

**DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY**

**National Earthquake Information Center  
Waveform Catalog  
June 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,  $\Delta$ , 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 Registrating 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 June 1986 with magnitudes  $\geq 5.5$**

|     | Origin Time<br>UTC     | Latitude  | Longitude  | Depth<br>(km) | $m_b$ | Magnitude<br>$M_{SZ}$ | Flinn-Engdahl Region Name        |
|-----|------------------------|-----------|------------|---------------|-------|-----------------------|----------------------------------|
| 1.  | 1986 06 02 01:31:10.91 | 7.023° S  | 154.503° E | 25.1          | 5.9   | 5.6                   | Solomon Islands                  |
| 2.  | 1986 06 02 03:56:21.74 | 29.769° N | 130.625° E | 33.0          | 5.2   | 5.7                   | Ryukyu Islands                   |
| 3.  | 1986 06 02 17:51:54.40 | 9.090° N  | 93.505° E  | 78.7          | 5.5   |                       | Nicobar Islands Region           |
| 4.  | 1986 06 03 00:54:43.92 | 5.657° S  | 151.805° E | 58.9          | 5.6   |                       | New Britain Region               |
| 5.  | 1986 06 03 14:40:05.93 | 10.387° N | 125.902° E | 33.0          | 5.7   | 5.7                   | Leyte, Philippine Islands        |
| 6.  | 1986 06 06 10:39:46.79 | 37.970° N | 37.881° E  | 10.0          | 5.6   | 5.6                   | Turkey                           |
| 7.  | 1986 06 08 11:02:26.45 | 43.265° N | 146.414° E | 60.7          | 5.9   |                       | Kuril Islands                    |
| 8.  | 1986 06 11 02:59:01.19 | 2.110° S  | 139.307° E | 33.0          | 5.4   | 5.8                   | Near N. Coast of West Irian      |
| 9.  | 1986 06 11 06:18:19.70 | 15.539° S | 179.219° W | 33.0          | 5.6   | 5.7                   | Fiji Islands Region              |
| 10. | 1986 06 11 13:48:03.31 | 10.602° N | 62.949° W  | 33.7          | 6.0   | 6.2                   | Near Coast of Venezuela          |
| 11. | 1986 06 12 13:40:46.64 | 7.007° S  | 129.478° E | 115.6         | 5.5   |                       | Banda Sea                        |
| 12. | 1986 06 14 03:50:25.45 | 57.807° S | 23.317° W  | 33.0          | 5.9   | 5.0                   | South Sandwich Islands Region    |
| 13. | 1986 06 14 23:29:25.70 | 19.174° S | 169.826° E | 33.0          | 5.5   | 5.6                   | Vanuatu Islands                  |
| 14. | 1986 06 15 03:11:00.37 | 29.928° S | 176.743° W | 33.0          | 5.3   | 6.0                   | Kermadec Islands Region          |
| 15. | 1986 06 16 10:48:27.60 | 21.897° S | 179.038° W | 565.2         | 6.1   |                       | Fiji Islands Region              |
| 16. | 1986 06 16 17:15:09.93 | 47.193° S | 13.333° W  | 10.0          | 5.5   | 5.6                   | South Atlantic Ridge             |
| 17. | 1986 06 17 00:42:35.32 | 53.873° N | 160.382° E | 33.0          | 5.9   | 4.6                   | Near East Coast of Kamchatka     |
| 18. | 1986 06 17 10:38:17.95 | 5.777° N  | 126.727° E | 39.9          | 5.9   | 5.6                   | Mindanao, Philippine Islands     |
| 19. | 1986 06 17 12:19:20.77 | 20.358° S | 67.971° E  | 10.0          | 5.5   | 5.2                   | Mid-Indian Rise                  |
| 20. | 1986 06 17 18:13:11.38 | 5.705° N  | 125.267° E | 32.0          | 6.2   | 6.4                   | Mindanao, Philippine Islands     |
| 21. | 1986 06 18 08:05:16.08 | 51.662° N | 176.960° W | 61.4          | 5.7   | 6.3                   | Andreanof Islands, Aleutian Is.  |
| 22. | 1986 06 19 09:09:12.33 | 56.418° N | 152.729° W | 33.0          | 6.0   | 6.3                   | Kodiak Island Region             |
| 23. | 1986 06 19 18:12:30.88 | 7.831° N  | 94.617° E  | 192.6         | 5.8   |                       | Nicobar Islands Region           |
| 24. | 1986 06 19 20:01:52.27 | 30.162° S | 178.194° W | 105.2         | 5.6   |                       | Kermadec Islands                 |
| 25. | 1986 06 19 23:18:30.35 | 30.831° S | 177.885° W | 33.0          | 5.4   | 6.3                   | Kermadec Islands                 |
| 26. | 1986 06 20 02:37:55.15 | 32.131° S | 179.178° W | 25.6          | 5.5   |                       | South of Kermadec Islands        |
| 27. | 1986 06 20 17:12:46.52 | 31.221° N | 86.862° E  | 33.0          | 6.0   | 6.1                   | Tibet                            |
| 28. | 1986 06 20 18:41:28.72 | 58.579° S | 25.009° W  | 33.0          | 5.7   | 5.6                   | South Sandwich Islands Region    |
| 29. | 1986 06 23 20:35:20.07 | 6.011° S  | 149.069° E | 73.9          | 5.5   |                       | New Britain Region               |
| 30. | 1986 06 24 02:53:09.38 | 34.733° N | 140.502° E | 47.9          | 6.1   | 6.6                   | Near East Coast of Honshu, Japan |
| 31. | 1986 06 24 03:11:33.02 | 4.424° S  | 143.979° E | 121.2         | 6.7   | 7.1                   | Papua New Guinea                 |
| 32. | 1986 06 24 06:56:53.09 | 0.024° S  | 17.876° W  | 10.0          | 5.7   | 6.0                   | North of Ascension Island        |
| 33. | 1986 06 24 17:39:21.74 | 28.246° S | 178.200° W | 33.0          | 5.4   | 5.7                   | Kermadec Islands Region          |
| 34. | 1986 06 24 19:31:09.64 | 28.342° S | 178.247° W | 33.0          | 5.5   | 5.8                   | Kermadec Islands Region          |
| 35. | 1986 06 25 20:27:45.10 | 37.265° N | 116.499° W | 0.0           | 5.5   | 4.2                   | Southern Nevada                  |
| 36. | 1986 06 28 05:03:52.01 | 19.990° S | 176.078° W | 249.9         | 6.1   |                       | Fiji Islands Region              |
| 37. | 1986 06 29 11:57:46.14 | 27.961° S | 177.982° W | 33.0          | 5.5   | 6.1                   | Kermadec Islands Region          |
| 38. | 1986 06 29 12:31:18.59 | 15.171° N | 96.253° E  | 33.0          | 5.1   | 5.7                   | South Burma                      |
| 39. | 1986 06 29 21:47:59.28 | 5.197° S  | 29.588° E  | 14.4          | 5.0   | 5.5                   | Lake Tanganyika Region           |

**Table 2.** Network-event tape station list for May 1986.

| Code | ID  | Station                            | Latitude  | Longitude | Elevation<br>(m) | Type <sup>1</sup> |
|------|-----|------------------------------------|-----------|-----------|------------------|-------------------|
| 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               |
| 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 | Bruennthal, 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              |
| 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              |
| NE02 | 202 | Monsted, Denmark                   | 56.459° N | 9.170° E  | 60.0             | NARS              |
| 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              |
| NE07 | 207 | Villiers-Adam, France              | 49.074° N | 2.232° E  | 70.0             | 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              |
| NWA0 | 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            |
| 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              |

<sup>1</sup> ASRO - Abbreviated Seismic Research Observatory

DWWSSN - Digital World Wide Standardized Seismograph Network

GRF - Graefenberg Array

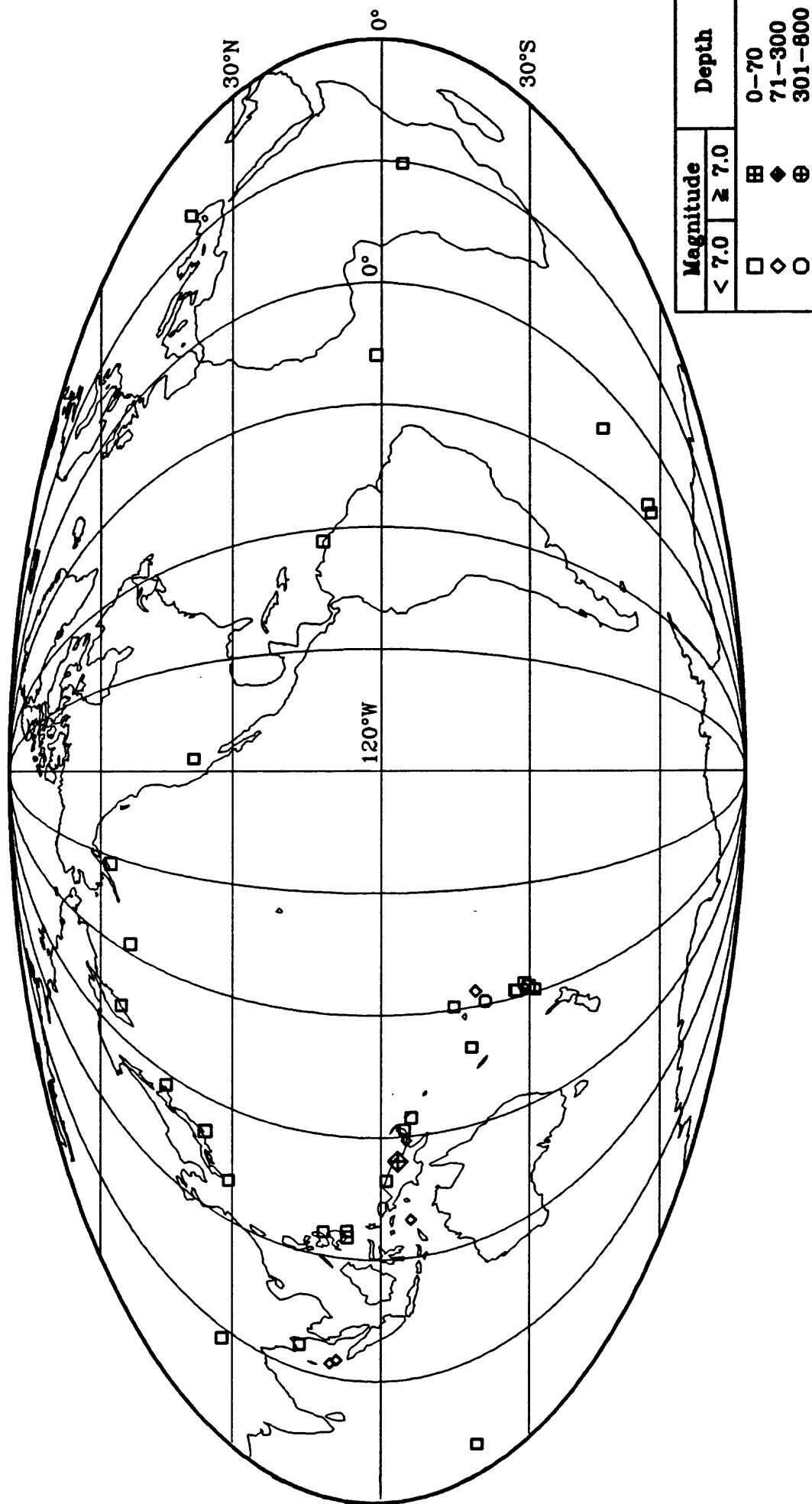
NARS - Network of Autonomously Registrating Stations

NRSA - Norwegian Regional Seismic Array

RSTN - Regional Seismic Test Network

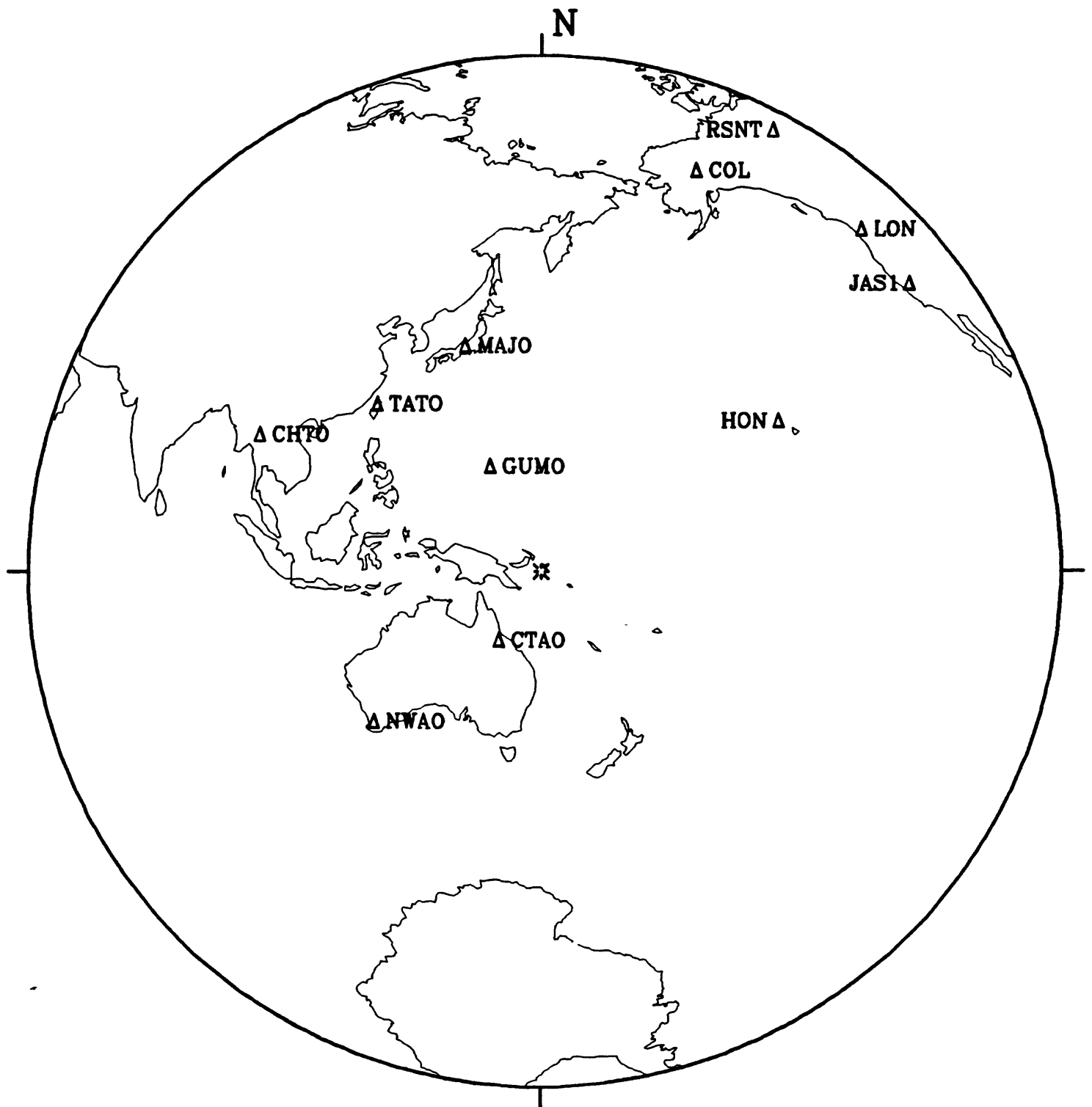
SRO - Seismic Research Observatory

# EARTHQUAKES – June 1986 – MAGNITUDE $\geq 5.5$



02 June 1986 01:31:10.91

## Solomon Islands

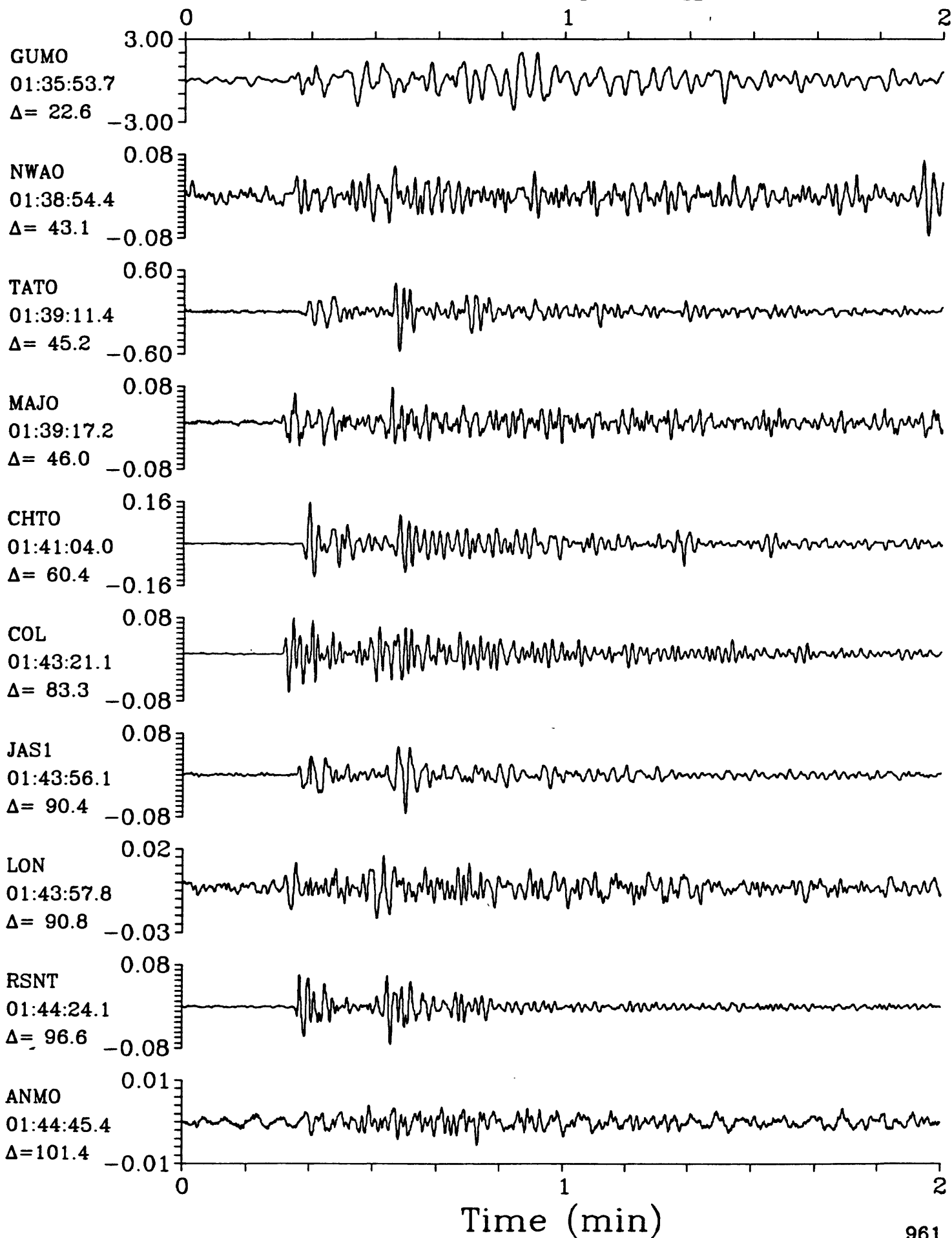




SPZ

02 June 1986 01:31:10.91

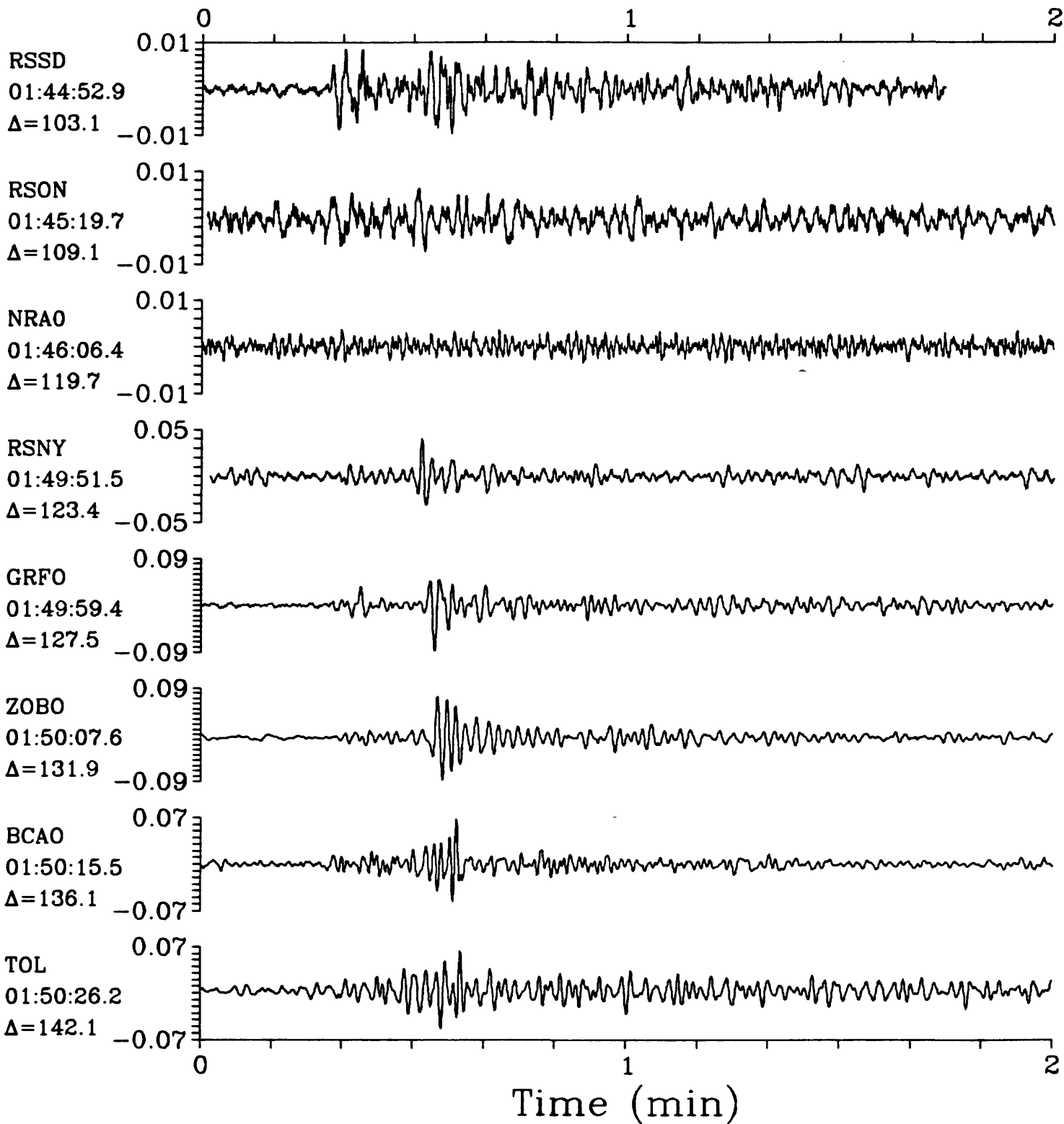
SPZ

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SPZ

02 June 1986 01:31:10.91

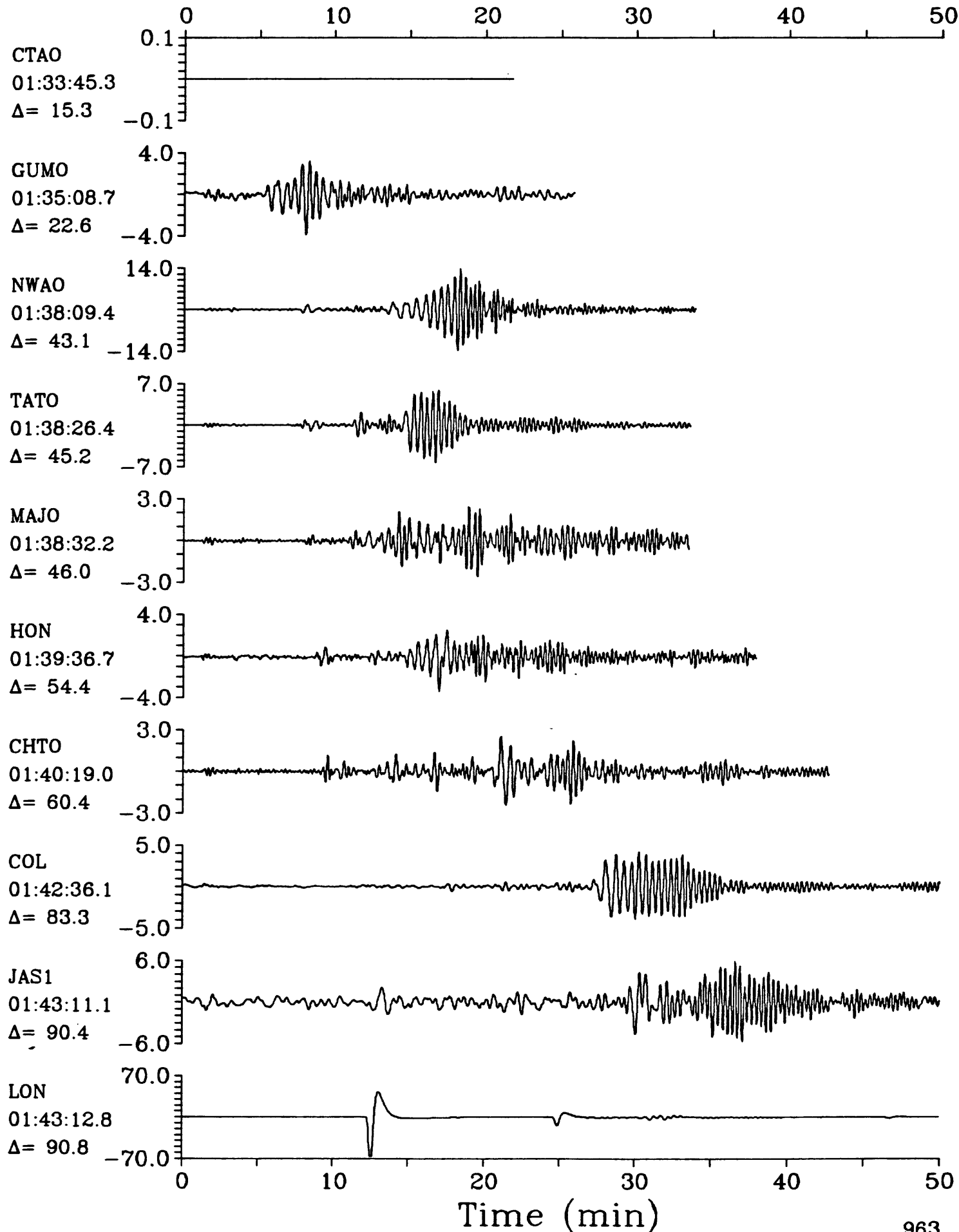
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02 June 1986 01:31:10.91

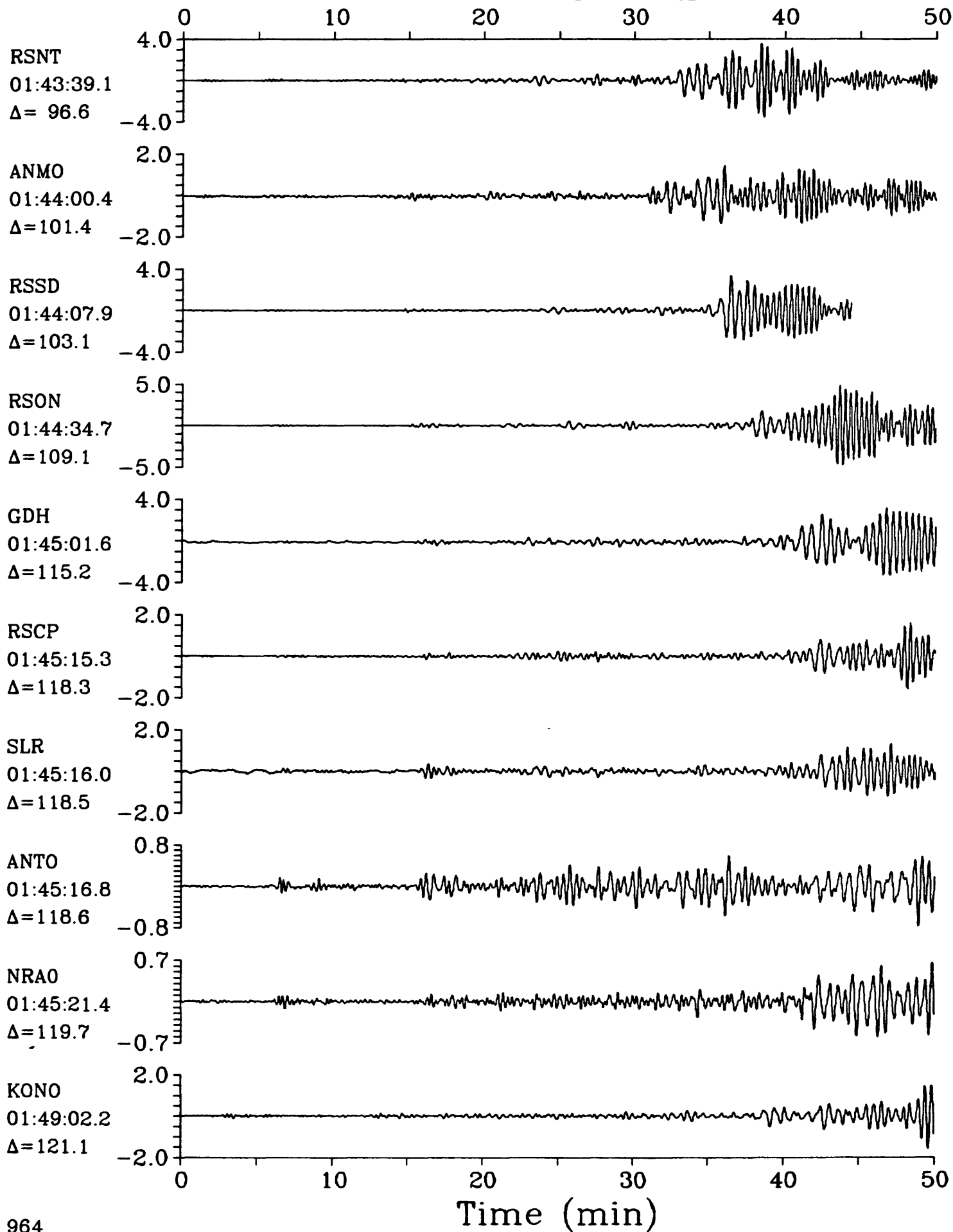
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LPZ

02 June 1986 01:31:10.91

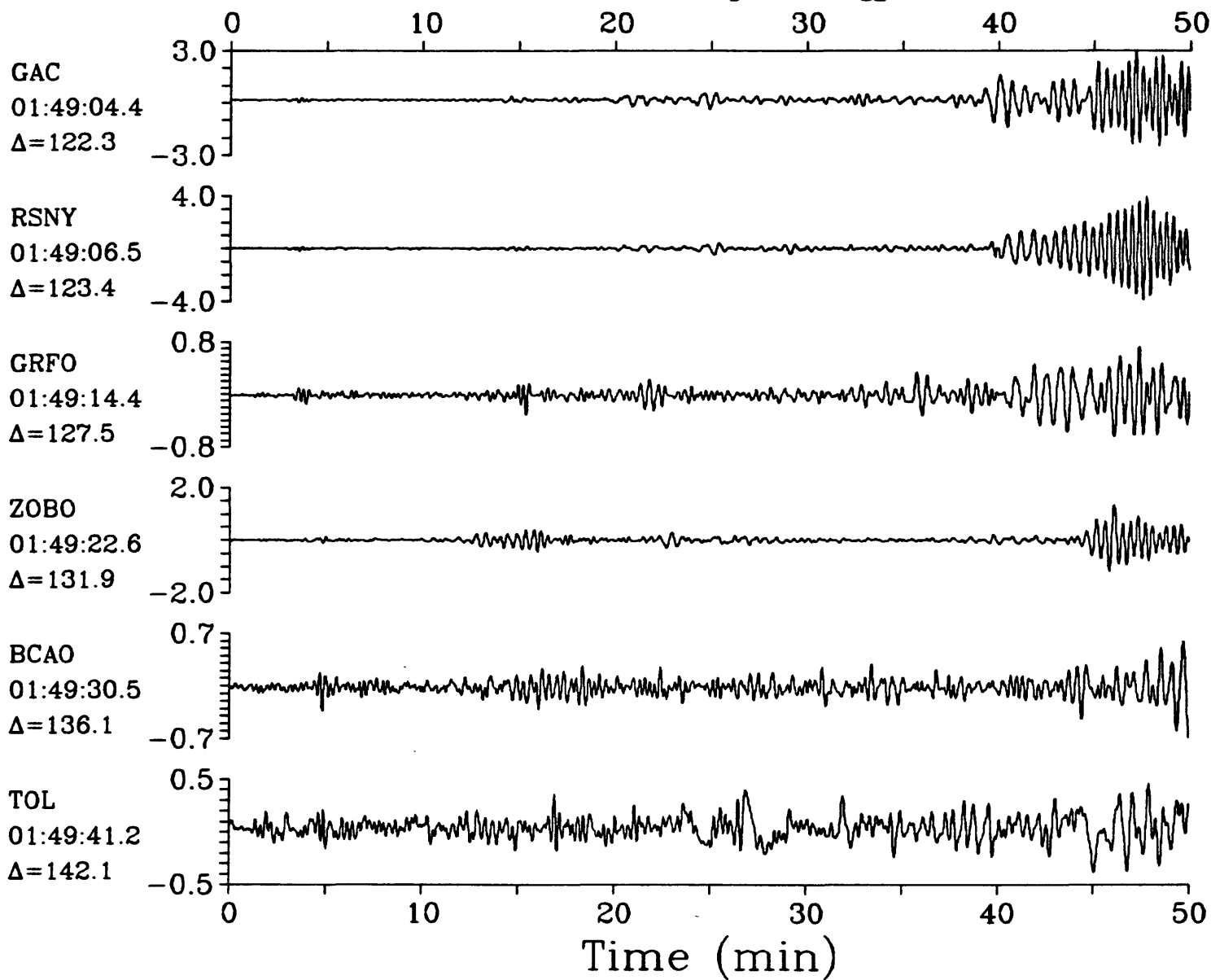
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LPZ

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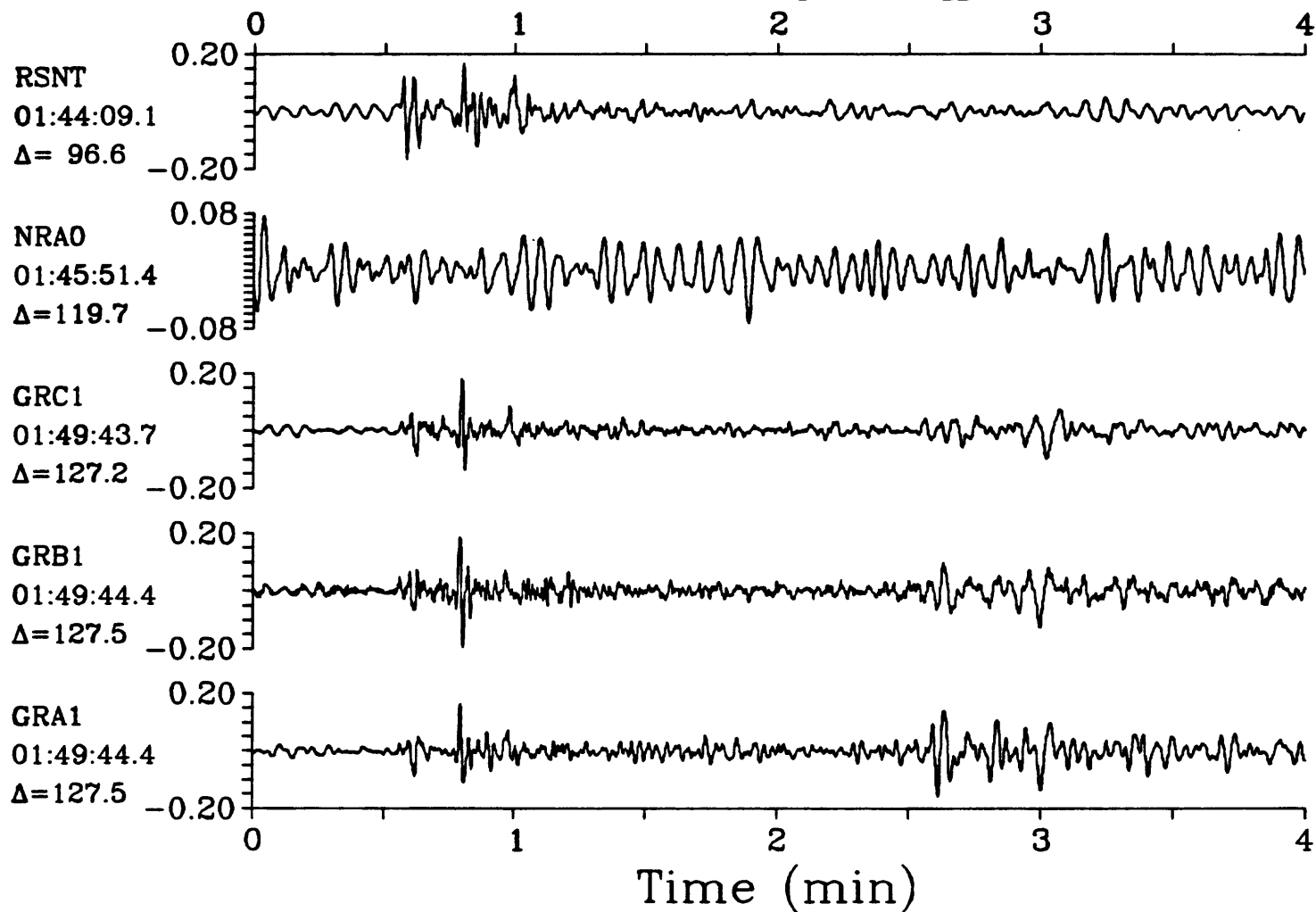
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IPZ

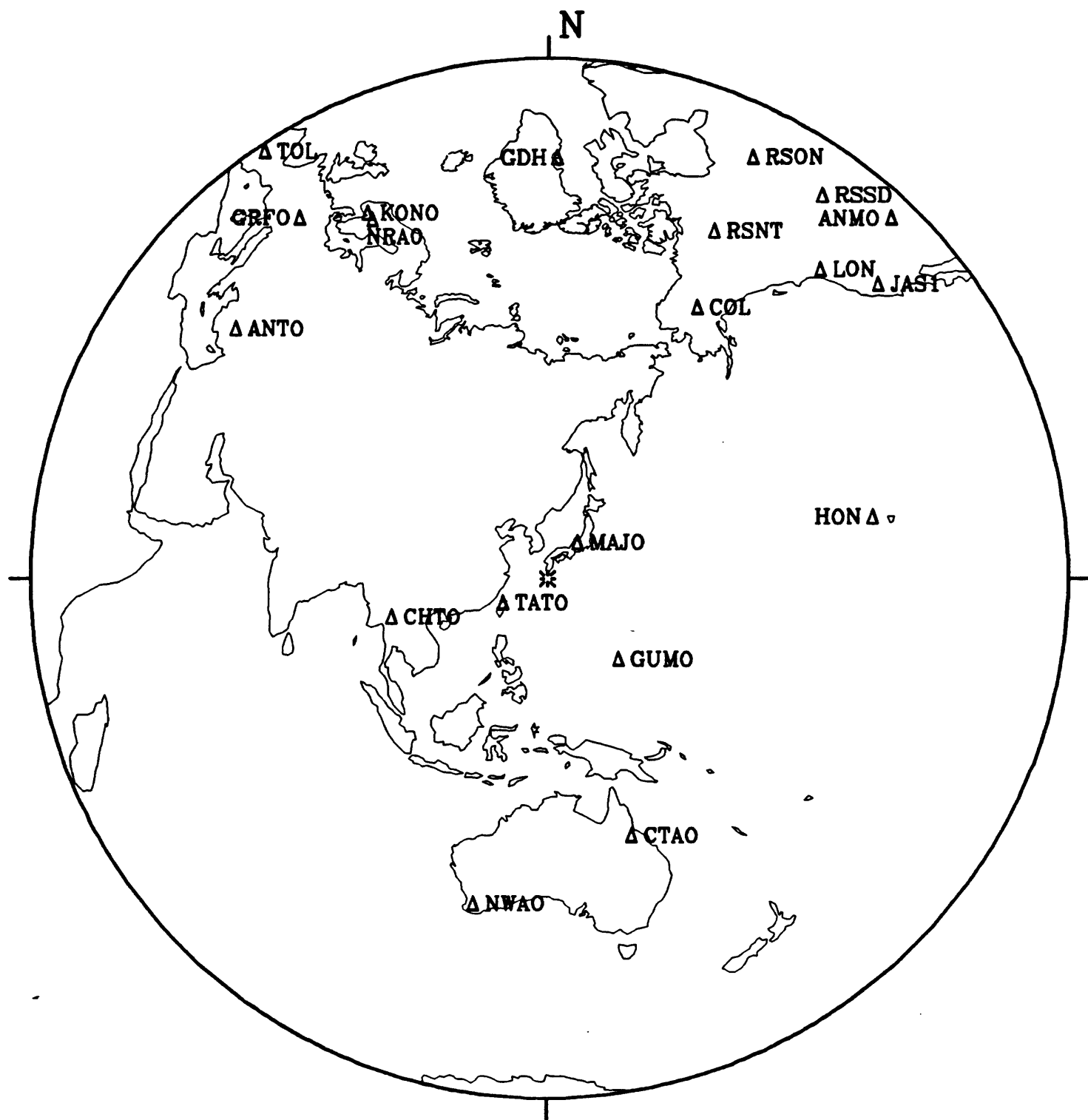
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IPZ

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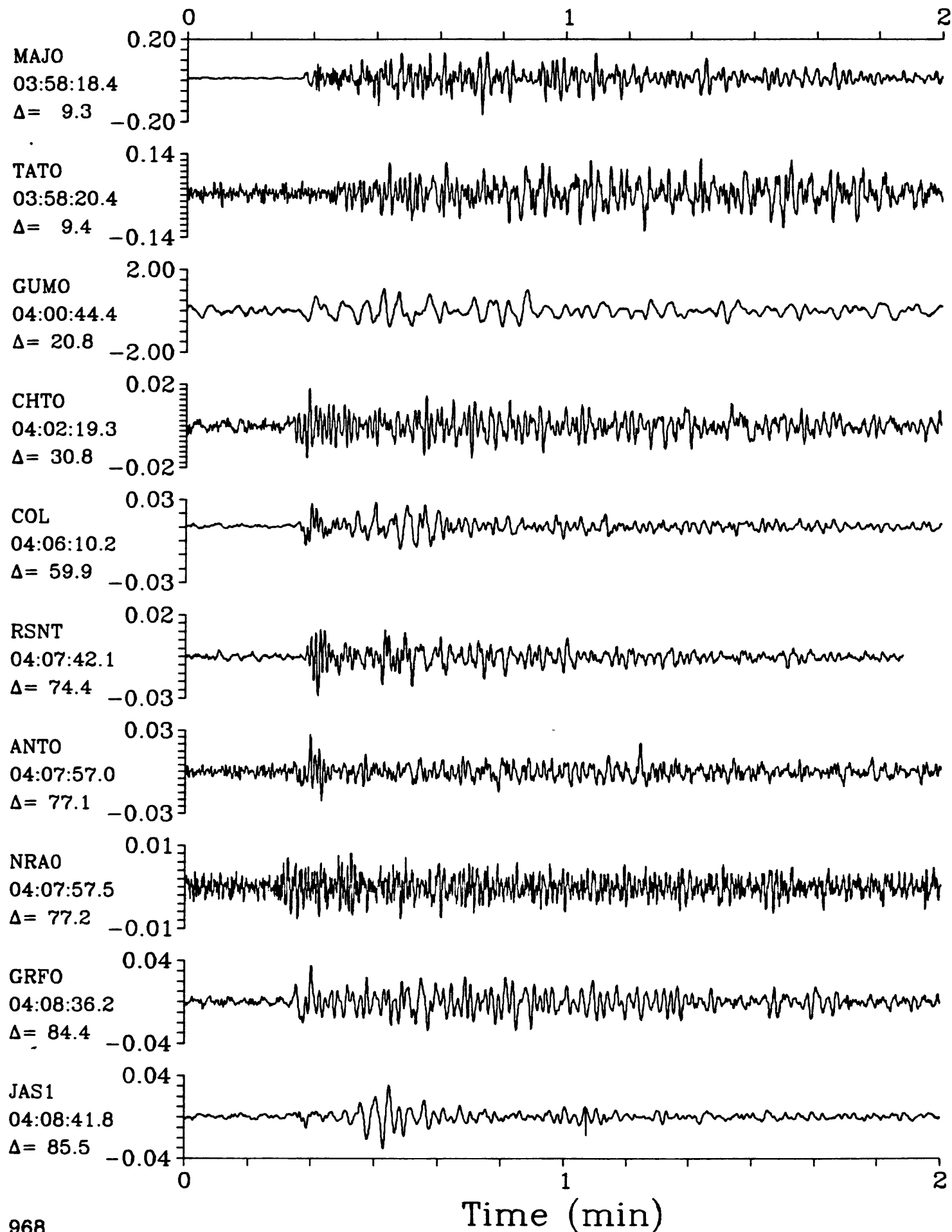
## Ryukyu Islands



SPZ

02 June 1986 03:56:21.74

SPZ

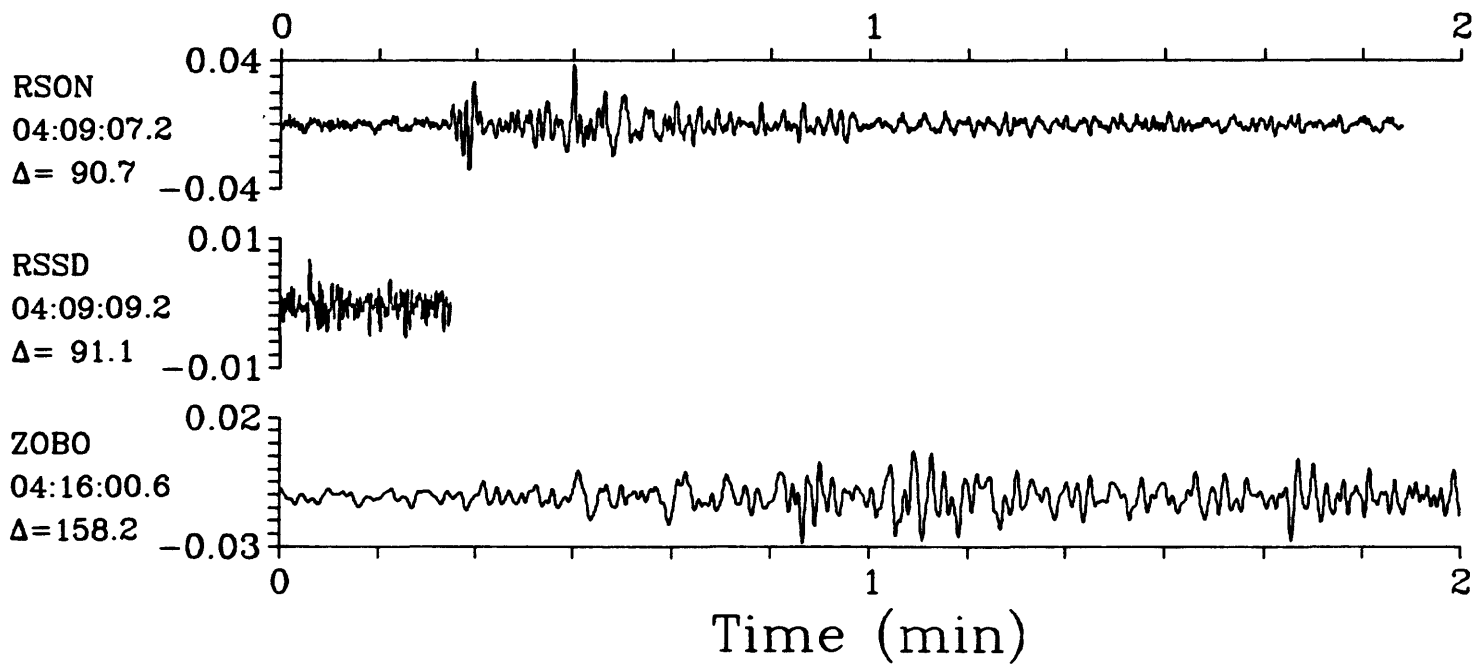
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SPZ

02 June 1986 03:56:21.74

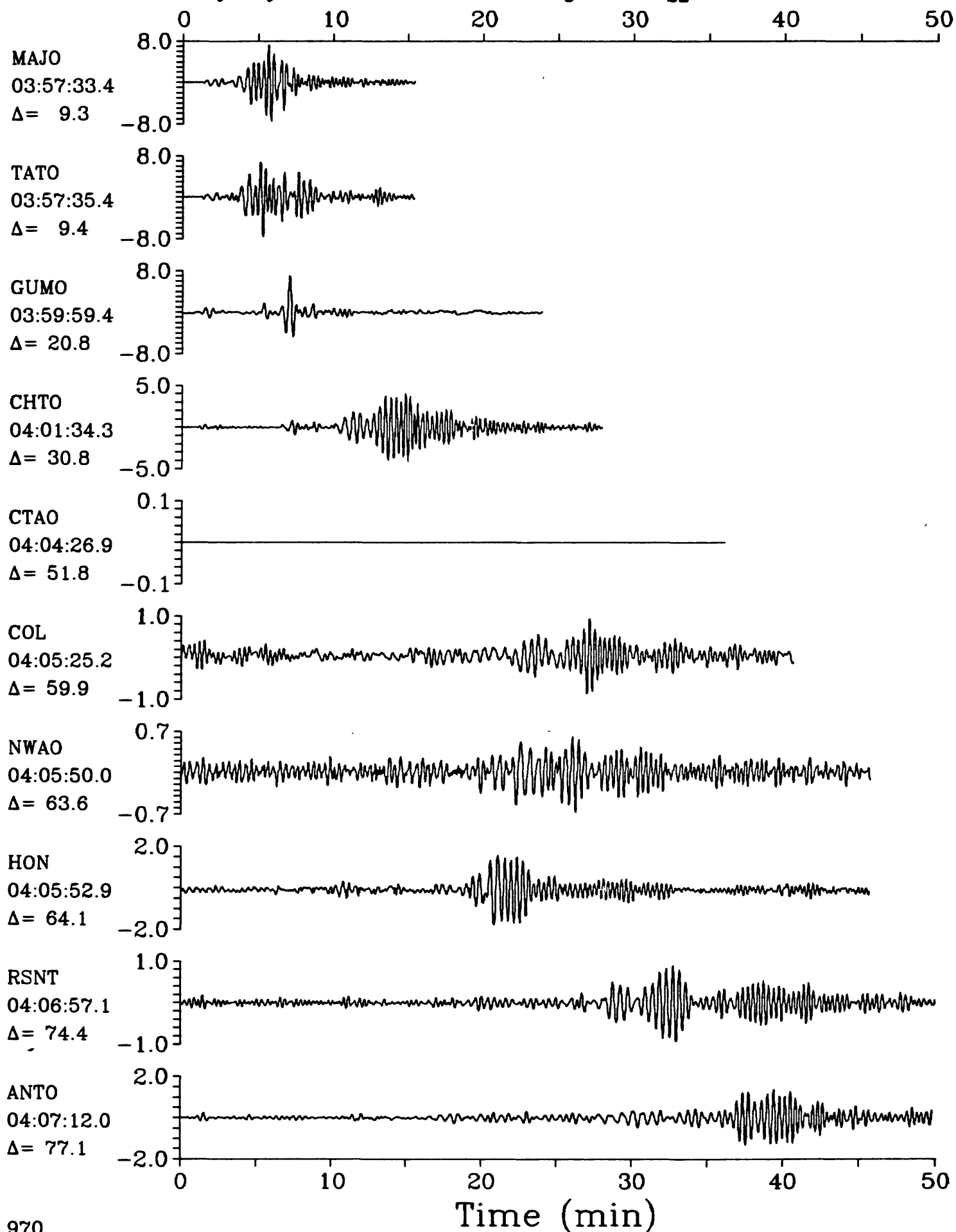
SPZ

Ryukyu Islands  $h=33.0$   $m_b=5.2$   $M_{SZ}=5.7$ 

LPZ

02 June 1986 03:56:21.74

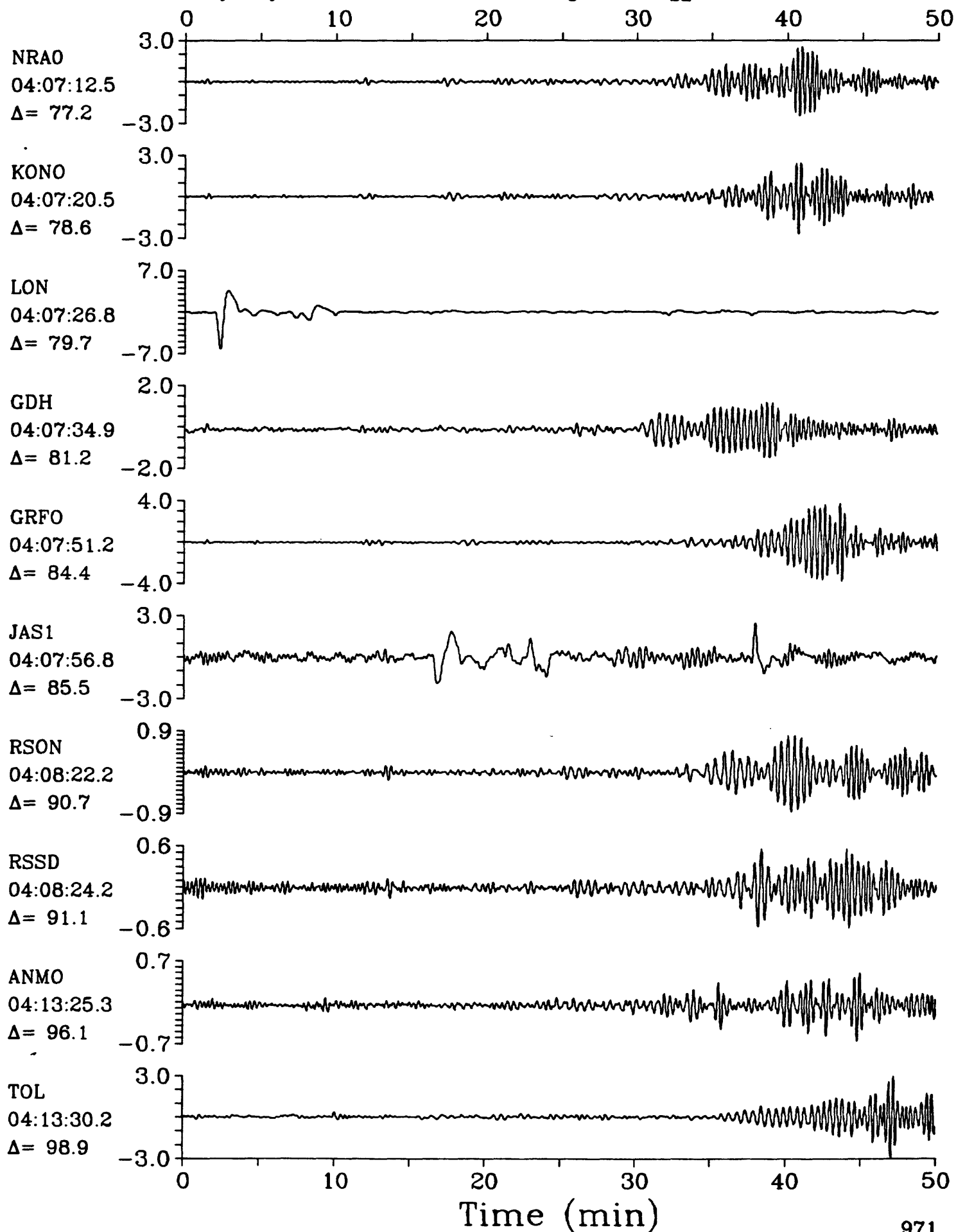
LPZ

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LPZ

02 June 1986 03:56:21.74

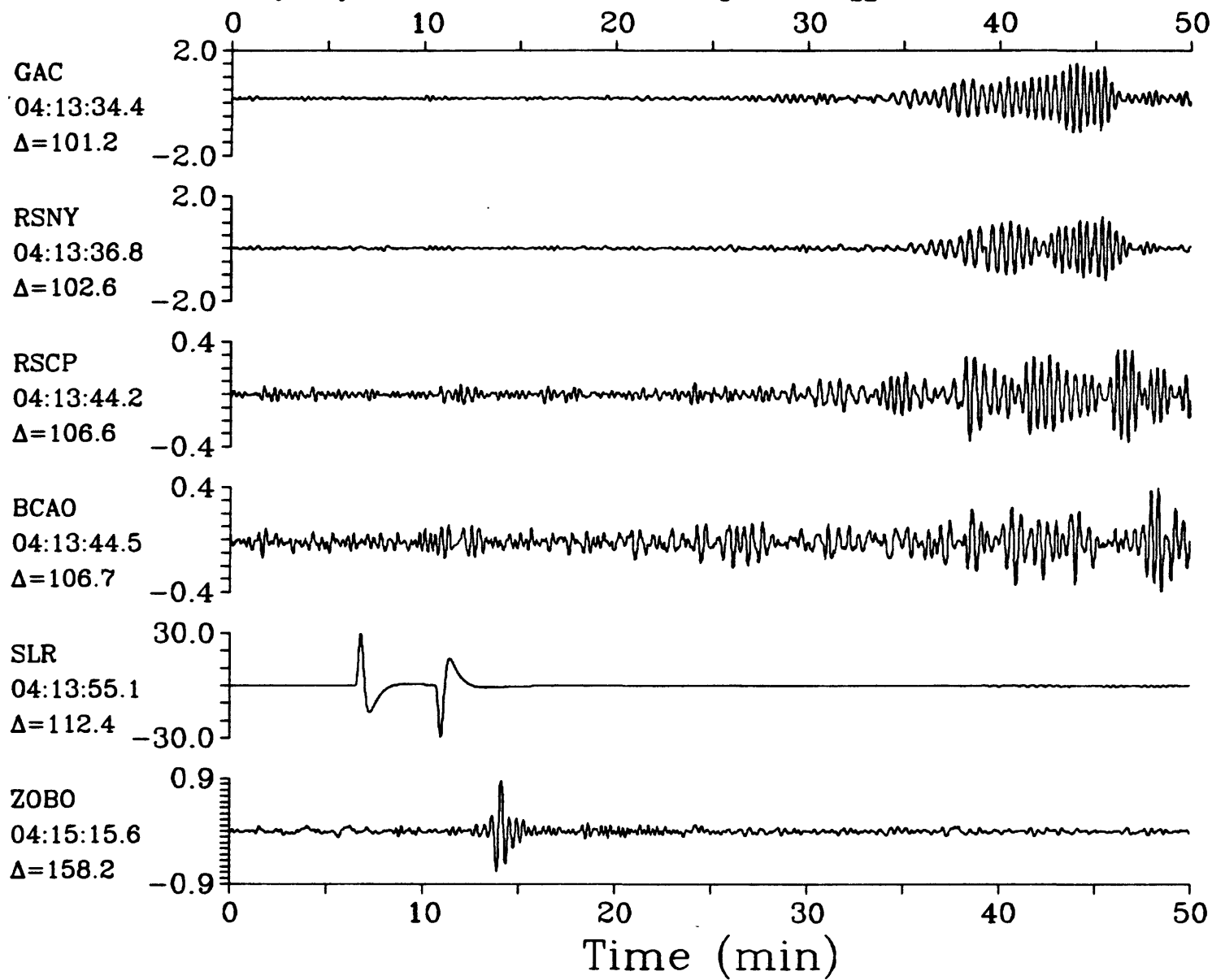
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Ryukyu Islands  $h=33.0$   $m_b=5.2$   $M_{sz}=5.7$ 

LPZ

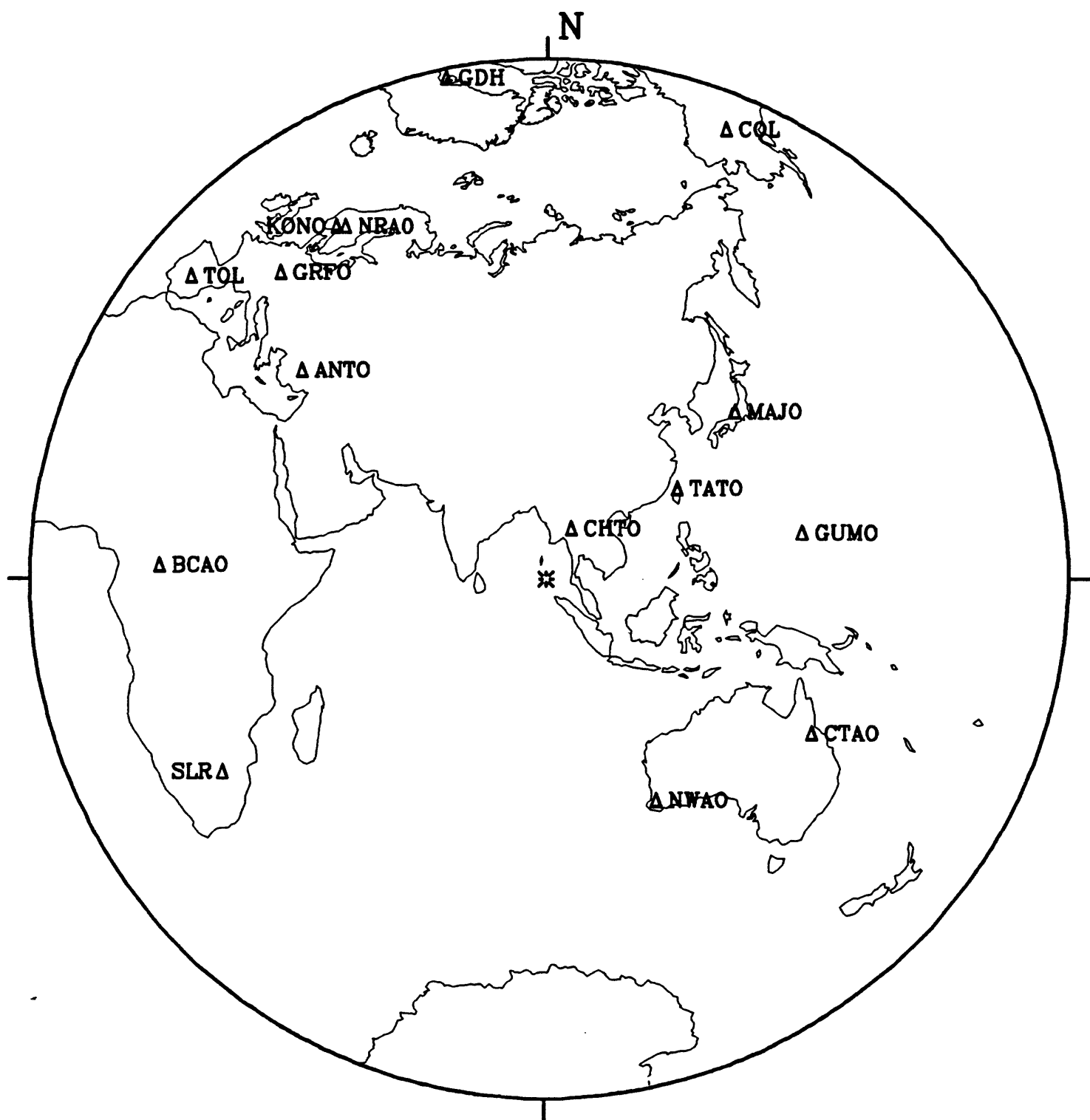
02 June 1986 03:56:21.74

LPZ

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

02 June 1986 17:51:54.40

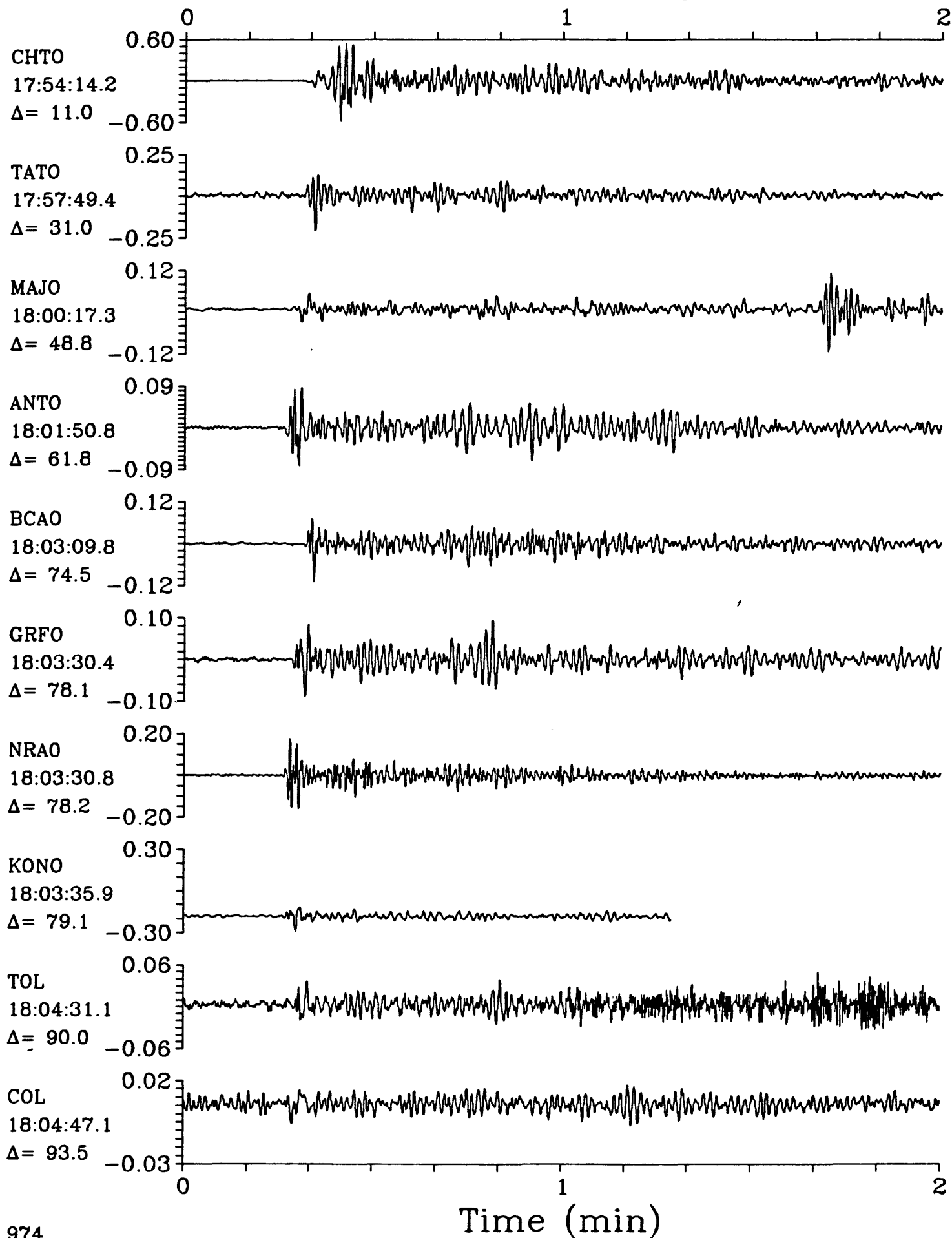
## Nicobar Islands Region



SPZ

02 June 1986 17:51:54.40

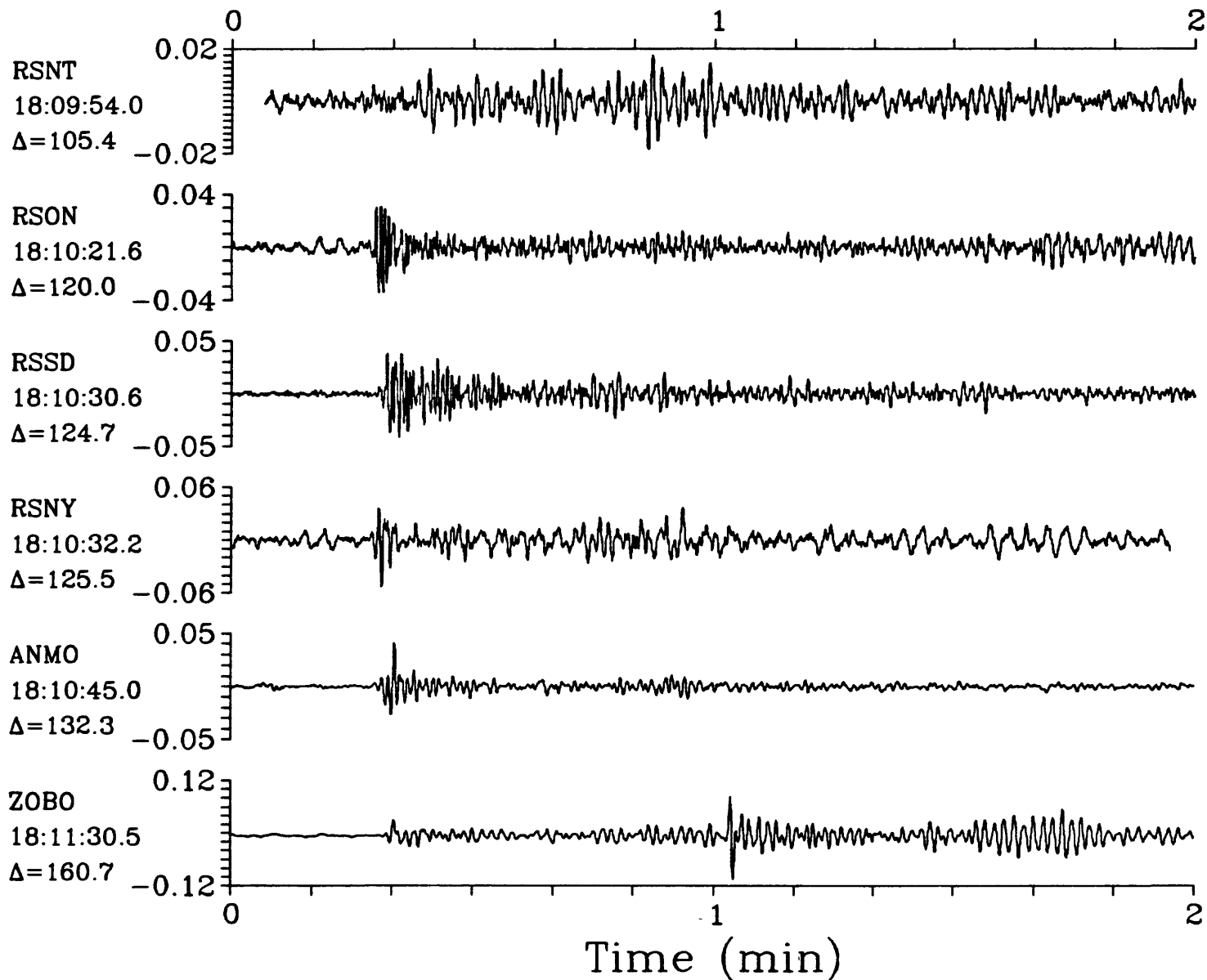
SPZ

Nicobar Islands Region  $h=78.7$   $m_b=5.5$ 

SPZ

02 June 1986 17:51:54.40

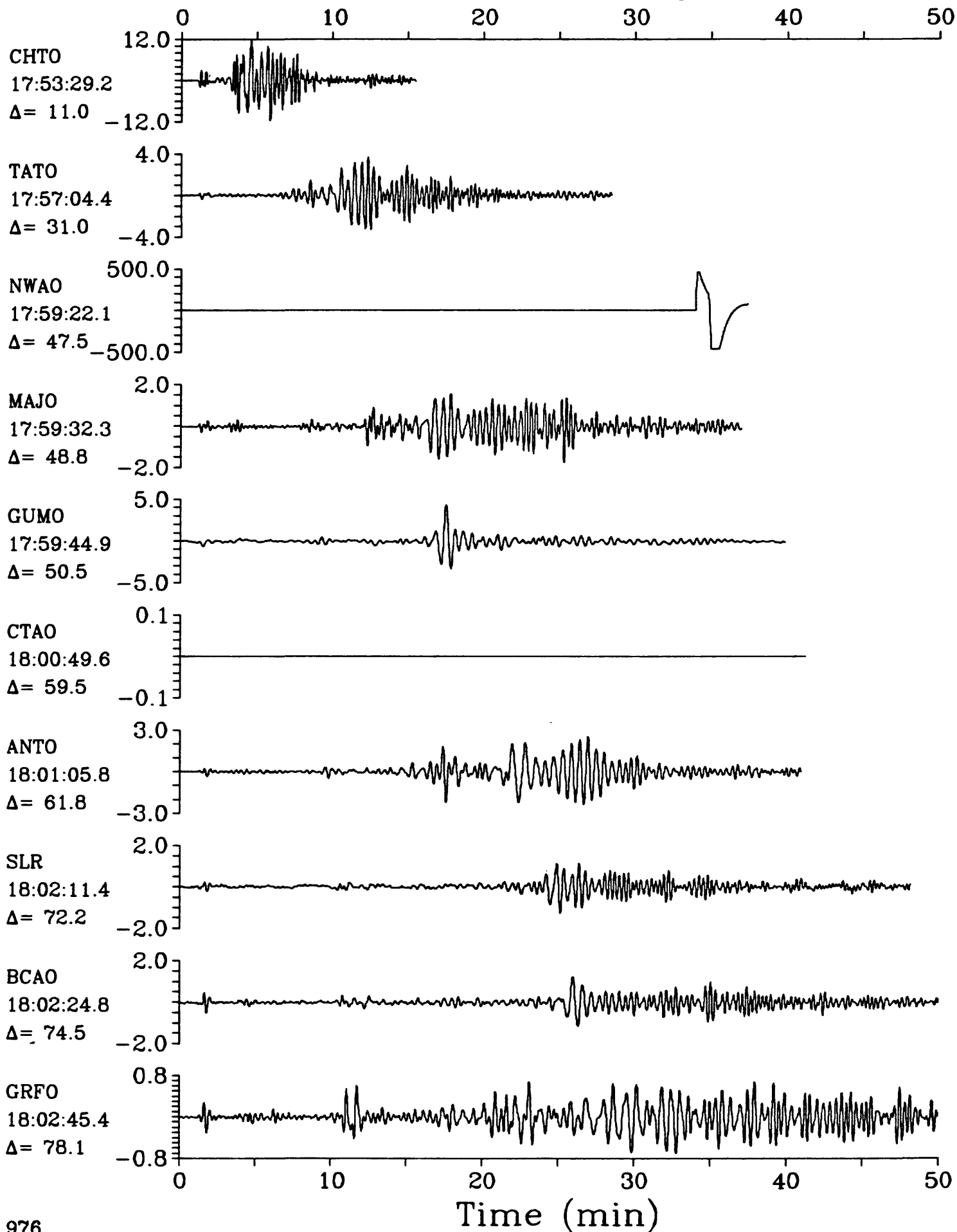
SPZ

Nicobar Islands Region  $h=78.7$   $m_b=5.5$ 

LPZ

02 June 1986 17:51:54.40

LPZ

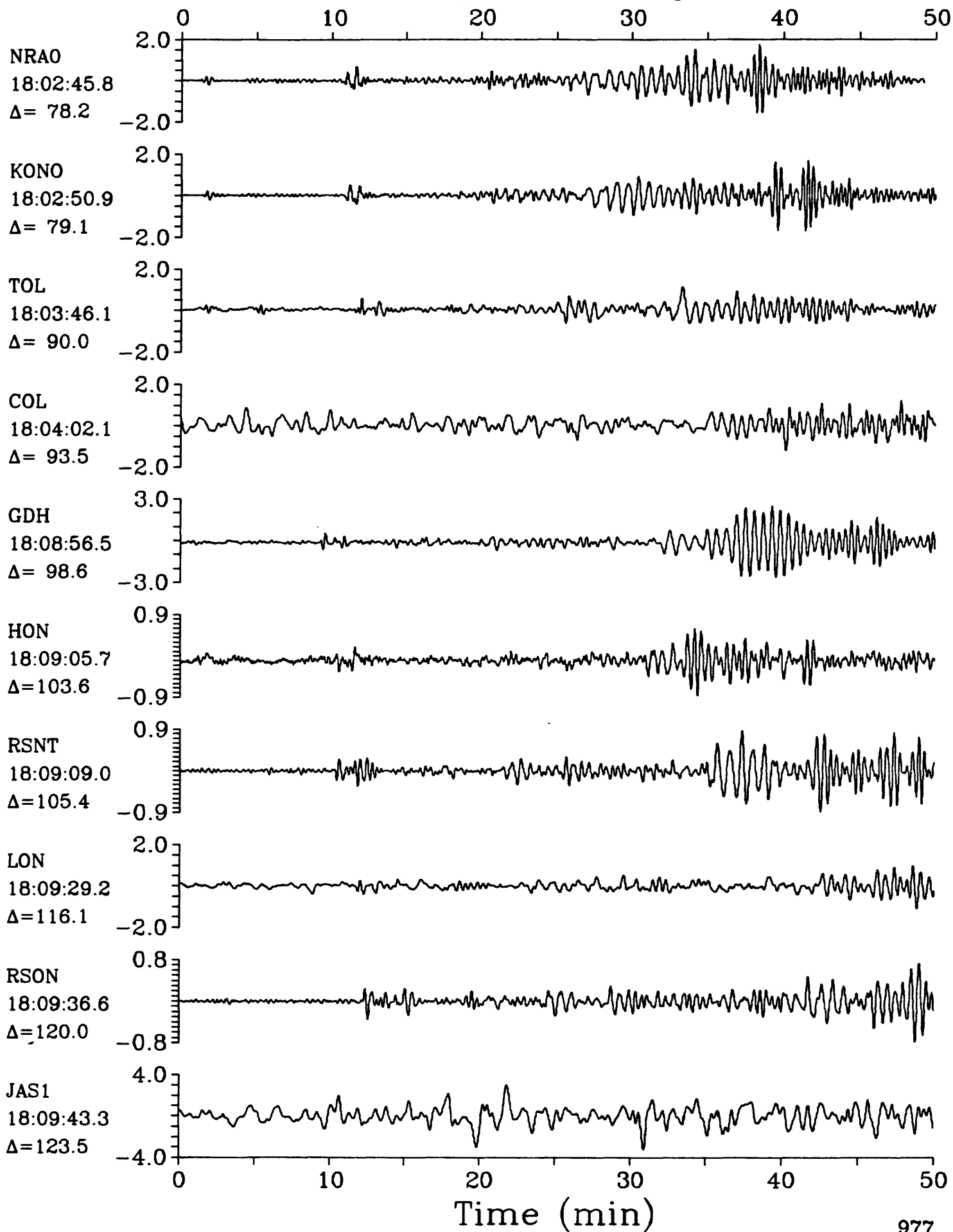
Nicobar Islands Region  $h=78.7$   $m_b=5.5$ 



LPZ

02 June 1986 17:51:54.40

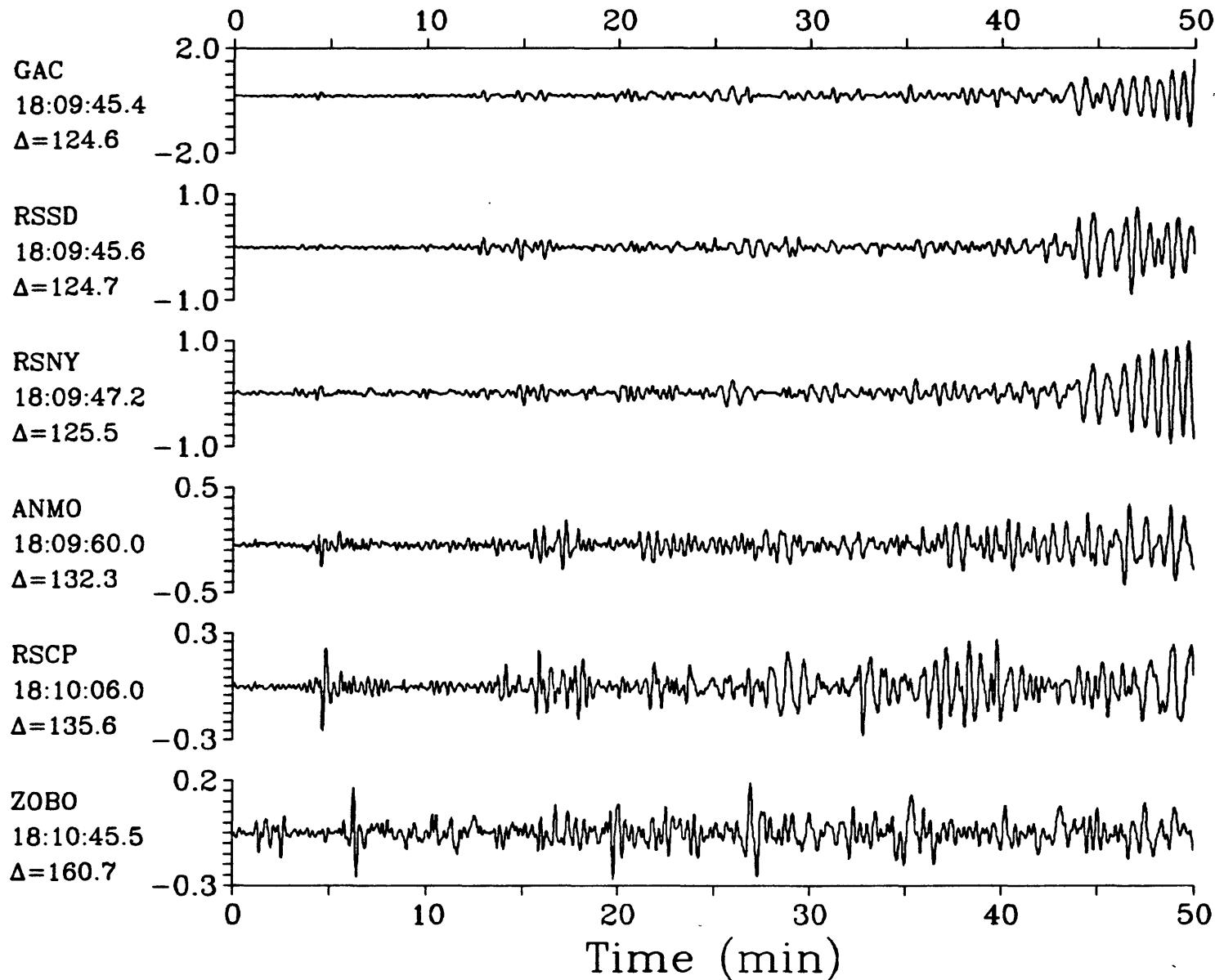
LPZ

Nicobar Islands Region  $h=78.7$   $m_b=5.5$ 

LPZ

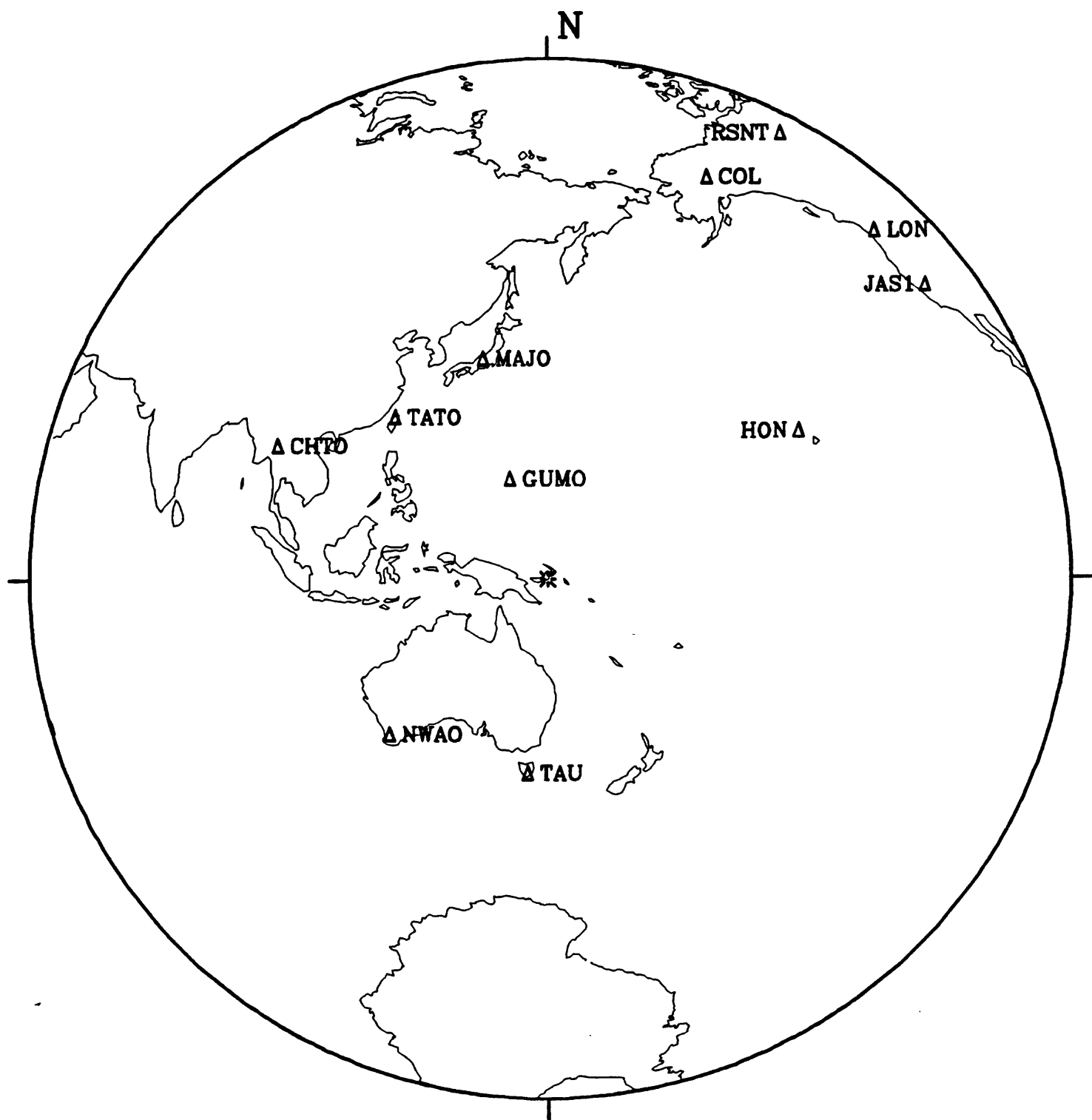
02 June 1986 17:51:54.40

LPZ

Nicobar Islands Region  $h=78.7$   $m_b=5.5$ 

03 June 1986 00:54:43.92

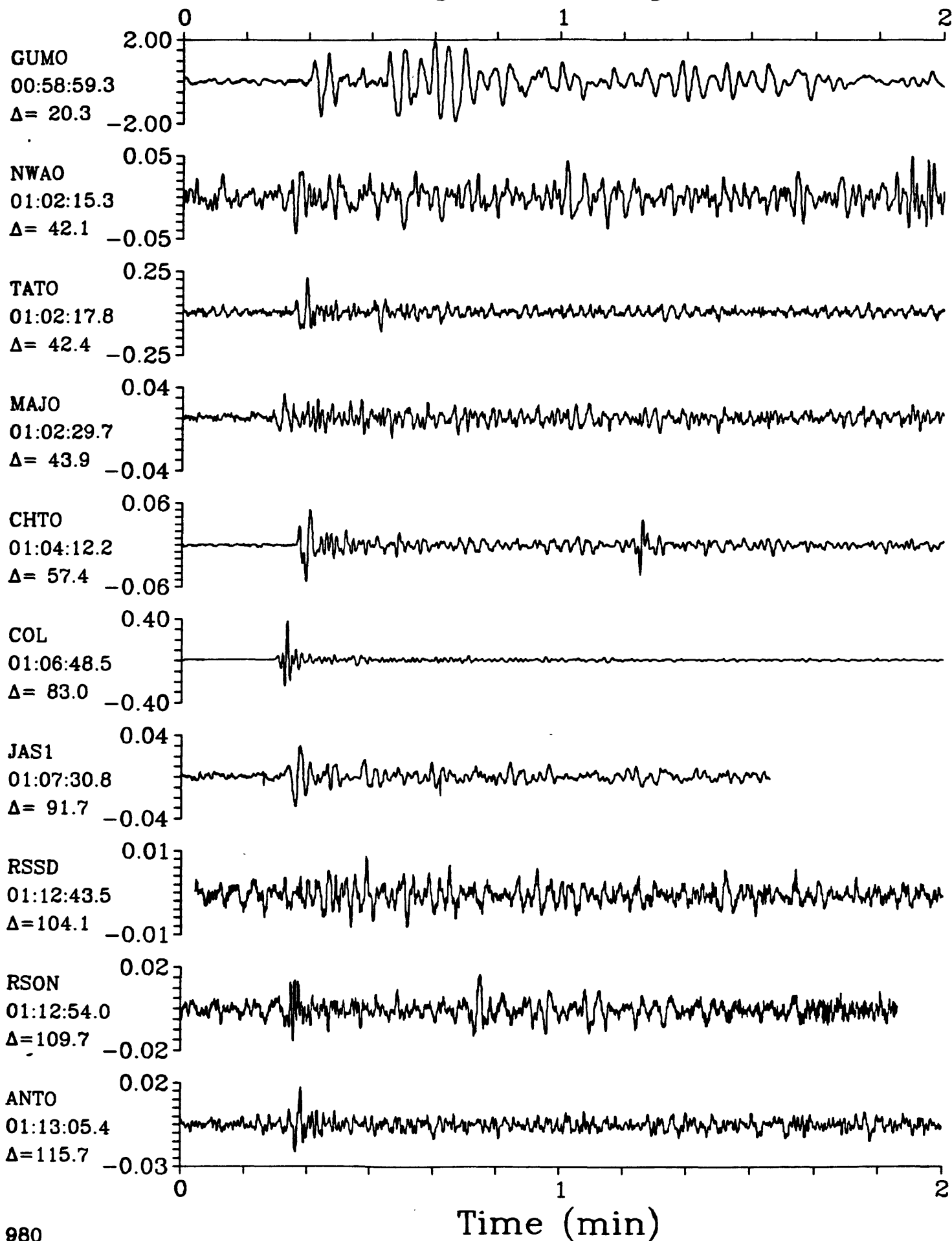
## New Britain Region



SPZ

03 June 1986 00:54:43.92  
New Britain Region  $h=58.9$   $m_b=5.6$ 

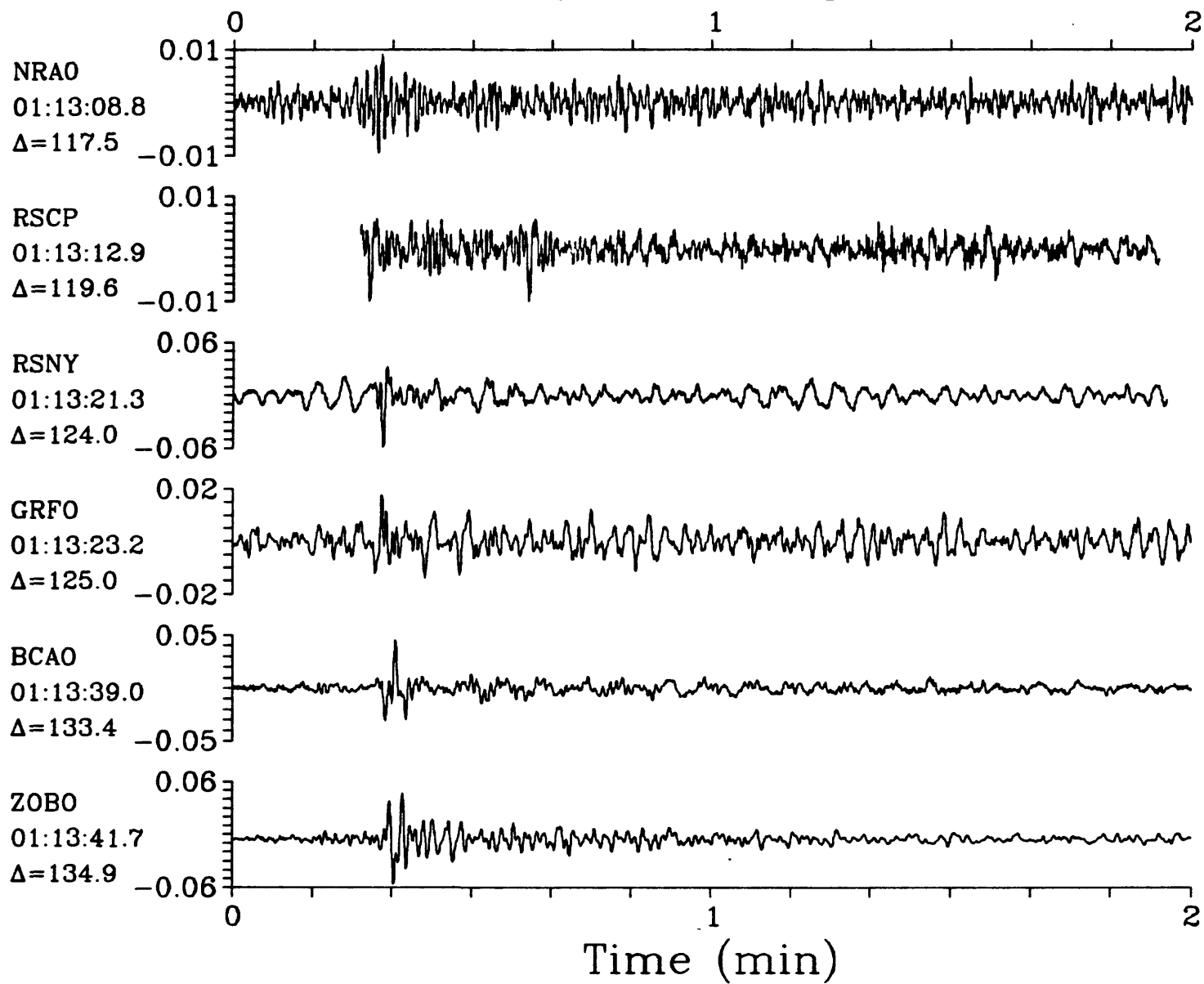
SPZ



SPZ

03 June 1986 00:54:43.92  
New Britain Region  $h=58.9$   $m_b=5.6$ 

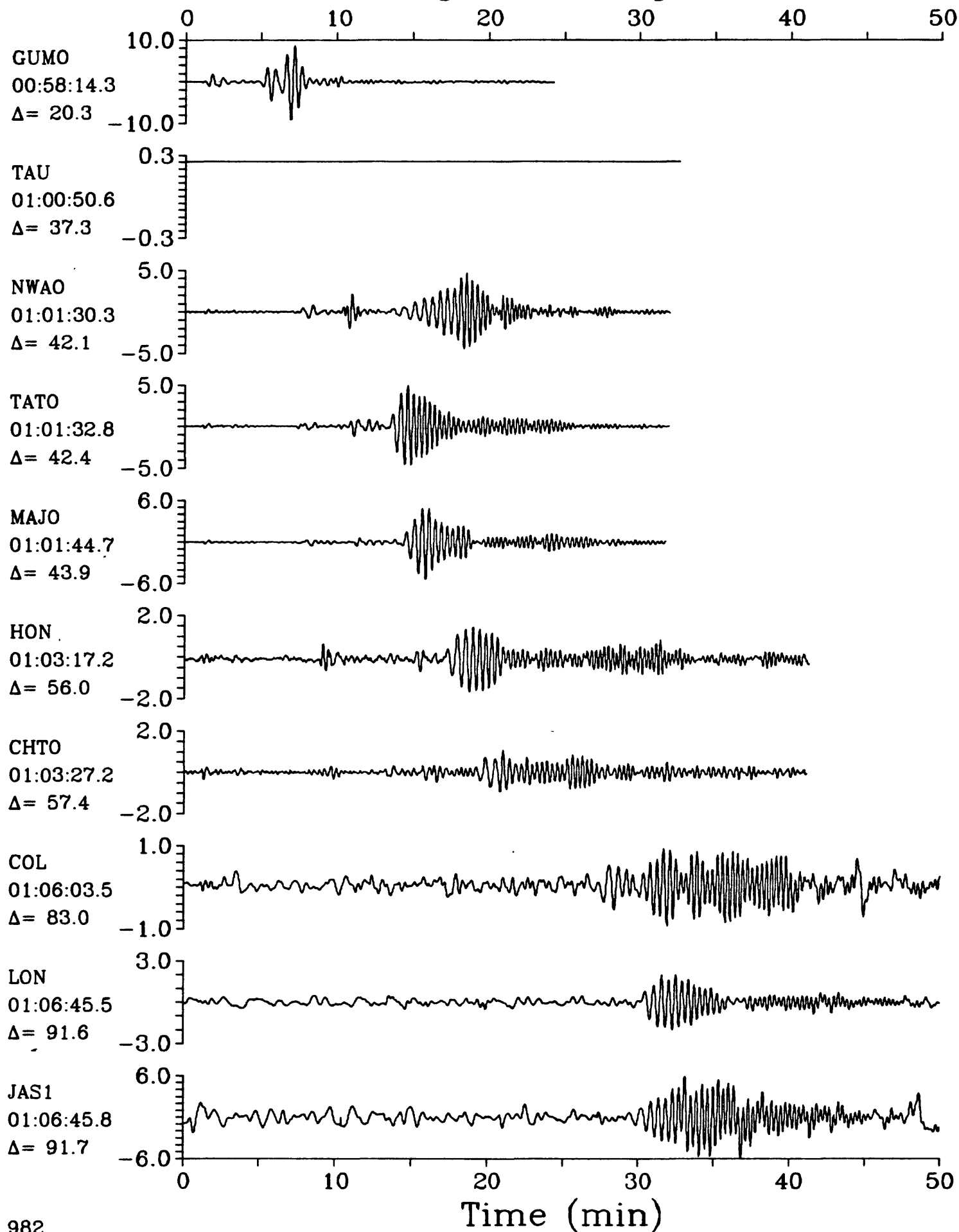
SPZ



LPZ

03 June 1986 00:54:43.92  
New Britain Region  $h=58.9$   $m_b=5.6$ 

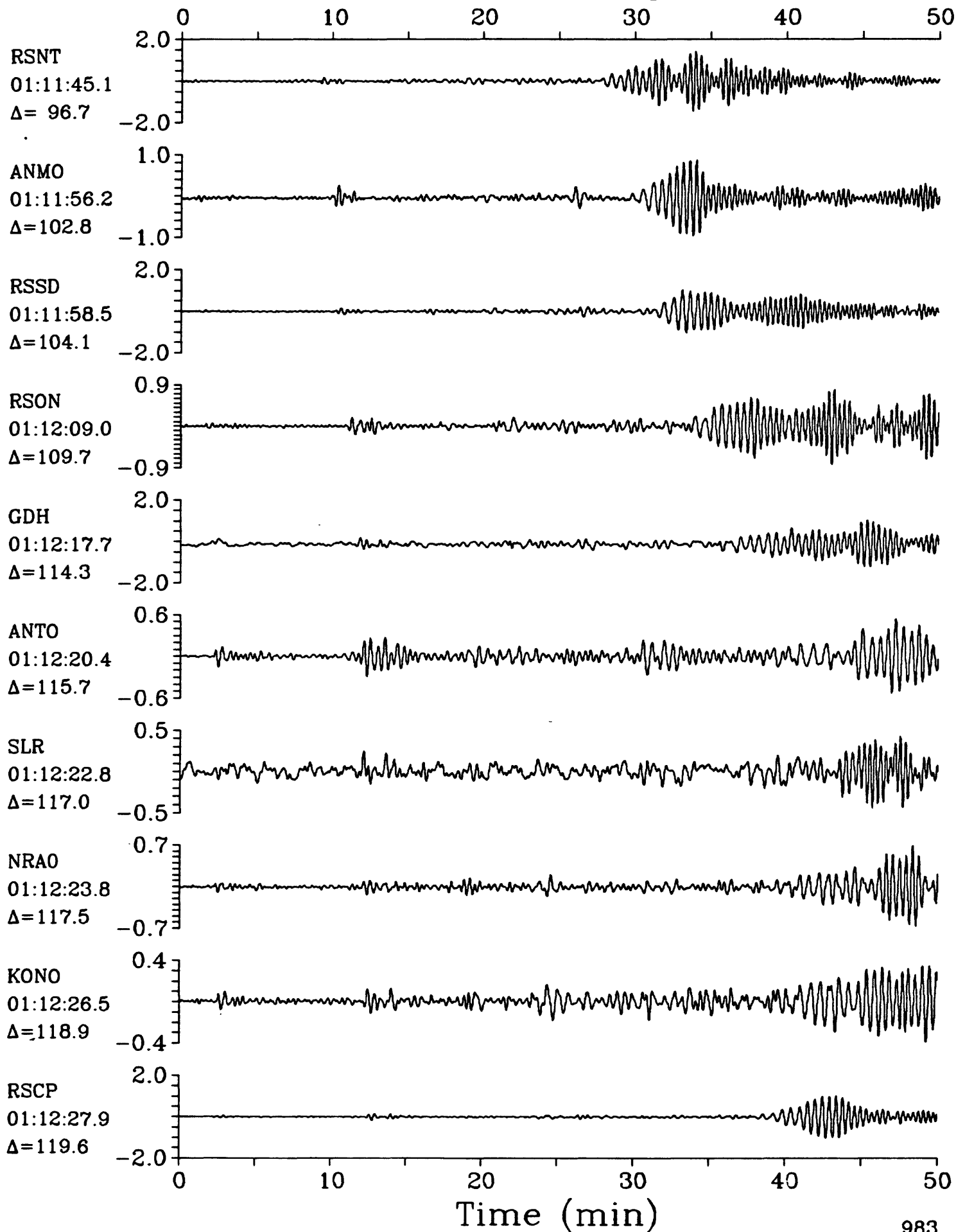
LPZ



LPZ

03 June 1986 00:54:43.92  
New Britain Region  $h=58.9$   $m_b=5.6$ 

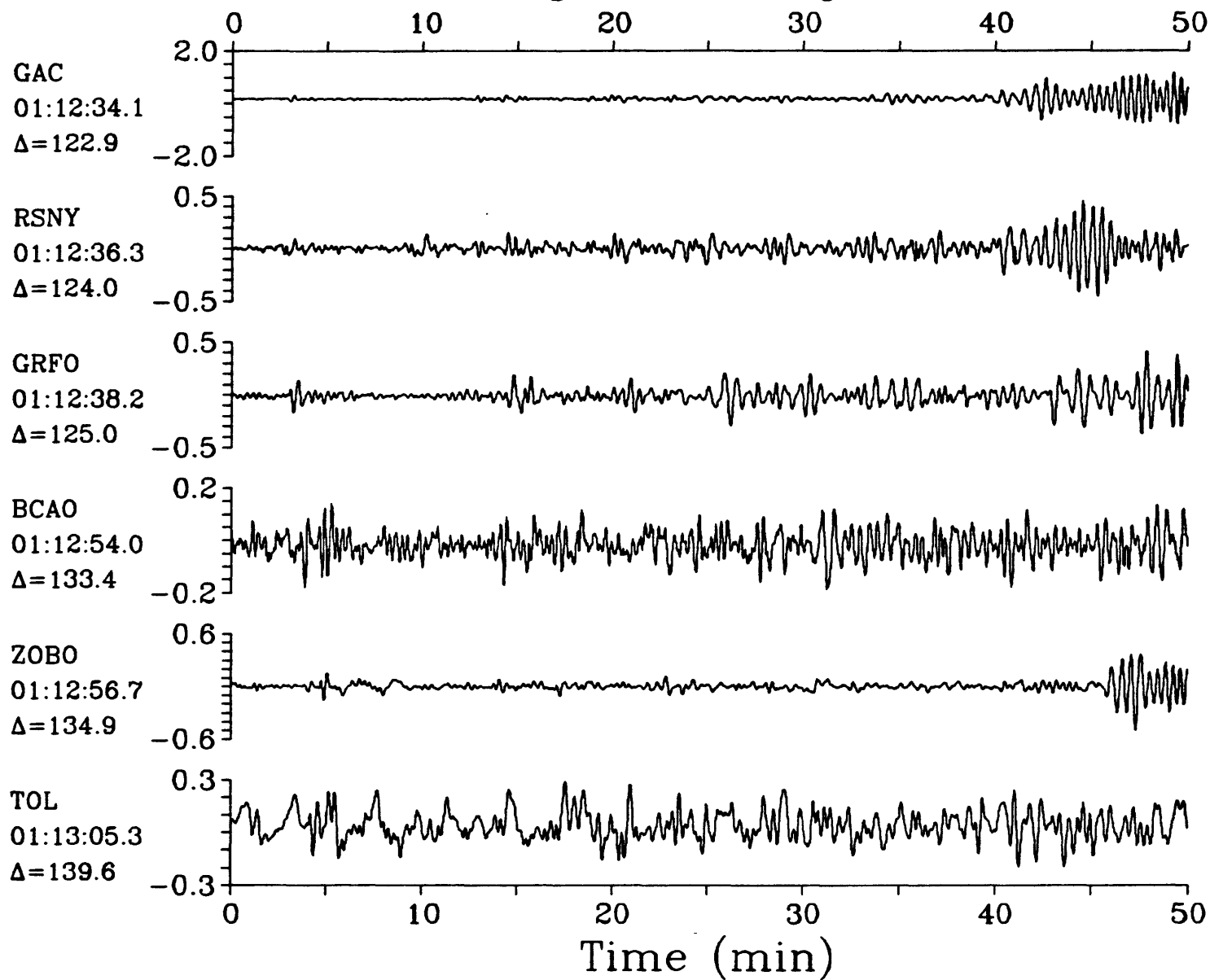
LPZ



LPZ

03 June 1986 00:54:43.92  
New Britain Region  $h=58.9$   $m_b=5.6$ 

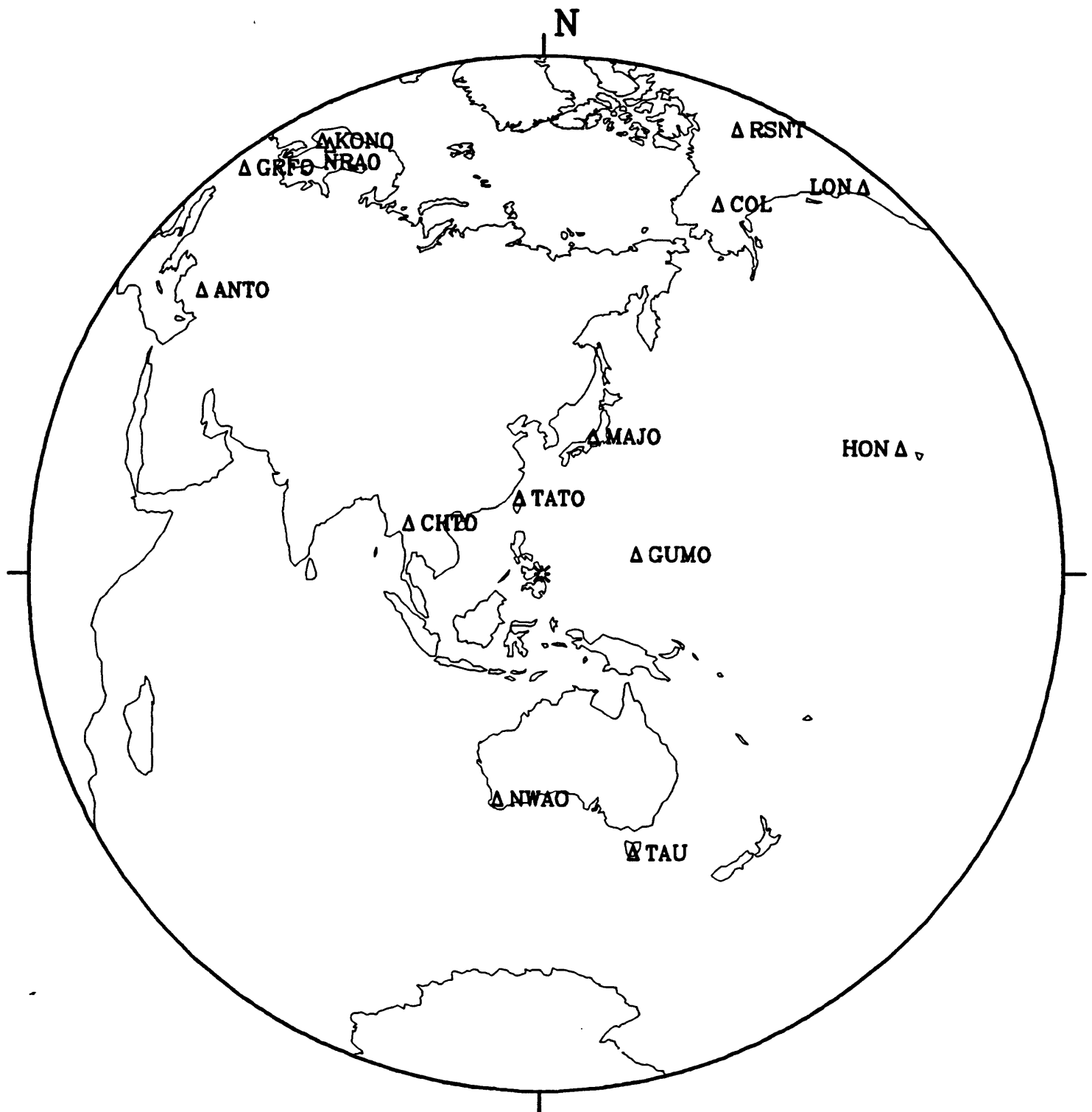
LPZ





03 June 1986 14:40:05.93

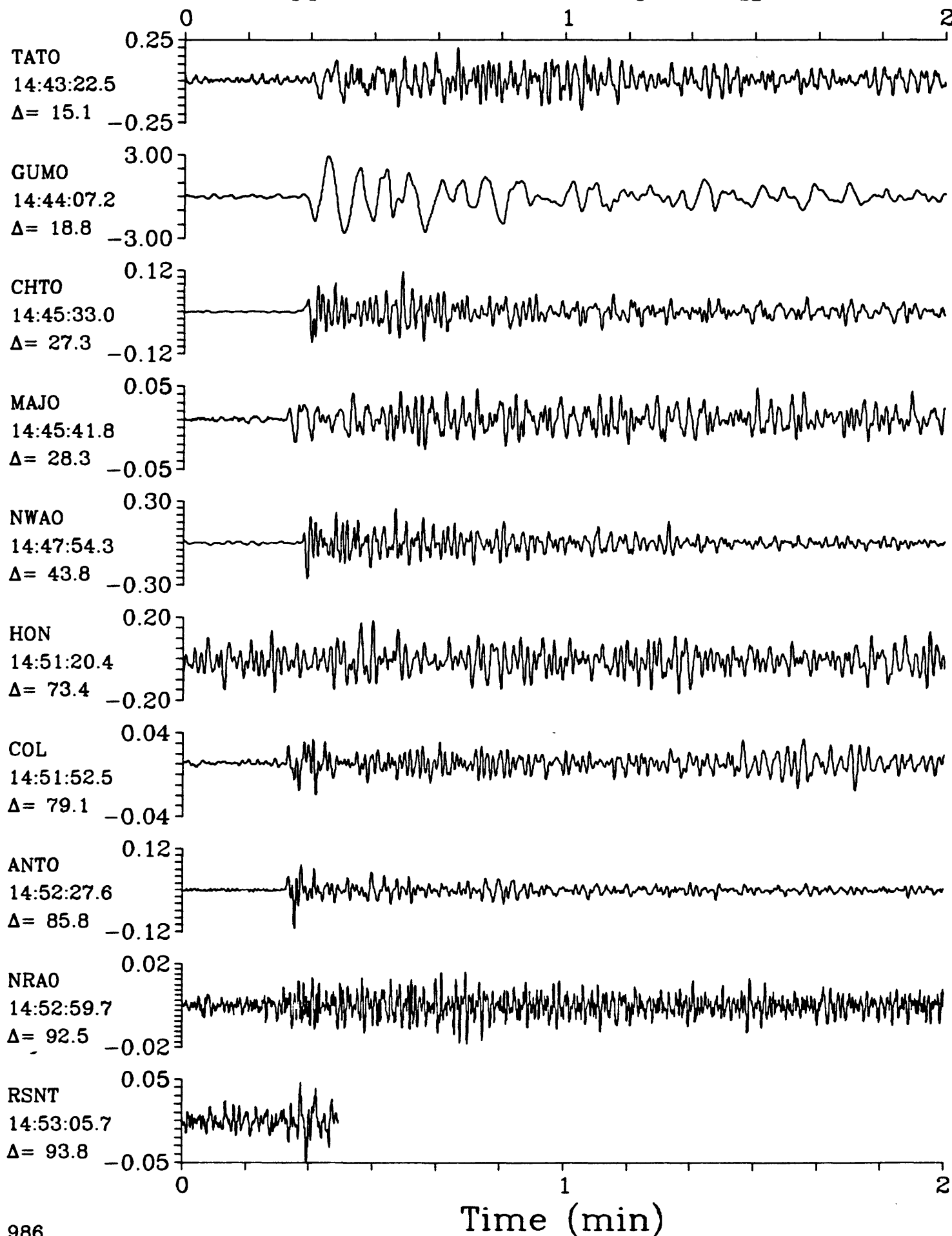
## Leyte, Philippine Islands



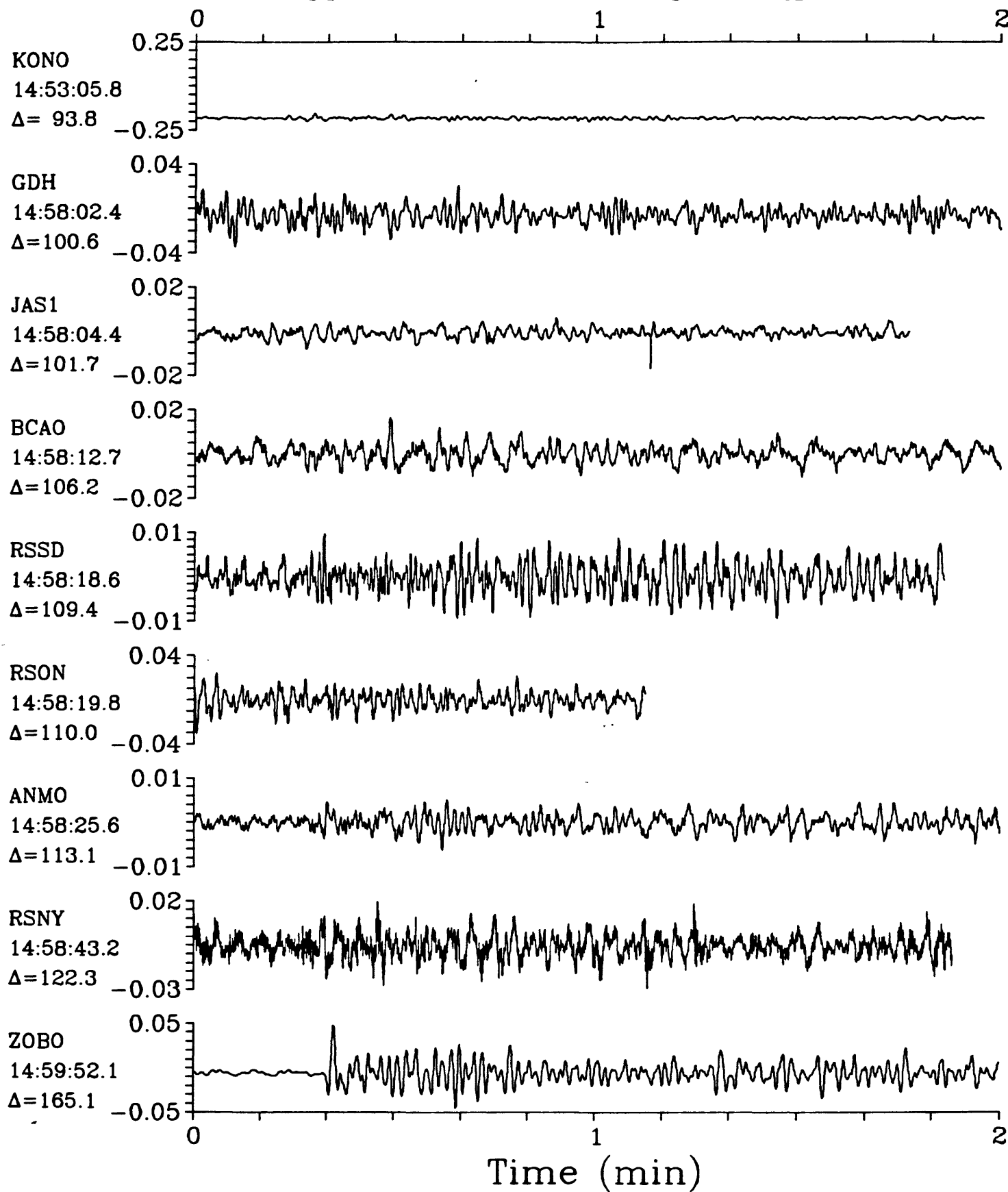
SPZ

03 June 1986 14:40:05.93

SPZ

Leyte, Philippine Islands  $h=33.0$   $m_b=5.7$   $M_{sz}=5.7$ 

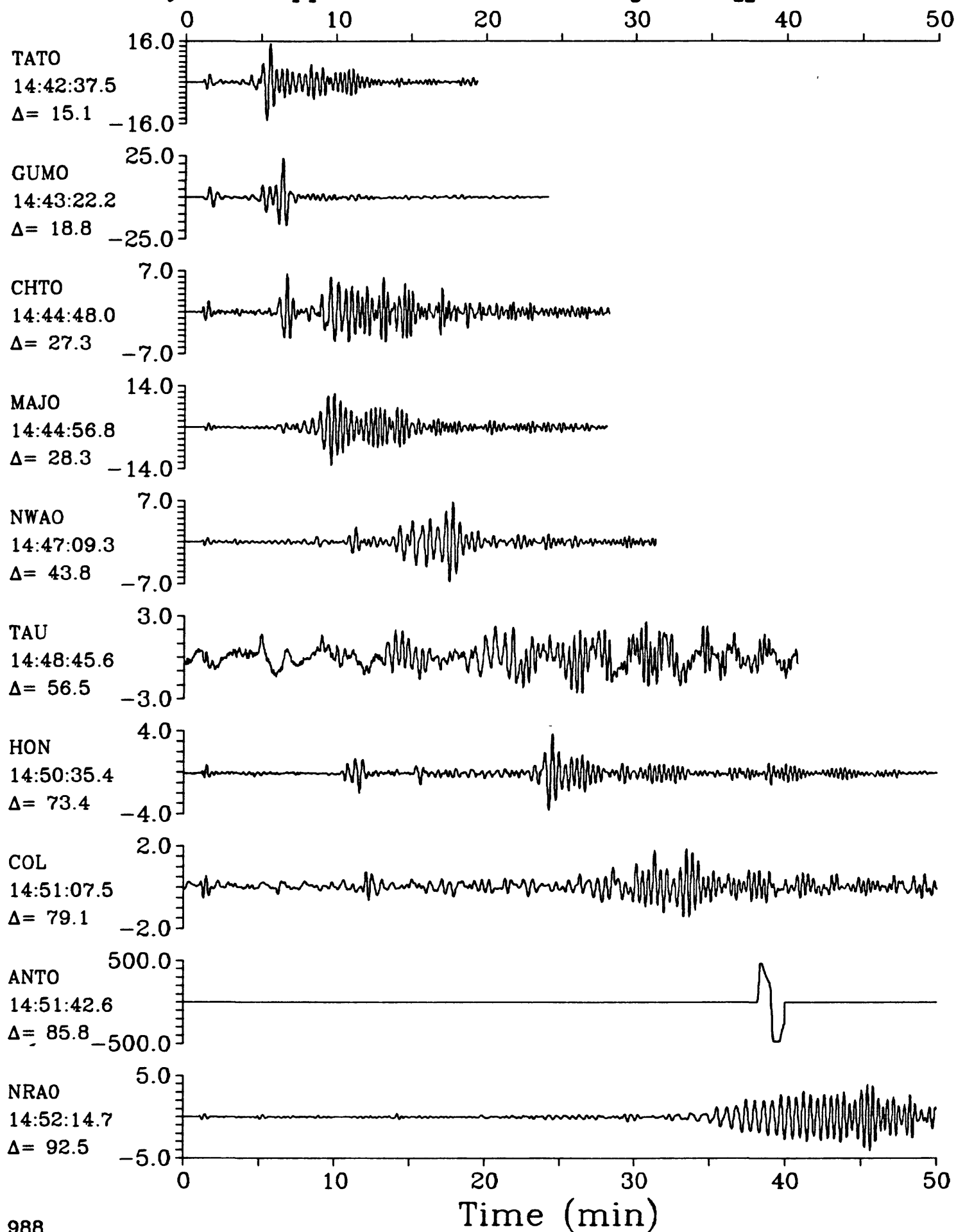
Leyte, Philippine Islands  $h=33.0$   $m_b=5.7$   $M_{sz}=5.7$



