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ON  
STRONG-MOTION RECORDS  
No. 7 (1972)

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STRONG-MOTION EARTHQUAKE RECORDS  
FROM  
PUBLIC WORKS IN JAPAN (1972)  
土木構造物における強震記録(1972)

MARCH 1974

昭和 49 年 3 月

THE PUBLIC WORKS RESEARCH INSTITUTE  
MINISTRY OF CONSTRUCTION

建 設 省 土 木 研 究 所



## PUBLICATIONS ON STRONG-MOTION RECORDS

The Public Works Research Institute has published the following reports on strong-motion earthquake records reproduced in full size. In the reports there are three kinds of series, ANNUAL REPORT, SPECIAL REPORT, and SUMMARIZED REPORT.

(I) ANNUAL REPORT: These reports are series of general ones published annually and contain almost all strong-motion records obtained during the period indicated in the title of each report.

- No. 1 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (1961-1966), Technical Memorandum of P.W.R.I., No. 217, December, 1966.
- No. 2 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (1967), Technical Memorandum of P.W.R.I., No. 341, February, 1968.
- No. 3 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (1968), Technical Memorandum of P.W.R.I., No. 430, April, 1969.
- No. 4 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (1969), Technical Memorandum of P.W.R.I., No. 641, March, 1970.
- No. 5 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (1970), Technical Memorandum of P.W.R.I., No. 718, March, 1972.
- No. 6 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (1971), Technical Memorandum of P.W.R.I., No. 718, March, 1973.

(II) SPECIAL REPORT: These reports are series of special ones on specified earthquakes or quake swarms published immediately after each quake. Usually these records are also contained in ANNUAL REPORT, but sometimes they are not contained.

- No. 1 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (THE MATSUSHIRO QUAKE SWARM, DECEMBER 9, 1965-FEBRUARY 28, 1966, THE OCHIAI BRIDGE), Technical Memorandum of P.W.R.I., No. 163, April, 1966.
- No. 2 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (THE MATSUSHIRO QUAKE SWARM, MARCH 1 - JUNE 22, 1966, THE OCHIAI BRIDGE), Technical Memorandum of P.W.R.I., No. 194, July 1966.
- No. 3 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (THE MATSUSHIRO QUAKE SWARM, JUNE 25 - DECEMBER 1, 1966, THE OCHIAI BRIDGE), Technical Memorandum of P.W.R.I., No. 254, March, 1967.
- No. 4 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (THE MATSUSHIRO QUAKE SWARM, MAY 27 - OCTOBER 23, 1966, THE SUSOBANA DAM), Technical Memorandum of P.W.R.I., No. 263, March, 1967.

- No. 5 STRONG-MOTION EARTHQUAKE RECORDS FROM PUBLIC WORKS IN JAPAN (THE MATSUSHIRO QUAKE SWARM, OCTOBER 8, 1966 - FEBRUARY 2, 1967, THE CHIKUMAGAWA EMBANKMENT), Technical Memorandum of P.W.R.I., No. 236, March 1967.

## REFERENCES

The following references are available for utilization and evaluation of the records

- 1) Earthquake Resistant Structure Section: "Digitized Data of Strong-Motion Earthquake Records (No. 1)", (in Japanese) Technical Memorandum of the Public Works Research Institute, No. 317, March, 1968.
- 2) Earthquake Resistant Structure Section: "Digitized Data of Strong-Motion Earthquake Records (No. 2)", (in Japanese) Technical Memorandum of the Public Works Research Institute, No. 318, 1968.
- 3) Structure Section: "Examination on the Characteristics of a SMAC-B2 Accelerograph and an Underground Seismograph", (in Japanese) Technical Memorandum of P.W.R.I., No. 399, March, 1968.
- 4) Eiichi Kuribayashi, Toshio Iwasaki. "Observed Earthquake Responses of Bridges", 4th WCEE, Chile, January, 1969.
- 5) Earthquake Resistant Structure Section: "Digitized Data of Strong-Motion Earthquake Records (No. 3)", (in Japanese) Technical Memorandum of the Public Works Research Institute, No. 461, May, 1969.
- 6) Earthquake Resistant Structure Section: "Digitized Data of Strong-Motion Earthquake Records (No. 4)", (in Japanese) Technical Memorandum of the Public Works Research Institute, No. 877, December, 1973.
- 7) Earthquake Resistant Structure Section: "Digitized Data of Strong-Motion Earthquake Records Revision (No. 1 - No. 3)", (in Japanese) Technical Memorandum of the Public Works Research Institute, No. 876, December, 1973.



STRONG-MOTION EARTHQUAKE RECORDS  
FROM  
PUBLIC WORKS IN JAPAN(1972)

MARCH 1974

THE PUBLIC WORKS RESEARCH INSTITUTE  
MINISTRY OF CONSTRUCTION

## Abstract

This memorandum reports strong-motion earthquake records of ground motions and responses of engineering structures such as highway bridges, tunnels, dams, and embankments administrated by Ministry of Construction, Public Corporations, Hokkaido Development Bureau and Regional Governments.

The photographs of major record traces of strong earthquakes occurred in and around Japan in 1971 are reproduced in full size. Also the maximum amplitudes of all seismograph records are presented.

## Preface

Strong-motion earthquake record is most helpful to establish reasonable design methods of structures subjected to earthquake motions.

In 1960 the Public Works Research Institute proposed a recommendation to the Ministry of Construction on project of survey of ground motions and structural responses during strong-motion earthquakes. In response to the recommendation the Ministry gave the approval. Since then the project has obliged it to install instruments, to consult the way of installing and instrumentation, and to analyze and publish the records obtained.

Total number of SMAC type accelerographs (three component accelerometer) operated is one hundred and sixty eight and total number of the accelerometers is five hundred and four. Meanshile, total number of electro-magnetic type accelerometers is two hundred and forty six.

Several reports reproducing record traces in full size have already published as shown inside front cover of this report. And some analyses have been done and these typical reports are shown in References.

The present report reproduces strong-motion seismograph records obtained from public works in Japan--such as highway bridges, tunnels, dams, and embankments--and on grounds near the structures during the year of 1971, and summarizes their maximum acceleration values.

The structures which served strong-motion seismographs are administrated by Ministry of Construction, Public Corporations, Hokkaido Development Bureau and Regional Governments.

March 1973

compiled by

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## Acknowledgements

The present network of strong-motion instrumentation on public works in Japan is due to efforts of the staff of the Public Works Research Institute that have installed the instruments and serviced instrumentation since 1960. The purchase of the instruments has been a cooperative effort of the Regional Construction Bureaus of the Ministry of Construction, Regional Governments throughout Japan, Public Corporations (such as Japan Highway, Tokyo Expressway, Hanshin Expressway, and Water Resources Development), and Hokkaido Development Bureau under the general direction of the Public Works Research Institute.

We should mention the skill and care which has been put into the design and fabrication of the instruments by the members of SMEOC (Strong-Motion Earthquake Observation Committee established in 1951 in Japan) and the manufacturing companies.

The members dealing with field work made notable contributions to the success of the surveys.

Tabl Table 1. Strong-Motion Seismograph Stations for SMAC-Type Accelerographs,  
Including Station Expected in Future

as of March, 1973

| Station Number | Station (Name of Structure) | Number of Instruments | Seismograph Type | Location                                   | Year & Month Installed |
|----------------|-----------------------------|-----------------------|------------------|--------------------------------------------|------------------------|
| 101            | Shinkatsushika Bridge       | 2 (Ground 1, Pier 1)  | SMAC-B2          | Matsudo-City, Chiba-Pref.                  | 1966-3                 |
| 102            | Yoneyama Ōhashi "           | 3 (Ground 1, Pier 2)  | " "              | Kashiwazaki-City, Niigata-Pref.            | 66-2, 66-5             |
| 103            | Ajigawa Ōhashi "            | 3 ( " 1, " 2)         | " "              | Benten-Chō, Minato-Ku, Ōsaka               | 1963-3                 |
| 104            | Shintonegawa "              | 2 (Ground 1, Pier 1)  | SMAC-B2          | Kurihashi-Chō, Saitama-Pref.               | 1967-2                 |
| 105            | Masaki Ōhashi "             | 2 ( " 1, " 1)         | SMAC-E2          | Otobe, Tarō-Chō, Shimohei-Gun, Iwate-Pref. | 1971-2                 |
| 106            | Soka "                      | 2 (Ground 1, Pier 1)  | SMAC-B2          | Soka-City, Saitama-Pref.                   | 1968-3                 |
| 107            | Ōiso "                      |                       |                  |                                            | *                      |
| 108            | Myoko "                     | 2 (Ground 1, Pier 1)  | SMAC-E2          | Myoko-Cho, Nakakubiki-Gun, Niigata-Pref.   | 1972-11                |
| 109            | Kisogawa "                  |                       |                  |                                            | *                      |
| 110            | Hijiyama "                  |                       |                  |                                            | *                      |
| 111            | Mimitsu "                   |                       |                  |                                            | *                      |
| 112            | Kinokawa Ōhashi "           | 2 (Ground 1, Pier 1)  | SMAC-B2          | Wakayama-City, Wakayama-Pref.              | 1967-3                 |
| 113            | Heiwa "                     | 2 ( " " )             | SMAC-B2, D       | Waga-Gun, Waga-Chō, Iwate-Pref.            | 69-3, 70-3             |
| 114            | Amagasaki "                 | 2 ( " " )             | SMAC-B2, C2      | Amagasaki-City, Hyōgo-Pref.                | 1963-3                 |
| 115            | Sakuragawa "                |                       |                  |                                            | *                      |
| 201            | Oya "                       | 2 (Ground 1, Pier 1)  | SMAC-B2          | Aizuwakamatsu-City, Fukushima-Pref.        | 1965-3                 |
| 202            | Uonuma "                    | 2 ( " " )             | " "              | Ojiya-City, Niigata-Pref.                  | 1965-12                |
| 203            | Yokokurasawa "              | 2 ( " " )             | " "              | Yokokura, Sakae-Mura, Nagano-Pref.         | 1965-10                |
| 204            | Shinyawata "                | 2 ( " " )             | " "              | Chita-Chō, Aichi-Pref.                     | 1965-11                |
| 205            | Ishiseto "                  | 2 ( " " )             | " "              | Nojiri-Chō, Miyazaki-Pref.                 | 1965-3                 |
| 206            | Omigawa Ōhashi "            | 2 ( " " )             | " -E2            | Omigawa-Cho, Katori-Gun, Chiba-Pref.       | 1973-3                 |
| 207            | Takatsu "                   | 2 ( " " )             | SMAC-B2          | Masuda-City, Shimane-Pref.                 | 1967-3                 |
| 208            | Turusaki "                  |                       |                  |                                            | *                      |
| 209            | Zuikoji "                   | 2 (Ground 2, Pier 1)  | SMAC-Q           | Yamaizu-Cho, Kawanuma-Gun, Fukushima-Pref. | 1973-3                 |
| 301            | Yūhei "                     | 2 (Ground 1, Pier 1)  | SMAC-B2          | Jumonji-Chō, Akita-Pref.                   | 1966-12                |
| 302            | Kaihoku "                   | 2 ( " " )             | " "              | Ishinomaki-City, Miyagi-Pref.              | 1966-3                 |
| 303            | Kahoku "                    | 2 ( " " )             | " "              | Sagae-City, Yamagata-Pref.                 | 1965-3                 |
| 304            | Date "                      | 2 ( " " )             | " "              | Date-Chō, Fukushima-Pref.                  | 1965-10                |
| 305            | Minato Ōhashi "             | 2 ( " " )             | " "              | Tsuiyama, Toyooka-City, Hyōgo-Pref.        | 1965-3                 |
| 306            | Myōken "                    | 2 ( " " )             | " "              | Nishisono-Chō, Izumo-City, Shimane-Pref.   | 66-3, 67-3             |
| 307            | Godaisan "                  | 2 ( " " )             | " "              | Godaisan, Kōchi-City, Kōchi-Pref.          | 1966-3                 |

Note: Stations with star-mark \* are expected in future.

Table 1. (Continued)

| Station Number | Station (Name of Structure) | Number of Instruments | Seismograph Type | Location                                | Year & Month Installed |
|----------------|-----------------------------|-----------------------|------------------|-----------------------------------------|------------------------|
| 308            | Itajima Bridge              | 2 (Ground 1, Pier 1)  | SMAC-B2          | Uwajima-City, Ehime-Pref.               | 1966-3                 |
| 309            | Otomo "                     | 2 ( " " )             | " "              | Otome, Mifune-Chō, Kumamoto-Pref.       | 1965-3                 |
| 310            | Hirai "                     | 3 (Ground 1, Pier 2)  | " "              | Hirai, Edogawa-Ku, Tōkyō                | 1965-8                 |
| 311            | Toyohama Ōhashi Bridge      | 2 (Ground 1, Pier 1)  | " "              | Ise-City, Mie-Pref.                     | 1966-9                 |
| 312            | Akagi "                     | 2 ( " " )             | " "              | Kumanogawa-Chō, Wakayama-Pref.          | 1966-9                 |
| 313            | Ishizuchi "                 | 2 ( " " )             | " "              | Ishizuchi, Komatsu-Chō, Ehime-Pref.     | 1967-3                 |
| 314            | Kiyokawa "                  | 2 ( " " )             | " "              | Kiyokawa, Tachikawa-Chō, Yamagata-Pref. | 68-10, 69-3            |
| 315            | Shimpō "                    |                       |                  |                                         | *                      |
| 316            | Tsugaru Ōhashi Bridge       | 2 (Ground 1, Pier 1)  | SMAC-D           | Nakazato-Chō, Aomori-Pref.              | 1970-3                 |
| 317            | Sezume Bridge               | 2 ( " " )             | SMAC-B2          | Yamakawa-Chō, Tokushima-Pref.           | 1967-3                 |
| 318            | Shinden "                   | 2 ( " " )             | " -E2            | Shinden-Cho, Okawa-City, Fukuoka-Pref.  | 1973-2                 |
| 319            | Shitoku Ōhashi Bridge       | 2 ( " " )             | SMAC-B2          | Shitoku, Nakagawa-Mura, Nagano-Pref.    | 1966-12                |
| 320            | Akkeshi Ōhashi "            | 2 ( " " )             | SMAC-E2          | Akkeshi-Chō, Akkeshi-Gun, Hokkaidō      | 1971-11                |
| 401            | Biwako Ōhashi "             | 1 (Box girder)        | SMAC-B2          | Katada-Chō, Shiga-Pref.                 | 1964-9                 |
| 402            |                             |                       |                  |                                         | *                      |
| 501            | Tōkyō Bay (Futtu Cape)      | 1 (Ground)            | SMAC-B2          | Futtu-Chō, Chiba-Pref.                  | 1965-10                |
| 502            | Kanmon Bridge               | 2 (Ground 2)          | " "              | Yamaguchi-Pref. & Fukuoka-Pref.         | 1965-10                |
| 503            | Tōkyō Bay (Kannonzaki)      | 1 (Ground)            | " "              | Yokosuka-City, Kanagawa-Pref.           | 1967-3                 |
| 601            | Muromaki Dam                | 1 (Dam)               | SMAC-B2          | Yatsuo-Chō, Nei-Gun, Toyama-Pref.       | 1961-8                 |
| 602            | Yokoyama "                  | 2 (Rock 1, Dam 1)     | " "              | Fujihashi-Mura, Gifu-Pref.              | 1964-6                 |
| 603            | Sarutani "                  | 1 (Ground)            | SMAC-A           | Ōtō-Mura, Yoshino-Gun, Nara-Pref.       | 1958-3                 |
| 604            | Amagase "                   | 1 (Dam)               | SMAC-B2          | Ujikaneido, Uji-City, Kyōto-Pref.       | 1964-8                 |
| 605            | Susobana "                  | 2 (Rock 1, Dam 1)     | SMAC-B2, D       | Konabe, Nagano-City, Nagano-Pref.       | 66-5, 69-12            |
| 606            | Tsuruta "                   | 2 (Ground 1, Dam 1)   | SMAC-D           | Tsuruta-Chō, Kagoshima-Pref.            | 1968-12                |
| 607            | Kanayama "                  |                       |                  |                                         | *                      |
| 608            |                             |                       |                  |                                         | *                      |
| 609            |                             |                       |                  |                                         | *                      |
| 610            | Koshibu "                   | 2 (Rock 1, Dam 1)     | SMAC-D           | Nakagawa-Mura, Nagano-Pref.             | 1968-12                |
| 611            | Saigawa "                   |                       |                  |                                         | *                      |
| 612            | Kimigano "                  |                       |                  |                                         | *                      |

Table 1. (Continued)

| Station Number | Station (Name of Structure) | Number of Instruments    | Seismograph Type | Location                                 | Year & Month Installed |
|----------------|-----------------------------|--------------------------|------------------|------------------------------------------|------------------------|
| 613            |                             |                          |                  |                                          | *                      |
| 614            |                             |                          |                  |                                          | *                      |
| 701            | Yodogawa Embankment         | 2 (Ground 1, Emb. 1)     | SMAC-B2          | Shin-Machi, Hirakata-City, Ōsaka-Pref.   | 1966-3                 |
| 702            | Tōkyō "                     |                          |                  |                                          | *                      |
| 703            | Niigata Diversion Weir      | 2 (Ground 1, Dam 1)      | SMAC-E2          | Niiura-Town, Niigata-City, Niigata-Pref. | 1971-11                |
| 704            | Okayama Embankment          |                          |                  |                                          | *                      |
| 705            |                             |                          |                  |                                          | *                      |
| 801            | Ariake Sea Embankment       | 1 (Ground)               | SMAC-B2          | Daijugarami, Higashiyoka-Chō, Saga-Pref. | 1965-8                 |
| 802            | Aomori                      |                          |                  |                                          | *                      |
| 803            | Toyama                      |                          |                  |                                          | *                      |
| 804            | Kanazawa                    |                          |                  |                                          | *                      |
| 805            | Okayama                     |                          |                  |                                          | *                      |
| 806            |                             |                          |                  |                                          | *                      |
| 901            | P. W. R. I., Chiba Branch   | 3 (Ground)               | SMAC-B2 2, Q. 1  | Anagawa, Chiba-City, Chiba-Pref.         | 62-3 (73-2)            |
| 902            | Nishiarai Bridge            | 3 (Ground 1, Pier 2)     | " "              | Nishiarai-Chō, Adachi-Ku, Tōkyō          | 1962-3                 |
| 903            | Shōwa Ōhashi "              | 2 ( " Pier 1)            | " "              | Niigata-City, Niigata-Pref.              | 1965-1                 |
| 904            | Shintenryugawa "            | 2 ( " " )                | " " , Q          | Toyoda-Mura, Iwate-Gun, Shizuoka-Pref.   | 1964-12                |
| 905            | Ochiai "                    | 3 (Ground 2, " )         | " "              | Nagano-City, Nagano-Pref.                | 1965-12                |
| 906            | P. W. R. I., Kashima        | 1 (Ground)               | " "              | Kashima-Gun, Ibaragi-Pref.               | 1967-3                 |
| 907            | Taira Bridge                | 2 (Ground 1, Abutment 1) | " "              | Taira, Iwaki-City, Fukushima-Pref.       | 1968-1                 |
| 908            | Honjō "                     |                          |                  |                                          | *                      |
| 909            | Miyako                      |                          |                  |                                          | *                      |
| 910            | Hachinohe                   |                          |                  |                                          | *                      |
| 911            | Takamatsu                   |                          |                  |                                          | *                      |
| 912            | Miyazaki                    |                          |                  |                                          | *                      |
| 1001           |                             |                          |                  |                                          | *                      |
| 1002           | Fujikawa Bridge             | 2 (Ground 1, Pier 1)     | SMAC-B2          | Fuji-City, Shizuoka-Pref.                | 1967-3                 |
| 1003           | Hamanako "                  | 2 ( " " )                | SMAC-D           | Inase-Gun, Shizuoka-Pref.                | 68-12, 69-3            |
| 1004           | Sakaigawa "                 | 2 ( " " )                | SMAC-B2          | Uenohara-Chō, Yamanashi-Pref.            | 1967-3                 |

Table 1. (Continued)

| Station Number | Station (Name of Structure)             | Number of Instruments    | Seismograph Type | Location                                     | Year & Month Installed |
|----------------|-----------------------------------------|--------------------------|------------------|----------------------------------------------|------------------------|
| 1005           | Ubakubo Bridge                          | 2 (Ground 1, Pier 1)     | SMAC-B2          | Ubakubo, Hino-City, Tōkyō                    | 1967-3                 |
| 1006           | Tsurukawa "                             | 2 ( " " )                | " "              | Uenohara-Chō, Yamanashi-Pref.                | 1967-3                 |
| 1007           | Toyokawa Bridge                         | 2 ( " " )                | " "              | Ichinomiya-Chō, Hoi-Gun, Aichi-Pref.         | 1968-3                 |
| 1008           | Urato "                                 | 3 (Ground 1, Pier 2)     | SMAC-E2          | Urato-Town, Kōchi-City, Kōchi-Pref.          | 1972-3                 |
| 1009           | Sakawagawa "                            | 2 (Ground 1, Pier 1)     | SMAC-D           | Ashigarakami-Gun, Kanagawa-Pref.             | 1969-3                 |
| 1101           | Meguro-Ku Ōhashi (Route 3)              | 2 ( " " )                | SMAC-E2          | Aobadai, Meguro-Ku, Tōkyō                    | 1972-1                 |
| 1102           | Suginamiku Shimotakaido<br>(Route 4)    | 3 (Ground 1, Pier 2)     | " "              | Shimotakaidō, Suginami-Ku, Tōkyō             | 1972-1                 |
| 1103           | Sumidaku Tsutsumidoori<br>(Route 6)     | 2 (Ground 1, Pier 1)     | " "              | Tsutsumidoori, Sumida-Ku, Tōkyō              | 1972-1                 |
| 1104           | Gokokuji-Kanrisho Building              | 2 (1st Floor, 9th Floor) | " "              | 3-26-9, Mejirodai, Bunkyo-Ku, Tokyo          | 1972-5                 |
| 1105           |                                         |                          |                  |                                              | *                      |
| 1106           |                                         |                          |                  |                                              | *                      |
| 1107           |                                         |                          |                  |                                              | *                      |
| 1108           | Ichinohashi Bridge                      | 2 (Ground 1, Pier 1)     | SMAC-B2          | Azabu, Minato-Ku, Tōkyō                      | 1967-7                 |
| 1109           | Haneda Undersea Tunnel                  | 3 (Ground 1, Tunnel 2)   | " "              | Ōmoriminami-Chō, Ōta-ku, Tōkyō               | 1968-2                 |
| 1201           | Nishiyokobori Bridge                    | 2 (Ground 1, Pier 1)     | SMAC-B2          | Minamisumiya-Machi, Minami-Ku, Osaka         | 1965-3                 |
| 1202           | Ikue-Chō, Asahi-Ku                      |                          |                  |                                              | *                      |
| 1203           | Minamitsumori Bridge                    | 2 ( " " )                | SMAC-D           | Tsumori-Chō, Nishinari-Ku, Osaka             | 1970-3                 |
| 1301           | Civil Engineering Research<br>Institute |                          |                  |                                              | moved                  |
| 1302           | Chiyoda Bridge                          | 3 (Ground 1, Pier 2)     | SMAC-B2          | Makubetsu-Chō, Nakagawa-Gun, Tokachi         | 1966-11                |
| 1303           | Shin-ishikari "                         | 2 (Ground 1, Pier 1)     | " "              | Tsuishikari, Ebetsu-City, Ishikari           | 67-8, 68-11            |
| 1304           | Otanoshike "                            | 2 ( " " )                | " "              | Otanoshike, Kushiro-City, Kushiro            | 1967-10                |
| 1305           | Horoman "                               | 2 ( " " )                | " "              | Horoman, Samani-Chō, Samani-Gun, Hidaka      | 1967-12                |
| 1306           | Asahikawa "                             | 2 ( " " )                | " "              | Kamui-Chō, Asahikawa-City, Kamikawa          | 68-11, 69-3            |
| 1307           | Shichihō "                              | 2 ( " " )                | " "              | Yunosato, Shiriuchi-Chō, Kamiiso-Gun, Oshima | 1968-11                |
| 1308           | Ishikarikakō "                          | 3 (Ground 1, Pier 2)     | " "              | Yasuba, Ishikari-Chō, Ishikari-Gun, Ishikari | 1970-3                 |
| 1309           | Muine "                                 | 2 (Ground 1, Pier 1)     | SMAC-D           | Jōzankei, Sapporo-City, Ishikari             | 1969-10                |
| 1310           | Syari "                                 | 2 ( " " )                | SMAC-D, E2       | Toyokura, Syari-Chō, Syari-Gun, Abashiri     | 1970-1                 |
| 1311           | Isoya "                                 | 2 ( " " )                | SMAC-D           | Minato-Town, Isoya-Gun, Shiribeshi, Hokaido  | 1970-11                |

Table 1. (Continued)

| Station Number | Station (Name of Structure) | Number of Instruments | Seismograph Type | Location                                          | Year & Month Installed |
|----------------|-----------------------------|-----------------------|------------------|---------------------------------------------------|------------------------|
| 1312           | Toukei Bridge               | 2 (Ground, Pier)      | SMAC-E2          | Mashike-Town, Mashike-Gun, Hokaido                | 1971-11                |
| 1313           | Koetoi "                    | 2 ( " , Abutment 1)   | " -B2            | Wakkanai-City, Hokkaido                           | 1972-11                |
| 1314           | Shibushi "                  | 2 ( " , Pier)         | " - "            | Shibushi, Yuubetsu-Cho, Monbetsu-Gun, Hokkaido    | 1972-12                |
| 1401           | Tonegawa Estuary Dam        | 2 (Ground 1, Dam 1)   | SMAC-D           | Tōnosyō-Chō, Katori-Gun, Chiba-Pref.              | 1969-3                 |
| 1501           | Iwaya                       | 1 (Ground)            | SMAC-B           | Iwaya, Awaji-Chō, Tsuna-Gun, Hyōgo-Pref.          | 1962-10                |
| 1502           | Akashi                      | 1 (1st Floor)         | SMAC-B2          | Hitomaru-Chō, Akashi-City, Hyōgo-Pref.            | "                      |
| 1503           | Ōmishima                    | 1 (Ground)            | SMAC-B           | Kamiura-Town, Koshichi-Gun, Ehime-Pref.           | 1971                   |
| 1504           | Naruto                      | 1 ( " )               | " "              | Tosadomariura, Naruto-Chō, Naruto-City, Tokushima | 1963-3                 |
| 1505           | Bannosu                     | 1 ( " )               | " "              | Kawasaki-Town, Sakaide-City, Kagawa-Pref.         | 1971-8                 |
| 1506           | Takamatsu                   | 1 ( " )               | " "              | Hamano-Cho, Takamatsu-City, Kagawa-Pref.          | "                      |

Table 4. Number of Strong-Motion Seismograph Stations  
and that of Instruments in Relation to the Variety of Structures

Operated as of March, 1973

| Variety<br>of<br>Structure |           | Number of Stations |                                              | Number of Instruments |                |                                                                            |
|----------------------------|-----------|--------------------|----------------------------------------------|-----------------------|----------------|----------------------------------------------------------------------------|
|                            |           | SMAC               | Electro-<br>Magnetic-<br>type<br>Seismograph | Number<br>of SMAC     |                | Number of<br>Components<br>of Electro-<br>Magnetic-<br>type<br>Seismograph |
|                            |           |                    |                                              | Ground                | Struc-<br>ture |                                                                            |
| Bridge                     |           | 71                 | 10                                           | 75                    | 78             | 76                                                                         |
| Tunnel                     |           | 1                  | -                                            | 1                     | 2              | -                                                                          |
| Dam                        | Concrete  | 7                  | 12                                           | 5                     | 6              | 122                                                                        |
|                            | Fill-type | -                  | 3                                            | -                     | -              | 21                                                                         |
| Embank-<br>ment            | River     | 3                  | 3                                            | 2                     | 4              | 25                                                                         |
|                            | Coast     | -                  | -                                            | -                     | -              | -                                                                          |
| Future Structure<br>Site   |           | 9                  | 9                                            | 9                     | -              | 85                                                                         |
| Others                     |           | 3                  | 1                                            | 2                     | 2              | 9                                                                          |
| Total                      |           | 94                 | 38                                           | 94                    | 92             | 338                                                                        |

別表 所有者別・会計別にみた強震計台数

1973.3

| 会計<br>所有者     | 一般<br>會計 | 道<br>特<br>計 | 路<br>特<br>計 | 海<br>特<br>計 | 岸<br>特<br>計 | 治<br>特<br>計 | 水<br>特<br>計 | 都<br>計 | 公<br>計 | 団<br>計 | 北海道<br>開発局 | 合<br>計 |
|---------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|--------|--------|--------|------------|--------|
| 地<br>方<br>建設局 | -        | 26          | 1           | 13          | -           | -           | -           | -      | -      | -      | -          | 40     |
| 土<br>木<br>研究所 | 8        | 8           | -           | -           | -           | -           | -           | -      | -      | -      | -          | 16     |
| 都<br>県        | -        | -           | -           | -           | -           | -           | -           | 59     | -      | -      | -          | 59     |
| 5<br>公団       | -        | -           | -           | -           | -           | -           | -           | -      | 43     | -      | -          | 43     |
| 北海道<br>開発局    | -        | -           | -           | -           | -           | -           | -           | -      | -      | -      | 28         | 28     |
| 合<br>計        | 8        | 34          | 1           | 13          | 59          | 43          | 28          | 186    |        |        |            |        |

Table 2. Strong-Motion Seismograph Stations with Electro-Magnetic Type Seismographs

as of March, 1973

| Station Number | Station (Name of Structure)        | Number of Components                        | Location                                                | Year Installed |
|----------------|------------------------------------|---------------------------------------------|---------------------------------------------------------|----------------|
| 01             | Yuda Dam                           | 6, (Accelerometer)                          | Waga-Chō, Waga-Gun, Iwate-Pref.                         | 1965           |
| 02             | Minase "                           | 6, ( " )                                    | Minase-Mura, Okachi-Gun, Akita-Pref.                    | 1963           |
| 03             | Narugo "                           | 8, (Displacementmeter)                      | Narugo-Chō, Tamazukuri-Gun, Miyagi-Pref.                | 1957           |
| 04             | Kawamata "                         | 10, (Accelerometer)                         | Kuriyama-Mura, Shiota-Gun, Tochigi-Pref.                | 1964           |
| 05             | Muromaki "                         | 12, (9 Acc. and 3 Disp.)                    | Yatsuo-Chō, Nei-Gun, Toyama-Pref.                       | 1961           |
| 06             | Sasaogawa "                        | 10, (4 Acc. and 6 Disp.)                    | Nishitani-Mura, Ōno-Gun, Fukui-Pref.                    | 1966           |
| 07             | Yokoyama "                         | 12, (7 Acc. and 5 Disp.)                    | Fujihashi-Mura, Ibi-Gun, Gifu-Pref.                     | 1962           |
| 08             | Amagase "                          | 12, (Accelerometer)                         | Ujikaneido, Uji-City, Kyōto-Pref.                       | 1964           |
| 09             | Sarutani "                         | 5, (2 Acc. and 3 Disp.)                     | Ōtō-Mura, Yoshino-Gun, Nara-Pref.                       | 1957           |
| 10             | <del>Ayakita "</del>               | <del>6, (Accelerometer)</del>               | <del>Suki-Mura, Nishimorokata-Gun, Miyazaki-Pref.</del> | 1961 Δ         |
| 11             | Shinkatsushika Bridge              | 6, (3 Acc. and 3 Earth-pressure)            | Matsudo-City, Chiba-Pref.                               | 1967           |
| 12             | Suruga "                           | 6, (Accelerometer)                          | Minamiabe, Shizuoka-City, Shizuoka-Pref.                | 1959           |
| 13             | <del>Yoshida "</del>               | <del>6, ( " )</del>                         | <del>Toyohashi-City, Aichi-Pref.</del>                  | 1959 Δ         |
| 14             | Honshu-shikoku (Tarumi)            | 16, (11 Acc. and 5 Disp.)                   | Tarumi-Ku, Kobe-City, Hyogo-Pref.                       | 1972           |
| 15             | " " (Sakaide)                      | 12, (9 Acc. and 3 Disp.)                    | Sakaide-City, Kagawa-Pref.                              | 1973           |
| 16             | Biwako Ohashi Bridge               | 6, (2 Acc. and 4 Disp.)                     | Katada-Chō, Shiga-Pref.                                 | 1963           |
| 17             | Wakato "                           | 18, (Accelerometer)                         | Wakamatsu-Ku, Kitakyushu-City, Fukuoka-Pref.            | 1961           |
| 18             | Ariake-Sea Embankment (Ōyano Jima) | 3, ( " )                                    | Ōyanō-Chō, Amakusa-Gun, Kumamoto-Pref.                  | 1963           |
| 19             | Toyokawa "                         | 8, (4 Acc. and 4 Disp.)                     | Toyohashi-City, Aichi-Pref.                             | 1966           |
| 20             | Tonegawa "                         | 9, (6 Acc. and 3 Disp.)                     | Kurihashi-Chō, Saitama-Pref.                            | 1968           |
| 21             | Ōtagawa "                          | 8, (4 Acc. and 4 Disp.)                     | Hiroshima-City, Hiroshima-Pref.                         | 1965           |
| 22             | Nagano (Under ground)              | 9, (Accelerometer)                          | Nagano-City, Nagano-Pref.                               | 1966           |
| 23             | <del>Hirai Bridge</del>            | <del>8, (5 Acc. and 3 Earth-pressure)</del> | <del>Hirai, Edogawa-Ku, Tokyo</del>                     | 1967 Δ         |
| 24             | Shijushida Dam                     | 9, (Accelerometer)                          | Shimokuriyagawa, Morioka-City, Iwate-Pref.              | 1967           |
| 25             | Onomichi Bridge                    | 11, ( " )                                   | Mukaihigashi-Chō, Mitsugi-Gun, Hiroshima-Pref.          | 1968           |
| 26             | Saigawa Dam                        | 10, ( " )                                   | Futamatahin-Machi, Kanazawa-City, Ishikawa-Pref.        | 1968           |
| 27             | Yahagi "                           | 13, ( " )                                   | Asahi-Mura, Higashikamo-Gun, Aichi-Pref.                | 1970-3         |
| 28             | Futtu Cape (Under ground)          | 9, ( " )                                    | Futtu-Chō, Kimitsu-Gun, Chiba-Pref.                     | 1970-2         |
| 29             | Ukishima Park ( " )                | 12, ( " )                                   | Ukishima-Chō, Kawasaki-City, Kanagawa-Pref.             | 1970-3         |
| 30             | Kamafusa Dam                       | 6, ( " )                                    | Kawasaki-Chō, Shibata-Gun, Miyagi-Pref.                 | 1970-3         |
| 31             | Akkeshi Ohashi Bridge              | 10, ( " )                                   | Akkeshi-Chō, Akkeshi-Gun, Kushiro                       | 1971-3         |
| 32             | Kannonzaki (Under ground)          | 9, ( " )                                    | Hashirimizu, Yokosuka-City, Kanagawa-Pref.              | 1971-3         |

| Station Number | Station (Name of Structure)           | Number of Components     | Location                                       | Year Installed |
|----------------|---------------------------------------|--------------------------|------------------------------------------------|----------------|
| 33             | Bekkai Bridge (Under ground)          | 6, (Accelerometer)       | Bekkai, Bekkai-Village, Nemuro-Cicho, Hokkaido | 1971           |
| 34             | Shizunai " ( " )                      | 6, ( " )                 | Sizunai-Town, Hidaka-Cicho, Hokkaido           | 1971           |
| 35             | Koori Dam ( " )                       | 6, ( " )                 | 878, Kimitsu-Gun, Chiba-Pref.                  | 1972           |
| 36             | Matsubarashimouke Dam                 | 8, ( " )                 | Kurobuchi, Oguni-Town, Aso-Gun, Kumamoto-Pref. | 1971           |
| 37             | Akigawa Dam                           | 3, ( " )                 | Higashino, Ena-City, Gifu-Pref.                | 1972           |
| 38             | Shin-iinogawa Bridge                  | 6, ( " )                 | Kahoku-Town, Monou-Gun, Miyagi-Pref.           | 1972           |
| 39             | Sakaisuido Bridge                     | 11, ( " )                | Sakaiminato-City, Tottori-Pref.                | 1972           |
| 40             | Osaka, Nanko (Underground)            | 9, ( " )                 | Nanko, Osaka                                   | 1973           |
| 41             | Honshu-Shikoku, Imabari (Underground) | 12, (9 Acc. and 3 Disp.) | Imabari-City, Ehime-Pref.                      | 1973           |

Note: Stations with delta-mark  $\Delta$  are out of operation.

