=33.0$ $m_b=5.9$ $M_{sz}=6.3$ 

IPZ

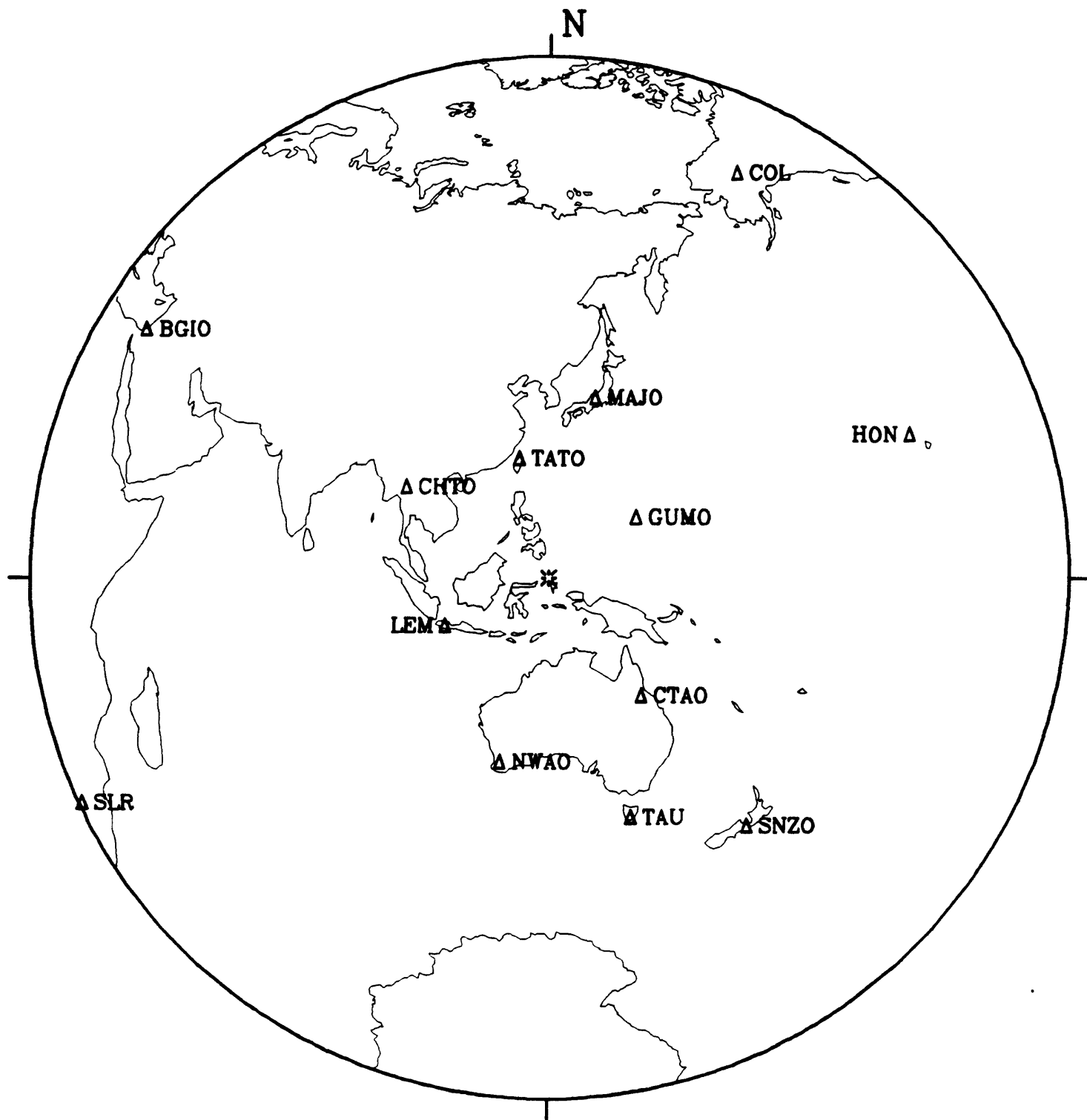
17 August 1986 15:27:41.17

IPZ

Molucca Passage $h=33.0$ $m_b=5.9$ $M_{sz}=6.3$ 

17 August 1986 15:31:19.52

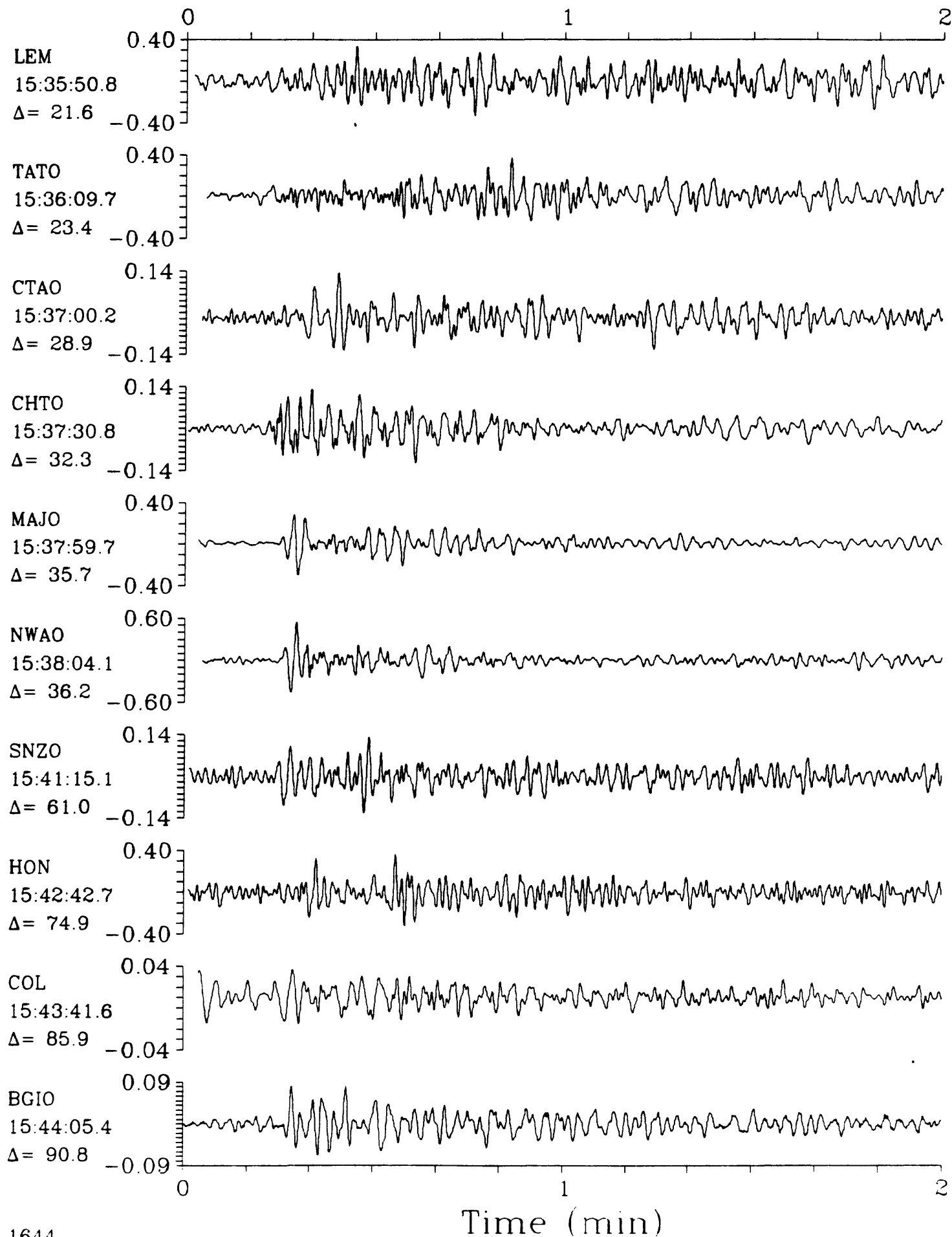
Molucca Passage



SPZ

17 August 1986 15:31:19.52

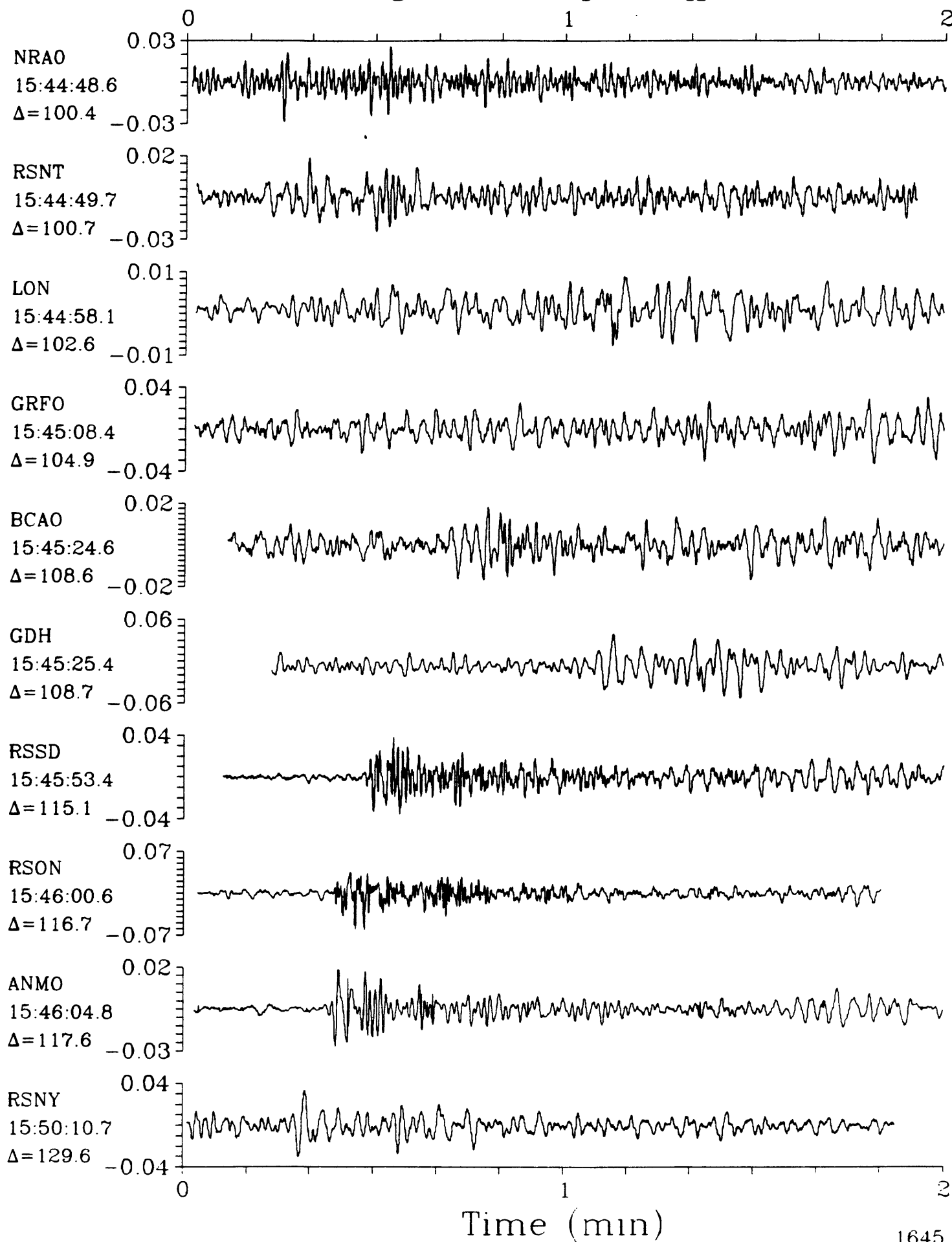
SPZ

Molucca Passage $h=33.0$ $m_b=6.2$ $M_{sz}=6.3$ 

SPZ

17 August 1986 15:31:19.52

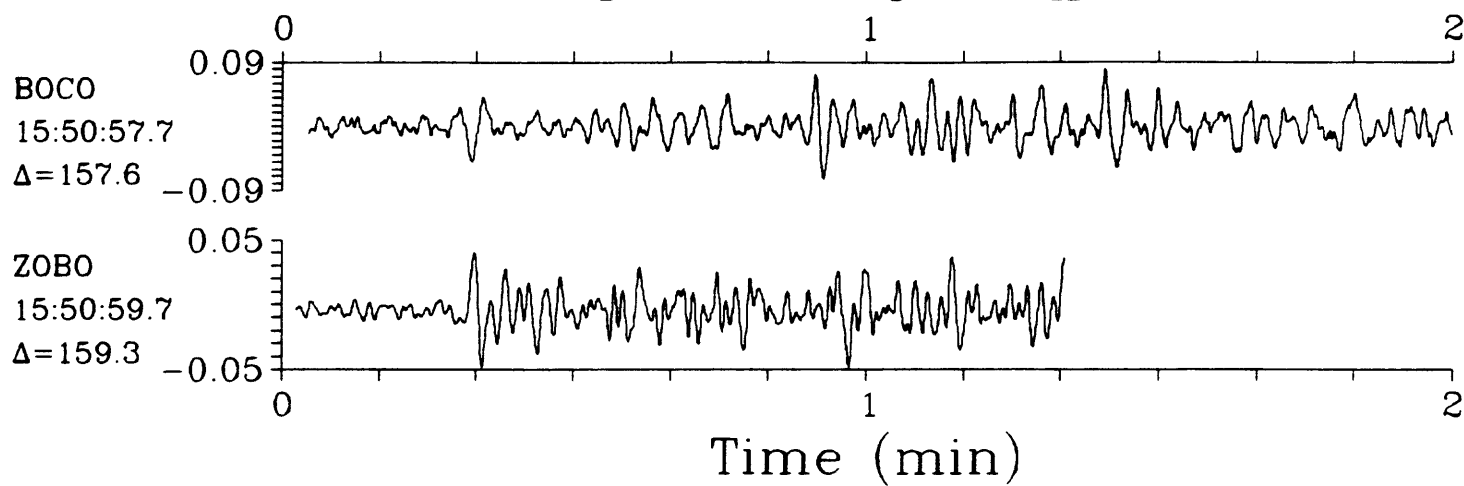
SPZ

Molucca Passage $h=33.0$ $m_b=6.2$ $M_{sz}=6.3$ 

SPZ

17 August 1986 15:31:19.52

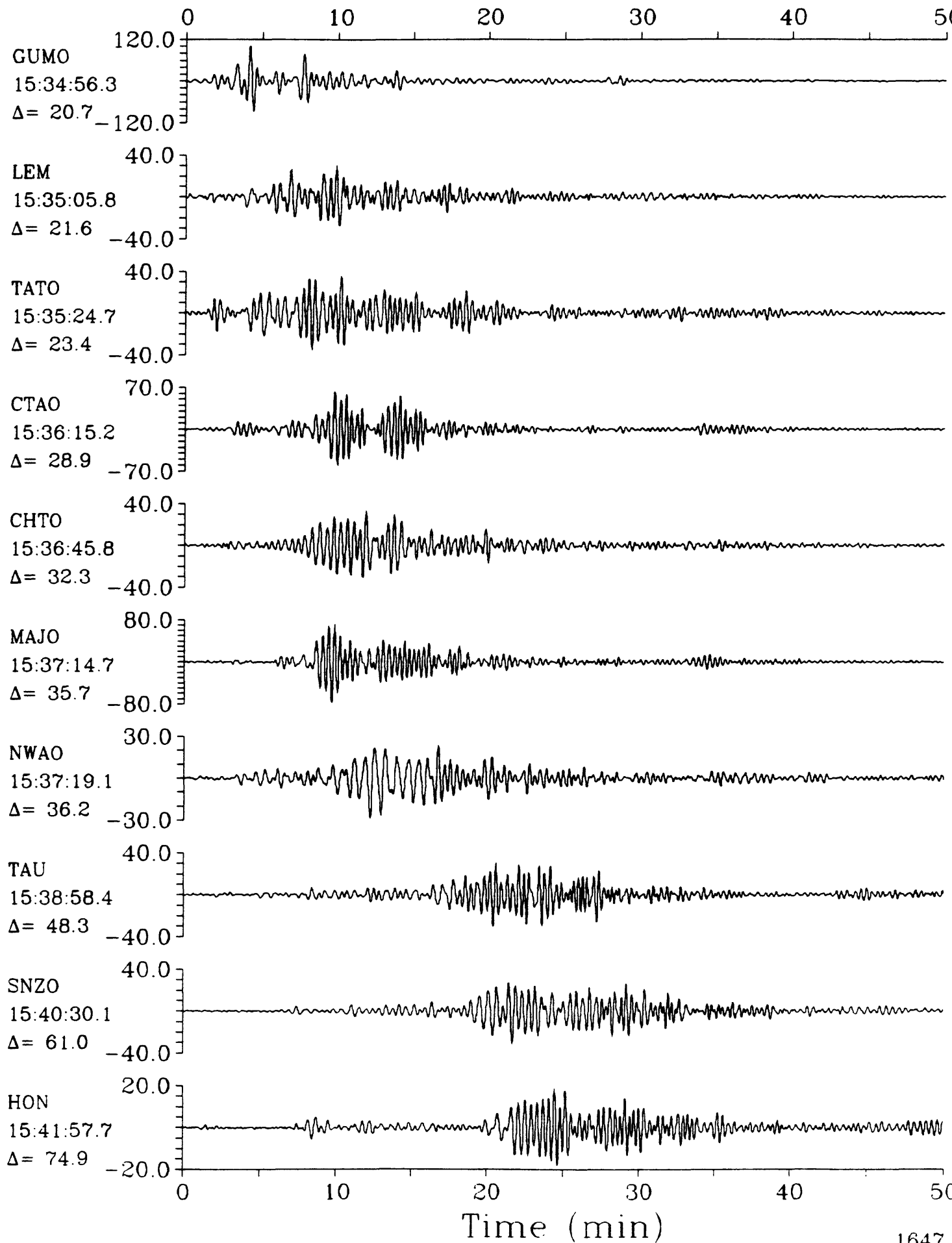
SPZ

Molucca Passage $h=33.0$ $m_b=6.2$ $M_{sz}=6.3$ 

LPZ

17 August 1986 15:31:19.52

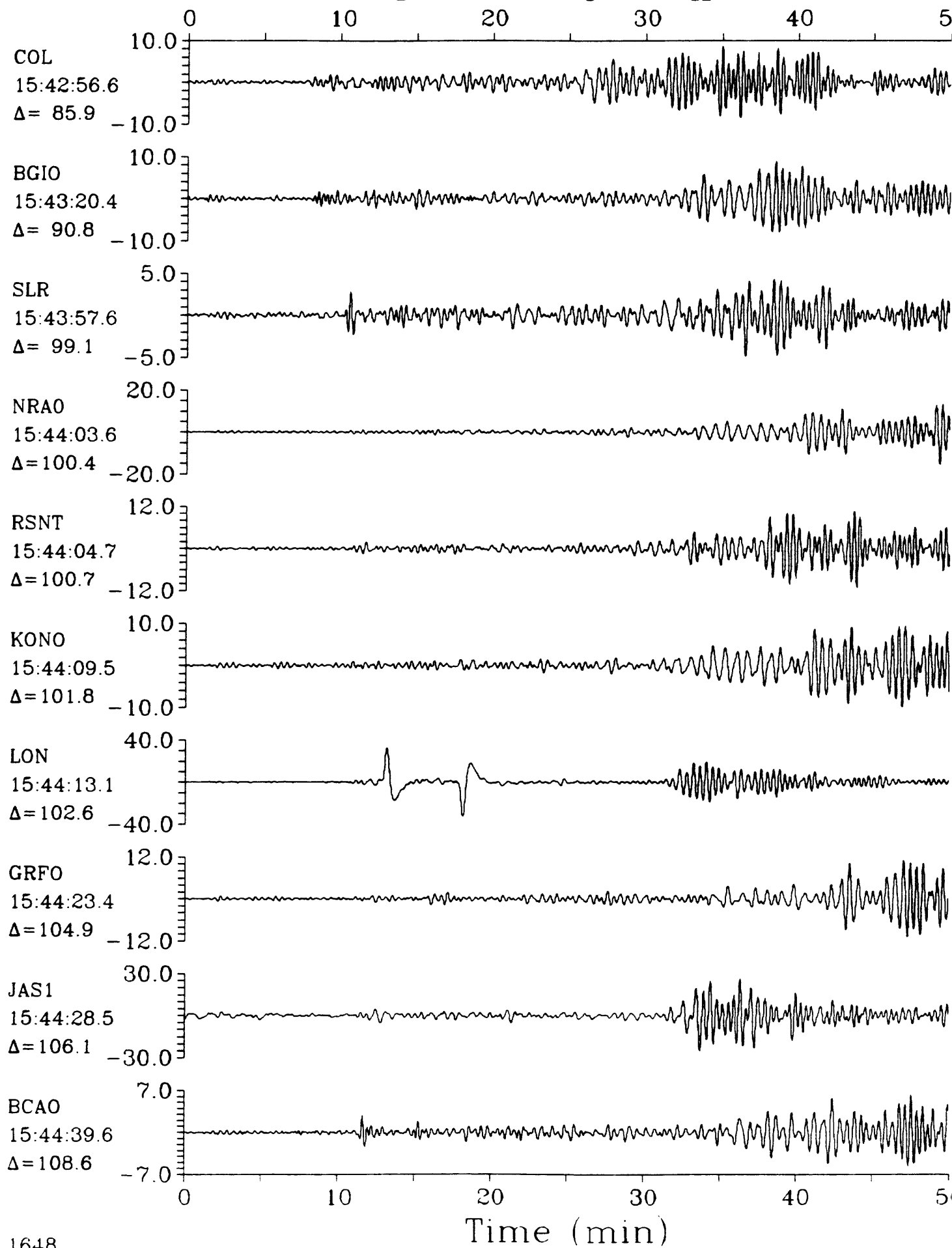
LPZ

Molucca Passage $h=33.0$ $m_b=6.2$ $M_{sz}=6.3$ 

LPZ

17 August 1986 15:31:19.52

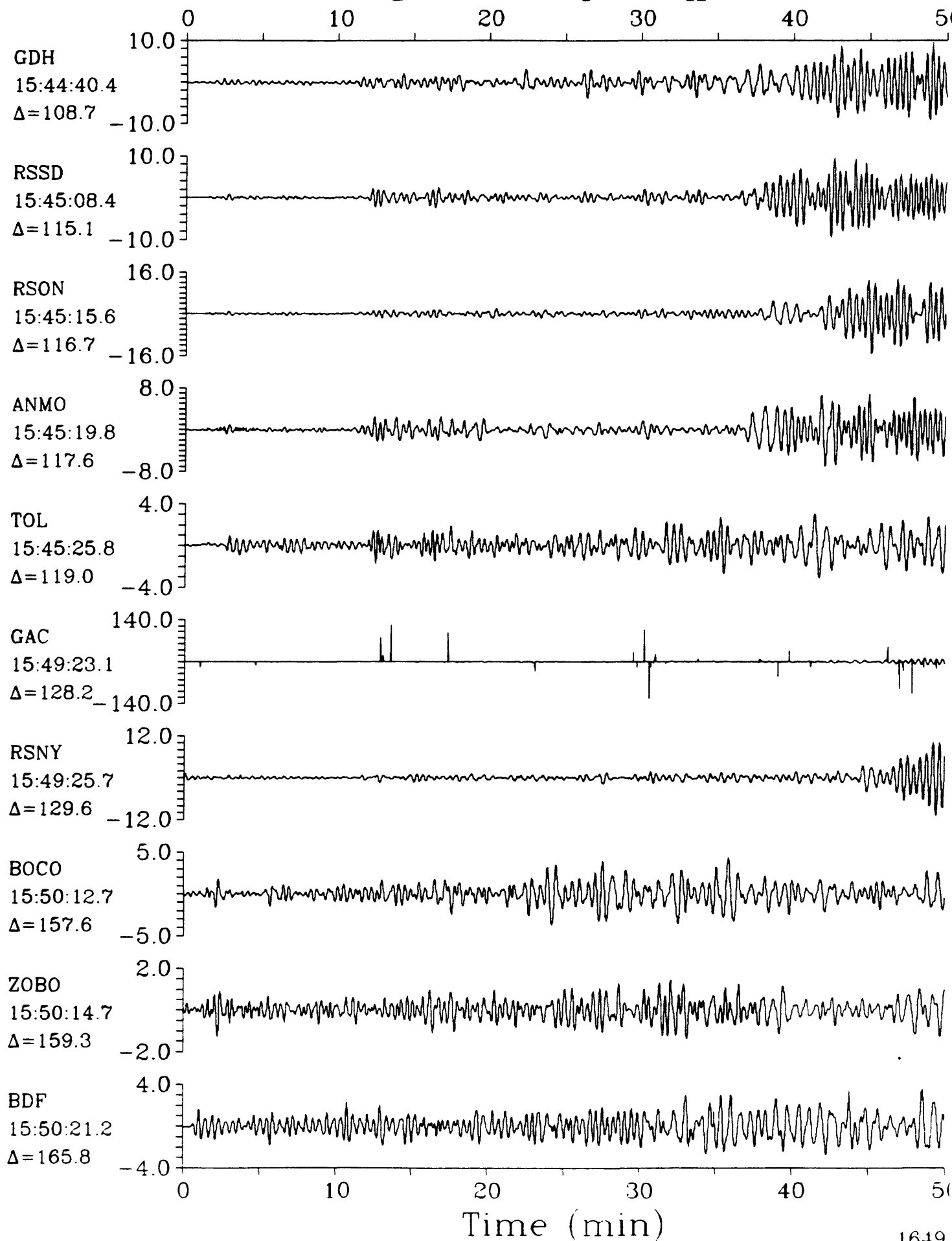
LPZ

Molucca Passage $h=33.0$ $m_b=6.2$ $M_{sz}=6.3$ 

LPZ

17 August 1986 15:31:19.52

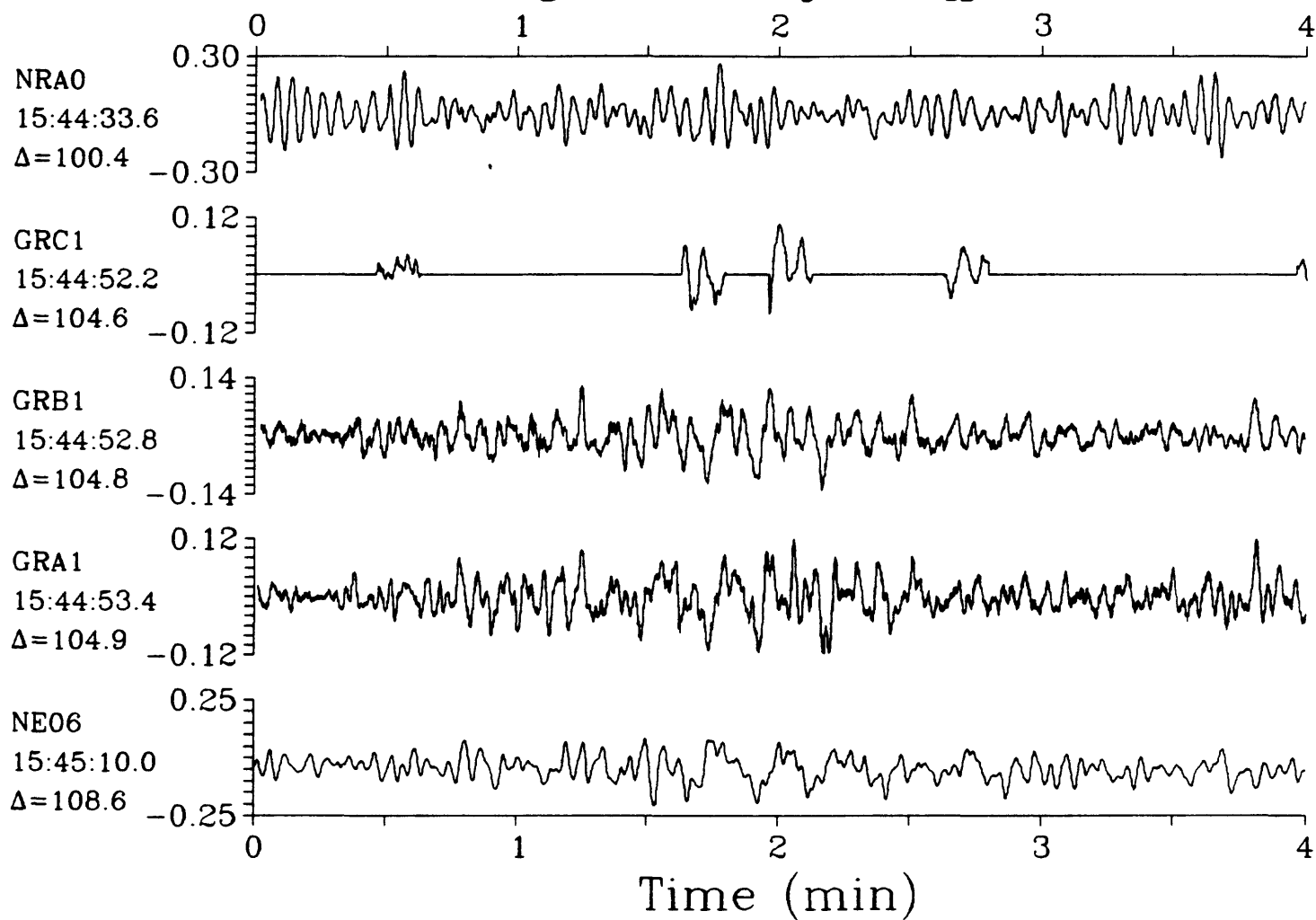
LPZ

Molucca Passage $h=33.0$ $m_b=6.2$ $M_{sz}=6.3$ 

IPZ

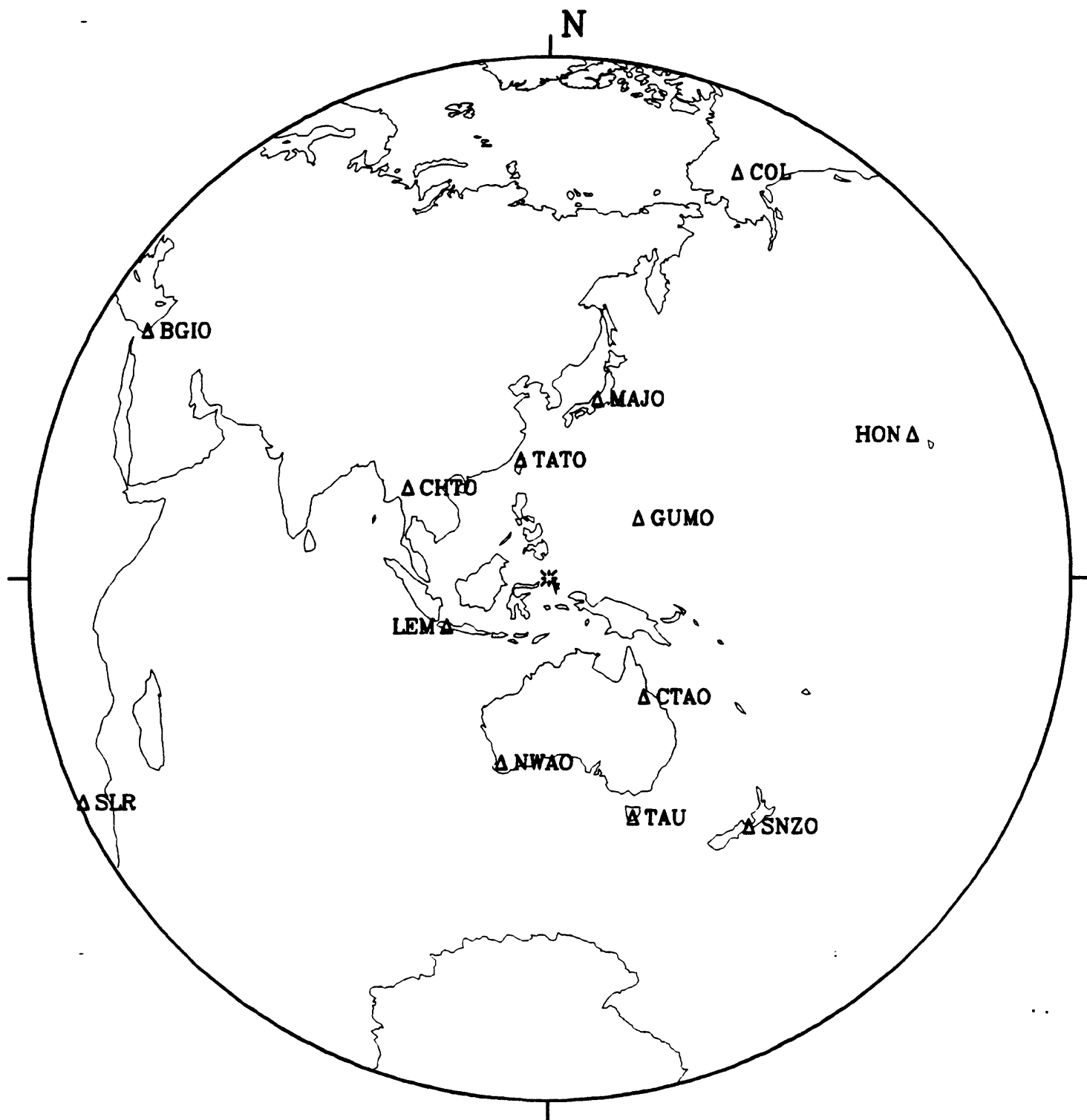
17 August 1986 15:31:19.52

IPZ

Molucca Passage $h=33.0$ $m_b=6.2$ $M_{sz}=6.3$ 

17 August 1986 15:52:09.62

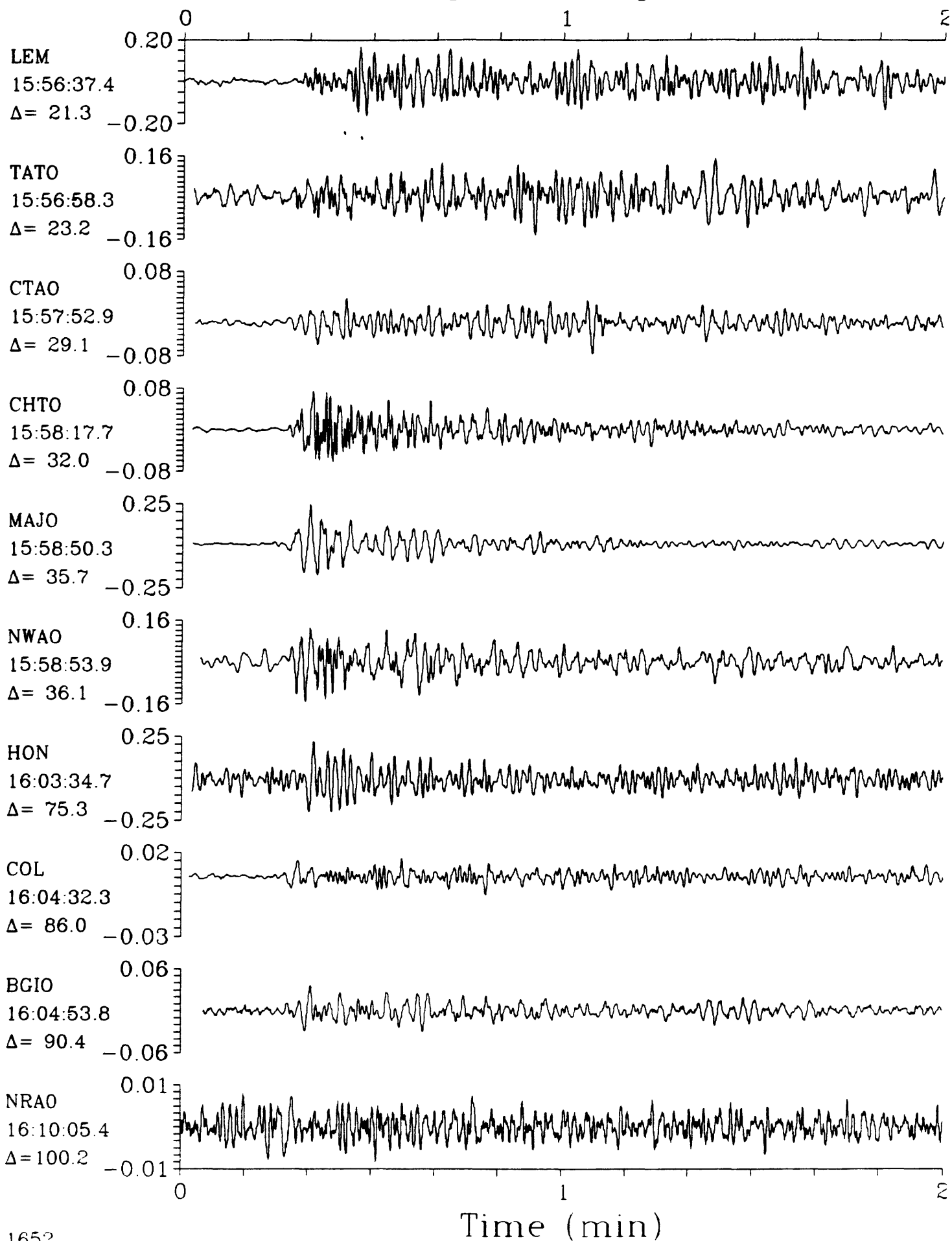
Molucca Passage



SPZ

17 August 1986 15:52:09.62
Molucca Passage $h=33.0$ $m_b=5.6$

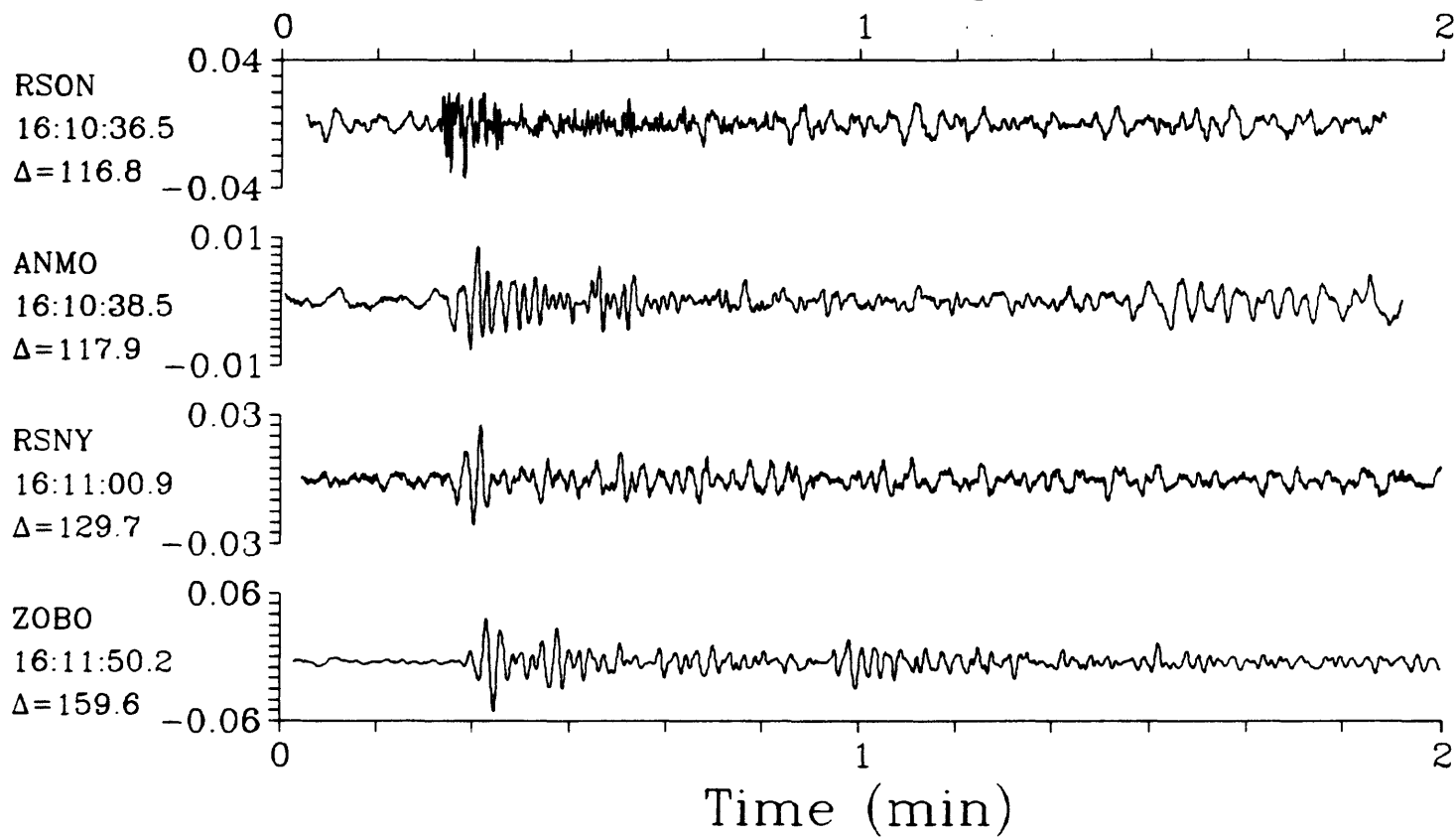
SPZ



SPZ

17 August 1986 15:52:09.62
Molucca Passage $h=33.0$ $m_b=5.6$

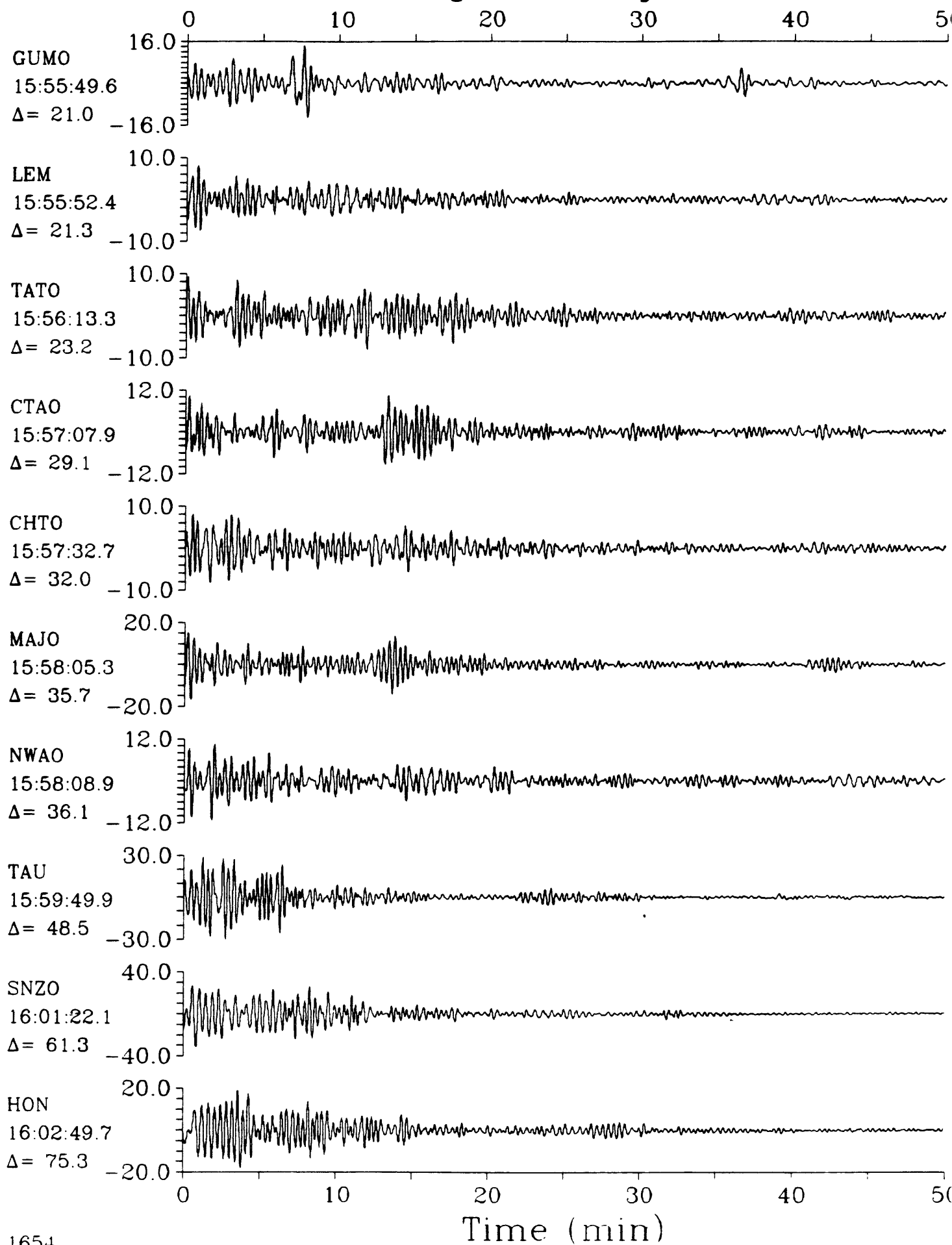
SPZ



LPZ

17 August 1986 15:52:09.62
Molucca Passage $h=33.0$ $m_b=5.6$

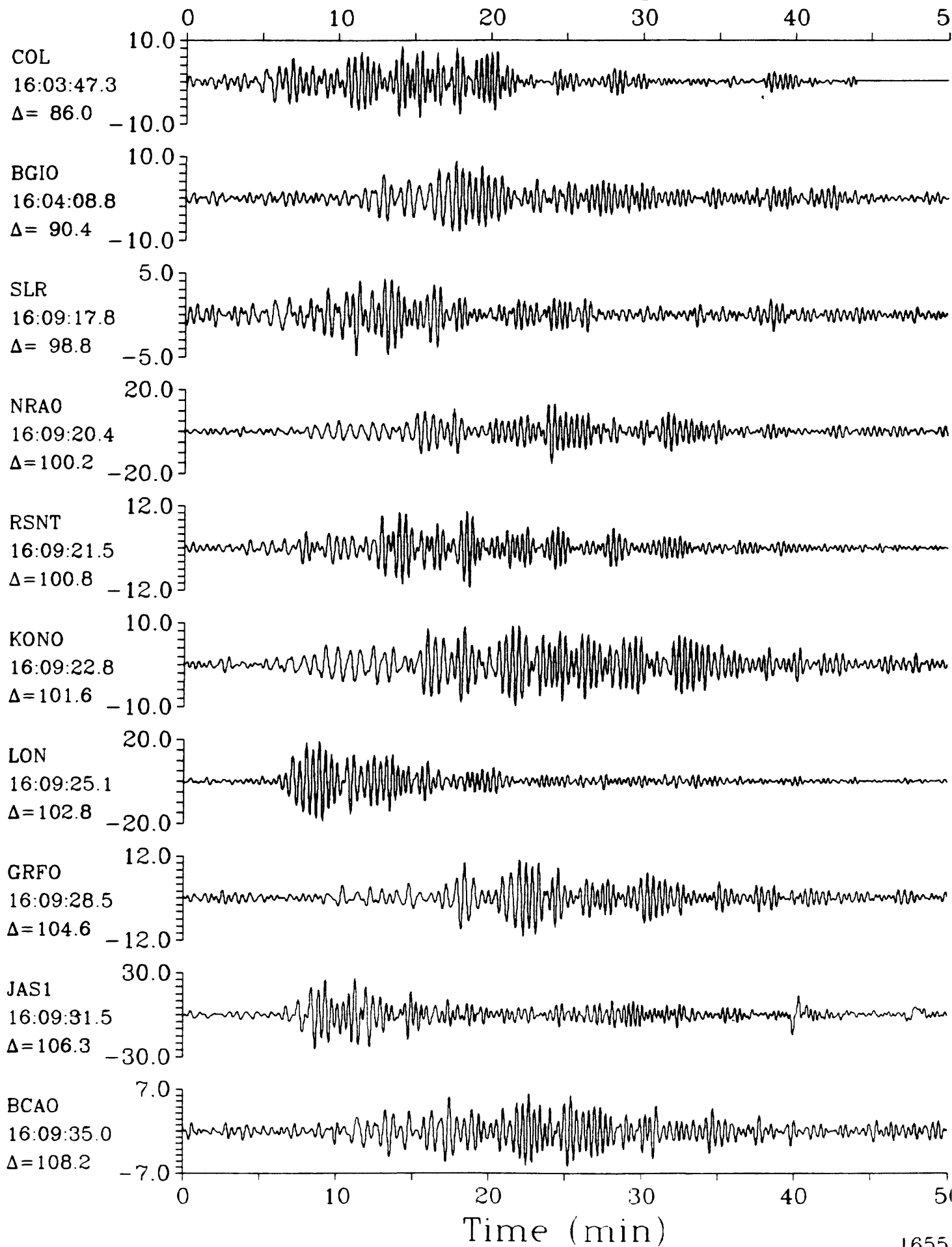
LPZ



LPZ

17 August 1986 15:52:09.62
Molucca Passage $h=33.0$ $m_b=5.6$

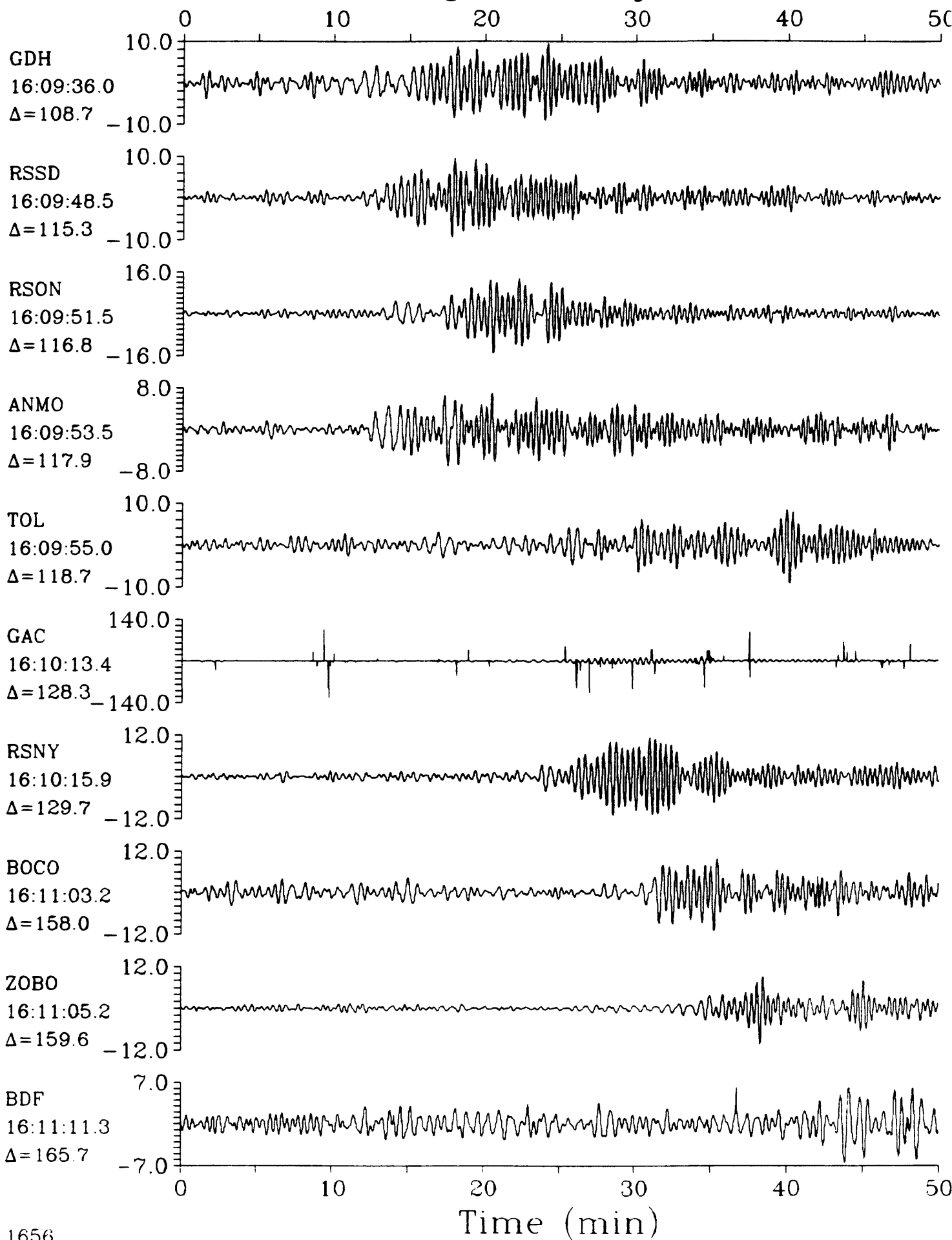
LPZ



LPZ

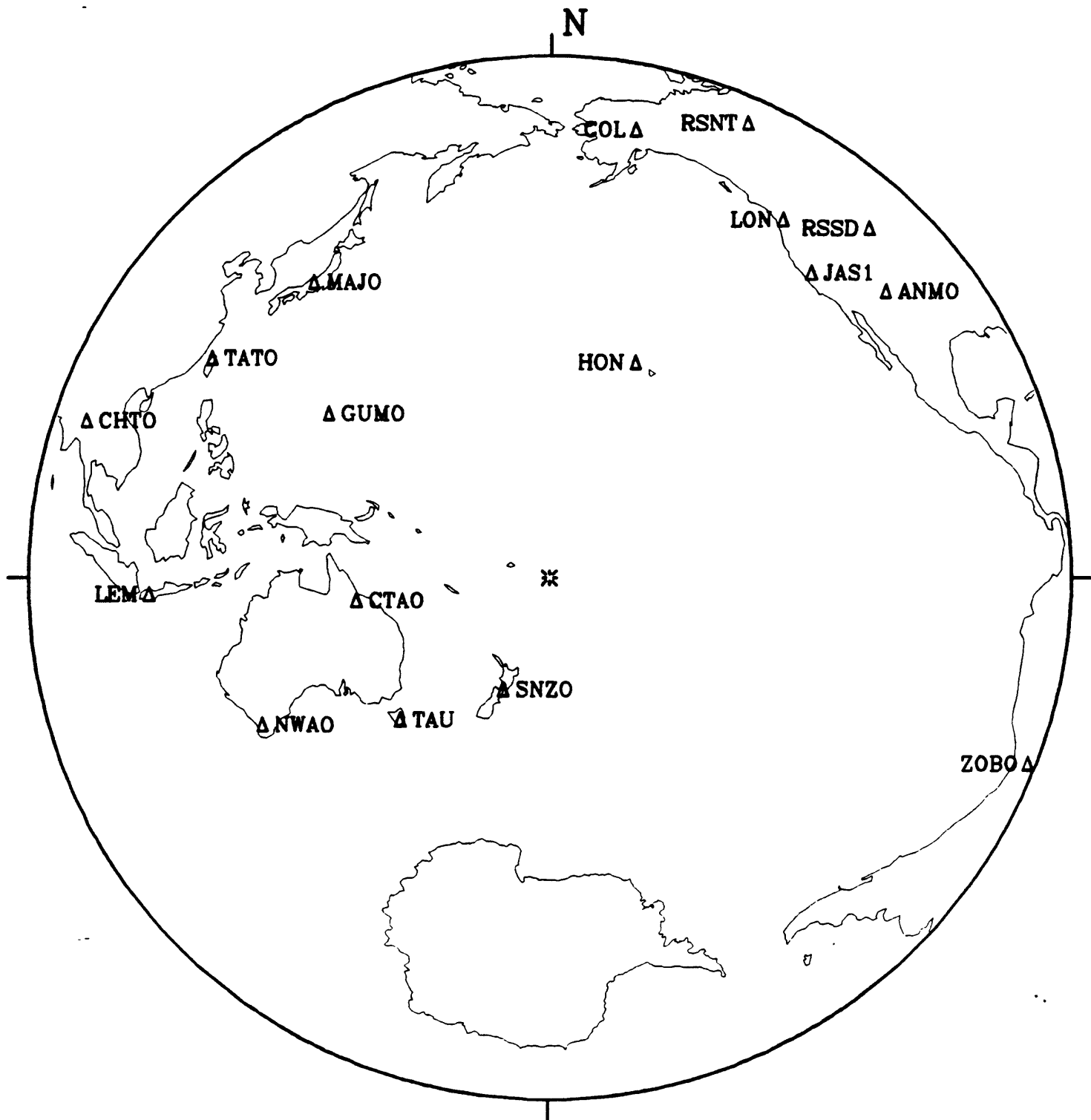
17 August 1986 15:52:09.62
Molucca Passage $h=33.0$ $m_b=5.6$