LPZ

03 June 1986 14:40:05.93

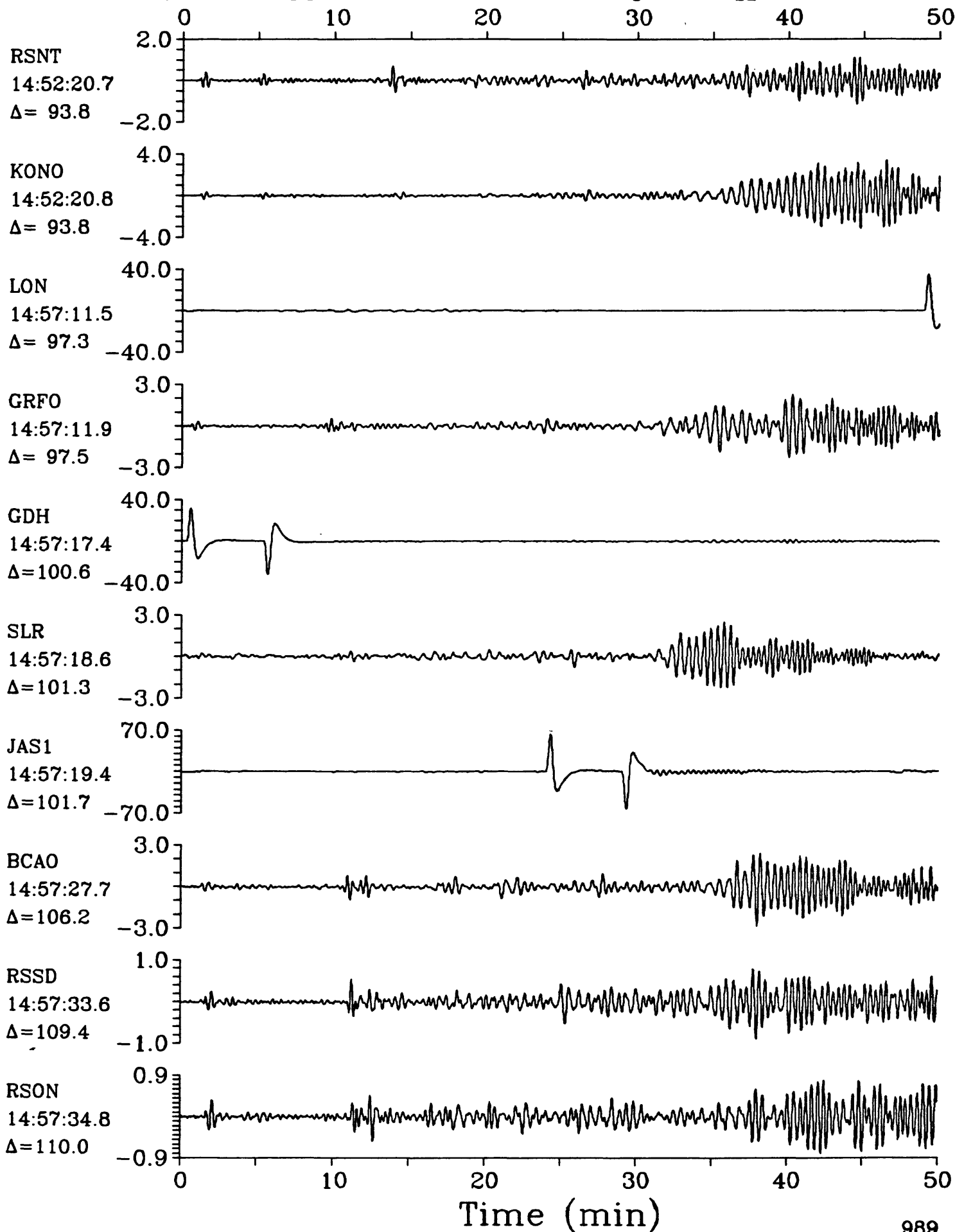
LPZ

Leyte, Philippine Islands  $h=33.0$   $m_b=5.7$   $M_{sz}=5.7$ 

LPZ

03 June 1986 14:40:05.93

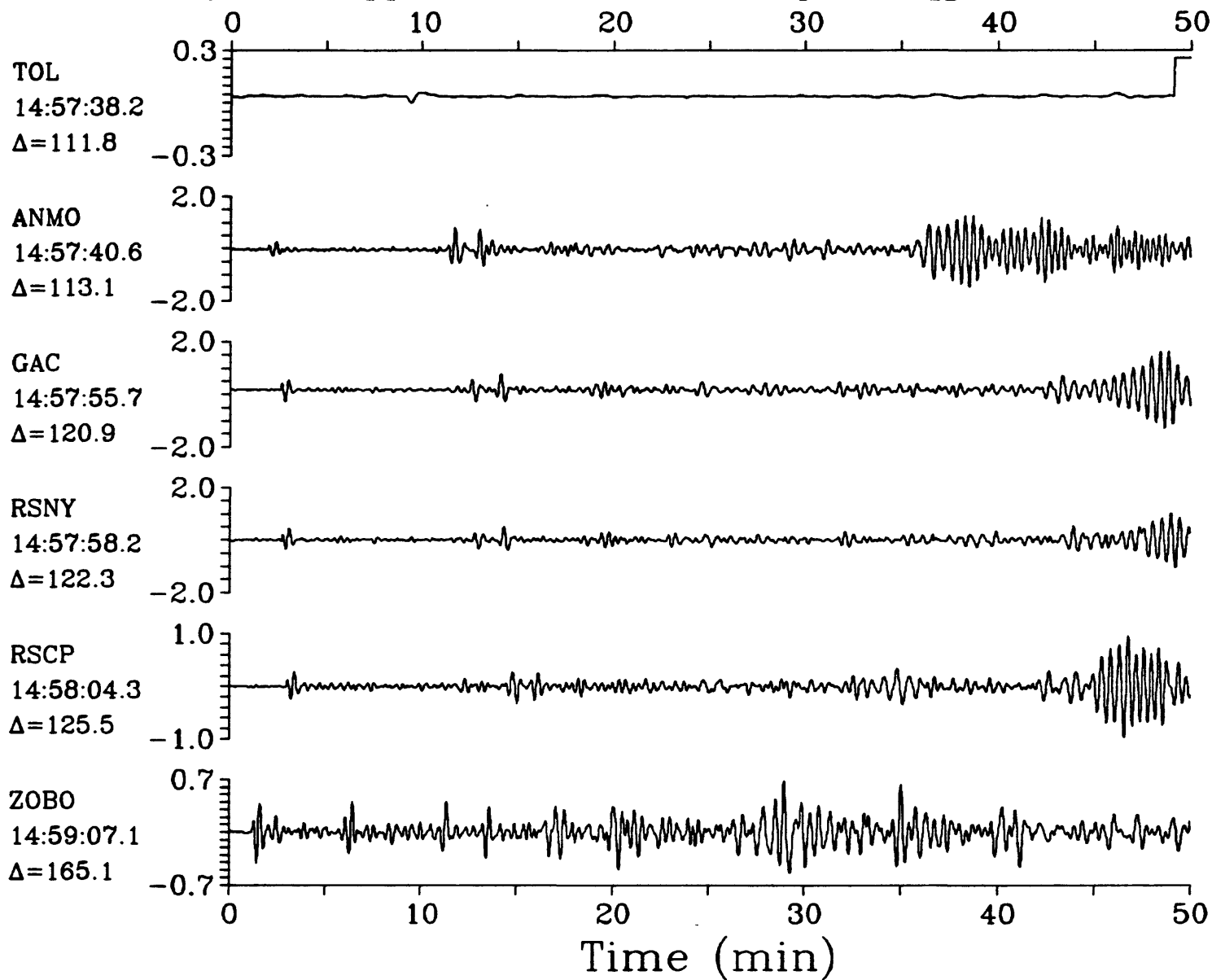
LPZ

Leyte, Philippine Islands  $h=33.0$   $m_b=5.7$   $M_{sz}=5.7$ 

LPZ

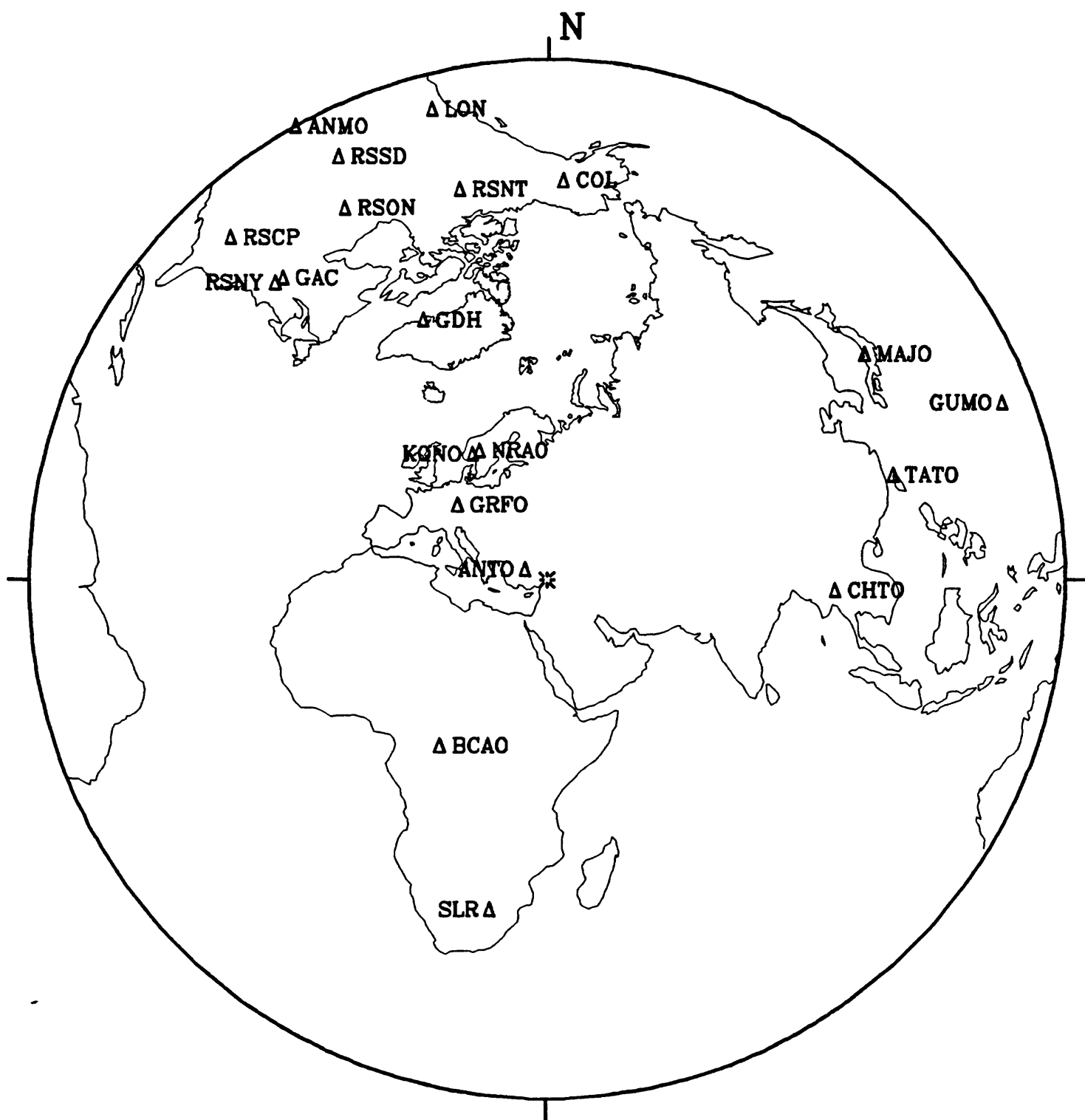
03 June 1986 14:40:05.93

LPZ

Leyte, Philippine Islands  $h=33.0$   $m_b=5.7$   $M_{sz}=5.7$ 

06 June 1986 10:39:46.79

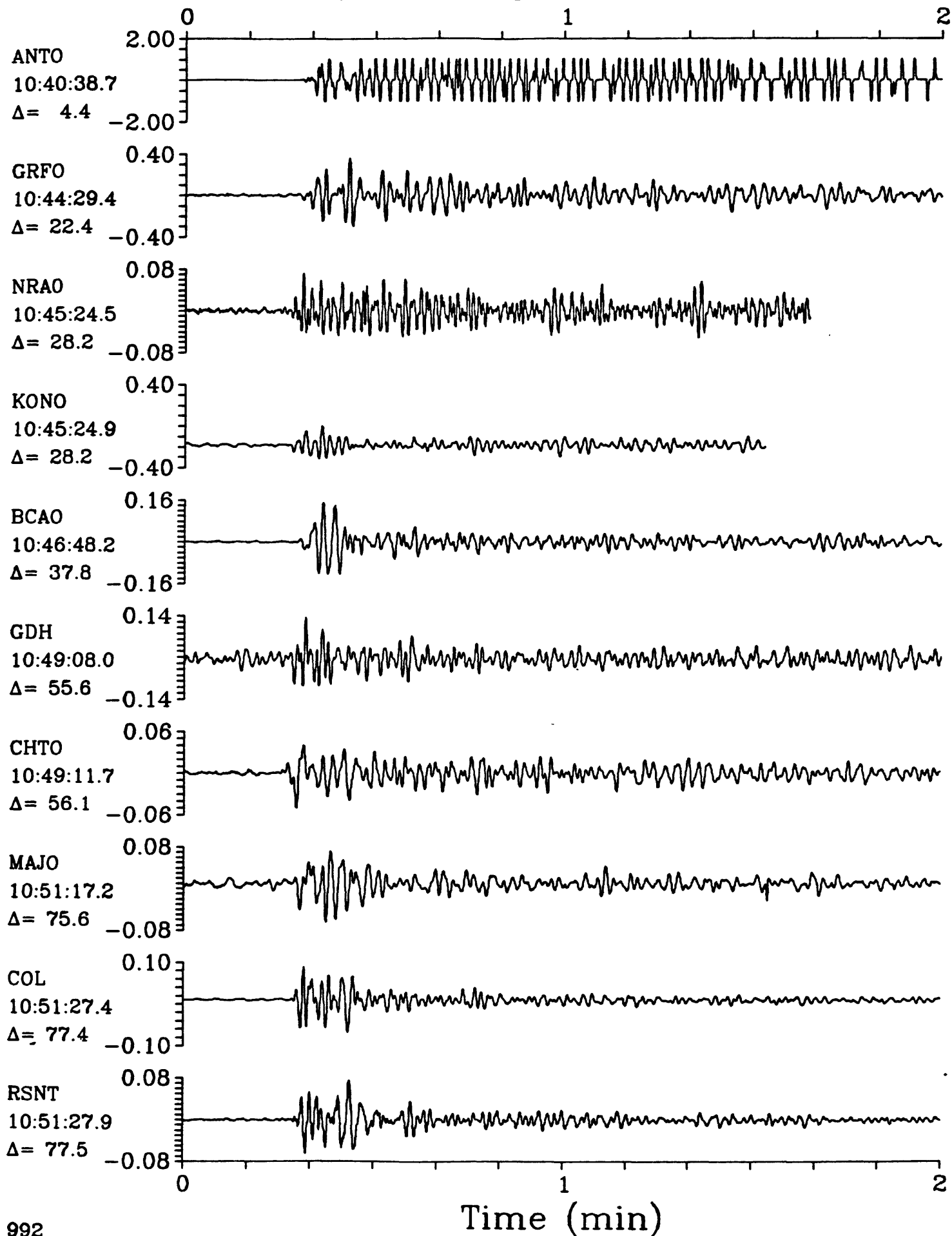
# Turkey



SPZ

06 June 1986 10:39:46.79  
Turkey  $h=10.0$   $m_b=5.6$   $M_{sz}=5.6$ 

SPZ

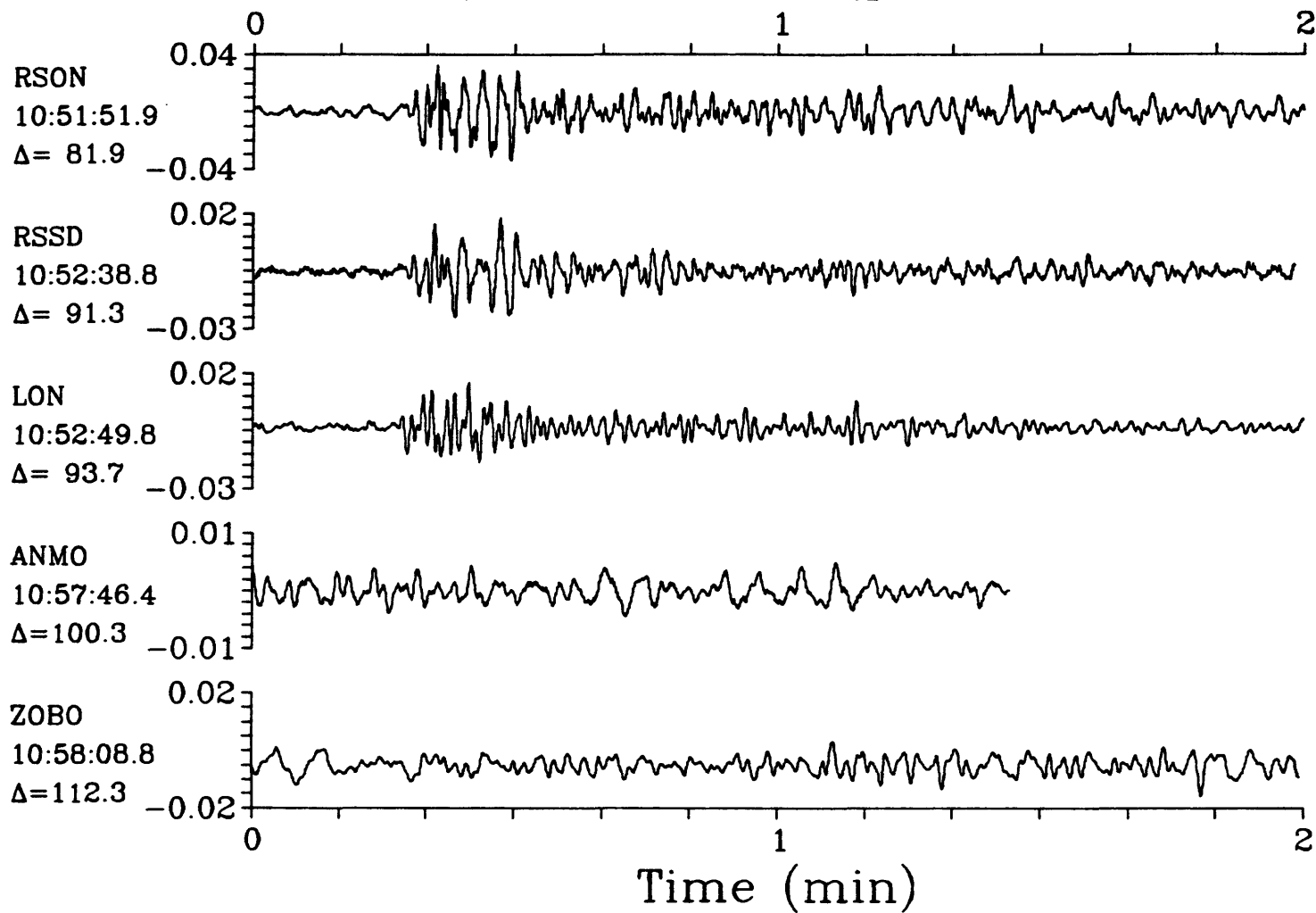




SPZ

06 June 1986 10:39:46.79  
Turkey  $h=10.0$   $m_b=5.6$   $M_{sz}=5.6$ 

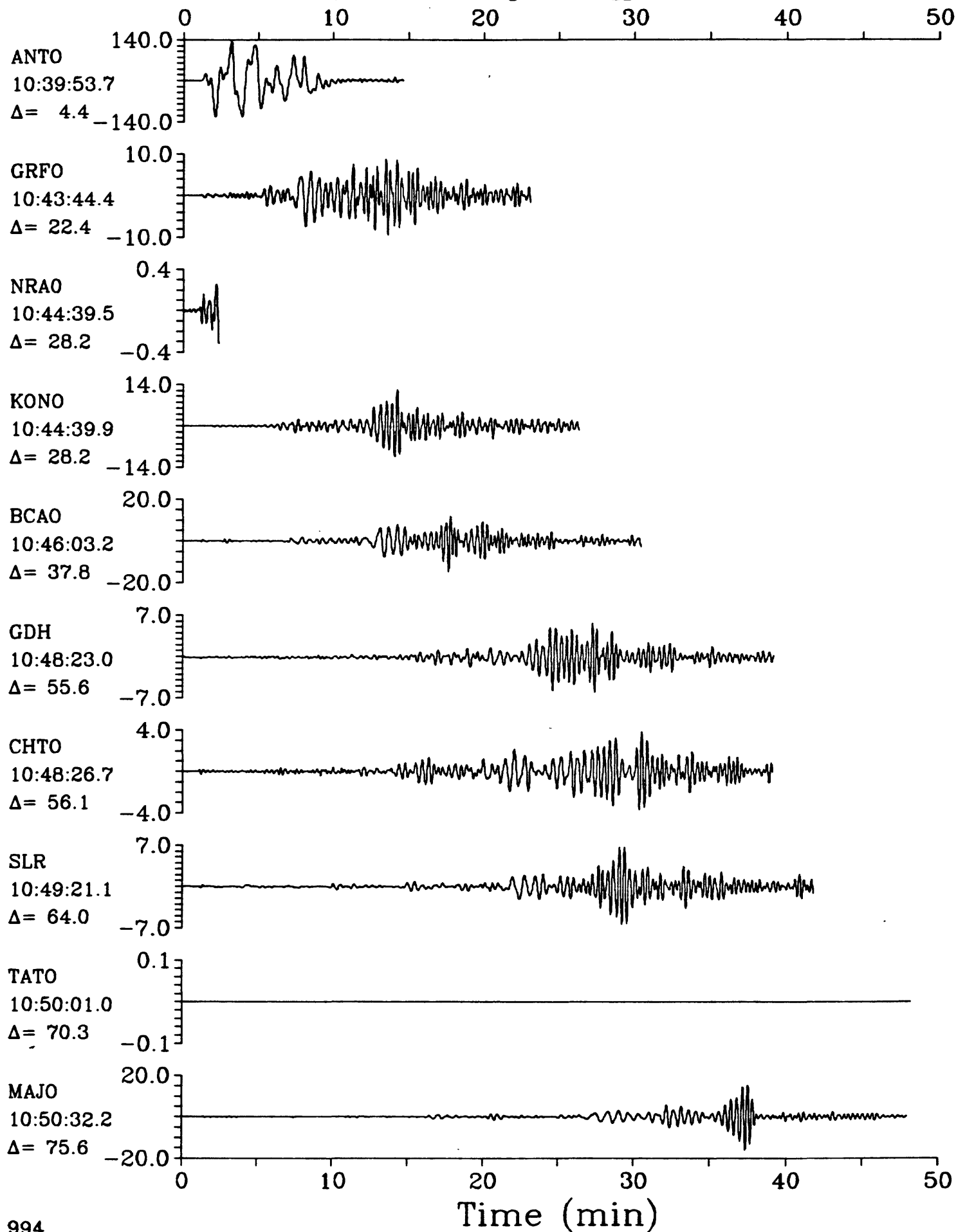
SPZ



LPZ

06 June 1986 10:39:46.79  
Turkey  $h=10.0$   $m_b=5.6$   $M_{sz}=5.6$ 

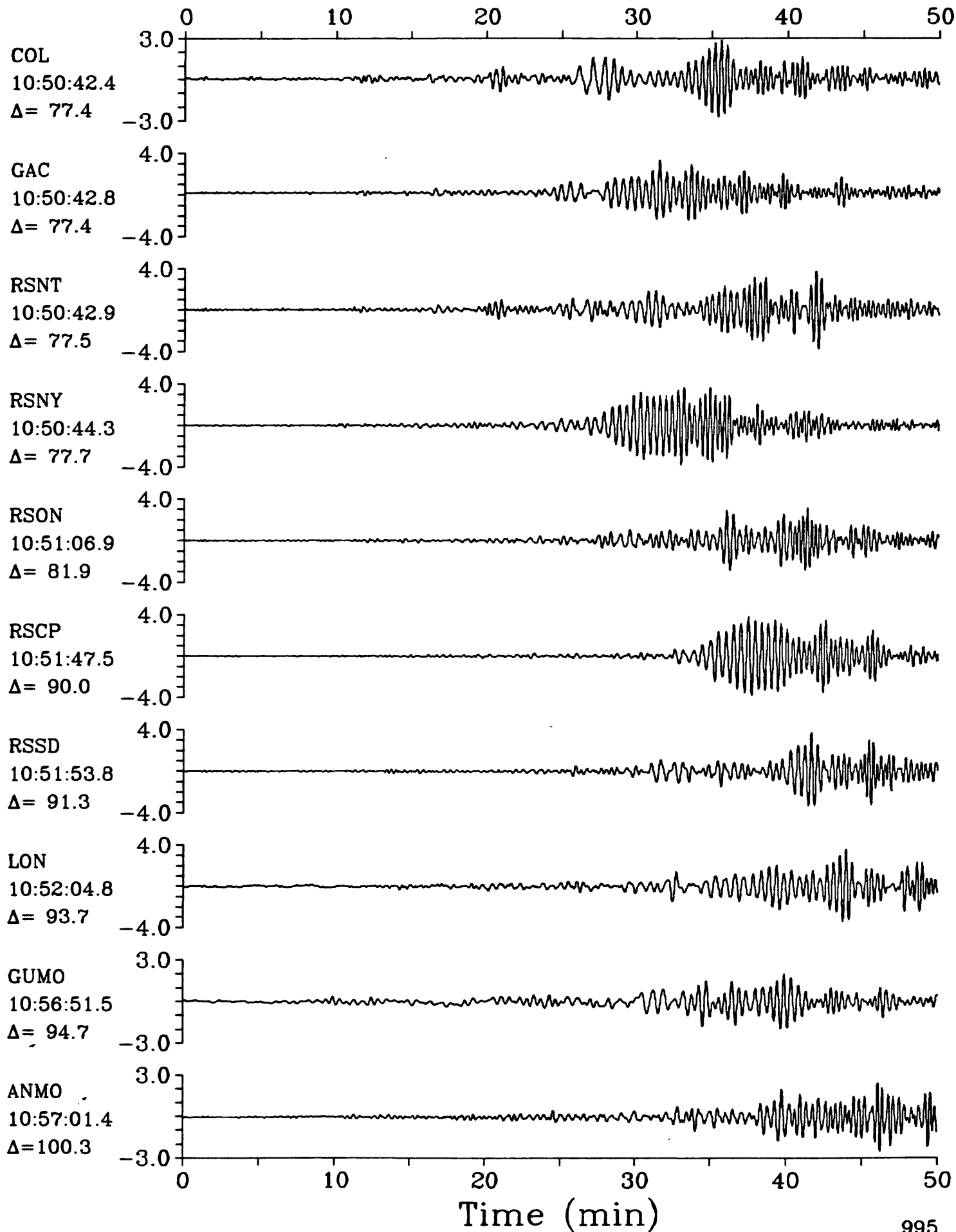
LPZ



LPZ

06 June 1986 10:39:46.79  
Turkey  $h=10.0$   $m_b=5.6$   $M_{sz}=5.6$ 

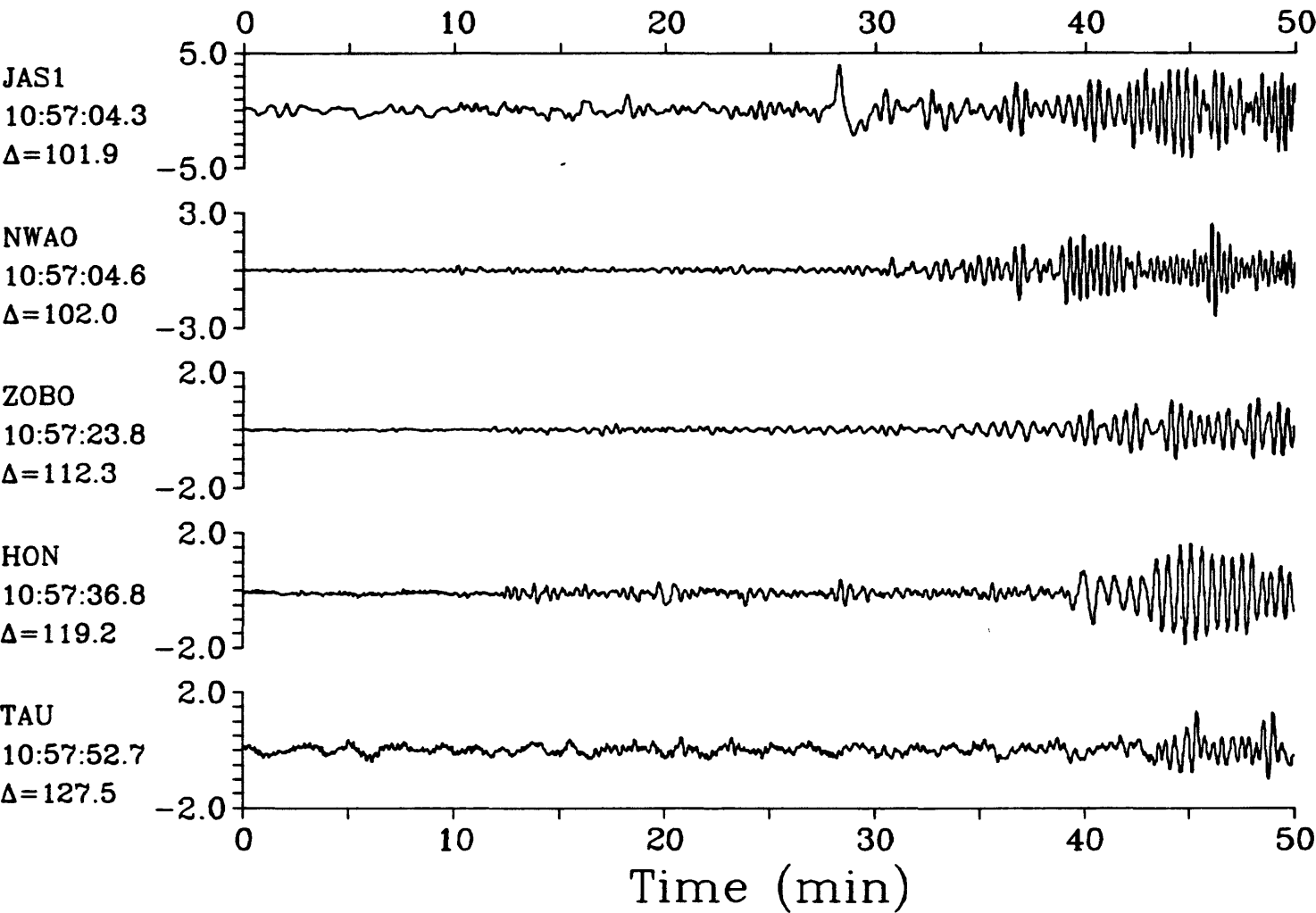
LPZ



LPZ

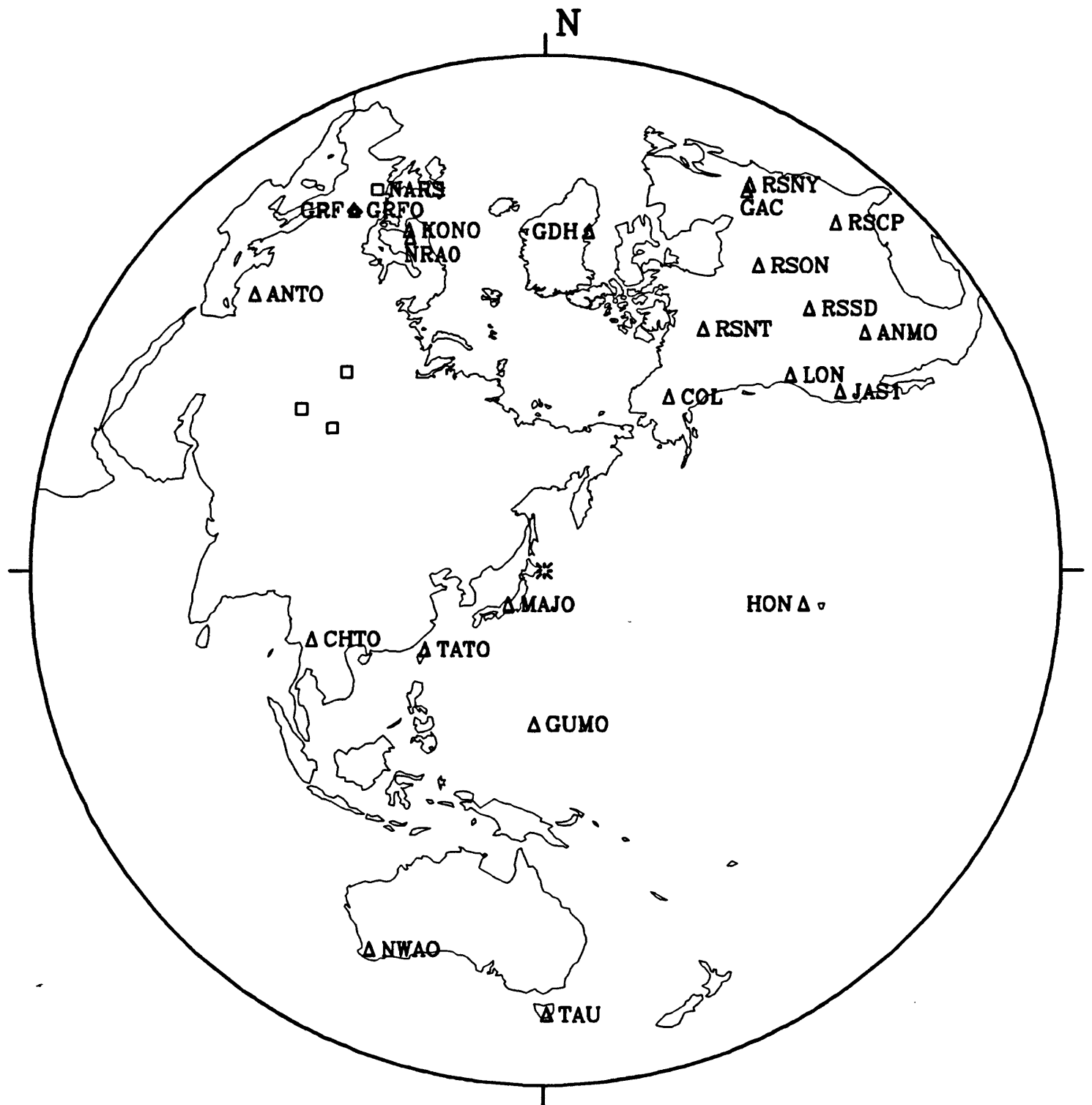
06 June 1986 10:39:46.79  
Turkey  $h=10.0$   $m_b=5.6$   $M_{sz}=5.6$

LPZ



08 June 1986 11:02:26.45

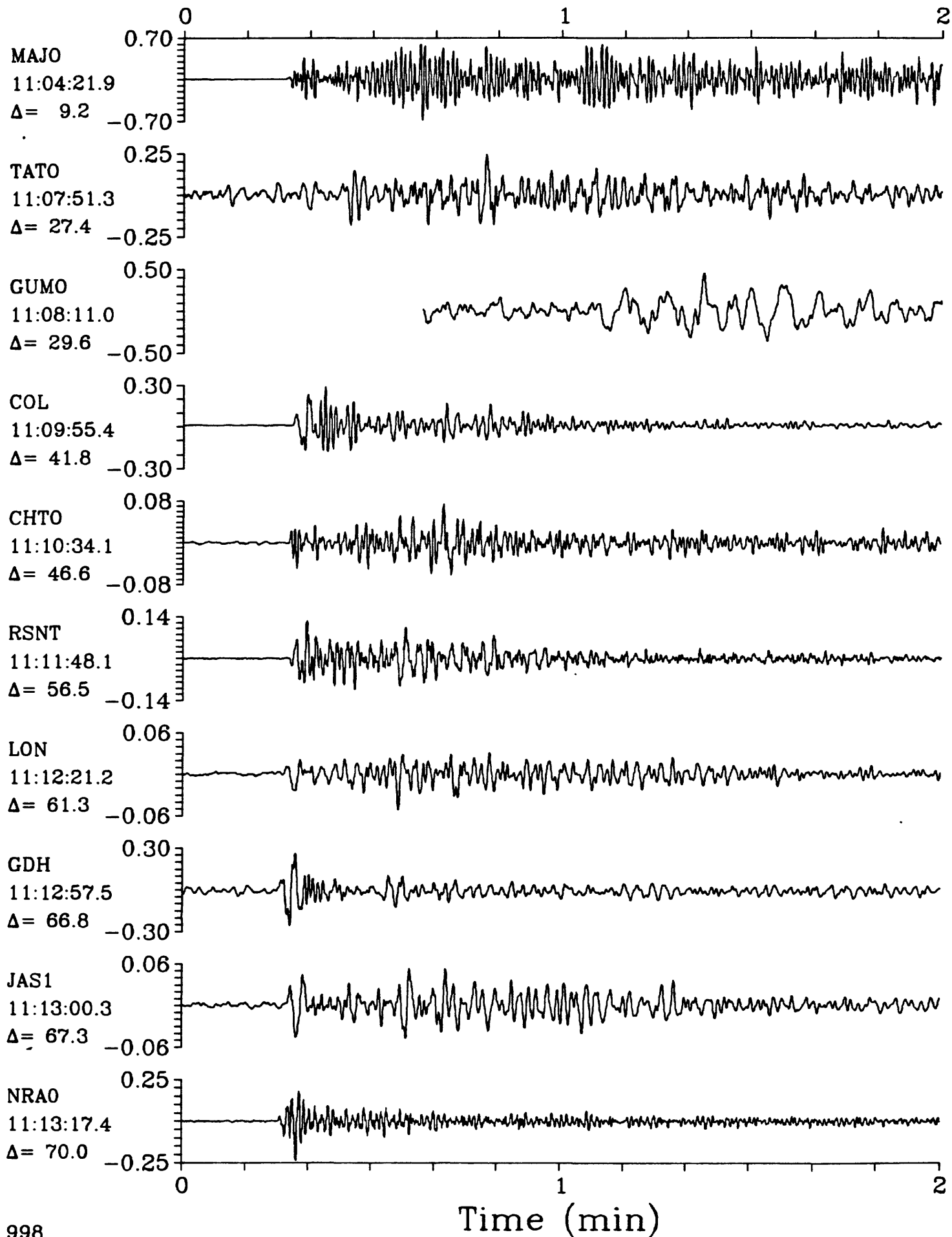
## Kuril Islands



SPZ

08 June 1986 11:02:26.45  
Kuril Islands  $h=60.7$   $m_b=5.9$ 

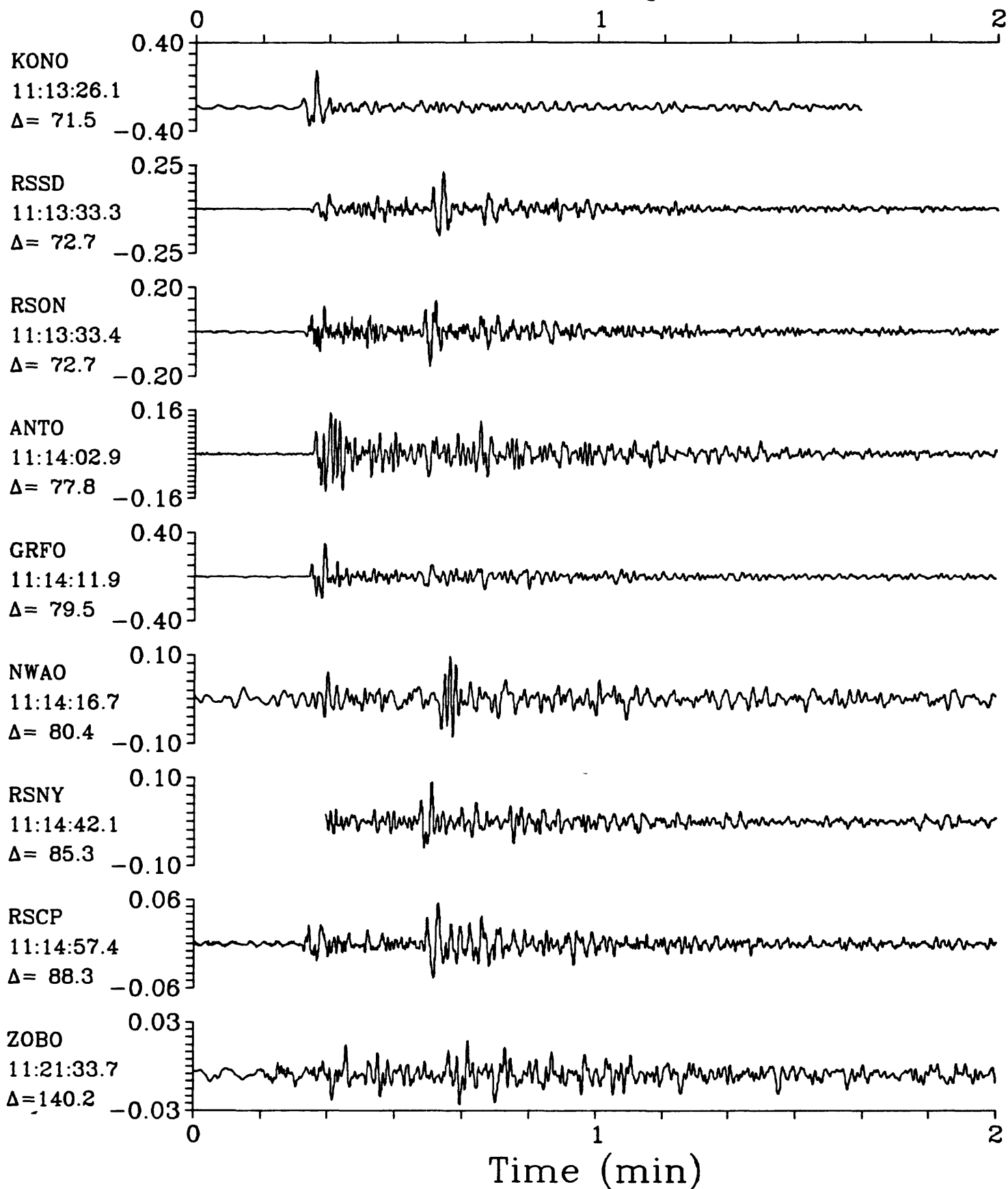
SPZ



SPZ

08 June 1986 11:02:26.45  
Kuril Islands  $h=60.7$   $m_b=5.9$ 

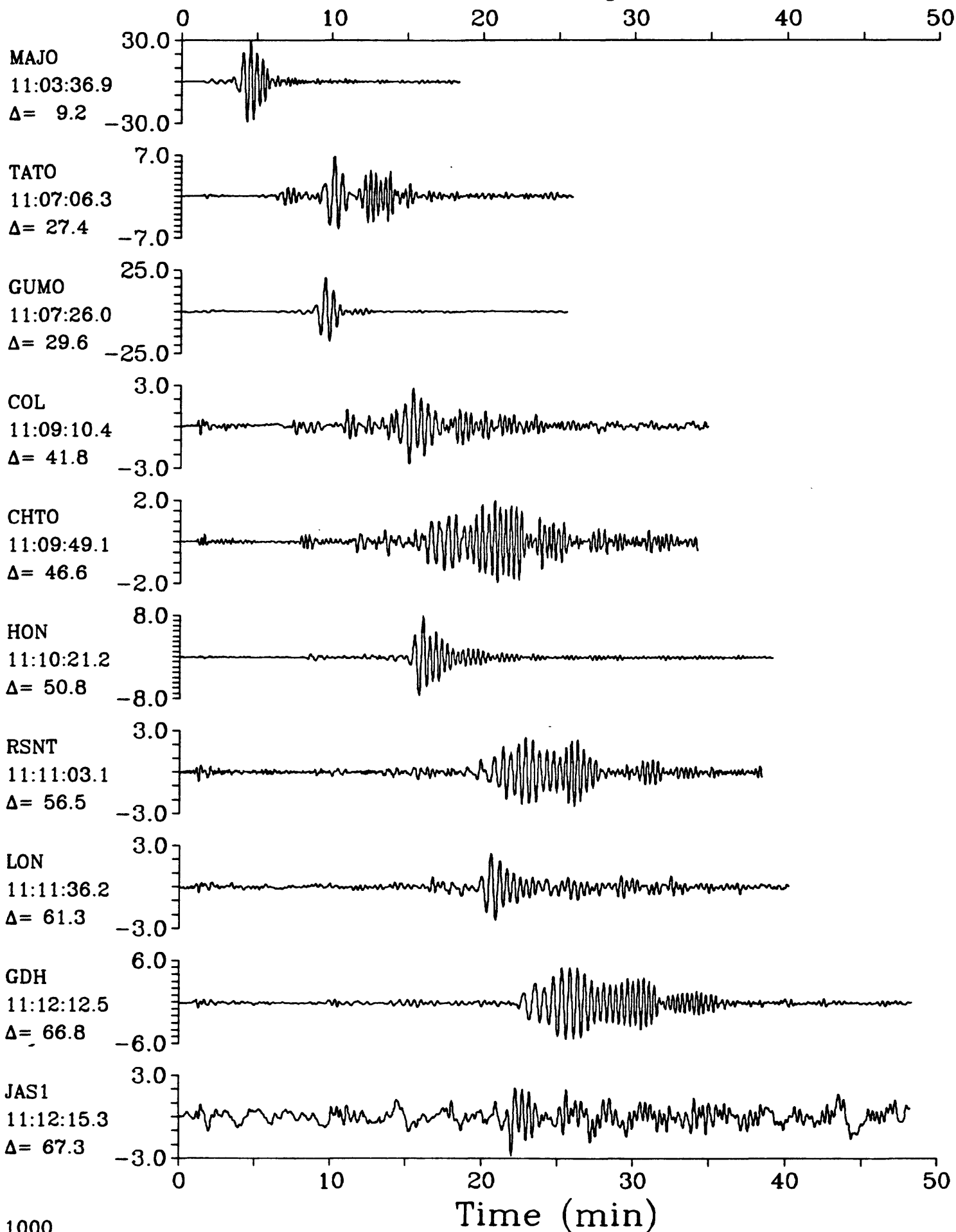
SPZ



LPZ

08 June 1986 11:02:26.45  
Kuril Islands  $h=60.7$   $m_b=5.9$ 

LPZ

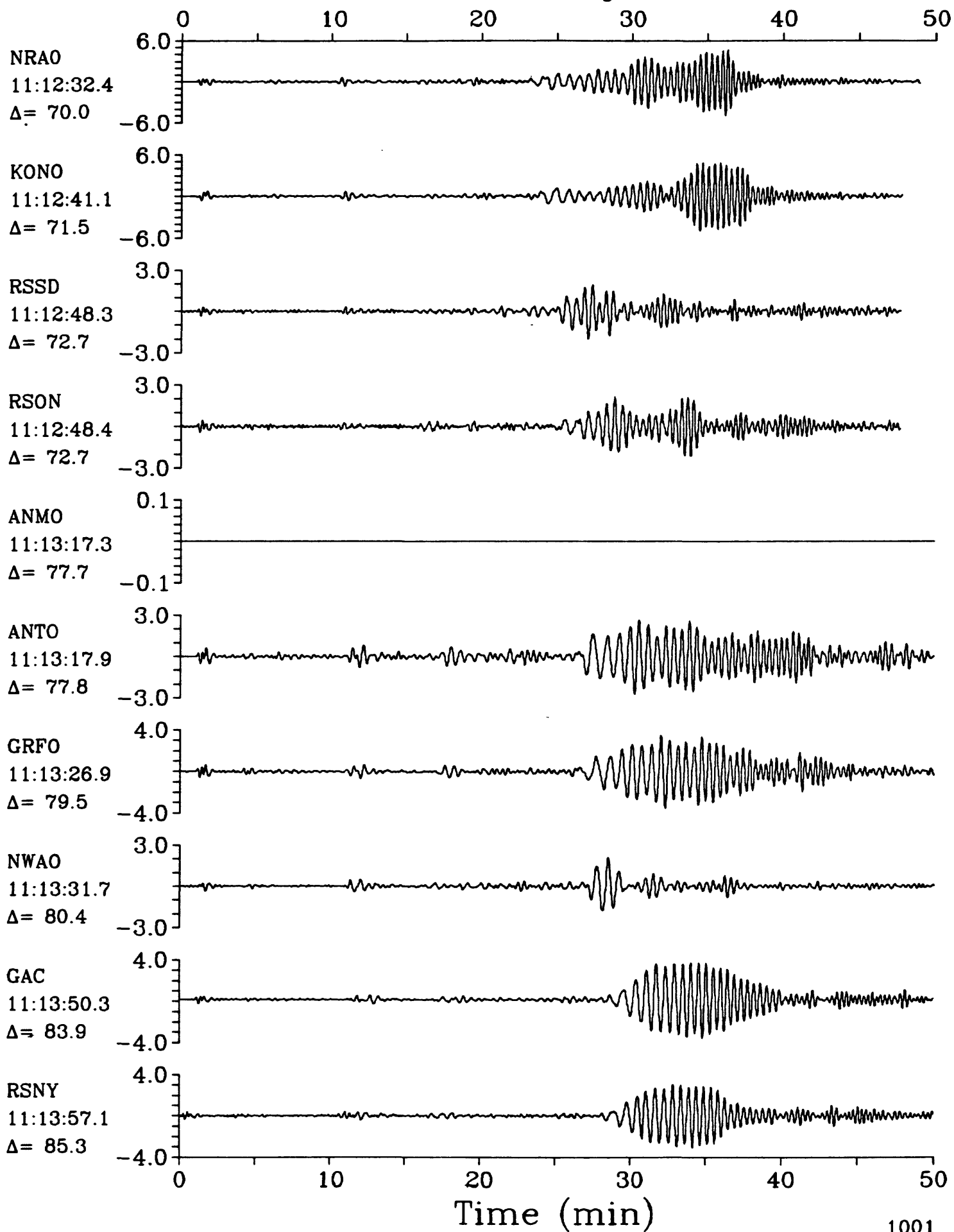




LPZ

08 June 1986 11:02:26.45  
Kuril Islands  $h=60.7$   $m_b=5.9$ 

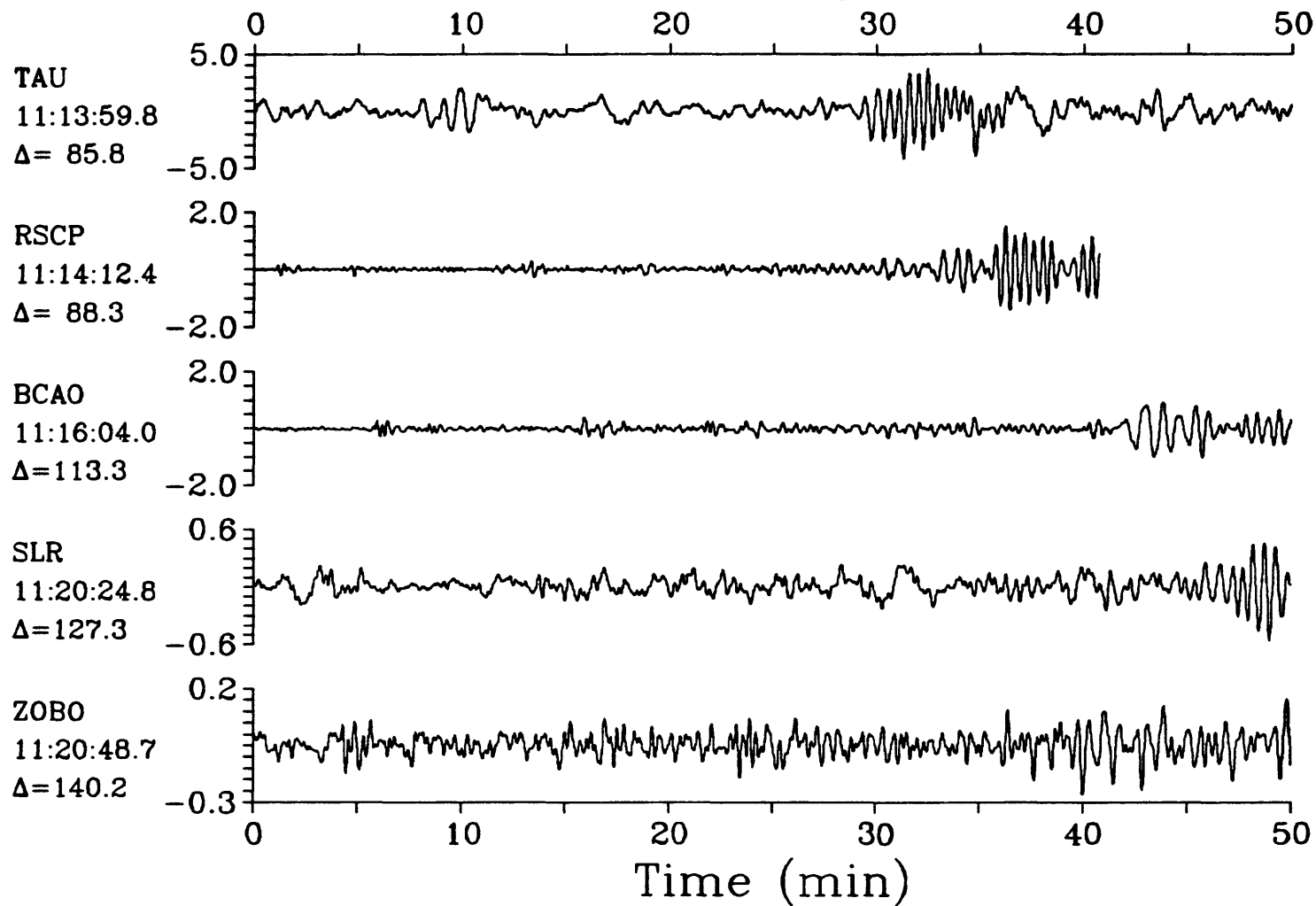
LPZ



LPZ

08 June 1986 11:02:26.45  
Kuril Islands  $h=60.7$   $m_b=5.9$ 

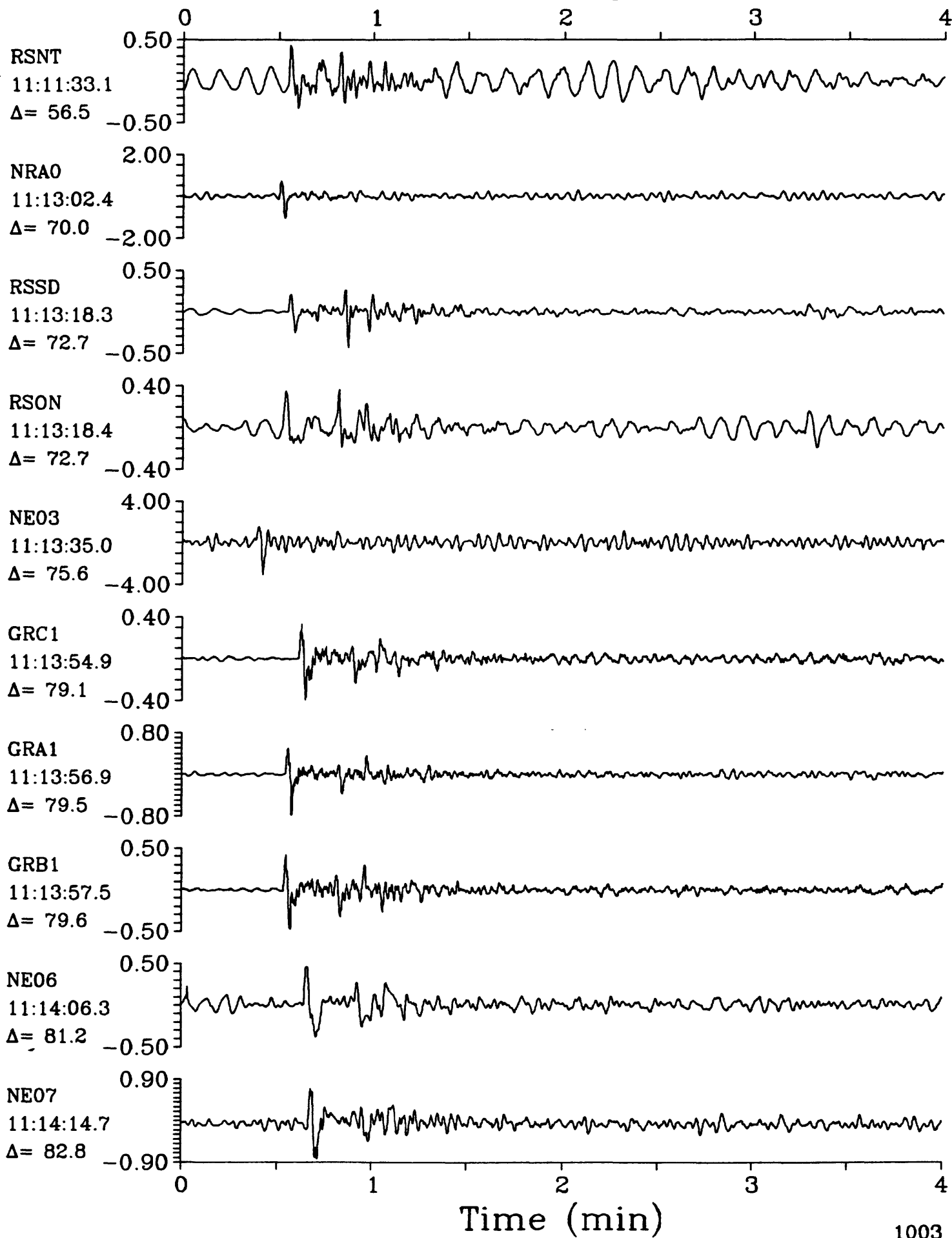
LPZ



IPZ

08 June 1986 11:02:26.45  
Kuril Islands  $h=60.7$   $m_b=5.9$ 

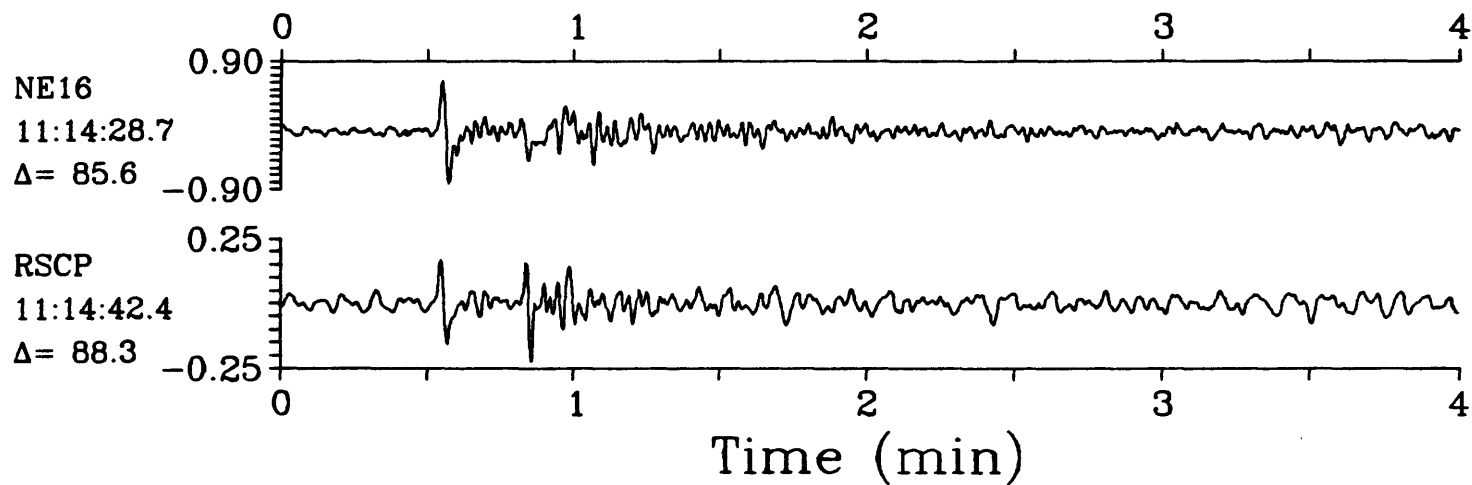
IPZ



IPZ

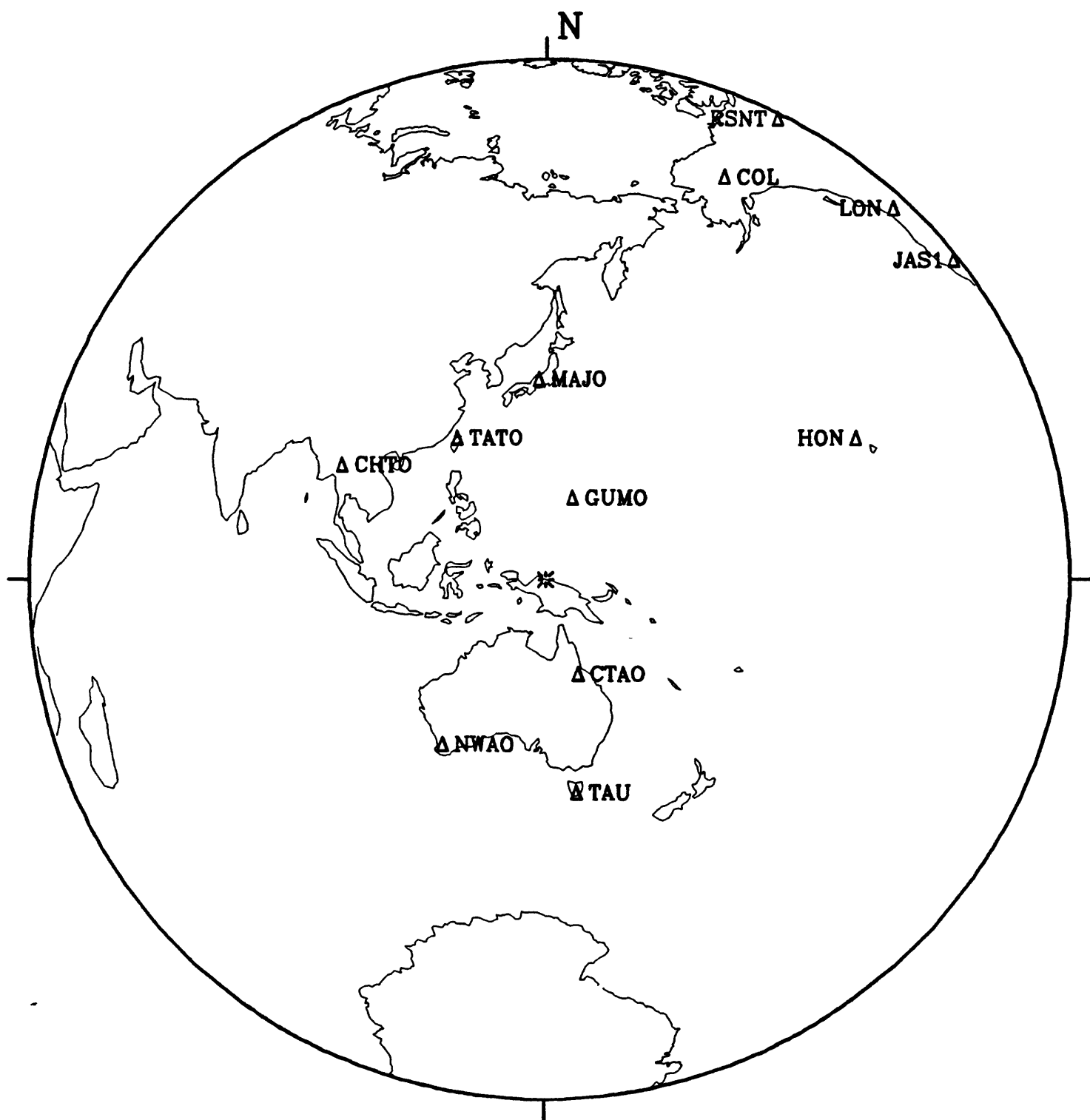
08 June 1986 11:02:26.45  
Kuril Islands  $h=60.7$   $m_b=5.9$ 

IPZ



11 June 1986 02:59:01.19

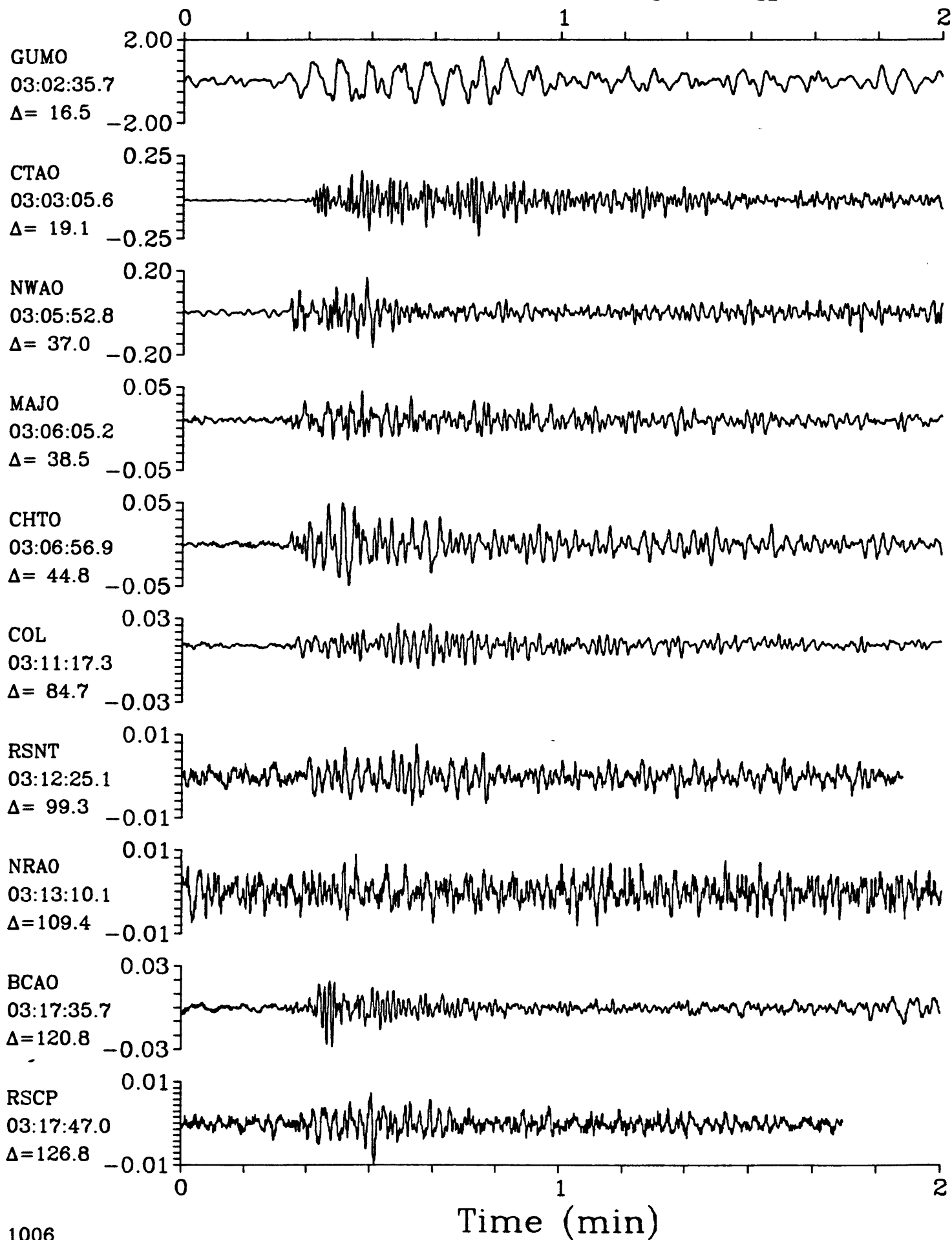
Near N. Coast of West Irian



SPZ

11 June 1986 02:59:01.19

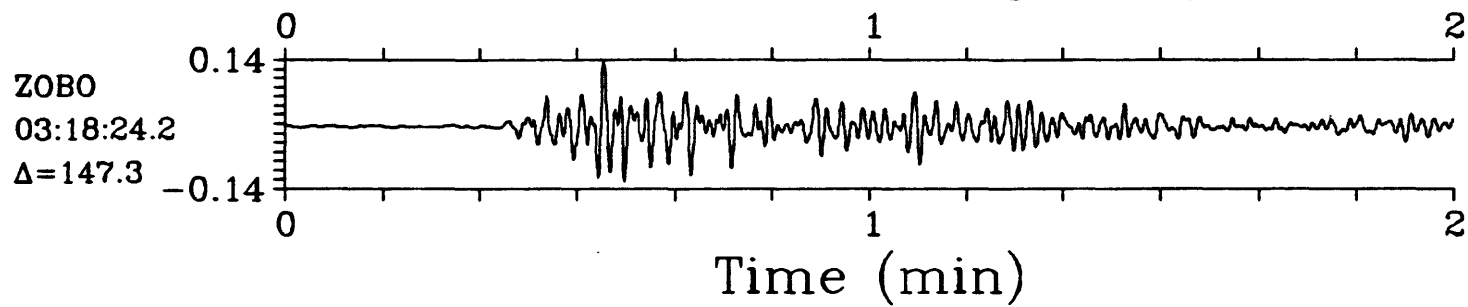
SPZ

Near N. Coast of West Irian  $h=33.0$   $m_b=5.4$   $M_{SZ}=5.8$ 

SPZ

11 June 1986 02:59:01.19

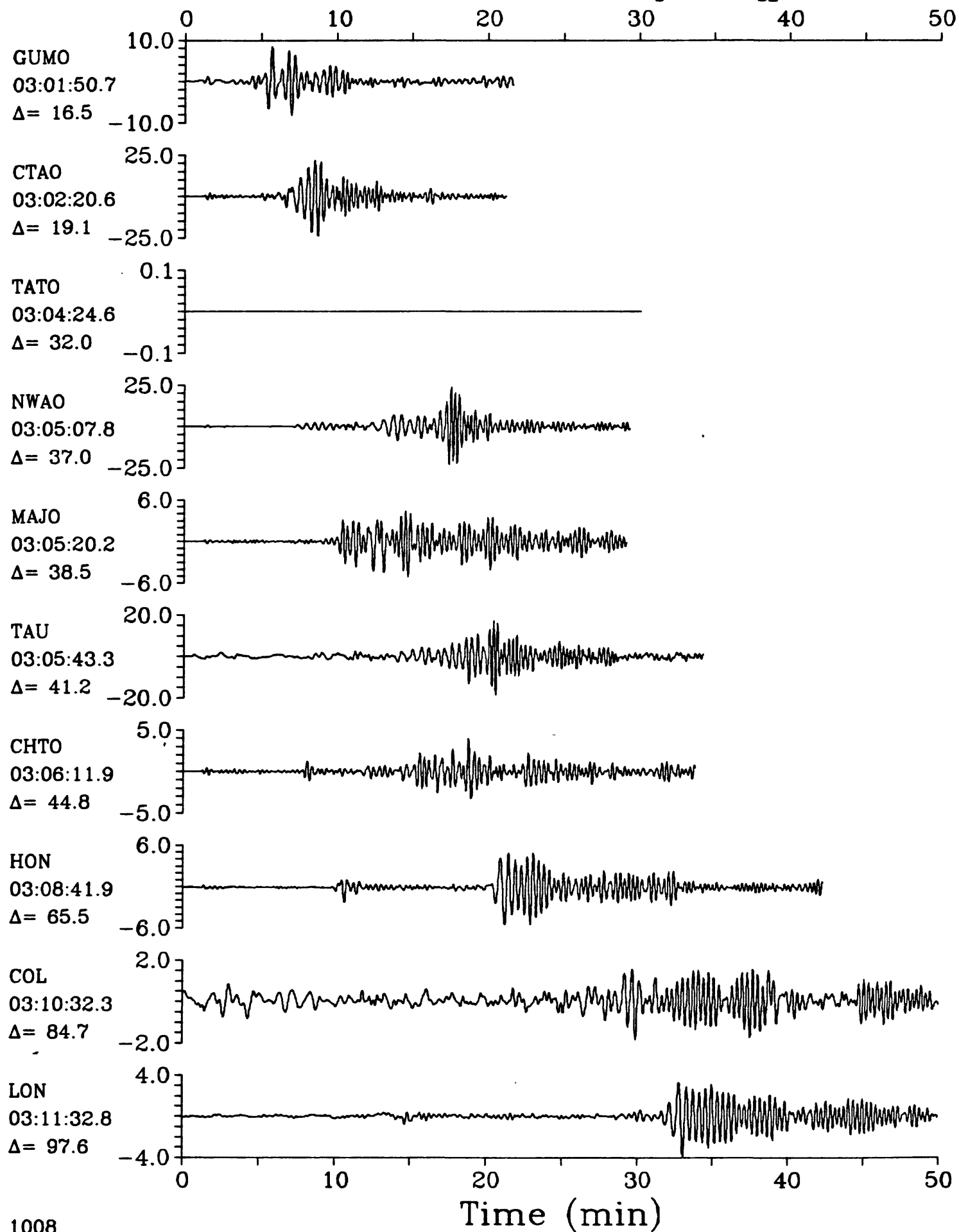
SPZ

Near N. Coast of West Irian  $h=33.0$   $m_b=5.4$   $M_{sz}=5.8$ 

LPZ

11 June 1986 02:59:01.19

LPZ

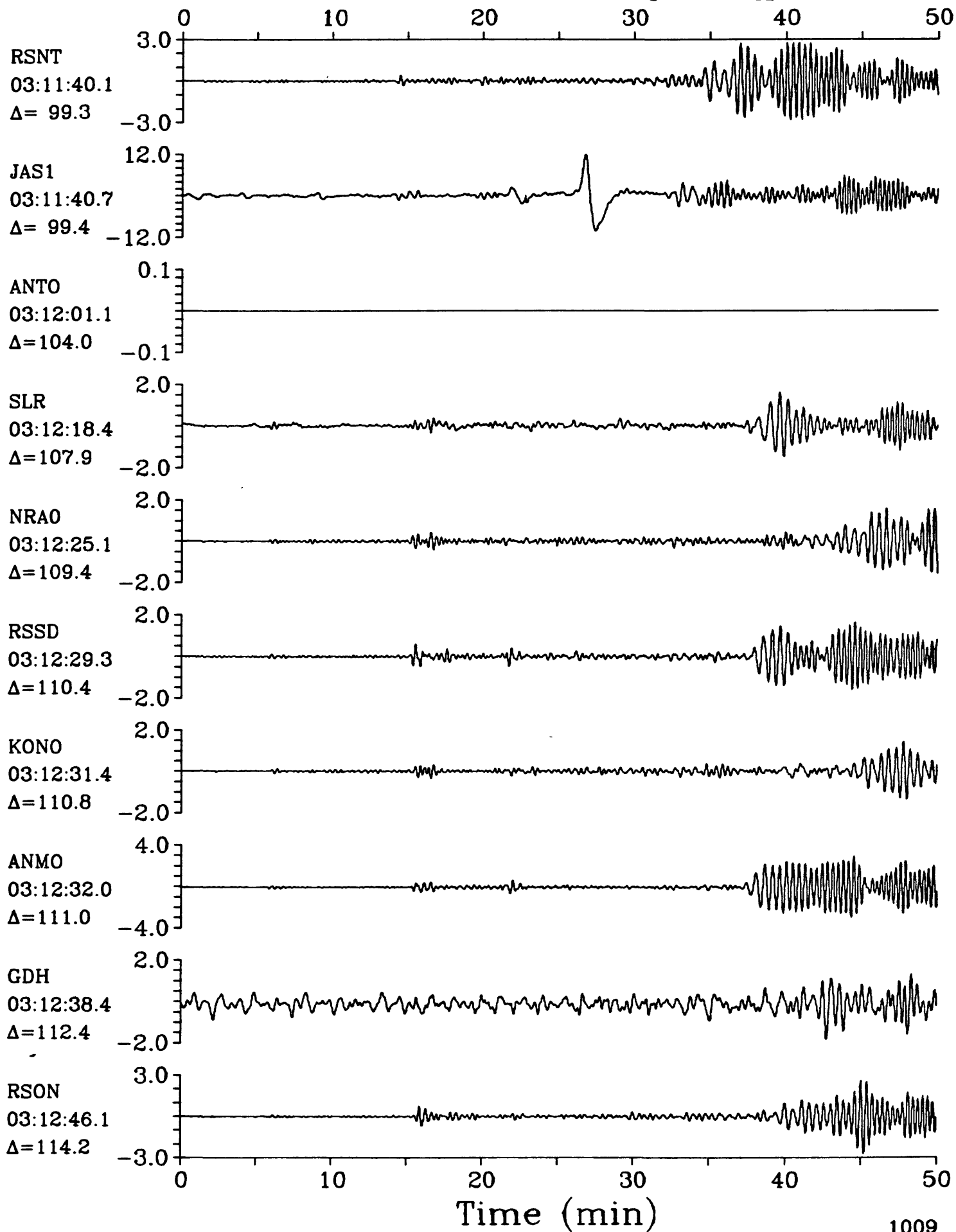
Near N. Coast of West Irian  $h=33.0$   $m_b=5.4$   $M_{sz}=5.8$ 



LPZ

11 June 1986 02:59:01.19

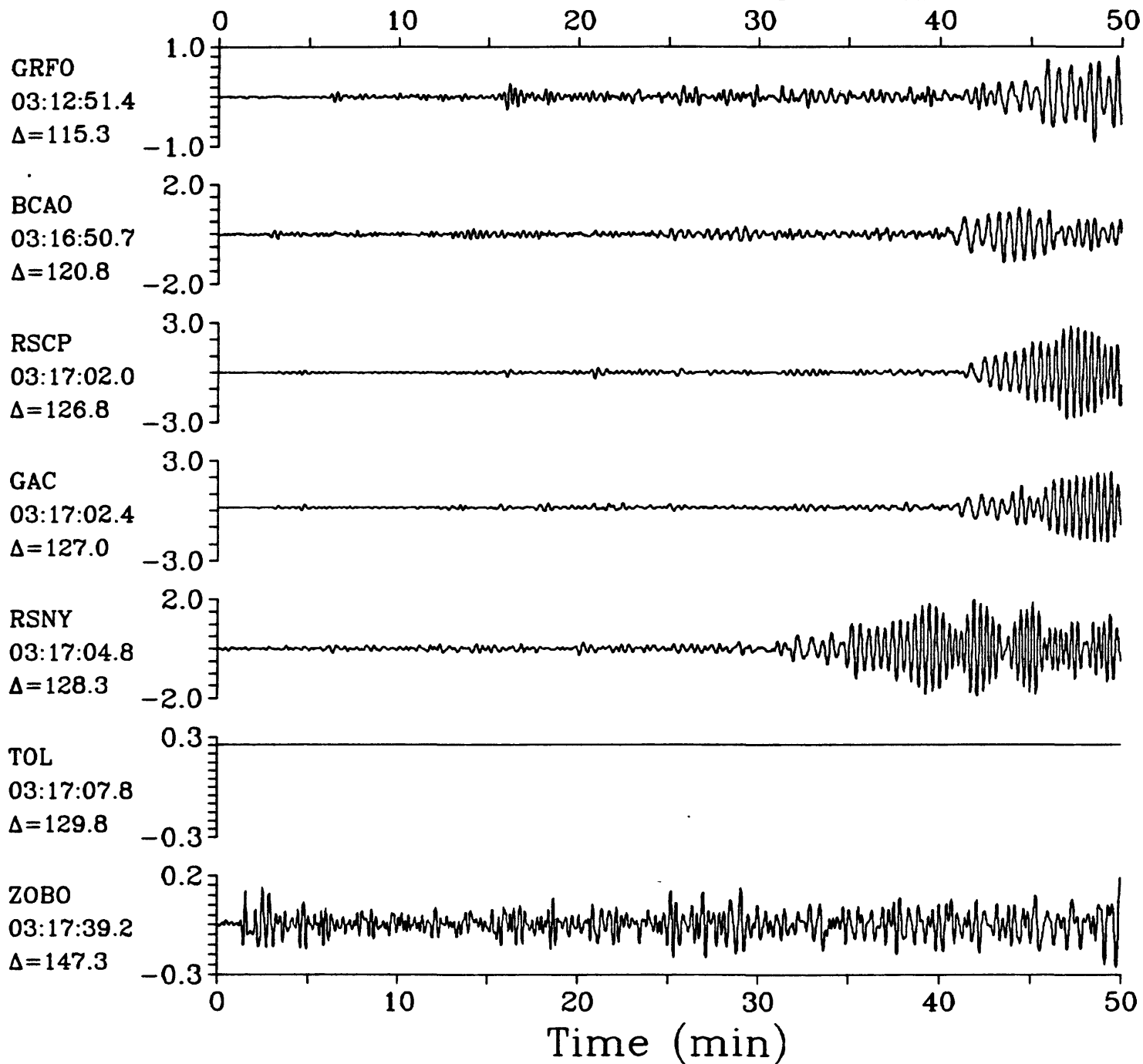
LPZ

Near N. Coast of West Irian  $h=33.0$   $m_b=5.4$   $M_{sz}=5.8$ 

LPZ

11 June 1986 02:59:01.19

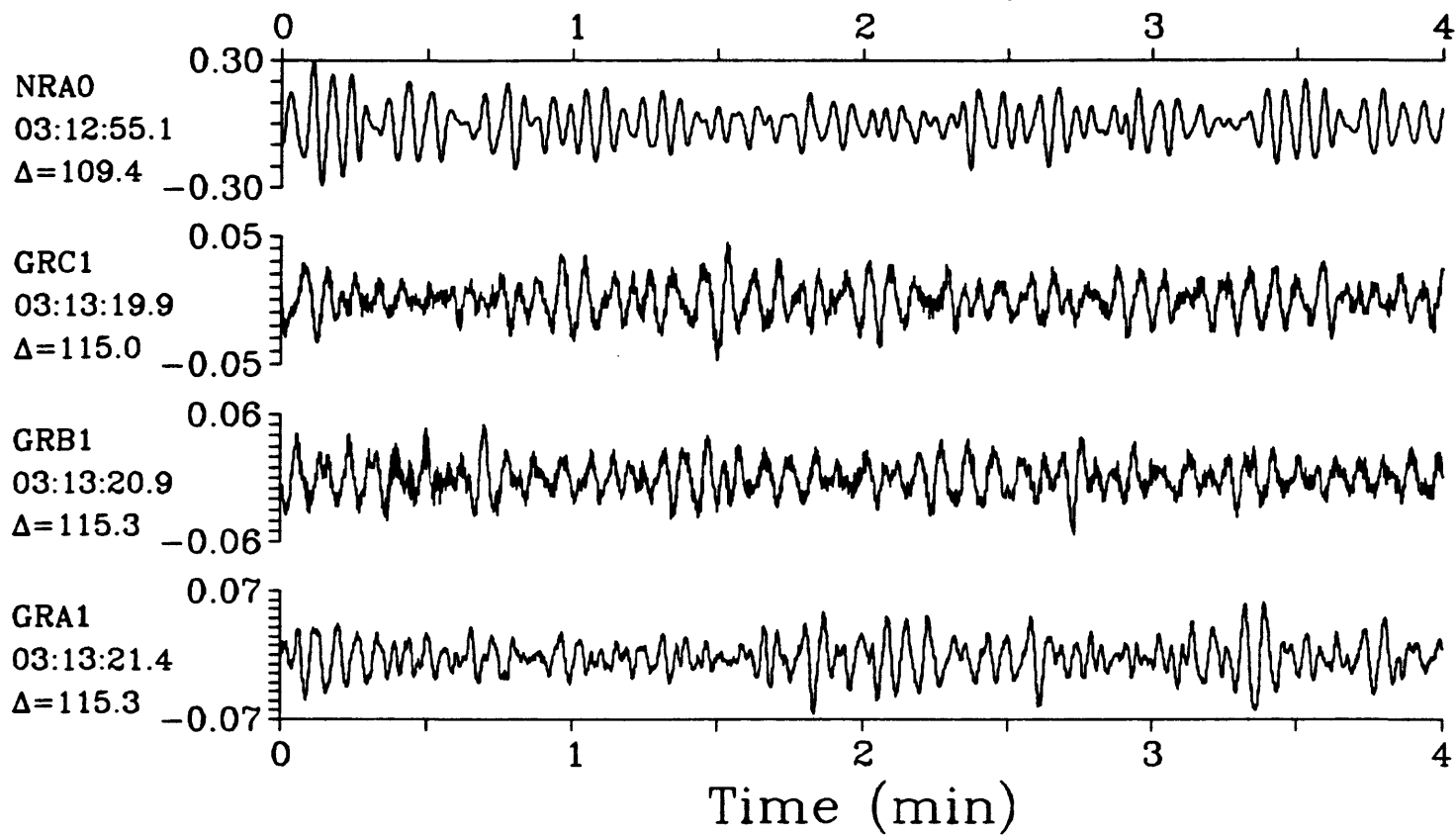
LPZ

Near N. Coast of West Irian  $h=33.0$   $m_b=5.4$   $M_{sz}=5.8$ 

IPZ

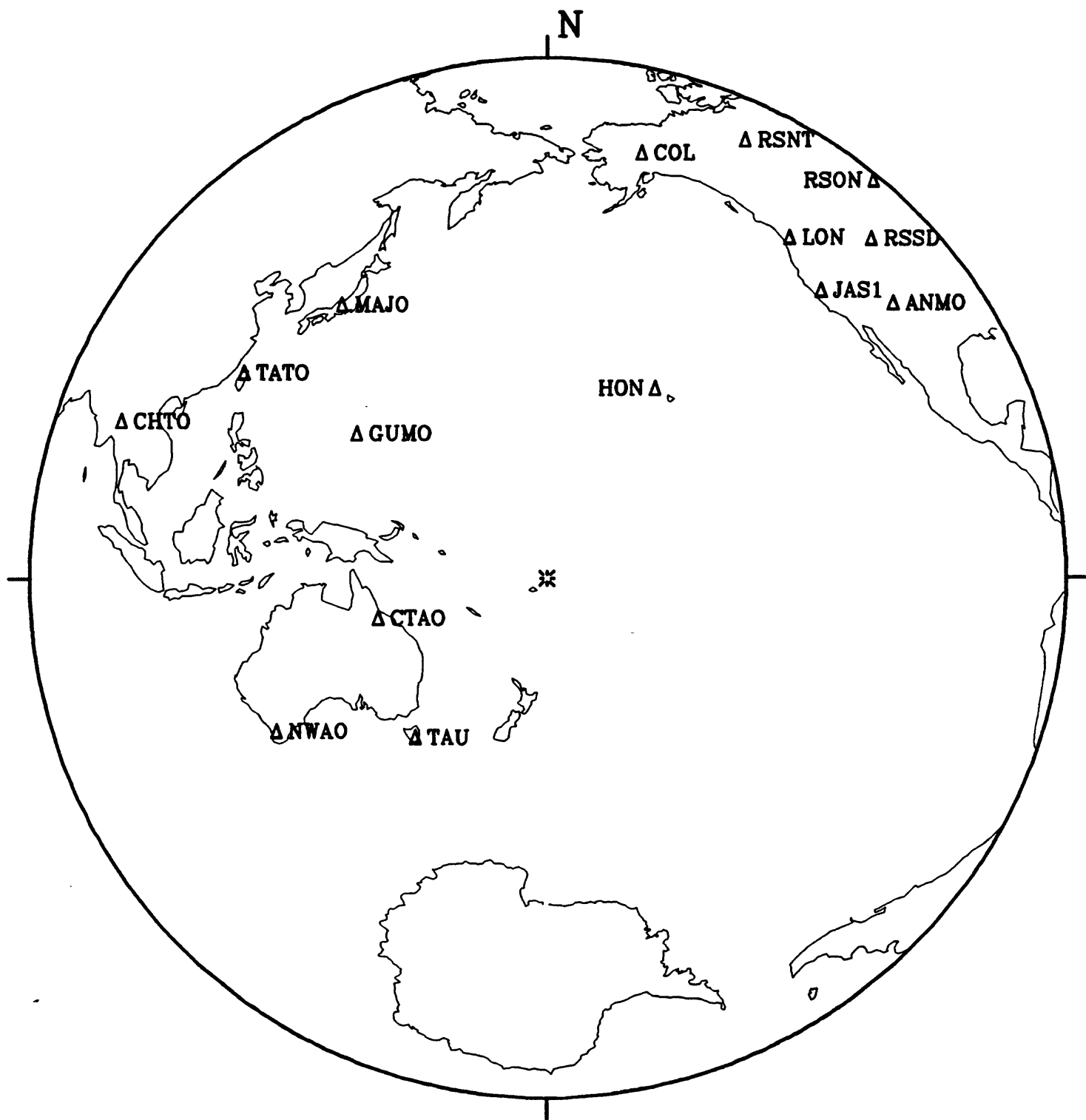
11 June 1986 02:59:01.19

IPZ

Near N. Coast of West Irian  $h=33.0$   $m_b=5.4$   $M_{sz}=5.8$ 

11 June 1986 06:18:19.70

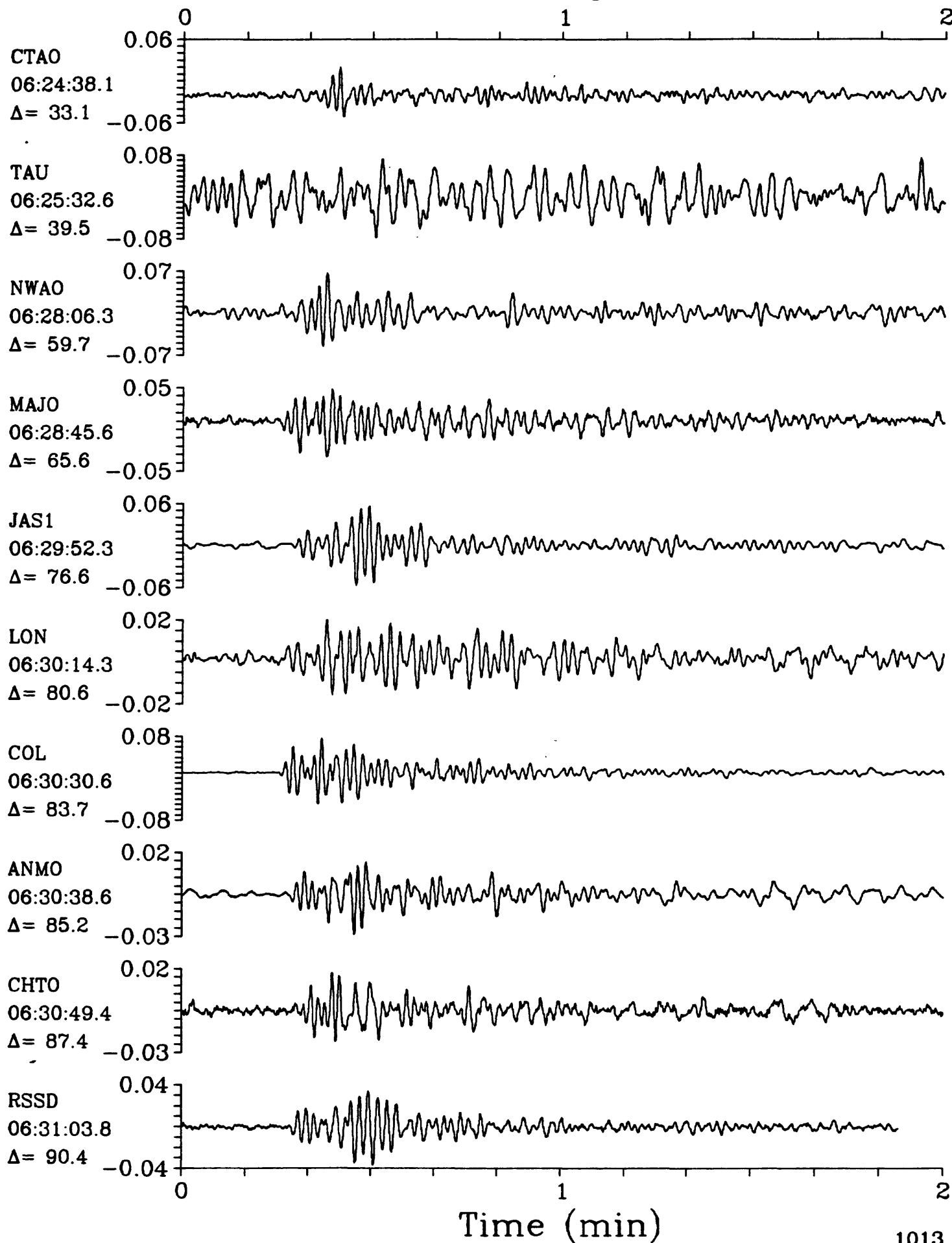
## Fiji Islands Region



SPZ

11 June 1986 06:18:19.70

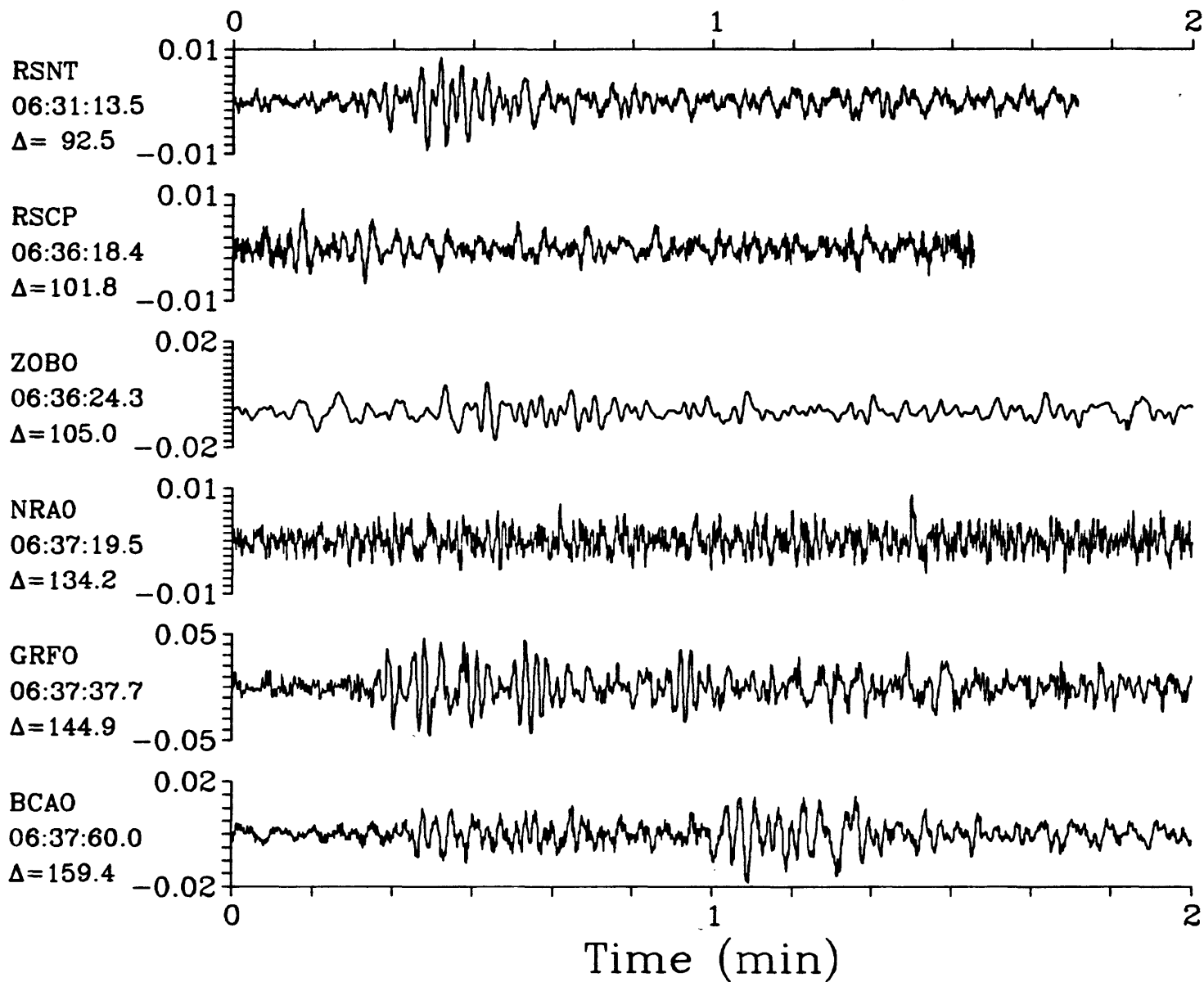
SPZ

Fiji Islands Region  $h=33.0$   $m_b=5.6$   $M_{sz}=5.7$ 

SPZ

11 June 1986 06:18:19.70

SPZ

Fiji Islands Region  $h=33.0$   $m_b=5.6$   $M_{sz}=5.7$ 

LPZ

11 June 1986 06:18:19.70

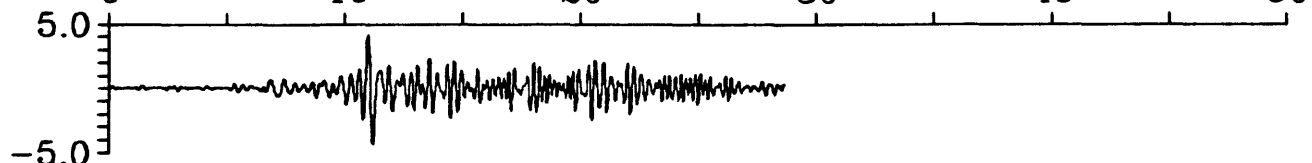
LPZ

Fiji Islands Region  $h=33.0$   $m_b=5.6$   $M_{sz}=5.7$ 

0 10 20 30 40 50

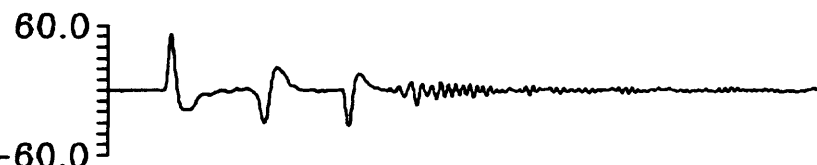
CTAO

06:23:53.1

 $\Delta = 33.1$ 

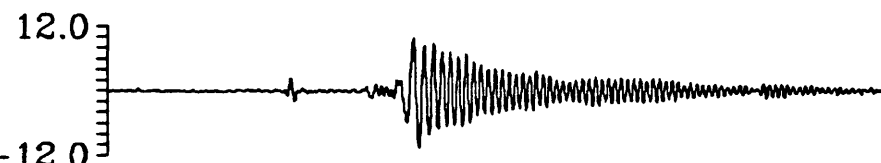
TAU

06:24:47.6

 $\Delta = 39.5$ 

HON

06:25:09.2

 $\Delta = 42.1$ 

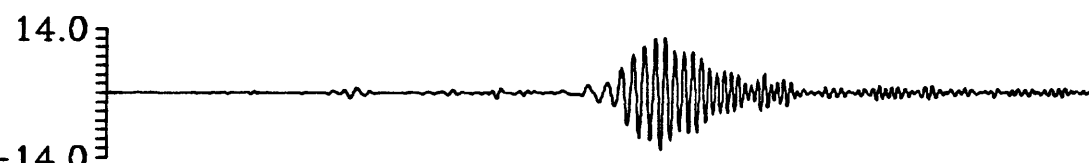
GUMO

06:25:38.8

 $\Delta = 45.8$ 

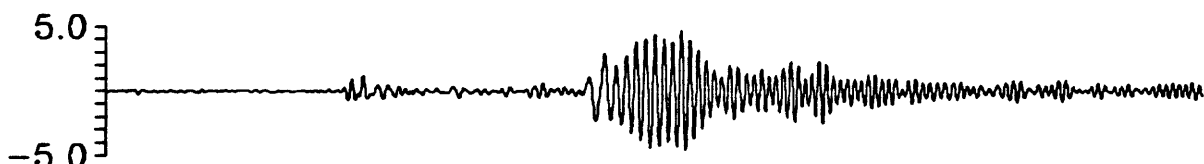
NWA0

06:27:21.3

 $\Delta = 59.7$ 

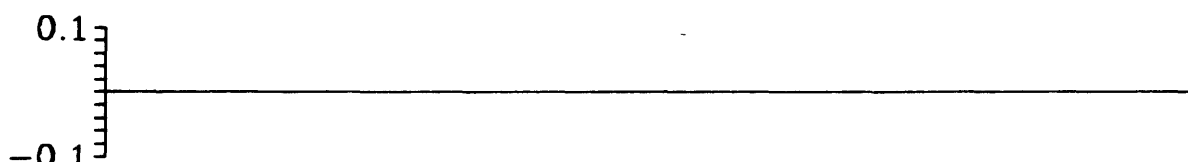
MAJO

06:28:00.6

 $\Delta = 65.6$ 

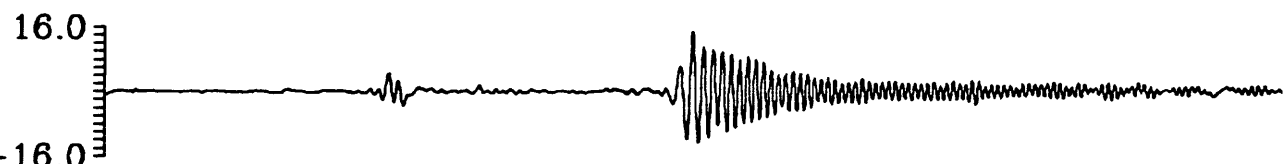
TATO

06:28:31.2

 $\Delta = 70.4$ 

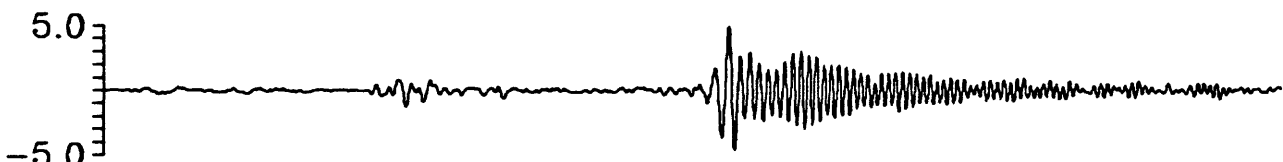
JAS1

06:29:07.3

 $\Delta = 76.6$ 

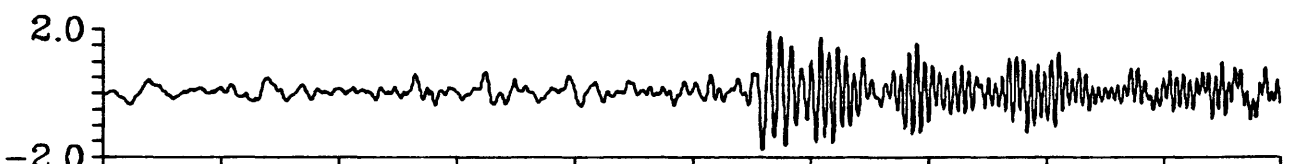
LON

06:29:29.3

 $\Delta = 80.6$ 

COL

06:29:45.6

 $\Delta = 83.7$ 

Time (min)

1015

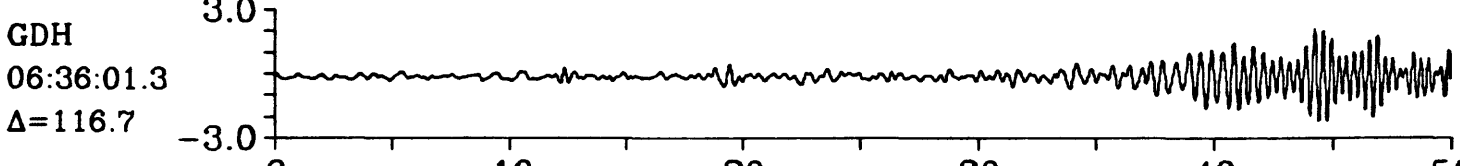
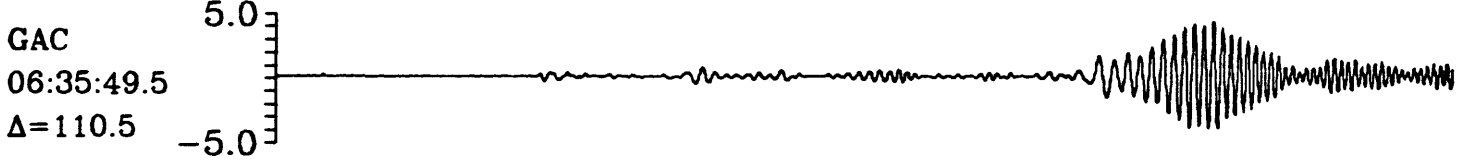
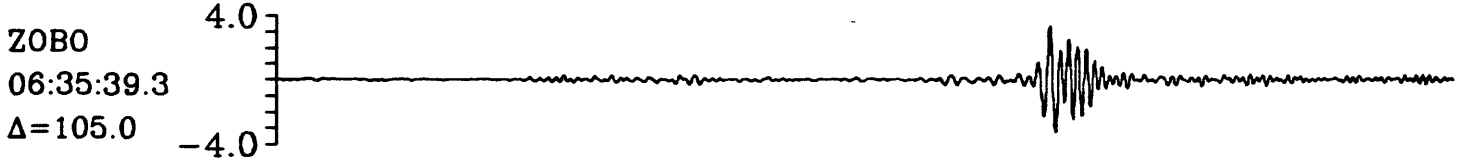
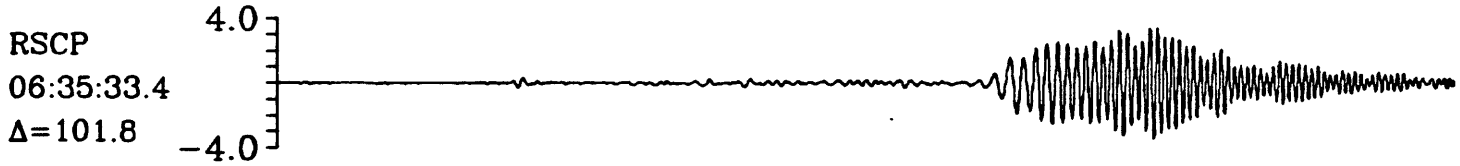
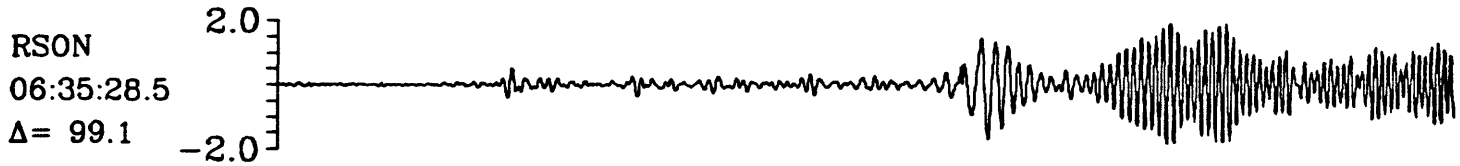
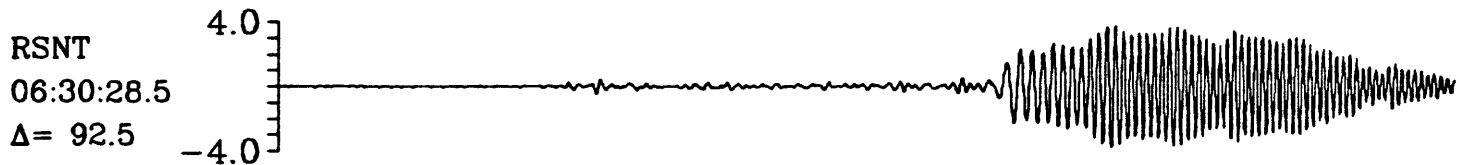
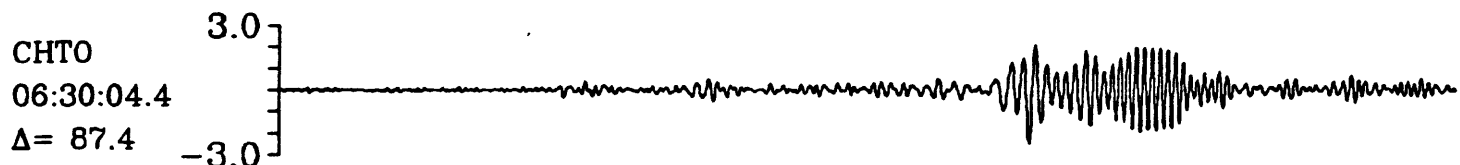
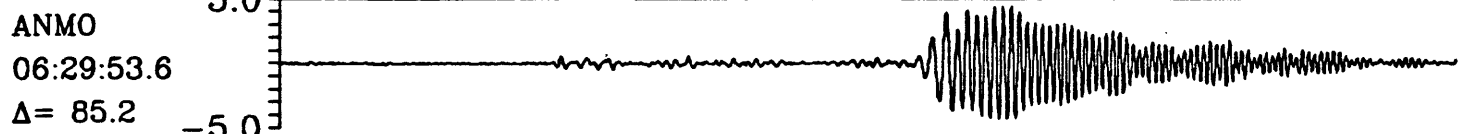
LPZ

11 June 1986 06:18:19.70

LPZ

Fiji Islands Region  $h=33.0$   $m_b=5.6$   $M_{sz}=5.7$ 

0 10 20 30 40 50



0 10 20 30 40 50

Time (min)



LPZ

11 June 1986 06:18:19.70

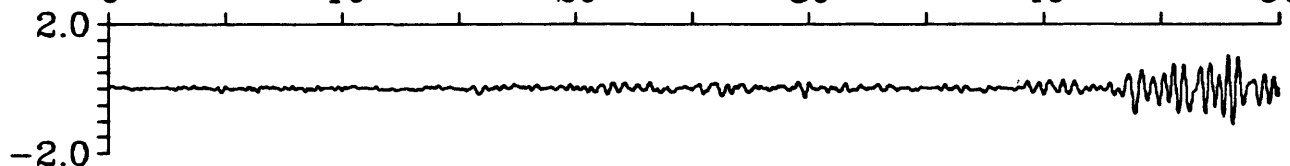
LPZ

Fiji Islands Region  $h=33.0$   $m_b=5.6$   $M_{sz}=5.7$ 

0 10 20 30 40 50

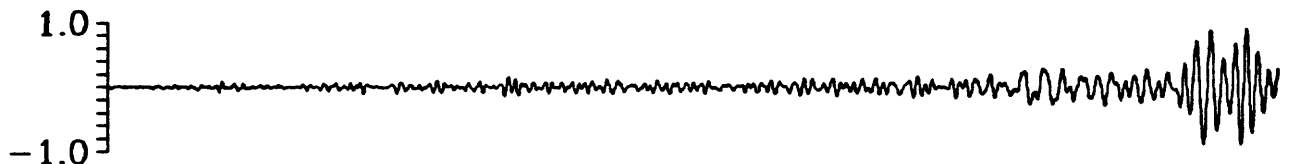
SLR

06:36:28.6

 $\Delta=131.0$ 

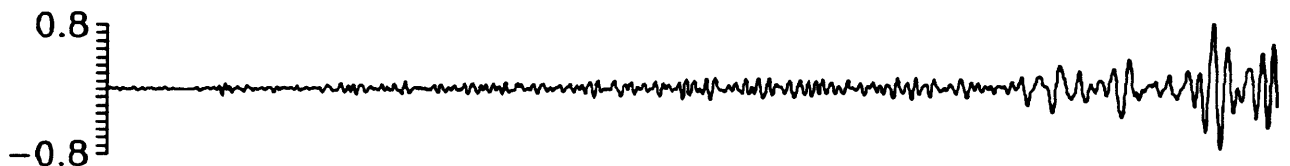
NRAO

06:36:34.5

 $\Delta=134.2$ 

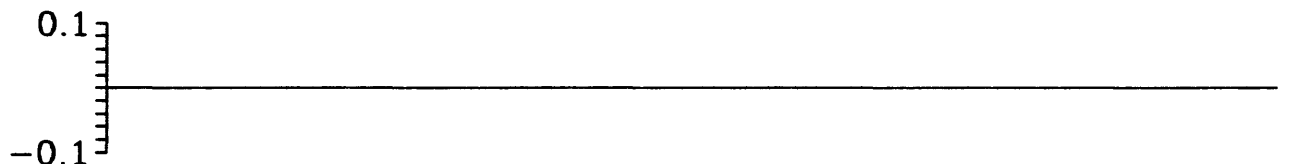
KONO

06:36:36.9

 $\Delta=135.5$ 

ANTO

06:36:50.5

 $\Delta=143.0$ 

GRFO

06:36:52.7

 $\Delta=144.9$ 

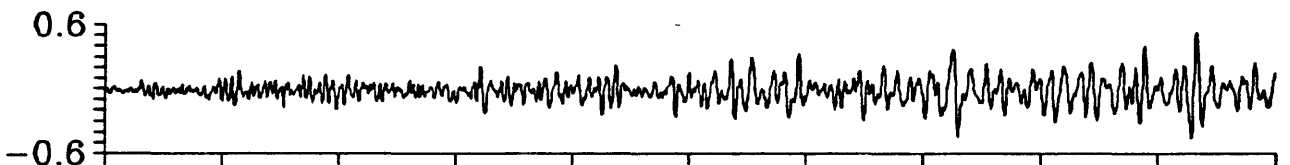
TOL

06:37:09.9

 $\Delta=155.4$ 

BCAO

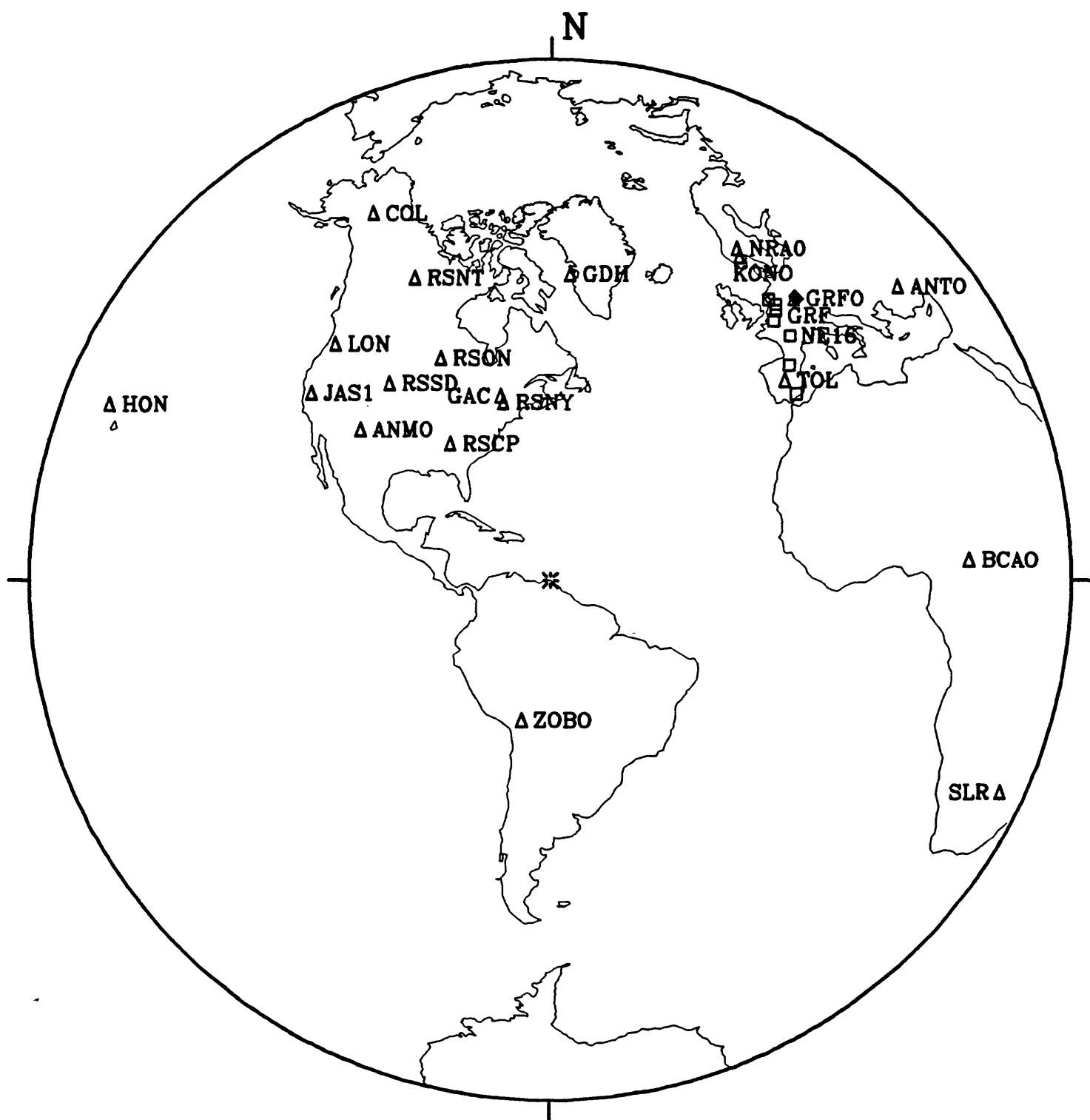
06:37:15.0

 $\Delta=159.4$ 

Time (min)

11 June 1986 13:48:03.31

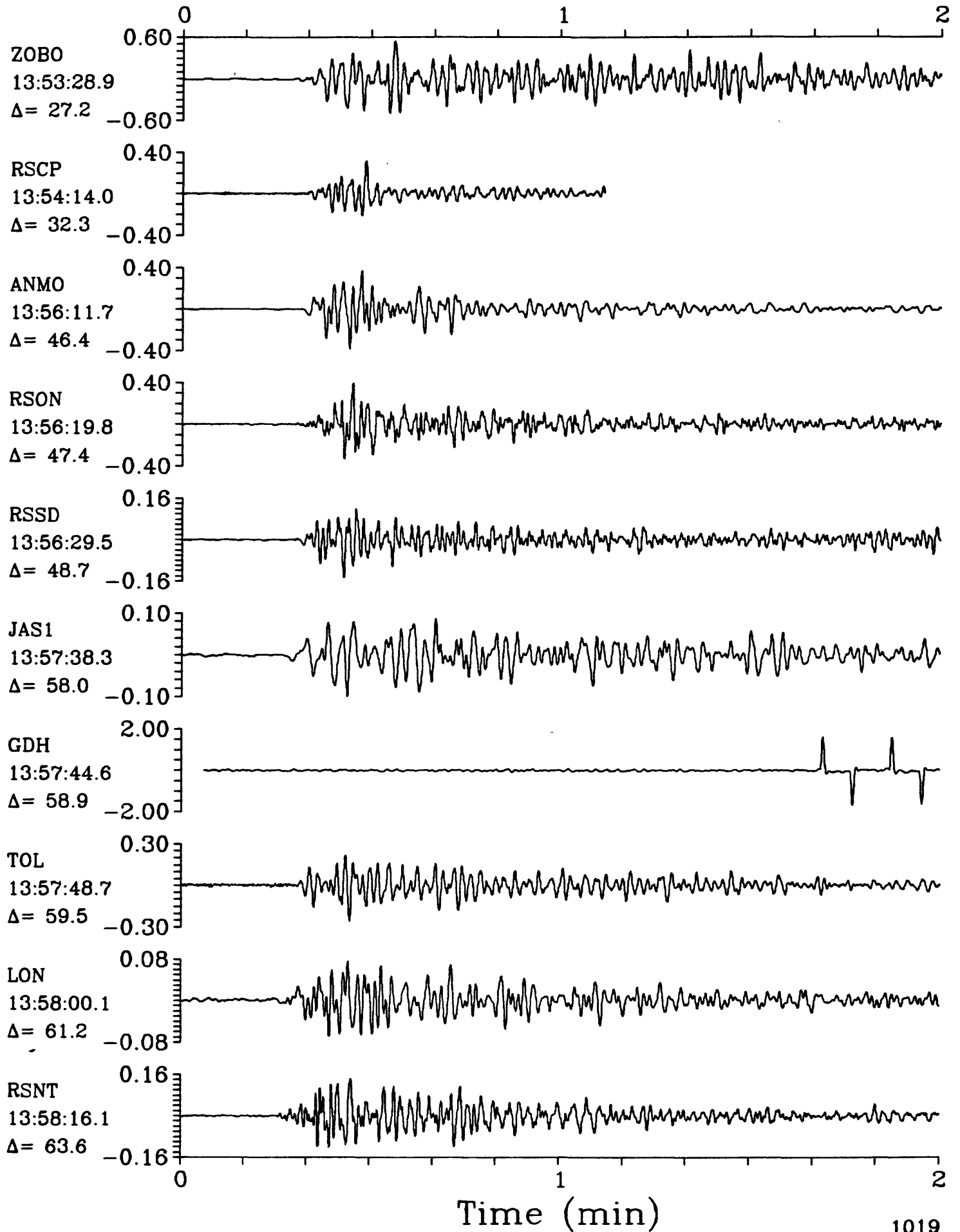
Near Coast of Venezuela



SPZ

11 June 1986 13:48:03.31

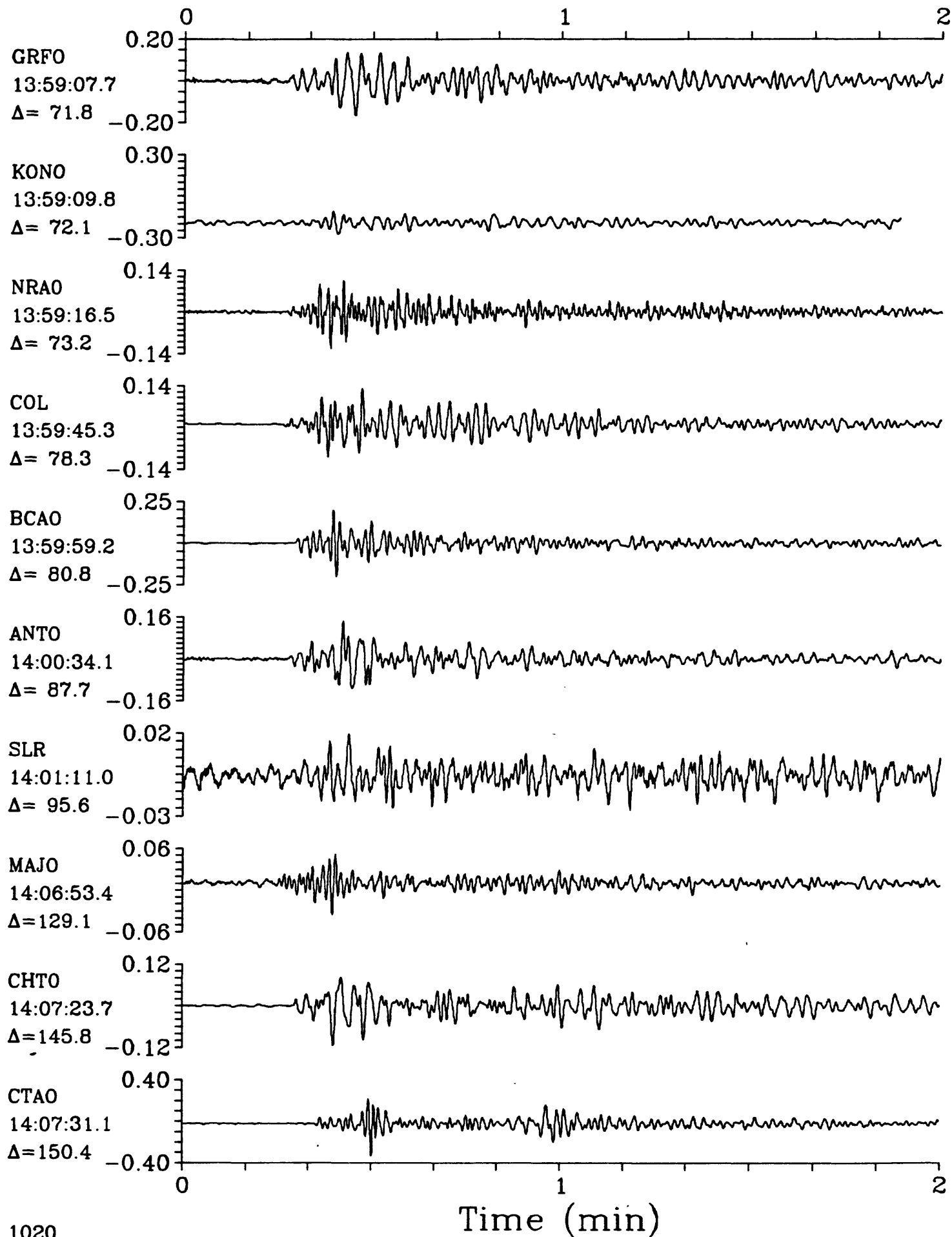
SPZ

Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{sz}=6.2$ 

SPZ

11 June 1986 13:48:03.31

SPZ

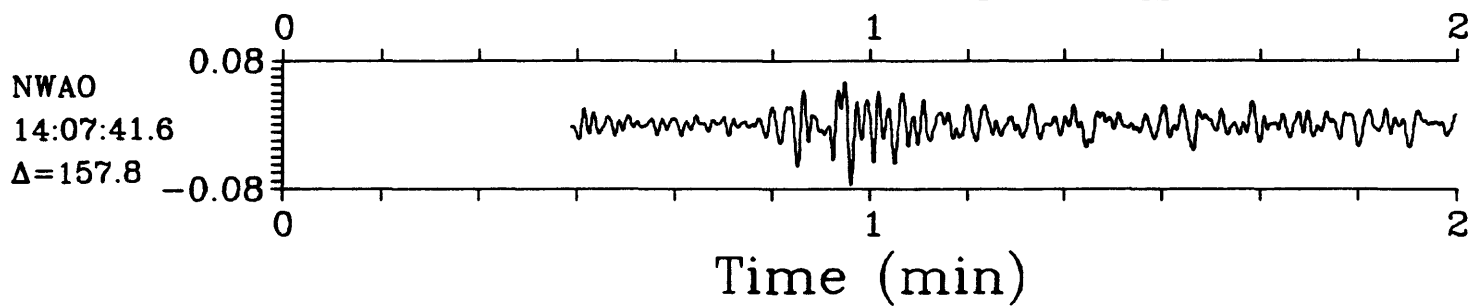
Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{sz}=6.2$ 

SPZ

11 June 1986 13:48:03.31

SPZ

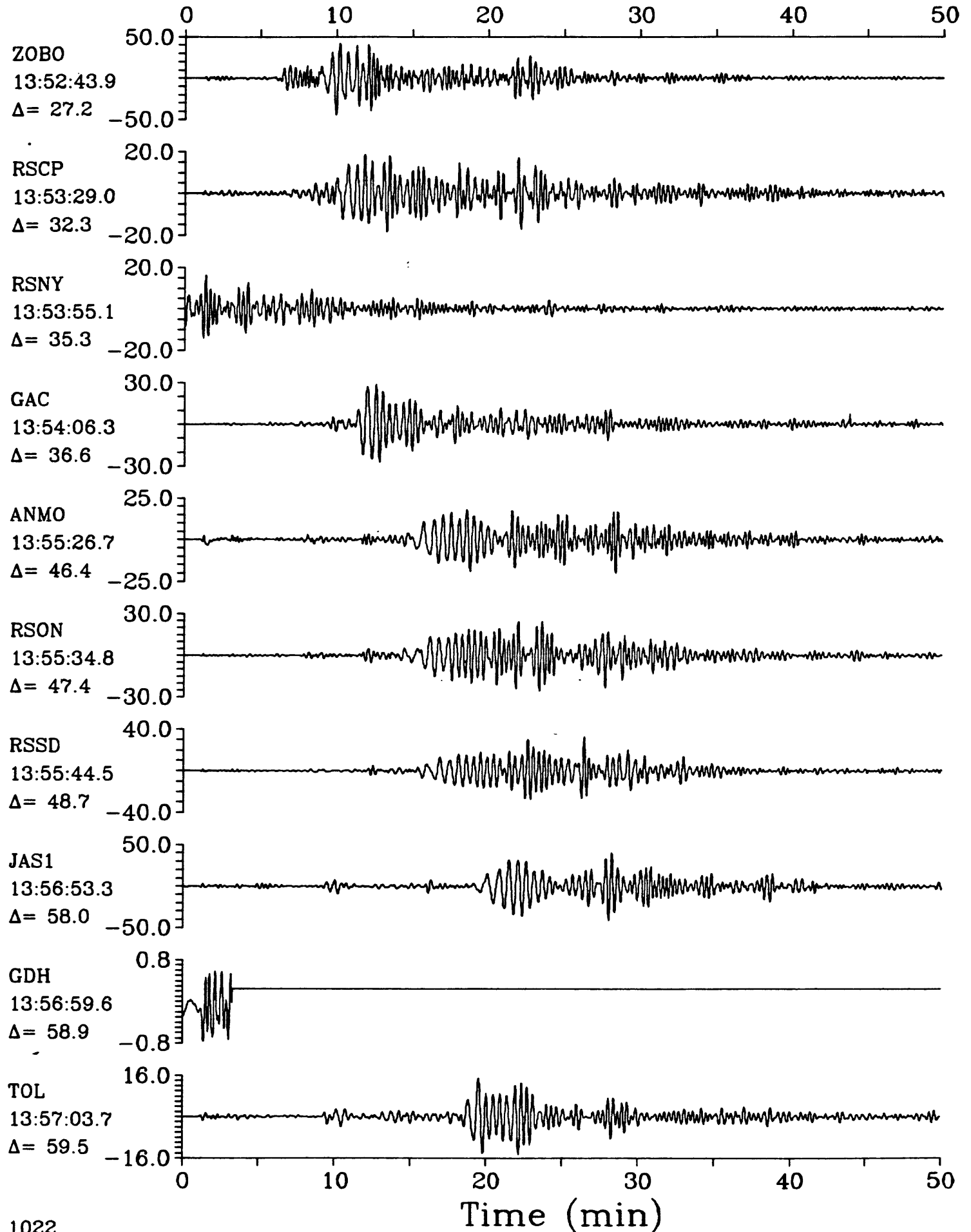
Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{sz}=6.2$