Table 3. Number of Strong-Motion Seismograph Stations  
and that of Instruments in Relation to the Groups Defined by Sponsorship

Operated as of March, 1973

| Group<br>(Administrative Sponsor) |                                                             | Type   | Strong-Motion Accelerograph, SMAC |                       |      |      |      |      |      |      |      |      |      |       | Electro-Magnetic Type Seismograph |                       |
|-----------------------------------|-------------------------------------------------------------|--------|-----------------------------------|-----------------------|------|------|------|------|------|------|------|------|------|-------|-----------------------------------|-----------------------|
|                                   |                                                             | Period | Number of Station                 | Number of Instruments |      |      |      |      |      |      |      |      |      | Total | Number of Station                 | Number of Instruments |
|                                   |                                                             |        |                                   | before 1963           | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 |       |                                   |                       |
| I                                 | First National Highway Section, Road Bureau<br>( 道路局国道一課 )  | 10     | 5                                 | 0                     | 3    | 6    | 2    | 1    | 1    | 2    | 0    | 2    | 22   | 4     | 24A<br>3E                         |                       |
| II                                | Second National Highway Section, Road Bureau<br>( 道路局国道二課 ) | 8      | 0                                 | 4                     | 6    | 2    | 0    | 0    | 0    | 0    | 0    | 5    | 17   | 0     | 0                                 |                       |
| III                               | Local Road Section, Road Bureau<br>( 道路局地方道課 )              | 19     | 0                                 | 6                     | 12   | 13   | 0    | 2    | 2    | 0    | 2    | 2    | 39   | 1     | 10A                               |                       |
| IV                                | Toll Road Section, Road Bureau<br>( 道路局有料道路課 )              | 1      | 0                                 | 1                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1     | 2A<br>4D                          |                       |
| V                                 | Planning Section, Road Bureau<br>( 道路局企画課 )                 | 3      | 0                                 | 0                     | 3    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 4    | 3     | 30A                               |                       |
| VI                                | Development Section, River Bureau<br>( 河川局開発課 )             | 7      | 4                                 | 1                     | 0    | 1    | 0    | 4    | 1    | 0    | 0    | 0    | 11   | 16    | 111A<br>25D                       |                       |
| VII                               | River Improvement Section, River Bureau<br>( 河川局治水課 )       | 2      | 0                                 | 0                     | 2    | 0    | 0    | 0    | 0    | 0    | 2    | 0    | 4    | 2     | 8A<br>8D                          |                       |
| VIII                              | Seacoast Section, River Bureau<br>( 河川局海岸課 )                | 1      | 0                                 | 0                     | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1     | 3A                                |                       |
| IX                                | Public Works Research Institute<br>( 土木研究所 )                | 7      | 4                                 | 4                     | 2    | 2    | 2    | 0    | 0    | 0    | 0    | 2    | 16   | 2     | 15A<br>3D                         |                       |
| X                                 | Japan Highway Public Corporation<br>( 日本道路公団 )              | 8      | 0                                 | 0                     | 0    | 8    | 2    | 4    | 0    | 0    | 3    | 0    | 17   | 3     | 40A                               |                       |
| XI                                | Tokyo Expressway Public Corporation<br>( 首都高速道路公団 )         | 6      | 0                                 | 0                     | 0    | 0    | 5    | 0    | 0    | 0    | 7    | 2    | 14   | 0     | 0                                 |                       |
| XII                               | Hanshin Expressway Public Corporation<br>( 阪神高速道路公団 )       | 2      | 0                                 | 2                     | 0    | 0    | 0    | 0    | 2    | 0    | 0    | 0    | 4    | 0     | 0                                 |                       |
| XIII                              | Hokkaido Development Bureau<br>( 北海道開発局 )                   | 13     | 1                                 | 0                     | 0    | 3    | 4    | 5    | 6    | 2    | 2    | 5    | 28   | 2     | 12                                |                       |
| XIV                               | Water Resources Development Corporation<br>( 水資源開発公団 )      | 1      | 0                                 | 0                     | 0    | 0    | 0    | 2    | 0    | 0    | 0    | 0    | 2    | 0     | 0                                 |                       |
| XV                                | Honshu-Shikoku Bridge Authority<br>( 本州四国連絡橋公団 )            | 6      | 6                                 | 0                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 6    | 3     | 11D<br>29A                        |                       |
| Total                             |                                                             | 94     | 20                                | 18                    | 29   | 36   | 15   | 18   | 12   | 4    | 16   | 18   | 186  | 38    | 284A, 3E, 51D                     |                       |

Note 1) Each SMAC has three accelerometers (One Vertical and two Horizontal)

2) A, E and D in the extremely right column mean Accelerometers, Earth-pressure-meters and Displacement-meters, respectively

Fig. 1 Sites of Strong-Motion Seismograph Stations for SMAC-Type Accelerographs  
- Observation Network of Ground Motions and Earthquake Responses of  
Highway Bridges, Tunnels, Dams, and Embankments -  
as of March, 1973

Legend

- Station Operated as of March, 1973
- Station Expected in future

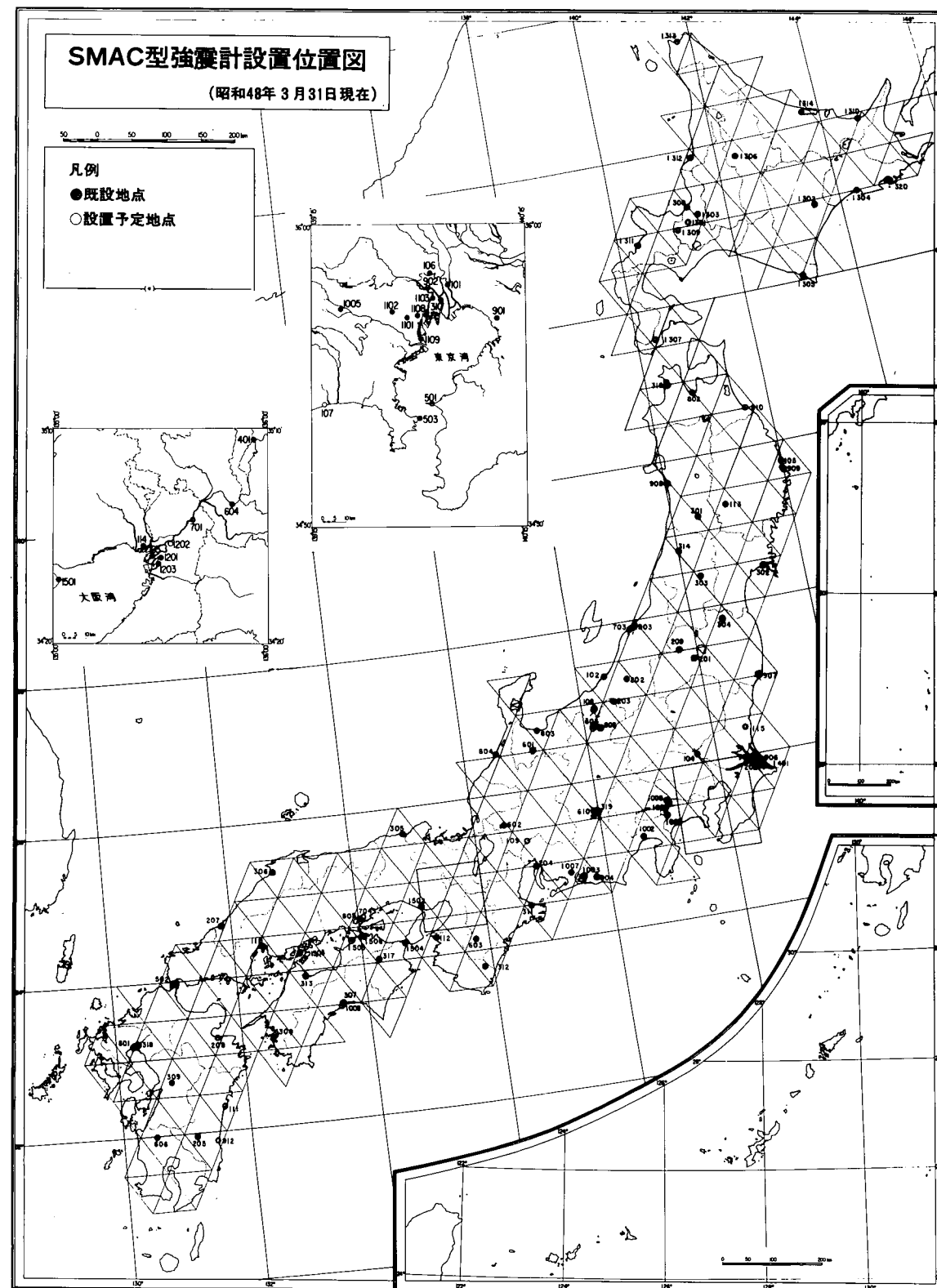


表 1 S M A C 型強震計配置計画一覧表

建設省土木研究所 (1973. 3. 31現在)

| №        | 観測所名     | 型式      | 台数 | 設置箇所   | 県名  | 維持管理    | 設置年月  | №             | 観測所名       | 型式        | 台数 | 設置箇所    | 県名  | 維持管理   | 設置年月  |
|----------|----------|---------|----|--------|-----|---------|-------|---------------|------------|-----------|----|---------|-----|--------|-------|
| 1. 国道一課  |          |         |    |        |     |         |       | 8. 海岸課        |            |           |    |         |     |        |       |
| 101      | 新葛飾橋     | SMAC-B2 | 2  | 地盤・橋脚  | 千葉  | 首都国道    | 41-3  | 801           | 青森海        | SMAC-B2   | 1  | 地盤      | 青森  | 筑後川工事  | 40-8  |
| 102      | 米山大橋     | "       | 2  | 地盤・橋脚  | 新潟  | 長岡工事    | 41-3  | 802           | 青森         | "         | 1  | 地盤      | 青森  | "      | "     |
| 103      | 安治川大橋    | "       | 3  | 地盤・橋脚  | 大阪  | 大阪国道工事  | 36-3  | 803           | 富山         | "         | 1  | 地盤      | 富山  | "      | "     |
| 104      | 新利根川橋    | SMAC-B2 | 2  | 地盤・橋脚  | 埼玉  | 宇都宮国道   | 42-2  | 804           | 金沢松任       | "         | 1  | 地盤      | 石川  | "      | "     |
| 105      | 真崎大橋     | " E2    | 2  | "      | 岩手  | 三陸国道    | 46-2  | 805           | 岡山         | "         | 1  | 地盤      | 岡山  | "      | "     |
| 106      | 草加       | SMAC-B2 | 2  | 地盤・橋脚  | 埼玉  | 大宮国道    | 43-3  | 806           |            |           |    |         |     |        |       |
| 107      | 大磯       | "       | 2  |        | 神奈川 |         |       | 9. 土木研究所      |            |           |    |         |     |        |       |
| 108      | 妙高大橋     | SMAC-E2 | 2  | 地盤・橋脚  | 新潟  | 高田工事    | 47-11 | 901           | 土研千葉支所     | SMAC-B2Q  | 1  | 地盤      | 千葉  | 土研(千葉) | 37-3  |
| 109      | 木曾川橋     | "       | 2  |        | 岐阜  |         |       | 902           | 西新井橋       | "         | 3  | 地盤・橋脚   | 東京  | "      | 37-3  |
| 110      | 山形大橋     | "       | 2  |        | 山形  |         |       | 903           | 昭和大橋       | "         | 2  | 地盤・橋脚   | 新潟  | "      | 40-1  |
| 111      | 美津津橋     | "       | 2  |        | 宮崎  |         |       | 904           | 新天竜川橋      | "         | 2  | "       | 静岡  | "      | 39-12 |
| 112      | 紀ノ川大橋    | SMAC-B2 | 2  | 地盤・橋脚  | 和歌山 | 和歌山工事   | 42-3  | 905           | 落合橋        | "         | 3  | 地盤・橋脚   | 長野  | "      | 40-12 |
| 113      | 平和橋      | " B2, D | 2  | "      | 岩手  | 岩手工事    | 45-3  | 906           | 十研・鹿島試験所   | "         | 1  | 地盤      | 茨城  | 鹿島試験所  | 42-3  |
| 114      | 尼崎高架橋    | " B2, C | 2  | "      | 兵庫  | 兵庫国道    | 38-3  | 907           | 平大橋        | "         | 2  | 地盤・橋台   | 福島  | 土研(千葉) | 43-1  |
| 115      | 桜川橋      | "       | 2  |        | 茨城  |         |       | 908           | 本庄大橋       | "         | 2  |         | 秋田  |        |       |
| 116      |          |         |    |        |     |         |       | 909           | 宮古市        | "         | 2  |         | 岩手  |        |       |
| 2. 国道二課  |          |         |    |        |     |         |       | 910           | 八戸市        | "         | 2  |         | 青森  |        |       |
| 201      | 小谷橋      | SMAC-B2 | 2  | 地盤・橋脚  | 福島  | 会津若松建設  | 40-3  | 911           | 高松市        | "         | 2  |         | 香川  |        |       |
| 202      | 魚沼橋      | "       | 2  | "      | 新潟  | 小千谷土木   | 40-12 | 912           | 宮崎市        | "         | 2  |         | 宮崎  |        |       |
| 203      | 横倉沢橋     | "       | 2  | "      | 長野  | 飯山建設    | 40-10 | 913           |            |           |    |         |     |        |       |
| 204      | 新八幡橋     | "       | 2  | "      | 愛知  | 半田土木    | 40-11 | 10. 日本道路公社    |            |           |    |         |     |        |       |
| 205      | 石瀬戸橋     | "       | 2  | "      | 宮崎  | 小林土木    | 40-3  | 1001          |            |           |    |         |     |        |       |
| 206      | 小見川大橋    | SMAC-E2 | 2  | "      | 千葉  | 香取土木    | 48-3  | 1002          | 東名富士川橋     | "         | 2  | 地盤・橋脚   | 静岡  | 静岡局    | 42-3  |
| 207      | 高津大橋     | SMAC-B2 | 2  | "      | 島根  | 益田土木    | 42-3  | 1003          | 東名浜名湖橋     | SMAC-D    | 2  | "       | "   | "      | 43-12 |
| 208      | 鶴崎橋      | "       | 2  | "      | 大分  |         |       | 1004          | 境川橋        | SMAC-B2   | 2  | "       | 山梨  | 八王子局   | 42-3  |
| 209      | 瑞光寺橋     | SMAC-Q  |    | 地盤2・橋脚 | 福島  | 会津若松建設  | 48-3  | 1005          | 姥久保橋       | "         | 2  | "       | 東京  | "      | 42-3  |
| 3. 地方道路課 |          |         |    |        |     |         |       | 1006          | 鶴川橋        | "         | 2  | "       | 山梨  | "      | 42-3  |
| 301      | 雄平橋      | SMAC-B2 | 2  | 地盤・橋脚  | 秋田  | 雄勝土木    | 41-12 | 1007          | 東名豊川橋      | "         | 2  | "       | 愛知  | 名古屋局   | 43-3  |
| 302      | 開北橋      | "       | 2  | "      | 宮城  | 石巻土木    | 41-3  | 1008          | 浦戸大橋       | SMAC-E2   | 3  | 地盤・橋脚   | 高知  | 大阪支社   | 46-5  |
| 303      | 河北橋      | "       | 2  | "      | 山形  | 寒河江建設   | 40-3  | 1009          | 東名酒匂川橋     | SMAC-D    | 2  | 地盤・橋脚   | 神奈川 |        | 44-3  |
| 304      | 伊達橋      | "       | 2  | "      | 福島  | 保原土木    | 40-10 | 11. 首都高速道路公社  |            |           |    |         |     |        |       |
| 305      | 港大橋      | "       | 2  | "      | 兵庫  | 豊岡土木    | 40-3  | 1101          | 目黒区大橋1丁目   | SMAC-E2   | 2  | 地盤・橋脚   | 3号線 | 工務部    | 47-1  |
| 306      | 妙見橋      | "       | 2  | "      | 島根  | 出雲土木    | 42-3  | 1102          | 杉並区下高井戸5丁目 | "         | 3  | 地盤・橋脚   | 4号線 | "      | 47-1  |
| 307      | 五台山橋     | "       | 2  | "      | 高知  | 高知土木    | 41-3  | 1103          | 墨田区堤通1丁目   | "         | 2  | 地盤・橋脚   | 6号線 | "      | 47-1  |
| 308      | 板島橋      | "       | 2  | "      | 愛媛  | 宇和島中央   | 41-3  | 1104          | 護国寺管理所ビル   | "         | 2  | 1階・9階   | 5号線 | "      | 47-5  |
| 309      | 乙女橋      | "       | 2  | "      | 熊本  | 矢部土木    | 40-3  | 1105          |            |           |    |         |     |        |       |
| 310      | 平井大橋     | "       | 3  | 地盤・橋脚  | 東京  | 第5建設    | 40-8  | 1106          |            |           |    |         |     |        |       |
| 311      | 豊浜大橋     | "       | 2  | 地盤・橋脚  | 三重  | 伊勢土木    | 41-9  | 1107          |            |           |    |         |     |        |       |
| 312      | 赤木橋      | "       | 2  | 地盤・橋台  | 和歌山 | 新宮土木    | 41-9  | 1108          | 一ノ橋高架橋     | SMAC-B2   | 2  | 地盤・橋脚   | 2号線 | 工務部    | 42-7  |
| 313      | 石鎚橋      | "       | 2  | "      | 愛媛  | 丹原土木    | 42-3  | 1109          | 羽田海底トンネル   | "         | 3  | 地盤・トンネル | 2号線 | "      | 43-2  |
| 314      | 清川橋      | "       | 2  | "      | 山形  | 庄内支庁    | 43-10 | 1110          |            |           |    |         |     |        |       |
| 315      | 新保橋      | "       | 2  | "      | 福井  |         |       | 1111          |            |           |    |         |     |        |       |
| 316      | 津軽大橋     | SMAC-D  | 2  | 地盤・橋脚  | 青森  | 五所川原土木  | 45-3  | 12. 阪神高速道路公社  |            |           |    |         |     |        |       |
| 317      | 瀬詰大橋     | SMAC-B2 | 2  | "      | 徳島  | 川島土木    | 42-3  | 1201          | 西横堀高架橋     | SMAC-B2   | 2  | 地盤・橋脚   | 1号線 | 管理部保全課 | 40-5  |
| 318      | 新田大橋     | SMAC-E2 | 2  | "      | 福岡  | 柳川土木    | 48-2  | 1202          | 旭区生江町      | "         | 2  |         | 3号線 | "      |       |
| 319      | 四徳大橋     | SMAC-B2 | 2  | 地盤・橋脚  | 長野  | 伊那建設    | 41-12 | 1203          | 南津守高架橋     | SMAC-D    | 2  | 地盤・橋脚   | 4号線 | 管理部保全課 | 45-3  |
| 320      | 厚岸大橋     | SMAC-E2 | 2  | "      | 北海道 | 北海道庁    | 46-11 | 1204          |            |           |    |         |     |        |       |
| 4. 有料道路課 |          |         |    |        |     |         |       | 1205          |            |           |    |         |     |        |       |
| 401      | 琵琶湖大橋    | SMAC-B2 | 1  | 橋脚     | 滋賀  | 大津土木    | 39-9  | 13. 北海道開発局    |            |           |    |         |     |        |       |
| 402      |          |         |    |        |     |         |       | 1301          | 土木試験所      | "         | 0  |         | 石狩  | 開発局    | 42-12 |
| 403      |          |         |    |        |     |         |       | 1302          | 千代田橋       | SMAC-B2   | 3  | 地盤・基礎   | 十勝  | "      | 41-11 |
| 5. 道路企画課 |          |         |    |        |     |         |       | 1303          | 新石狩大橋      | "         | 2  | 地盤・橋脚   | 石狩  | "      | 42-10 |
| 501      | 東京湾(富津岬) | SMAC-B2 | 1  | 地盤     | 千葉  | 東京湾岸道路  | 40-10 | 1304          | 大葉毛橋       | "         | 2  | "       | 釧路  | "      | 42-10 |
| 502      | 関門架橋     | "       | 2  | 地盤・門架  | 福岡  | 北九州国道   | 40-10 | 1305          | 鹿島橋        | "         | 2  | "       | 日高  | "      | 42-12 |
| 503      | 東京湾(観音崎) | "       | 1  | 地盤     | 神奈川 | 東京湾岸道路  | 42-3  | 1306          | 旭川大橋       | "         | 2  | "       | 石狩  | "      | 43-11 |
| 504      |          |         |    |        |     |         |       | 1307          | 七峰橋        | "         | 2  | "       | 釧路  | "      | 43-12 |
| 6. 開発課   |          |         |    |        |     |         |       | 1308          | 石狩河口橋      | "         | 3  | "       | 石狩  | "      | 45-3  |
| 601      | 室牧ダム     | SMAC-B2 | 1  | 堤体     | 富山  | 管理所(県)  | 36-8  | 1309          | 無意根大橋      | SMAC-D    | 2  | "       | "   | "      | 44-10 |
| 602      | 横山ダム     | "       | 2  | 地盤・堤体  | 岐阜  | "(建)    | 37-7  | 1310          | 斜里大橋       | SMAC-D-E2 | 2  | "       | 網走  | "      | 45-3  |
| 603      | 猿谷ダム     | SMAC-A  | 1  | 地盤     | 奈良  | "(県)    | 33-3  | 1311          | 磯谷橋        | SMAC-D    | 2  | "       | 後志  | "      | 45-11 |
| 604      | 天ヶ瀬ダム    | SMAC-B2 | 1  | 堤体     | 京都  | "(県)    | 39-8  | 1312          | 壽景橋        | SMAC-E2   | 2  | "       | 留萌  | "      | 46-11 |
| 605      | 堀花ダム     | " B2, D | 2  | 地盤・堤体  | 長野  | "(県)    | 44-12 | 1313          | 声問橋        | SMAC-B2   | 2  | 地盤・橋台   | 守谷  | "      | 47-11 |
| 606      | 鶴田ダム     | SMAC-D  | 2  | "      | 鹿児島 | "(建)    | 43-12 | 1314          | 志摩子橋       | "         | 2  | 地盤・橋脚   | 網走  | "      | 47-12 |
| 607      | 金山ダム     | "       | 1  |        | 北海道 |         |       | 14. 水資源開発公社   |            |           |    |         |     |        |       |
| 608      |          |         |    |        |     |         |       | 1401          | 利根川河口堰     | SMAC-D    | 2  | 地盤・堤体   | 千葉  | 河口堰管理所 | 44-3  |
| 609      |          |         |    |        |     |         |       | 1402          |            |           |    |         |     |        |       |
| 610      | 小沢ダム     | SMAC-D  | 2  | 地盤・堤体  | 長野  | 管理所(建)  | 43-12 | 1403          |            |           |    |         |     |        |       |
| 611      |          |         |    |        |     |         |       | 15. 本州四国連絡橋公社 |            |           |    |         |     |        |       |
| 612      | 君ヶ野ダム    | "       | 1  |        | 三重  |         |       | 1501          | 岩屋         | SMAC-B    | 1  | 地盤      | 兵庫  | 本四公団   | 37-10 |
| 613      |          |         |    |        |     |         |       | 1502          | 明石         | " B2      | "  | 1F      | "   | "      | "     |
| 7. 治水課   |          |         |    |        |     |         |       | 1503          | 大三島        | " B       | "  | 地盤      | 愛媛  | "      | 移設    |
| 701      | 淀川堤防     | SMAC-B2 | 2  | 地盤・本体  | 大阪  | 淀川工事    | 41-3  | 1504          | 鳴門         | "         | "  | "       | "   | "      | 38-3  |
| 702      | 東京高潮堰    | "       | 1  |        | 東京  |         |       | 1505          | 香ノ州        | "         | "  | "       | 香川  | "      | 移設    |
| 703      | 新潟大堰     | SMAC-E2 | 2  | 地盤・本体  | 新潟  | 信濃川下流工事 | 46-11 | 1506          | 高松         | "         | "  | 1F      | "   | "      | "     |
| 704      | 岡山       | "       | 1  |        | 岡山  |         |       | 1507          |            |           |    |         |     |        |       |

設置年月欄が空白の場所は未設置である。

Fig. 2 Sites of Strong-Motion Seismograph Stations for Electro-Magnetic Type Seismographs  
 - Observation Network of Ground Motions and Earthquake Responses of Highway Bridges, Dams, and Embankments -  
 as of March, 1973

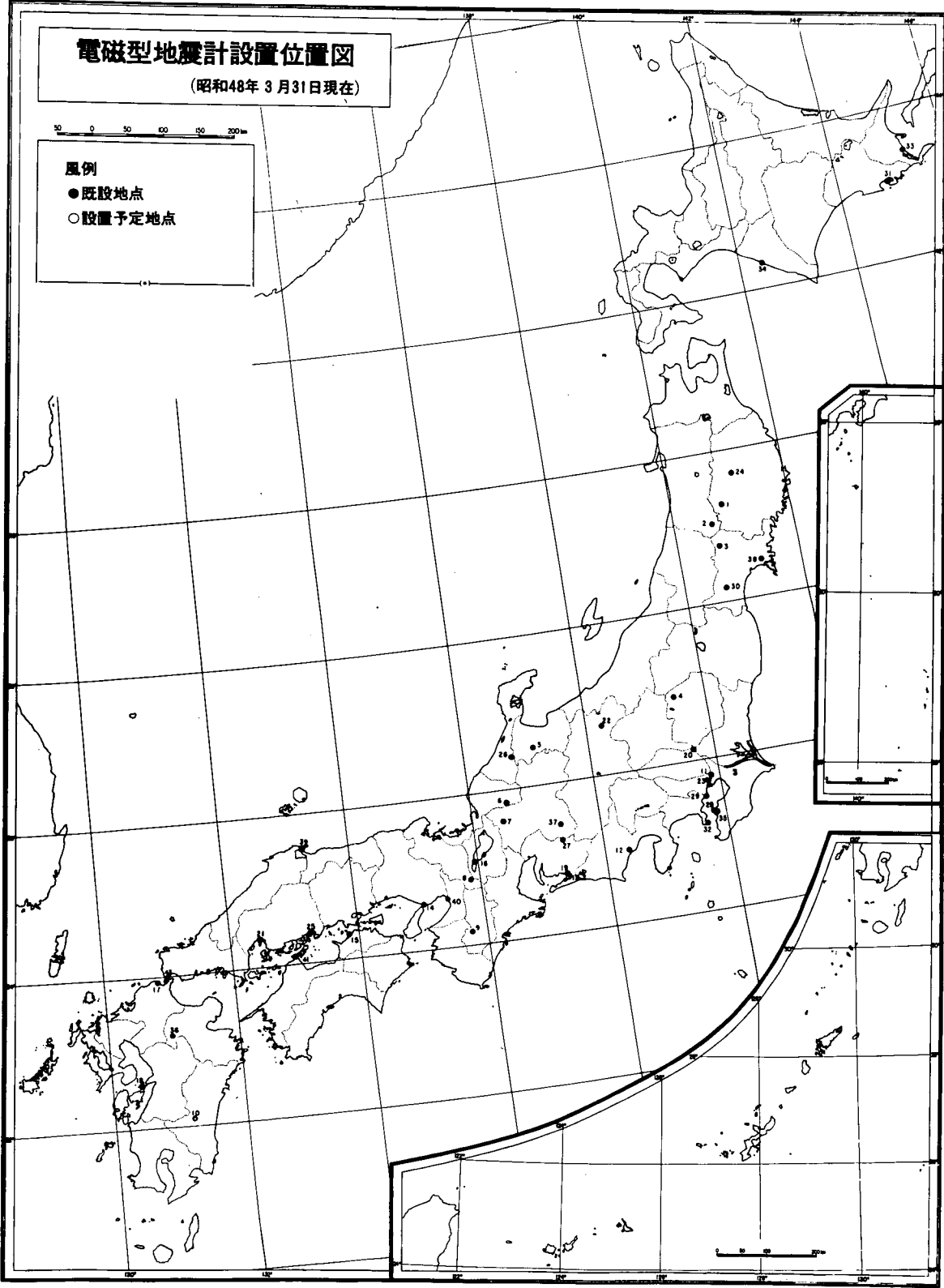


表 - 2 電磁式強震計設置位置一覧表

| 1973年3月 |              |     |                 |      |  |
|---------|--------------|-----|-----------------|------|--|
| 番号      | 観測所名         | 成分数 | 維持管理            | 設置年  |  |
| 1       | 湯田ダム         | 6   | 東北地建湯田ダム管理所     | 1965 |  |
| 2       | 皆瀬ダム         | 6   | 秋田地建皆瀬ダム管理事務所   | 1963 |  |
| 3       | 鳴子ダム         | 8   | 東北地建鳴子ダム管理所     | 1957 |  |
| 4       | 川俣ダム         | 10  | 関東地建川俣ダム管理所     | 1964 |  |
| 5       | 室牧ダム         | 12  | 富山地建室牧ダム管理事務所   | 1961 |  |
| 6       | 笹生川ダム        | 10  | 福井地建笹生川ダム管理事務所  | 1966 |  |
| 7       | 横山ダム         | 12  | 中部地建横山ダム管理所     | 1962 |  |
| 8       | 天ヶ瀬ダム        | 12  | 近畿地建天ヶ瀬ダム管理支所   | 1964 |  |
| 9       | 猿谷ダム         | 5   | 近畿地建猿谷ダム管理所     | 1957 |  |
| 10      | △綾北ダム        | 6   | 宮崎地建綾北ダム管理事務所   | 1961 |  |
| 11      | 新葛飾橋         | 6   | 関東地建首都国道工事事務所   | 1967 |  |
| 12      | 駿河大橋         | 6   | 中部地建静岡国道工事事務所   | 1959 |  |
| 13      | △吉田大橋        | 6   | 中部地建名古屋国道工事事務所  | 1959 |  |
| 14      | 本州四国・垂水(地中)  | 16  | 本州四国連絡橋公団       | 1972 |  |
| 15      | 〃坂出(地中)      | 12  | 〃               | 1973 |  |
| 16      | 琵琶湖大橋        | 6   | 滋賀県大津土木事務所      | 1963 |  |
| 17      | 若戸大橋         | 18  | 日本道路公団          | 1961 |  |
| 18      | 有明海締切堤(大矢野島) | 3   | 九州地建熊本工事事務所     | 1963 |  |
| 19      | 豊川放水路堤防      | 8   | 中部地建豊橋工事事務所     | 1966 |  |
| 20      | 利根川堤防        | 9   | 土木研究所           | 1968 |  |
| 21      | 太田川堤防        | 8   | 中国地建太田川工事事務局    | 1965 |  |
| 22      | 長野(落合橋付近地中)  | 9   | 土木研究所           | 1966 |  |
| 23      | △平井大橋        | 8   | 東京都第五建設事務所      | 1967 |  |
| 24      | 四十四田ダム       | 12  | 東北地建四十四田ダム管理所   | 1967 |  |
| 25      | 尾道大橋         | 11  | 日本道路公団          | 1968 |  |
| 26      | 犀川ダム         | 10  | 石川県犀川ダム管理事務所    | 1968 |  |
| 27      | 矢作ダム         | 13  | 中部地建矢作ダム管理所     | 1970 |  |
| 28      | 富津岬(地中)      | 9   | 関東地建東京湾岸道路調査事務所 | 1970 |  |
| 29      | 浮島公園(地中)     | 12  | 〃               | 1970 |  |
| 30      | 釜房ダム         | 6   | 東北地建釜房ダム管理所     | 1970 |  |
| 31      | 厚岸大橋         | 10  | 北海道庁            | 1971 |  |
| 32      | 観音崎(地中)      | 9   | 関東地建東京湾岸道路調査事務所 | 1971 |  |
| 33      | 別海橋(地中)      | 6   | 北海道開発局          | 1971 |  |
| 34      | 静内橋(地中)      | 6   | 〃               | 1971 |  |
| 35      | 郡ダム(地中)      | 6   | 千葉県開発庁          | 1972 |  |
| 36      | 松原下釜ダム       | 8   | 九州地建松原下釜ダム管理所   | 1971 |  |
| 37      | 阿木川ダム        | 3   | 阿木川ダム調査事務所      | 1972 |  |
| 38      | 新飯野川橋        | 6   | 東北地建仙台工事事務所     | 1972 |  |
| 39      | 境水道大橋        | 11  | 日本道路公団          | 1972 |  |
| 40      | 大阪・南港(地中)    | 9   | 阪神国道工事事務所       | 1973 |  |
| 41      | 本州四国・今治(地中)  | 12  | 本州四国連絡橋公団       | 1973 |  |

Table 5. Number of Records Obtained from Station with Strong-Motion Accelerographs, SMAC in 1972.

| Station Number | Station                | Number of Instruments |           | Total Number of Records |           |       | Number of Records Printed in this Report |           |       |
|----------------|------------------------|-----------------------|-----------|-------------------------|-----------|-------|------------------------------------------|-----------|-------|
|                |                        | Ground                | Structure | Ground                  | Structure | Total | Ground                                   | Structure | Total |
| 101            | Shinkatsushika Bridge  | 1                     | 1         | 2                       | 1         | 3     | 2                                        | 1         | 3     |
| 104            | Shintonegawa Bridge    | 1                     | 1         | 3                       | 3         | 6     | 3                                        | 3         | 6     |
| 105            | Masaki Bridge          | 1                     | 1         | 3                       | 3         | 6     | 1                                        | 1         | 2     |
| 106            | Soka Bridge            | 1                     | 1         | 3                       | 3         | 6     | 3                                        | 3         | 6     |
| 112            | Kinokawa Bridge        | 1                     | 1         | 1                       | 0         | 1     | 1                                        | 0         | 1     |
| 204            | Shinyawata Bridge      | 1                     | 1         | 6                       | 0         | 6     | 1                                        | 0         | 1     |
| 205            | Ishiseto Bridge        | 1                     | 1         | 1                       | 0         | 1     | 1                                        | 0         | 1     |
| 207            | Takatsu Bridge         | 1                     | 1         | 0                       | 1         | 1     | 0                                        | 1         | 1     |
| 302            | Kaihoku Bridge         | 1                     | 1         | 6                       | 5         | 11    | 2                                        | 2         | 4     |
| 303            | Kahoku Bridge          | 1                     | 1         | 1                       | 1         | 2     | 1                                        | 1         | 2     |
| 304            | Date Bridge            | 1                     | 1         | 3                       | 3         | 6     | 3                                        | 3         | 6     |
| 307            | Godaisan Bridge        | 1                     | 1         | 1                       | 1         | 2     | 1                                        | 1         | 2     |
| 310            | Hirai Bridge           | 1                     | 2         | 3                       | 4         | 7     | 3                                        | 4         | 7     |
| 314            | Kiyokawa Bridge        | 1                     | 1         | 0                       | 1         | 1     | 0                                        | 1         | 1     |
| 319            | Shitoku Bridge         | 1                     | 1         | 3                       | 3         | 6     | 1                                        | 3         | 4     |
| 401            | Biwako Bridge          | 0                     | 1         | 0                       | 1         | 1     | 0                                        | 1         | 1     |
| 501            | Tokyo Bay (Futtu Cape) | 1                     | 0         | 8                       | 0         | 8     | 4                                        | 0         | 4     |
| 503            | Tokyo Bay (Kannonzaki) | 1                     | 0         | 2                       | 0         | 2     | 2                                        | 0         | 2     |
| 610            | Koshibu Dam            | 1                     | 1         | 0                       | 1         | 1     | 0                                        | 1         | 1     |
| 701            | Yodogawa Embankment    | 1                     | 1         | 2                       | 1         | 3     | 1                                        | 1         | 2     |
| 901            | P.W.R.I. Chiba-Branchi | 3                     | 0         | 7                       | 0         | 7     | 6                                        | 0         | 6     |
| 902            | Nishiarai Bridge       | 1                     | 2         | 4                       | 6         | 10    | 4                                        | 5         | 9     |
| 904            | Shintenryugawa Bridge  | 2                     | 1         | 5                       | 0         | 5     | 1                                        | 0         | 1     |
| 905            | Ochiai Bridge          | 2                     | 1         | 2                       | 1         | 3     | 0                                        | 3         | 3     |
| 906            | P.W.R.I. Kashima E.L.  | 1                     | 0         | 3                       | 0         | 3     | 3                                        | 0         | 3     |
| 907            | Taira Bridge           | 1                     | 1         | 7                       | 3         | 10    | 4                                        | 3         | 7     |
| 1001           | Atigawa Bridge         | 1                     | 2         | 0                       | 1         | 1     | 0                                        | 1         | 1     |
| 1108           | Ichinohashi Bridge     | 1                     | 1         | 1                       | 1         | 2     | 1                                        | 1         | 2     |
| 1109           | Haneda Undersea Tunnel | 1                     | 2         | 1                       | 1         | 2     | 1                                        | 1         | 2     |
| 1201           | Nishiyokobori Bridge   | 1                     | 1         | 1                       | 0         | 1     | 1                                        | 0         | 1     |
| 1401           | Tonegawa Estuari Dam   | 1                     | 1         | 2                       | 2         | 4     | 1                                        | 2         | 3     |
|                | Total                  | 34                    | 31        | 81                      | 47        | 128   | 52                                       | 43        | 95    |