LPZ



18 August 1986 01:59:56.70

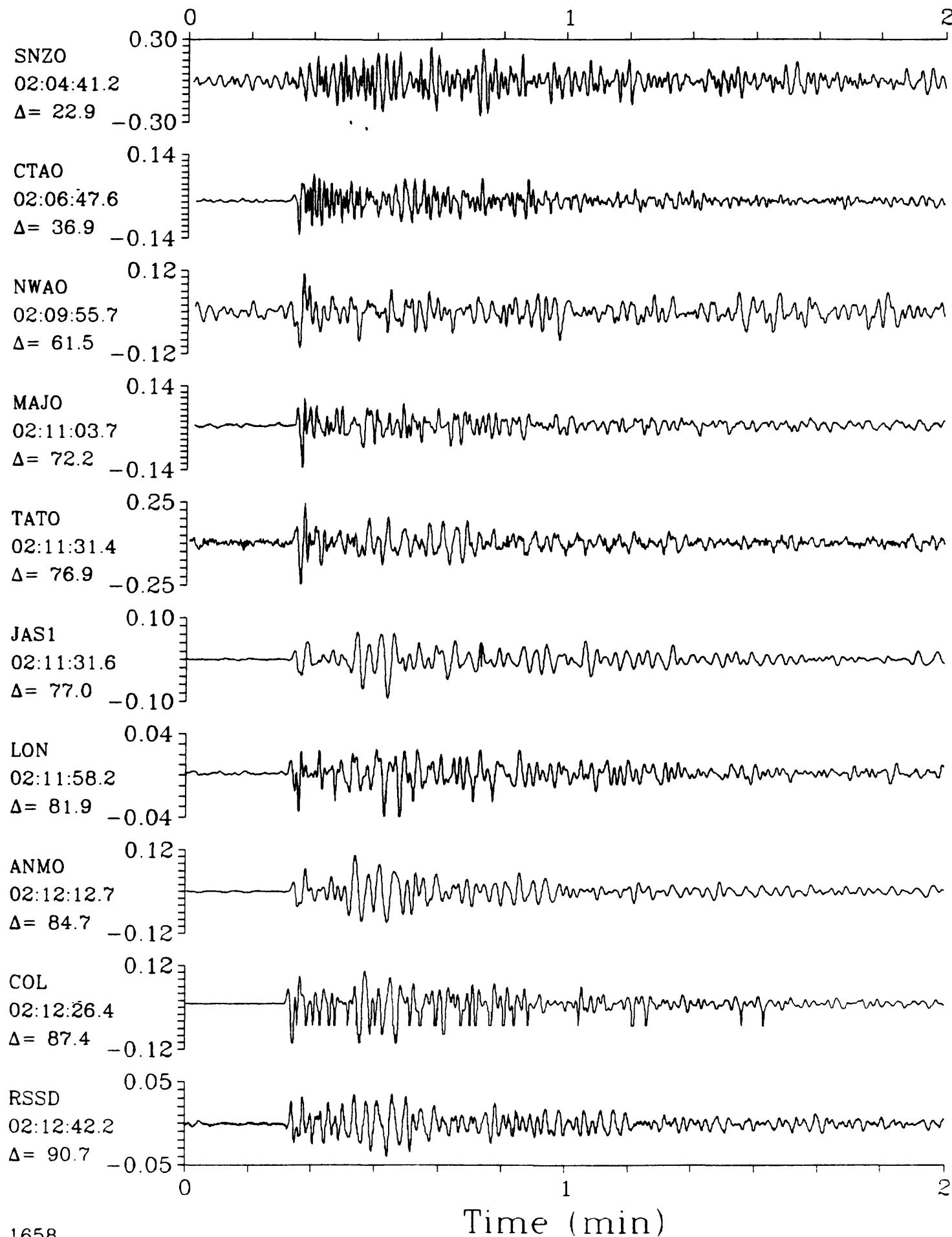
Tonga Islands



SPZ

18 August 1986 01:59:56.70

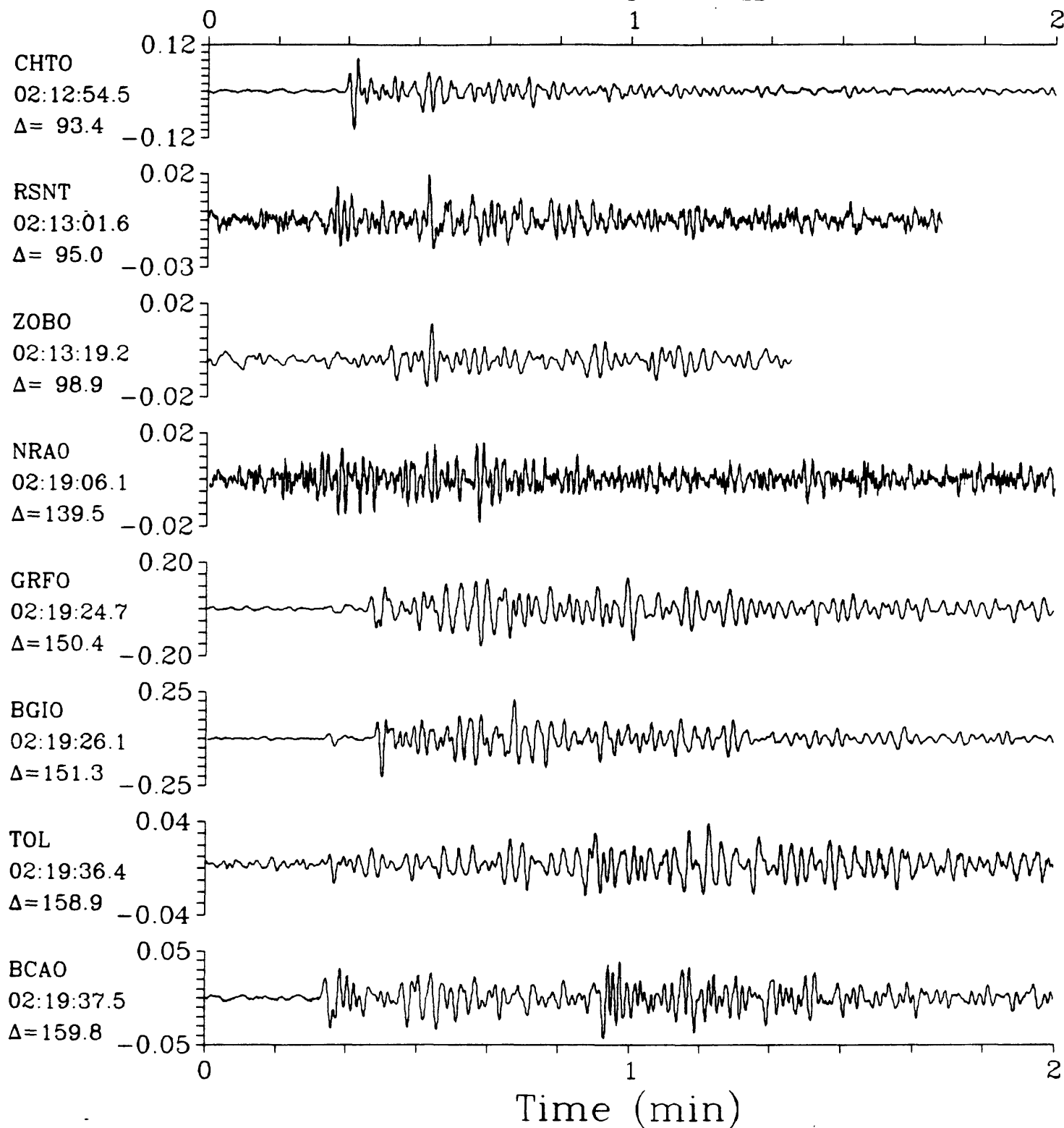
SPZ

Tonga Islands $h=33.0$ $m_b=5.8$ $M_{sz}=5.9$ 

SPZ

18 August 1986 01:59:56.70
Tonga Islands $h=33.0$ $m_b=5.8$ $M_{sz}=5.9$

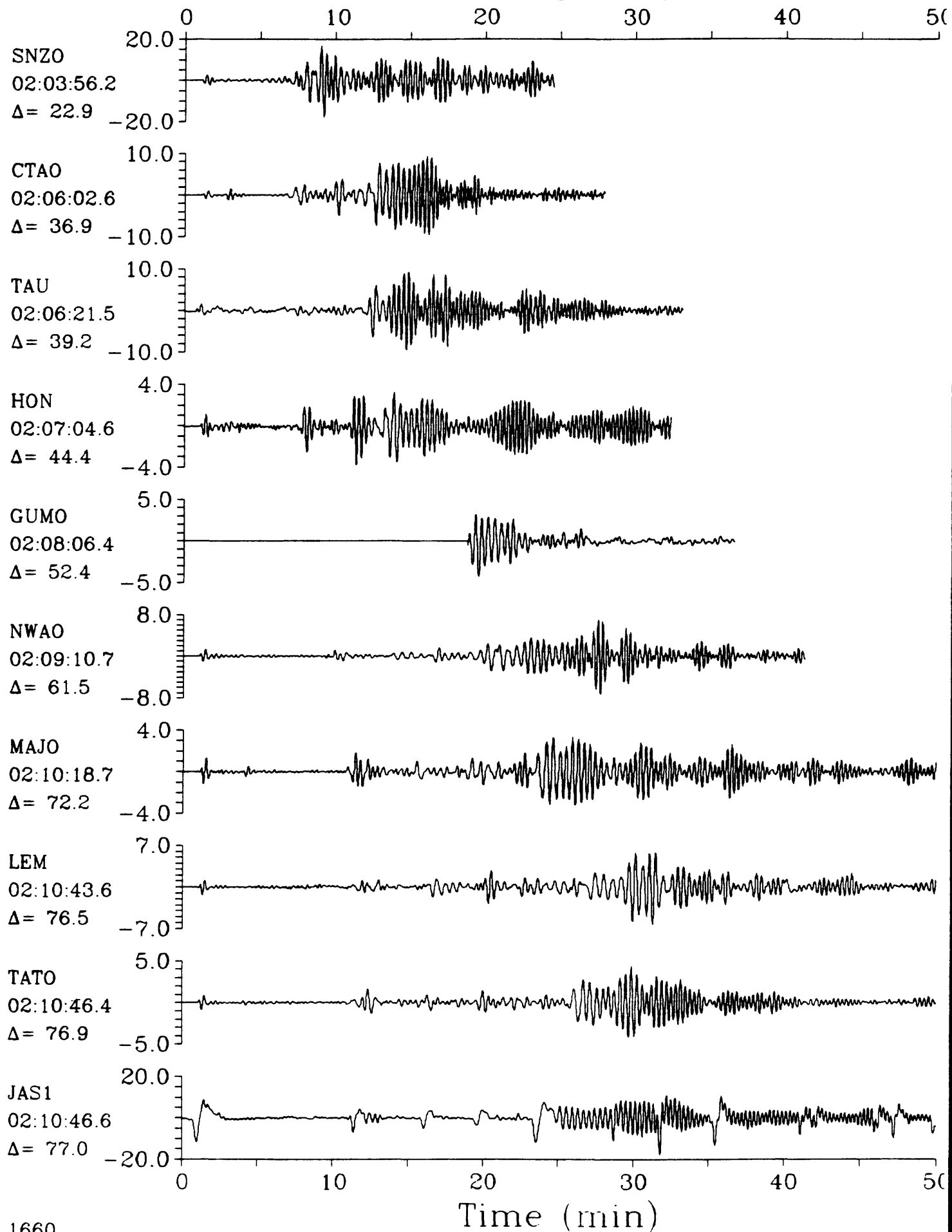
SPZ



LPZ

18 August 1986 01:59:56.70
Tonga Islands $h=33.0$ $m_b=5.8$ $M_{sz}=5.9$

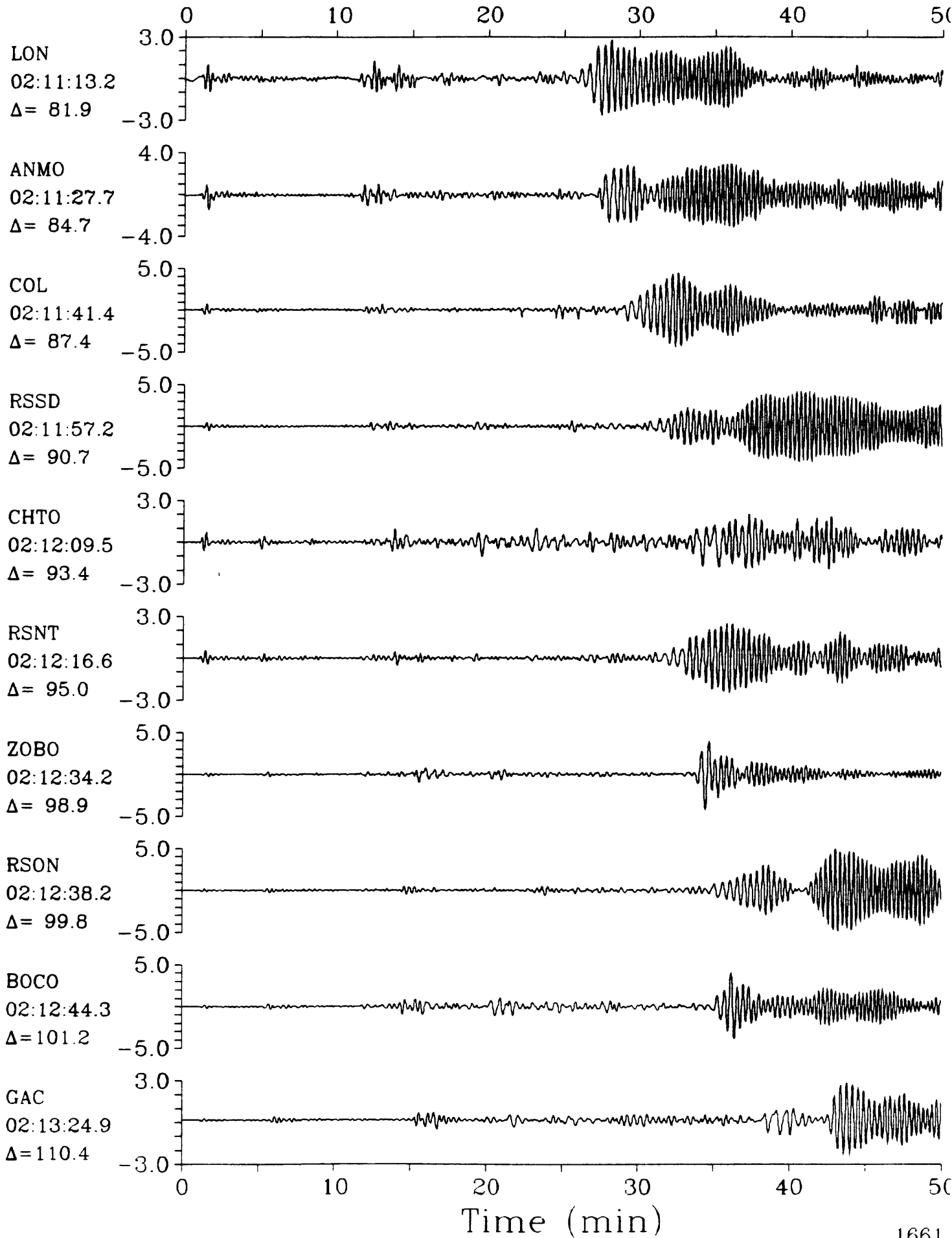
LPZ



LPZ

18 August 1986 01:59:56.70

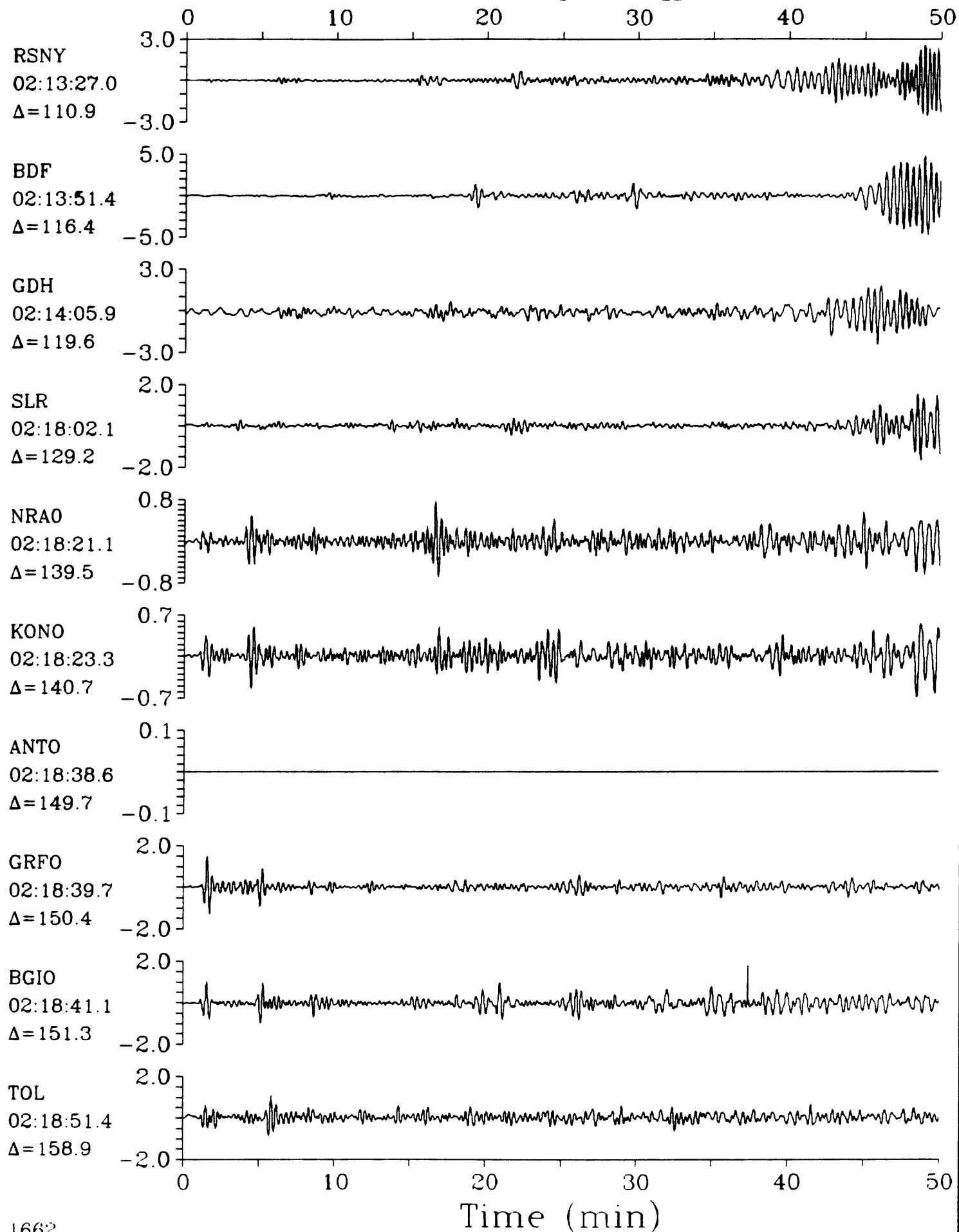
LPZ

Tonga Islands $h=33.0$ $m_b=5.8$ $M_{sz}=5.9$ 

LPZ

18 August 1986 01:59:56.70
Tonga Islands $h=33.0$ $m_b=5.8$ $M_{sz}=5.9$

LPZ



LPZ

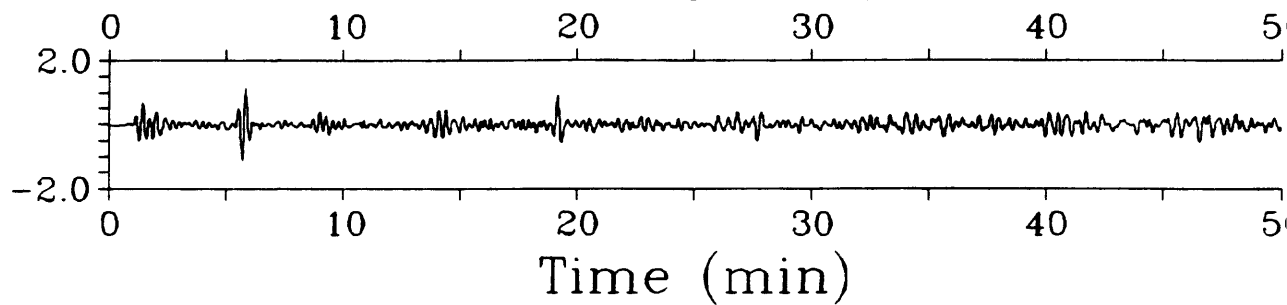
18 August 1986 01:59:56.70

LPZ

Tonga Islands $h=33.0$ $m_b=5.8$ $M_{sz}=5.9$

BCAO

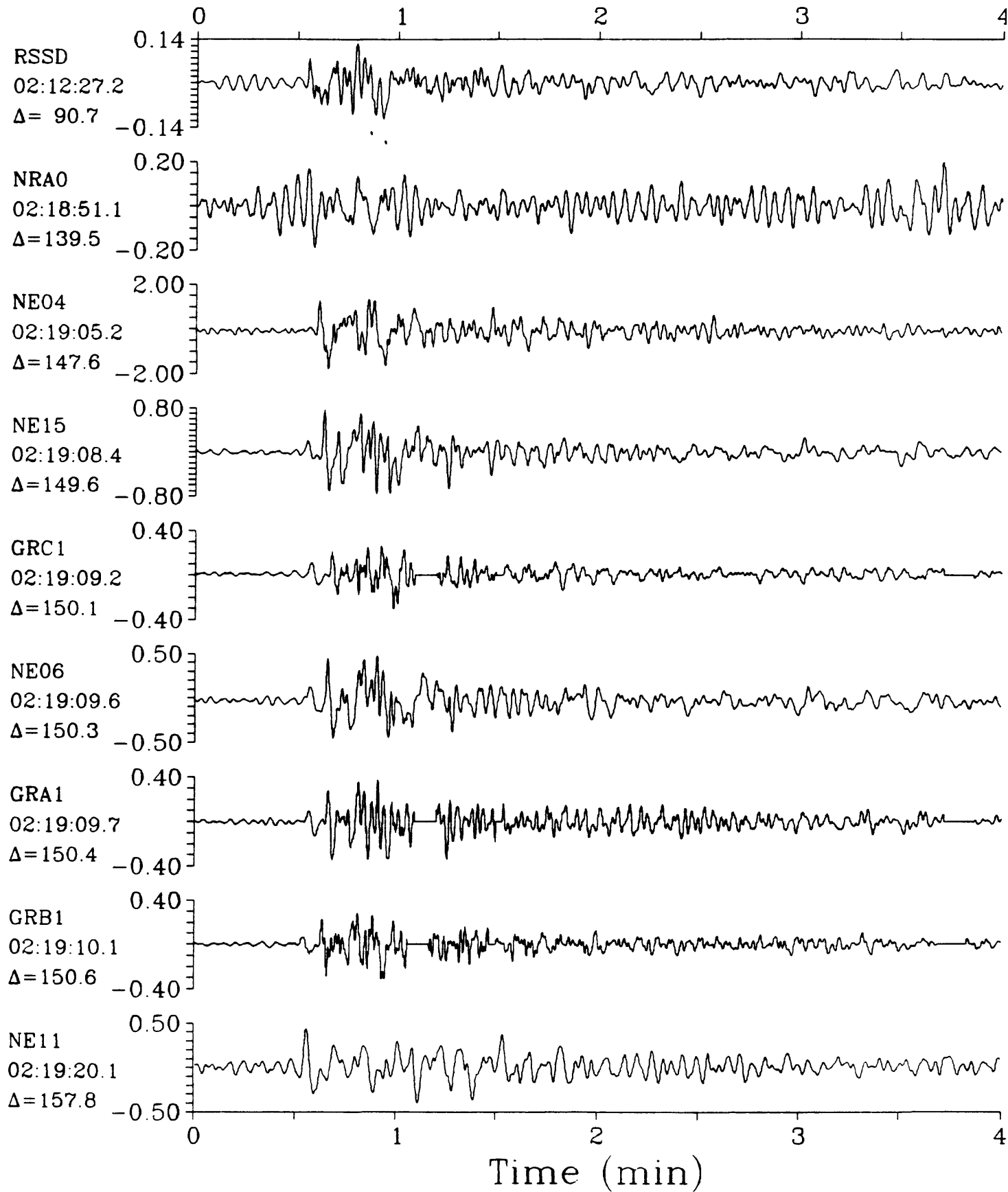
02:18:52.5

 $\Delta=159.8$ 

IPZ

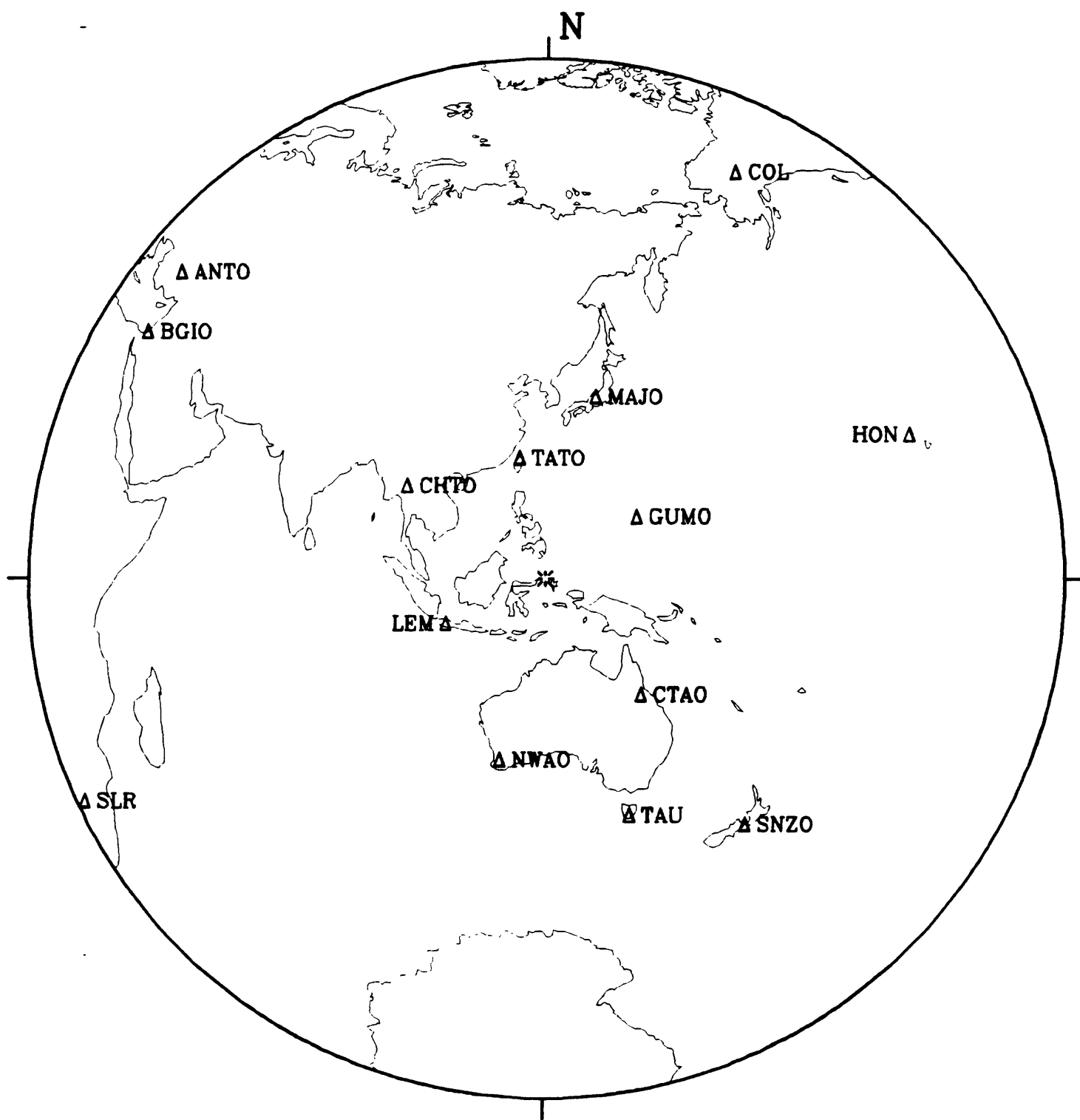
18 August 1986 01:59:56.70
Tonga Islands $h=33.0$ $m_b=5.8$ $M_{sz}=5.9$