LPZ

11 June 1986 13:48:03.31

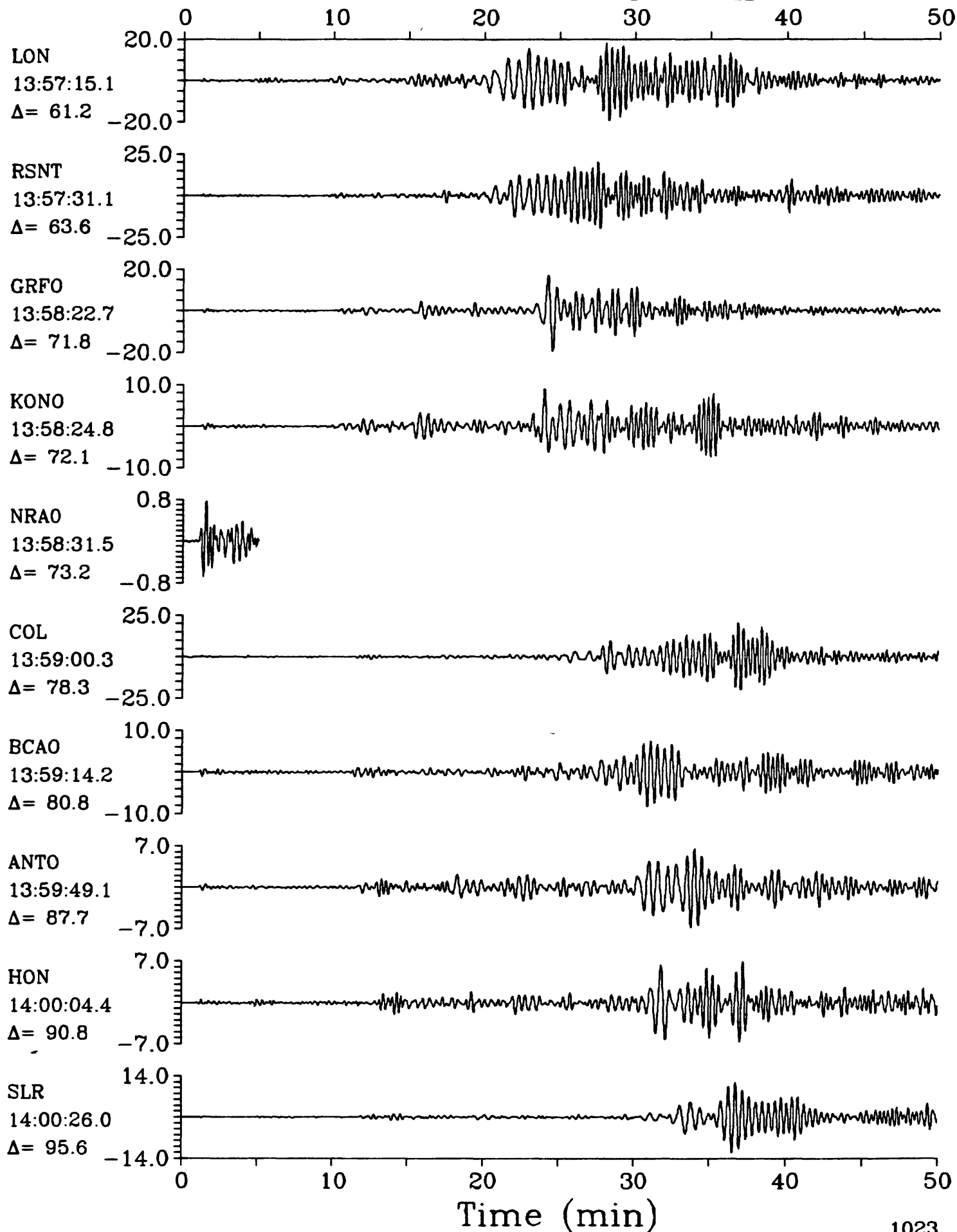
LPZ

Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{sz}=6.2$ 

LPZ

11 June 1986 13:48:03.31

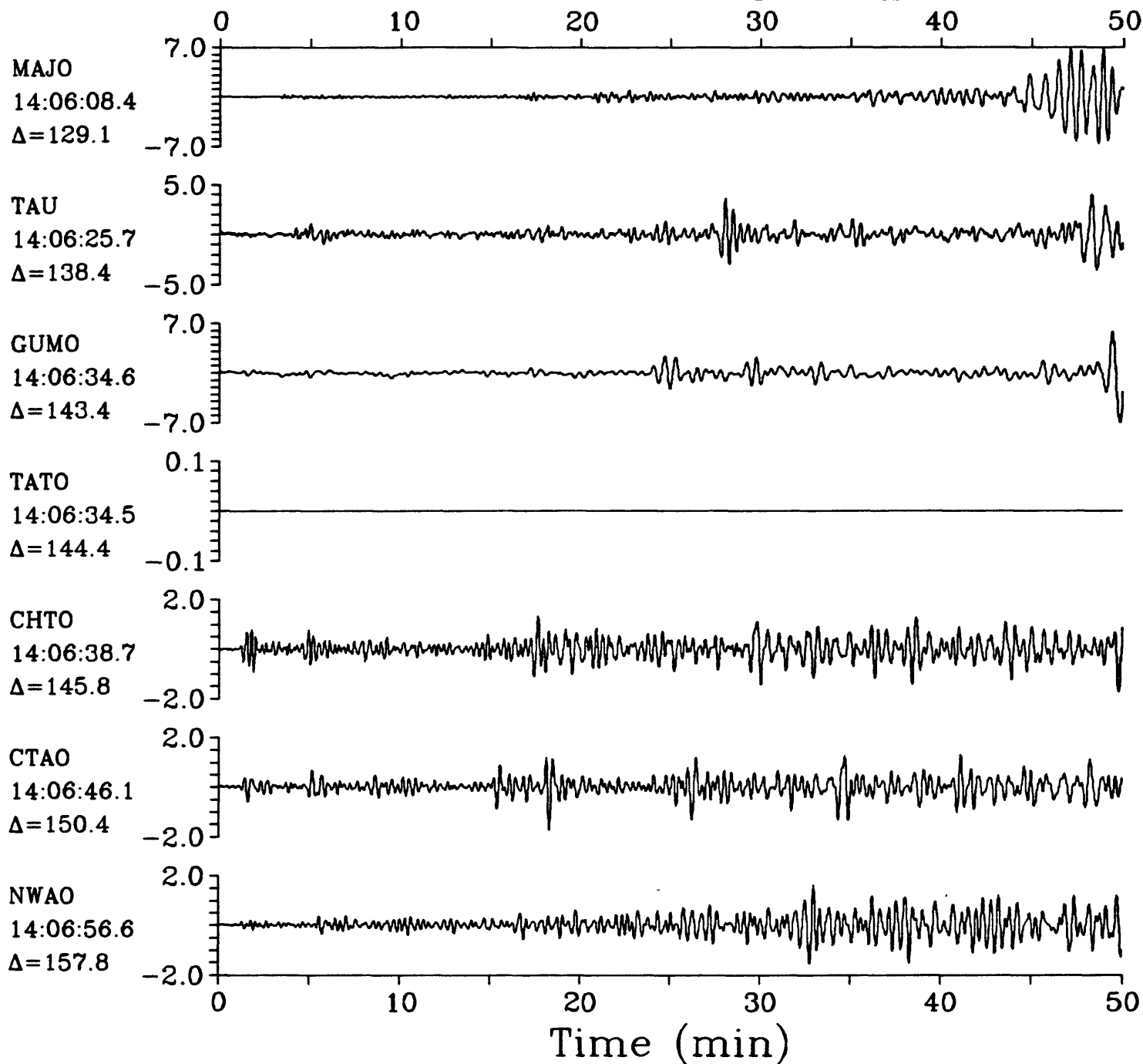
LPZ

Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{SZ}=6.2$ 

LPZ

11 June 1986 13:48:03.31

LPZ

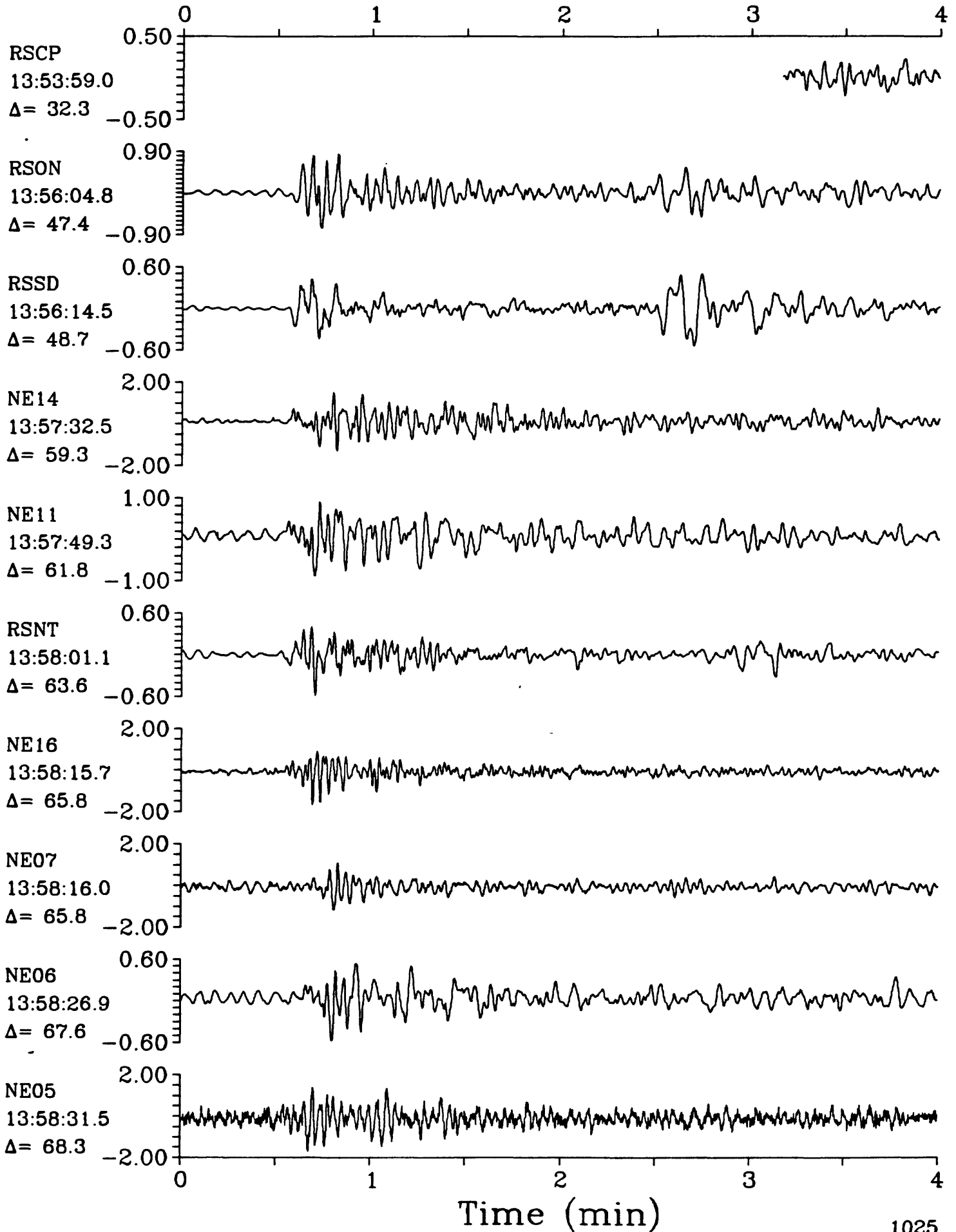
Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{sz}=6.2$ 



IPZ

11 June 1986 13:48:03.31

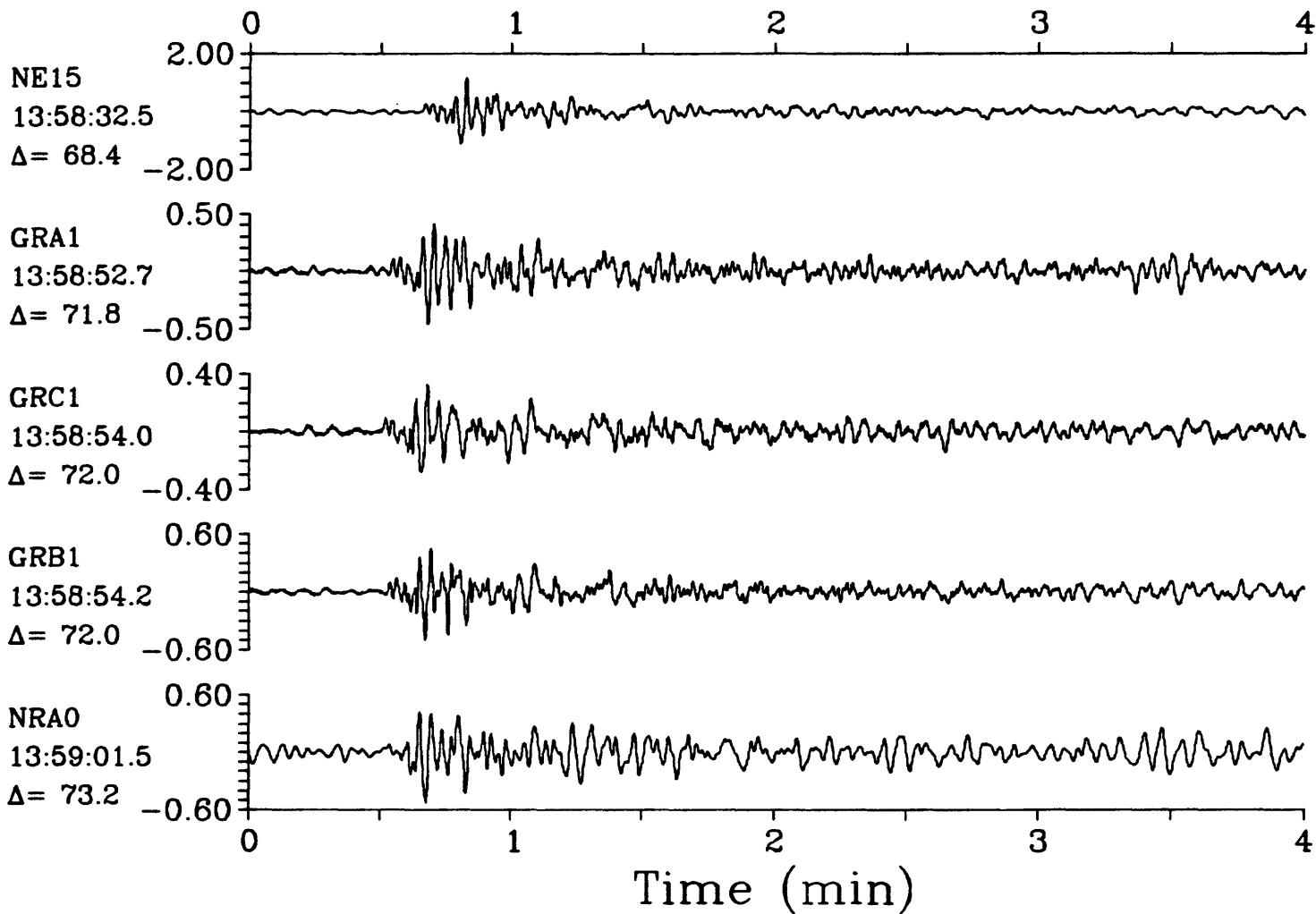
IPZ

Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{sz}=6.2$ 

IPZ

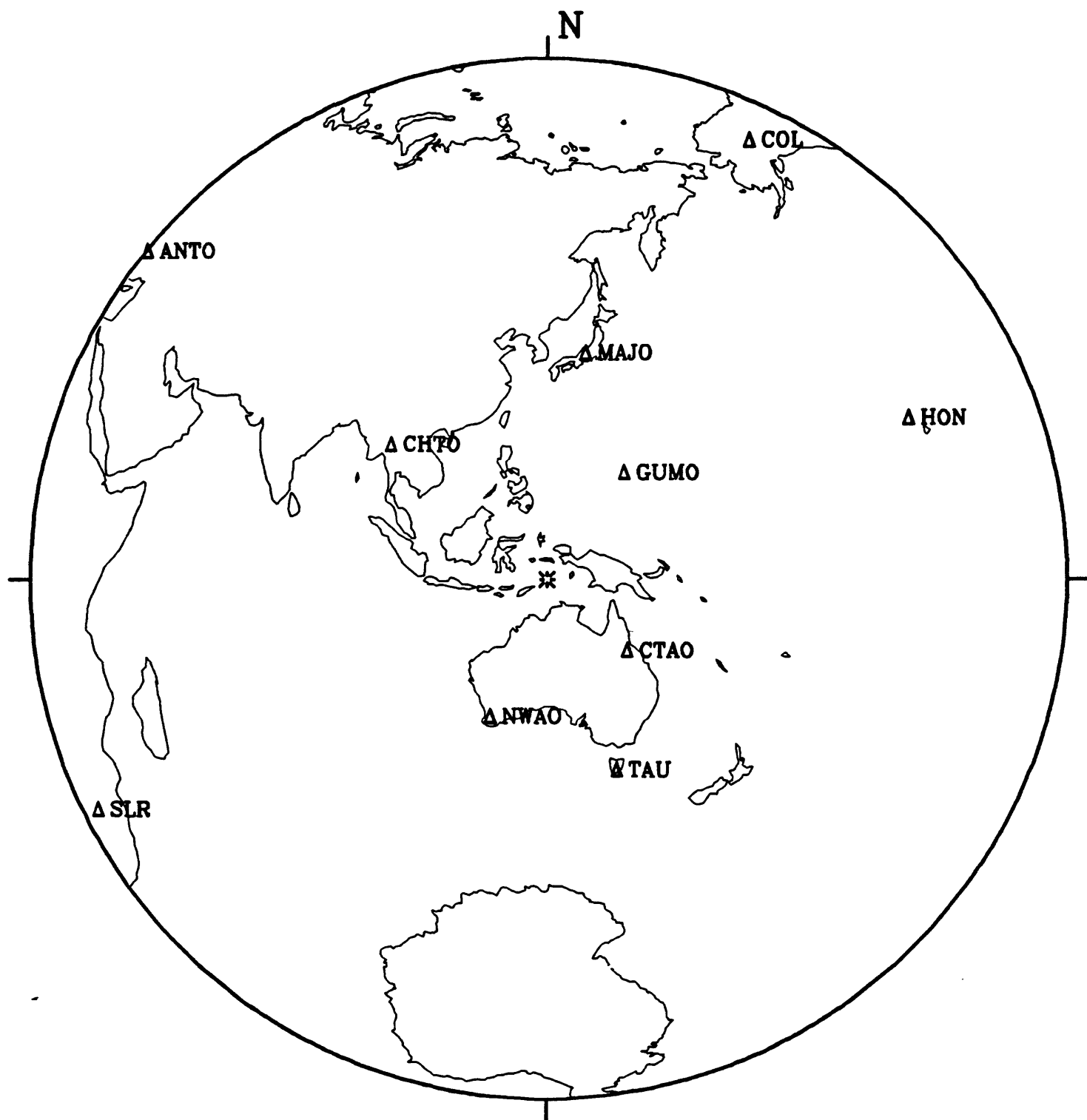
11 June 1986 13:48:03.31

IPZ

Near Coast of Venezuela  $h=33.7$   $m_b=6.0$   $M_{sz}=6.2$ 

12 June 1986 13:40:46.64

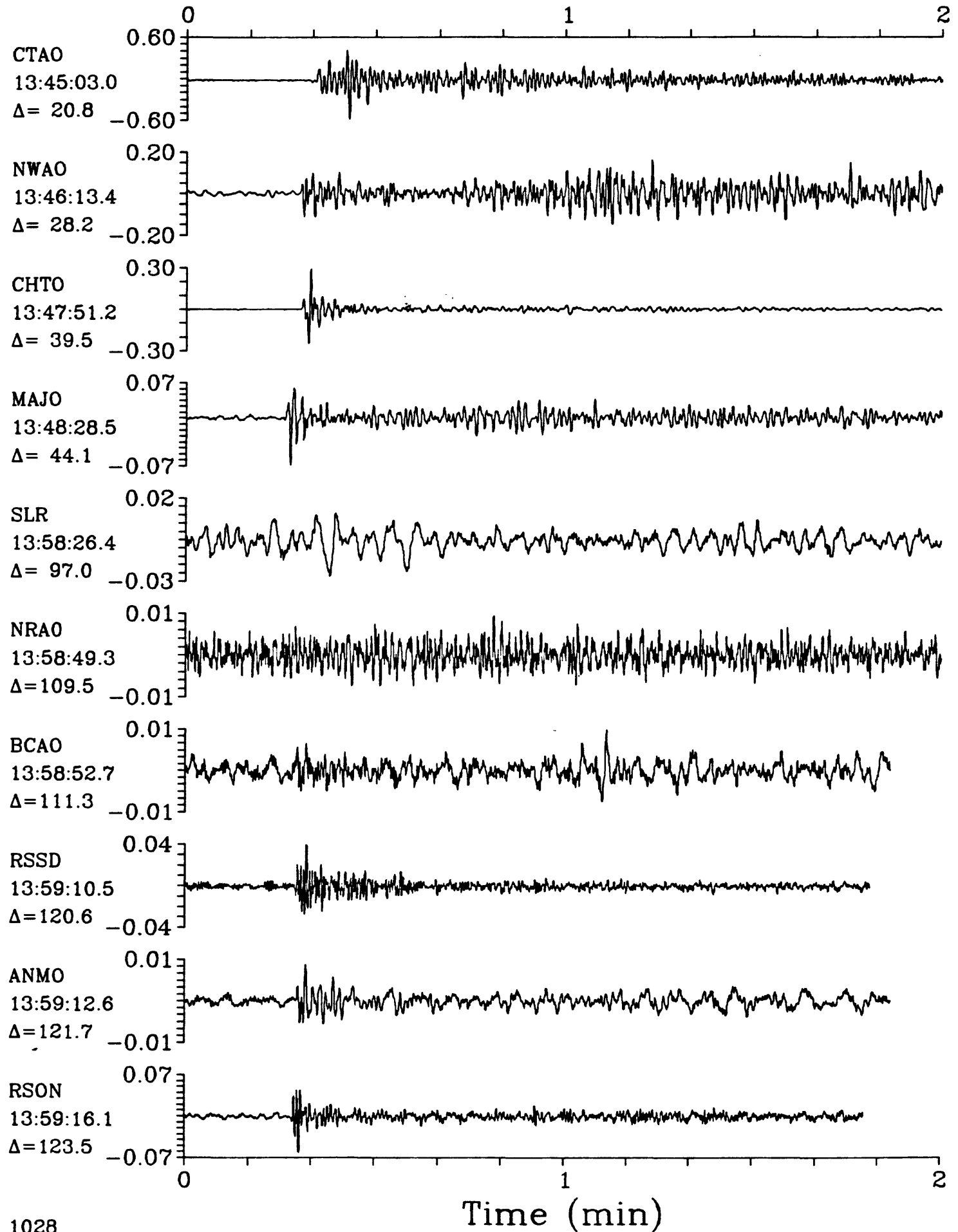
## Banda Sea



SPZ

12 June 1986 13:40:46.64  
Banda Sea  $h=115.6$   $m_b=5.5$ 

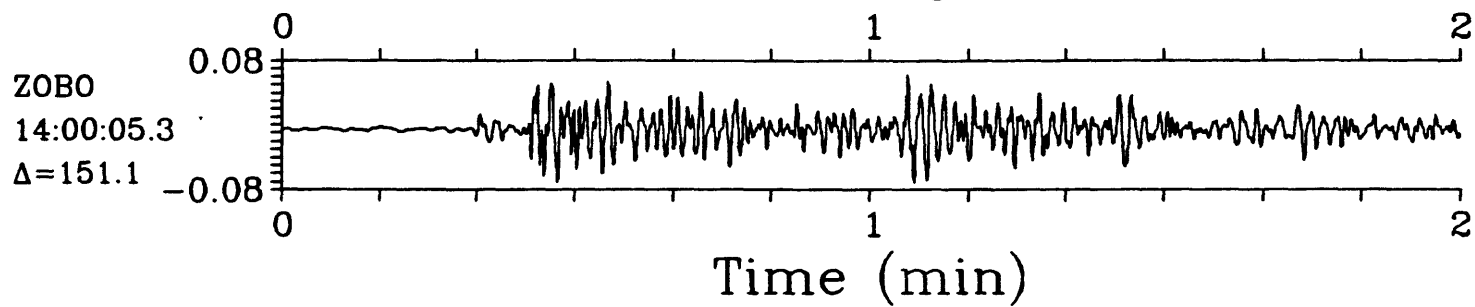
SPZ



SPZ

12 June 1986 13:40:46.64  
Banda Sea  $h=115.6$   $m_b=5.5$

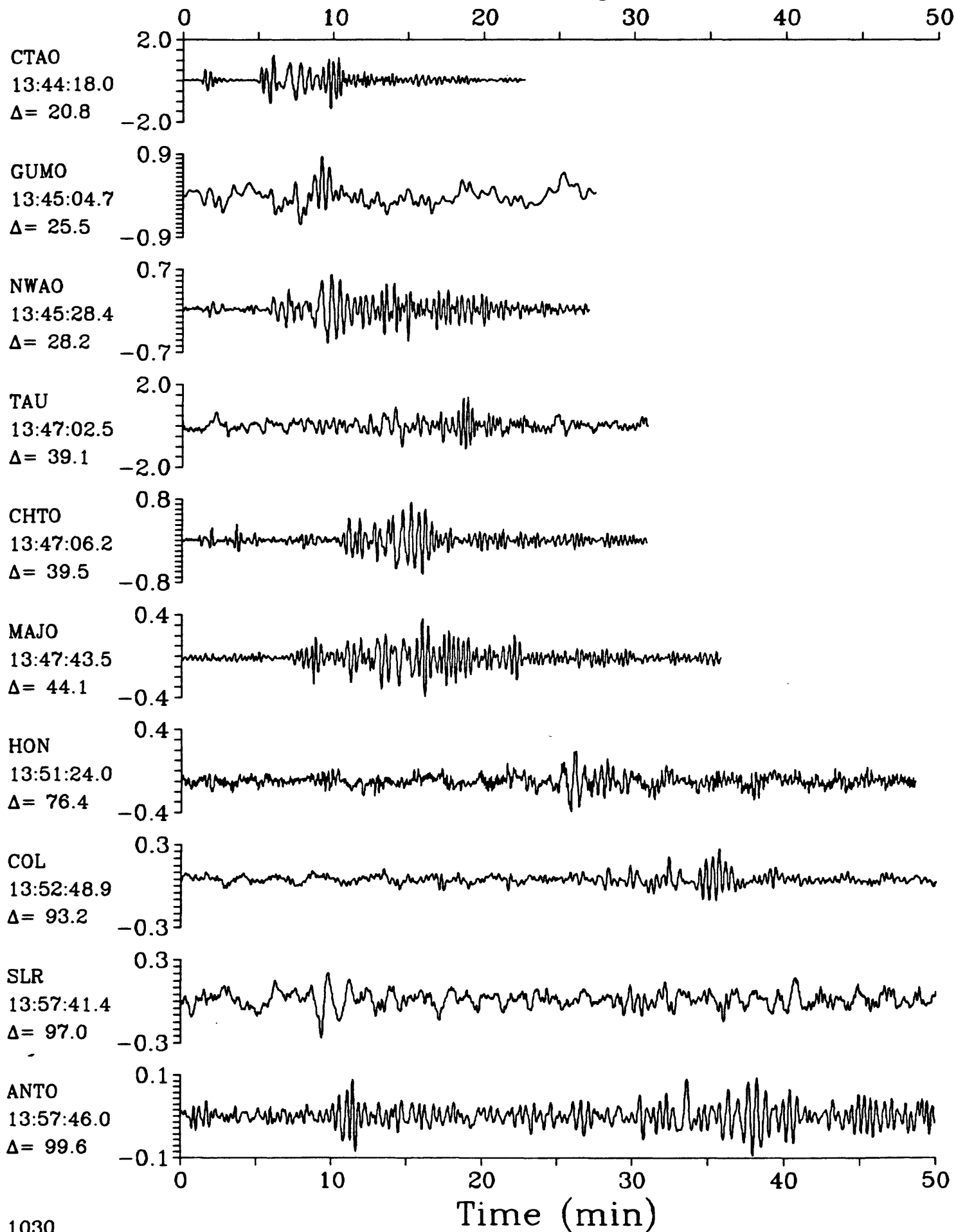
SPZ



LPZ

12 June 1986 13:40:46.64  
Banda Sea  $h=115.6$   $m_b=5.5$ 

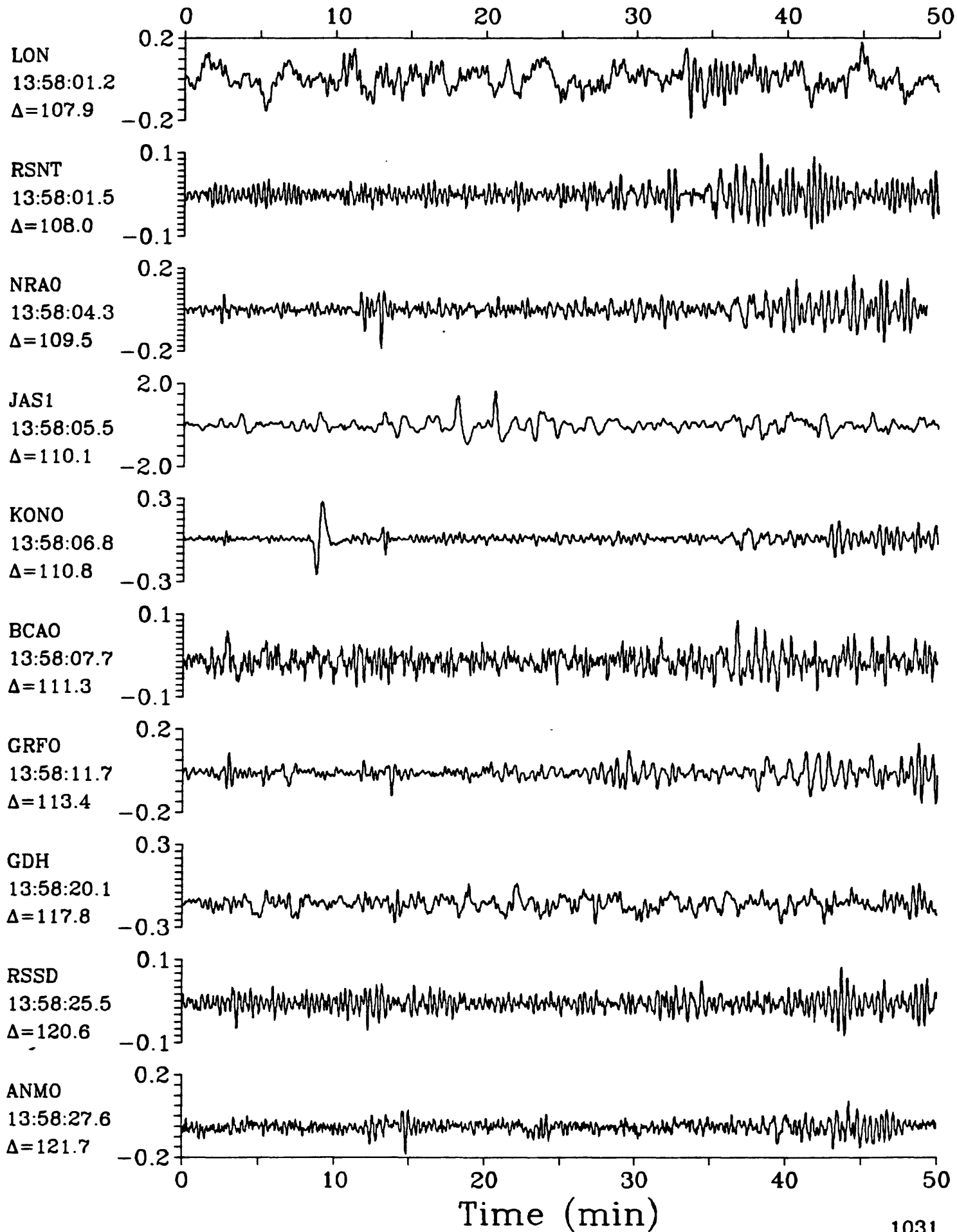
LPZ



LPZ

12 June 1986 13:40:46.64  
Banda Sea  $h=115.6$   $m_b=5.5$ 

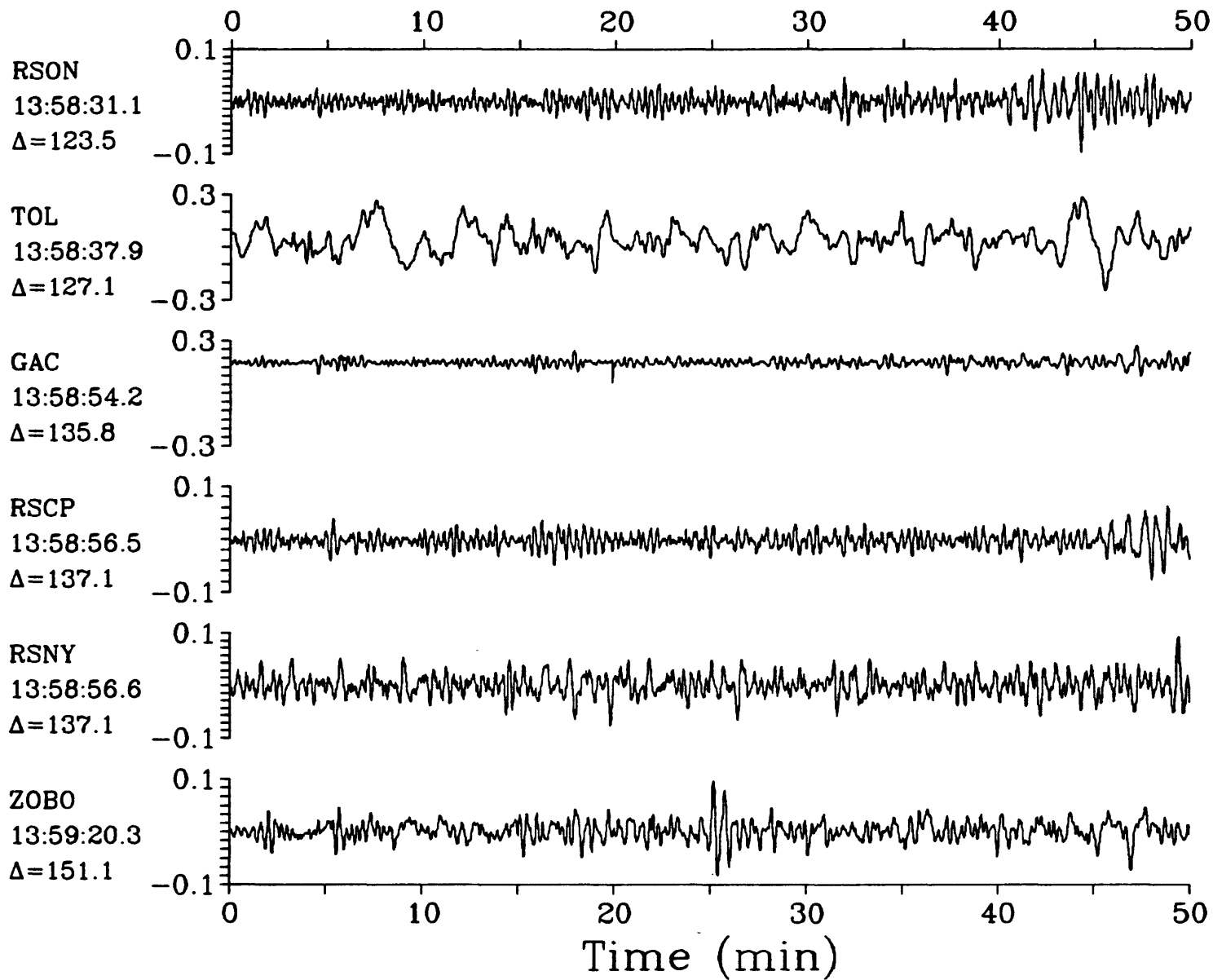
LPZ



LPZ

12 June 1986 13:40:46.64  
Banda Sea  $h=115.6$   $m_b=5.5$ 

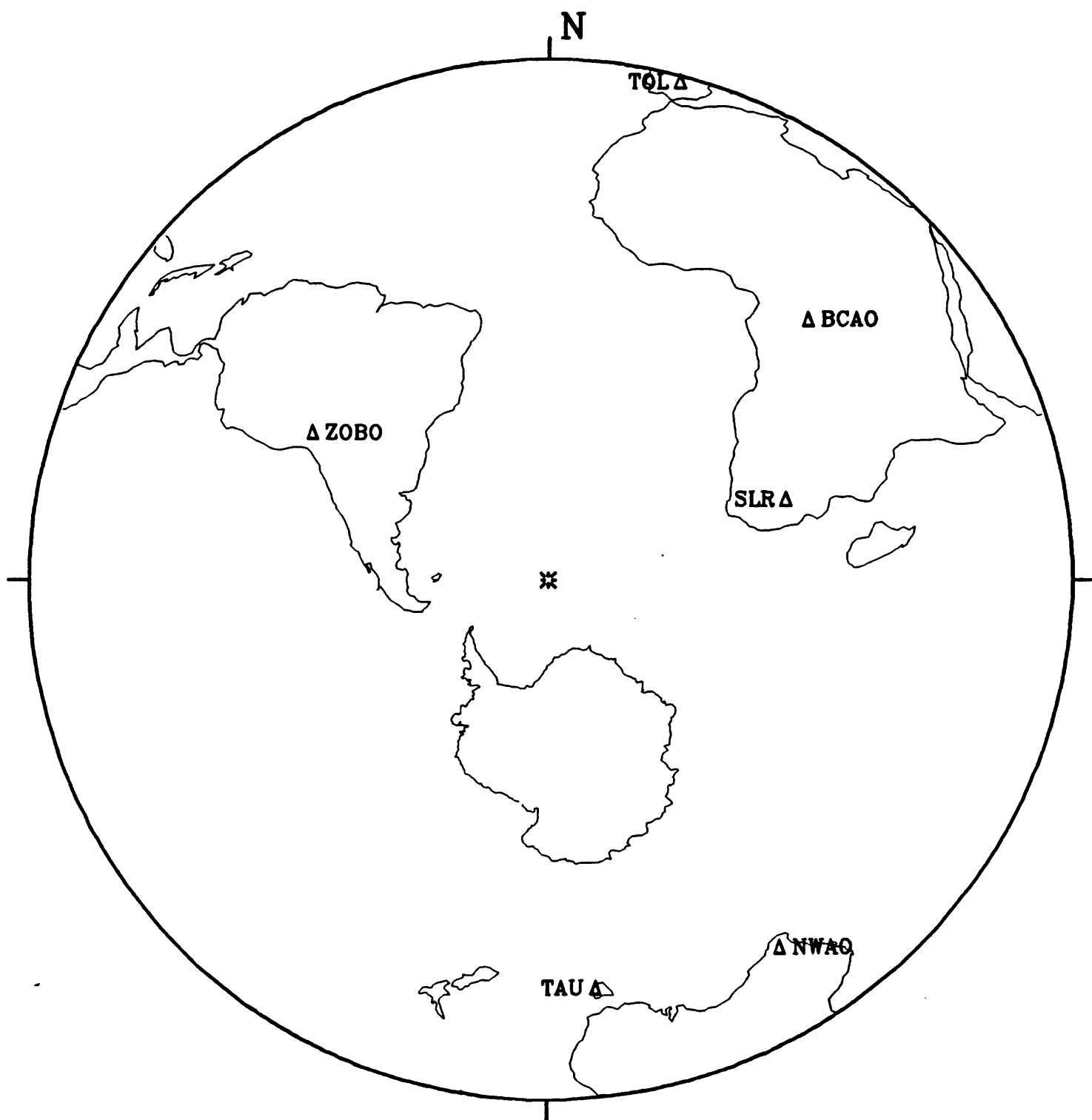
LPZ





14 June 1986 03:50:25.45

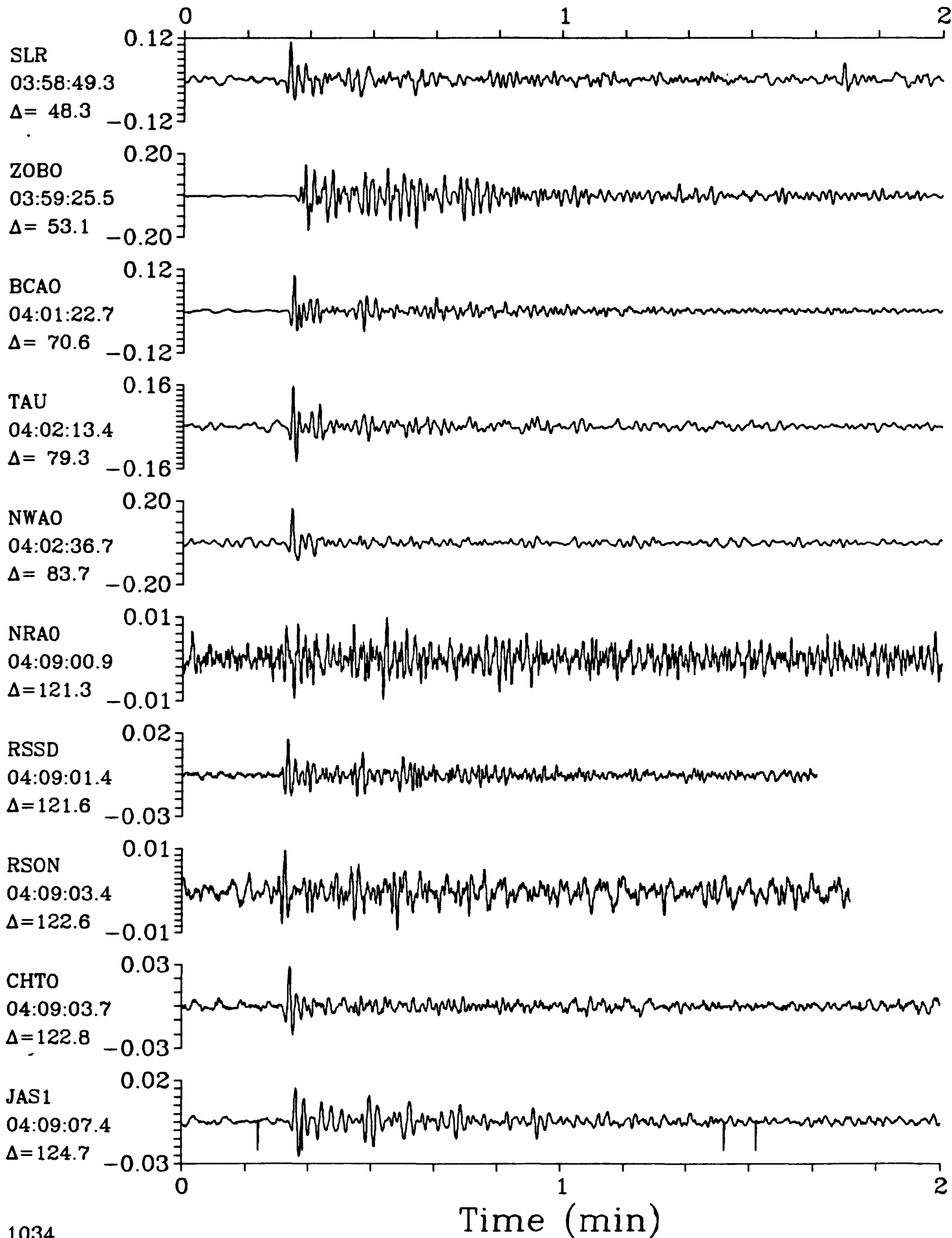
## South Sandwich Islands Region



SPZ

14 June 1986 03:50:25.45

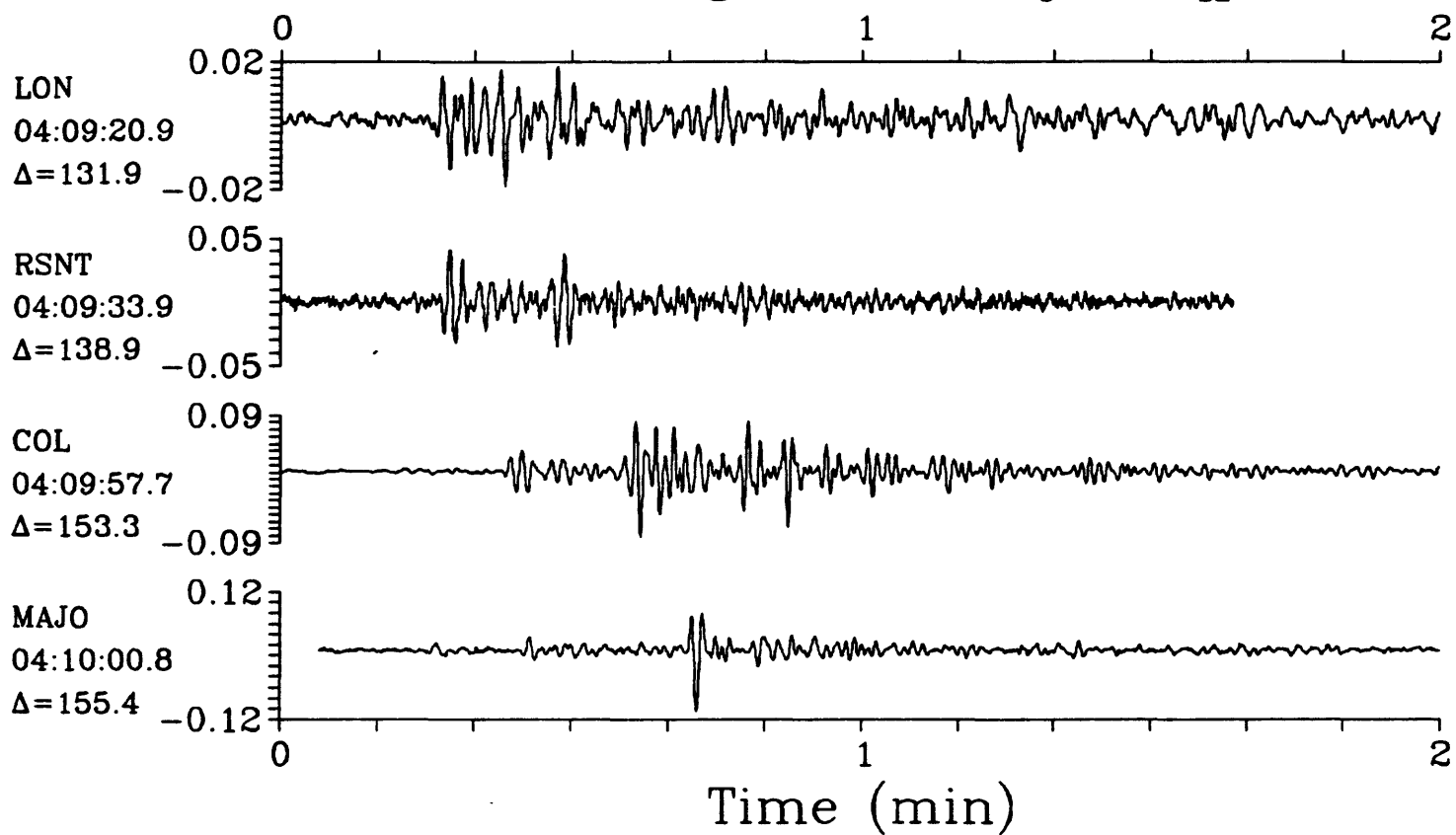
SPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.9$   $M_{sz}=5.0$ 

SPZ

14 June 1986 03:50:25.45

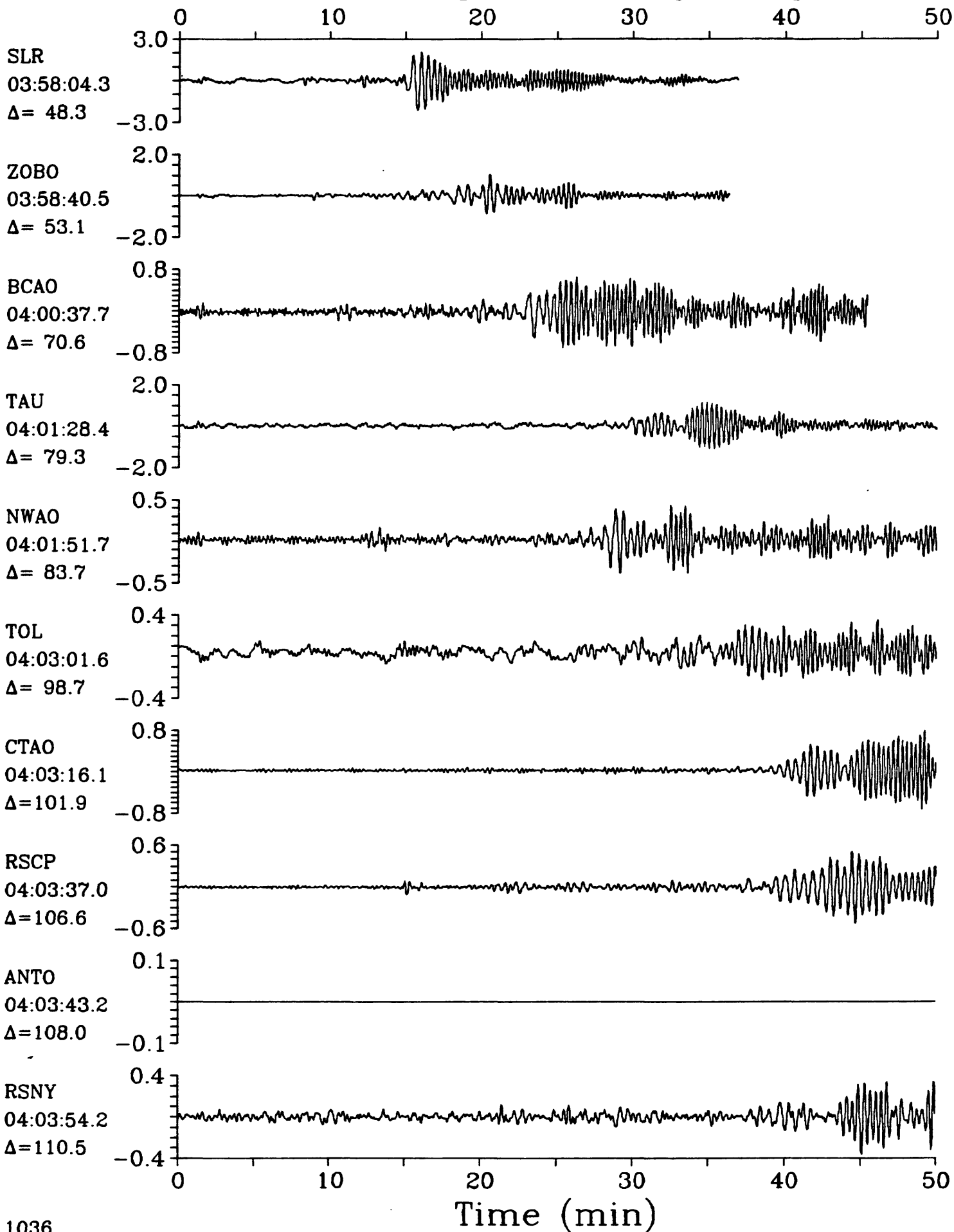
SPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.9$   $M_{sz}=5.0$ 

LPZ

14 June 1986 03:50:25.45

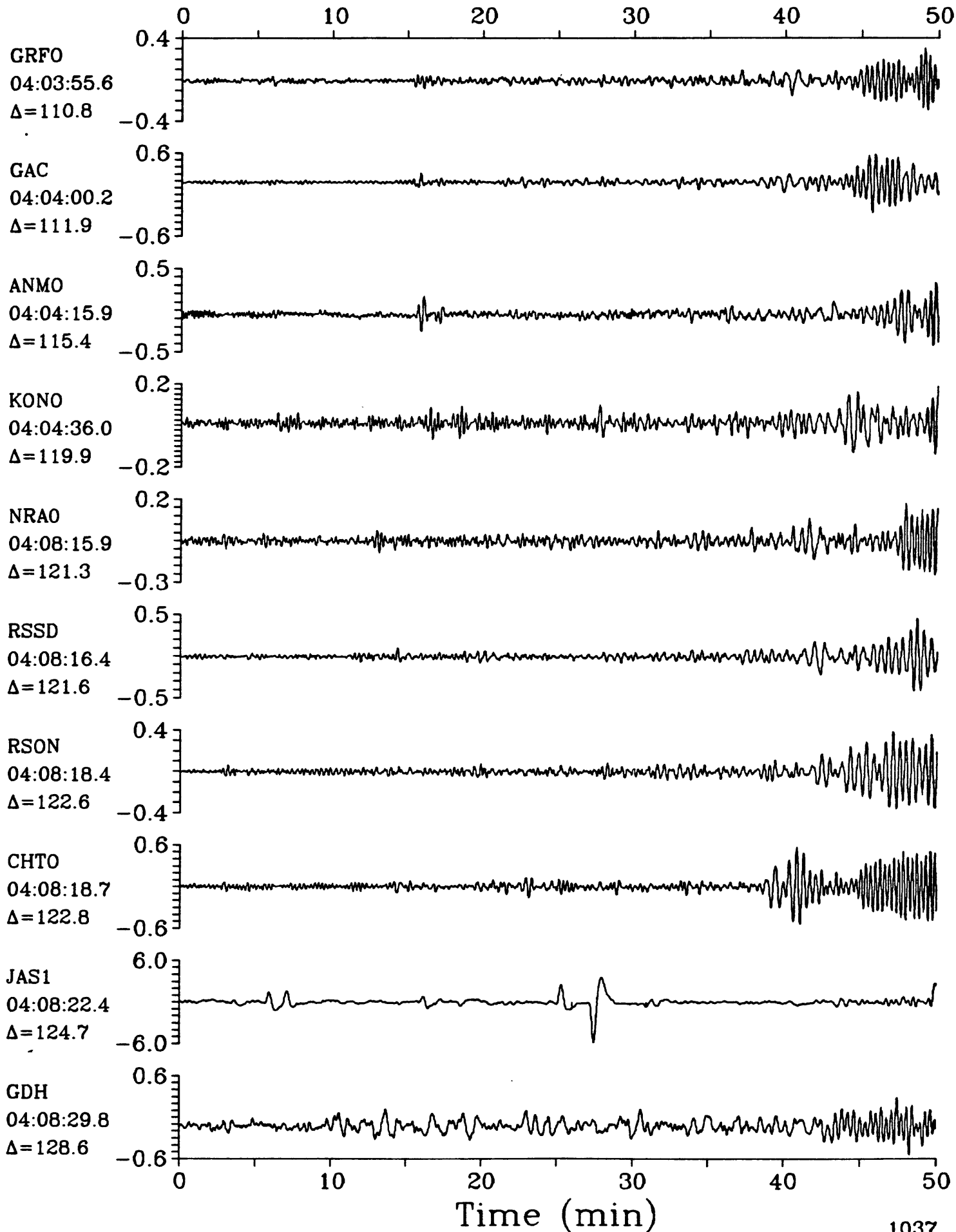
LPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.9$   $M_{sz}=5.0$ 

LPZ

14 June 1986 03:50:25.45

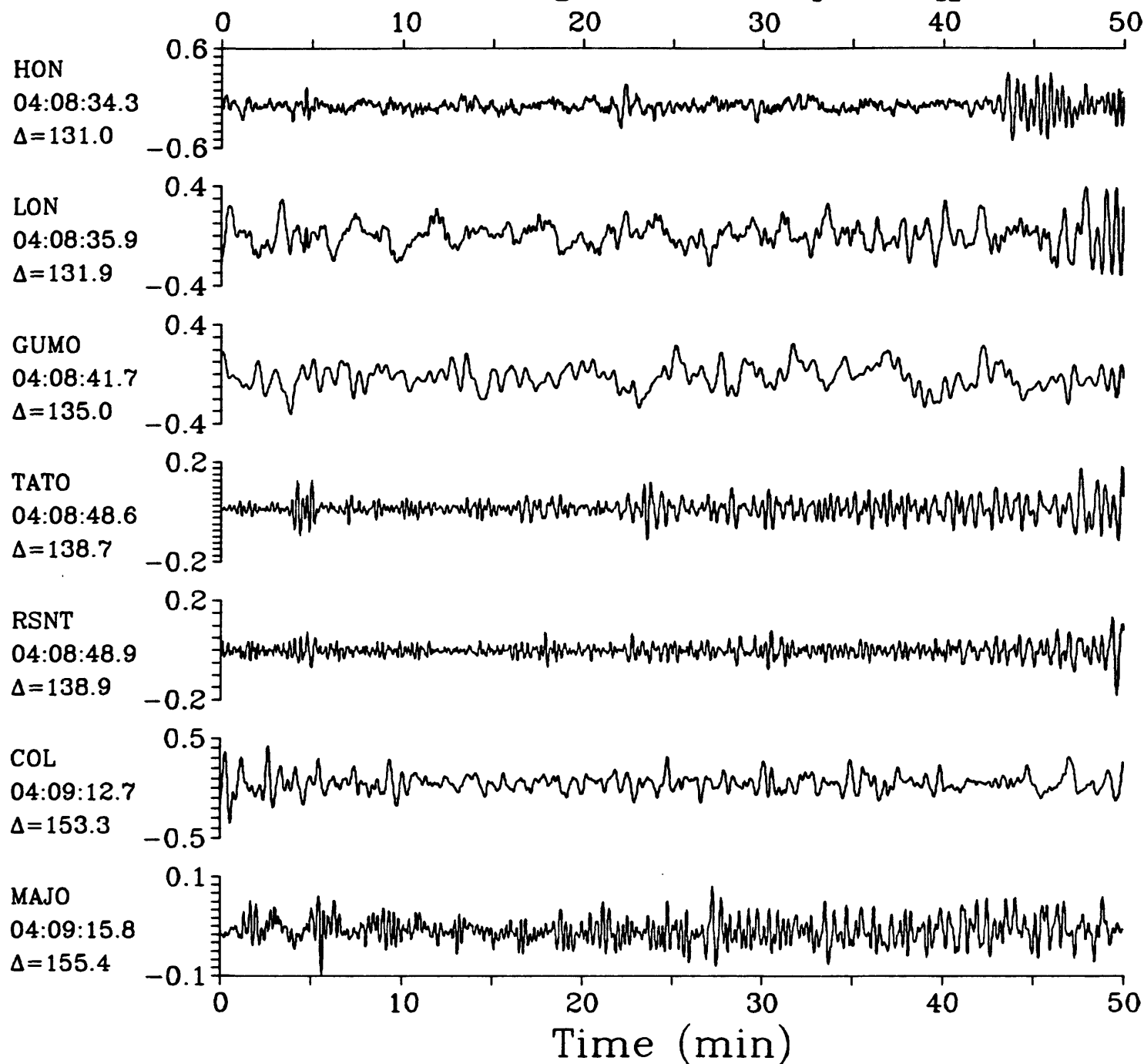
LPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.9$   $M_{sz}=5.0$ 

LPZ

14 June 1986 03:50:25.45

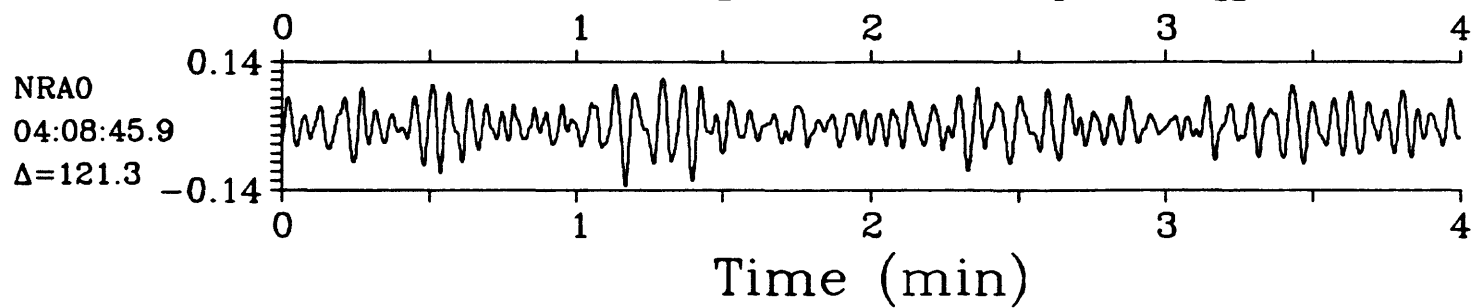
LPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.9$   $M_{sz}=5.0$ 

IPZ

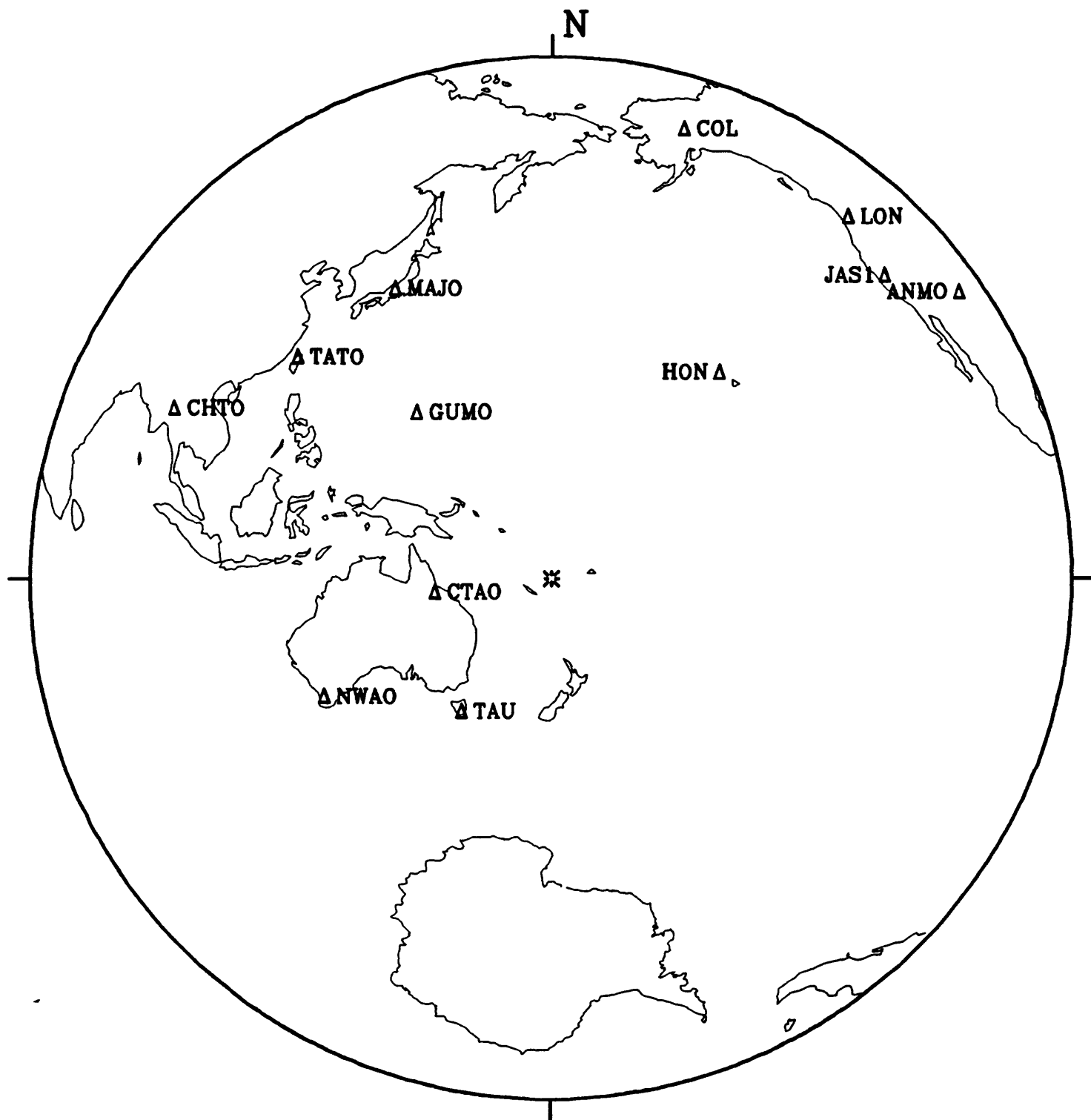
14 June 1986 03:50:25.45

IPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.9$   $M_{sz}=5.0$ 

14 June 1986 23:29:25.70

## Vanuatu Islands

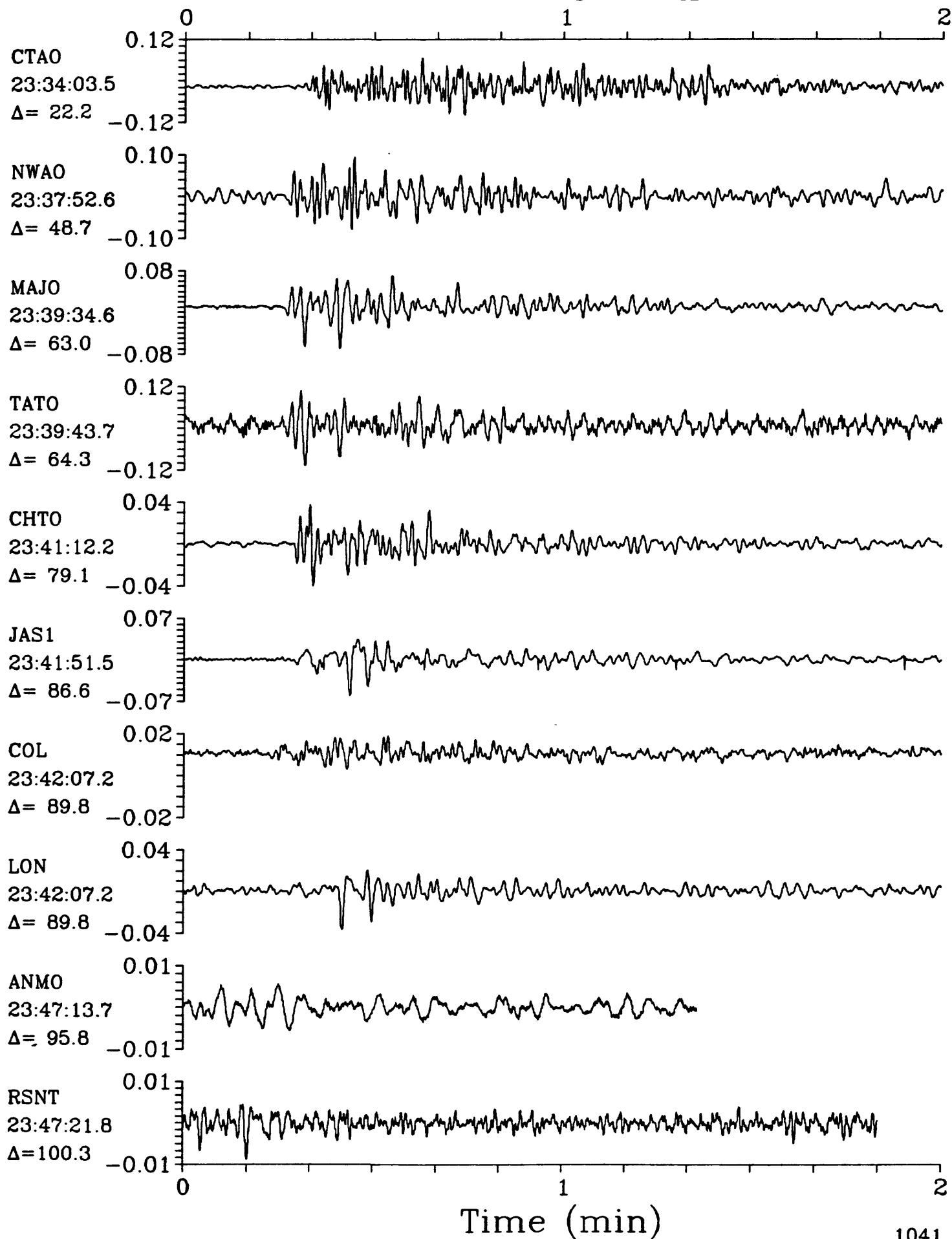




SPZ

14 June 1986 23:29:25.70

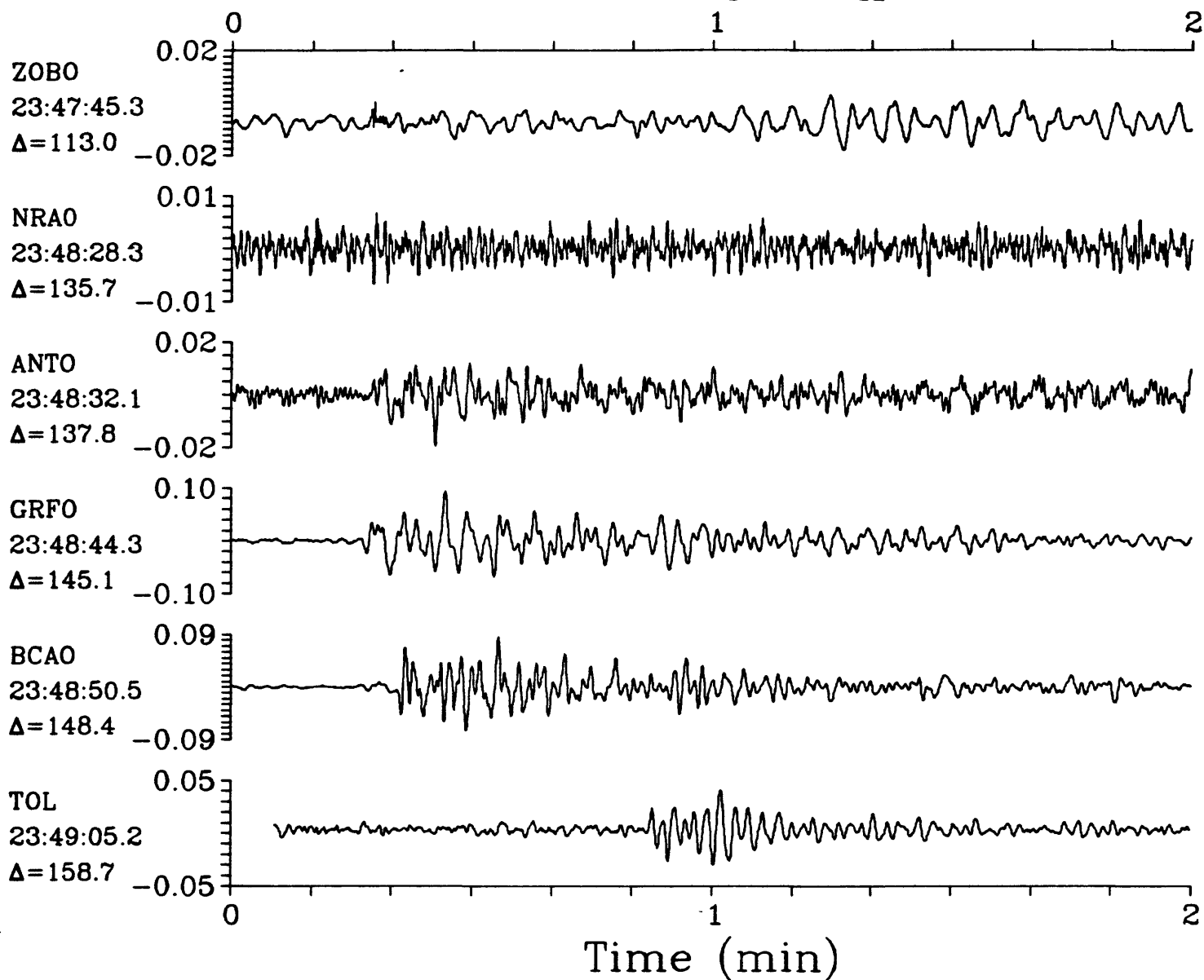
SPZ

Vanuatu Islands  $h=33.0$   $m_b=5.5$   $M_{sz}=5.6$ 

SPZ

14 June 1986 23:29:25.70

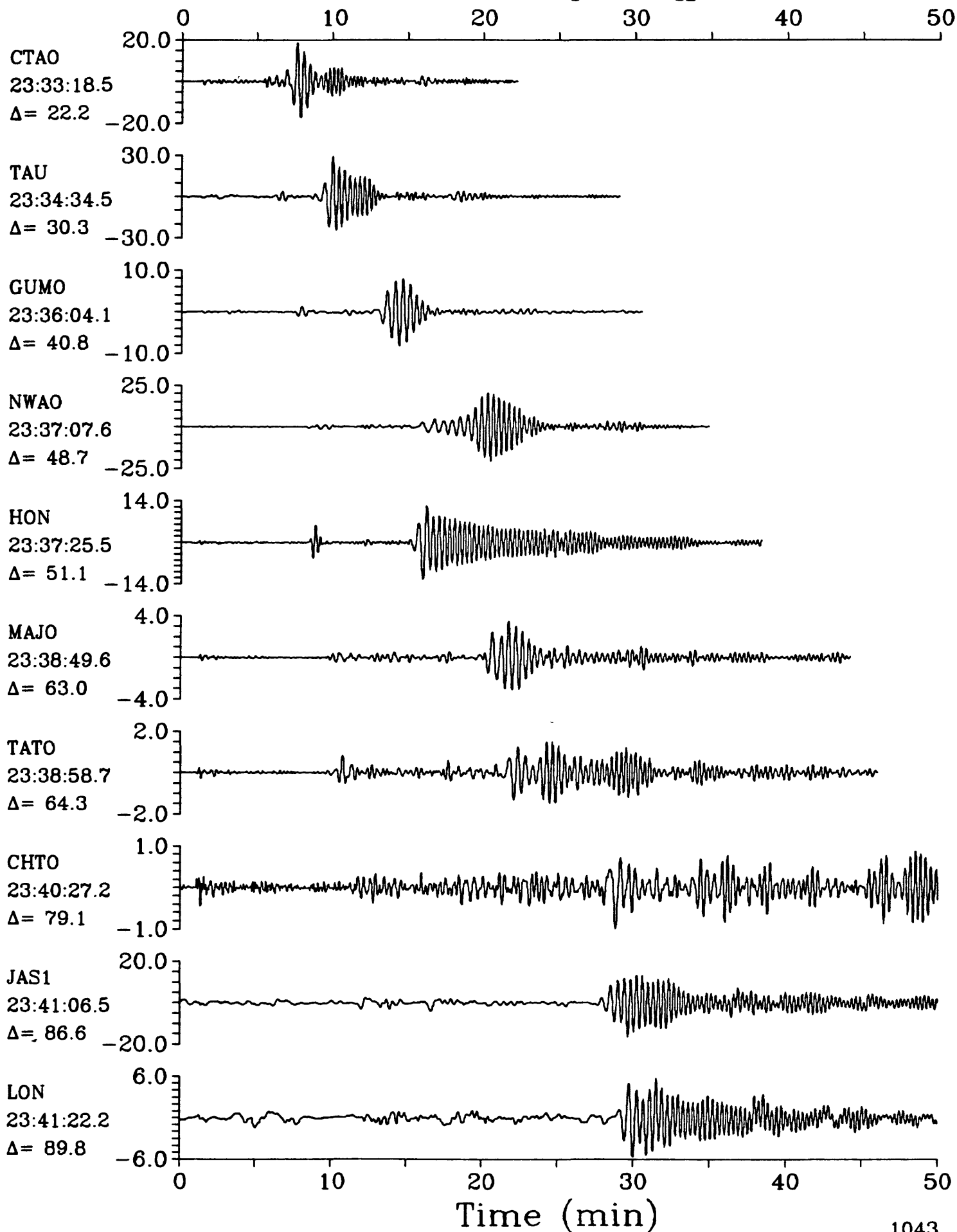
SPZ

Vanuatu Islands  $h=33.0$   $m_b=5.5$   $M_{sz}=5.6$ 

LPZ

14 June 1986 23:29:25.70

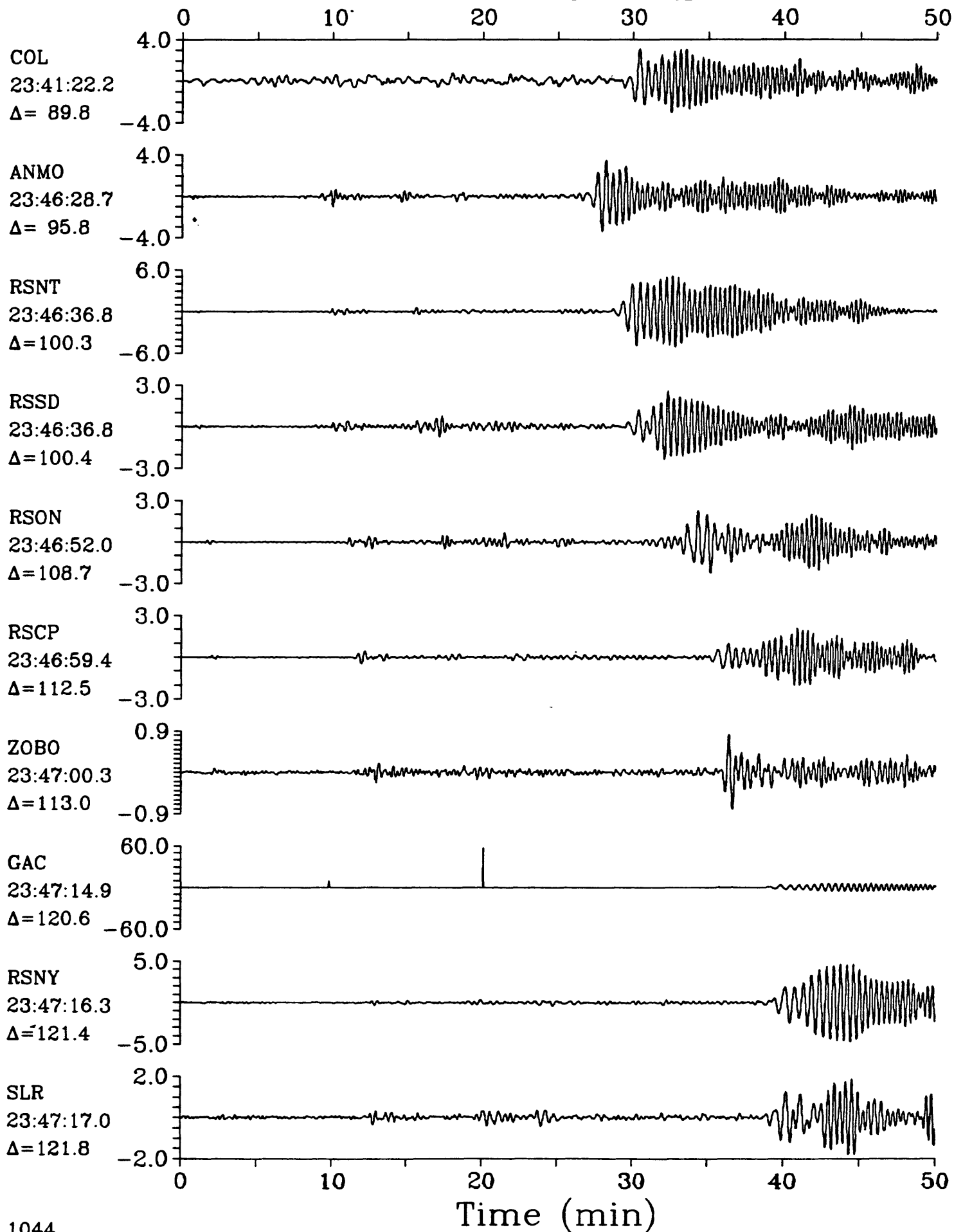
LPZ

Vanuatu Islands  $h=33.0$   $m_b=5.5$   $M_{sz}=5.6$ 

LPZ

14 June 1986 23:29:25.70

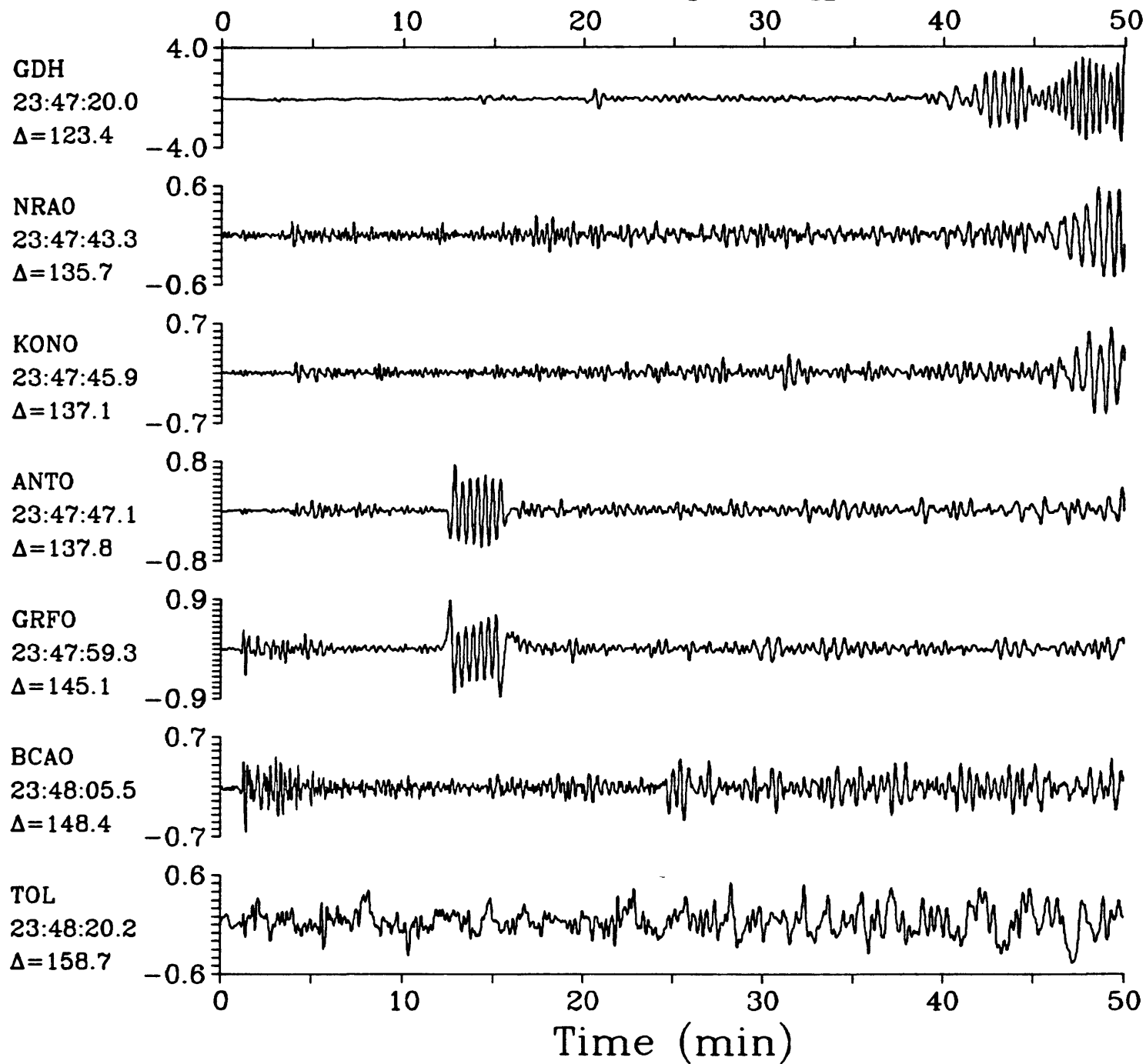
LPZ

Vanuatu Islands  $h=33.0$   $m_b=5.5$   $M_{SZ}=5.6$ 

LPZ

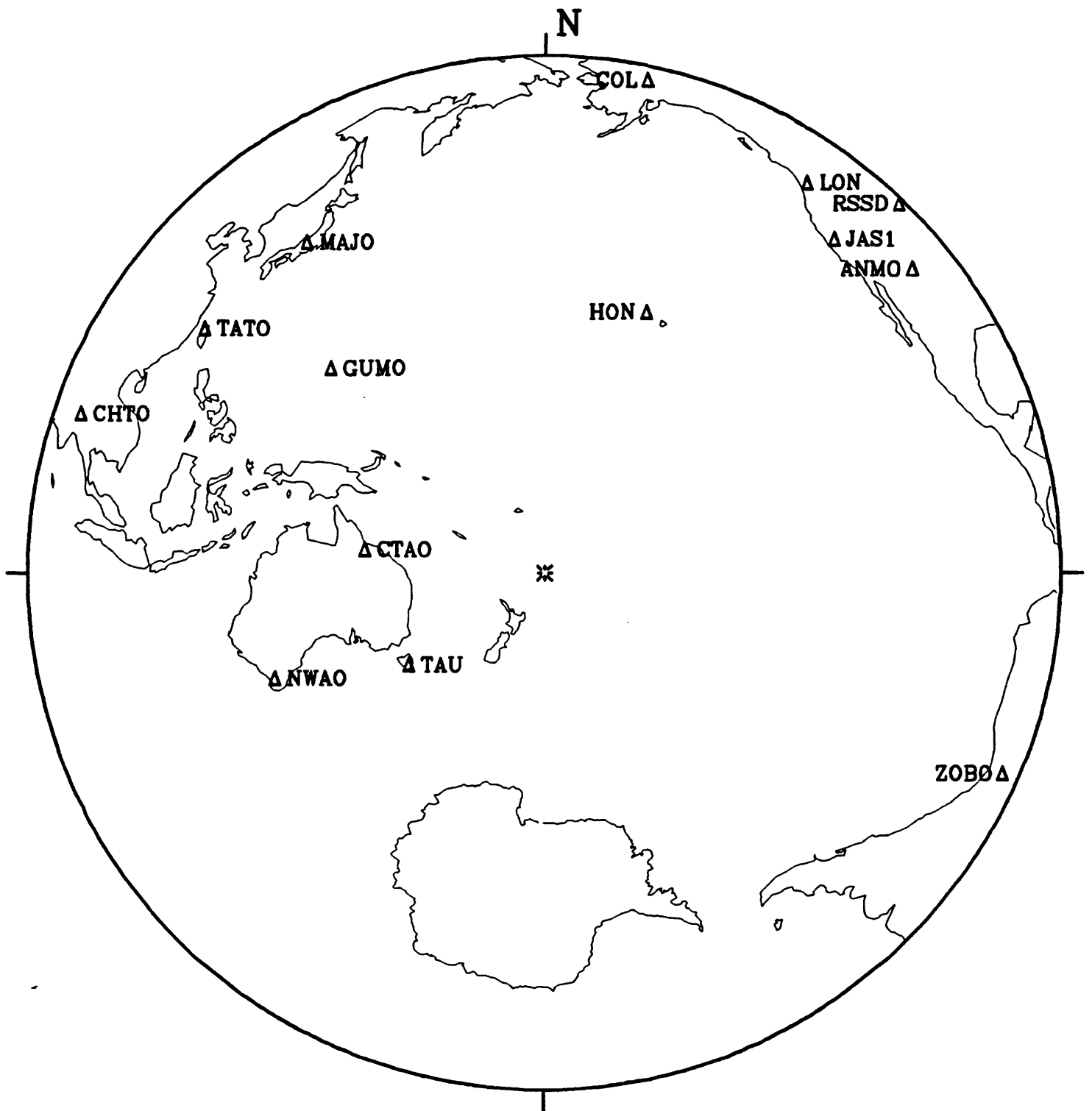
14 June 1986 23:29:25.70

LPZ

Vanuatu Islands  $h=33.0$   $m_b=5.5$   $M_{sz}=5.6$ 

15 June 1986 03:11:00.37

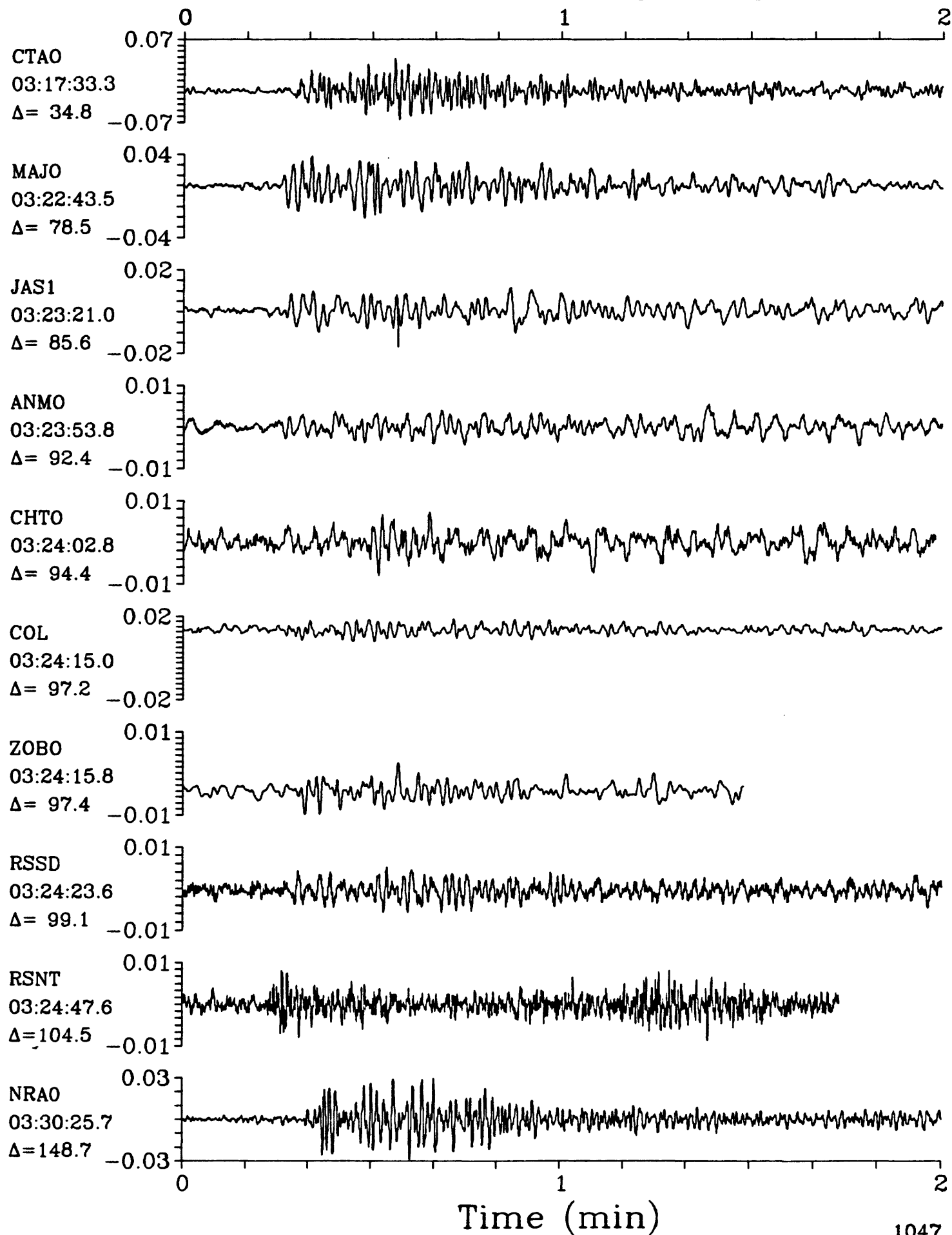
## Kermadec Islands Region



SPZ

15 June 1986 03:11:00.37

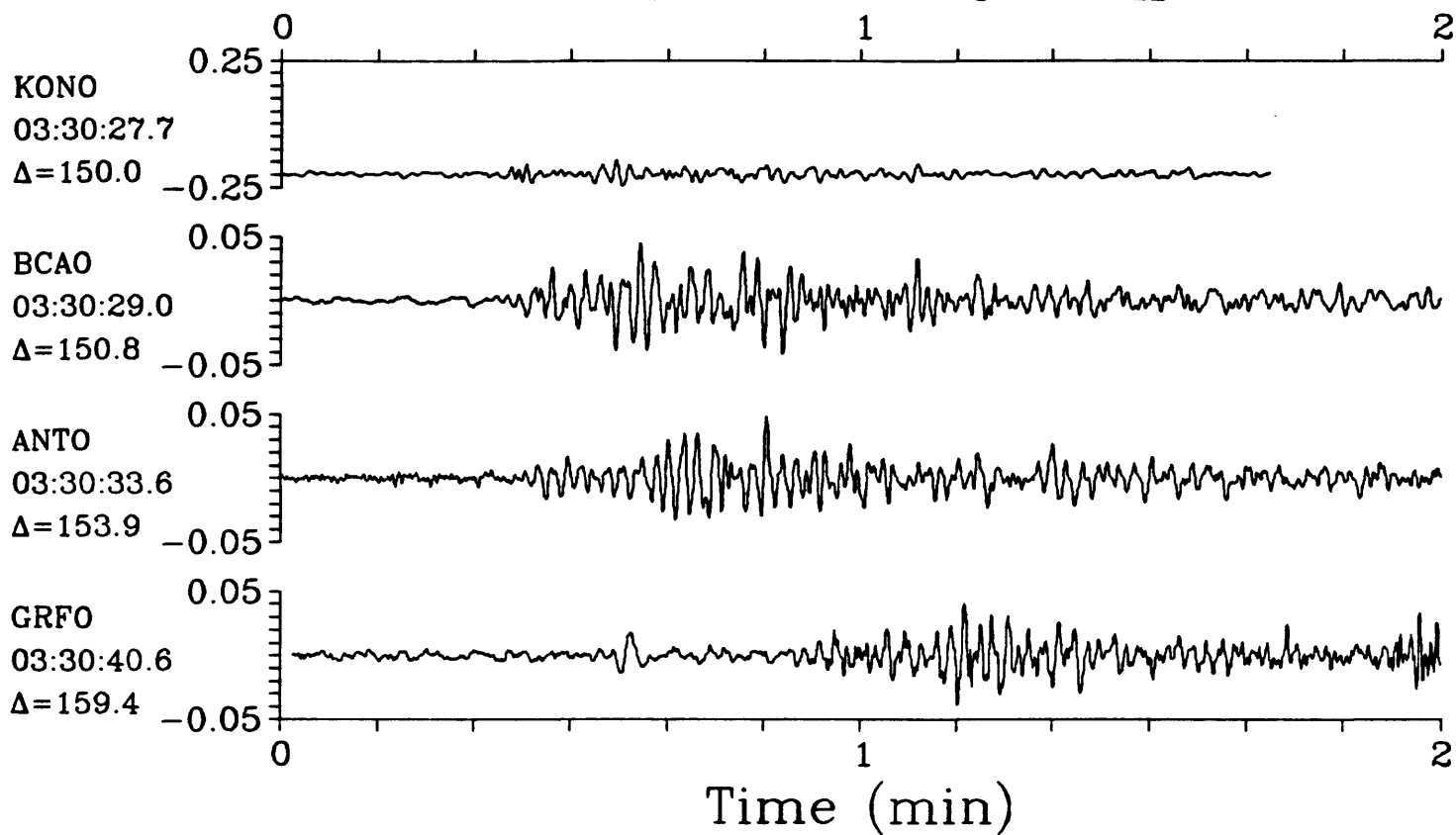
SPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.3$   $M_{SZ}=6.0$ 

SPZ

15 June 1986 03:11:00.37

SPZ

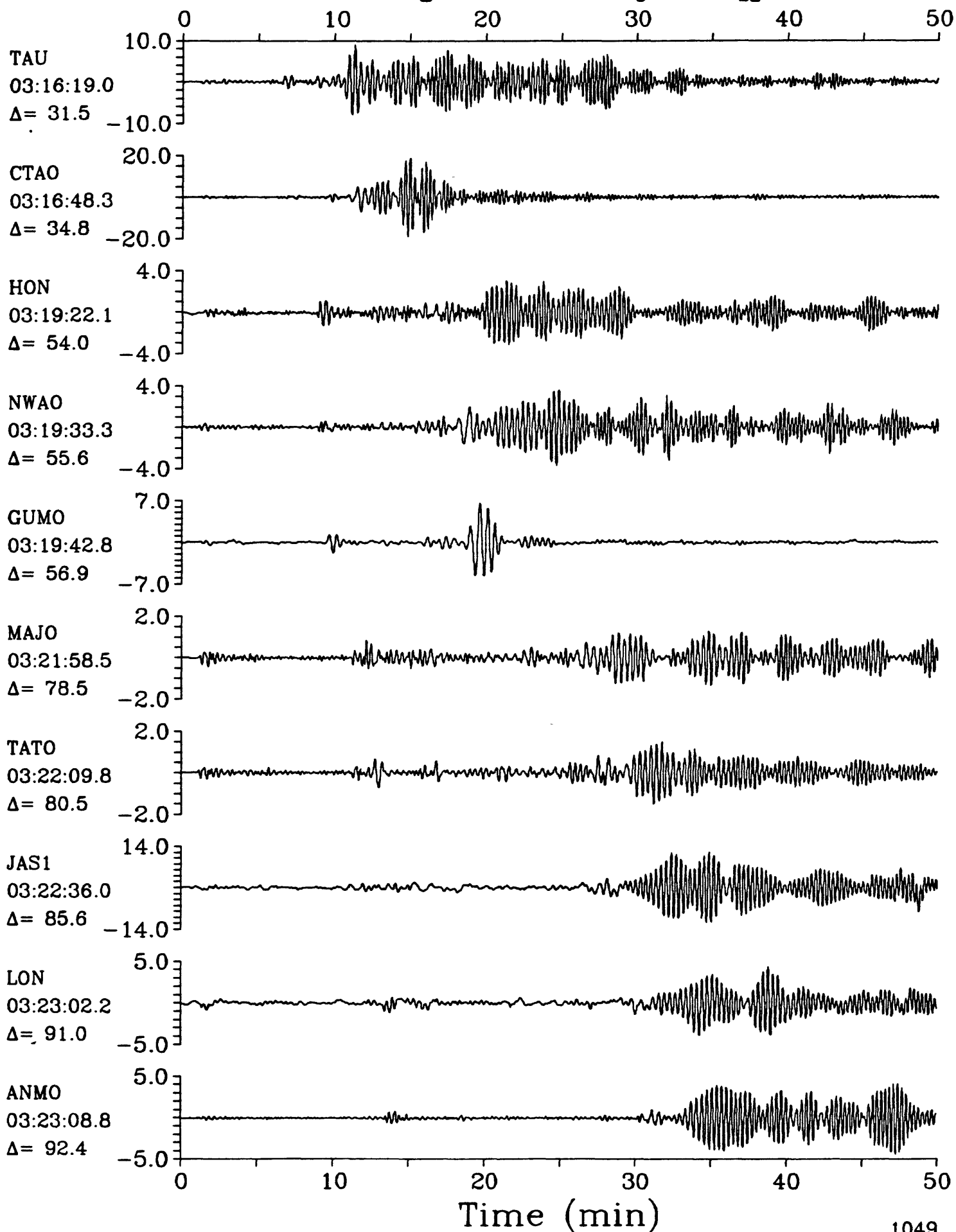
Kermadec Islands Region  $h=33.0$   $m_b=5.3$   $M_{sz}=6.0$ 



LPZ

15 June 1986 03:11:00.37

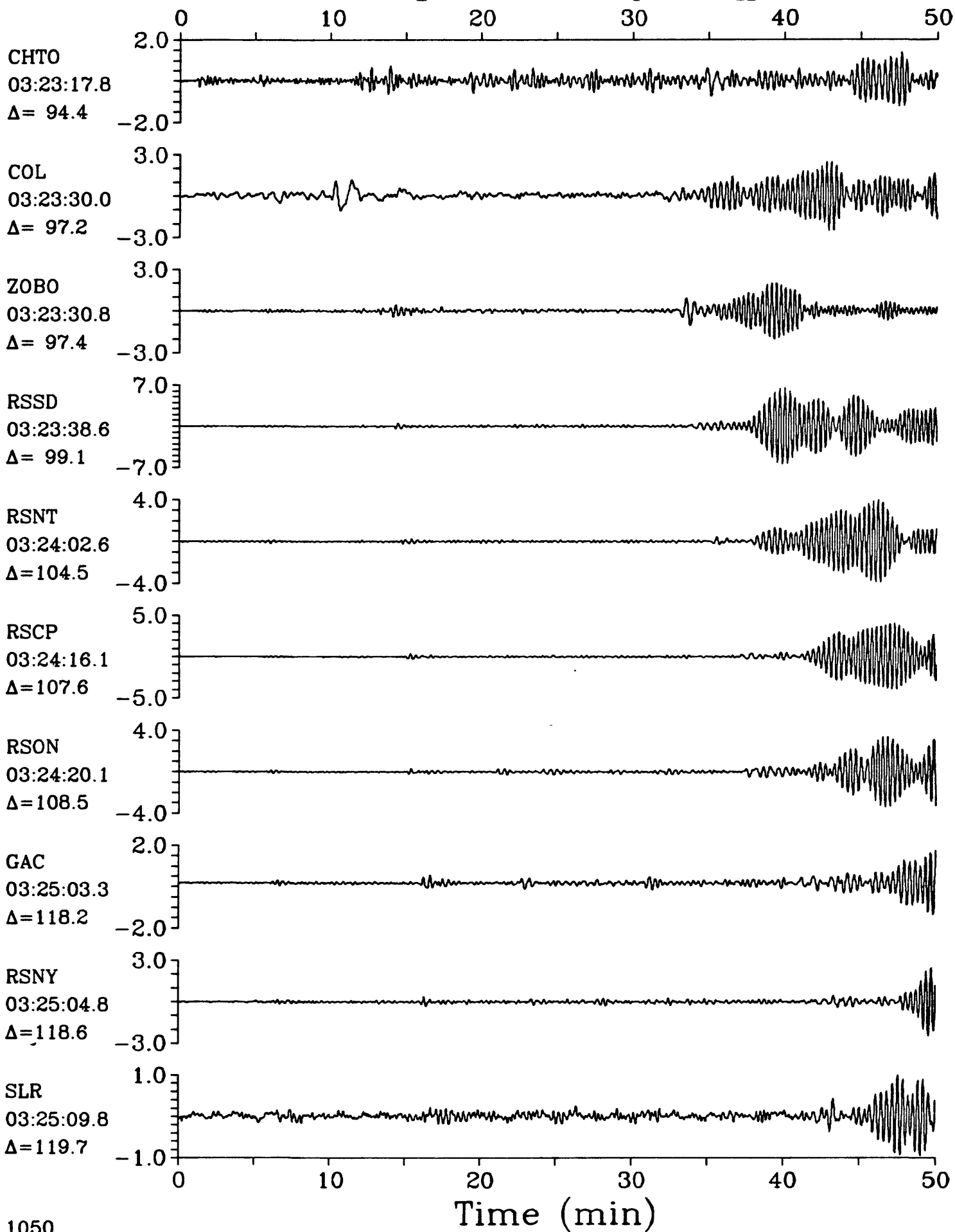
LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.3$   $M_{SZ}=6.0$ 

LPZ

15 June 1986 03:11:00.37

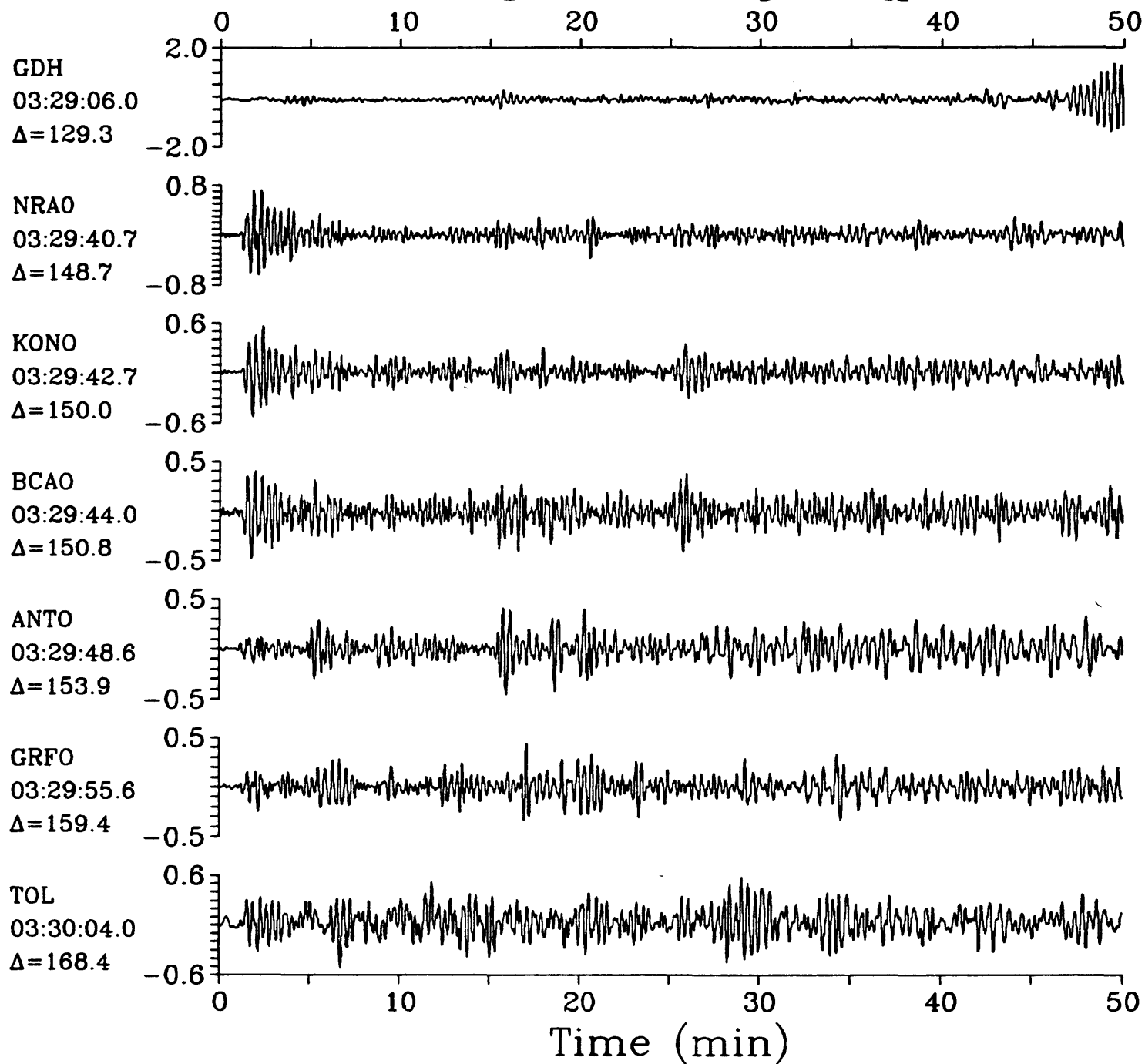
LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.3$   $M_{sz}=6.0$ 

LPZ

15 June 1986 03:11:00.37

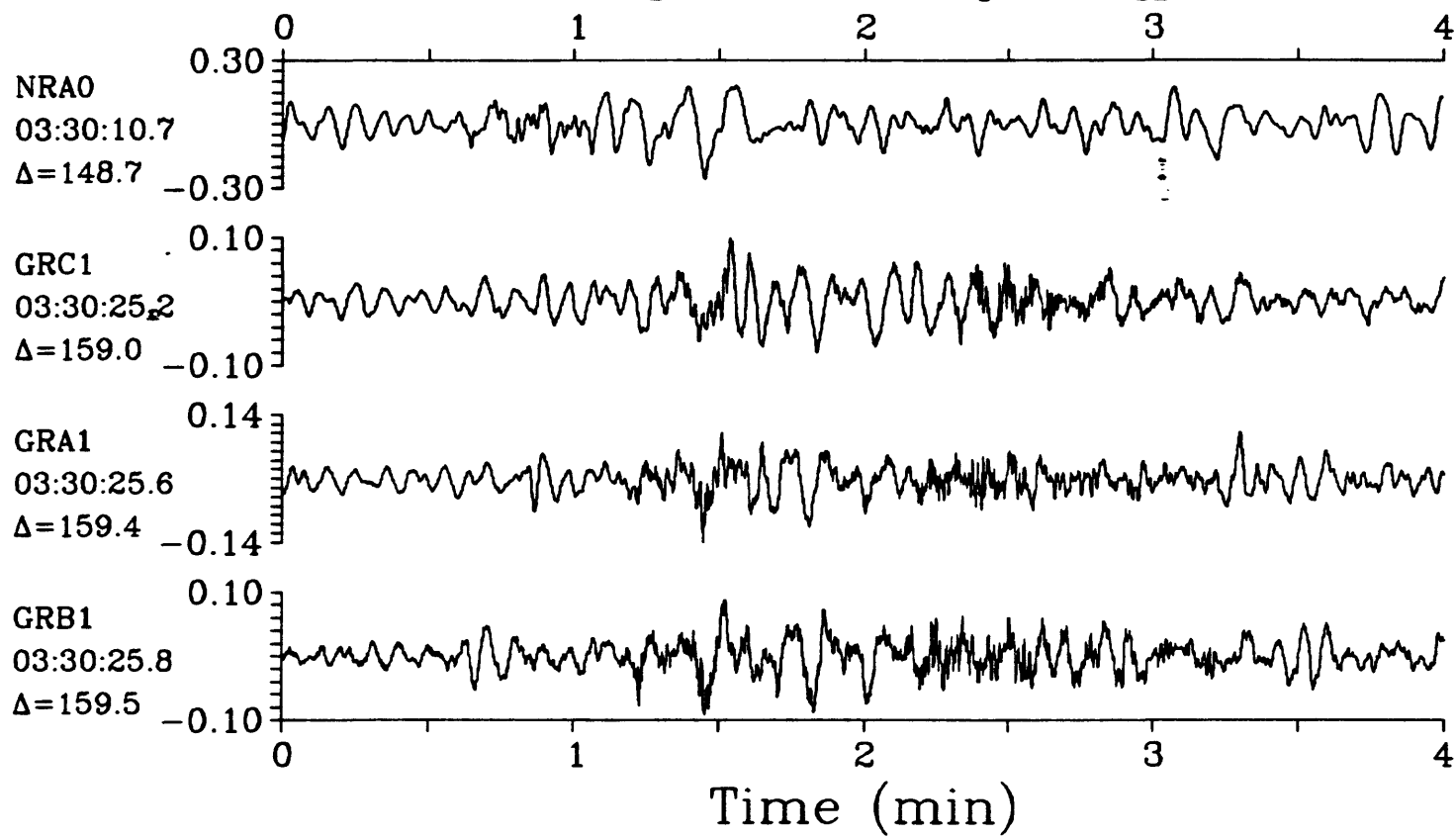
LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.3$   $M_{sz}=6.0$ 