Table 6. In 1972 Earthquake Origins

| EQ. NO. | EPICENTRAL REGION       | EARTHQUAKE TIME AND DAY | LONGITUDE | LATITUDE | DEPTH (KM) | MAGNITUDE |
|---------|-------------------------|-------------------------|-----------|----------|------------|-----------|
|         |                         |                         | +-        | +-       |            |           |
| 72001   | NORTHERN CHIBA PREF     | 1972.01.04.09.20        | 140 32 0  | 35 52 0  | 40.0       | 5.0       |
| 72002   | KOCHI-CHIME BORDER      | 1972.01.08.07.22        | 133 20 0  | 33 48 0  | 0.         | 4.5       |
| 72003   | EASTERN YAMANASHI PREF  | 1972.01.27.23.41        | 139 7 0   | 35 41 0  | 40.0       | 4.8       |
| 72004   | OFF IBARAKI PREF        | 1972.02.12.20.51        | 140 49 0  | 35 56 0  | 30.0       | 4.0       |
| 72005   | OFF MIYAGI PREF         | 1972.02.21.23.55        | 131 57 0  | 31 24 0  | 20.0       | 4.6       |
| 72006   | OFF HACHIJUJIMA         | 1972.02.29.18.23        | 141 16 0  | 35 11 0  | 70.0       | 0.        |
| 72007   | SOUTHERN FUKUSHIMA PREF | 1972.03.05.21.03        | 140 44 0  | 36 54 0  | 70.0       | 0.        |
| 72008   | E OFF AOMORI PREF       | 1972.03.20.00.58        | 142 0 0   | 40 51 0  | 80.0       | 0.        |
| 72009   | E OFF AOMORI PREF       | 1972.03.20.11.16        | 142 1 0   | 40 53 0  | 80.0       | 0.        |
| 72010   | OFF FUKUSHIMA PREF      | 1972.04.17.09.37        | 141 55 0  | 37 43 0  | 0.         | 4.8       |
| 72011   | NEAR WAKAYAMA           | 1972.04.28.23.53        | 135 13 0  | 34 11 0  | 10.0       | 3.2       |
| 72012   | OFF FUKUSHIMA PREF      | 1972.06.28.10.50        | 141 36 0  | 37 24 0  | 50.0       | 5.3       |
| 72013   | OFF MIYAGI PREF         | 1972.07.04.10.04        | 142 11 0  | 38 28 0  | 40.0       | 5.7       |
| 72014   | CENTRAL YAMAGATA PREF   | 1972.08.20.19.09        | 139 57 0  | 38 36 0  | 20.0       | 5.3       |
| 72015   | EASTERN KYOTO PREF      | 1972.08.31.16.54        | 135 37 0  | 35 17 0  | 10.0       | 5.1       |
| 72016   | FUKUI-GIFU BORDER       | 1972.08.31.17.07        | 136 46 0  | 35 53 0  | 10.0       | 6.0       |
| 72017   | E OFF CHIEA PREF        | 1972.09.03.04.12        | 141 21 0  | 35 27 0  | 30.0       | 5.0       |
| 72018   | FUKUI-GIFU BORDER       | 1972.09.14.15.07        | 136 46 0  | 35 52 0  | 10.0       | 4.5       |
| 72019   | OFF MIYAGI PREF         | 1972.09.25.18.27        | 142 4 0   | 38 21 0  | 50.0       | 5.5       |
| 72020   | SW OFF IZU PEN          | 1972.10.06.20.31        | 138 31 0  | 34 24 0  | 30.0       | 5.5       |
| 72021   | NORTHERN CHIBA PREF     | 1972.10.18.10.48        | 140 7 0   | 35 44 0  | 80.0       | 0.        |
| 72022   | NORTHERN CHIBA PREF     | 1972.10.18.10.53        | 140 7 0   | 35 43 0  | 80.0       | 0.        |
| 72023   | NEAR MATSUSHIRO         | 1972.10.26.22.02        | 138 14 0  | 36 33 0  | 10.0       | 4.3       |
| 72024   | CENTRAL SHIGA PREF      | 1972.10.28.03.11        | 136 10 0  | 35 17 0  | 50.0       | 4.3       |
| 72025   | S OFF CHUBU             | 1972.10.29.16.21        | 138 1 0   | 35 7 0   | 340.0      | 0.        |
| 72026   | NORTHERN CHIBA PREF     | 1972.11.05.06.40        | 139 50 0  | 35 50 0  | 70.0       | 0.        |
| 72027   | SW IBARAKI PREF         | 1972.11.06.20.39        | 139 53 0  | 36 4 0   | 40.0       | 5.1       |
| 72028   | E OFF CHIBA PREF        | 1972.12.01.12.02        | 140 59 0  | 35 35 0  | 50.0       | 4.6       |
| 72029   | E OFF HACHIJUJIMA       | 1972.12.04.19.16        | 141 5 0   | 33 12 0  | 50.0       | 7.2       |
| 72030   | NORTHERN TOKYO BAY      | 1972.12.08.08.38        | 140 0 0   | 35 35 0  | 90.0       | 0.        |
| 72031   | OFF FUKUSHIMA PREF      | 1972.12.18.01.24        | 141 36 0  | 37 8 0   | 50.0       | 4.6       |

Table 6. (Continued)

| STATION NO. | NAME OF STATION       | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------------|-------------|-----------|----------|---------------|---------|-------------|
| 101         | SHINKATSUSHIKA BRIDGE | GR-1        | 139 52 48 | 35 45 57 | 660330        | SMAC-B2 | 70096       |
| 101         | SHINKATSUSHIKA BRIDGE | PI-1        | 139 52 44 | 35 45 55 | 660330        | SMAC-B2 | 70095       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 19         | 18.8   | 5.0      | 13.8         |
| 72006   | PI-1        | 12         | 28.8   | 7.5      | 23.8         |
| 72029   | GR-1        | 20         | 15.0   | 2.5      | 12.5         |

| STATION NO. | NAME OF STATION     | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M INSTALLED | TYPE    | MACHINE NO. |
|-------------|---------------------|-------------|-----------|----------|---------------|---------|-------------|
| 104         | SHINTONEGAWA BRIDGE | GR-1        | 139 42 0  | 36 8 21  | 670220        | SMAC-B2 | 140205      |
| 104         | SHINTONEGAWA BRIDGE | PI-1        | 139 43 27 | 36 8 31  | 670220        | SMAC-B2 | 140206      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 22         | 20.0   | 7.5      | 15.0         |
| 72006   | PI-1        | 13         | 16.3   | 3.8      | 16.3         |
| 72027   | GR-1        | 23         | 48.8   | 12.5     | 23.8         |
| 72027   | PI-1        | 14         | 27.5   | 3.8      | 13.8         |
| 72029   | GR-1        | 24         | 12.5   | 5.0      | 10.0         |
| 72029   | PI-1        | 15         | 12.5   | 3.1      | 12.5         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 105         | NASAKI BRIDGE   | GR-1        | 141 57 45 | 39 46 11 | 710200        | SMAC-B2 | 19          |
| 105         | NASAKI BRIDGE   | PI-1        | 141 57 45 | 39 46 11 | 710200        | SMAC-B2 | 18          |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 2          | 9.0    | 0.       | 5.0          |
| 72006   | PI-1        | 2          | 9.0    | 0.       | 5.0          |
| 72008   | GR-1        | 3          | 44.3   | 21.0     | 40.5         |
| 72008   | PI-1        | 3          | 52.0   | 16.5     | 163.5        |
| 72019   | GR-1        | 4          | 3.0    | 3.0      | 6.0          |
| 72019   | PI-1        | 4          | 12.0   | 3.0      | 6.0          |

Table 6. (Continued)

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 106         | SOKA BRIDGE     | GR-1        | 139 48 2  | 35 48 19 | 680306        | SMAC-B2 | 310233      |
| 106         | SOKA BRIDGE     | PI-1        | 139 48 2  | 35 48 19 | 680306        | SMAC-B2 | 310234      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 19         | 27.5   | 7.5      | 25.0         |
| 72006   | PI-1        | 18         | 38.8   | 5.0      | 31.3         |
| 72027   | GR-1        | 20         | 22.5   | 5.0      | 15.0         |
| 72027   | PI-1        | 19         | 22.5   | 2.5      | 17.5         |
| 72029   | GR-1        | 21         | 27.5   | 6.3      | 17.5         |
| 72029   | PI-1        | 20         | 37.5   | 2.5      | 23.8         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 112         | KINOKAWA BRIDGE | GR-1        | 135 10 0  | 34 13 0  | 670315        | SMAC-B2 | 140209      |
| 112         | KINOKAWA BRIDGE | PI-1        | 135 9 9   | 34 13 39 | 670315        | SMAC-B2 | 140210      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72011   | GR-1        | 24         | 26.3   | 10.0     | 26.3         |

| STATION NO. | NAME OF STATION   | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-------------------|-------------|-----------|----------|---------------|---------|-------------|
| 204         | SHINYAWATA BRIDGE | GR-1        | 136 52 12 | 34 59 55 | 641223        | SMAC-B2 | 38574       |
| 204         | SHINYAWATA BRIDGE | PI-1        | 136 52 12 | 35 0 5   | 641223        | SMAC-B2 | 38573       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72015   | GR-1        | 15         | 3.8    | 2.5      | 3.8          |
| 72016   | GR-1        | 16         | 17.5   | 6.0      | 17.5         |
| 72013   | GR-1        | 17         | 1.3    | 1.3      | 1.3          |
| 72020   | GR-1        | 18         | 2.5    | 1.3      | 2.5          |
| 72024   | GR-1        | 19         | 1.3    | 1.3      | 1.3          |
| 72029   | GR-1        | 20         | 2.5    | 1.3      | 2.5          |

Table 6. (Continued)

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 205         | ISHISETO BRIDGE | GR-1        | 131 8 18  | 31 57 25 | 650300        | SMAC-B2 | 38540       |
| 205         | ISHISETO BRIDGE | PI-1        | 131 8 27  | 31 57 25 | 650300        | SMAC-B2 | 38539       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72005   | GR-1        | 12         | 2.5    | 1.3      | 2.5          |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 207         | TAKATSU BRIDGE  | GR-1        | 131 49 42 | 34 40 57 | 661120        | SMAC-B2 | 140198      |
| 207         | TAKATSU BRIDGE  | PI-1        | 131 49 54 | 34 41 0  | 661120        | SMAC-B2 | 140199      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72015   | PI-1        | 8          | 6.3    | 6.3      | 12.5         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 302         | KAIHOKU BRIDGE  | GR-1        | 141 18 32 | 38 26 43 | 660506        | SMAC-B2 | 38576       |
| 302         | KAIHOKU BRIDGE  | PI-1        | 141 18 32 | 38 26 41 | 660506        | SMAC-B2 | 38575       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 27         | 5.0    | 3.0      | 5.0          |
| 72006   | PI-1        | 29         | 18.8   | 3.0      | 9.0          |
| 72008   | GR-1        | 28         | 1.3    | 1.3      | 0.           |
| 72008   | PI-1        | 30         | 1.3    | 1.3      | 2.5          |
| 72010   | GR-1        | 29         | 2.5    | 1.3      | 0.           |
| 72010   | PI-1        | 31         | 3.8    | 1.3      | 2.5          |
| 72012   | GR-1        | 30         | 1.3    | 1.3      | 0.           |
| 72013   | GR-1        | 31         | 2.5    | 1.3      | 0.           |
| 72013   | PI-1        | 32         | 10.0   | 2.5      | 7.5          |
| 72019   | GR-1        | 32         | 7.5    | 5.0      | 12.5         |
| 72019   | PI-1        | 33         | 1.3    | 0.       | 2.5          |

Table 6. (Continued)

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|----------------|---------|-------------|
| 303         | KAHOKU BRIDGE   | GR-1        | 140 9 58  | 38 26 17 | 650414         | SMAC-B2 | 38530       |
| 303         | KAHOKU BRIDGE   | PI-1        | 140 9 58  | 38 26 8  | 650414         | SMAC-B2 | 38529       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72014   | GR-1        | 19         | 27.5   | 12.5     | 15.0         |
| 72014   | PI-1        | 10         | 28.8   | 3.8      | 40.0         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|----------------|---------|-------------|
| 304         | DATE BRIDGE     | GR-1        | 140 36 0  | 37 49 2  | 651010         | SMAC-B2 | 38562       |
| 304         | DATE BRIDGE     | PI-1        | 140 37 0  | 37 48 54 | 651010         | SMAC-B2 | 38561       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 31         | 23.8   | 6.3      | 15.0         |
| 72006   | PI-1        | 36         | 28.8   | 6.3      | 37.5         |
| 72019   | GR-1        | 32         | 15.0   | 2.5      | 11.3         |
| 72019   | PI-1        | 37         | 10.0   | 3.8      | 20.0         |
| 72029   | GR-1        | 33         | 17.5   | 2.5      | 12.5         |
| 72029   | PI-1        | 38         | 27.5   | 3.8      | 26.3         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|----------------|---------|-------------|
| 307         | GODAISAN BRIDGE | GR-1        | 133 34 54 | 33 32 26 | 660300         | SMAC-B2 | 140390      |
| 307         | GODAISAN BRIDGE | PI-1        | 133 34 40 | 33 32 17 | 660300         | SMAC-B2 | 70092       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72002   | GR-1        | 4          | 10.0   | 5.0      | 7.5          |
| 72002   | PI-1        | 16         | 5.0    | 0.       | 5.0          |

Table 6. (Continued)

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 310         | HIRAI BRIDGE    | GR-1        | 139 51 52 | 36 43 13 | 660304        | SMAC-B2 | 70151       |
| 310         | HIRAI BRIDGE    | PI-1        | 139 51 8  | 36 42 30 | 660304        | SMAC-B2 | 70126       |
| 310         | HIRAI BRIDGE    | PI-2        | 139 51 2  | 36 42 36 | 660304        | SMAC-B2 | 70125       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 17         | 25.0   | 7.5      | 16.3         |
| 72006   | PI-1        | 15         | 50.0   | 6.3      | 21.3         |
| 72006   | PI-2        | 15         | 70.0   | 6.3      | 23.8         |
| 72029   | GR-1        | 18         | 23.8   | 5.0      | 15.0         |
| 72029   | PI-1        | 16         | 50.0   | 2.5      | 22.5         |
| 72029   | PI-2        | 16         | 55.0   | 2.5      | 30.0         |
| 72030   | GR-1        | 19         | 15.0   | 3.8      | 17.5         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 314         | KIYOKAWA BRIDGE | GR-1        | 140 1 25  | 38 47 31 | 681007        | SMAC-B2 | 140272      |
| 314         | KIYOKAWA BRIDGE | PI-1        | 140 1 23  | 38 47 26 | 690300        | SMAC-B2 | 140271      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72014   | PI-1        | 1          | 106.3  | 12.5     | 75.0         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 319         | SHITOKU BRIDGE  | GR-1        | 137 59 29 | 35 36 25 | 670300        | SMAC-B2 | 240218      |
| 319         | SHITOKU BRIDGE  | PI-1        | 137 59 30 | 35 36 0  | 670300        | SMAC-B2 | 240129      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 6          | 3.0    | 0.       | 3.0          |
| 72006   | PI-1        | 6          | 10.0   | 0.       | 7.6          |
| 72018   | GR-1        | 7          | 12.5   | 12.5     | 0.           |
| 72018   | PI-1        | 7          | 45.0   | 7.5      | 41.3         |
| 72029   | GR-1        | 8          | 1.3    | 1.3      | 1.3          |
| 72029   | PI-1        | 8          | 8.8    | 1.3      | 3.8          |

Table 6. (Continued)

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|----------------|---------|-------------|
| 401         | BIWAKO BRIDGE   | BO-1        | 135 56 4  | 35 7 10  | 640928         | SMAC-B2 | 37976       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72024   | PI-1        | 2          | 25.0   | 3.1      | 50.0         |

| STATION NO. | NAME OF STATION        | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|------------------------|-------------|-----------|----------|----------------|---------|-------------|
| 501         | TOKYO BAY (FUTTU CAPE) | GR-1        | 139 48 18 | 35 18 32 | 651201         | SMAC-B2 | 38558       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 68         | 37.5   | 12.5     | 37.5         |
| 72017   | GR-1        | 69         | 1.3    | 1.3      | 1.3          |
| 72021   | GR-1        | 70         | 1.3    | 1.3      | 1.3          |
| 72025   | GR-1        | 71         | 2.5    | 2.5      | 3.8          |
| 72026   | GR-1        | 72         | 5.0    | 2.5      | 3.8          |
| 72027   | GR-1        | 73         | 3.8    | 1.3      | 2.5          |
| 72029   | GR-1        | 74         | 35.0   | 15.0     | 36.3         |
| 72030   | GR-1        | 75         | 5.0    | 2.5      | 10.0         |

| STATION NO. | NAME OF STATION        | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|------------------------|-------------|-----------|----------|----------------|---------|-------------|
| 503         | TOKYO BAY (KANNONZAKI) | GR-1        | 139 44 54 | 35 15 6  | 670300         | SMAC-B2 | 140207      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 16         | 56.3   | 16.3     | 38.8         |
| 72029   | GR-1        | 17         | 37.5   | 12.5     | 25.0         |

Table 6. (Continued)

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE   | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|--------|-------------|
| 610         | KOSHIBU DAM     | GR-1        | 137 58 49 | 35 36 19 | 681200        | SMAC-D | 61106       |
| 610         | KOSHIBU DAM     | DA-1        | 137 58 56 | 35 36 15 | 681200        | SMAC-D | 61105       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72016   | DA-1        | 2          | 82.5   | 2.5      | 16.5         |

| STATION NO. | NAME OF STATION     | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|---------------------|-------------|-----------|----------|---------------|---------|-------------|
| 701         | YODOGAWA EMBANKMENT | GR-1        | 135 38 50 | 34 48 52 | 660300        | SMAC-B2 | 38591       |
| 701         | YODOGAWA EMBANKMENT | ES-1        | 135 38 42 | 34 48 55 | 660300        | SMAC-B2 | 38590       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72015   | GR-1        | 8          | 17.5   | 1.3      | 17.5         |
| 72015   | ES-1        | 9          | 13.8   | 2.5      | 7.5          |
| 72018   | GR-1        | 9          | 2.5    | 1.3      | 3.8          |

| STATION NO. | NAME OF STATION        | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|------------------------|-------------|-----------|----------|---------------|---------|-------------|
| 901         | P.W.R.I. CHIBA-BRANCHI | GR-1        | 140 8 36  | 35 37 57 | 670300        | SMAC-B2 | 70153       |
| 901         | P.W.R.I. CHIBA-BRANCHI | GR-2        | 140 8 36  | 35 37 57 | 730300        | SMAC-Q  | 10002       |
| 901         | P.W.R.I. CHIBA-BRANCHI | GR-3        | 140 8 36  | 35 37 57 | 730300        | SMAC-B2 | 38561       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72003   | GR-1        | 51         | 6.3    | 2.5      | 5.0          |
| 72006   | GR-1        | 52         | 27.5   | 13.8     | 27.5         |
| 72022   | GR-1        | 53         | 5.0    | 2.5      | 3.8          |
| 72027   | GR-1        | 54         | 5.0    | 2.5      | 7.5          |
| 72028   | GR-1        | 55         | 3.8    | 1.3      | 3.8          |
| 72029   | GR-1        | 56         | 22.5   | 7.5      | 22.5         |
| 72030   | GR-1        | 57         | 25.0   | 11.3     | 25.0         |

Table 6. (Continued)

| STATION NO. | NAME OF STATION  | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|------------------|-------------|-----------|----------|----------------|---------|-------------|
| 902         | NISHIARAI BRIDGE | GR-1        | 139 47 56 | 35 45 6  | 620300         | SMAC-B2 | 37889       |
| 902         | NISHIARAI BRIDGE | PI-1        | 139 47 34 | 35 45 19 | 620300         | SMAC-B2 | 37890       |
| 902         | NISHIARAI BRIDGE | PI-2        | 139 47 34 | 35 45 23 | 620300         | SMAC-B2 | 37891       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI. A | VERTICAL | HORI. B (GAL) |
|---------|-------------|------------|---------|----------|---------------|
| 72001   | PI-1        | 48         | 2.5     | 1.3      | 2.5           |
| 72006   | GR-1        | 28         | 27.5    | 7.5      | 27.5          |
| 72006   | PI-1        | 49         | 25.0    | 3.8      | 21.3          |
| 72006   | PI-2        | 25         | 22.5    | 5.0      | 26.3          |
| 72021   | GR-1        | 29         | 22.5    | 3.8      | 13.8          |
| 72021   | PI-1        | 50         | 17.5    | 2.5      | 7.5           |
| 72029   | GR-1        | 30         | 26.3    | 7.5      | 25.0          |
| 72029   | PI-1        | 51         | 23.8    | 5.0      | 17.5          |
| 72029   | PI-2        | 26         | 25.0    | 3.8      | 11.3          |
| 72030   | GR-1        | 31         | 20.0    | 7.5      | 28.8          |

| STATION NO. | NAME OF STATION       | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------------|-------------|-----------|----------|----------------|---------|-------------|
| 904         | SHINTENRYUGAWA BRIDGE | GR-1        | 137 48 56 | 34 43 39 | 641200         | SMAC-B2 | 38516       |
| 904         | SHINTENRYUGAWA BRIDGE | GR-2        | 137 48 56 | 34 43 39 | 730300         | SMAC-Q  | 10001       |
| 904         | SHINTENRYUGAWA BRIDGE | PI-1        | 137 48 20 | 34 43 40 | 641000         | SMAC-B2 | 38517       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI. A | VERTICAL | HORI. B (GAL) |
|---------|-------------|------------|---------|----------|---------------|
| 72006   | GR-1        | 7          | 0.      | 0.       | 0.            |
| 72016   | GR-1        | 8          | 1.3     | 1.3      | 1.3           |
| 72016   | GR-1        | 9          | 2.5     | 1.3      | 3.8           |
| 72020   | GR-1        | 10         | 1.3     | 1.3      | 1.3           |
| 72029   | GR-1        | 11         | 1.3     | 1.3      | 1.3           |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y.M. INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|----------------|---------|-------------|
| 905         | OCHIAI BRIDGE   | GR-1        | 138 13 25 | 36 38 38 | 651210         | SMAC-B2 | 37896       |
| 905         | OCHIAI BRIDGE   | GR-2        | 138 14 27 | 36 37 8  | 651210         | SMAC-B2 | 38587       |
| 905         | OCHIAI BRIDGE   | PI-1        | 138 14 27 | 36 37 5  | 651210         | SMAC-B2 | 38583       |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI. A | VERTICAL | HORI. B (GAL) |
|---------|-------------|------------|---------|----------|---------------|
| 72023   | PI-1        | 429        | 70.0    | 12.5     | 18.8          |
| 72023   | GR-1        | 269        | 113.8   | 25.0     | 37.5          |
| 72023   | GR-2        | 122        | 68.8    | 20.0     | 70.0          |

Table 6. (Continued)

| STATION NO. | NAME OF STATION      | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|----------------------|-------------|-----------|----------|---------------|---------|-------------|
| 906         | P.W.R.I,KASHIMA E.L. | GR-1        | 140 39 18 | 35 53 31 | 670300        | SMAC-B2 | 140185      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72001   | GR-1        | 13         | 11.3   | 2.5      | 46.3         |
| 72006   | GR-1        | 14         | 15.0   | 2.5      | 13.8         |
| 72029   | GR-1        | 15         | 10.0   | 2.5      | 11.3         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 907         | TAIRA BRIDGE    | GR-1        | 140 54 28 | 37 3 13  | 680118        | SMAC-B2 | 140215      |
| 907         | TAIRA BRIDGE    | AB-1        | 140 54 49 | 37 3 7   | 680118        | SMAC-B2 | 140203      |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | AB-1        | 21         | 7.5    | 3.8      | 7.5          |
| 72007   | GR-1        | 62         | 1.3    | 1.3      | 1.3          |
| 72009   | GR-1        | 63         | 3.8    | 1.3      | 0.           |
| 72012   | GR-1        | 64         | 8.8    | 6.3      | 17.5         |
| 72012   | DA-1        | 22         | 5.0    | 2.5      | 5.0          |
| 72013   | GR-1        | 65         | 2.5    | 1.3      | 0.           |
| 72019   | GR-1        | 66         | 6.3    | 2.5      | 3.8          |
| 72027   | AB-1        | 23         | 3.8    | 3.8      | 5.0          |
| 72029   | GR-1        | 67         | 17.5   | 5.0      | 17.3         |
| 72031   | GR-1        | 68         | 8.8    | 3.8      | 10.0         |

| STATION NO. | NAME OF STATION | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|-----------------|-------------|-----------|----------|---------------|---------|-------------|
| 1001        | AJIGAWA BRIDGE  | GR-1        | 135 20 40 | 34 40 0  | 630300        | SMAC-B2 | 0           |
| 1001        | AJIGAWA BRIDGE  | PI-1        | 135 20 40 | 34 40 0  | 630300        | SMAC-B2 | 0           |
| 1001        | AJIGAWA BRIDGE  | PI-2        | 135 20 40 | 34 40 0  | 630300        | SMAC-B2 | 0           |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI,A | VERTICAL | HORI,B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72015   | PI-2        | 3          | 1.2    | 0.       | 25.0         |

Table 6. (Continued)

| STATION NO. | NAME OF STATION    | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|--------------------|-------------|-----------|----------|---------------|---------|-------------|
| 1108        | ICHINOHASHI BRIDGE | GR-1        | 139 44 10 | 35 39 0  | 670700        | SMAC-B2 | 0           |
| 1108        | ICHINOHASHI BRIDGE | PI-1        | 139 44 10 | 35 39 0  | 670700        | SMAC-B2 | 0           |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 8          | 46.0   | 10.0     | 41.0         |
| 72006   | PI-1        | 4          | 94.0   | 19.0     | 78.0         |

| STATION NO. | NAME OF STATION        | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|------------------------|-------------|-----------|----------|---------------|---------|-------------|
| 1109        | HANEDA UNDERSEA TUNNEL | GR-1        | 139 45 30 | 35 34 30 | 680200        | SMAC-B2 | 0           |
| 1109        | HANEDA UNDERSEA TUNNEL | TU-1        | 139 45 30 | 35 34 30 | 680200        | SMAC-B2 | 0           |
| 1109        | HANEDA UNDERSEA TUNNEL | TU-2        | 139 45 30 | 35 34 30 | 680200        | SMAC-B2 | 0           |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72006   | GR-1        | 5          | 15.0   | 3.8      | 13.8         |
| 72006   | TU-2        | 5          | 7.5    | 3.8      | 8.8          |

| STATION NO. | NAME OF STATION      | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE    | MACHINE NO. |
|-------------|----------------------|-------------|-----------|----------|---------------|---------|-------------|
| 1201        | NISHIYOKOBORI BRIDGE | GR-1        | 135 30 0  | 34 40 0  | 650315        | SMAC-B2 | 0           |
| 1201        | NISHIYOKOBORI BRIDGE | PI-1        | 135 30 0  | 34 40 0  | 650300        | SMAC-B2 | 0           |

| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72015   | GR-1        | 7          | 0.     | 5.0      | 10.0         |

| STATION NO. | NAME OF STATION      | INSTRUMENTS | LONGITUDE | LATITUDE | Y,M INSTALLED | TYPE   | MACHINE NO. |
|-------------|----------------------|-------------|-----------|----------|---------------|--------|-------------|
| 1401        | TONEGAWA ESTUARI DAM | GR-1        | 140 40 0  | 35 50 0  | 690300        | SMAC-D | 0           |
| 1401        | TONEGAWA ESTUARI DAM | DA-1        | 140 40 0  | 35 50 0  | 690300        | SMAC-D | 0           |

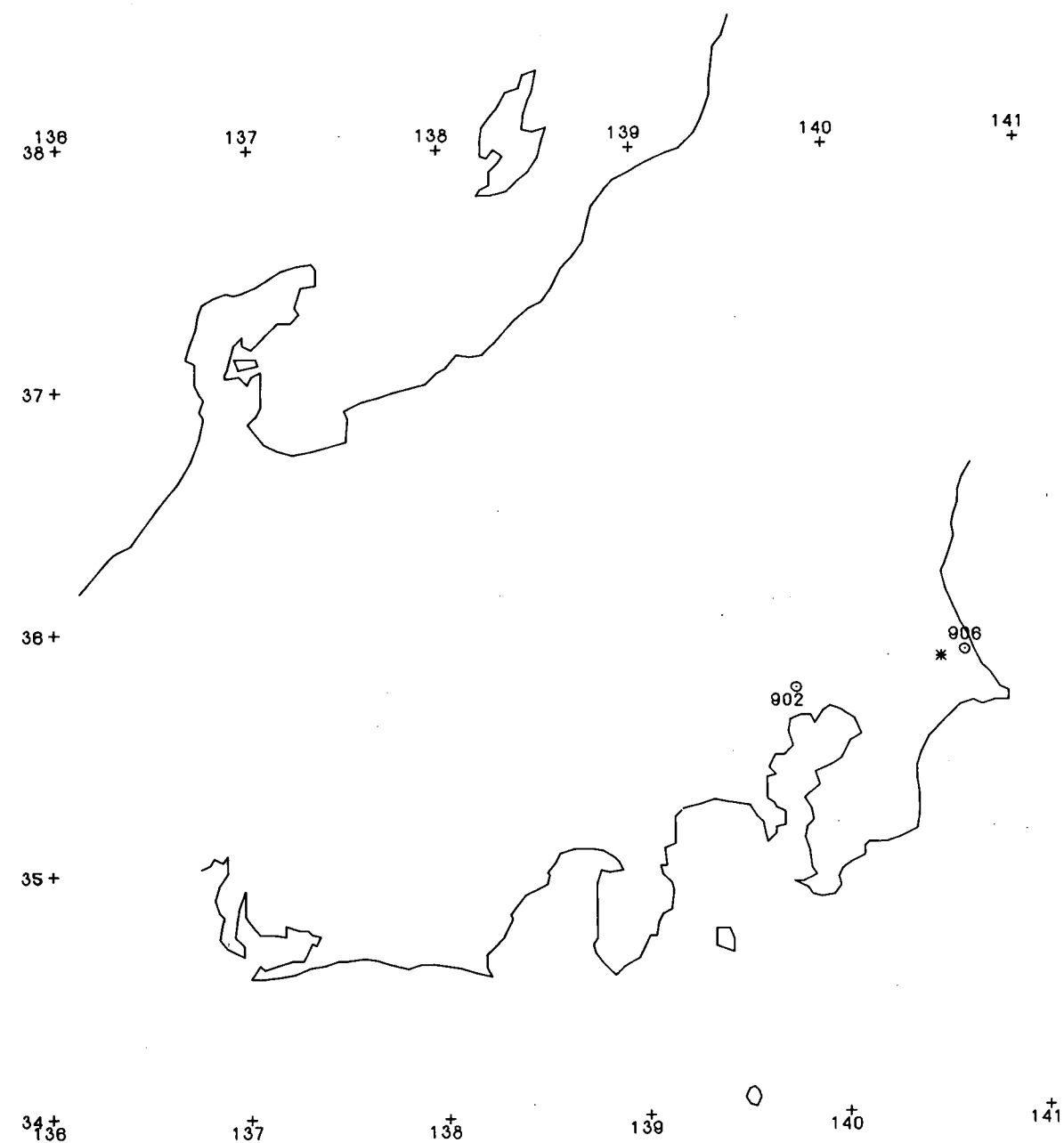
| EQ. NO. | INSTRUMENTS | RECORD NO. | HORI.A | VERTICAL | HORI.B (GAL) |
|---------|-------------|------------|--------|----------|--------------|
| 72004   | GR-1        | 2          | 13.4   | 4.5      | 13.4         |
| 72004   | DA-1        | 1          | 41.8   | 1.5      | 40.3         |
| 72006   | GR-1        | 3          | 38.7   | 7.5      | 20.9         |
| 72006   | DA-1        | 2          | 62.6   | 0.       | 44.8         |

72001

NORTHERN CHIBA PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|-----------------------|----------|---------|-----------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                             |
| P.W.R.I. KASHIMA E.L.        | 906 GR-1 13      | 11.3                  | 2.5      | 46.3    | 1972.01.04.09.20            |
| NISHIARAI BRIDGE             | 902 PI-1 48      | 2.5                   | 1.3      | 2.5     |                             |

LOCATION OF  
EPICENTER  
LO=140 32  
LA= 35 52  
DEPTH, MAGNITUDE  
40.0 KM. M=5.0  
(\* E.Q. CENTER)

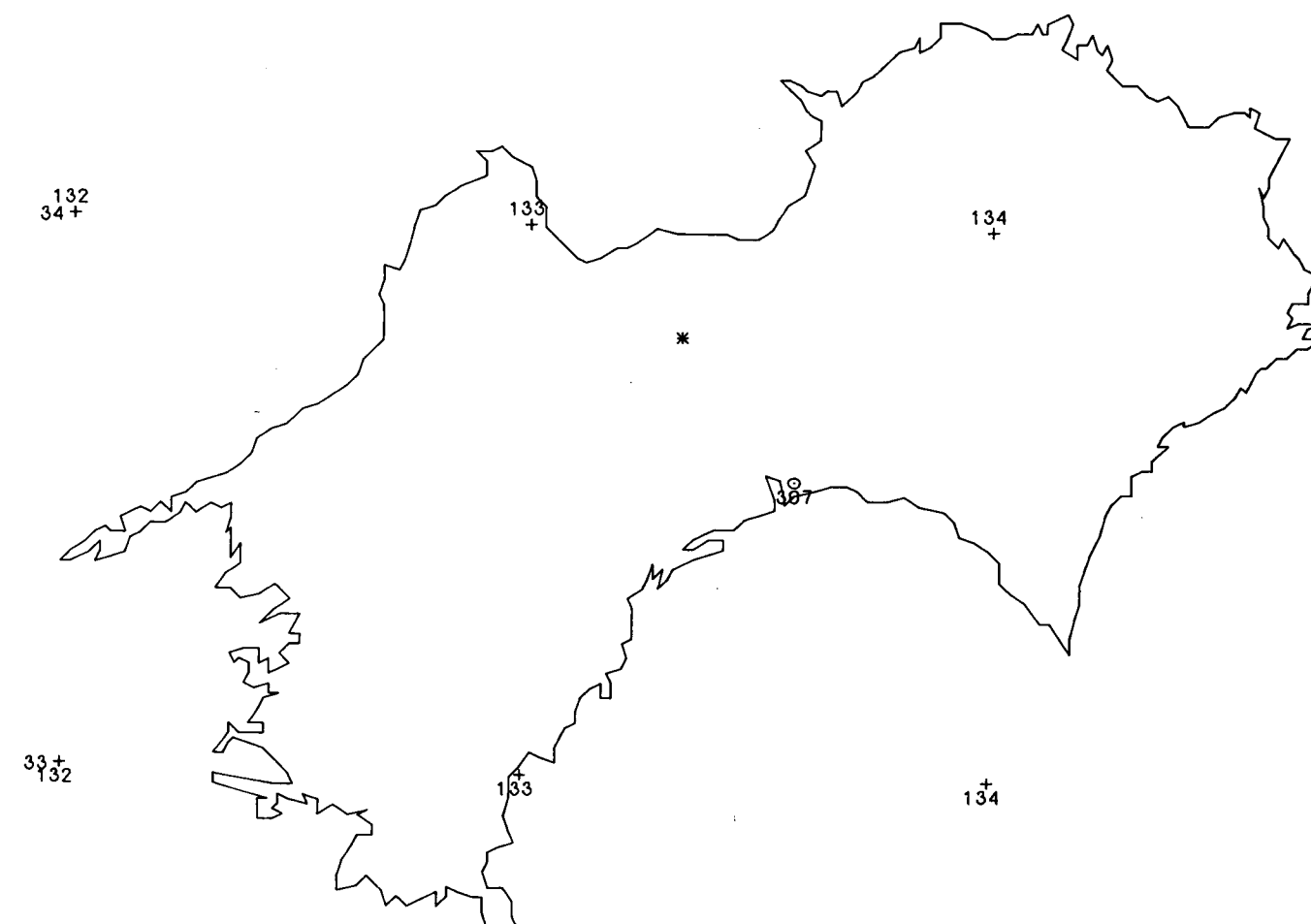


72002

KOCHI-EHIME BORDER

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|-----------------------|----------|---------|-----------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                             |
| GODAISAN BRIDGE              | 307 GR-1 4       | 10.0                  | 5.0      | 7.5     | 1972.01.08.07.22            |
| GODAISAN BRIDGE              | 307 PI-1 16      | 5.0                   | 0.0      | 5.0     |                             |

LOCATION OF  
EPICENTER  
LO=133 20  
LA= 33 48  
DEPTH, MAGNITUDE  
0.0 KM. M=4.5  
(\* E.Q. CENTER)

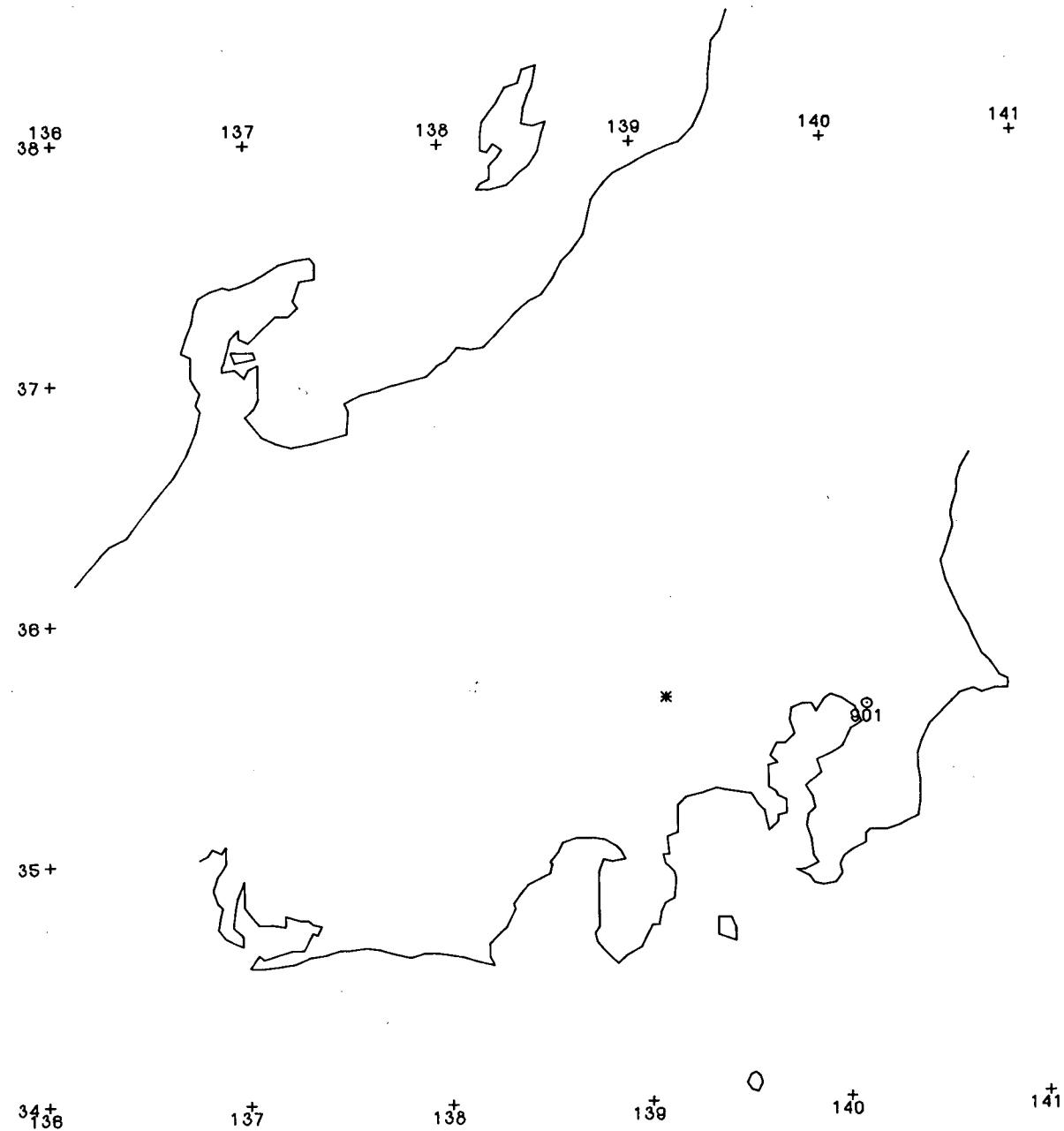


72003

EASTERN YAMANASHI PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| P.W.R.I.CHIBA-BRANCHI        | 901 GR-1 51      | 6.3                 | 2.5      | 5.0    | 1972.01.27.23.41            |