IPZ



18 August 1986 14:16:14.43

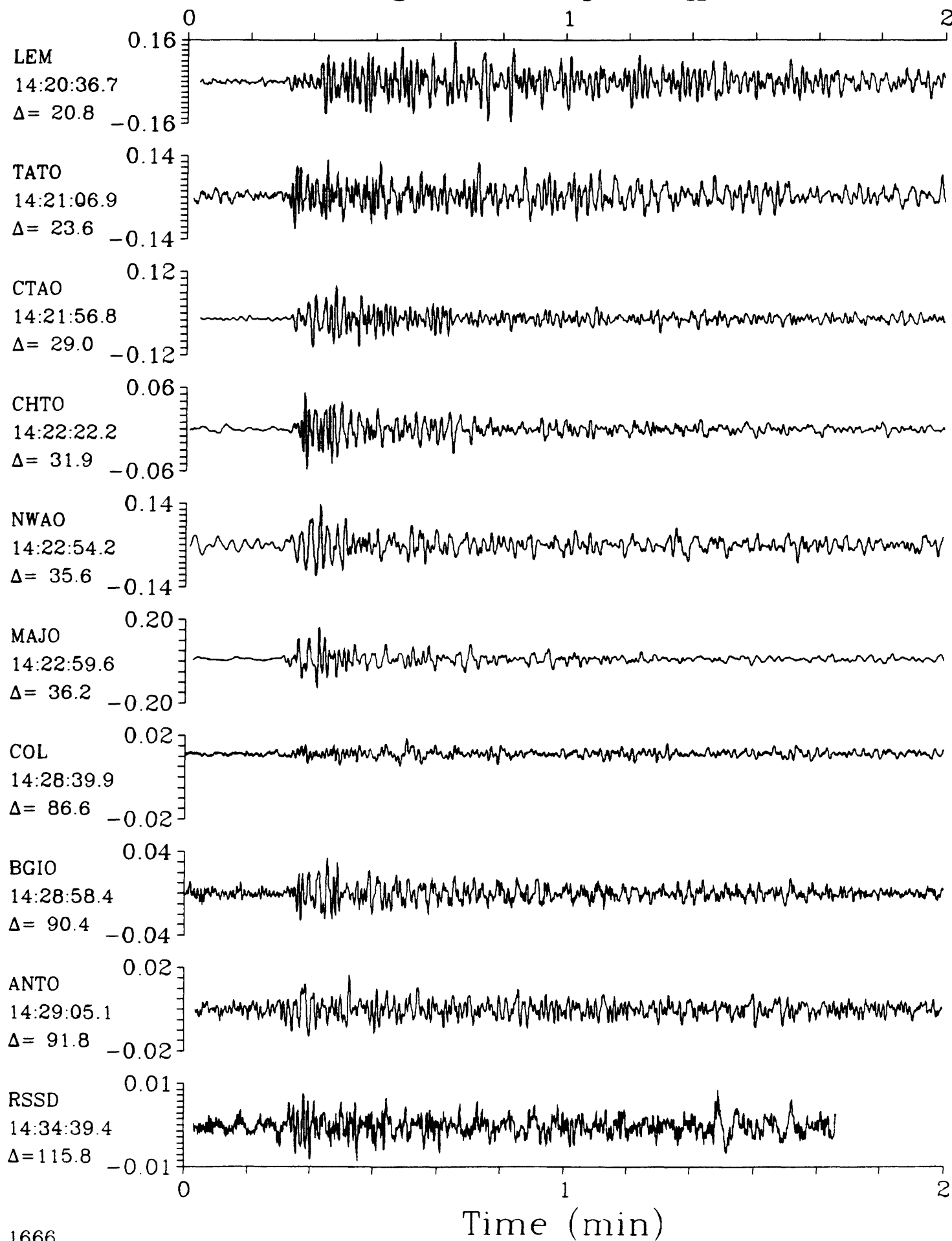
Molucca Passage



SPZ

18 August 1986 14:16:14.43

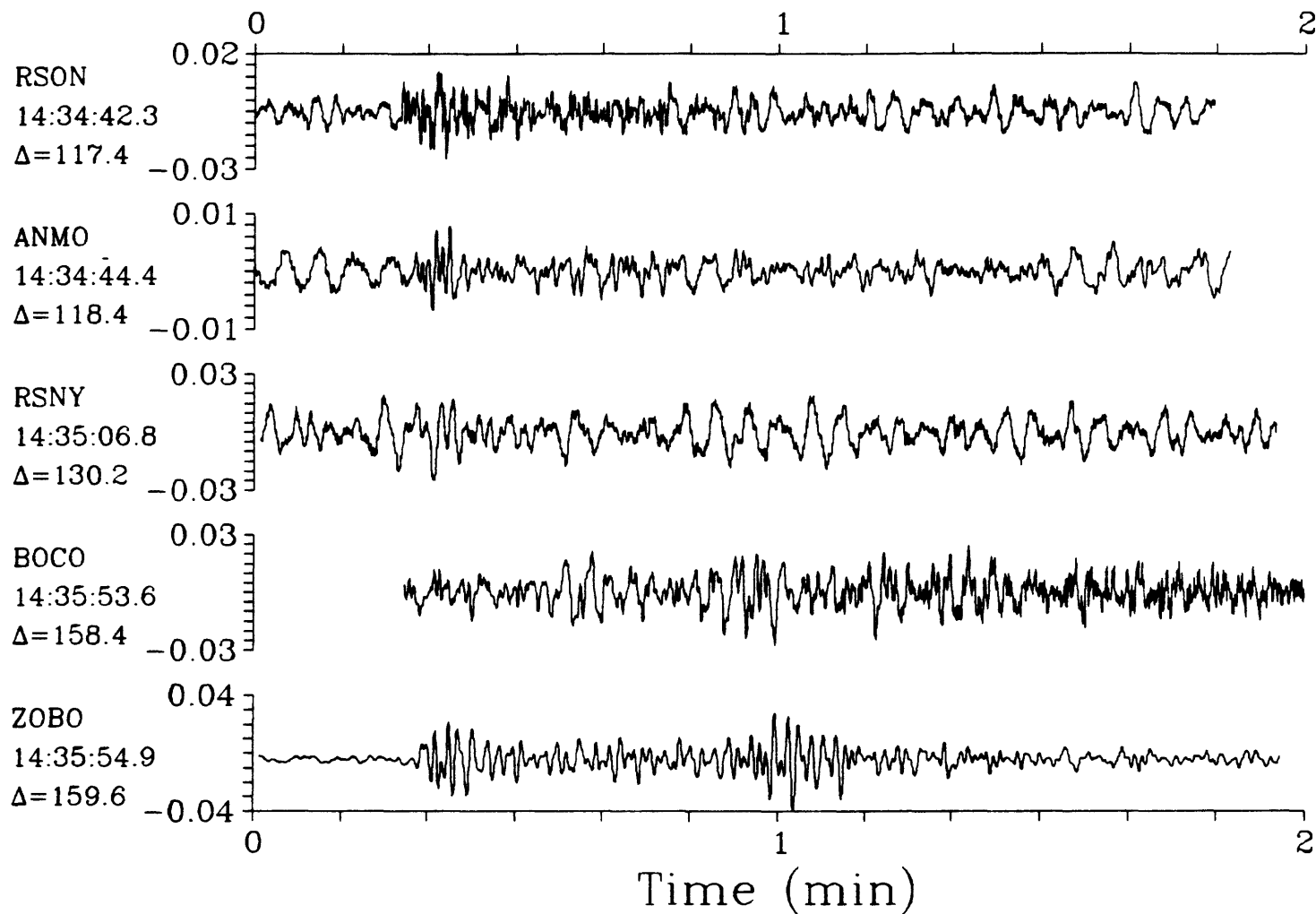
SPZ

Molucca Passage $h=33.0$ $m_b=5.5$ $M_{SZ}=5.2$ 

SPZ

18 August 1986 14:16:14.43

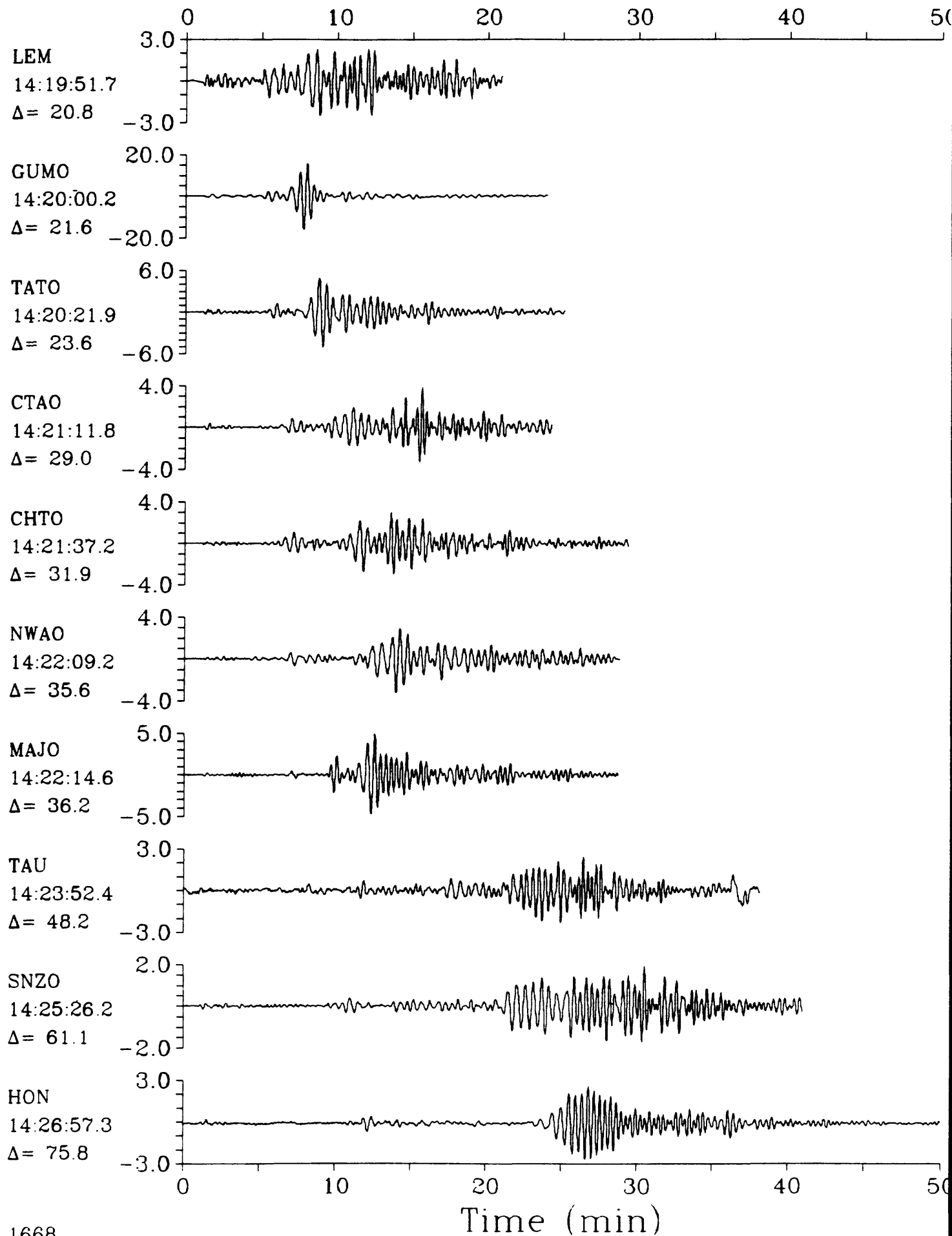
SPZ

Molucca Passage $h=33.0$ $m_b=5.5$ $M_{sz}=5.2$ 

LPZ

18 August 1986 14:16:14.43

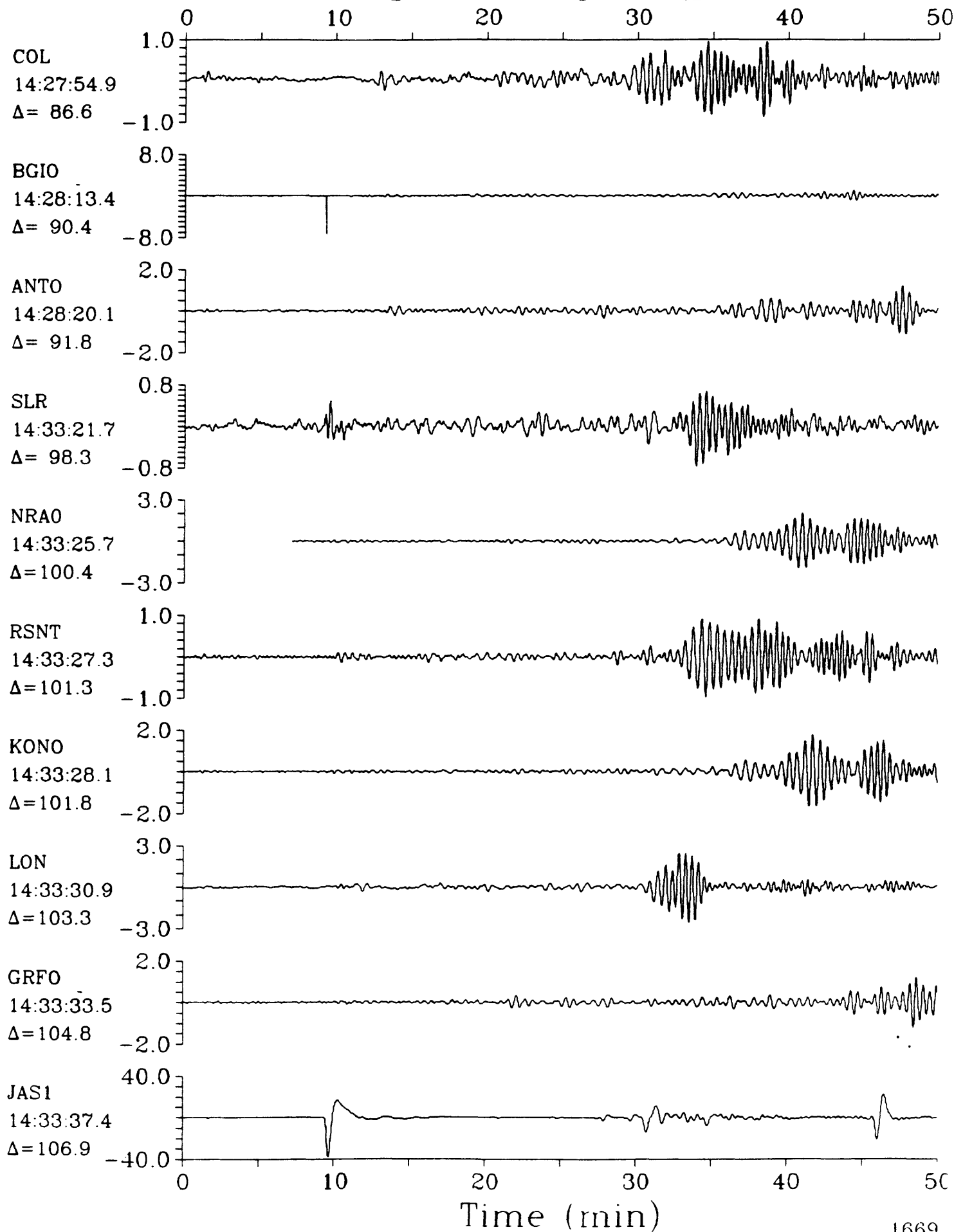
LPZ

Molucca Passage $h=33.0$ $m_b=5.5$ $M_{sz}=5.2$ 

LPZ

18 August 1986 14:16:14.43

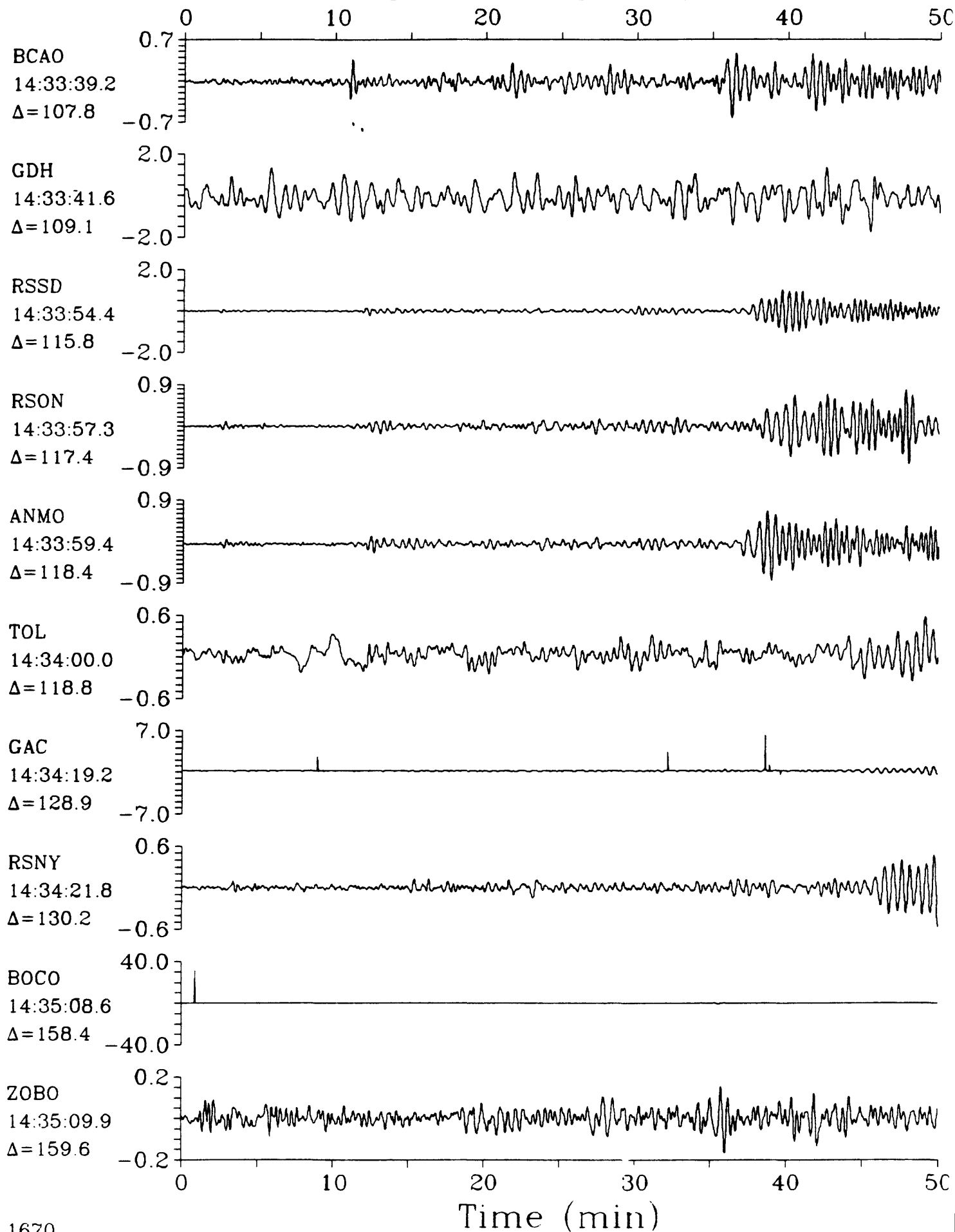
LPZ

Molucca Passage $h=33.0$ $m_b=5.5$ $M_{sz}=5.2$ 

LPZ

18 August 1986 14:16:14.43

LPZ

Molucca Passage $h=33.0$ $m_b=5.5$ $M_{sz}=5.2$ 

LPZ

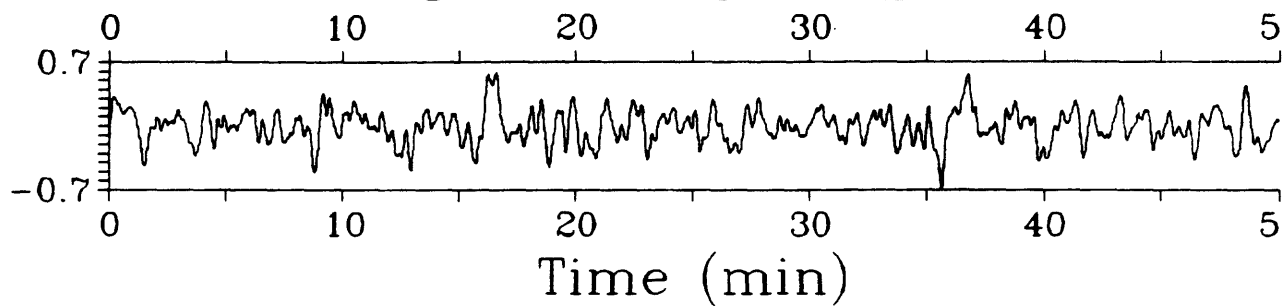
18 August 1986 14:16:14.43

LPZ

Molucca Passage $h=33.0$ $m_b=5.5$ $M_{sz}=5.2$

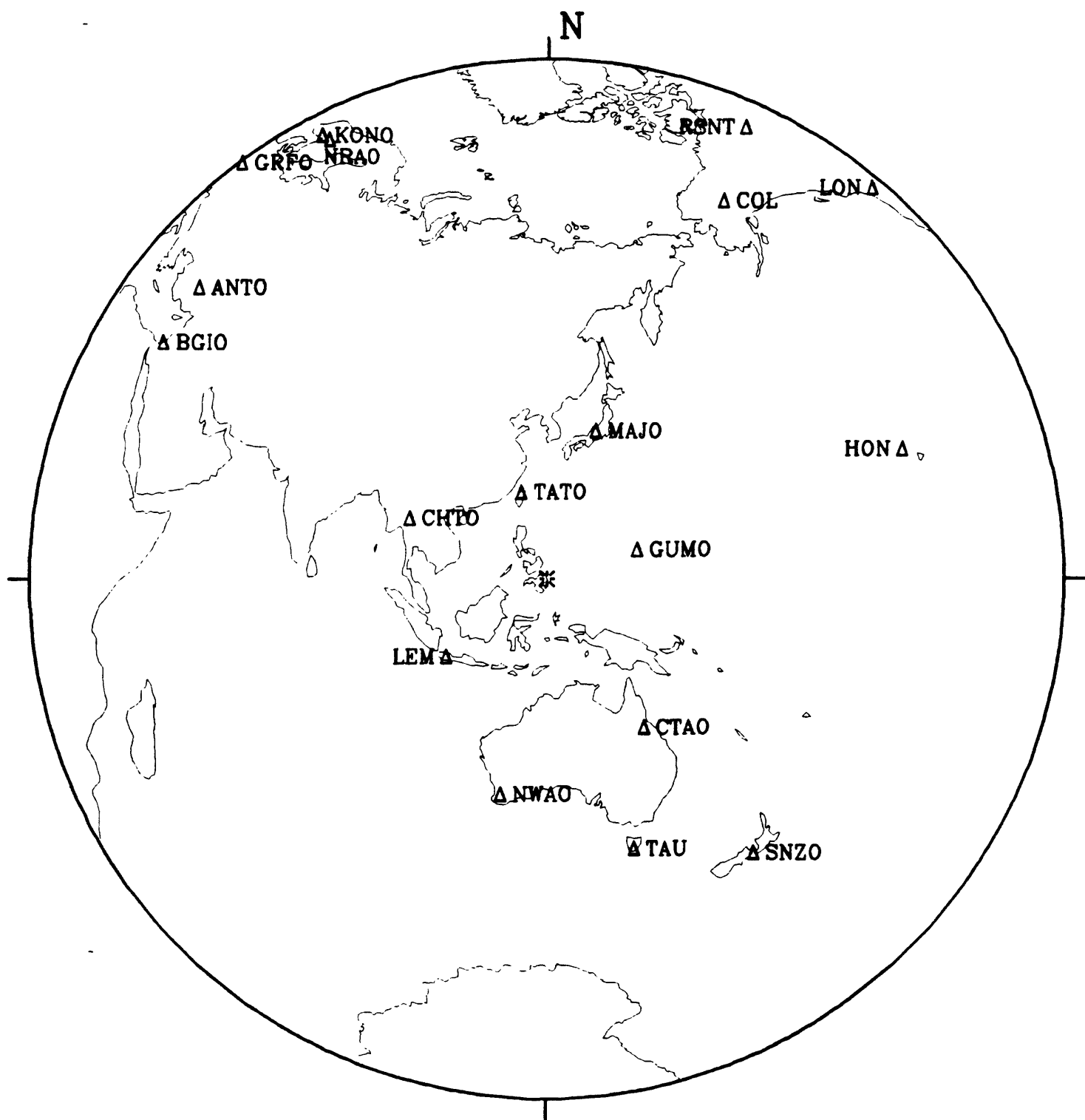
BDF

14:35:15.6

 $\Delta=165.2$ 

19 August 1986 00:27:40.62

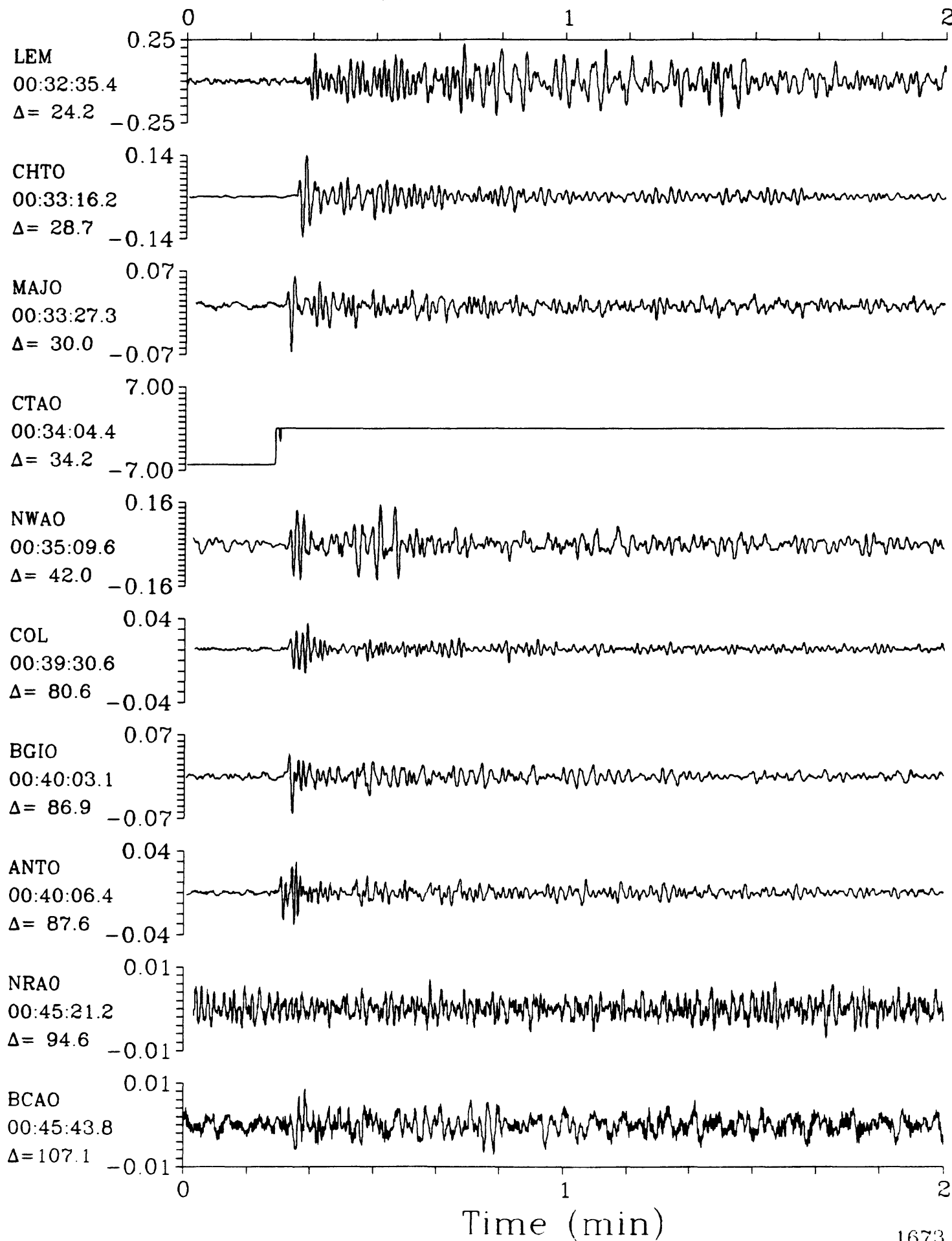
Mindanao, Philippine Islands



SPZ

19 August 1986 00:27:40.62

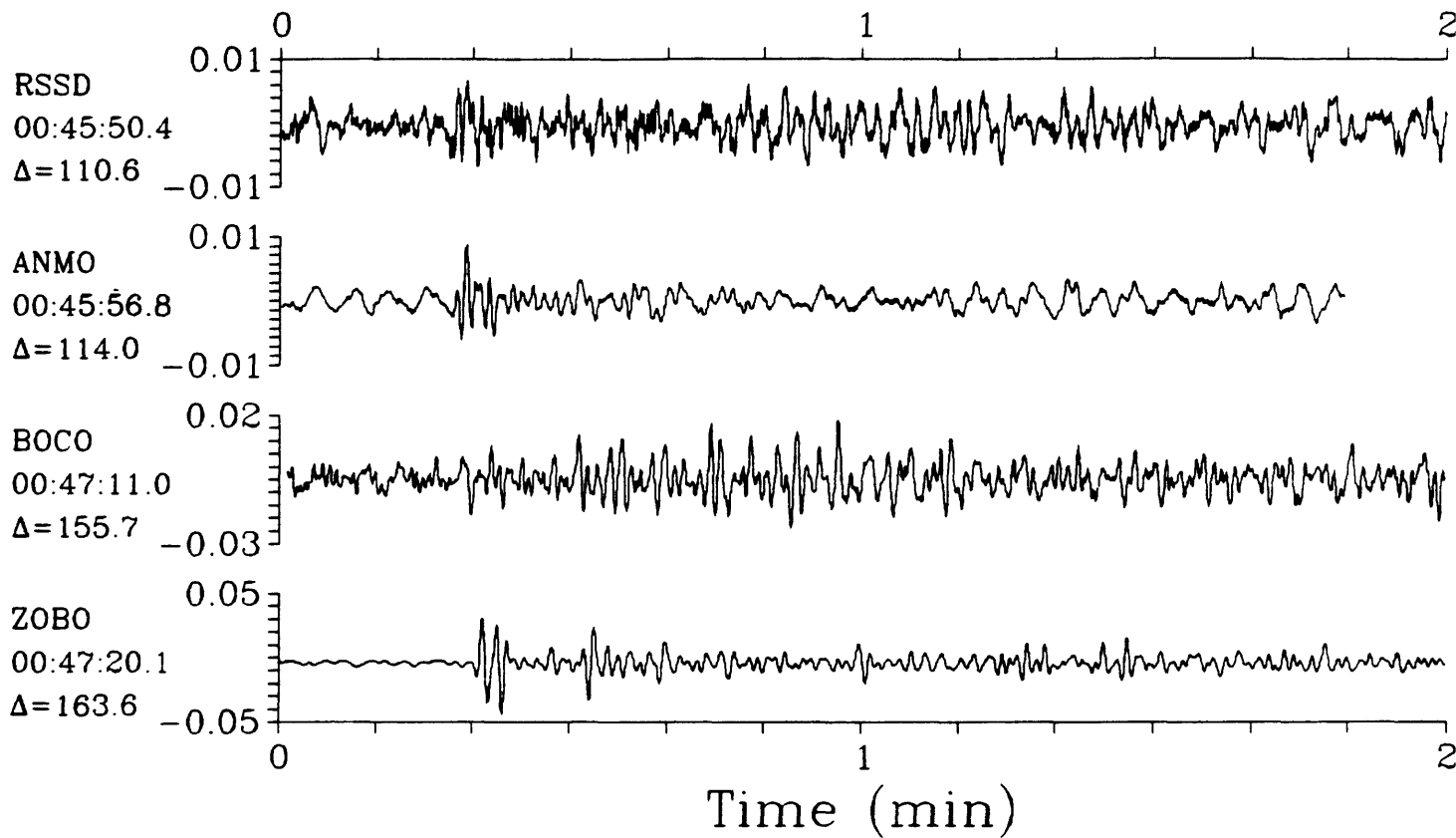
SPZ

Mindanao, Philippine Islands $h=75.2$ $m_b=5.5$ 

SPZ

19 August 1986 00:27:40.62

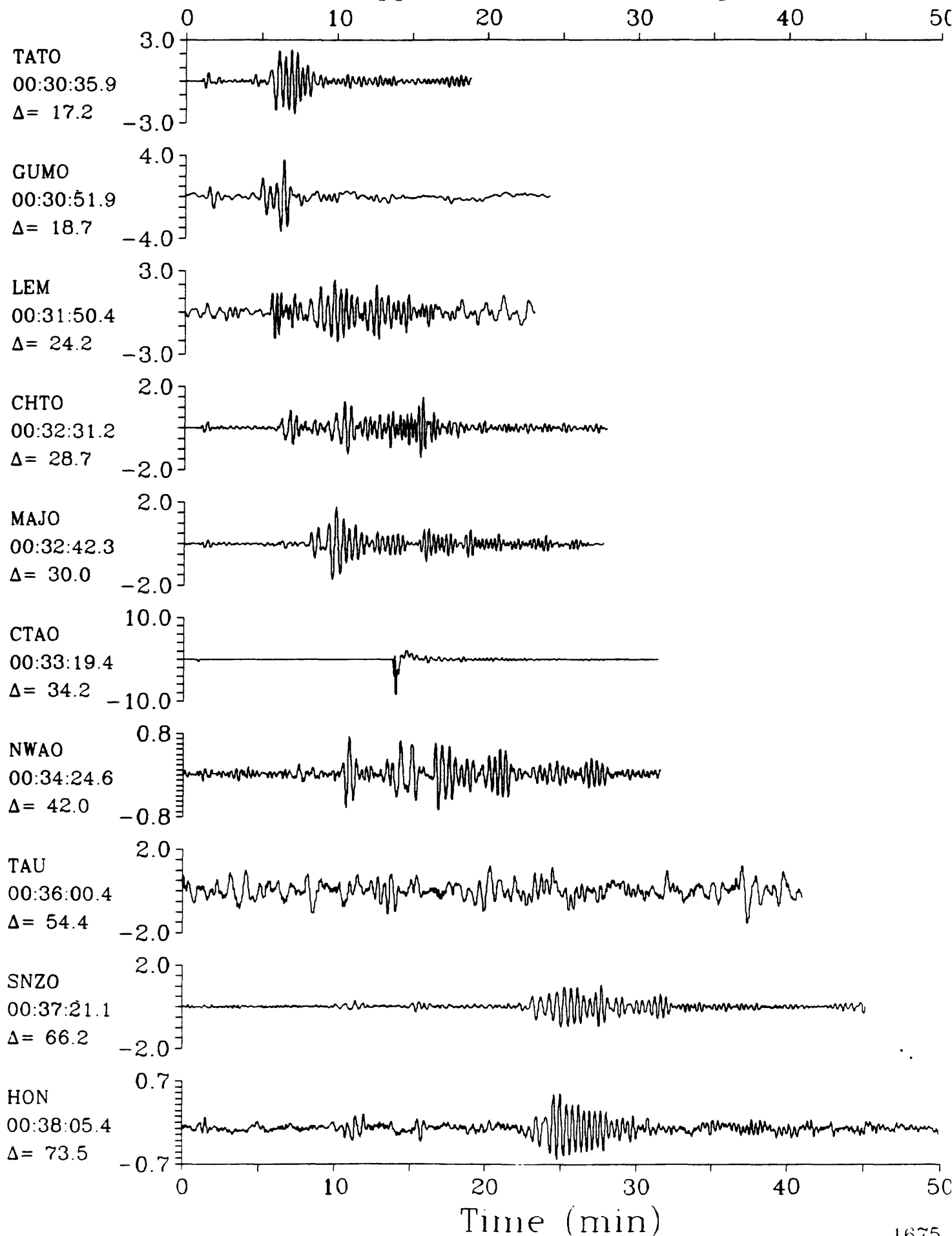
SPZ

Mindanao, Philippine Islands $h=75.2$ $m_b=5.5$ 

LPZ

19 August 1986 00:27:40.62

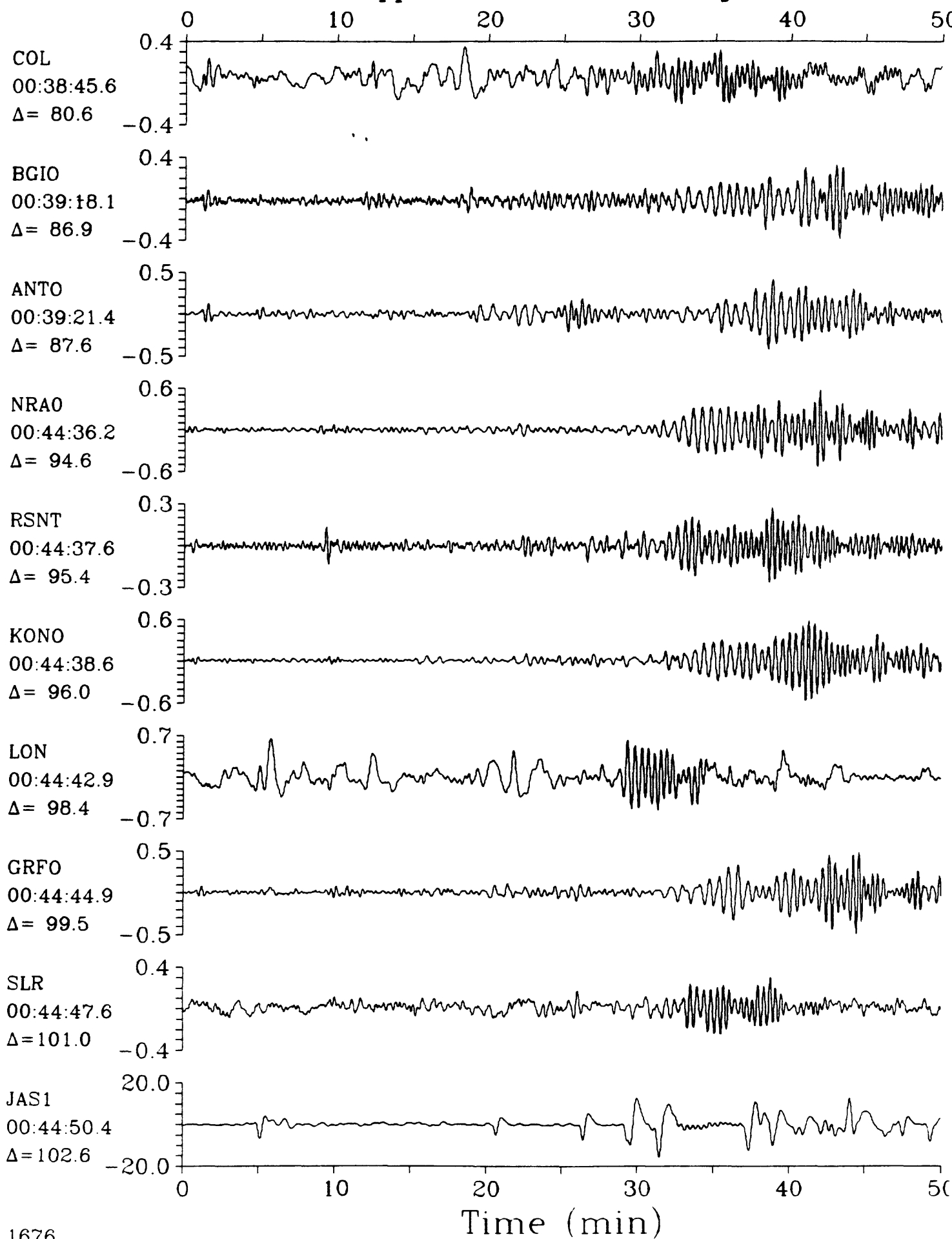
LPZ

Mindanao, Philippine Islands $h=75.2$ $m_b=5.5$ 

LPZ

19 August 1986 00:27:40.62

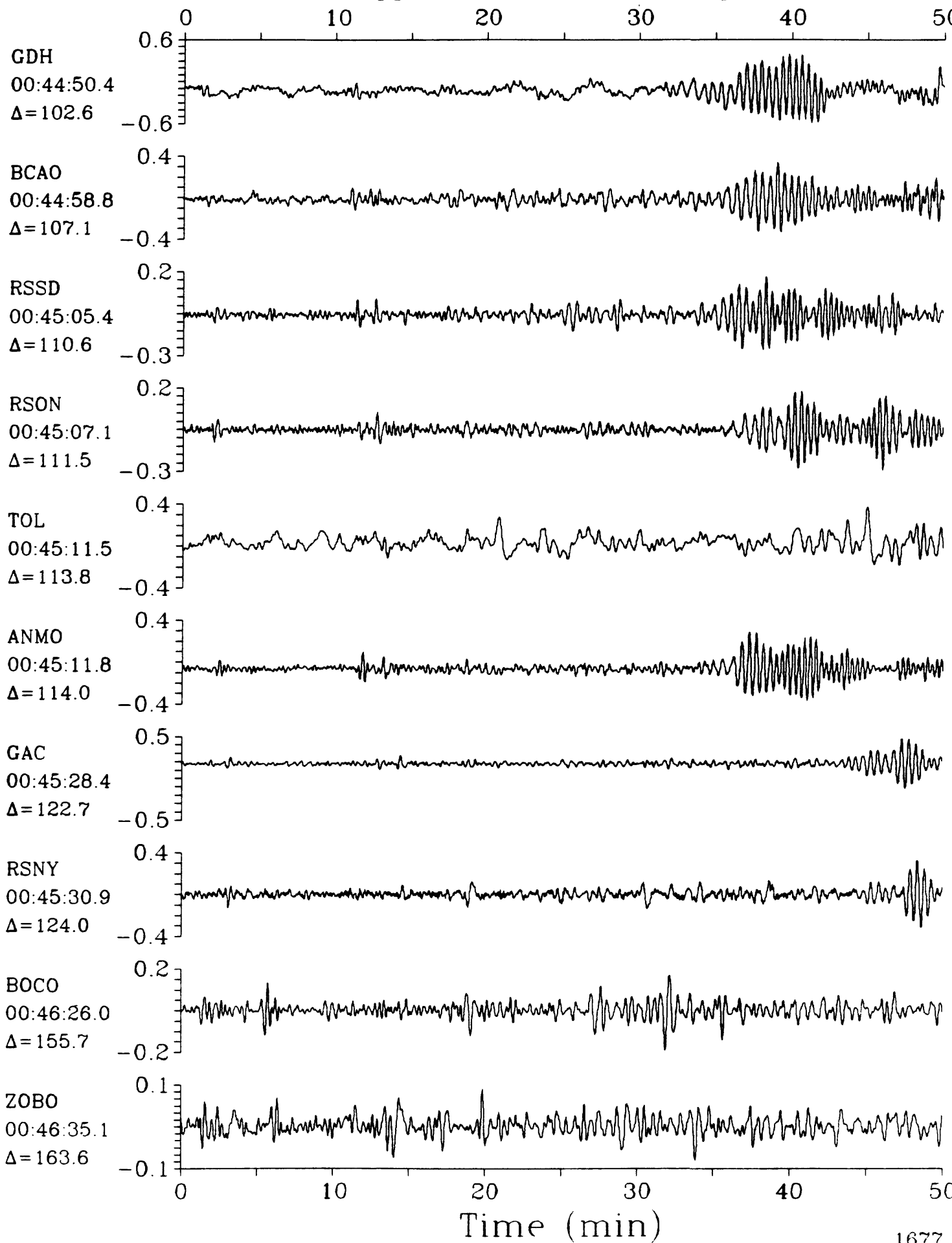
LPZ

Mindanao, Philippine Islands $h=75.2$ $m_b=5.5$ 

LPZ

19 August 1986 00:27:40.62

LPZ

Mindanao, Philippine Islands $h=75.2$ $m_b=5.5$ 

LPZ

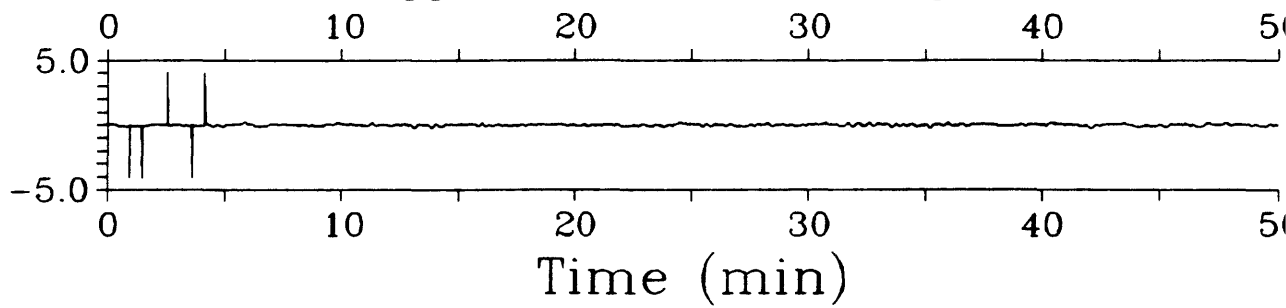
19 August 1986 00:27:40.62

LPZ

Mindanao, Philippine Islands $h=75.2$ $m_b=5.5$

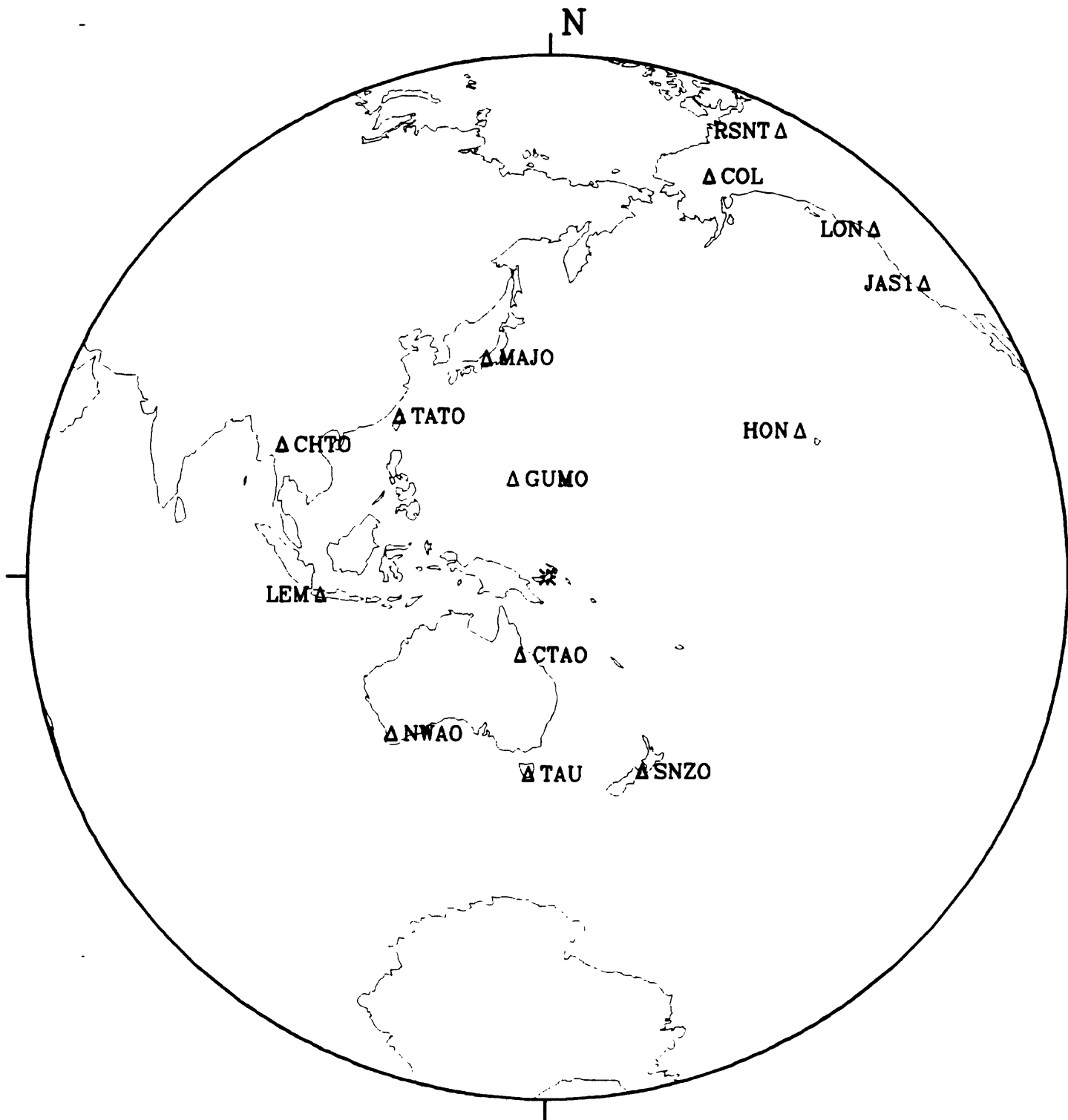
BDF

00:46:40.5

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20 August 1986 07:05:02.58

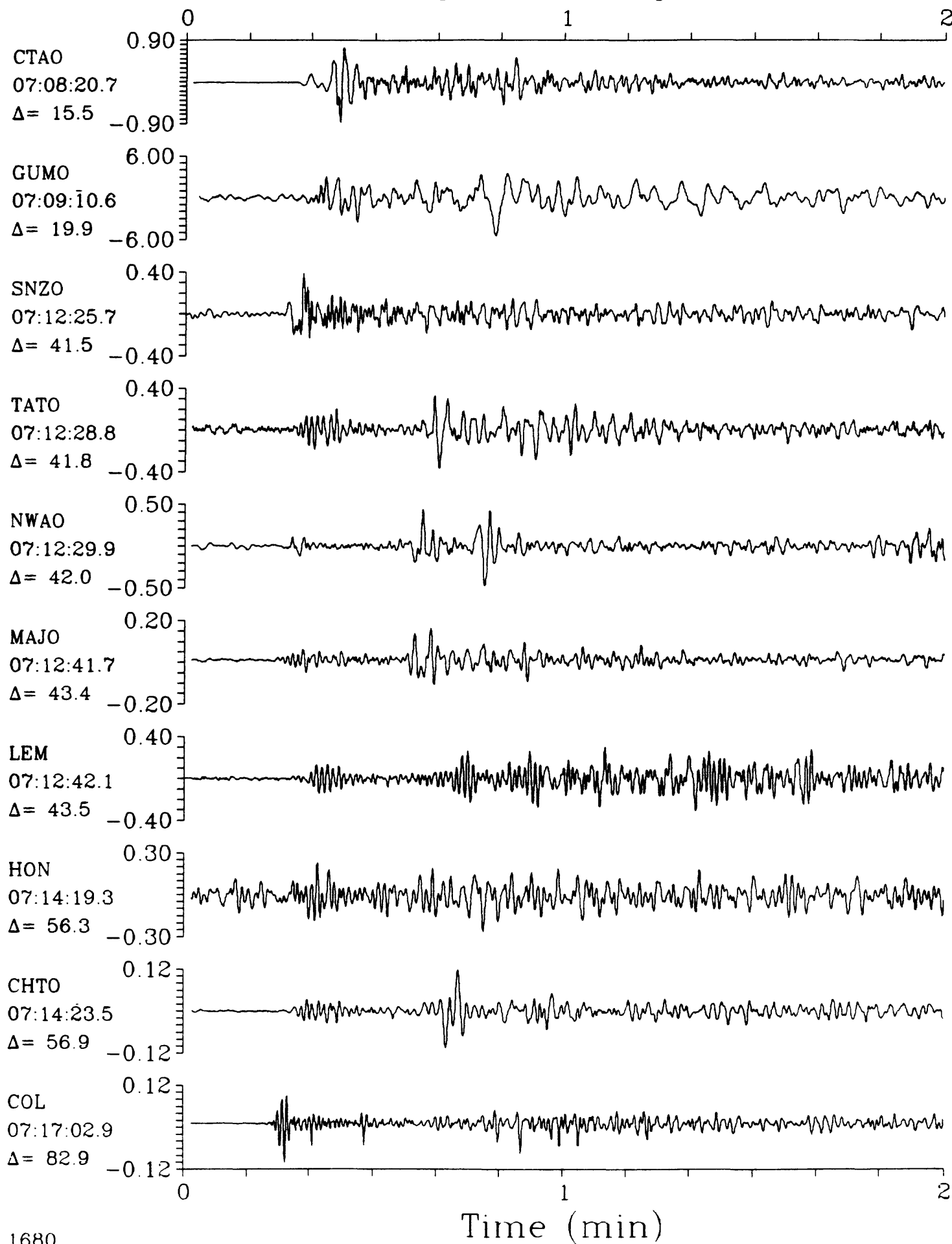
New Britain Region



SPZ

20 August 1986 07:05:02.58
New Britain Region $h=90.4$ $m_b=5.7$

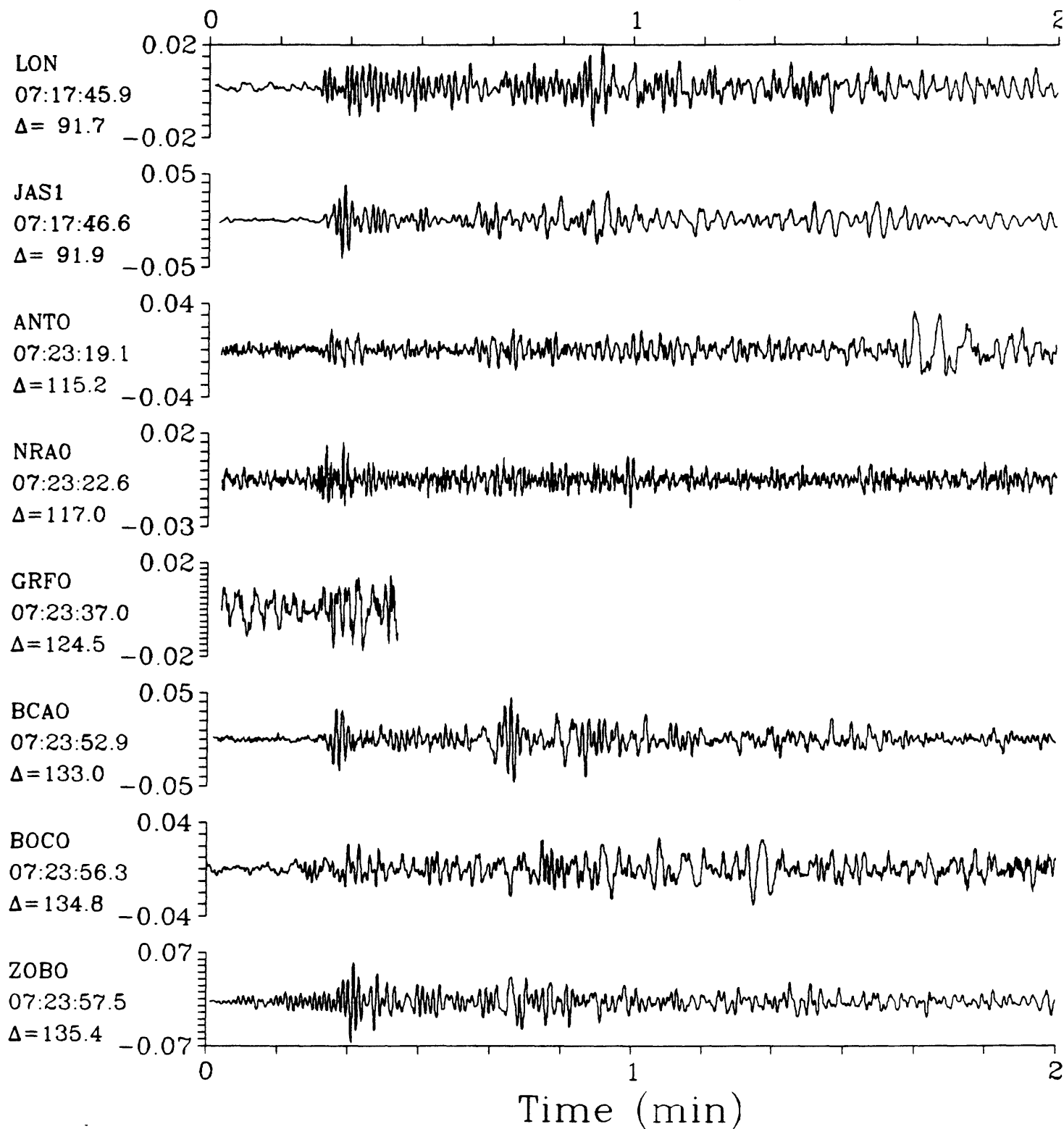
SPZ



SPZ

20 August 1986 07:05:02.58
New Britain Region $h=90.4$ $m_b=5.7$

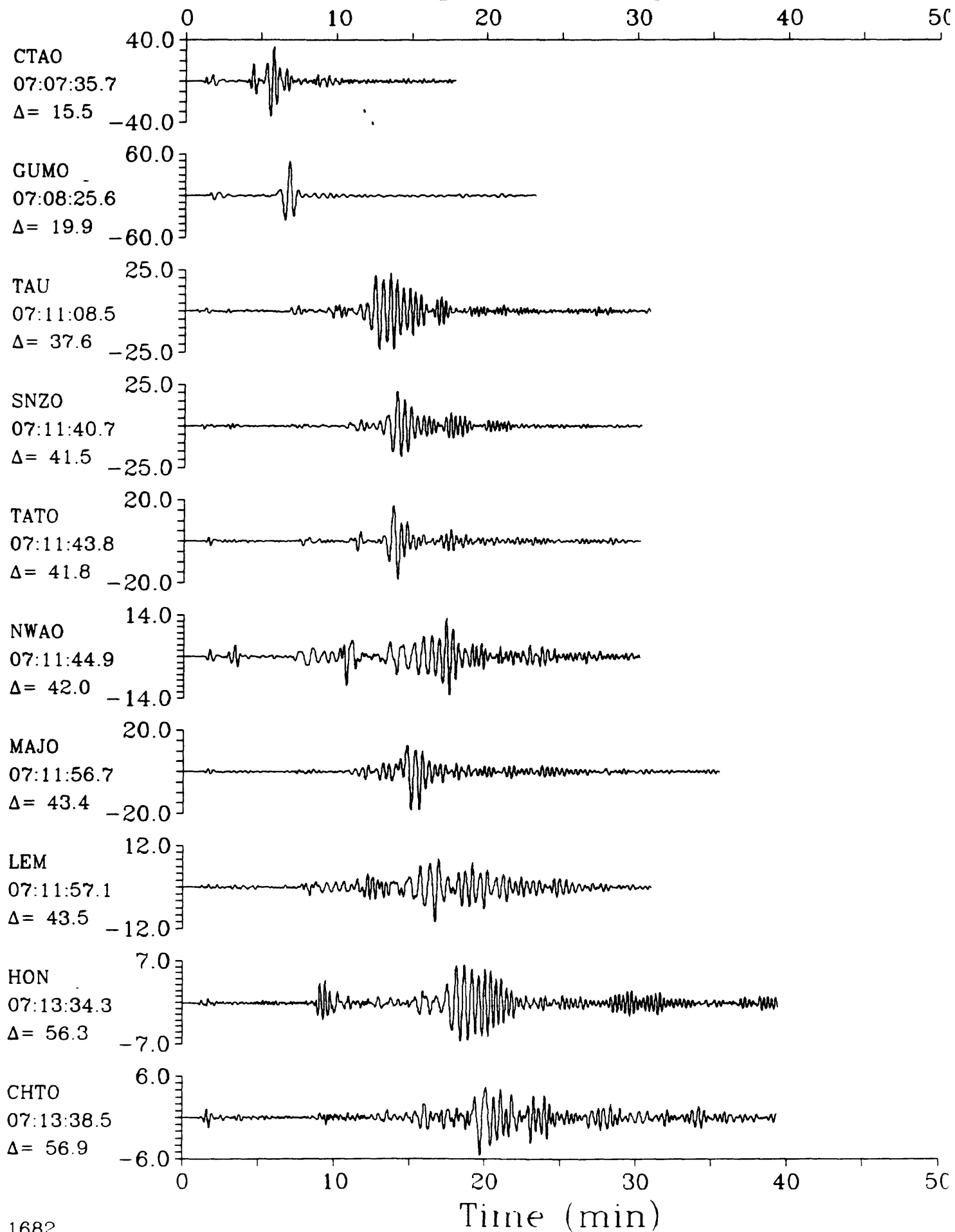
SPZ



LPZ

20 August 1986 07:05:02.58
New Britain Region $h=90.4$ $m_b=5.7$

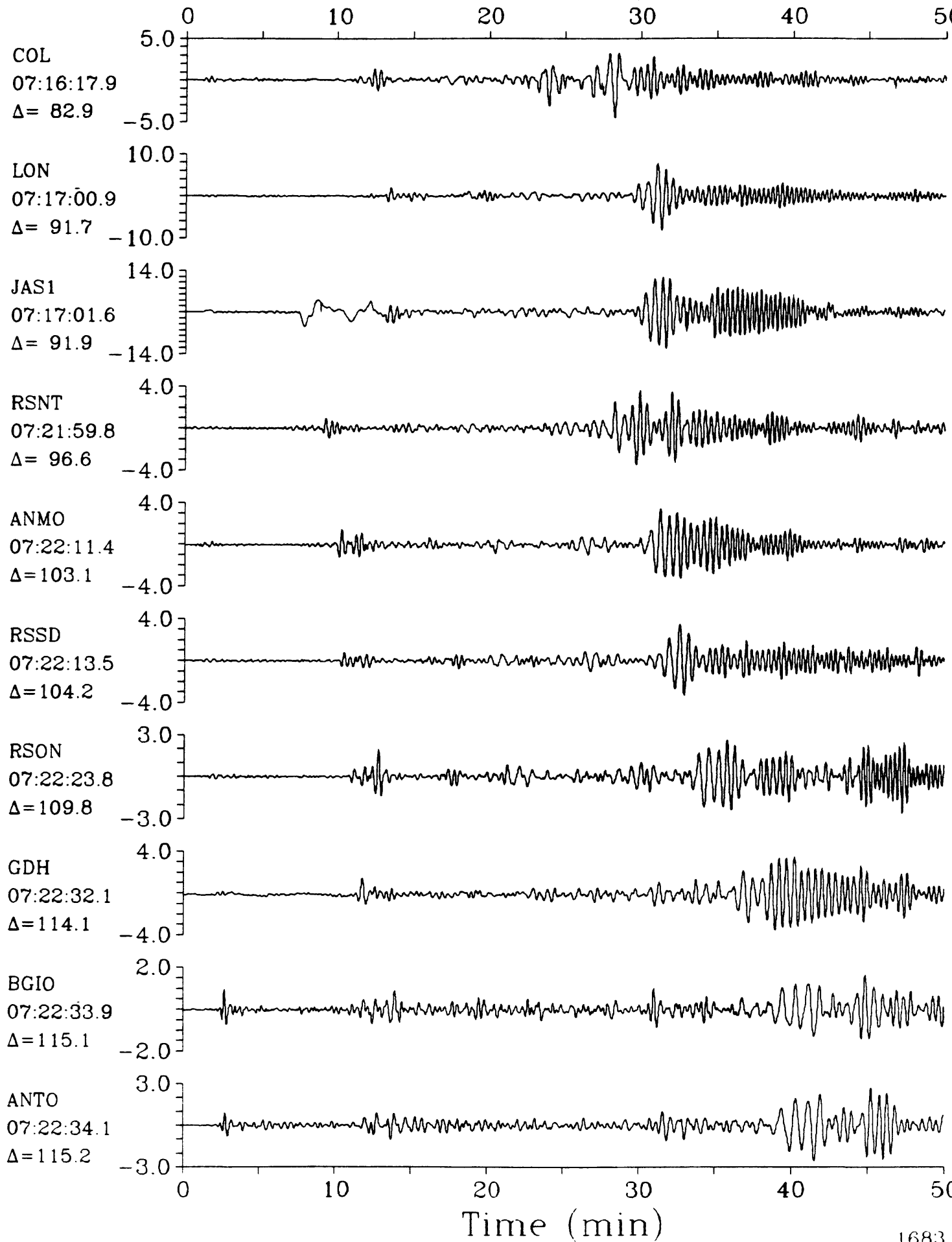
LPZ



LPZ

20 August 1986 07:05:02.58
New Britain Region $h=90.4$ $m_b=5.7$

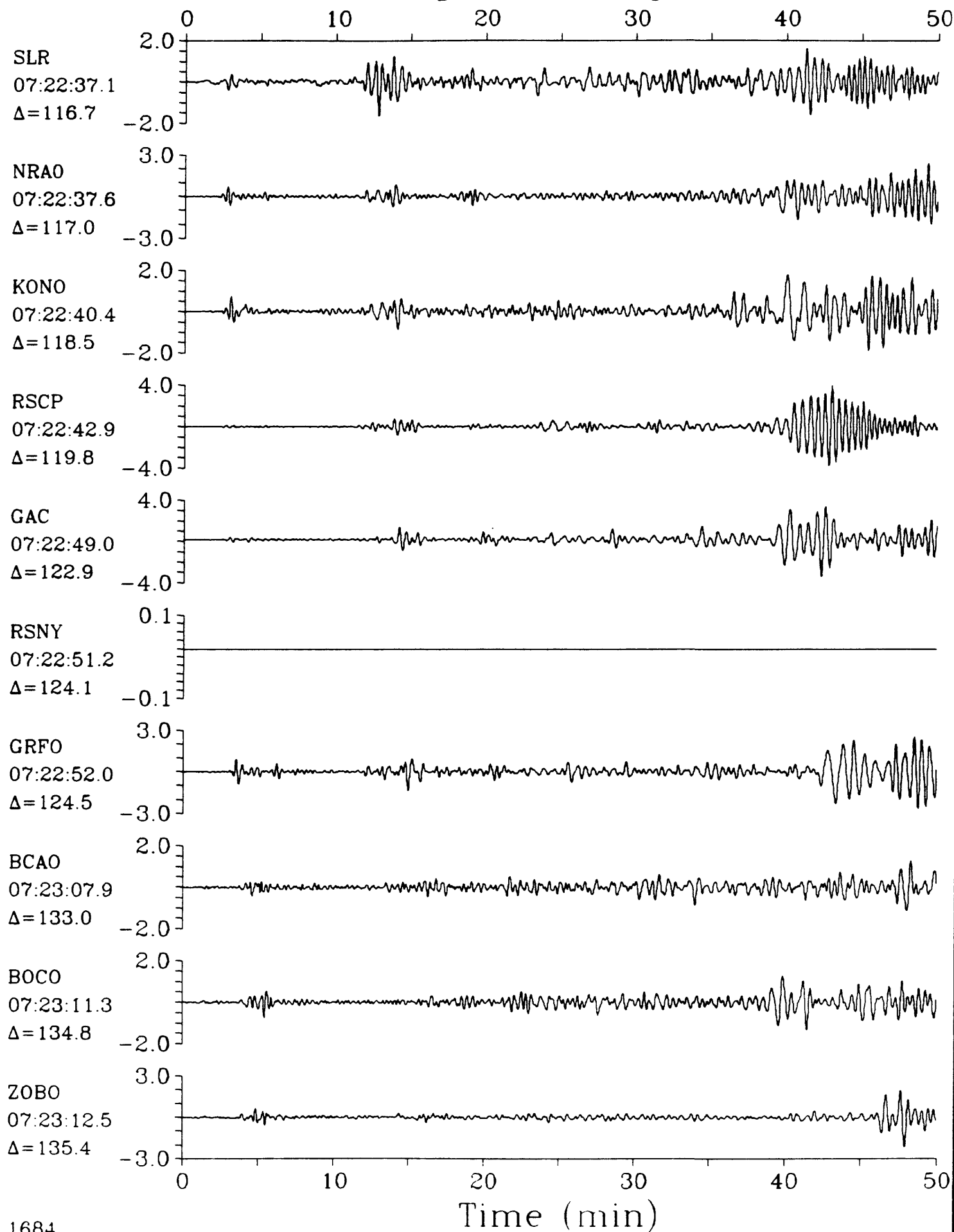
LPZ



LPZ

20 August 1986 07:05:02.58
New Britain Region $h=90.4$ $m_b=5.7$

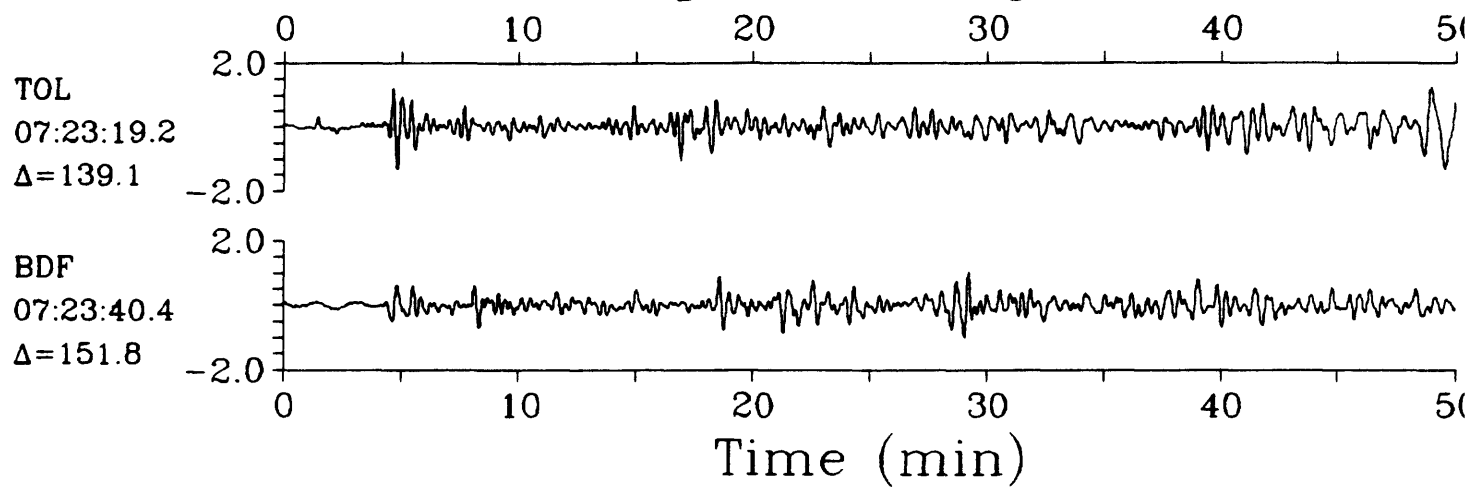
LPZ



LPZ

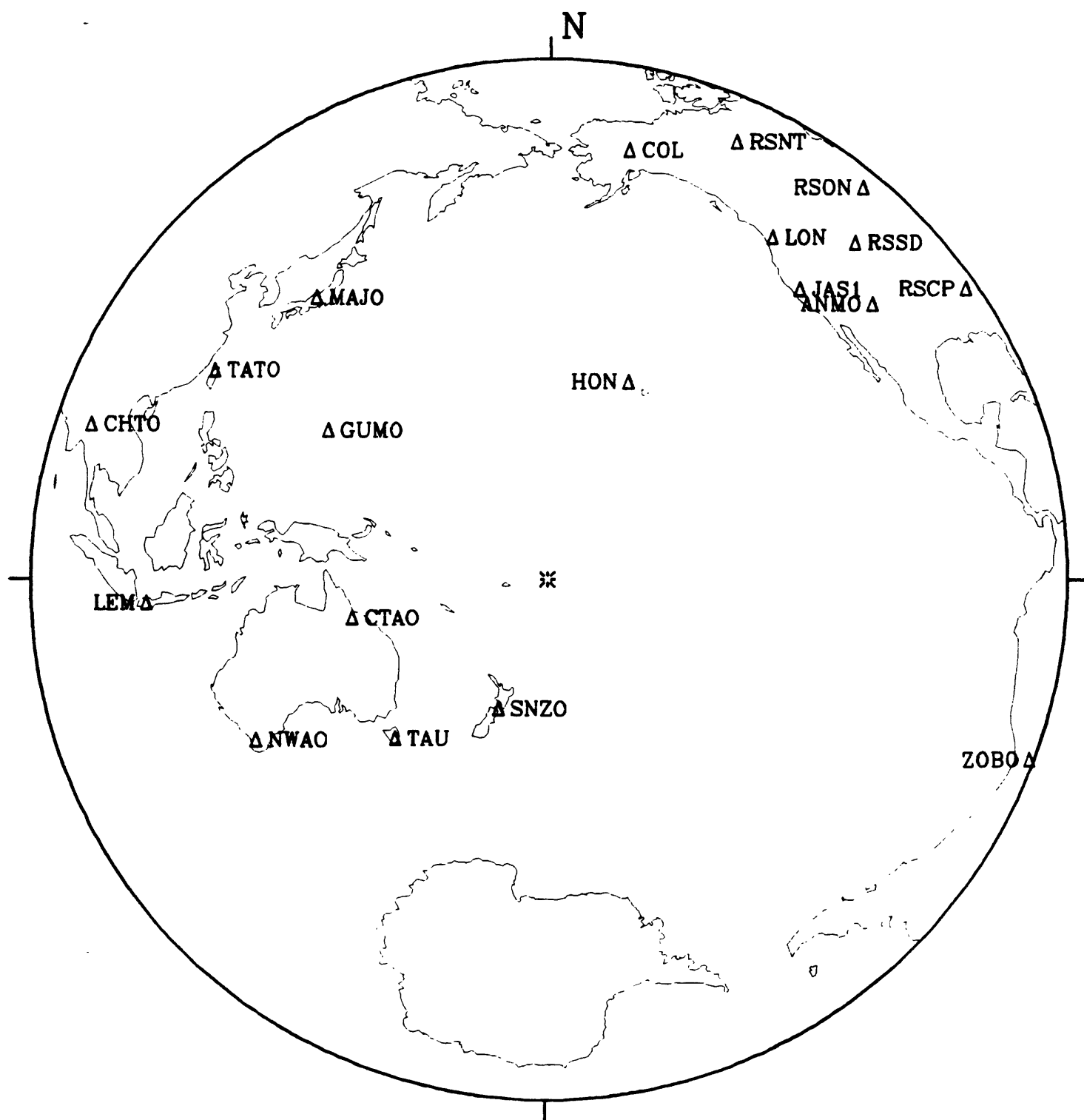
20 August 1986 07:05:02.58
New Britain Region $h=90.4$ $m_b=5.7$