IPZ

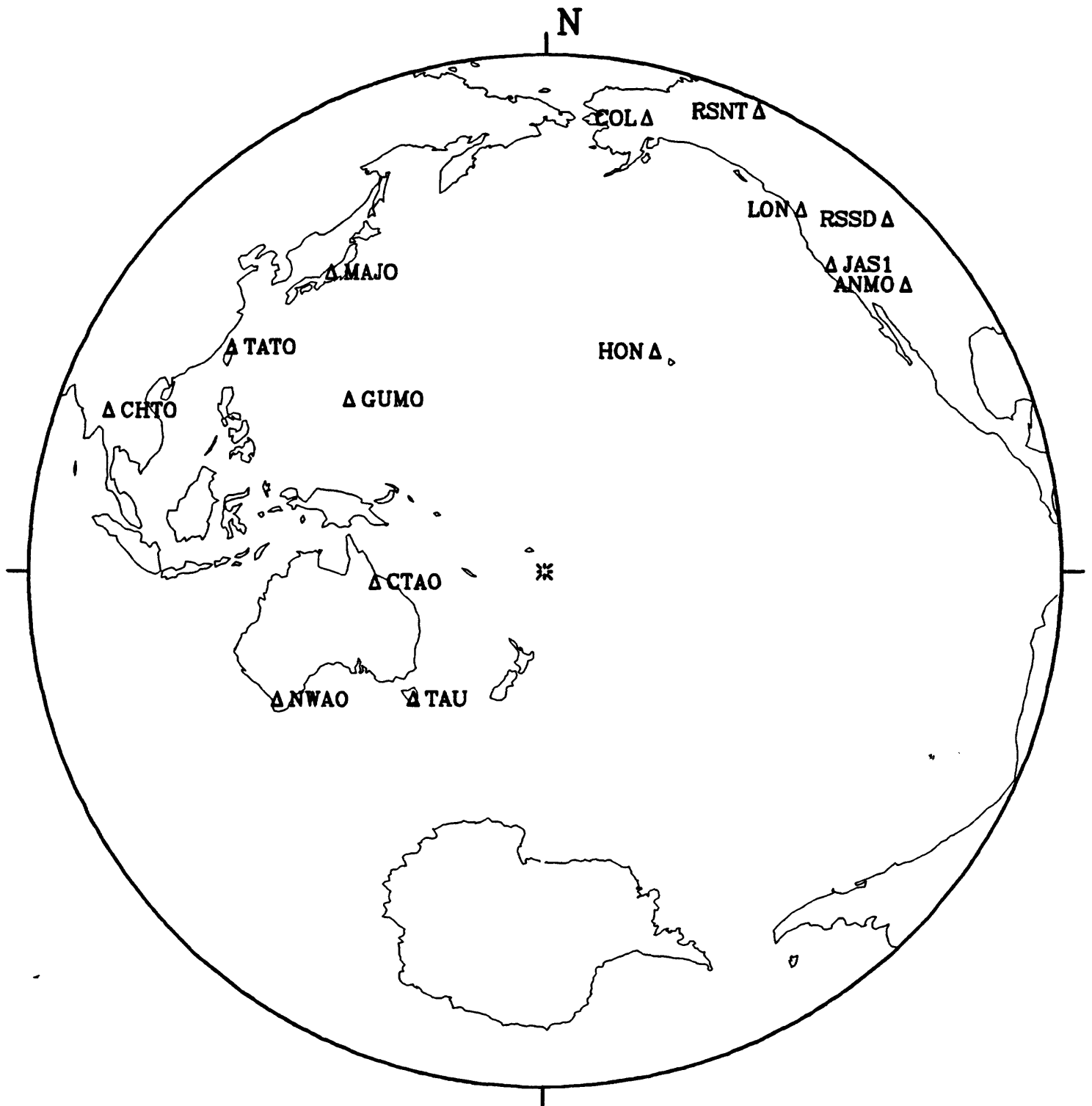
15 June 1986 03:11:00.37

IPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.3$   $M_{SZ}=6.0$ 

16 June 1986 10:48:27.60

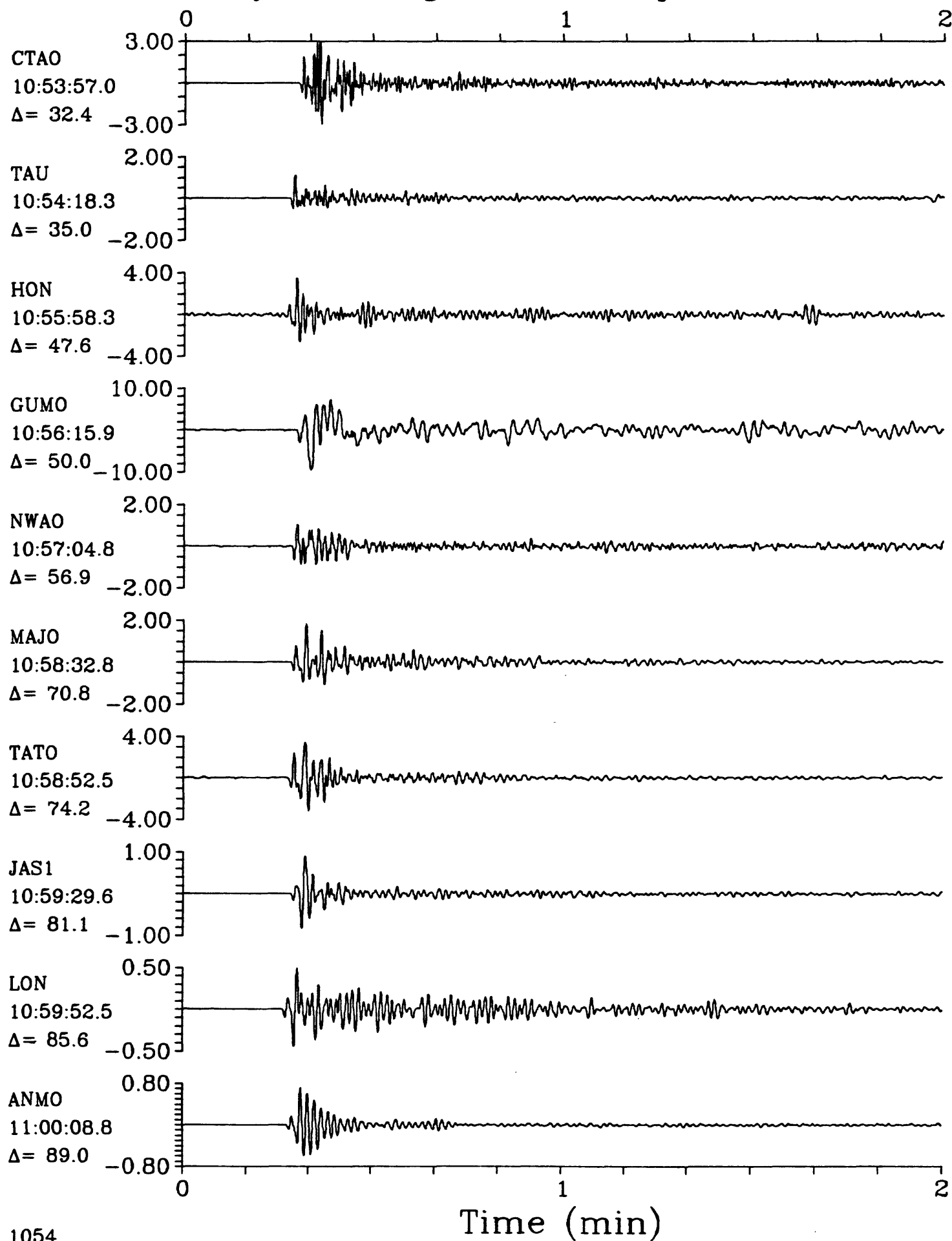
## Fiji Islands Region



SPZ

16 June 1986 10:48:27.60  
Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

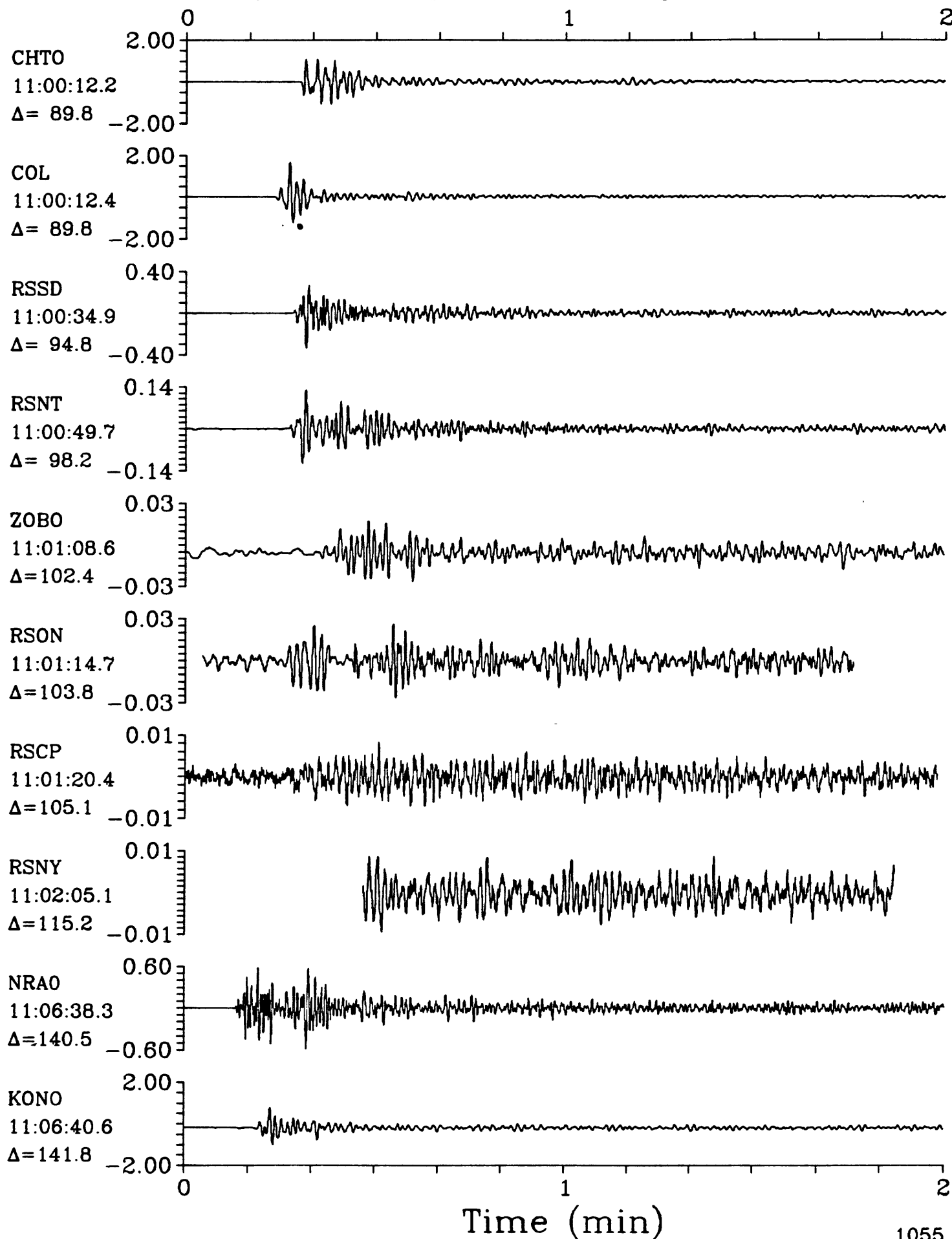
SPZ



SPZ

16 June 1986 10:48:27.60  
Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

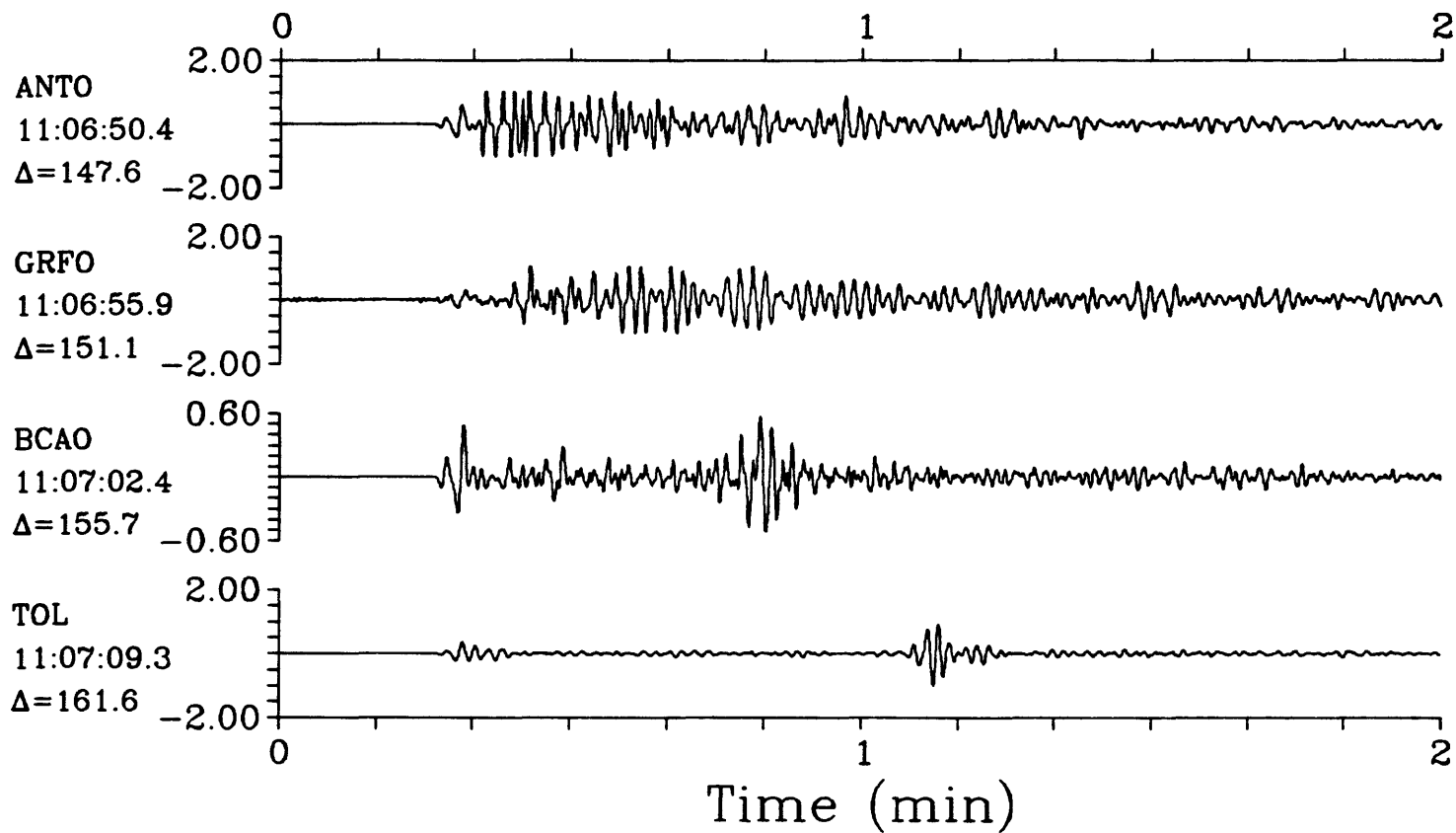
SPZ



SPZ

16 June 1986 10:48:27.60  
Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

SPZ

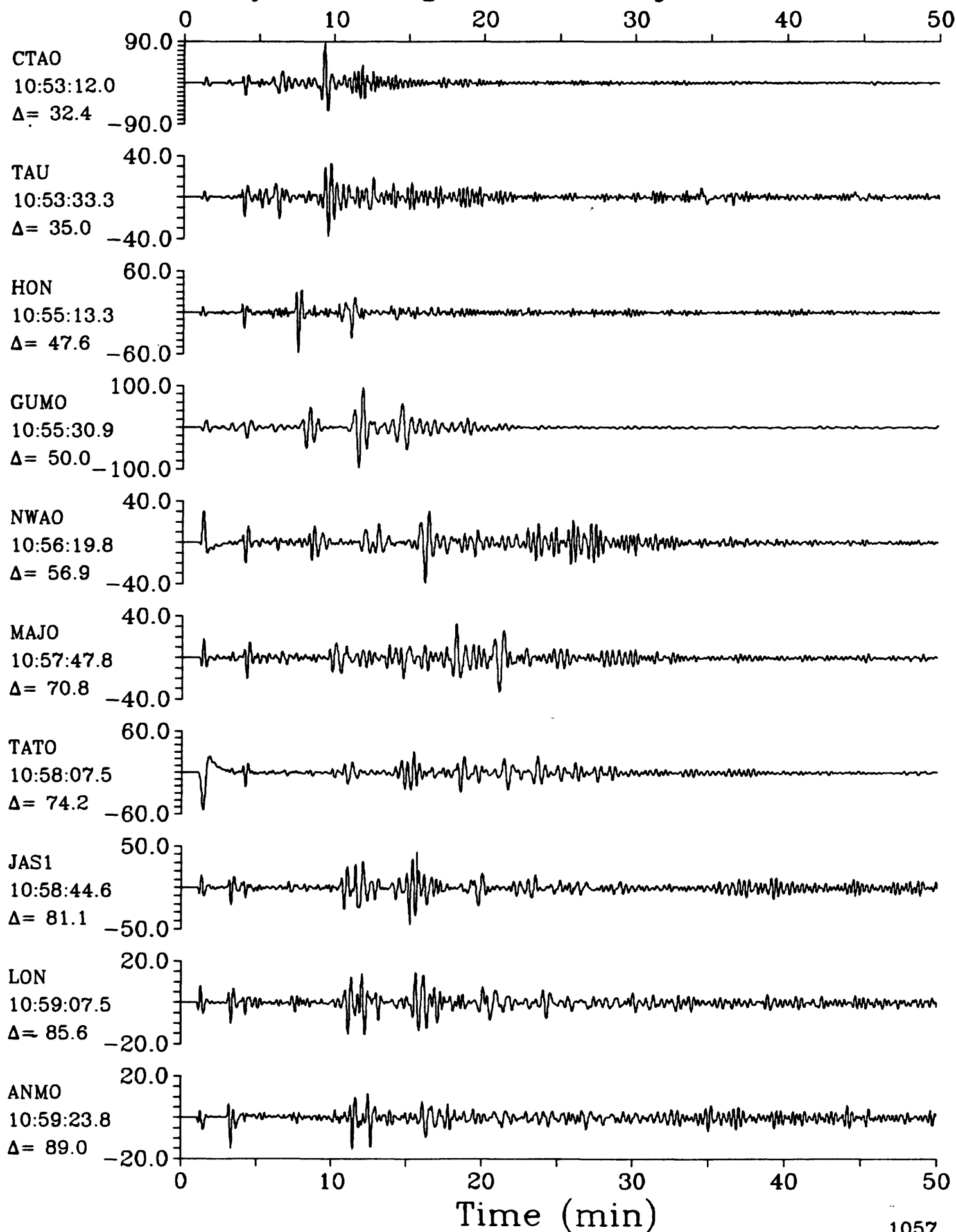




LPZ

16 June 1986 10:48:27.60  
Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

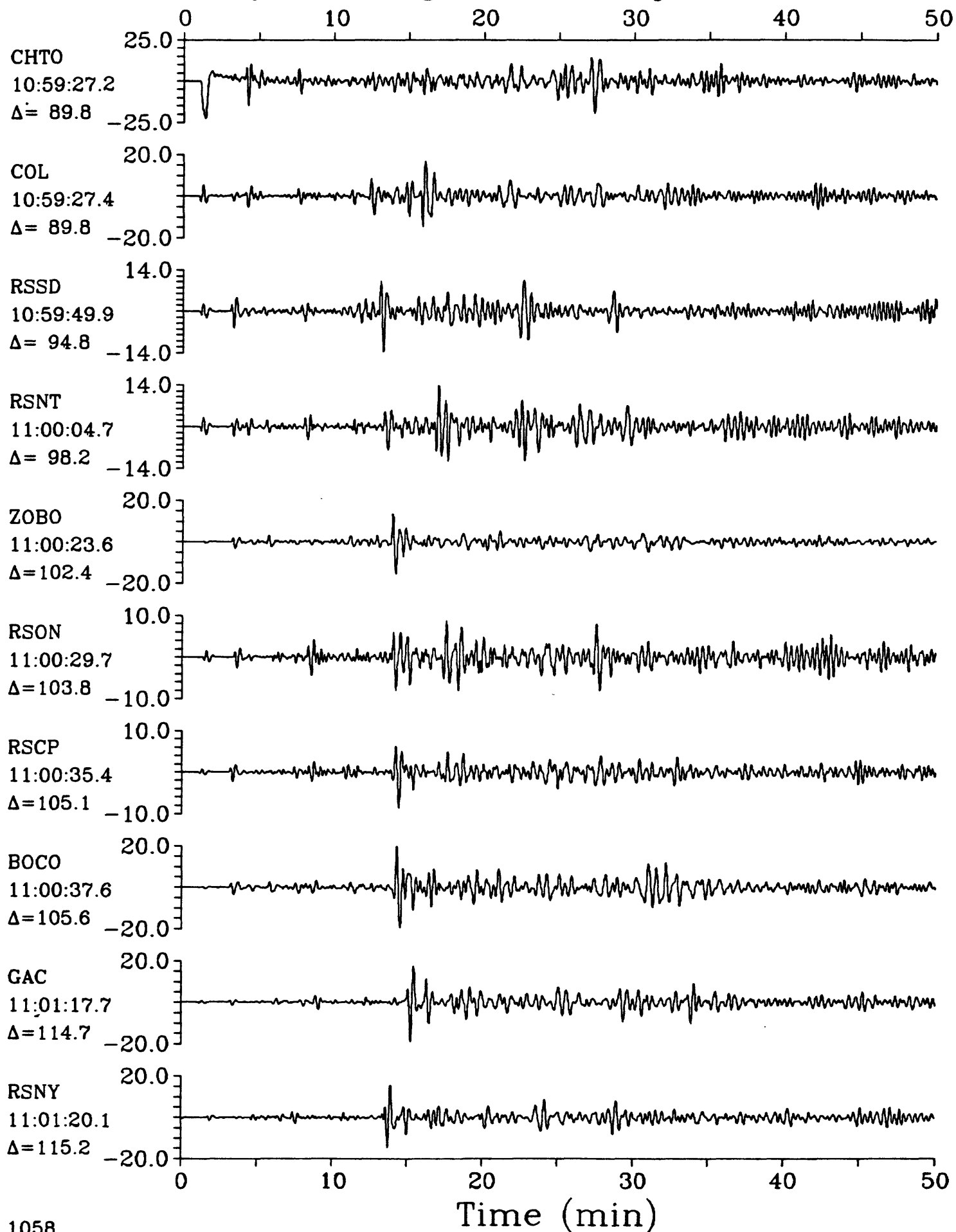
LPZ



LPZ

16 June 1986 10:48:27.60  
Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

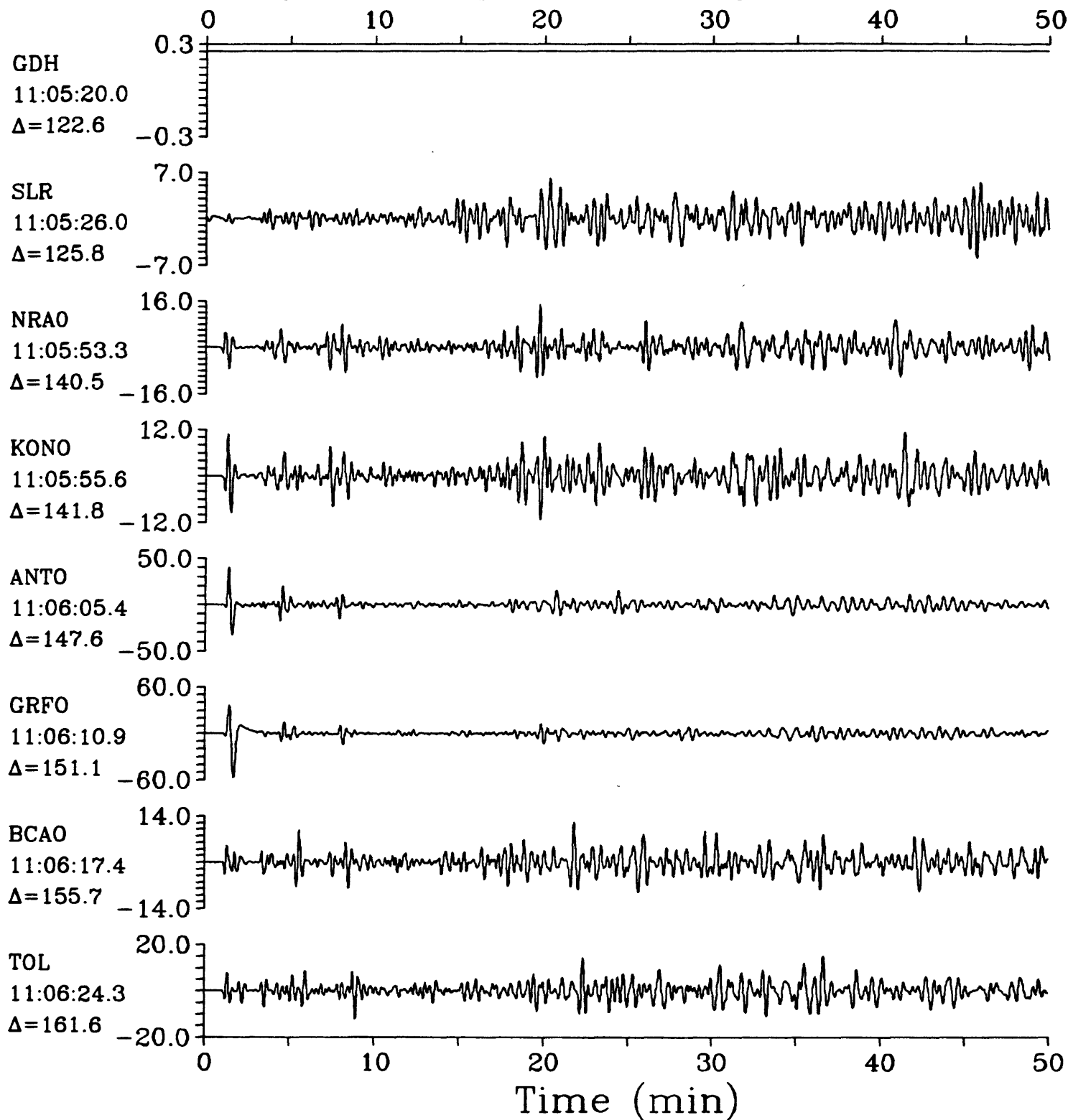
LPZ



LPZ

16 June 1986 10:48:27.60

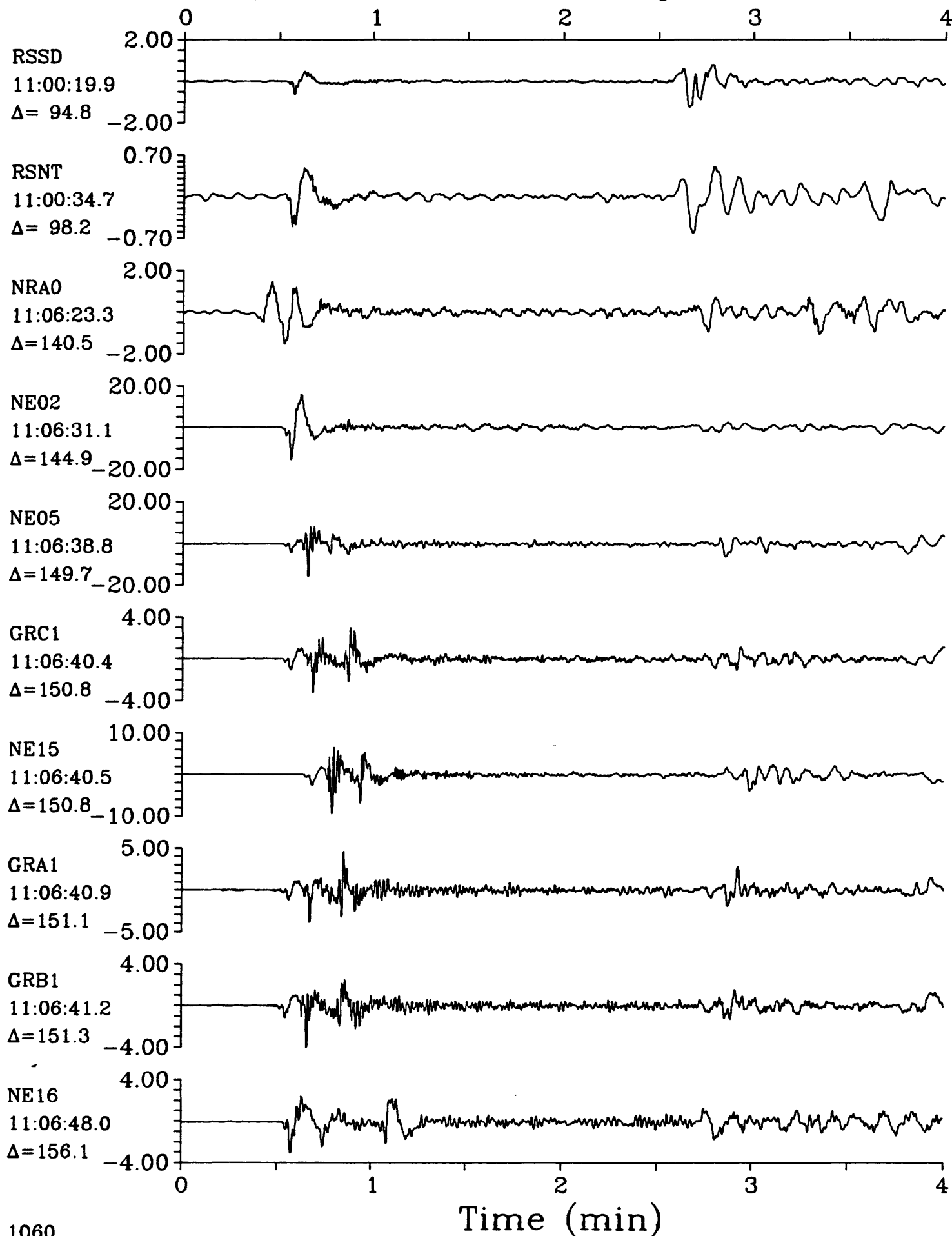
LPZ

Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

IPZ

16 June 1986 10:48:27.60  
Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

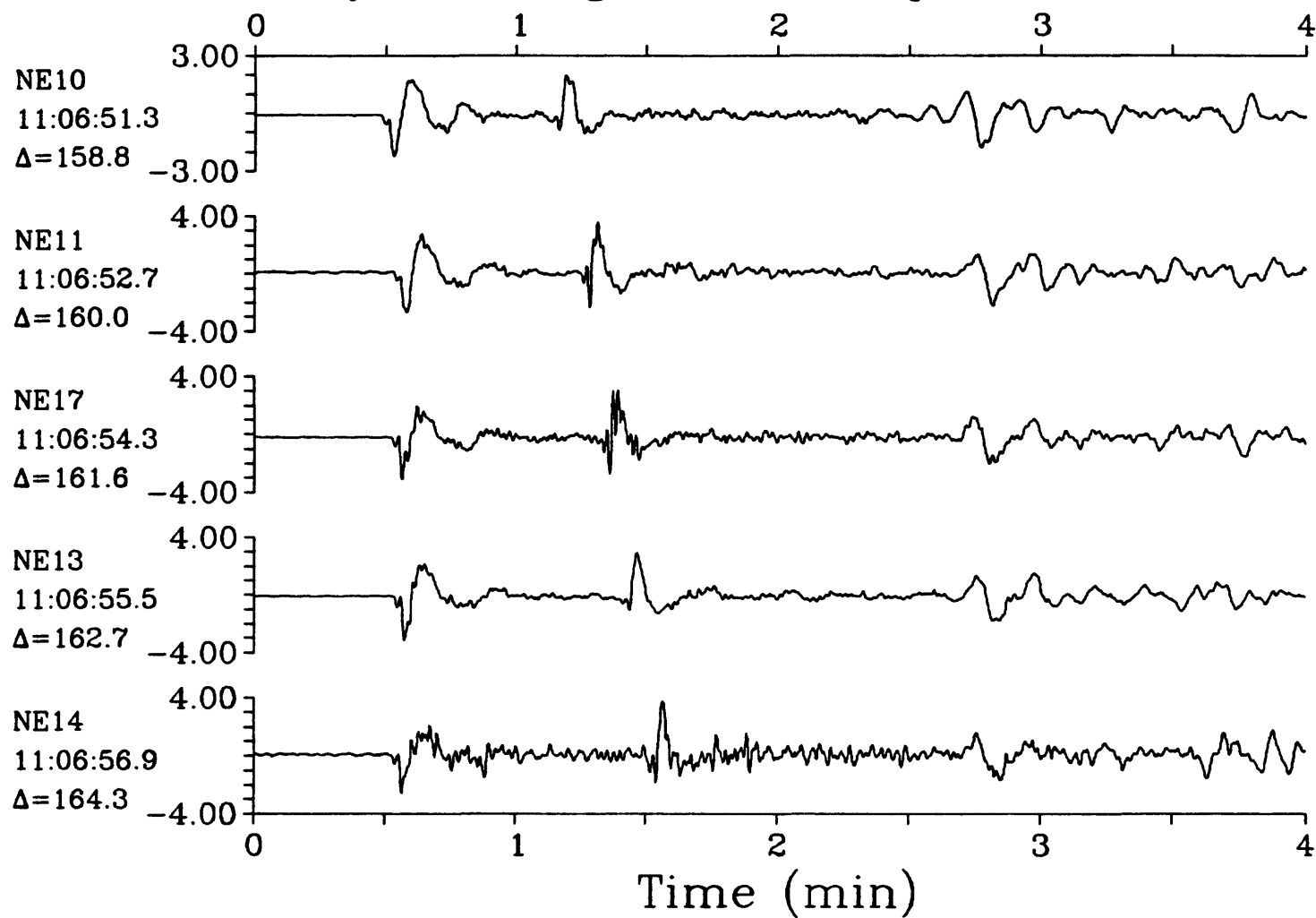
IPZ



IPZ

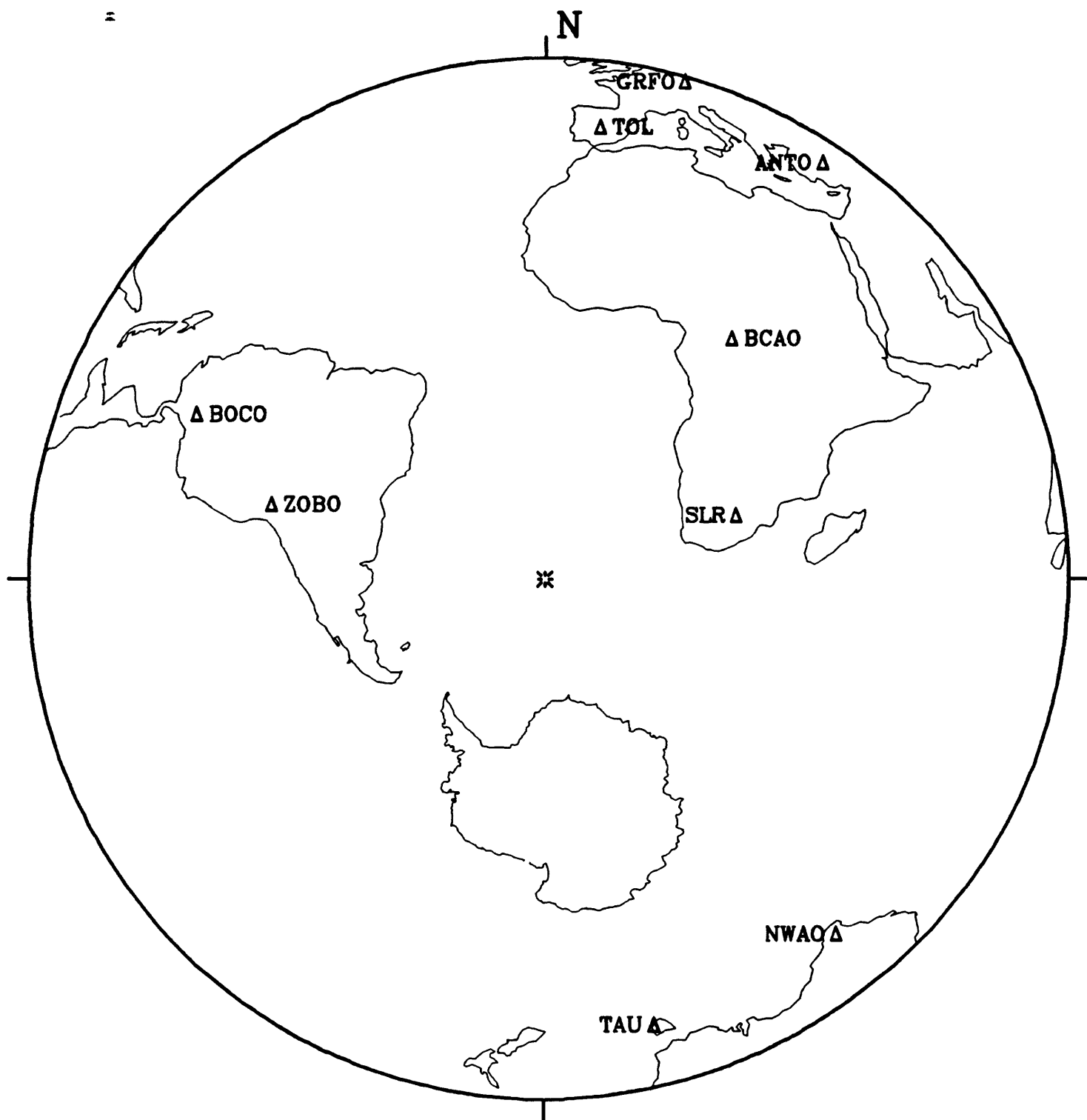
16 June 1986 10:48:27.60

IPZ

Fiji Islands Region  $h=565.2$   $m_b=6.1$ 

16 June 1986 17:15:09.93

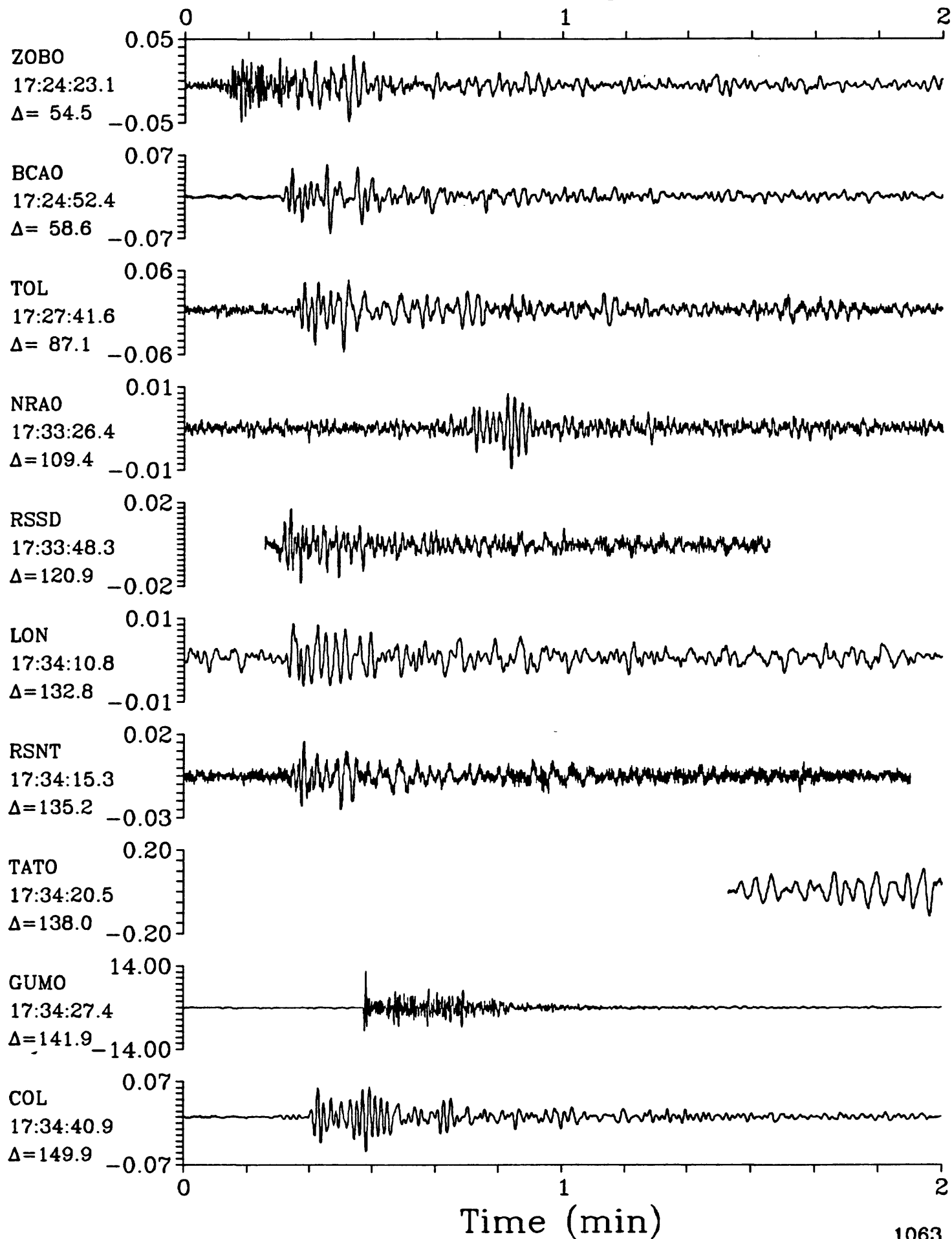
# South Atlantic Ridge



SPZ

16 June 1986 17:15:09.93

SPZ

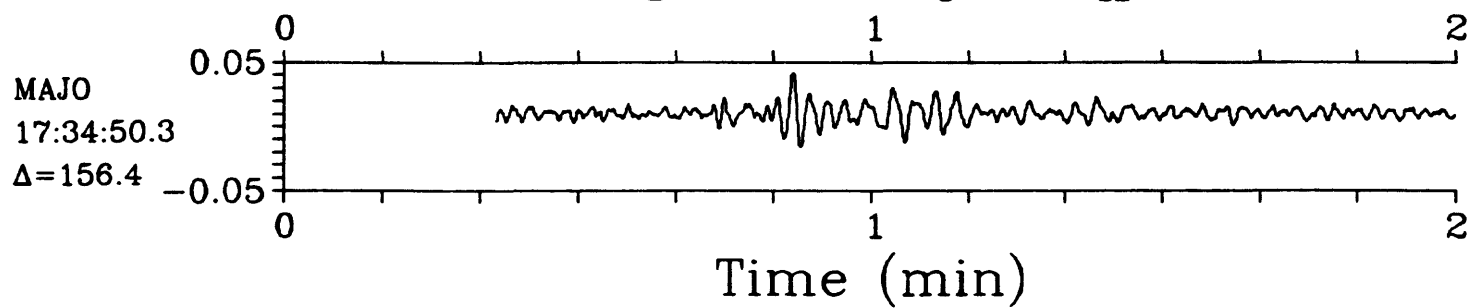
South Atlantic Ridge  $h=10.0$   $m_b=5.5$   $M_{sz}=5.6$ 

SPZ

16 June 1986 17:15:09.93

SPZ

South Atlantic Ridge  $h=10.0$   $m_b=5.5$   $M_{sz}=5.6$

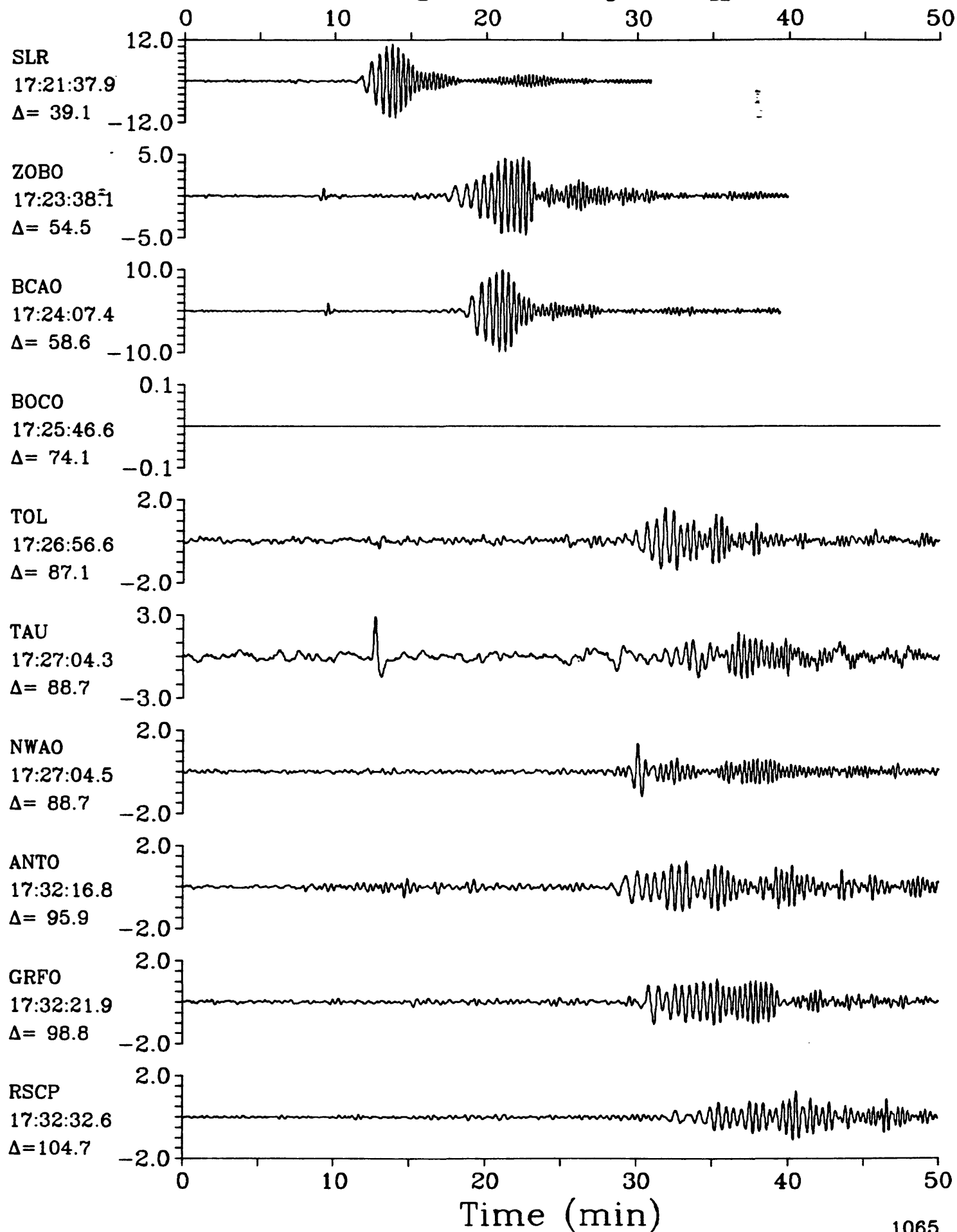




LPZ

16 June 1986 17:15:09.93

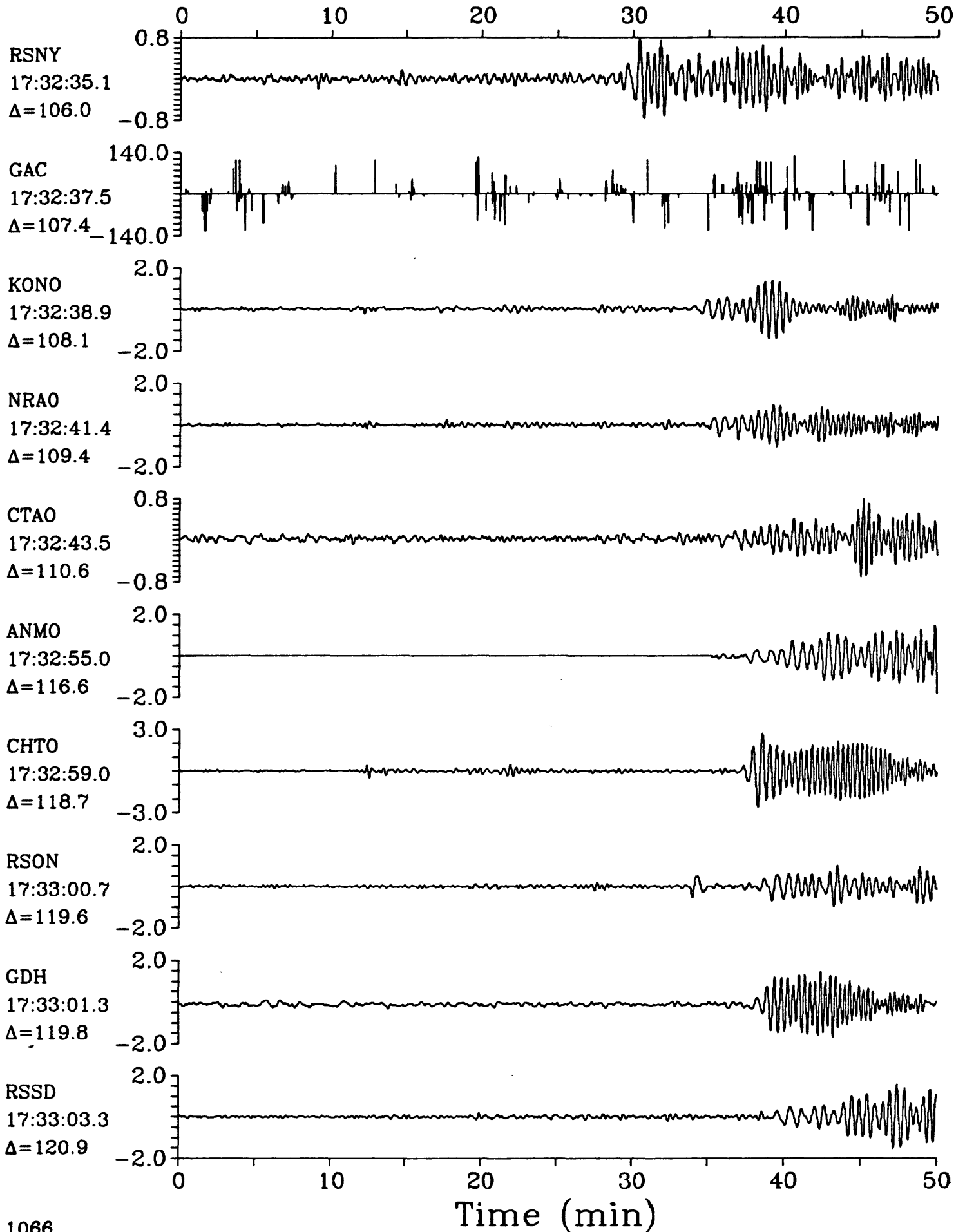
LPZ

South Atlantic Ridge  $h=10.0$   $m_b=5.5$   $M_{sz}=5.6$ 

LPZ

16 June 1986 17:15:09.93

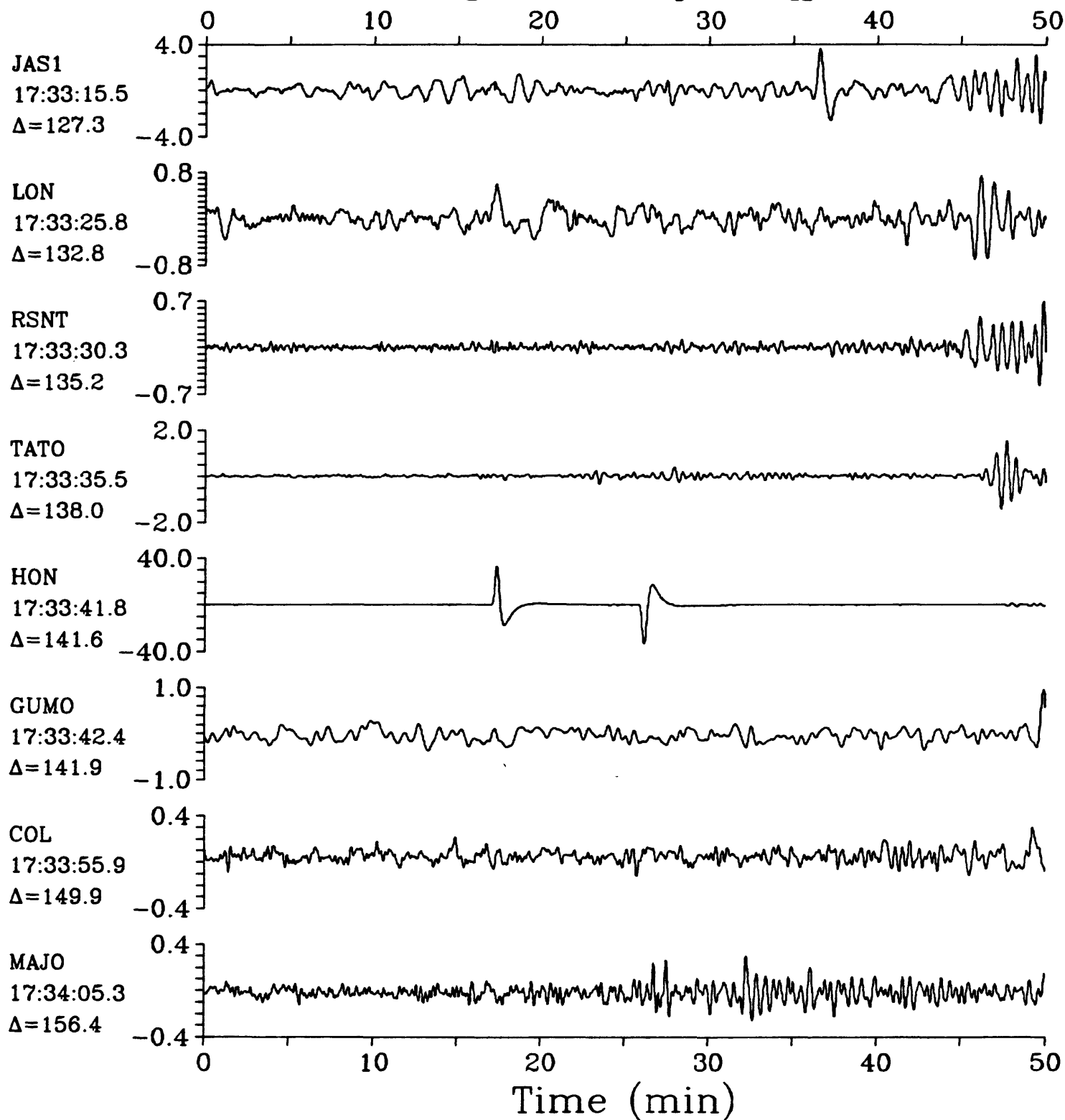
LPZ

South Atlantic Ridge  $h=10.0$   $m_b=5.5$   $M_{sz}=5.6$ 

LPZ

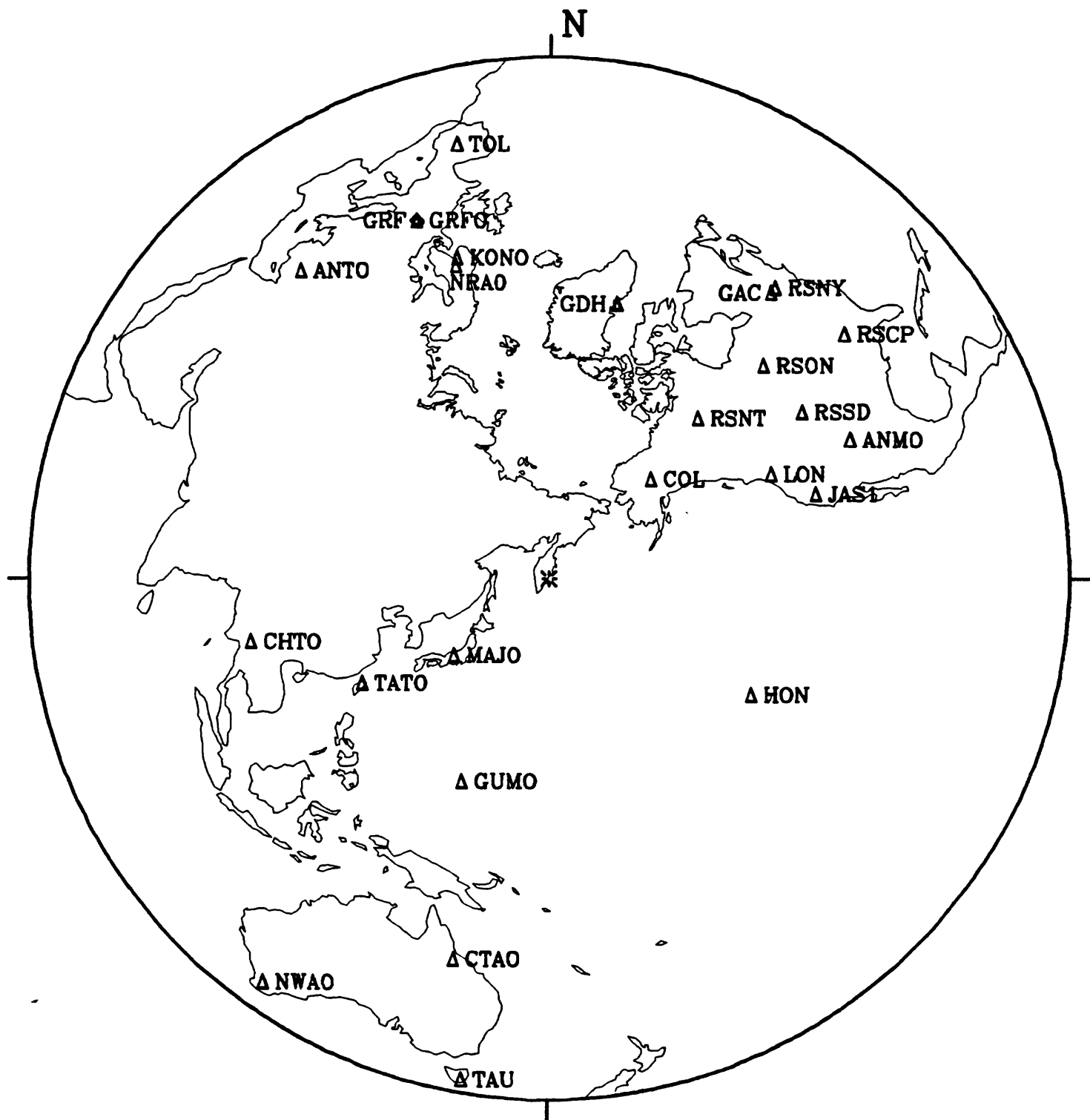
16 June 1986 17:15:09.93

LPZ

South Atlantic Ridge  $h=10.0$   $m_b=5.5$   $M_{sz}=5.6$ 

17 June 1986 00:42:35.32

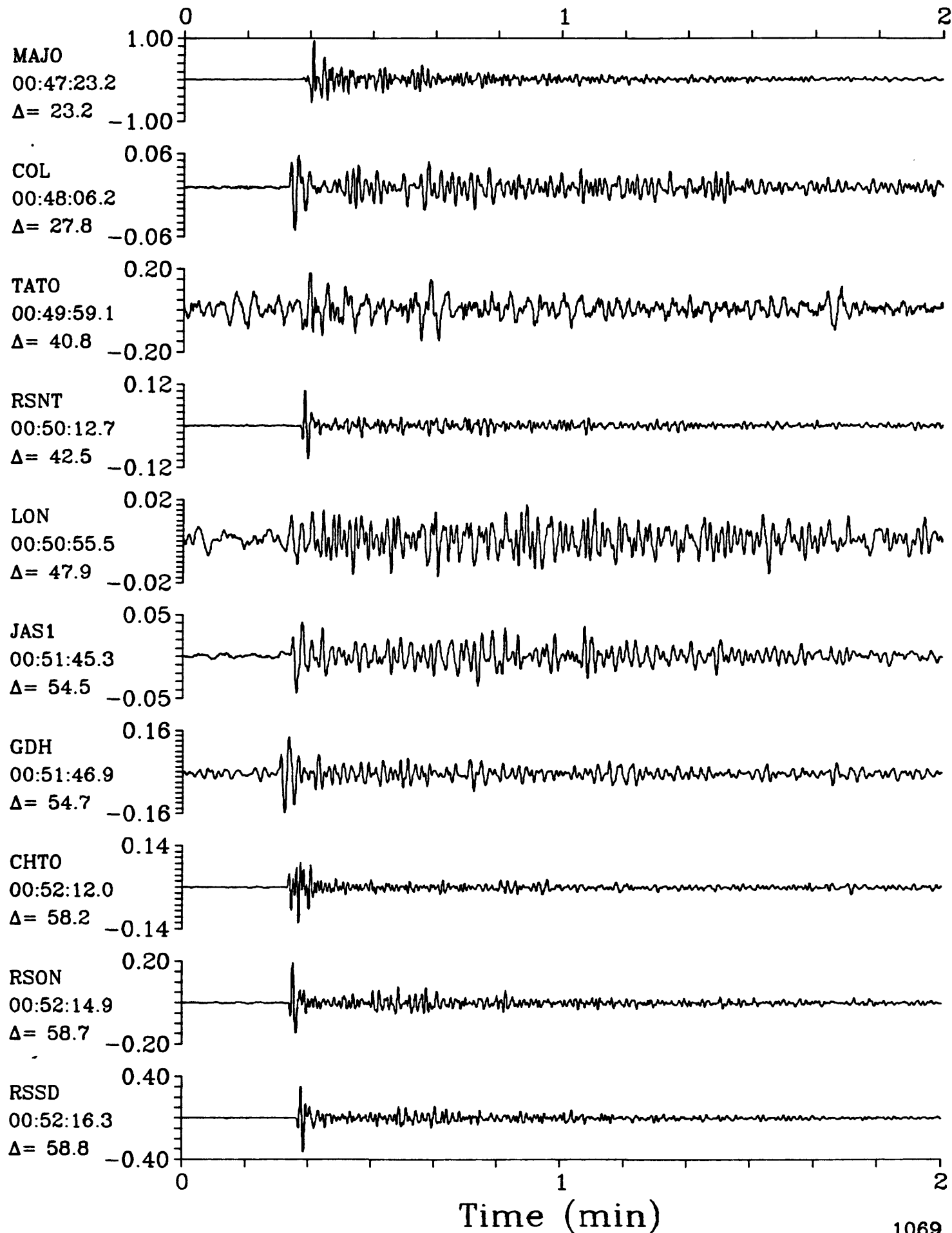
# Near East Coast of Kamchatka



SPZ

17 June 1986 00:42:35.32

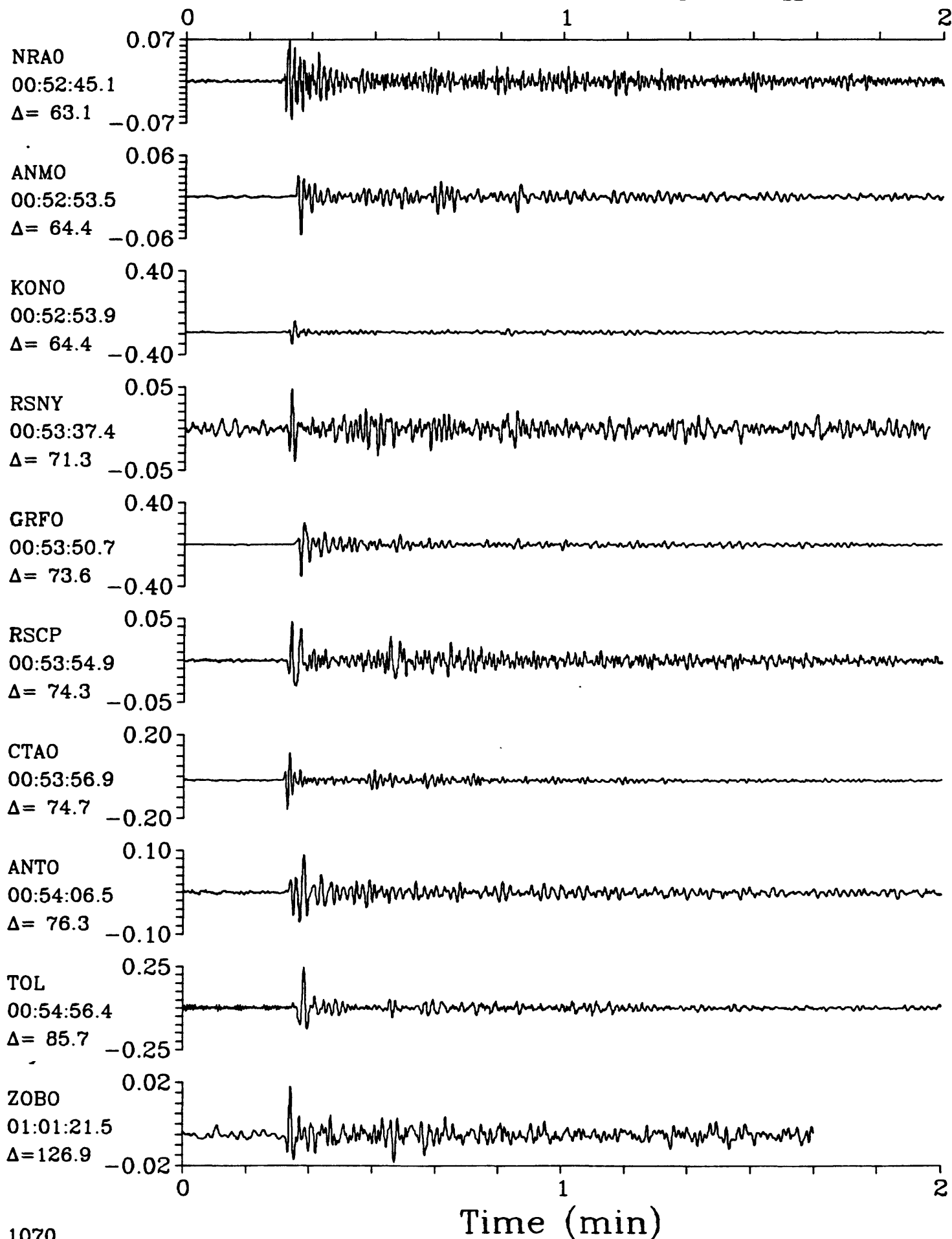
SPZ

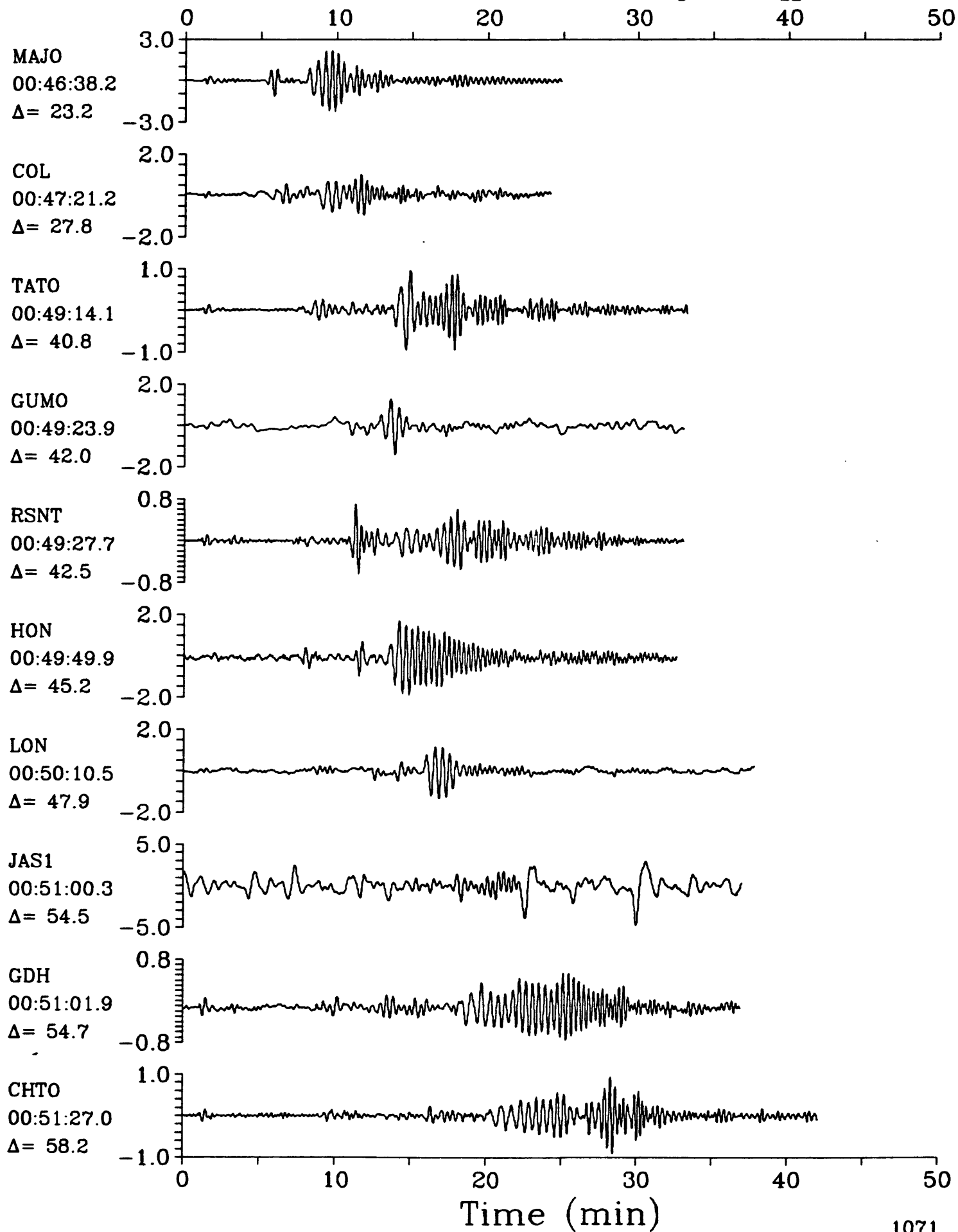
Near East Coast of Kamchatka  $h=33.0$   $m_b=5.9$   $M_{sz}=4.6$ 

SPZ

17 June 1986 00:42:35.32

SPZ

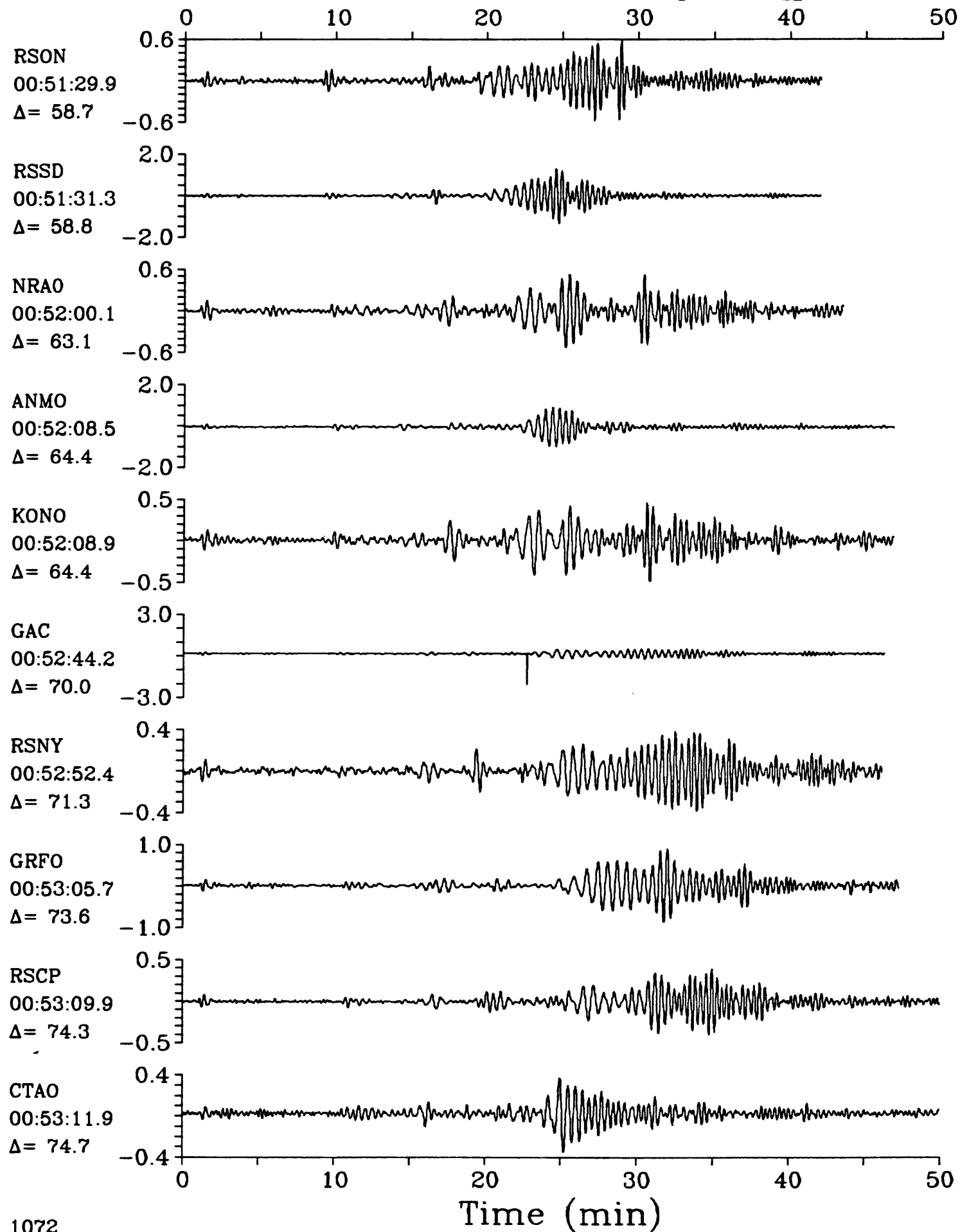
Near East Coast of Kamchatka  $h=33.0$   $m_b=5.9$   $M_{sz}=4.6$ 



LPZ

17 June 1986 00:42:35.32

LPZ

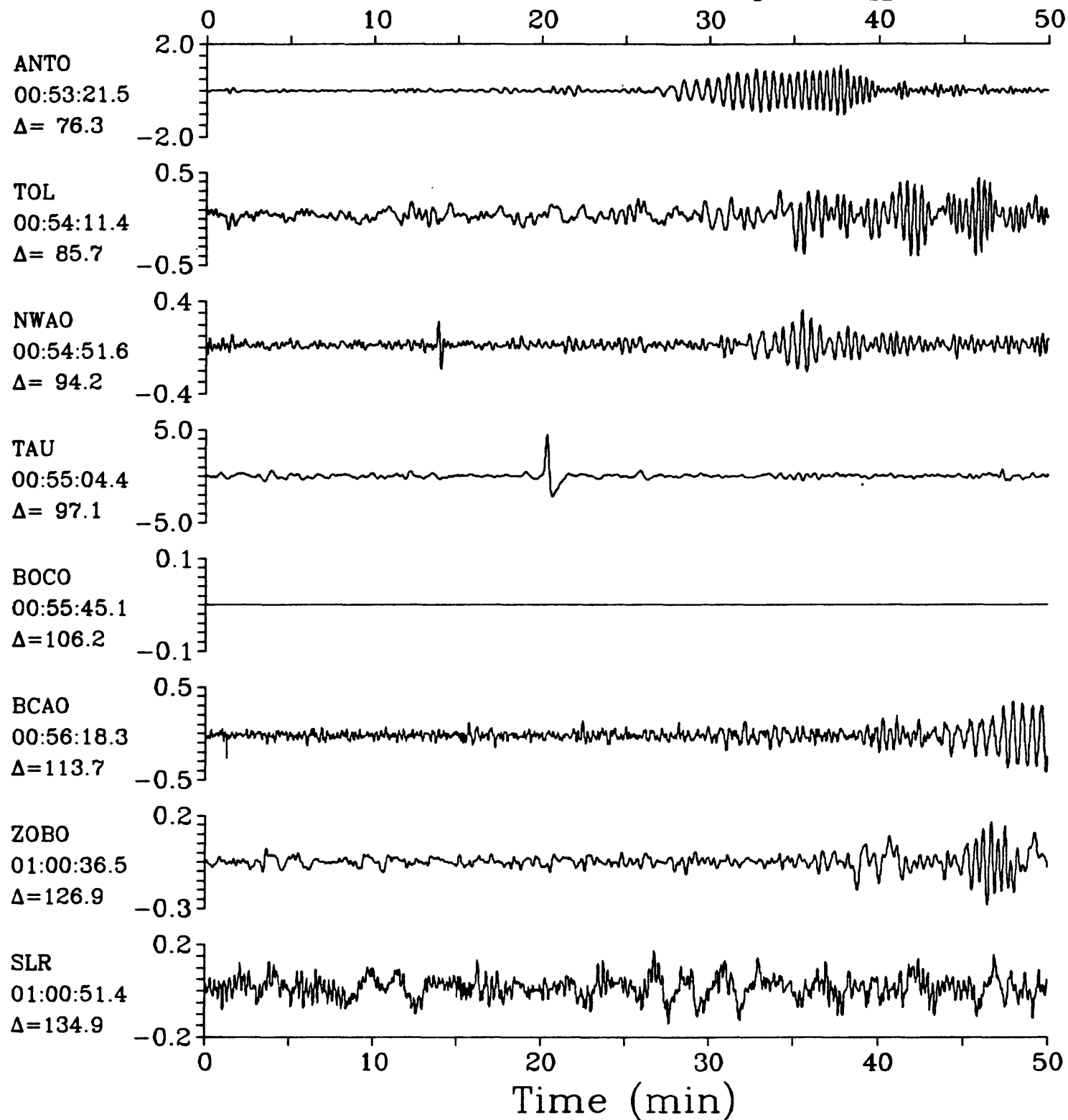
Near East Coast of Kamchatka  $h=33.0$   $m_b=5.9$   $M_{sz}=4.6$ 



LPZ

17 June 1986 00:42:35.32

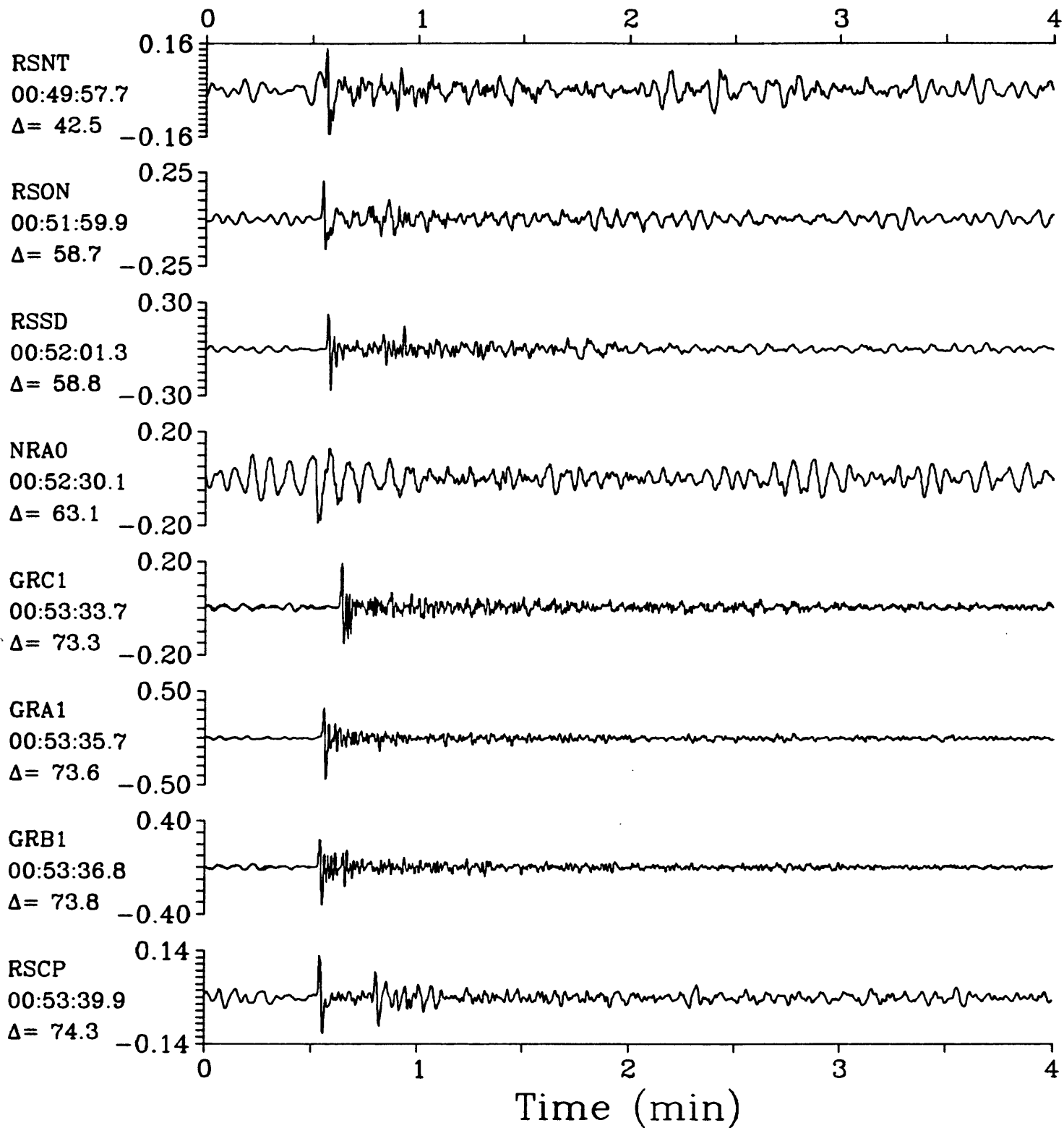
LPZ

Near East Coast of Kamchatka  $h=33.0$   $m_b=5.9$   $M_{sz}=4.6$ 

IPZ

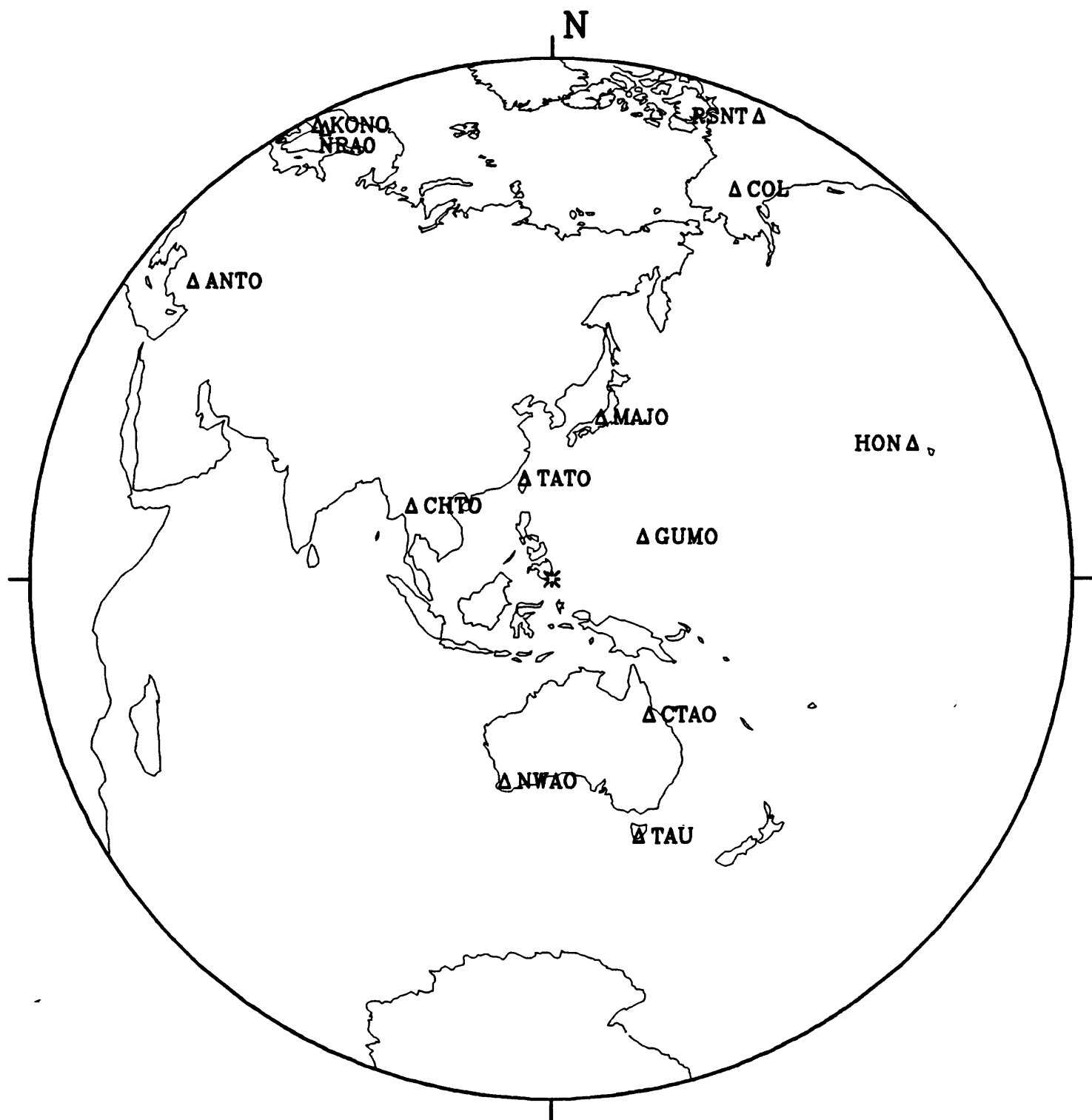
17 June 1986 00:42:35.32

IPZ

Near East Coast of Kamchatka  $h=33.0$   $m_b=5.9$   $M_{sz}=4.6$ 

17 June 1986 10:38:17.95

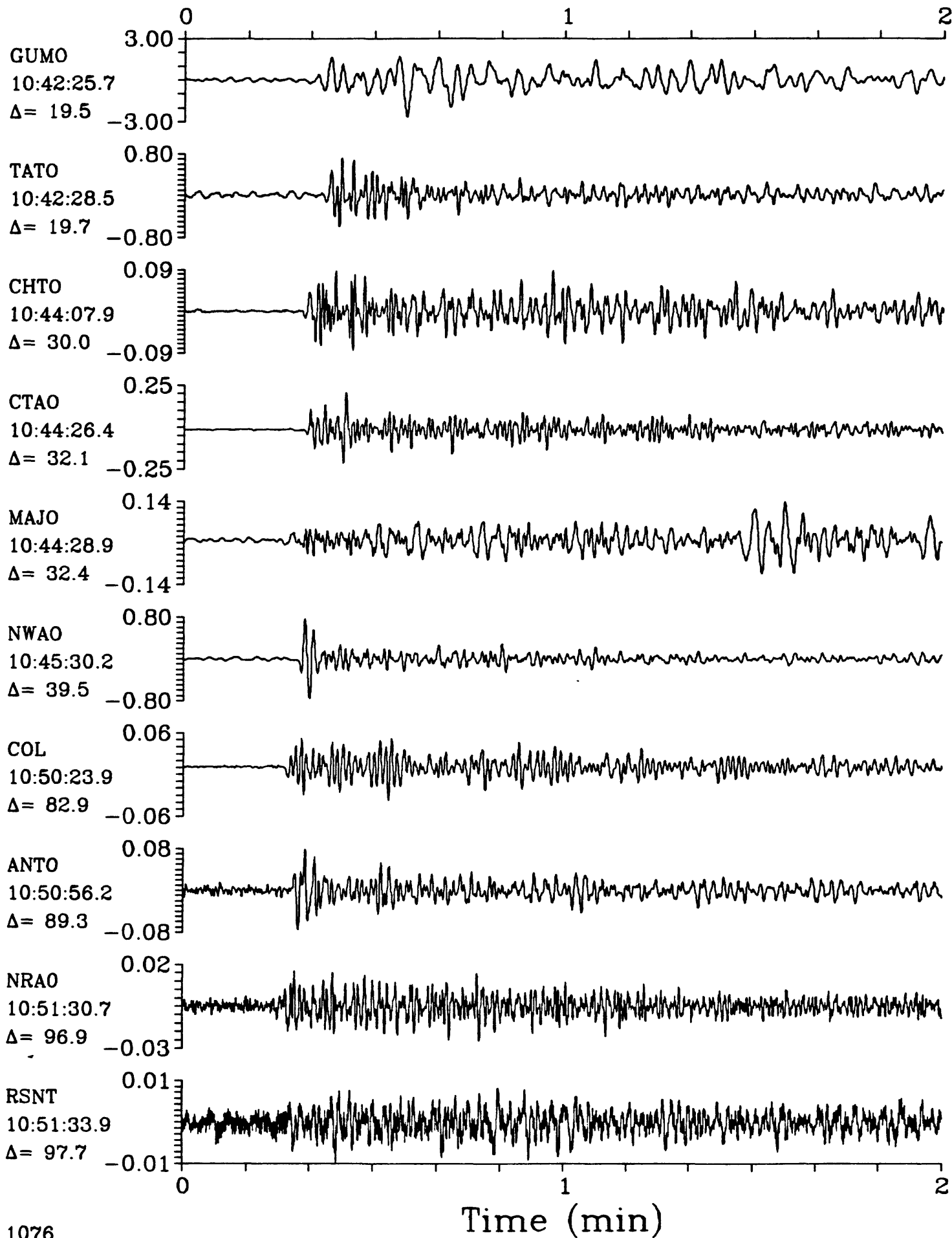
# Mindanao, Philippine Islands



SPZ

17 June 1986 10:38:17.95

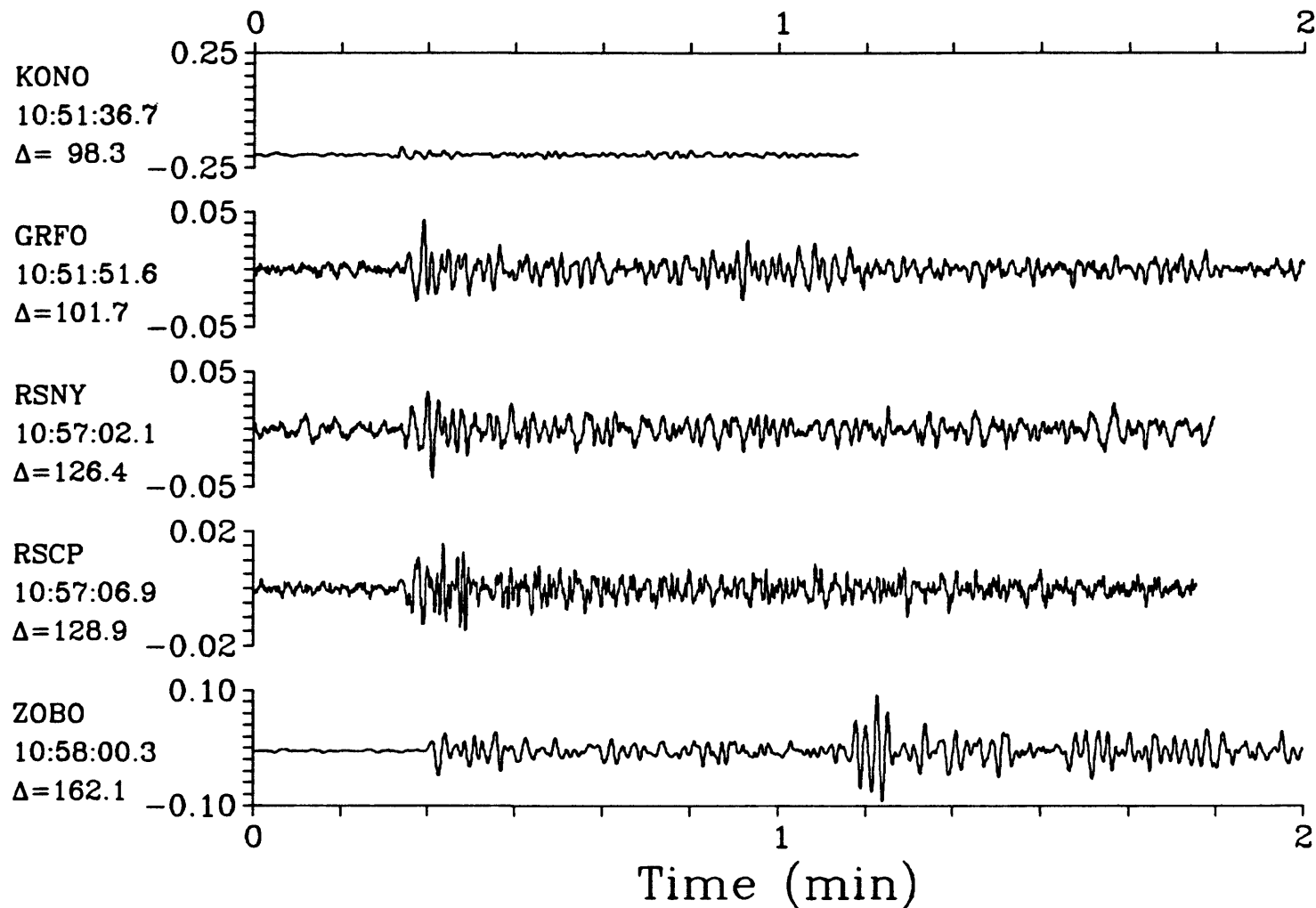
SPZ

Mindanao, Philippine Islands  $h=39.9$   $m_b=5.9$   $M_{sz}=5.6$ 

SPZ

17 June 1986 10:38:17.95

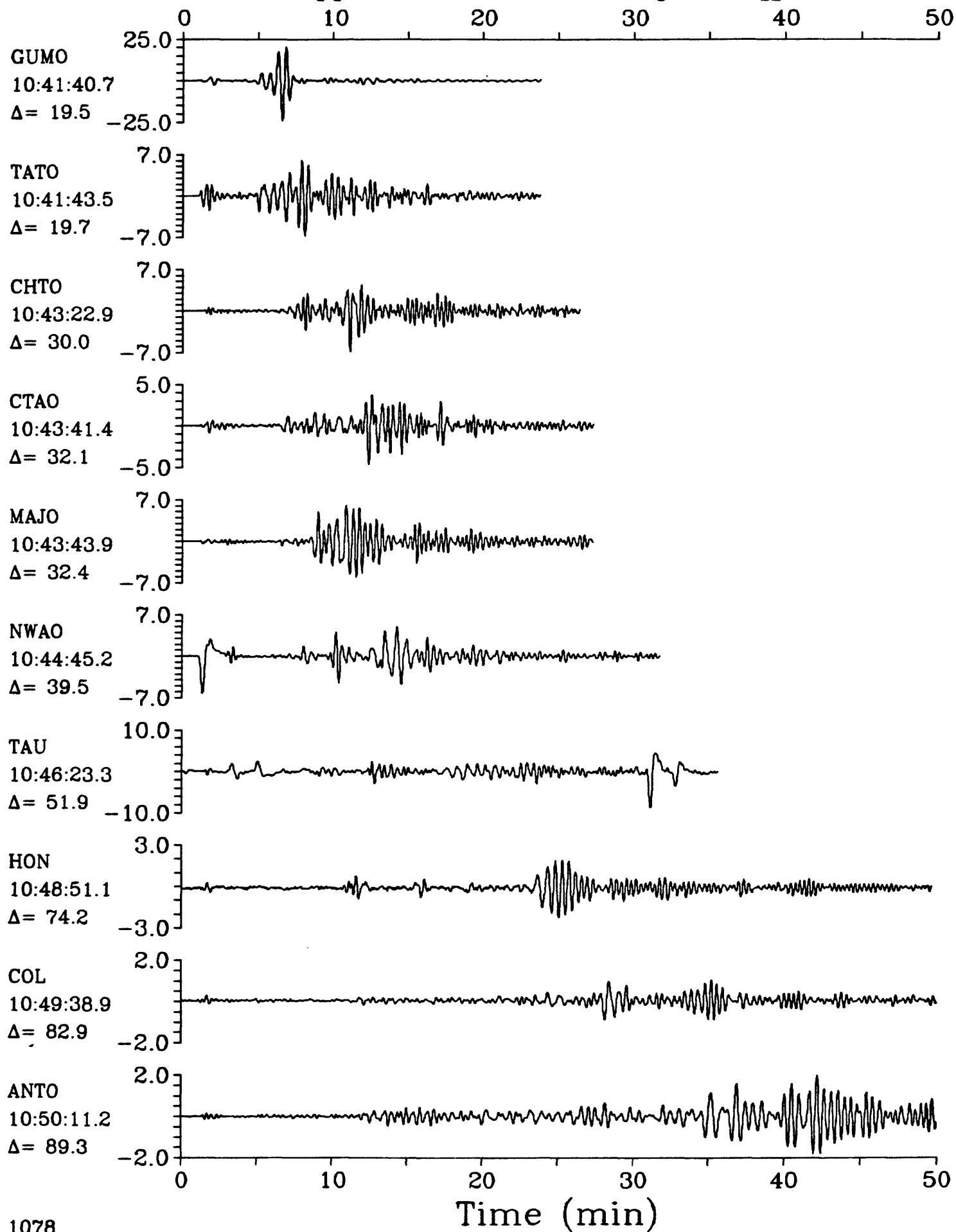
SPZ

Mindanao, Philippine Islands  $h=39.9$   $m_b=5.9$   $M_{sz}=5.6$ 

LPZ

17 June 1986 10:38:17.95

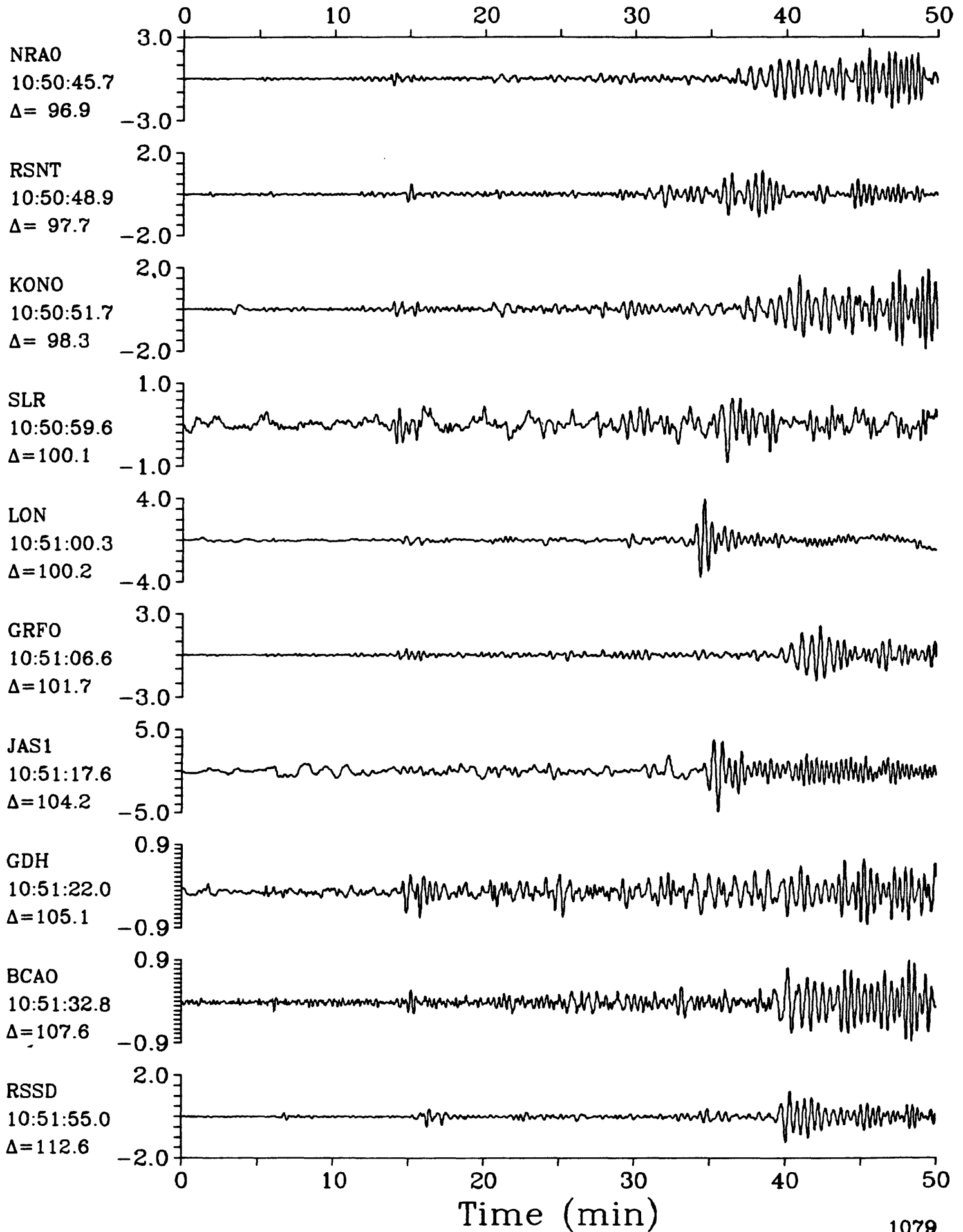
LPZ

Mindanao, Philippine Islands  $h=39.9$   $m_b=5.9$   $M_{sz}=5.6$ 

LPZ

17 June 1986 10:38:17.95

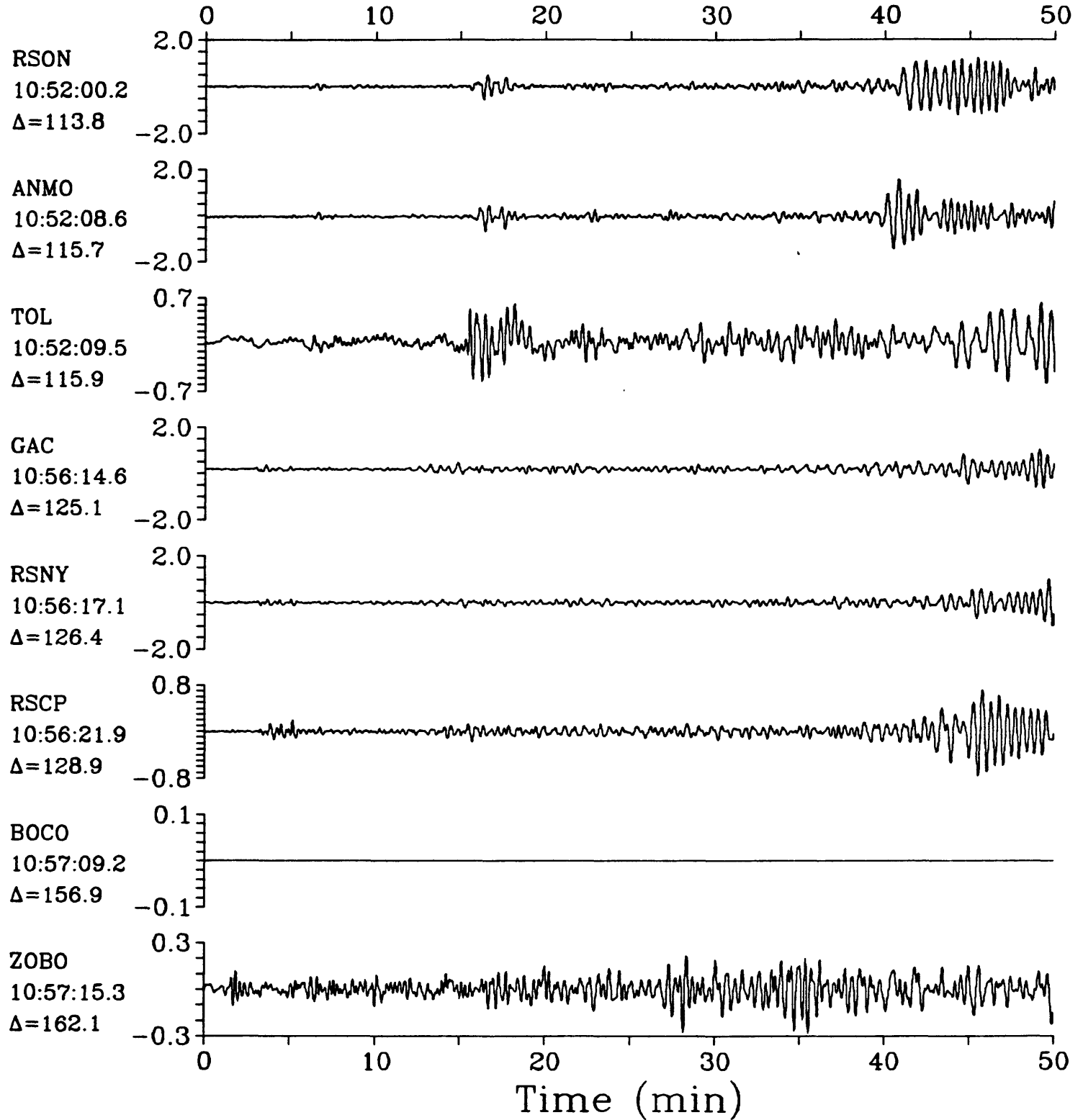
LPZ

Mindanao, Philippine Islands  $h=39.9$   $m_b=5.9$   $M_{sz}=5.6$ 

LPZ

17 June 1986 10:38:17.95

LPZ

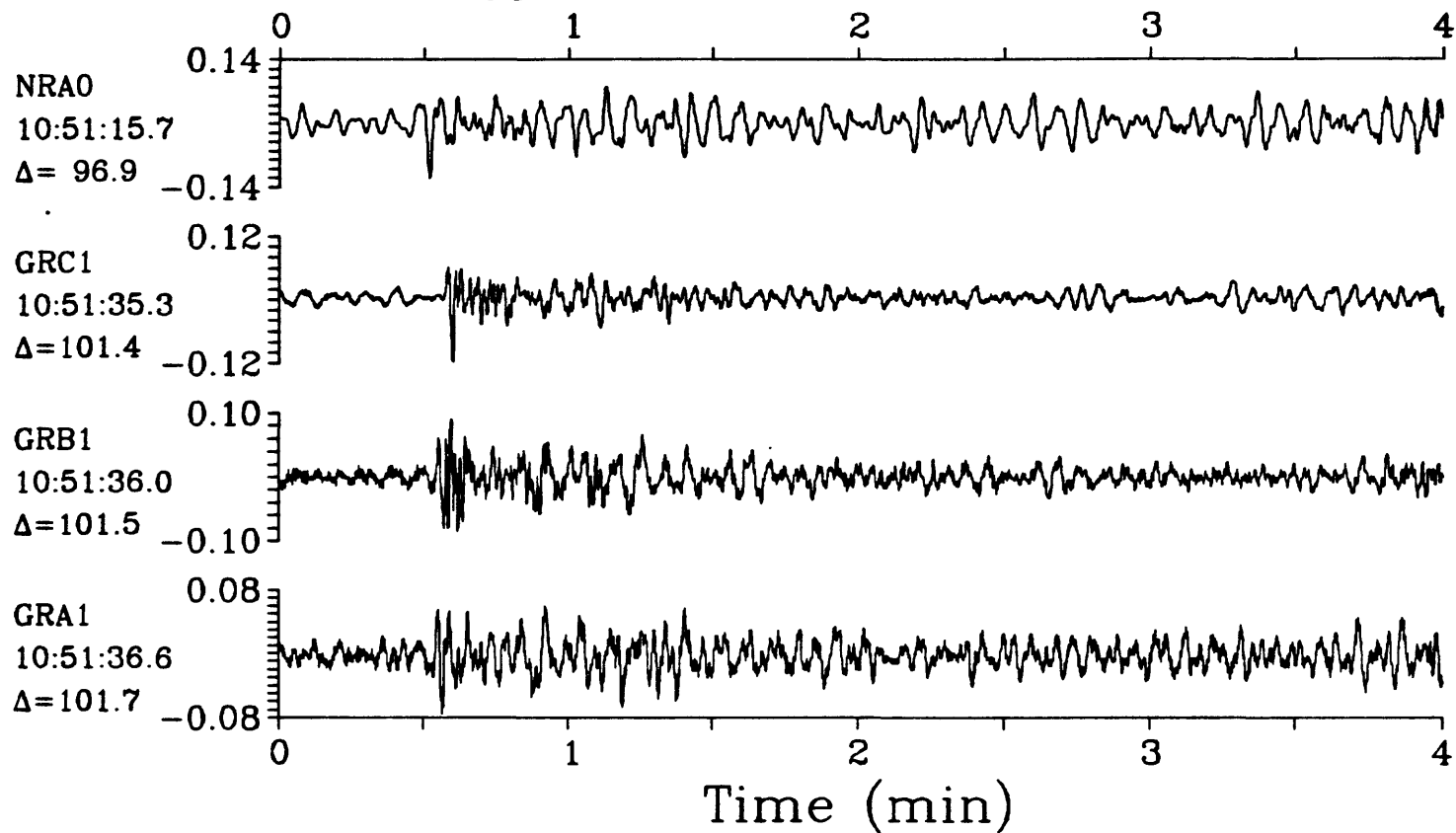
Mindanao, Philippine Islands  $h=39.9$   $m_b=5.9$   $M_{sz}=5.6$ 



IPZ

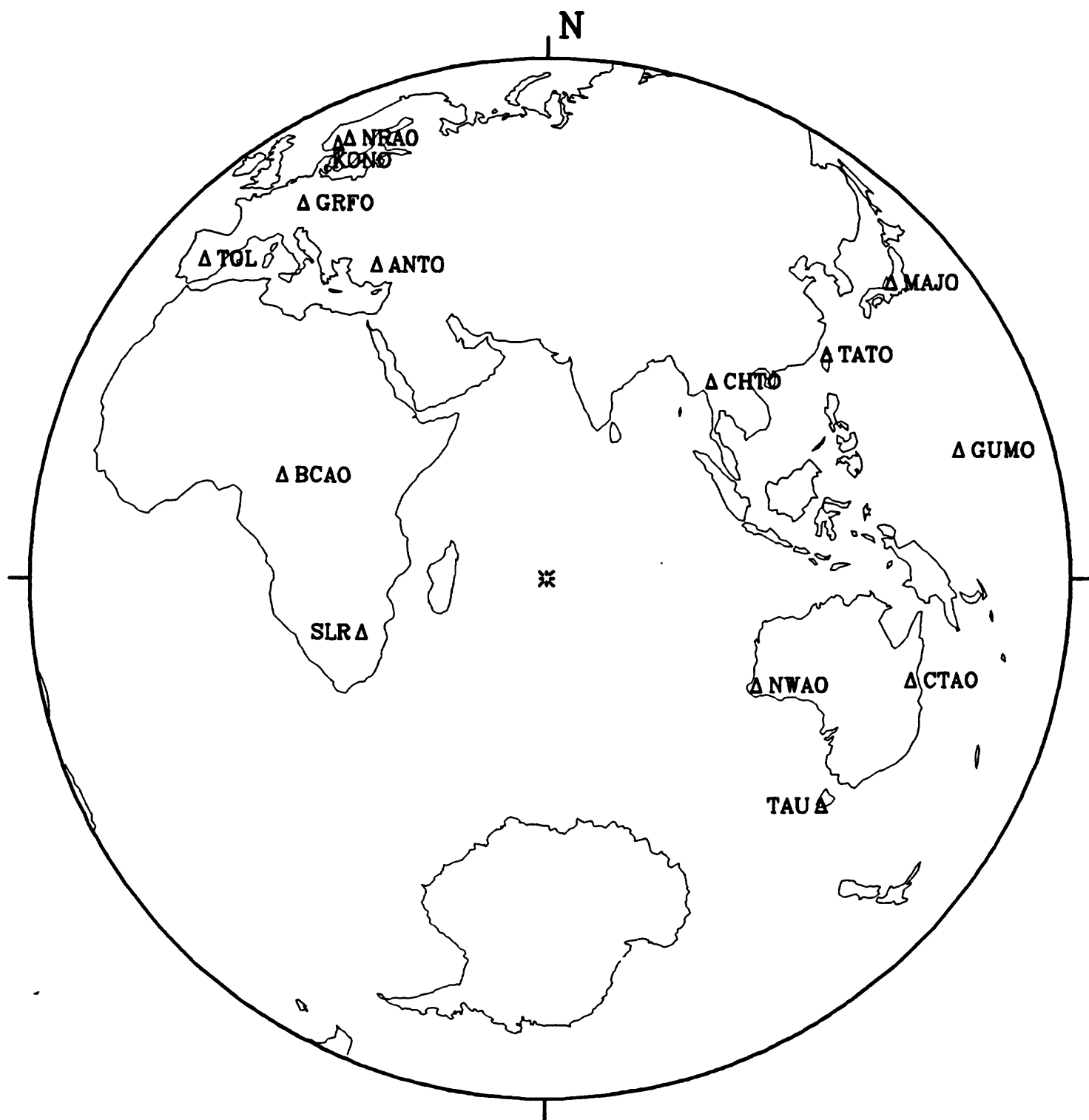
17 June 1986 10:38:17.95

IPZ

Mindanao, Philippine Islands  $h=39.9$   $m_b=5.9$   $M_{sz}=5.6$ 

17 June 1986 12:19:20.77

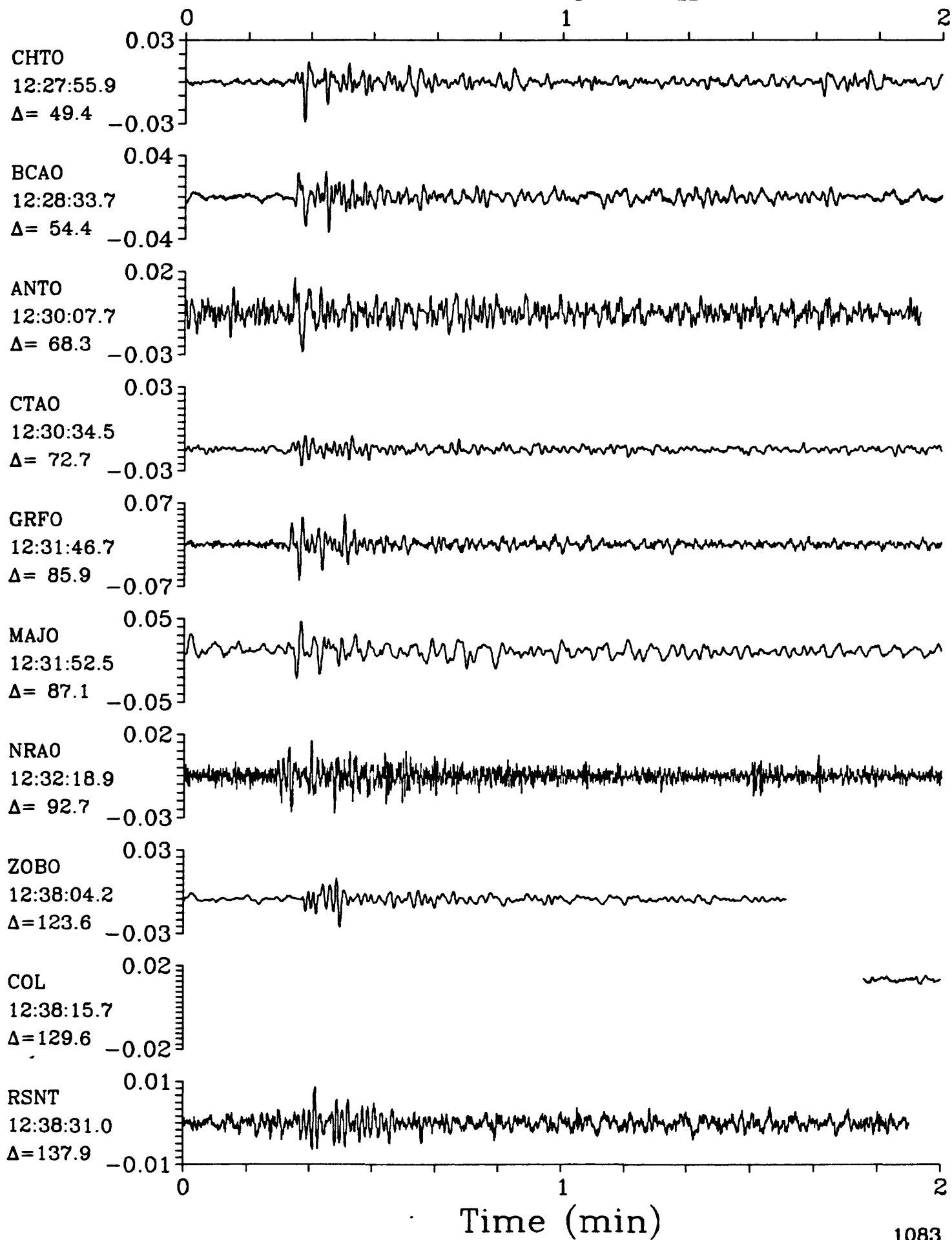
## Mid-Indian Rise

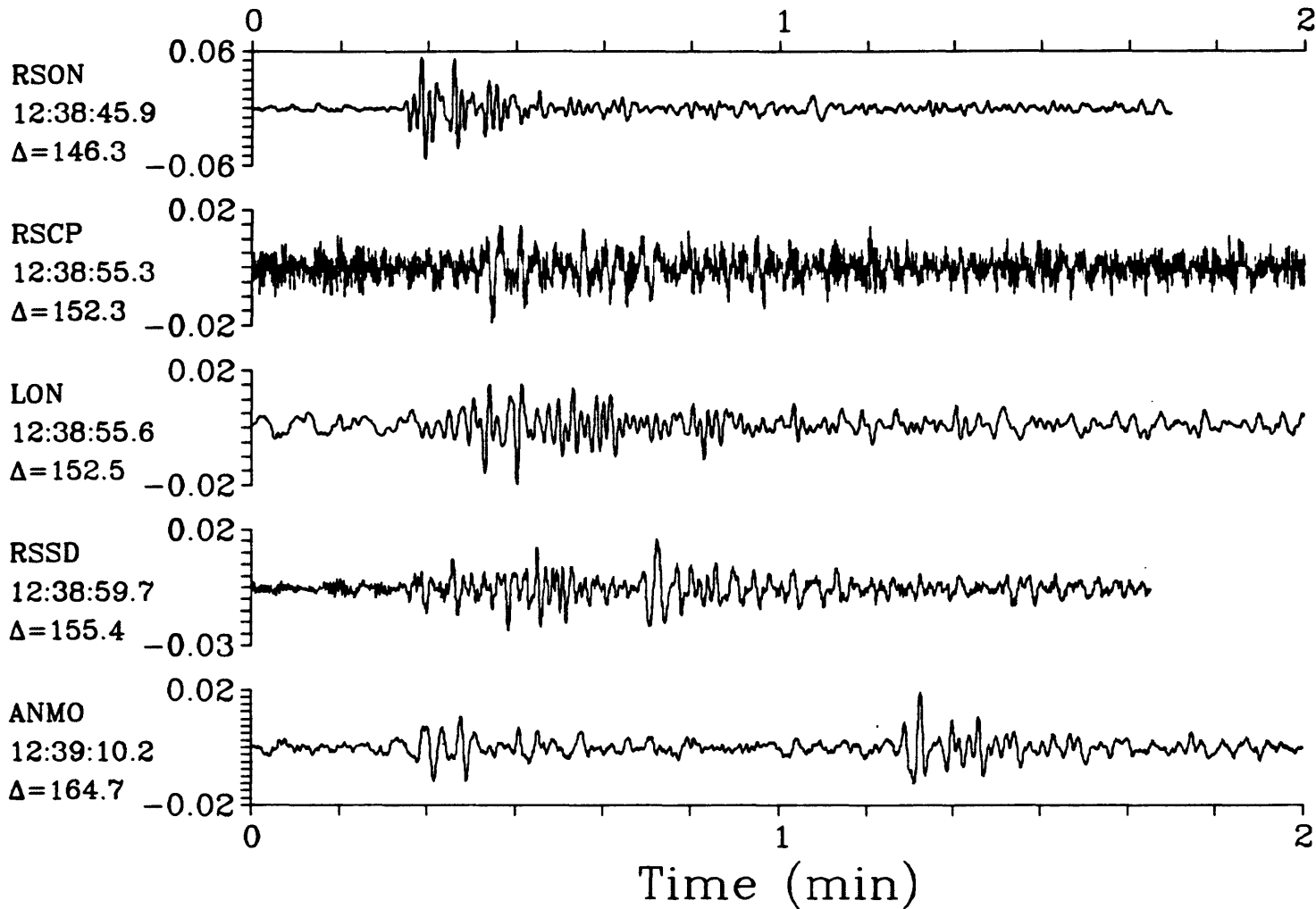


SPZ

17 June 1986 12:19:20.77

SPZ

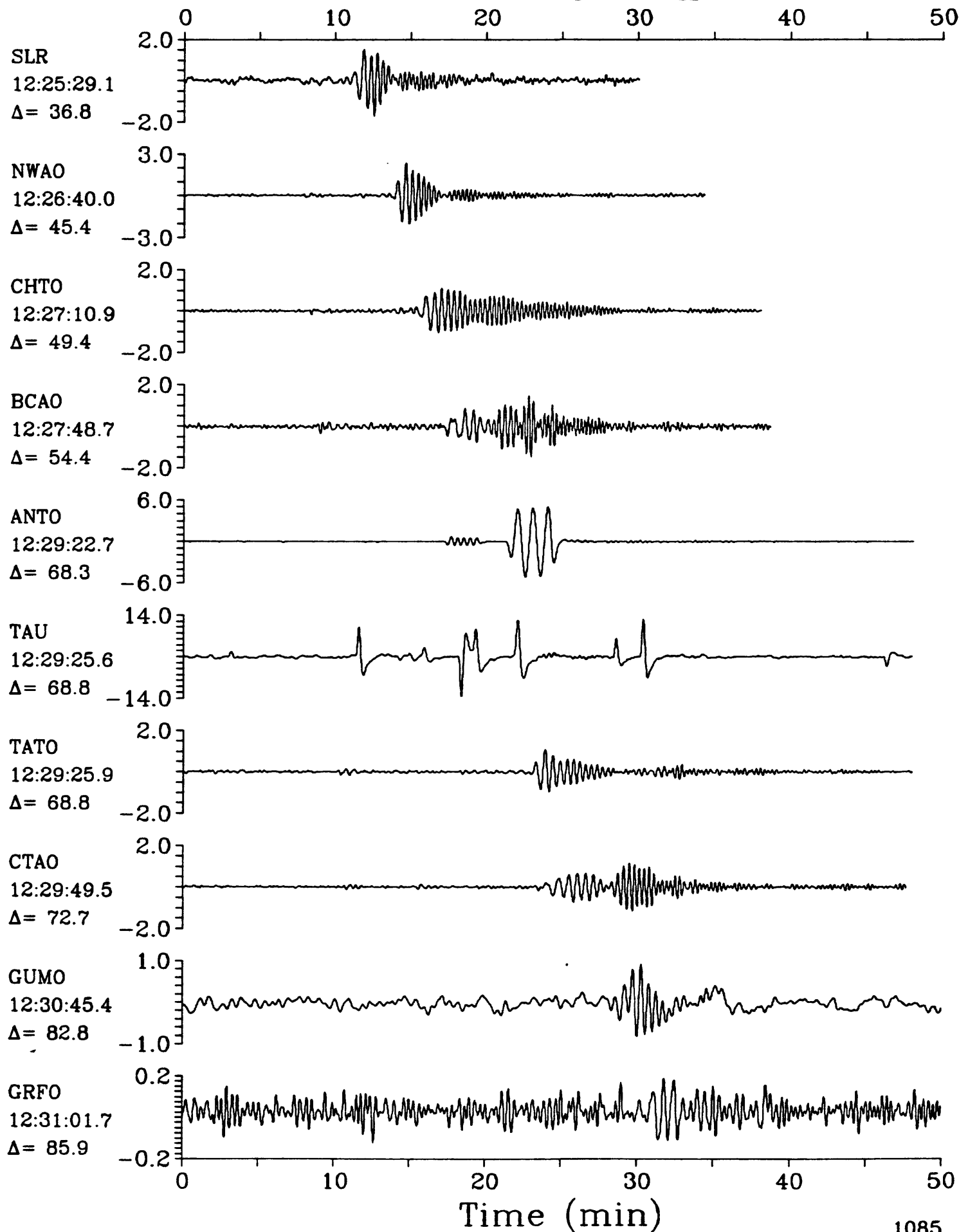
Mid-Indian Rise  $h=10.0$   $m_b=5.5$   $M_{sz}=5.2$ 