LOCATION OF  
EPICENTER  
LO=139 7  
LA= 35 41  
DEPTH, MAGNITUDE  
40.0 KM. M= 4.8  
(\* E.Q. CENTER)

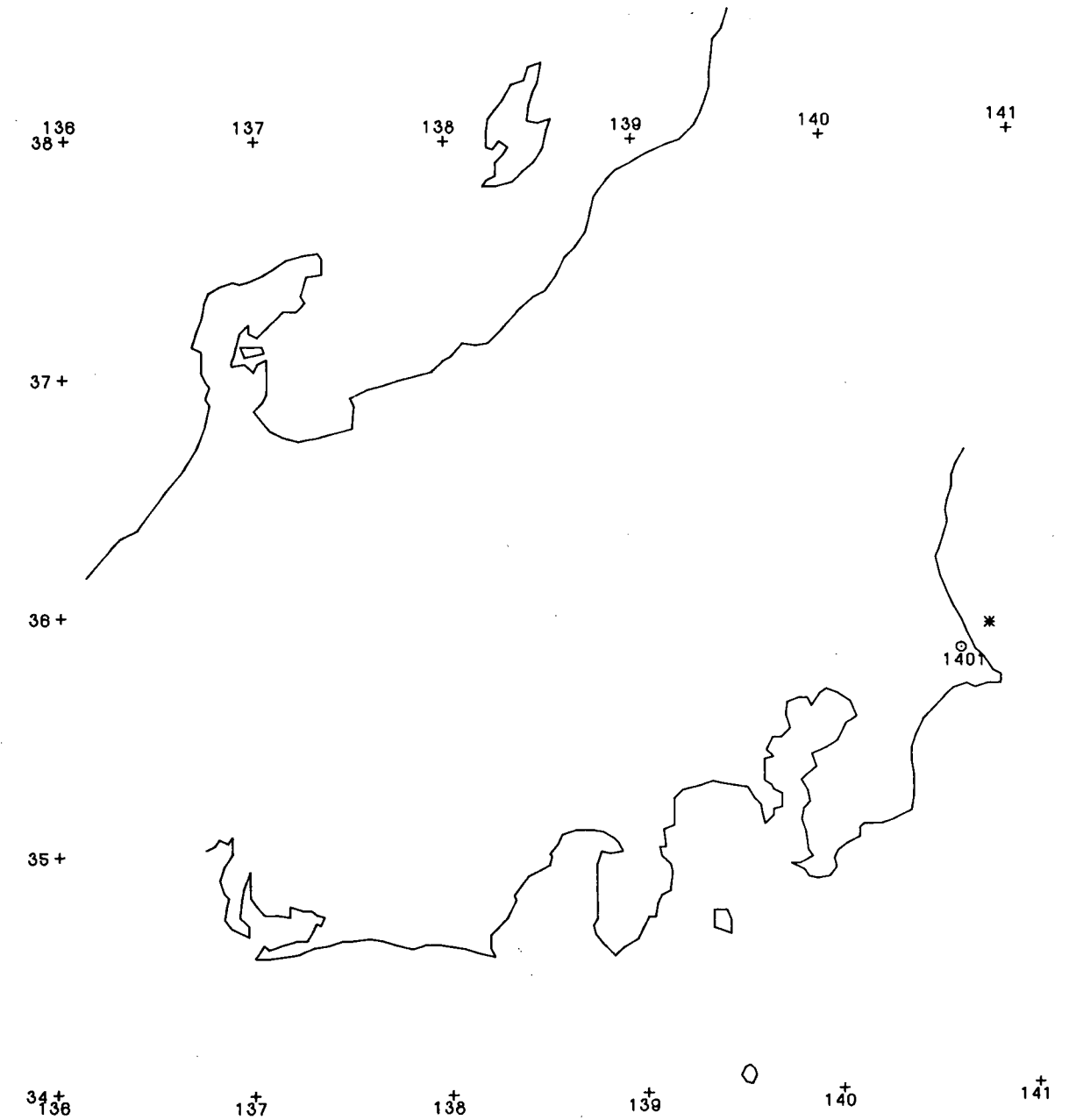


72004

OFF IBARAKI PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| TONEGAWA ESTUARI DAM         | 1401 GR-1 2      | 13.4                | 4.5      | 13.4   | 1972.02.12.20.51            |
| TONEGAWA ESTUARI DAM         | 1401 DA-1 1      | 41.8                | 1.5      | 40.3   |                             |

LOCATION OF  
EPICENTER  
LO=140 49  
LA= 35 56  
DEPTH, MAGNITUDE  
30.0 KM. M= 4.0  
(\* E.Q. CENTER)



72005

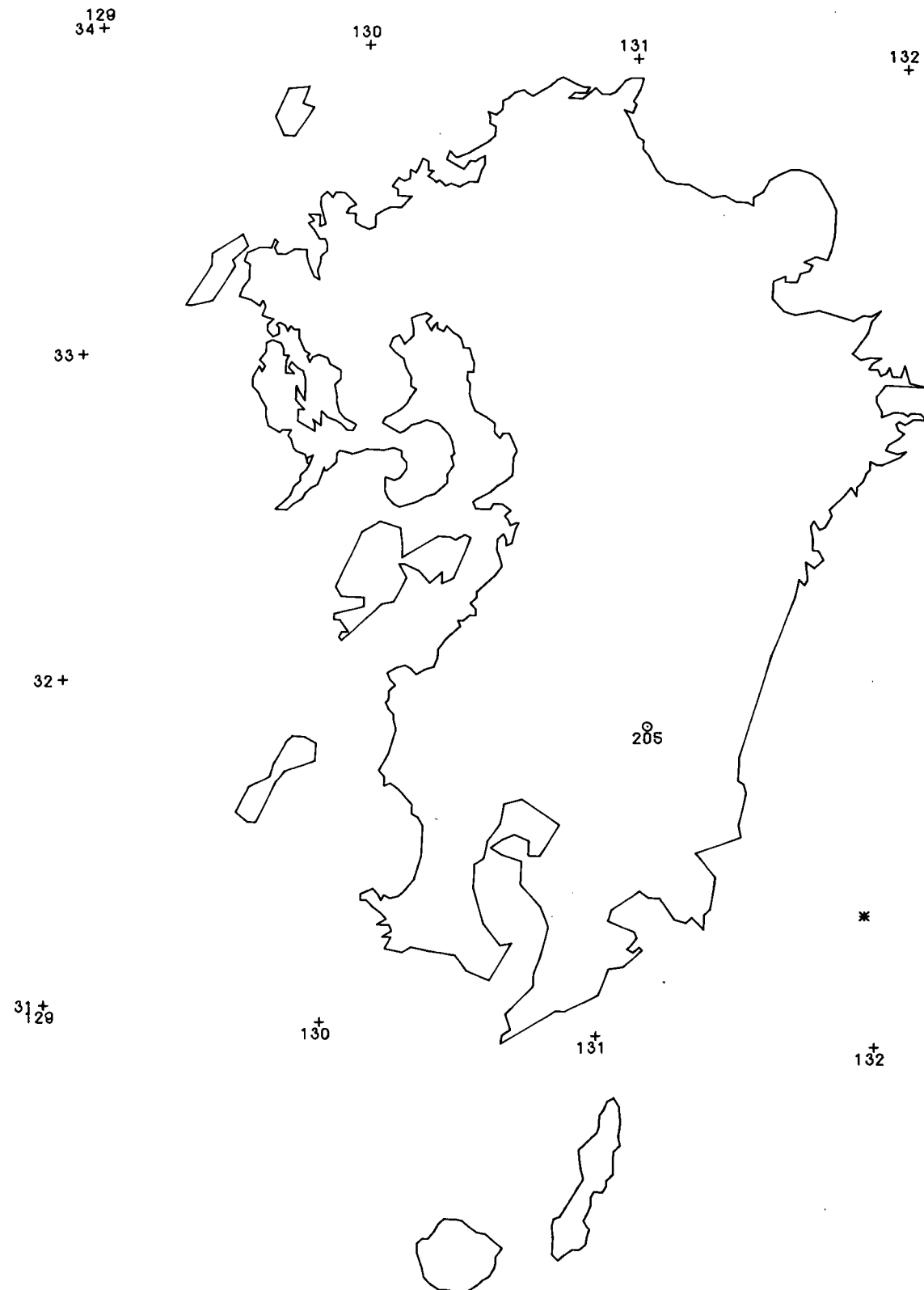
OFF MIYAGI PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| ISHISETO BRIDGE              | 205 GR-1 12      | 2.5                 | 1.3      | 2.5    | 1972.02.21.23.55            |

LOCATION OF  
EPICENTER  
LO=131 57  
LA= 31 24

DEPTH. MAGNITUDE  
20.0 KM. M= 4.8

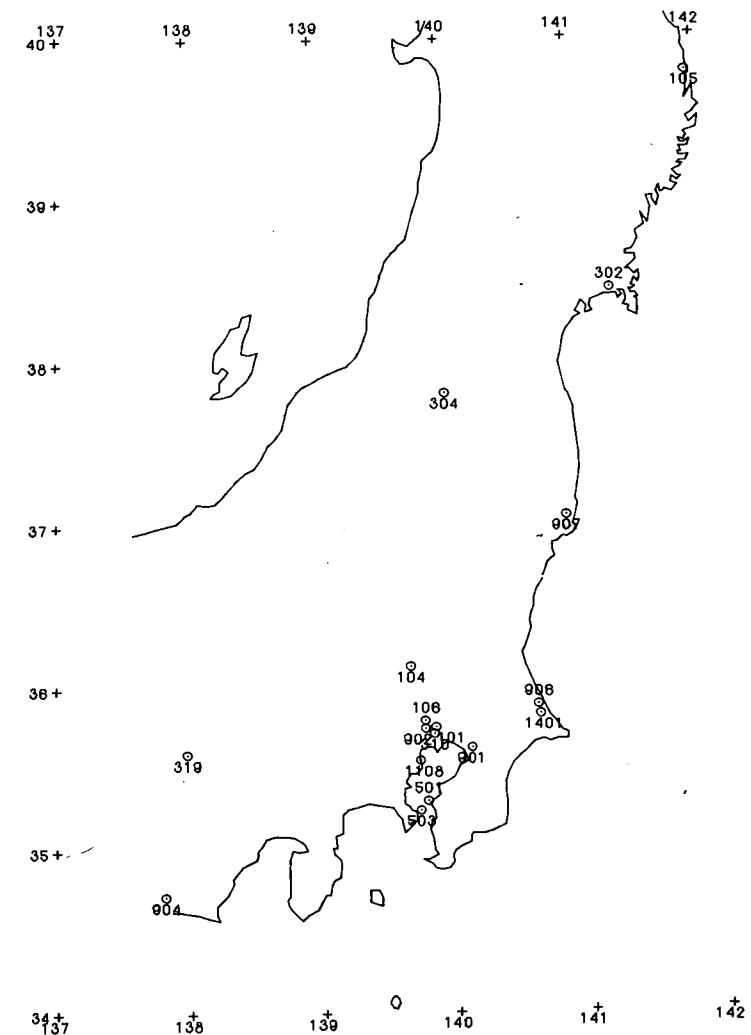
(\* E.Q. CENTER)



72006

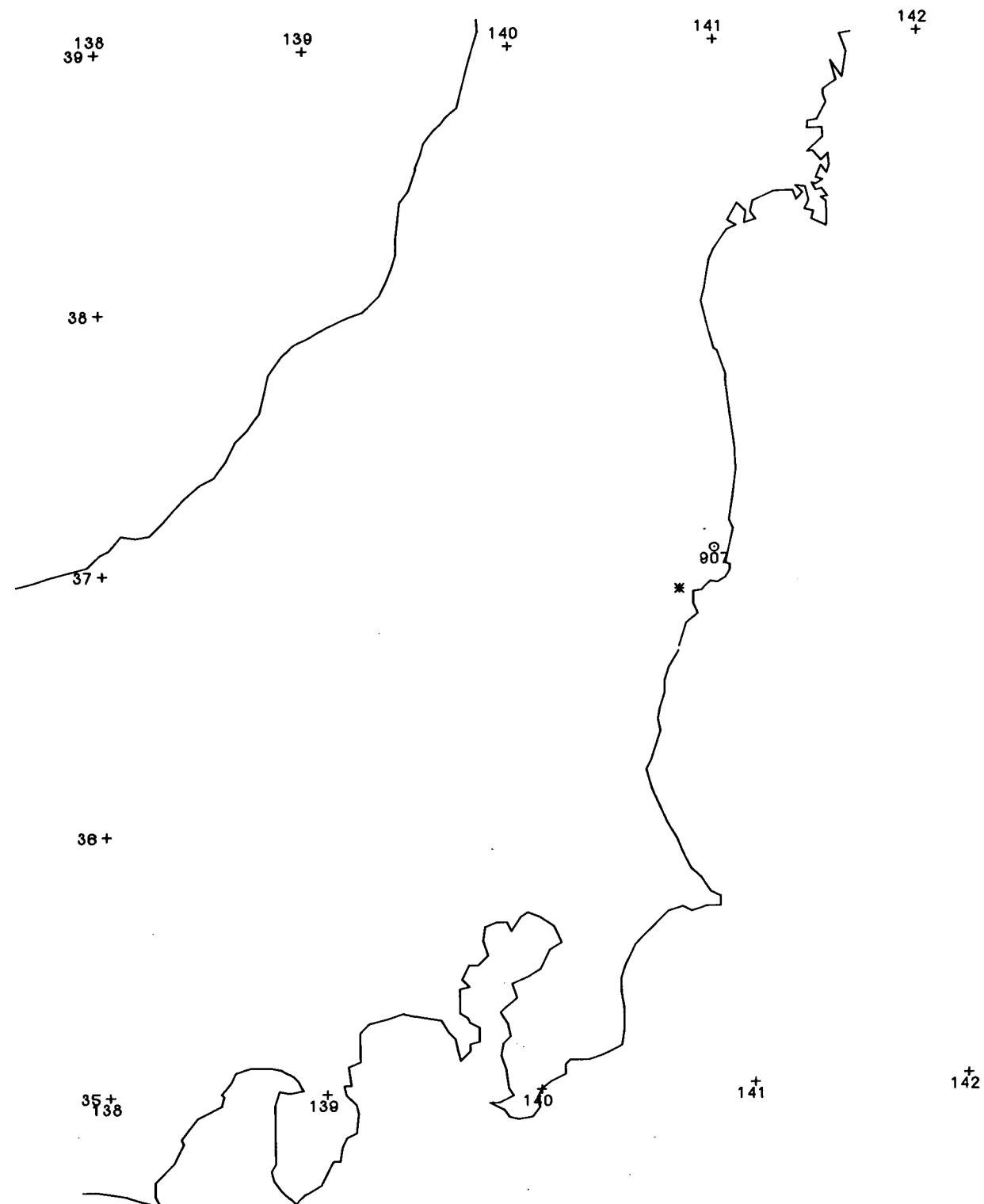
OFF HAGHIJOJIMA

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| SHINKATSUSHIKA BRIDGE        | 101 GR-1 19      | 18.8                | 5.0      | 13.8   | 1972.02.29.18.23            |
| SHINKATSUSHIKA BRIDGE        | 101 PI-1 12      | 28.8                | 7.5      | 23.8   |                             |
| SHINTONEGAWA BRIDGE          | 104 GR-1 22      | 20.0                | 7.5      | 15.0   |                             |
| SHINTONEGAWA BRIDGE          | 104 PI-1 13      | 16.3                | 3.8      | 16.3   |                             |
| MASAKI BRIDGE                | 105 GR-1 2       | 5.0                 | 0.0      | 5.0    |                             |
| MASAKI BRIDGE                | 105 PI-1 2       | 9.0                 | 0.0      | 6.0    |                             |
| SOKA BRIDGE                  | 108 GR-1 19      | 27.5                | 7.5      | 25.0   |                             |
| SOKA BRIDGE                  | 108 PI-1 18      | 38.8                | 5.0      | 31.3   |                             |
| KAIHOKU BRIDGE               | 302 GR-1 27      | 5.0                 | 3.0      | 5.0    |                             |
| KAIHOKU BRIDGE               | 302 PI-1 29      | 18.8                | 3.0      | 5.0    |                             |
| DATE BRIDGE                  | 304 GR-1 31      | 23.8                | 6.3      | 15.0   |                             |
| DATE BRIDGE                  | 304 PI-1 36      | 28.8                | 6.3      | 37.5   |                             |
| HIRAI BRIDGE                 | 310 GR-1 17      | 25.0                | 7.5      | 16.3   |                             |
| HIRAI BRIDGE                 | 310 PI-1 15      | 50.0                | 6.3      | 21.3   |                             |
| HIRAI BRIDGE                 | 310 PI-2 15      | 70.0                | 6.3      | 23.8   |                             |
| SHITOKU BRIDGE               | 319 GR-1 6       | 3.0                 | 0.0      | 3.0    |                             |
| SHITOKU BRIDGE               | 319 PI-1 6       | 10.0                | 0.0      | 7.6    |                             |
| TOKYO BAY(FUTTU CAPE)        | 501 GR-1 68      | 41.3                | 13.8     | 33.8   |                             |
| TOKYO BAY(KANNONZAKI)        | 503 GR-1 18      | 58.3                | 16.3     | 38.8   |                             |
| P.W.R.I.CHIBA-BRANCHI        | 901 GR-1 52      | 27.5                | 13.8     | 27.5   |                             |
| NISHIARAI BRIDGE             | 902 GR-1 28      | 27.5                | 7.5      | 27.5   |                             |
| NISHIARAI BRIDGE             | 902 PI-1 49      | 25.0                | 3.8      | 21.3   |                             |
| NISHIARAI BRIDGE             | 902 PI-1 49      | 25.0                | 3.8      | 21.3   |                             |
| SHINTENRYUGAWA BRIDGE        | 904 GR-1 7       | 0.0                 | 0.0      | 0.0    |                             |
| P.W.R.I.KASHIMA E.L.         | 906 GR-1 14      | 15.0                | 2.5      | 13.8   |                             |
| TAIRA BRIDGE                 | 907 AB-1 21      | 7.5                 | 3.8      | 7.5    |                             |
| ICHINOHASHI BRIDGE           | 1108 GR-1 8      | 46.0                | 10.0     | 41.0   |                             |
| ICHINOHASHI BRIDGE           | 1108 PI-1 4      | 94.0                | 18.0     | 78.0   |                             |
| HANEDA UNDERSEA TUNNEL       | 1109 GR-1 5      | 15.0                | 3.8      | 13.8   |                             |
| HANEDA UNDERSEA TUNNEL       | 1109 TU-2 5      | 7.5                 | 3.8      | 8.8    |                             |
| TONEGAWA ESTUARI DAM         | 1401 GR-1 3      | 38.7                | 7.5      | 20.9   |                             |
| TONEGAWA ESTUARI DAM         | 1401 DA-1 2      | 62.6                | 0.0      | 44.8   |                             |