LPZ



20 August 1986 10:09:38.48

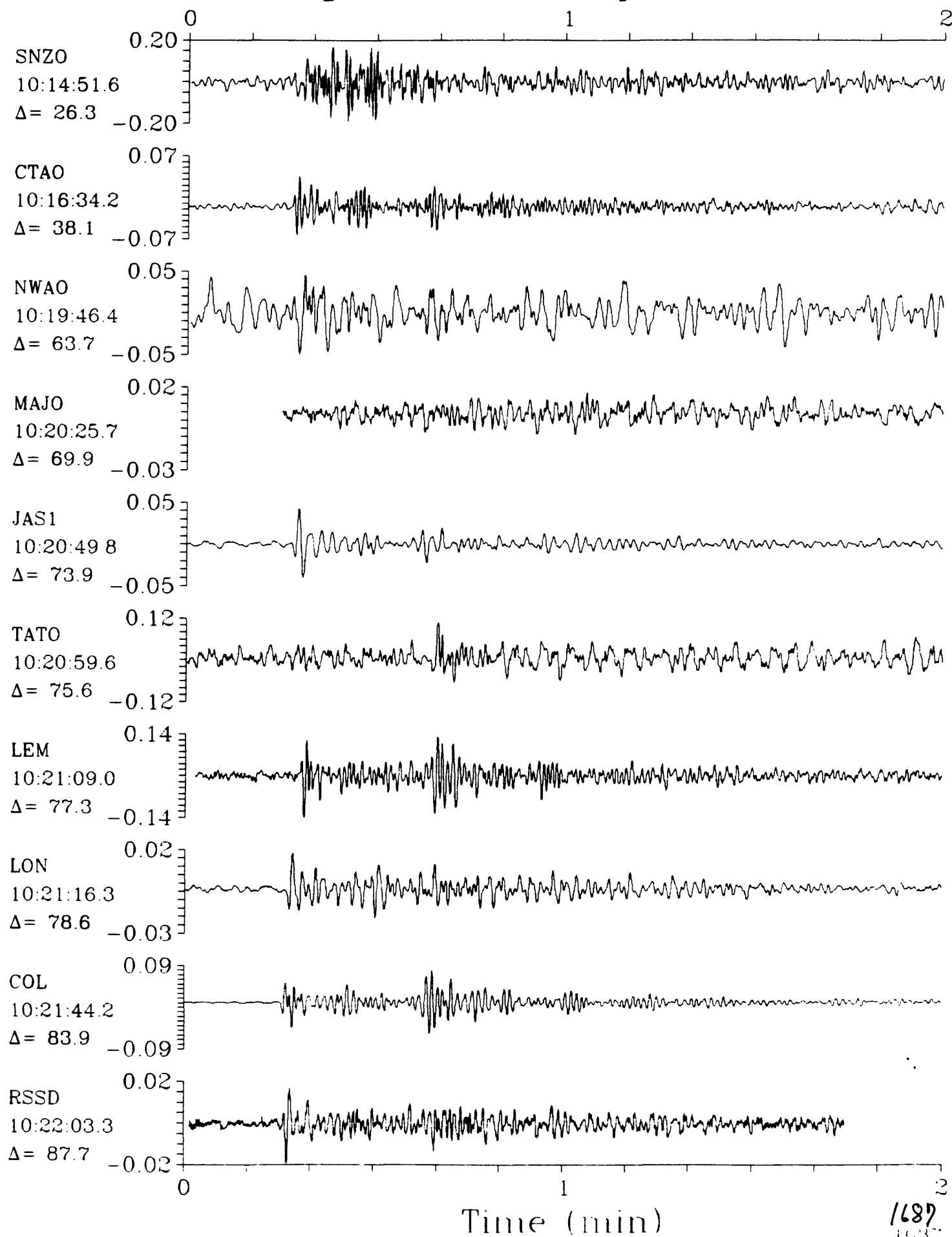
Tonga Islands



SPZ

20 August 1986 10:09:38.48
Tonga Islands $h=86.0$ $m_b=5.5$

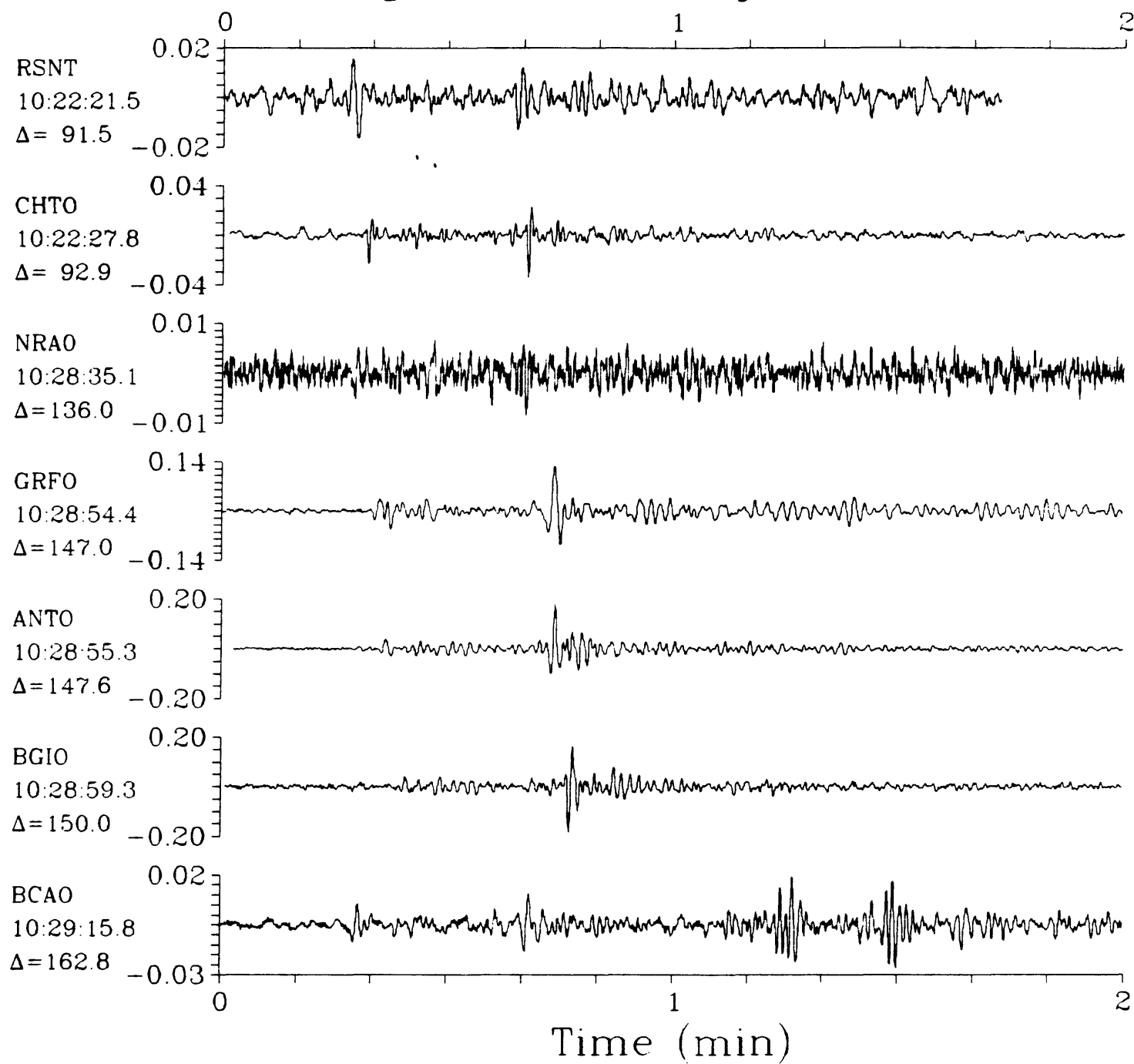
SPZ



SPZ

20 August 1986 10:09:38.48
Tonga Islands $h=86.0$ $m_b=5.5$

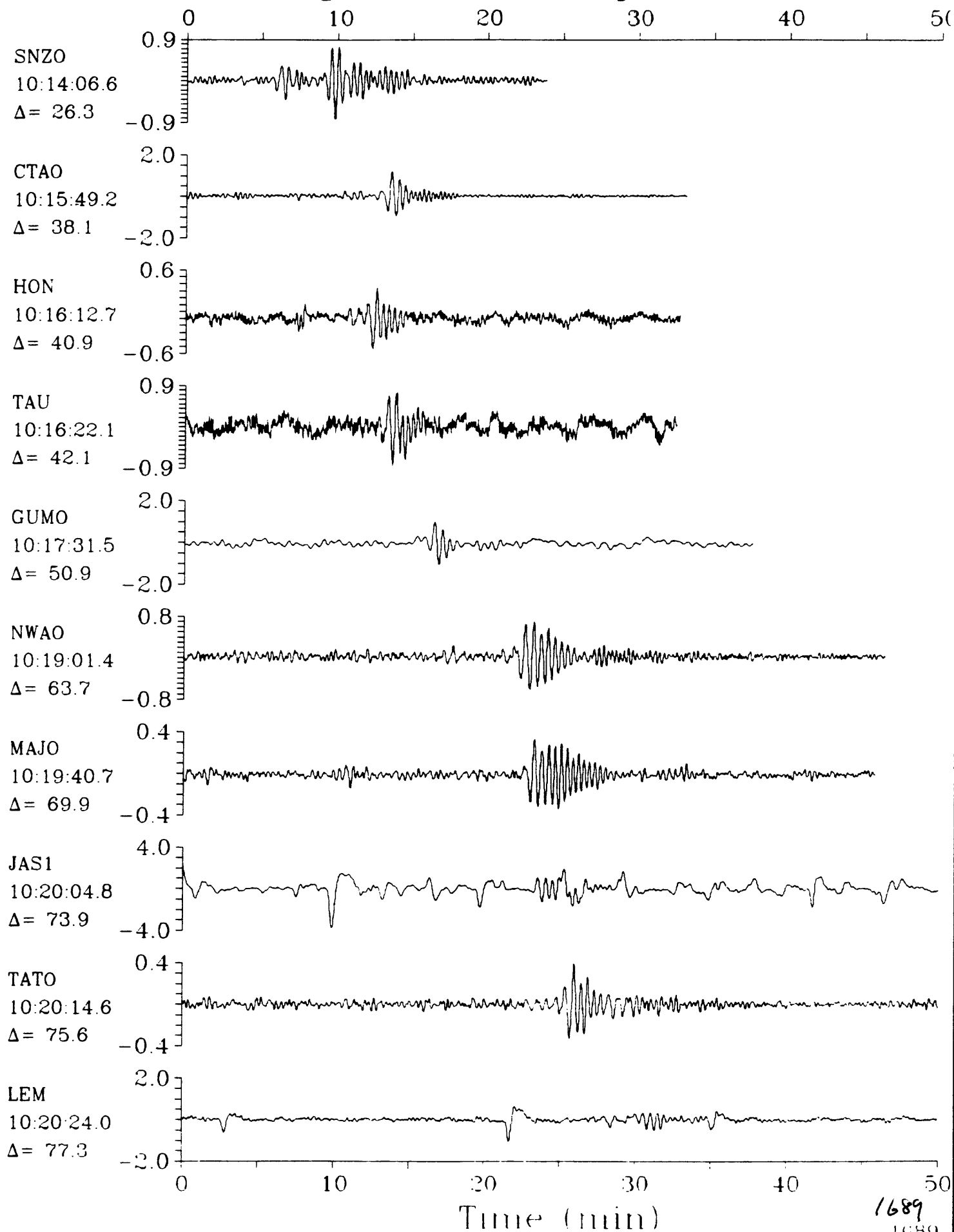
SPZ



LPZ

20 August 1986 10:09:38.48
Tonga Islands $h=86.0$ $m_b=5.5$

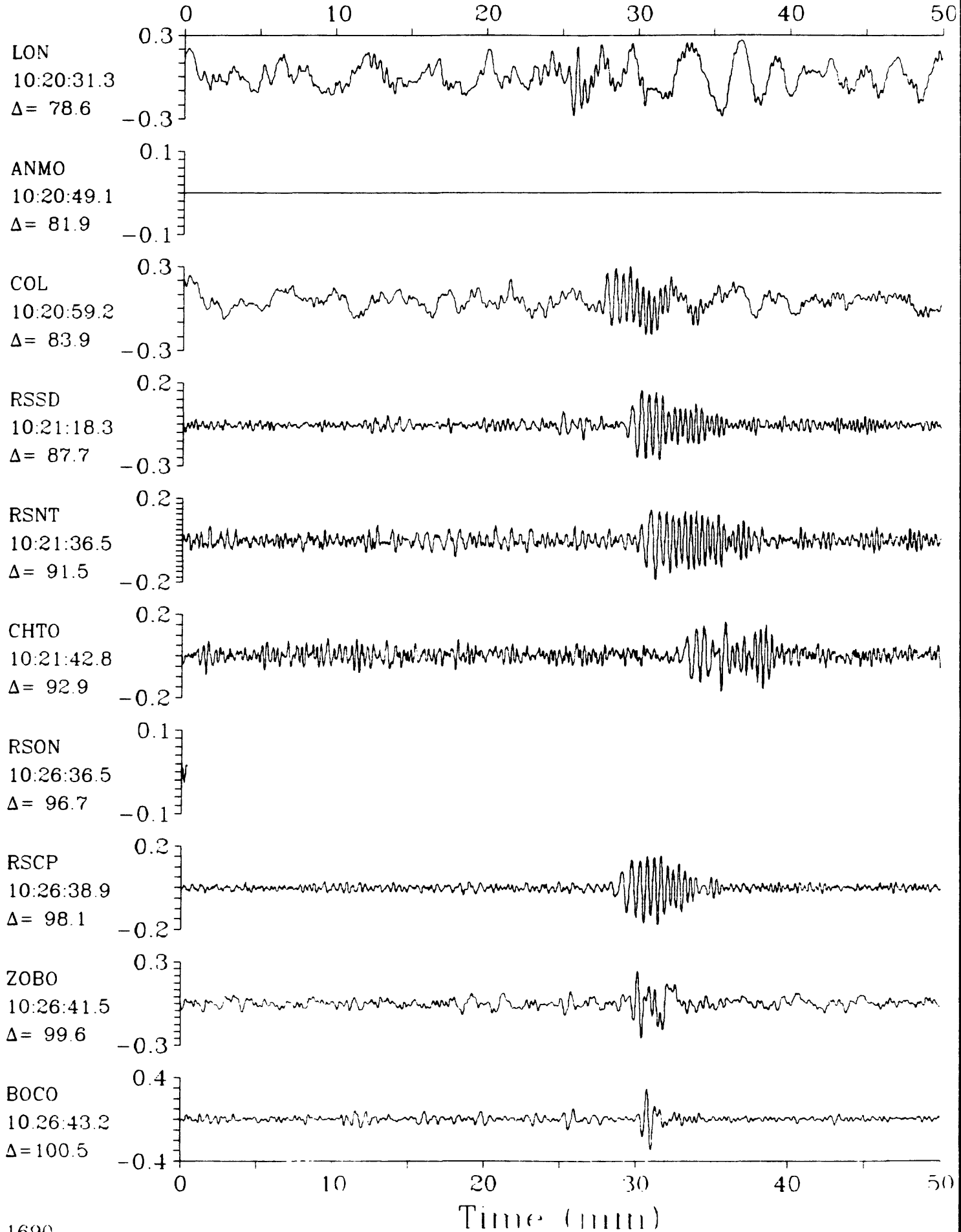
LPZ



LPZ

20 August 1986 10:09:38.48
Tonga Islands $h=86.0$ $m_b=5.5$

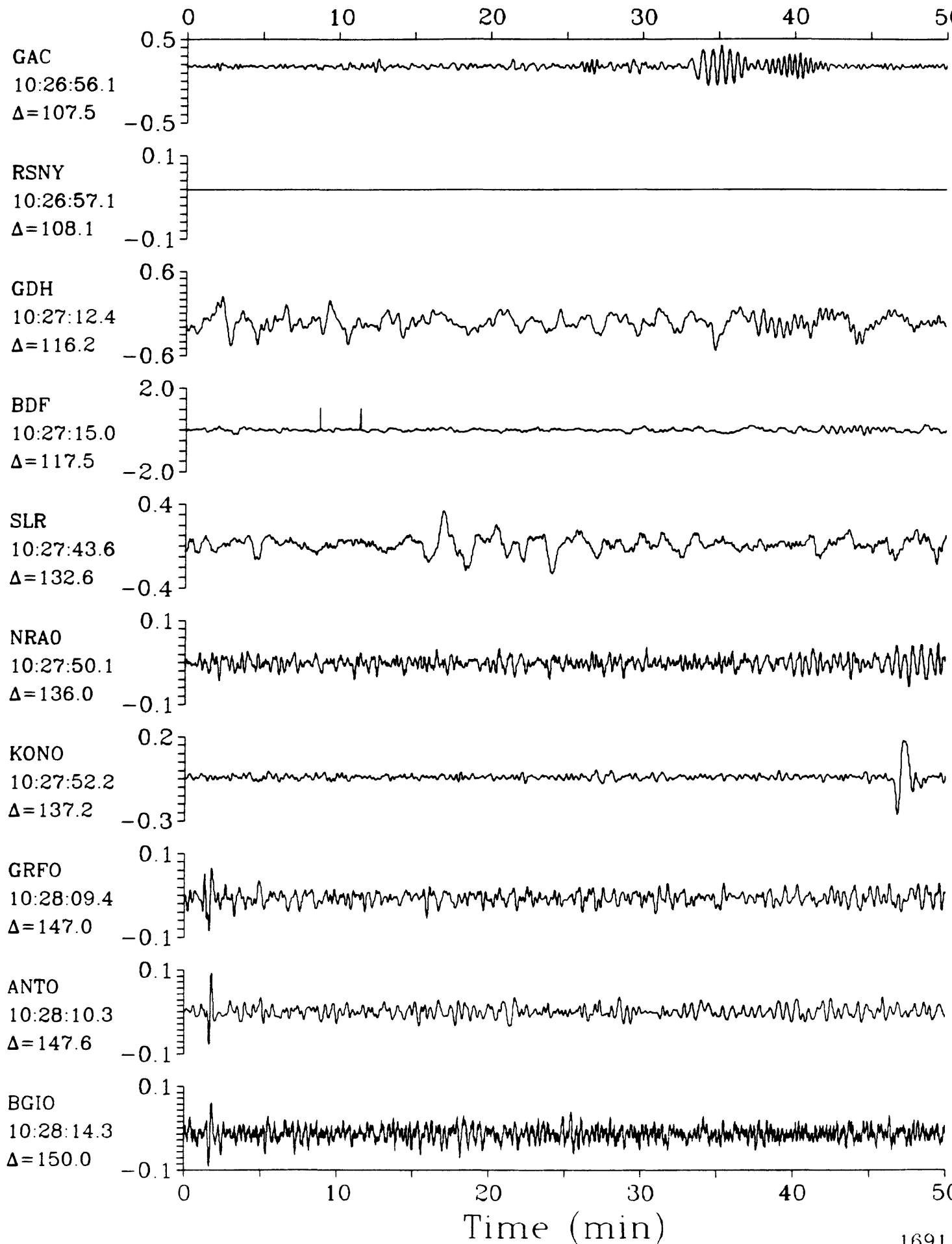
LPZ



LPZ

20 August 1986 10:09:38.48
Tonga Islands $h=86.0$ $m_b=5.5$

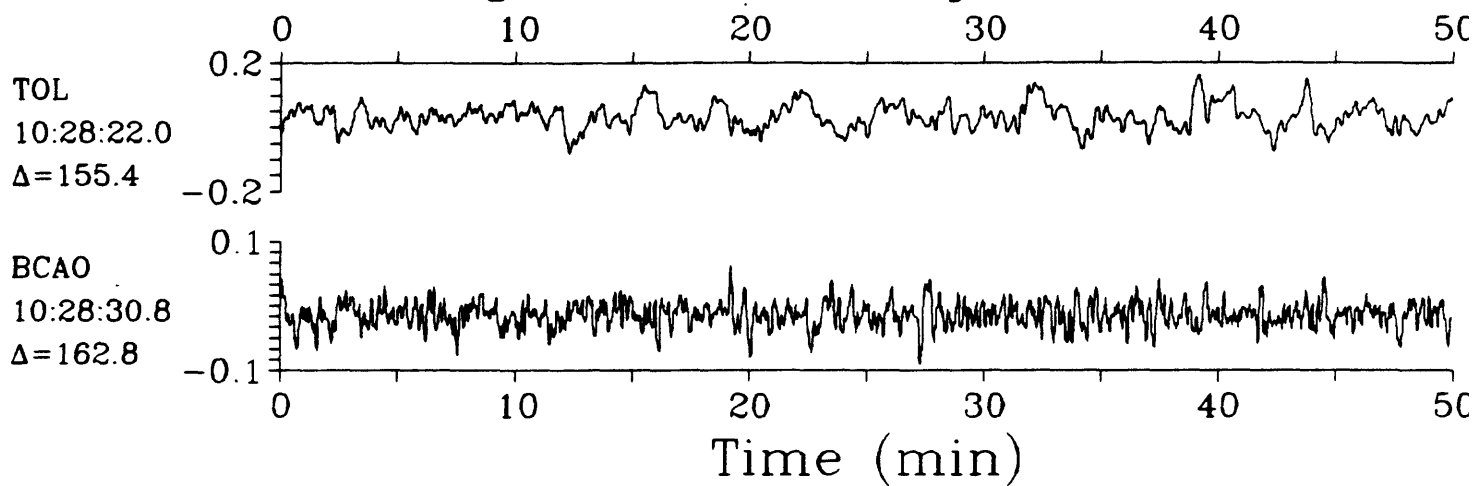
LPZ



LPZ

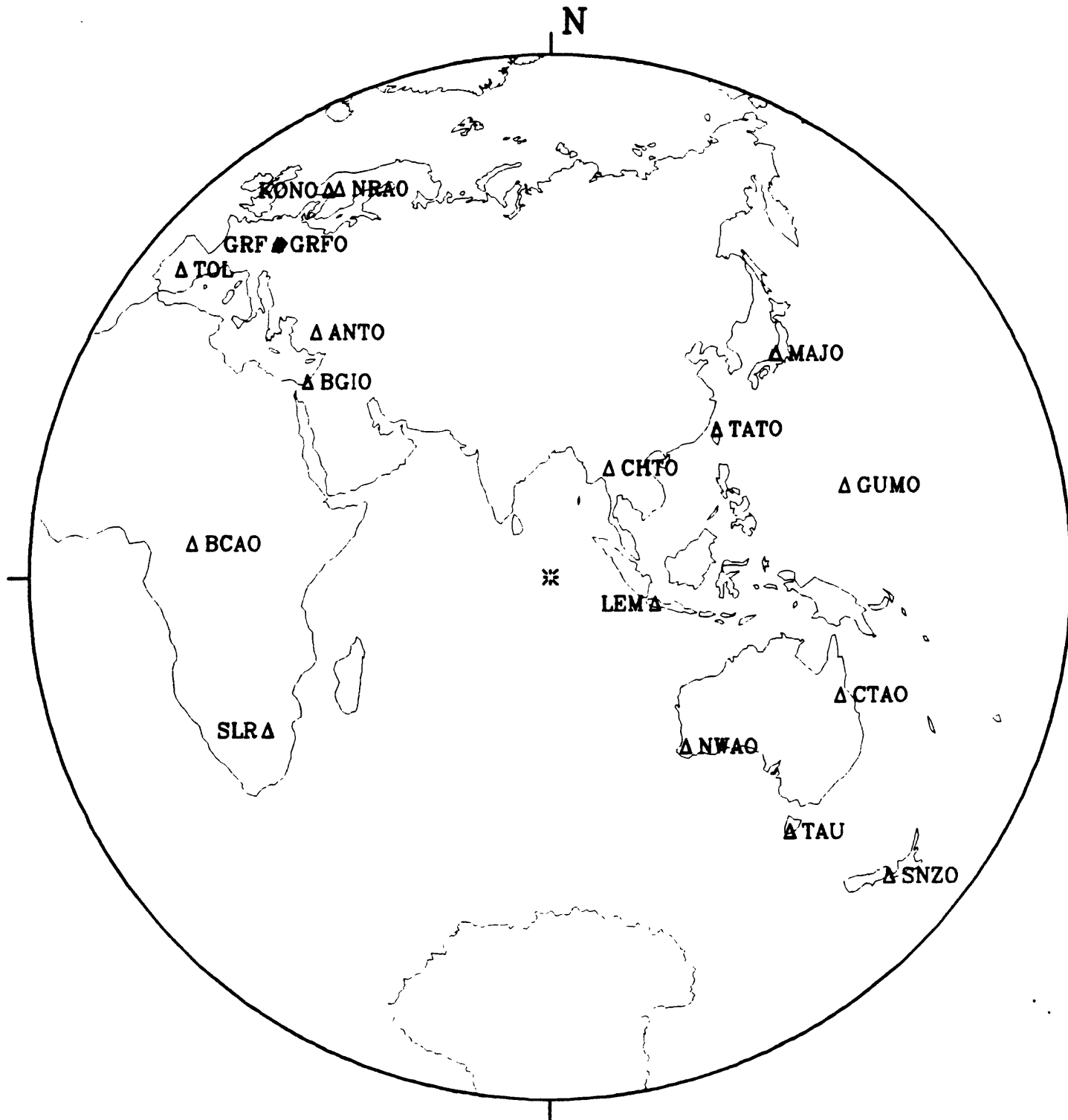
20 August 1986 10:09:38.48
Tonga Islands $h=86.0$ $m_p=5.5$