LPZ

17 June 1986 12:19:20.77

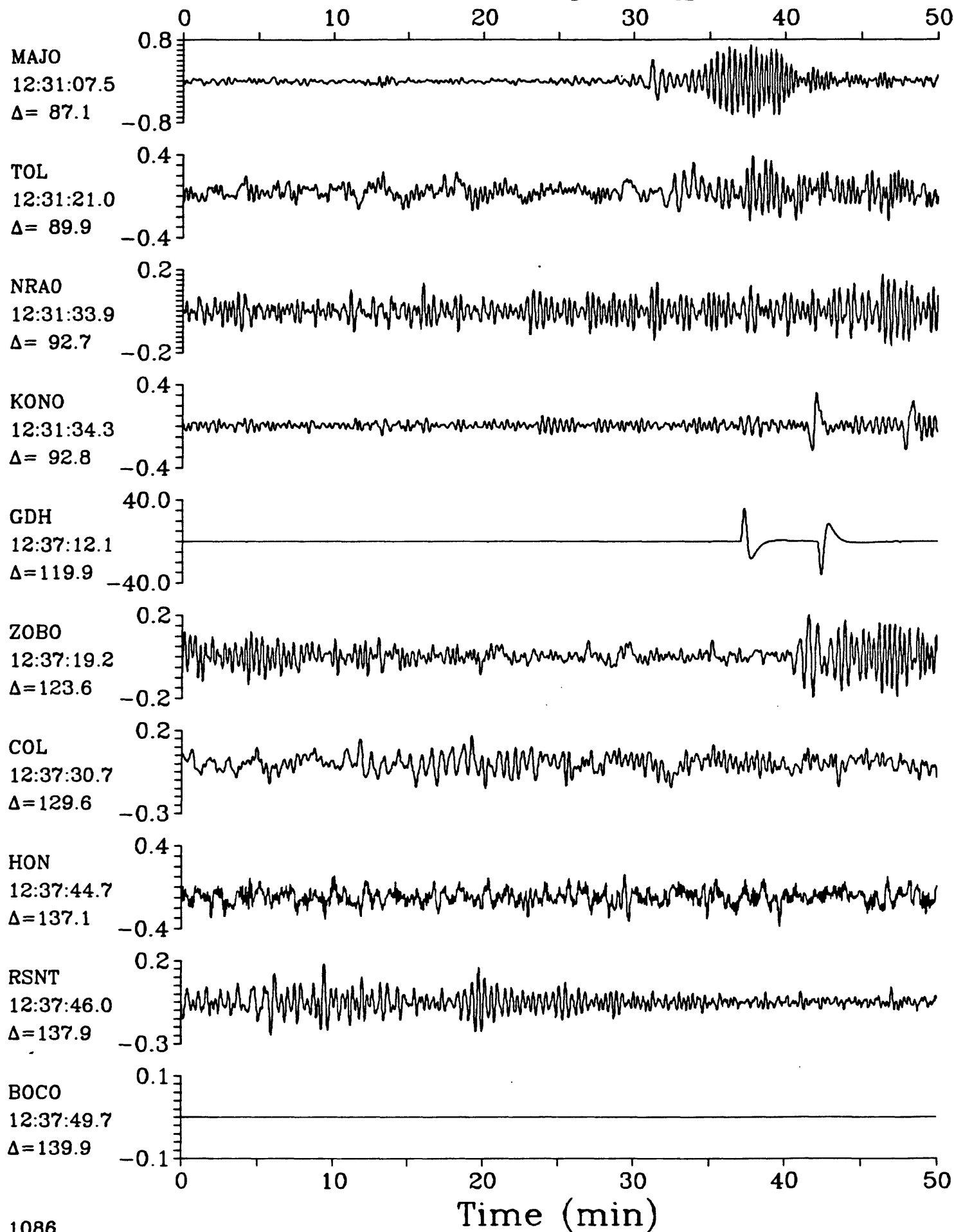
LPZ

Mid-Indian Rise  $h=10.0$   $m_b=5.5$   $M_{sz}=5.2$ 

LPZ

17 June 1986 12:19:20.77

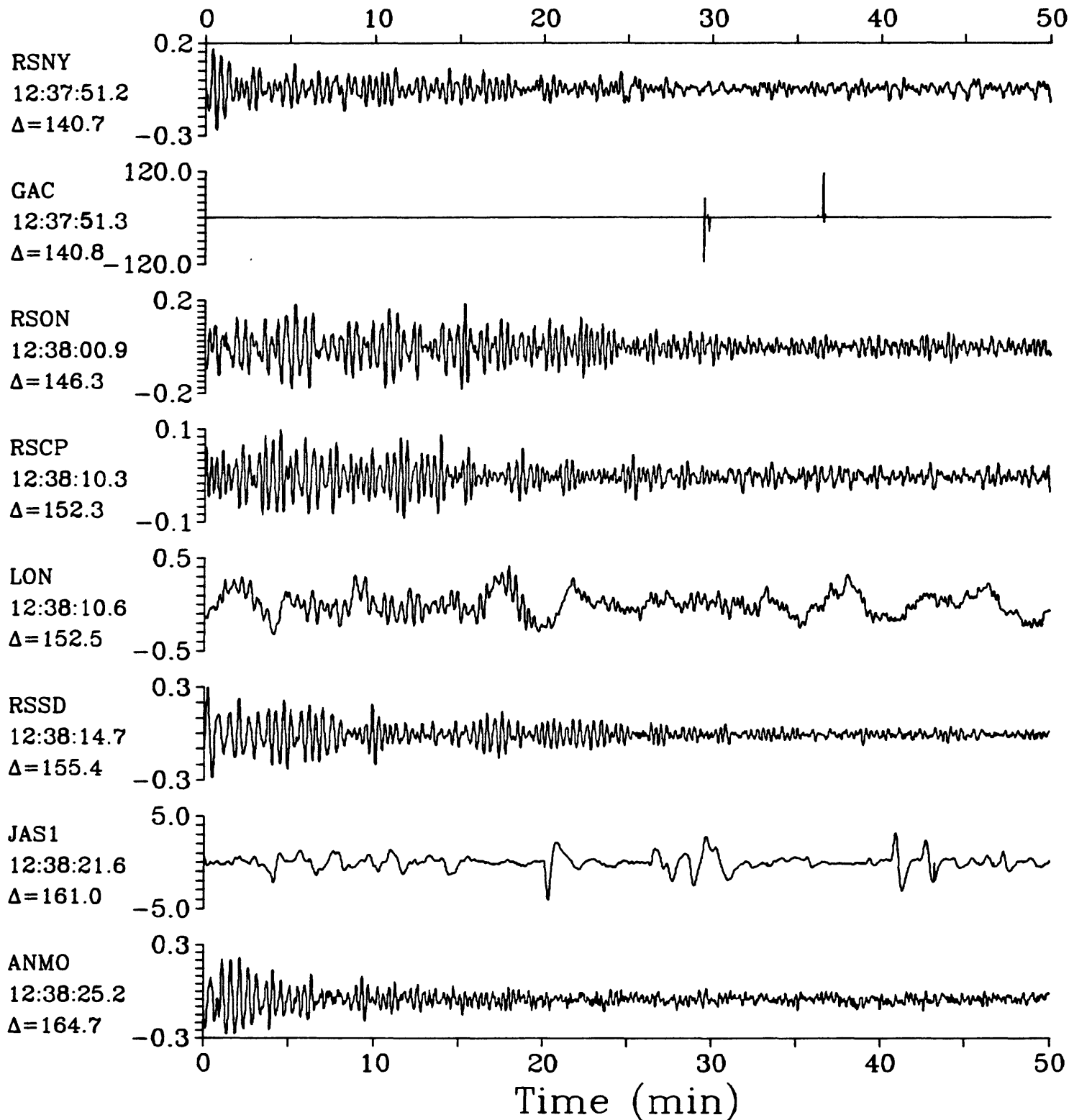
LPZ

Mid-Indian Rise  $h=10.0$   $m_b=5.5$   $M_{sz}=5.2$ 

LPZ

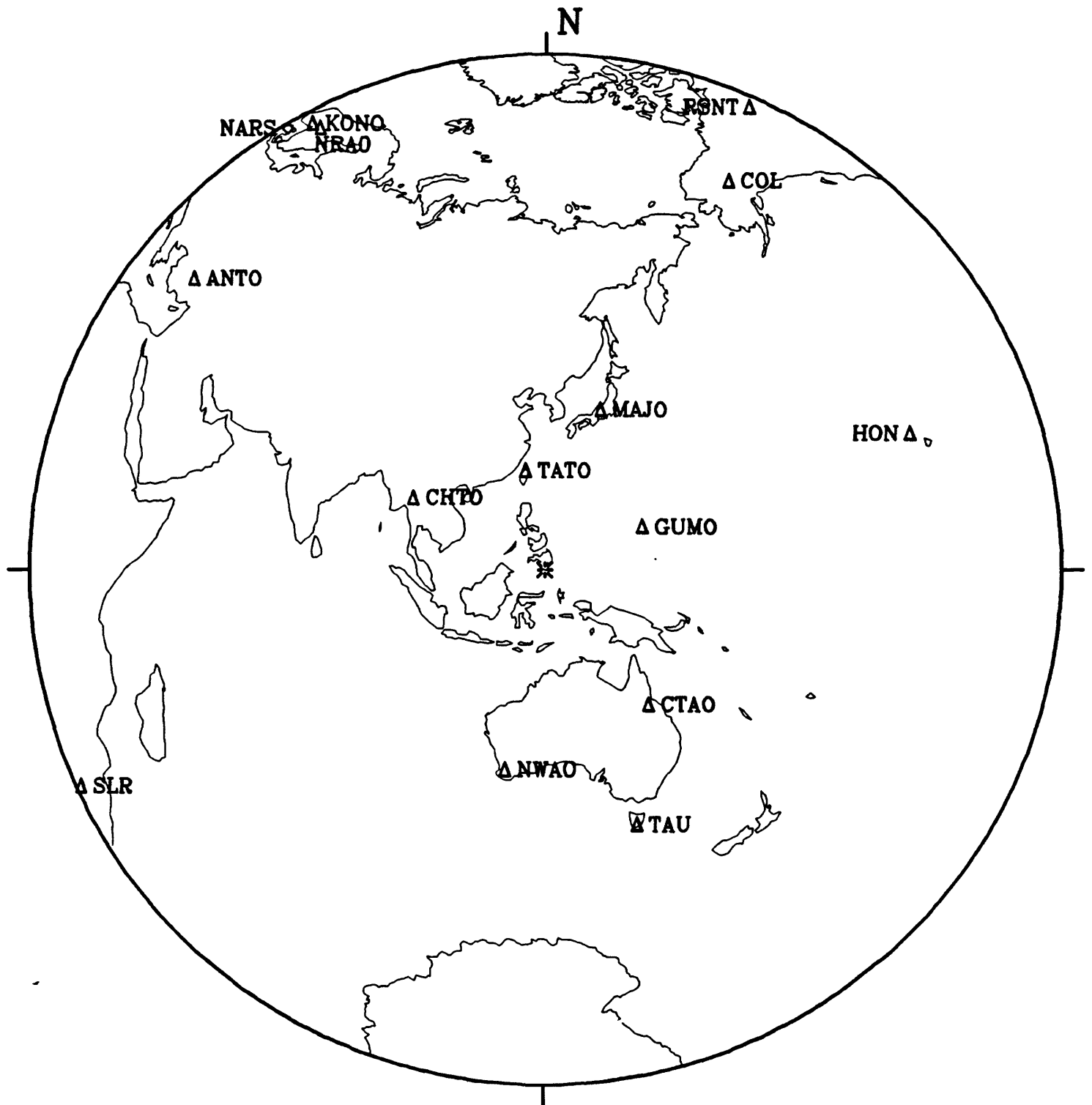
17 June 1986 12:19:20.77

LPZ

Mid-Indian Rise  $h=10.0$   $m_b=5.5$   $M_{sz}=5.2$ 

17 June 1986 18:13:11.38

# Mindanao, Philippine Islands

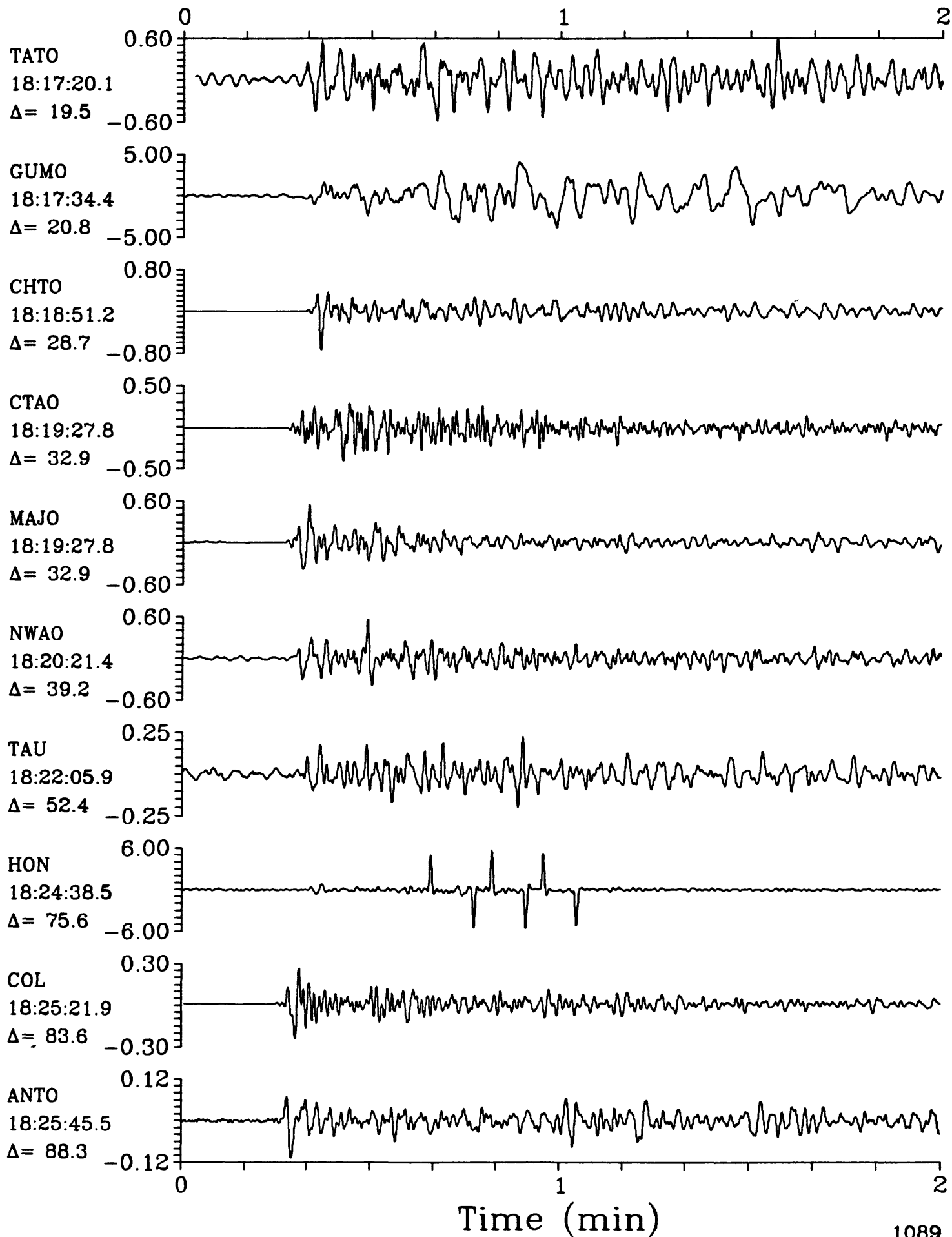




SPZ

17 June 1986 18:13:11.38

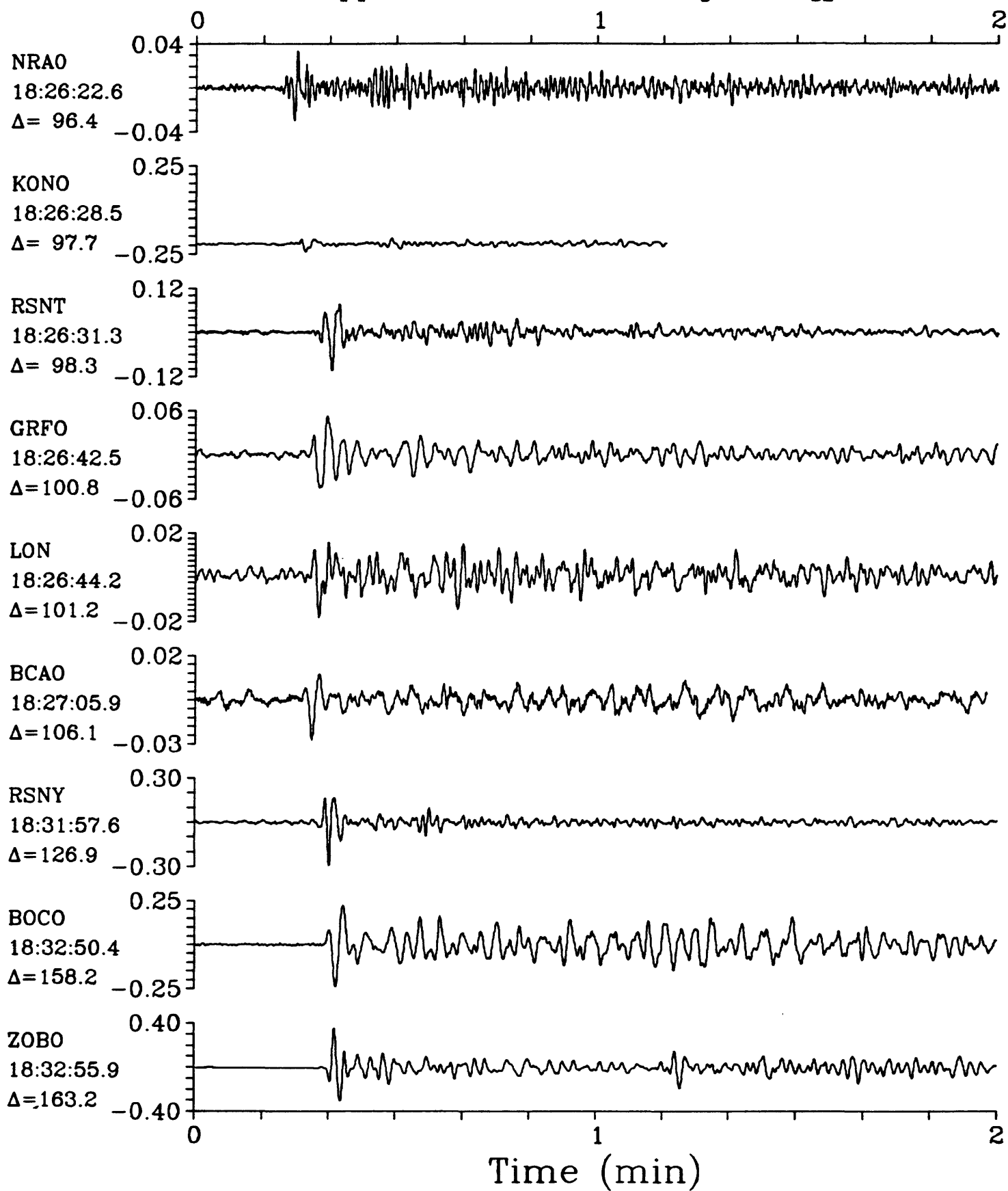
SPZ

Mindanao, Philippine Islands  $h=32.0$   $m_b=6.2$   $M_{sz}=6.4$ 

SPZ

17 June 1986 18:13:11.38

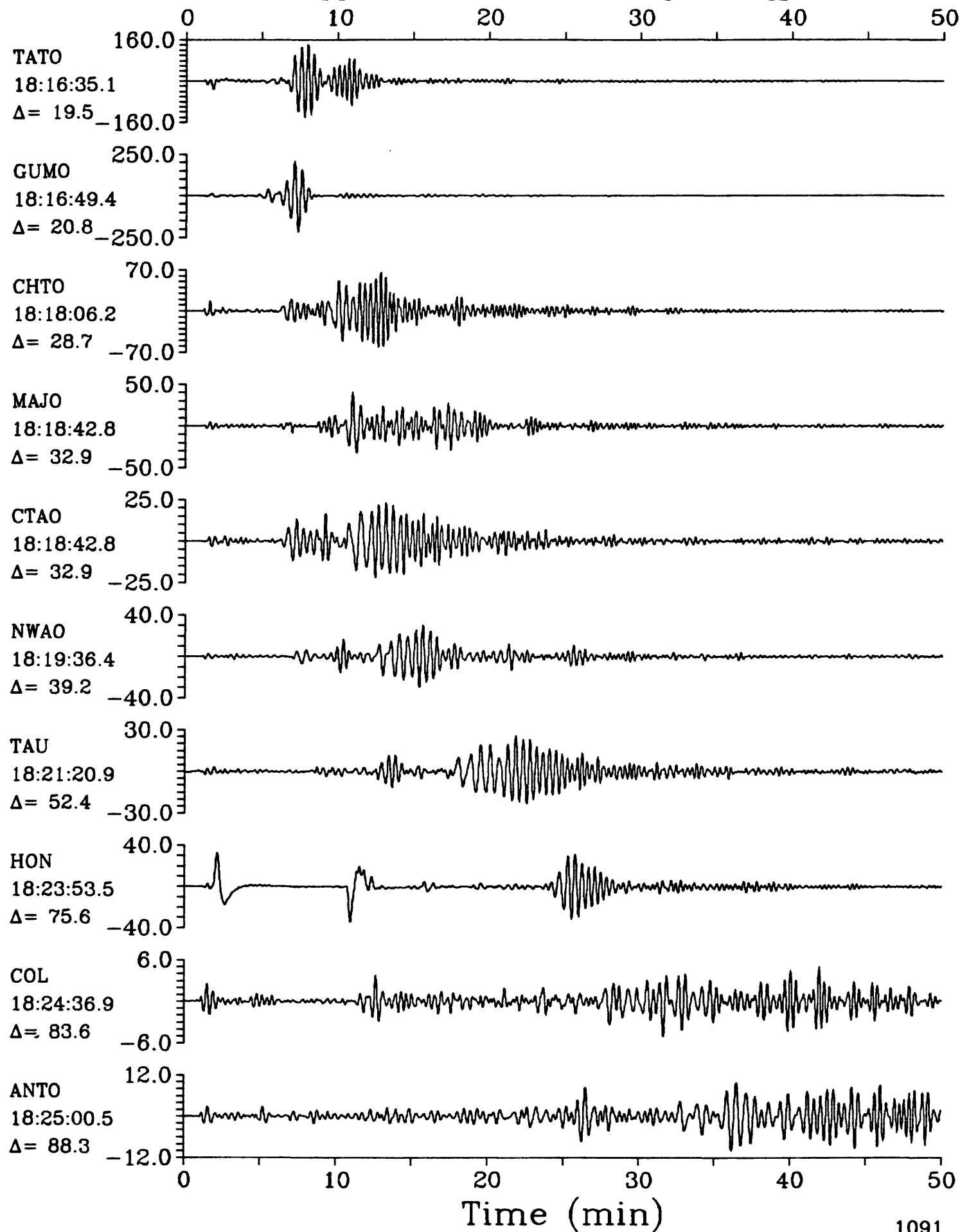
SPZ

Mindanao, Philippine Islands  $h=32.0$   $m_b=6.2$   $M_{sz}=6.4$ 

LPZ

17 June 1986 18:13:11.38

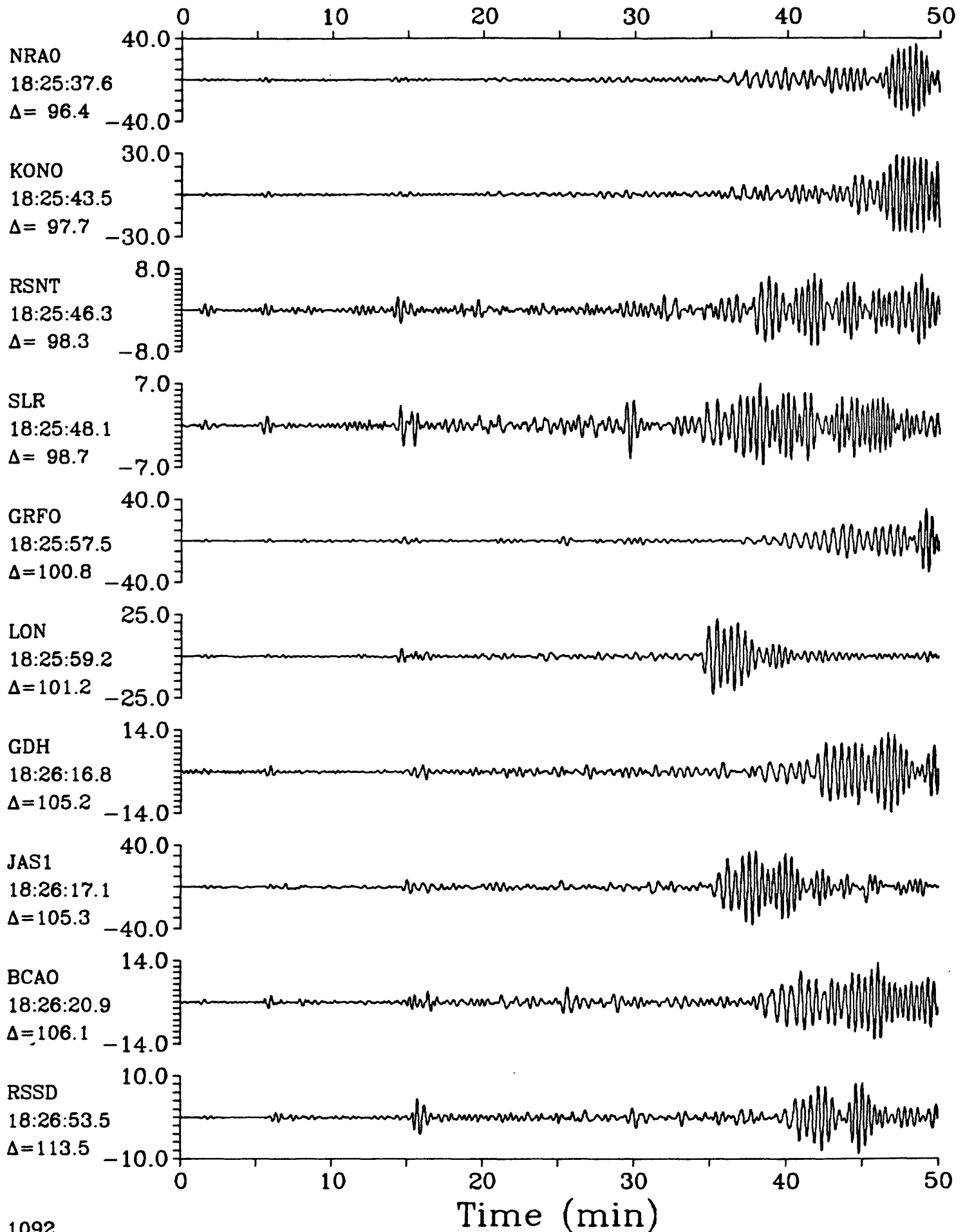
LPZ

Mindanao, Philippine Islands  $h=32.0$   $m_b=6.2$   $M_{sz}=6.4$ 

LPZ

17 June 1986 18:13:11.38

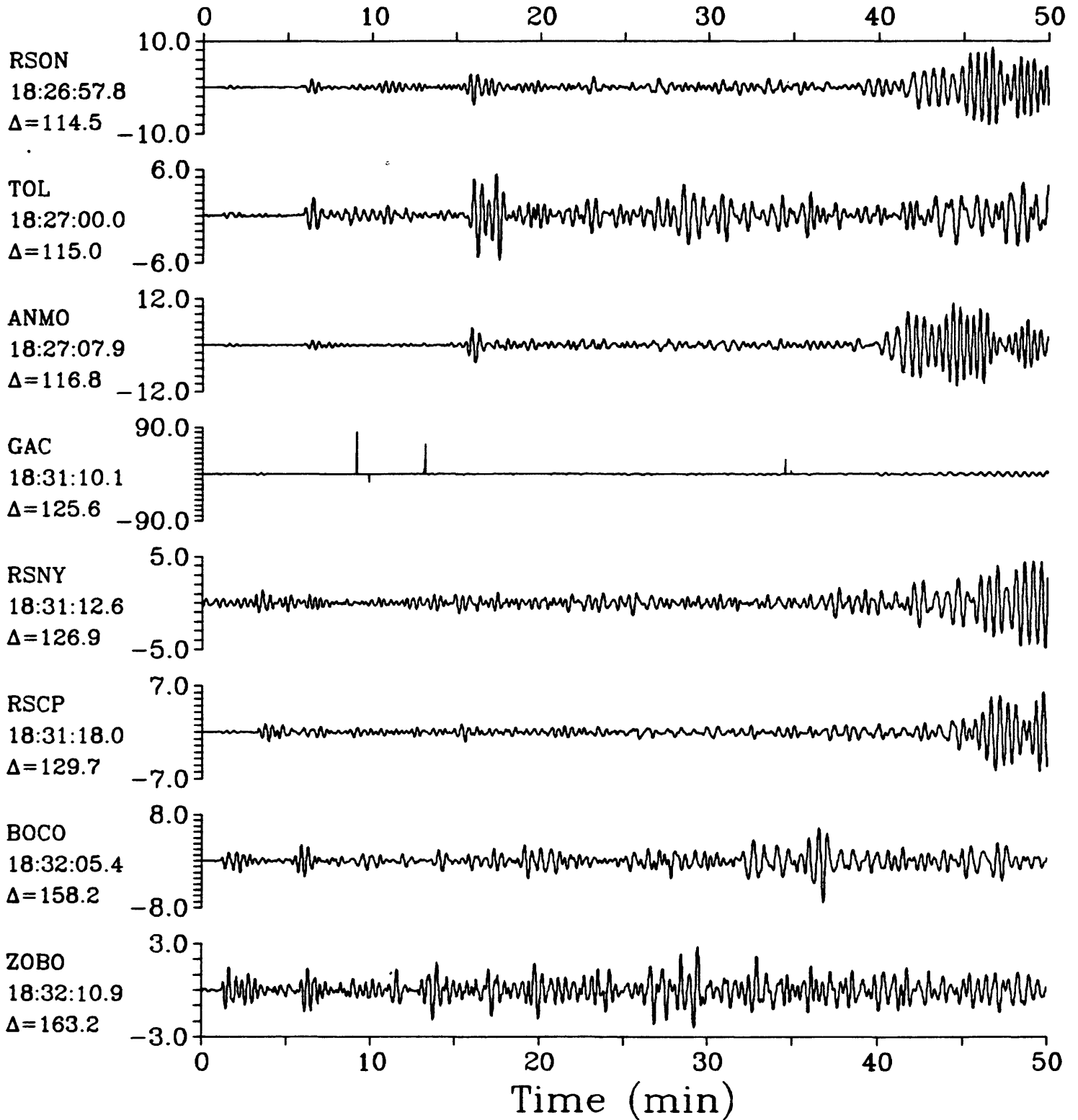
LPZ

Mindanao, Philippine Islands  $h=32.0$   $m_b=6.2$   $M_{sz}=6.4$ 

LPZ

17 June 1986 18:13:11.38

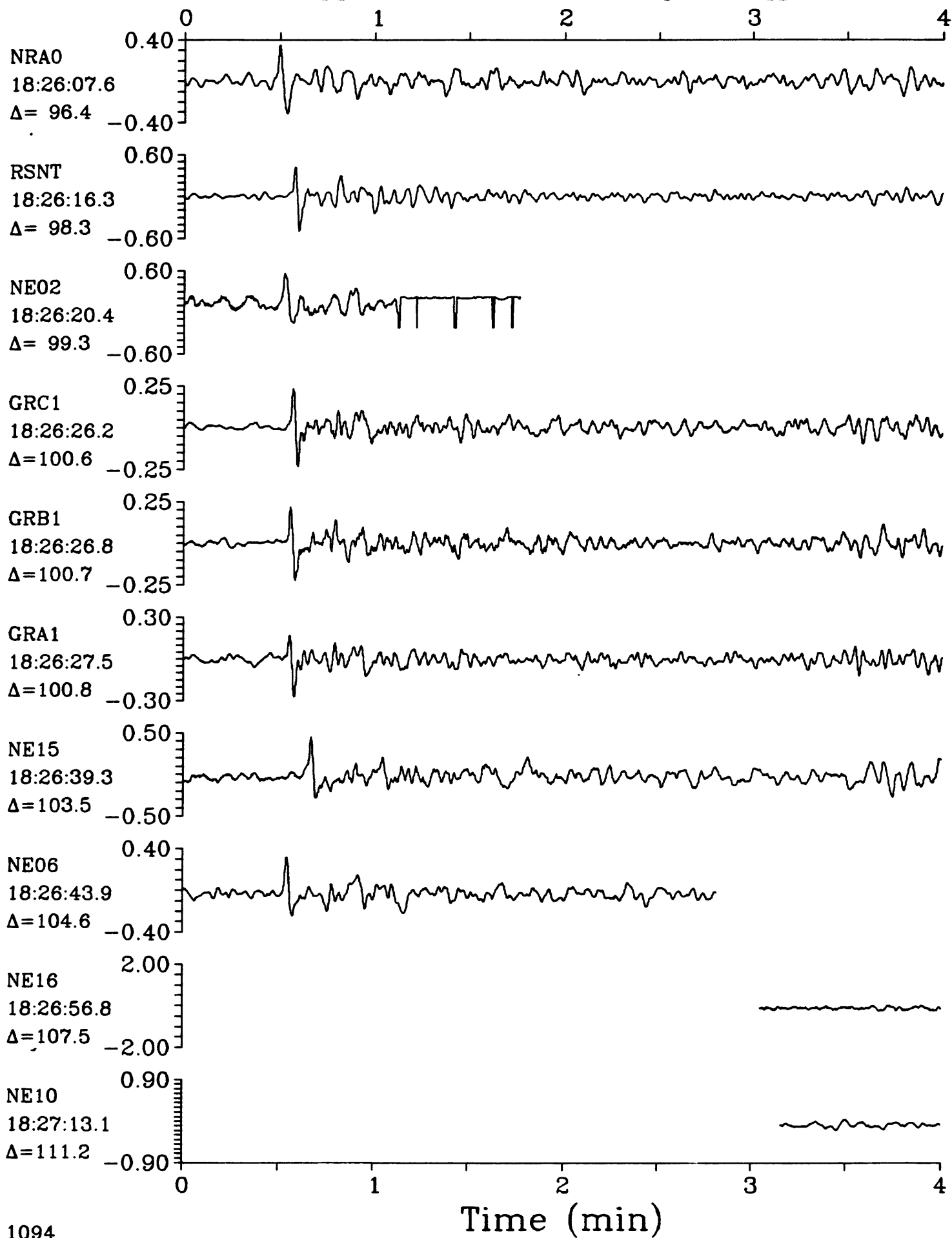
LPZ

Mindanao, Philippine Islands  $h=32.0$   $m_b=6.2$   $M_{sz}=6.4$ 

IPZ

17 June 1986 18:13:11.38

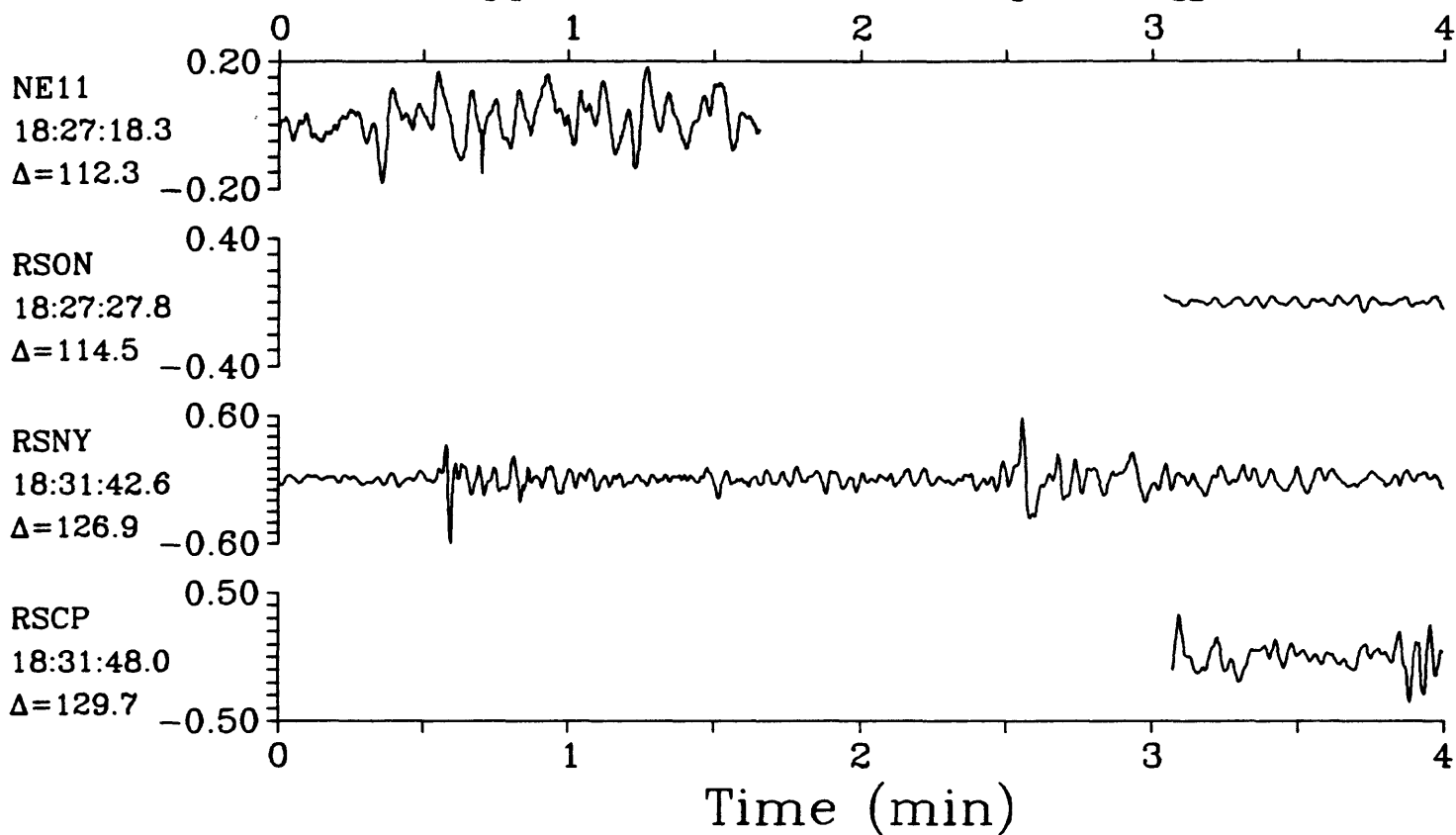
IPZ

Mindanao, Philippine Islands  $h=32.0$   $m_b=6.2$   $M_{sz}=6.4$ 

IPZ

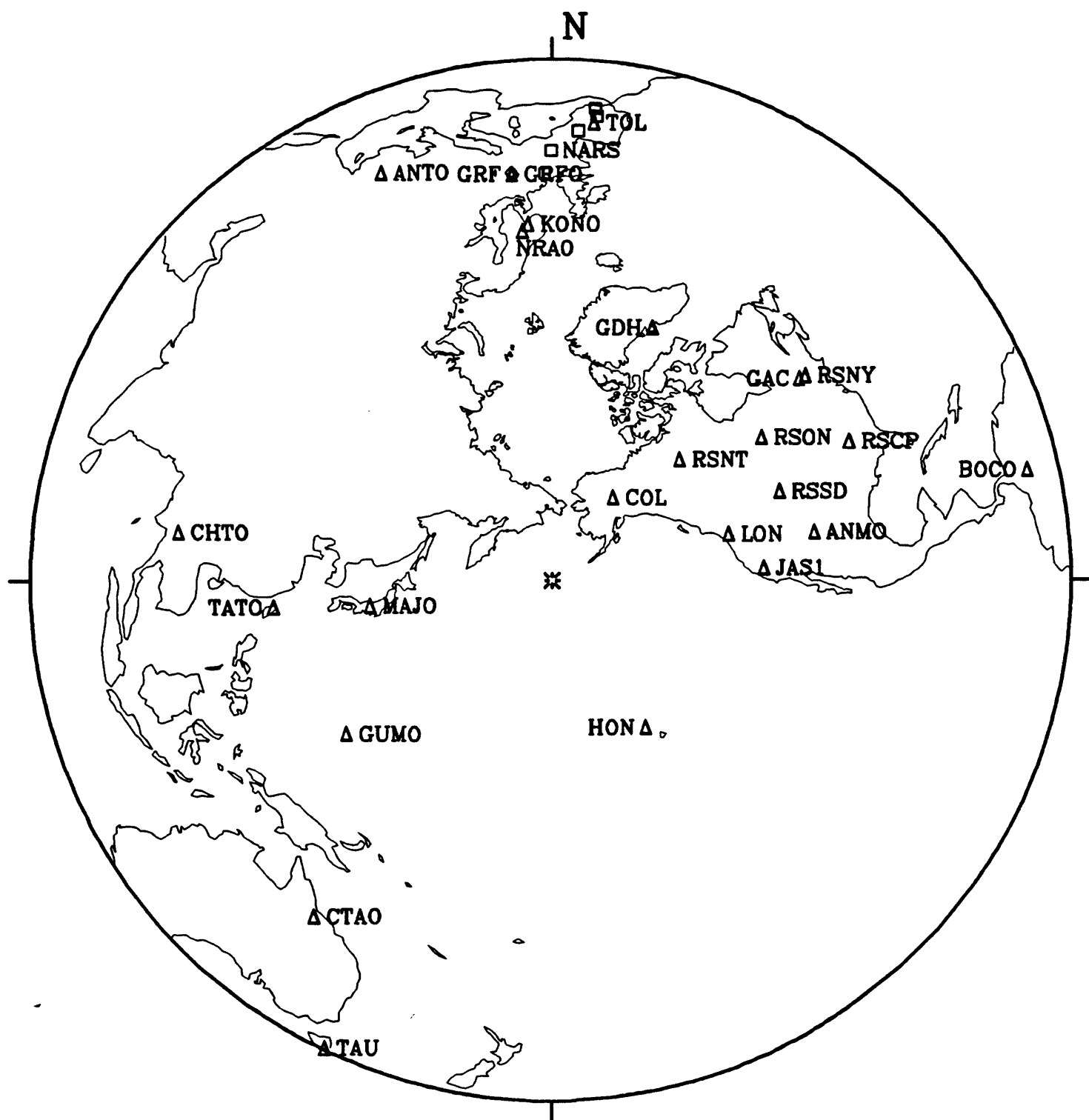
17 June 1986 18:13:11.38

IPZ

Mindanao, Philippine Islands  $h=32.0$   $m_b=6.2$   $M_{sz}=6.4$ 

18 June 1986 08:05:16.08

# Andreanof Islands, Aleutian Is.

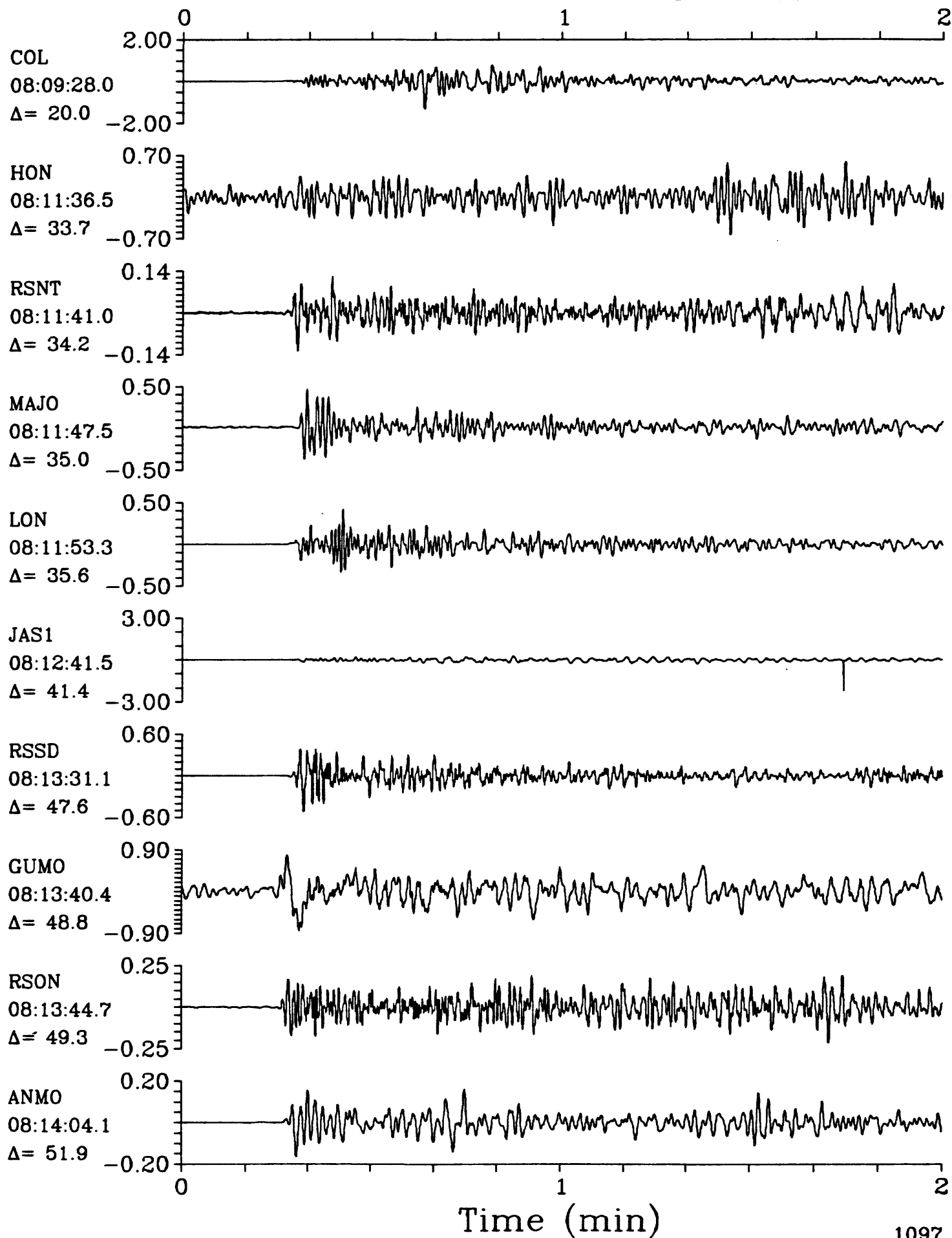




SPZ

18 June 1986 08:05:16.08

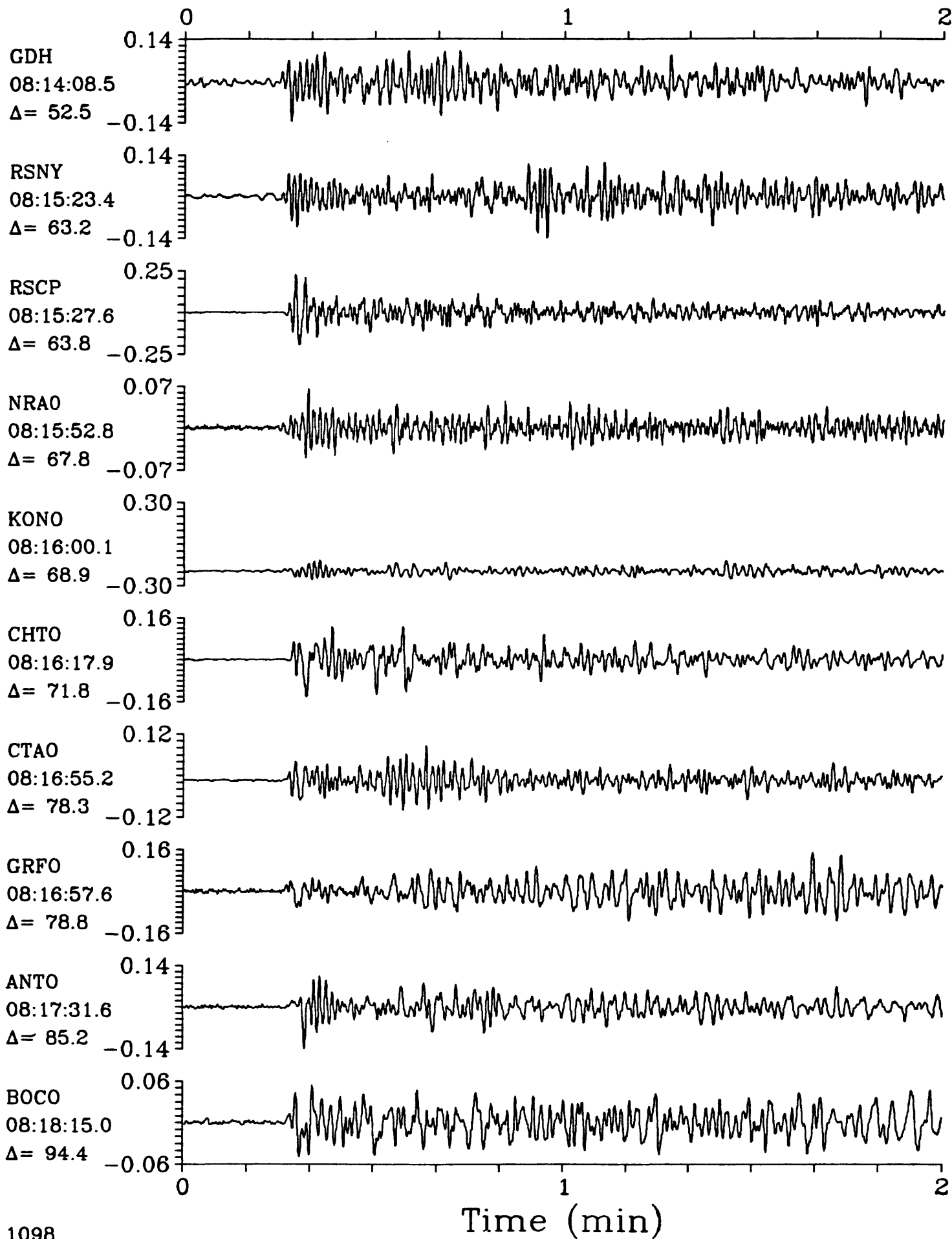
SPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{SZ}=6.3$ 

SPZ

18 June 1986 08:05:16.08

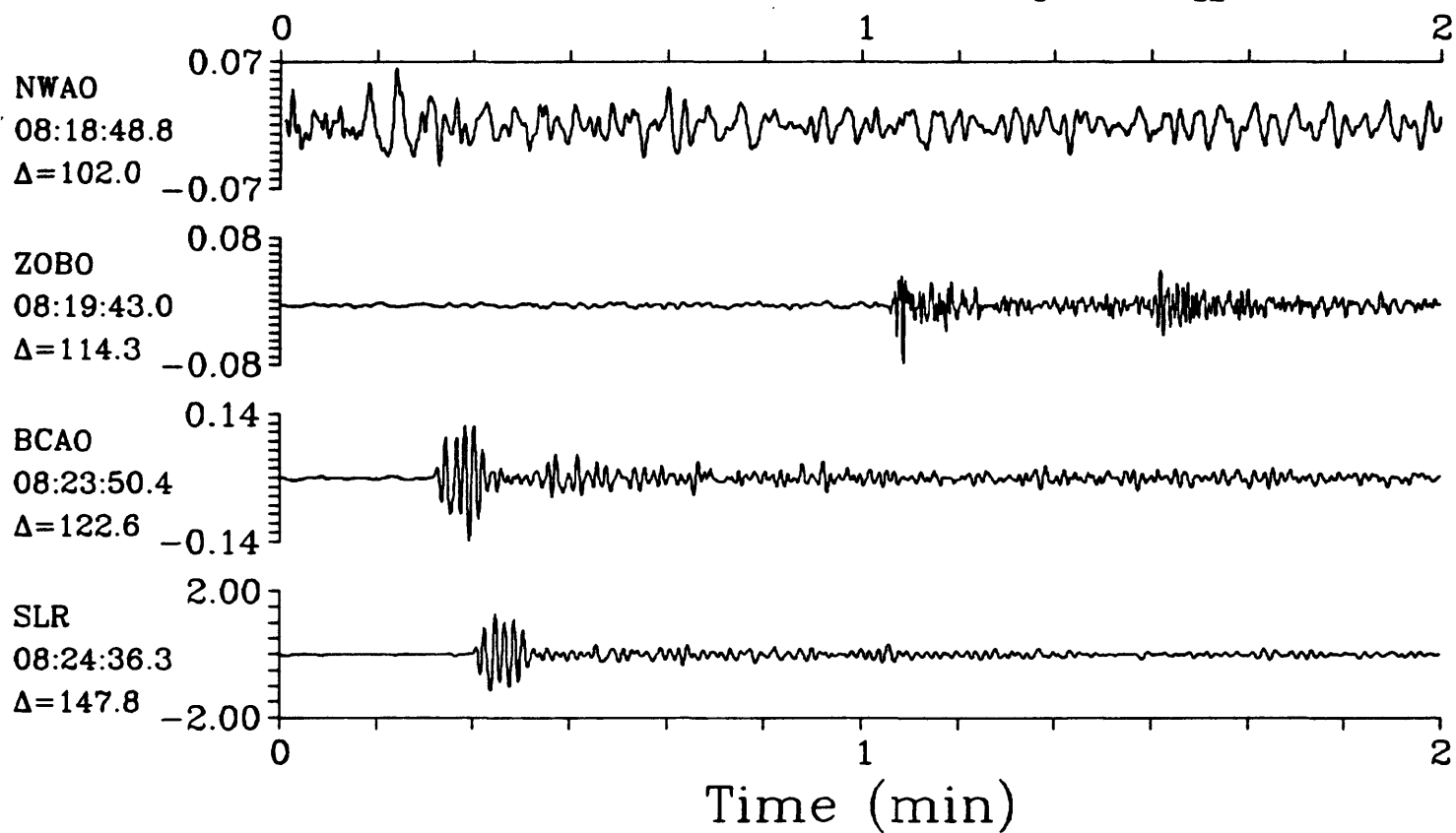
SPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{sz}=6.3$ 

SPZ

18 June 1986 08:05:16.08

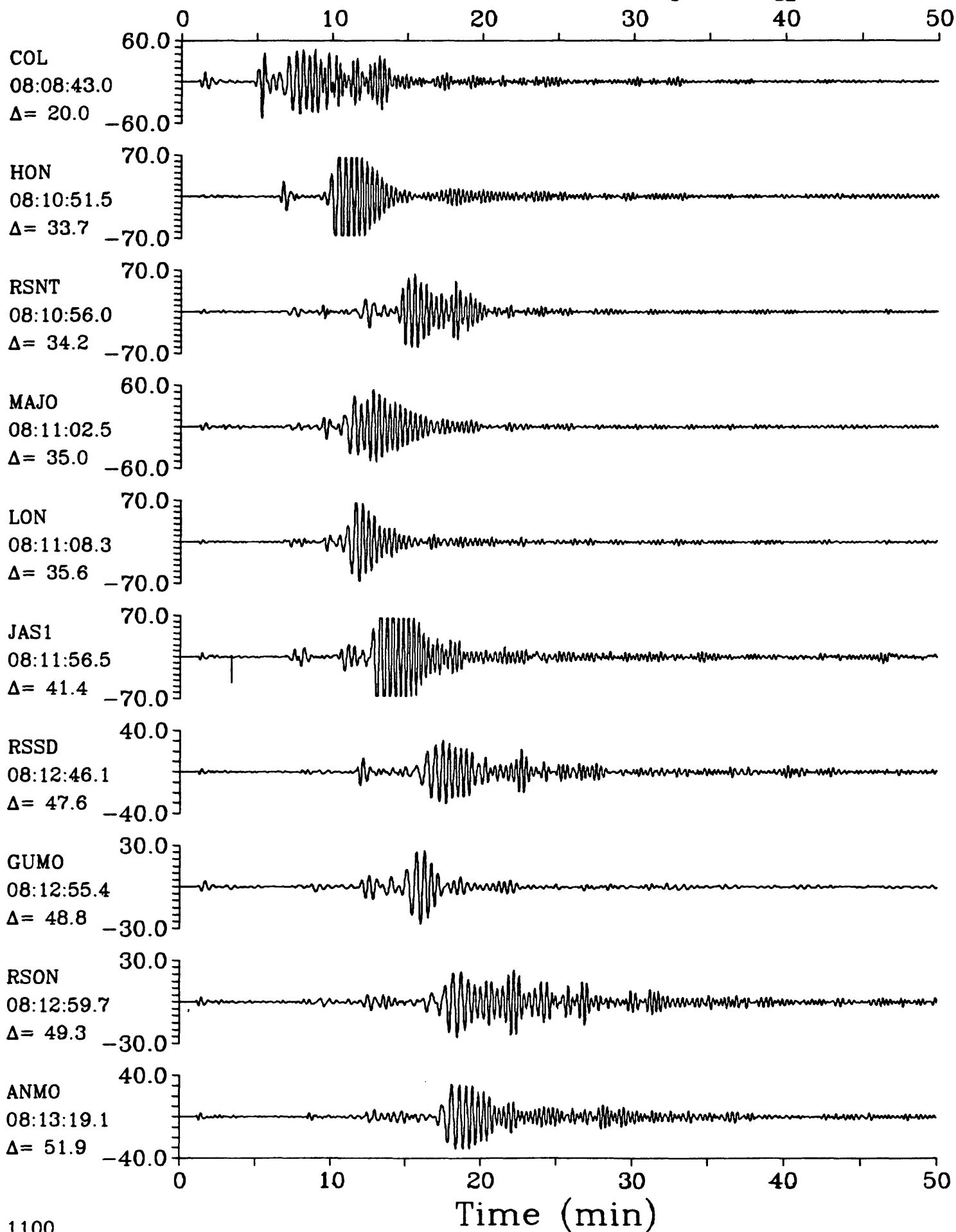
SPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{sz}=6.3$ 

LPZ

18 June 1986 08:05:16.08

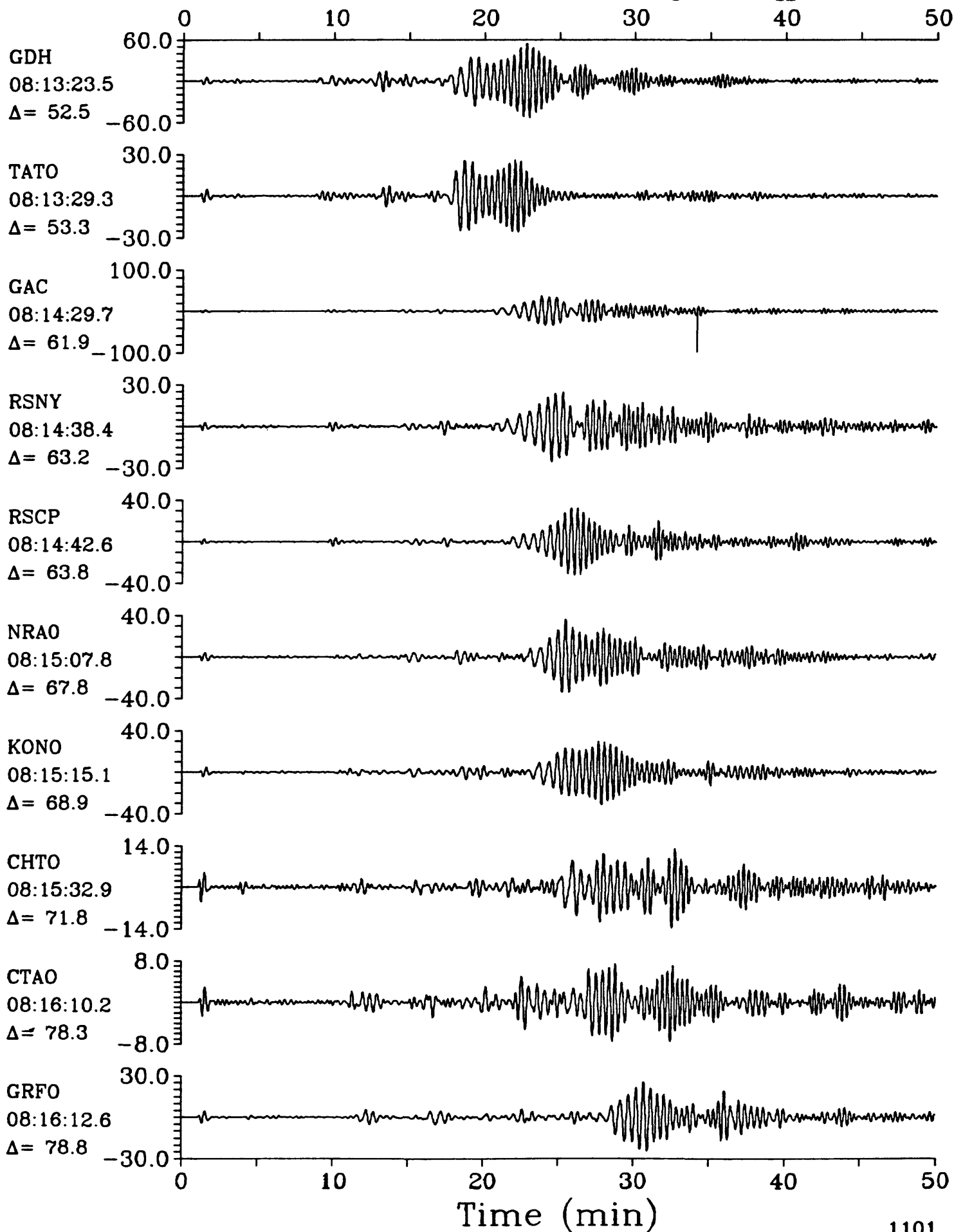
LPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{sz}=6.3$ 

LPZ

18 June 1986 08:05:16.08

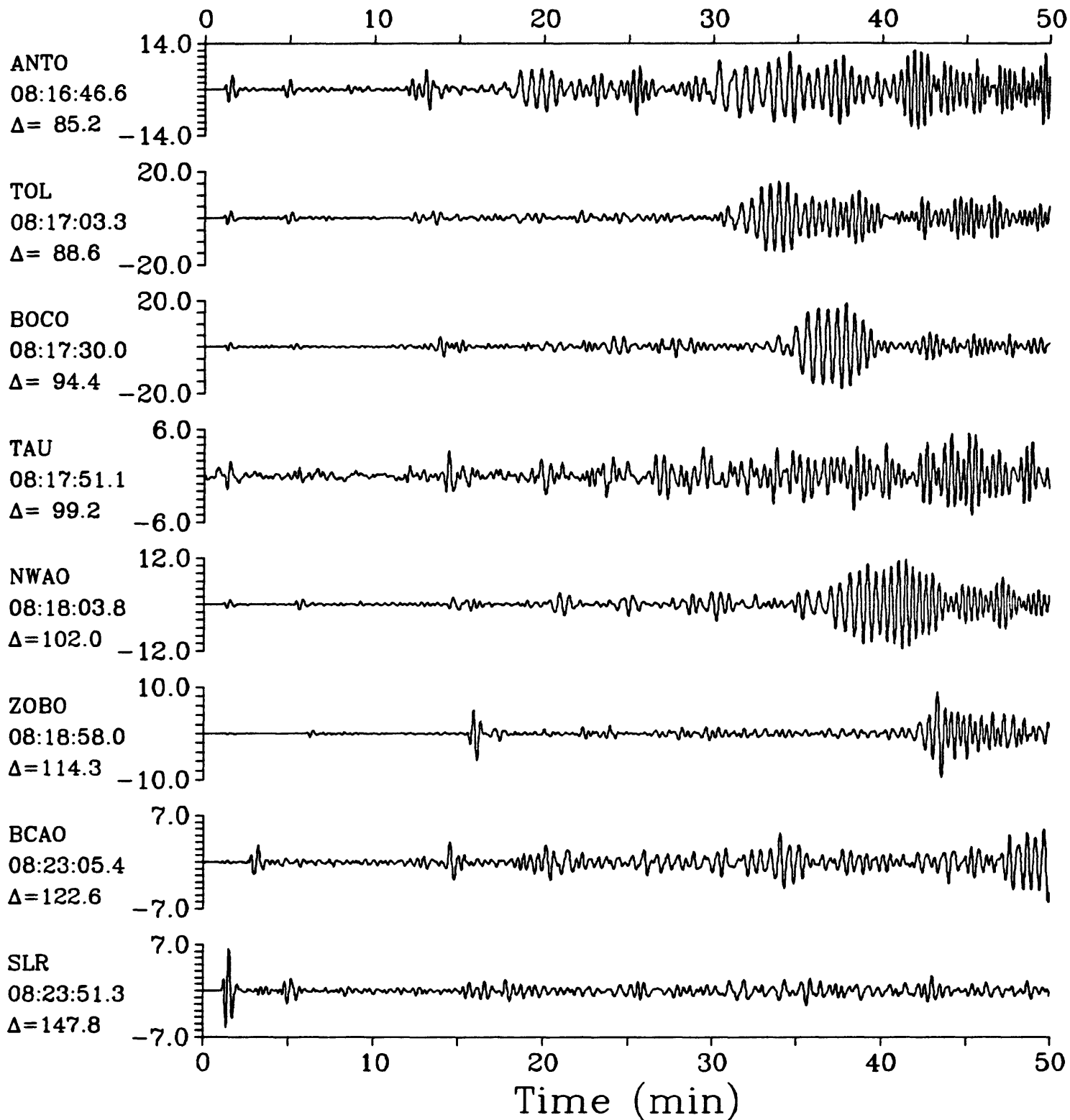
LPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{sz}=6.3$ 

LPZ

18 June 1986 08:05:16.08

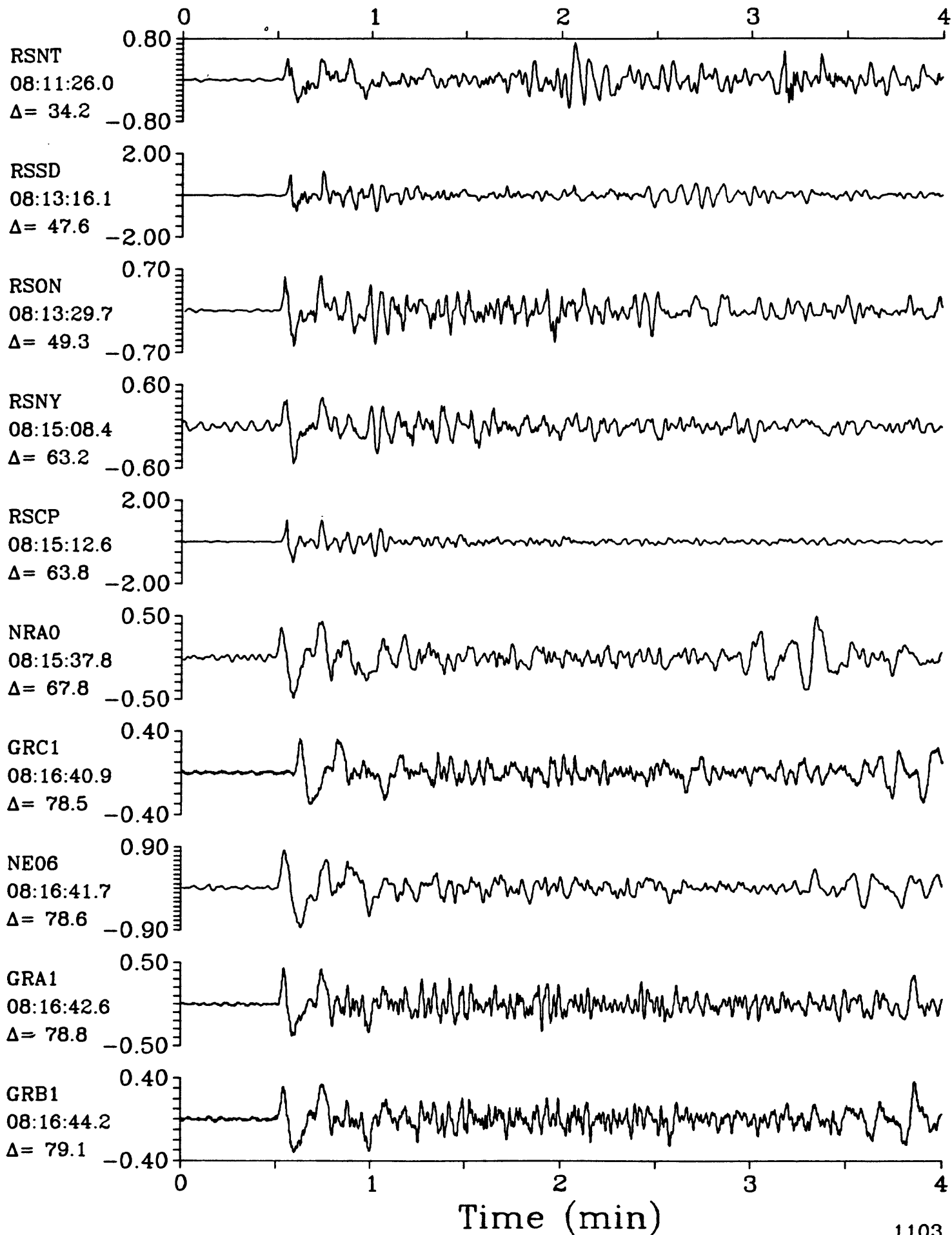
LPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{sz}=6.3$ 

IPZ

18 June 1986 08:05:16.08

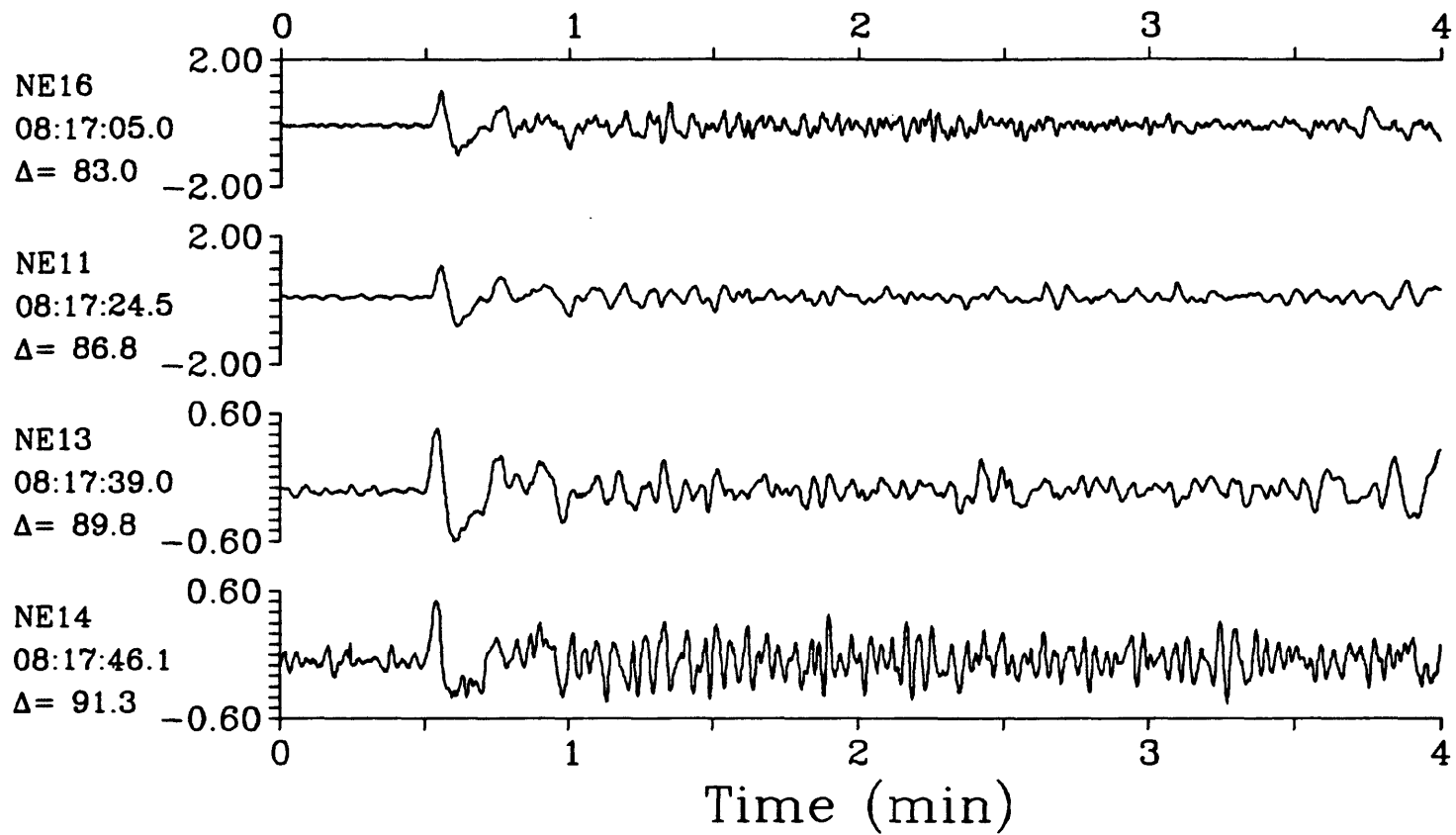
IPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{sz}=6.3$ 

IPZ

18 June 1986 08:05:16.08

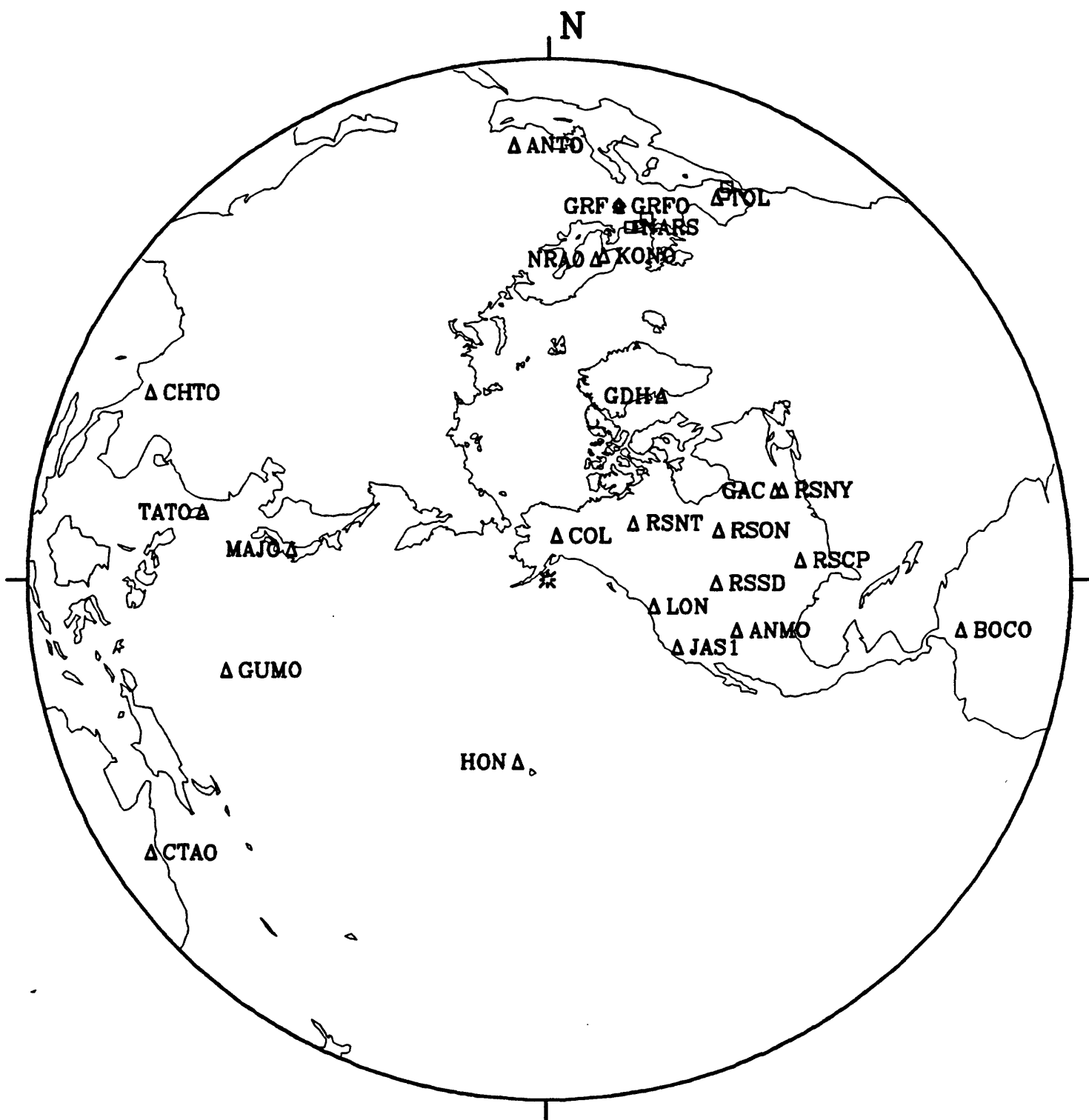
IPZ

Andreanof Islands, Aleutian Is.  $h=61.4$   $m_b=5.7$   $M_{sz}=6.3$ 



19 June 1986 09:09:12.33

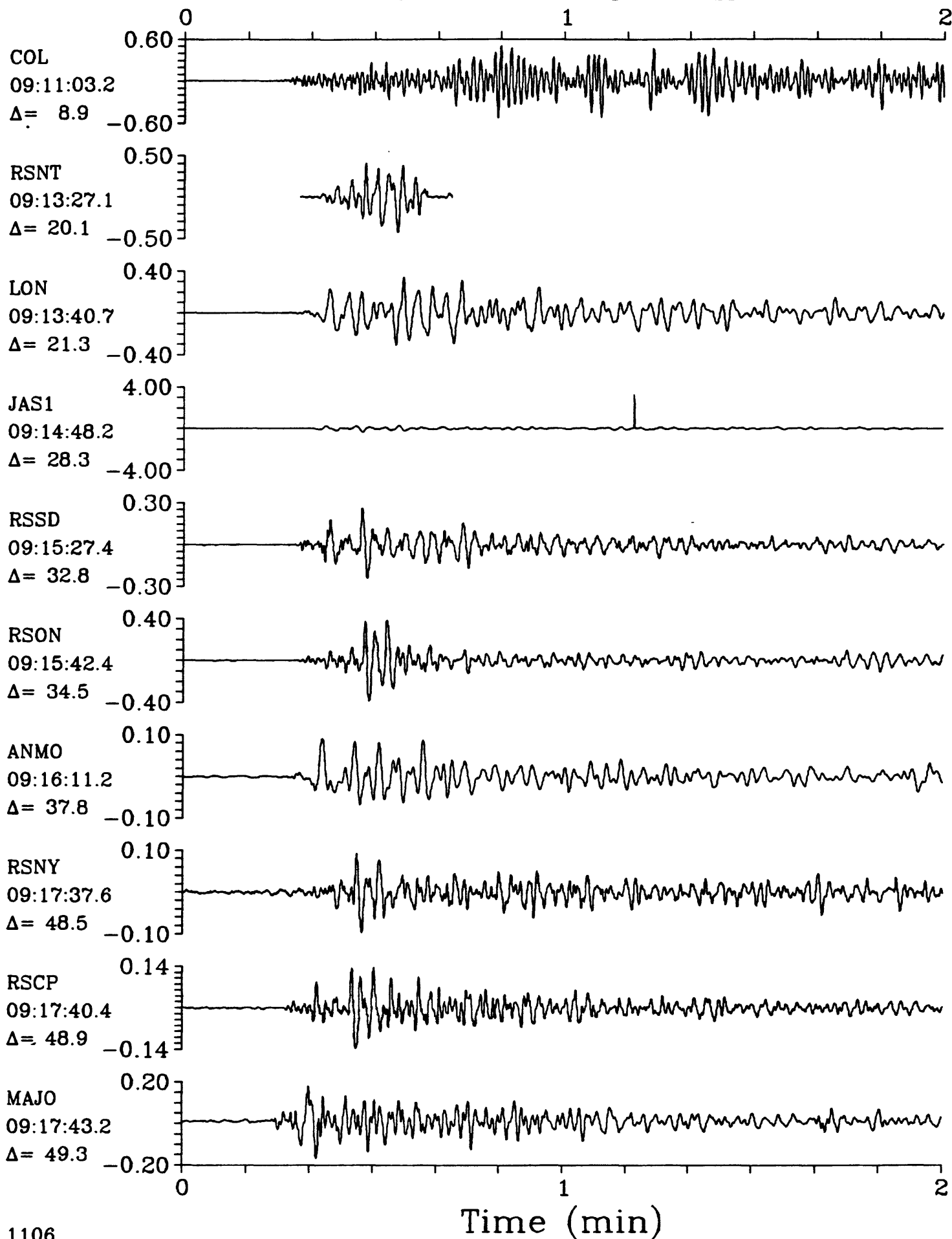
## Kodiak Island Region



SPZ

19 June 1986 09:09:12.33

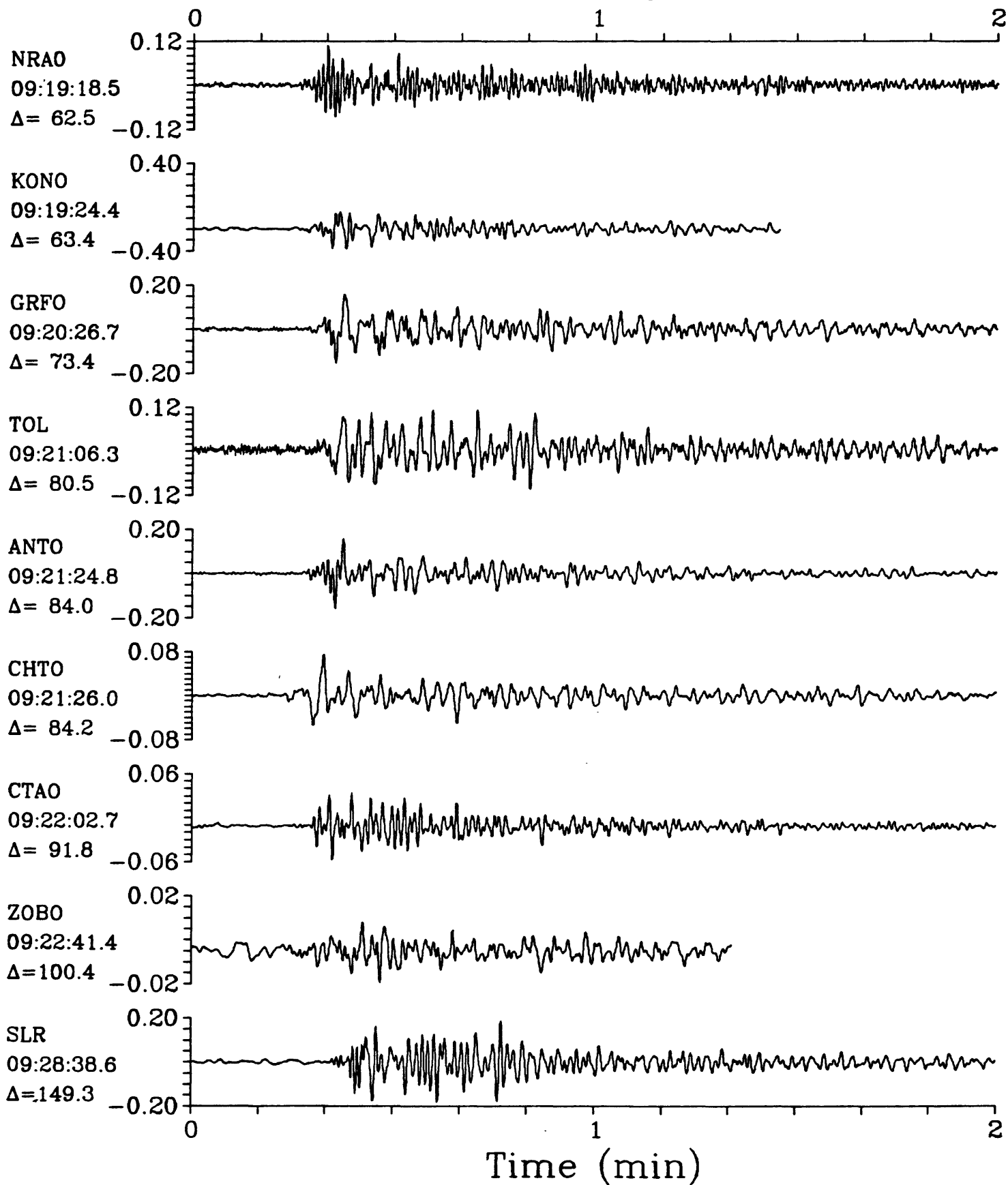
SPZ

Kodiak Island Region  $h=33.0$   $m_b=6.0$   $M_{sz}=6.3$ 

SPZ

19 June 1986 09:09:12.33

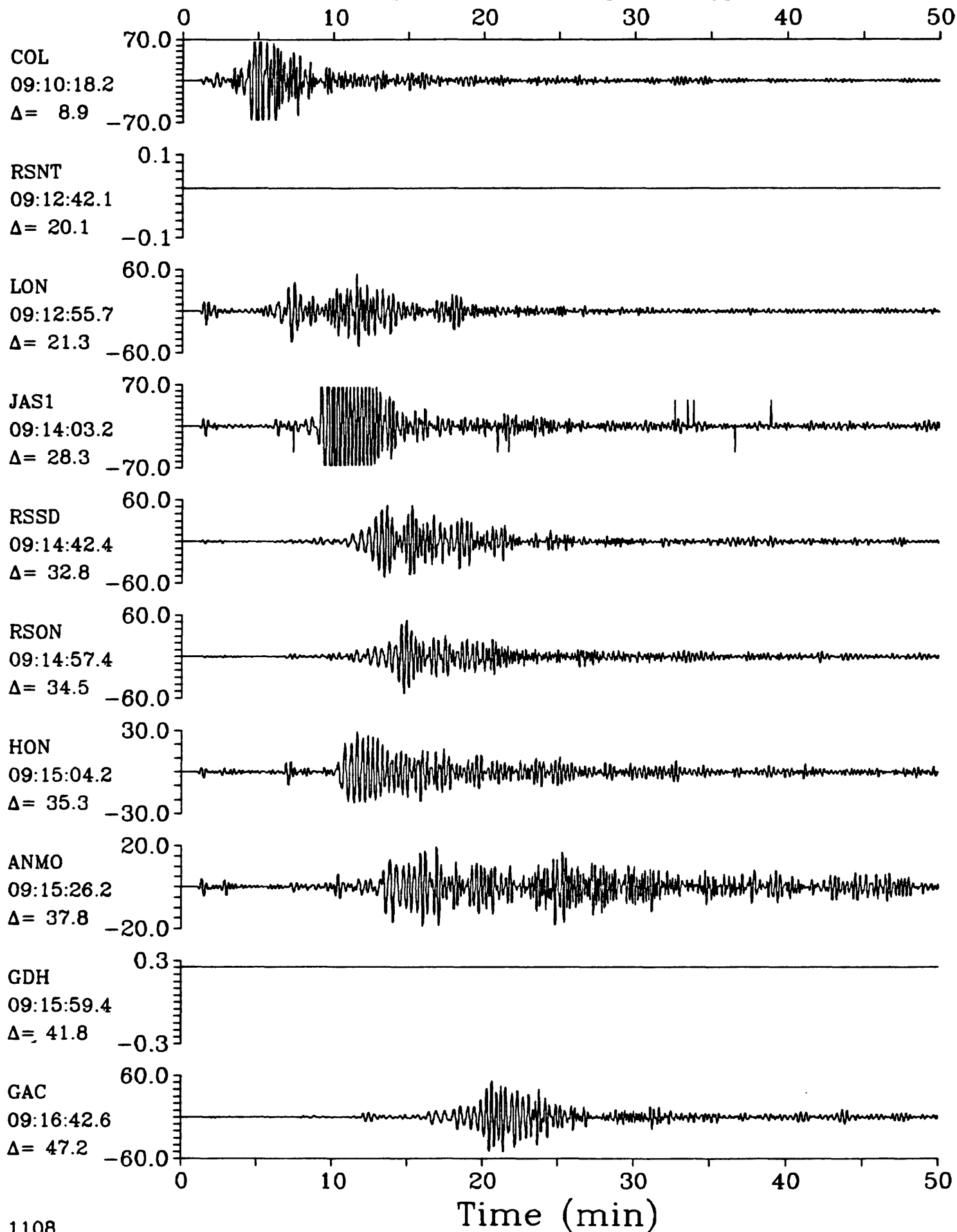
SPZ

Kodiak Island Region  $h=33.0$   $m_b=6.0$   $M_{sz}=6.3$ 

LPZ

19 June 1986 09:09:12.33

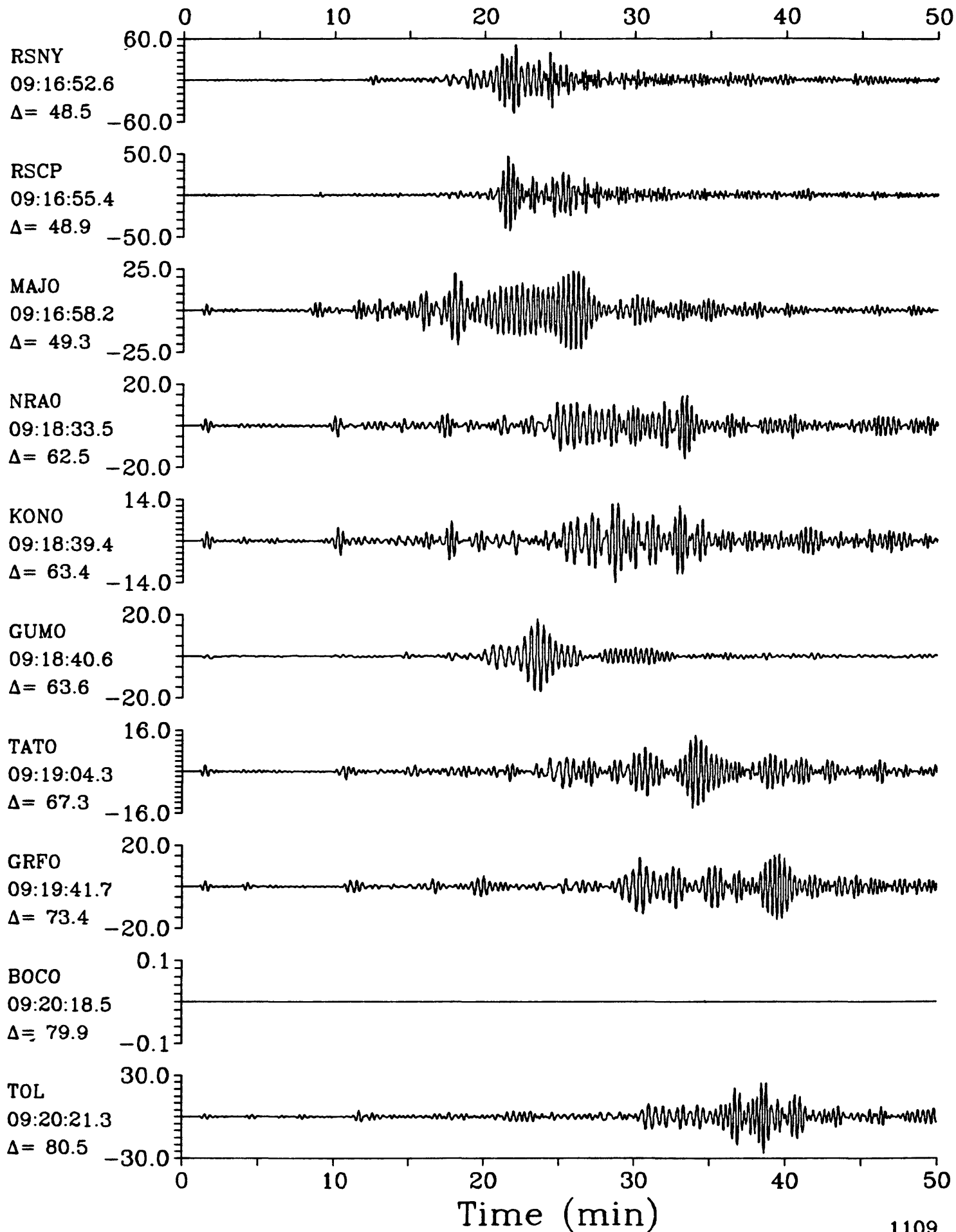
LPZ

Kodiak Island Region  $h=33.0$   $m_b=6.0$   $M_{sz}=6.3$ 

LPZ

19 June 1986 09:09:12.33

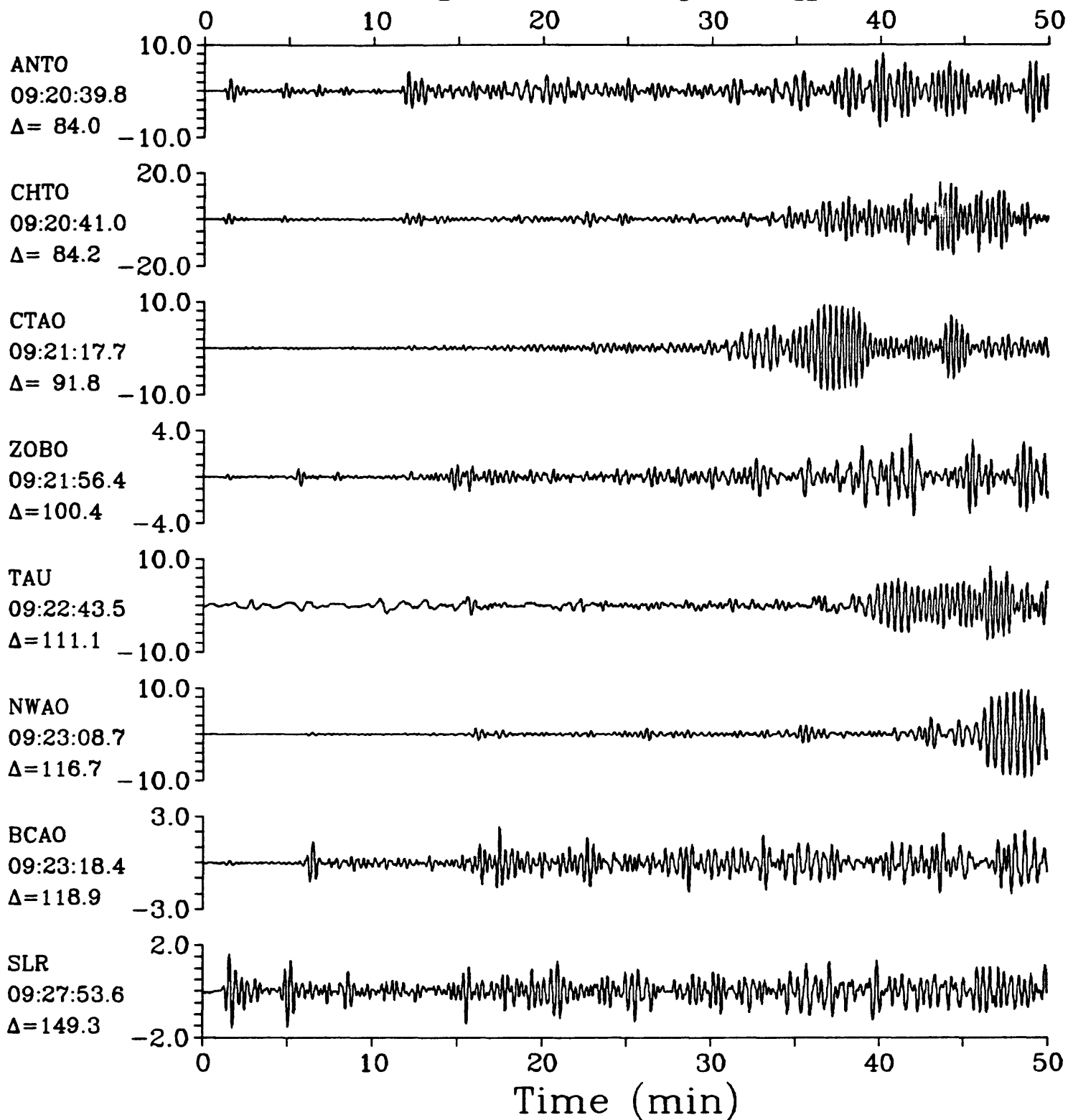
LPZ

Kodiak Island Region  $h=33.0$   $m_b=6.0$   $M_{sz}=6.3$ 

LPZ

19 June 1986 09:09:12.33

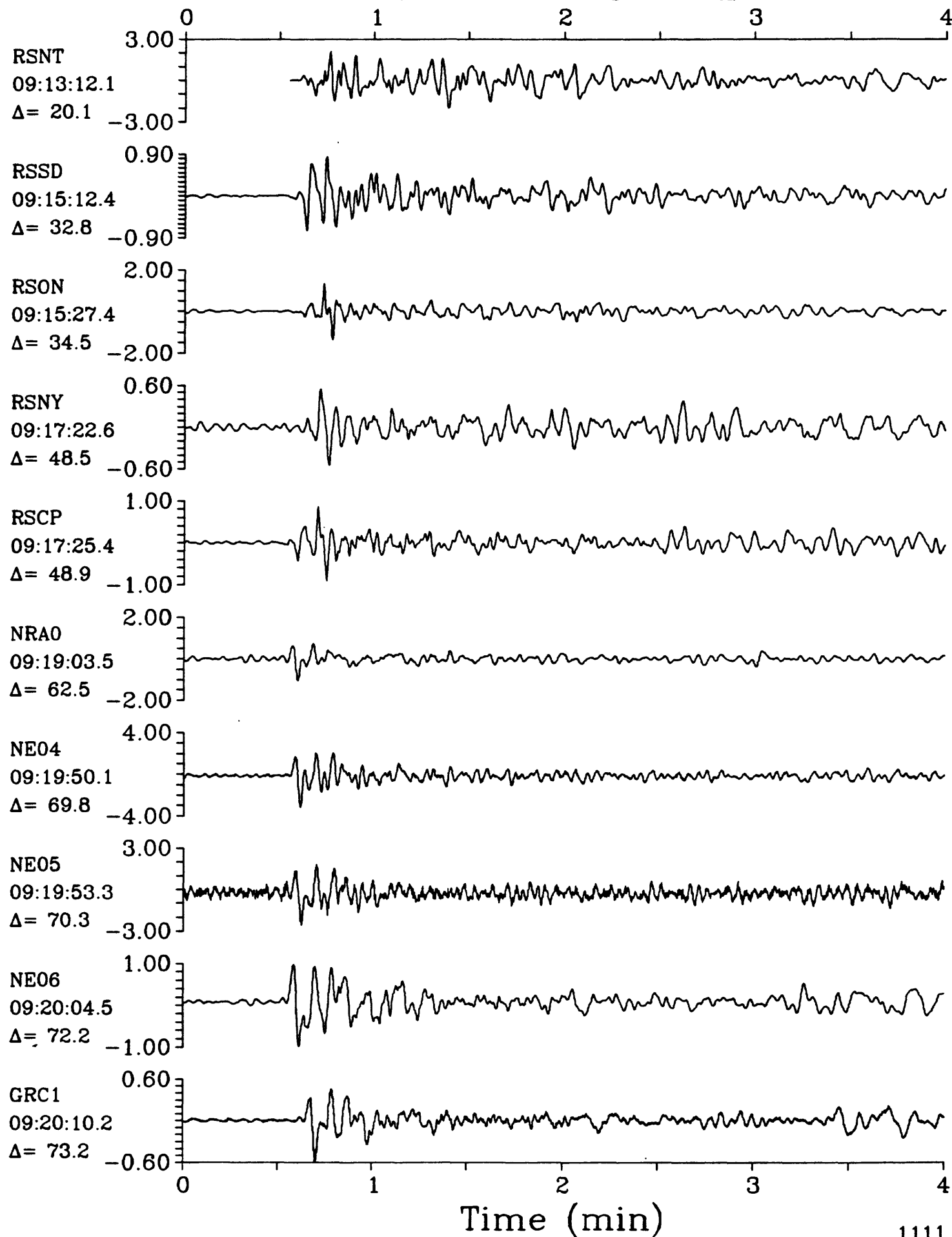
LPZ

Kodiak Island Region  $h=33.0$   $m_b=6.0$   $M_{sz}=6.3$ 

IPZ

19 June 1986 09:09:12.33

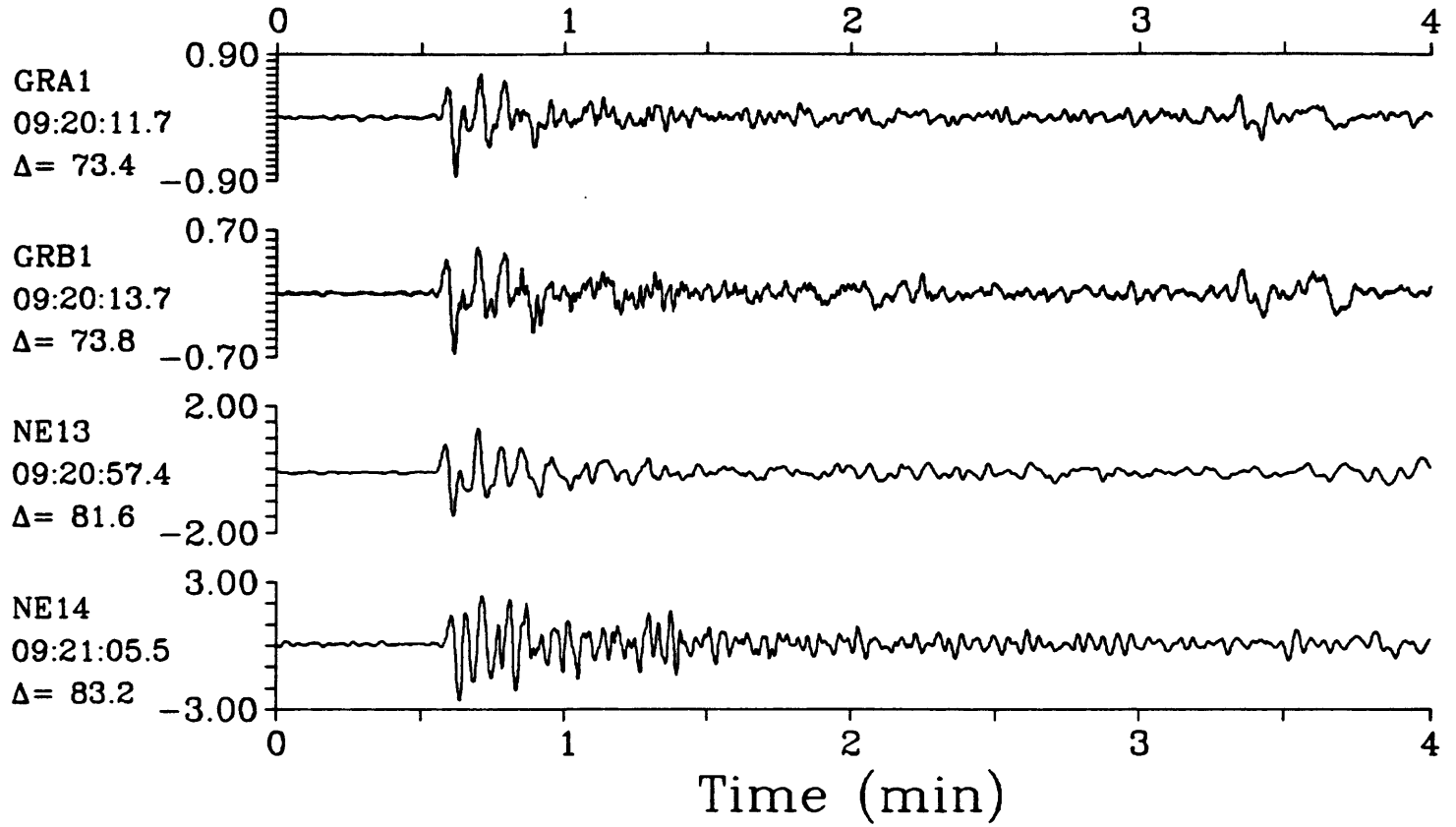
IPZ

Kodiak Island Region  $h=33.0$   $m_b=6.0$   $M_{sz}=6.3$ 

IPZ

19 June 1986 09:09:12.33

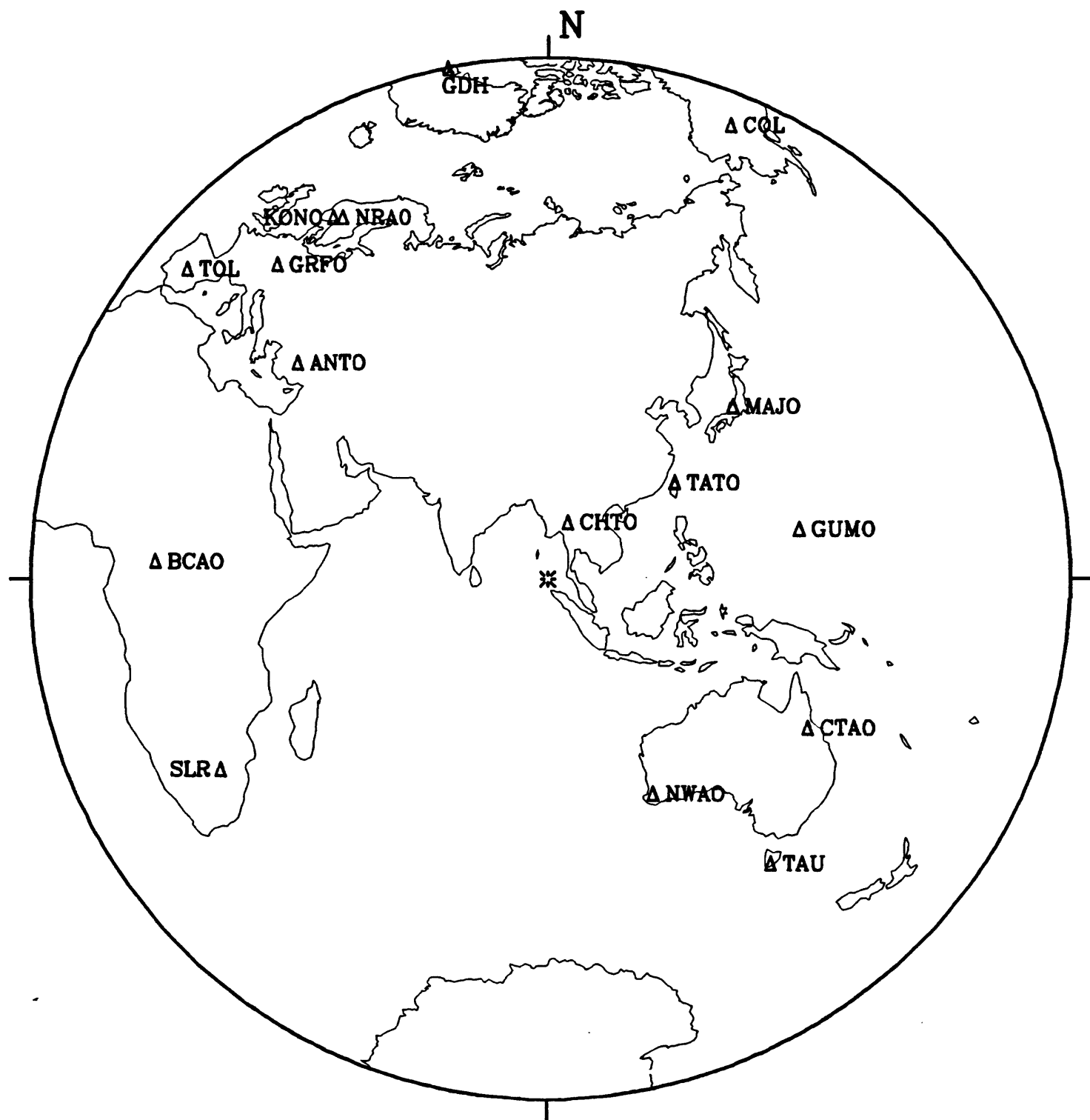
IPZ

Kodiak Island Region  $h=33.0$   $m_b=6.0$   $M_{sz}=6.3$ 



19 June 1986 18:12:30.88

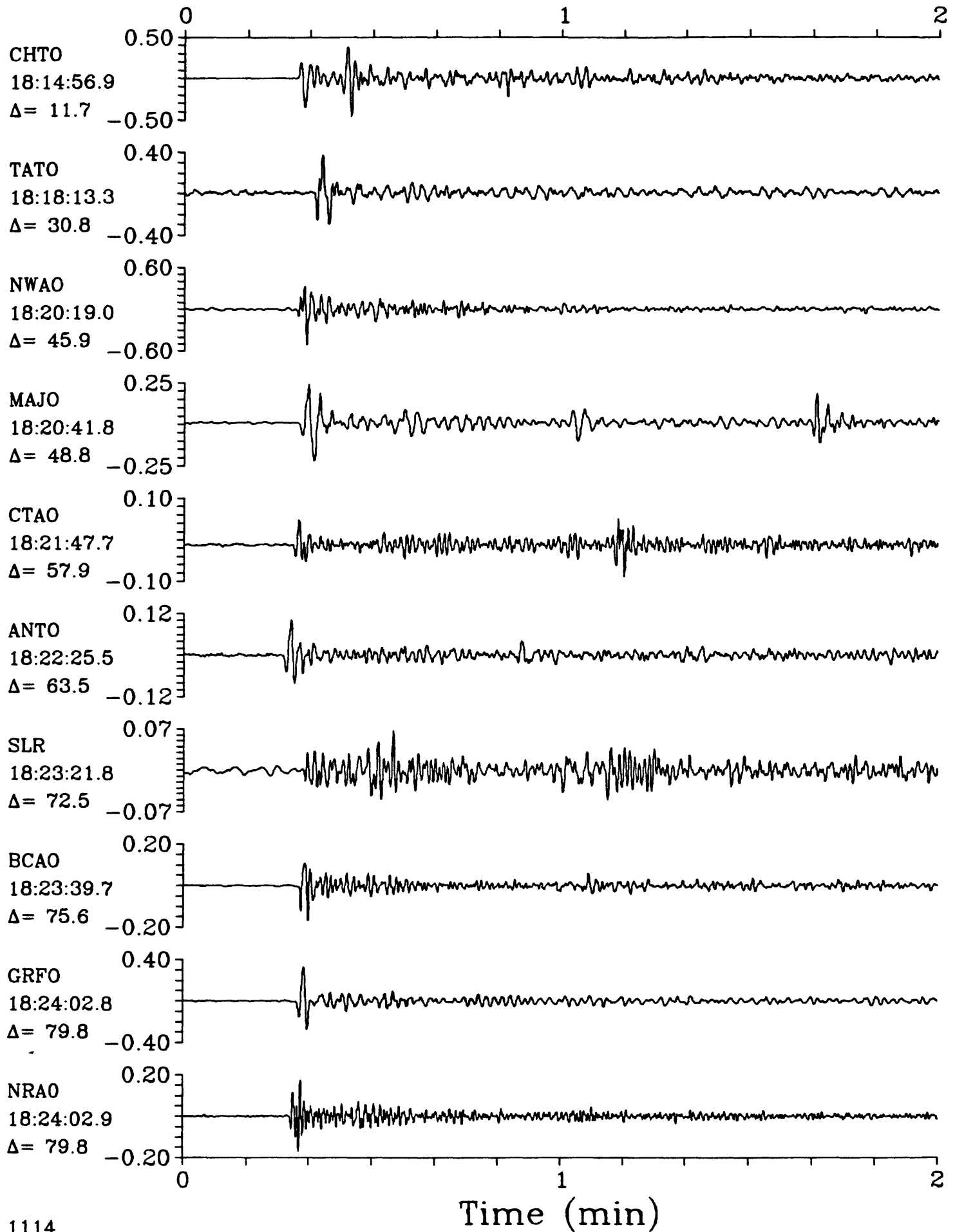
## Nicobar Islands Region



SPZ

19 June 1986 18:12:30.88

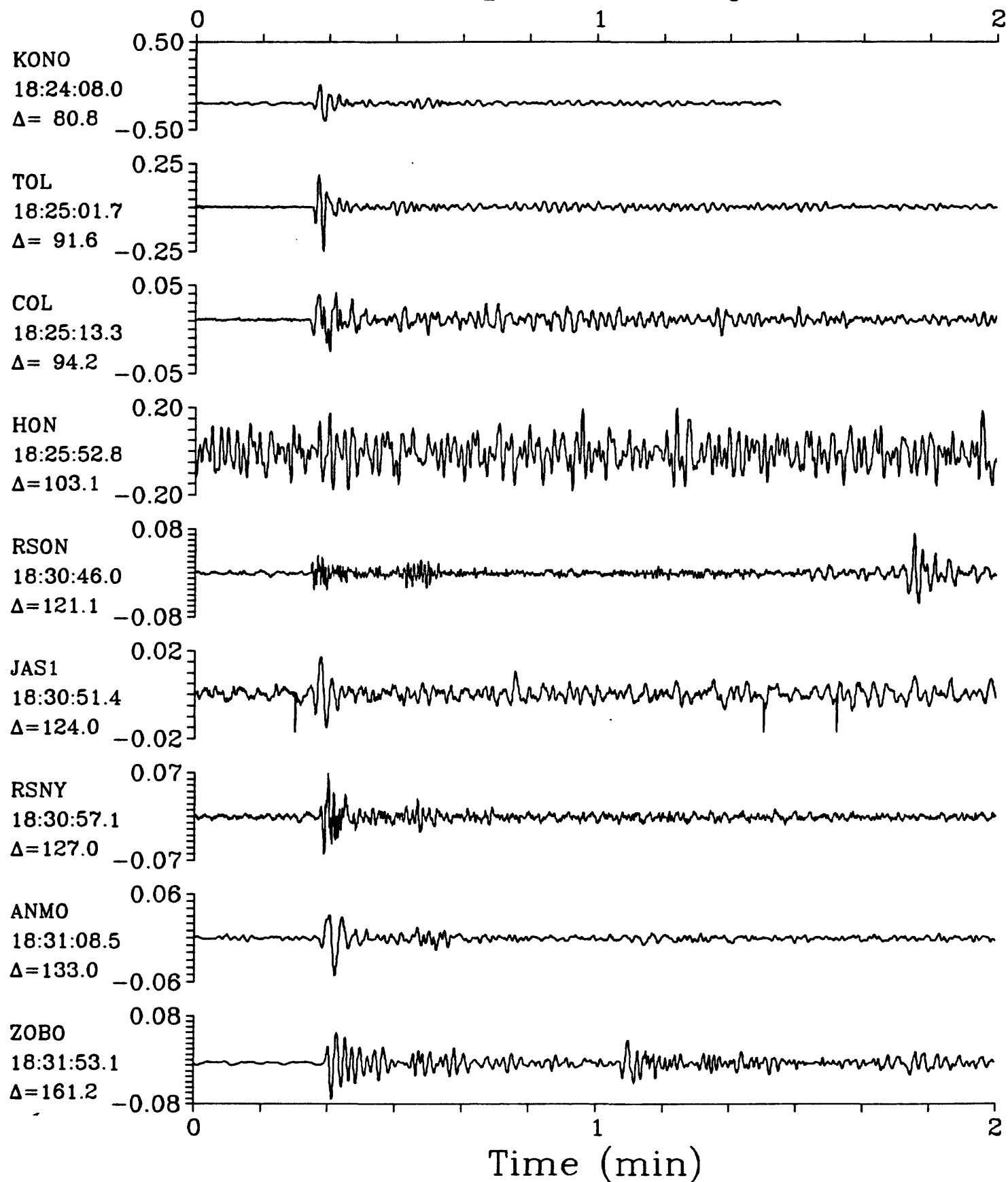
SPZ

Nicobar Islands Region  $h=192.6$   $m_b=5.8$ 

SPZ

19 June 1986 18:12:30.88

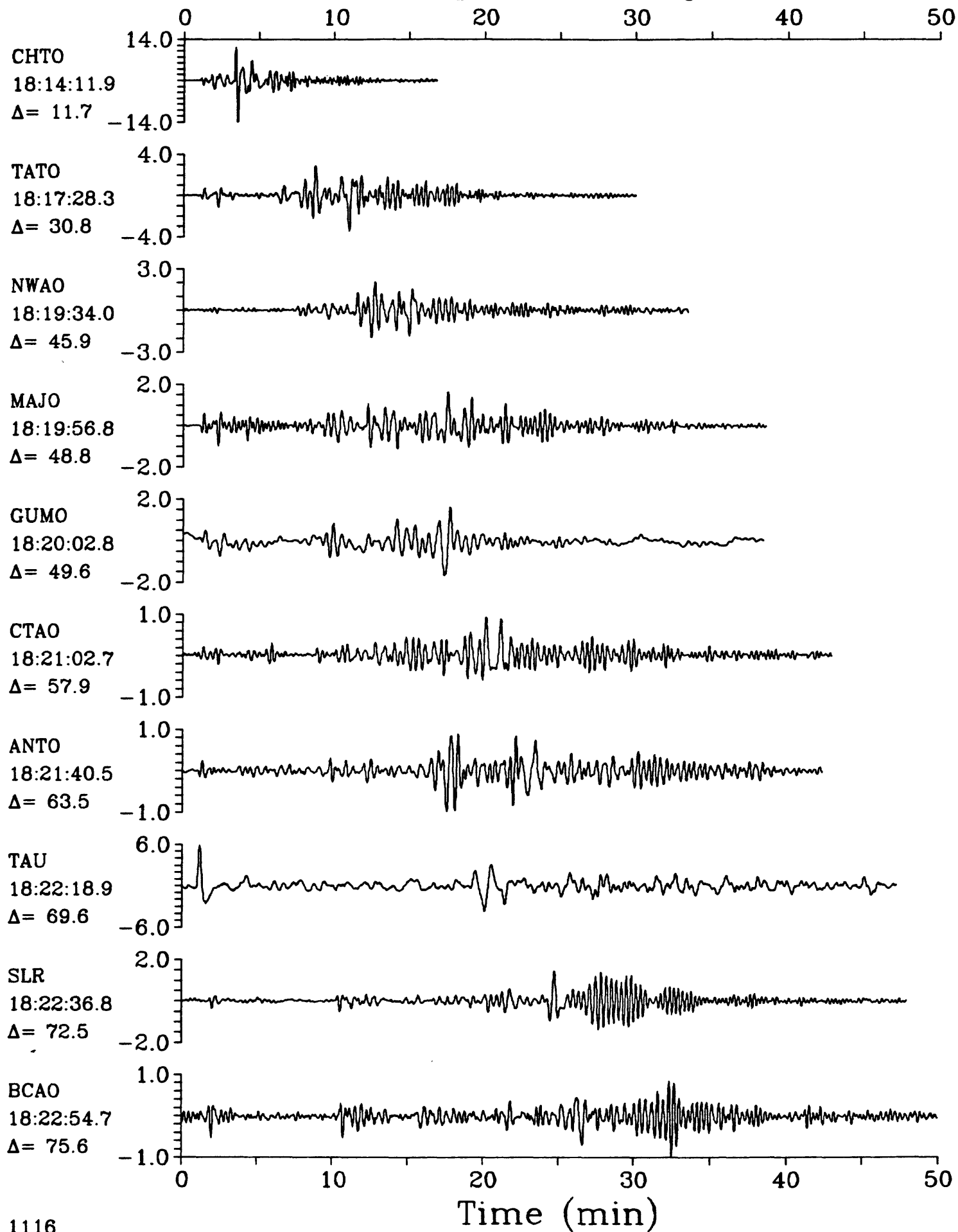
SPZ

Nicobar Islands Region  $h=192.6$   $m_b=5.8$ 

LPZ

19 June 1986 18:12:30.88

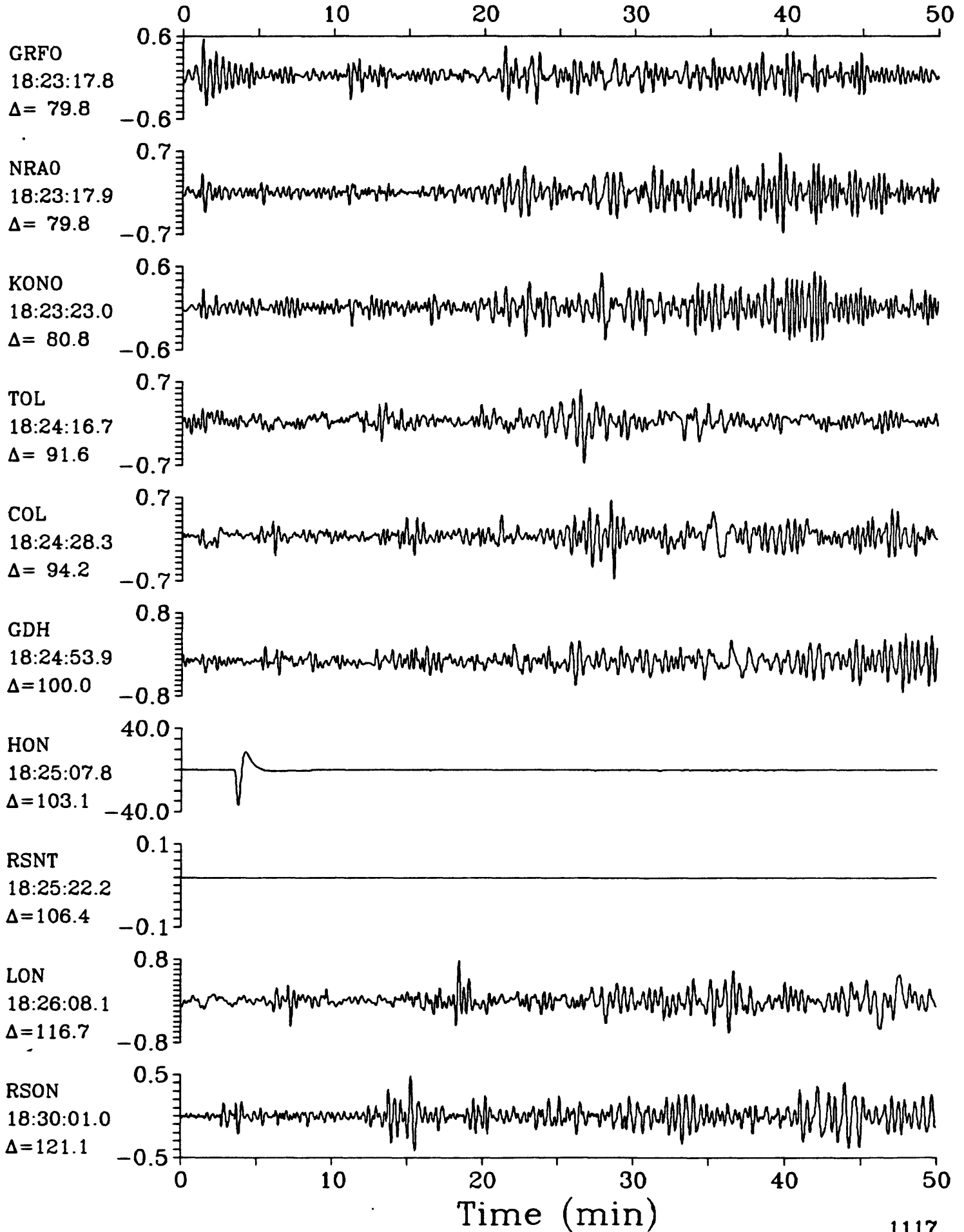
LPZ

Nicobar Islands Region  $h=192.6$   $m_b=5.8$ 

LPZ

19 June 1986 18:12:30.88

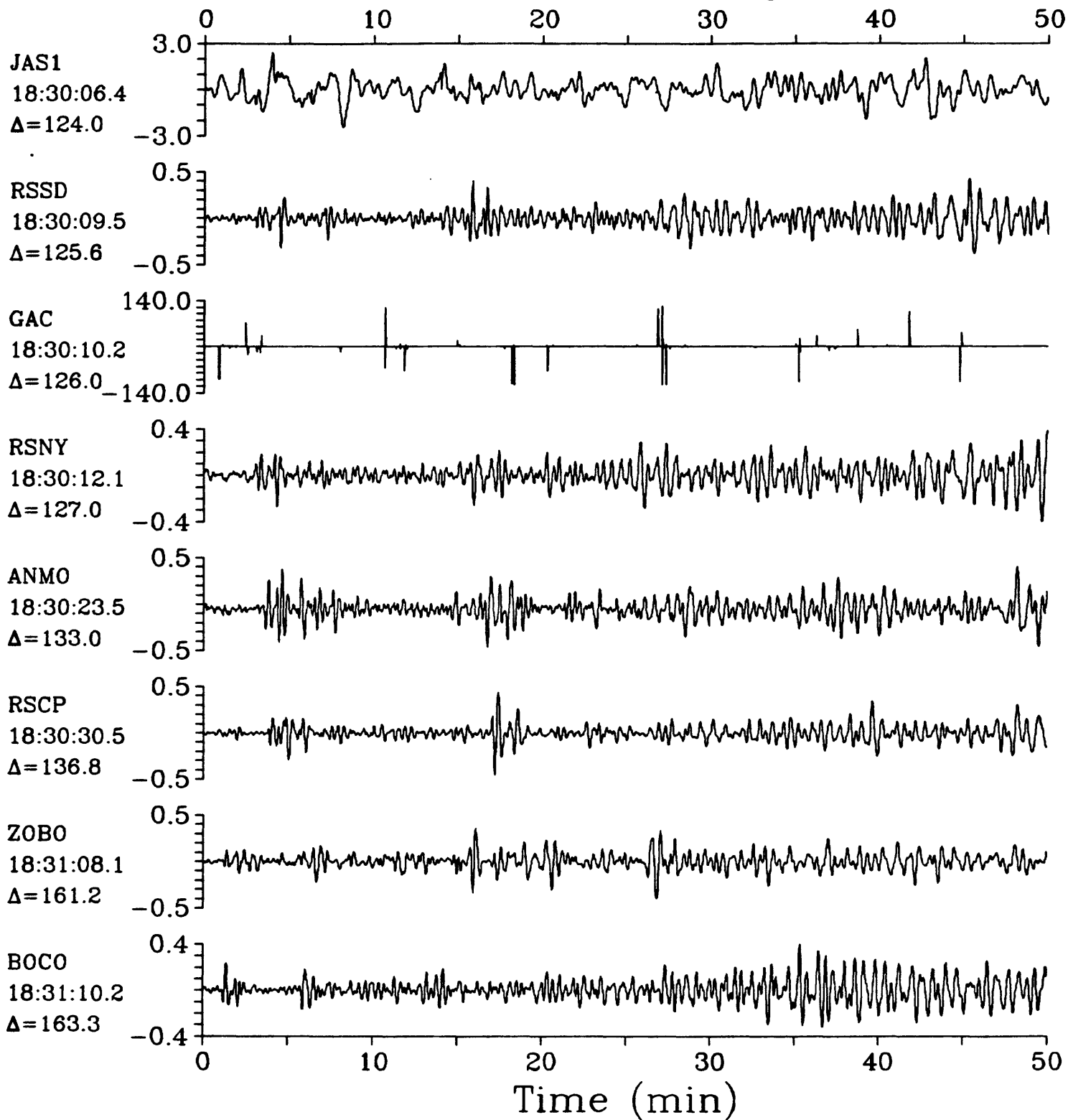
LPZ

Nicobar Islands Region  $h=192.6$   $m_b=5.8$ 

LPZ

19 June 1986 18:12:30.88

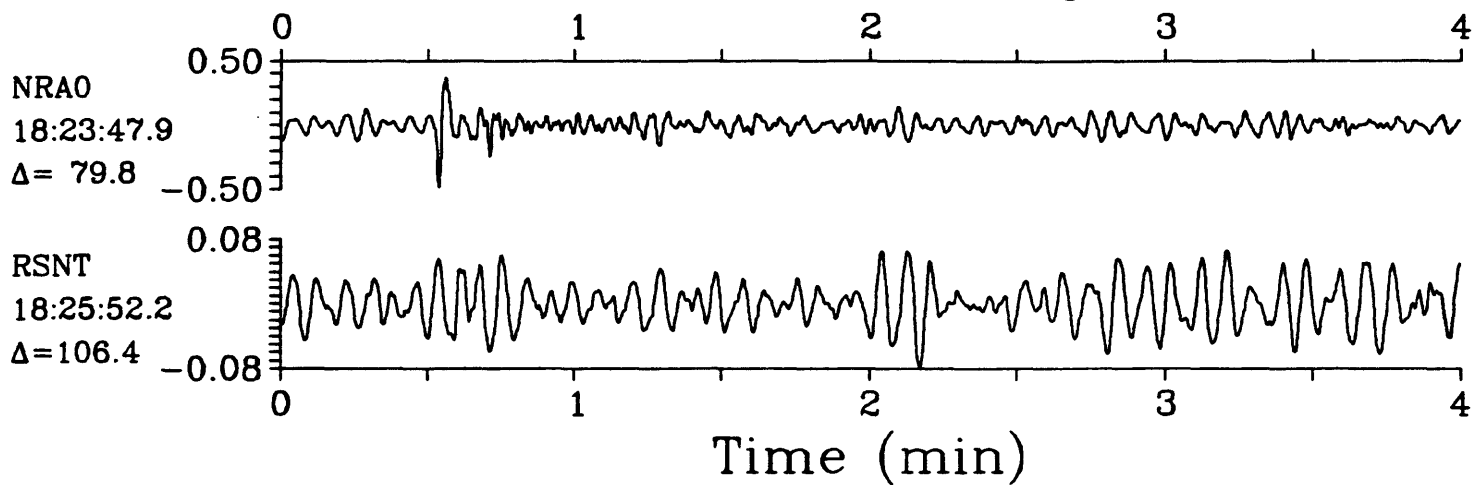
LPZ

Nicobar Islands Region  $h=192.6$   $m_b=5.8$ 

IPZ

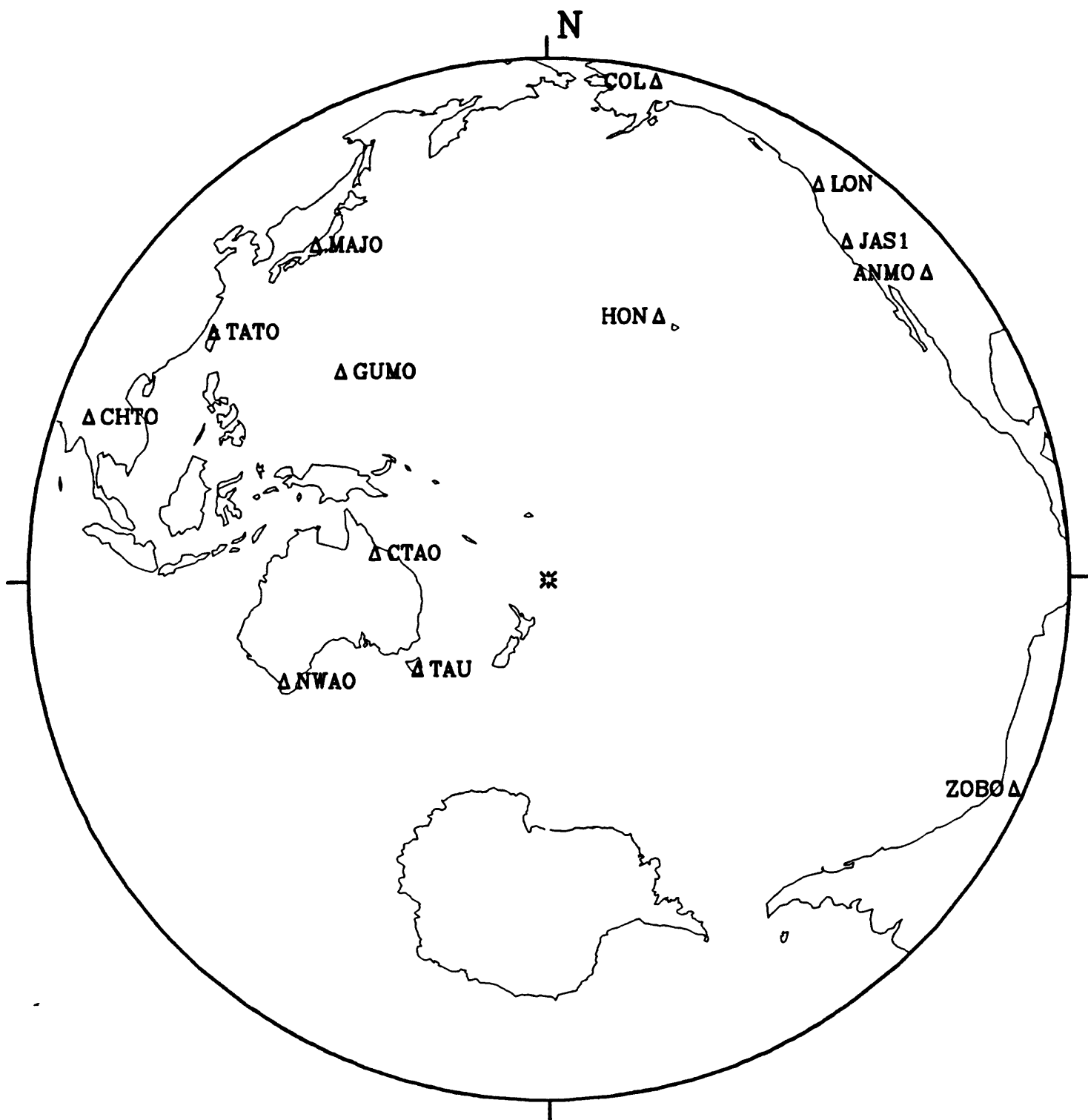
19 June 1986 18:12:30.88

IPZ

Nicobar Islands Region  $h=192.6$   $m_b=5.8$ 

19 June 1986 20:01:52.27

## Kermadec Islands

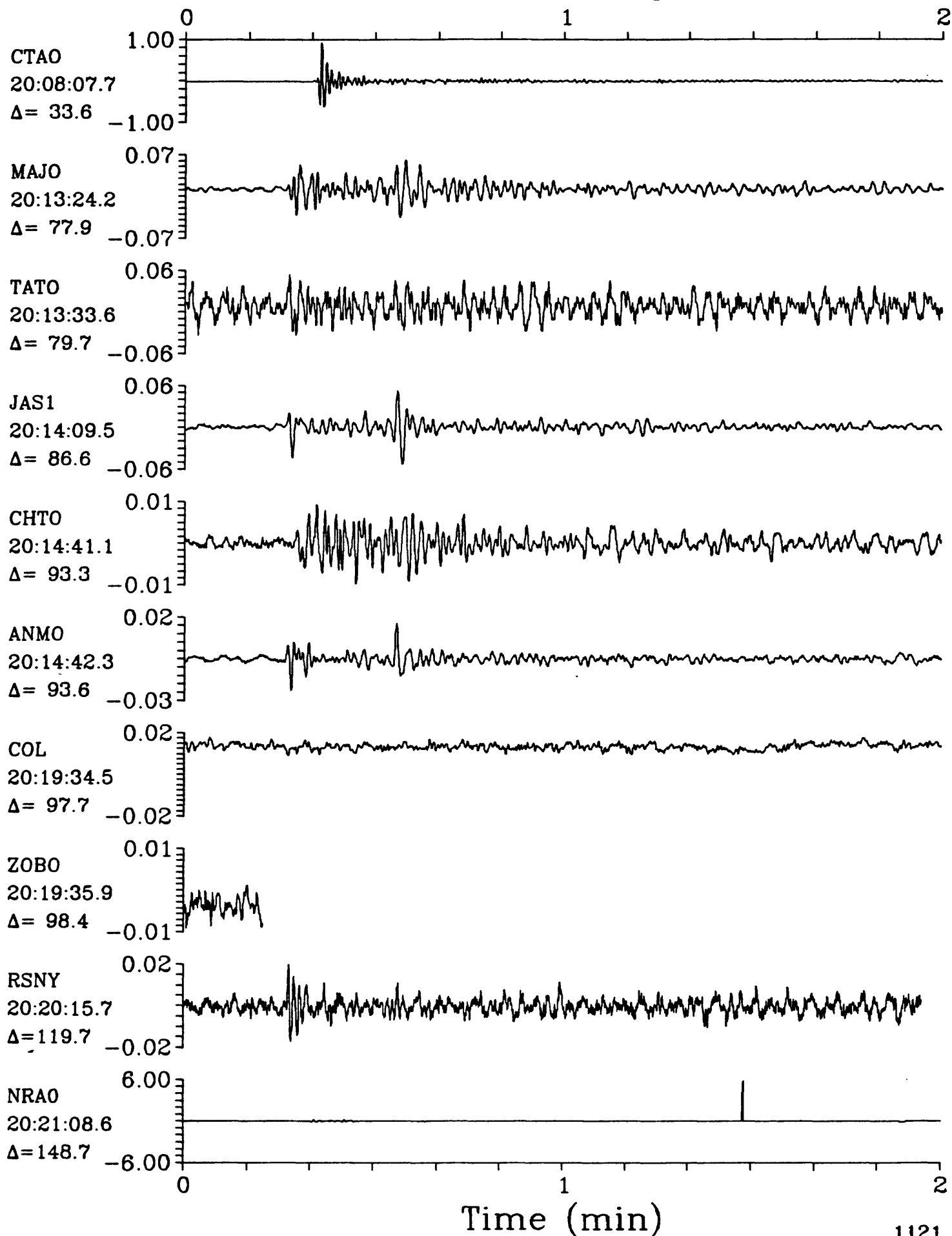




SPZ

19 June 1986 20:01:52.27  
Kermadec Islands  $h=105.2$   $m_b=5.6$ 

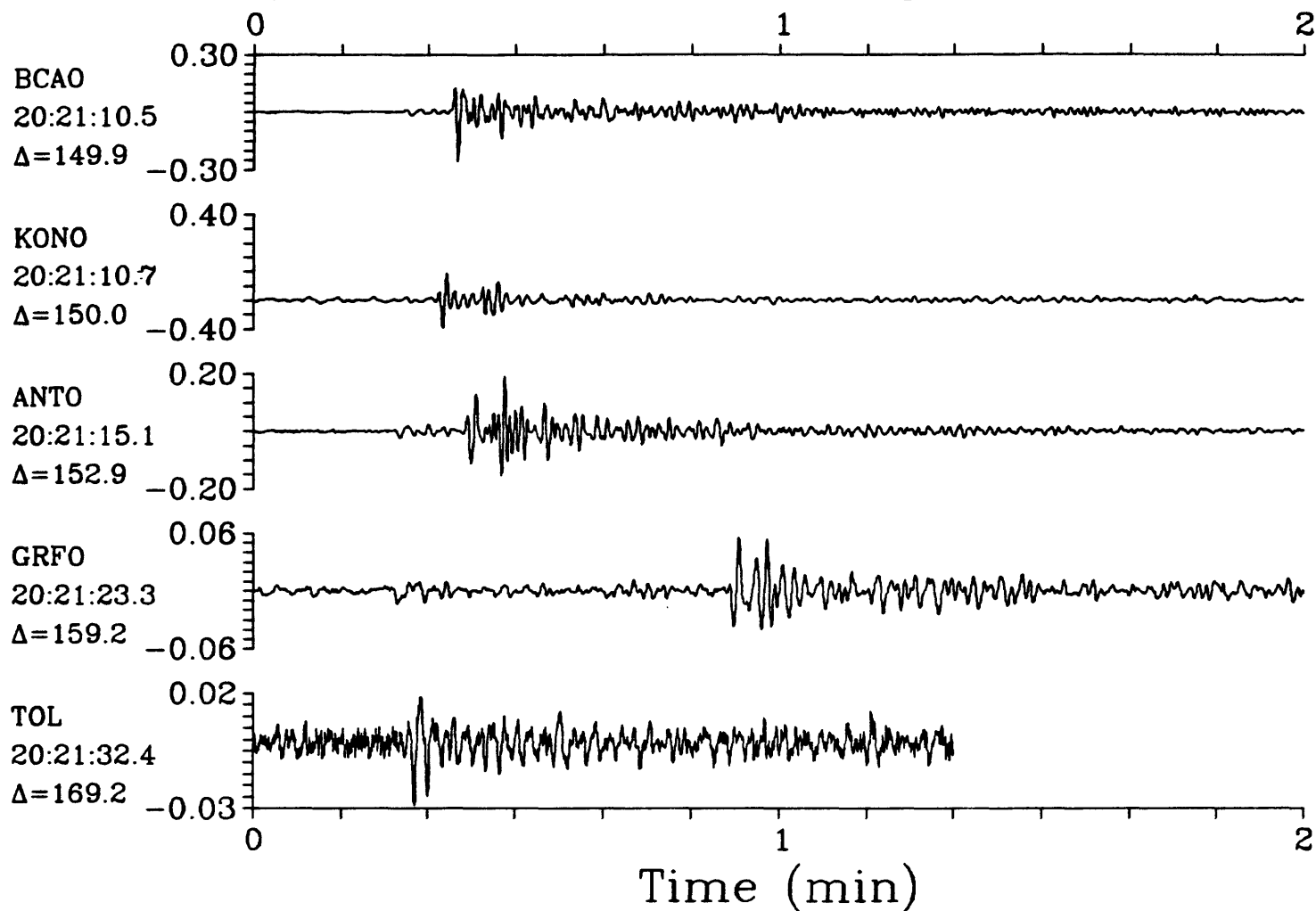
SPZ



SPZ

19 June 1986 20:01:52.27

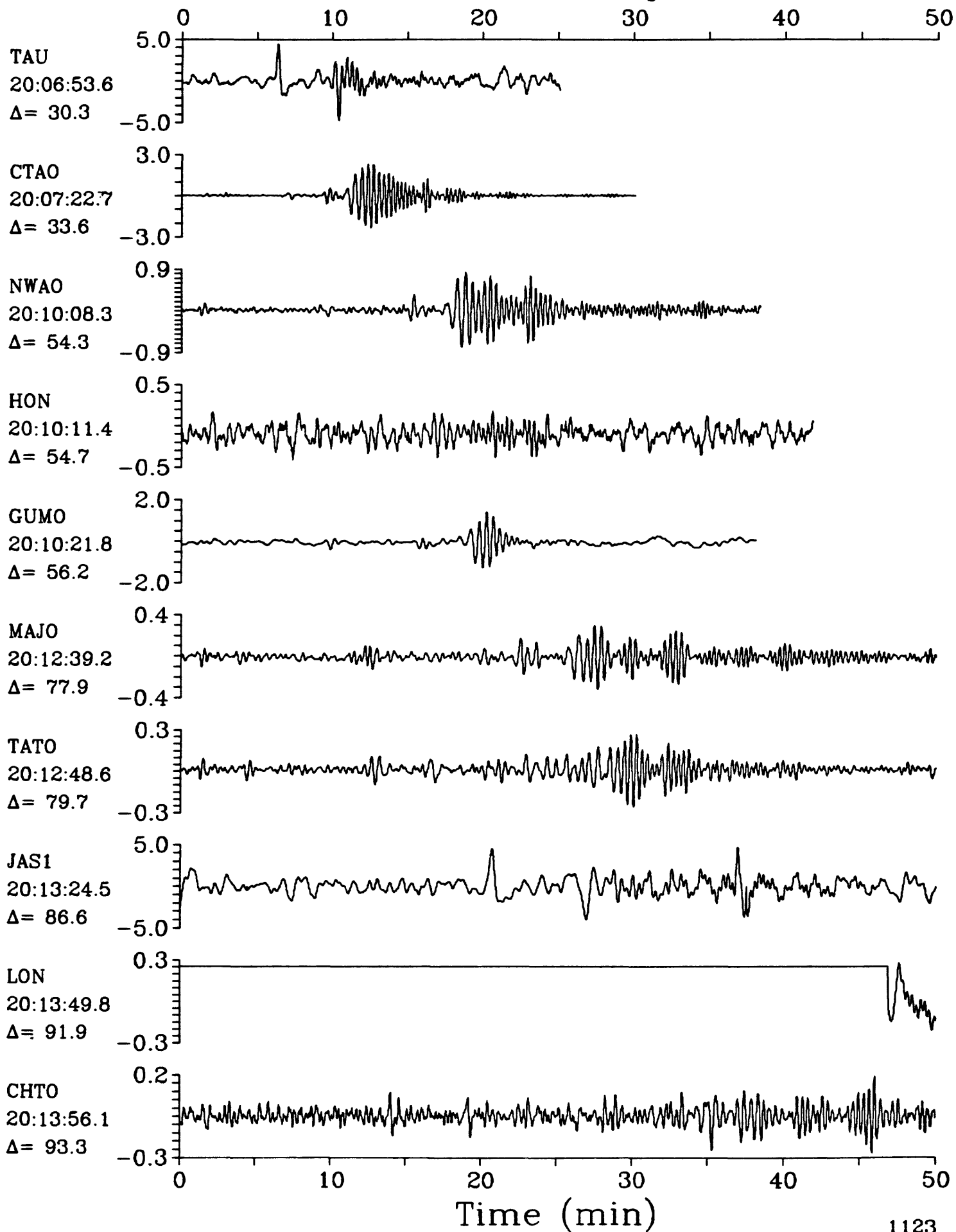
SPZ

Kermadec Islands  $h=105.2$   $m_b=5.6$ 

LPZ

19 June 1986 20:01:52.27  
Kermadec Islands  $h=105.2$   $m_b=5.6$ 

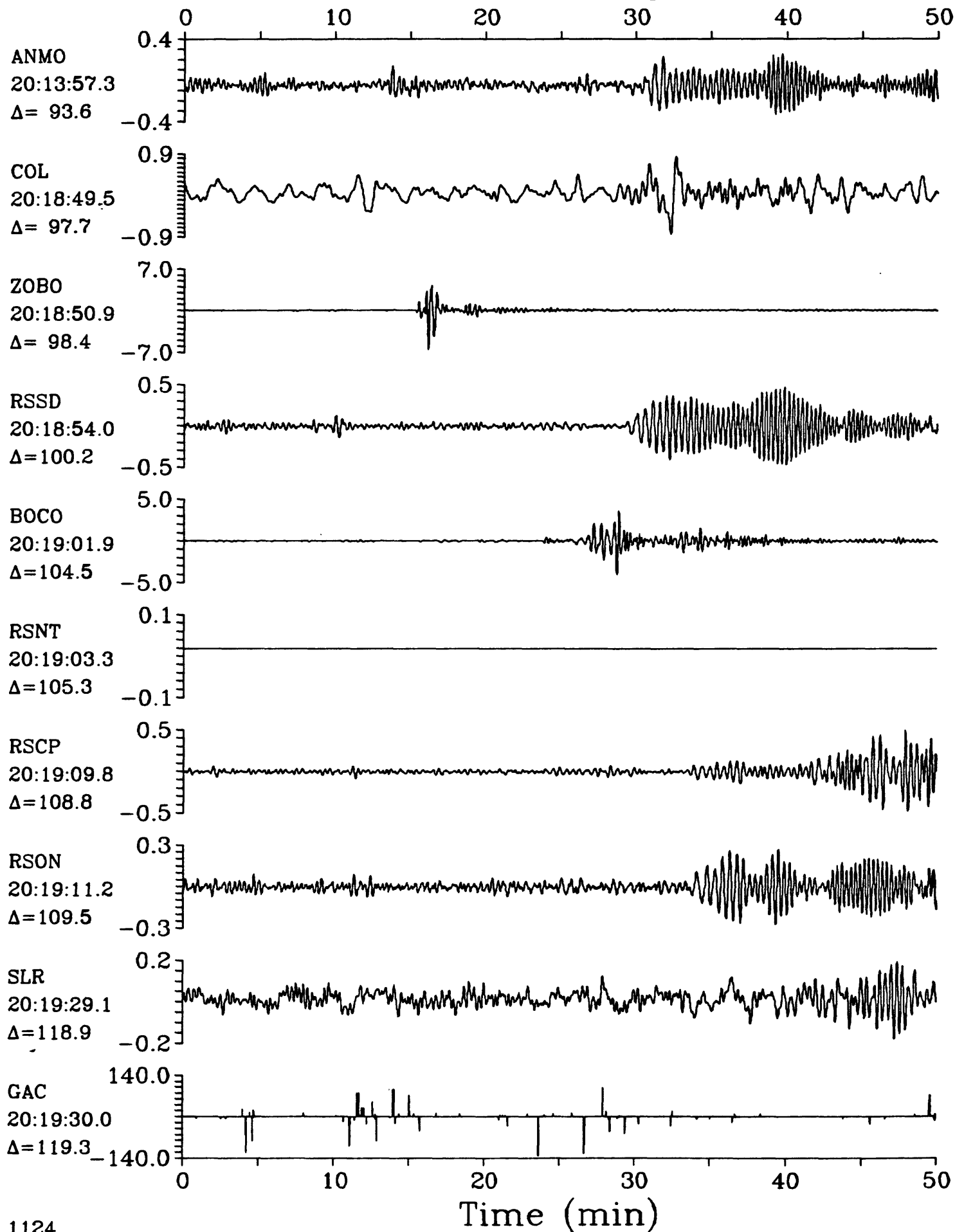
LPZ



LPZ

19 June 1986 20:01:52.27  
Kermadec Islands  $h=105.2$   $m_b=5.6$ 

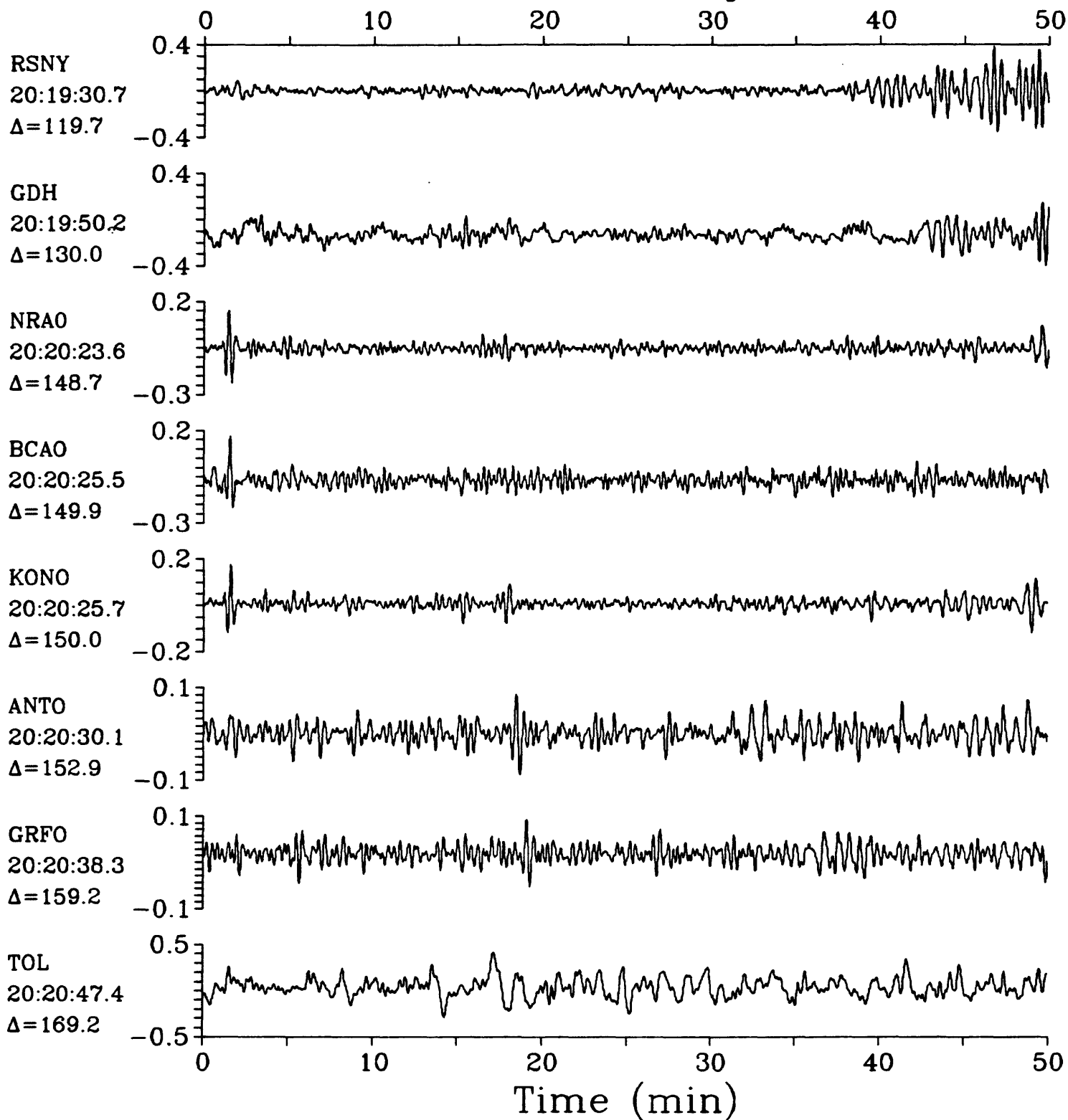
LPZ



LPZ

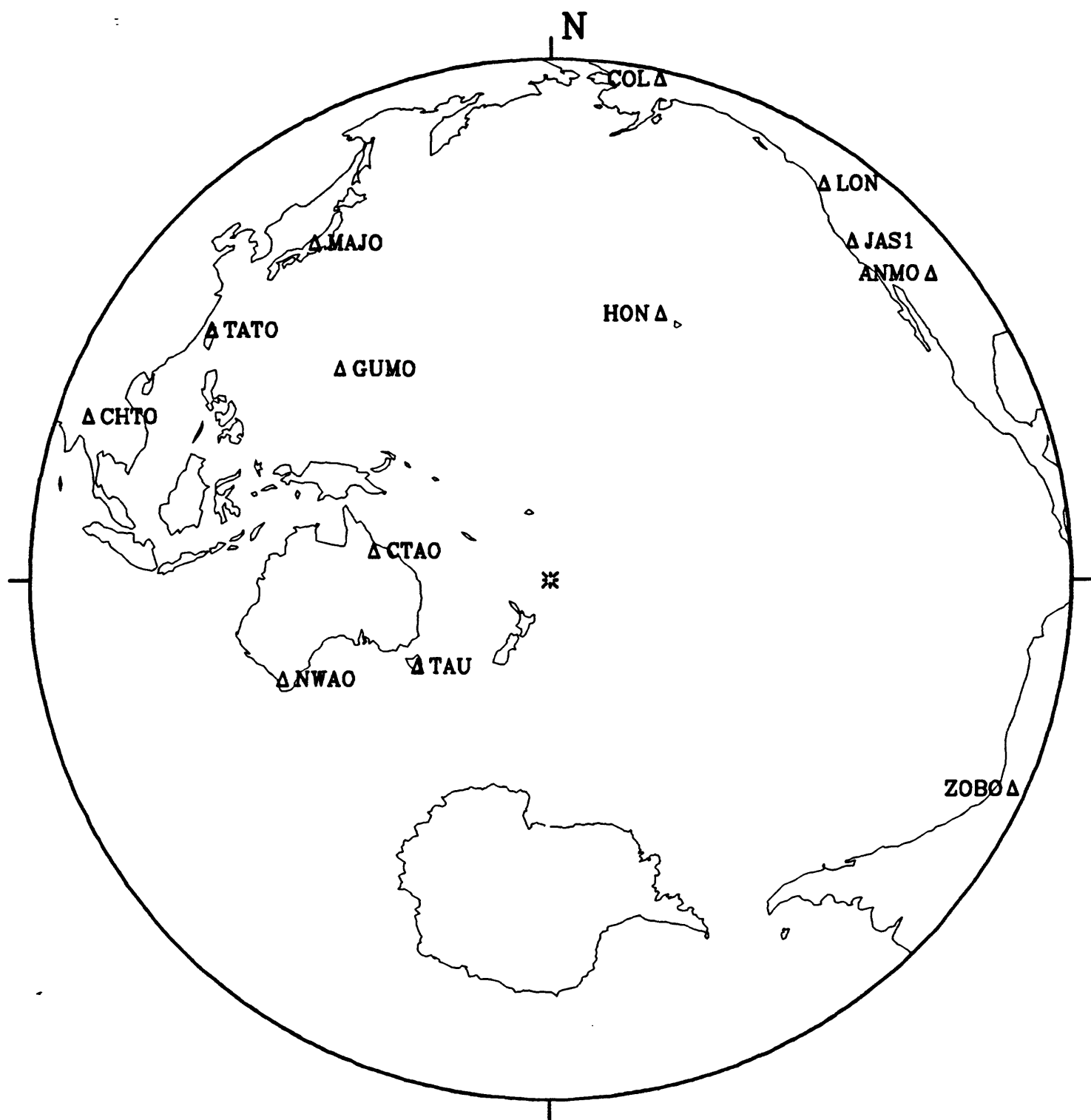
19 June 1986 20:01:52.27  
Kermadec Islands  $h=105.2$   $m_b=5.6$ 