SOUTHERN-FUKUSHIMA PREF

STATION  
OF STRUCTURE  
RIDGE

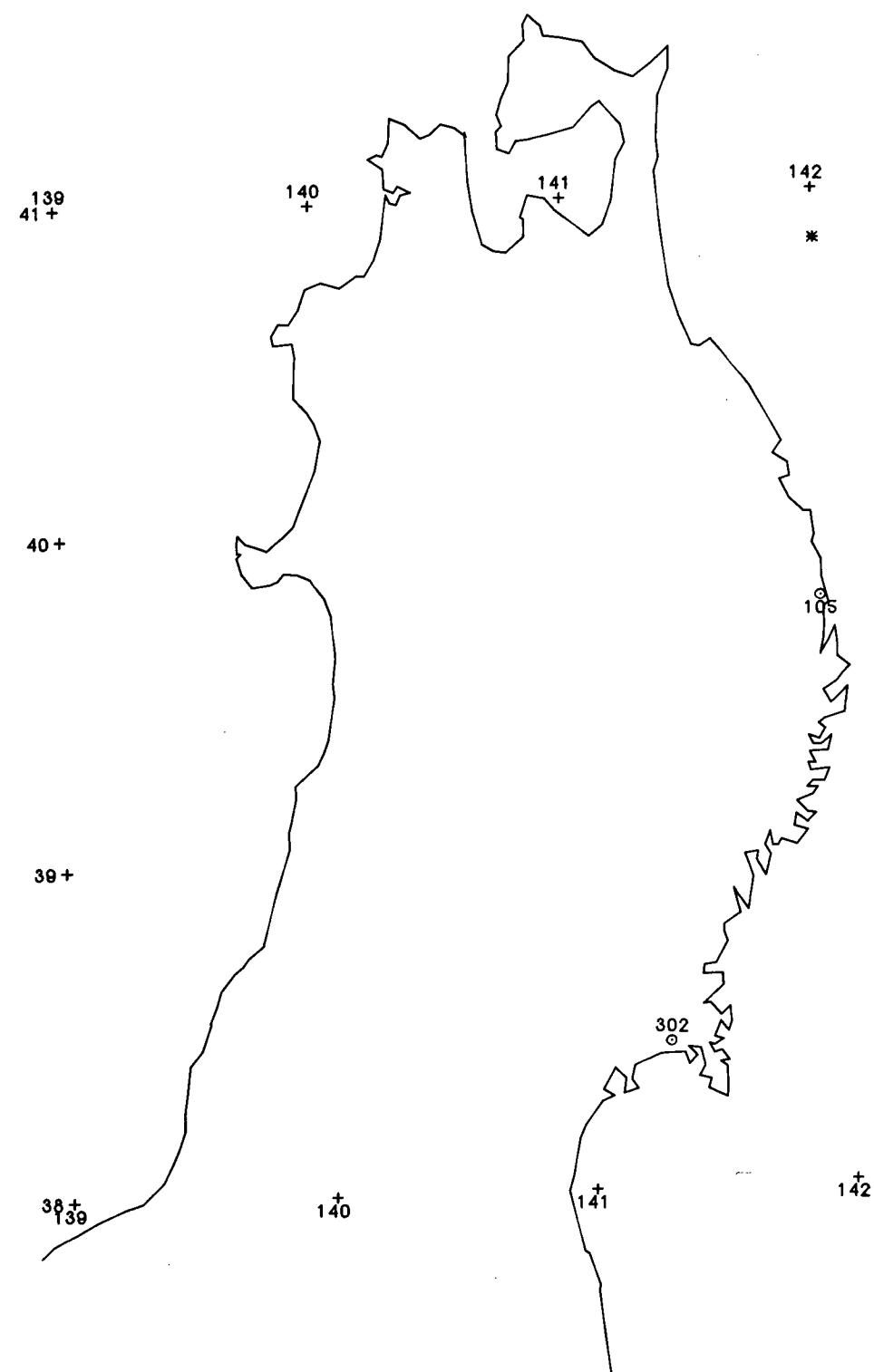


E OFF AOMORI PREF

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      STATION
NAME  OF STRUCTURE
MASAKI BRIDGE
MASAKI BRIDGE
KAIHOKU BRIDGE
KAIHOKU BRIDGE

```



72009

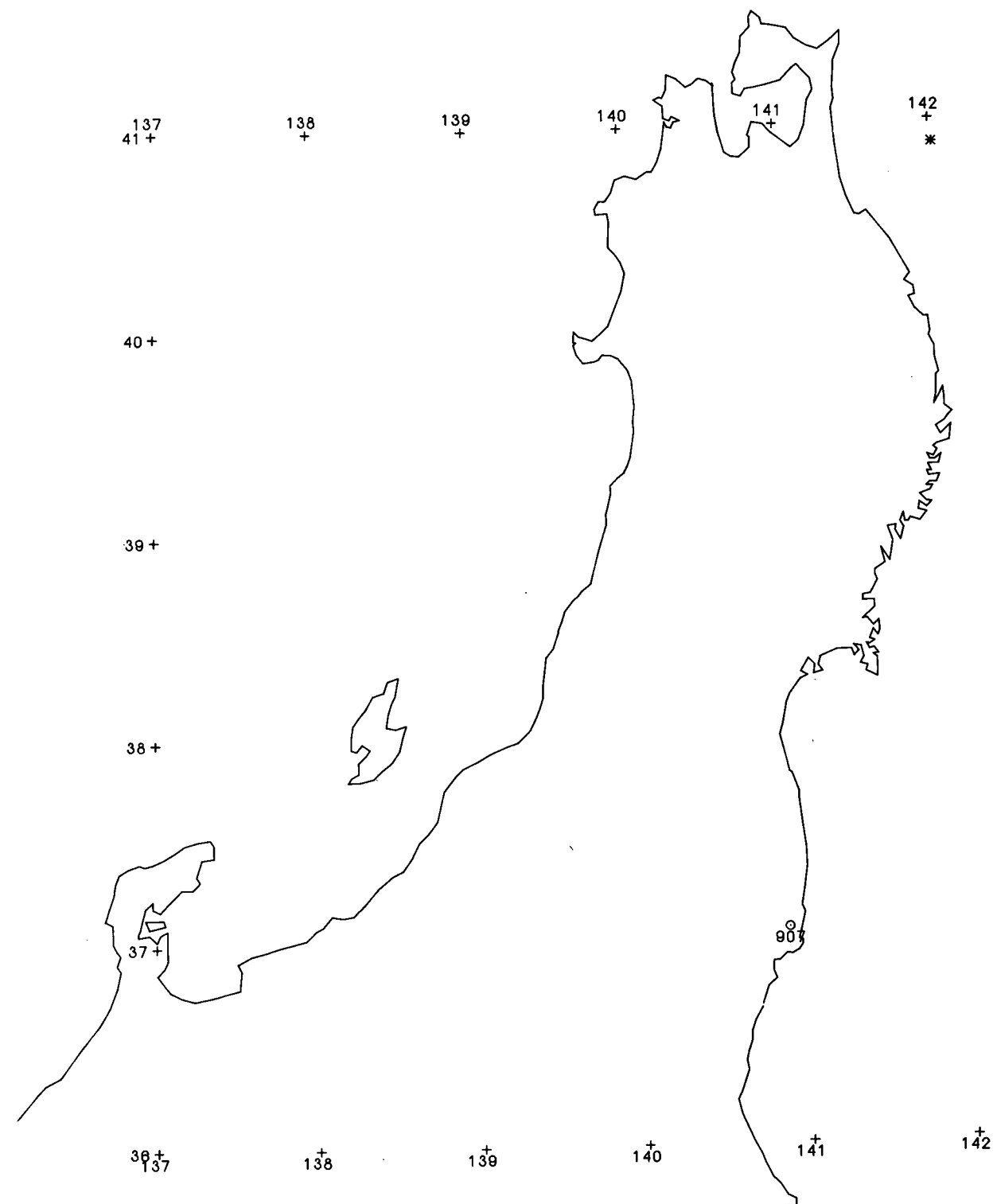
E OFF AOMORI PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| TAIRA BRIDGE                 | 907 GR-1 63      | 3.8                 | 1.3      | 0.0    | 1972.03.20.11.16            |

LOCATION OF  
EPICENTER  
LO=142 1  
LA= 40 53

DEPTH, MAGNITUDE  
80.0 KM. M= 0.0

(\* E.Q. CENTER)



72010

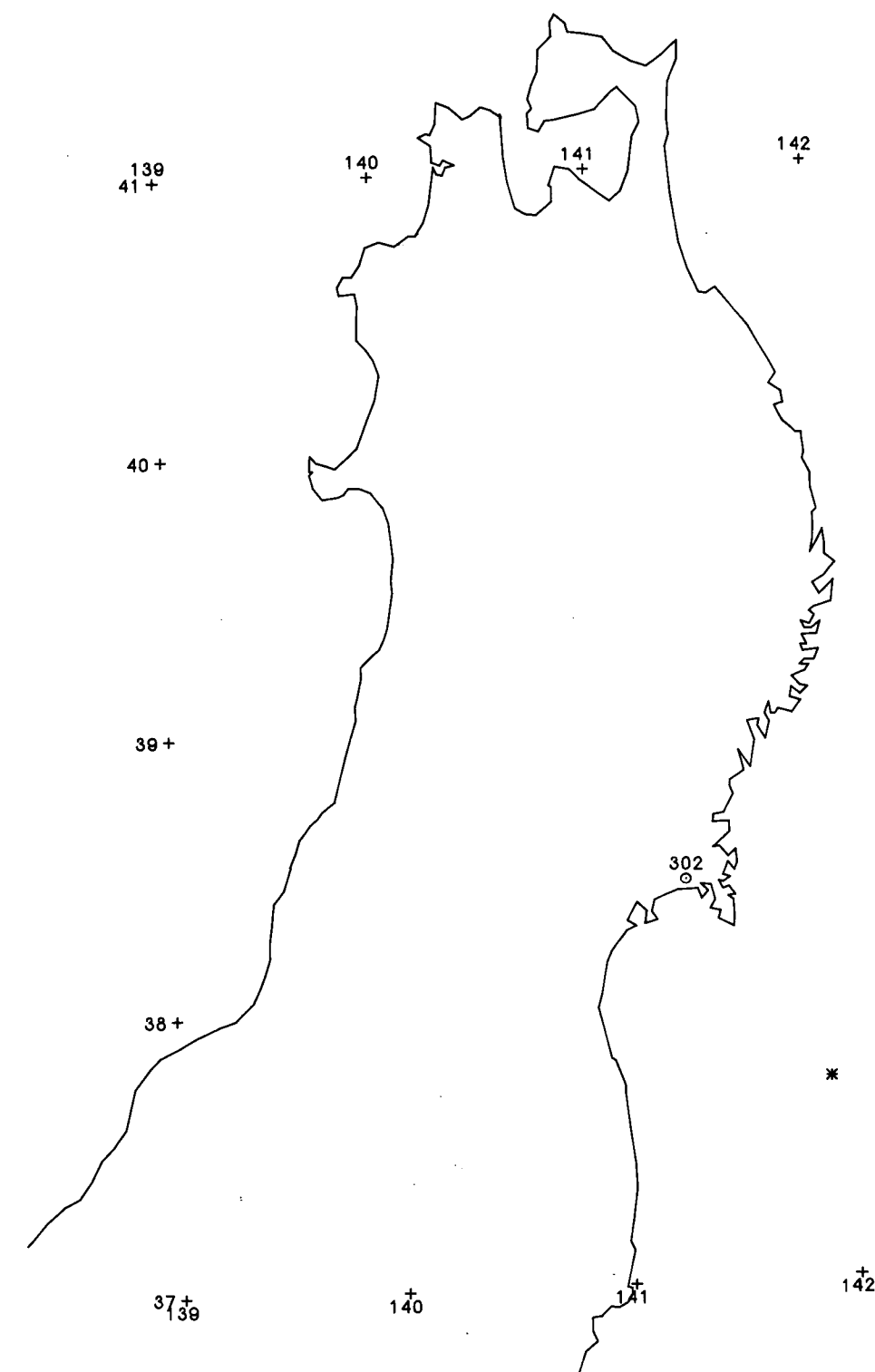
OFF FUKUSHIMA PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| KAIHOKU BRIDGE               | 302 GR-1 29      | 2.5                 | 1.3      | 0.0    | 1972.04.17.09.37            |
| KAIHOKU BRIDGE               | 302 PI-1 31      | 3.8                 | 1.3      | 2.5    |                             |

LOCATION OF  
EPICENTER  
LO=141 55  
LA= 37 43

DEPTH, MAGNITUDE  
0.0 KM. M= 4.8

(\* E.Q. CENTER)



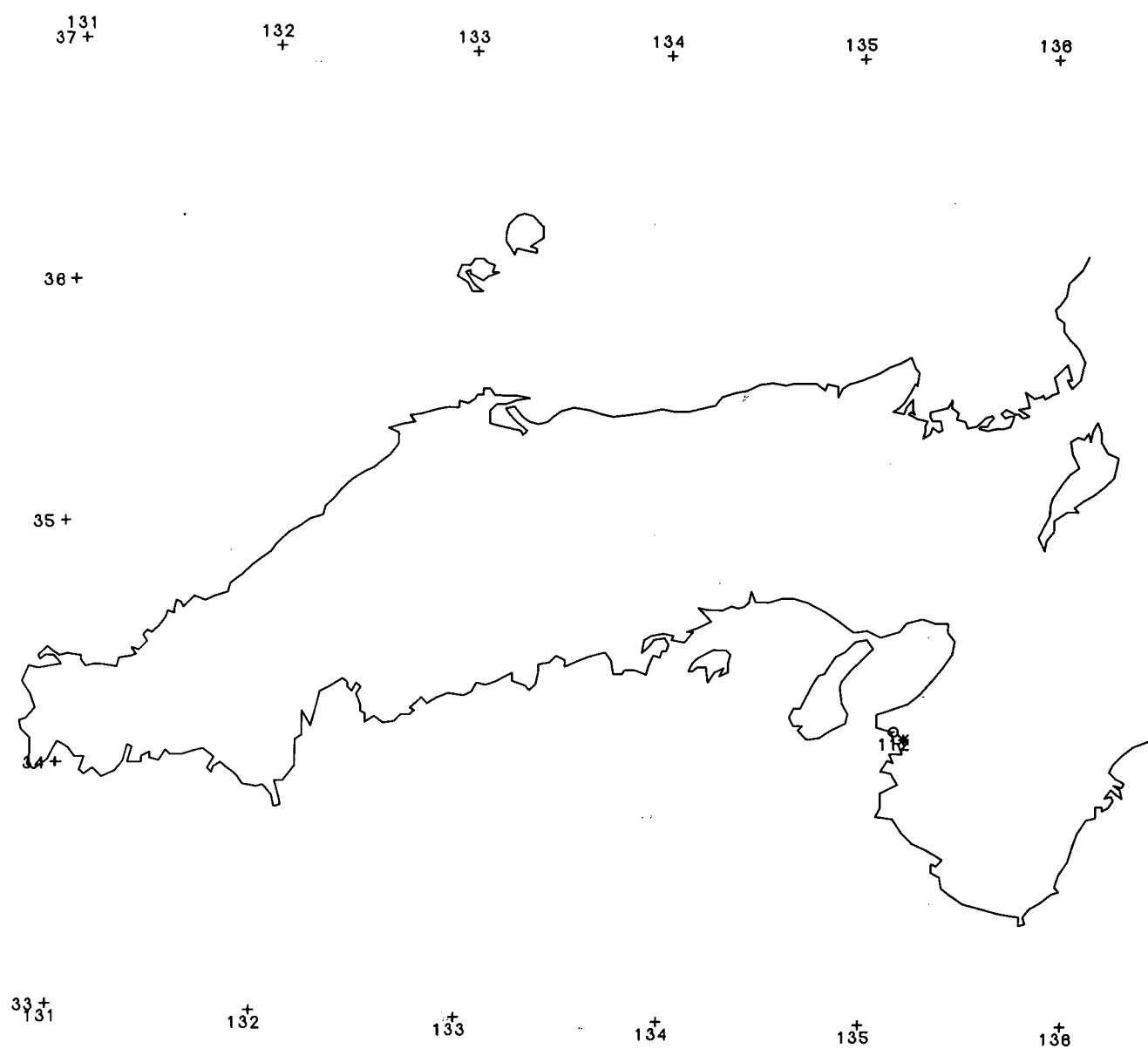
72011 NEAR WAKAYAMA

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| KINOKAWA BRIDGE              | 112 GR-1 24      | 26.3                | 10.0     | 26.3   | 1972.04.28.23.53            |

LOCATION OF  
EPICENTER  
LO=135 13  
LA= 34 11

DEPTH, MAGNITUDE  
10.0 KM, M= 3.2

(\* E.Q. CENTER)



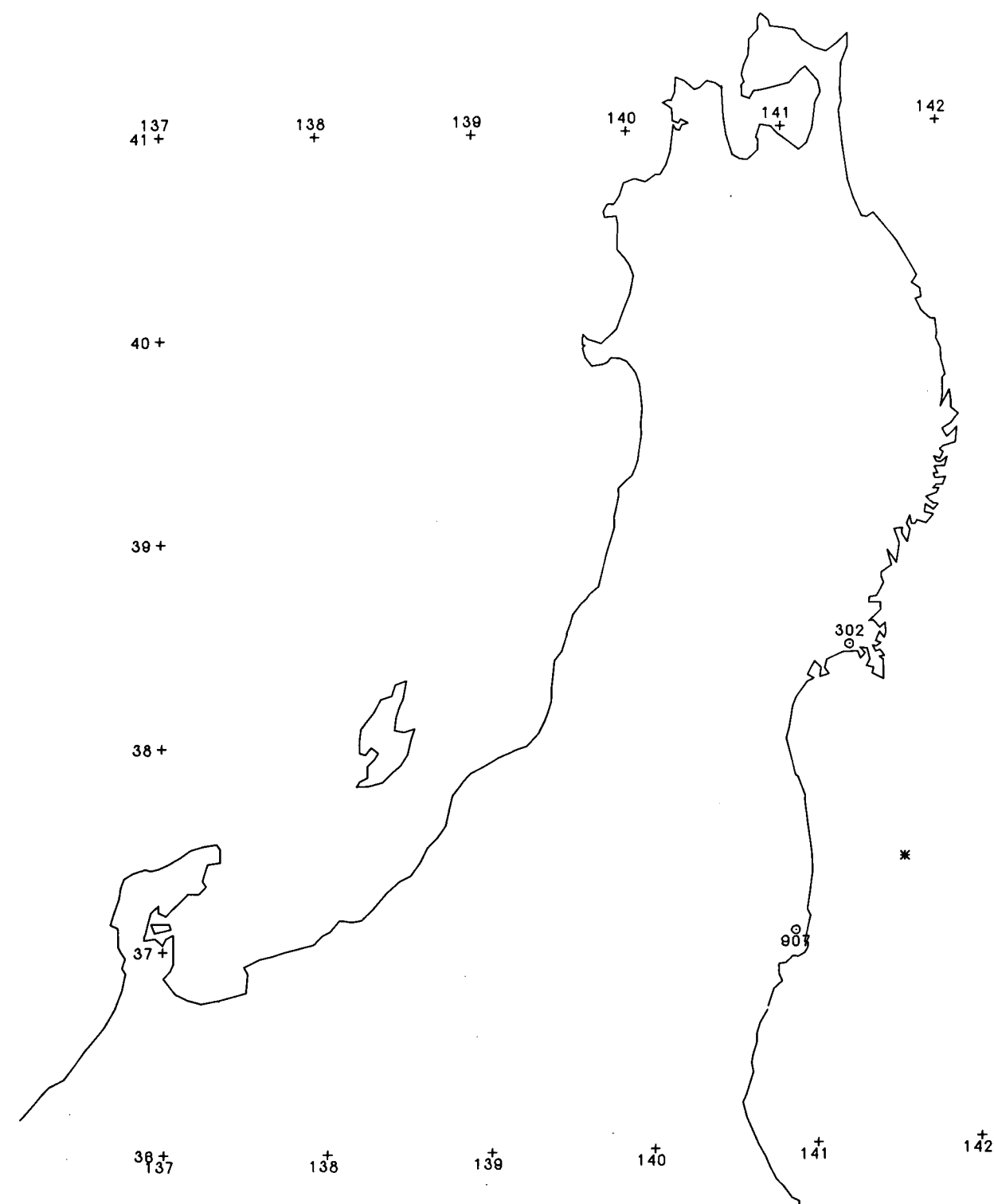
72012 OFF FUKUSHIMA PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| TAIRA BRIDGE                 | 907 GR-1 64      | 8.8                 | 6.3      | 17.5   | 1972.06.28.10.50            |
| 001 GR-1000E-PREF            | 907 DA-1 22      | 5.0                 | 2.5      | 5.0    |                             |
| KAIHOKU BRIDGE               | 302 GR-1 30      | 1.3                 | 1.3      | 0.0    |                             |

LOCATION OF  
EPICENTER  
LO=141 36  
LA= 37 24

DEPTH, MAGNITUDE  
50.0 KM, M= 5.3

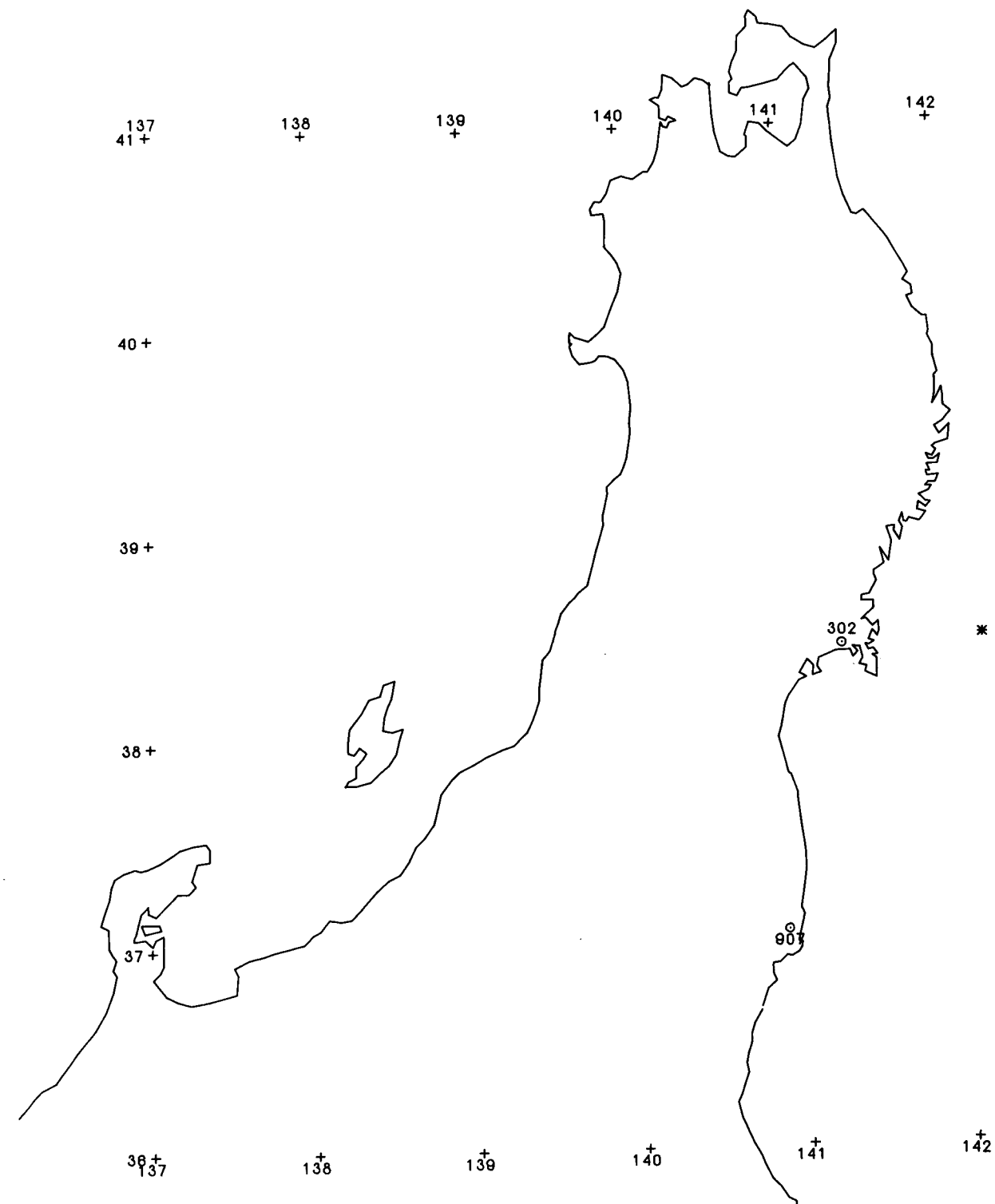
(\* E.Q. CENTER)



72013

OFF MIYAGI PREF

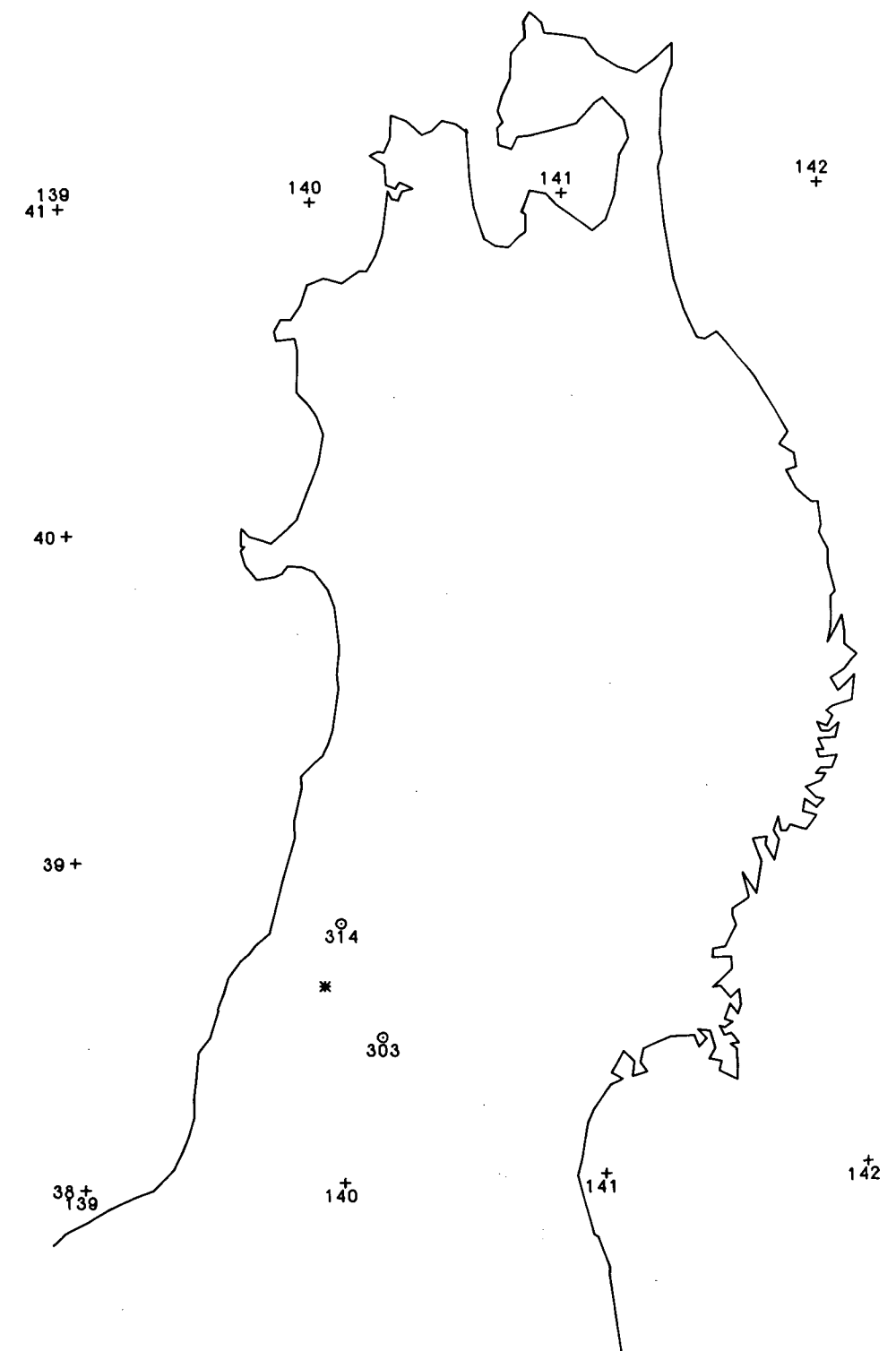
| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE                                                                                                      |
|------------------------------|------------------|---------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                                                                                                                                  |
| TAIRA BRIDGE                 | 907 GR-1 65      | 3.8                 | 2.5      | 3.8    | 1972.07.04.10.04<br>LOCATION OF<br>EPICENTER<br>LO=142 11<br>LA= 38 28<br>DEPTH, MAGNITUDE<br>40.0 KM, M= 5.7<br>(* E.Q. CENTER) |
| KAIHOKU BRIDGE               | 302 GR-1 31      | 2.5                 | 1.3      | 0.0    |                                                                                                                                  |
| KAIHOKU BRIDGE               | 302 PI-1 32      | 10.0                | 2.5      | 7.5    |                                                                                                                                  |



72014

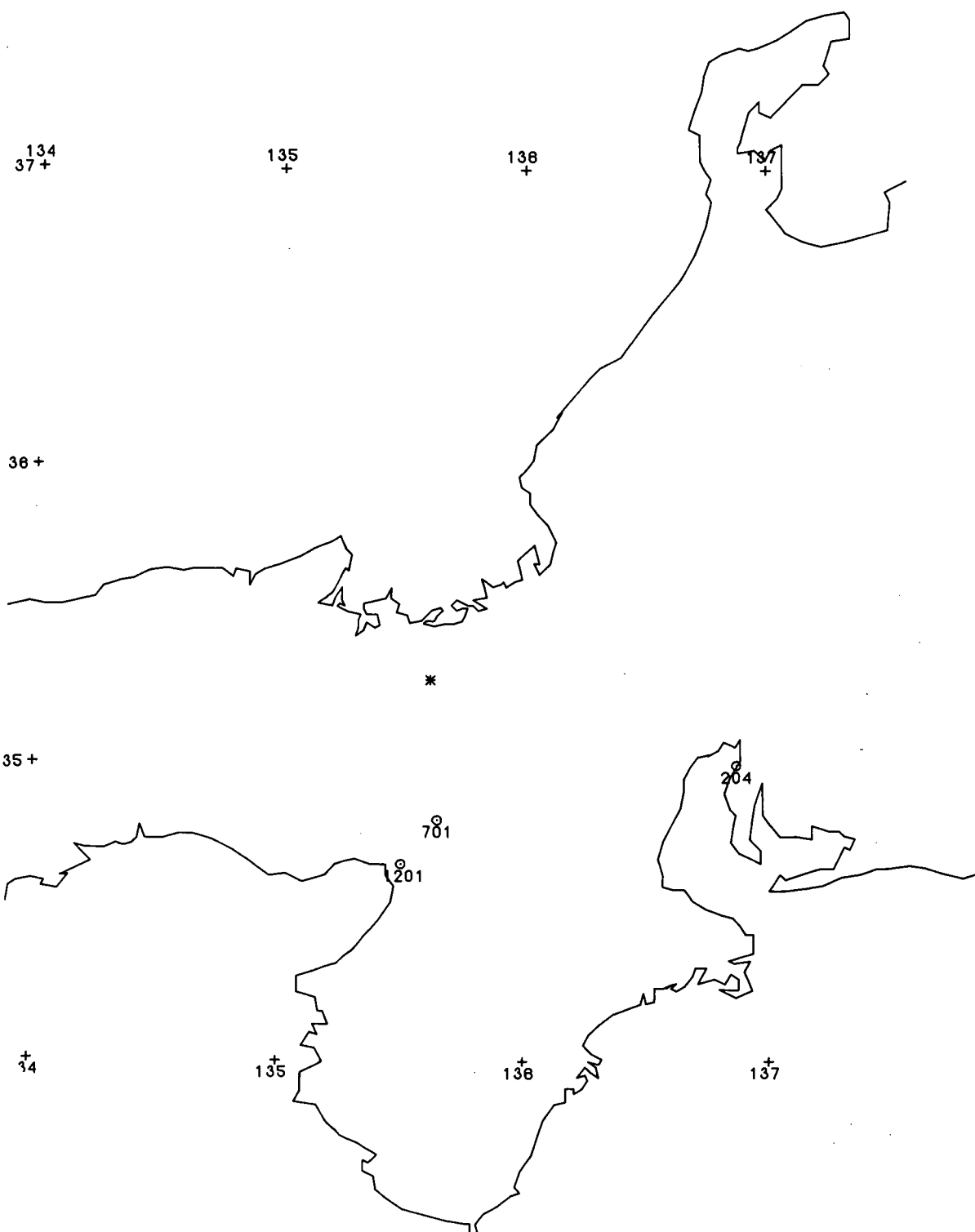
CENTRAL YAMAGATA PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE                                                                                                      |
|------------------------------|------------------|---------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                                                                                                                                  |
| KAHOKU BRIDGE                | 303 GR-1 19      | 27.5                | 12.5     | 15.0   | 1972.08.20.19.09<br>LOCATION OF<br>EPICENTER<br>LO=139 57<br>LA= 38 36<br>DEPTH, MAGNITUDE<br>20.0 KM, M= 5.3<br>(* E.Q. CENTER) |
| KAHOKU BRIDGE                | 303 PI-1 10      | 28.8                | 3.8      | 40.0   |                                                                                                                                  |
| KIYOKAWA BRIDGE              | 314 PI-1 1       | 0.0                 | 0.0      | 0.0    |                                                                                                                                  |



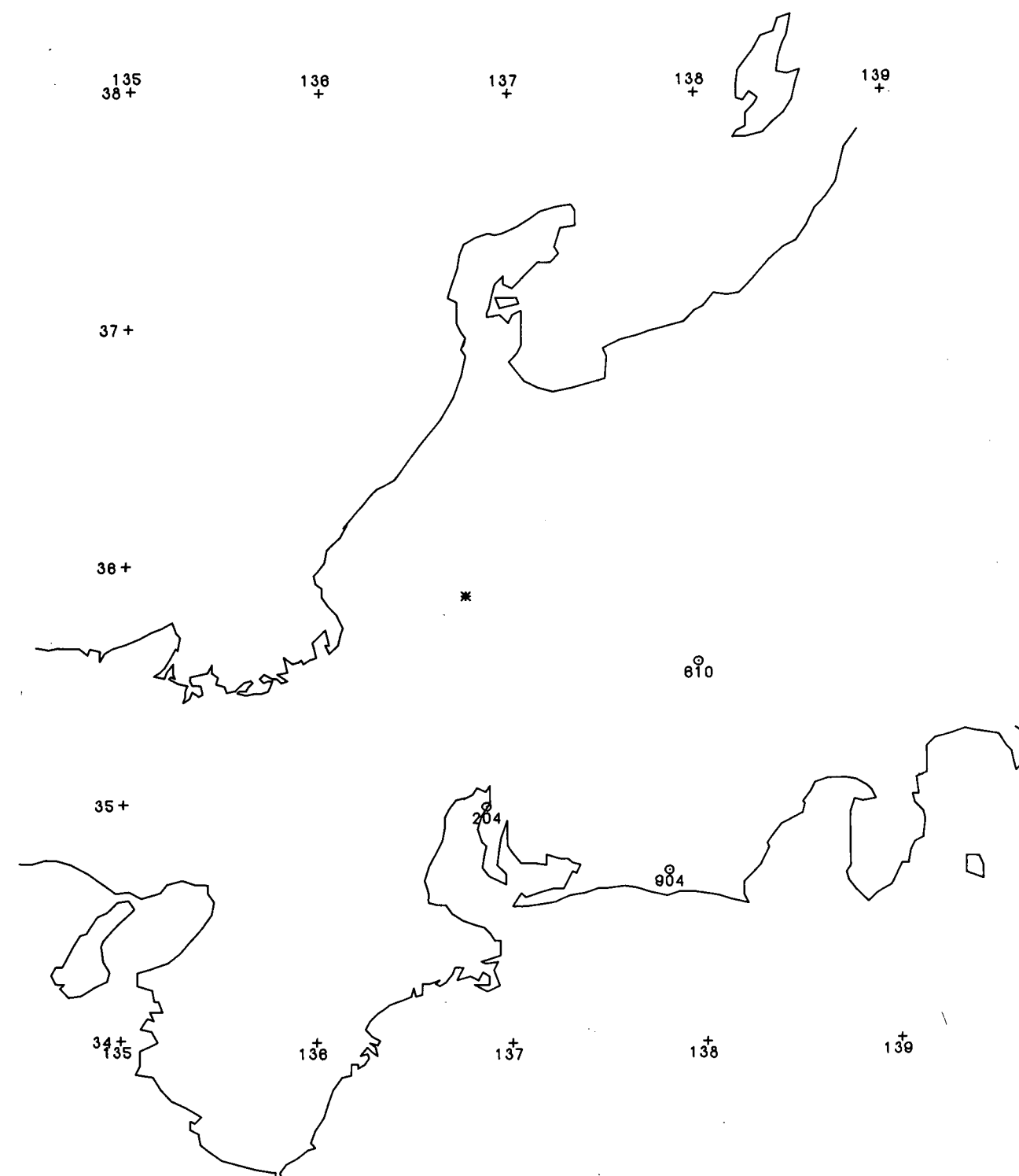
72015 EASTERN KYOTO PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                                                                                                     |
|------------------------------|------------------|-----------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                 |
| SHINYAWATA BRIDGE            | 204 GR-1 15      | 3.8                   | 2.5      | 3.8     | 1972.08.31.16.54<br>LOCATION OF<br>EPICENTER<br>LO=135 37<br>LA= 35 17<br>DEPTH, MAGNITUDE<br>10.0 KM, M=5.1<br>(* E.Q. CENTER) |
| YODOGAWA EMBANKMENT          | 701 GR-1 8       | 17.5                  | 1.3      | 17.5    |                                                                                                                                 |
| YODOGAWA EMBANKMENT          | 701 ES-1 9       | 13.8                  | 2.5      | 7.5     |                                                                                                                                 |
| NISHIYOKOBORI BRIDGE         | 1201 GR-1 7      | 0.0                   | 5.0      | 10.0    |                                                                                                                                 |



72016 FUKUI-GIFU BORDER

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                                                                                                     |
|------------------------------|------------------|-----------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                 |
| SHINYAWATA BRIDGE            | 204 GR-1 16      | 17.5                  | 6.0      | 17.5    | 1972.08.31.17.07<br>LOCATION OF<br>EPICENTER<br>LO=136 46<br>LA= 35 53<br>DEPTH, MAGNITUDE<br>10.0 KM, M=6.0<br>(* E.Q. CENTER) |
| KOSHIBU DAM                  | 610 DA-1 2       | 0.0                   | 0.0      | 0.0     |                                                                                                                                 |
| SHINTENRYUGAWA BRIDGE        | 904 GR-1 8       | 1.3                   | 1.3      | 1.3     |                                                                                                                                 |
| SHINTENRYUGAWA BRIDGE        | 904 GR-1 8       | 1.3                   | 1.3      | 1.3     |                                                                                                                                 |



72017

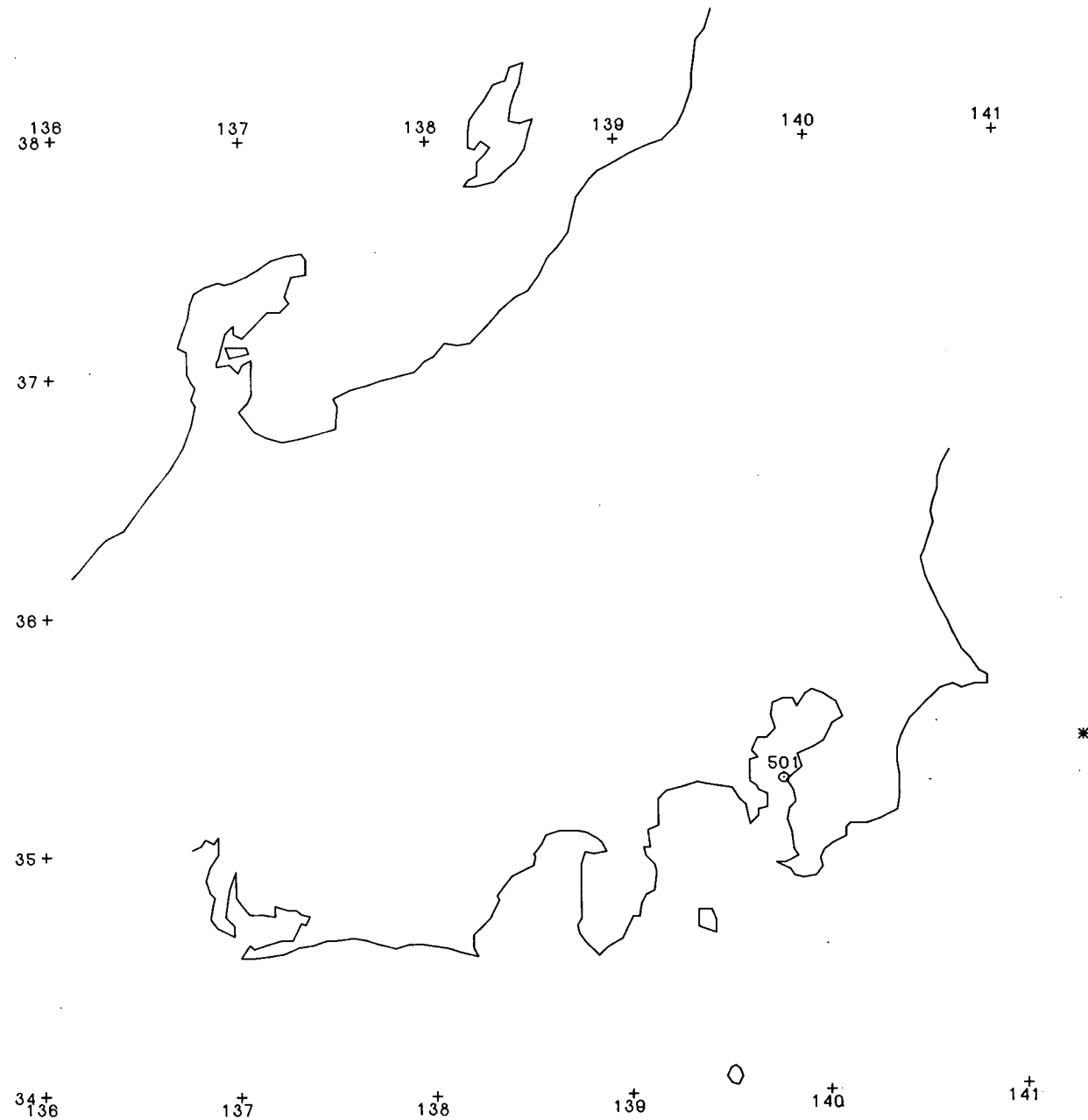
E OFF CHIBA PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| TOKYO BAY(FUTTU CAPE)        | 501 GR-1 69      | 1.3                 | 1.3      | 1.3    | 1972.09.03.04.12            |

LOCATION OF  
EPICENTER  
LO=141 21  