LPZ



20 August 1986 21:15:46.63

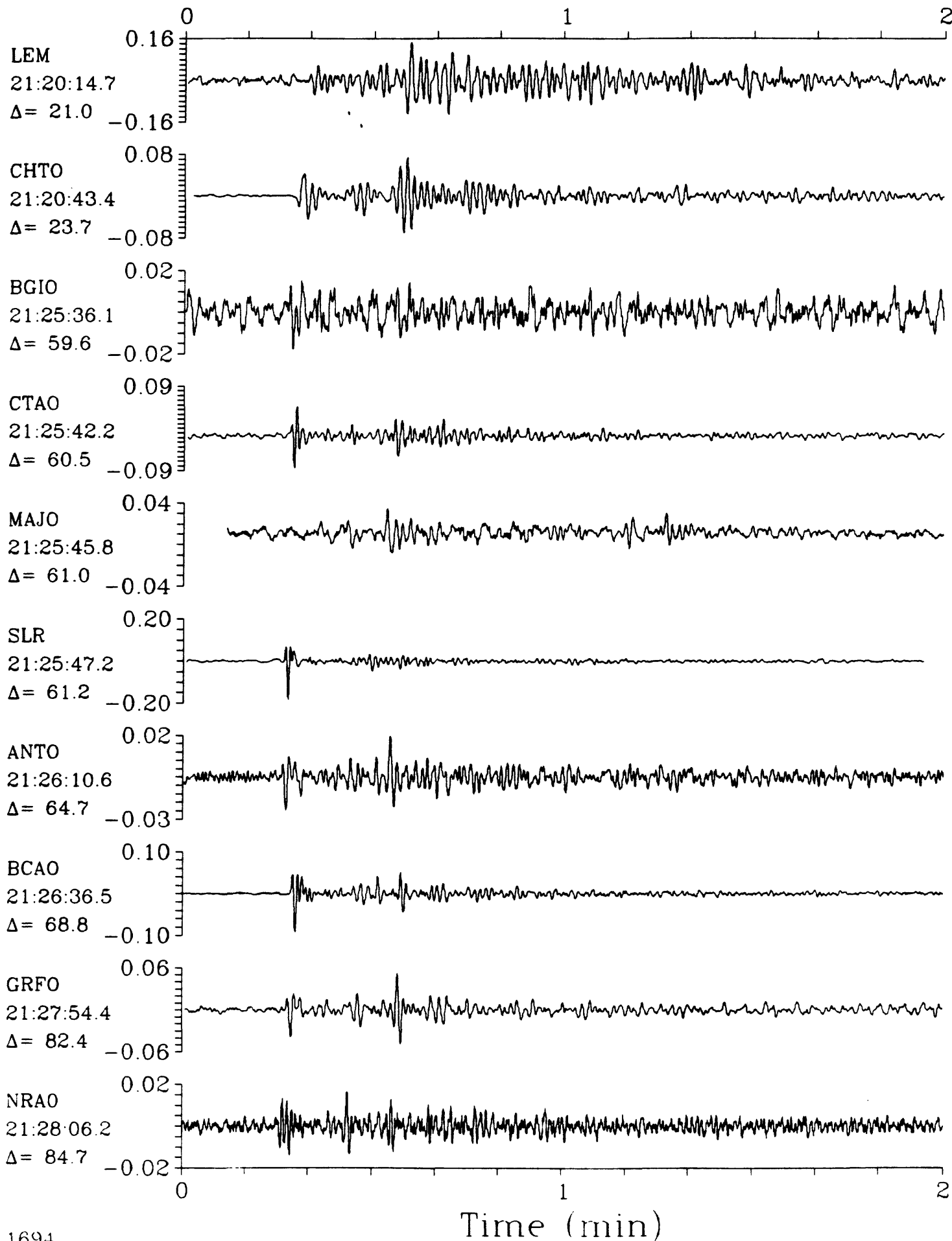
South Indian Ocean



SPZ

20 August 1986 21:15:46.63

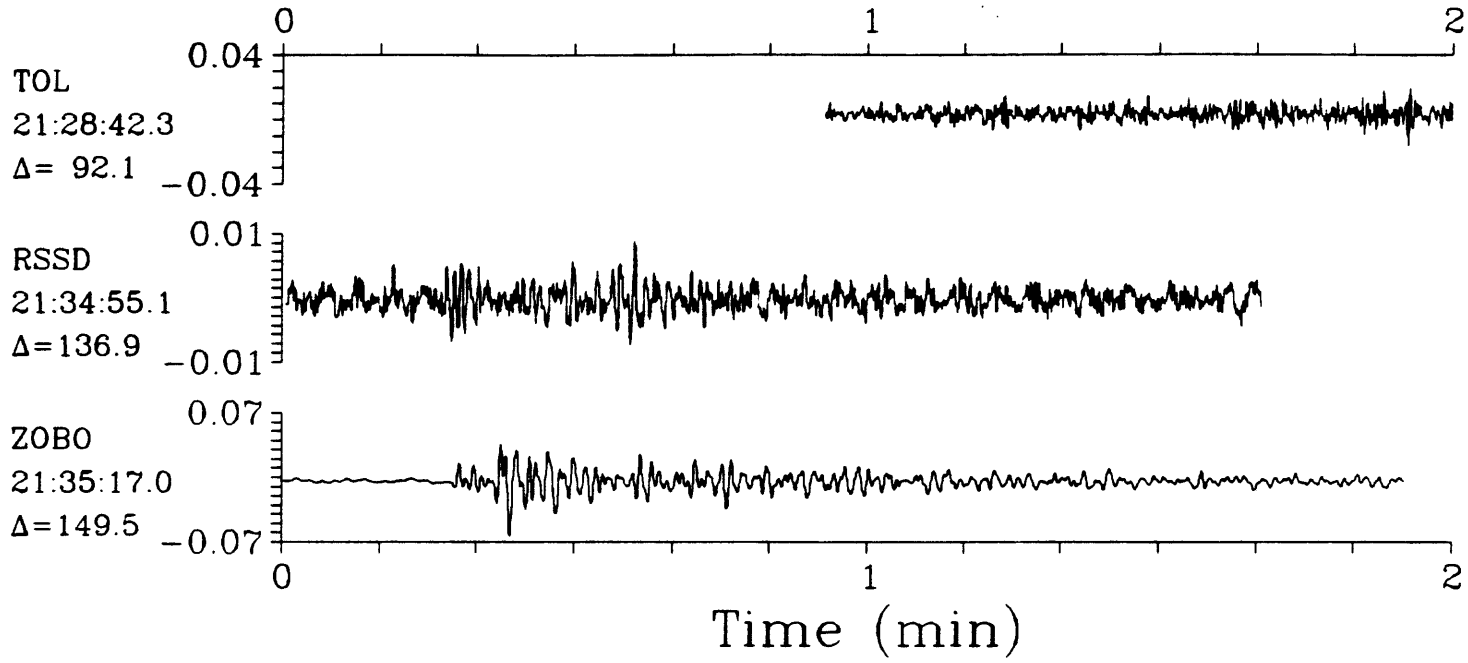
SPZ

South Indian Ocean $h=10.0$ $m_b=5.3$ $M_{sz}=6.6$ 

SPZ

20 August 1986 21:15:46.63

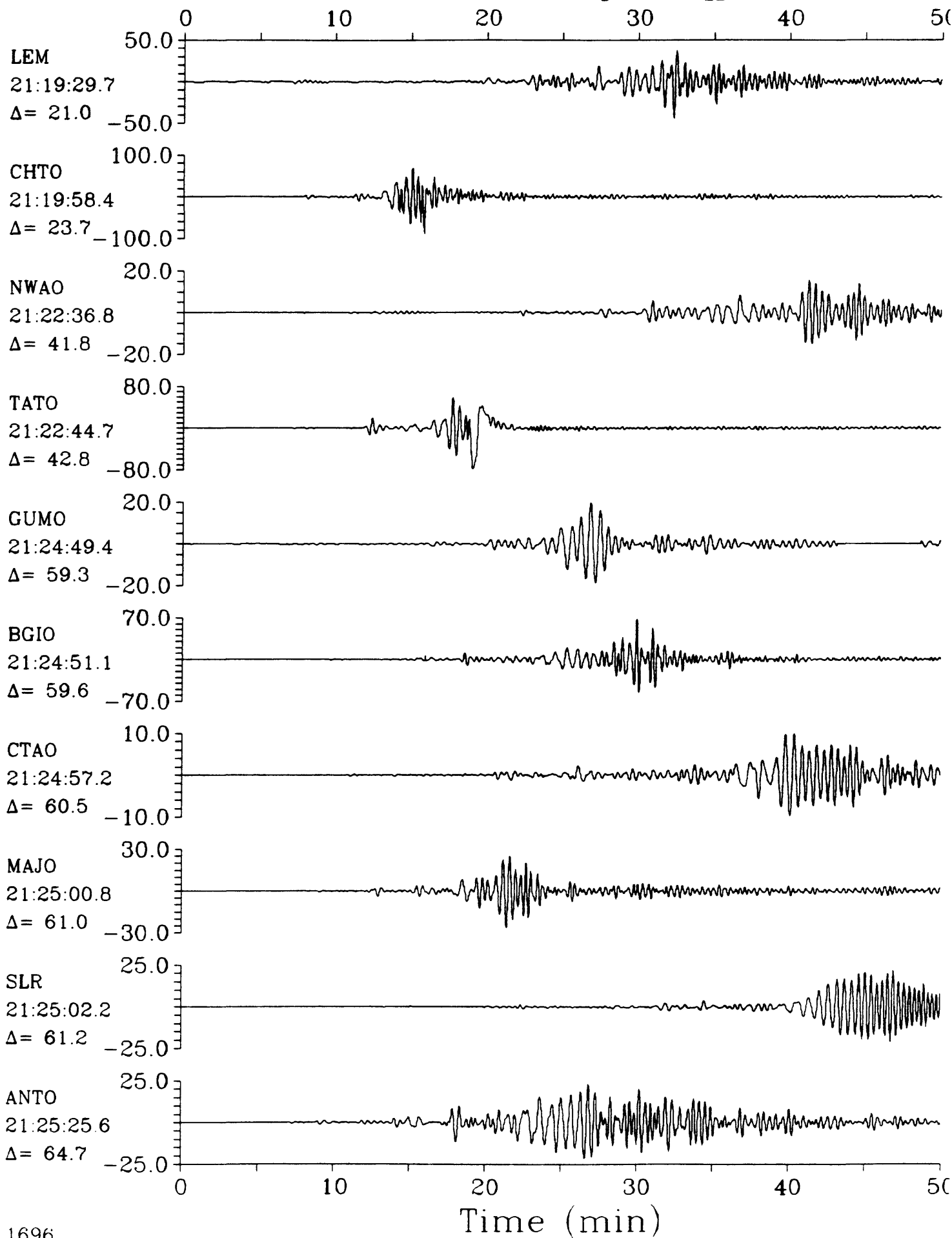
SPZ

South Indian Ocean $h=10.0$ $m_b=5.3$ $M_{sz}=6.6$ 

LPZ

20 August 1986 21:15:46.63

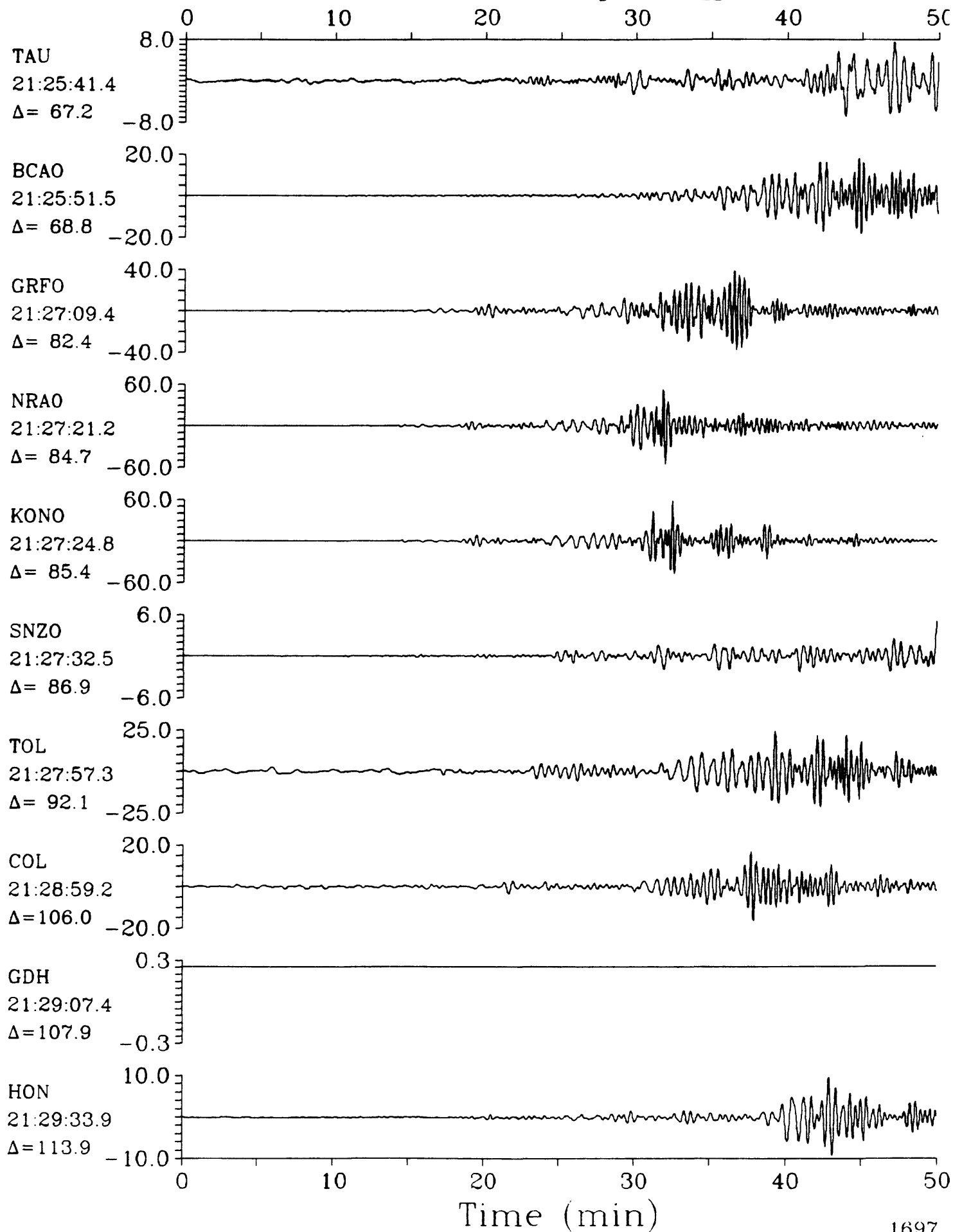
LPZ

South Indian Ocean $h=10.0$ $m_b=5.3$ $M_{sz}=6.6$ 

LPZ

20 August 1986 21:15:46.63

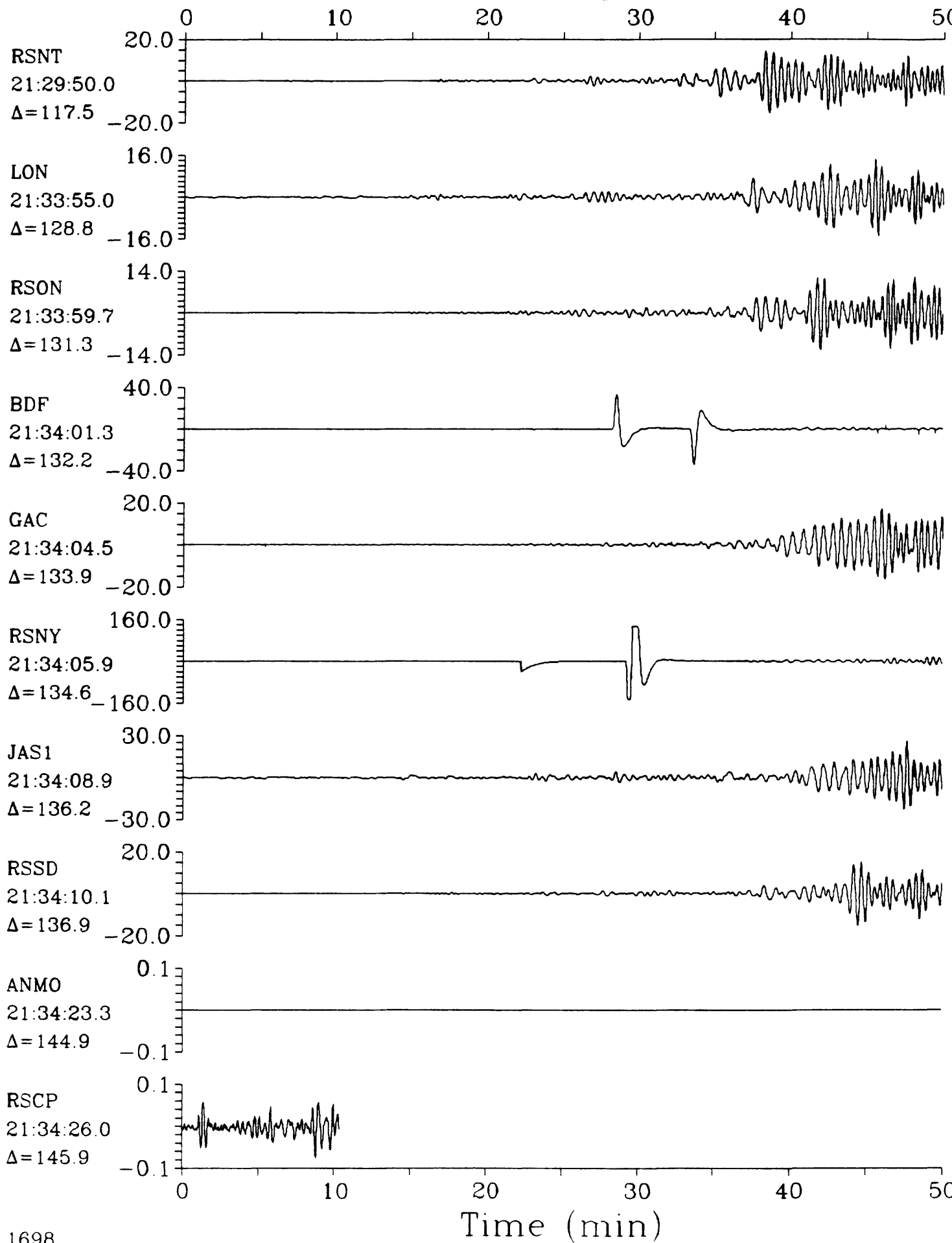
LPZ

South Indian Ocean $h=10.0$ $m_b=5.3$ $M_{sz}=6.6$ 

LPZ

20 August 1986 21:15:46.63

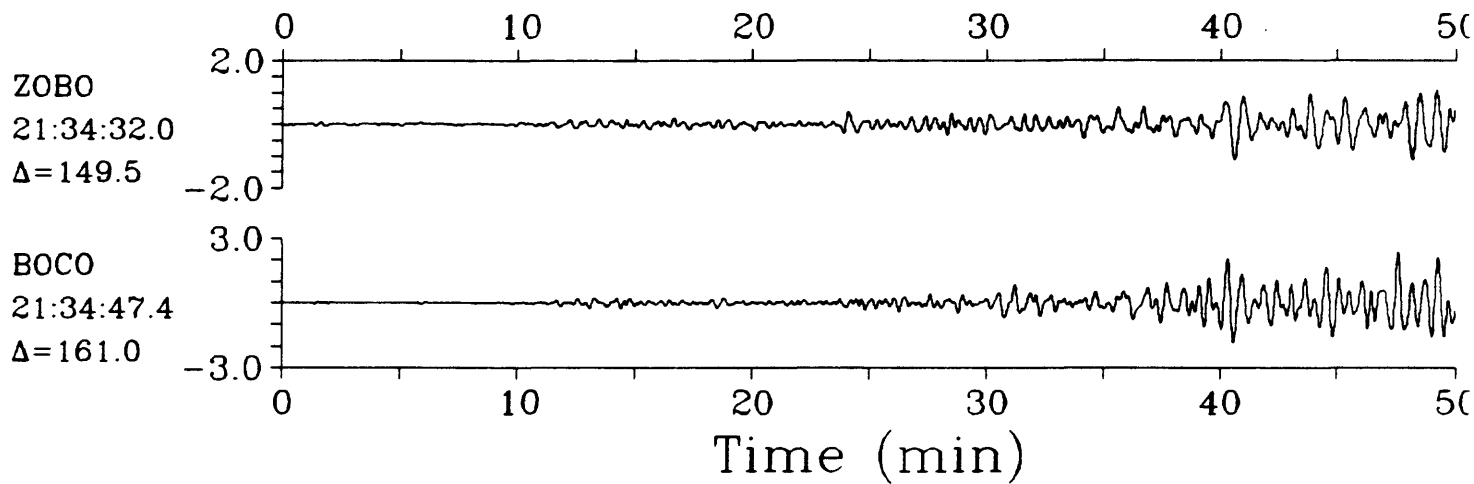
LPZ

South Indian Ocean $h=10.0$ $m_b=5.3$ $M_{sz}=6.6$ 

LPZ

20 August 1986 21:15:46.63

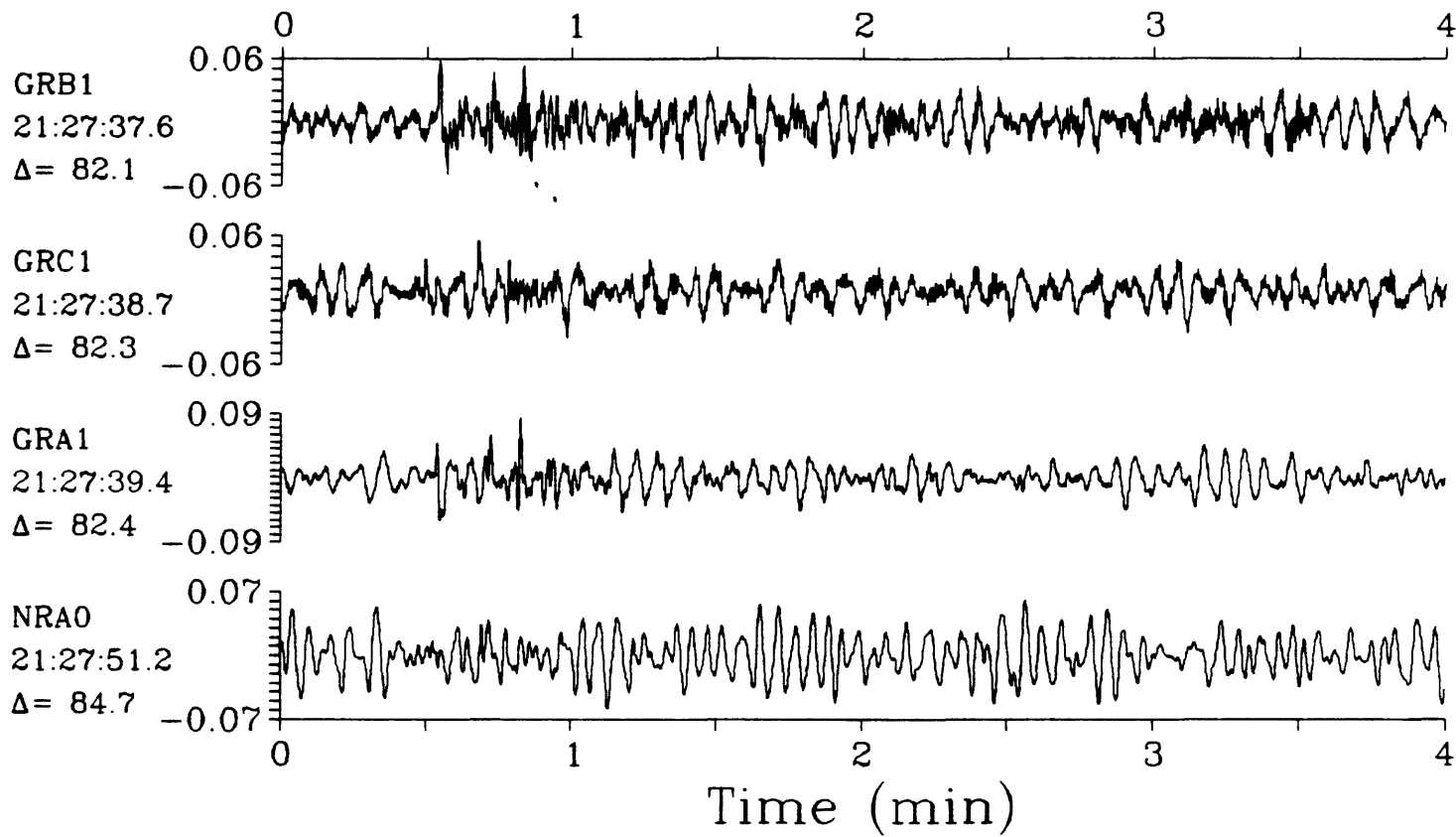
LPZ

South Indian Ocean $h=10.0$ $m_b=5.3$ $M_{sz}=6.6$ 

IPZ

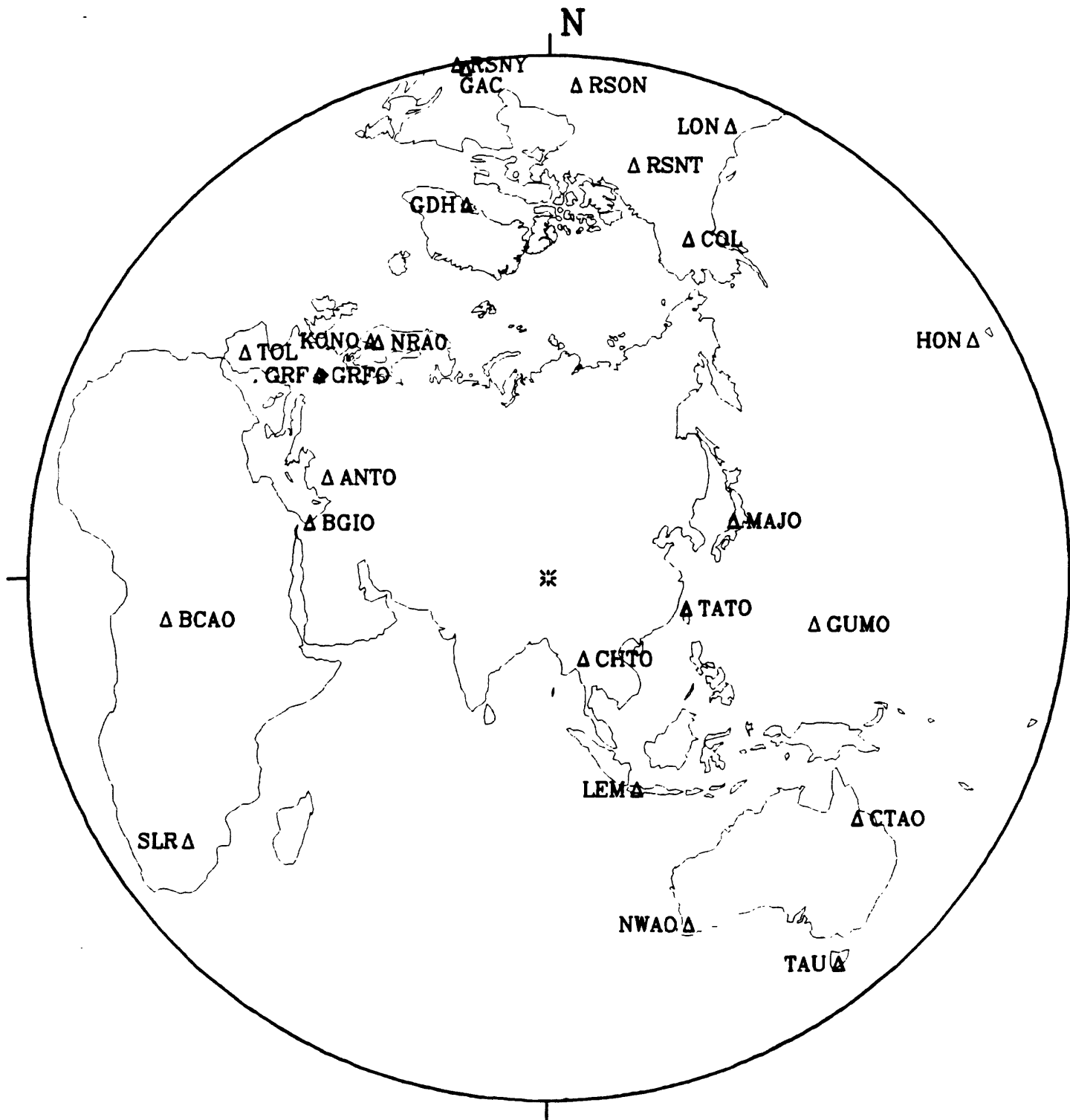
20 August 1986 21:15:46.63

IPZ

South Indian Ocean $h=10.0$ $m_b=5.3$ $M_{SZ}=6.6$ 

20 August 1986 21:23:55.07

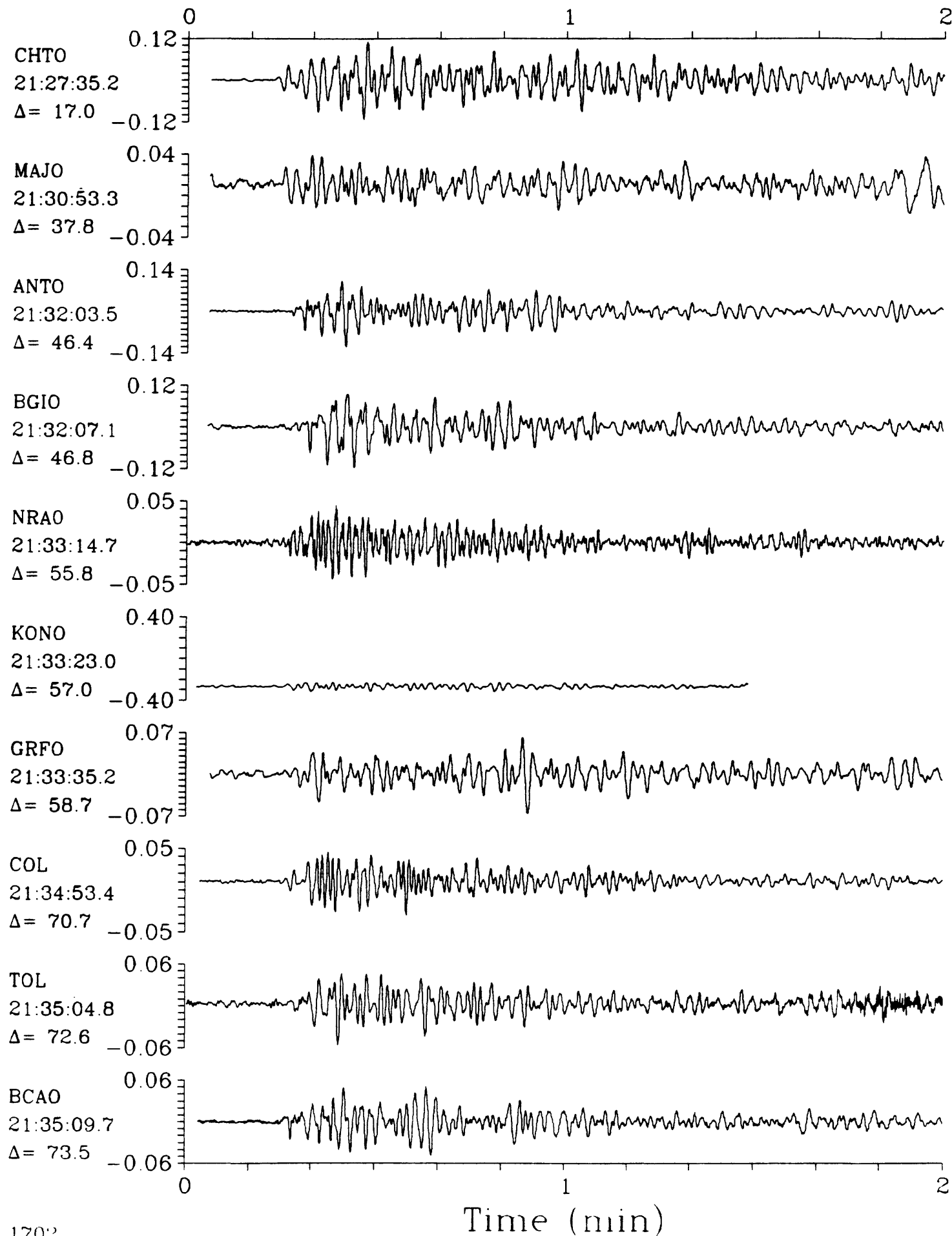
Qinghai Province, China



SPZ

20 August 1986 21:23:55.07

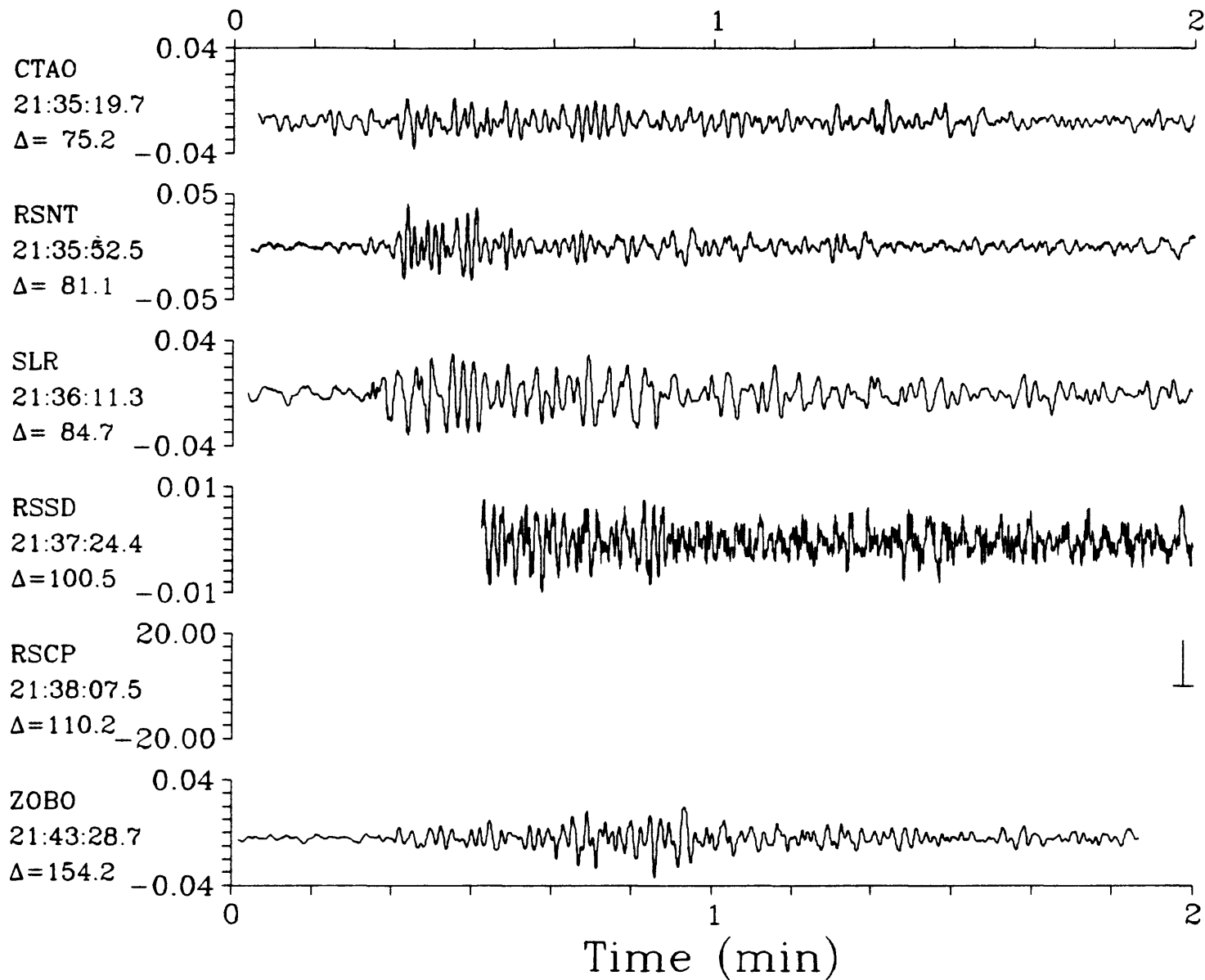
SPZ

Qinghai Province, China $h=33.0$ $m_b=5.4$ $M_{sz}=6.5$ 

SPZ

20 August 1986 21:23:55.07

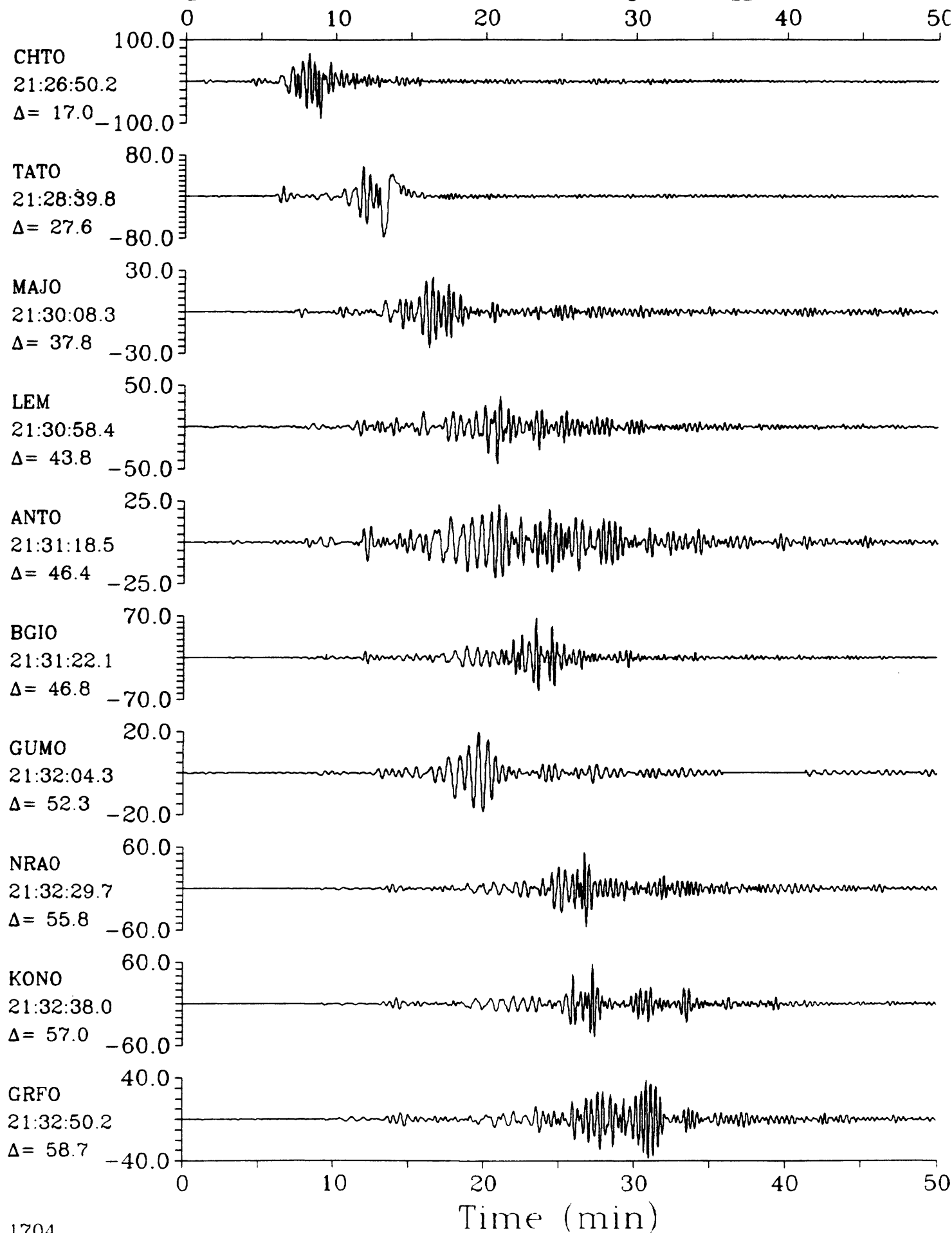
SPZ

Qinghai Province, China $h=33.0$ $m_b=5.4$ $M_{sz}=6.5$ 

LPZ

20 August 1986 21:23:55.07

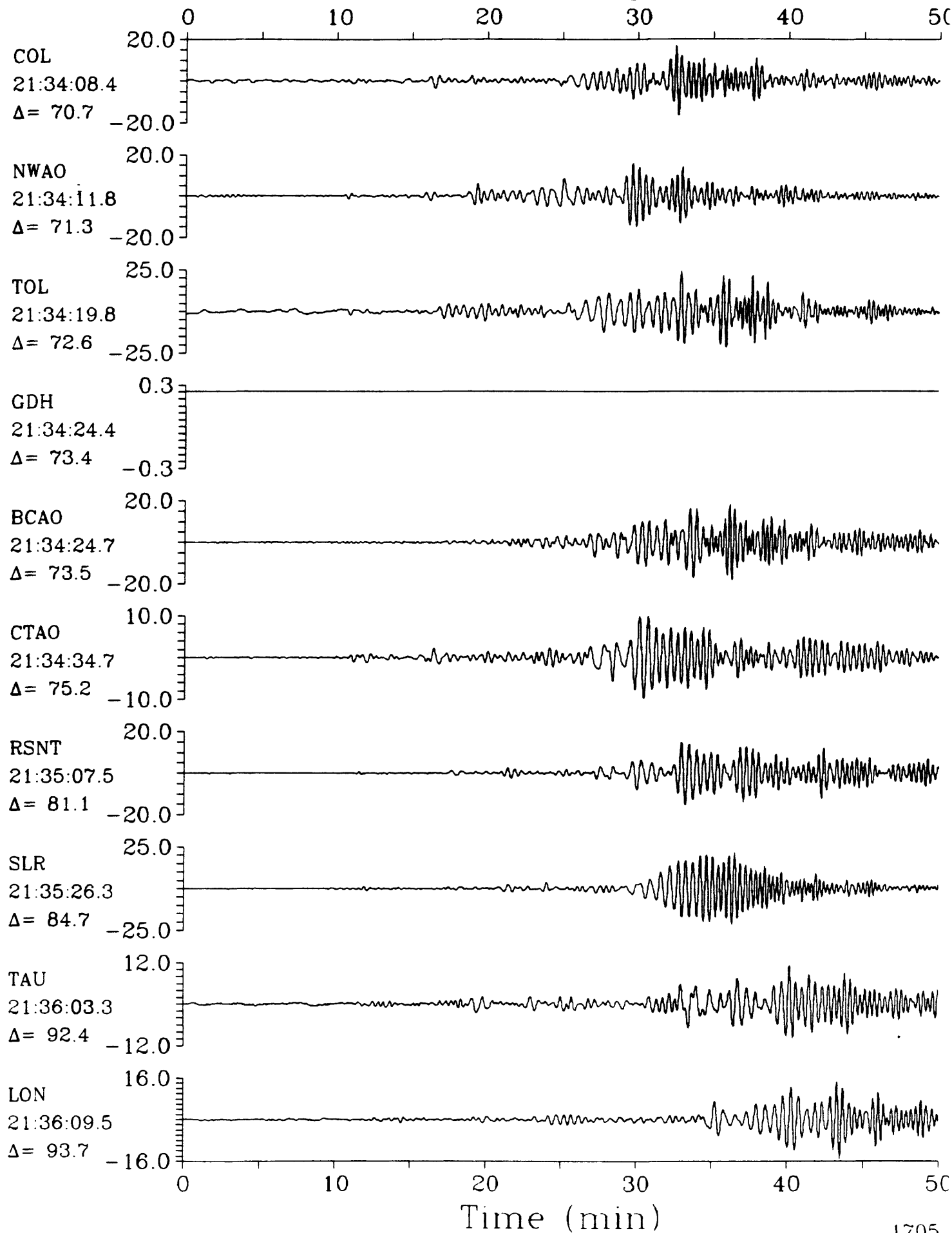
LPZ

Qinghai Province, China $h=33.0$ $m_b=5.4$ $M_{sz}=6.5$ 

LPZ

20 August 1986 21:23:55.07

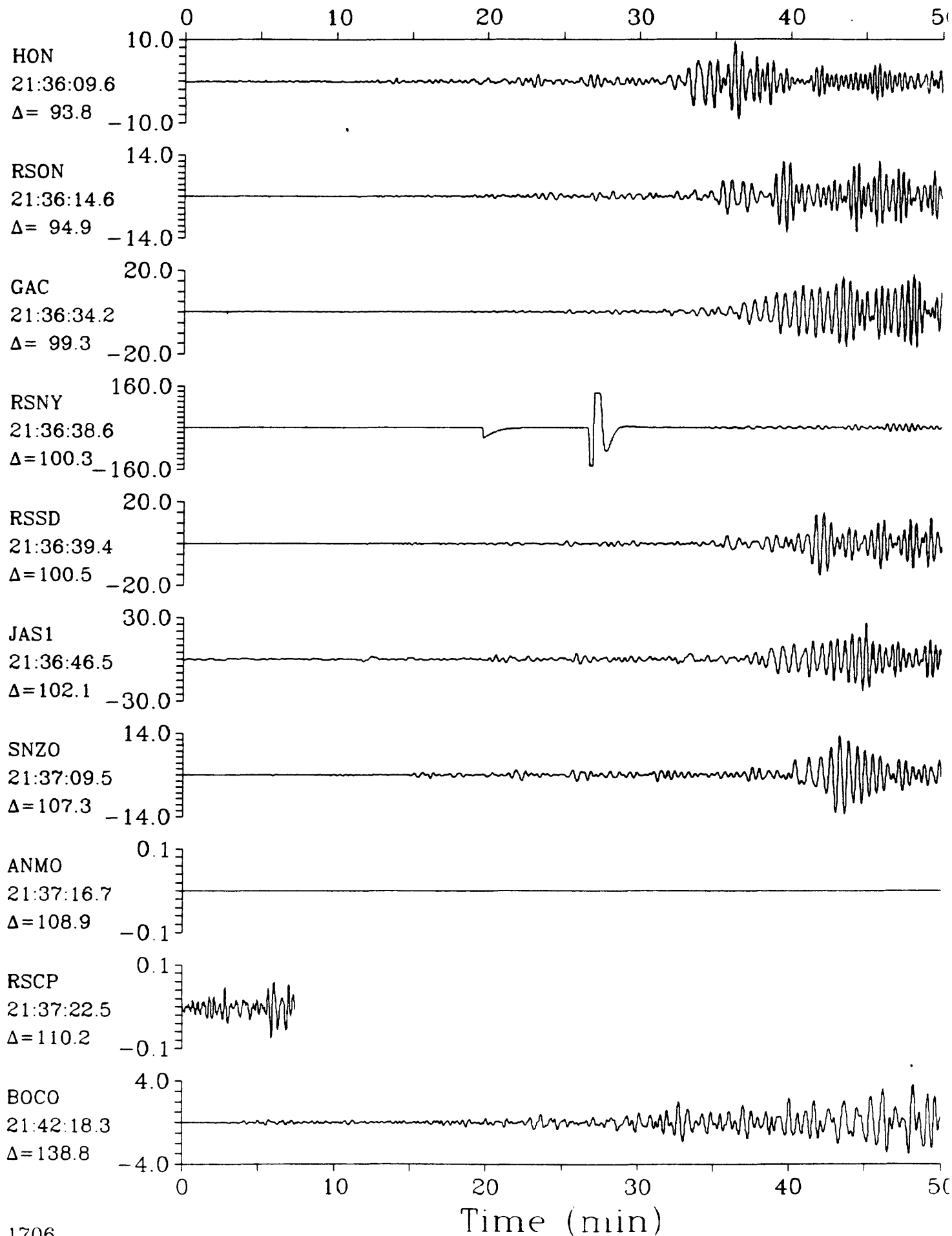
LPZ

Qinghai Province, China $h=33.0$ $m_b=5.4$ $M_{sz}=6.5$ 

LPZ

20 August 1986 21:23:55.07

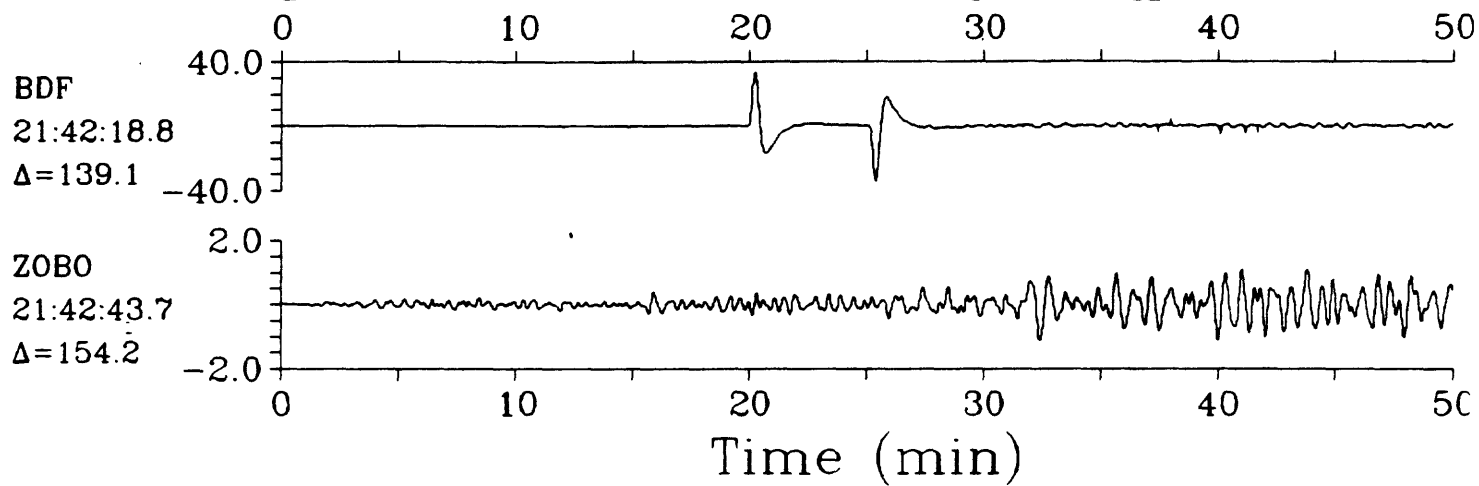
LPZ

Qinghai Province, China $h=33.0$ $m_b=5.4$ $M_{sz}=6.5$ 

LPZ

20 August 1986 21:23:55.07

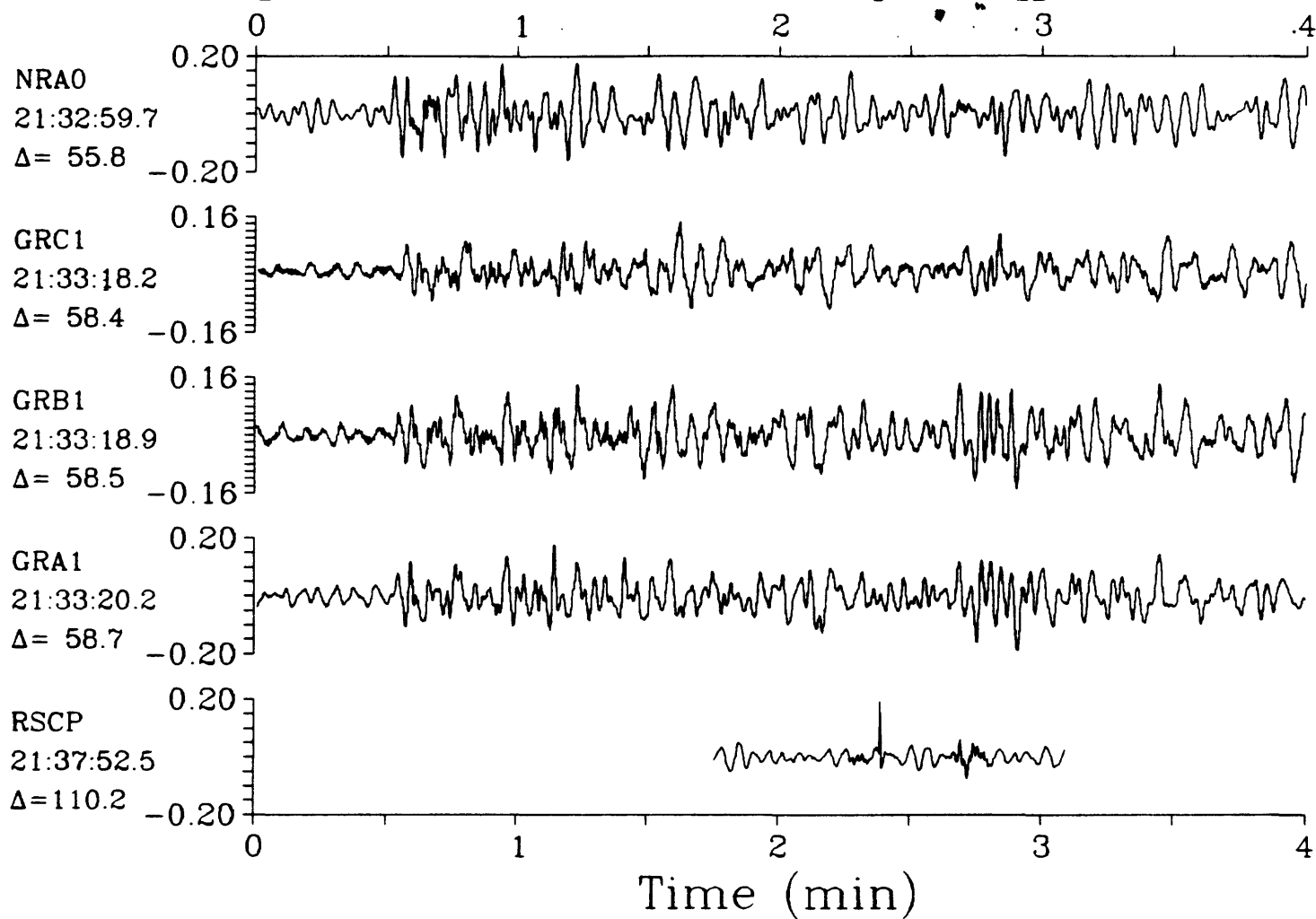
LPZ

Qinghai Province, China $h=33.0$ $m_b=5.4$ $M_{sz}=6.5$ 

IPZ

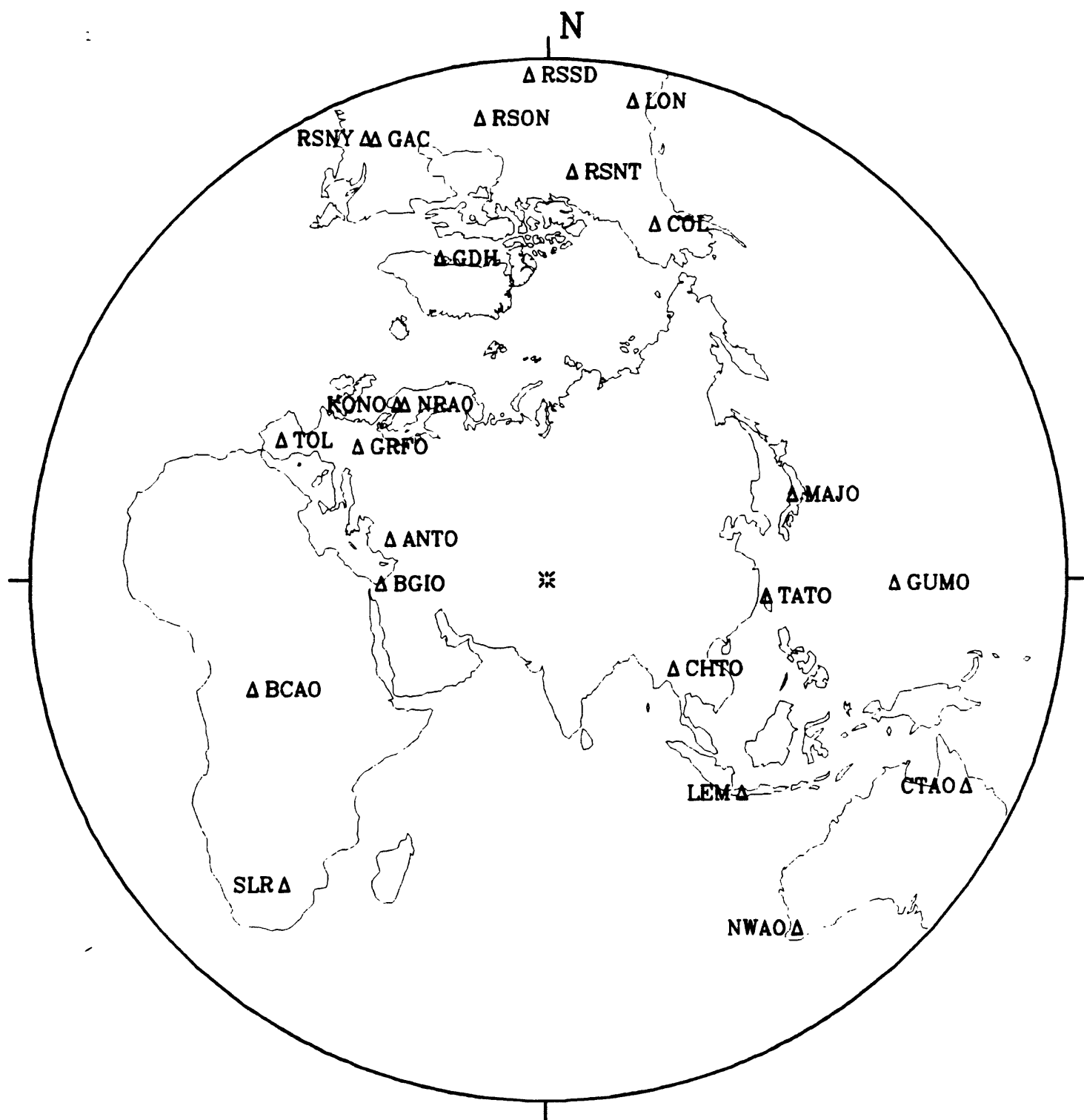
20 August 1986 21:23:55.07

IPZ

Qinghai Province, China $h=33.0$ $m_b=5.4$ $M_{sz}=6.5$ 

21 August 1986 01:35:05.57

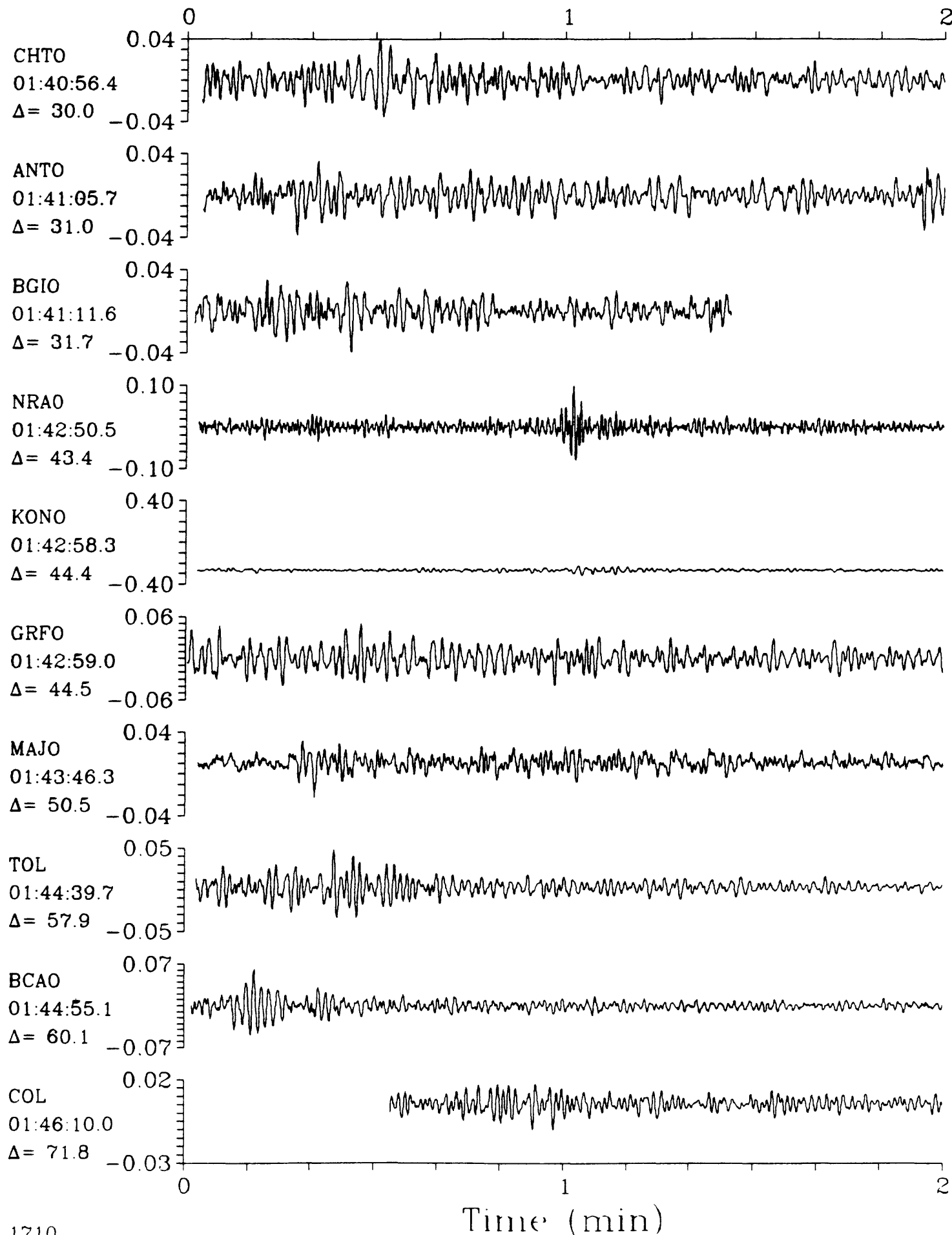
Tajik–Xinjiang Border Region



SPZ

21 August 1986 01:35:05.57

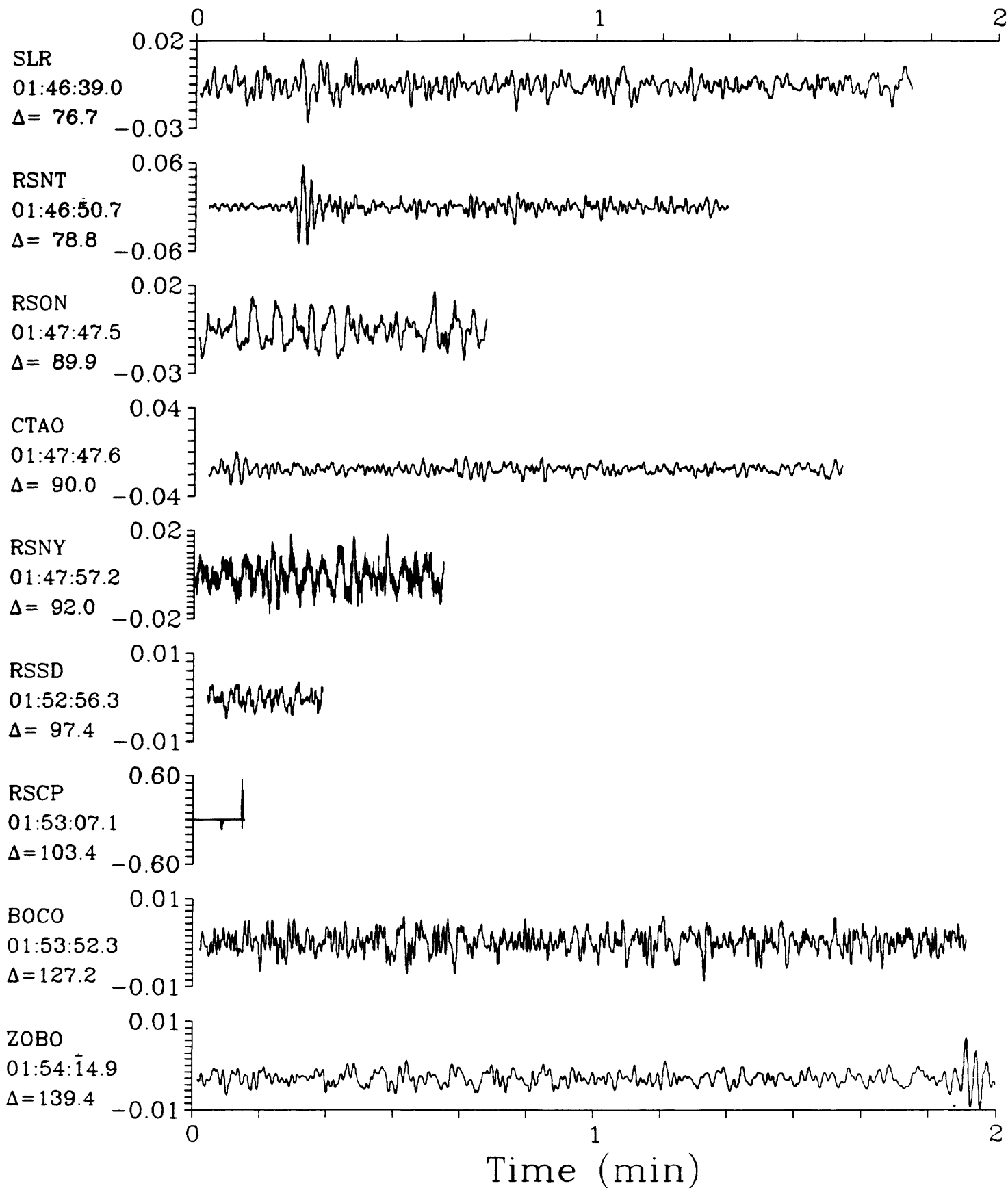
SPZ

Tajik-Xinjiang Border Region $h=33.0$ $m_b=5.6$ 

SPZ

21 August 1986 01:35:05.57

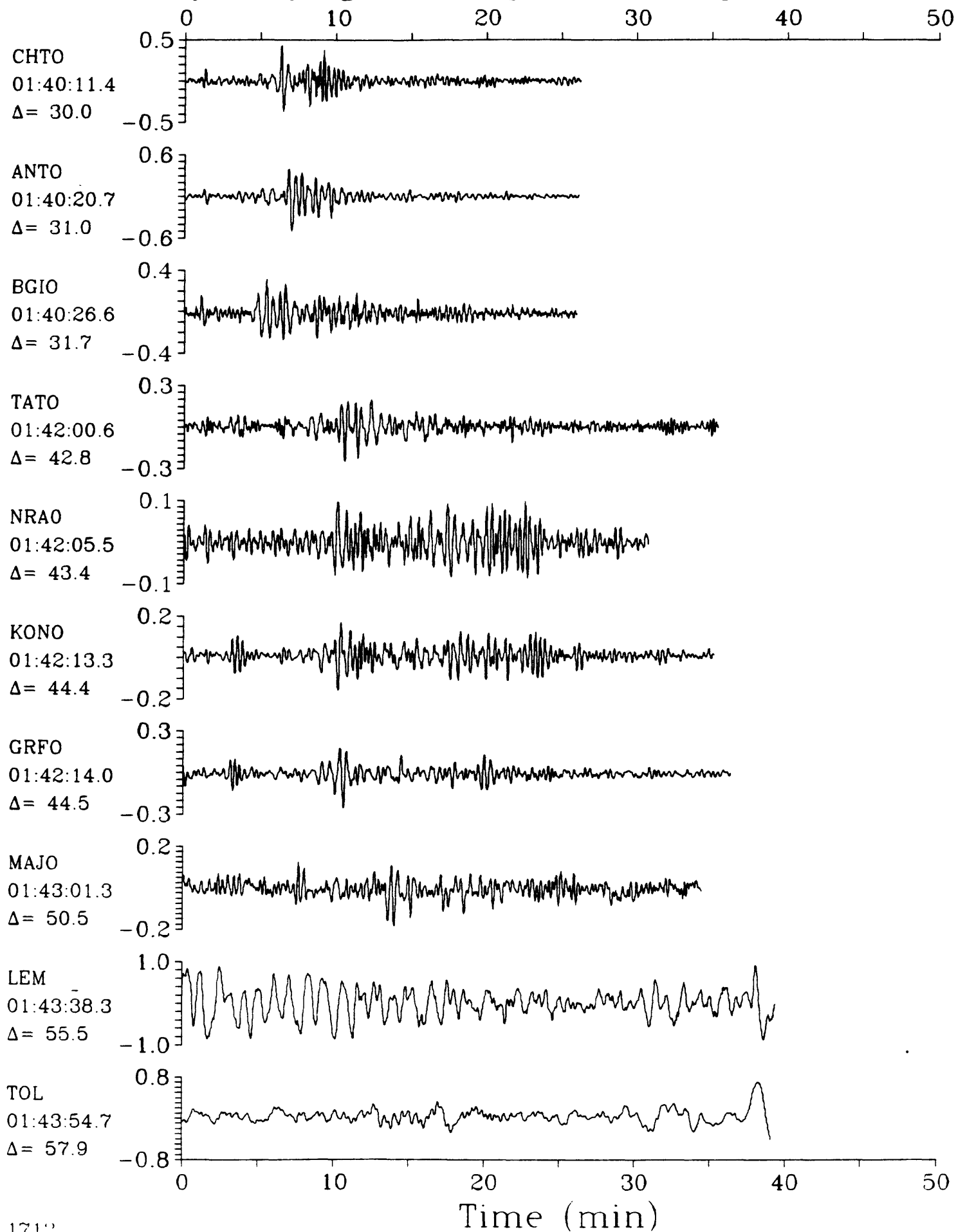
SPZ

Tajik-Xinjiang Border Region $h=33.0$ $m_b=5.6$ 

LPZ

21 August 1986 01:35:05.57

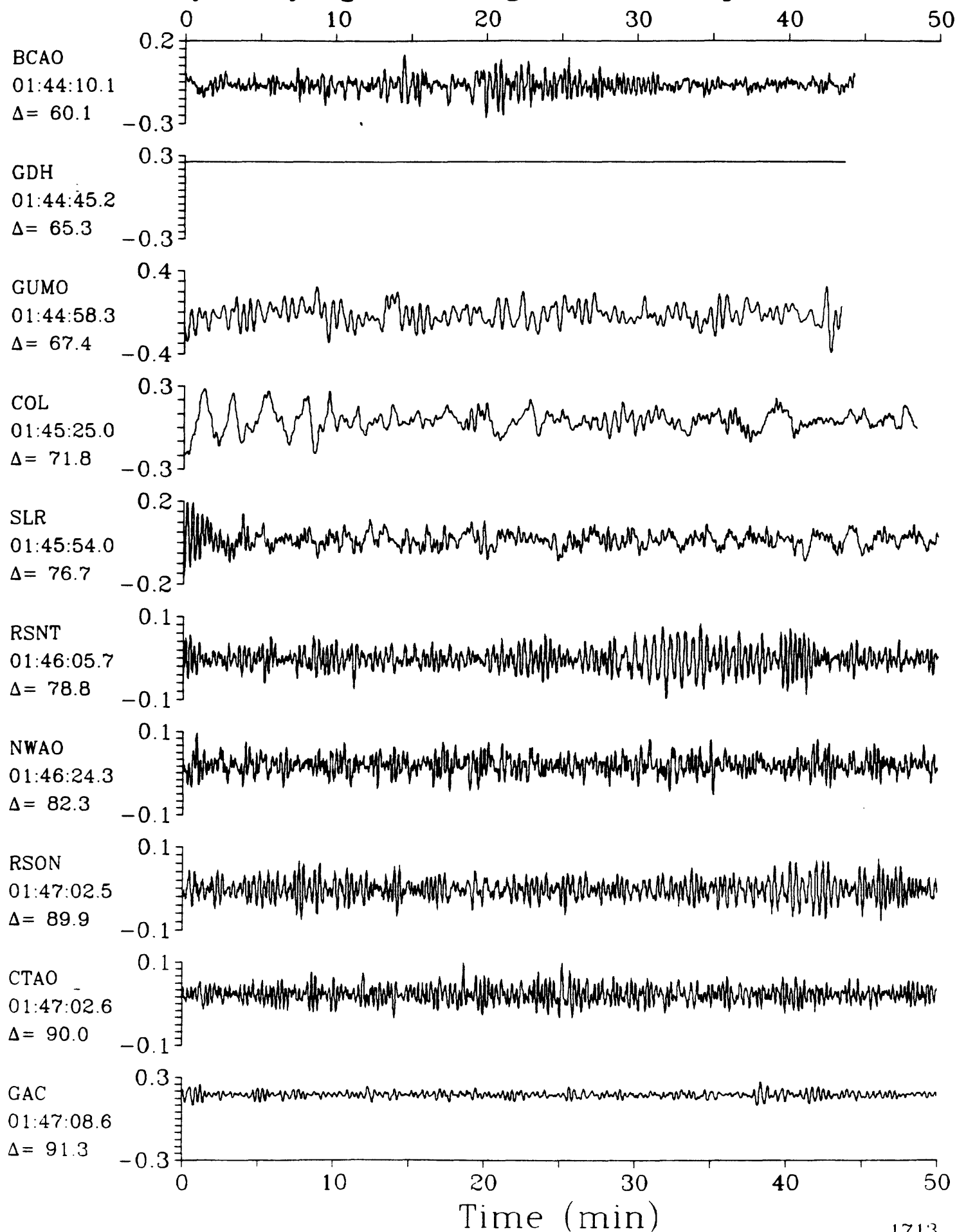
LPZ

Tajik-Xinjiang Border Region $h=33.0$ $m_b=5.6$ 

LPZ

21 August 1986 01:35:05.57

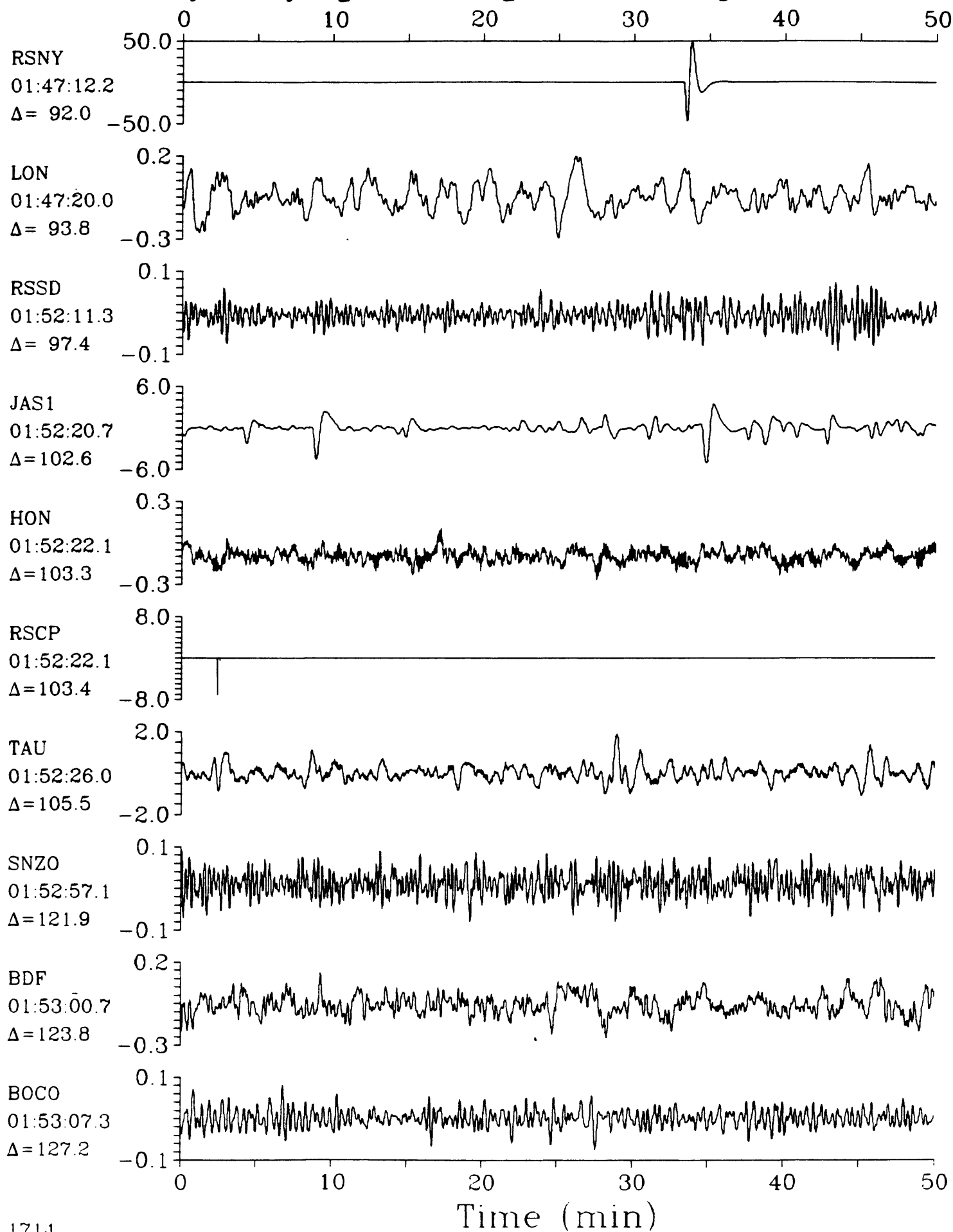
LPZ

Tajik-Xinjiang Border Region $h=33.0$ $m_b=5.6$ 

LPZ

21 August 1986 01:35:05.57

LPZ

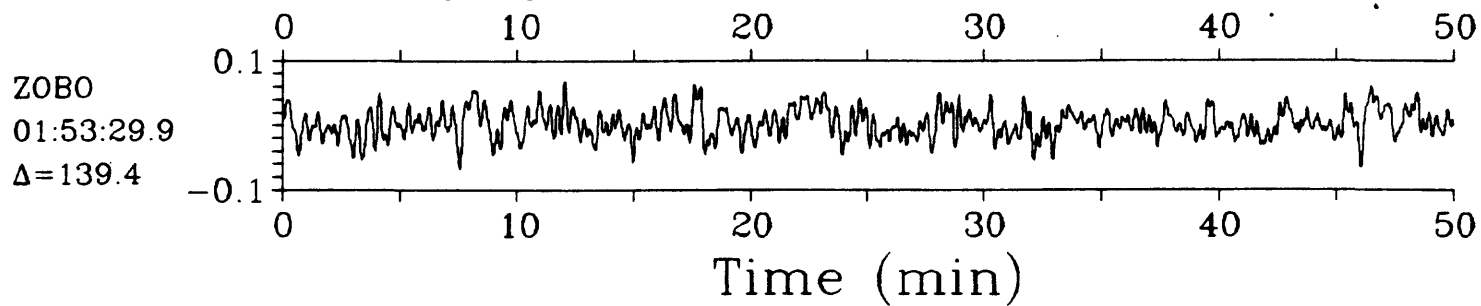
Tajik-Xinjiang Border Region $h=33.0$ $m_b=5.6$ 