LPZ



19 June 1986 23:18:30.35

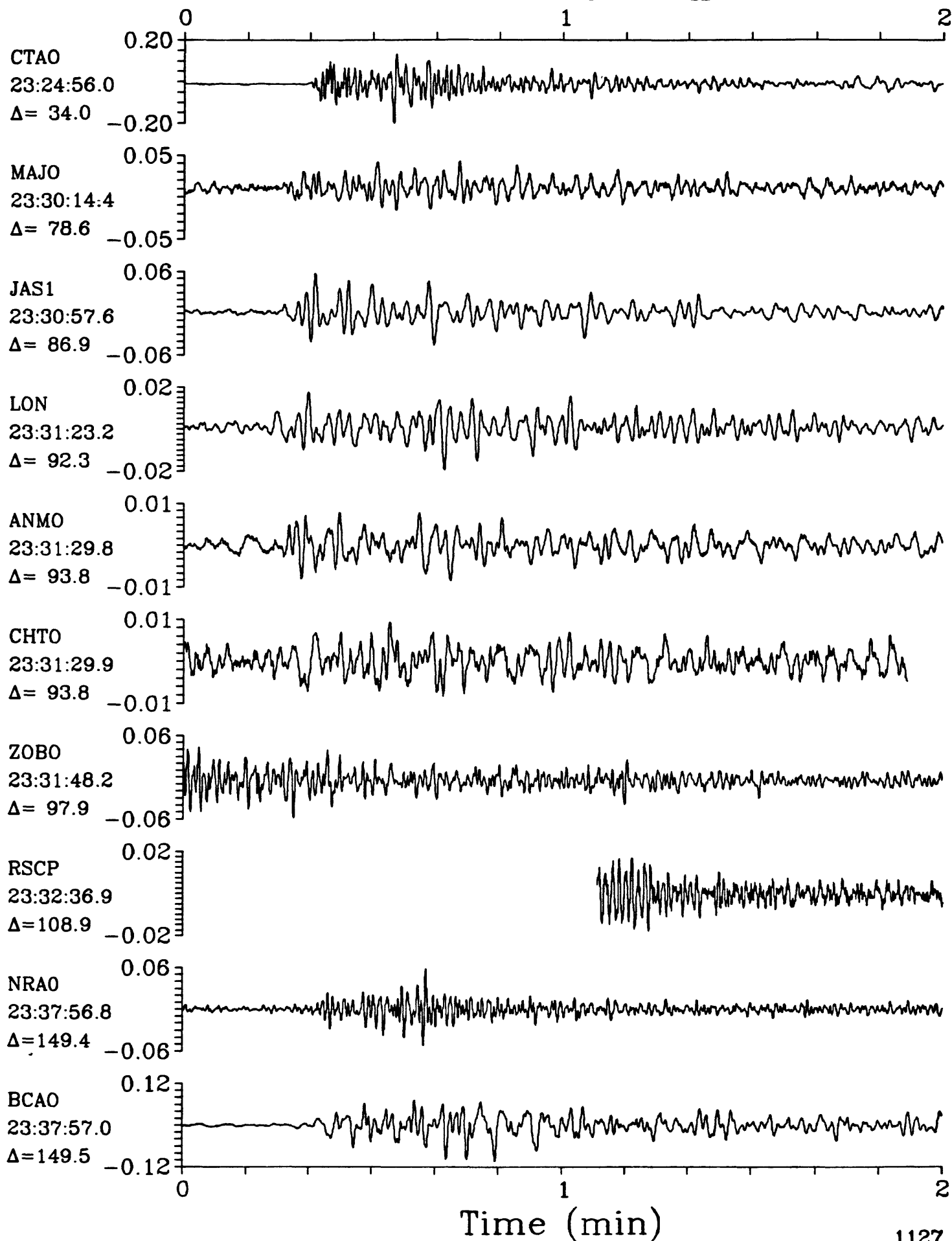
## Kermadec Islands



SPZ

19 June 1986 23:18:30.35

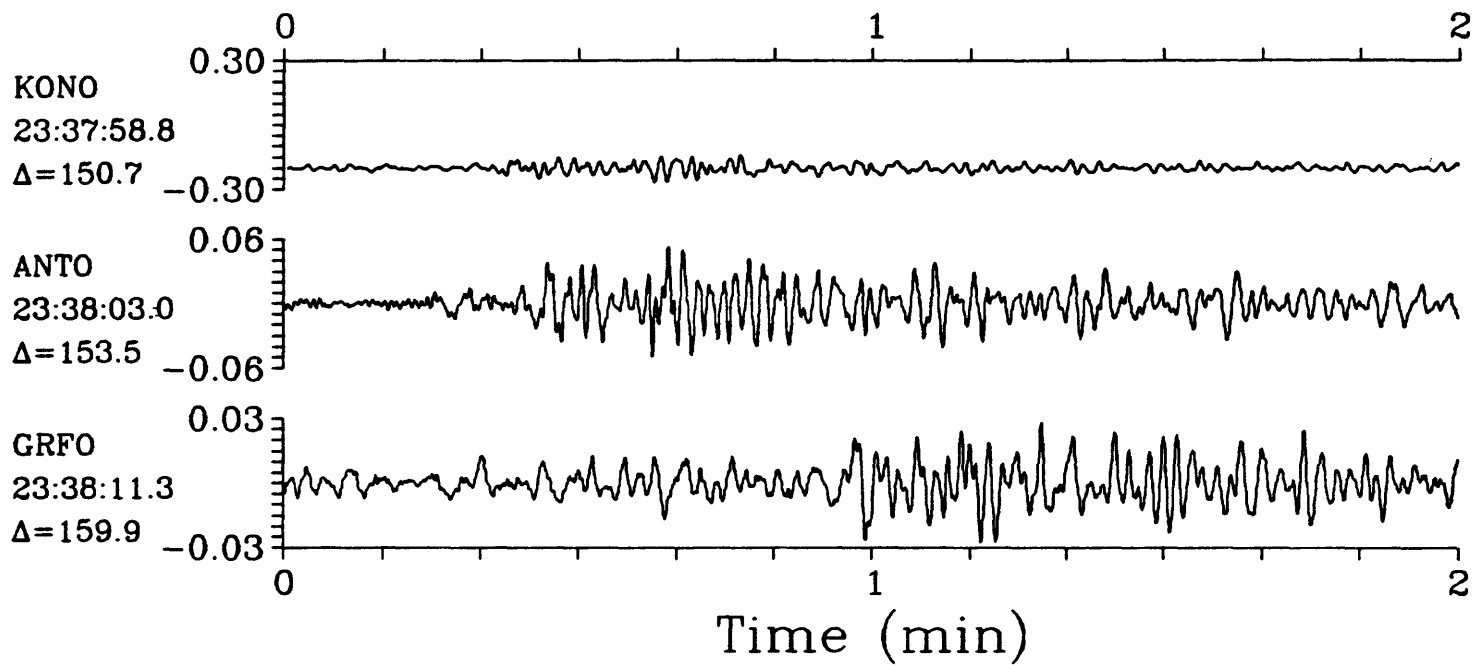
SPZ

Kermadec Islands  $h=33.0$   $m_b=5.4$   $M_{sz}=6.3$ 

SPZ

19 June 1986 23:18:30.35

SPZ

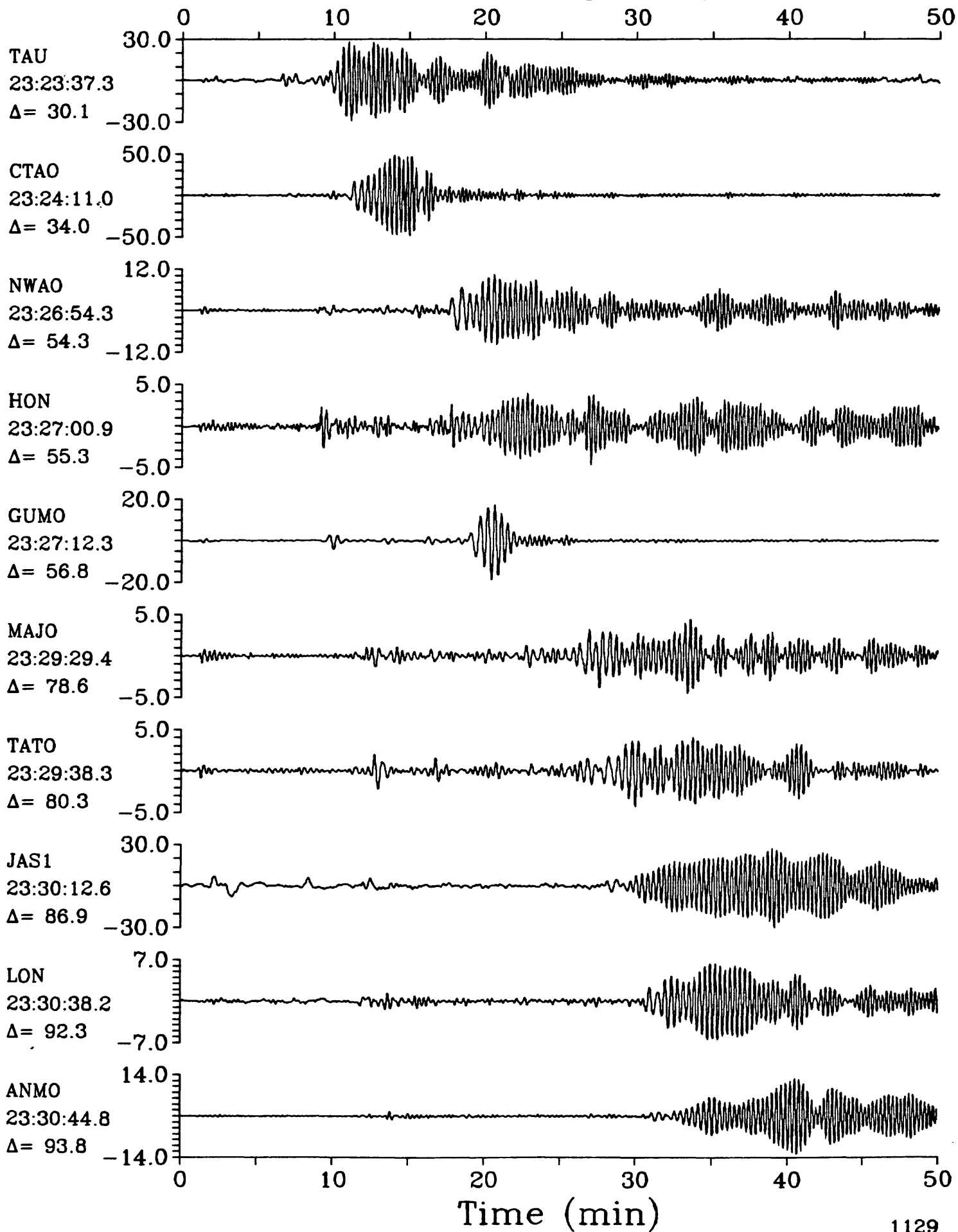
Kermadec Islands  $h=33.0$   $m_b=5.4$   $M_{sz}=6.3$ 



LPZ

19 June 1986 23:18:30.35

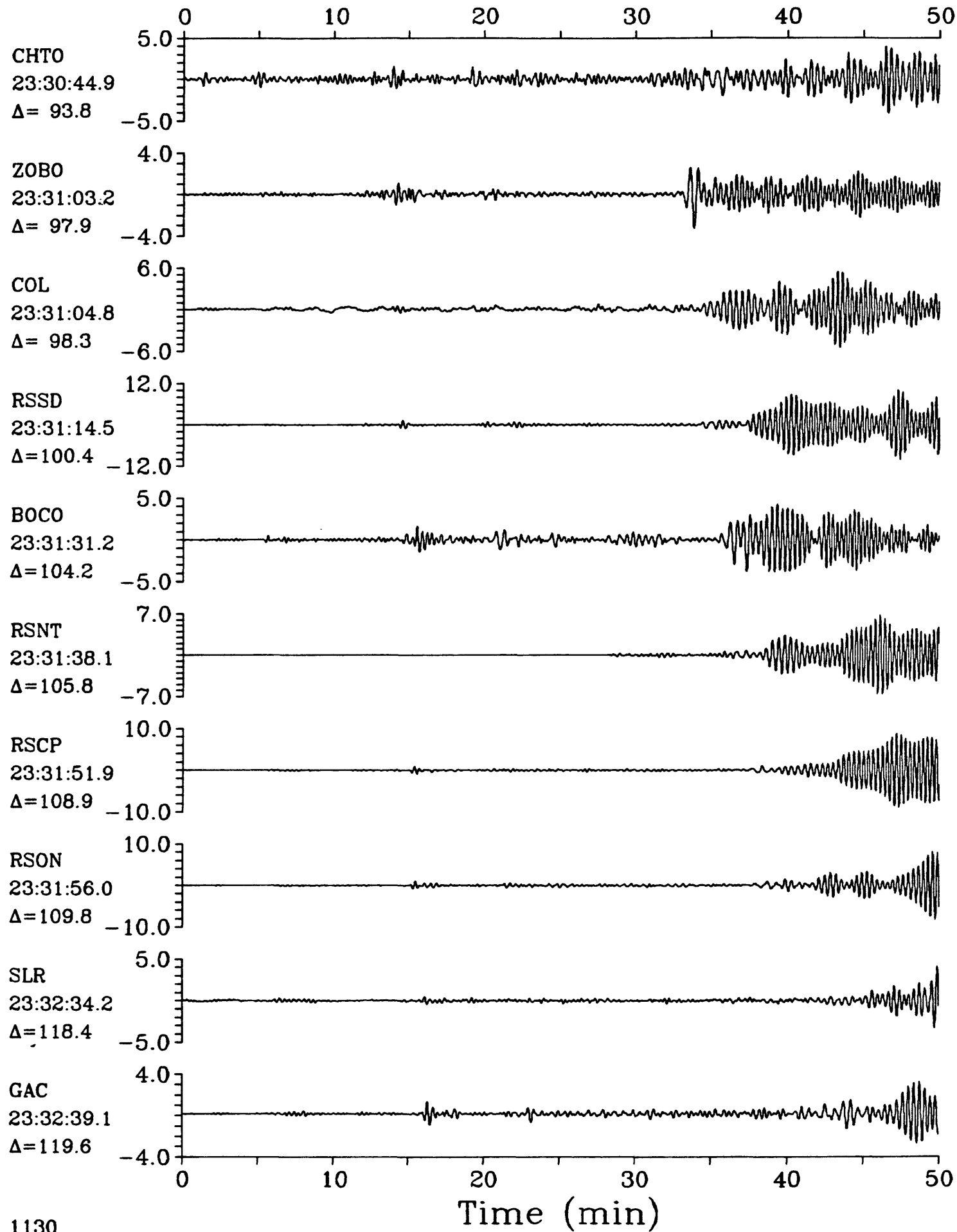
LPZ

Kermadec Islands  $h=33.0$   $m_b=5.4$   $M_{sz}=6.3$ 

LPZ

19 June 1986 23:18:30.35

LPZ

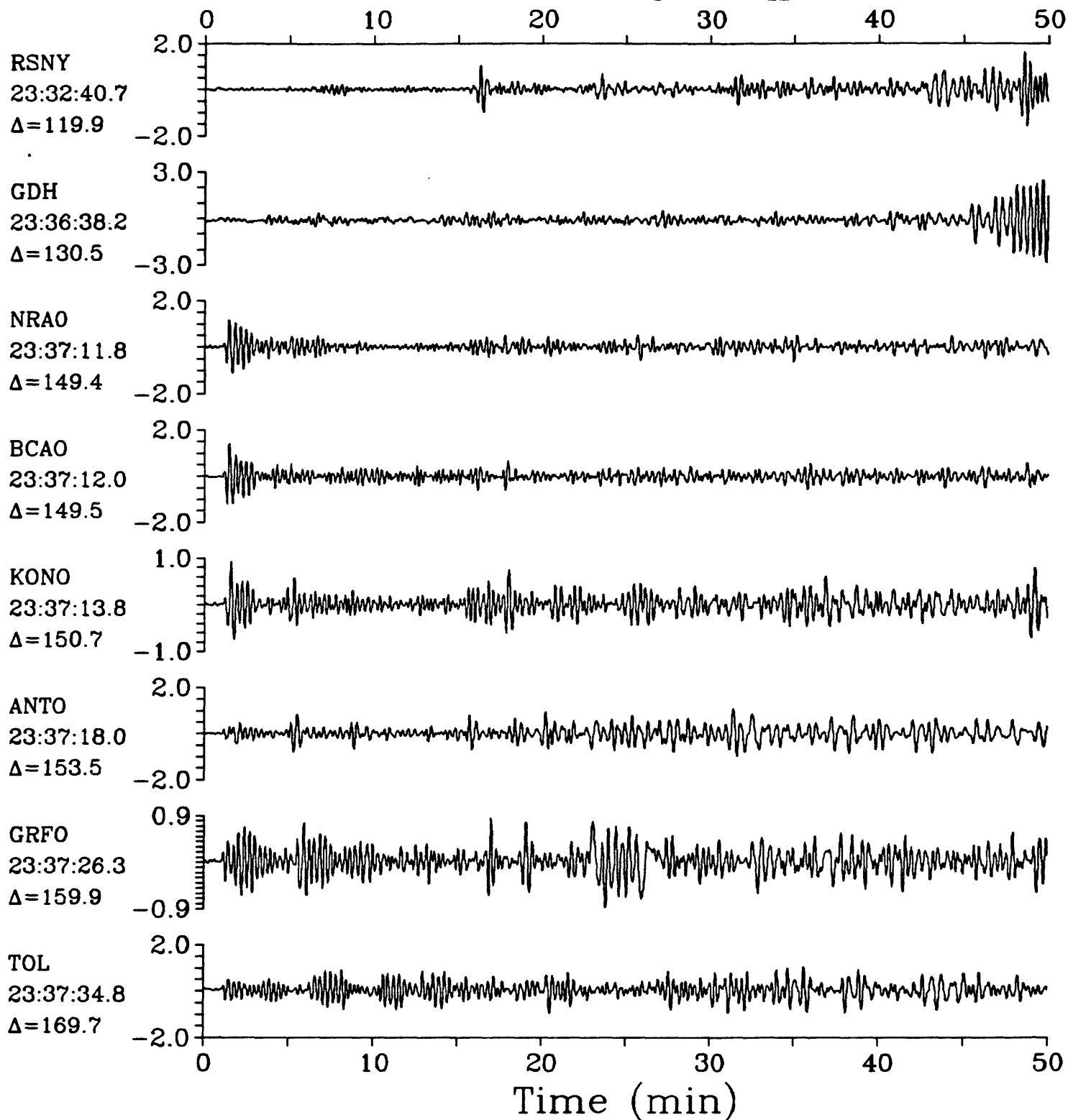
Kermadec Islands  $h=33.0$   $m_b=5.4$   $M_{sz}=6.3$ 

1130

LPZ

19 June 1986 23:18:30.35

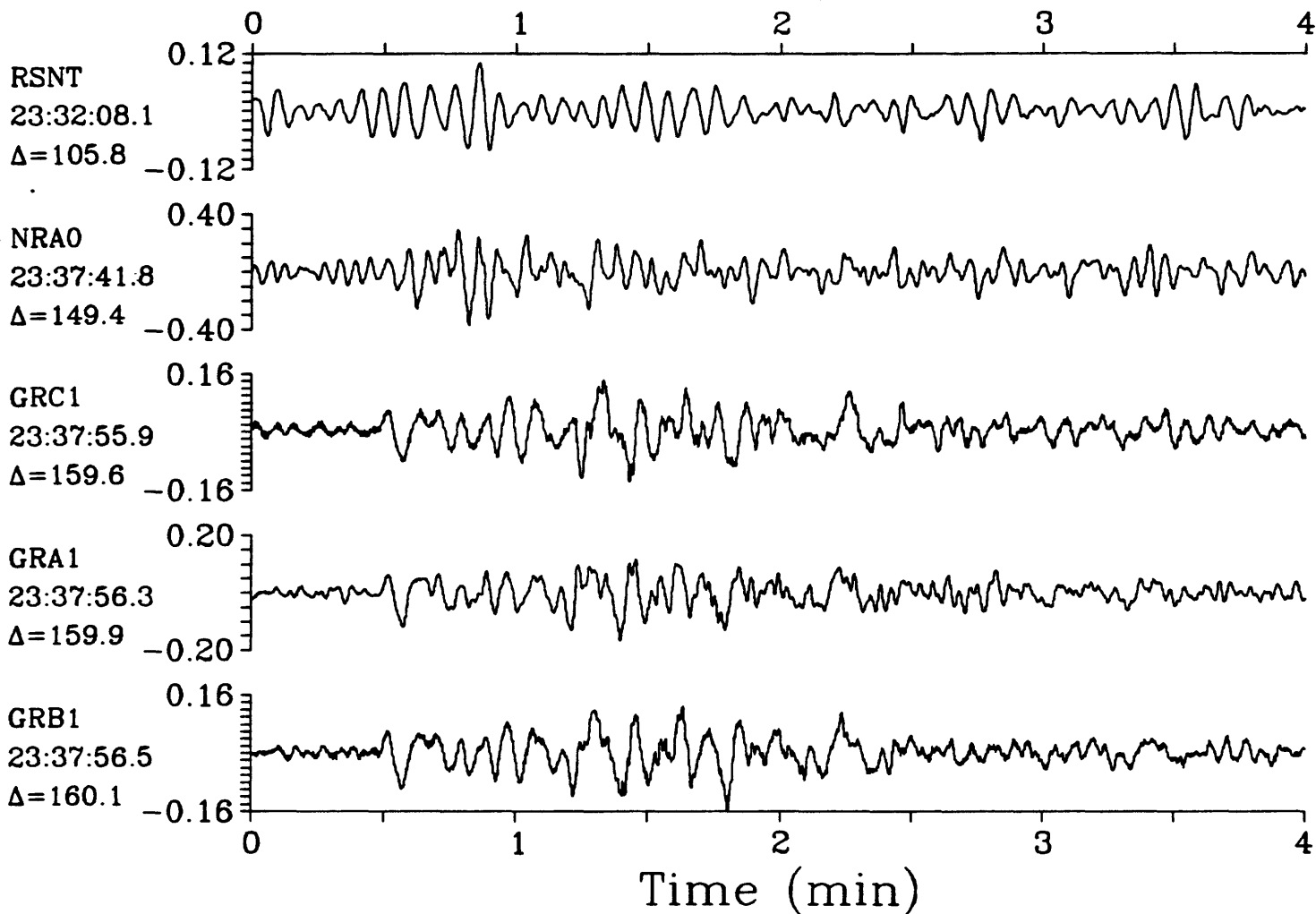
LPZ

Kermadec Islands  $h=33.0$   $m_b=5.4$   $M_{sz}=6.3$ 

IPZ

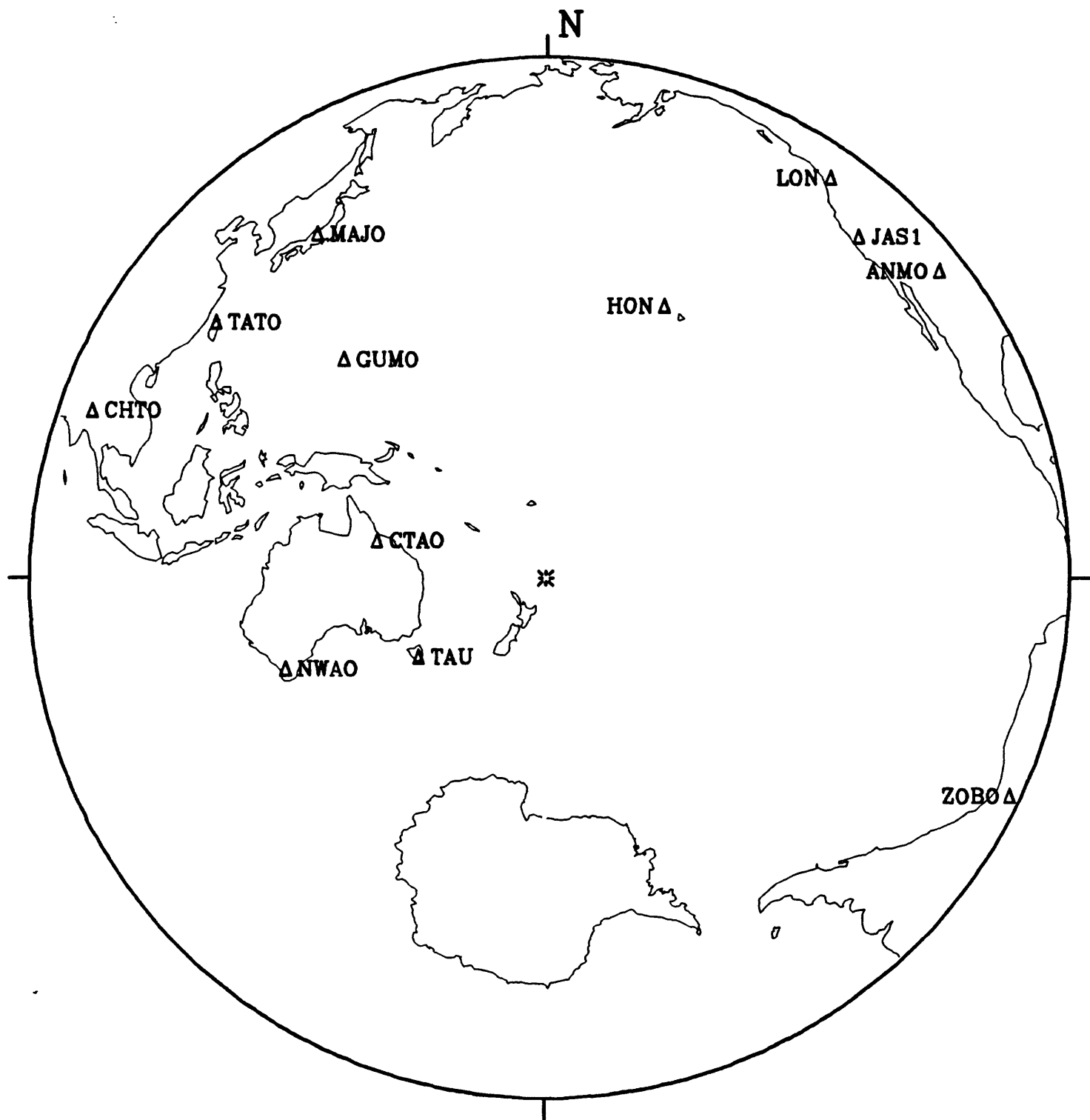
19 June 1986 23:18:30.35

IPZ

Kermadec Islands  $h=33.0$   $m_b=5.4$   $M_{sz}=6.3$ 

20 June 1986 02:37:55.15

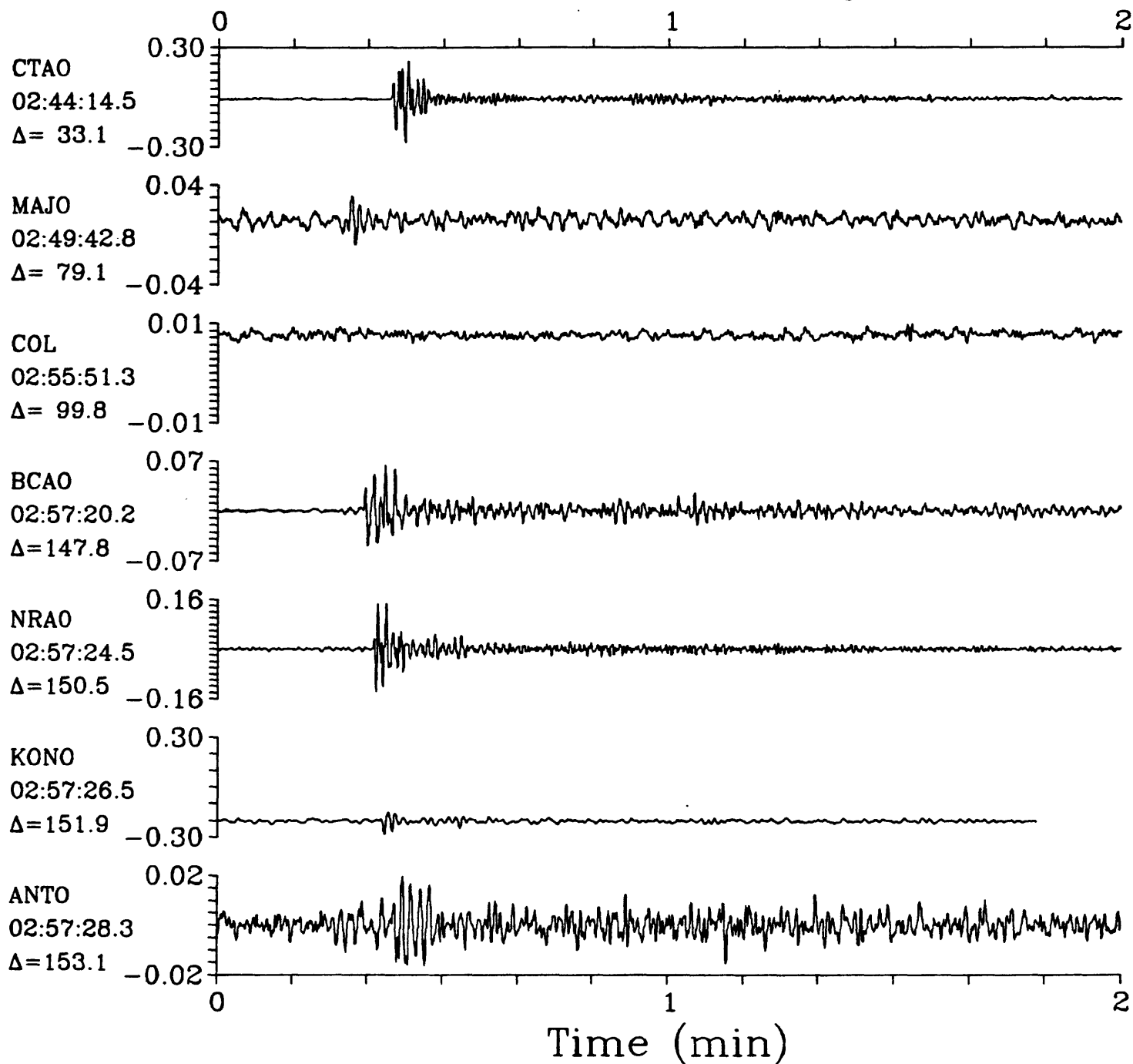
## South of Kermadec Islands



SPZ

20 June 1986 02:37:55.15

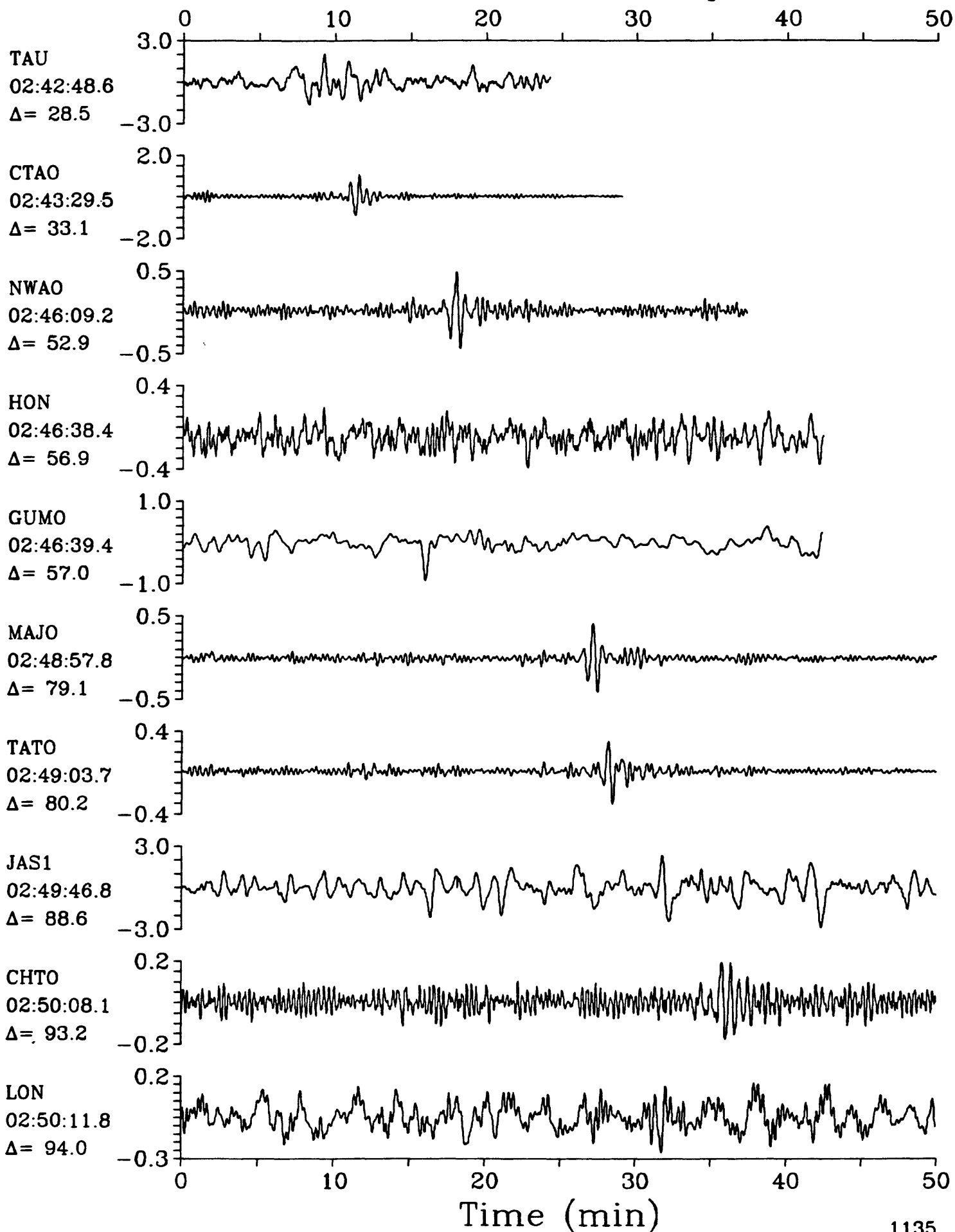
SPZ

South of Kermadec Islands  $h=25.6$   $m_b=5.5$ 

LPZ

20 June 1986 02:37:55.15

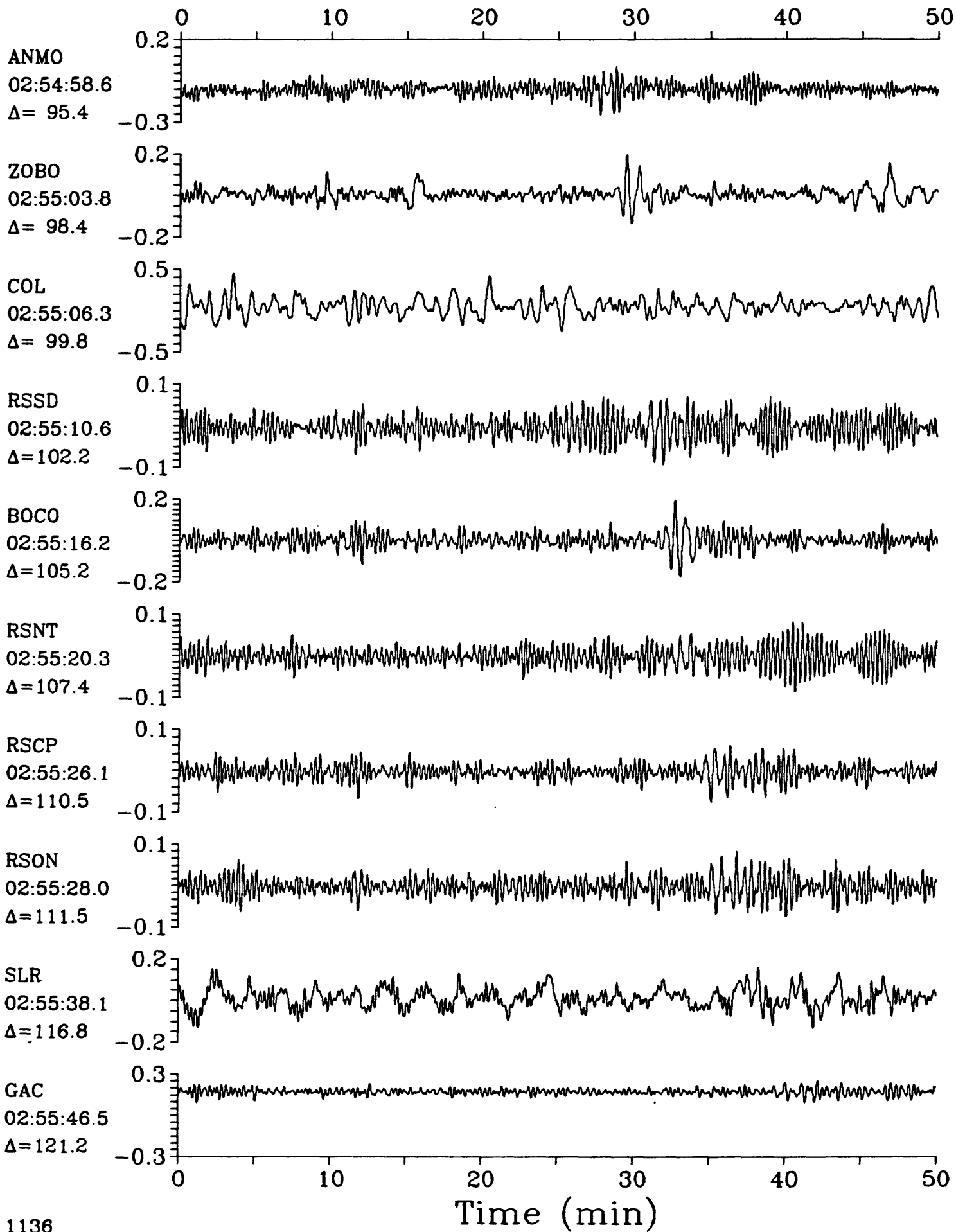
LPZ

South of Kermadec Islands  $h=25.6$   $m_b=5.5$ 

LPZ

20 June 1986 02:37:55.15

LPZ

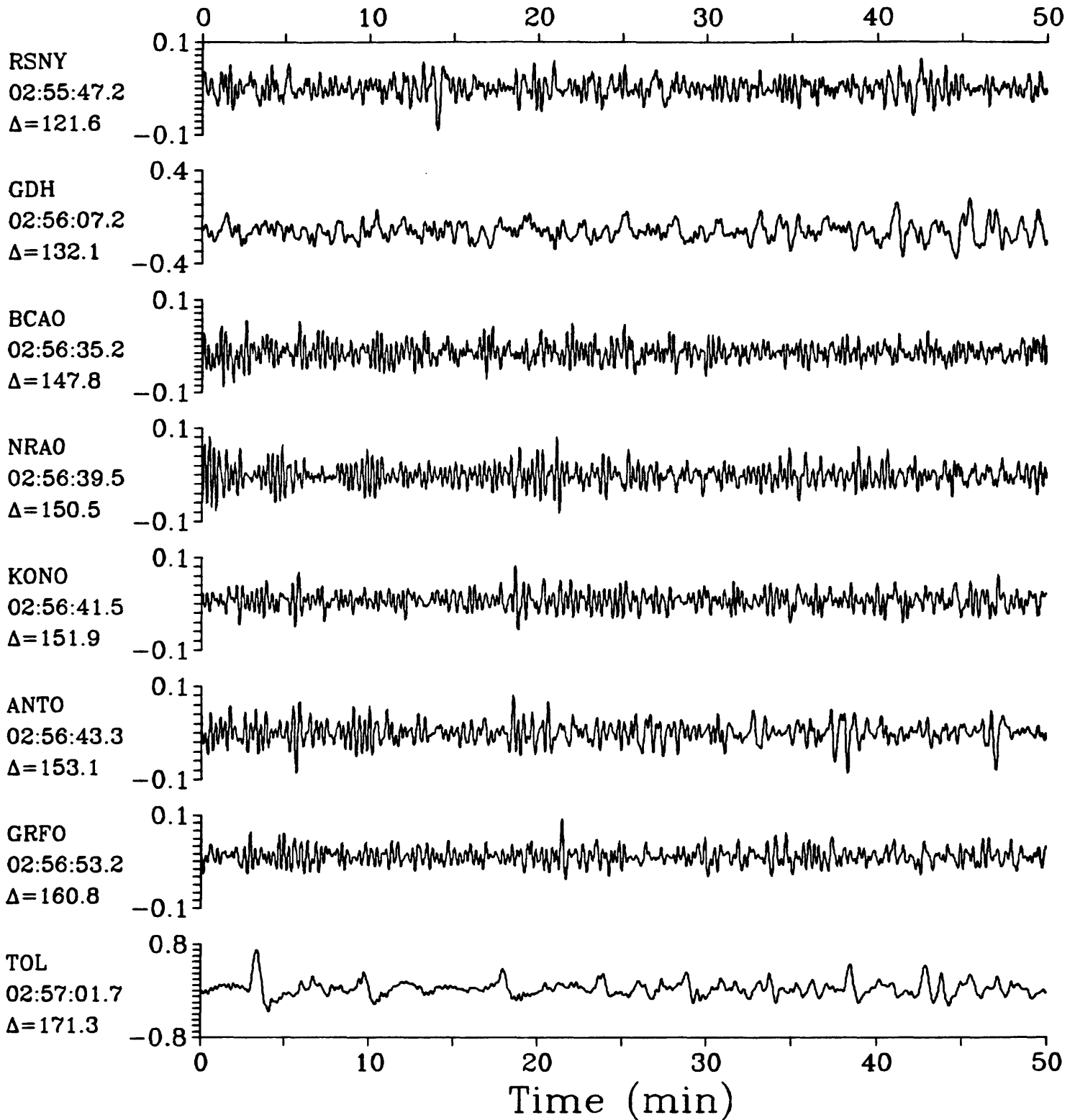
South of Kermadec Islands  $h=25.6$   $m_b=5.5$ 



LPZ

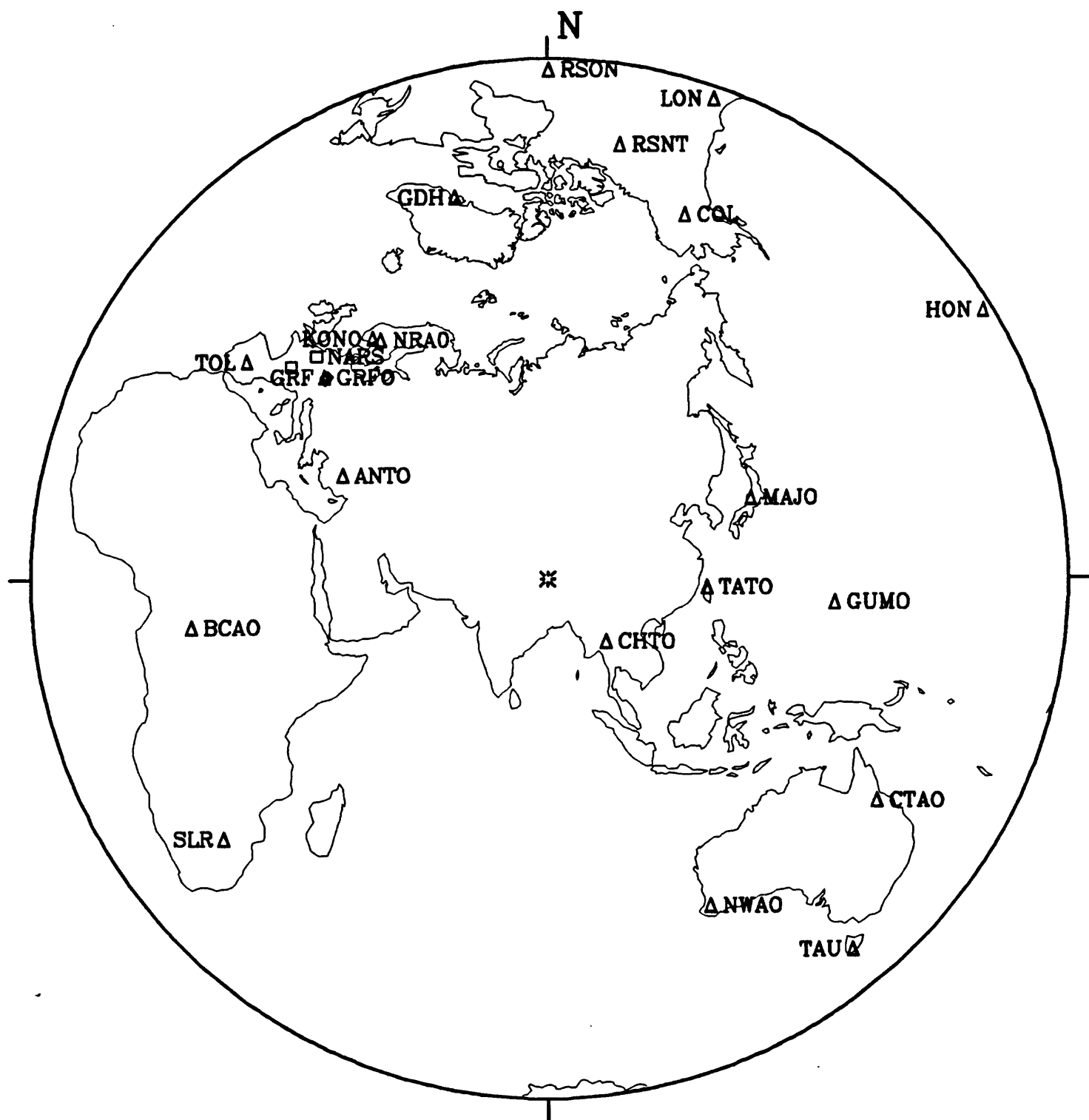
20 June 1986 02:37:55.15

LPZ

South of Kermadec Islands  $h=25.6$   $m_b=5.5$ 

20 June 1986 17:12:46.52

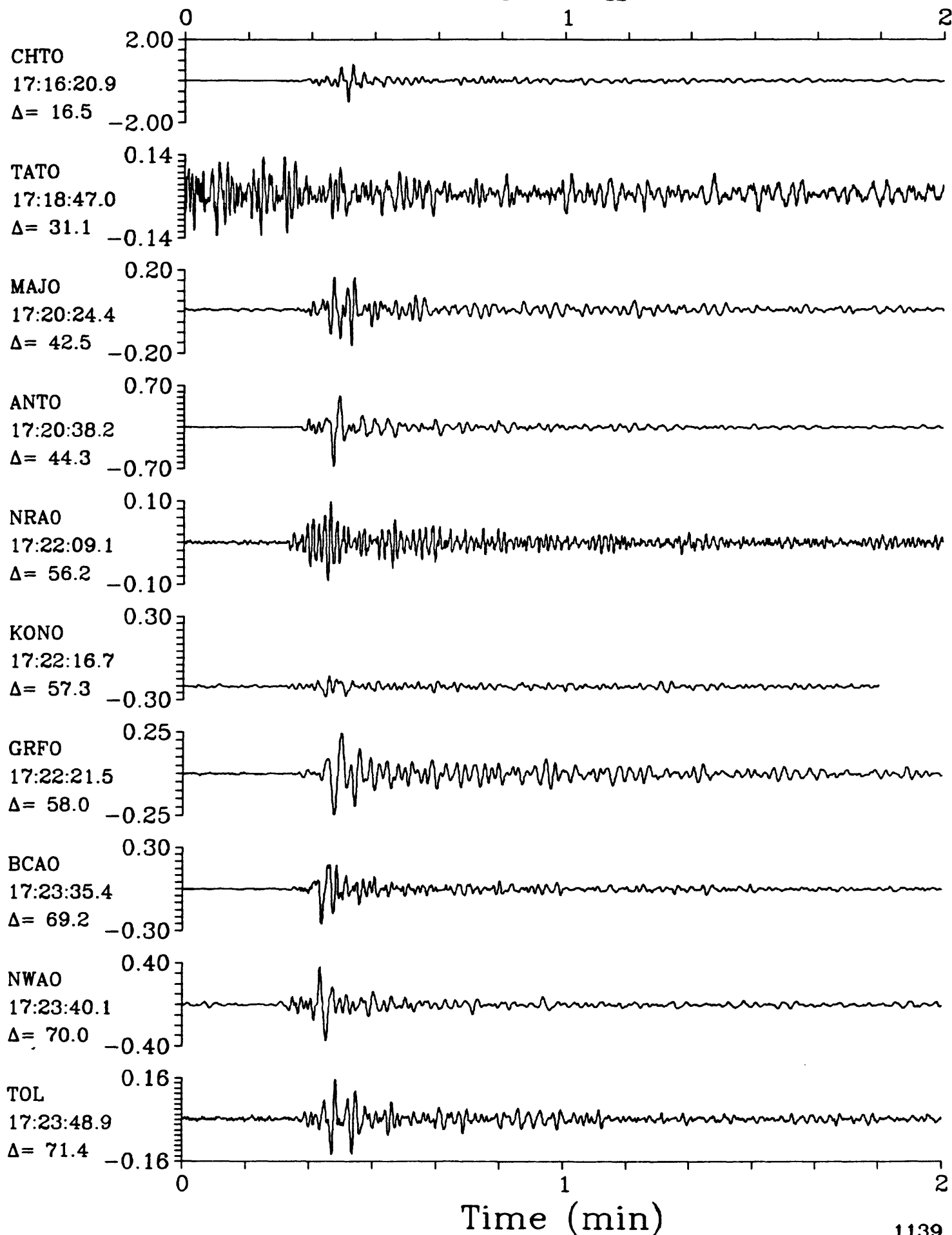
# Tibet



SPZ

20 June 1986 17:12:46.52  
Tibet  $h=33.0$   $m_b=6.0$   $M_{sz}=6.1$ 

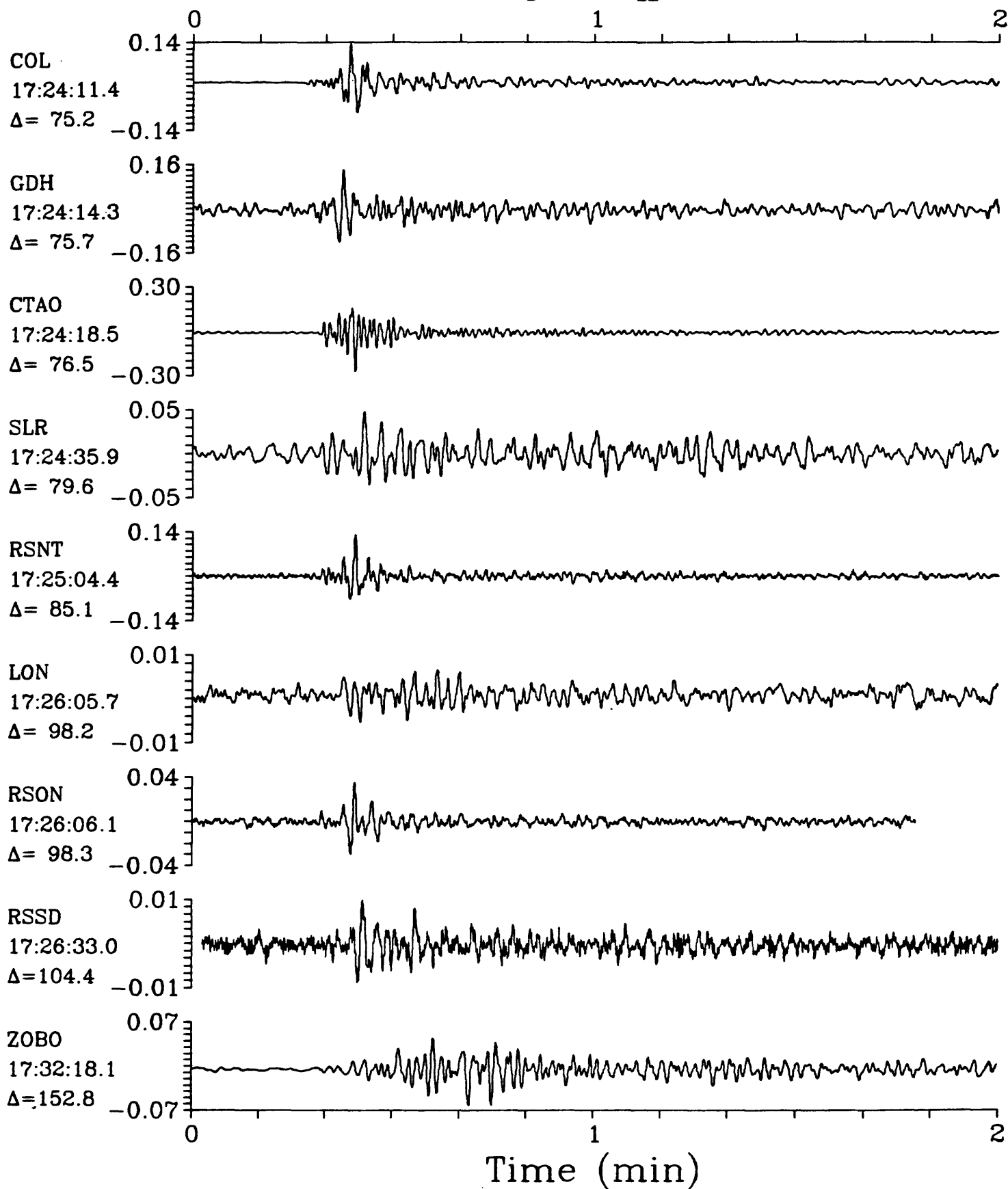
SPZ



SPZ

20 June 1986 17:12:46.52  
Tibet  $h=33.0$   $m_b=6.0$   $M_{sz}=6.1$ 

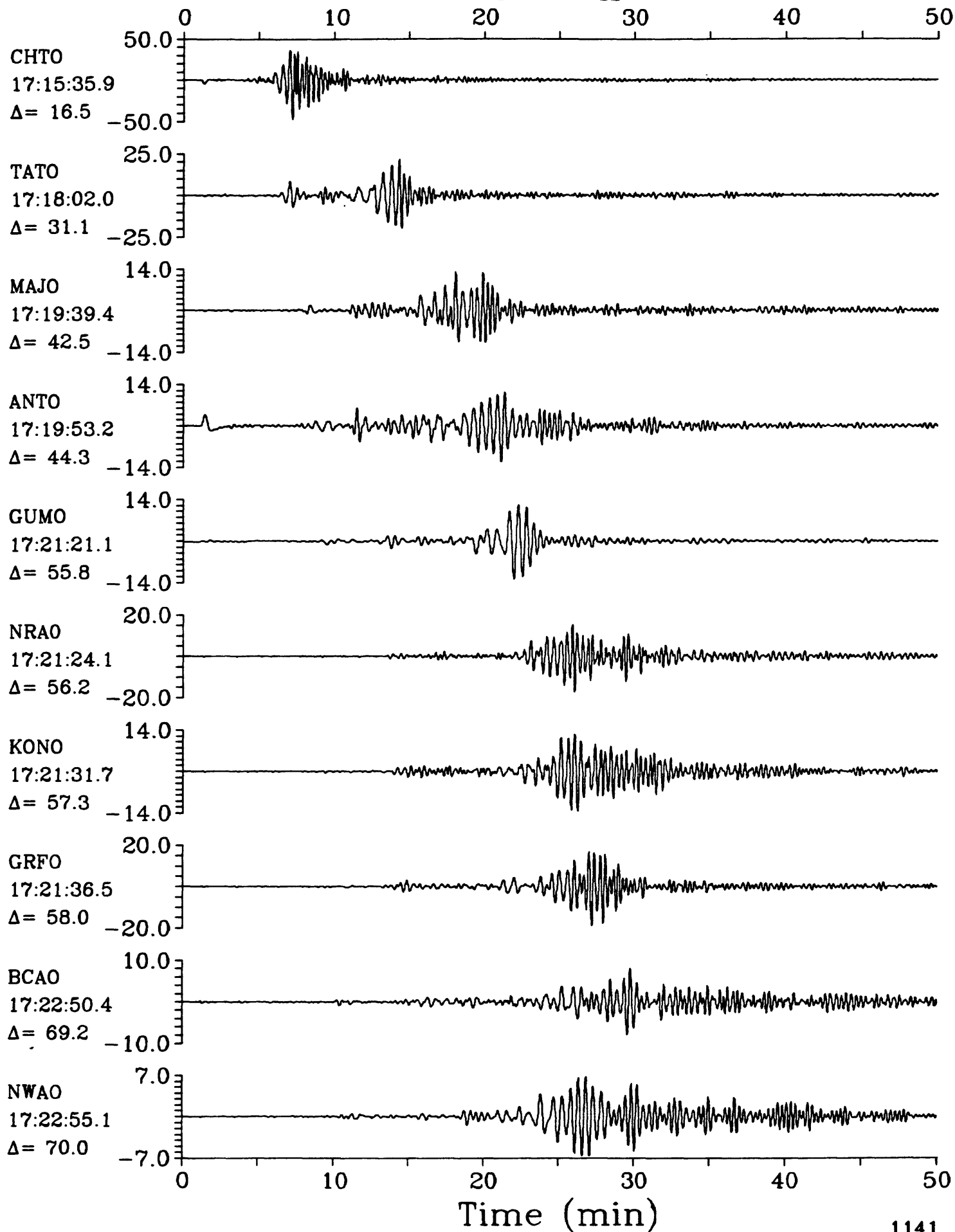
SPZ



LPZ

20 June 1986 17:12:46.52  
Tibet  $h=33.0$   $m_b=6.0$   $M_{sz}=6.1$ 

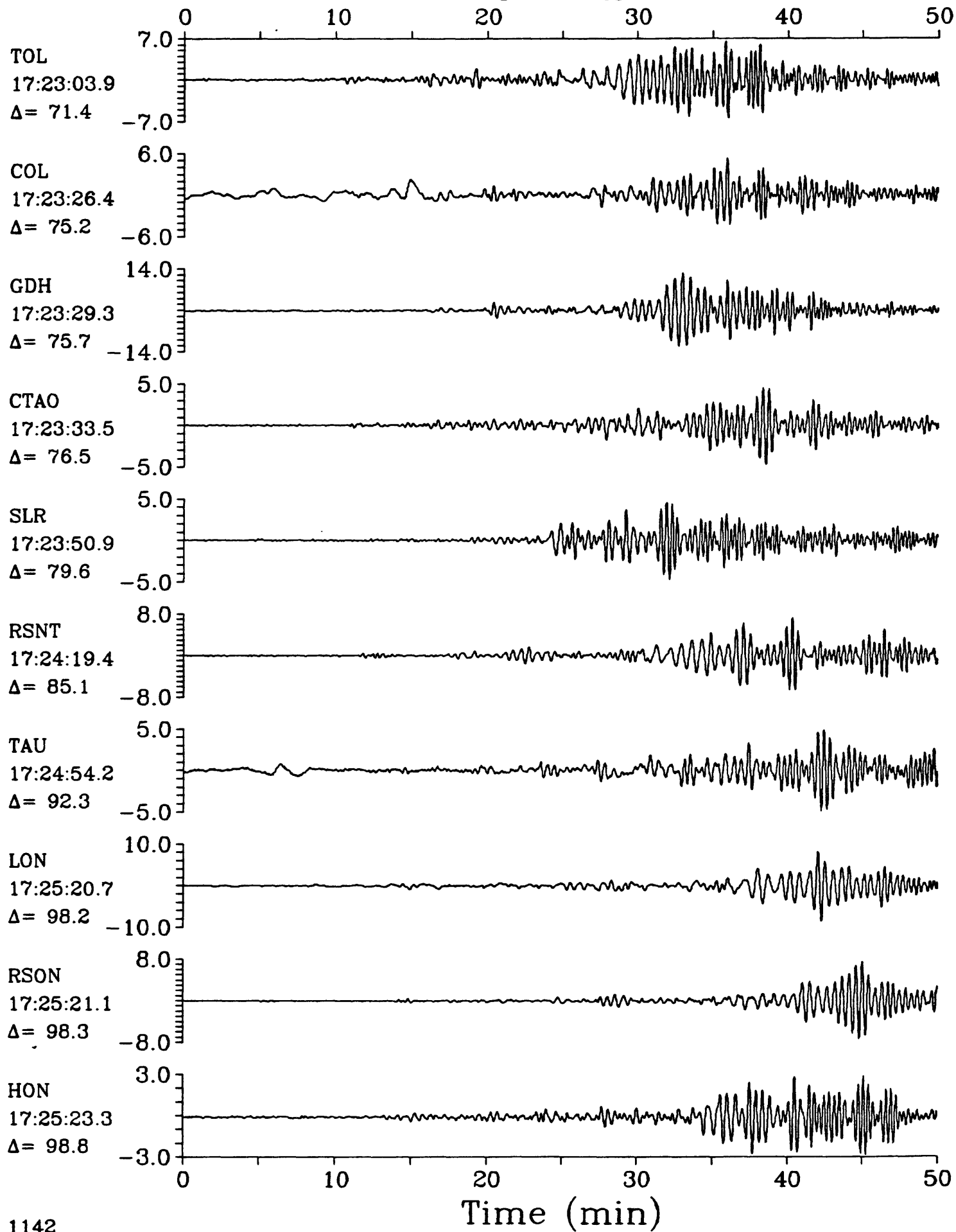
LPZ



LPZ

20 June 1986 17:12:46.52  
Tibet  $h=33.0$   $m_b=6.0$   $M_{sz}=6.1$ 

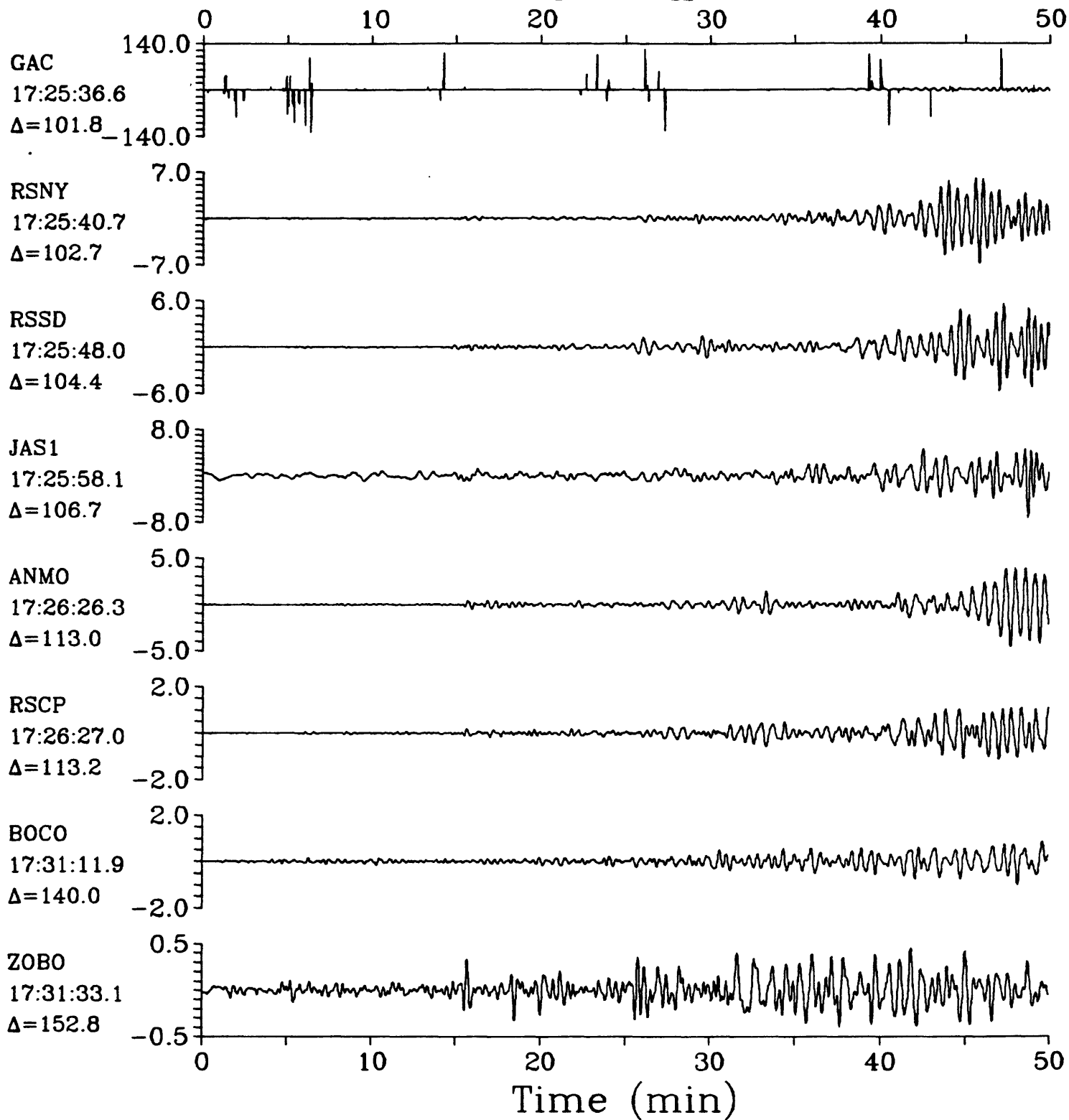
LPZ



LPZ

20 June 1986 17:12:46.52  
Tibet  $h=33.0$   $m_b=6.0$   $M_{sz}=6.1$ 

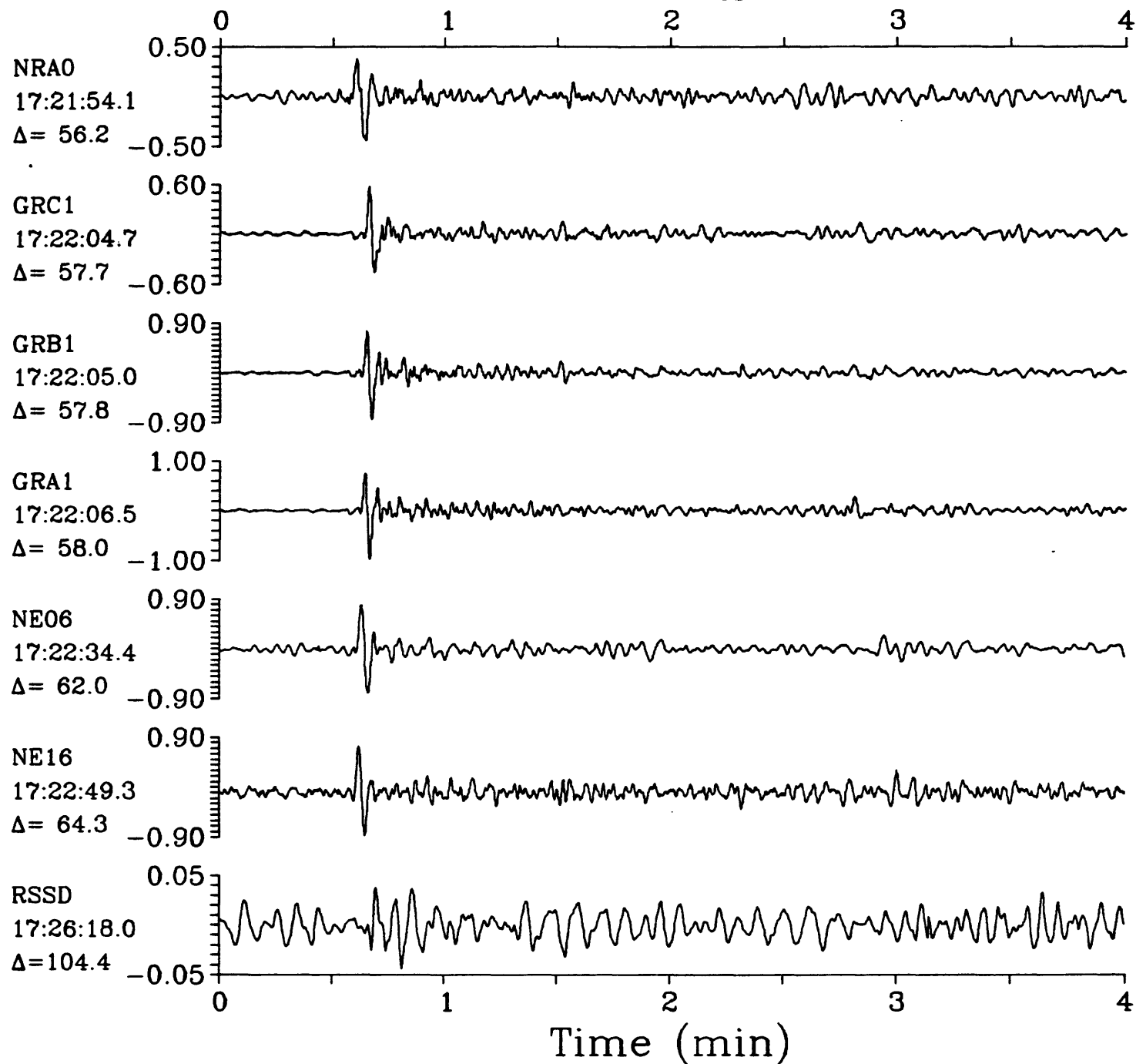
LPZ



IPZ

20 June 1986 17:12:46.52  
Tibet  $h=33.0$   $m_b=6.0$   $M_{sz}=6.1$ 

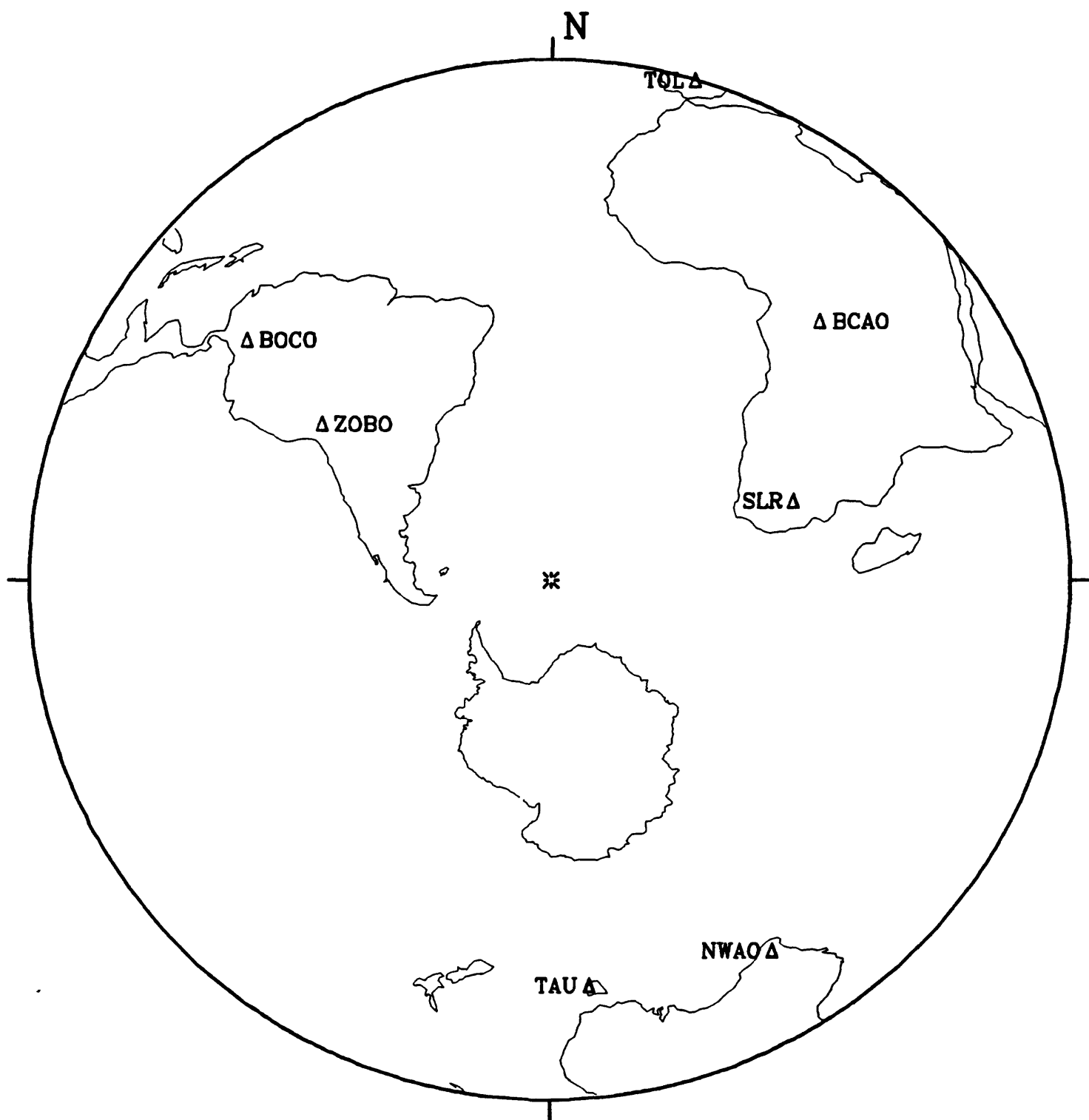
IPZ





20 June 1986 18:41:28.72

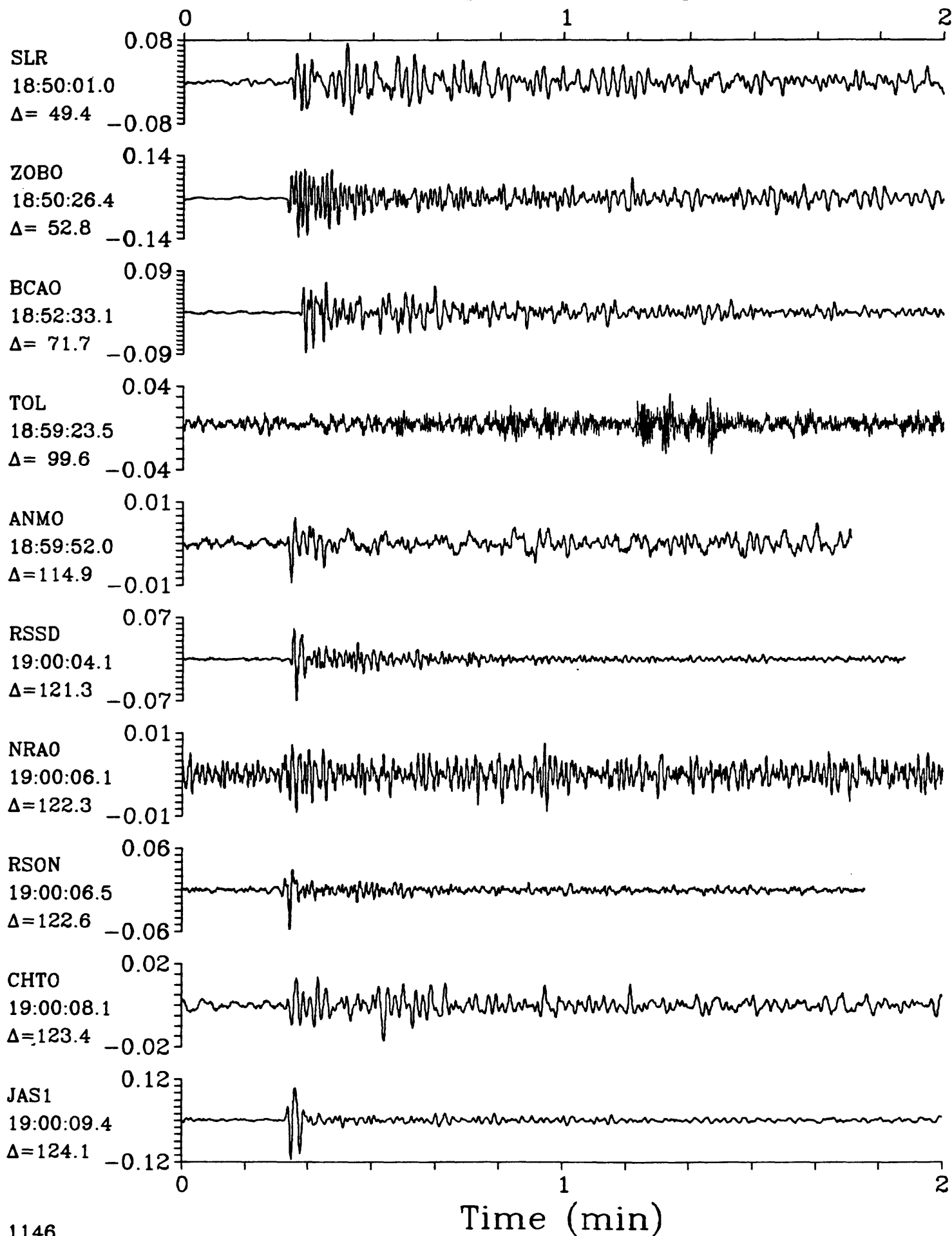
## South Sandwich Islands Region



SPZ

20 June 1986 18:41:28.72

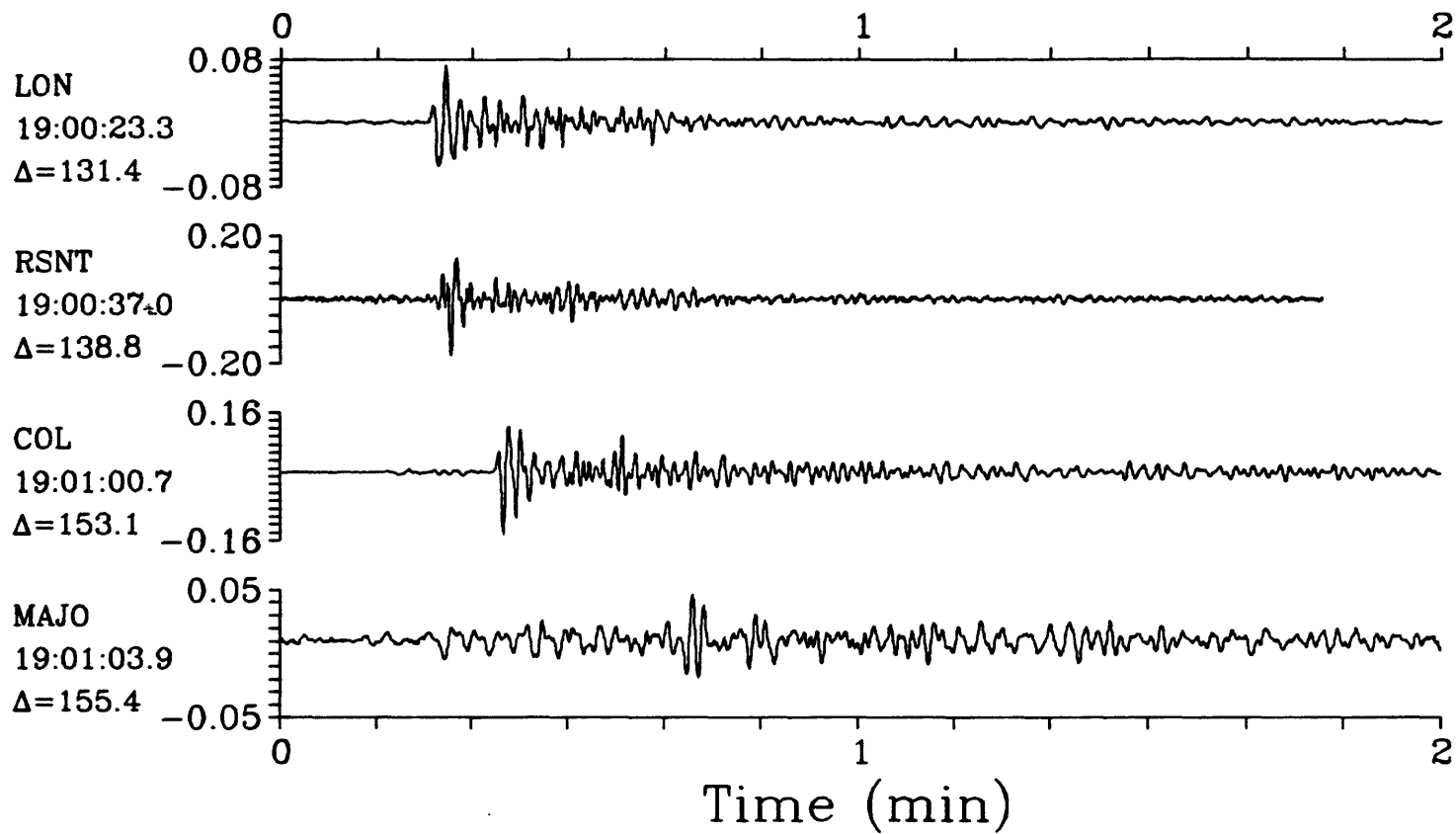
SPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.7$   $M_{sz}=5.6$ 

SPZ

20 June 1986 18:41:28.72

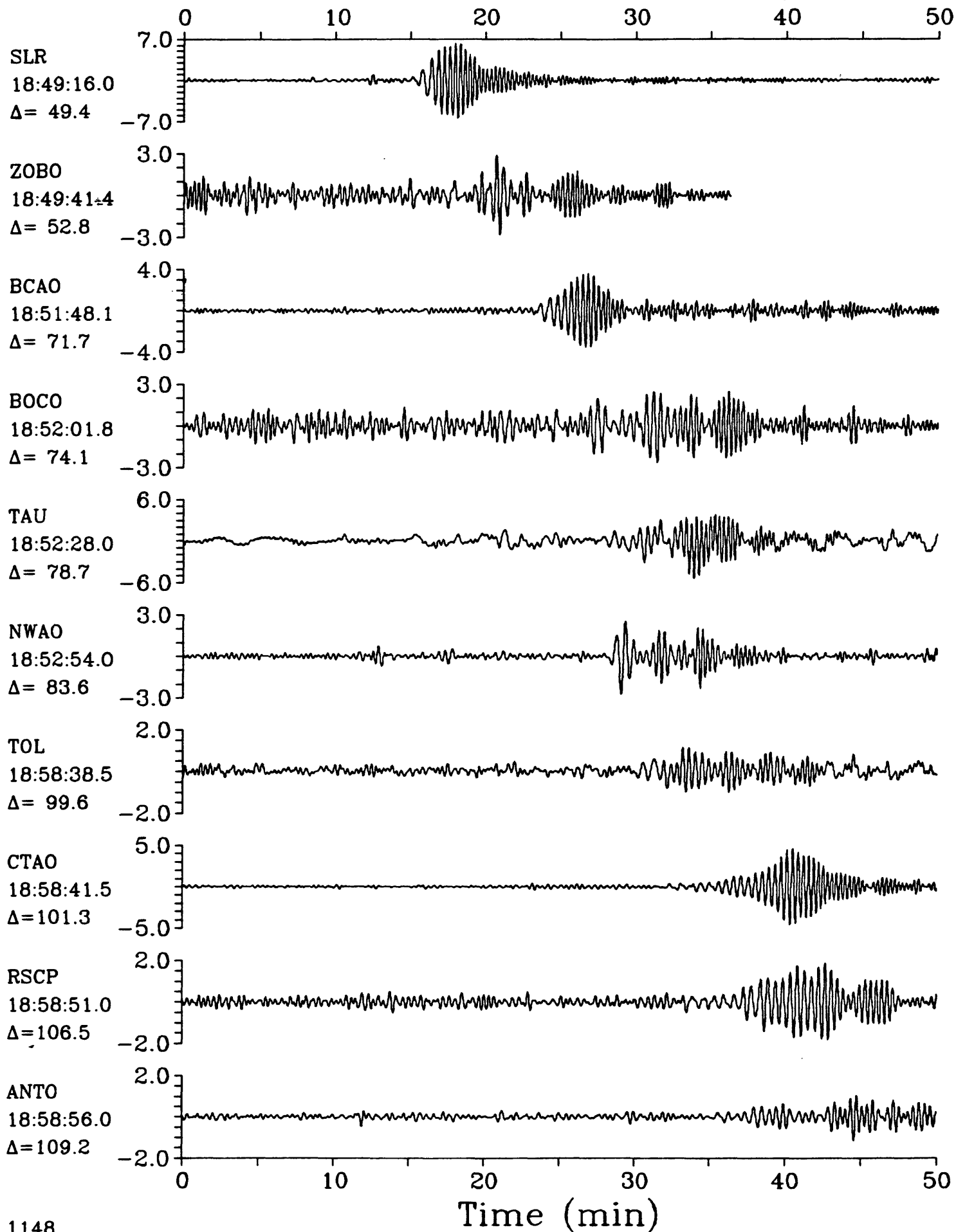
SPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.7$   $M_{sz}=5.6$ 

LPZ

20 June 1986 18:41:28.72

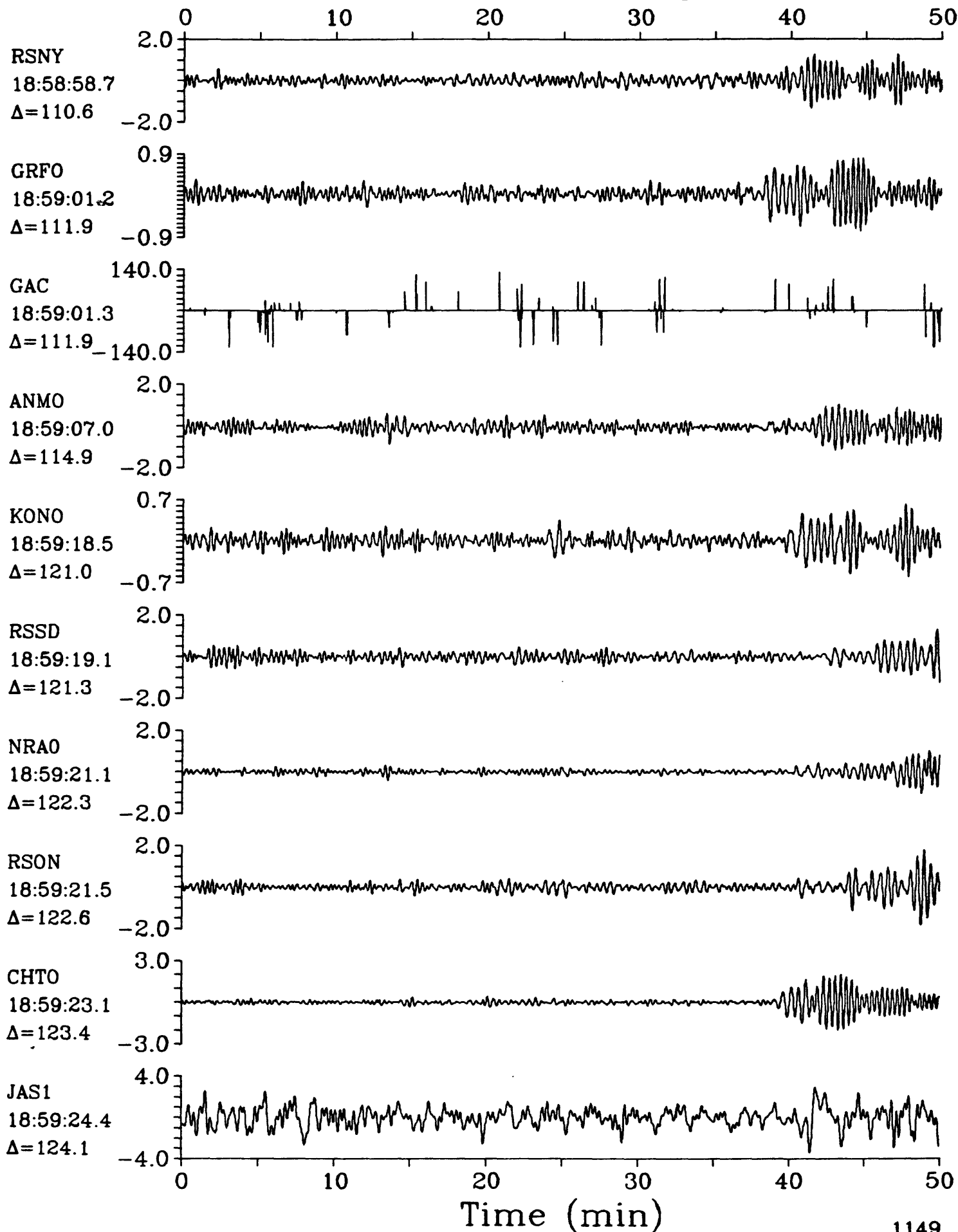
LPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.7$   $M_{sz}=5.6$ 

LPZ

20 June 1986 18:41:28.72

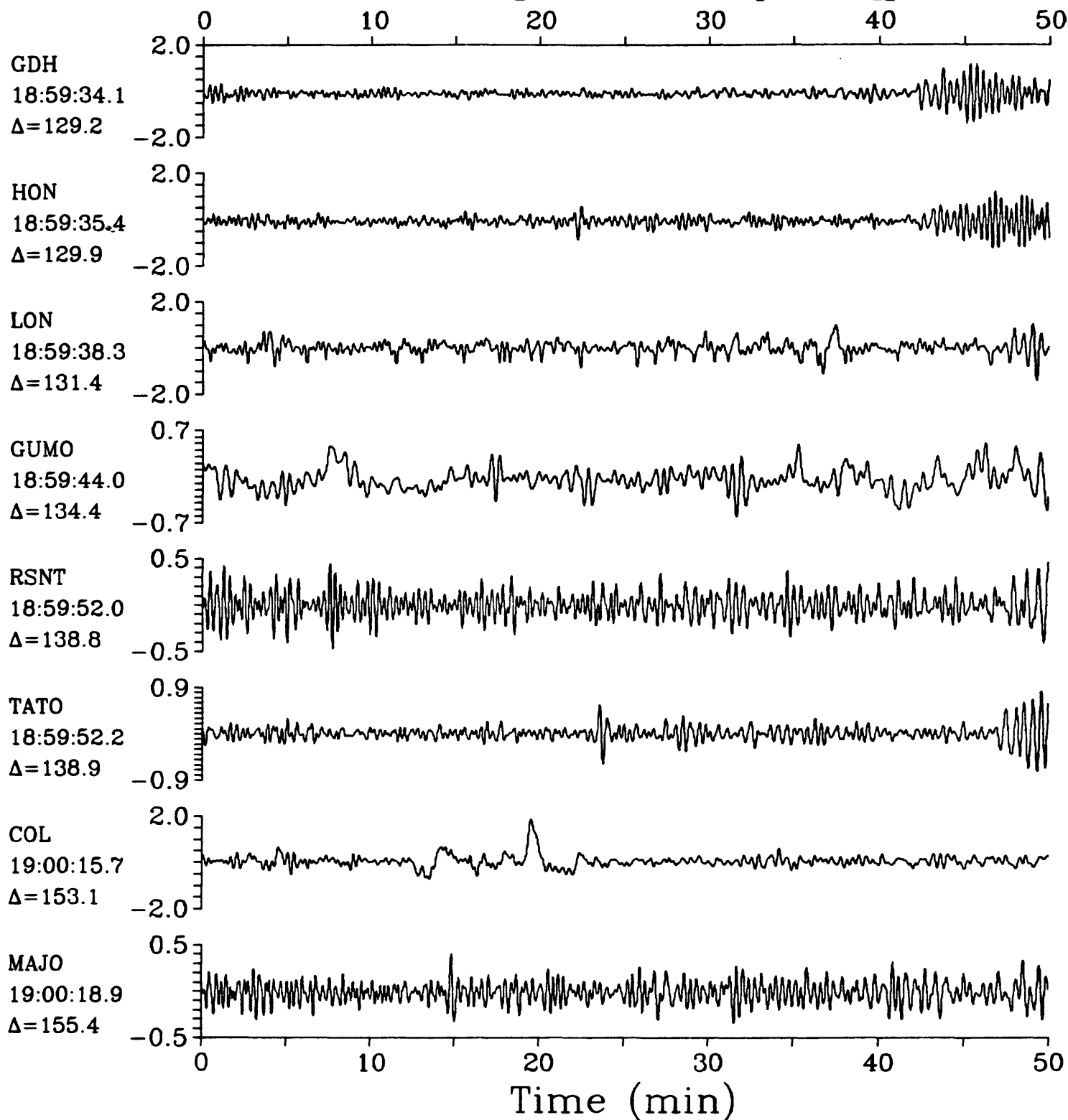
LPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.7$   $M_{sz}=5.6$ 

LPZ

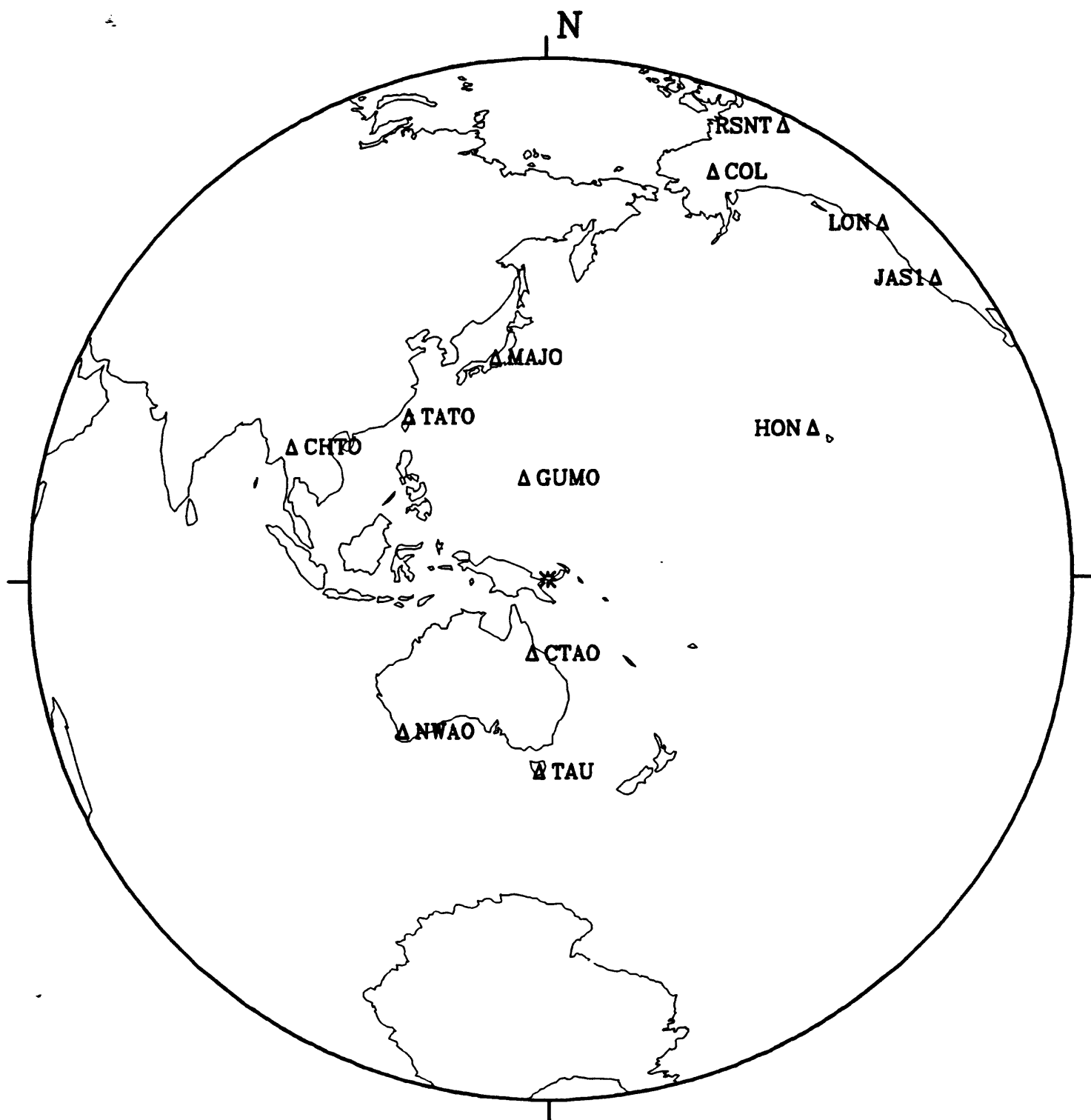
20 June 1986 18:41:28.72

LPZ

South Sandwich Islands Region  $h=33.0$   $m_b=5.7$   $M_{sz}=5.6$ 

23 June 1986 20:35:20.07

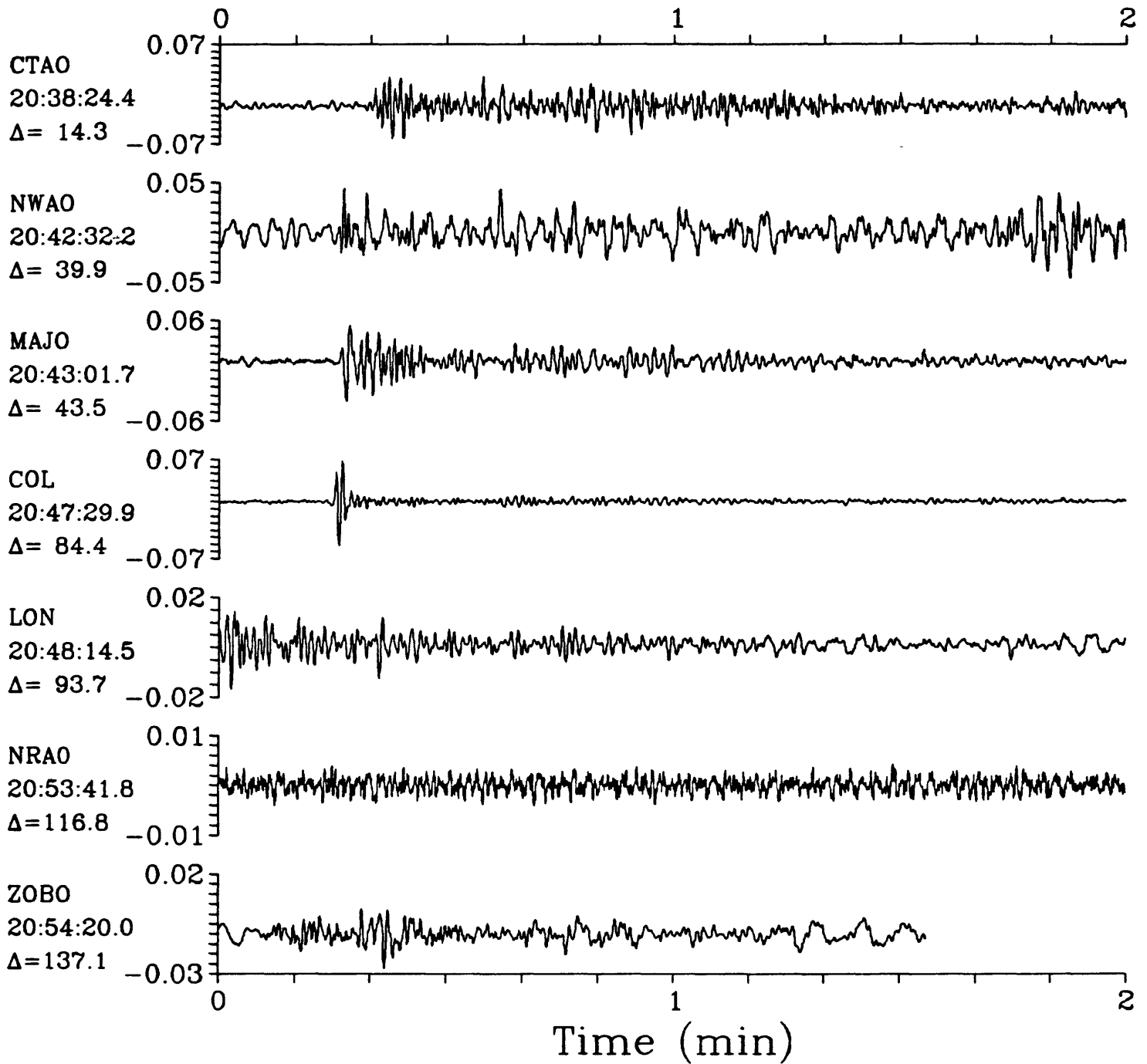
## New Britain Region



SPZ

23 June 1986 20:35:20.07  
New Britain Region  $h=73.9$   $m_b=5.5$ 

SPZ

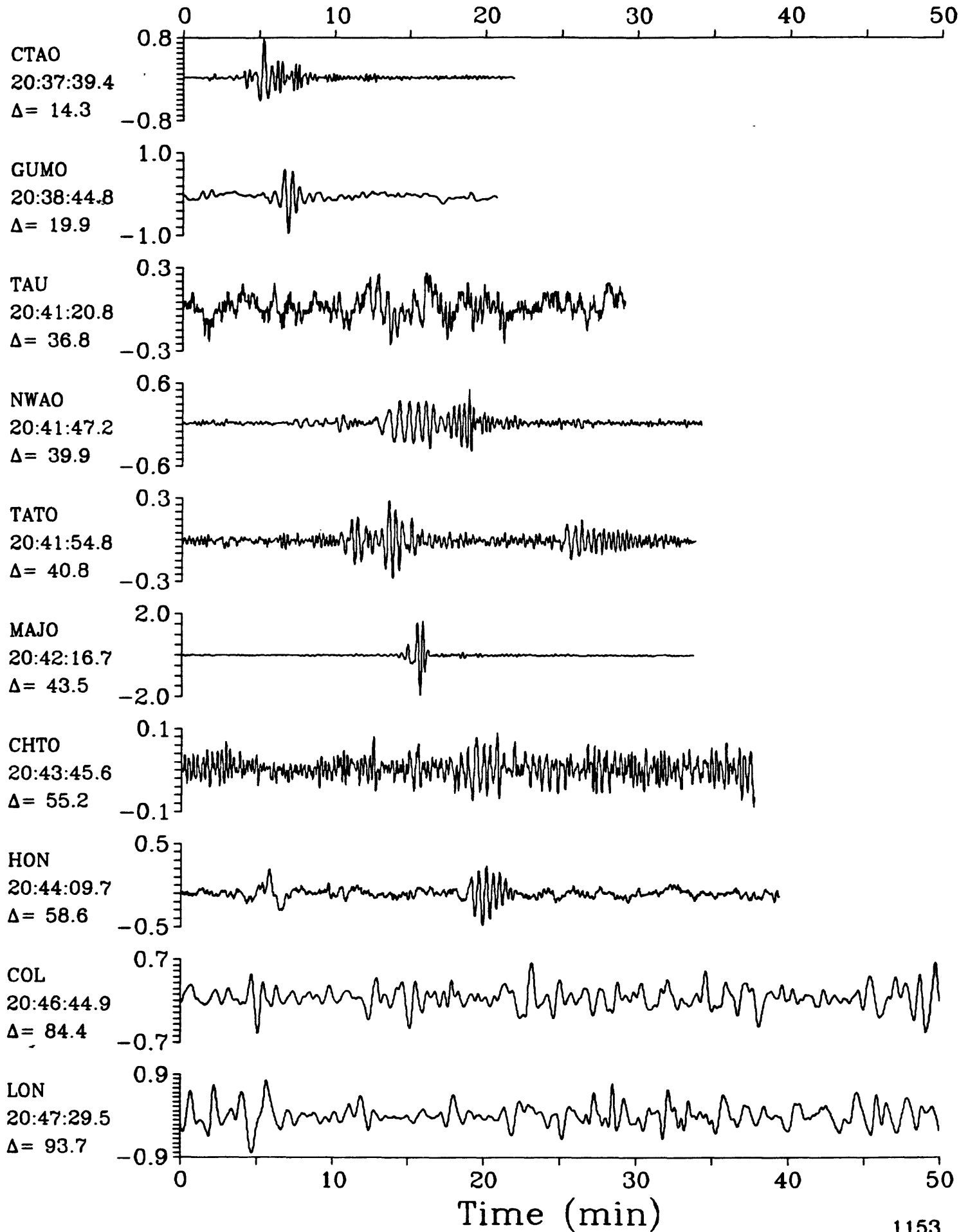




LPZ

23 June 1986 20:35:20.07  
New Britain Region  $h=73.9$   $m_b=5.5$ 

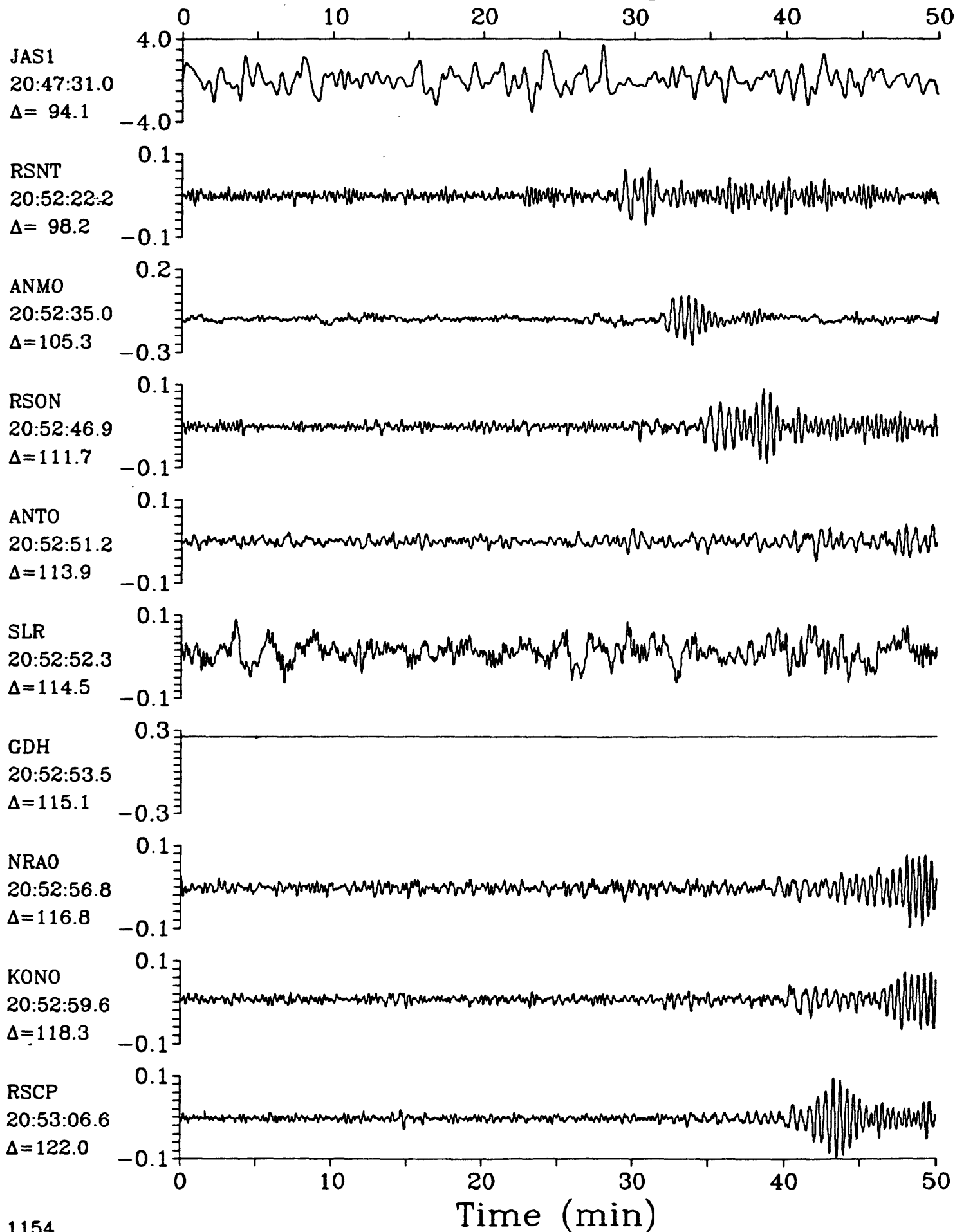
LPZ



LPZ

23 June 1986 20:35:20.07  
New Britain Region  $h=73.9$   $m_b=5.5$ 

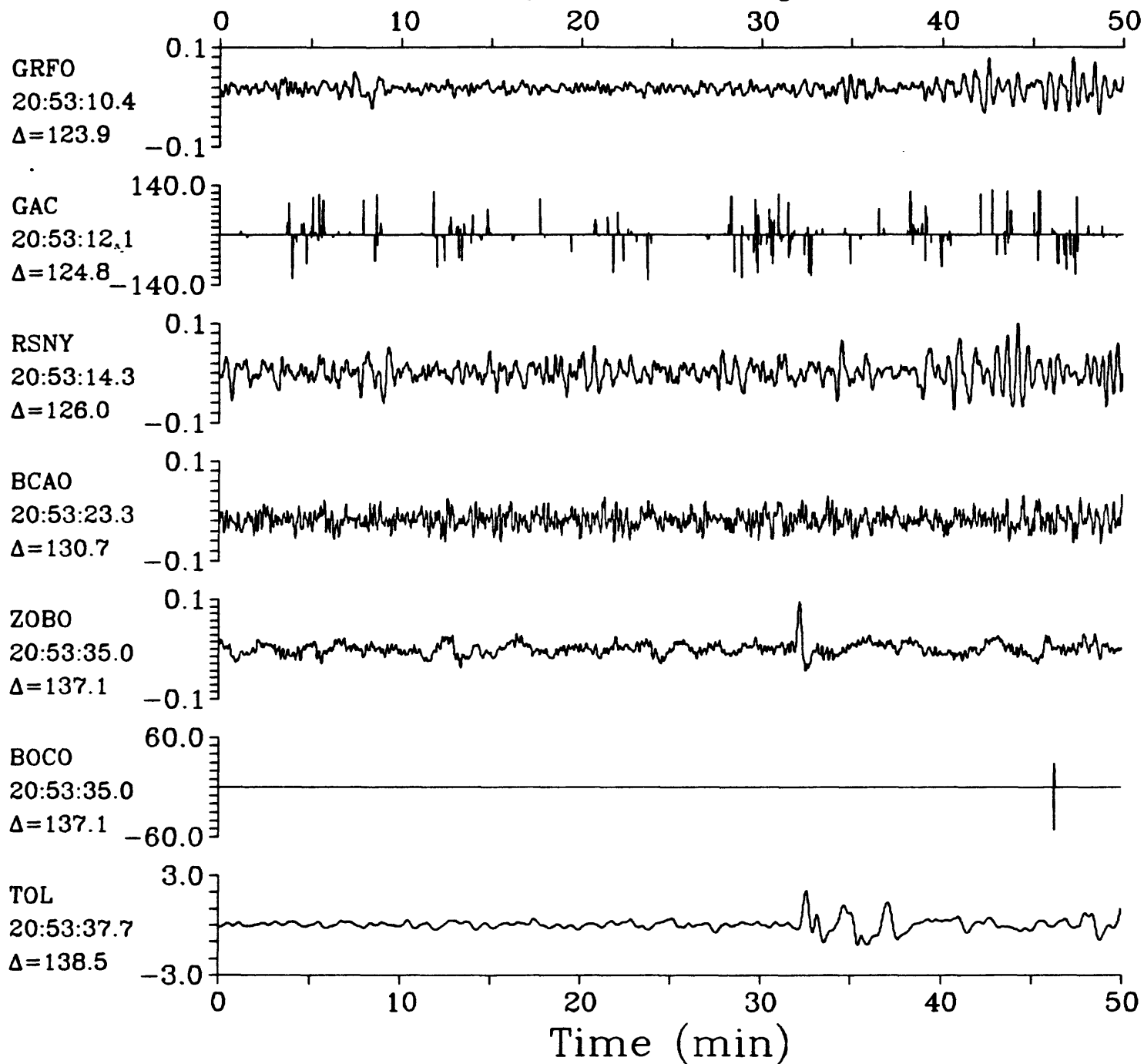
LPZ



LPZ

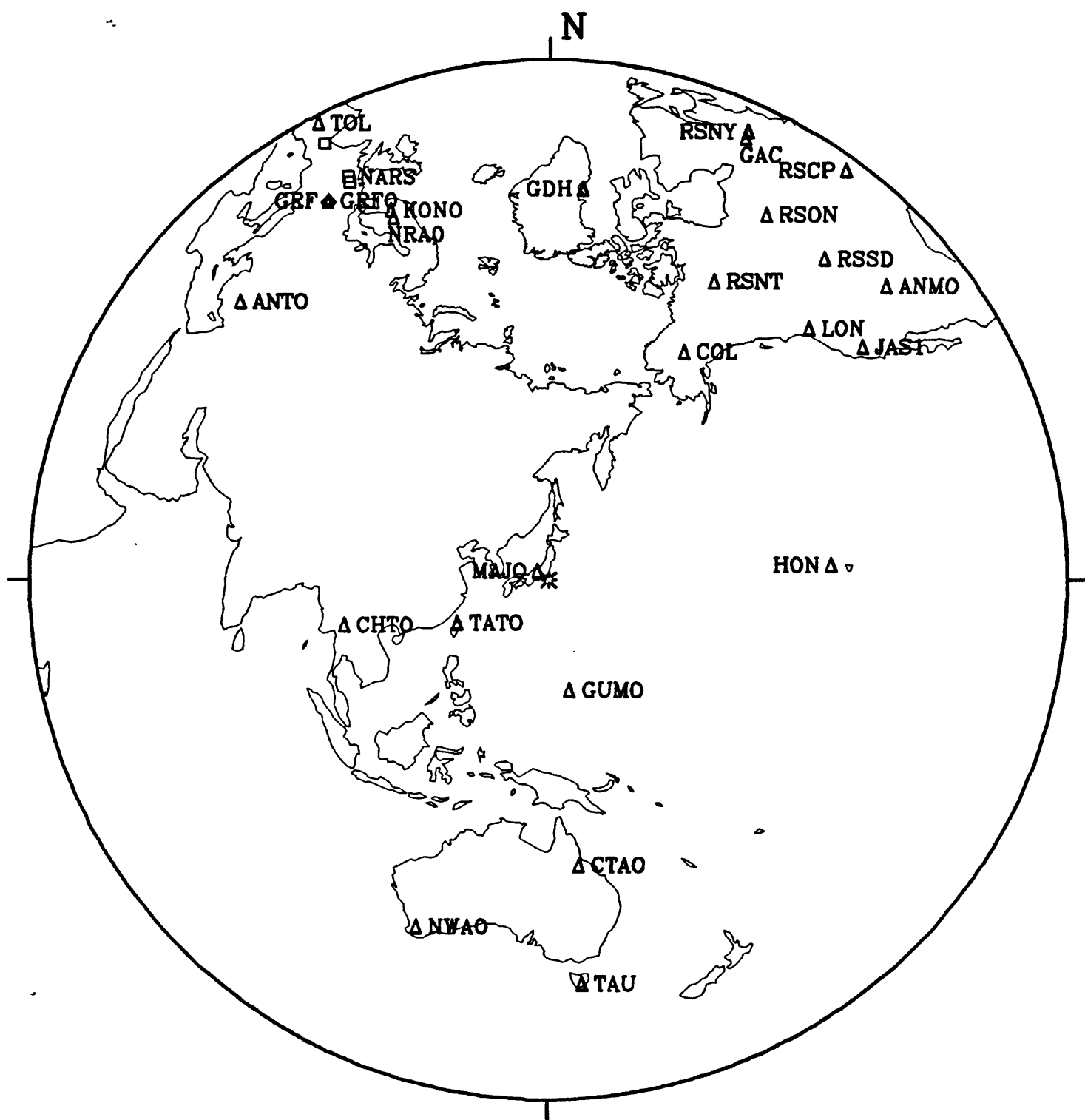
23 June 1986 20:35:20.07  
New Britain Region  $h=73.9$   $m_b=5.5$ 