LA= 35 27

DEPTH. MAGNITUDE  
30.0 KM. M=5.0

(\* E.Q. CENTER)



72018

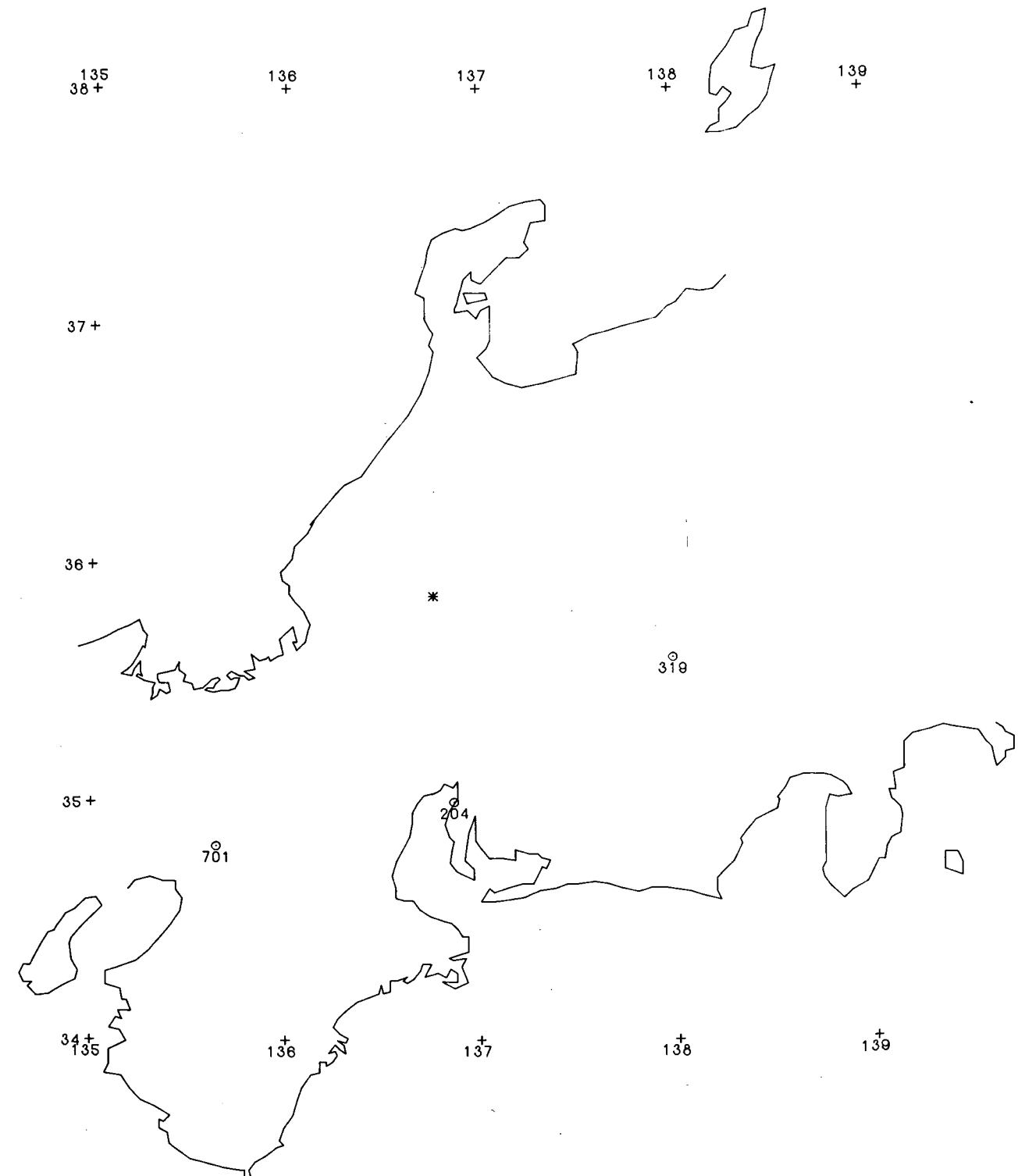
FUKUI-GIFU BORDER

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| SHINYAWATA BRIDGE            | 204 GR-1 17      | 1.3                 | 1.3      | 1.3    | 1972.09.14.15.07            |
| SHITOKU BRIDGE               | 319 GR-1 7       | 12.5                | 12.5     | 0.0    |                             |
| SHITOKU BRIDGE               | 319 PI-1 7       | 45.0                | 7.5      | 41.3   |                             |
| YODOGAWA EMBANKMENT          | 701 GR-1 9       | 2.5                 | 1.3      | 3.8    |                             |

LOCATION OF  
EPICENTER  
LO=136 46  
LA= 35 52

DEPTH. MAGNITUDE  
10.0 KM. M=4.5

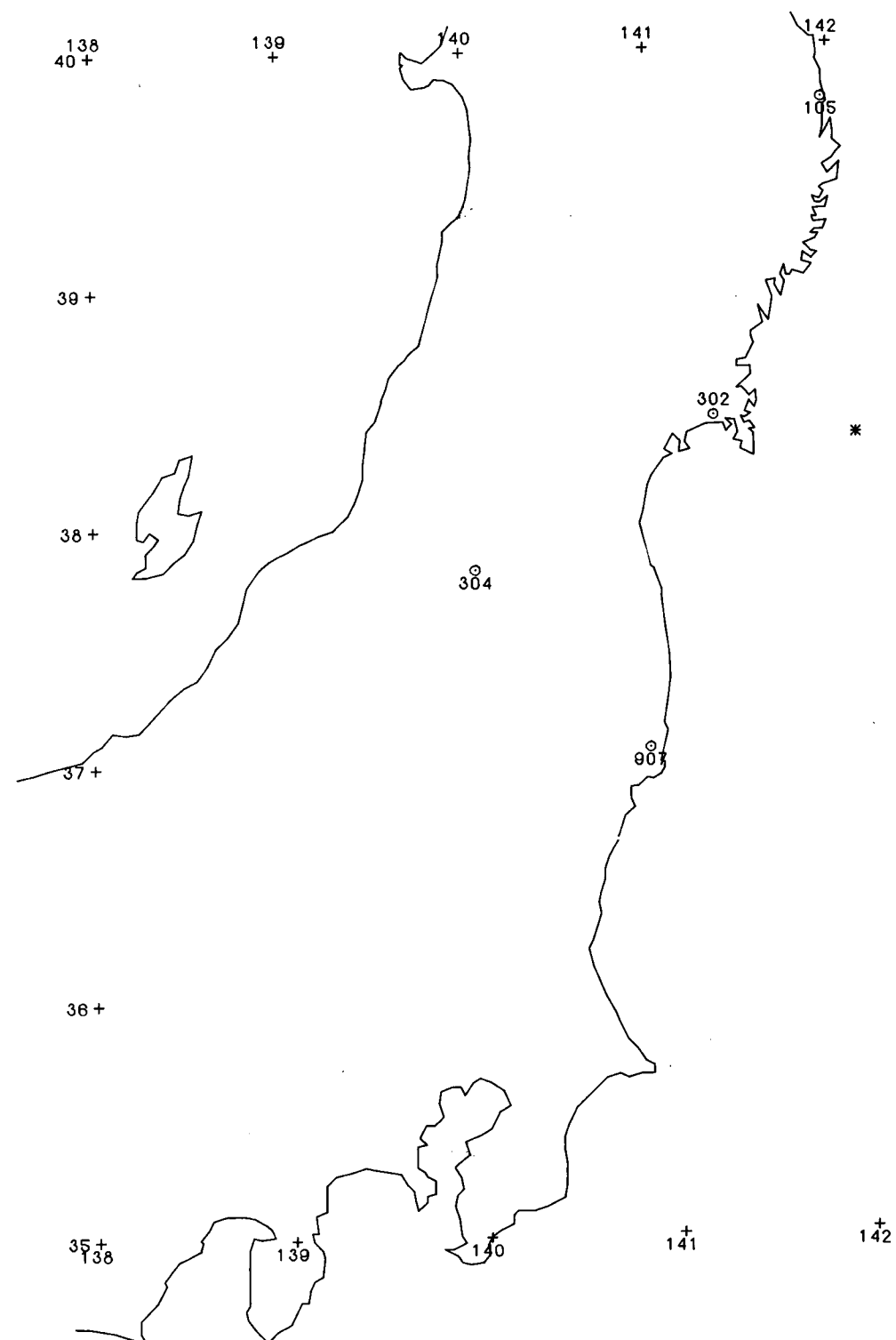
(\* E.Q. CENTER)



72019

OFF MIYAGI PREF

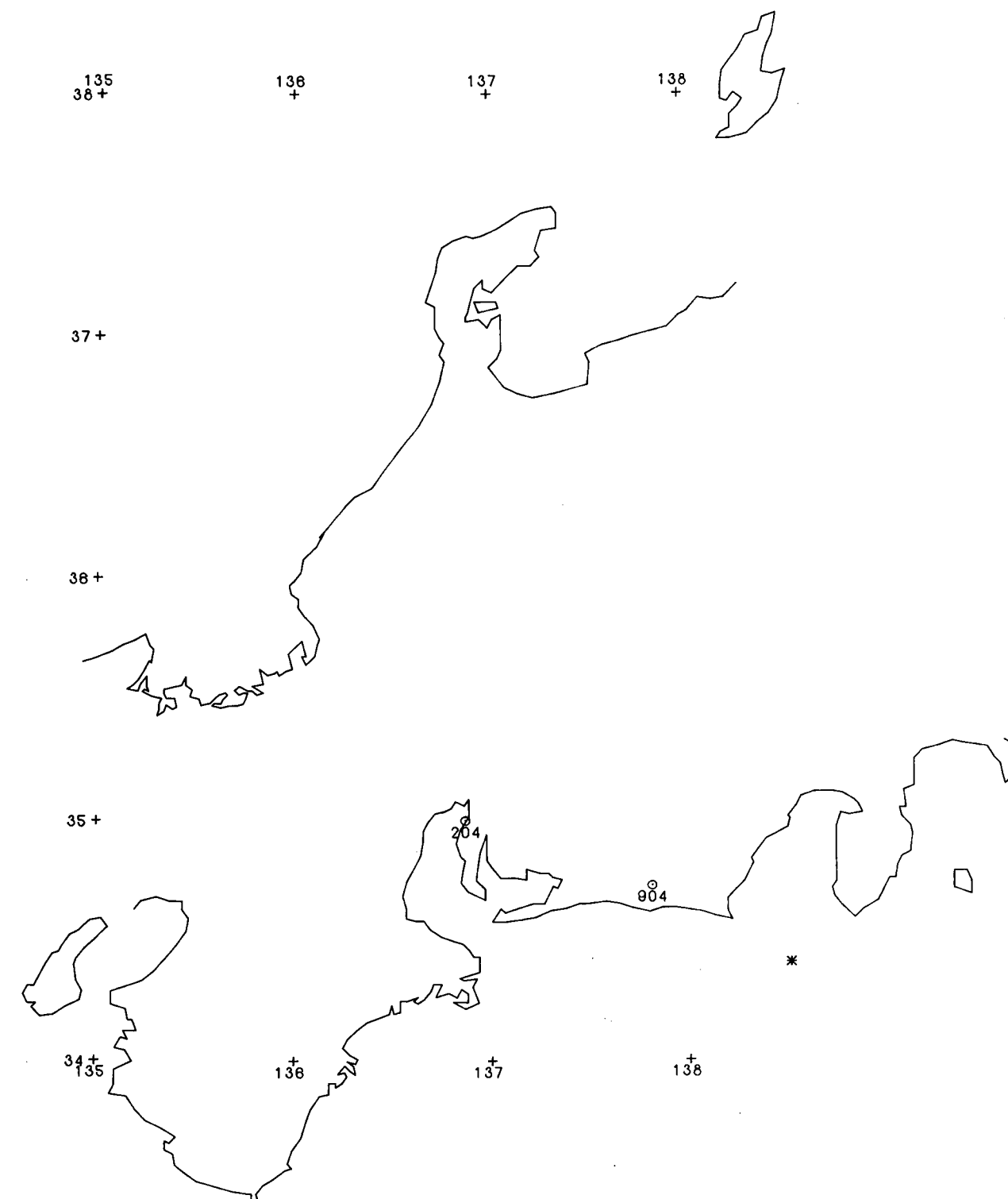
| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE                                                                                                    |
|------------------------------|------------------|---------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                                                                                                                                |
| MASAKI BRIDGE                | 105 GR-1 4       | 0.0                 | 0.0      | 0.0    | 1972.09.25.18.27<br>LOCATION OF<br>EPICENTER<br>LO=142 4<br>LA= 38 21<br>DEPTH, MAGNITUDE<br>50.0 KM, M=5.5<br>(* E.Q. CENTER) |
| MASAKI BRIDGE                | 105 PI-1 4       | 0.0                 | 0.0      | 0.0    |                                                                                                                                |
| DATE BRIDGE                  | 304 GR-1 32      | 15.0                | 2.5      | 11.3   |                                                                                                                                |
| DATE BRIDGE                  | 304 PI-1 37      | 10.0                | 3.8      | 20.0   |                                                                                                                                |
| TAIRA BRIDGE                 | 907 GR-1 88      | 6.3                 | 2.5      | 3.8    |                                                                                                                                |
| KAIHOKU BRIDGE               | 302 GR-1 32      | 7.5                 | 5.0      | 12.5   |                                                                                                                                |
| KAIHOKU BRIDGE               | 302 PI-1 33      | 1.3                 | 0.0      | 2.5    |                                                                                                                                |



72020

SW OFF IZU PEN

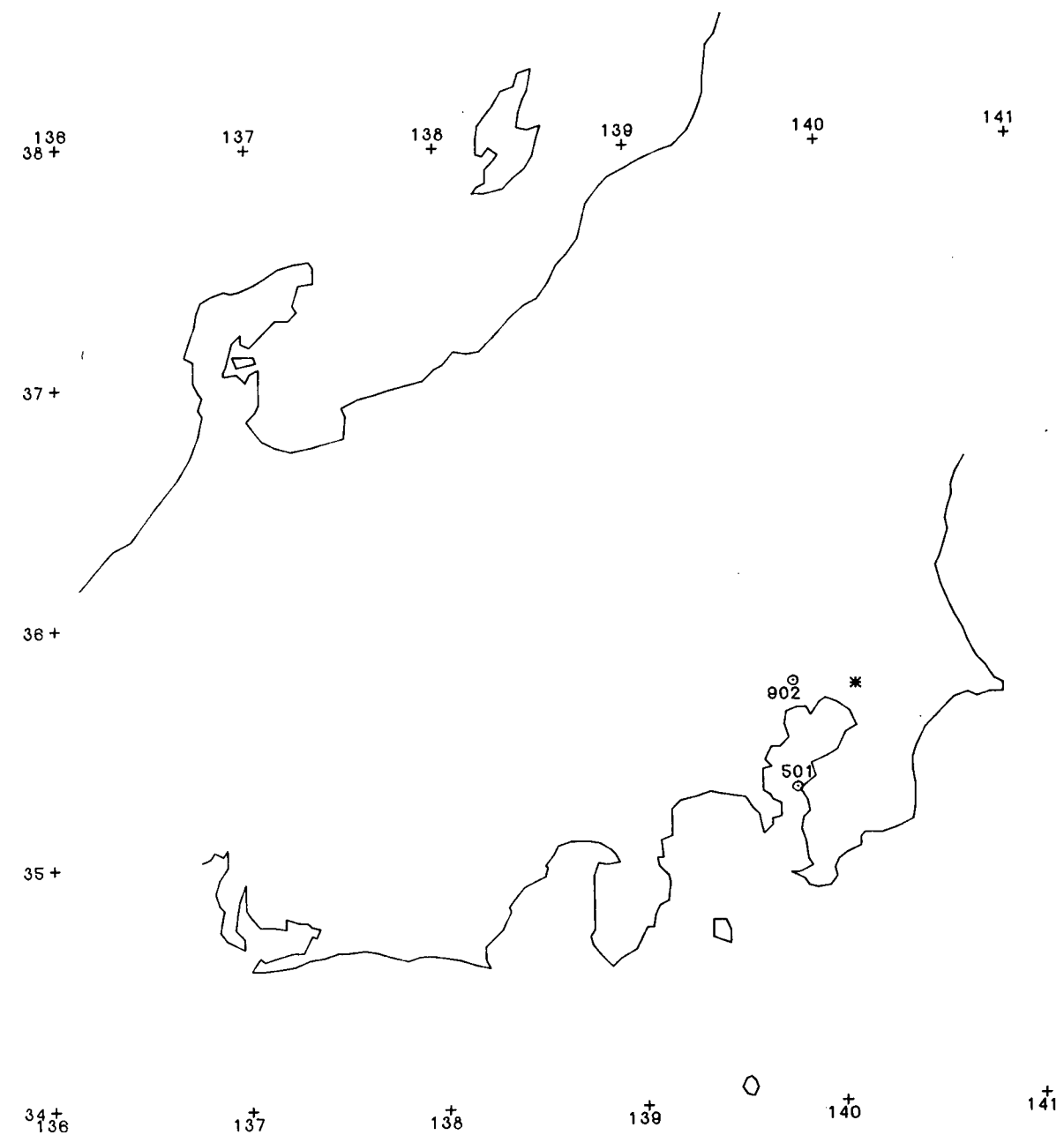
| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE                                                                                                     |
|------------------------------|------------------|---------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                                                                                                                                 |
| SHINYAWATA BRIDGE            | 204 GR-1 18      | 2.5                 | 1.3      | 2.5    | 1972.10.06.20.31<br>LOCATION OF<br>EPICENTER<br>LO=138 31<br>LA= 34 24<br>DEPTH, MAGNITUDE<br>30.0 KM, M=5.5<br>(* E.Q. CENTER) |
| SHINTENRYUGAWA BRIDGE        | 904 GR-1 10      | 1.3                 | 1.3      | 1.3    |                                                                                                                                 |



72021

NORTHERN CHIBA PREF

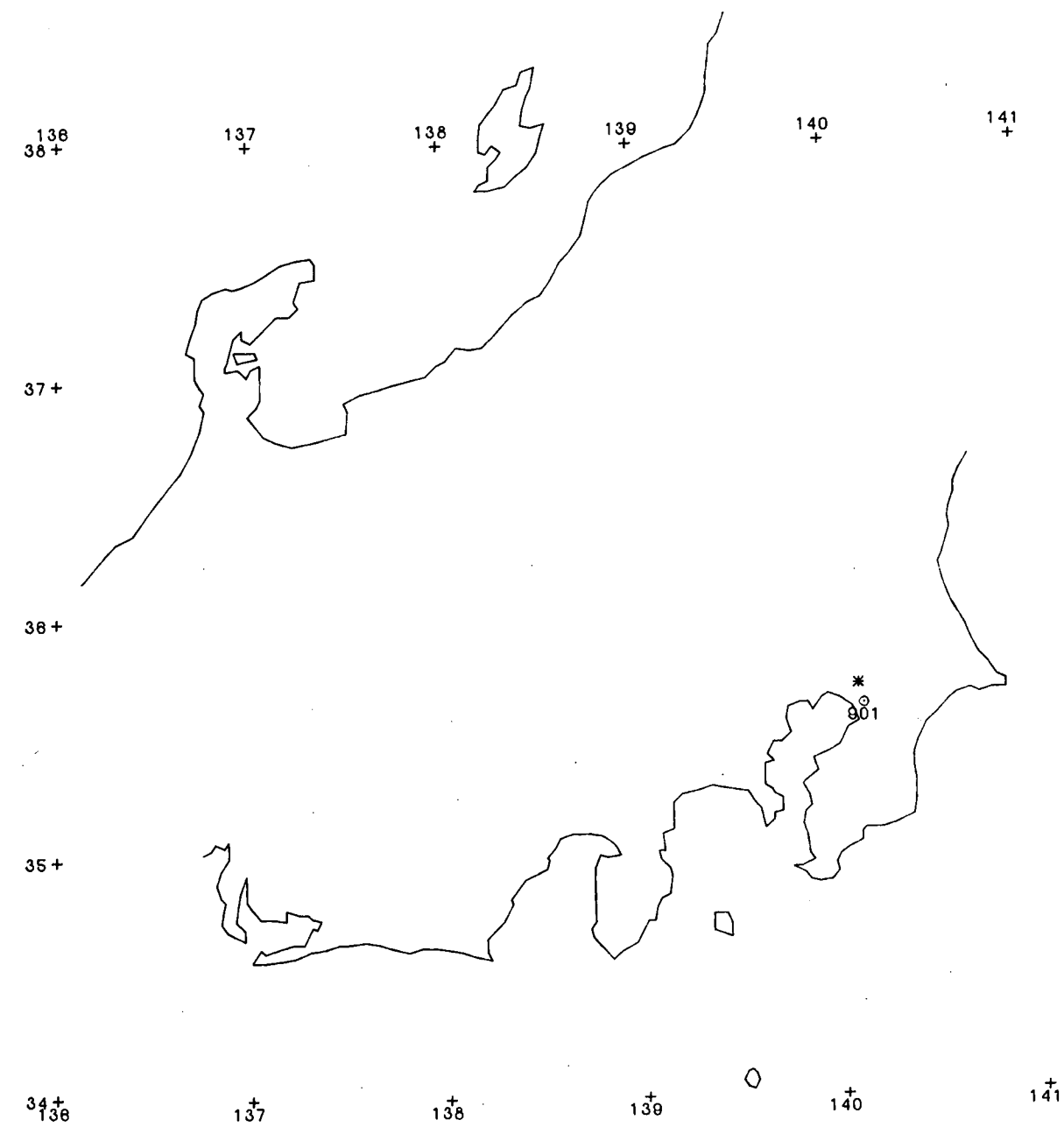
| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                                                                                                     |  |
|------------------------------|------------------|-----------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------|--|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                 |  |
| TOKYO BAY (FUTTU CAPE)       | 501 GR-1 70      | 1.3                   | 1.3      | 1.3     | 1972.10.18.10.48<br>LOCATION OF<br>EPICENTER<br>LO=140 7<br>LA= 35 44<br>DEPTH, MAGNITUDE<br>80.0 KM, M= 0.0<br>(* E.Q. CENTER) |  |
| NISHIARAI BRIDGE             | 902 GR-1 29      | 22.5                  | 3.8      | 13.8    |                                                                                                                                 |  |
| NISHIARAI BRIDGE             | 902 PI-1 50      | 17.5                  | 2.5      | 7.5     |                                                                                                                                 |  |
| NISHIARAI BRIDGE             | 902 PI-2 28      | 25.0                  | 3.8      | 11.3    |                                                                                                                                 |  |



72022

NORTHERN CHIBA PREF

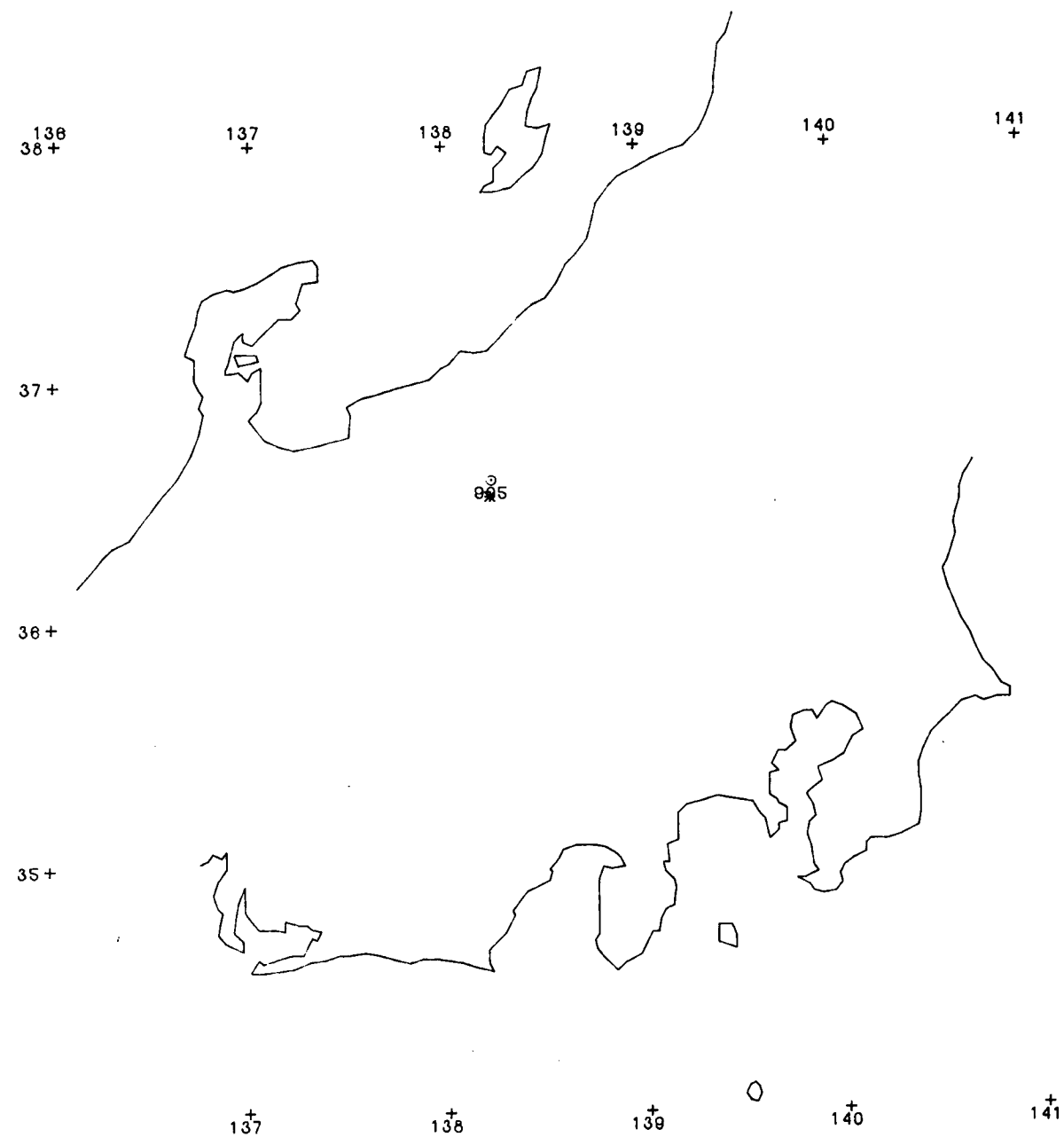
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|------------------------------|------------------|-----------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                 |
| P.W.R.I. CHIBA-BRANCHI       | 901 GR-1 53      | 5.0                   | 2.5      | 3.8     | 1972.10.18.10.53<br>LOCATION OF<br>EPICENTER<br>LO=140 7<br>LA= 35 43<br>DEPTH, MAGNITUDE<br>80.0 KM, M= 0.0<br>(* E.Q. CENTER) |
|                              |                  |                       |          |         |                                                                                                                                 |
|                              |                  |                       |          |         |                                                                                                                                 |



72023

NEAR MATSUSHIRO

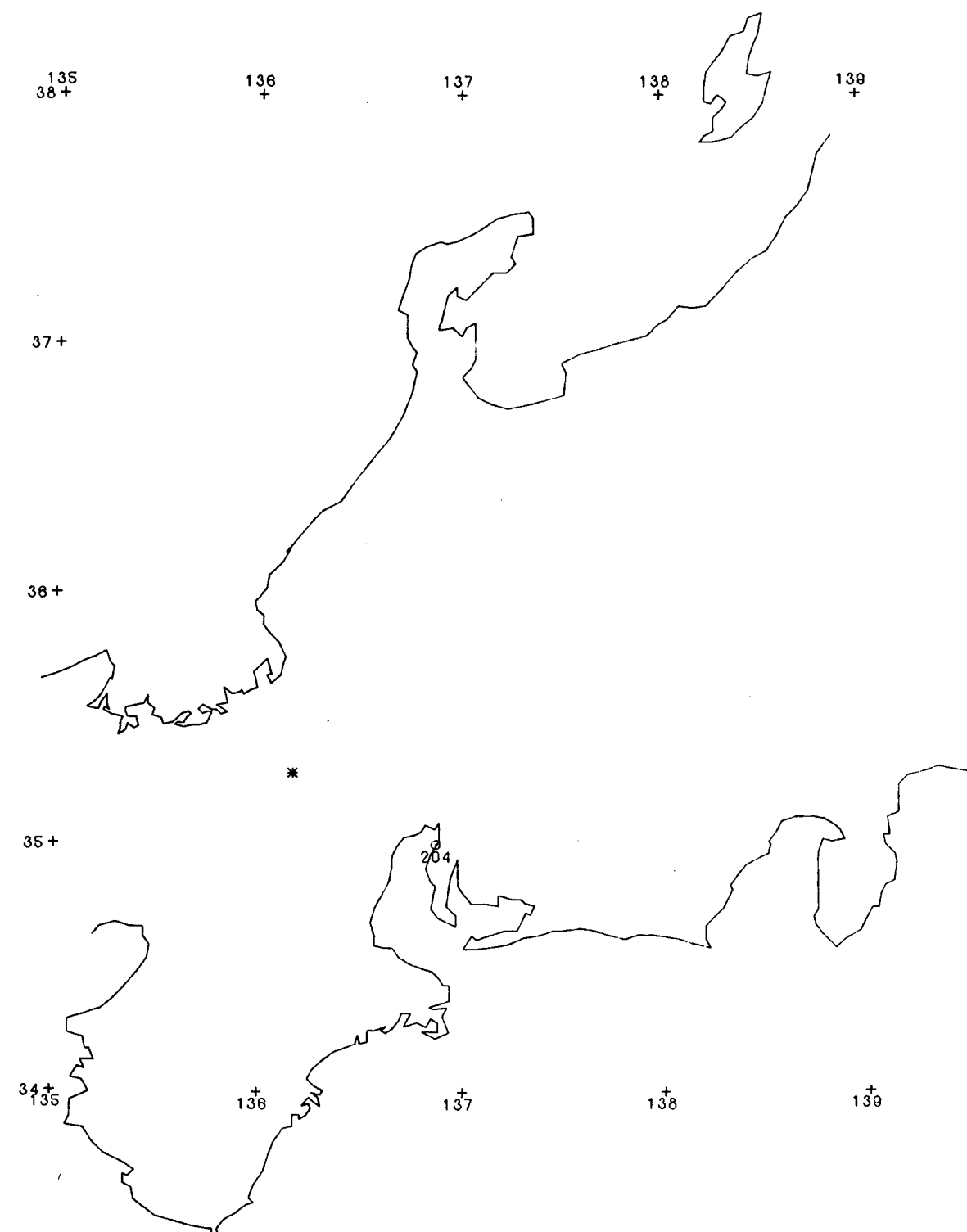
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|------------------------------|------------------|-----------------------|----------|---------|----------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                  |
| OCHIAI BRIDGE                | 905 PI-1429      | 70.0                  | 12.5     | 18.8    | 1972.10.26.22.02<br>LOCATION OF<br>EPICENTER<br>LO=138 14<br>LA= 36 33<br>DEPTH, MAGNITUDE<br>10.0 KM. M= 4.3<br>(* E.Q. CENTER) |
| OCHIAI BRIDGE                | 905 GR-1269      | 113.8                 | 25.0     | 37.5    |                                                                                                                                  |
| OCHIAI BRIDGE                | 905 GR-2122      | 68.8                  | 20.0     | 70.0    |                                                                                                                                  |



72024

CENTRAL SHIGA PREF.