LPZ

21 August 1986 01:35:05.57

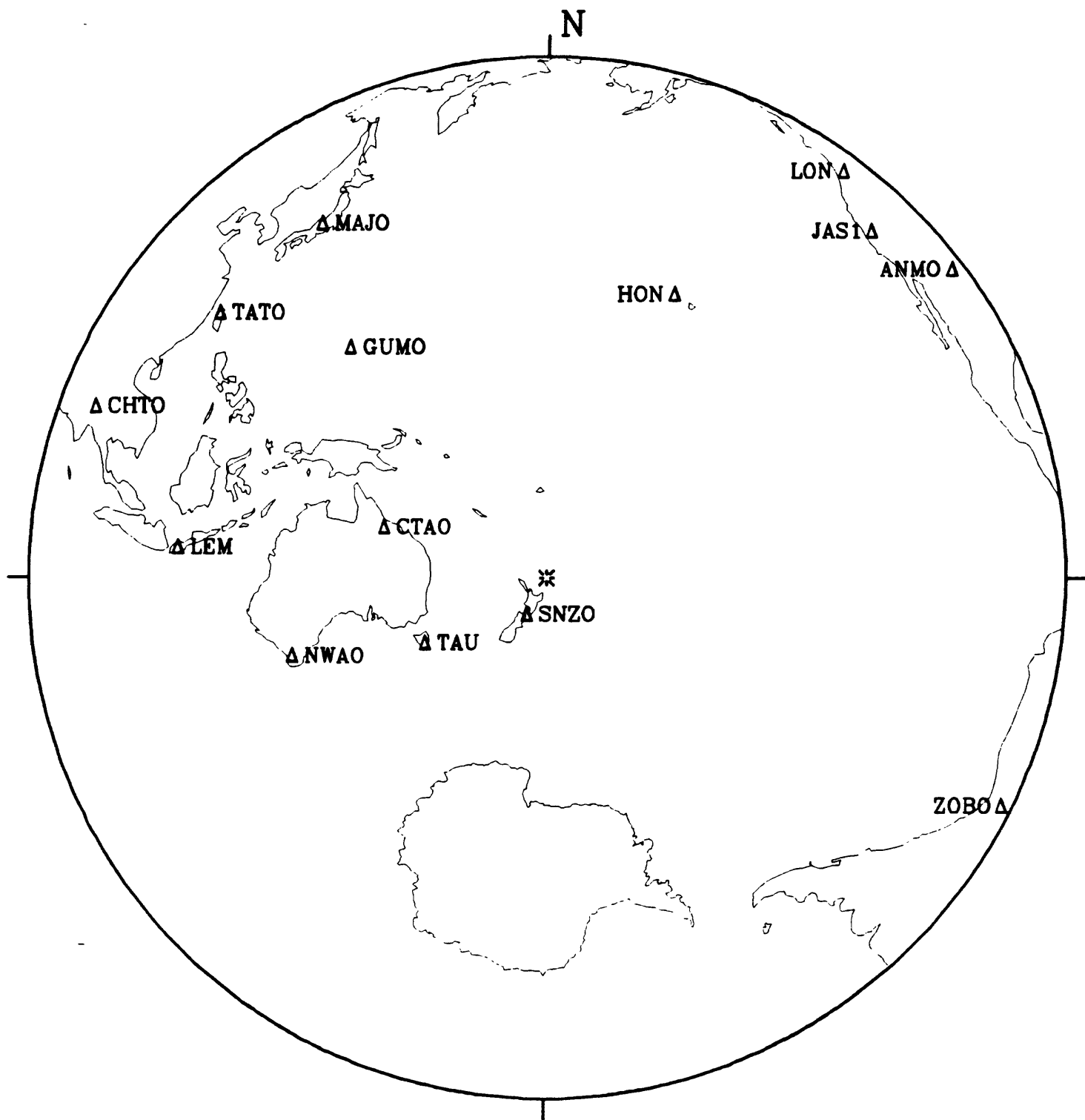
LPZ

Tajik-Xinjiang Border Region $h=33.0$ $m_b=5.6$



23 August 1986 23:47:48.72

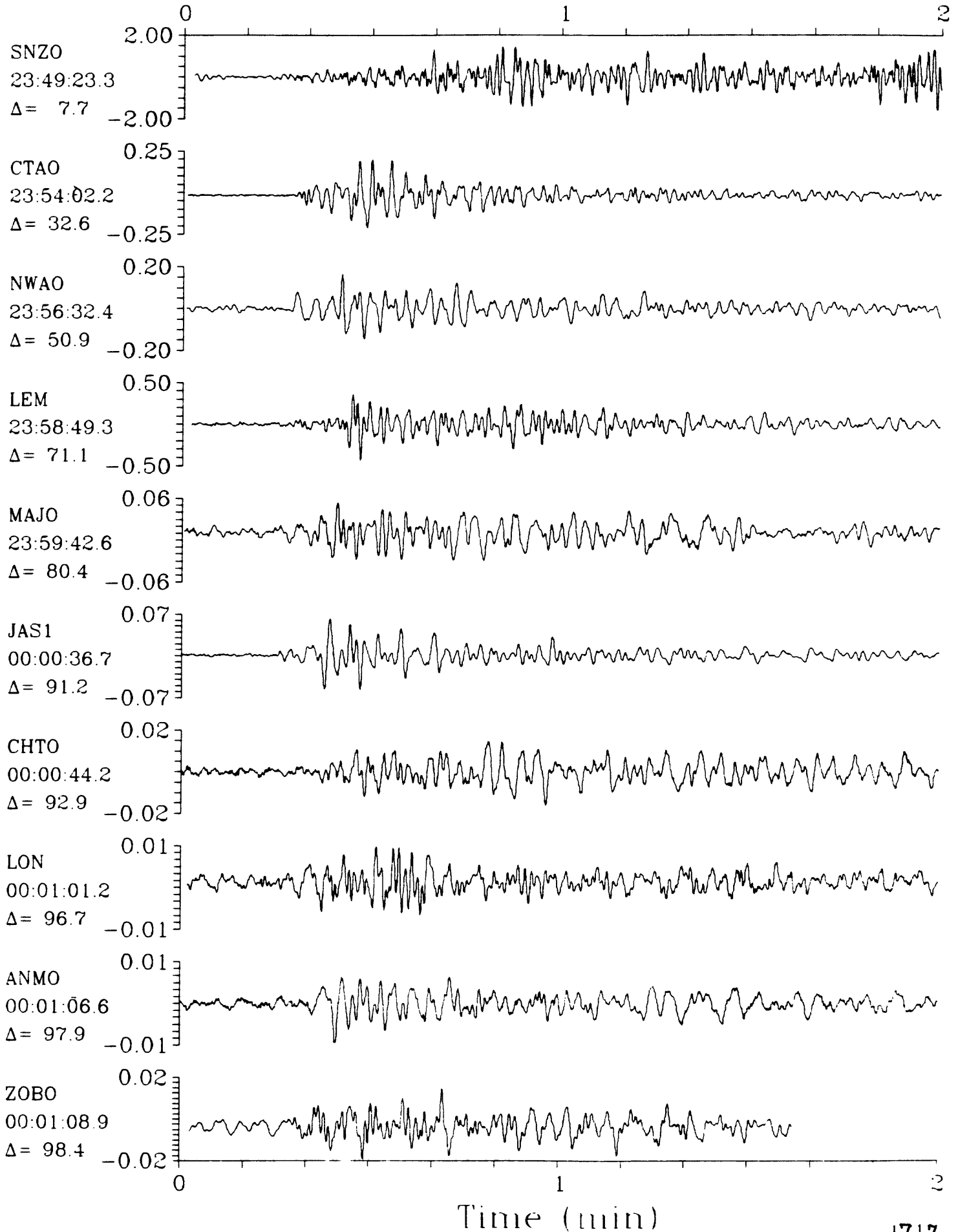
South of Kermadec Islands



SPZ

23 August 1986 23:47:48.72

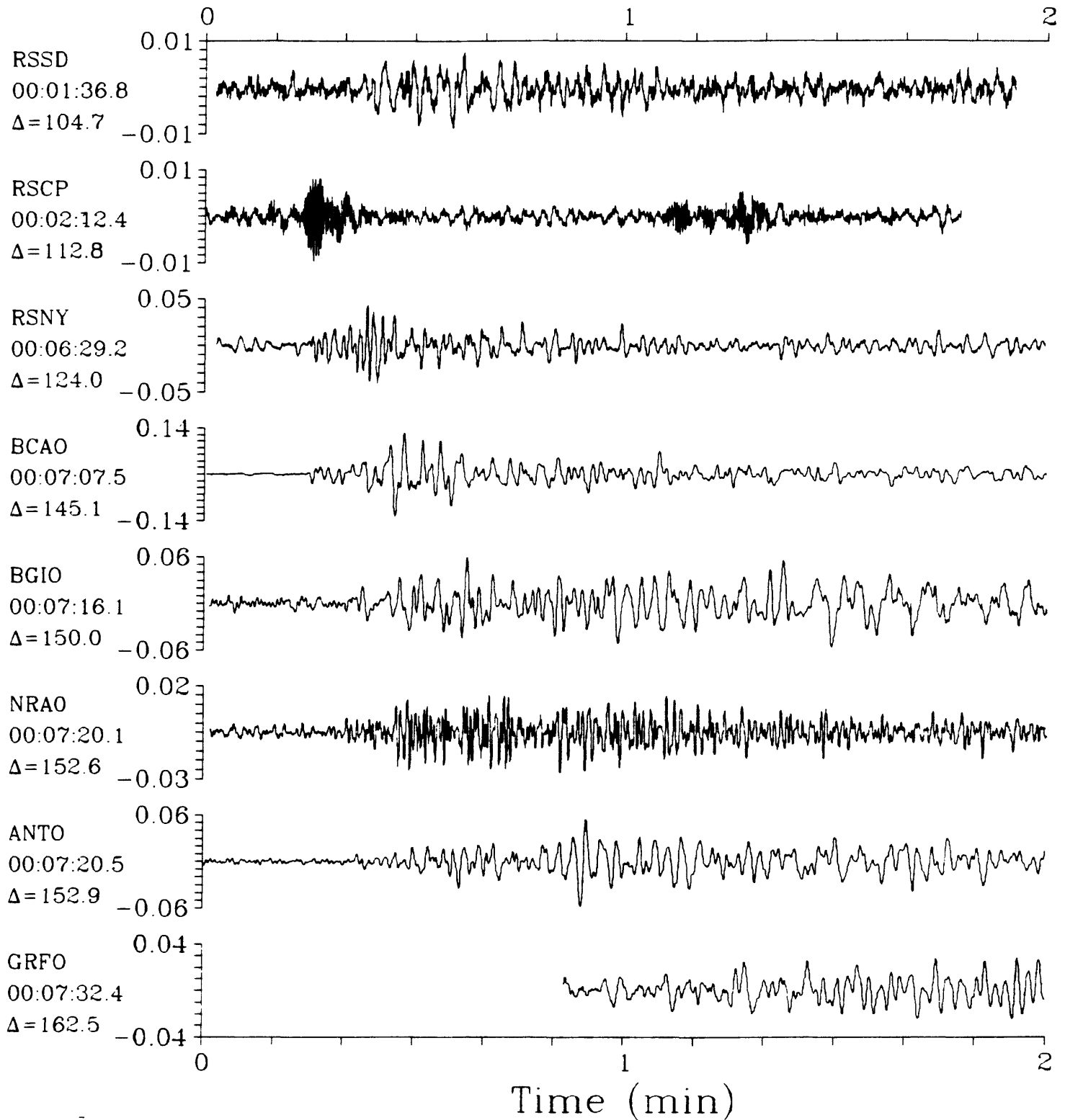
SPZ

South of Kermadec Islands $h=33.0$ $m_b=6.0$ $M_{sz}=6.5$ 

SPZ

23 August 1986 23:47:48.72

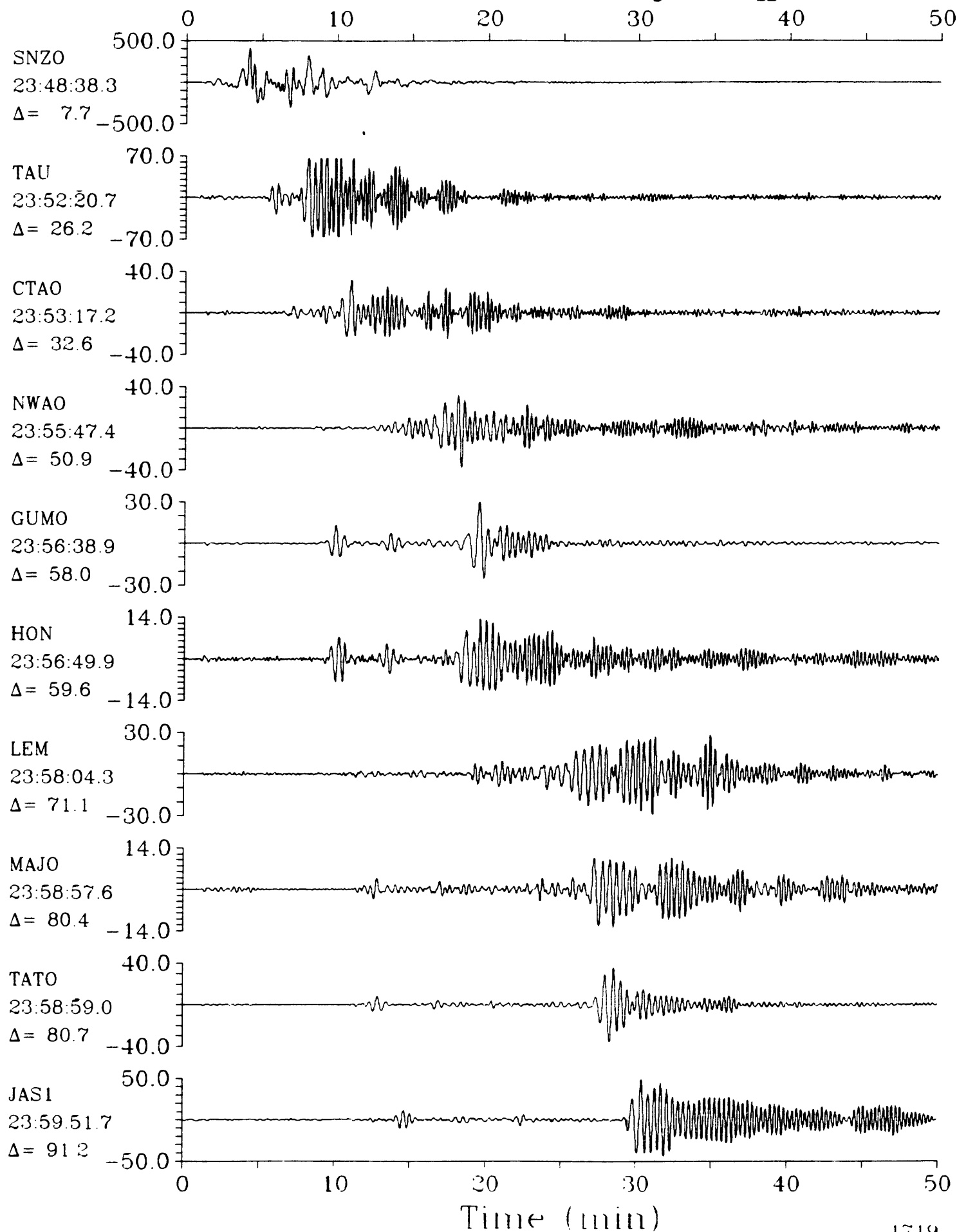
SPZ

South of Kermadec Islands $h=33.0$ $m_b=6.0$ $M_{sz}=6.5$ 

LPZ

23 August 1986 23:47:48.72

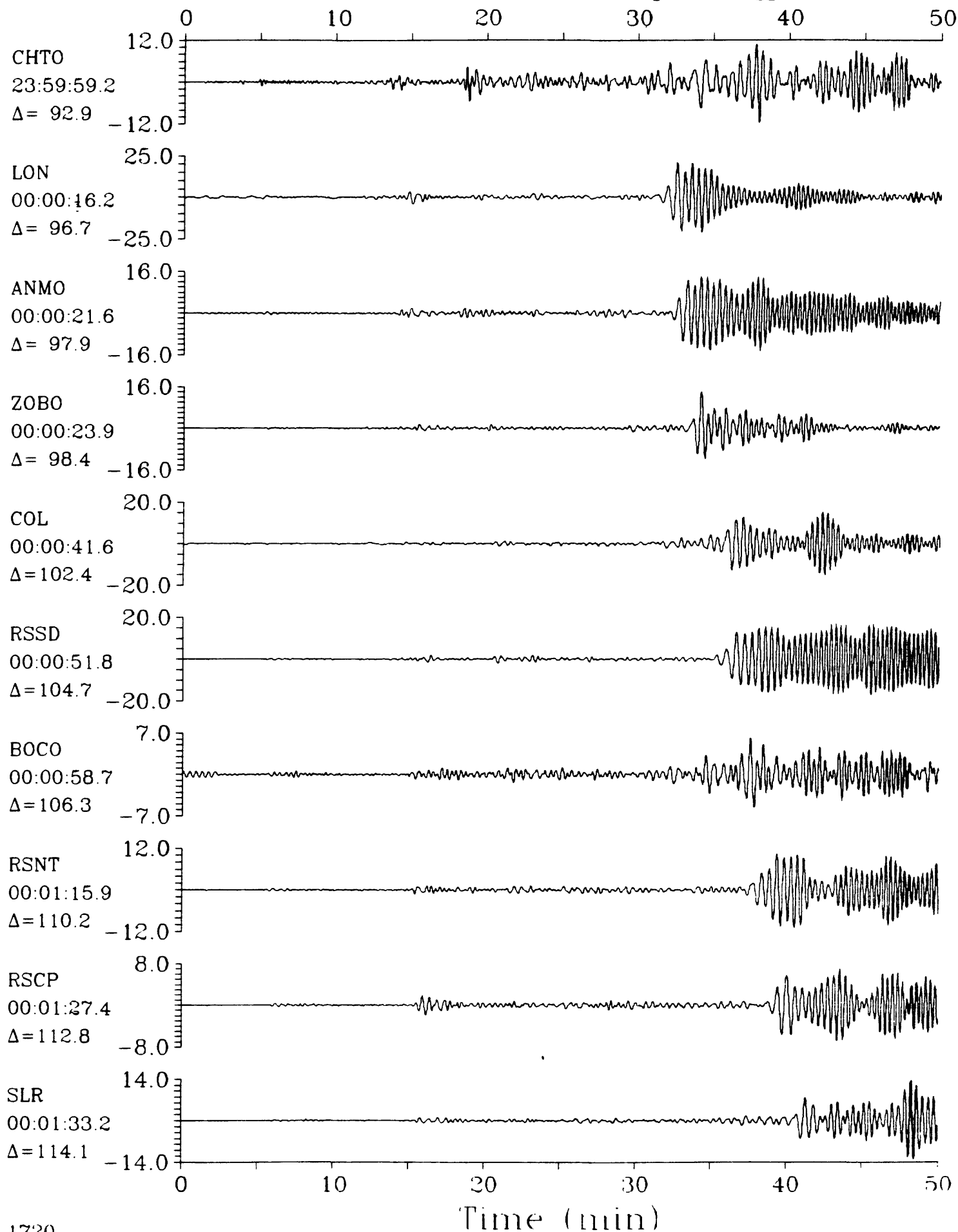
LPZ

South of Kermadec Islands $h=33.0$ $m_b=6.0$ $M_{sz}=6.5$ 

LPZ

23 August 1986 23:47:48.72

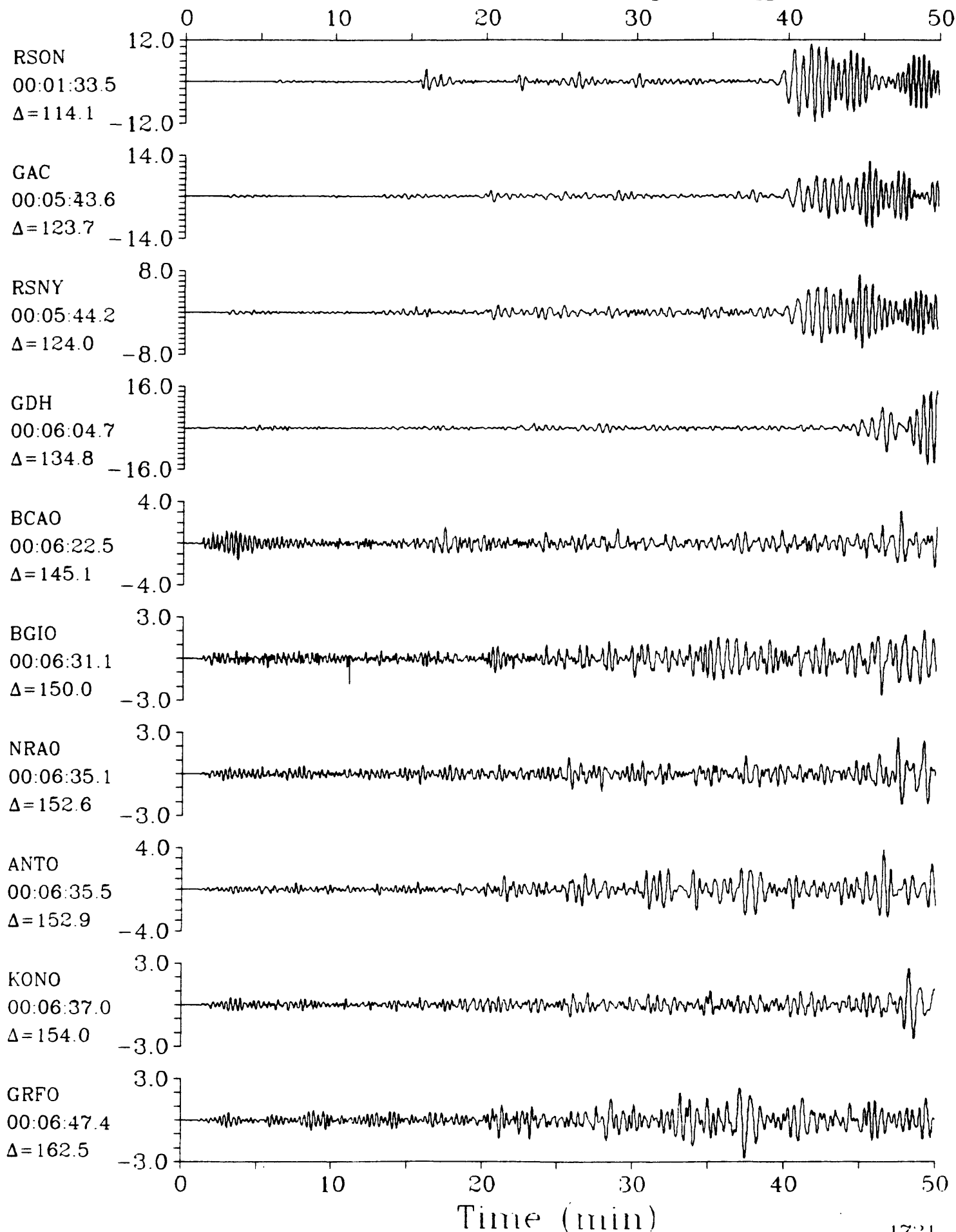
LPZ

South of Kermadec Islands $h=33.0$ $m_b=6.0$ $M_{sz}=6.5$ 

LPZ

23 August 1986 23:47:48.72

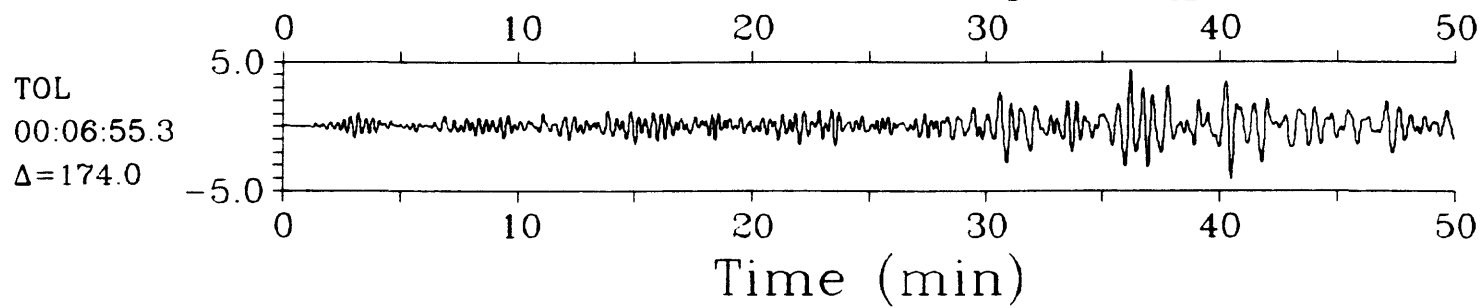
LPZ

South of Kermadec Islands $h=33.0$ $m_b=6.0$ $M_{sz}=6.5$ 

LPZ

23 August 1986 23:47:48.72

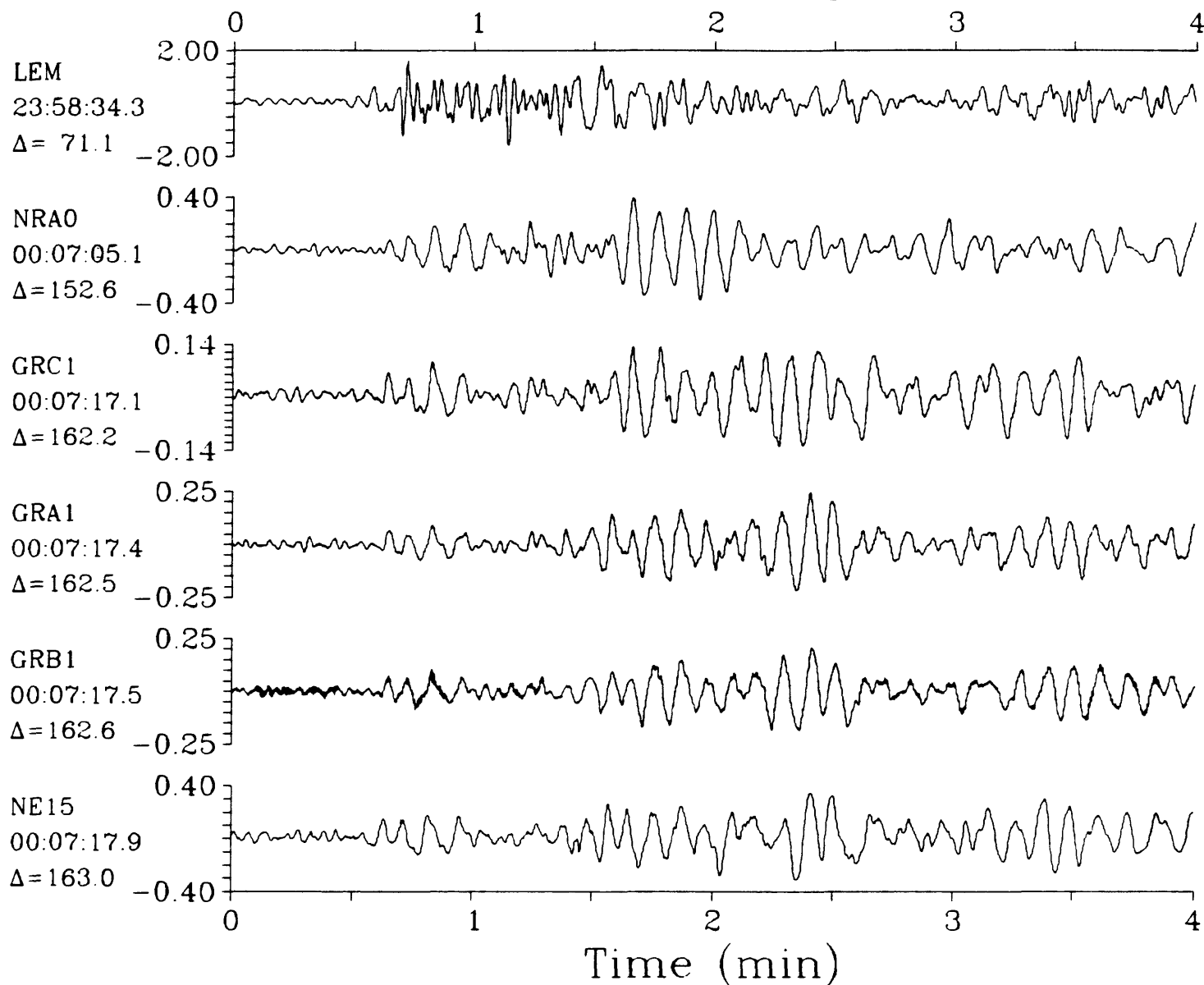
LPZ

South of Kermadec Islands $h=33.0$ $m_b=6.0$ $M_{sz}=6.5$ 

IPZ

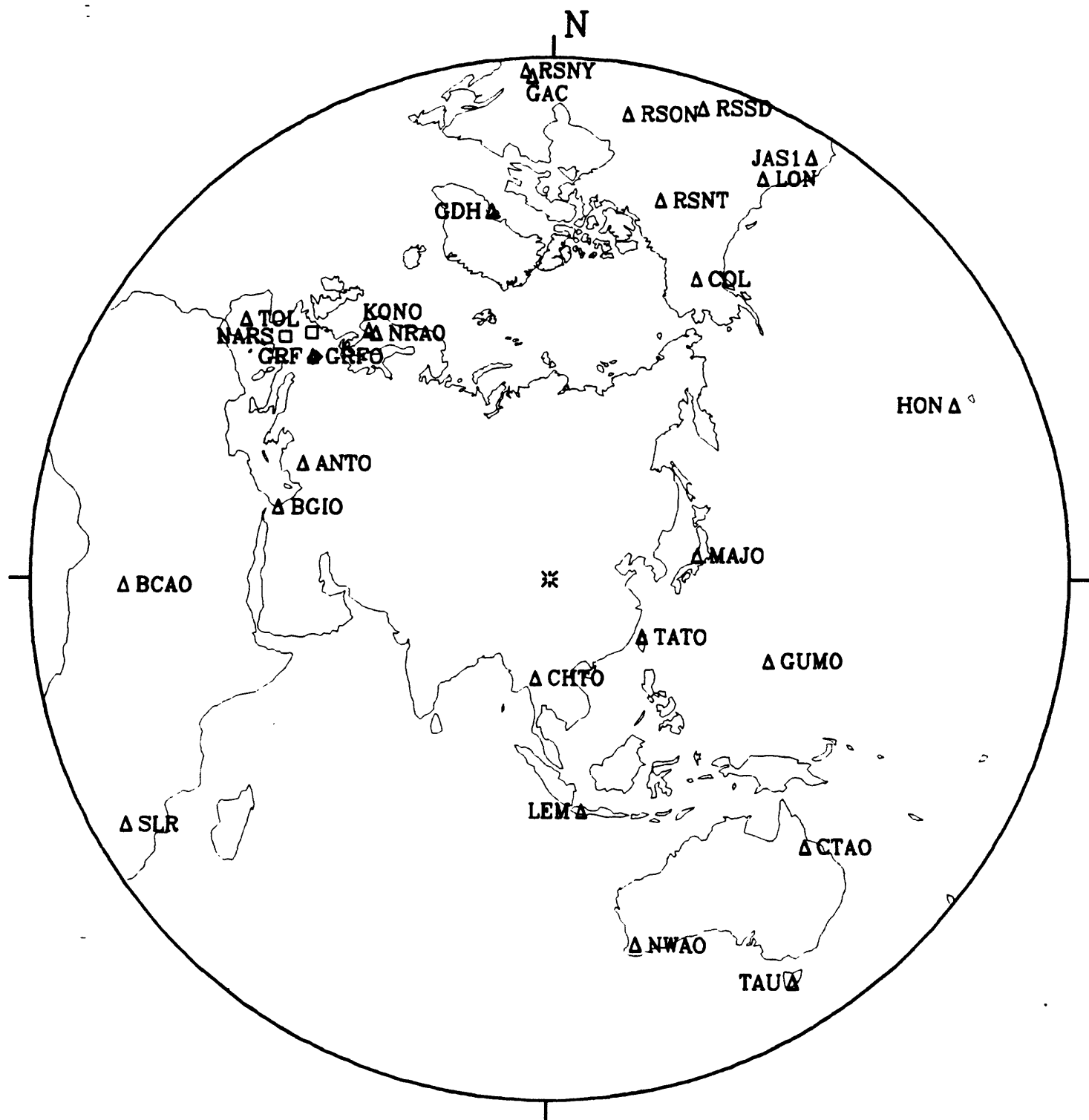
23 August 1986 23:47:48.72

IPZ

South of Kermadec Islands $h=33.0$ $m_b=6.0$ $M_{sz}=6.5$ 

26 August 1986 09:43:04.16

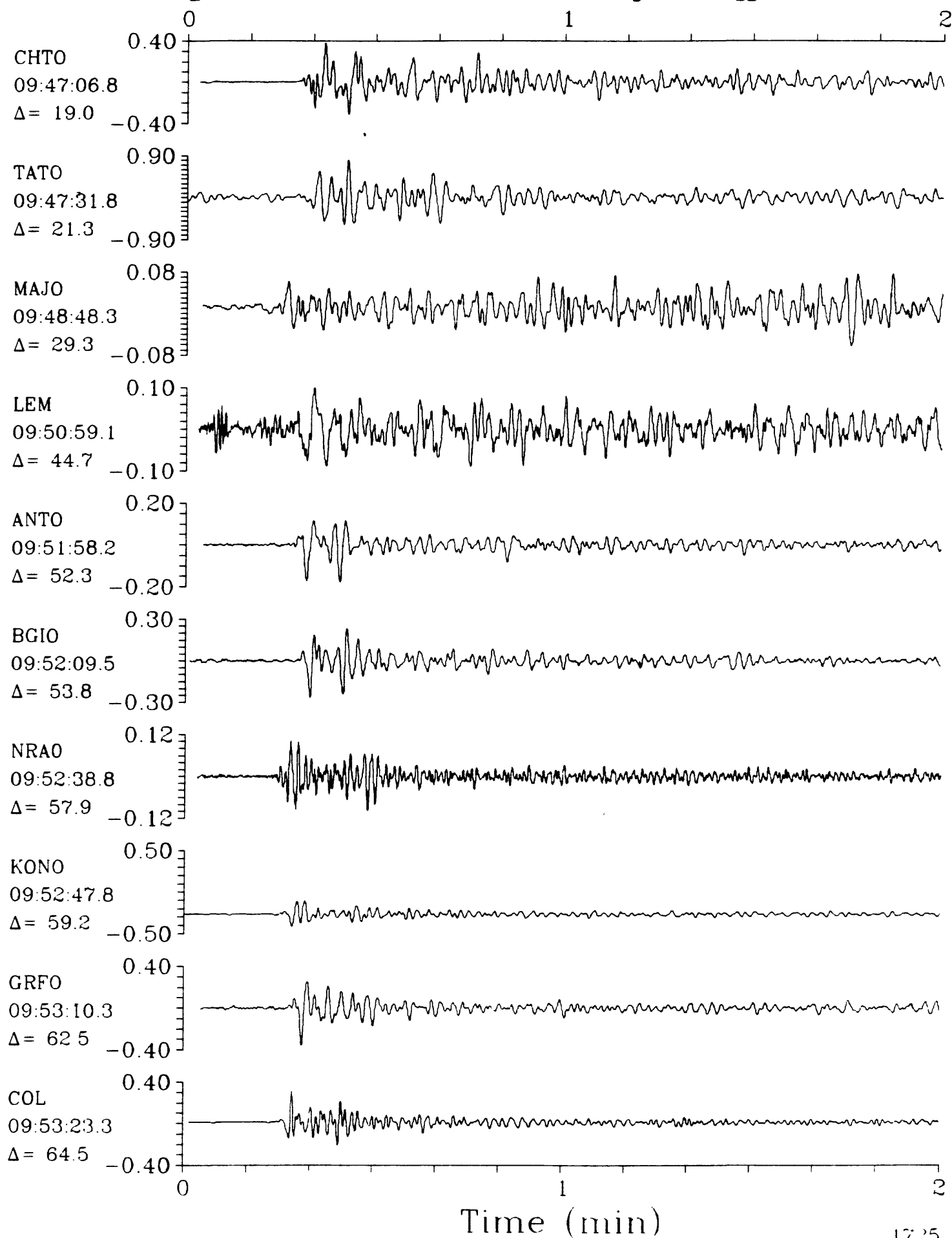
Qinghai Province, China



SPZ

26 August 1986 09:43:04.16

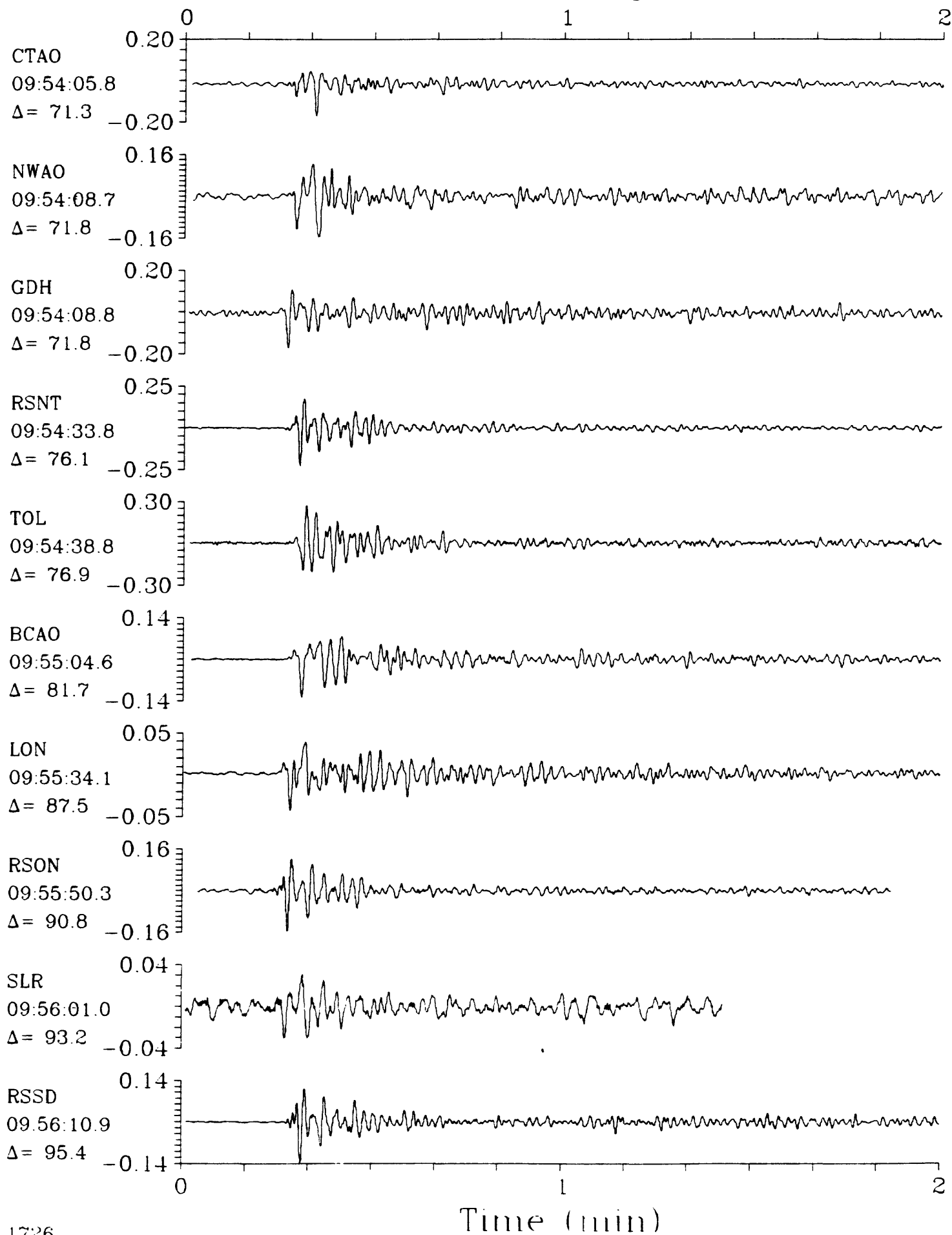
SPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

SPZ

26 August 1986 09:43:04.16

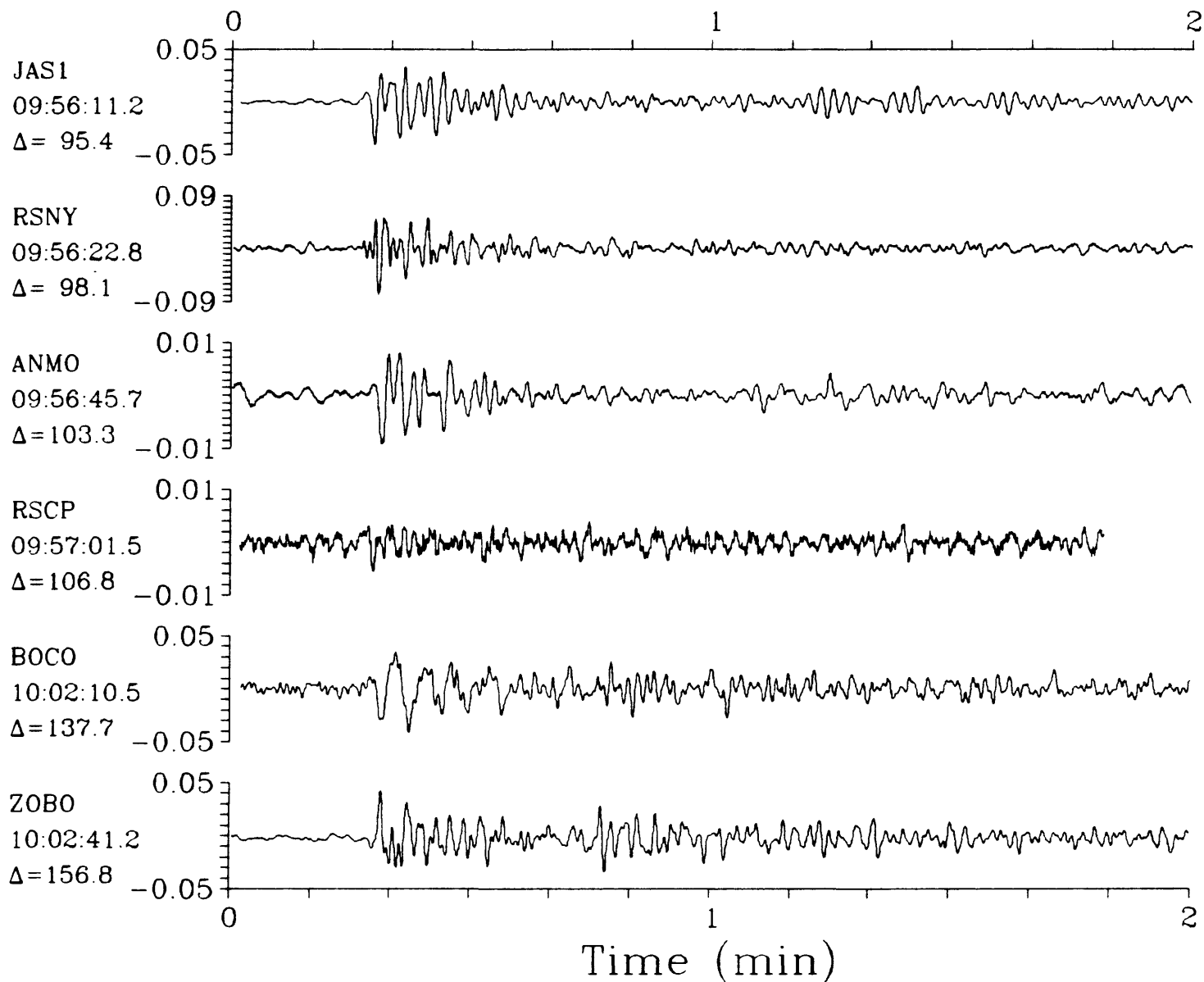
SPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

SPZ

26 August 1986 09:43:04.16

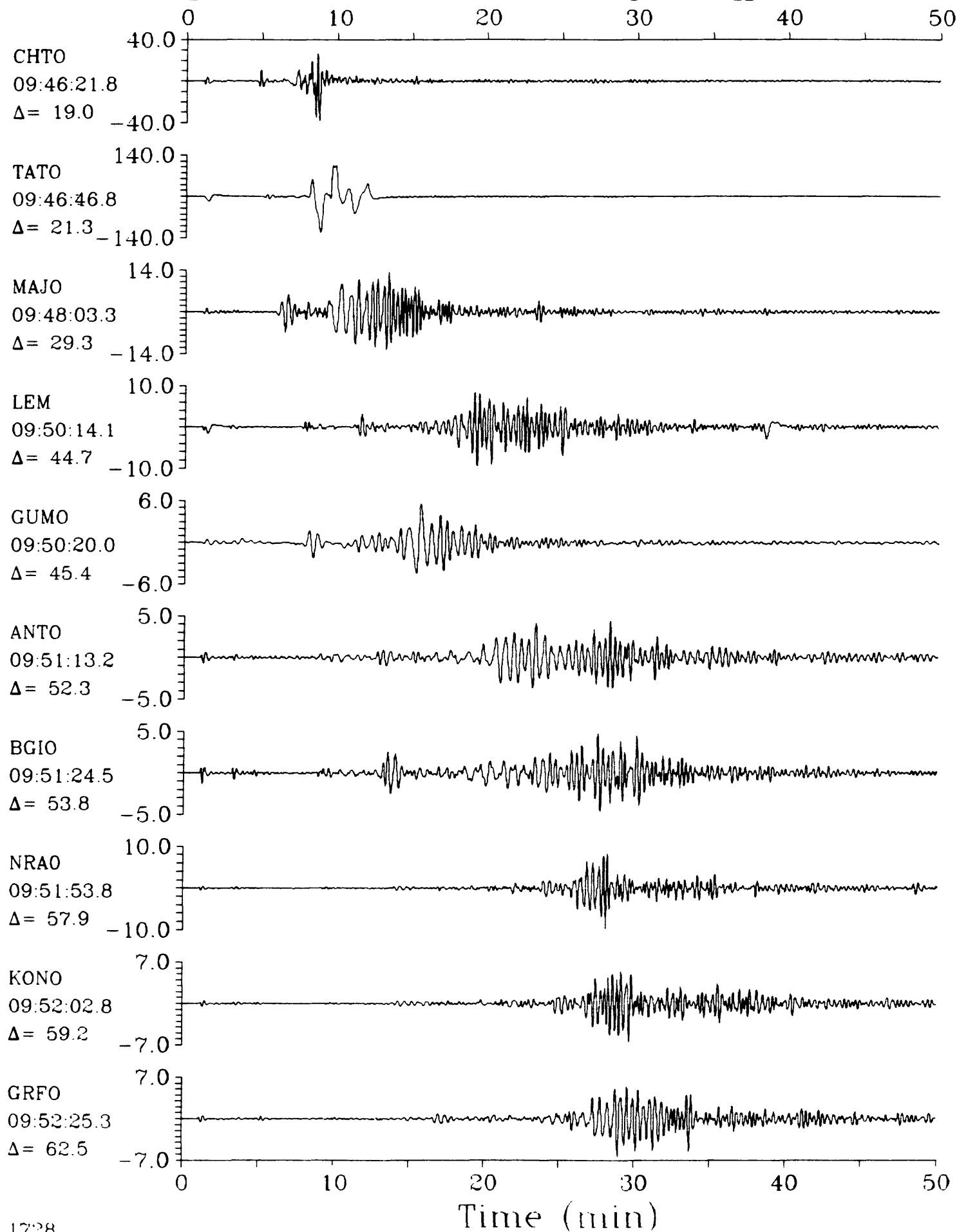
SPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

LPZ

26 August 1986 09:43:04.16

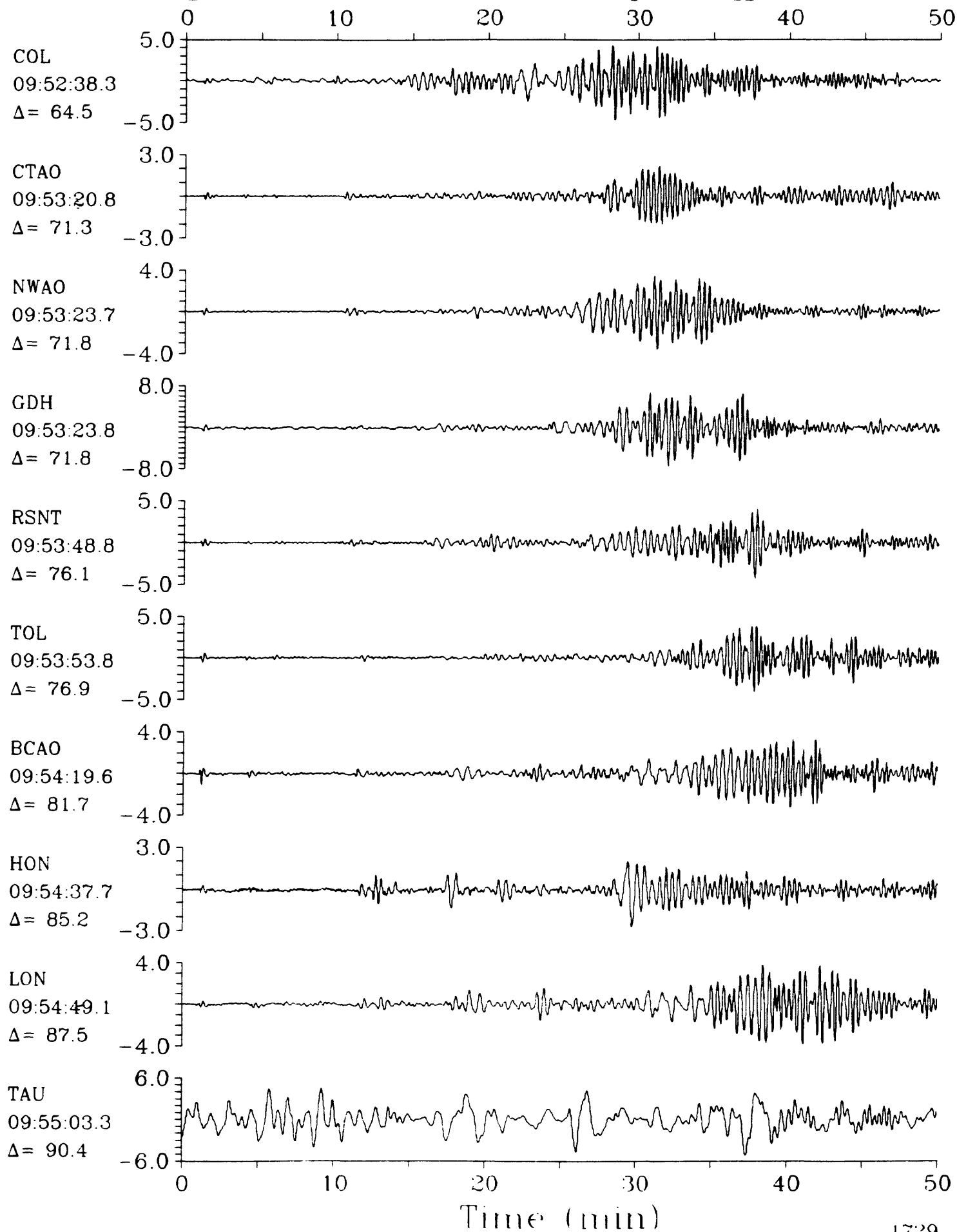
LPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

LPZ

26 August 1986 09:43:04.16

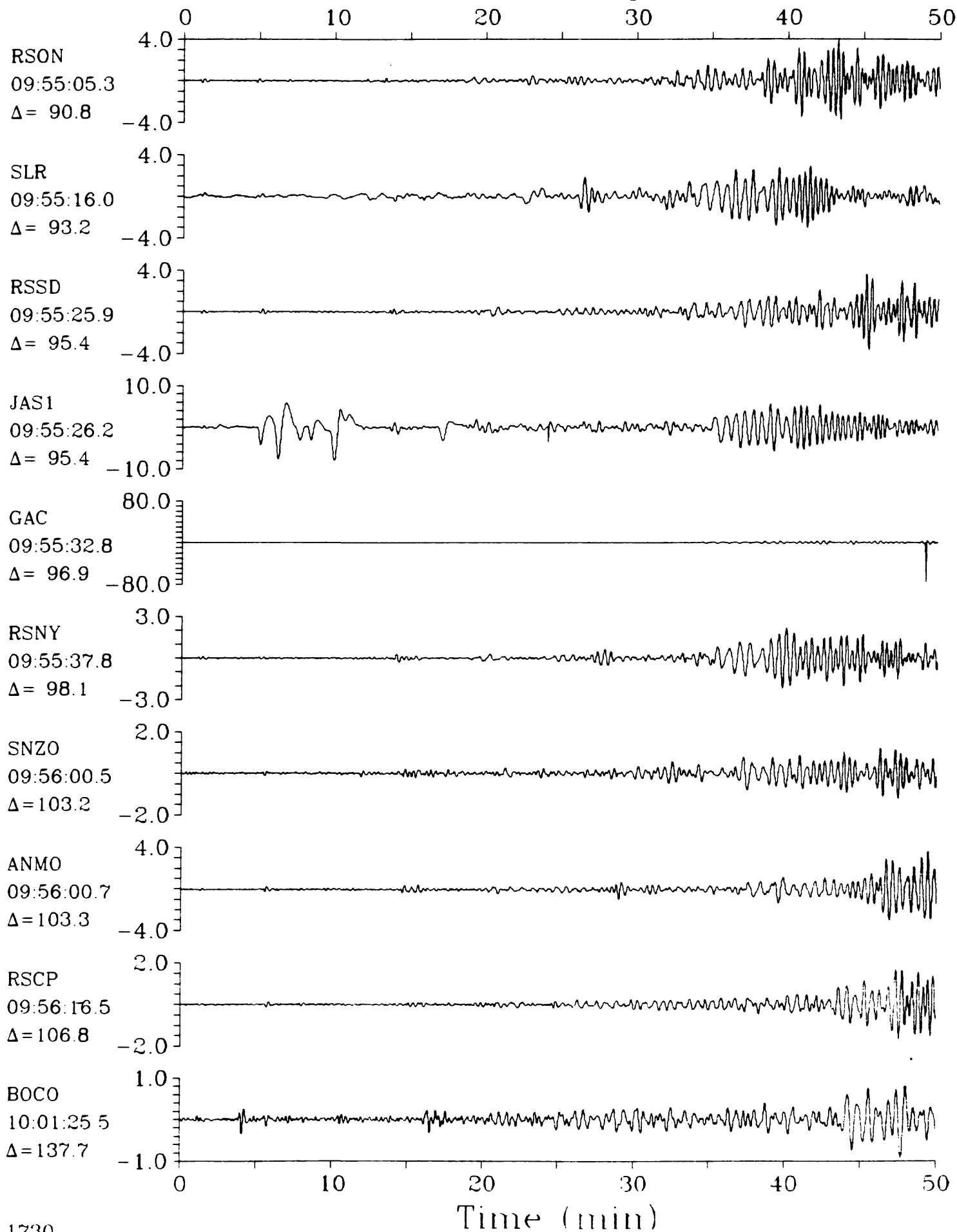
LPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

LPZ

26 August 1986 09:43:04.16

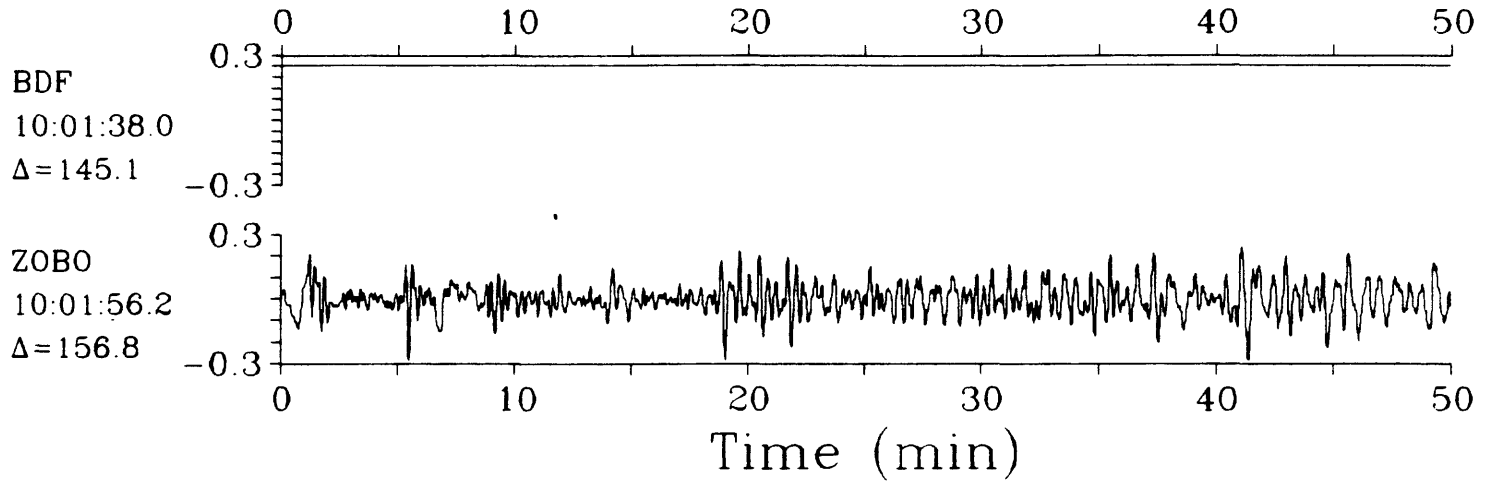
LPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

LPZ

26 August 1986 09:43:04.16

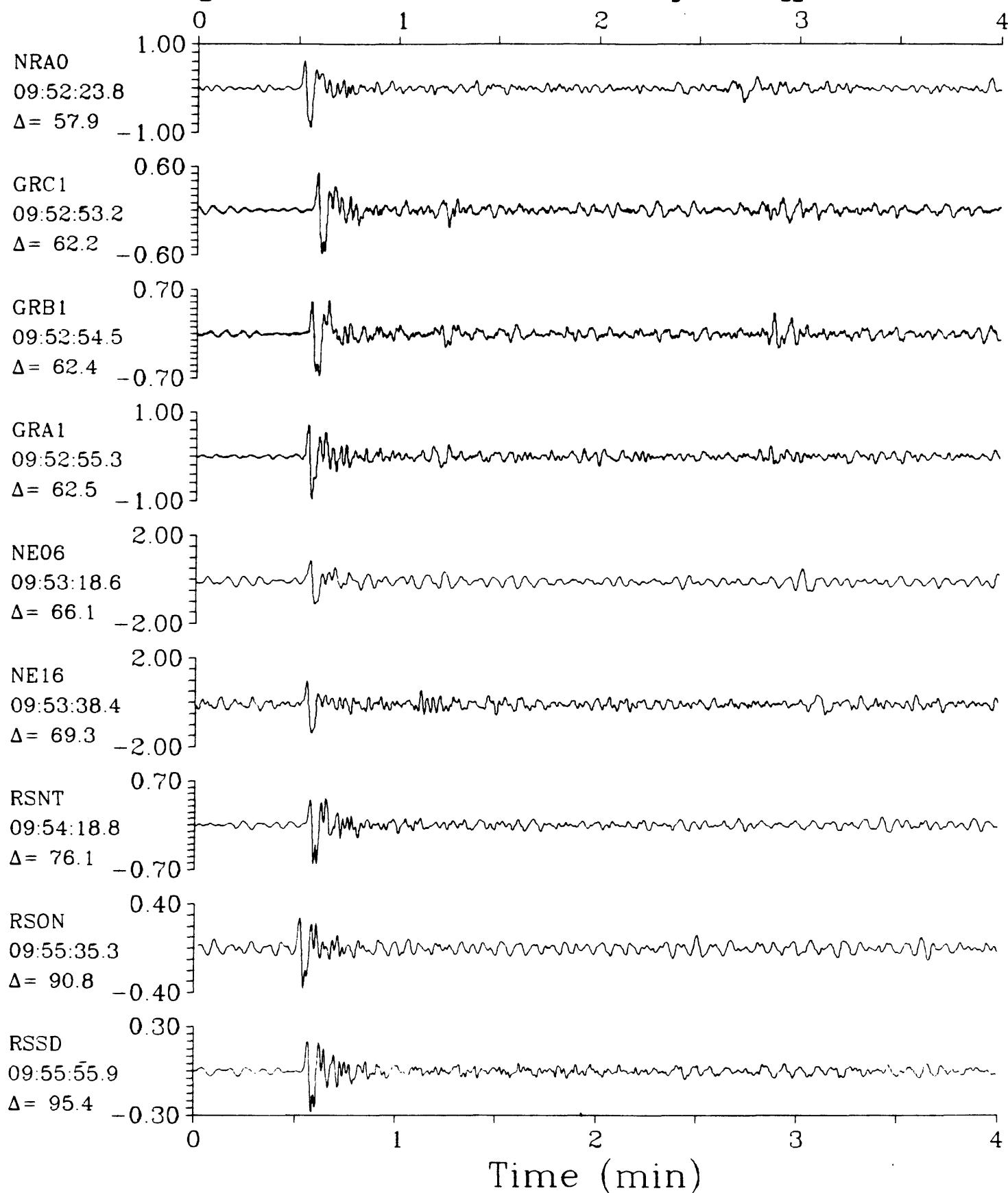
LPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