LPZ



24 June 1986 02:53:09.38

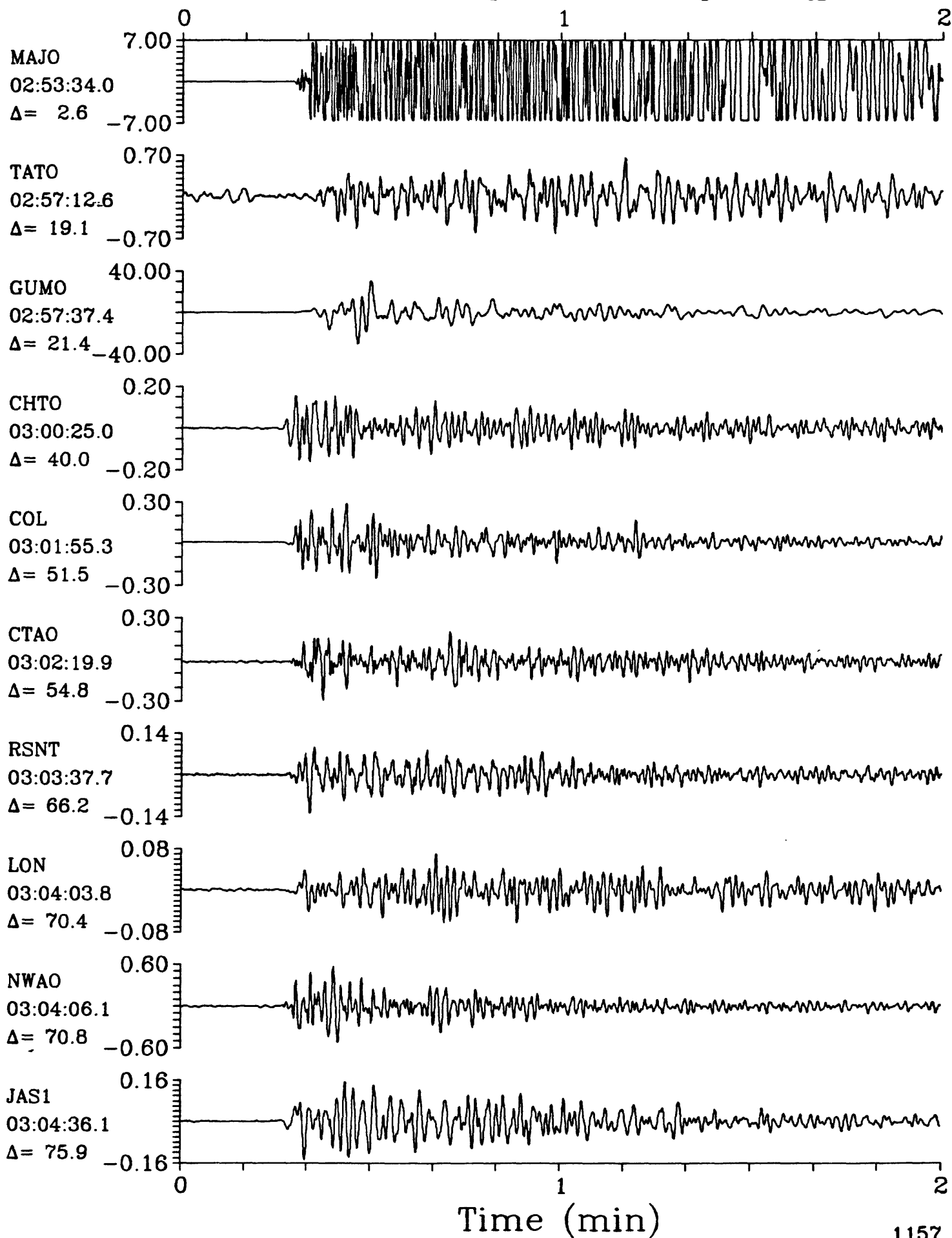
# Near East Coast of Honshu, Japan

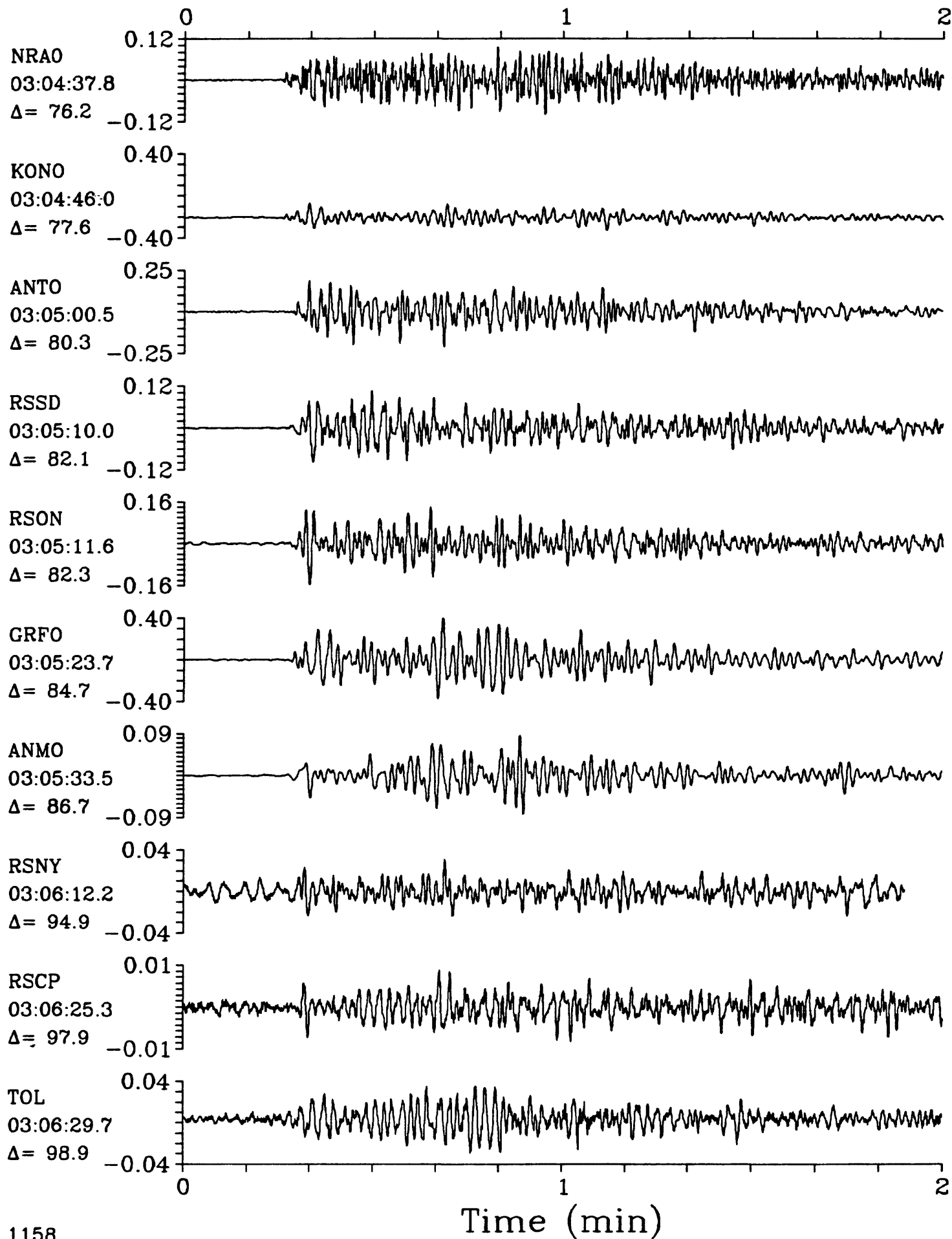


SPZ

24 June 1986 02:53:09.38

SPZ

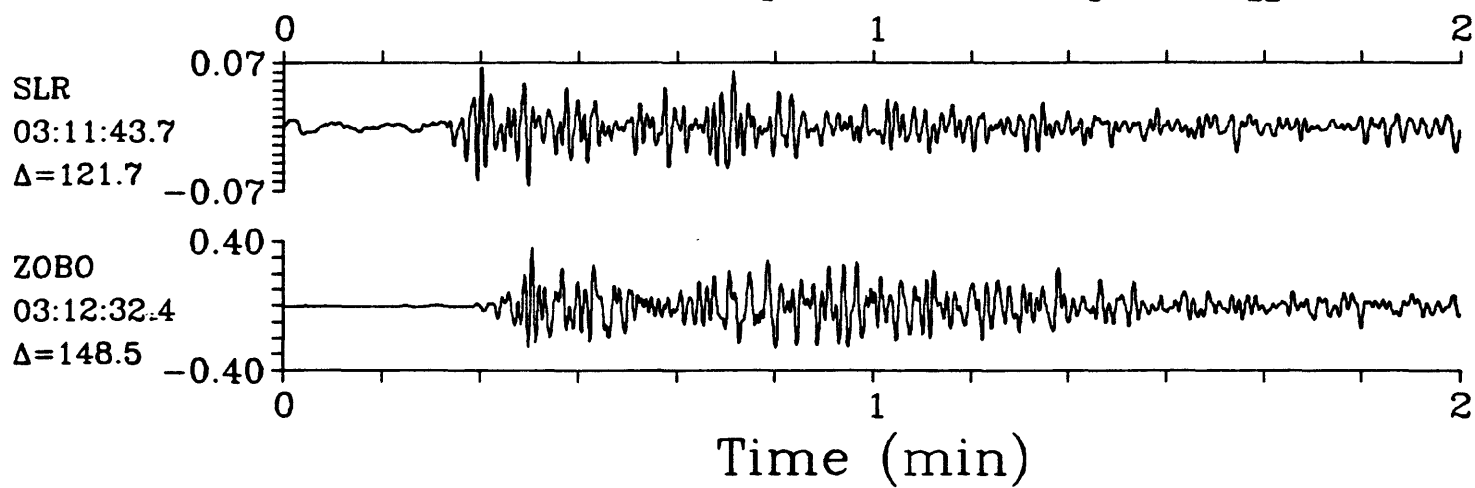
Near East Coast of Honshu, Japan  $h=47.9$   $m_b=6.1$   $M_{sz}=6.6$ 



SPZ

24 June 1986 02:53:09.38

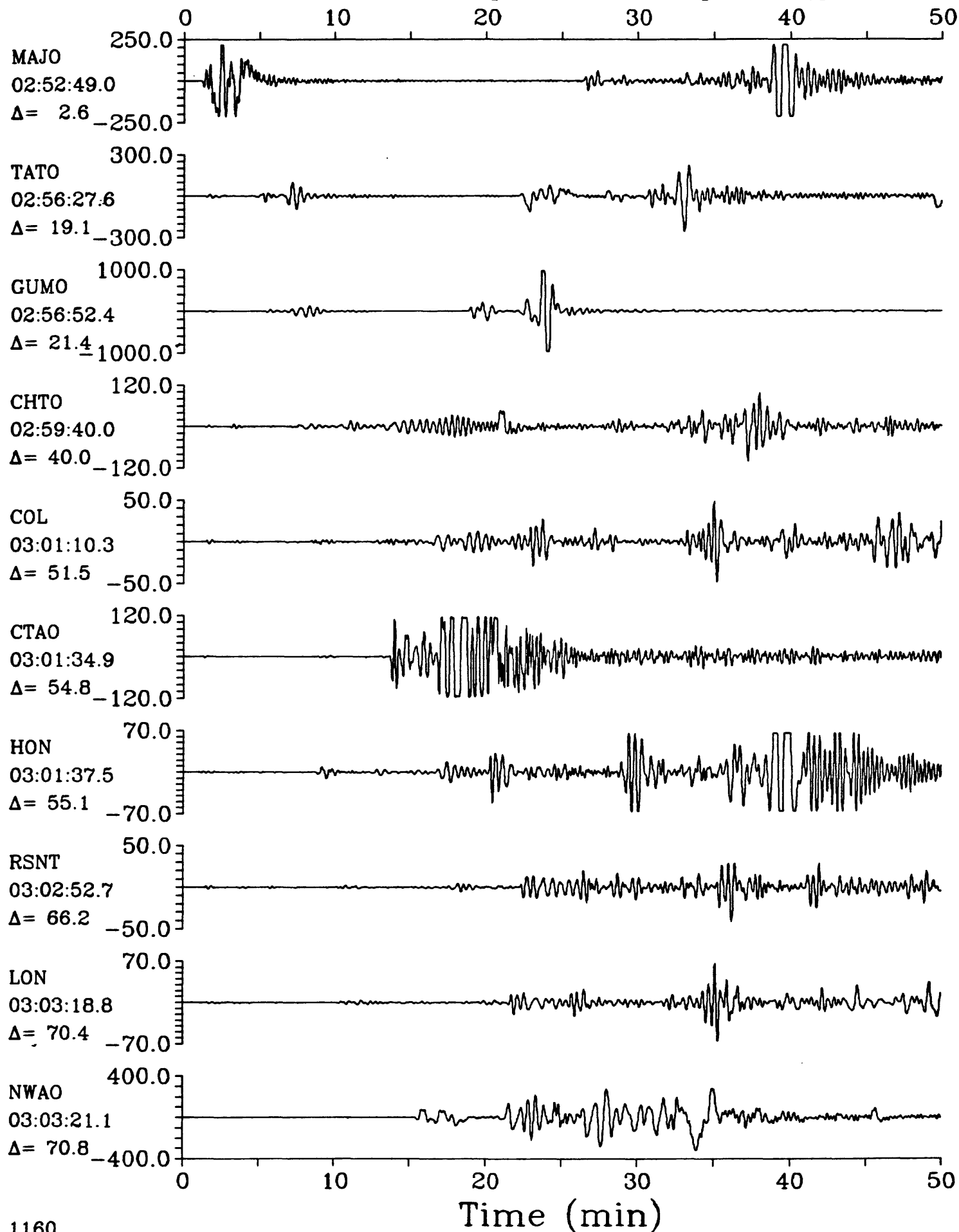
SPZ

Near East Coast of Honshu, Japan  $h=47.9$   $m_b=6.1$   $M_{sz}=6.6$ 

LPZ

24 June 1986 02:53:09.38

LPZ

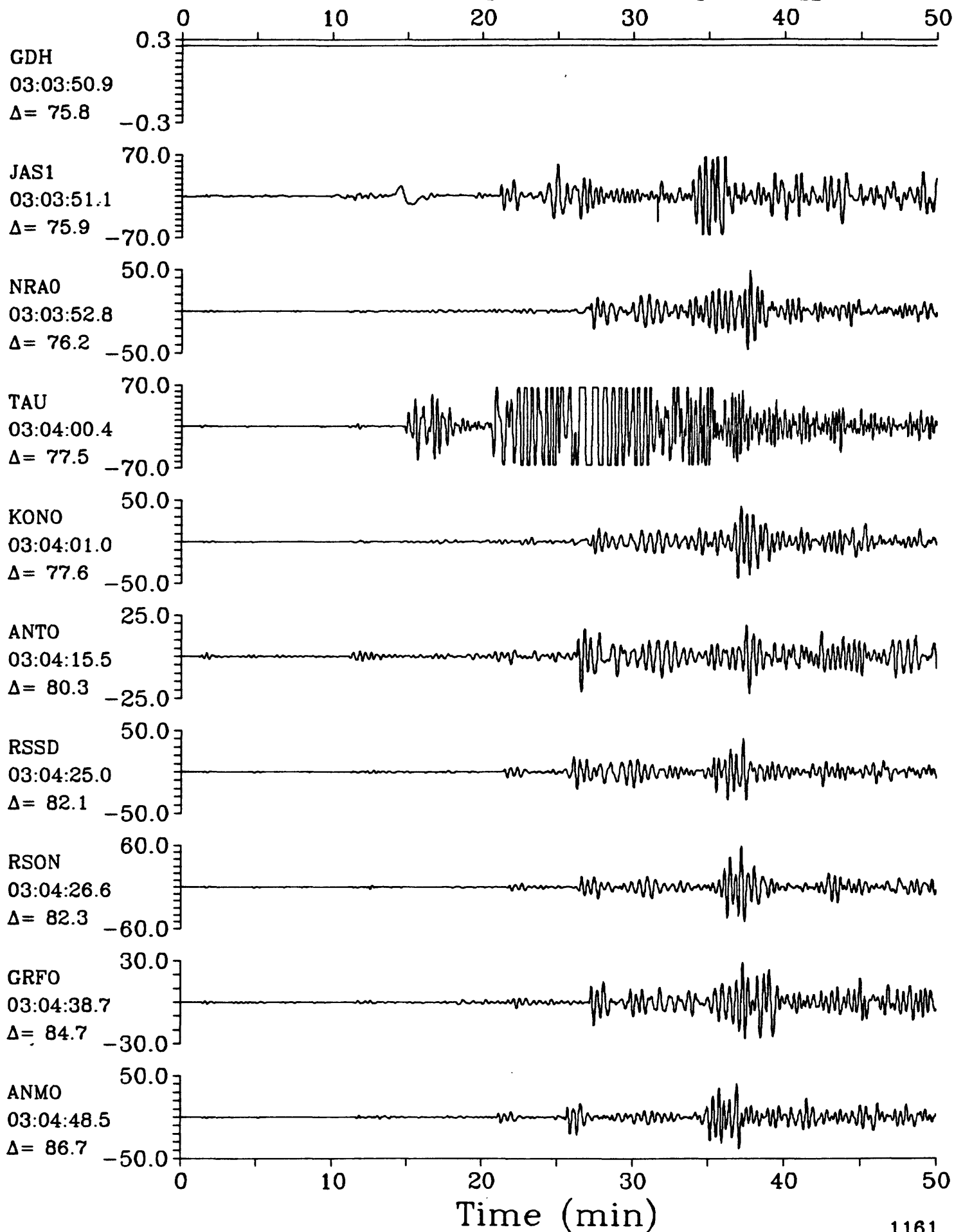
Near East Coast of Honshu, Japan  $h=47.9$   $m_b=6.1$   $M_{sz}=6.6$ 



LPZ

24 June 1986 02:53:09.38

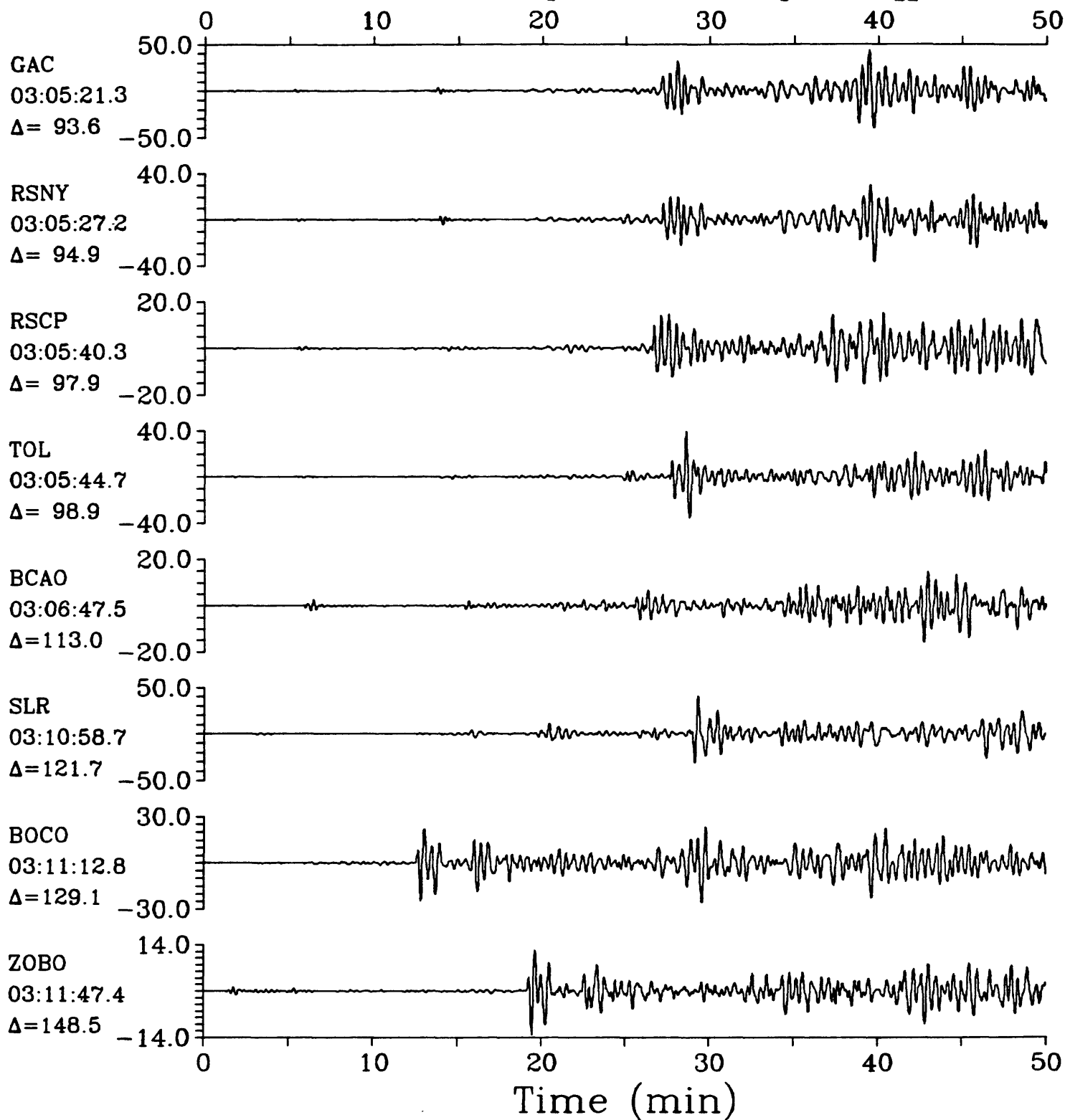
LPZ

Near East Coast of Honshu, Japan  $h=47.9$   $m_b=6.1$   $M_{sz}=6.6$ 

LPZ

24 June 1986 02:53:09.38

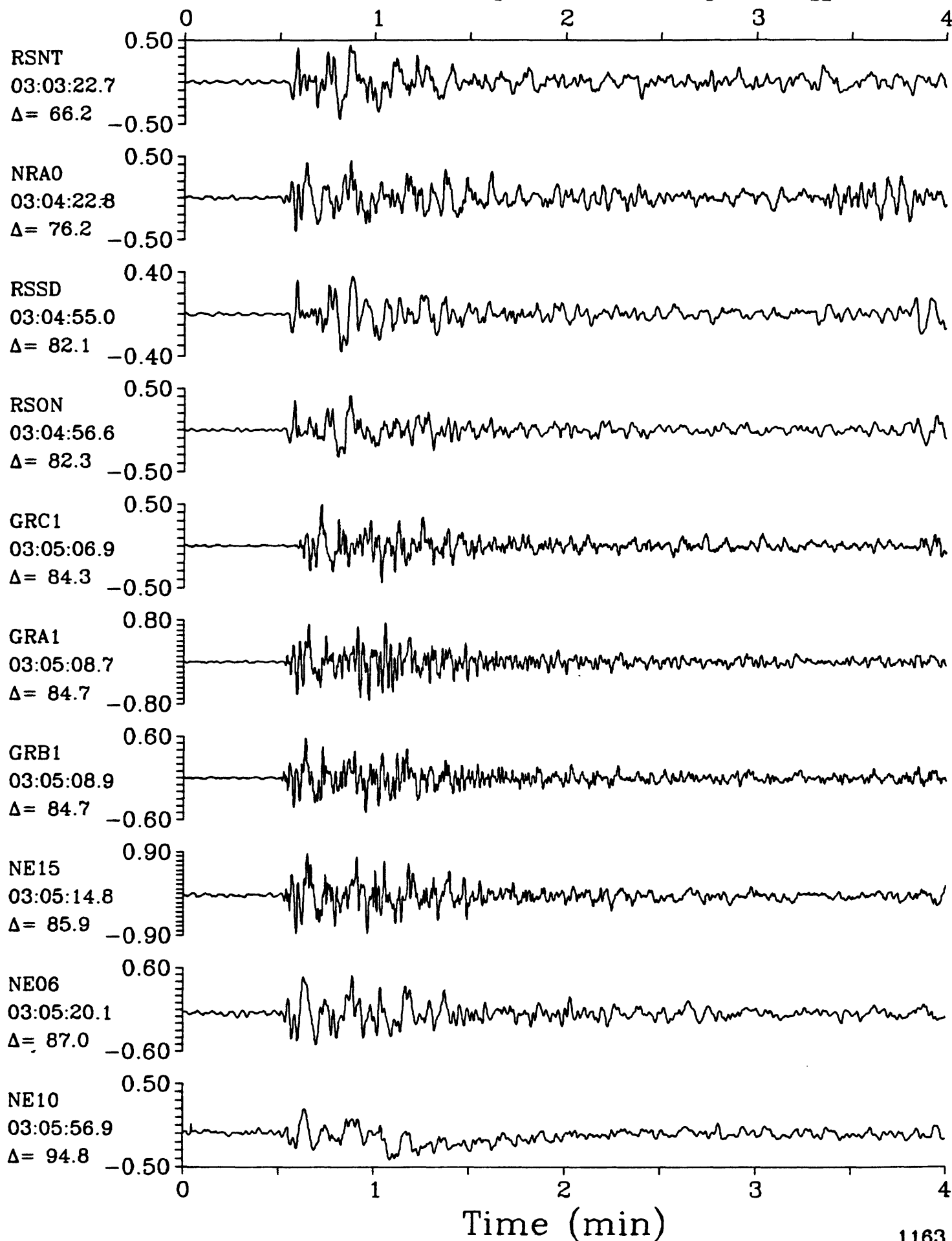
LPZ

Near East Coast of Honshu, Japan  $h=47.9$   $m_b=6.1$   $M_{sz}=6.6$ 

IPZ

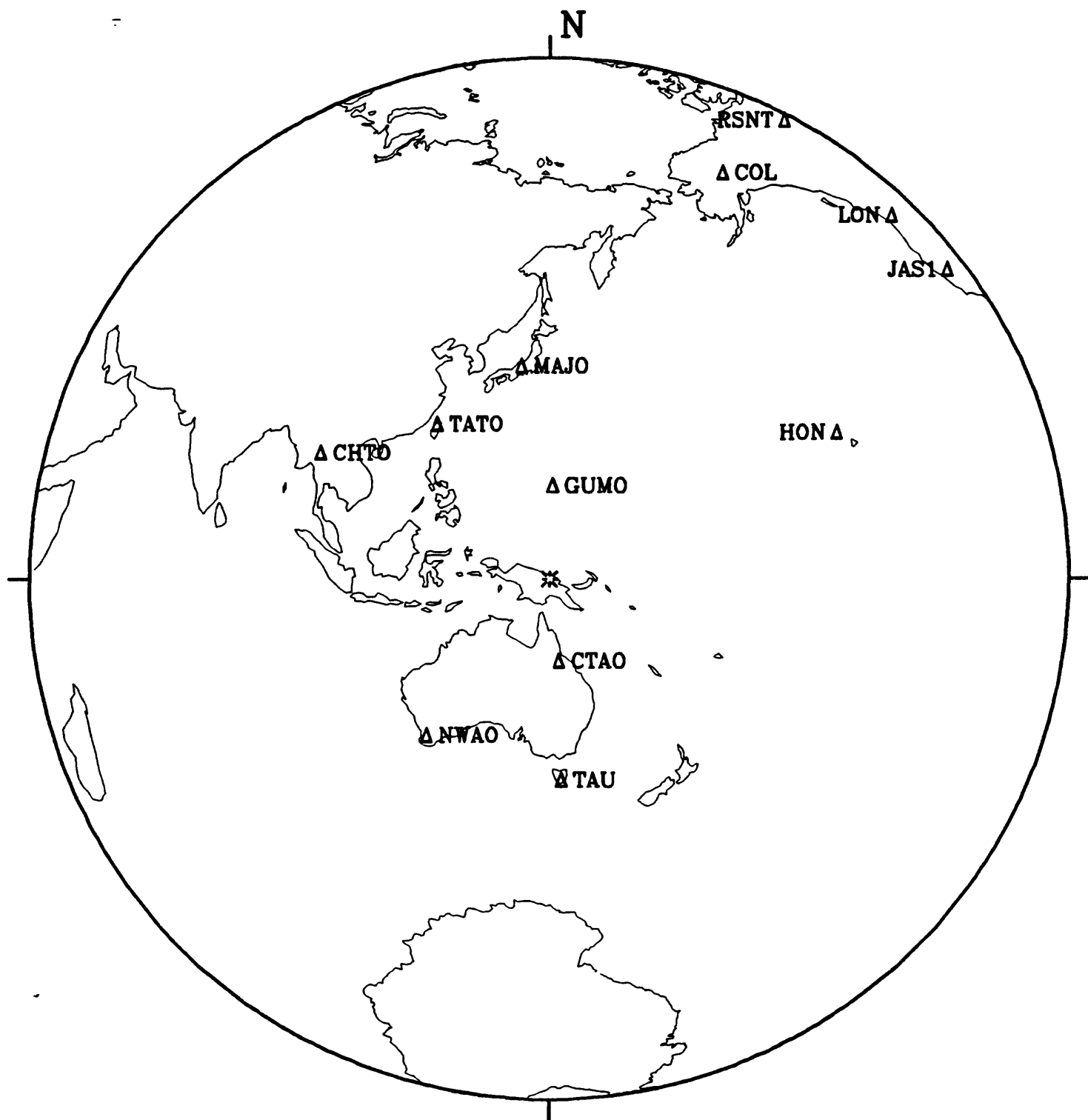
24 June 1986 02:53:09.38

IPZ

Near East Coast of Honshu, Japan  $h=47.9$   $m_b=6.1$   $M_{sz}=6.6$ 

24 June 1986 03:11:33.02

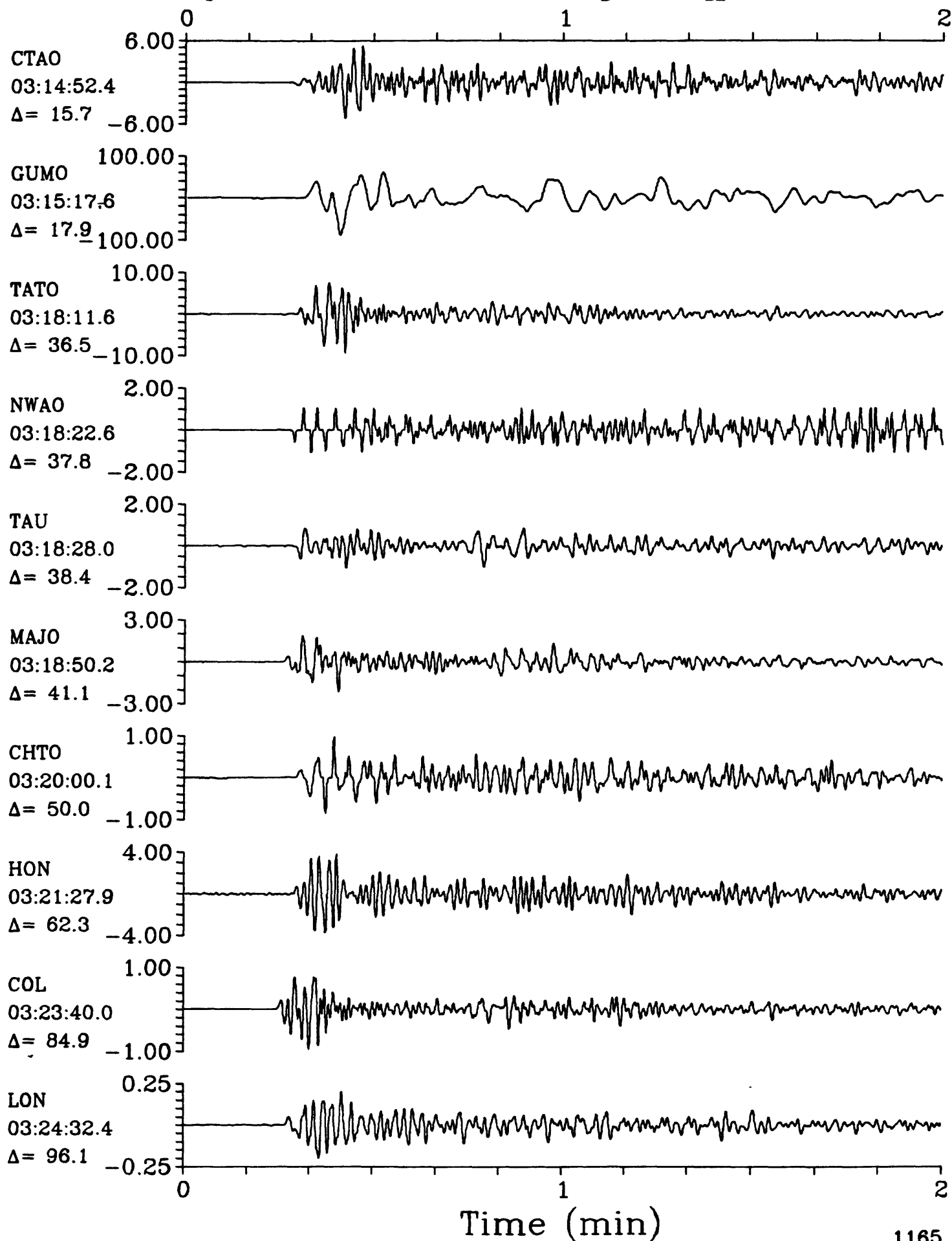
## Papua New Guinea



SPZ

24 June 1986 03:11:33.02

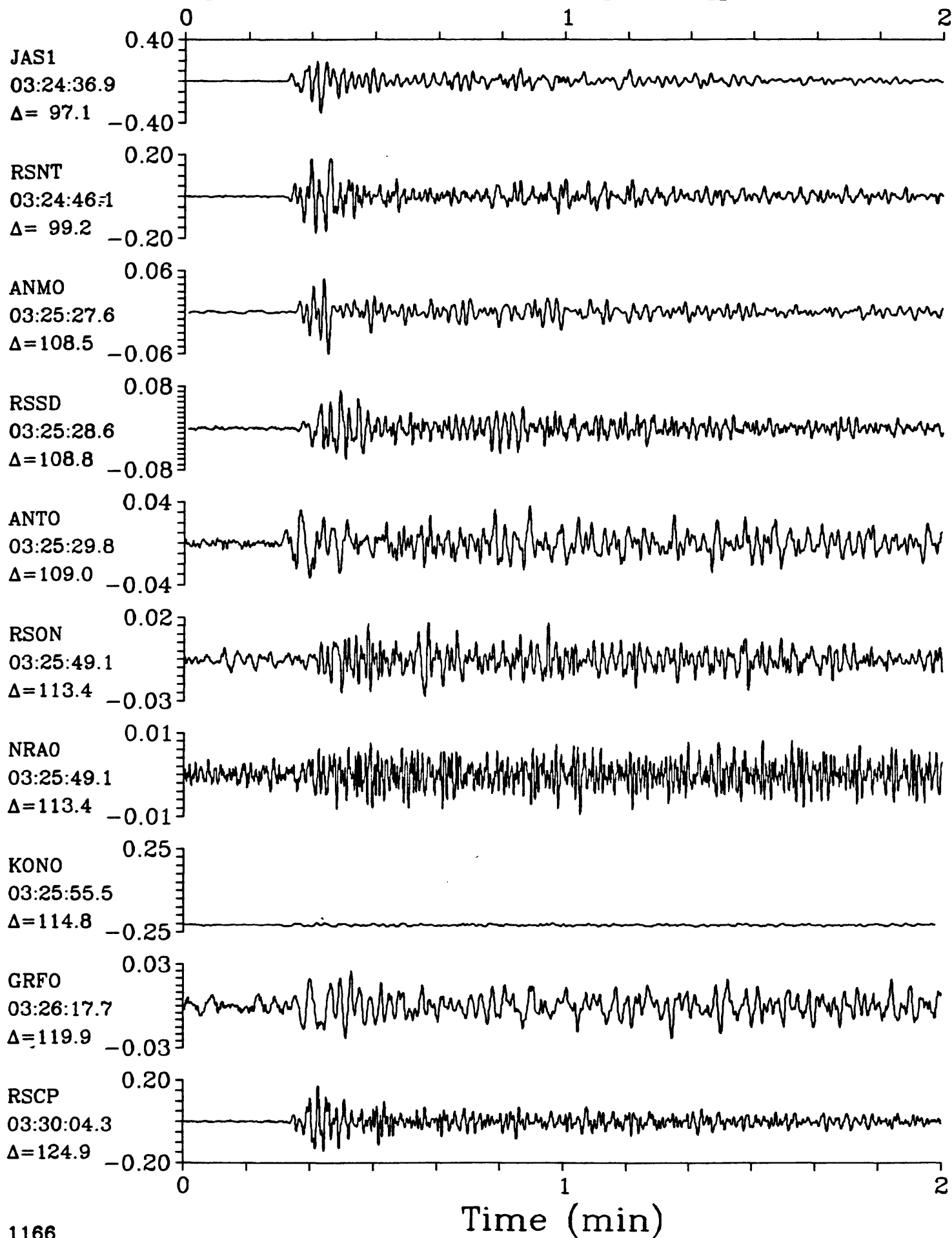
SPZ

Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 

SPZ

24 June 1986 03:11:33.02

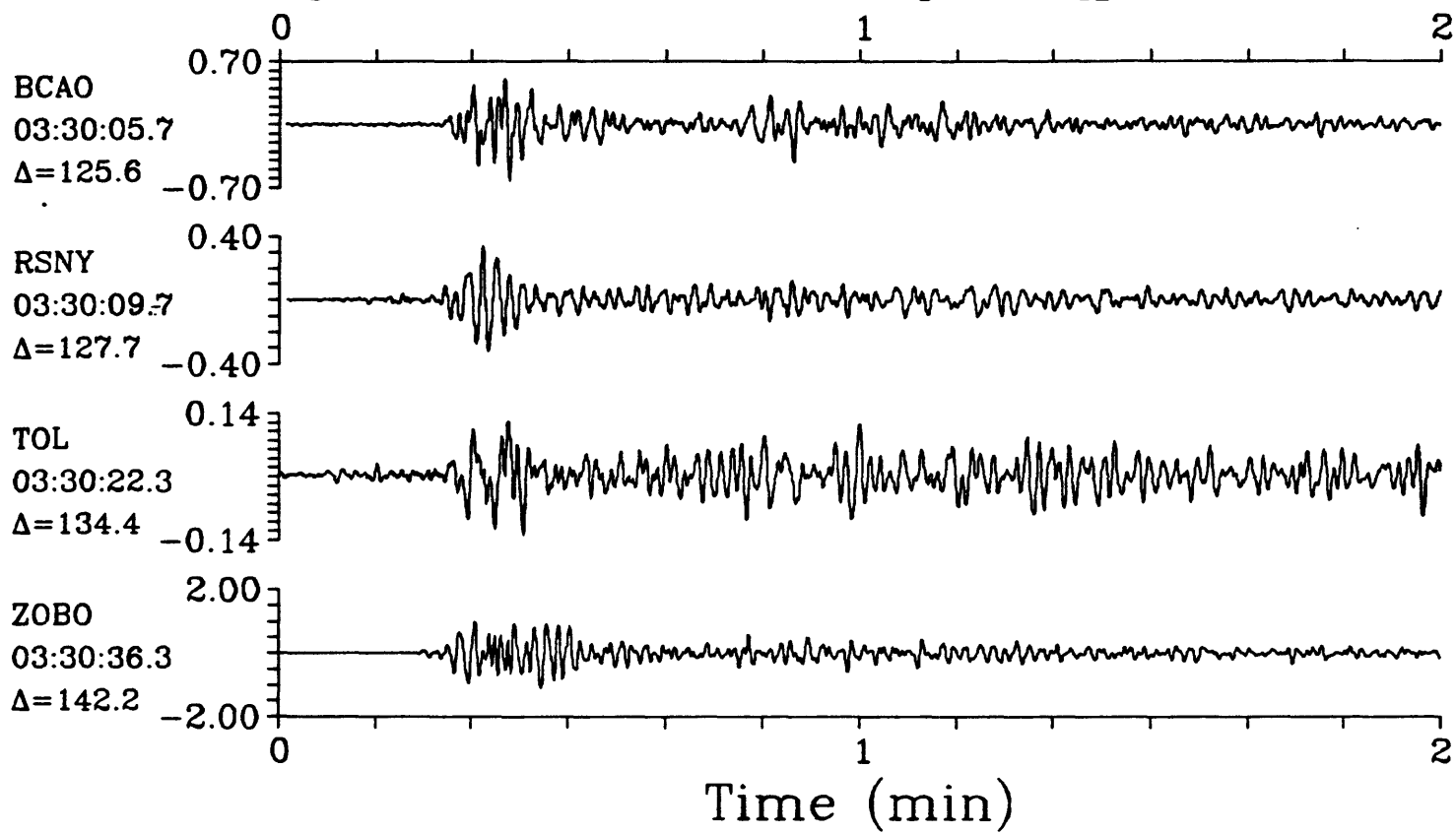
SPZ

Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 

SPZ

24 June 1986 03:11:33.02

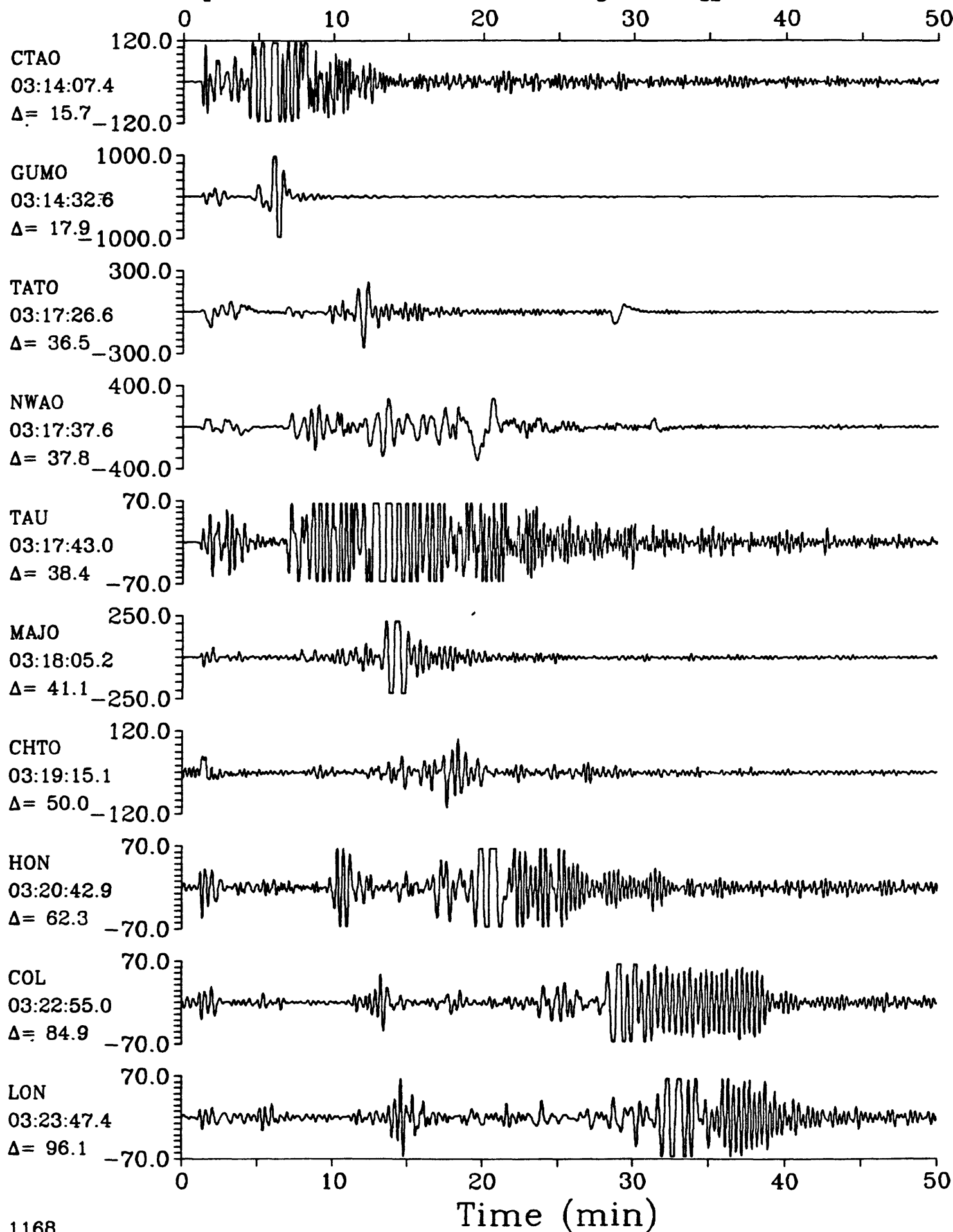
SPZ

Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 

LPZ

24 June 1986 03:11:33.02

LPZ

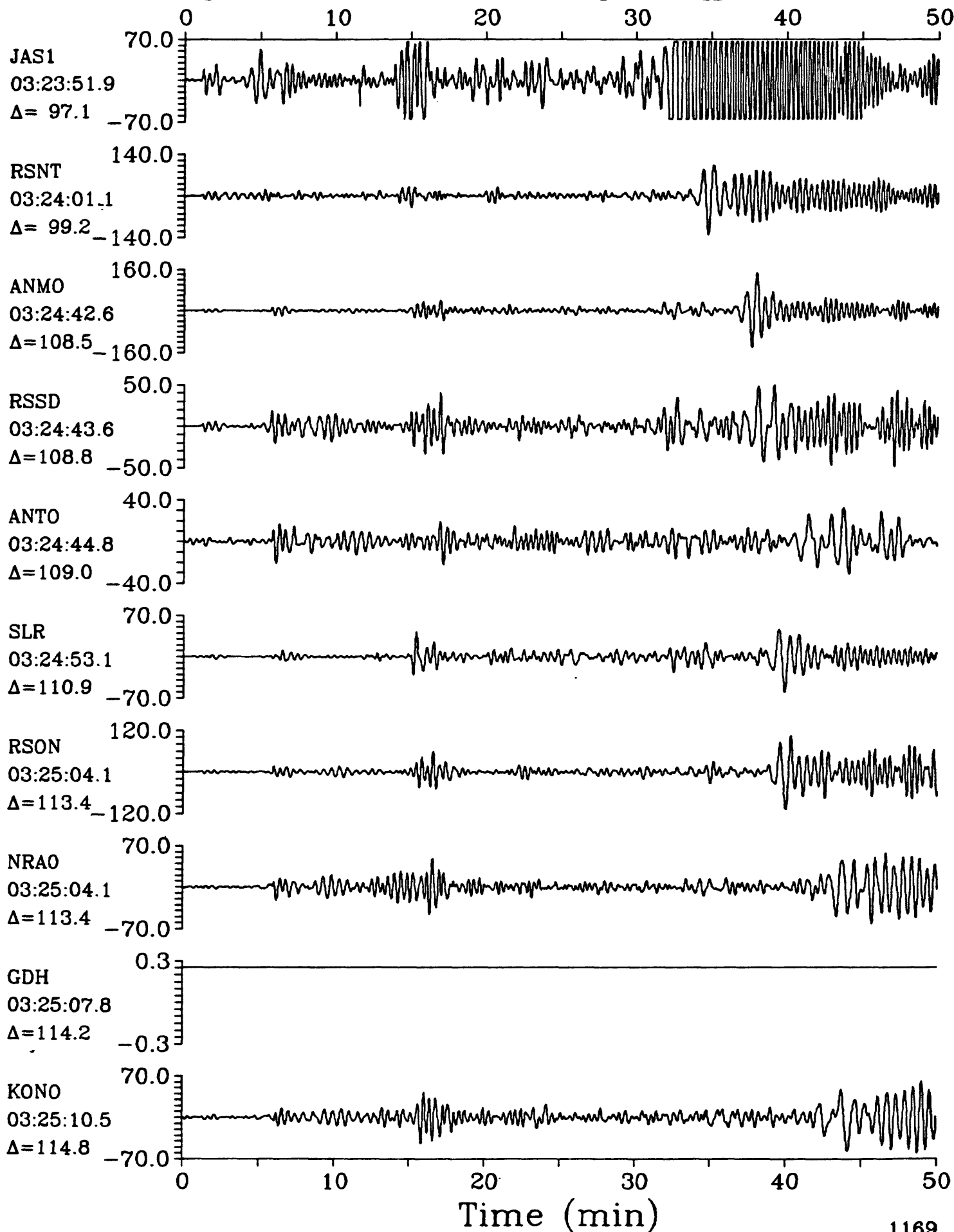
Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 



LPZ

24 June 1986 03:11:33.02

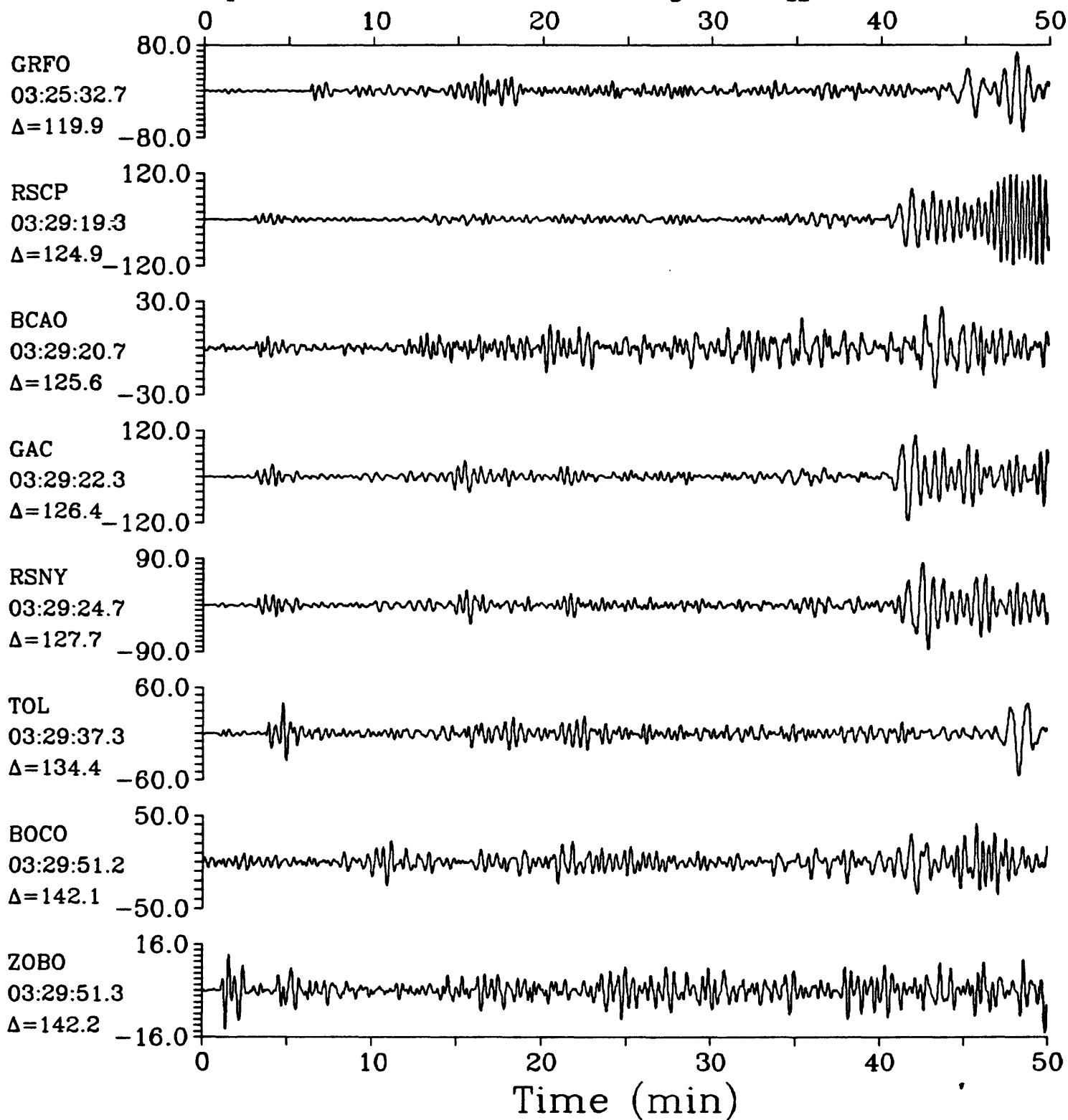
LPZ

Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 

LPZ

24 June 1986 03:11:33.02

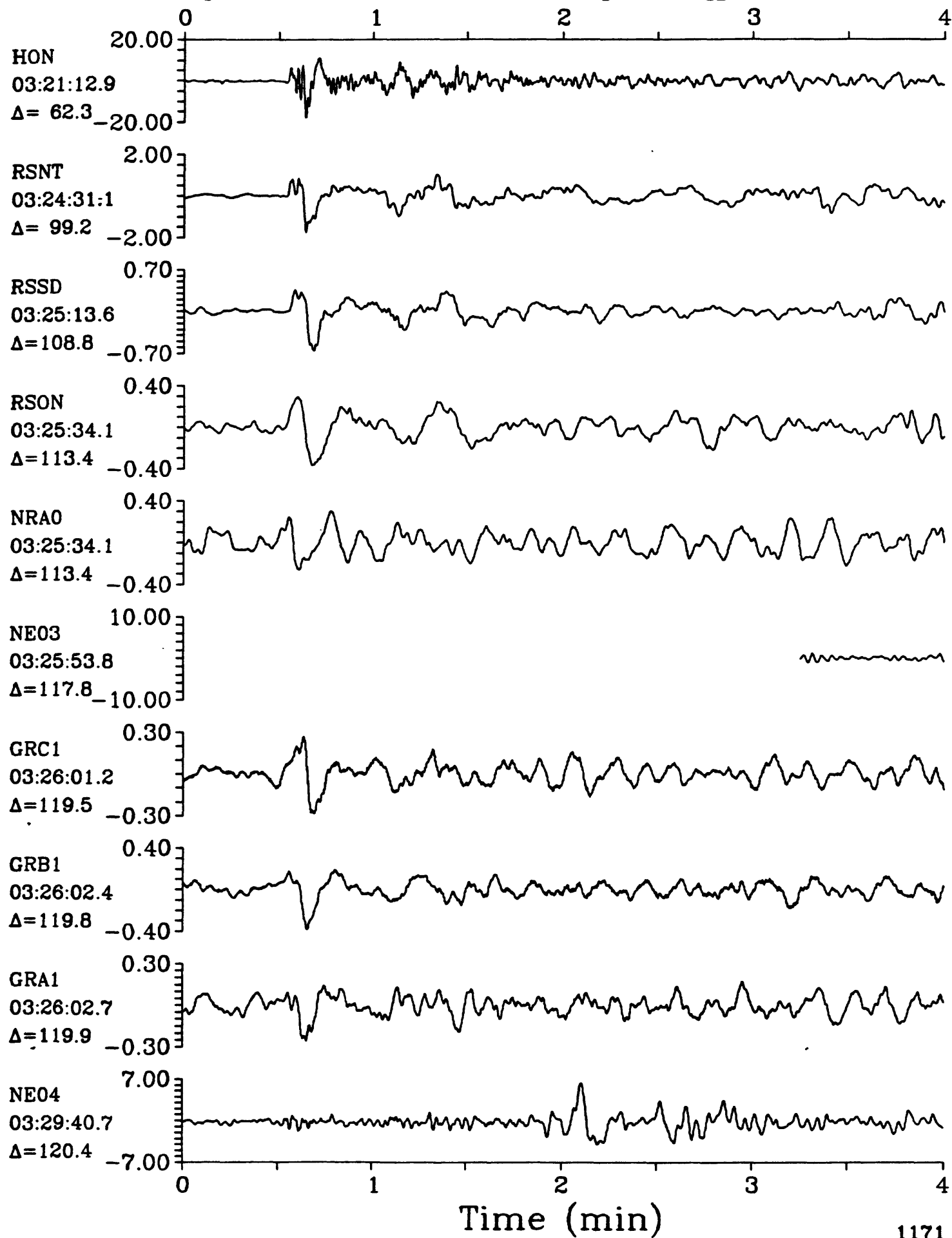
LPZ

Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 

IPZ

24 June 1986 03:11:33.02

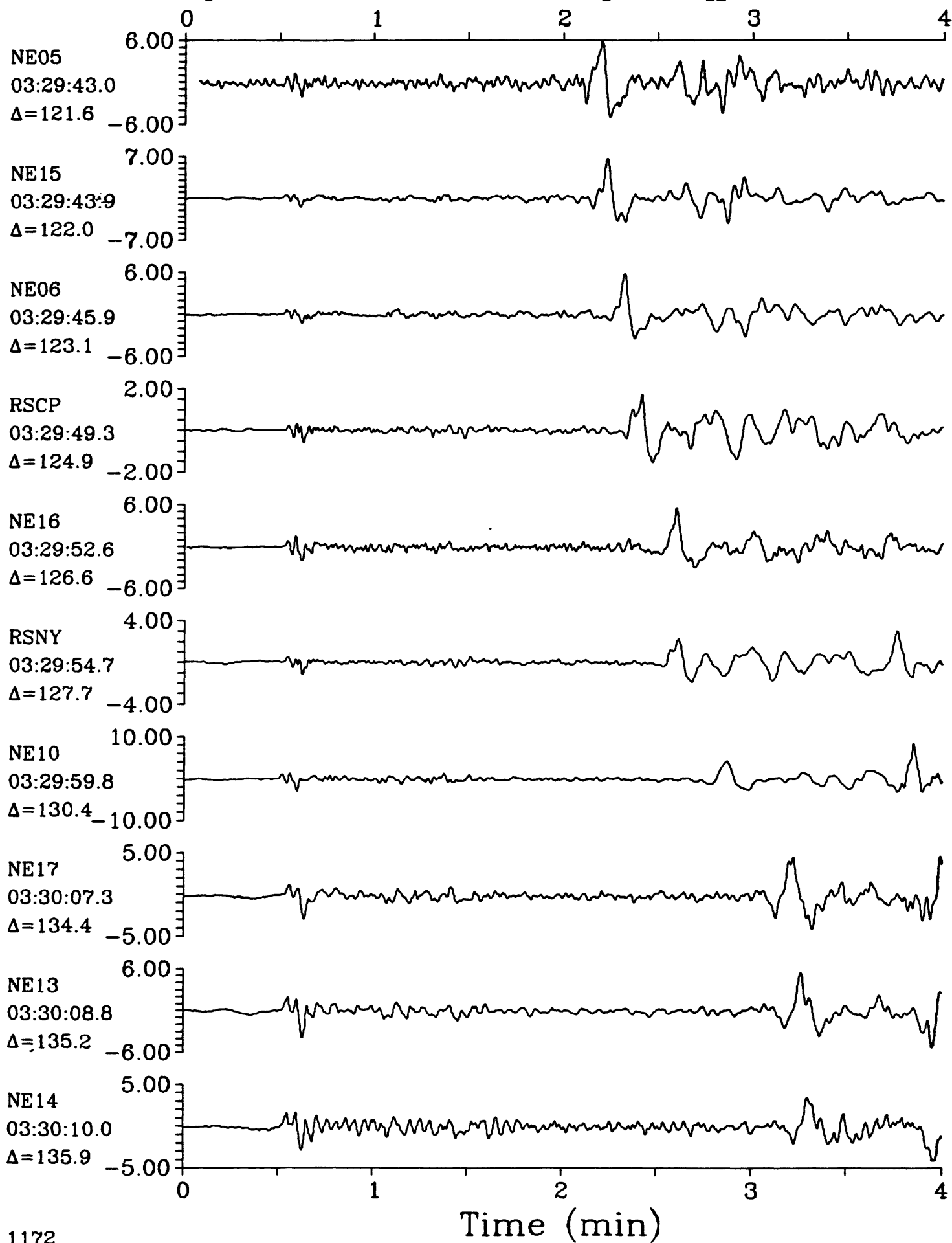
IPZ

Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 

IPZ

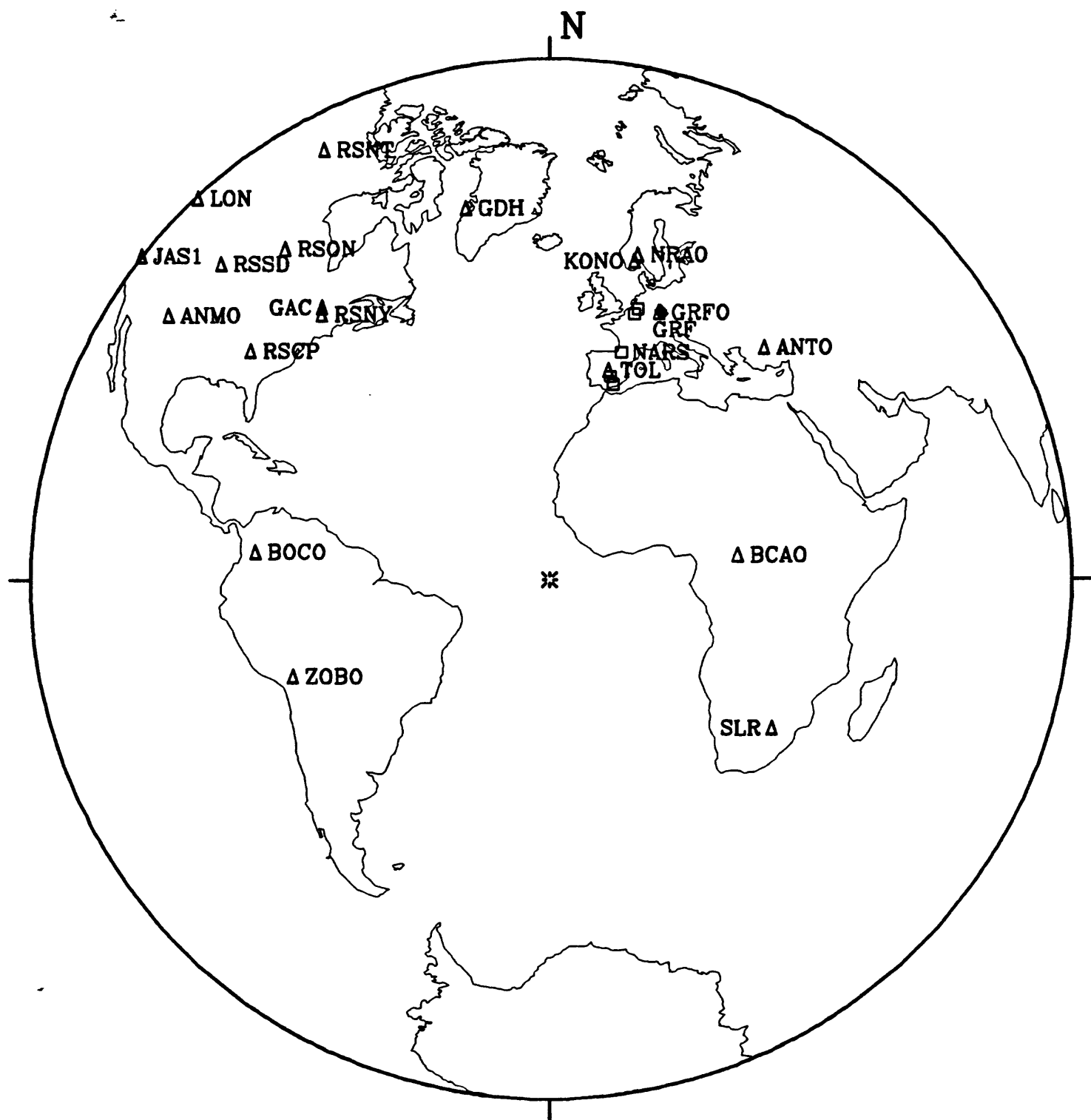
24 June 1986 03:11:33.02

IPZ

Papua New Guinea  $h=121.2$   $m_b=6.7$   $M_{sz}=7.1$ 

24 June 1986 06:56:53.09

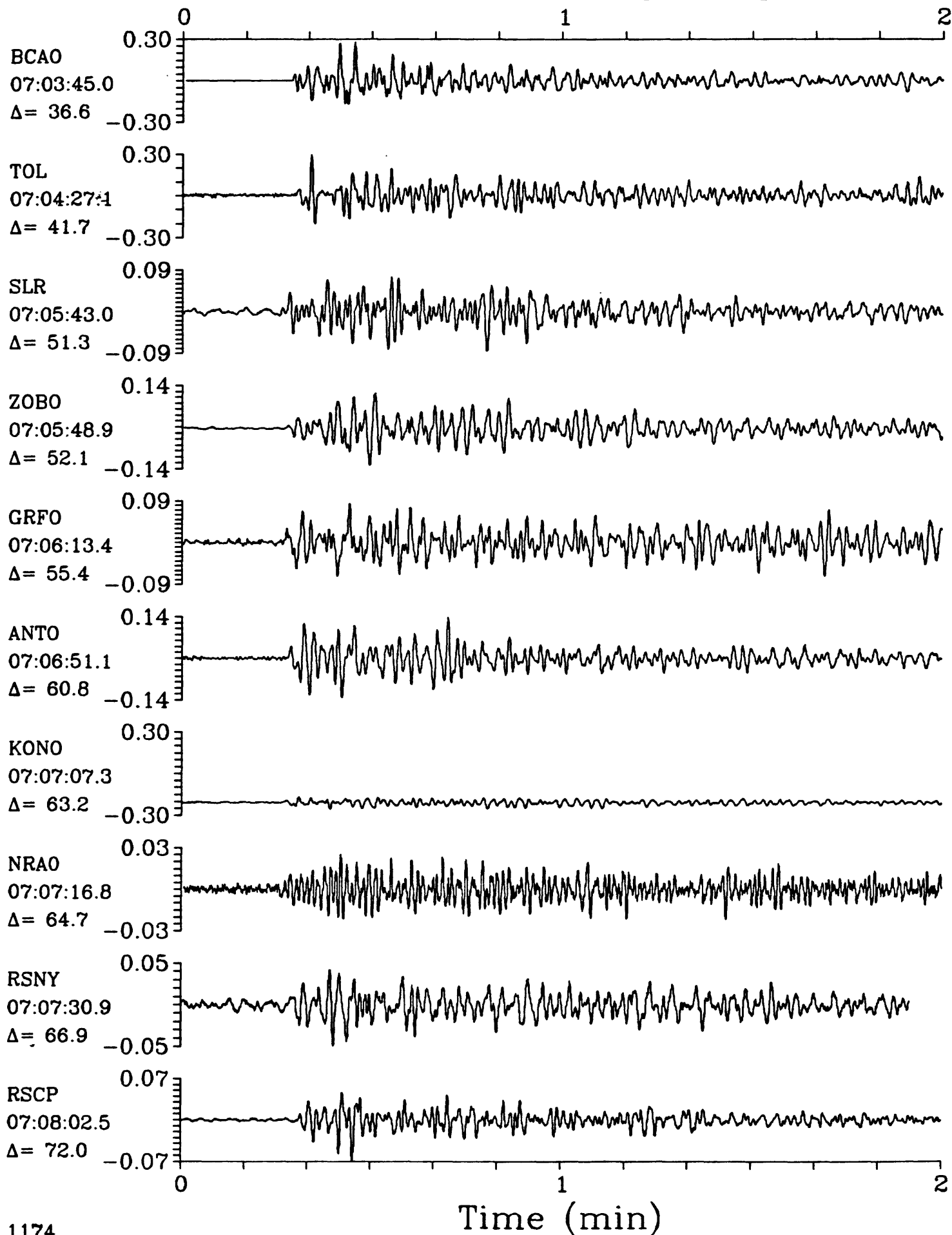
## North of Ascension Island



SPZ

24 June 1986 06:56:53.09

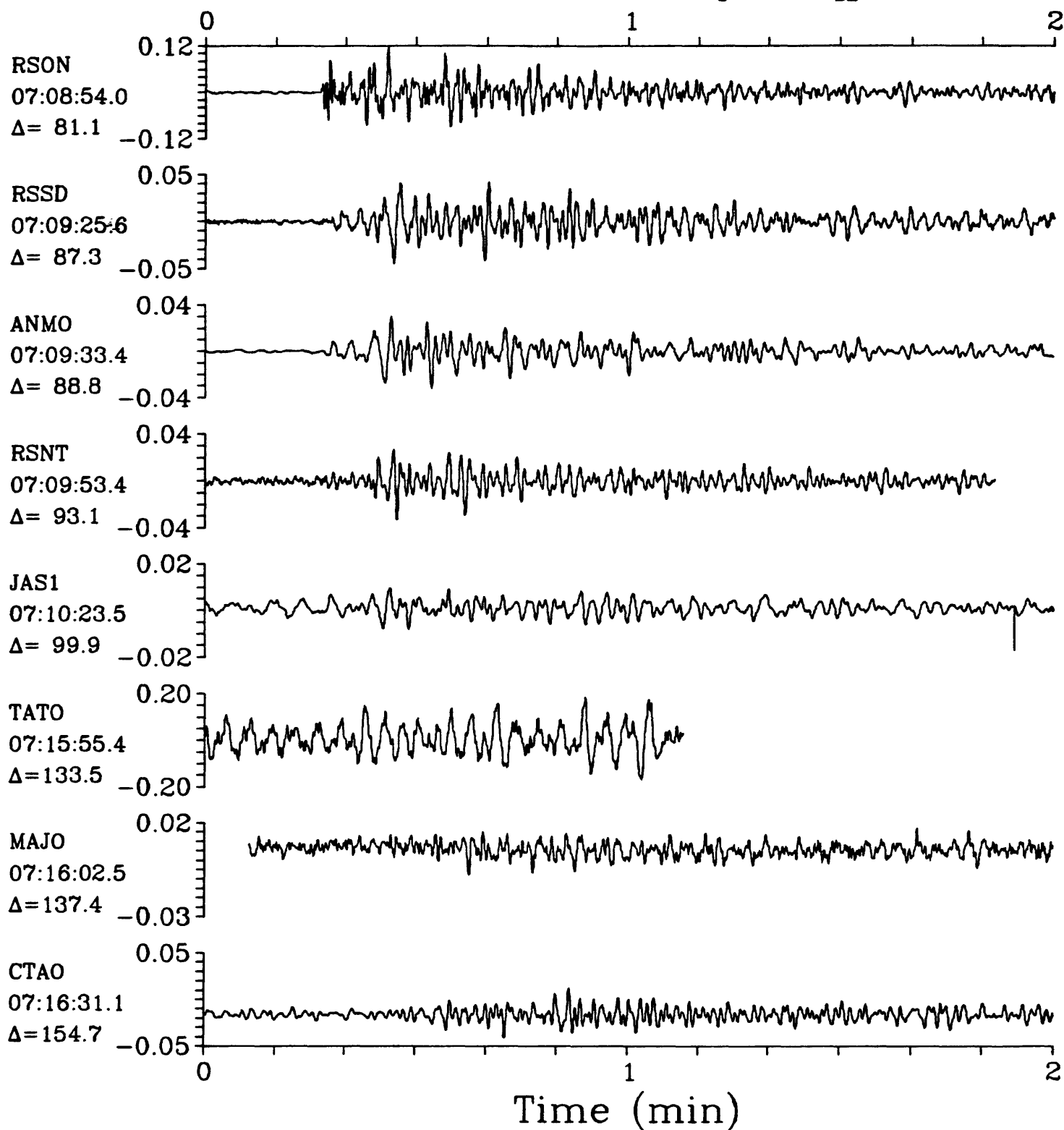
SPZ

North of Ascension Island  $h=10.0$   $m_b=5.7$   $M_{sz}=6.0$ 

SPZ

24 June 1986 06:56:53.09

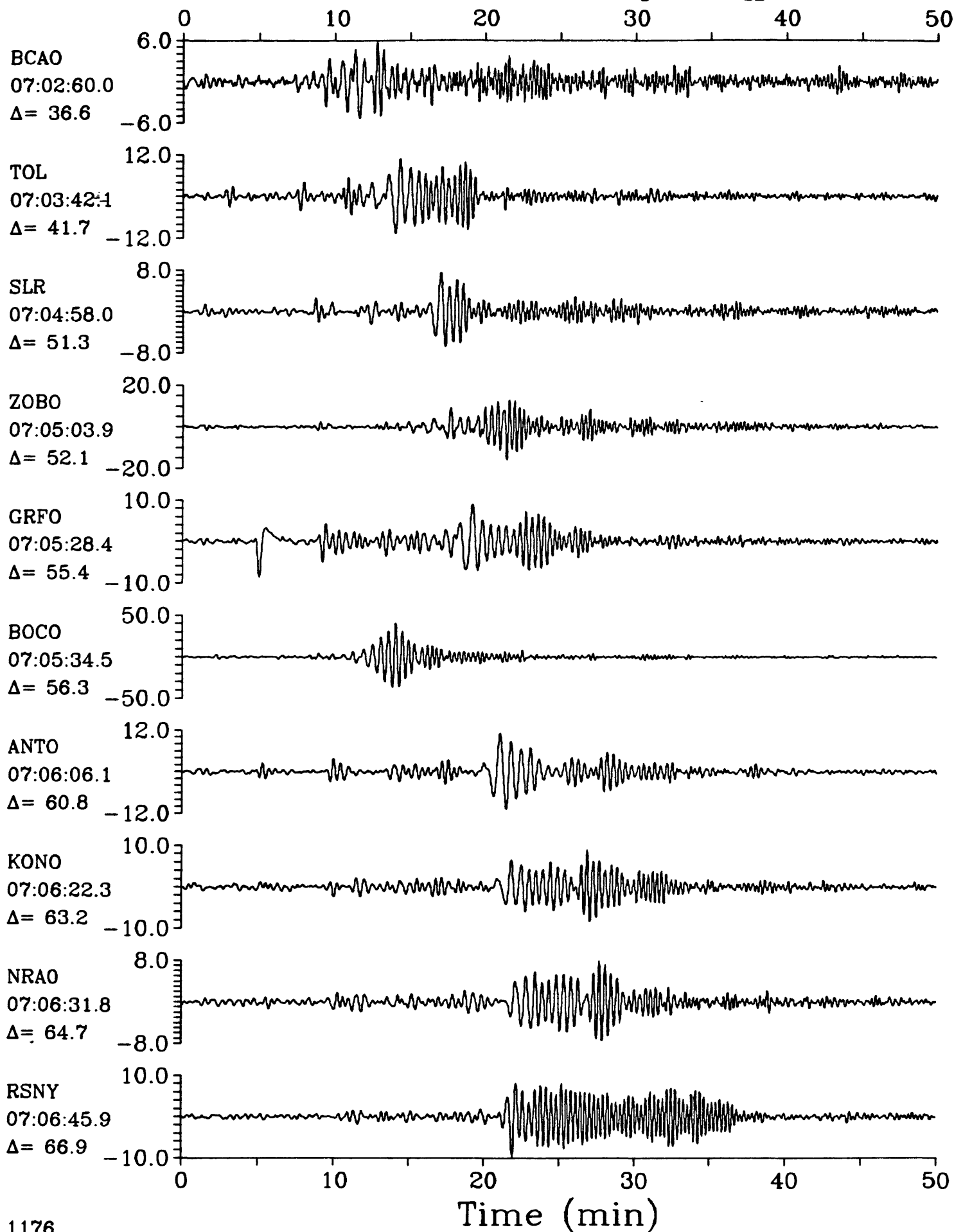
SPZ

North of Ascension Island  $h=10.0$   $m_b=5.7$   $M_{sz}=6.0$ 

LPZ

24 June 1986 06:56:53.09

LPZ

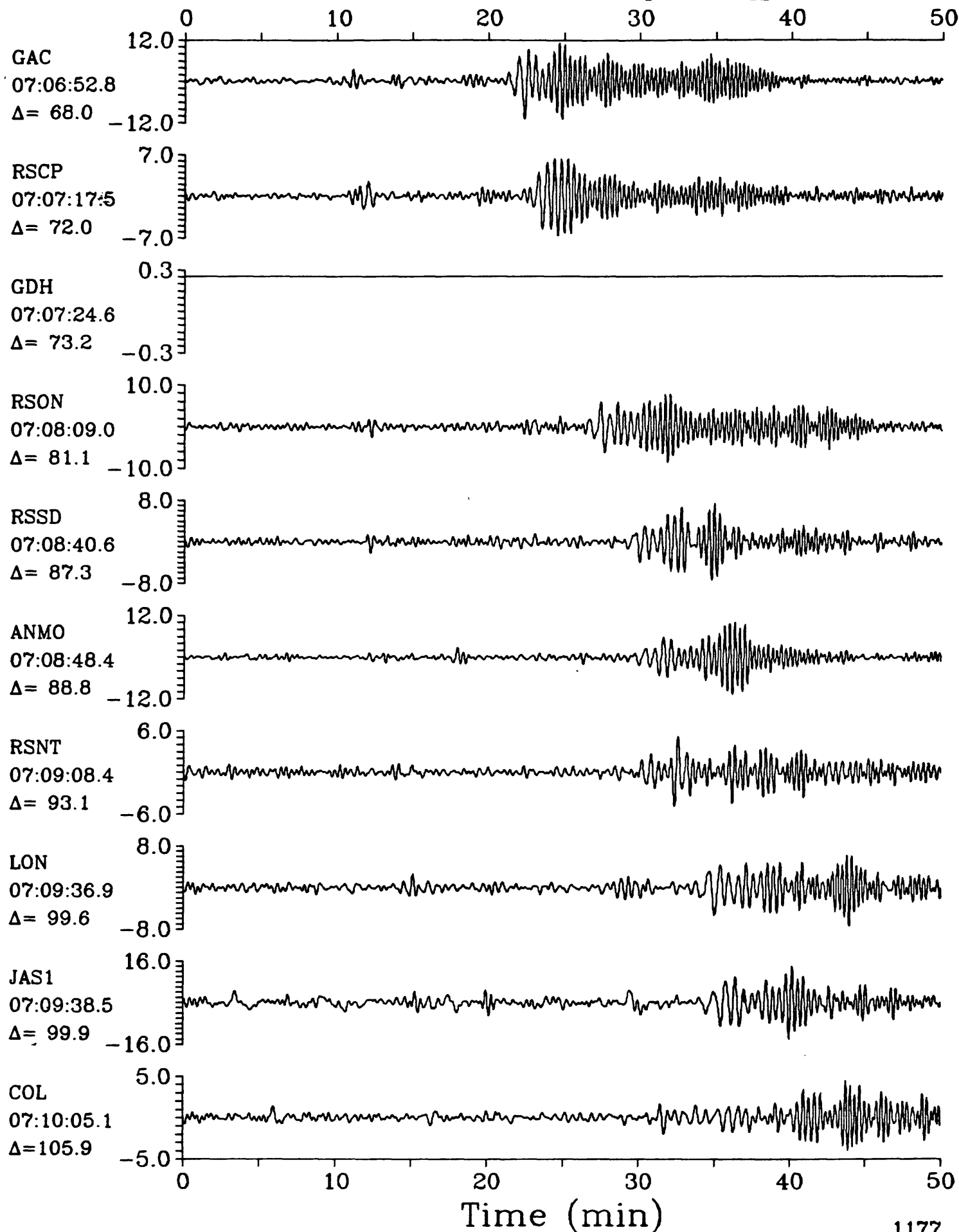
North of Ascension Island  $h=10.0$   $m_b=5.7$   $M_{SZ}=6.0$ 



LPZ

24 June 1986 06:56:53.09

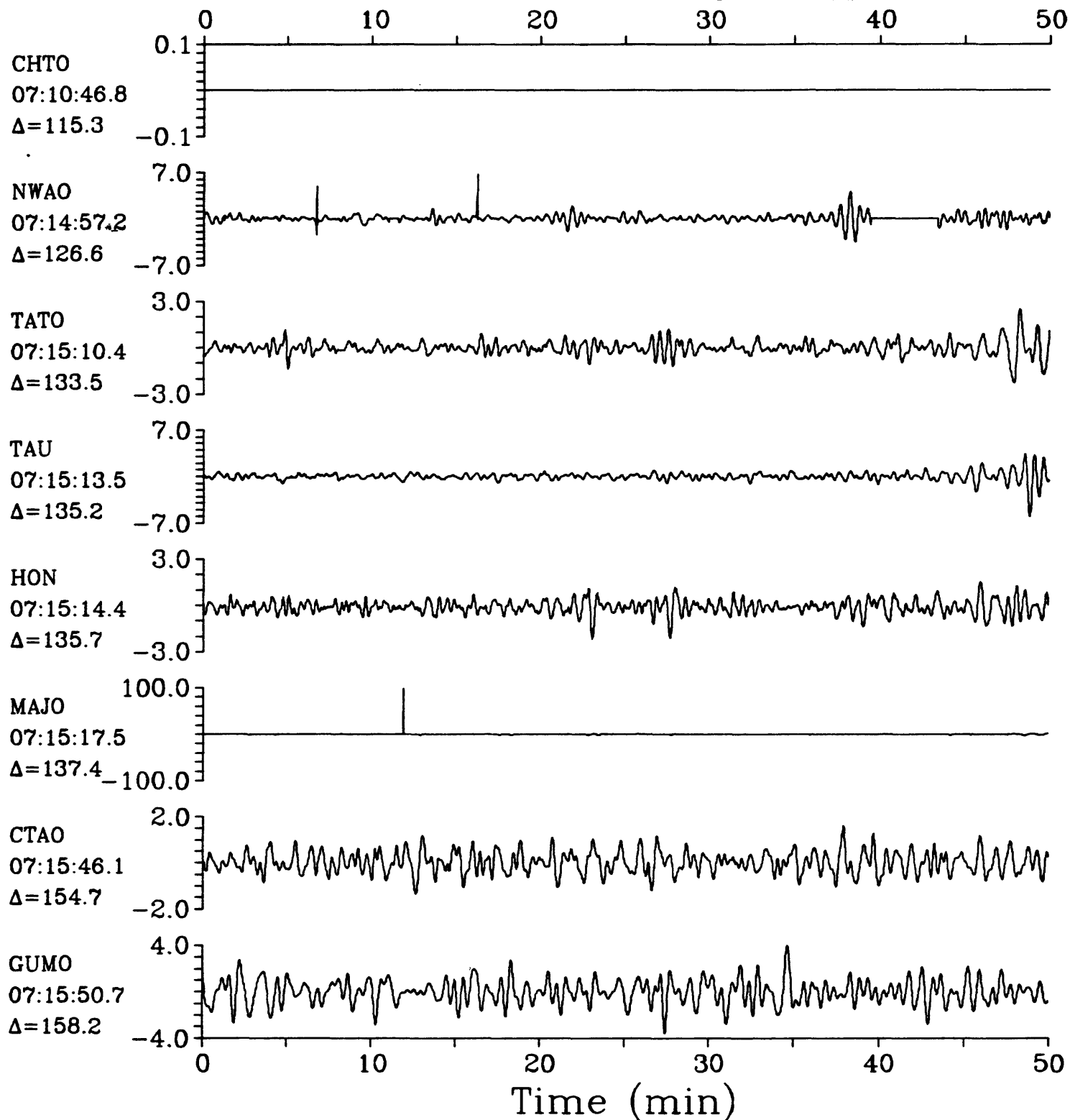
LPZ

North of Ascension Island  $h=10.0$   $m_b=5.7$   $M_{sz}=6.0$ 

LPZ

24 June 1986 06:56:53.09

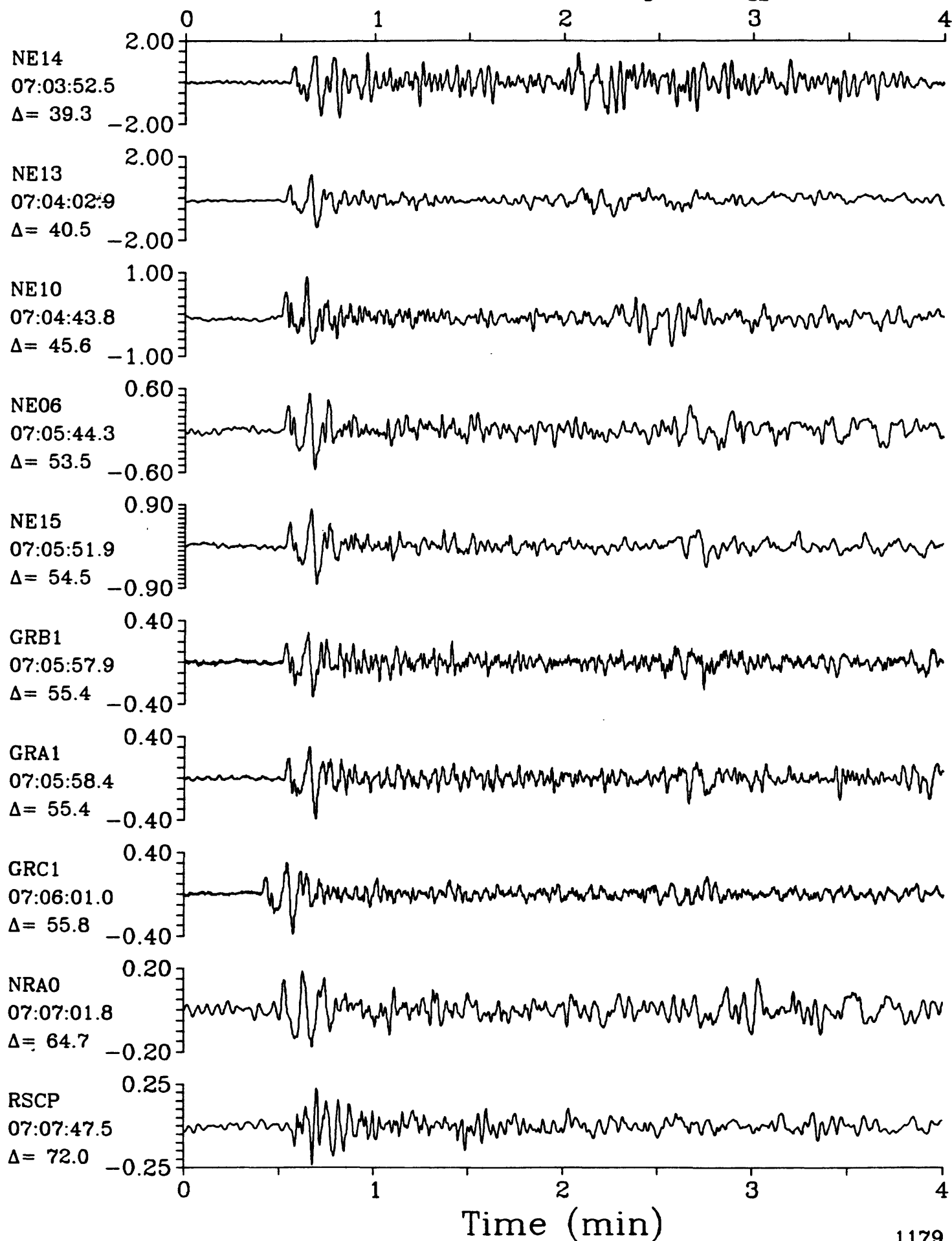
LPZ

North of Ascension Island  $h=10.0$   $m_b=5.7$   $M_{sz}=6.0$ 

IPZ

24 June 1986 06:56:53.09

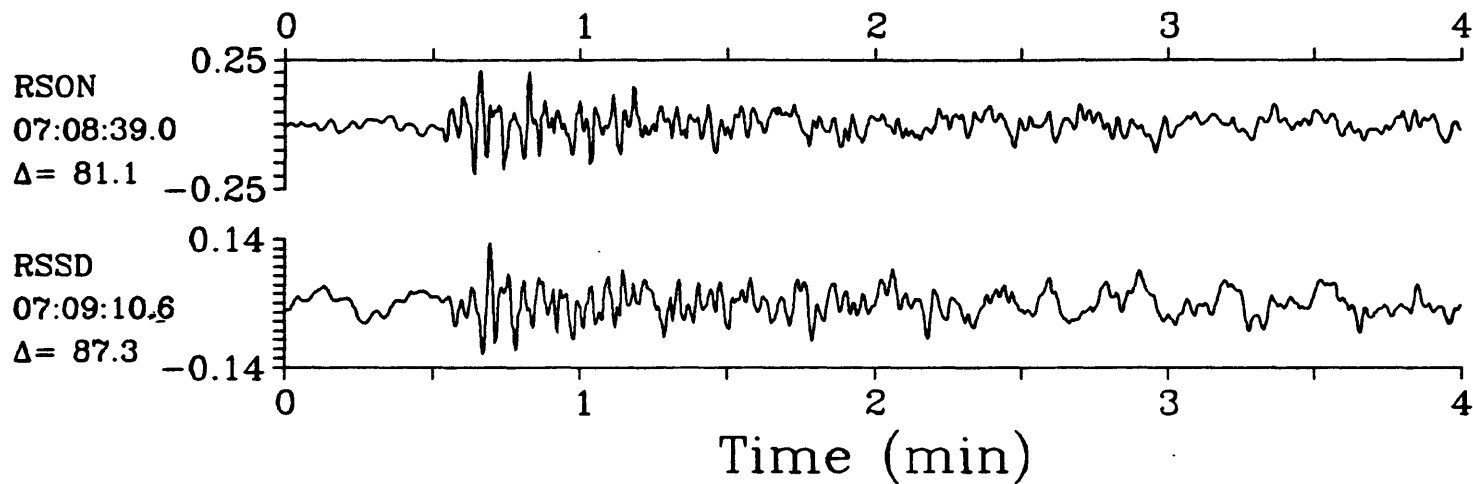
IPZ

North of Ascension Island  $h=10.0$   $m_b=5.7$   $M_{SZ}=6.0$ 

IPZ

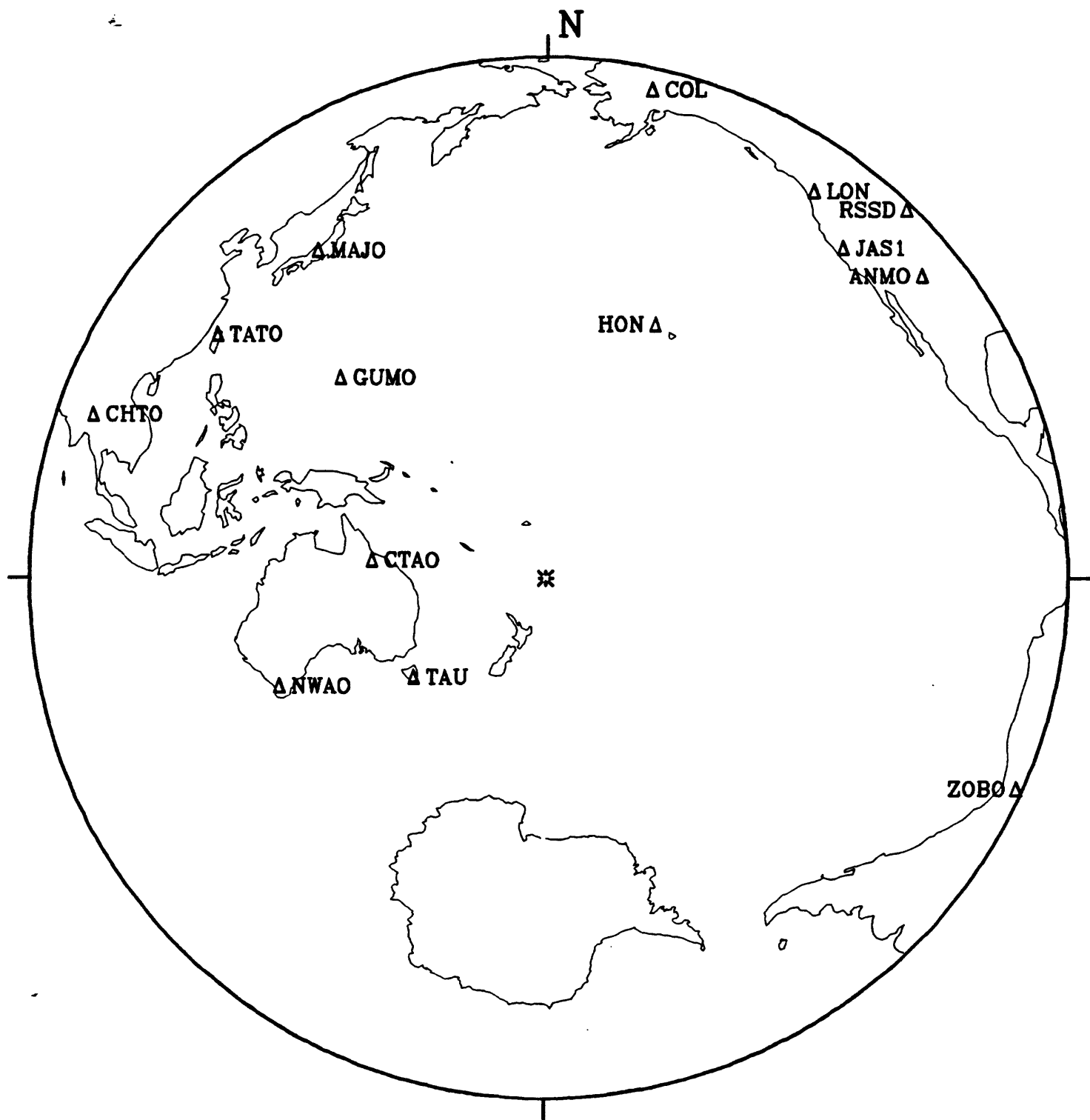
24 June 1986 06:56:53.09

IPZ

North of Ascension Island  $h=10.0$   $m_b=5.7$   $M_{sz}=6.0$ 

24 June 1986 17:39:21.74

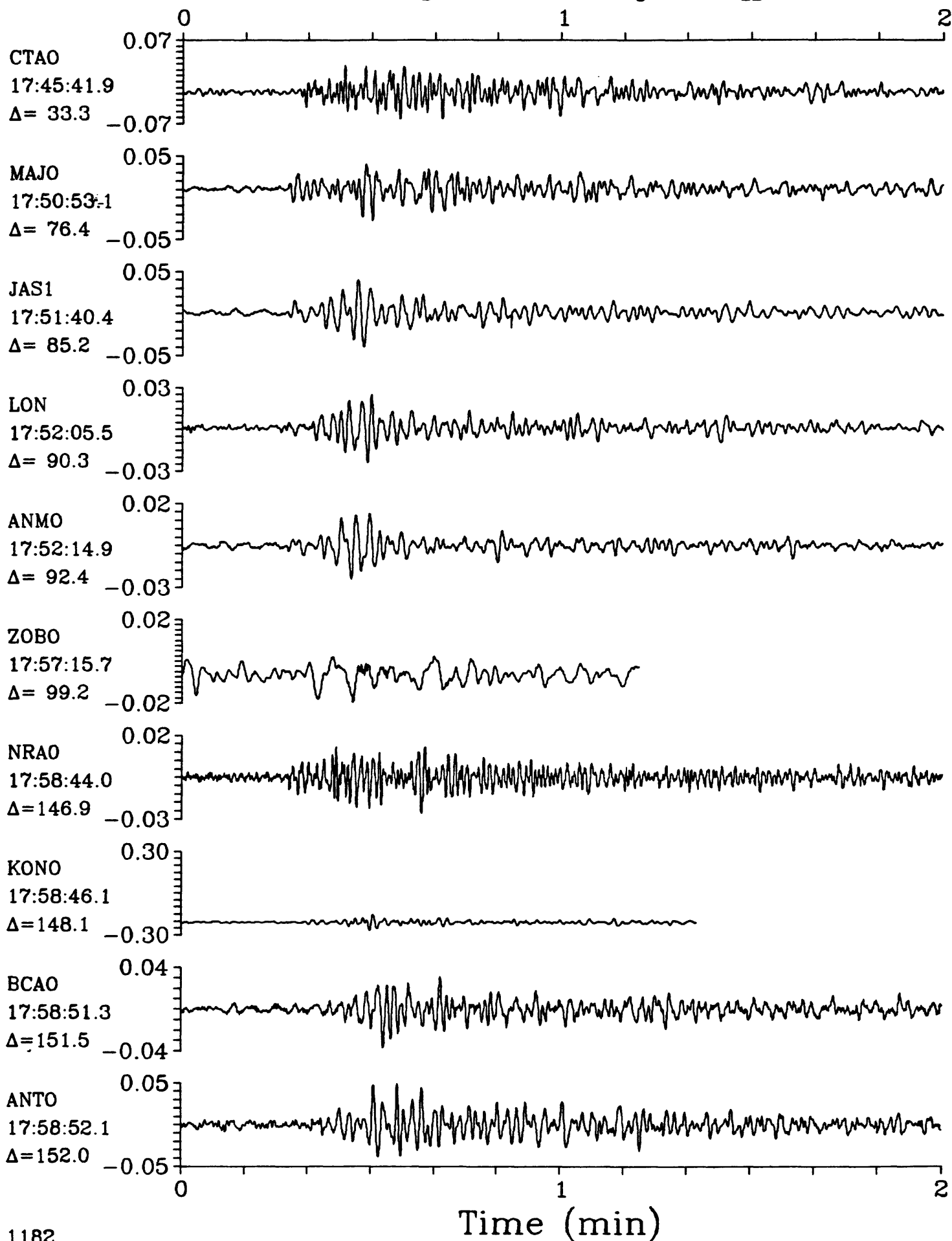
## Kermadec Islands Region



SPZ

24 June 1986 17:39:21.74

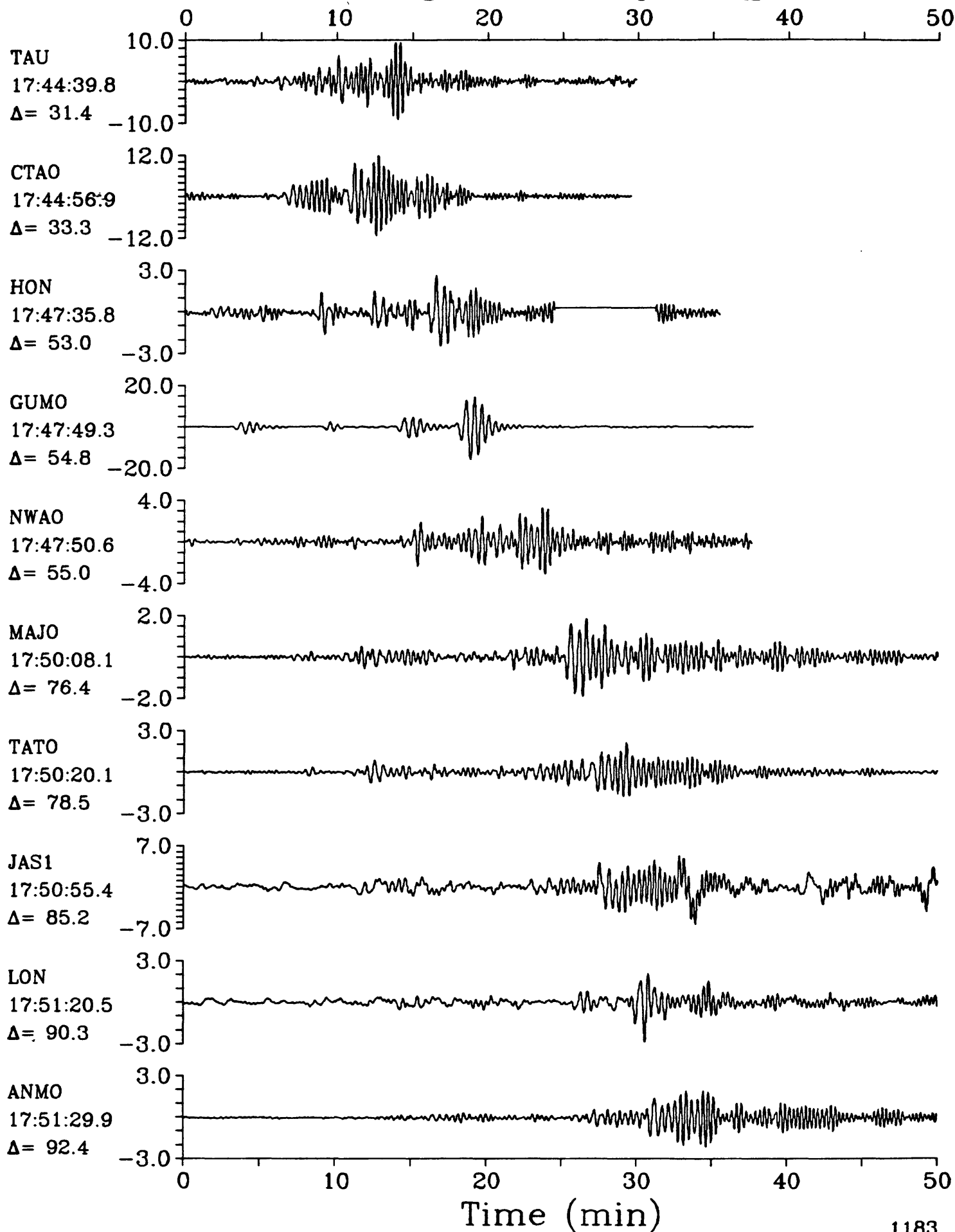
SPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.4$   $M_{SZ}=5.7$ 

LPZ

24 June 1986 17:39:21.74

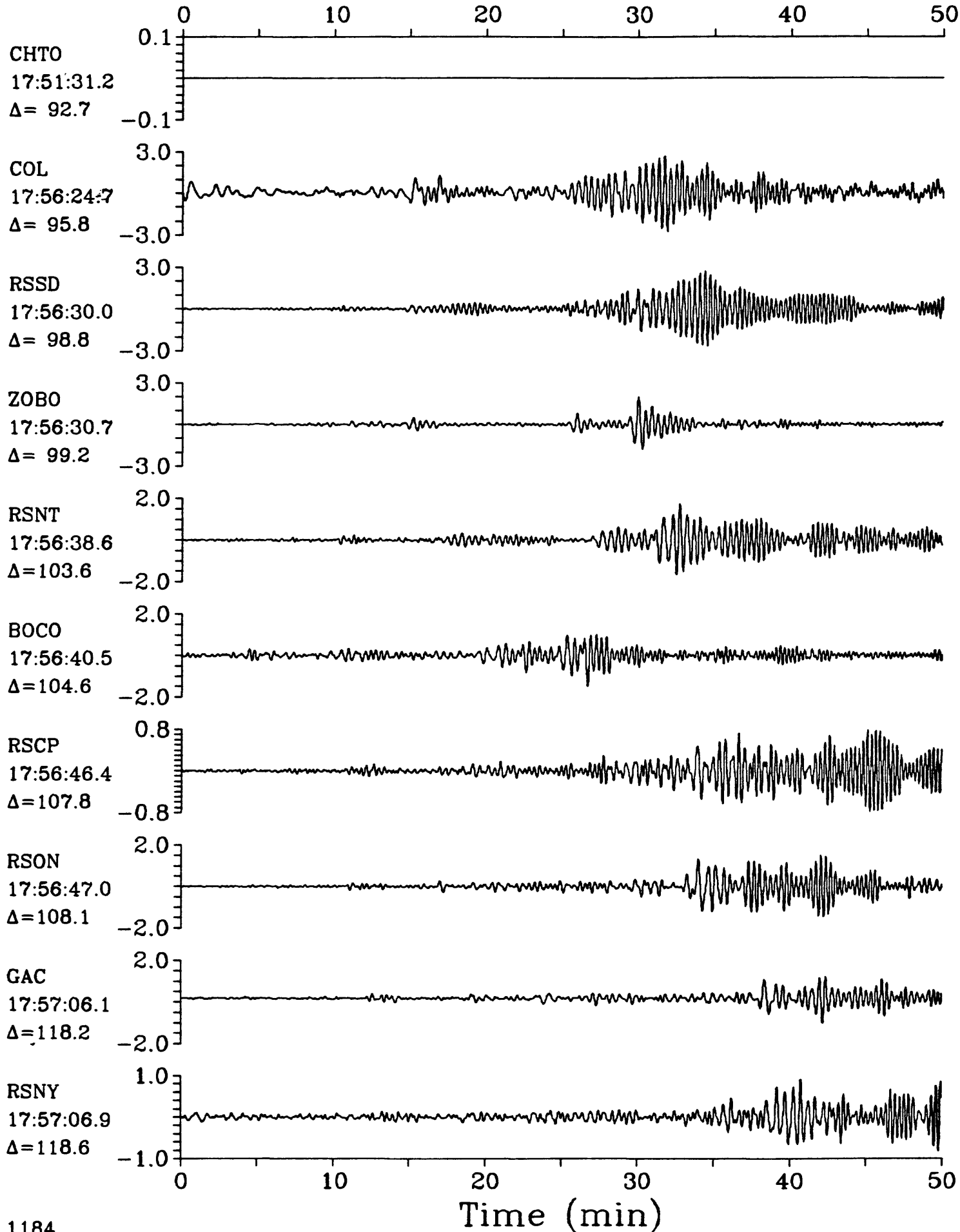
LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.4$   $M_{sz}=5.7$ 

LPZ

24 June 1986 17:39:21.74

LPZ

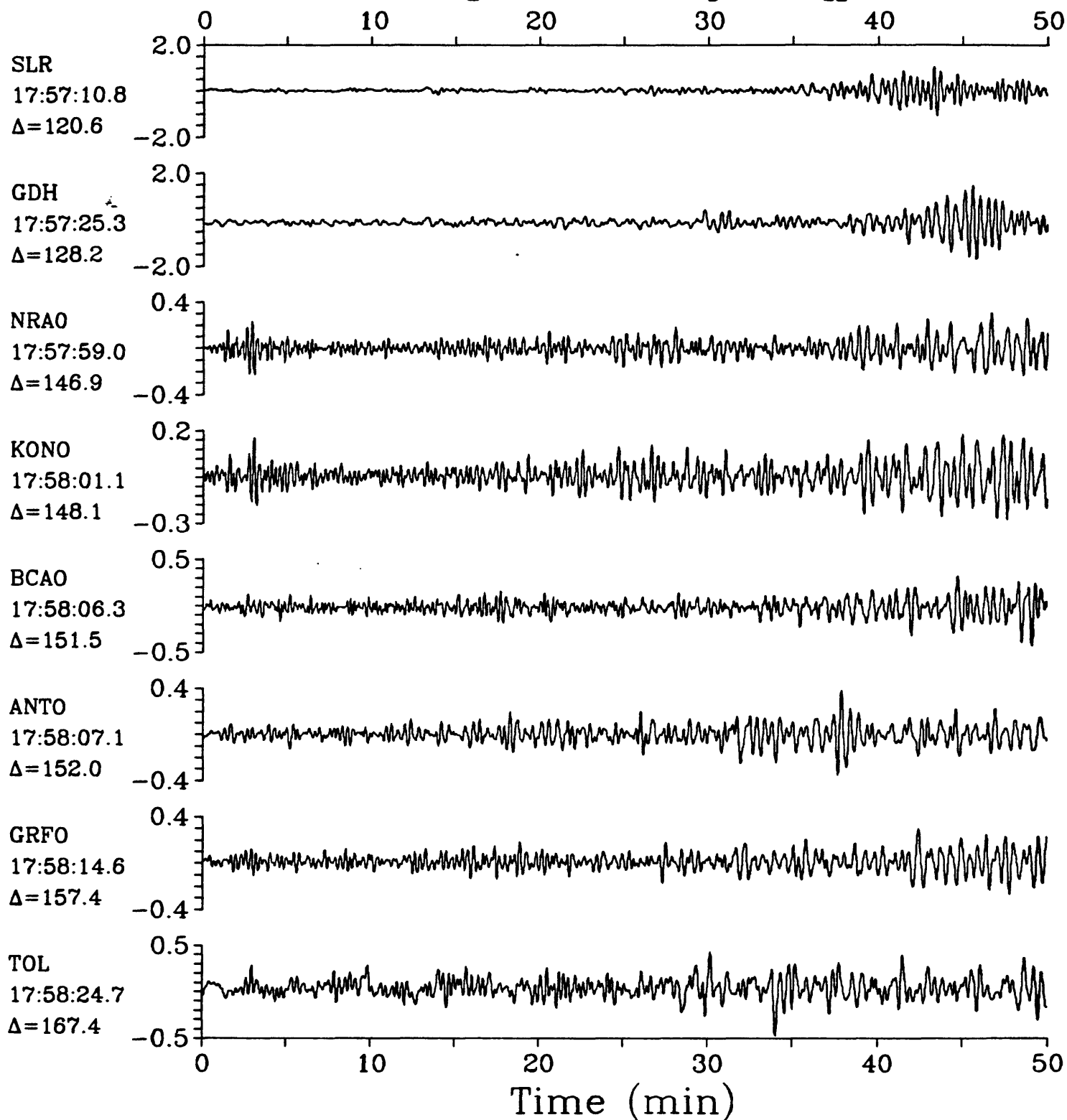
Kermadec Islands Region  $h=33.0$   $m_b=5.4$   $M_{sz}=5.7$ 