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                                                                                                      |
|------------------------------|------------------|-----------------------|----------|---------|----------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                  |
| SHINYAWATA BRIDGE            | 204 GR-1 19      | 1.3                   | 1.3      | 1.3     | 1972.10.28.03.11<br>LOCATION OF<br>EPICENTER<br>LO=136 10<br>LA= 35 17<br>DEPTH, MAGNITUDE<br>50.0 KM. M= 4.3<br>(* E.Q. CENTER) |

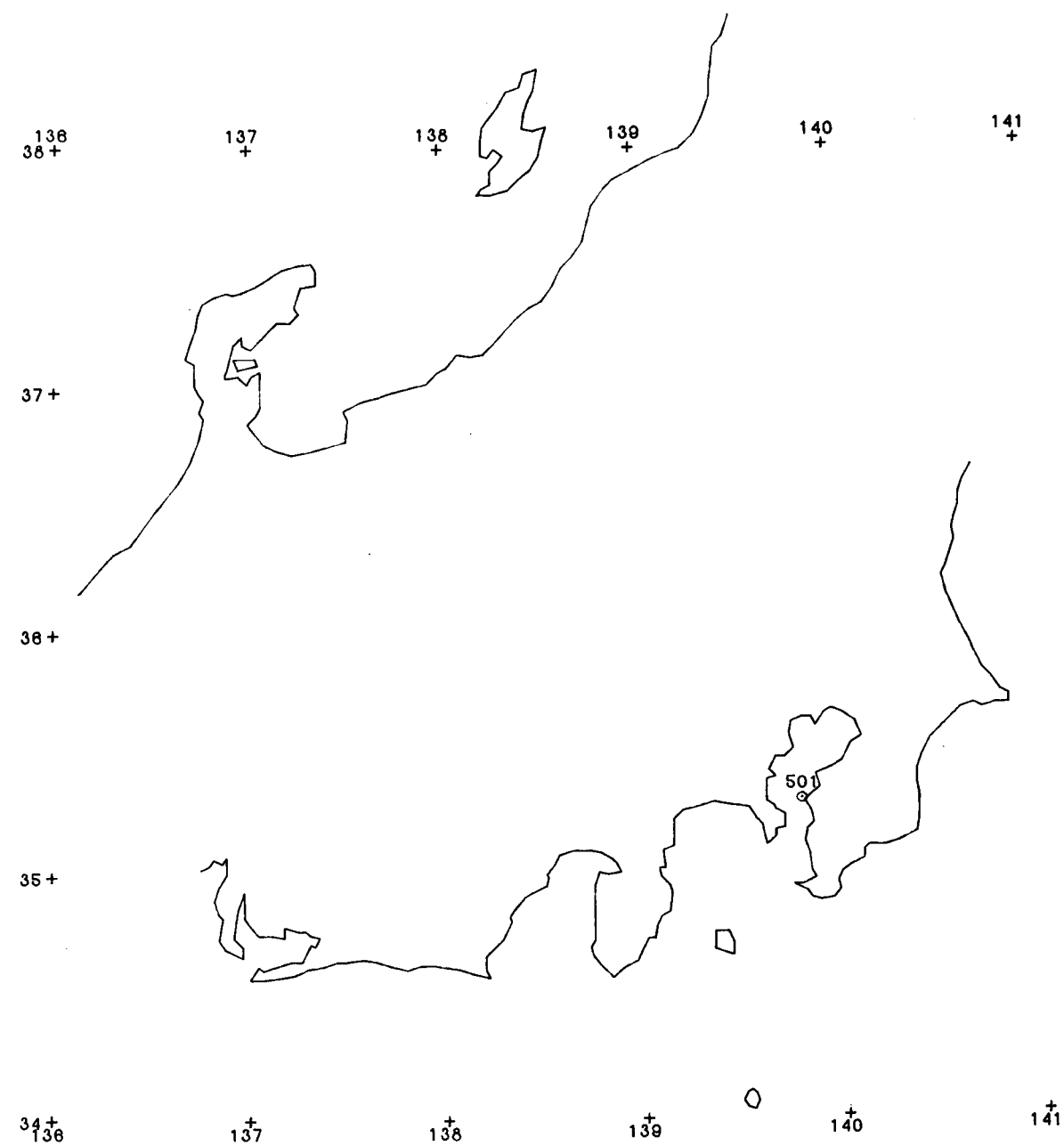


72025

S OFF CHUBU

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| TOKYO BAY(FUTTU CAPE)        | 501 GR-1 71      | 2.5                 | 2.5      | 3.8    | 1972.10.29.16.21            |

LOCATION OF  
EPICENTER  
LO=138 1  
LA= 33 7  
DEPTH. MAGNITUDE  
340.0 KM. M=0.0  
(\* E.Q. CENTER)

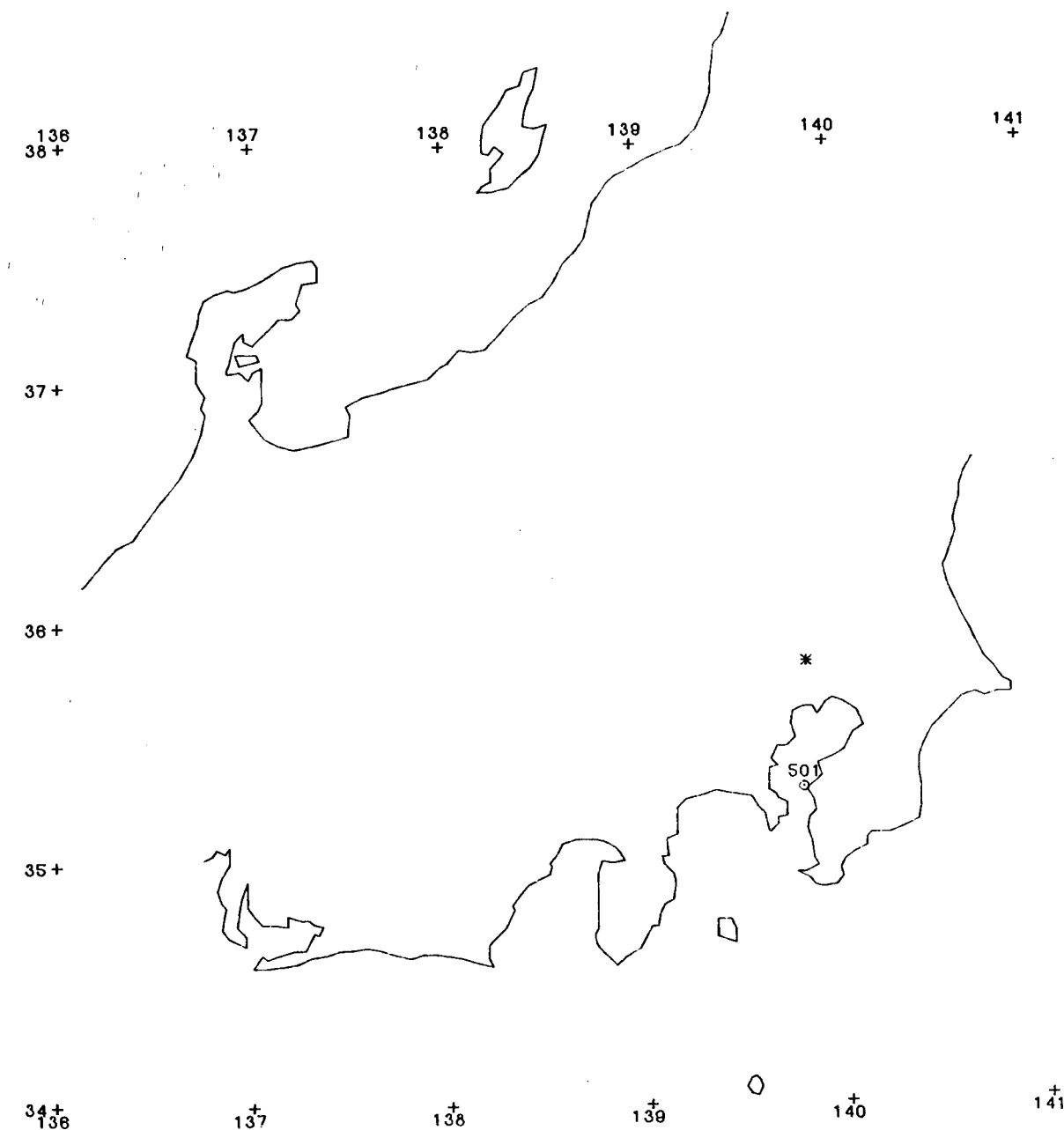


72026

NORTHERN CHIBA PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS) |          |        | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|---------------------|----------|--------|-----------------------------|
|                              |                  | HORI.A              | VERTICAL | HORI.B |                             |
| TOKYO BAY(FUTTU CAPE)        | 501 GR-1 72      | 5.0                 | 2.5      | 3.8    | 1972.11.05.06.40            |

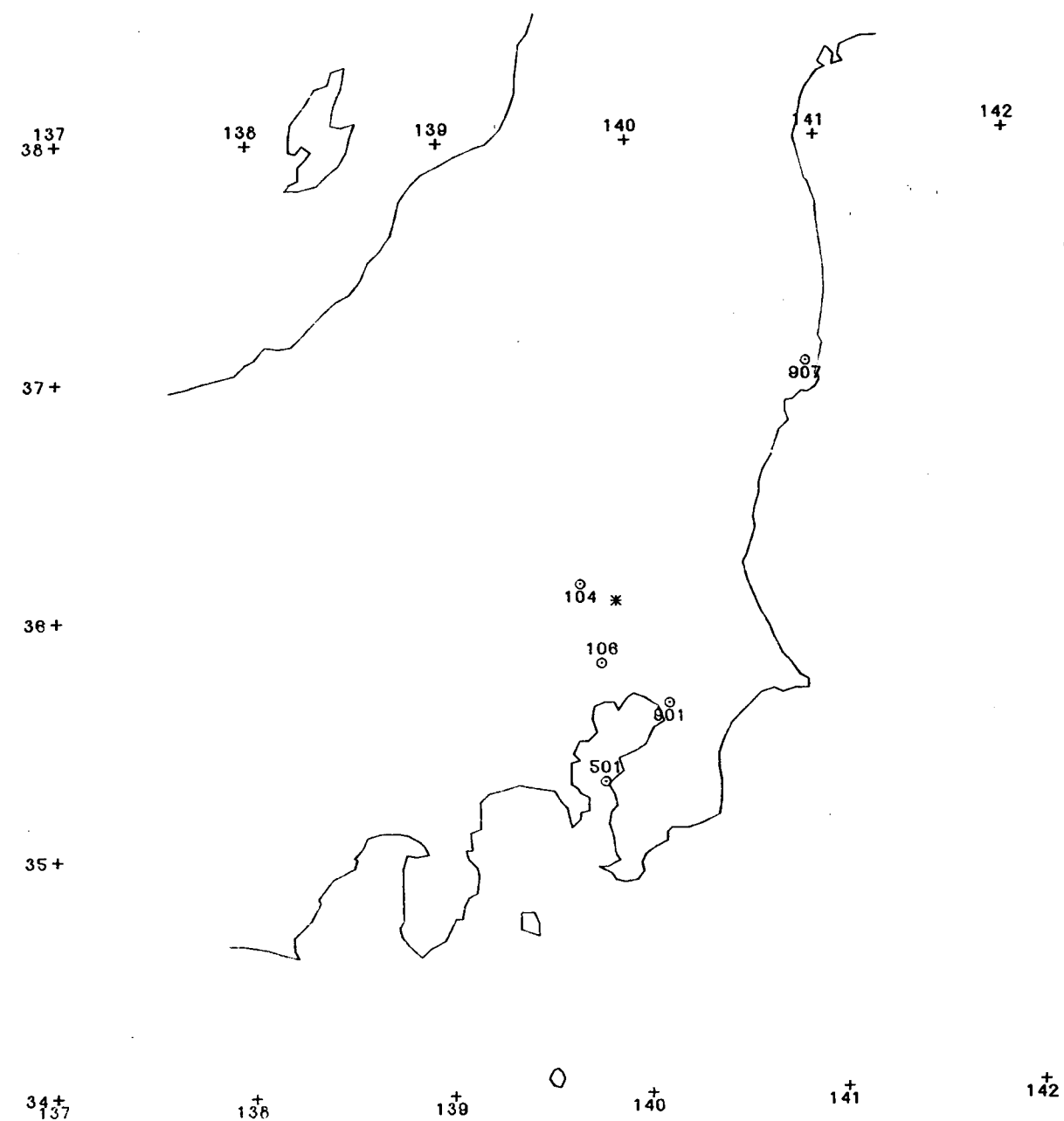
LOCATION OF  
EPICENTER  
LO=139 50  
LA= 35 50  
DEPTH. MAGNITUDE  
70.0 KM. M=0.0  
(\* E.Q. CENTER)



72027

SW IBARAKI PREF

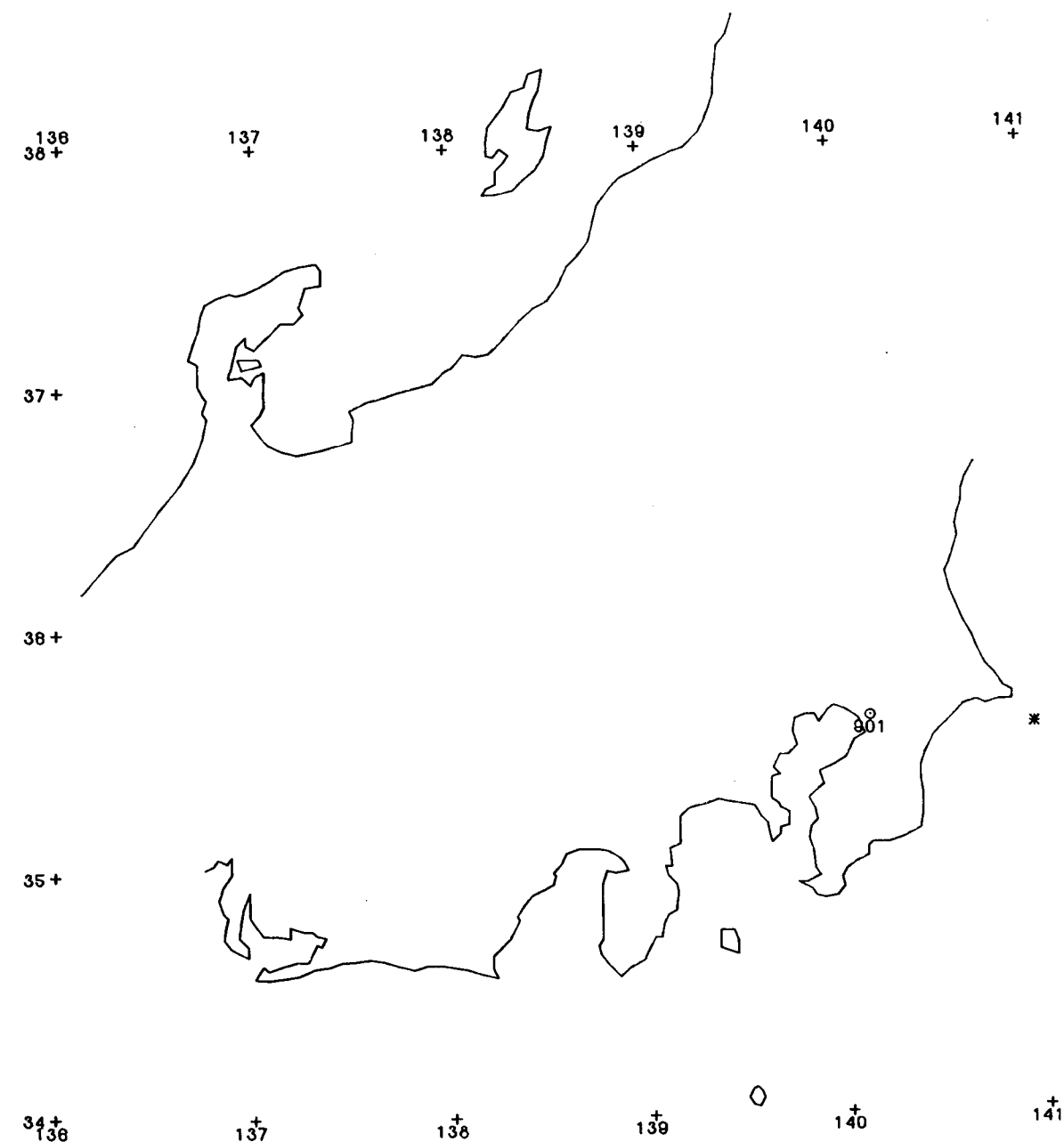
| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                                                                                                    |
|------------------------------|------------------|-----------------------|----------|---------|--------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                |
| SHINTONEGAWA BRIDGE          | 104 GR-1 23      | 48.8                  | 12.5     | 23.8    | 1972.11.06.20.39<br>LOCATION OF<br>EPICENTER<br>LO=139 53<br>LA= 36 4<br>DEPTH. MAGNITUDE<br>40.0 KM. M=5.1<br>(* E.Q. CENTER) |
| SHINTONEGAWA BRIDGE          | 104 PI-1 14      | 27.5                  | 3.8      | 13.8    |                                                                                                                                |
| SOKA BRIDGE                  | 108 GR-1 20      | 22.5                  | 5.0      | 15.0    |                                                                                                                                |
| SOKA BRIDGE                  | 108 PI-1 19      | 22.5                  | 2.5      | 17.5    |                                                                                                                                |
| TOKYO BAY (FUTTU CAPE)       | 501 GR-1 73      | 3.8                   | 1.3      | 2.5     |                                                                                                                                |
| P.W.R.I. CHIBA-BRANCHI       | 901 GR-1 54      | 5.0                   | 2.5      | 7.5     |                                                                                                                                |
| TAIRA BRIDGE                 | 907 AB-1 23      | 3.8                   | 3.8      | 5.0     |                                                                                                                                |



72028

E OFF CHIBA PREF

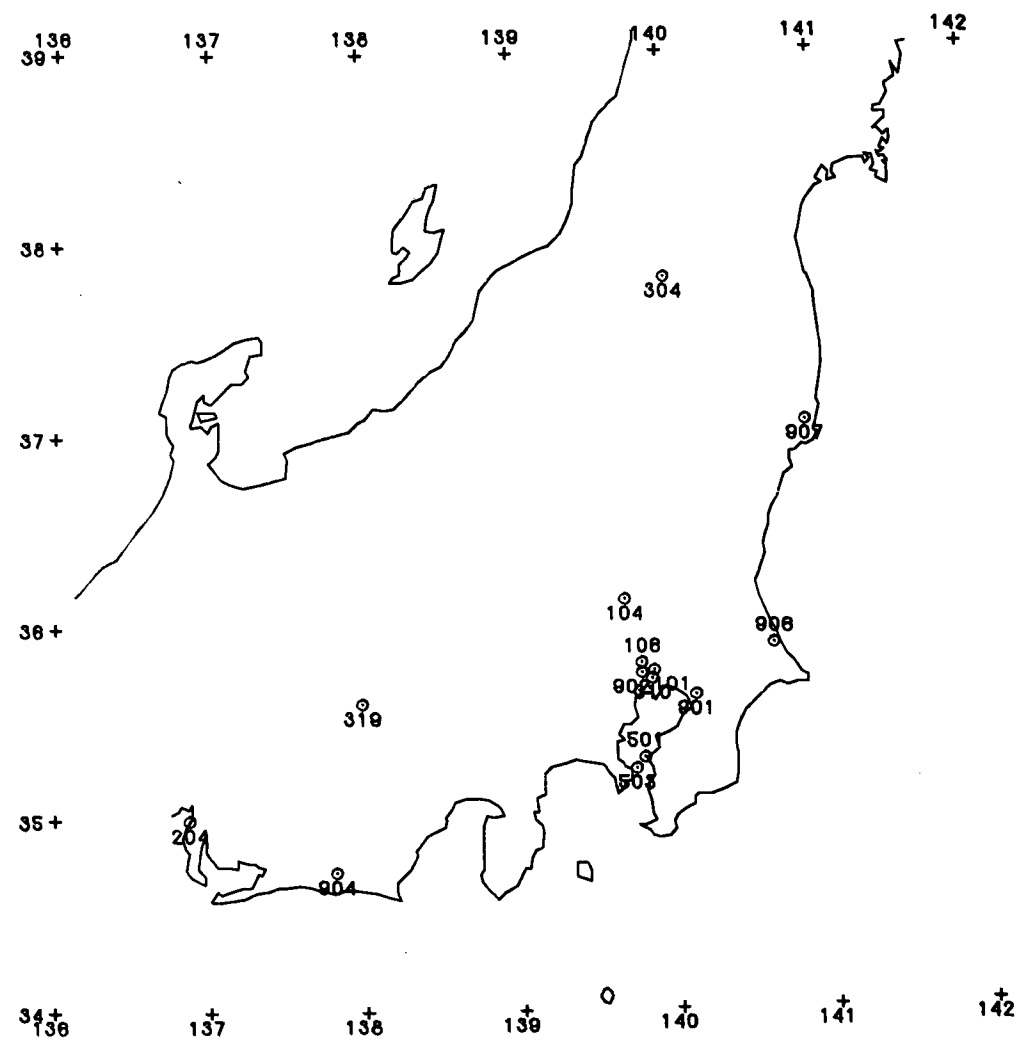
| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                                                                                                     |
|------------------------------|------------------|-----------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                                                                                                 |
| P.W.R.I. CHIBA-BRANCHI       | 901 GR-1 55      | 3.8                   | 1.3      | 3.8     | 1972.12.01.12.02<br>LOCATION OF<br>EPICENTER<br>LO=140 59<br>LA= 35 35<br>DEPTH. MAGNITUDE<br>50.0 KM. M=4.6<br>(* E.Q. CENTER) |



72029

E OFF HACHIJOJIMA

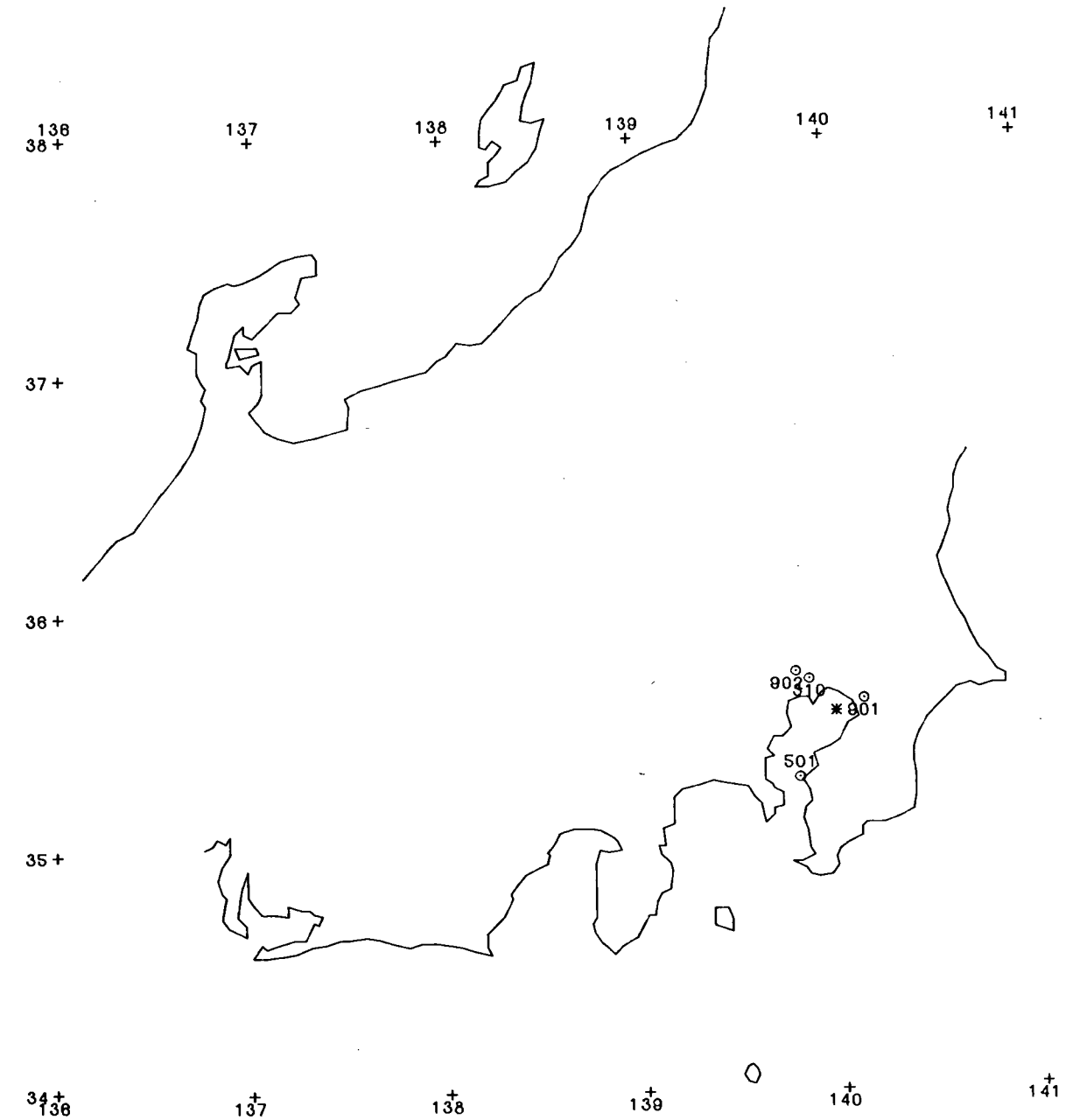
| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                           |
|------------------------------|------------------|-----------------------|----------|---------|-------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                       |
| SHINKATSUSHIKA BRIDGE        | 101 GR-1 20      | 15.0                  | 2.5      | 12.5    | 1972.12.04.19.18                                      |
| SHINTONEGAWA BRIDGE          | 104 GR-1 24      | 12.5                  | 5.0      | 10.0    |                                                       |
| SHINTONEGAWA BRIDGE          | 104 PI-1 15      | 13.8                  | 2.5      | 7.5     | LOCATION OF<br>EPICENTER<br>LO=141 5<br>LA= 33 12     |
| SOKA BRIDGE                  | 108 GR-1 21      | 27.5                  | 8.3      | 17.5    |                                                       |
| SOKA BRIDGE                  | 108 PI-1 20      | 37.5                  | 2.5      | 23.8    | DEPTH, MAGNITUDE<br>50.0 KM. M=7.2<br>(* E.Q. CENTER) |
| SHINYAWATA BRIDGE            | 204 GR-1 20      | 2.5                   | 1.3      | 2.5     |                                                       |
| DATE BRIDGE                  | 304 GR-1 33      | 17.5                  | 2.5      | 12.5    | (* E.Q. CENTER)                                       |
| DATE BRIDGE                  | 304 PI-1 38      | 27.5                  | 3.8      | 28.3    |                                                       |
| HIRAI BRIDGE                 | 310 GR-1 18      | 23.8                  | 5.0      | 15.0    | (* E.Q. CENTER)                                       |
| HIRAI BRIDGE                 | 310 PI-1 16      | 50.0                  | 2.5      | 22.5    |                                                       |
| HIRAI BRIDGE                 | 310 PI-2 16      | 55.0                  | 2.5      | 30.0    | (* E.Q. CENTER)                                       |
| SHITOKU BRIDGE               | 319 GR-1 8       | 1.3                   | 1.3      | 1.3     |                                                       |
| SHITOKU BRIDGE               | 319 PI-1 8       | 8.8                   | 1.3      | 3.8     | (* E.Q. CENTER)                                       |
| TOKYO BAY (FUTTU CAPE)       | 501 GR-1 74      | 35.0                  | 15.0     | 38.3    |                                                       |
| TOKYO BAY (KANNONZAKI)       | 503 GR-1 17      | 38.3                  | 12.0     | 28.3    | (* E.Q. CENTER)                                       |
| P.W.R.I. CHIBA-BRANCHI       | 901 GR-1 58      | 22.5                  | 7.5      | 22.5    |                                                       |
| NISHIARAI BRIDGE             | 902 GR-1 30      | 28.3                  | 7.5      | 25.0    | (* E.Q. CENTER)                                       |