IPZ

26 August 1986 09:43:04.16

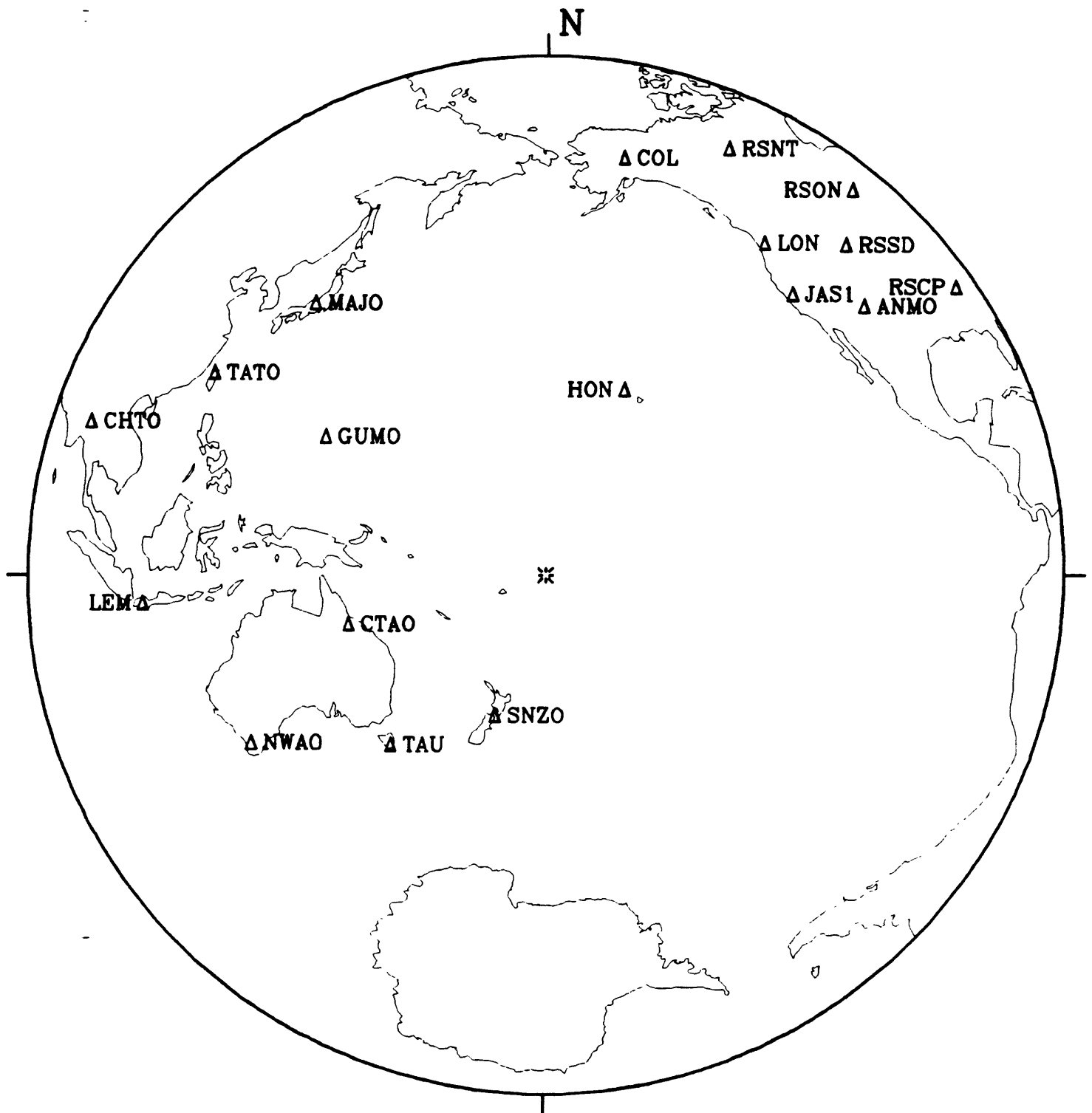
IPZ

Qinghai Province, China $h=33.0$ $m_b=6.1$ $M_{sz}=5.8$ 

Time (min)

26 August 1986 21:52:29.95

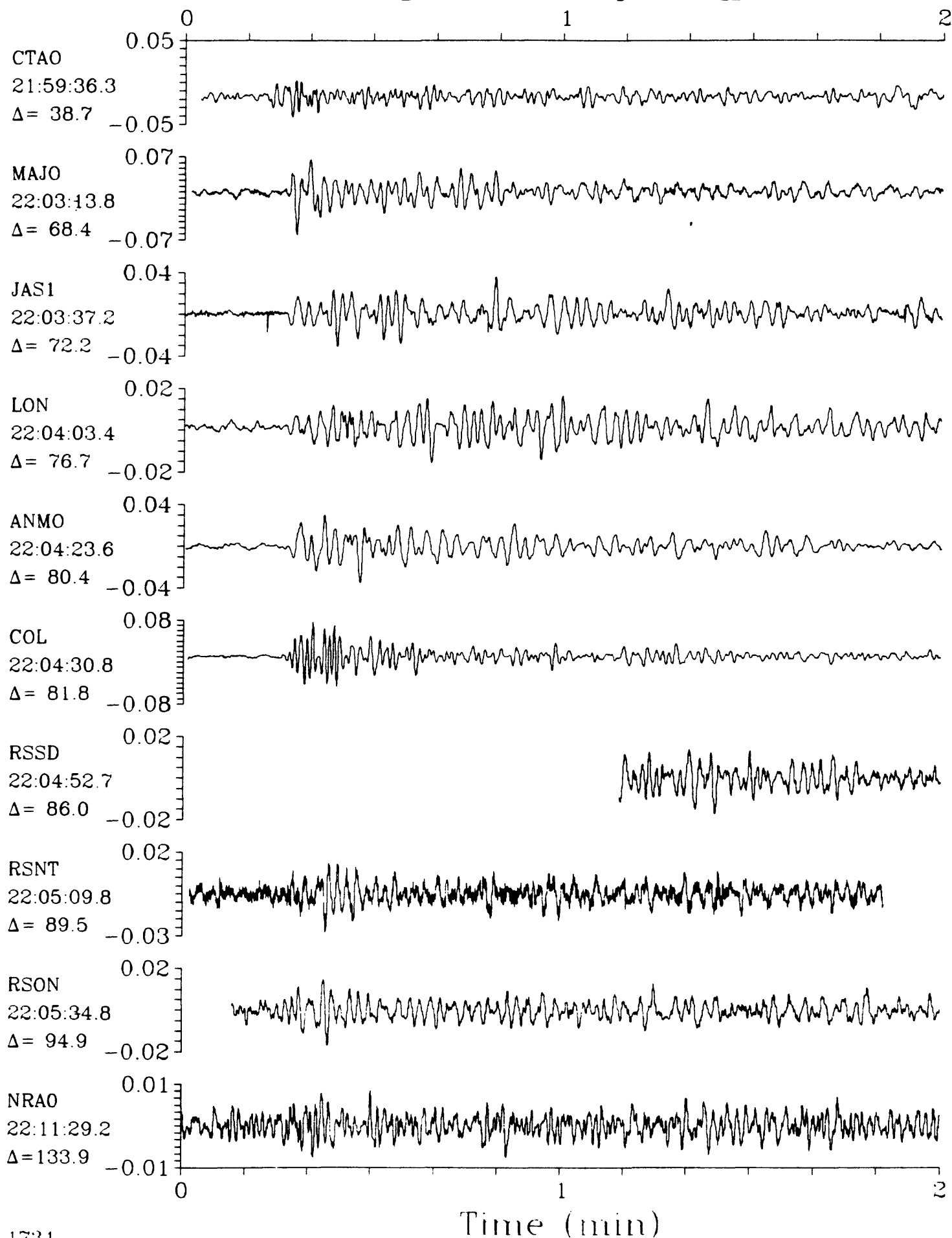
Samoa Islands Region



SPZ

26 August 1986 21:52:29.95

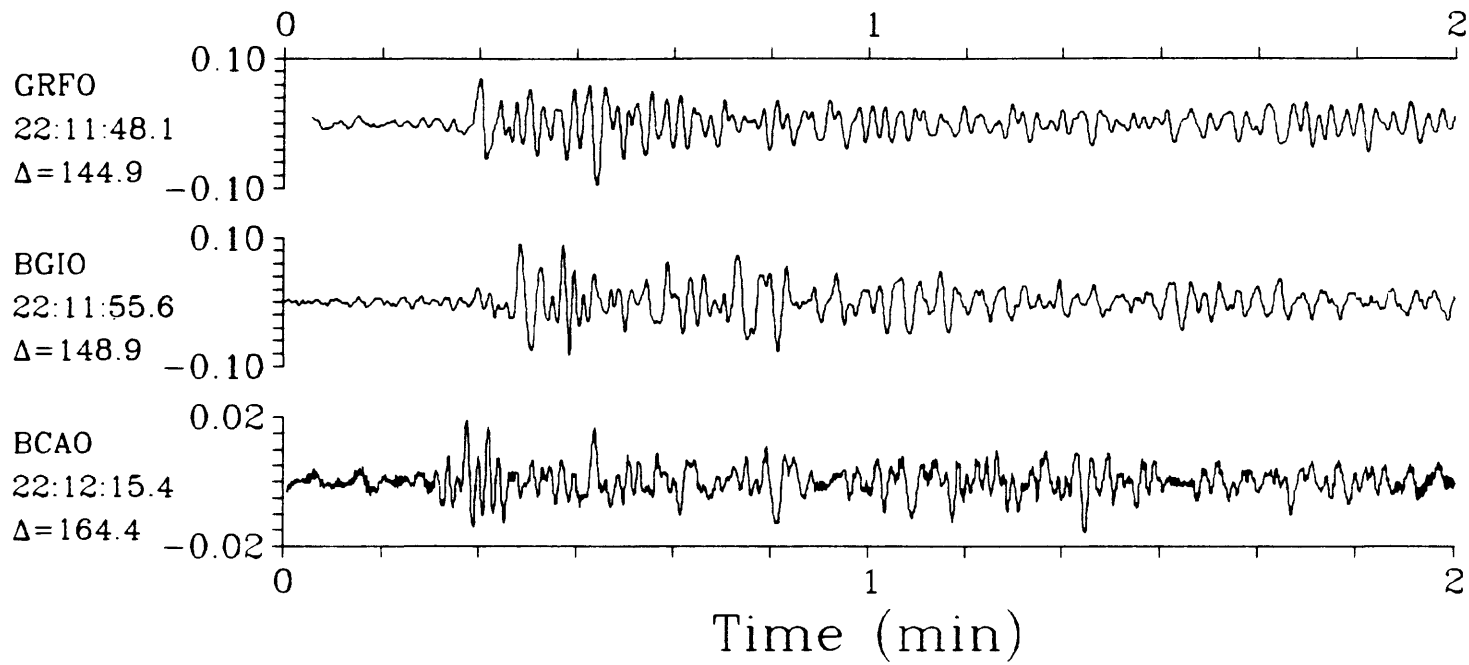
SPZ

Samoa Islands Region $h=33.0$ $m_b=5.5$ $M_{SZ}=5.8$ 

SPZ

26 August 1986 21:52:29.95

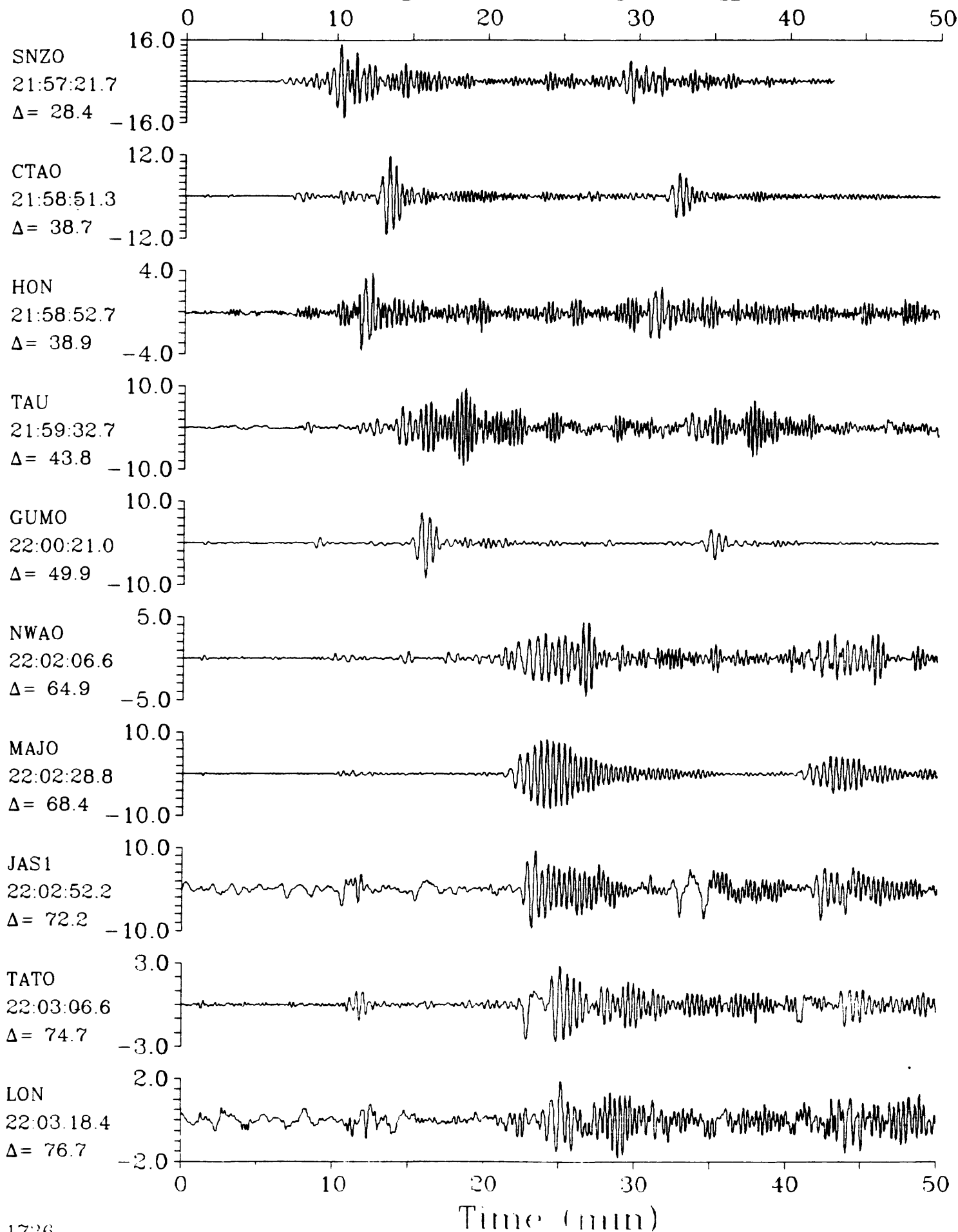
SPZ

Samoa Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.8$ 

LPZ

26 August 1986 21:52:29.95

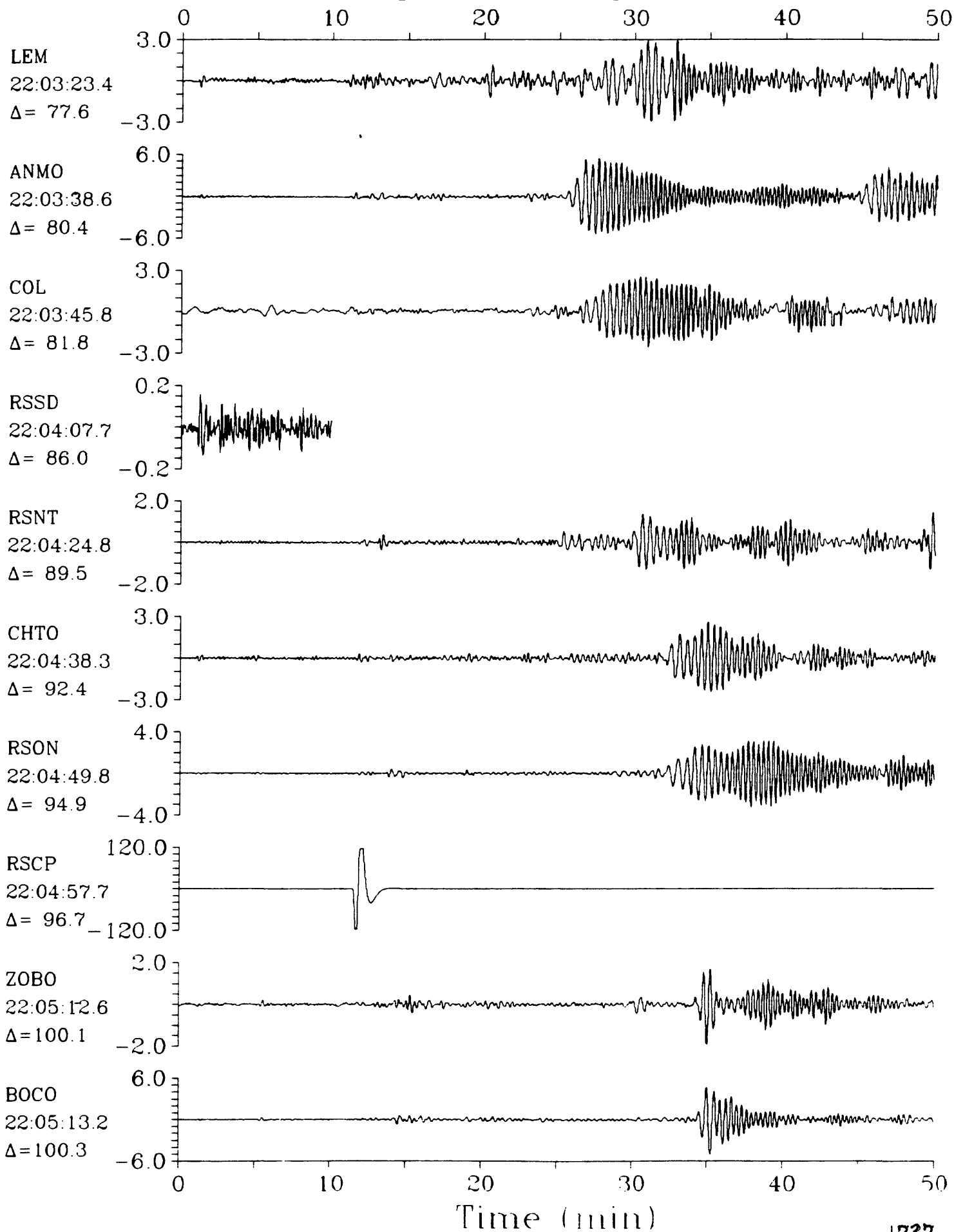
LPZ

Samoa Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.8$ 

LPZ

26 August 1986 21:52:29.95

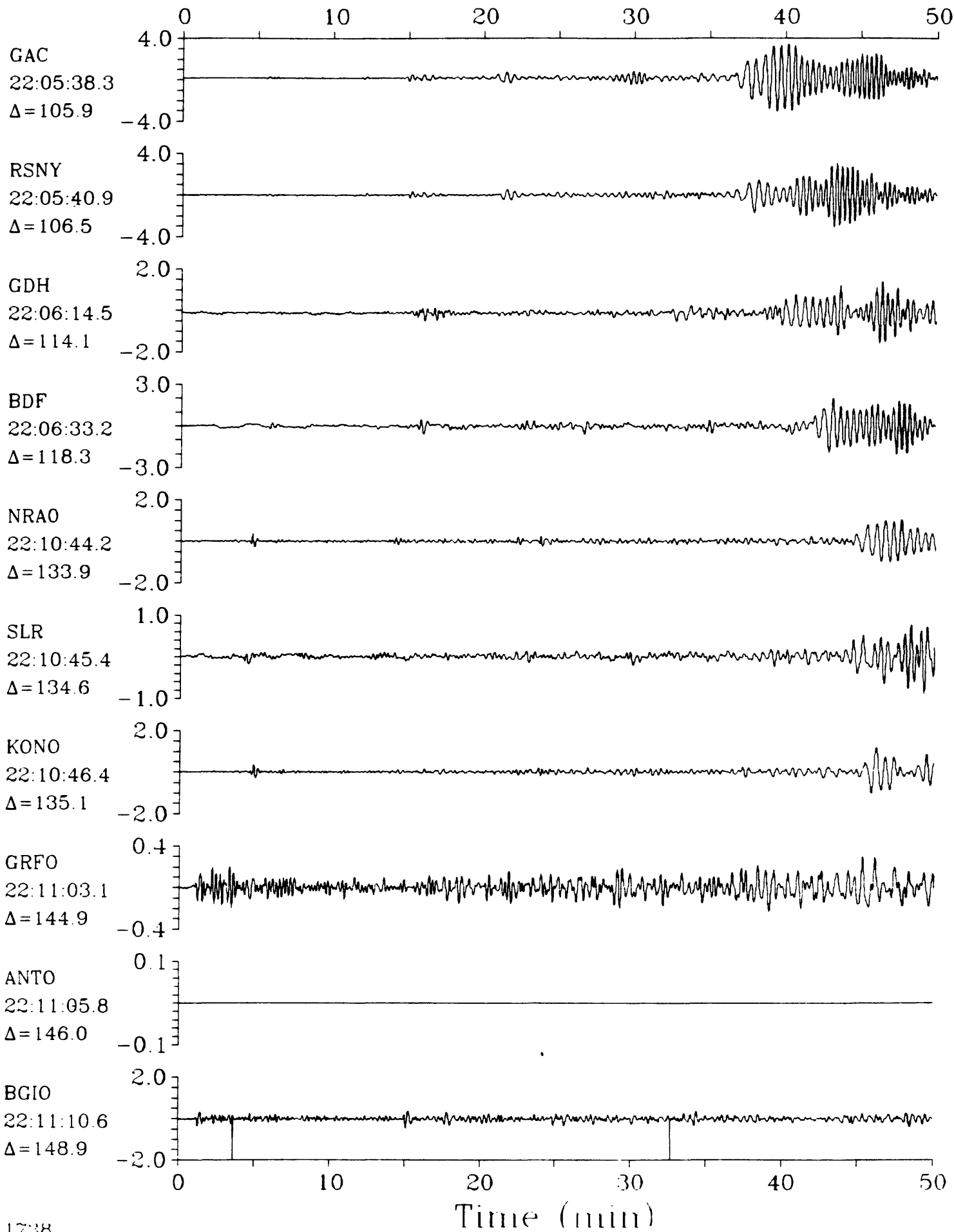
LPZ

Samoa Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.8$ 

LPZ

26 August 1986 21:52:29.95

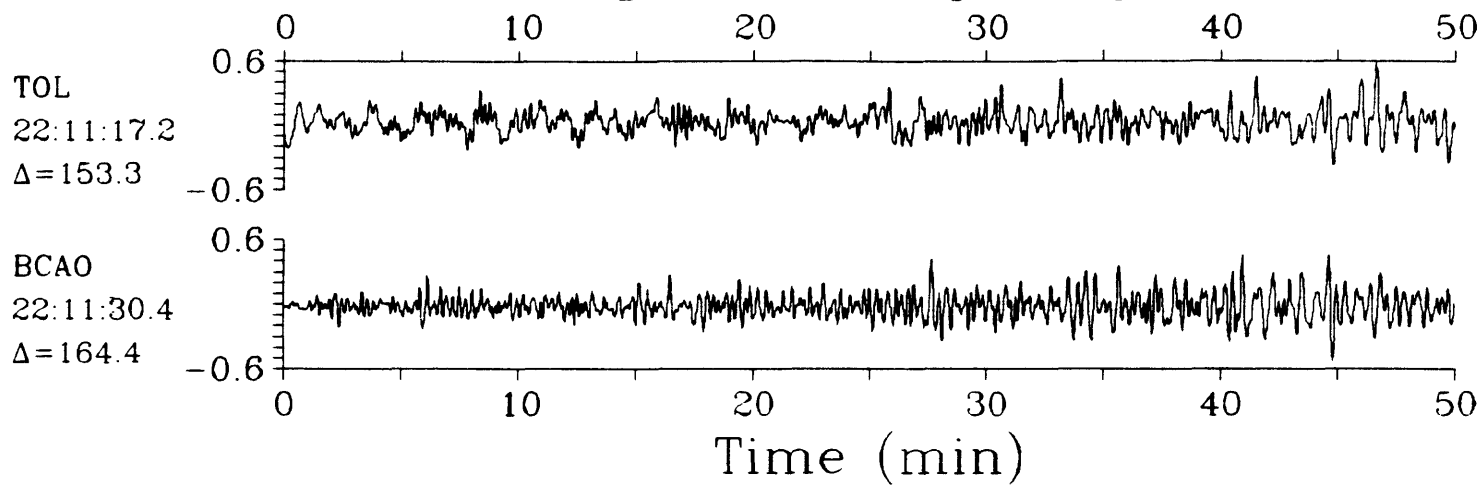
LPZ

Samoa Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.8$ 

LPZ

26 August 1986 21:52:29.95

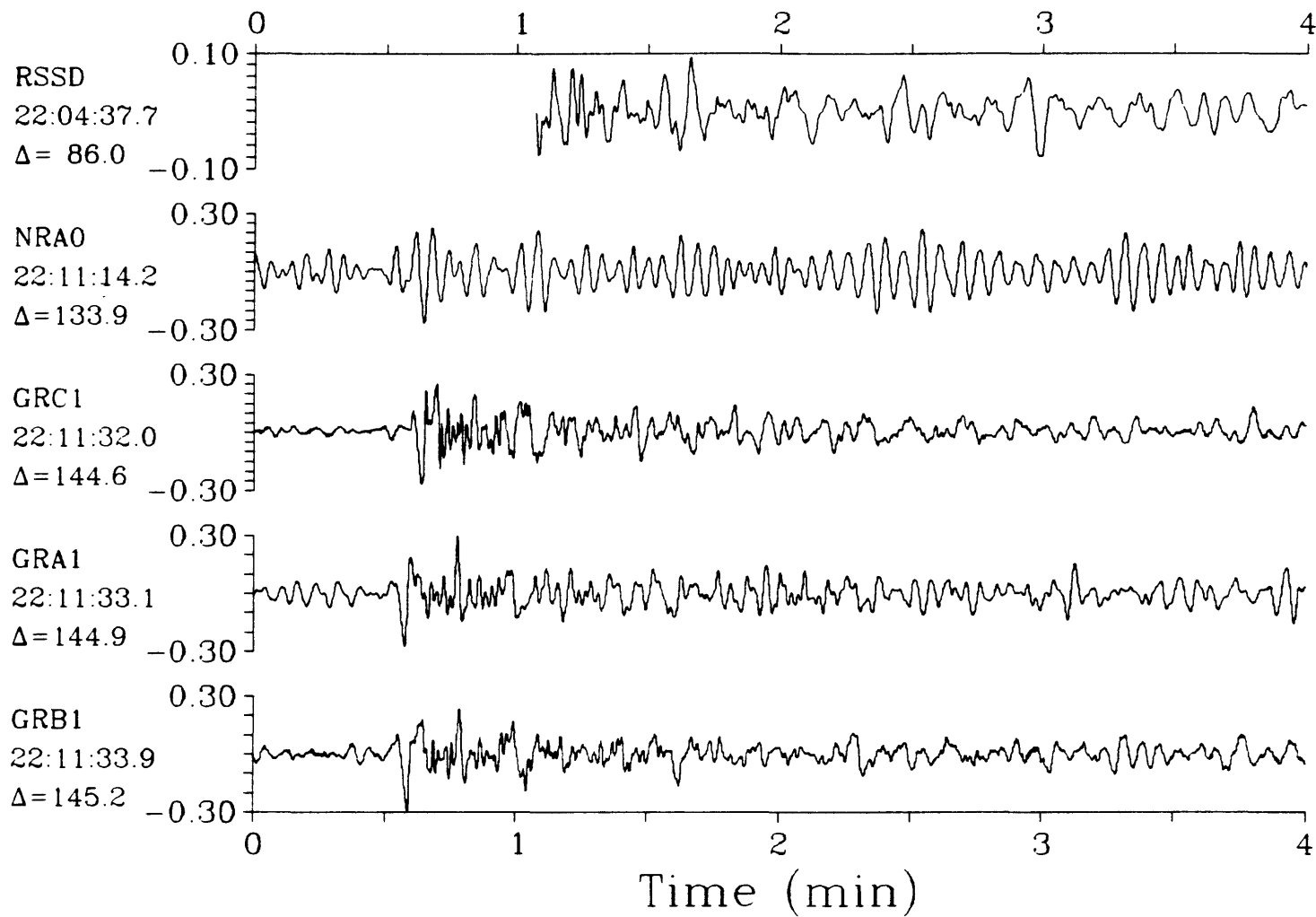
LPZ

Samoa Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.8$ 

IPZ

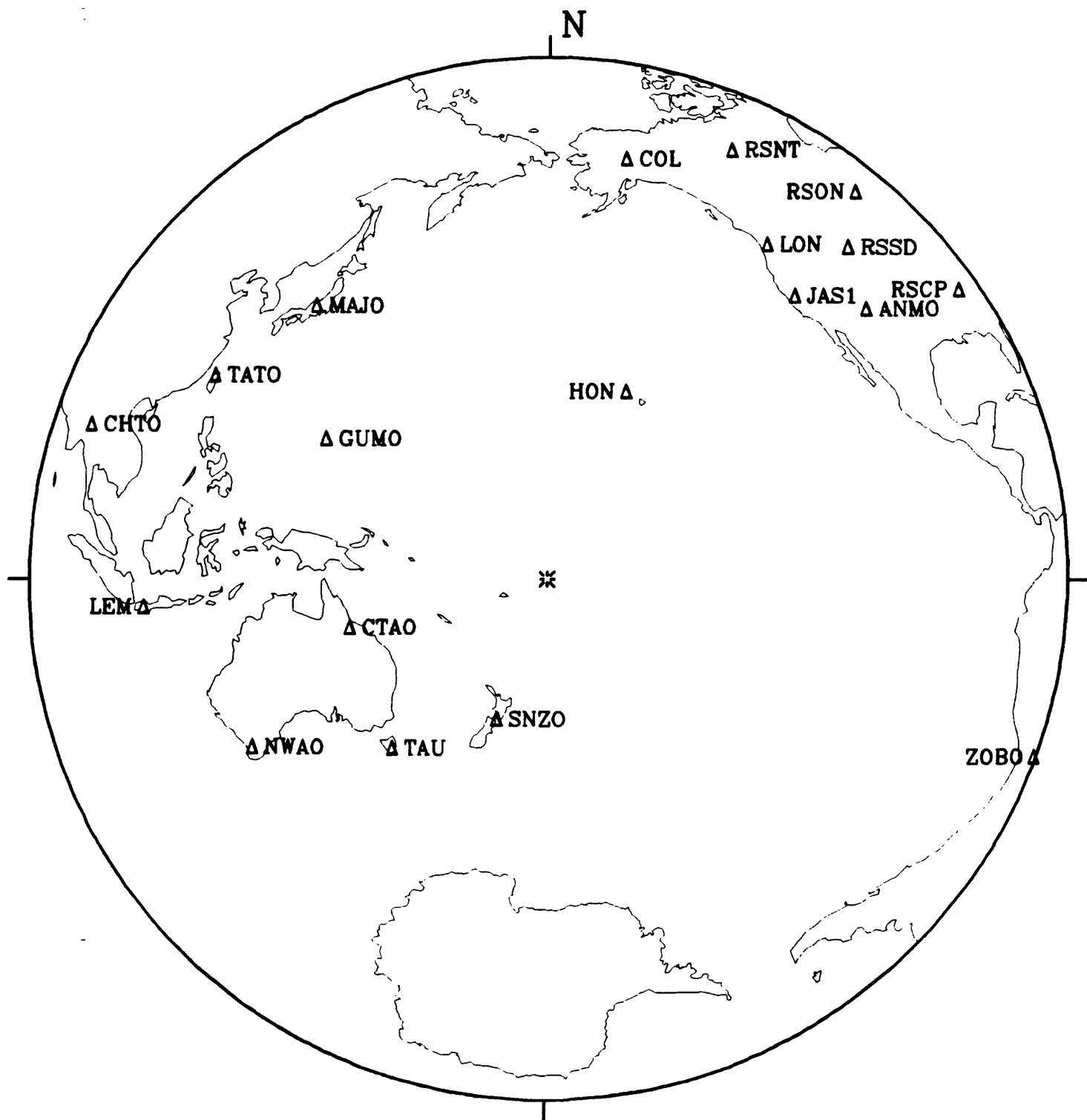
26 August 1986 21:52:29.95

IPZ

Samoa Islands Region $h=33.0$ $m_b=5.5$ $M_{sz}=5.8$ 

26 August 1986 22:11:40.27

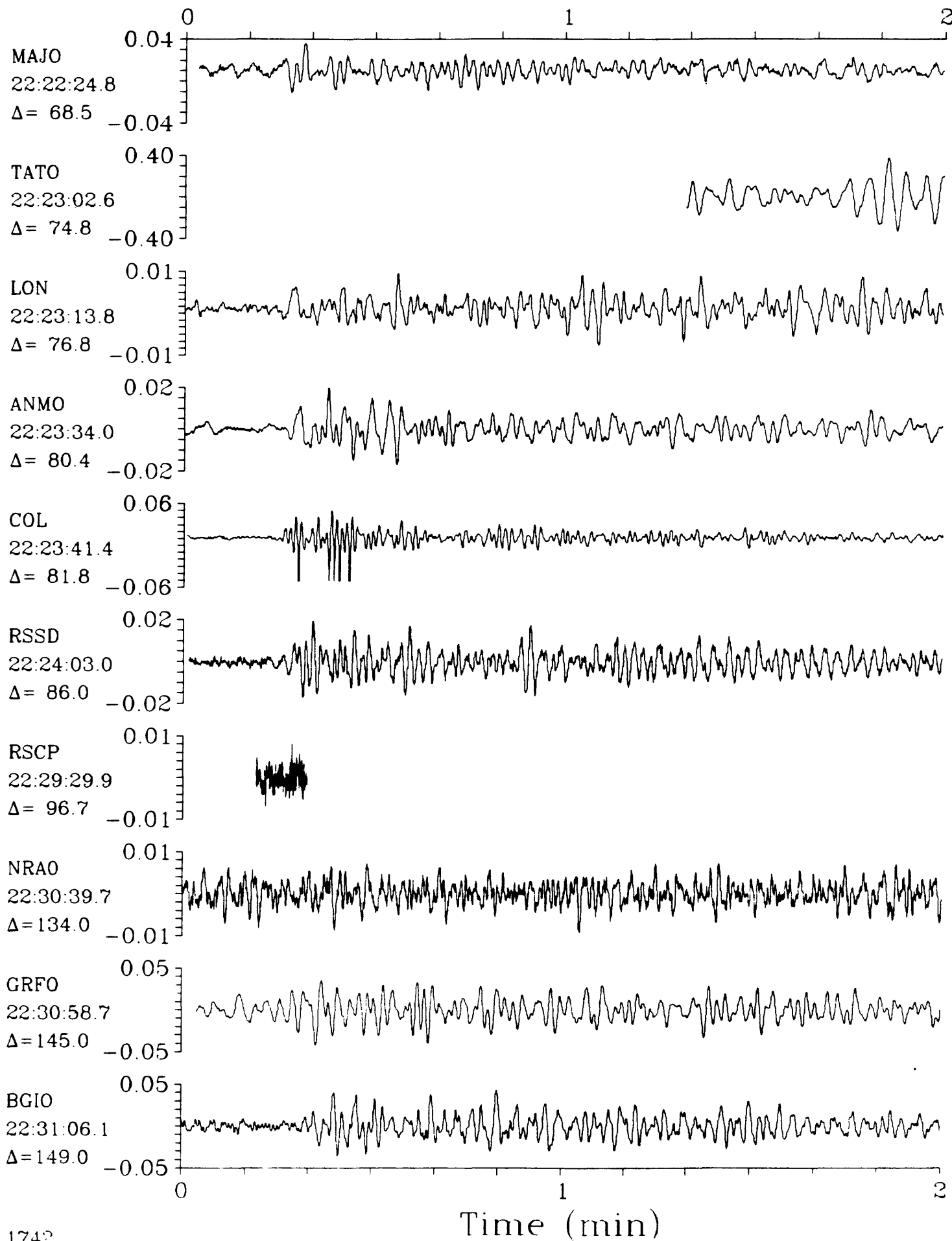
Samoa Islands Region



SPZ

26 August 1986 22:11:40.27

SPZ

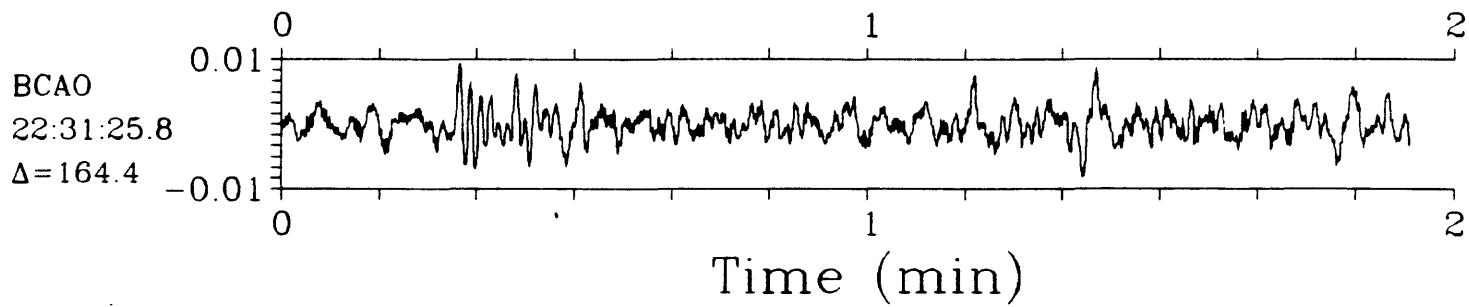
Samoa Islands Region $h=33.0$ $m_b=5.2$ $M_{sz}=5.7$ 

SPZ

26 August 1986 22:11:40.27

SPZ

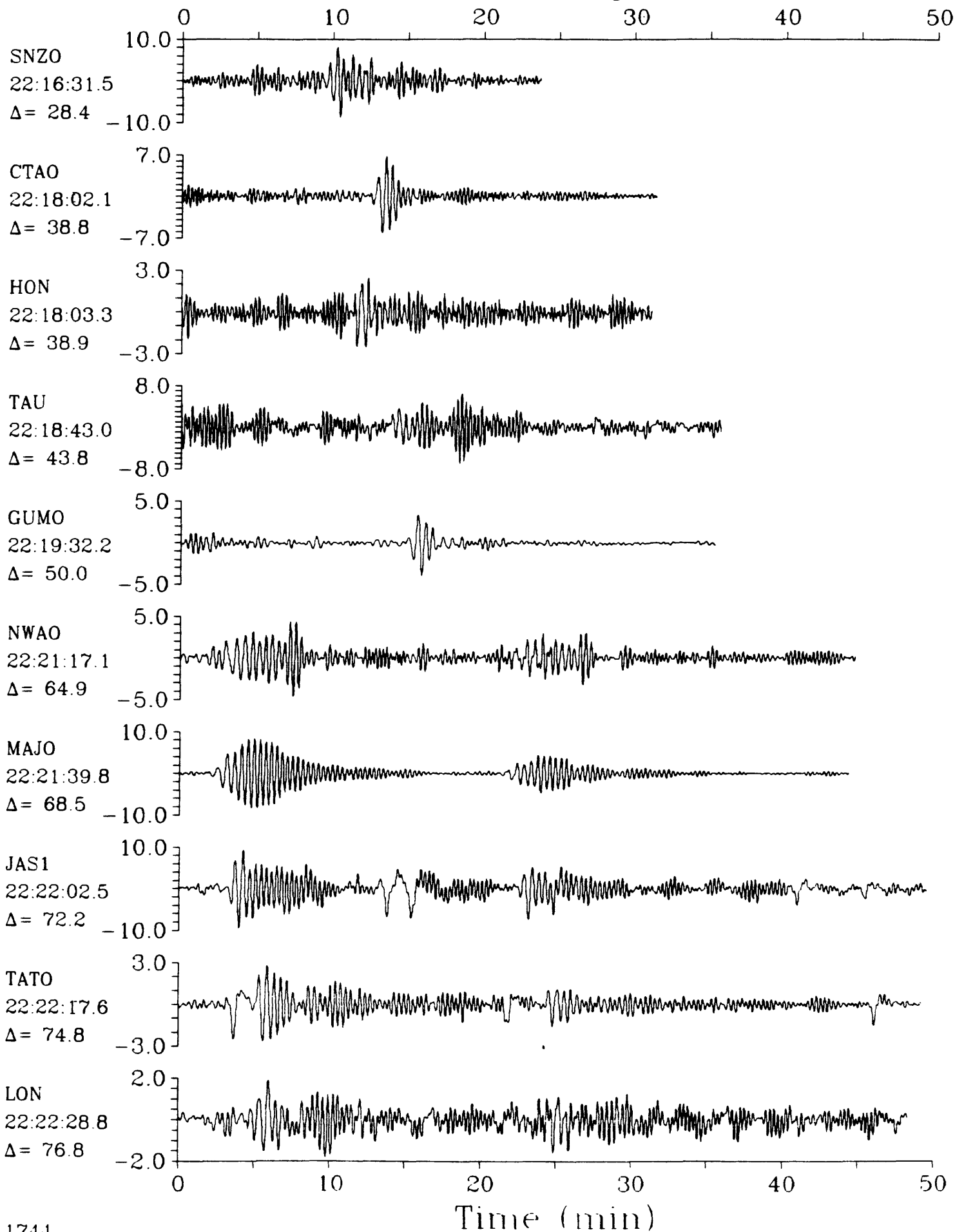
Samoa Islands Region $h=33.0$ $m_b=5.2$ $M_{sz}=5.7$