LPZ

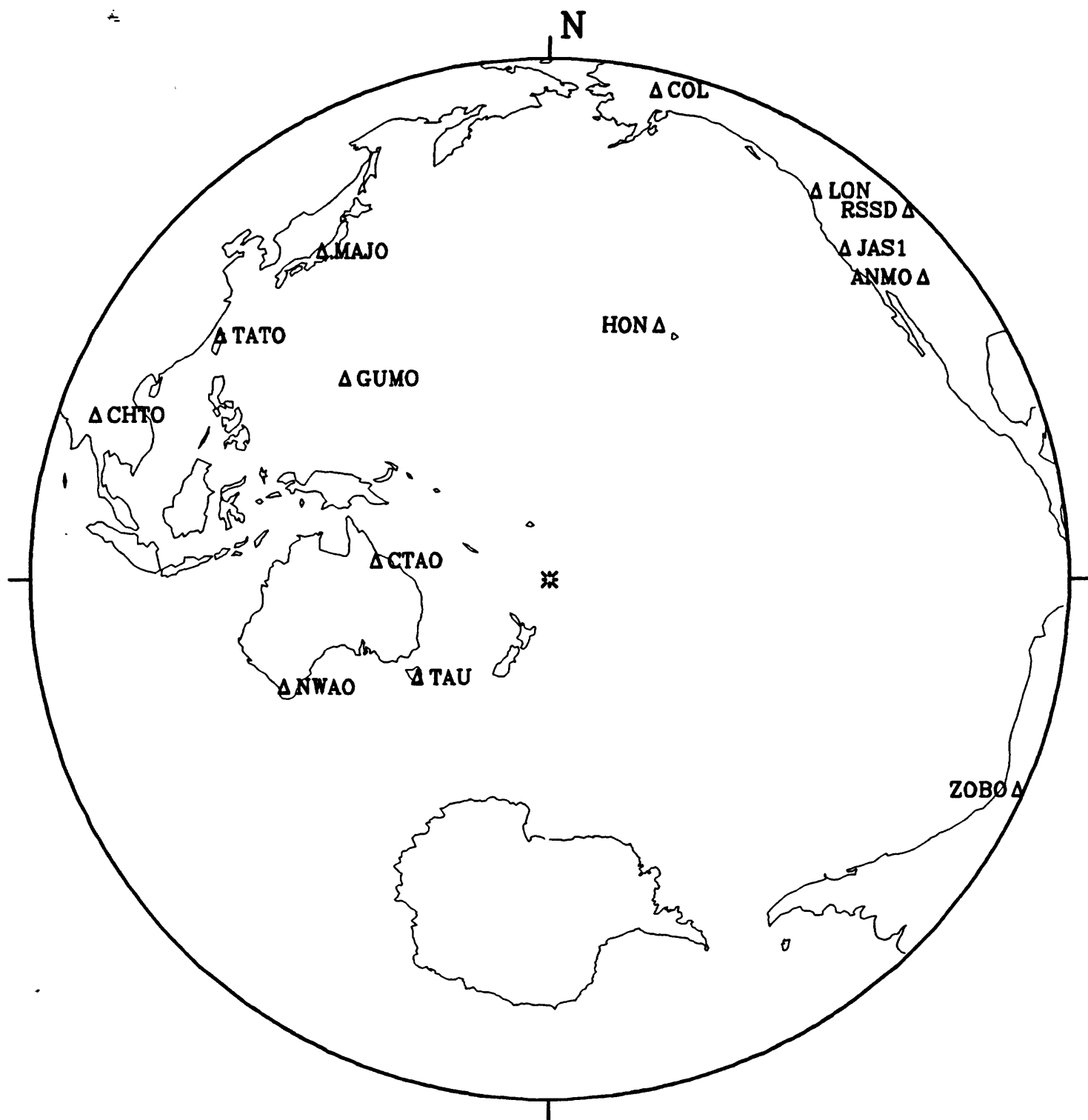
24 June 1986 17:39:21.74

LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.4$   $M_{sz}=5.7$ 

24 June 1986 19:31:09.64

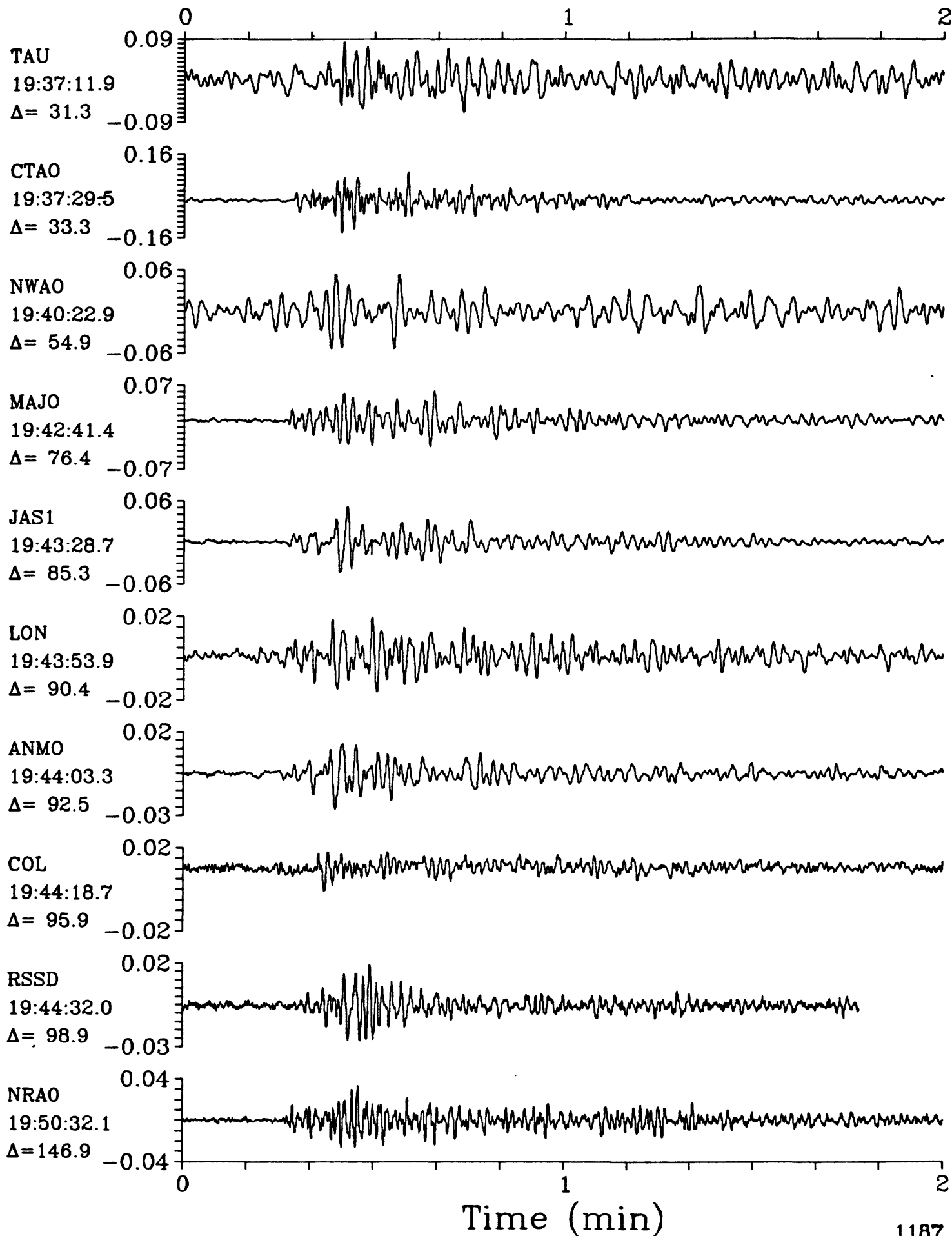
## Kermadec Islands Region



SPZ

24 June 1986 19:31:09.64

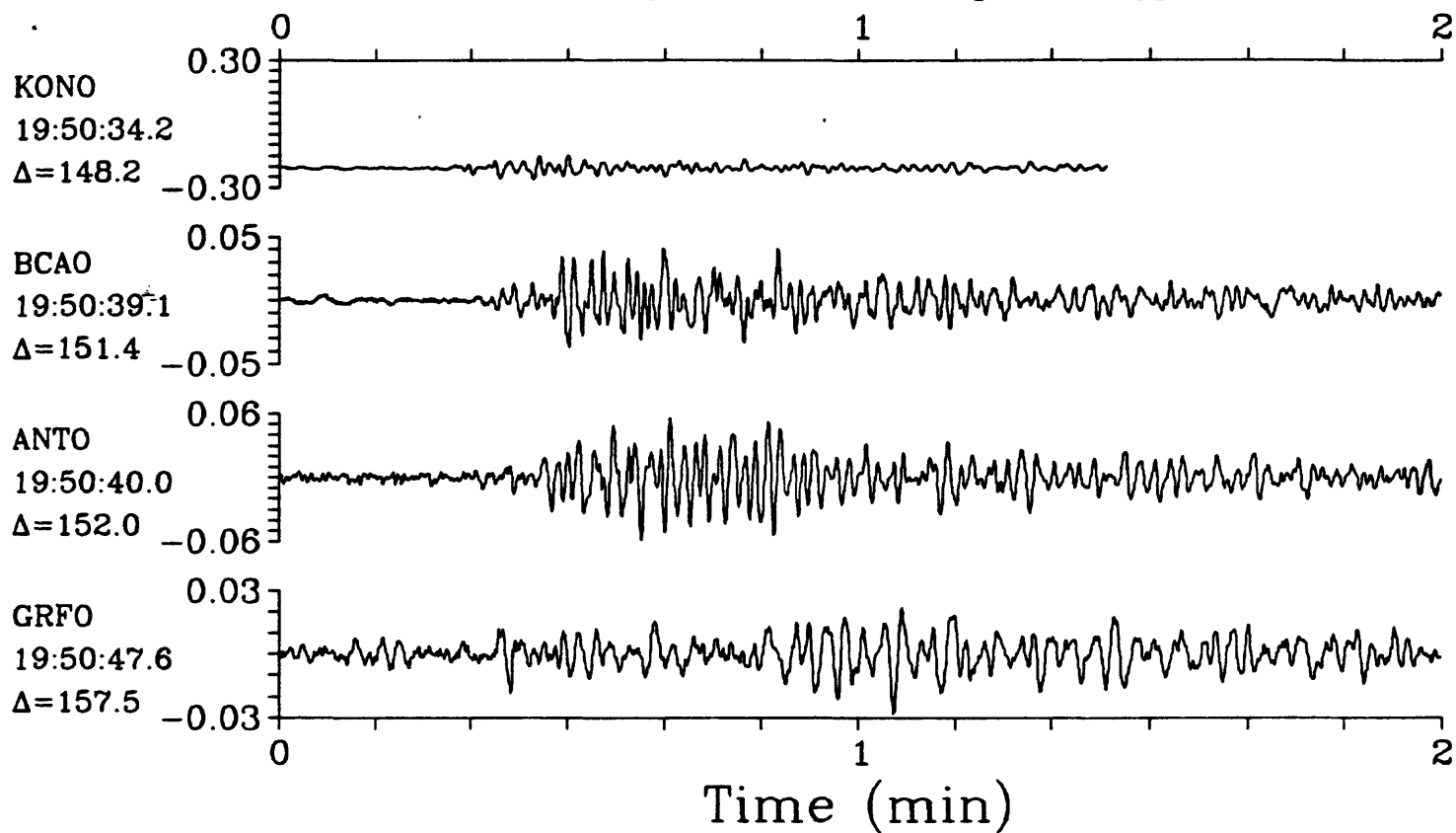
SPZ

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

SPZ

24 June 1986 19:31:09.64

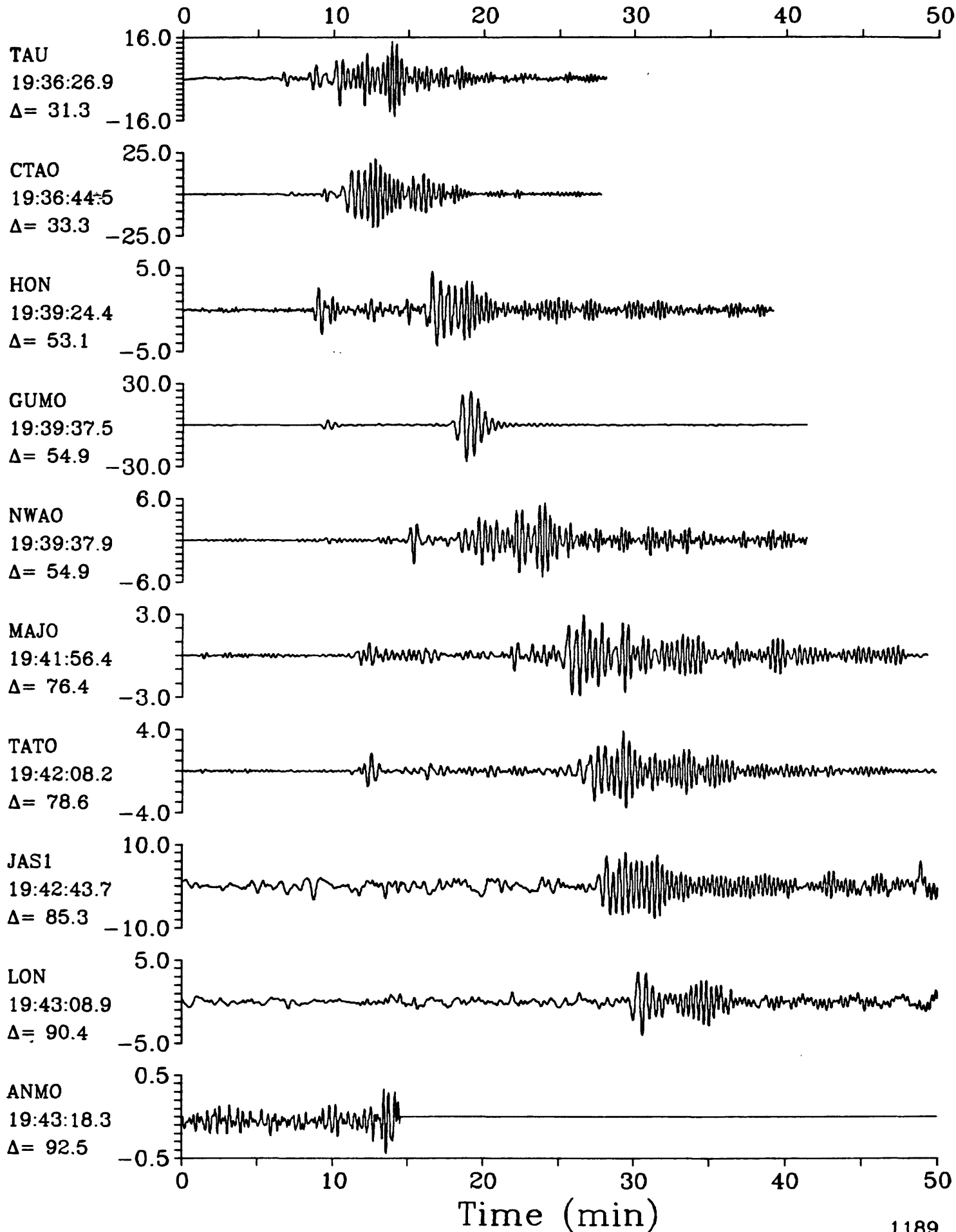
SPZ

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

LPZ

24 June 1986 19:31:09.64

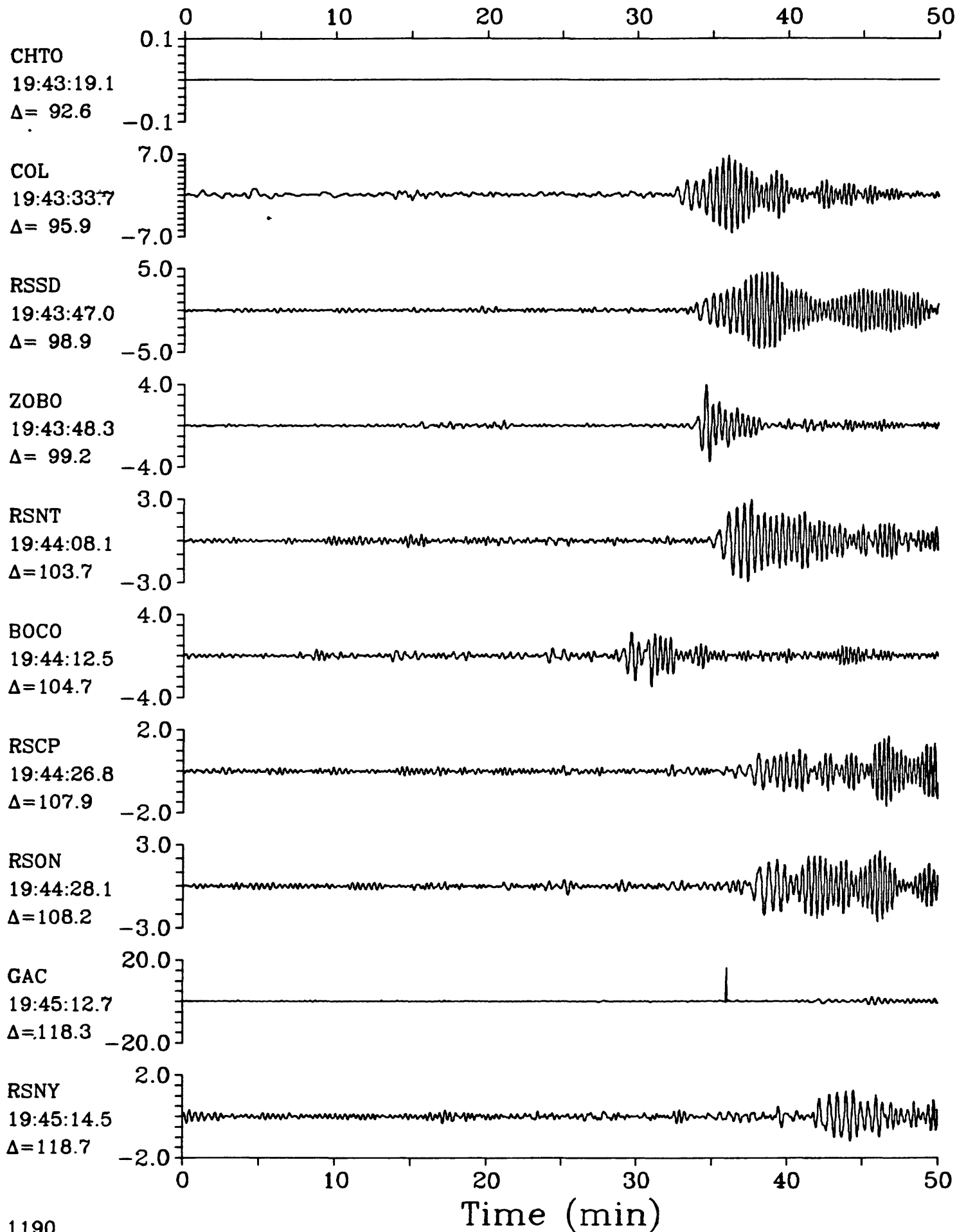
LPZ

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

LPZ

24 June 1986 19:31:09.64

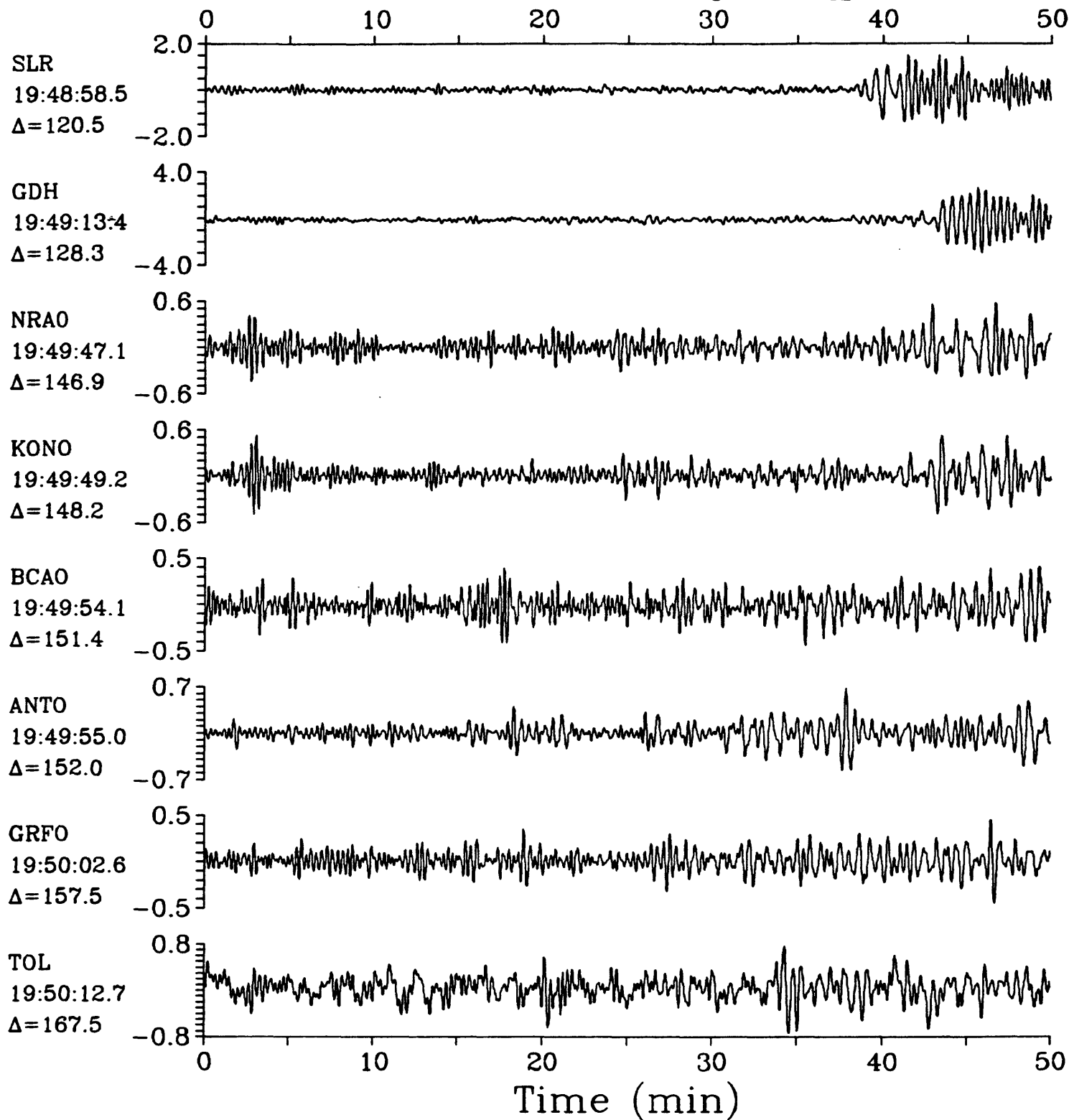
LPZ

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

LPZ

24 June 1986 19:31:09.64

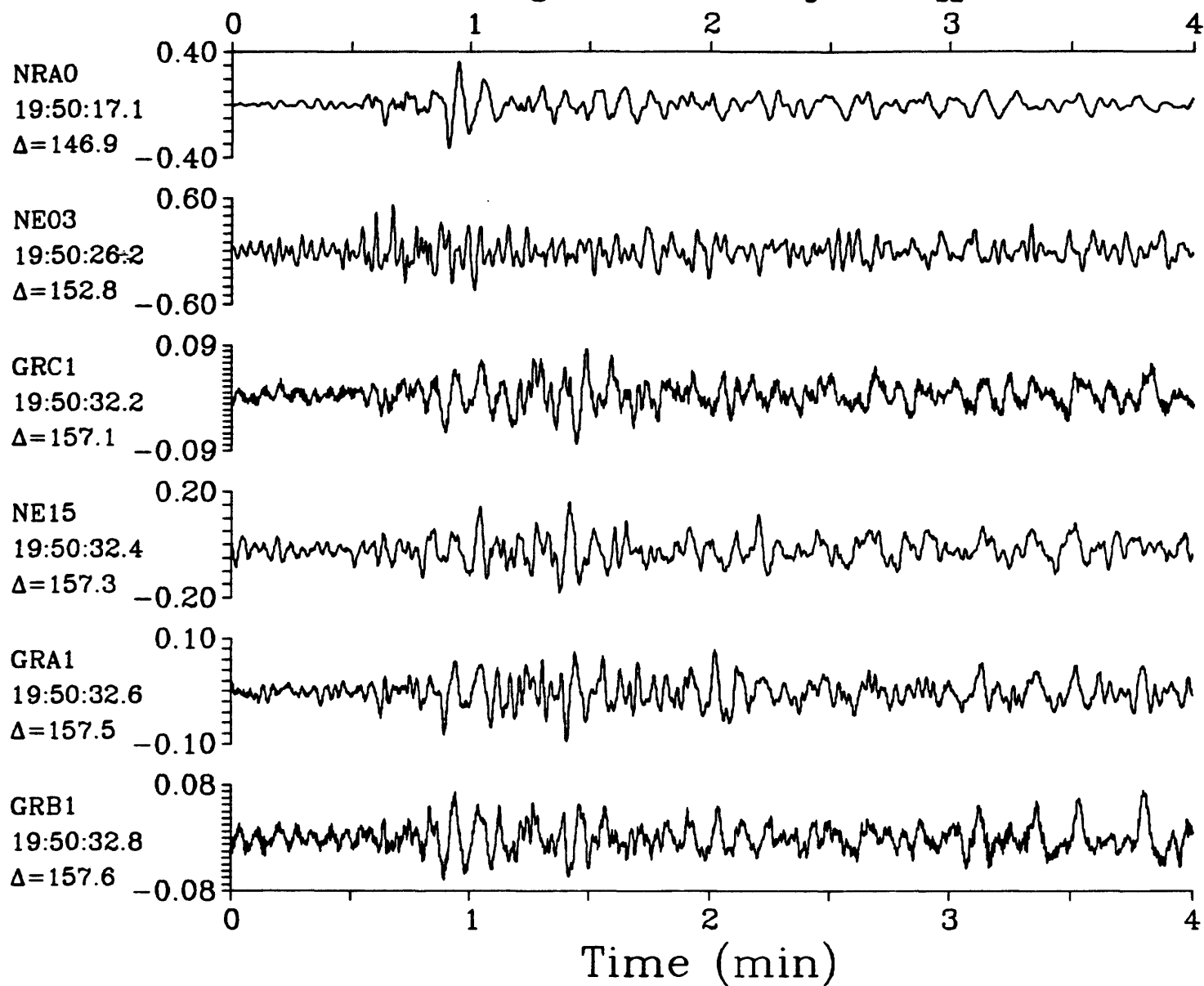
LPZ

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

IPZ

24 June 1986 19:31:09.64

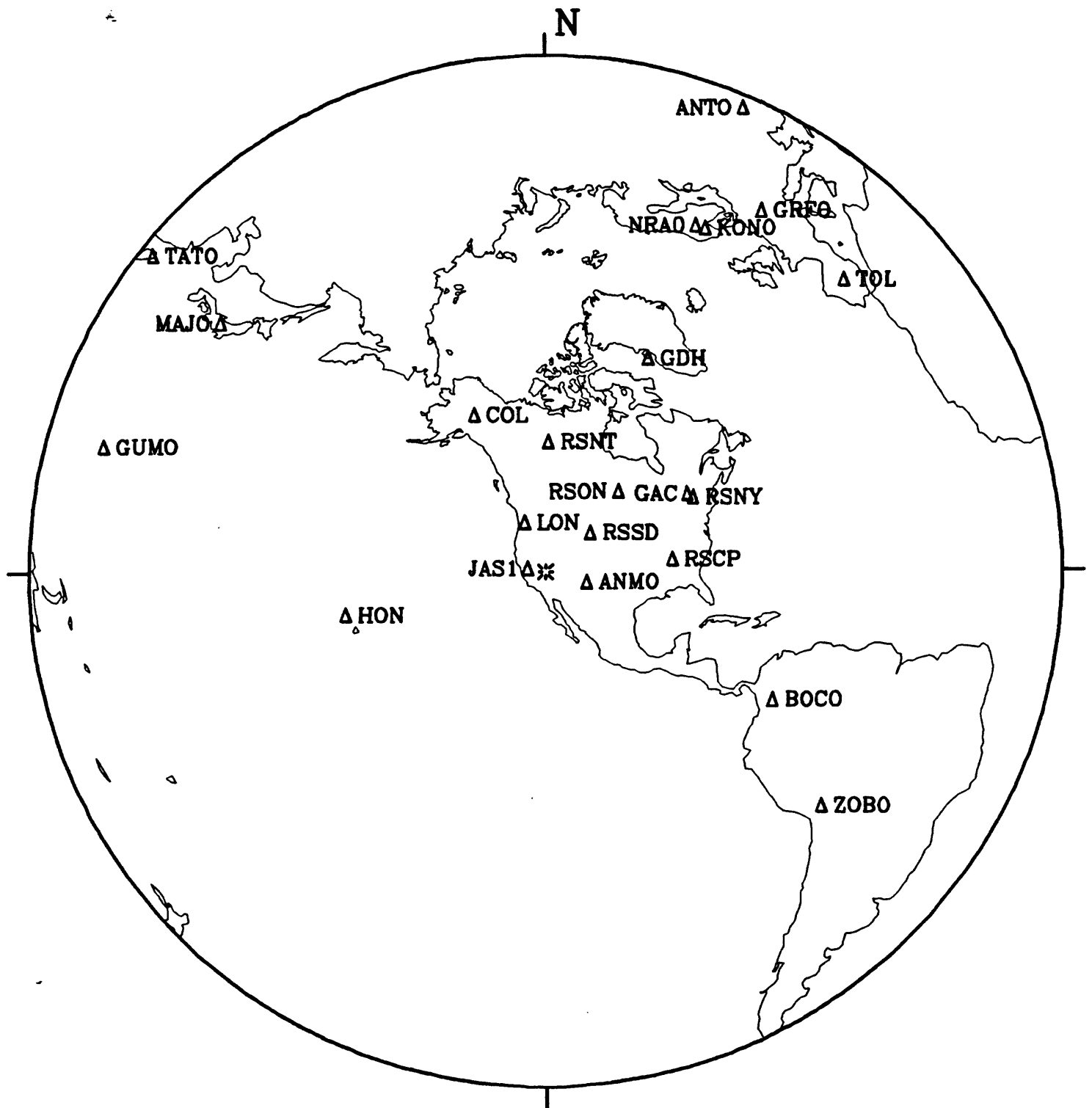
IPZ

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



25 June 1986 20:27:45.10

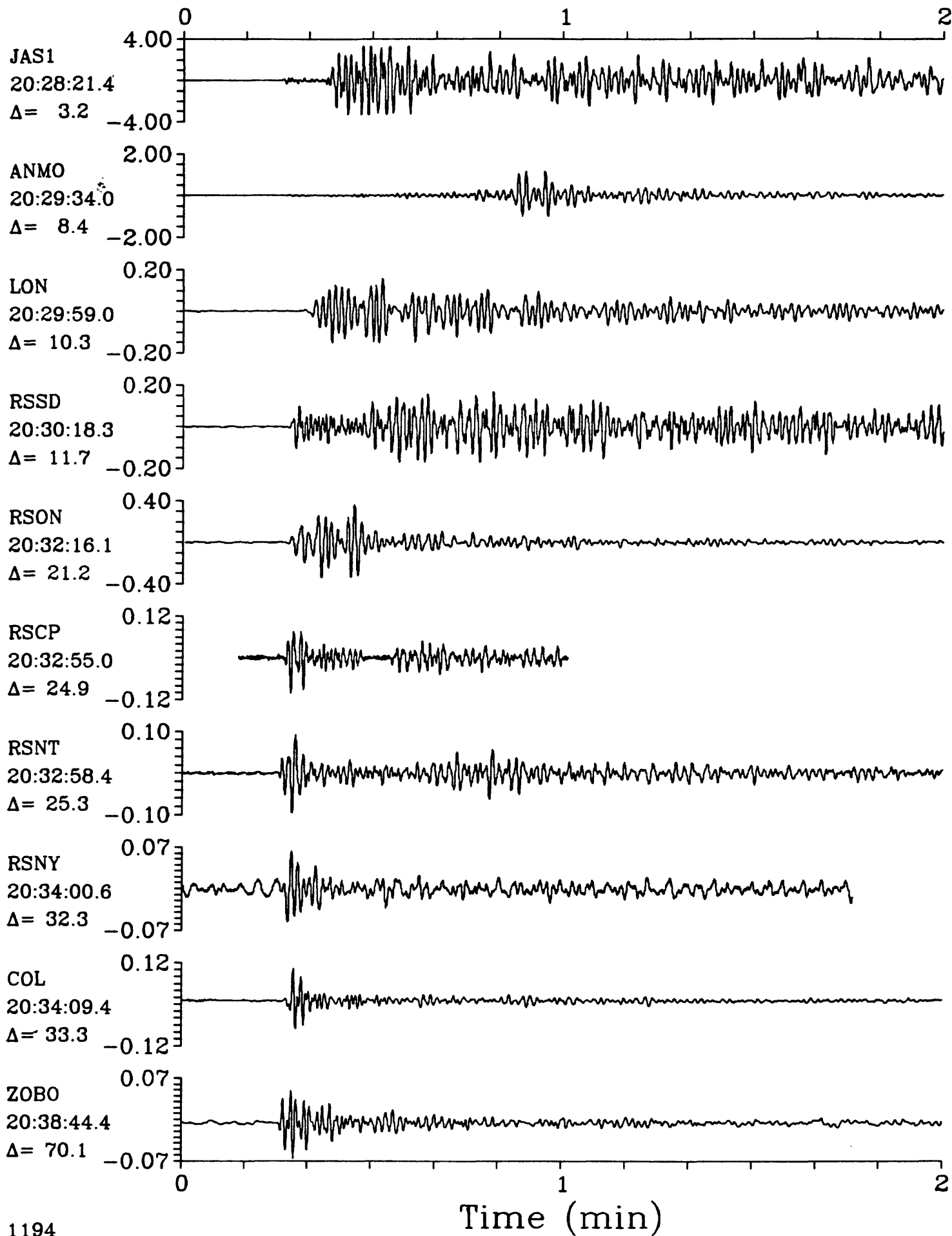
## Southern Nevada



SPZ

25 June 1986 20:27:45.10

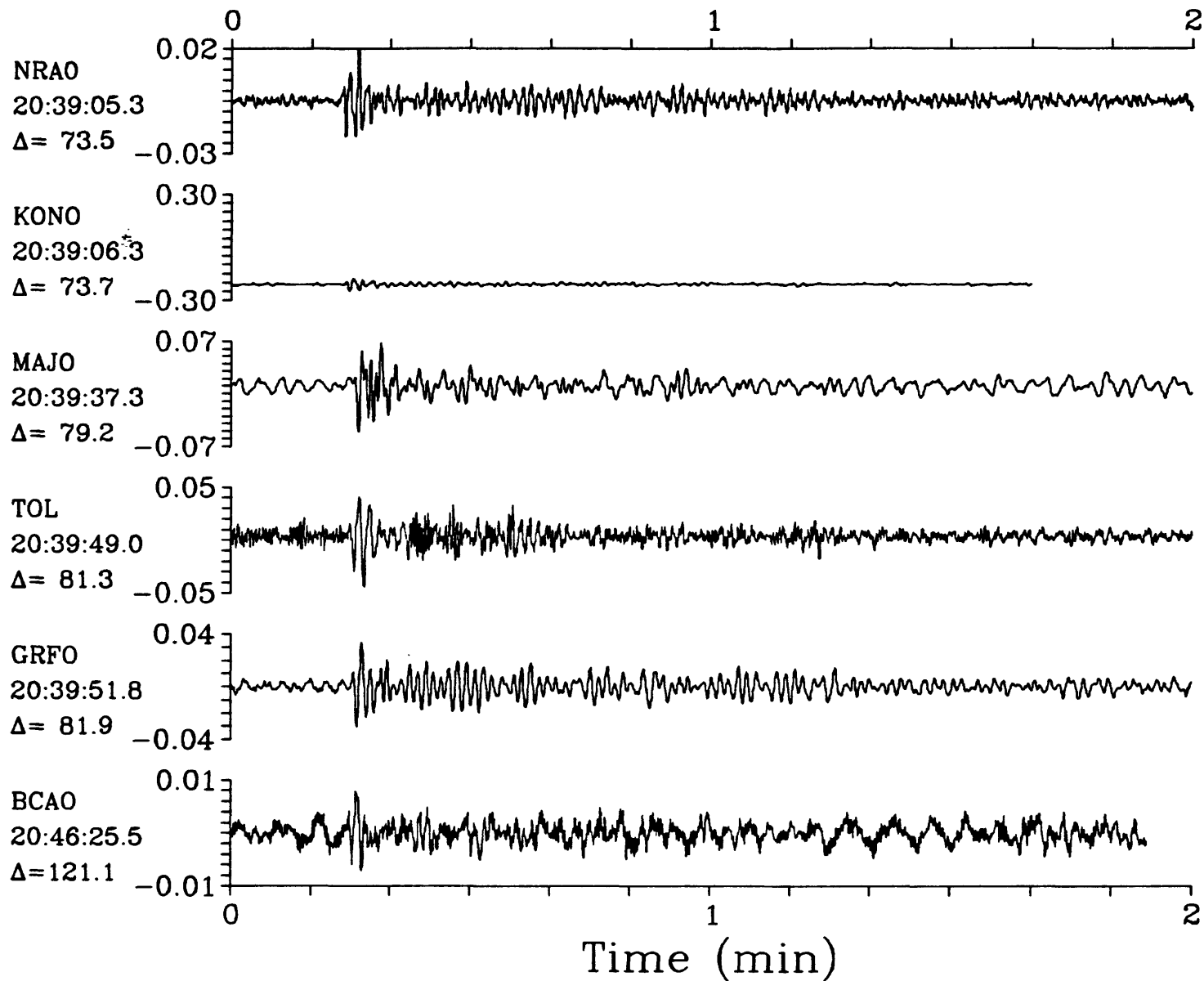
SPZ

Southern Nevada  $h=0.0$   $m_b=5.5$   $M_{sz}=4.2$ 

SPZ

25 June 1986 20:27:45.10

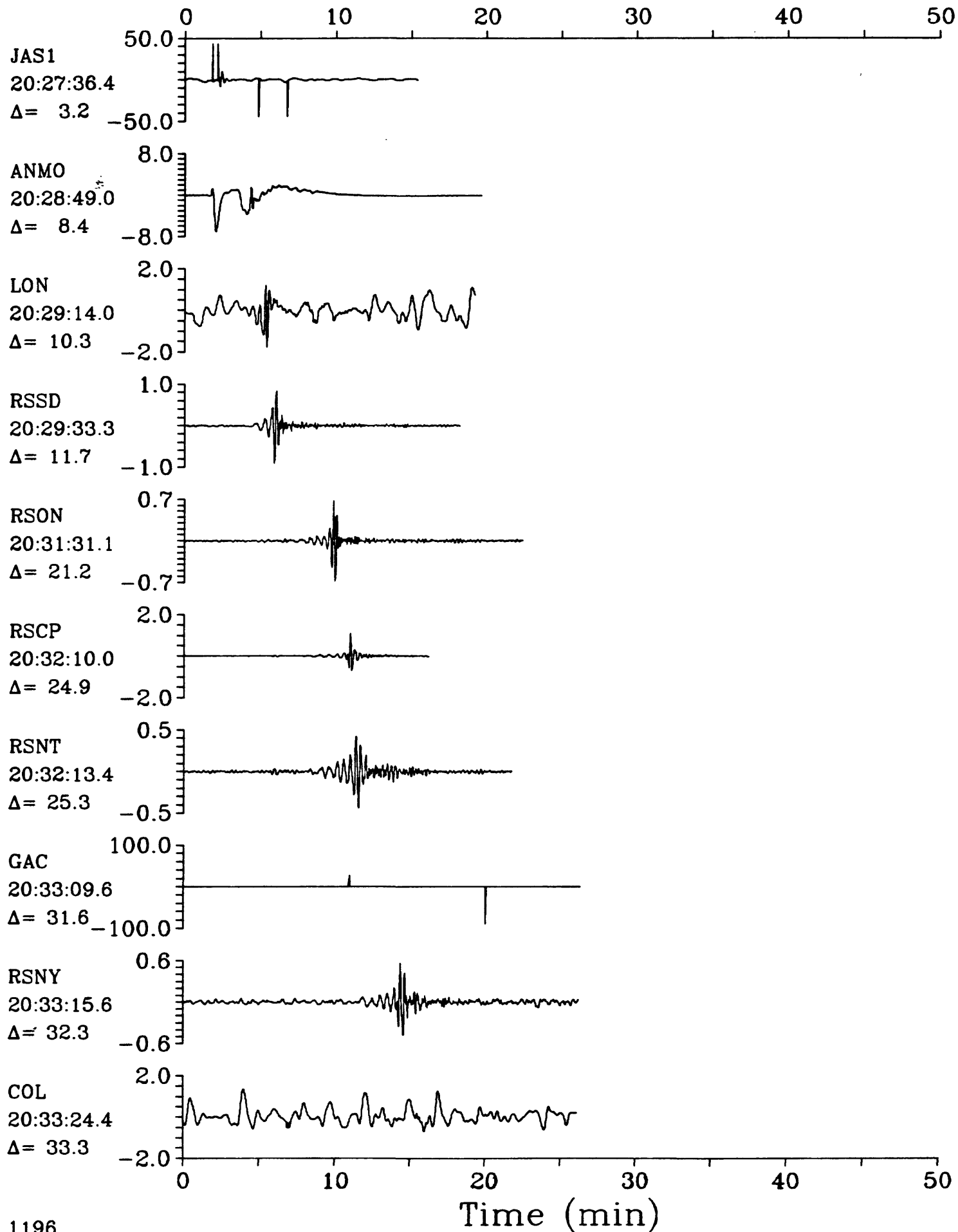
SPZ

Southern Nevada  $h=0.0$   $m_b=5.5$   $M_{sz}=4.2$ 

LPZ

25 June 1986 20:27:45.10

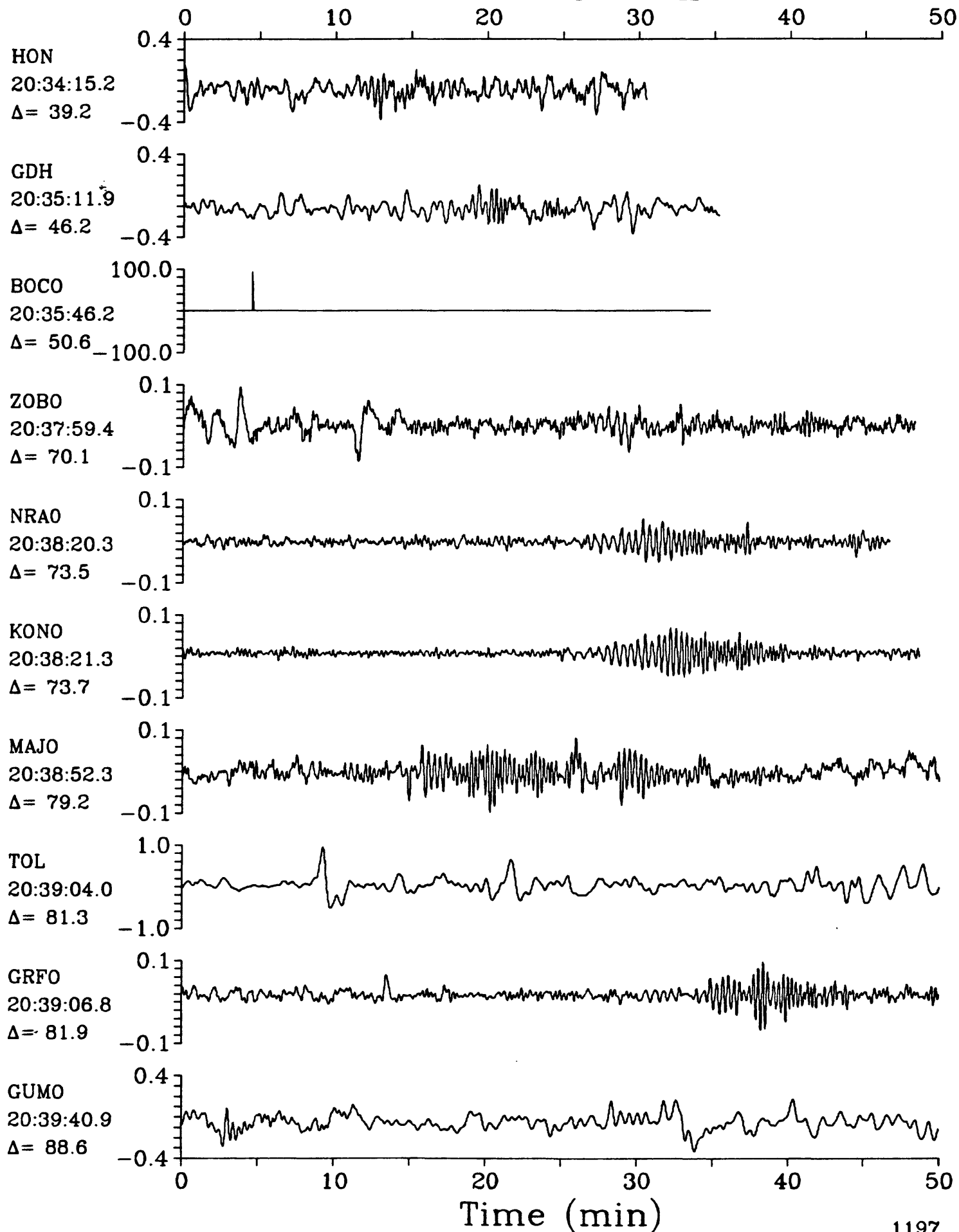
LPZ

Southern Nevada  $h=0.0$   $m_b=5.5$   $M_{sz}=4.2$ 

LPZ

25 June 1986 20:27:45.10

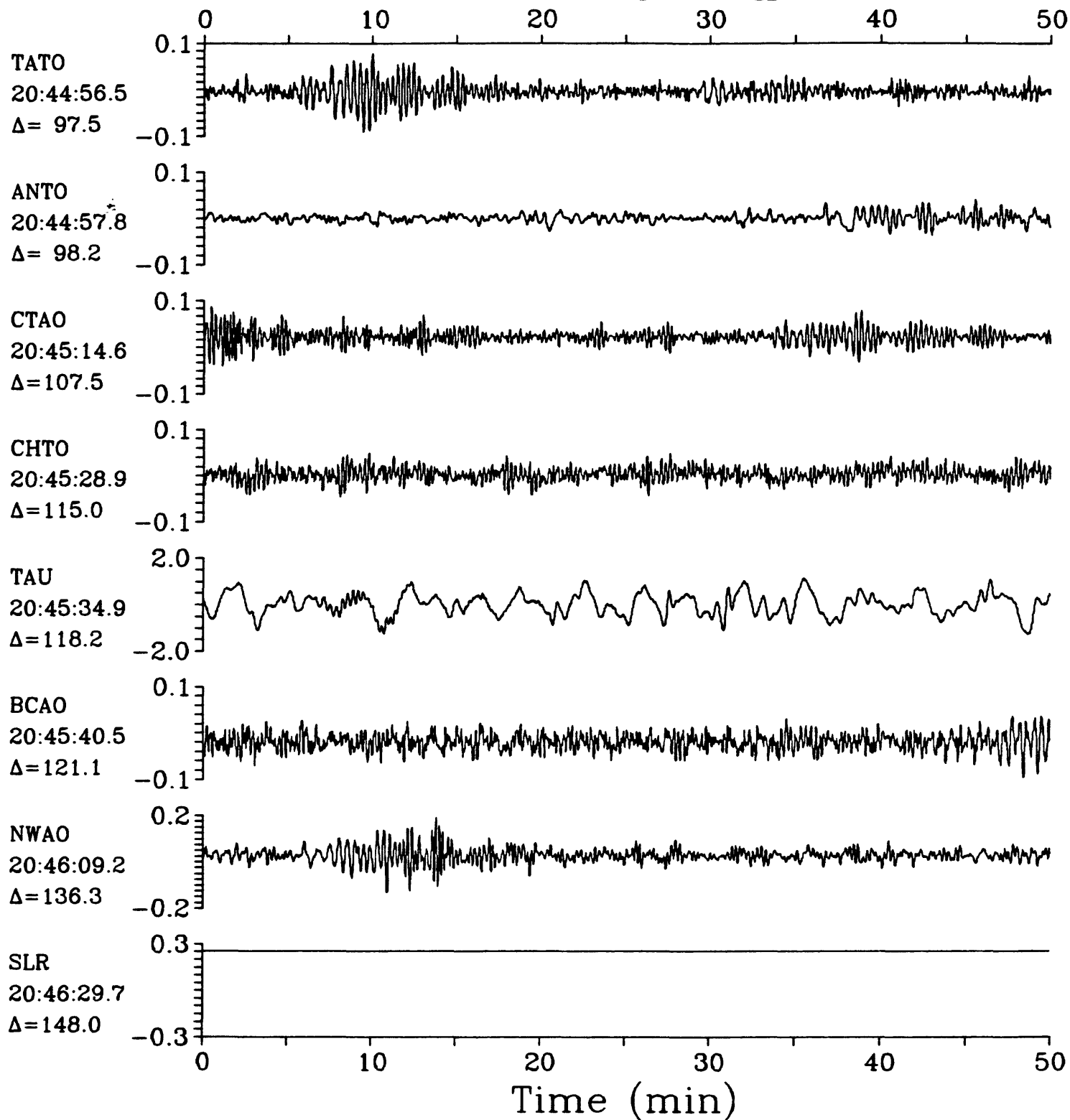
LPZ

Southern Nevada  $h=0.0$   $m_b=5.5$   $M_{sz}=4.2$ 

LPZ

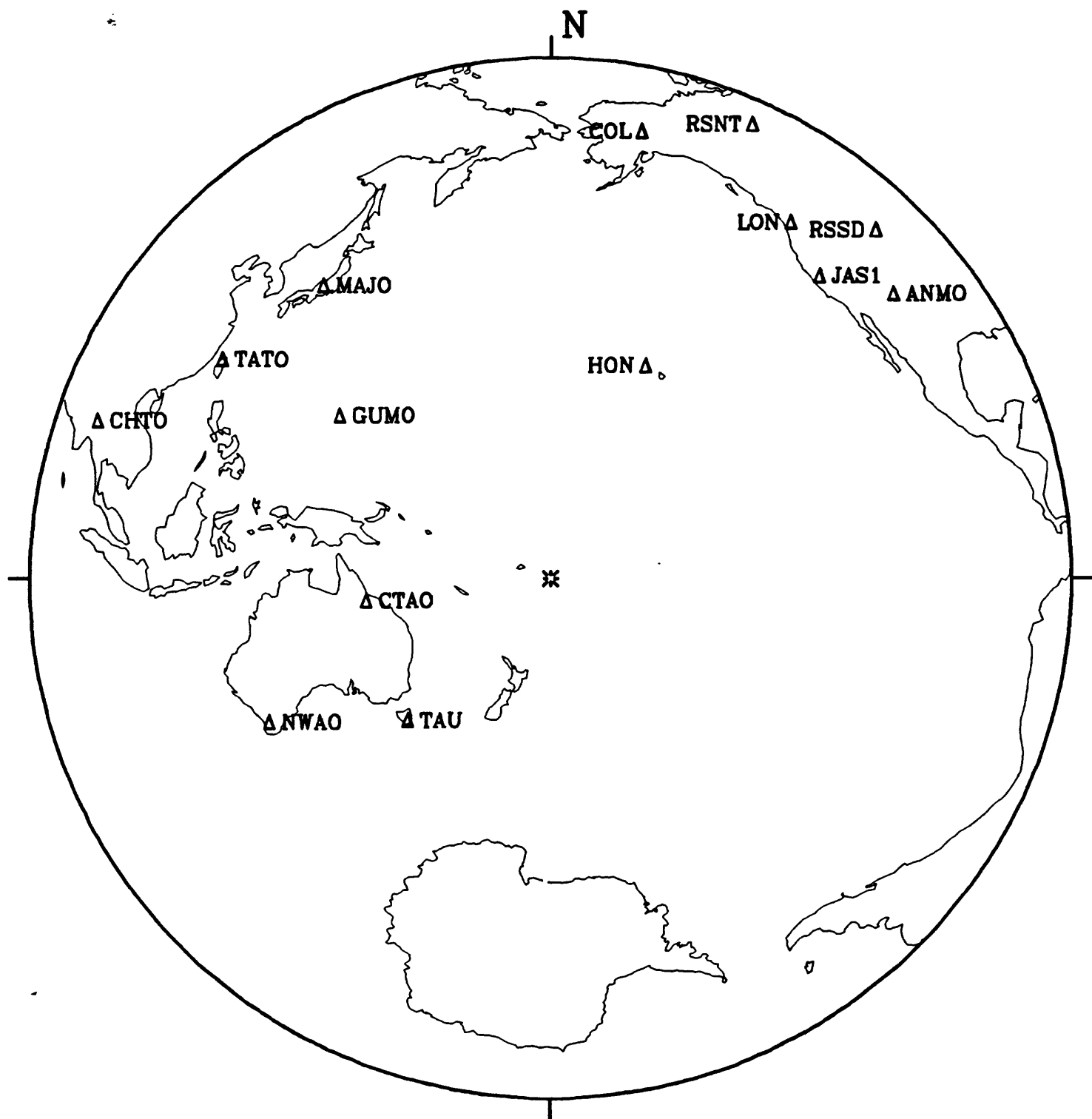
25 June 1986 20:27:45.10

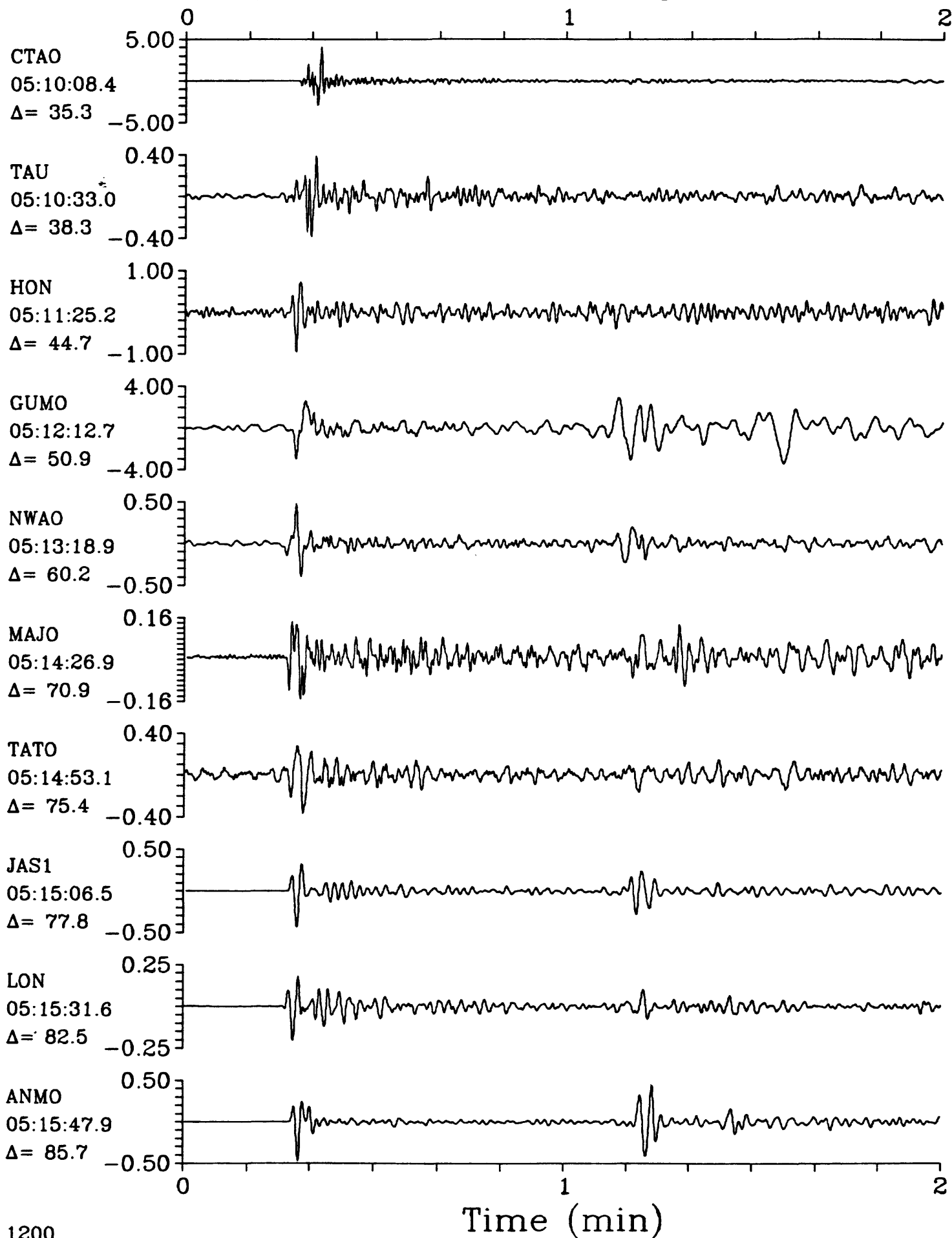
LPZ

Southern Nevada  $h=0.0$   $m_b=5.5$   $M_{sz}=4.2$ 

28 June 1986 05:03:52.01

## Fiji Islands Region



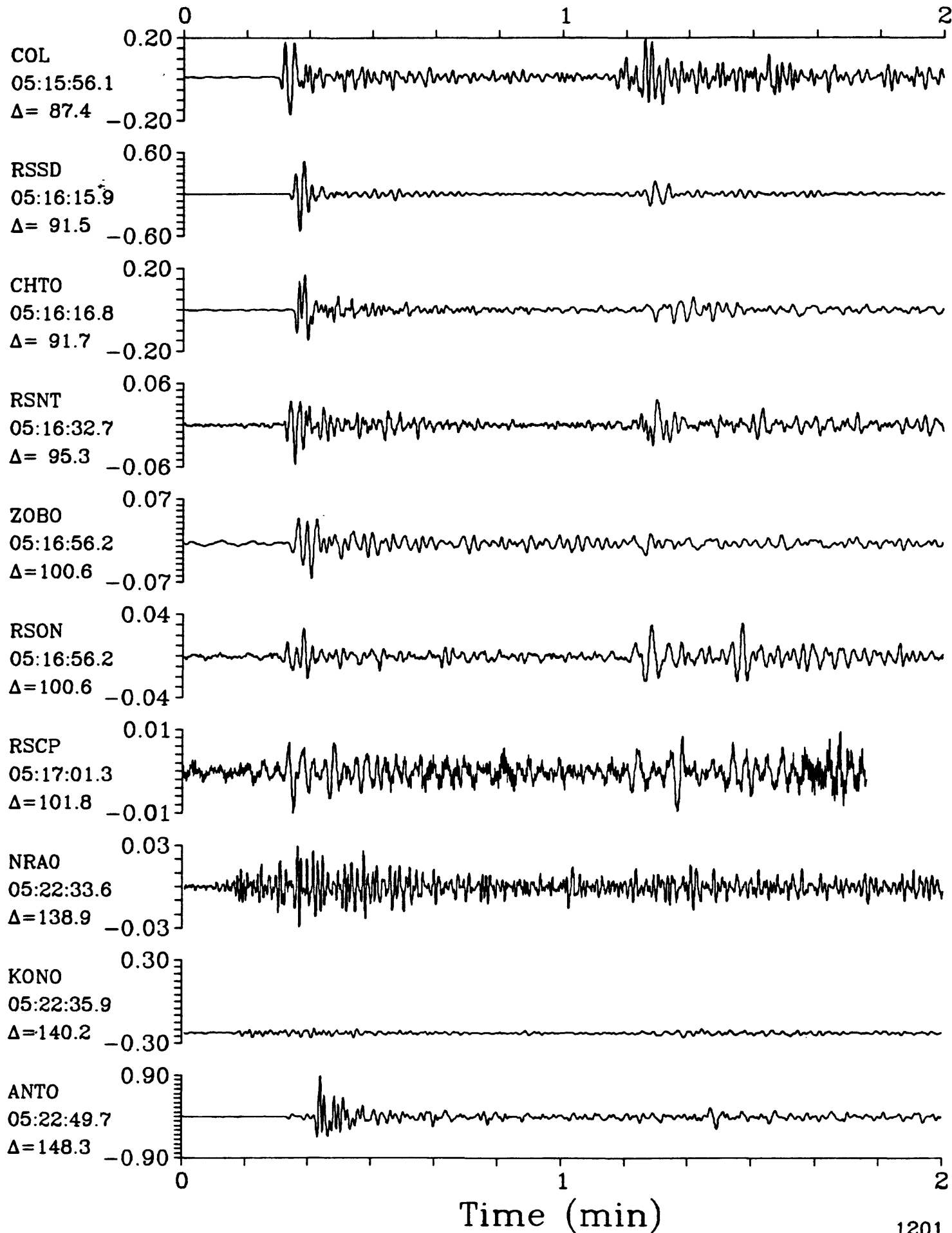




SPZ

28 June 1986 05:03:52.01

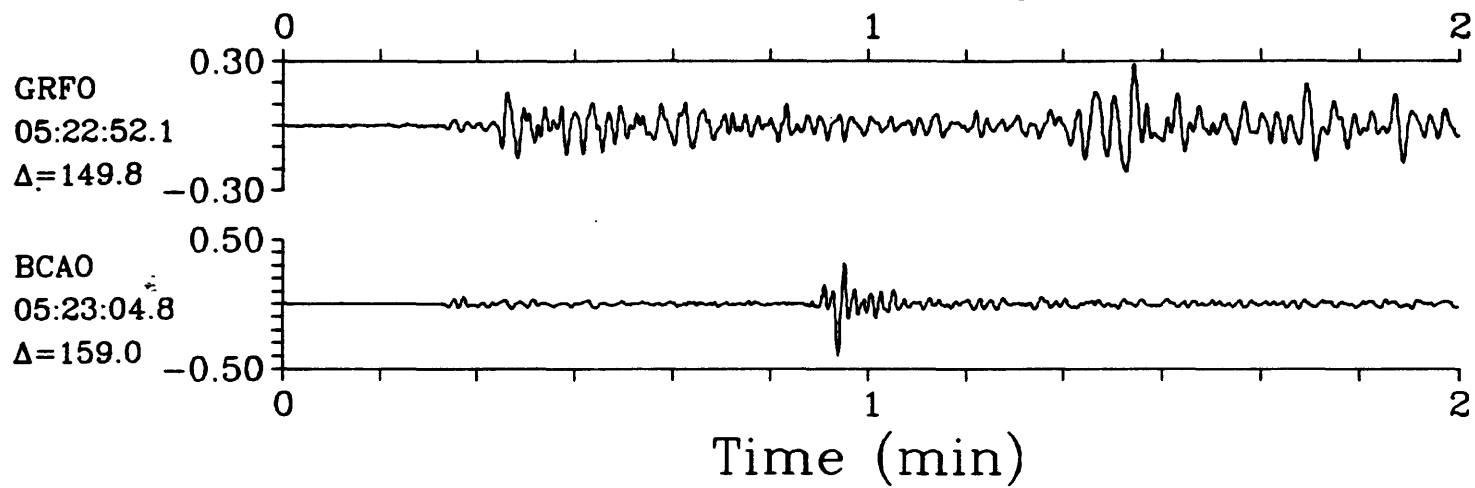
SPZ

Fiji Islands Region  $h=249.9$   $m_b=6.1$ 

SPZ

28 June 1986 05:03:52.01  
Fiji Islands Region  $h=249.9$   $m_b=6.1$

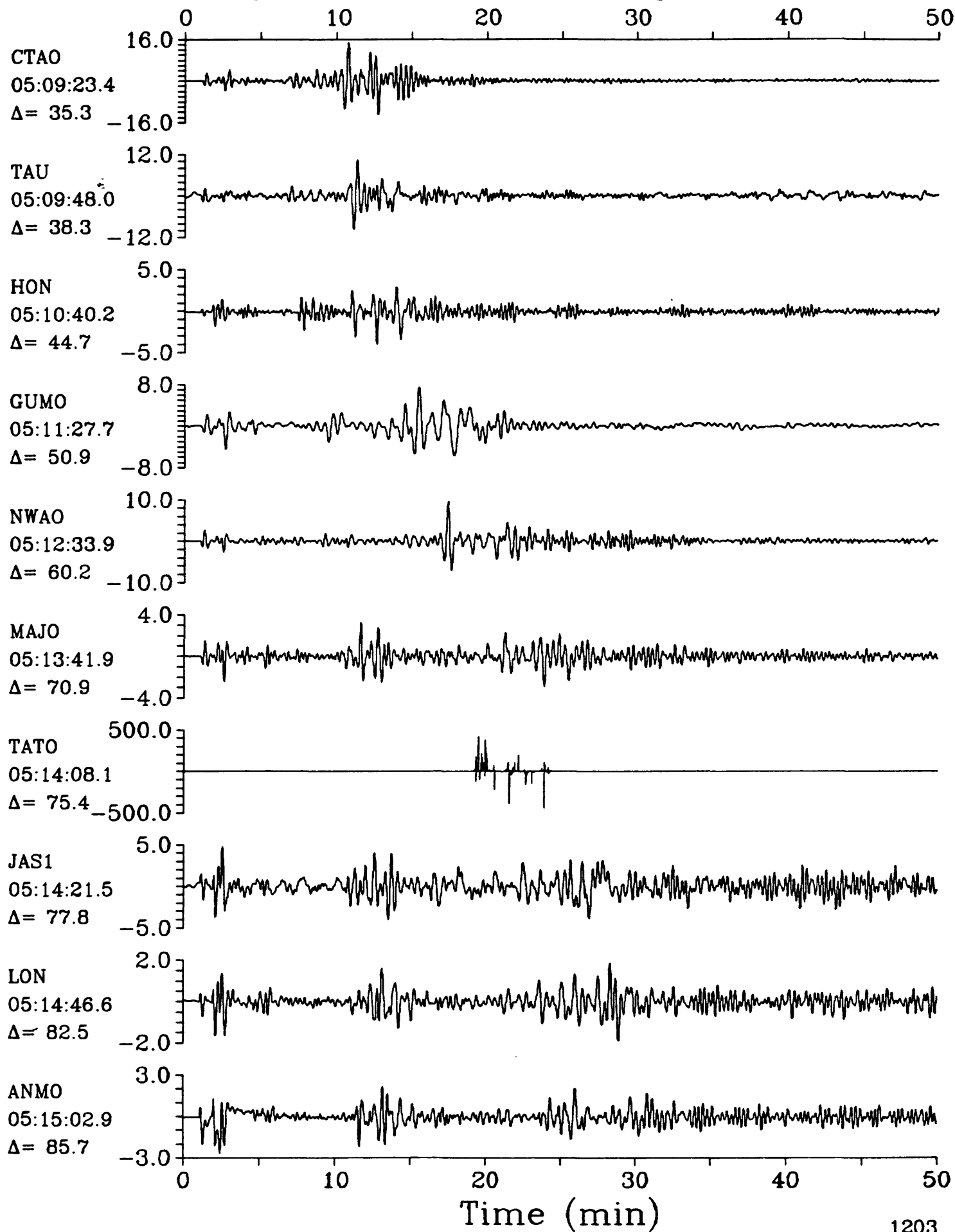
SPZ



LPZ

28 June 1986 05:03:52.01  
Fiji Islands Region  $h=249.9$   $m_b=6.1$ 

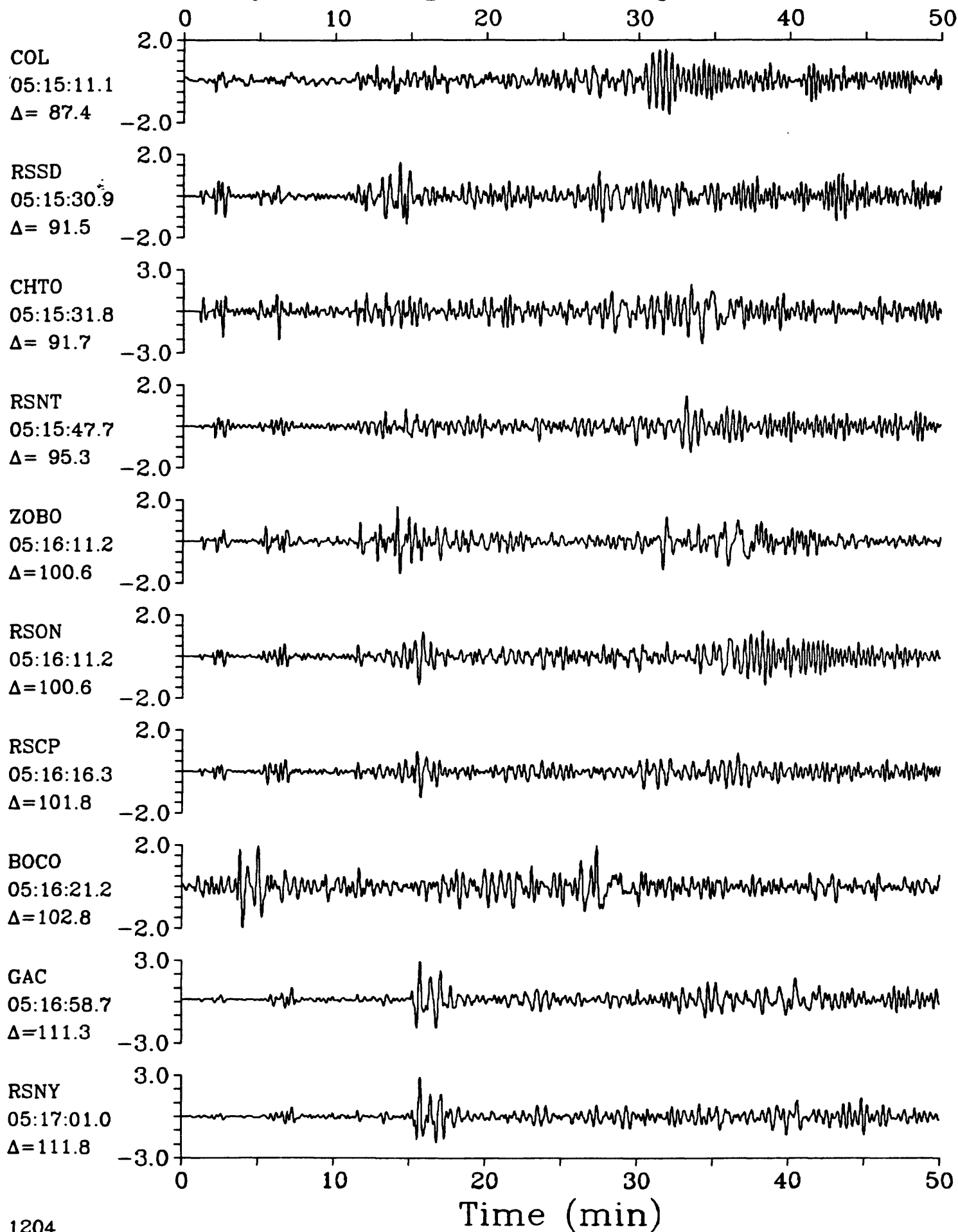
LPZ



LPZ

28 June 1986 05:03:52.01

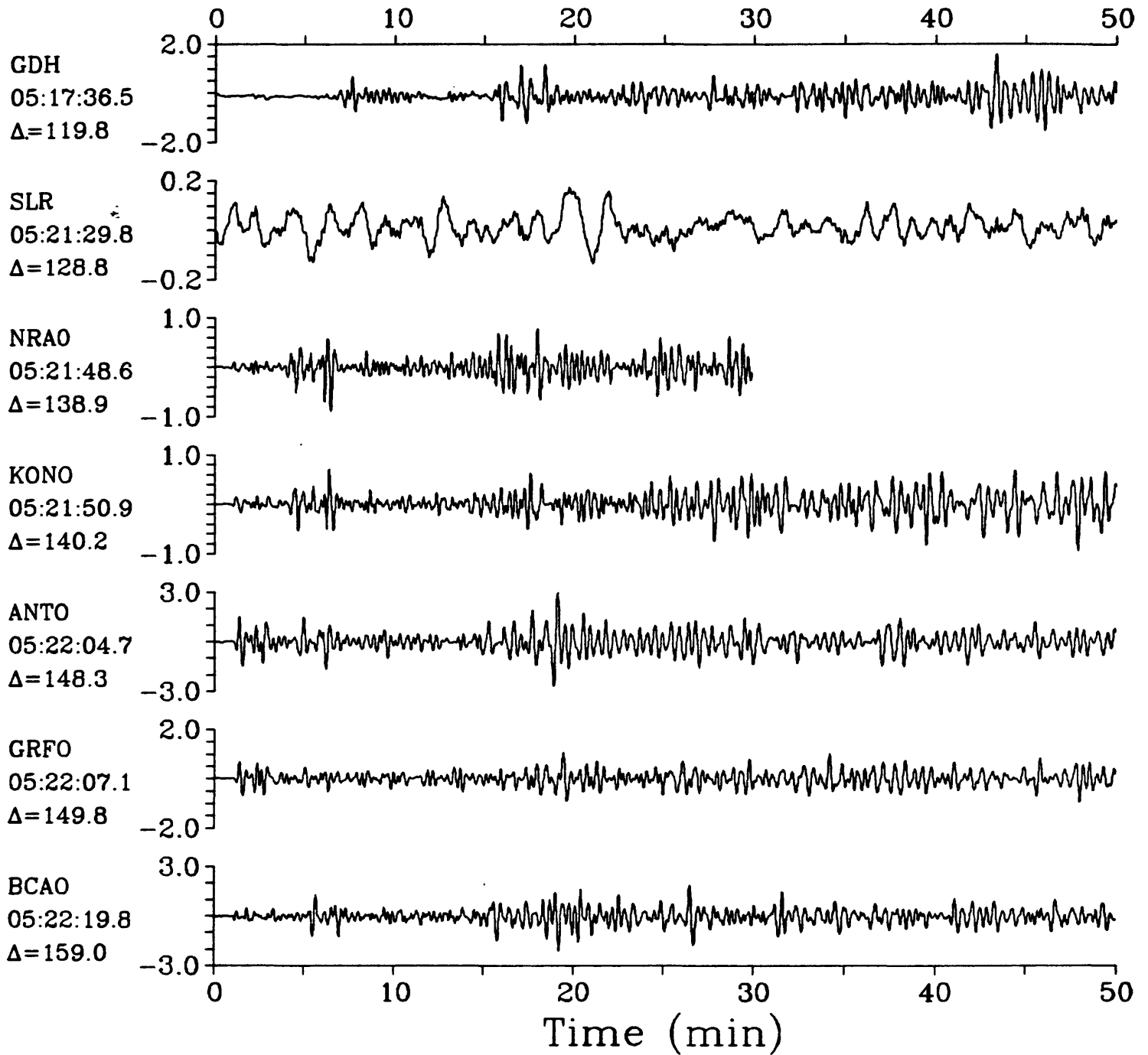
LPZ

Fiji Islands Region  $h=249.9$   $m_b=6.1$ 

LPZ

28 June 1986 05:03:52.01

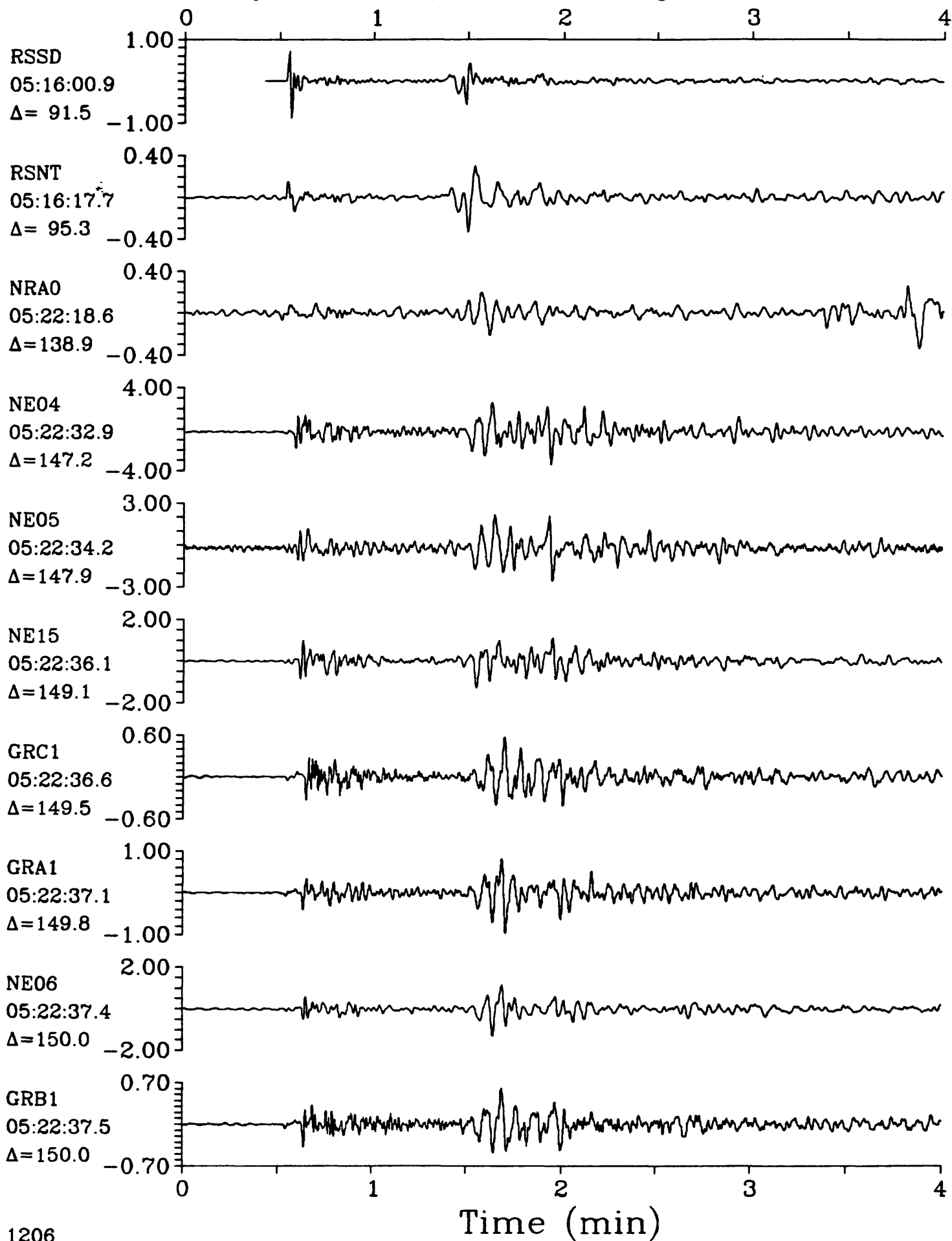
LPZ

Fiji Islands Region  $h=249.9$   $m_b=6.1$ 

IPZ

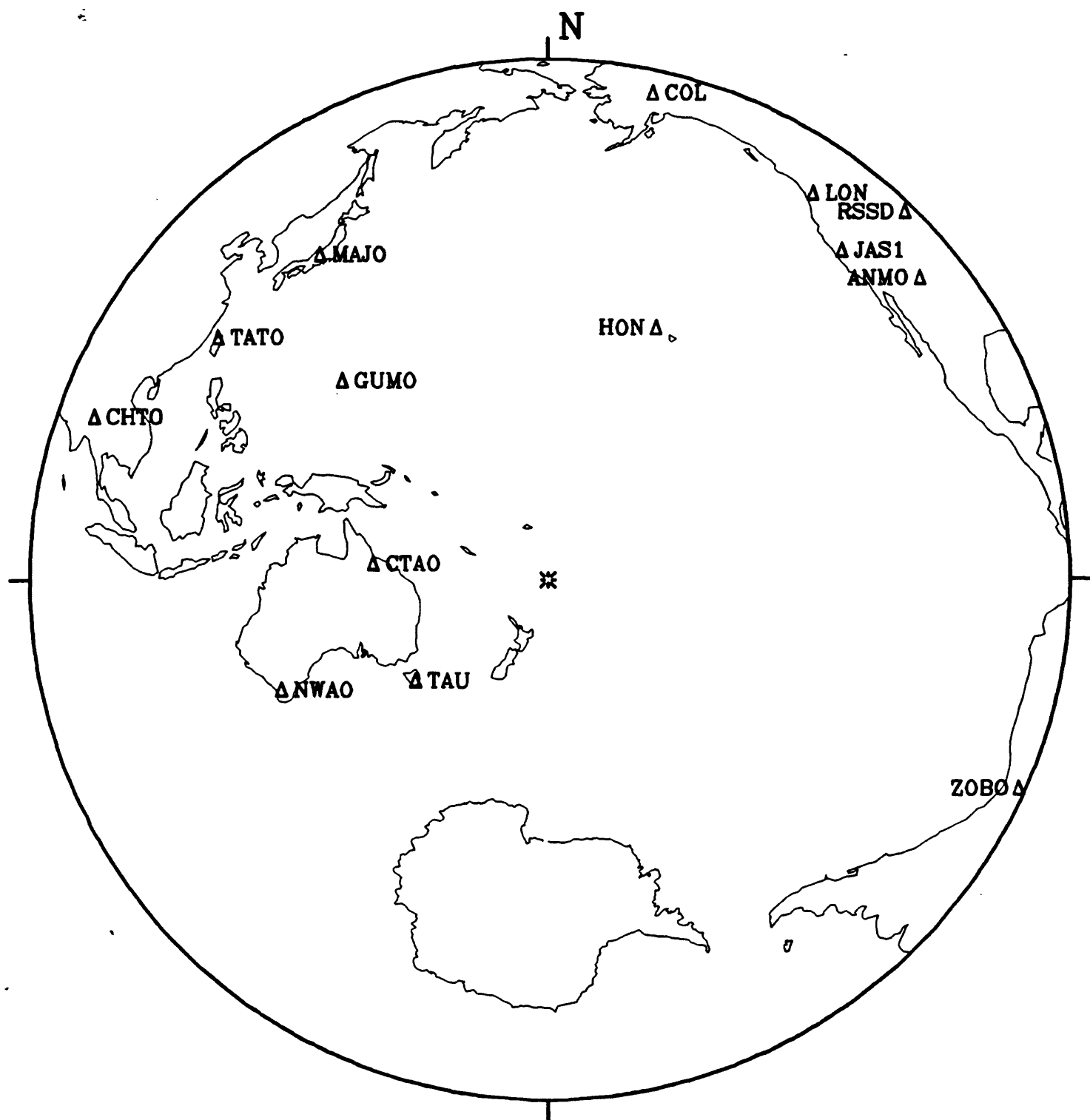
28 June 1986 05:03:52.01  
Fiji Islands Region  $h=249.9$   $m_b=6.1$ 

IPZ



29 June 1986 11:57:46.14

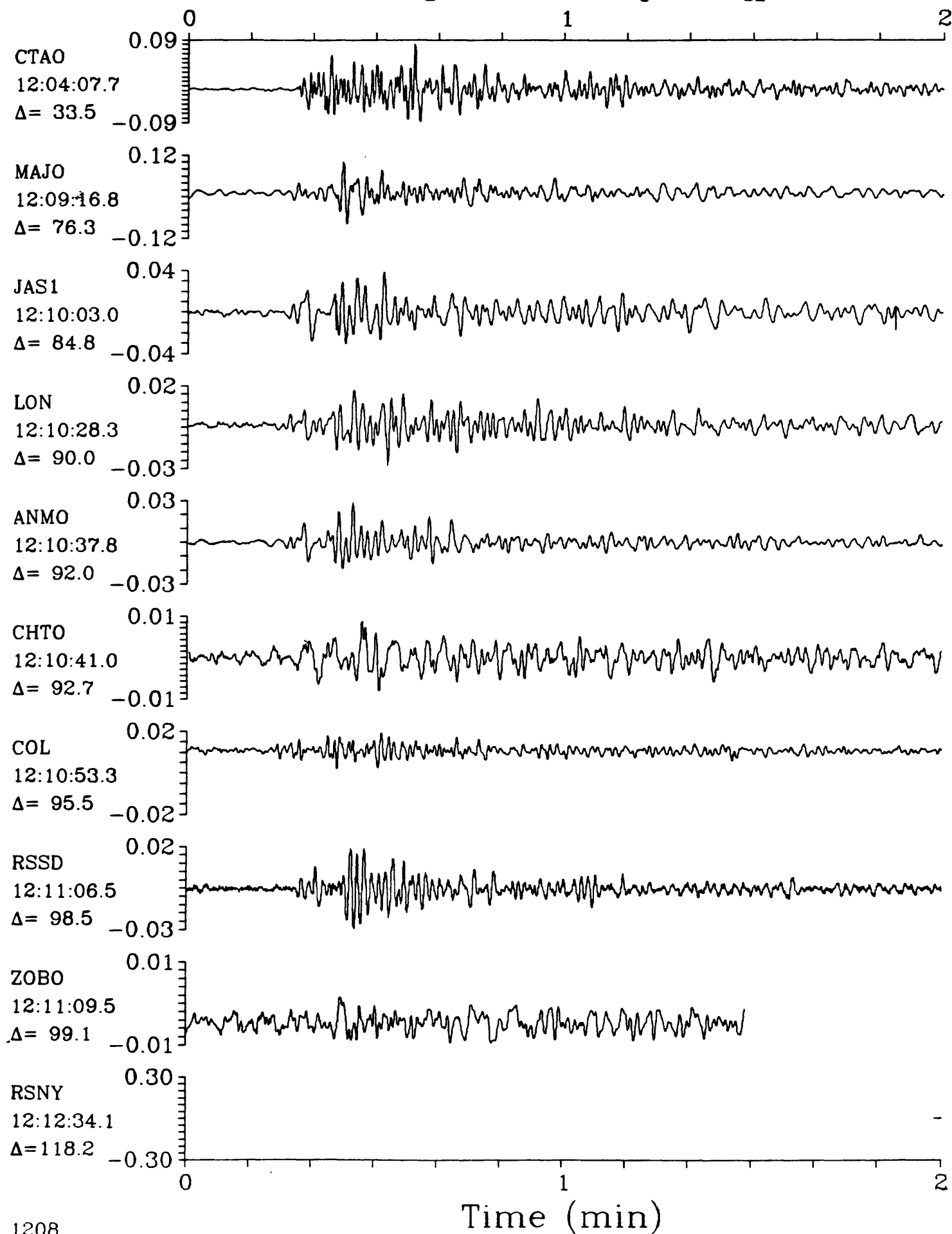
## Kermadec Islands Region



SPZ

29 June 1986 11:57:46.14

SPZ

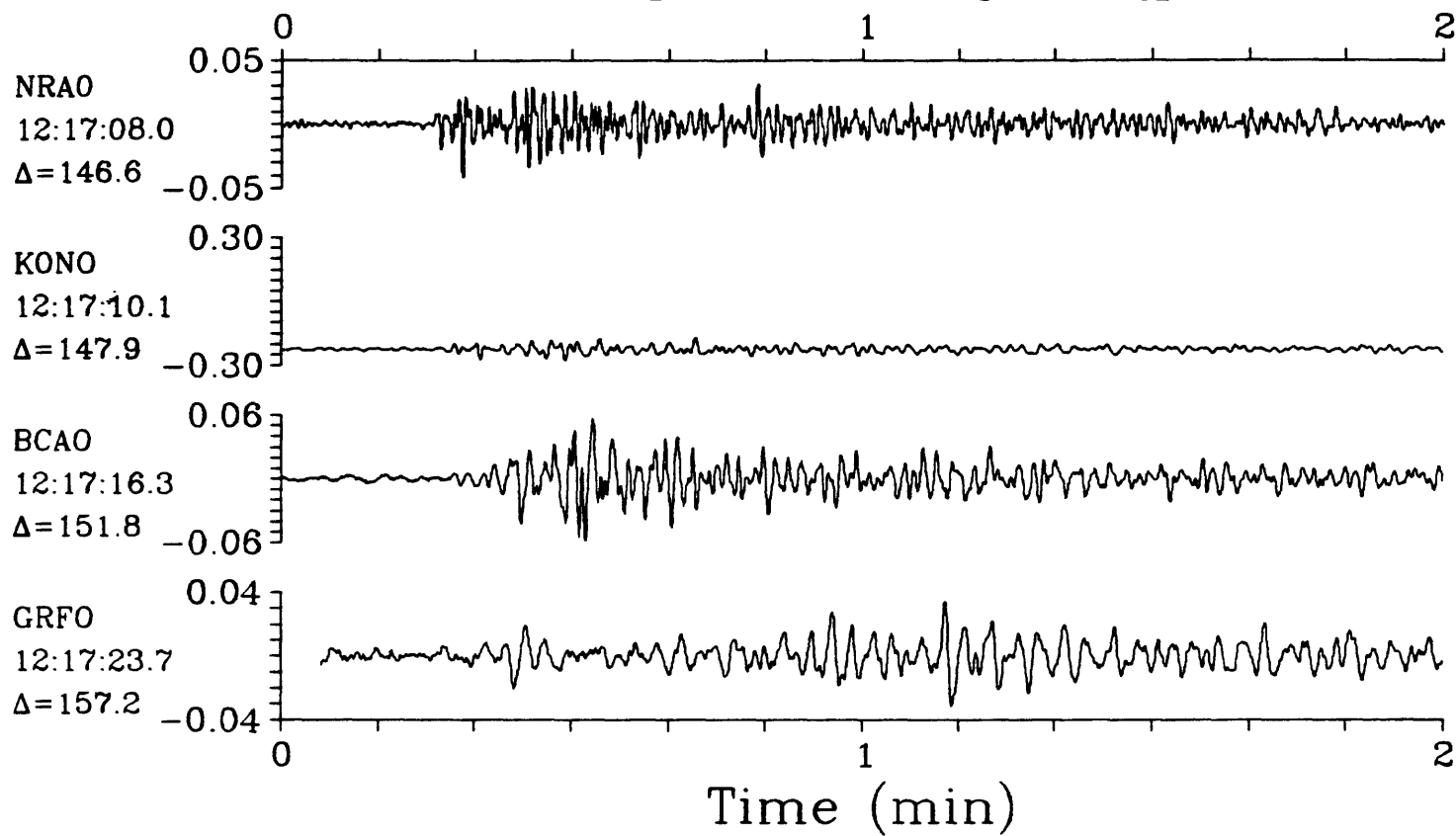
Kermadec Islands Region  $h=33.0$   $m_b=5.5$   $M_{sz}=6.1$ 



SPZ

29 June 1986 11:57:46.14

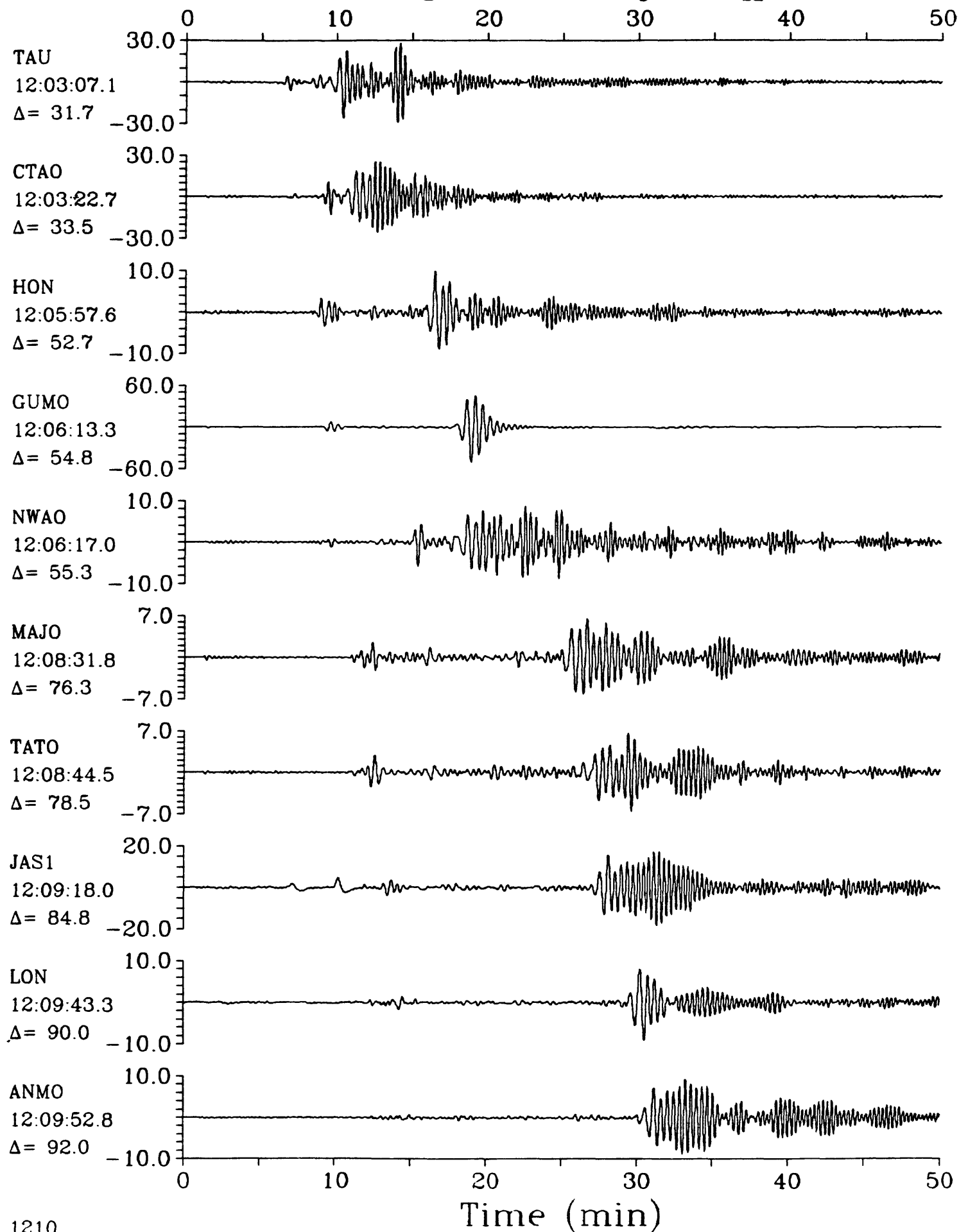
SPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.5$   $M_{sz}=6.1$ 

LPZ

29 June 1986 11:57:46.14

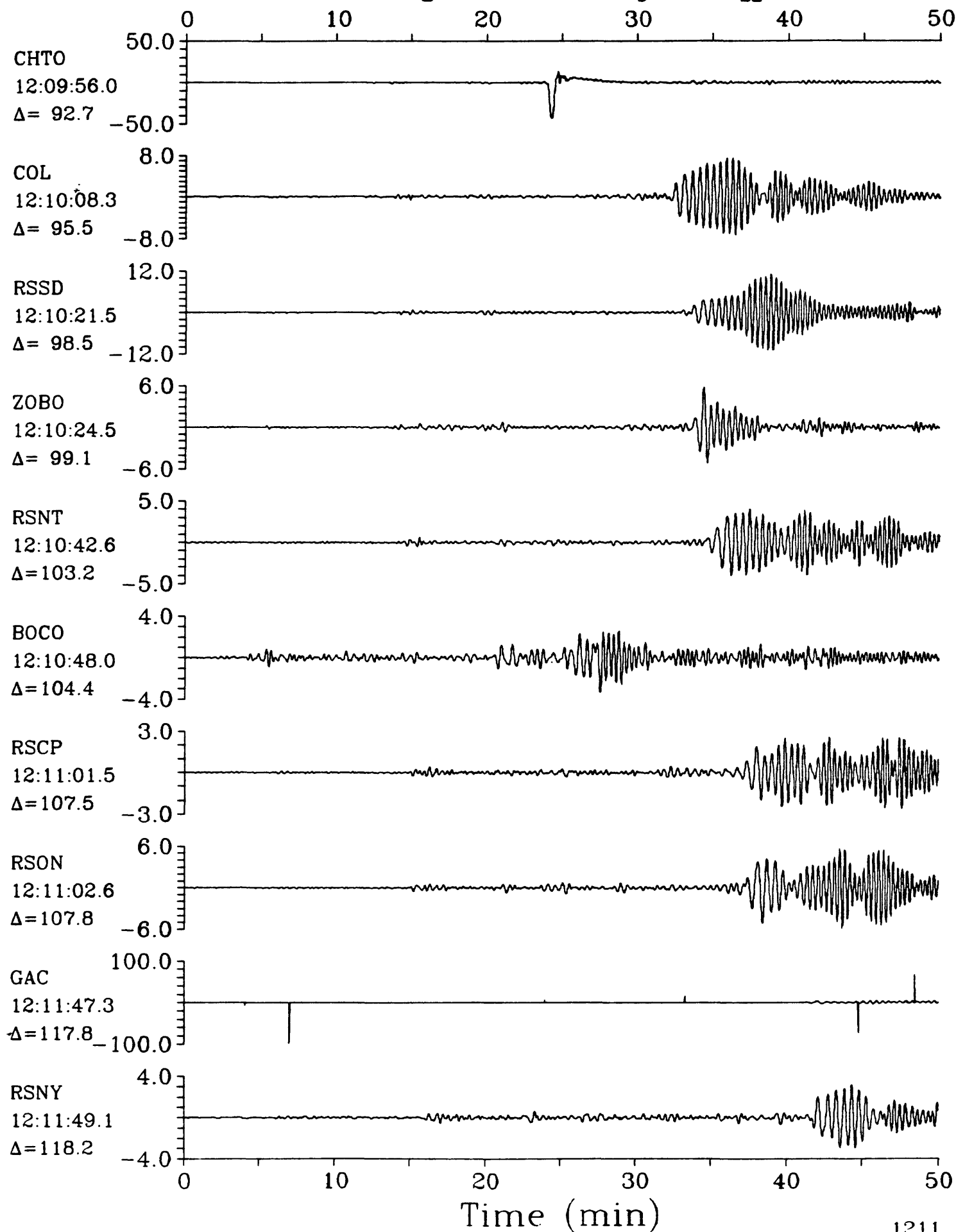
LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.5$   $M_{sz}=6.1$ 

LPZ

29 June 1986 11:57:46.14

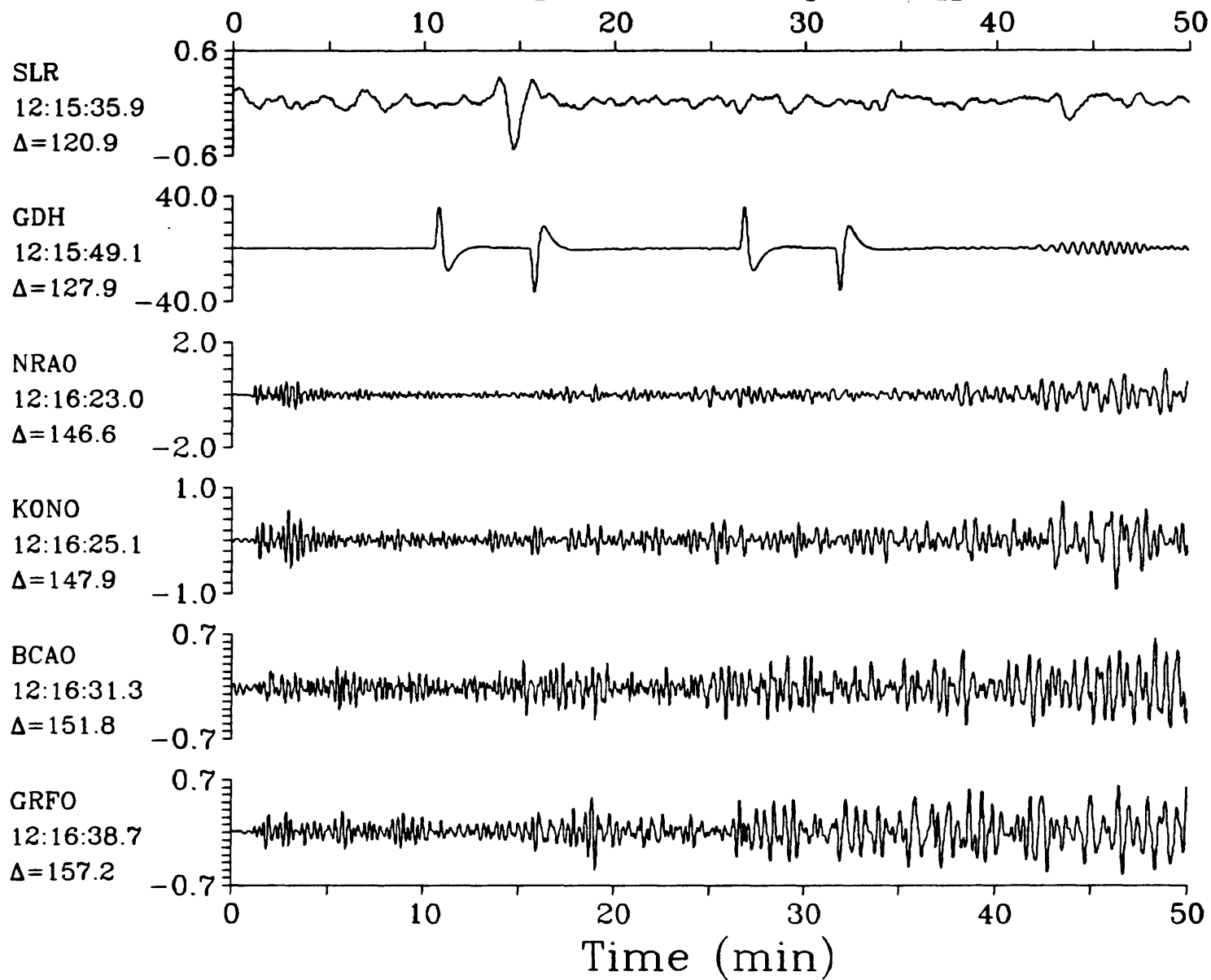
LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.5$   $M_{sz}=6.1$ 

LPZ

29 June 1986 11:57:46.14

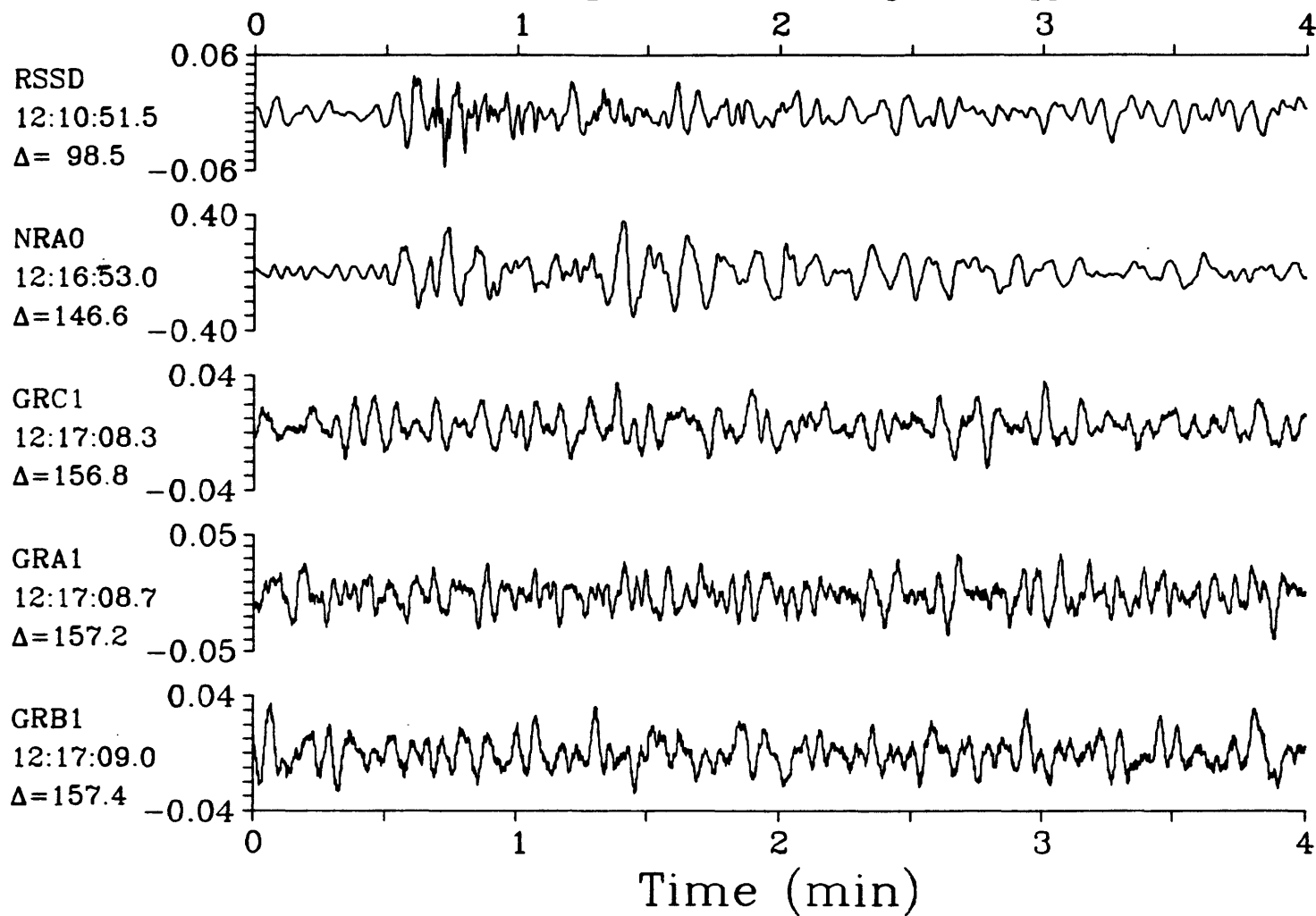
LPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.5$   $M_{sz}=6.1$ 

IPZ

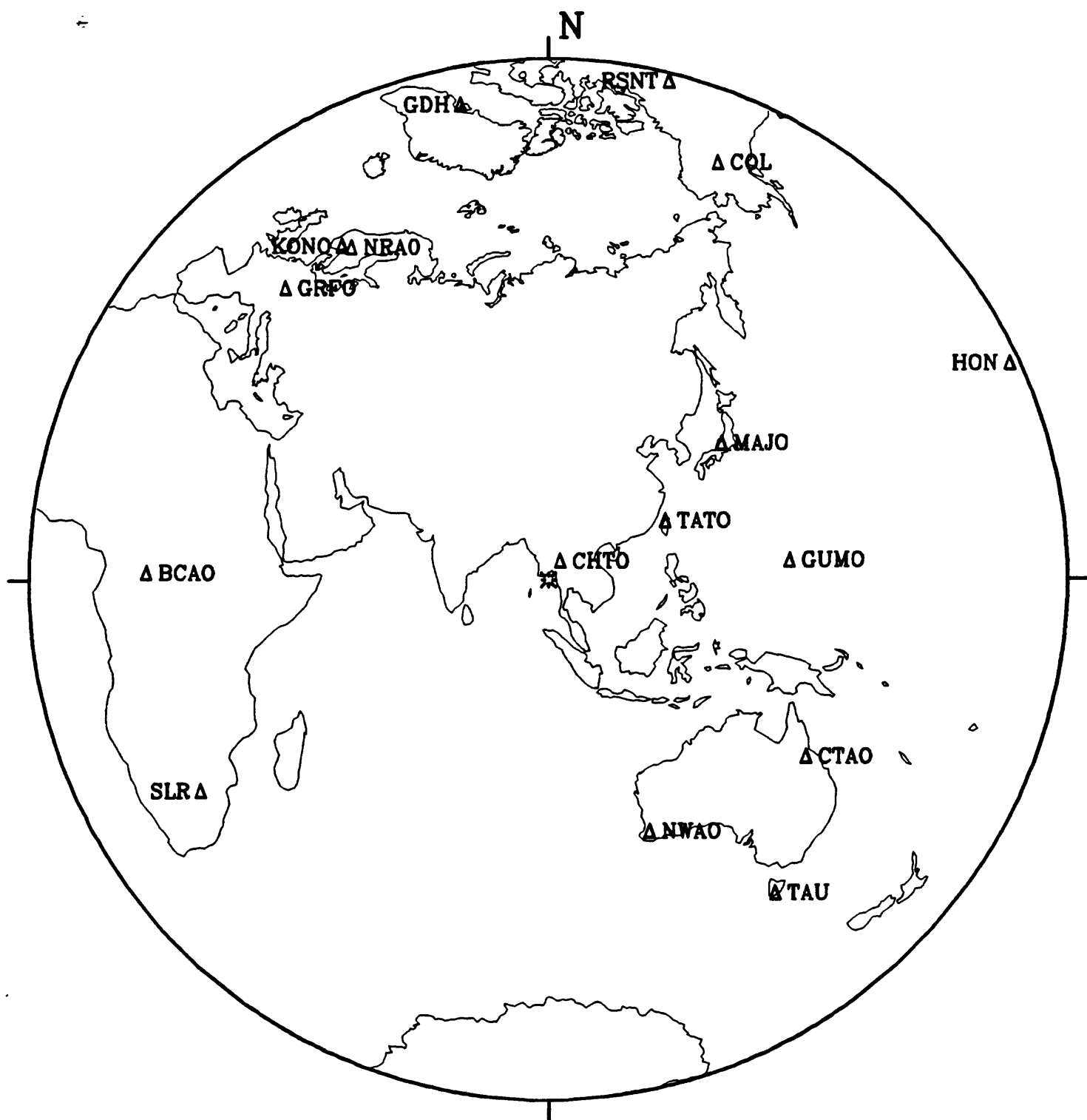
29 June 1986 11:57:46.14

IPZ

Kermadec Islands Region  $h=33.0$   $m_b=5.5$   $M_{sz}=6.1$ 

29 June 1986 12:31:18.59

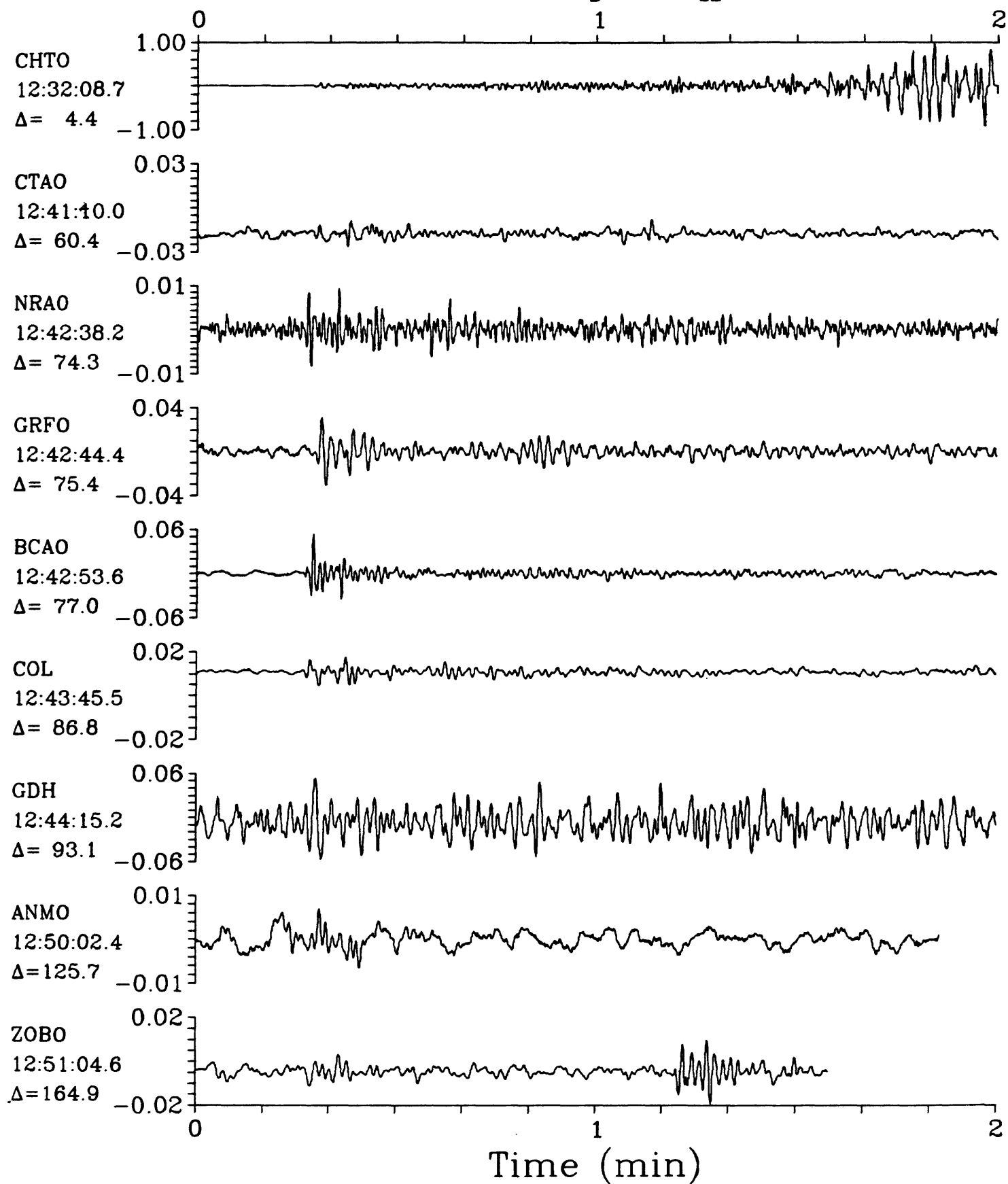
## South Burma



SPZ

29 June 1986 12:31:18.59  
South Burma  $h=33.0$   $m_b=5.1$   $M_{sz}=5.7$ 

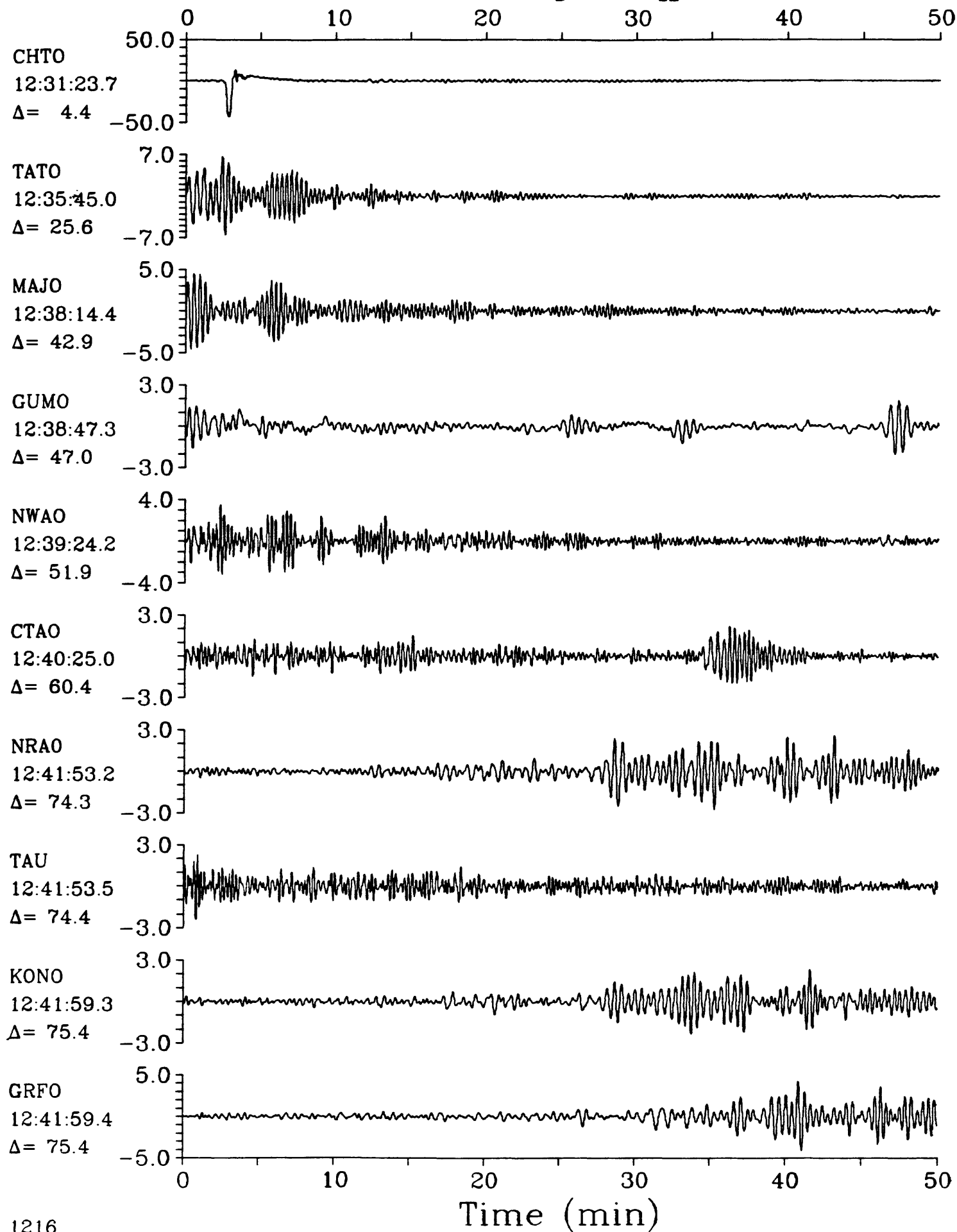
SPZ



LPZ

29 June 1986 12:31:18.59  
South Burma  $h=33.0$   $m_b=5.1$   $M_{sz}=5.7$ 

LPZ

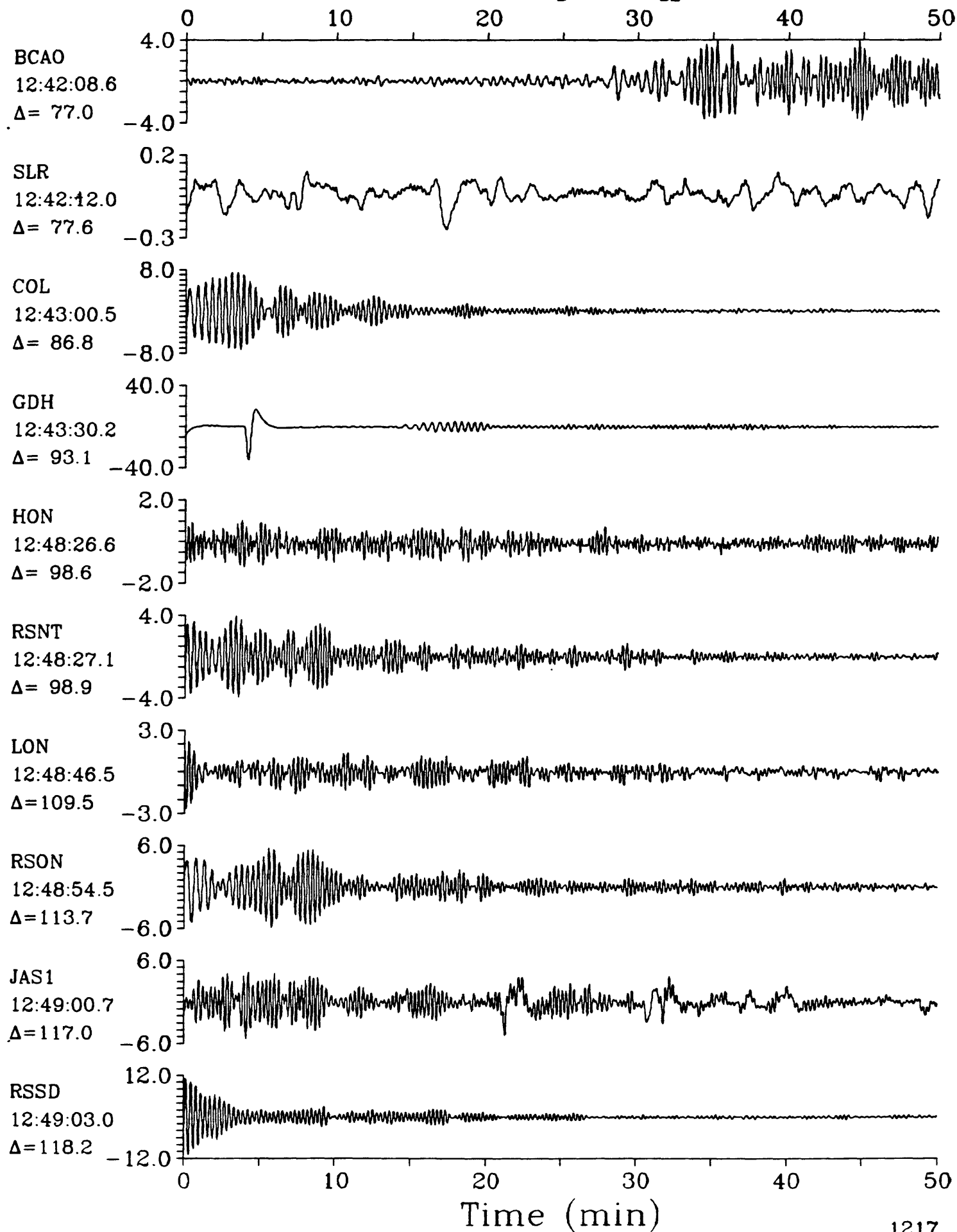




LPZ

29 June 1986 12:31:18.59  
South Burma  $h=33.0$   $m_b=5.1$   $M_{sz}=5.7$ 

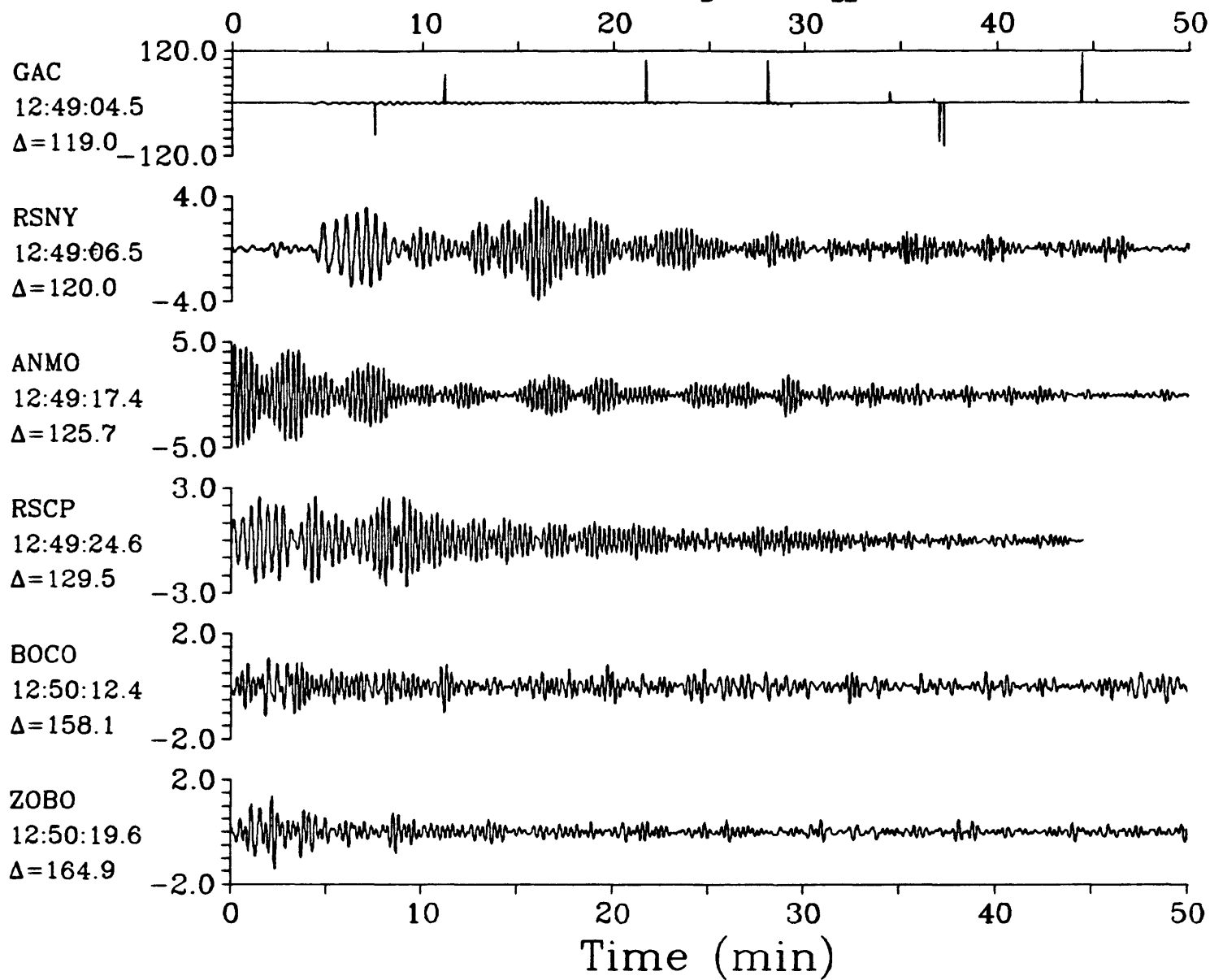
LPZ



LPZ

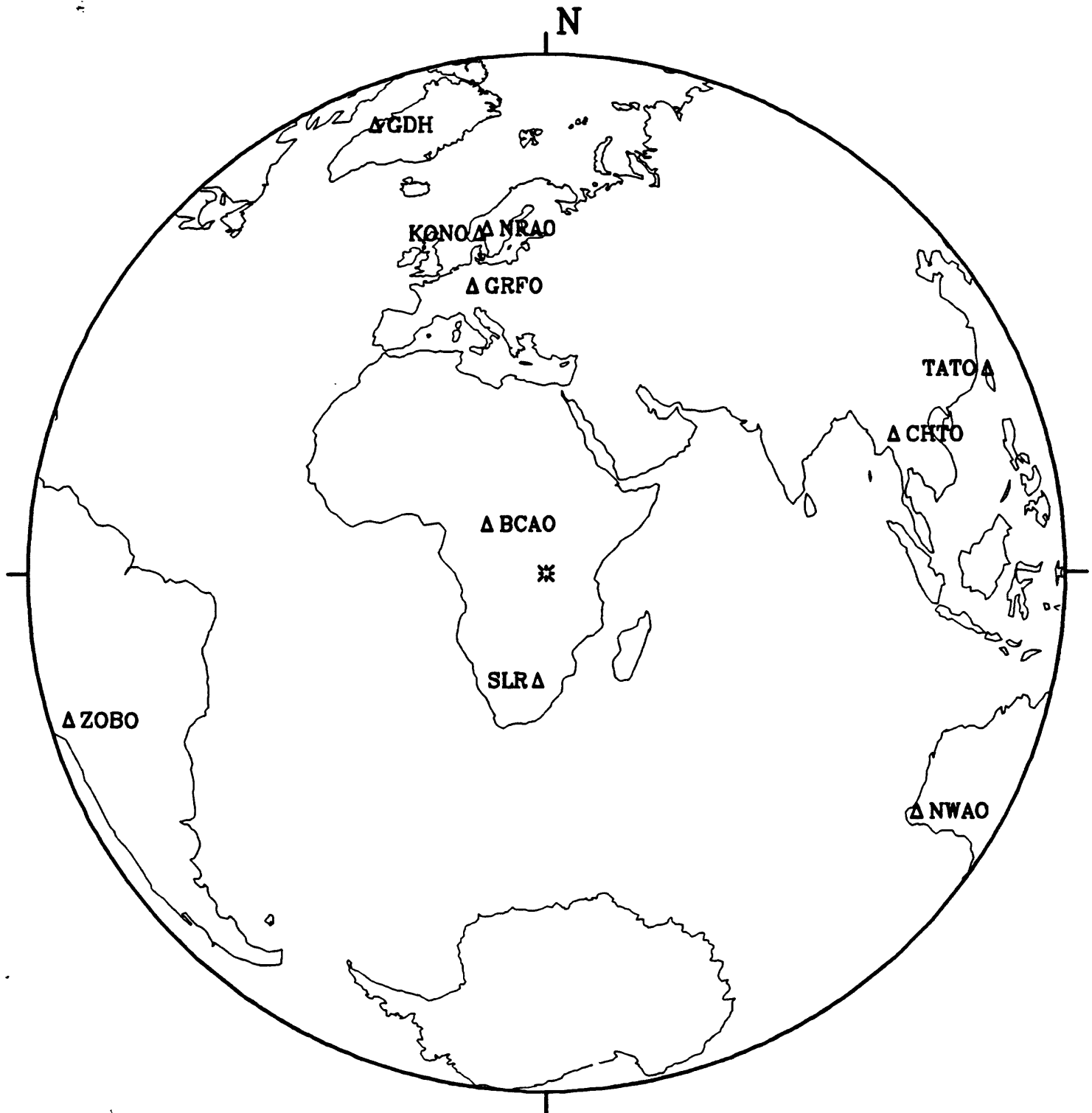
29 June 1986 12:31:18.59  
South Burma  $h=33.0$   $m_b=5.1$   $M_{sz}=5.7$ 

LPZ



29 June 1986 21:47:59.28

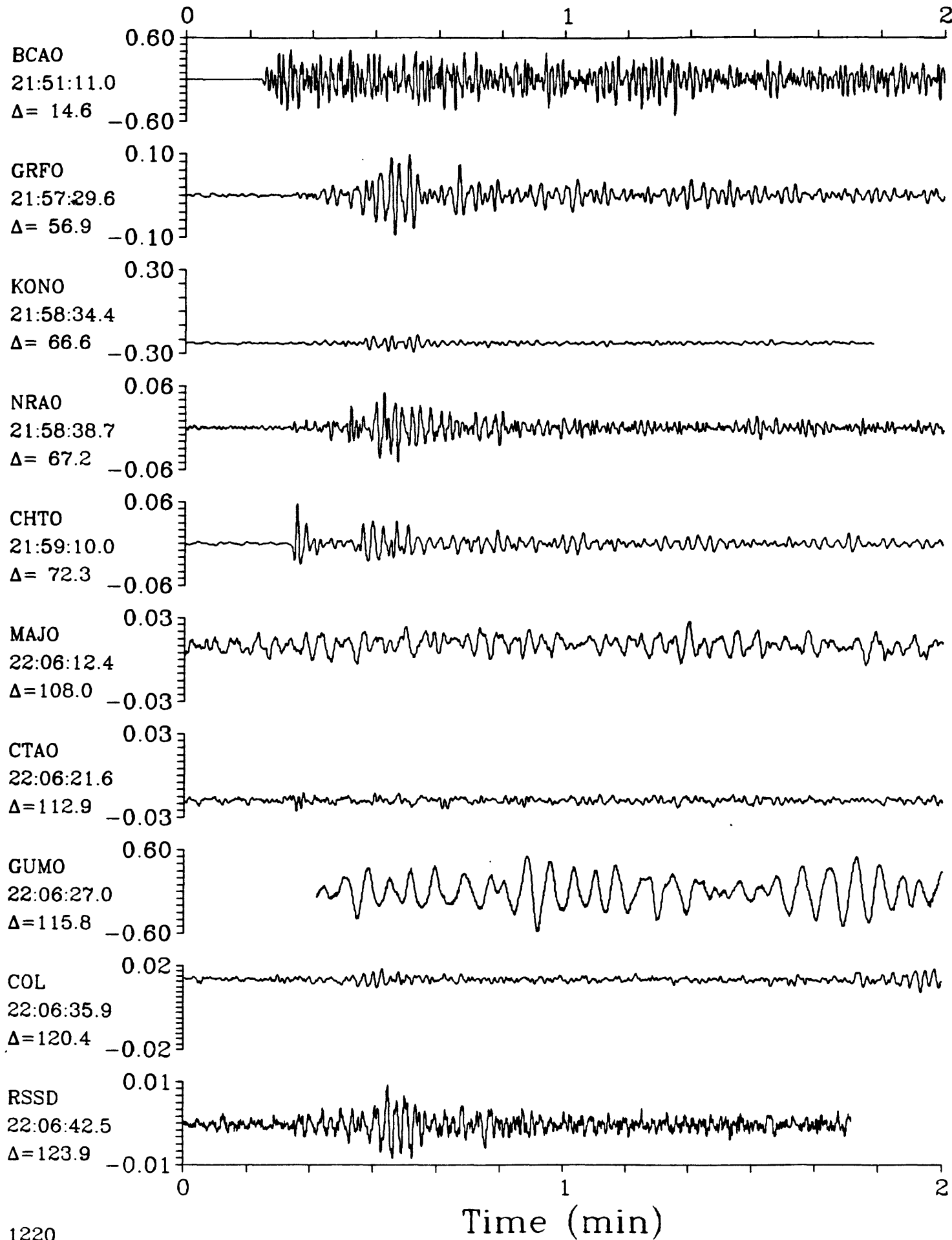
## Lake Tanganyika Region



SPZ

29 June 1986 21:47:59.28

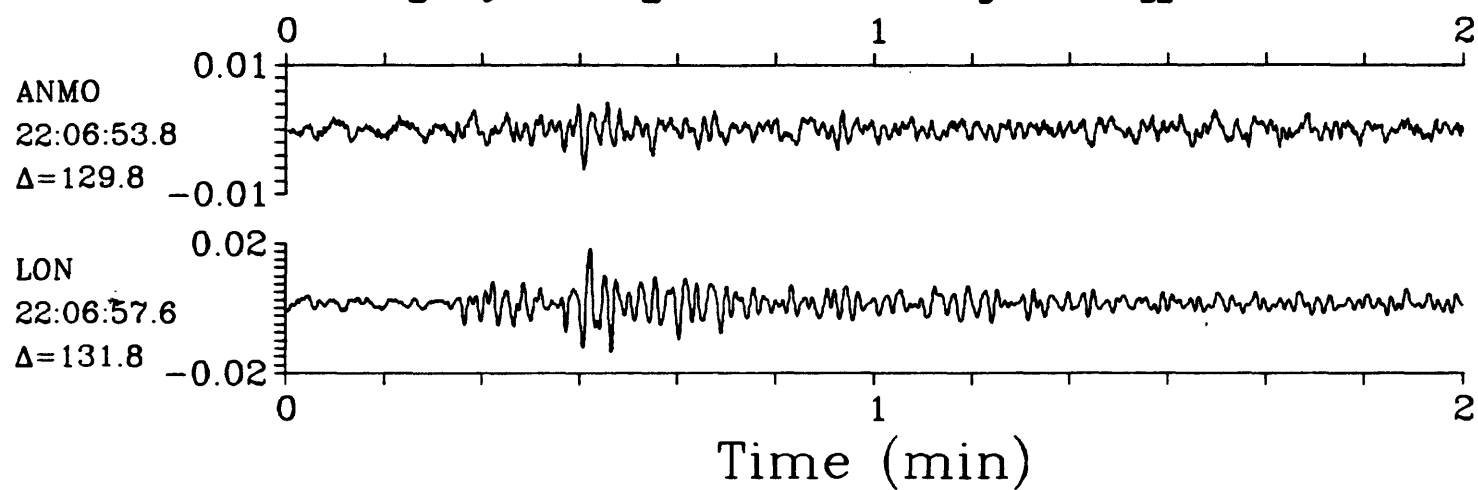
SPZ

Lake Tanganyika Region  $h=14.4$   $m_b=5.0$   $M_{sz}=5.5$ 

SPZ

29 June 1986 21:47:59.28

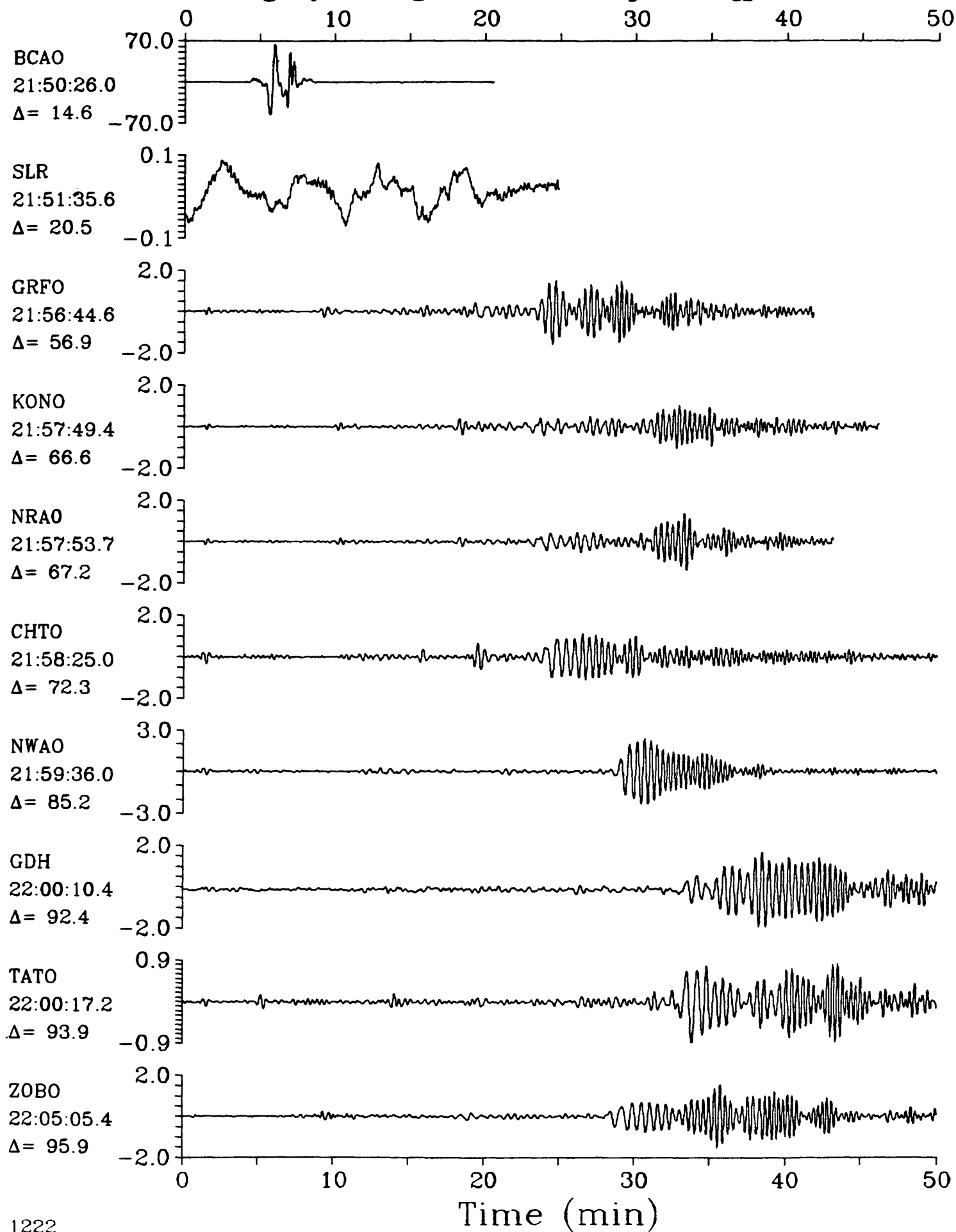
SPZ

Lake Tanganyika Region  $h=14.4$   $m_b=5.0$   $M_{sz}=5.5$ 

LPZ

29 June 1986 21:47:59.28

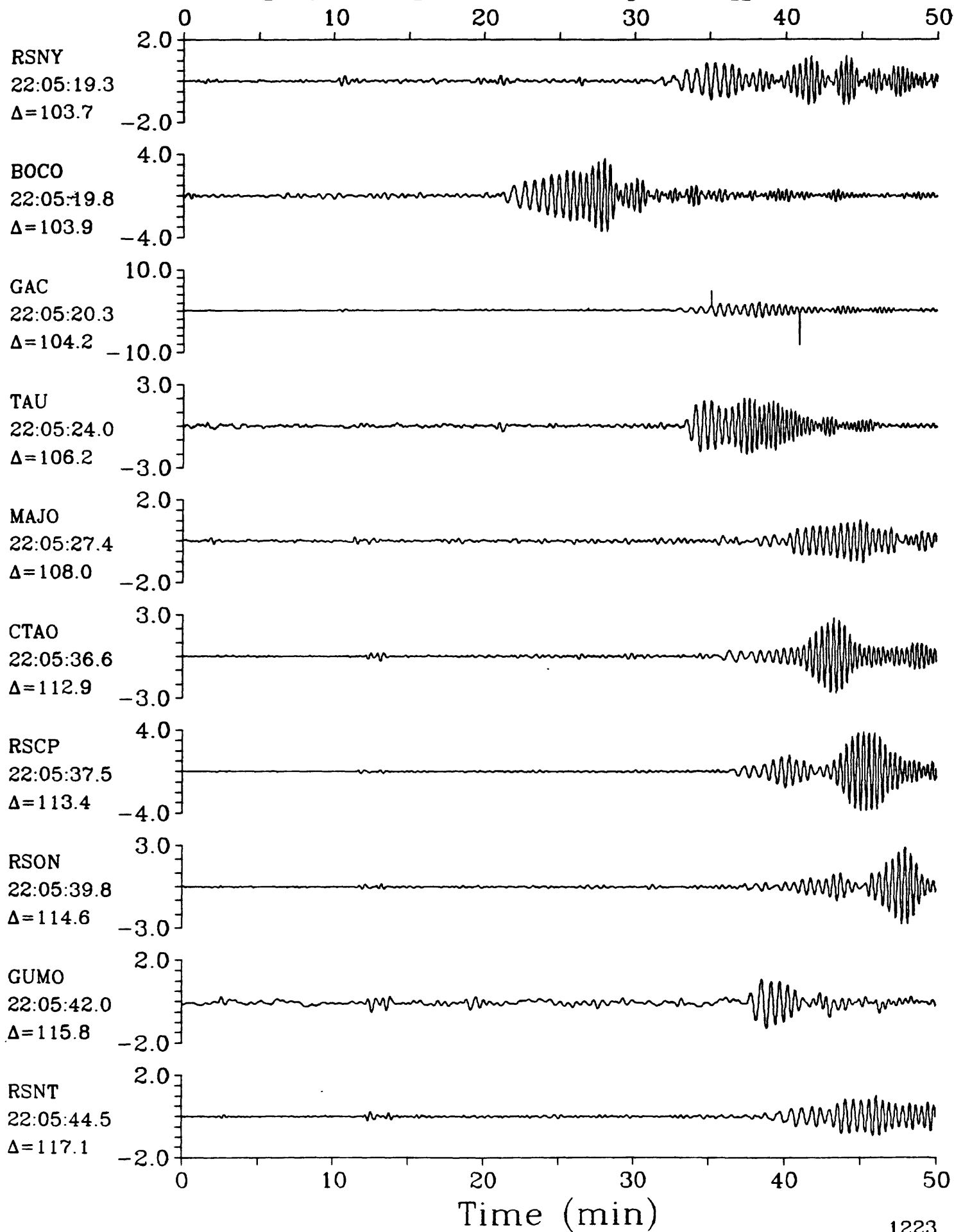
LPZ

Lake Tanganyika Region  $h=14.4$   $m_b=5.0$   $M_{sz}=5.5$ 

LPZ

29 June 1986 21:47:59.28

LPZ

Lake Tanganyika Region  $h=14.4$   $m_b=5.0$   $M_{sz}=5.5$ 

LPZ

29 June 1986 21:47:59.28

LPZ

Lake Tanganyika Region  $h=14.4$   $m_b=5.0$   $M_{sz}=5.5$ 