LPZ

26 August 1986 22:11:40.27

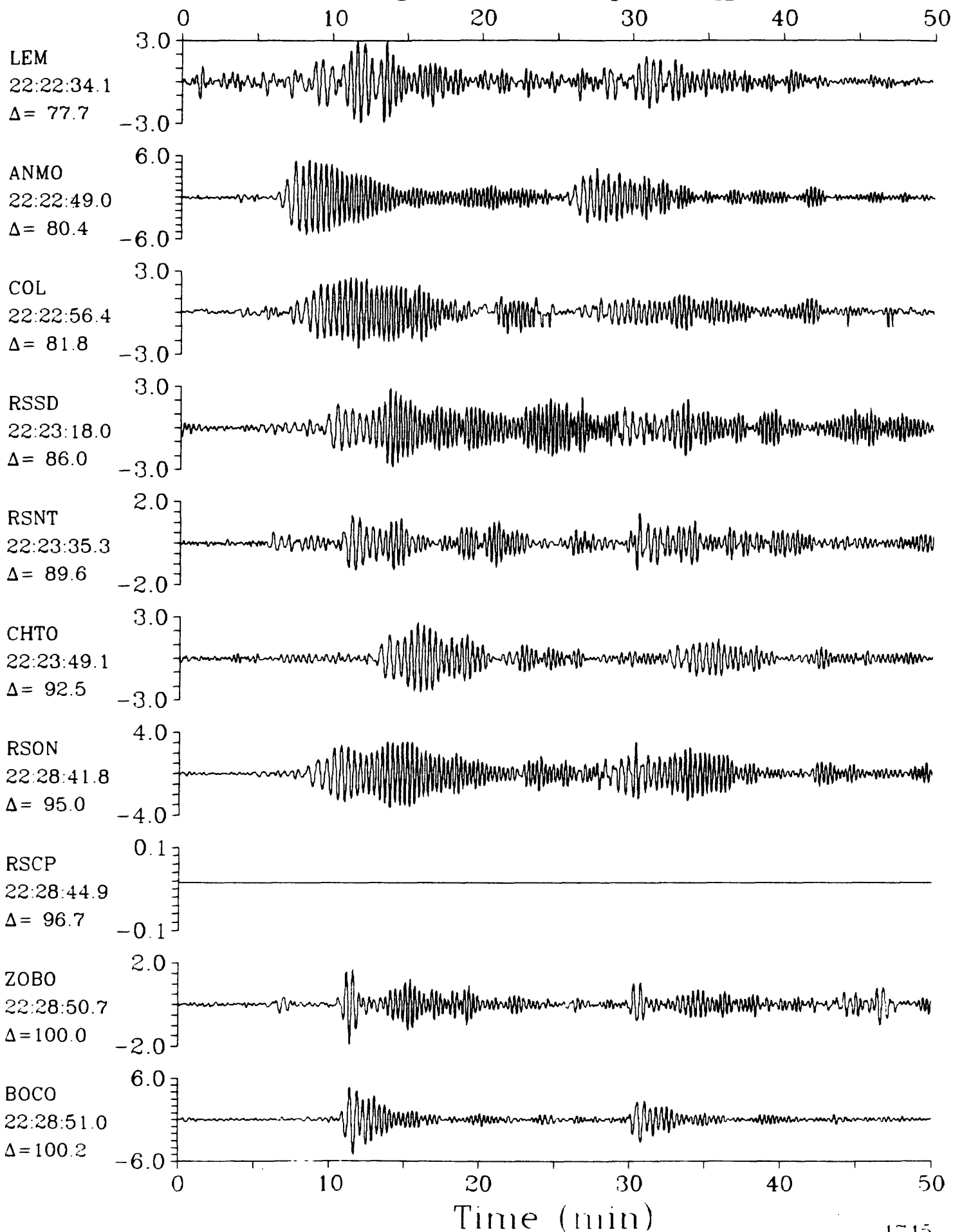
LPZ

Samoa Islands Region $h=33.0$ $m_b=5.2$ $M_{sz}=5.7$ 

LPZ

26 August 1986 22:11:40.27

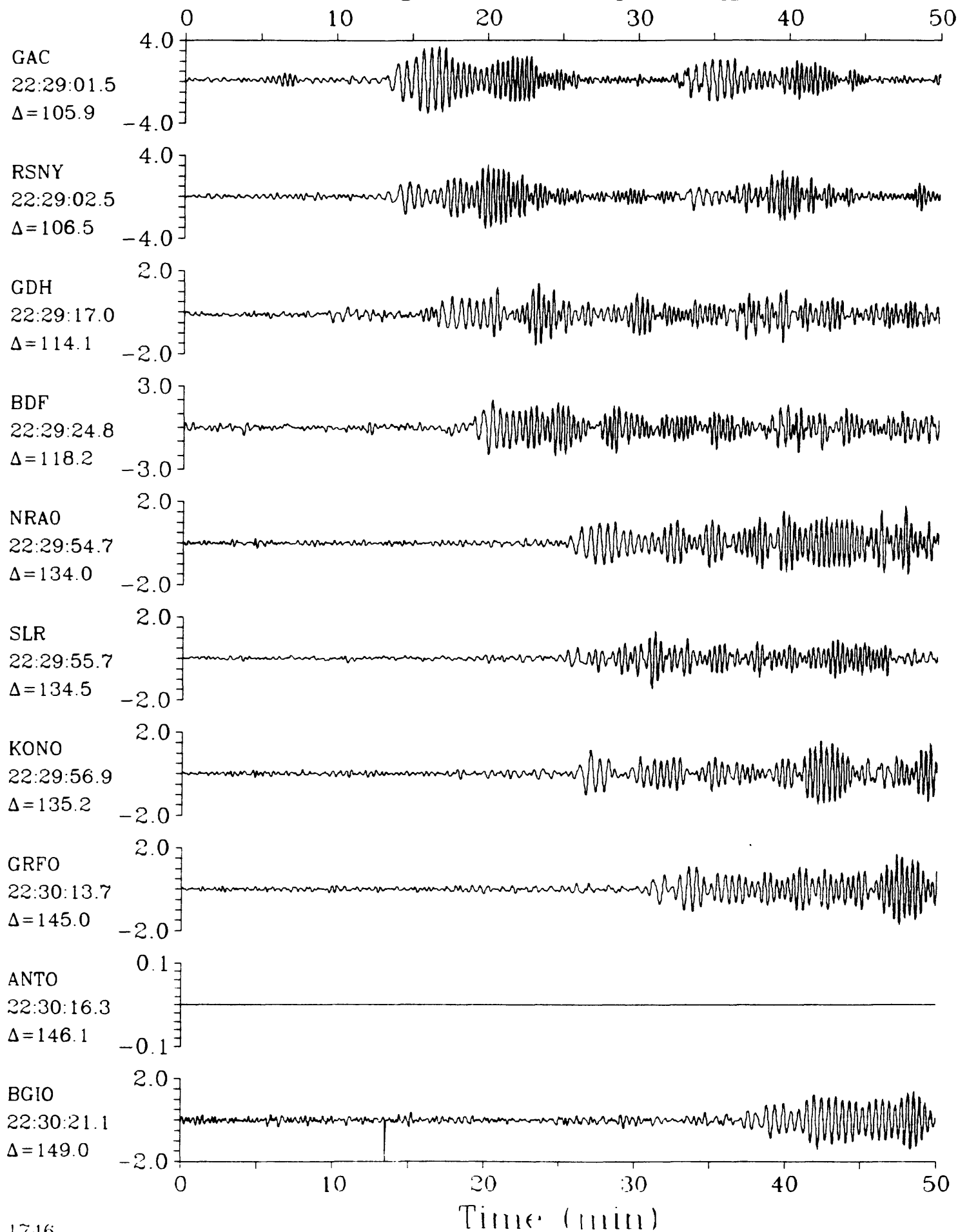
LPZ

Samoa Islands Region $h=33.0$ $m_b=5.2$ $M_{sz}=5.7$ 

LPZ

26 August 1986 22:11:40.27

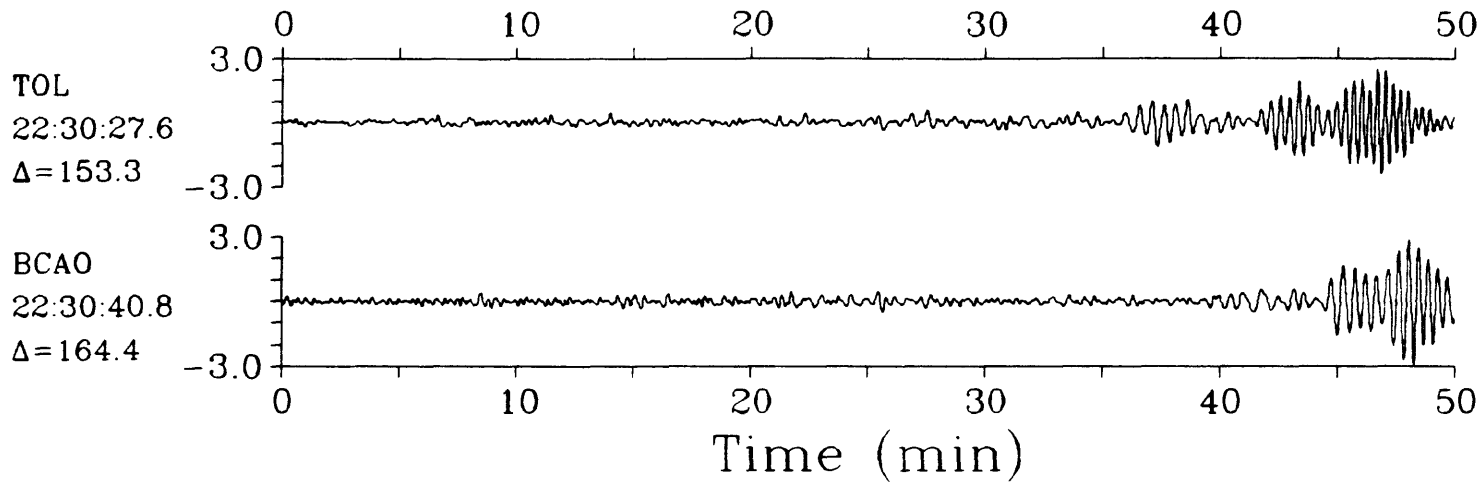
LPZ

Samoa Islands Region $h=33.0$ $m_b=5.2$ $M_{sz}=5.7$ 

LPZ

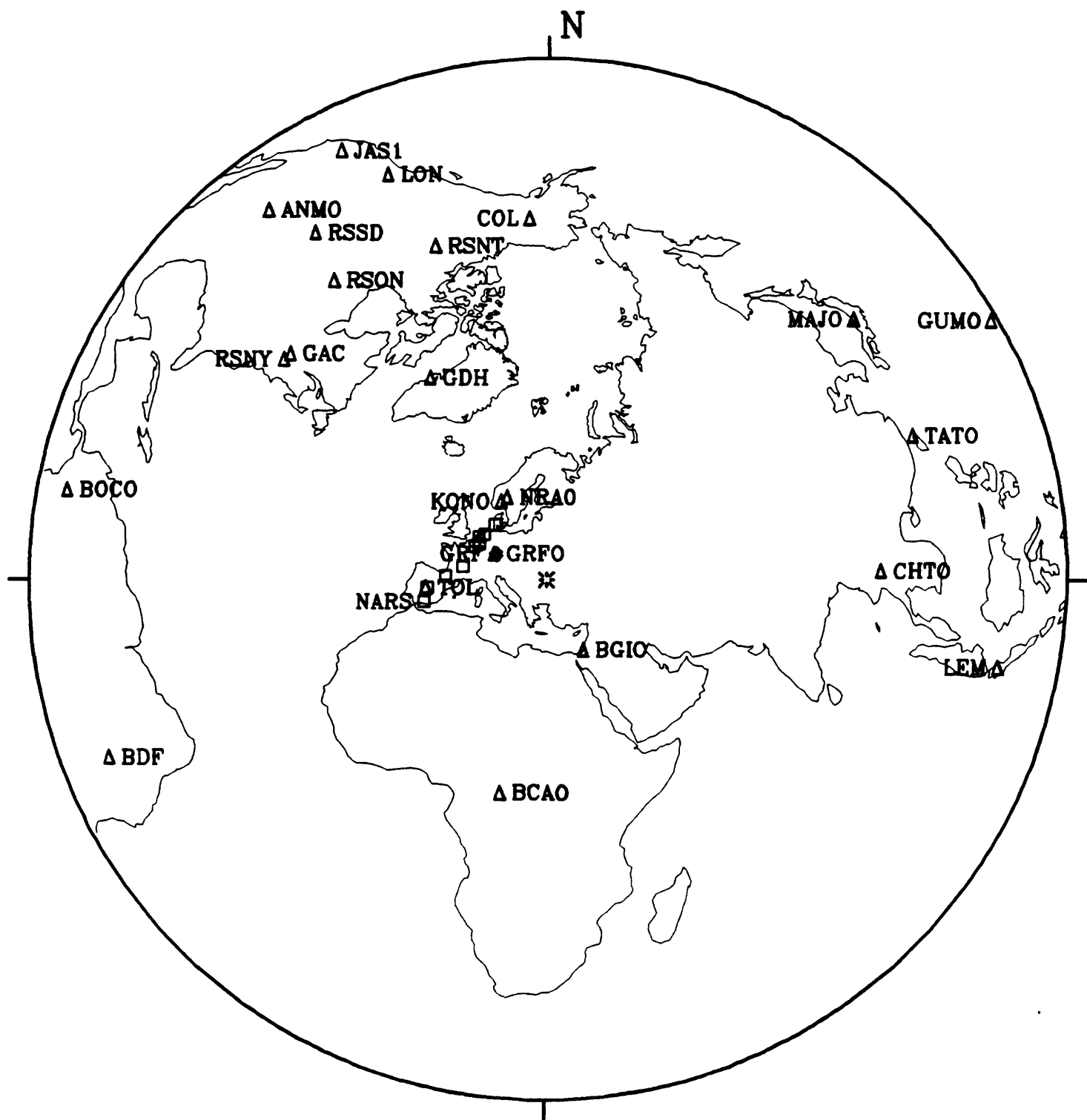
26 August 1986 22:11:40.27

LPZ

Samoa Islands Region $h=33.0$ $m_b=5.2$ $M_{sz}=5.7$ 

30 August 1986 21:28:35.95

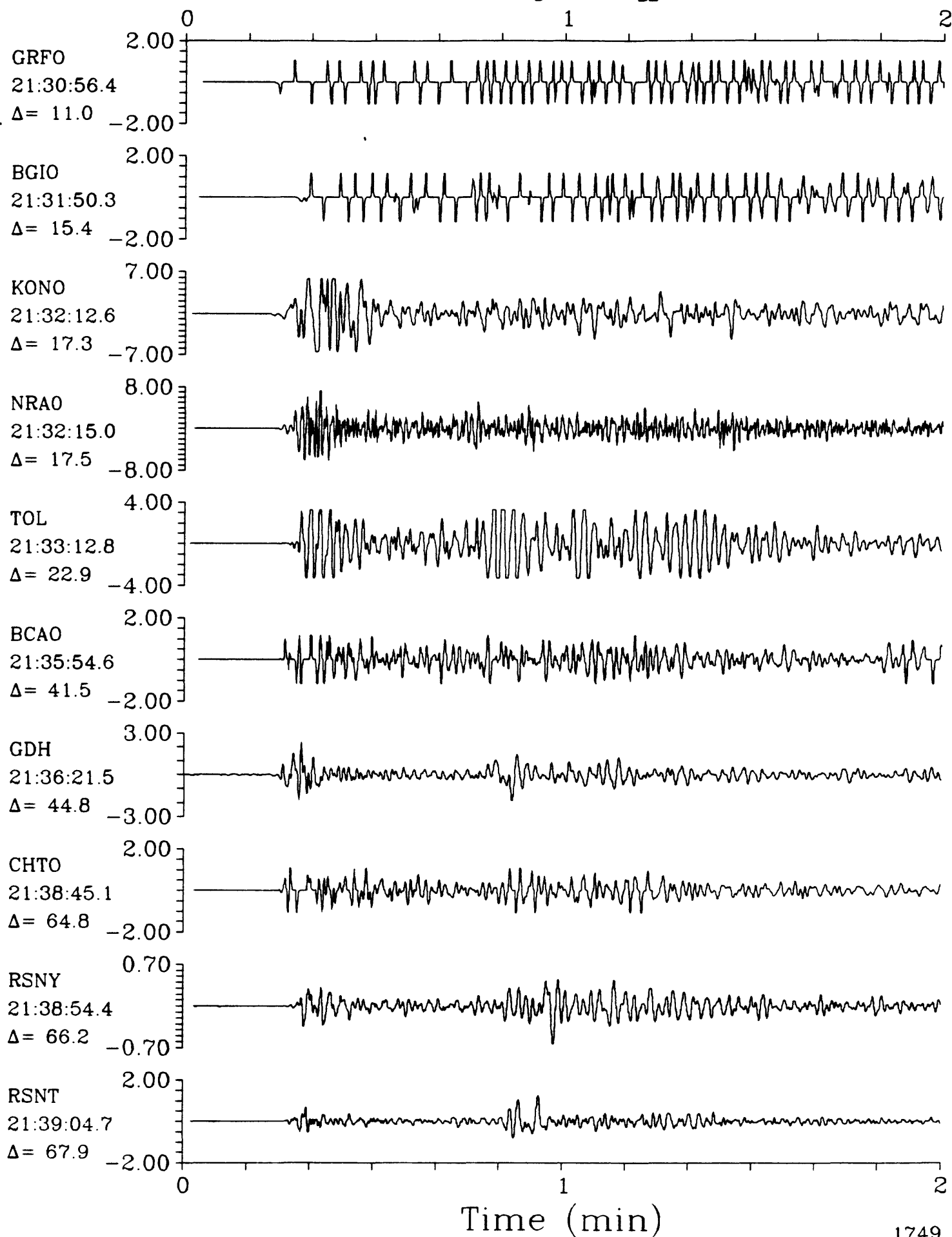
Romania



SPZ

30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{sz}=6.9$

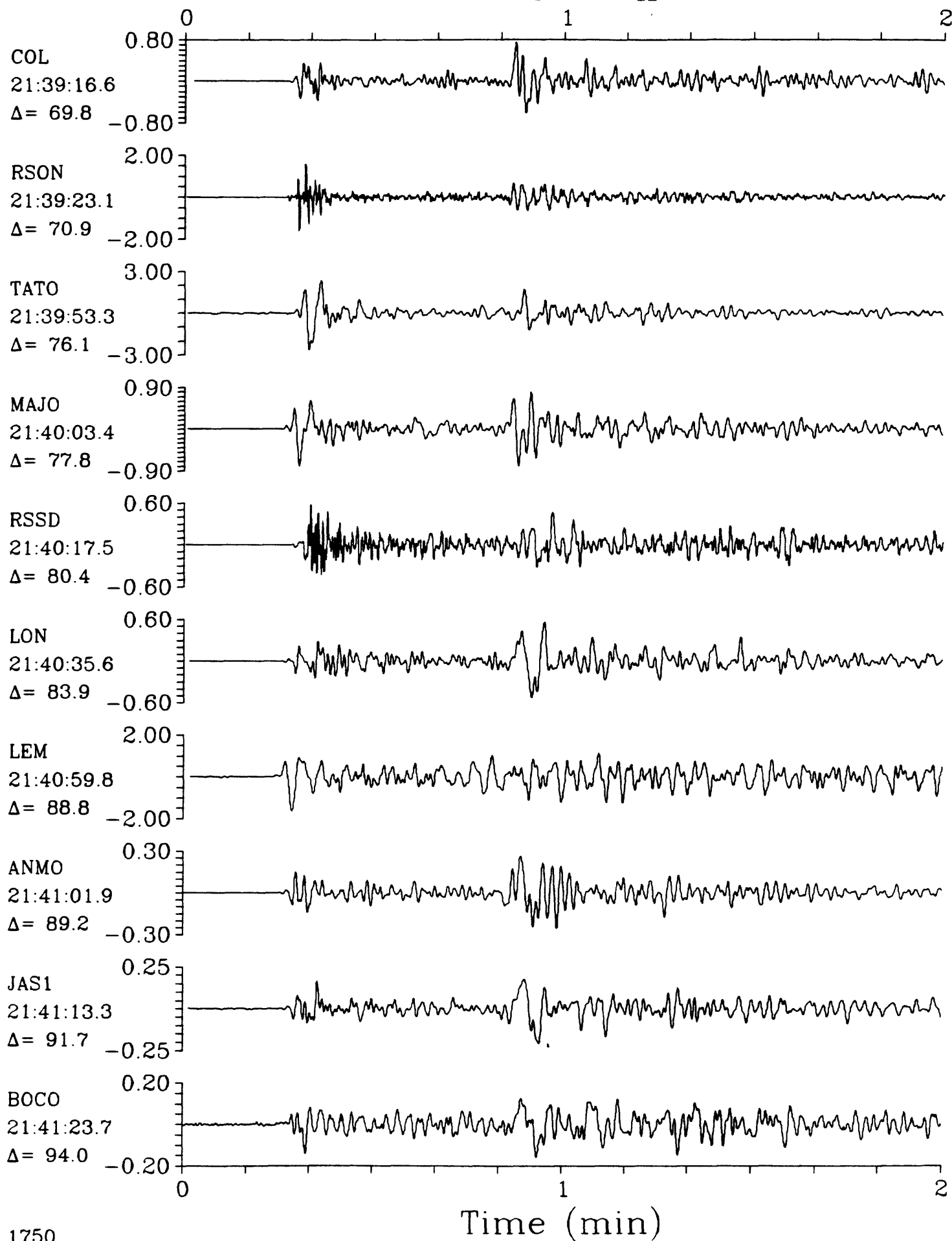
SPZ



SPZ

30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{SZ}=6.9$

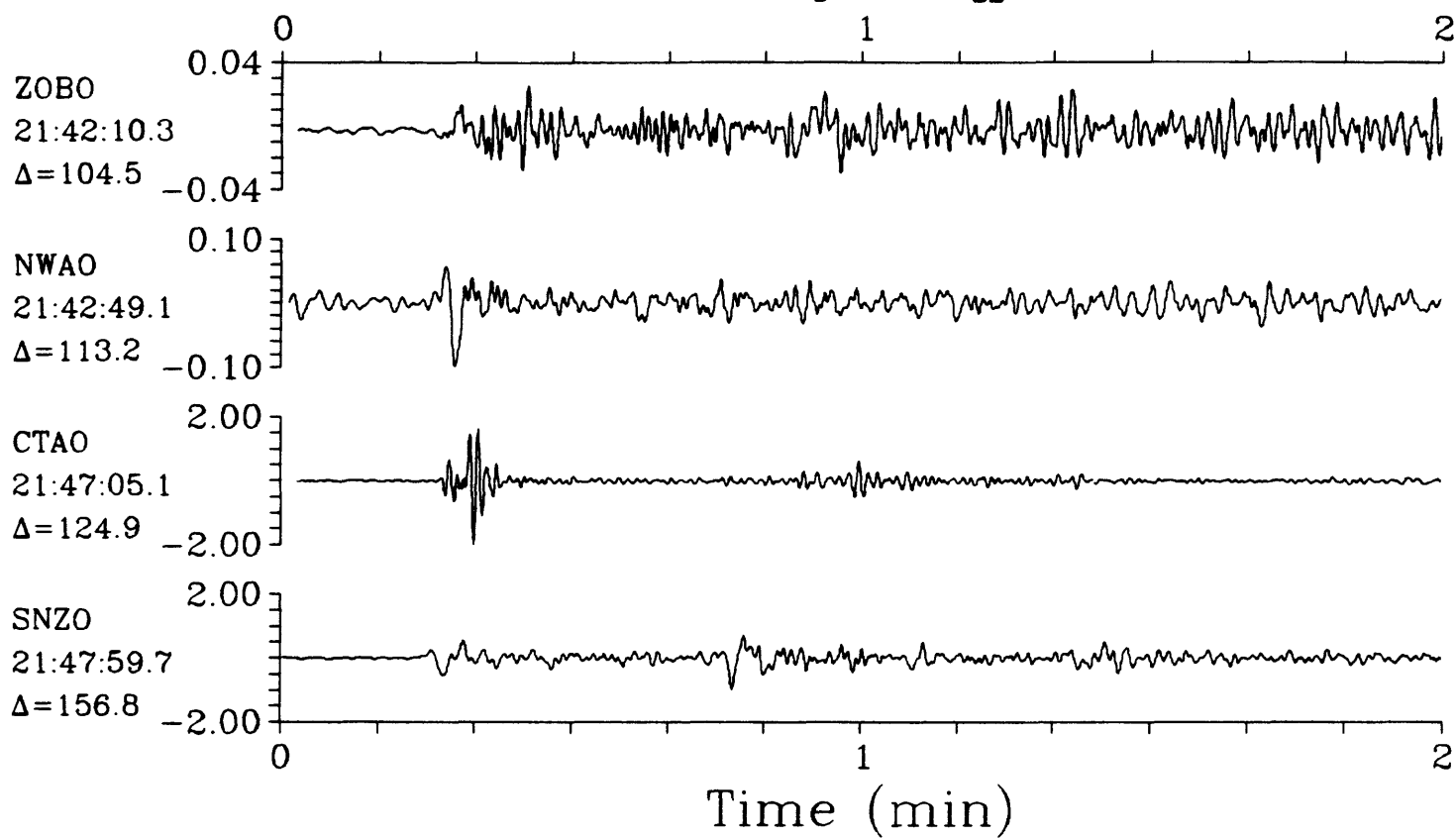
SPZ



SPZ

30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{sz}=6.9$

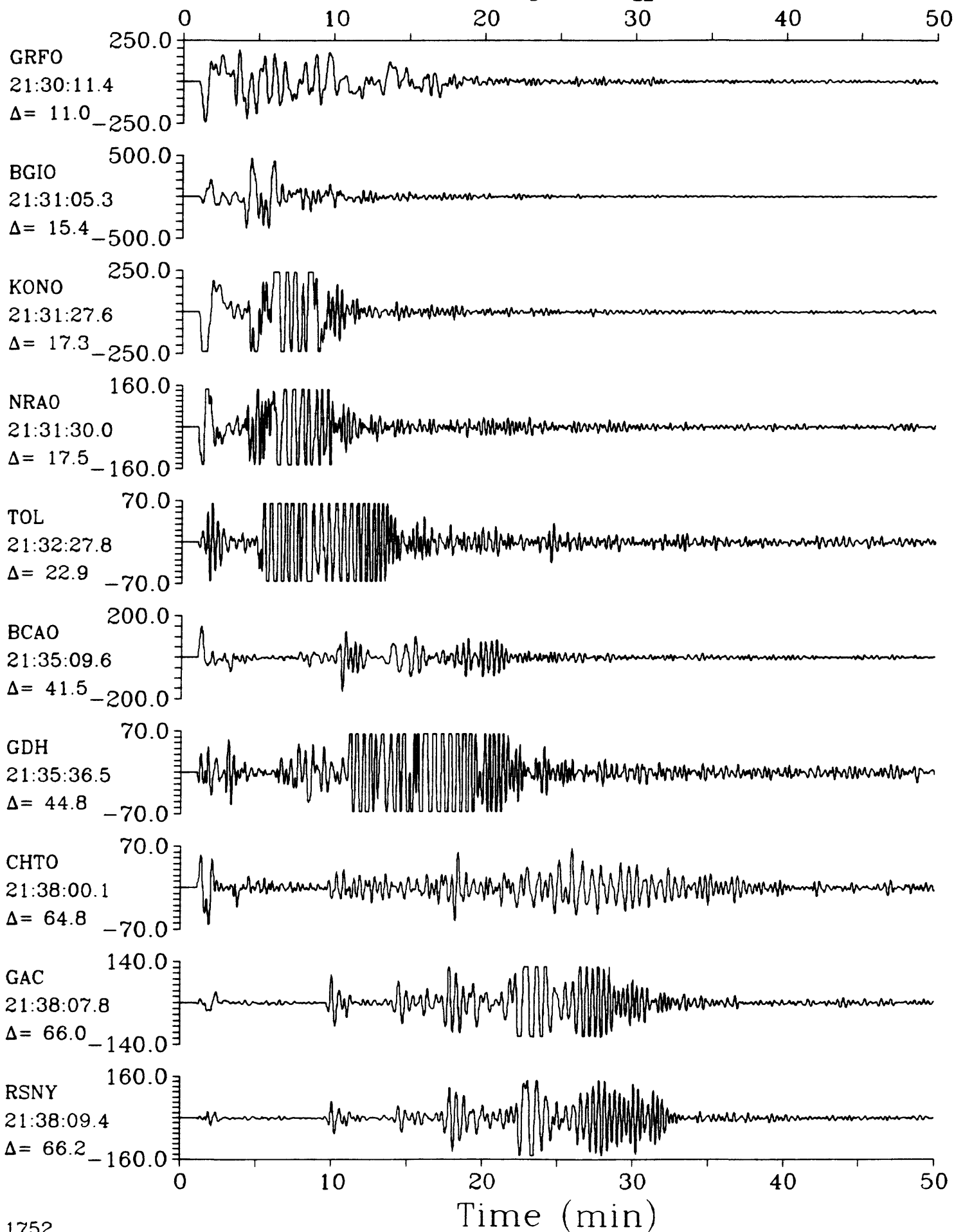
SPZ



LPZ

30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{SZ}=6.9$

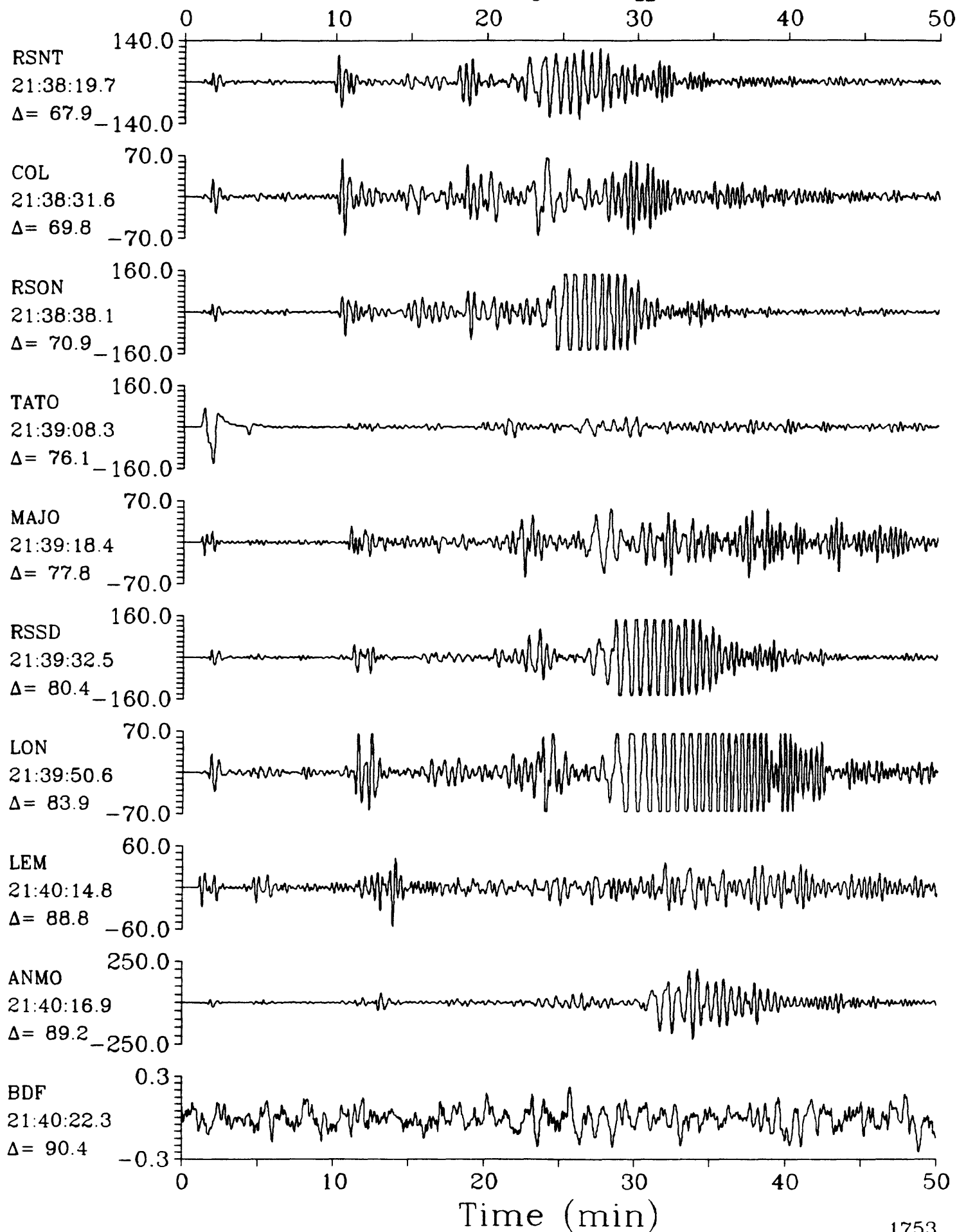
LPZ



LPZ

30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{sz}=6.9$

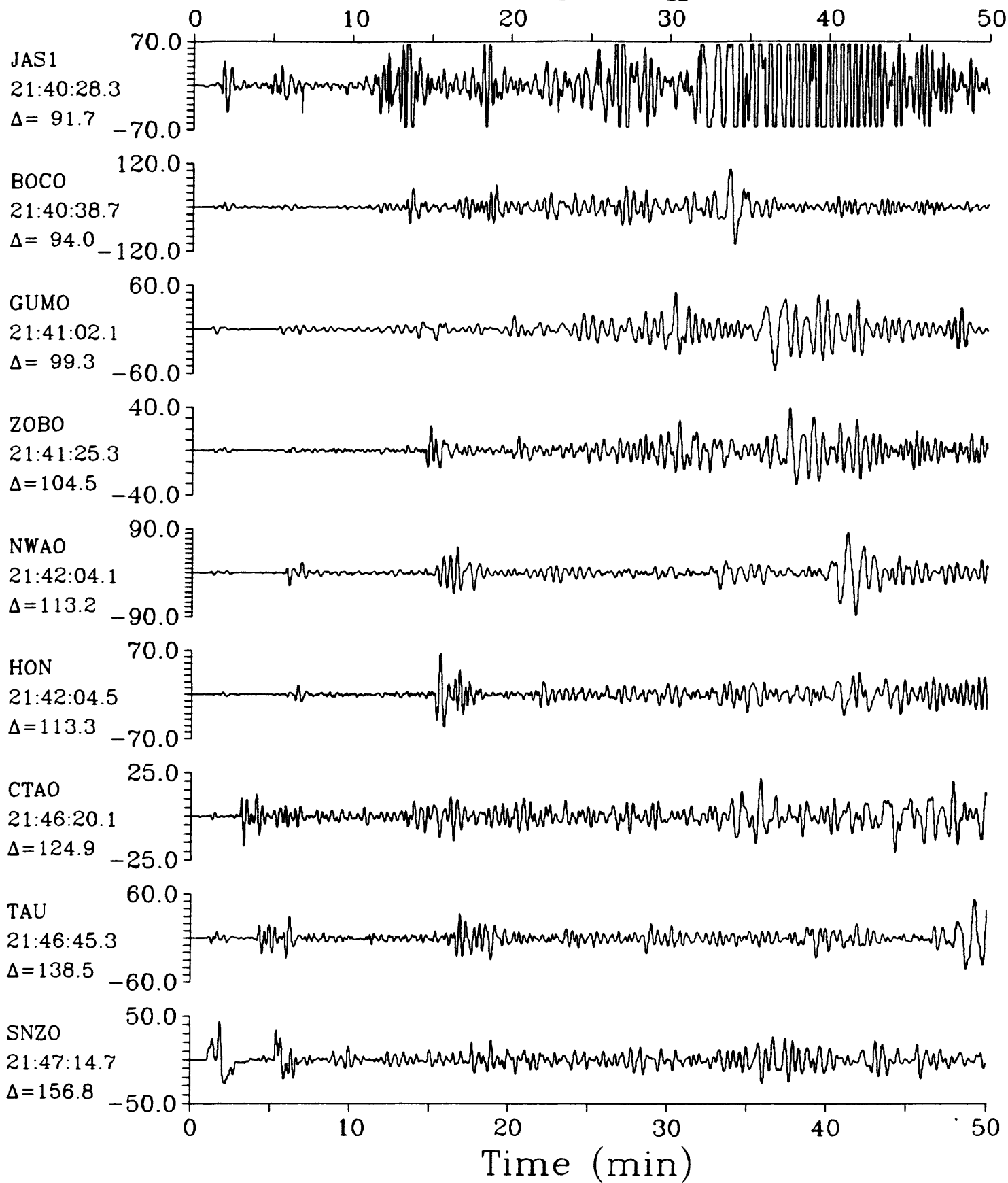
LPZ



LPZ

30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{sz}=6.9$

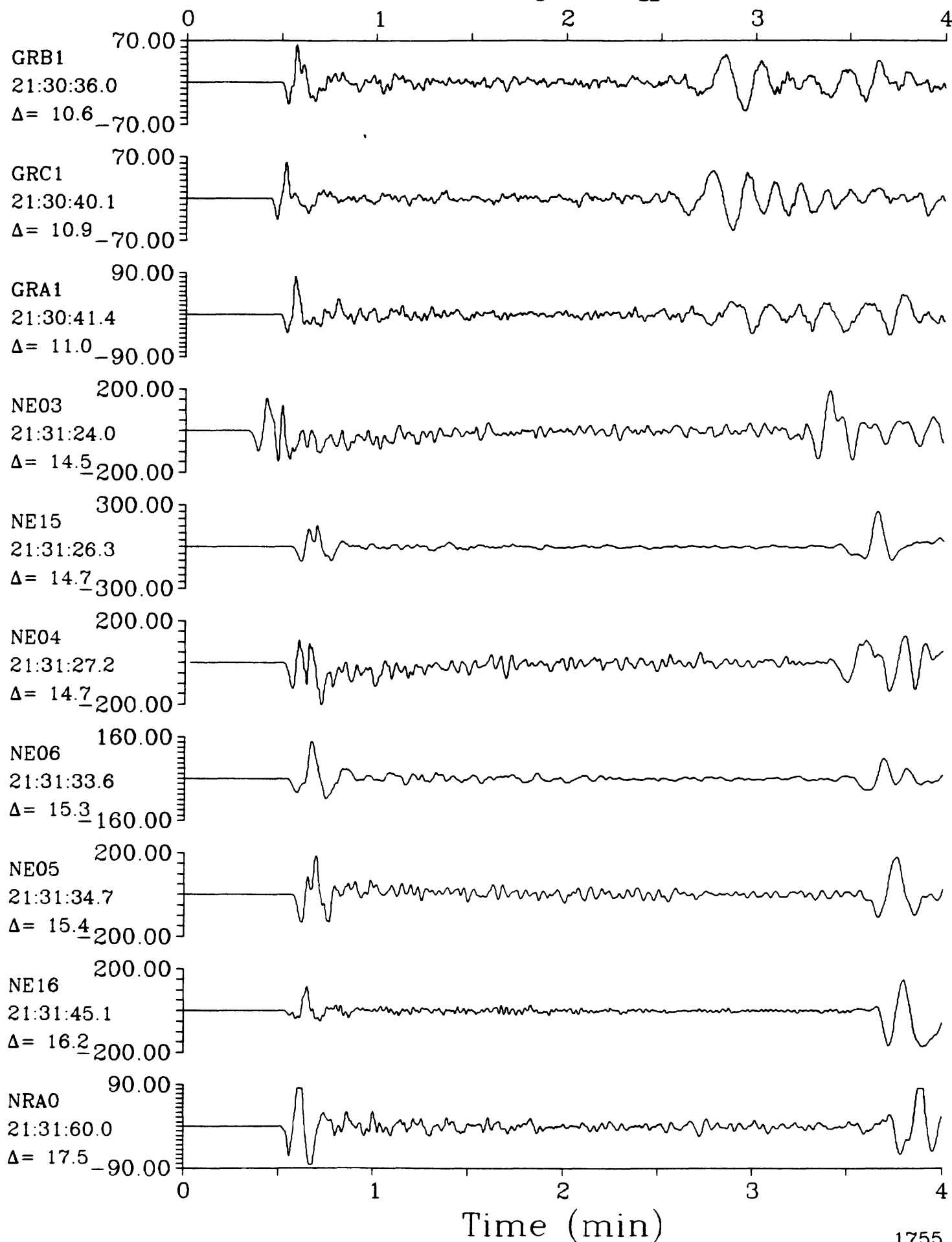
LPZ



IPZ

30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{sz}=6.9$

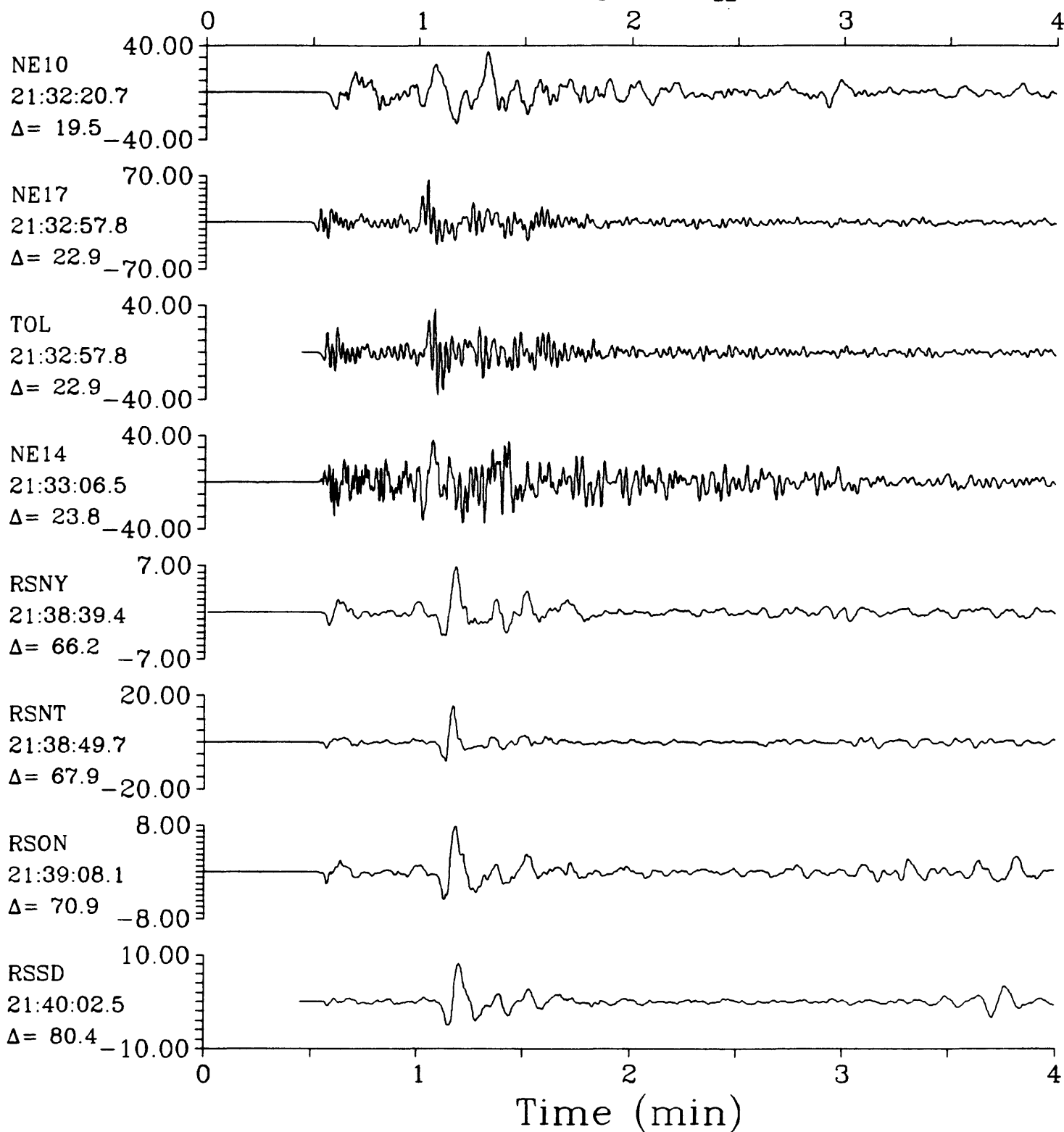
IPZ



IPZ

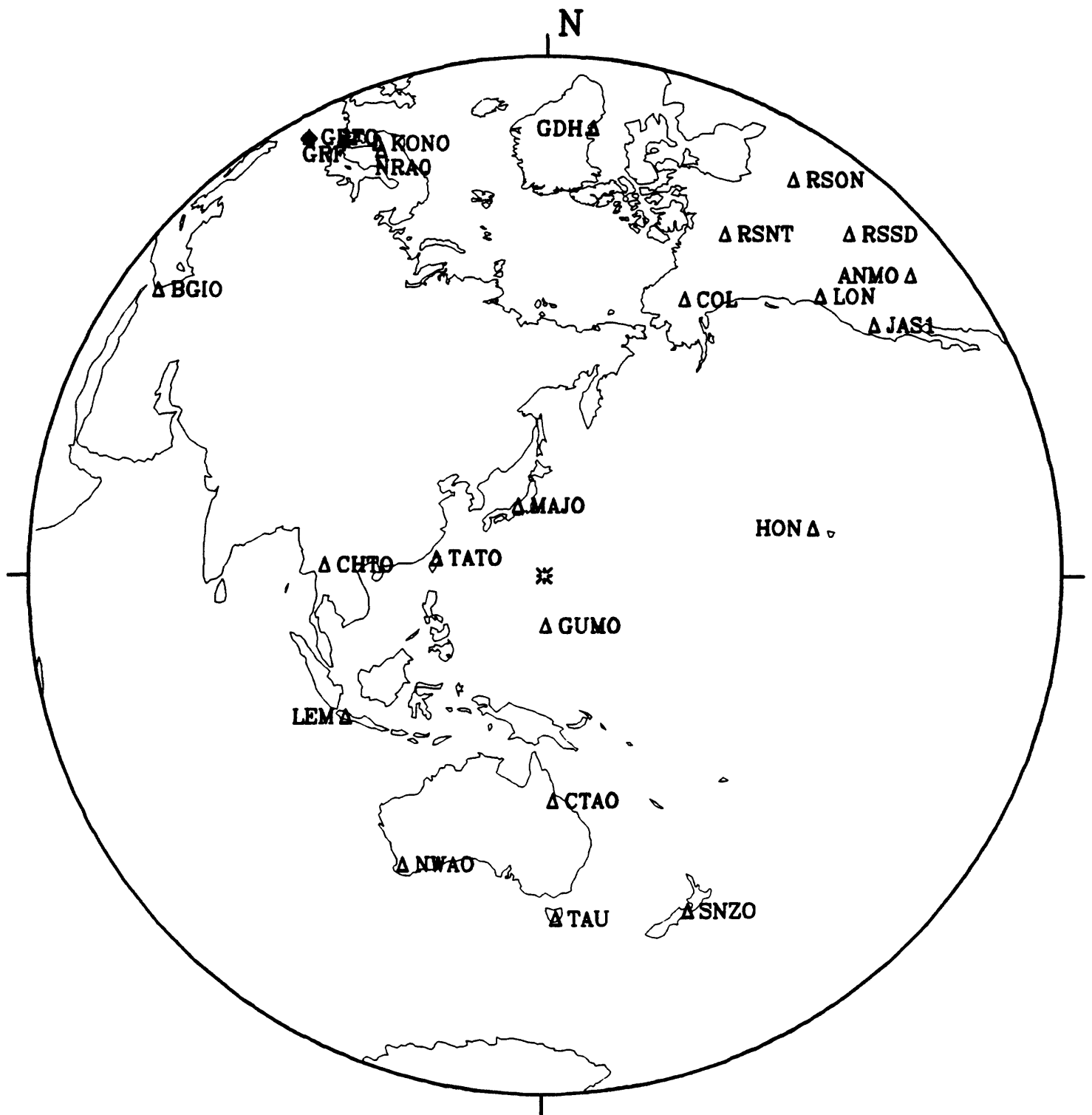
30 August 1986 21:28:35.95
Romania $h=139.4$ $m_b=6.3$ $M_{sz}=6.9$

IPZ



31 August 1986 09:23:03.51

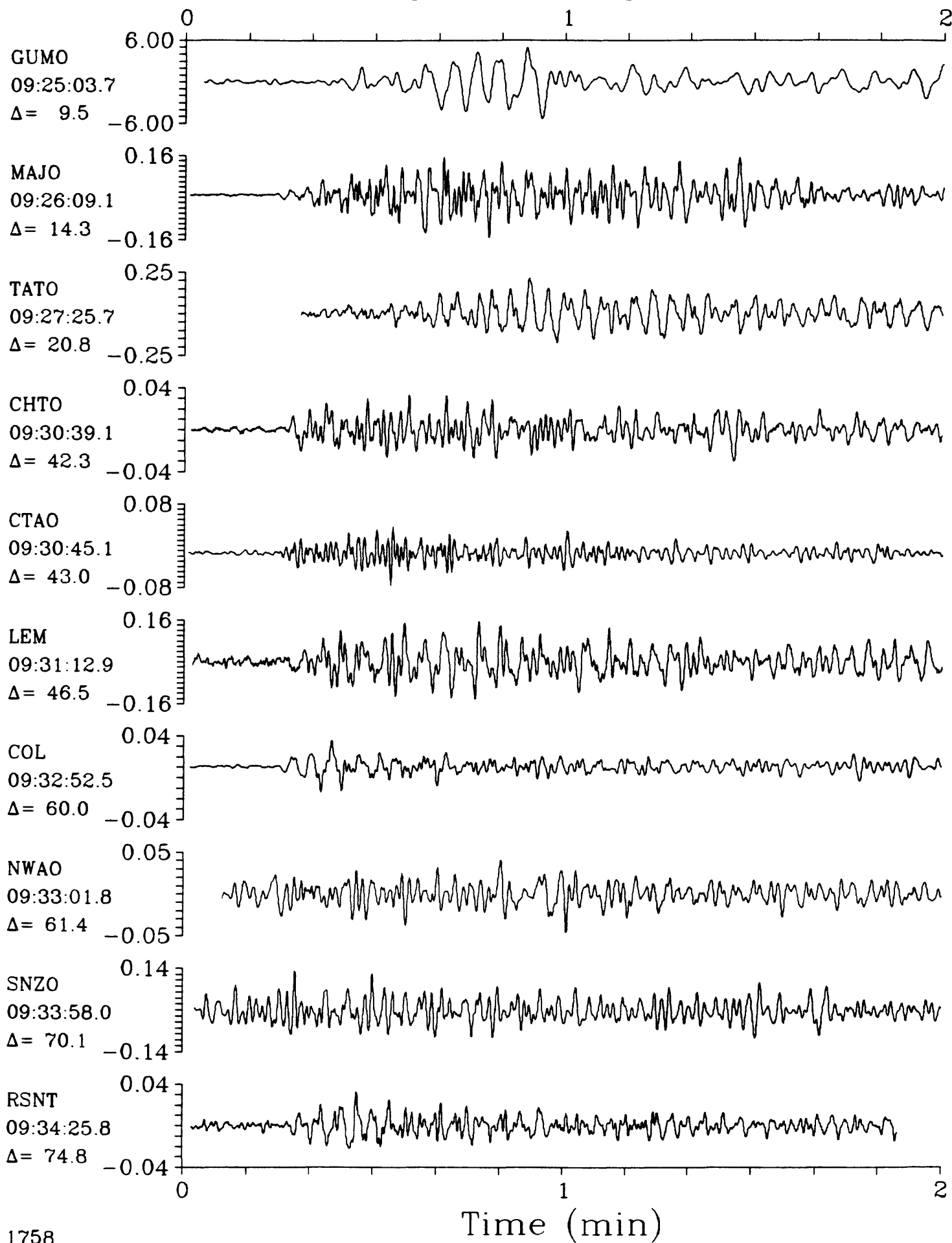
Volcano Islands Region



SPZ

31 August 1986 09:23:03.51

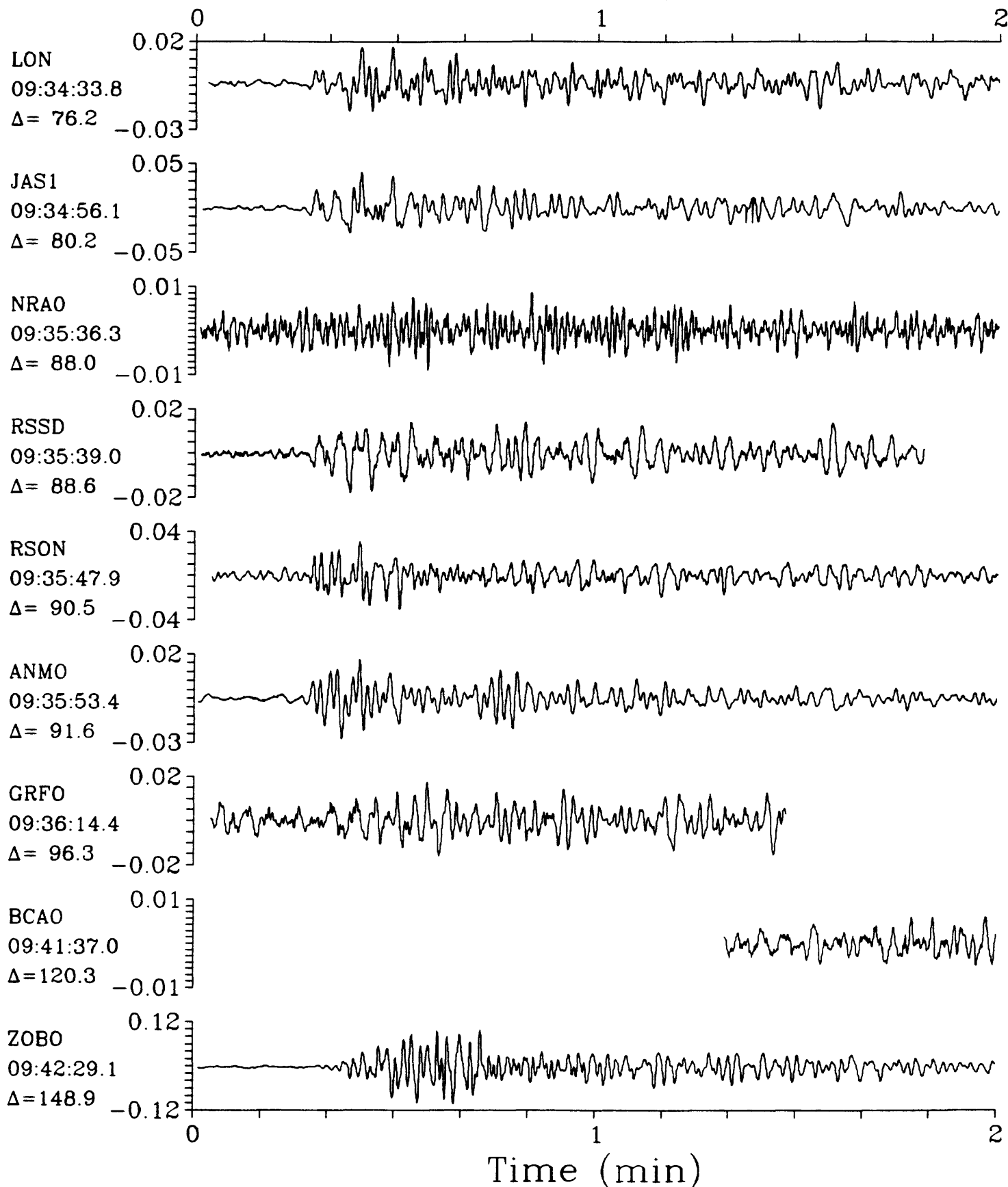
SPZ

Volcano Islands Region $h=33.0$ $m_b=5.3$ $M_{sz}=5.9$ 

SPZ

31 August 1986 09:23:03.51

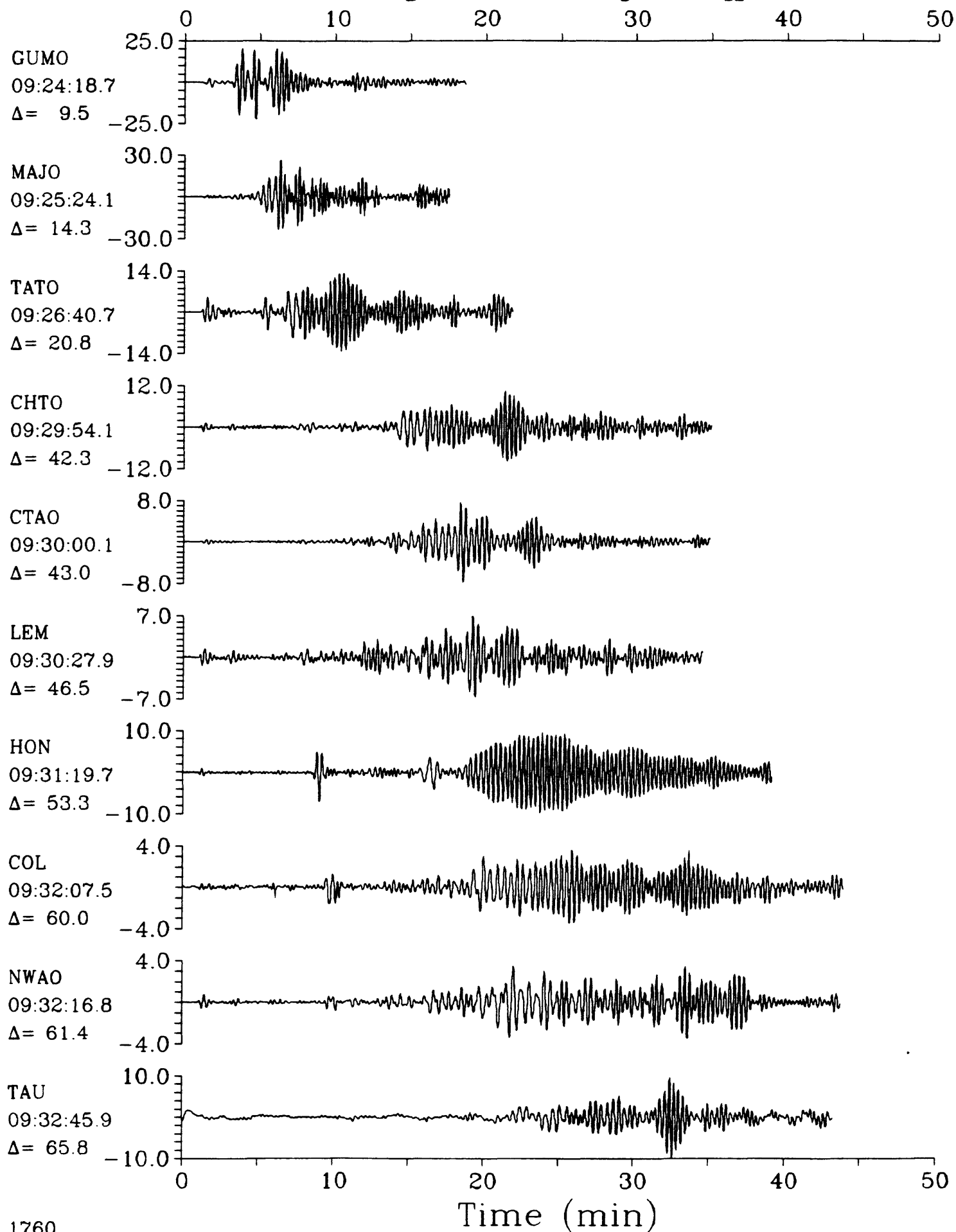
SPZ

Volcano Islands Region $h=33.0$ $m_b=5.3$ $M_{sz}=5.9$ 

LPZ

31 August 1986 09:23:03.51

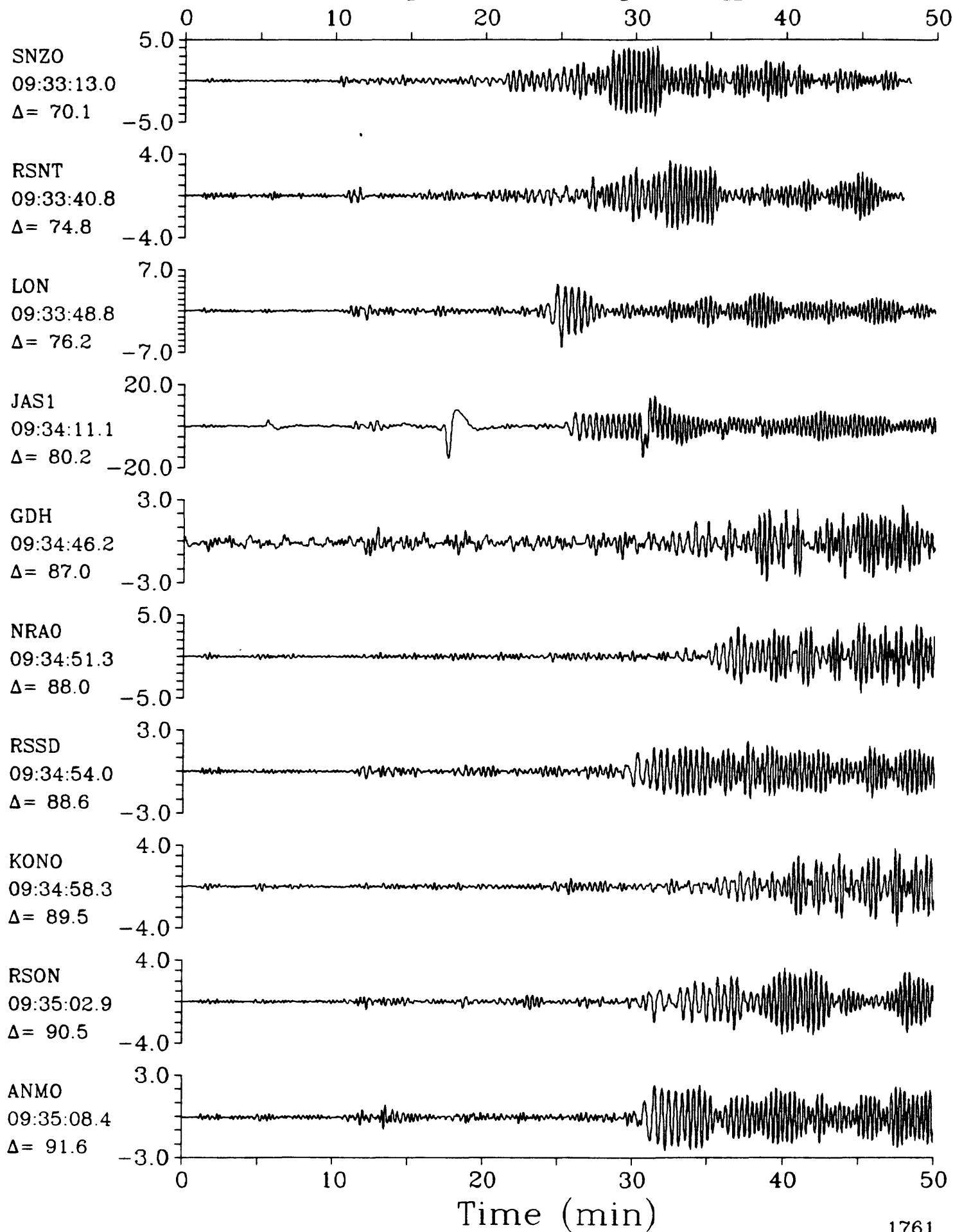
LPZ

Volcano Islands Region $h=33.0$ $m_b=5.3$ $M_{sz}=5.9$ 

LPZ

31 August 1986 09:23:03.51

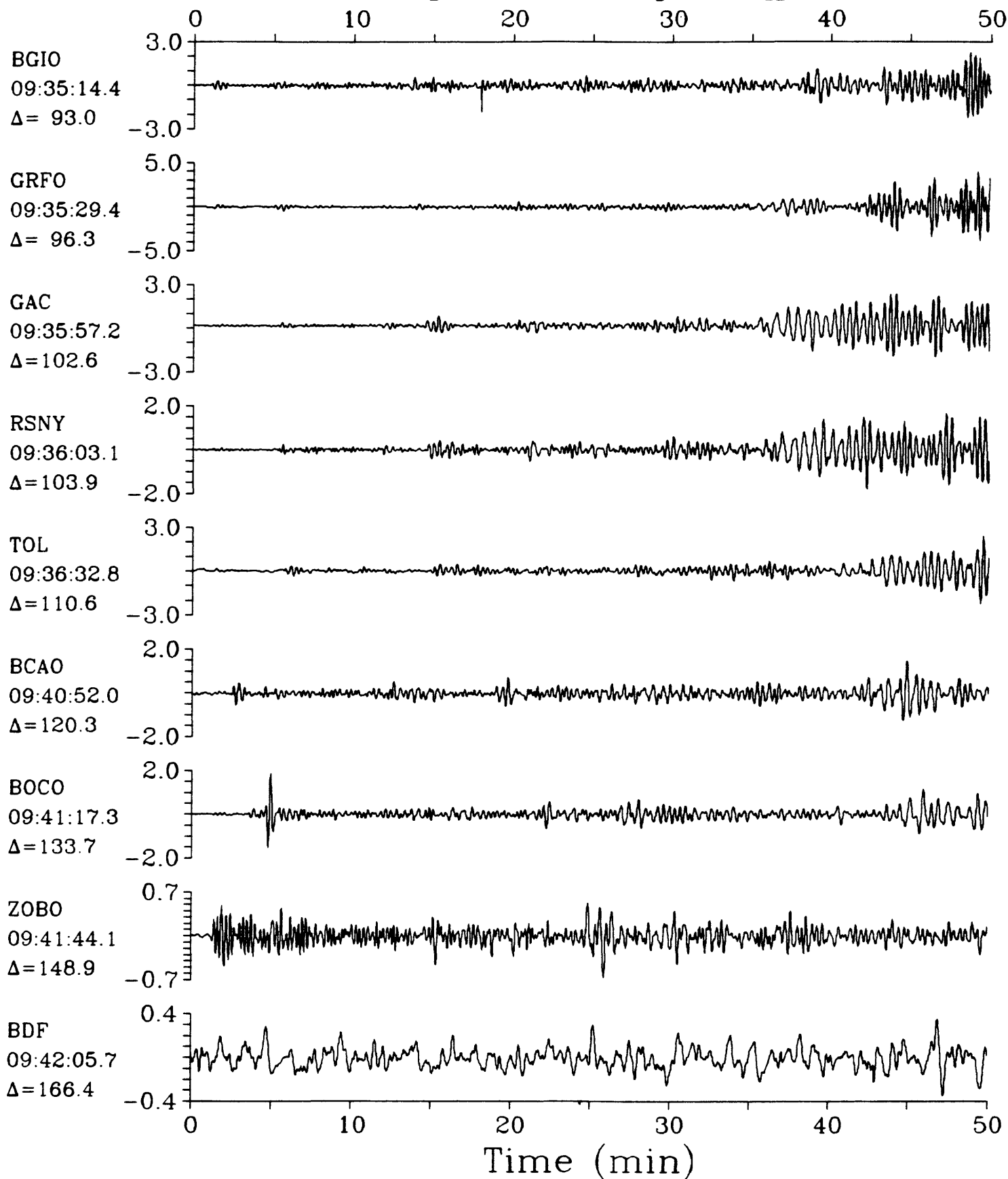
LPZ

Volcano Islands Region $h=33.0$ $m_b=5.3$ $M_{sz}=5.9$ 

LPZ

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Volcano Islands Region $h=33.0$ $m_b=5.3$ $M_{sz}=5.9$ 

IPZ

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Volcano Islands Region $h=33.0$ $m_b=5.3$ $M_{sz}=5.9$ 