| NISHIARAI BRIDGE             | 902 PI-1 51      | 23.8                  | 5.0      | 17.5    |                                                       |
| NISHIARAI BRIDGE             | 902 PI-2 26      | 25.0                  | 3.8      | 11.3    | (* E.Q. CENTER)                                       |
| SHINTENRYUGAWA BRIDGE        | 904 GR-1 11      | 1.3                   | 1.3      | 1.3     |                                                       |
| P.W.R.I. KASHIMA E.L.        | 906 GR-1 15      | 10.0                  | 2.5      | 11.3    | (* E.Q. CENTER)                                       |
| TAIRA BRIDGE                 | 907 GR-1 67      | 17.5                  | 5.0      | 17.3    |                                                       |



72030

NORTHERN TOKYO BAY

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX. AMPLITUDE (GALS) |          |         | EARTHQUAKE<br>TIME AND DATE                           |
|------------------------------|------------------|-----------------------|----------|---------|-------------------------------------------------------|
|                              |                  | HORI. A               | VERTICAL | HORI. B |                                                       |
| HIRAI BRIDGE                 | 310 GR-1 19      | 15.0                  | 3.8      | 17.5    | 1972.12.08.08.38                                      |
| TOKYO BAY (FUTTU CAPE)       | 501 GR-1 75      | 5.0                   | 2.5      | 10.0    |                                                       |
| P.W.R.I. CHIBA-BRANCHI       | 901 GR-1 57      | 25.0                  | 11.3     | 25.0    | LOCATION OF<br>EPICENTER<br>LO=140 0<br>LA= 35 35     |
| NISHIARAI BRIDGE             | 902 GR-1 31      | 20.0                  | 7.5      | 28.8    |                                                       |
|                              |                  |                       |          |         | DEPTH, MAGNITUDE<br>90.0 KM. M=0.0<br>(* E.Q. CENTER) |
|                              |                  |                       |          |         |                                                       |



72031

OFF FUKUSHIMA PREF

| STATION<br>NAME OF STRUCTURE | RECORD<br>NUMBER | MAX.AMPLITUDE(GALS)<br>HORI.A VERTICAL HORI.B | EARTHQUAKE<br>TIME AND DATE |
|------------------------------|------------------|-----------------------------------------------|-----------------------------|
| TAIRA BRIDGE                 | 907 GR-1 88      | 8.8 3.8 10.0                                  | 1972.12.18.01.24            |

LOCATION OF  
EPICENTER

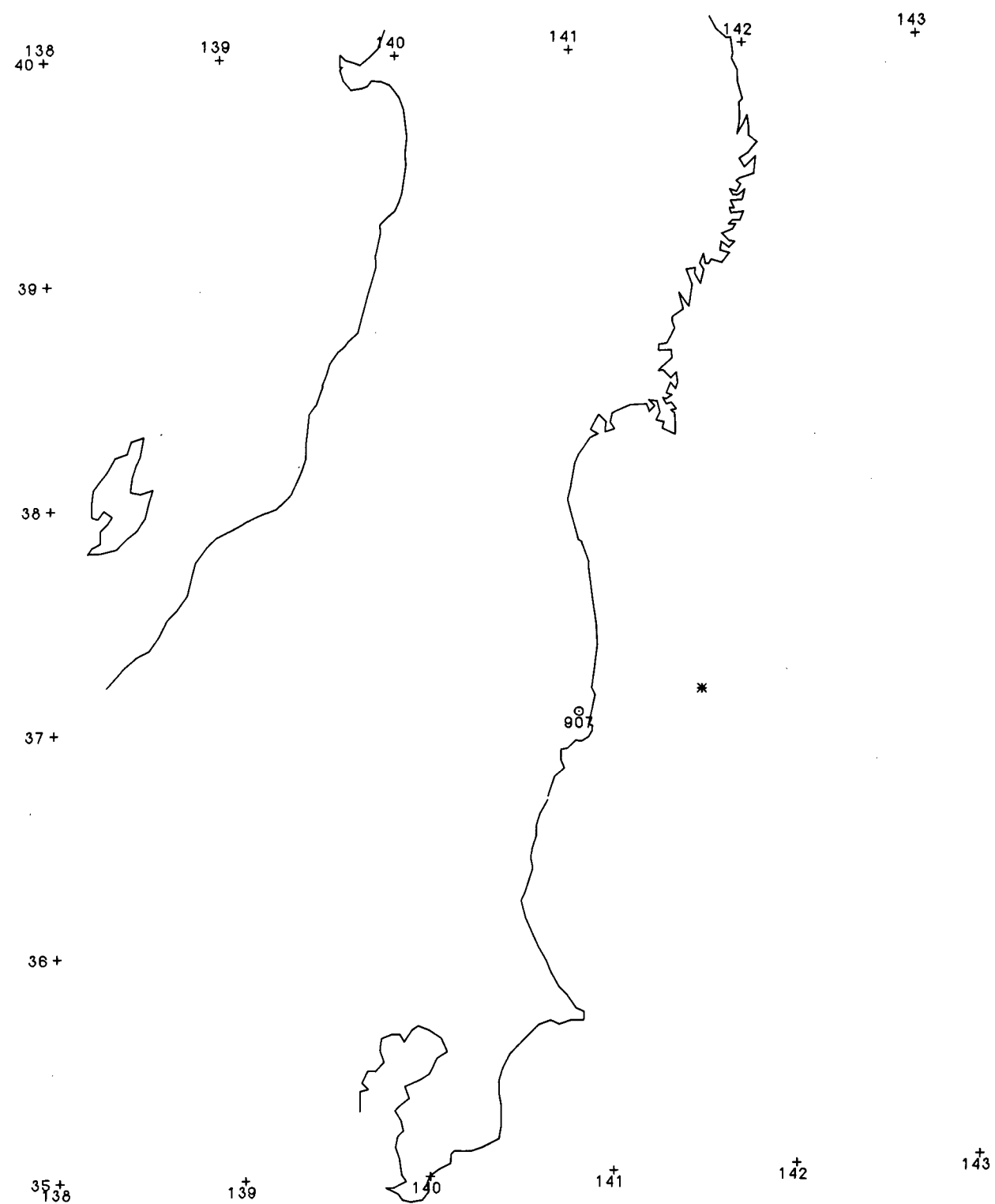
LO=141 38

LA= 37 8

DEPTH, MAGNITUDE

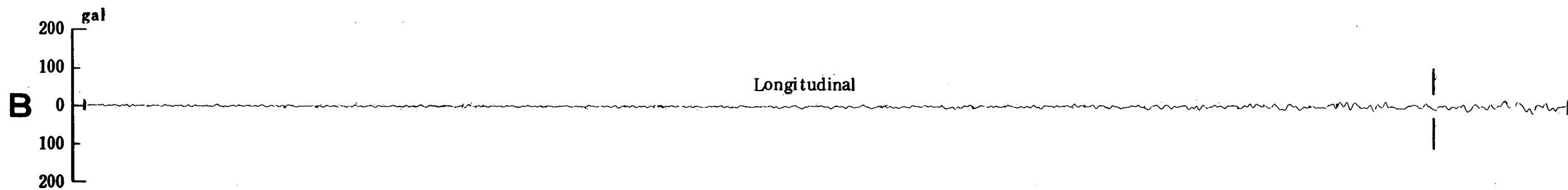
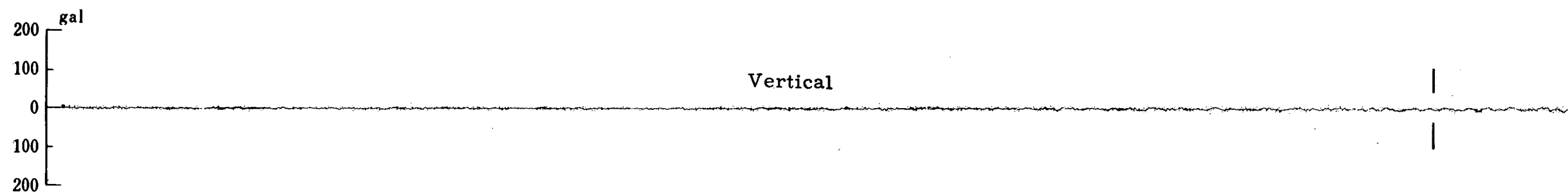
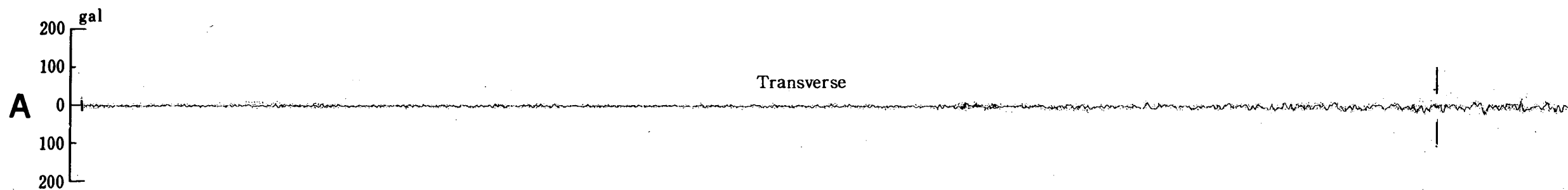
50.0 KM, M=4.6

(\* E.Q. CENTER)



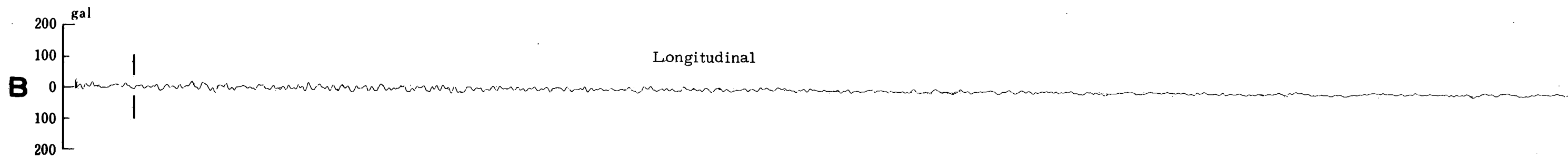
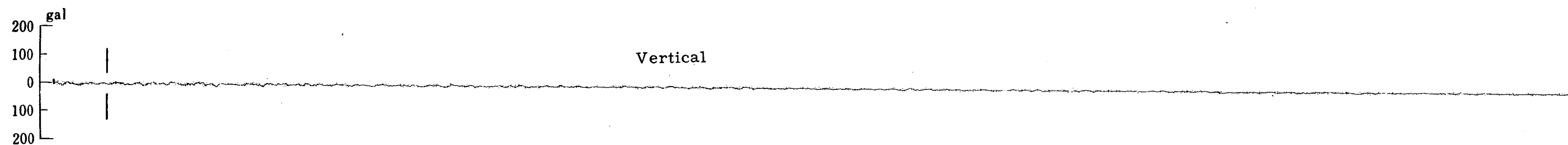
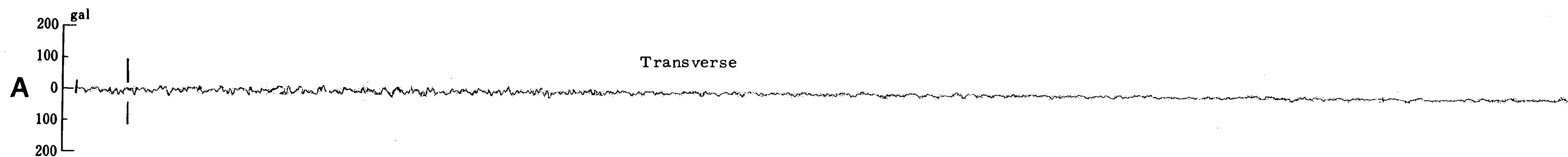
1sec

Shinkatsushika Bridge 101-Gr - 19  
1972. 2. 29 18 : 28

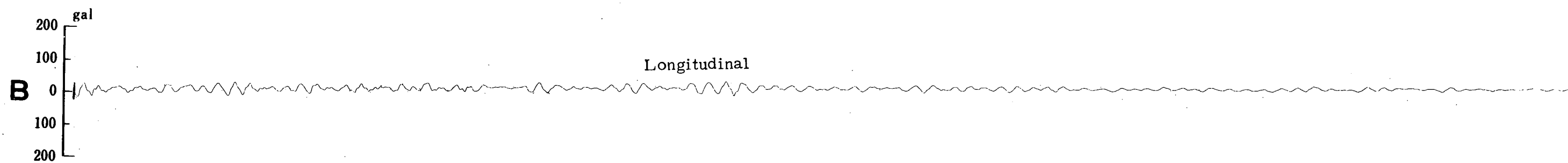
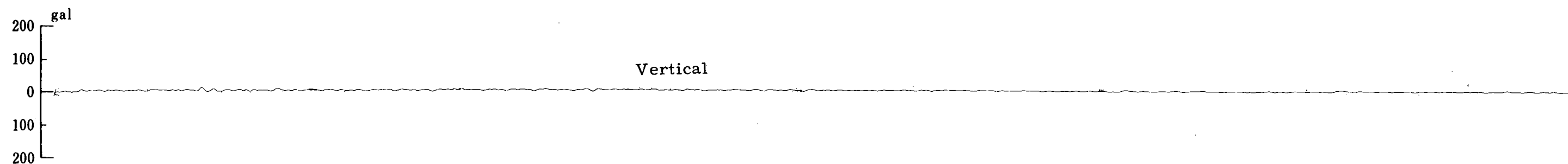
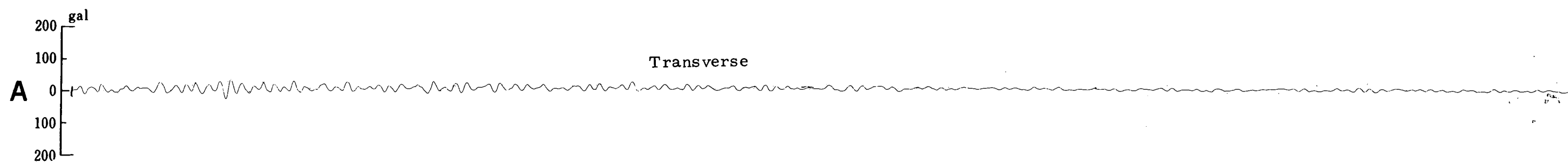




Shinkatsushika Bridge 101-Gr-19  
1972. 2. 29 18 : 23

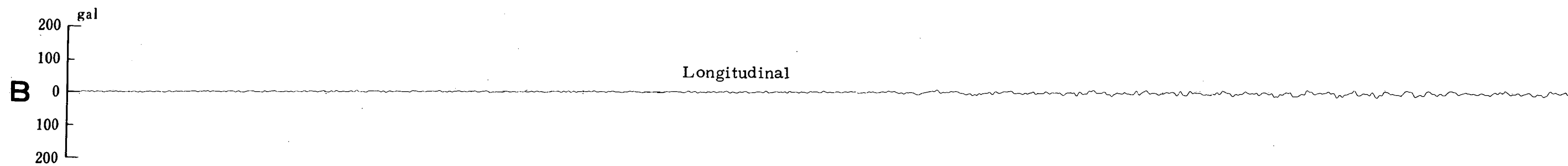
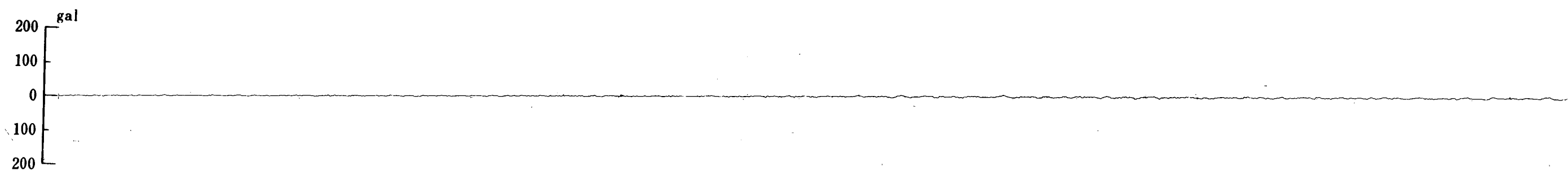
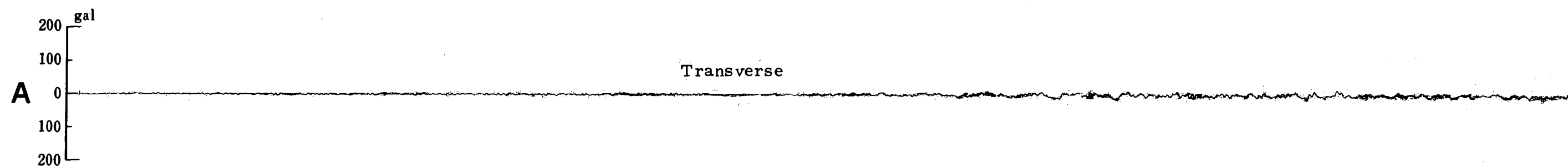


Shinkatsushika Bridge 101-P - 12  
1972. 2. 29 18 : 23

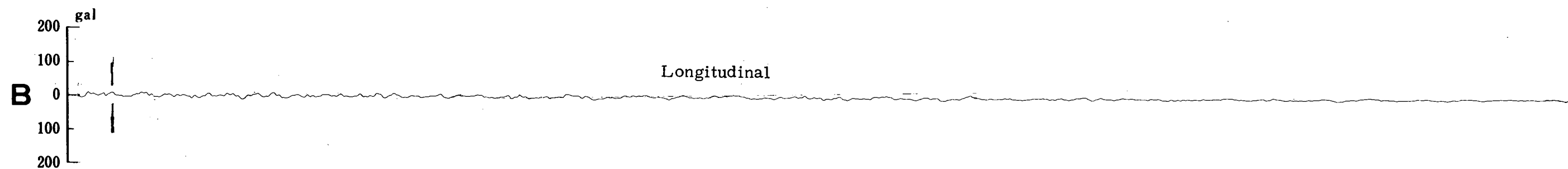
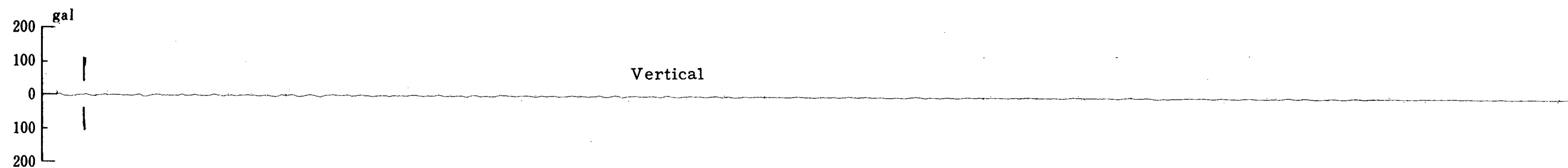
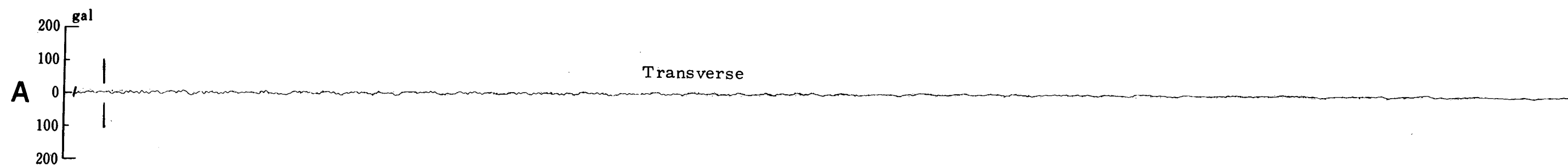


1sec

Shinkatsushika Bridge 101-Gr-20  
1972. 12. 4 19:20



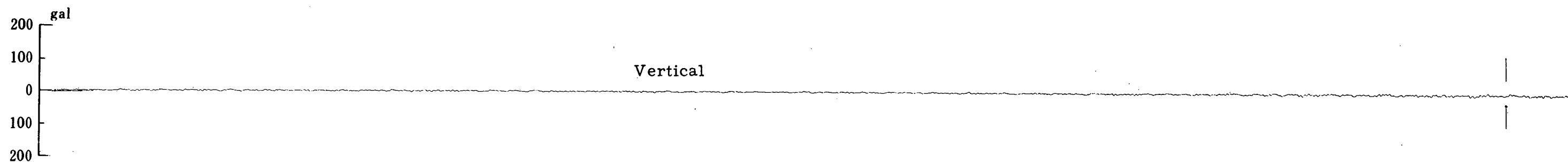
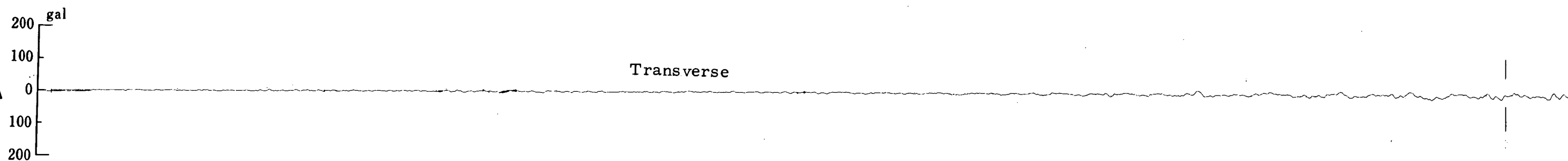
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Shinkatsushika Bridge 101-Gr-20  
1972. 12. 4 19:20

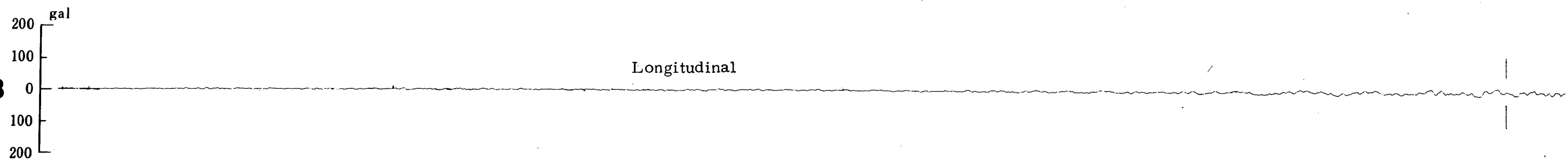
1sec

Shintonegawa Bridge 104-Gr-22  
1972. 2. 29 18:23

A

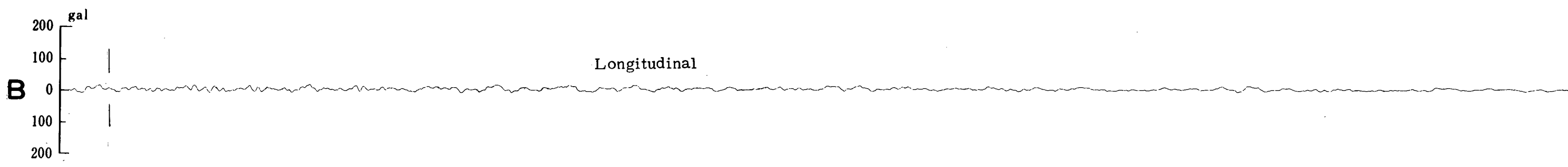
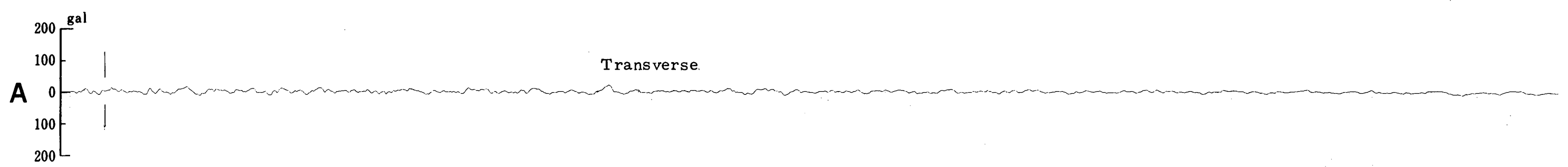


B



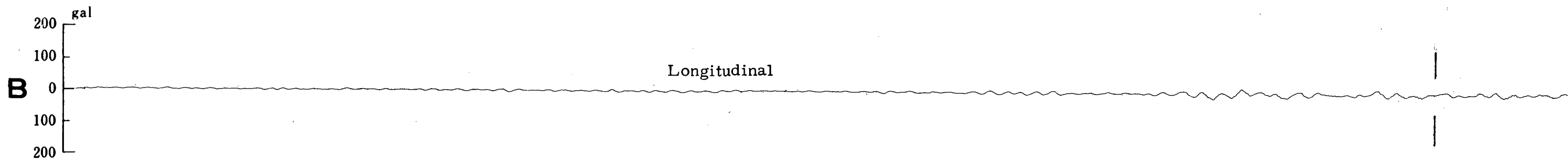
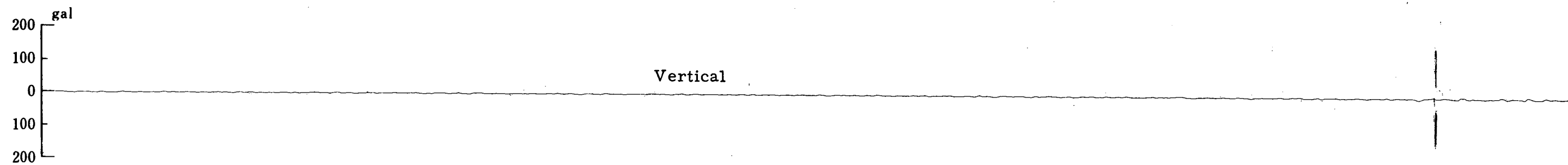
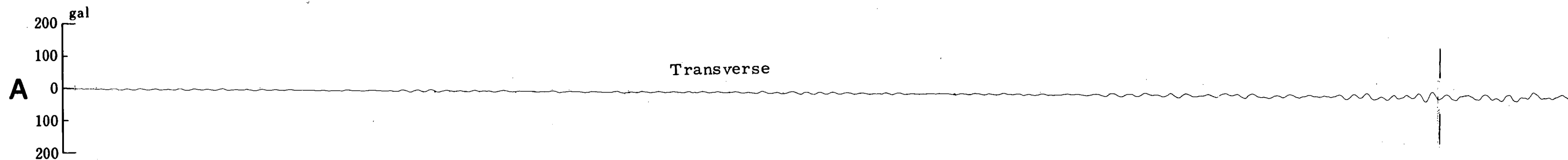
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Shintonegawa Bridge 104-Gr-22  
1972. 2. 29 18 : 23



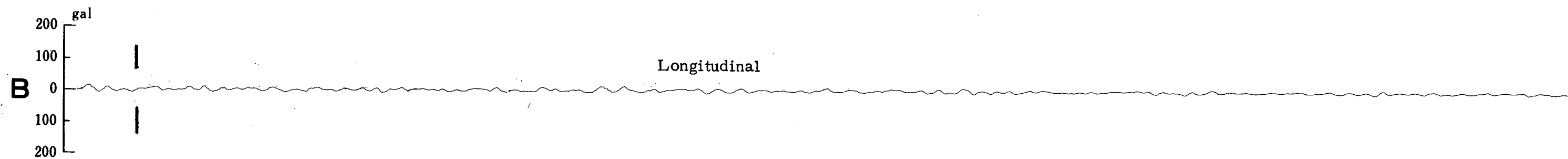
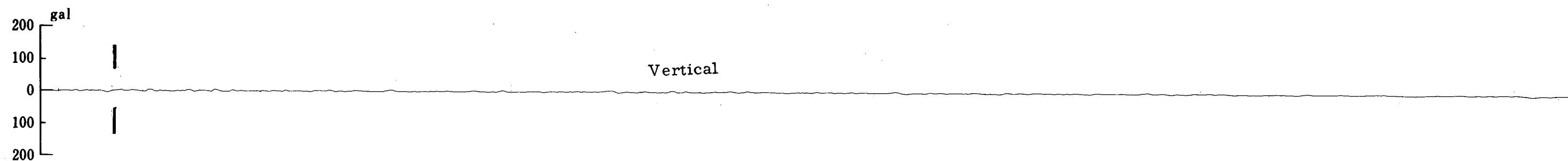
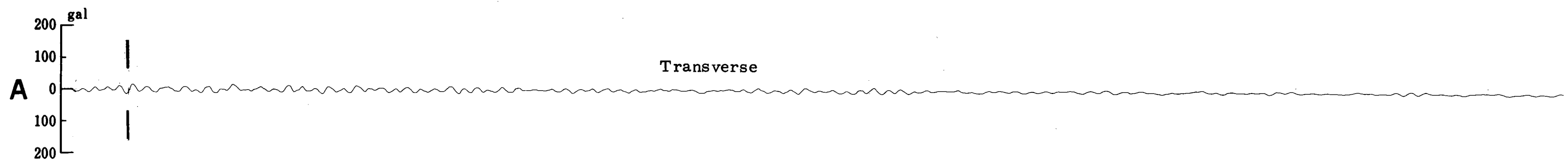
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Shintonegawa Bridge 104-P-13  
1972.2.29 18:23



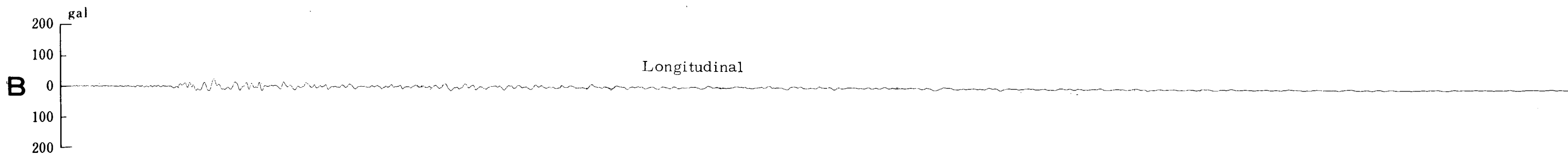
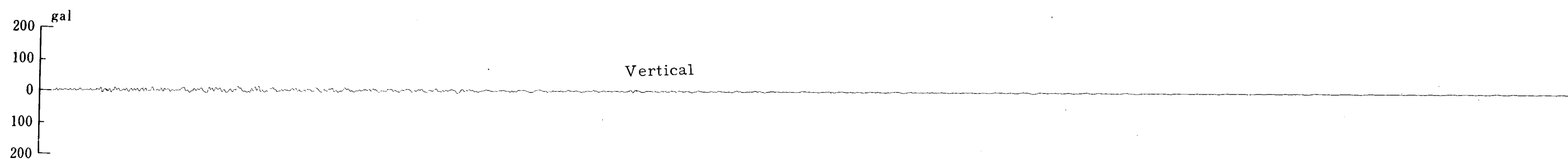
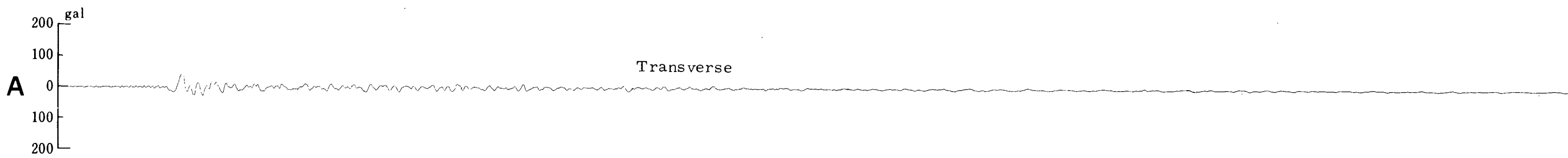
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Shintonegawa Bridge 104-P-13  
1972. 2. 29 18:23



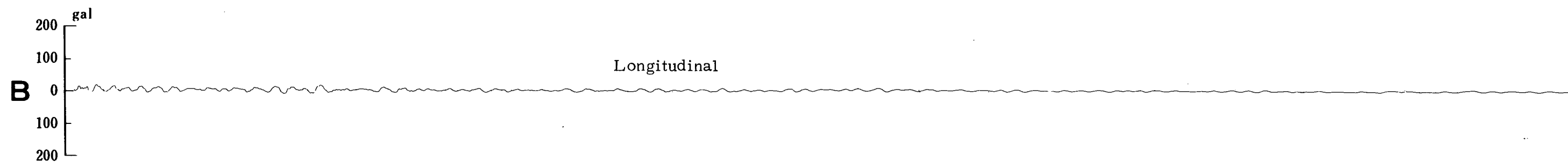
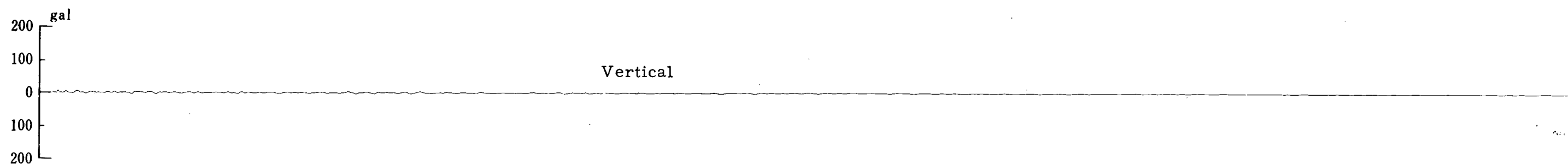
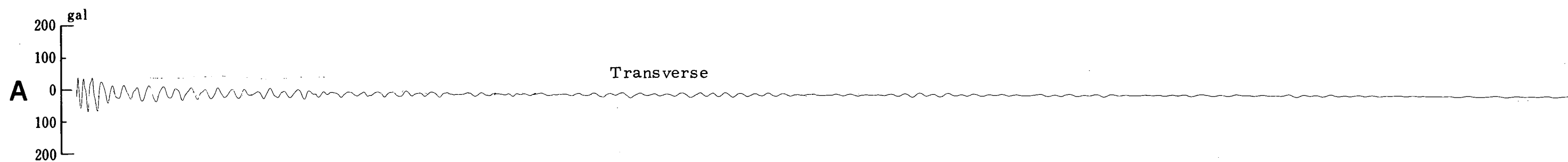
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Shintonegawa Bridge 104-Gr-23  
1972. 11. 06 20 : 39



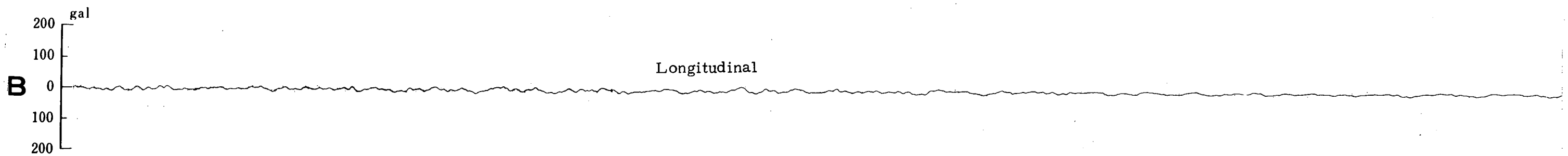
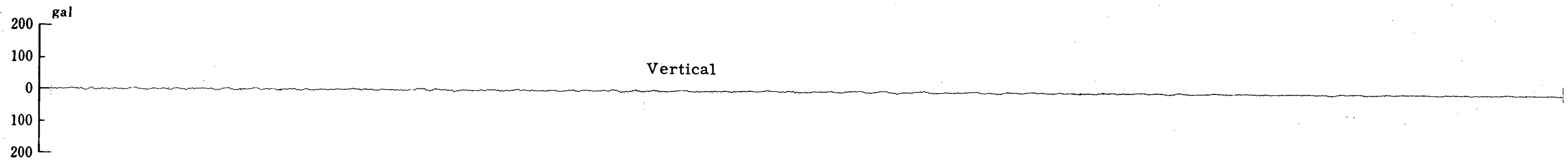
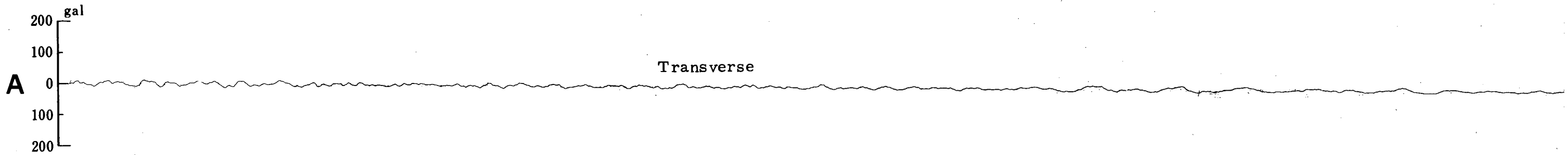
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Shintonegawa Bridge 104-P-14  
1972.11. 06 20 : 39

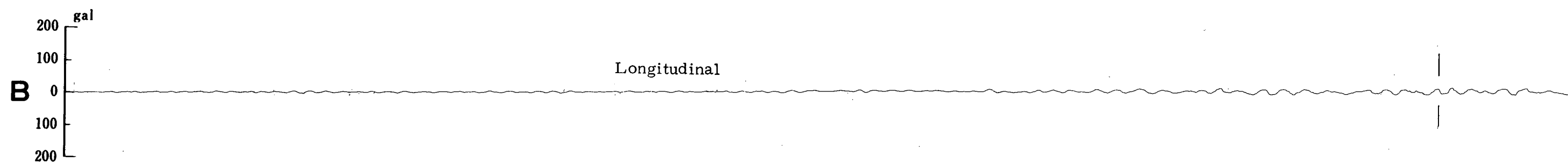
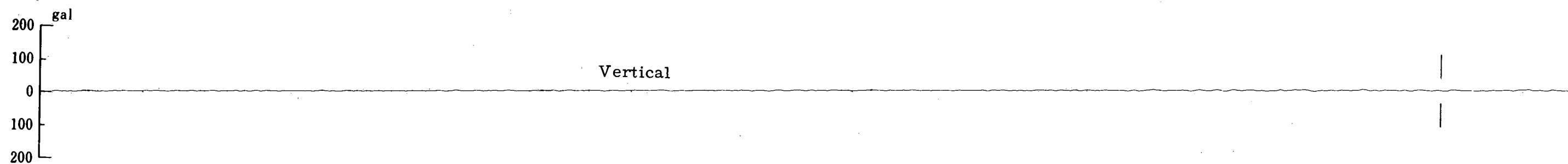
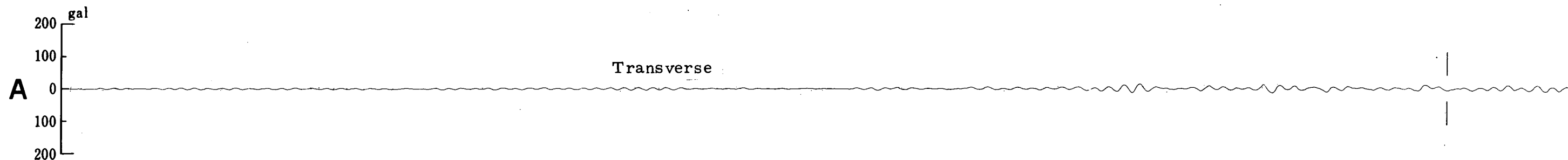


1sec

Shintonegawa Bridge 104-Gr - 24  
1972. 12. 4 19 : 17

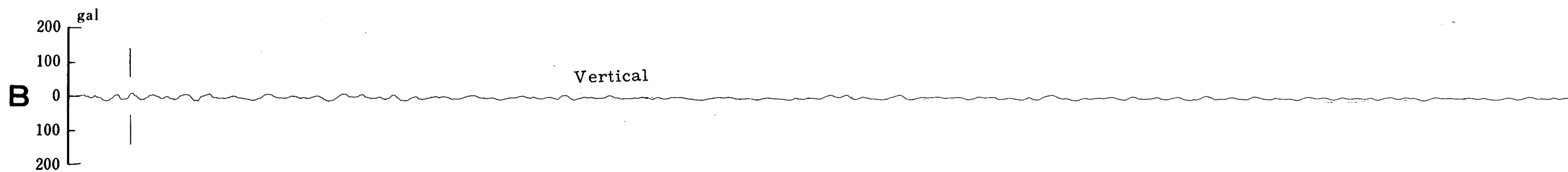
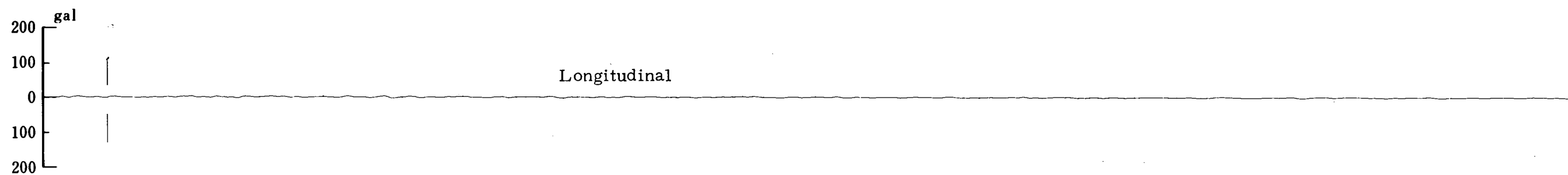
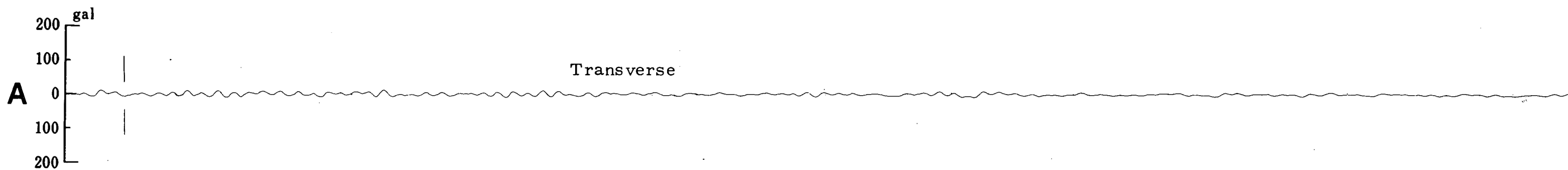


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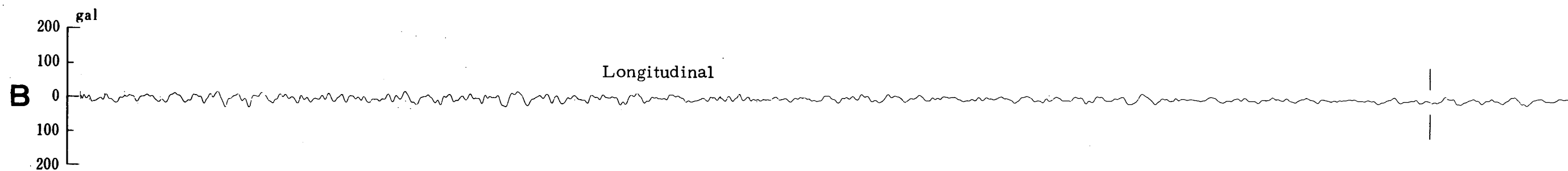
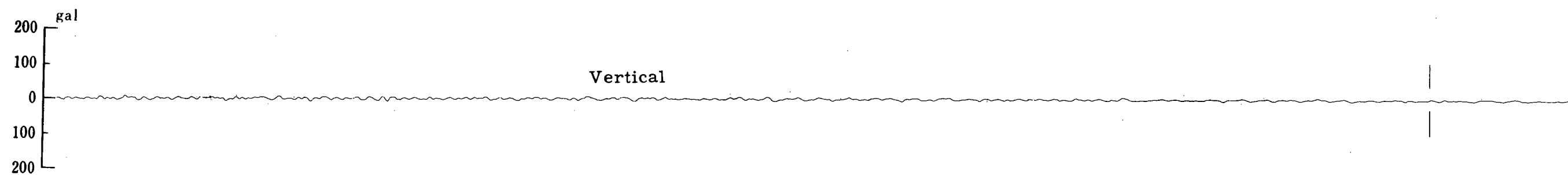
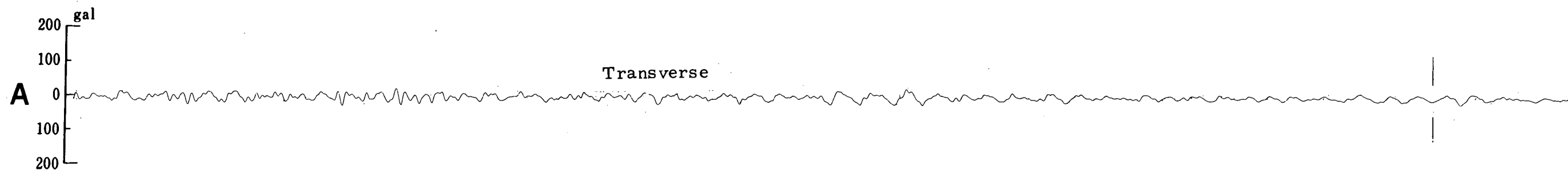
Shintonegawa Bridge 104-P-24  
1972. 12. 4 19:17

1sec

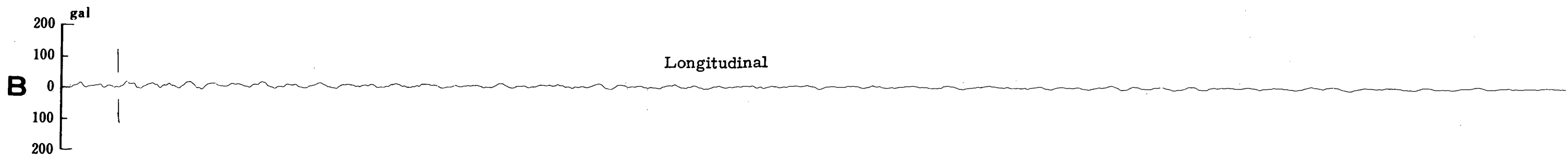
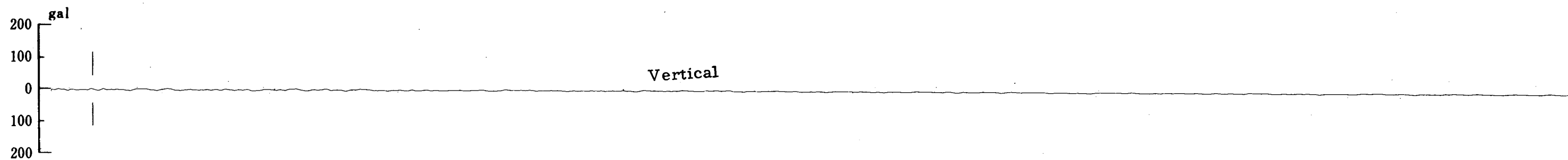
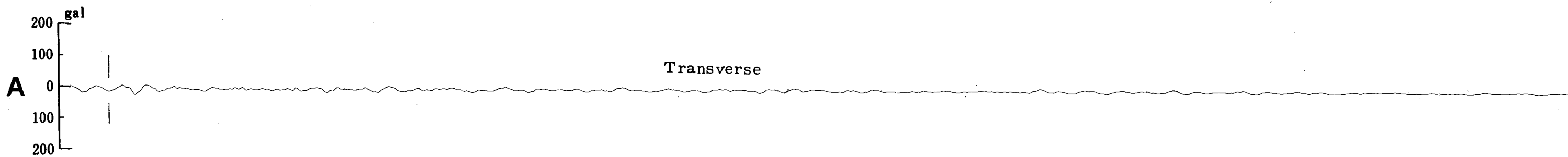
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1972. 12. 4 19:17



1sec

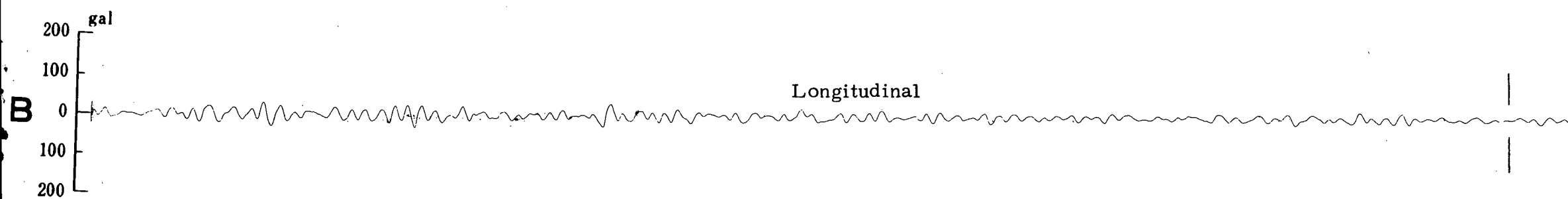
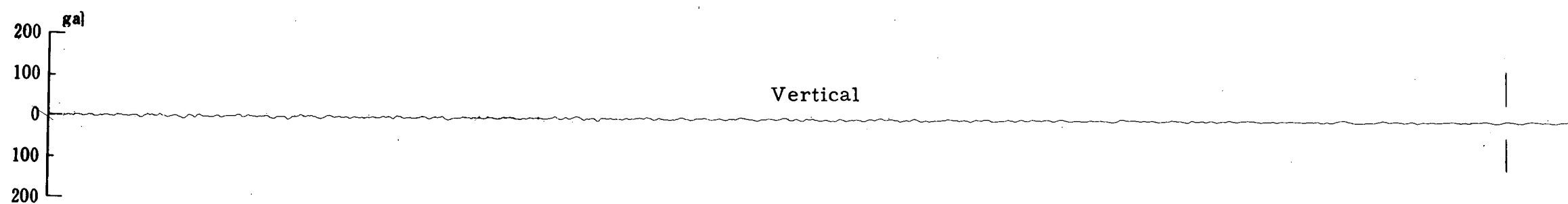
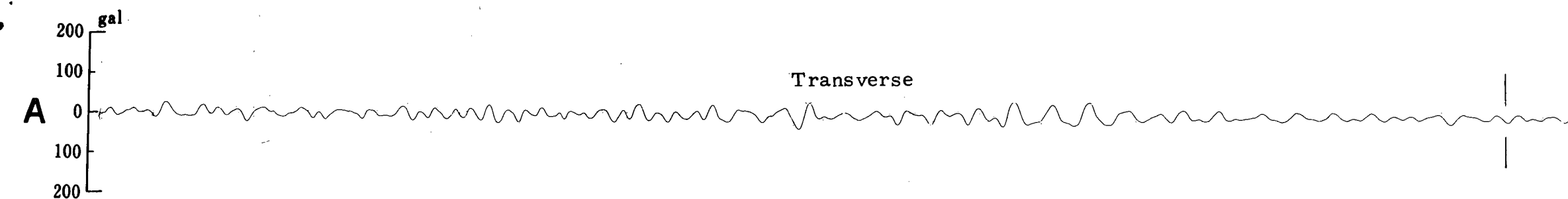
Soka Bridge 106-Gr - 19  
1972. 2. 29 18 : 23

1sec

Soka Bridge 106-Gr - 19  
1972. 2. 29 18 : 23

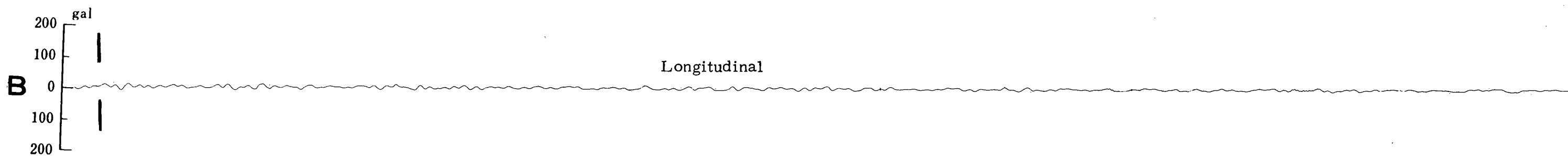
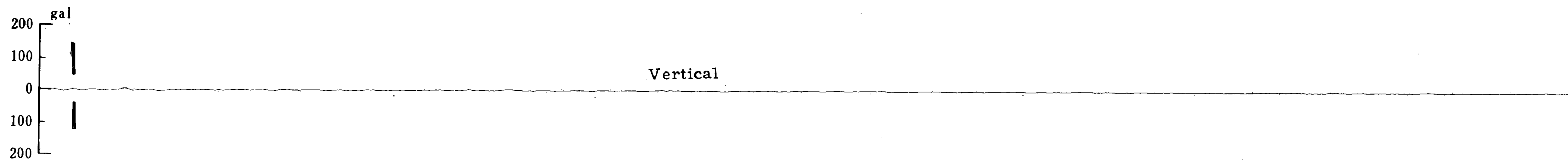
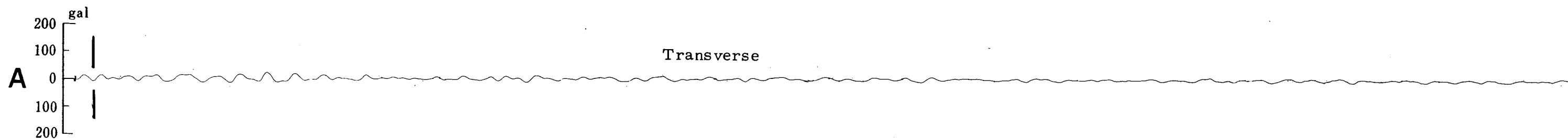
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Soka Bridge 106-P-18  
1972. 2. 29 18:23

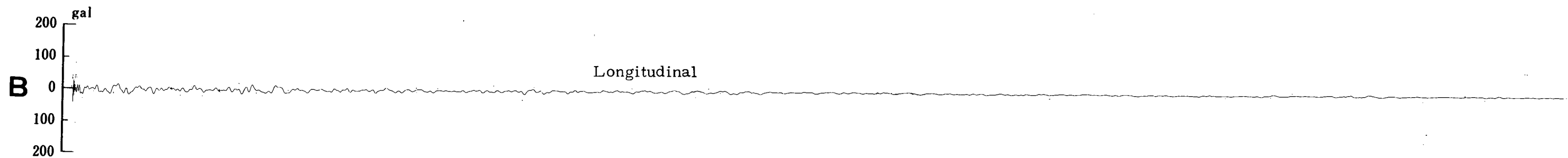
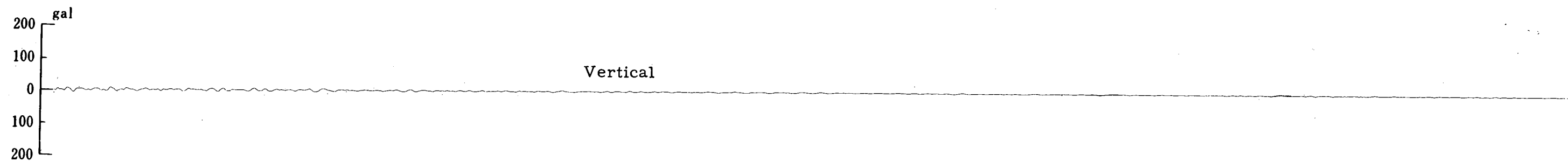
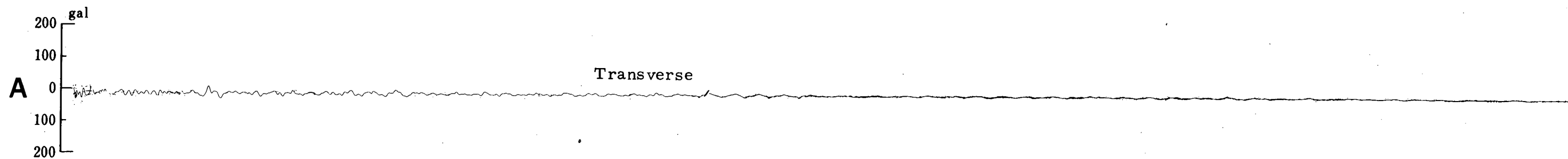


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Soka Bridge 106-P-18  
1972. 2. 29 18 : 23

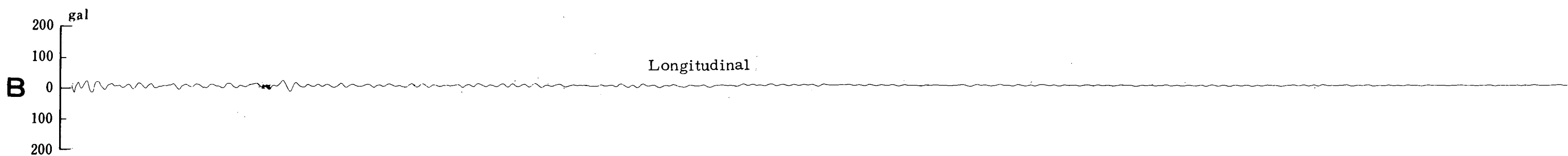
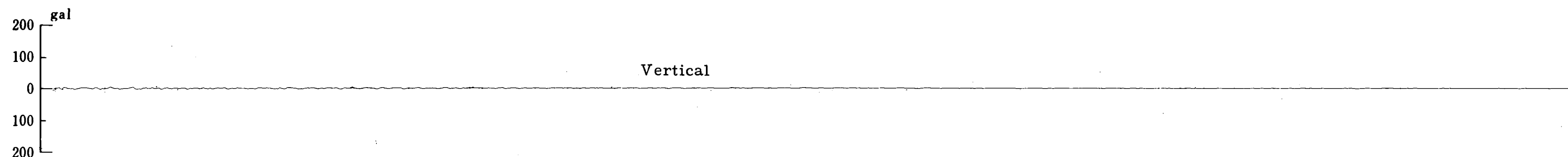
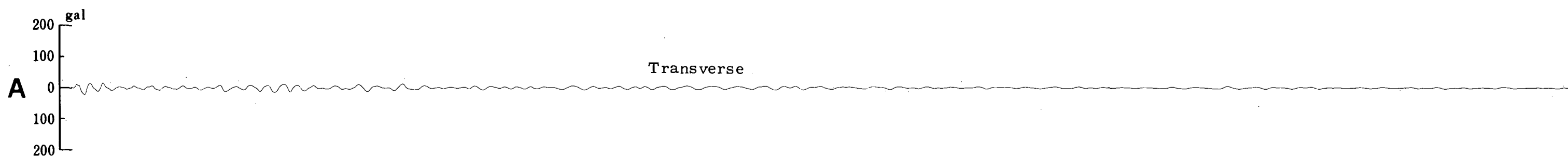


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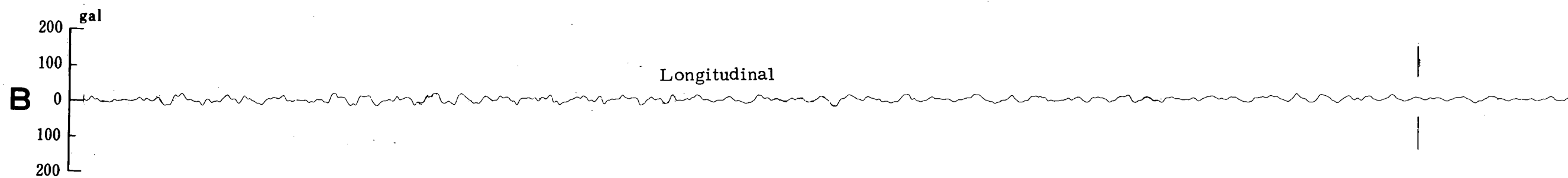
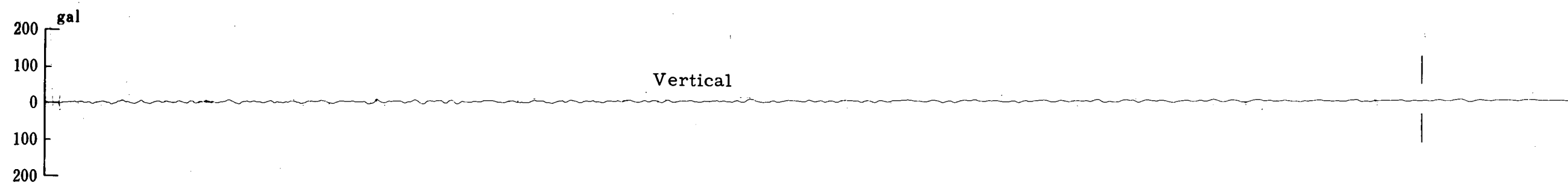
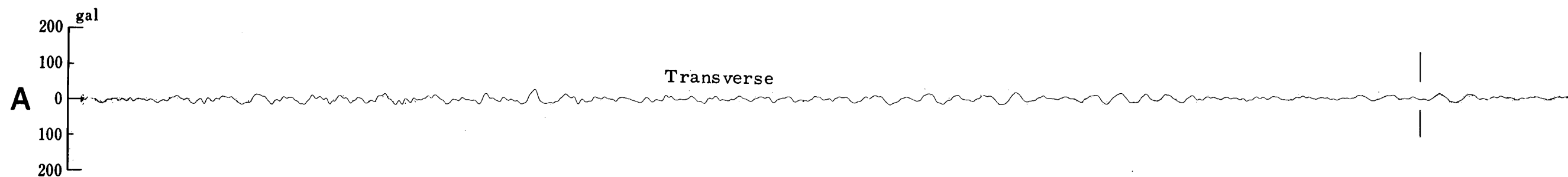
Soka Bridge 106-Gr-20  
1972. 11. 6 20:40

1sec

Soka Bridge 106-P-19  
1972. 11. 6 20 : 40

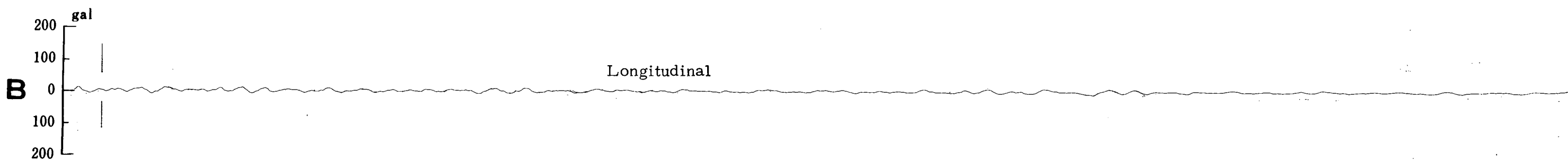
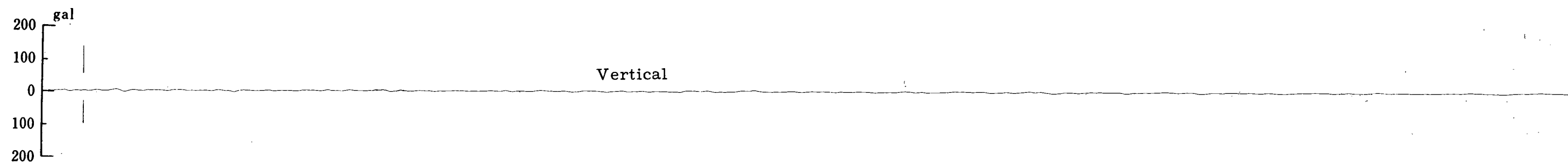
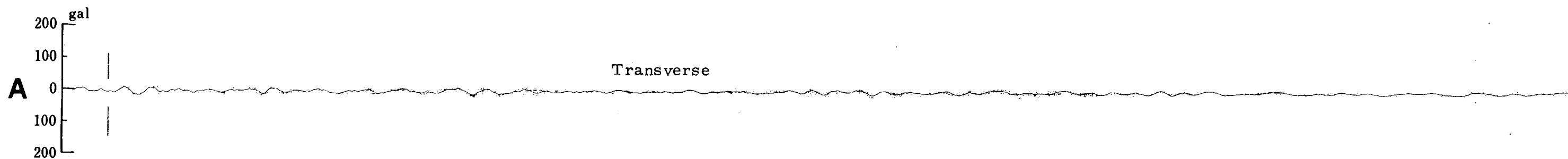


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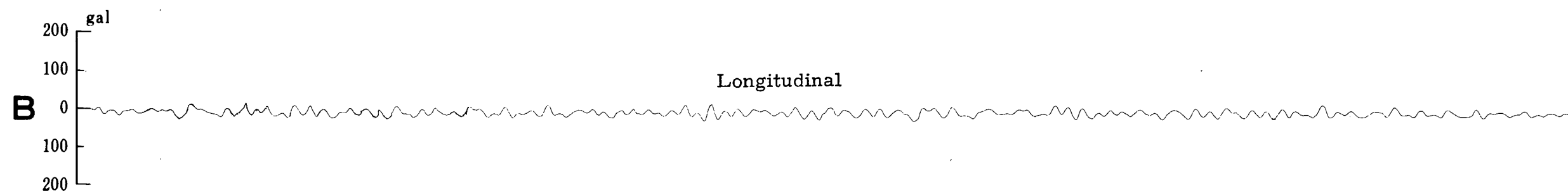
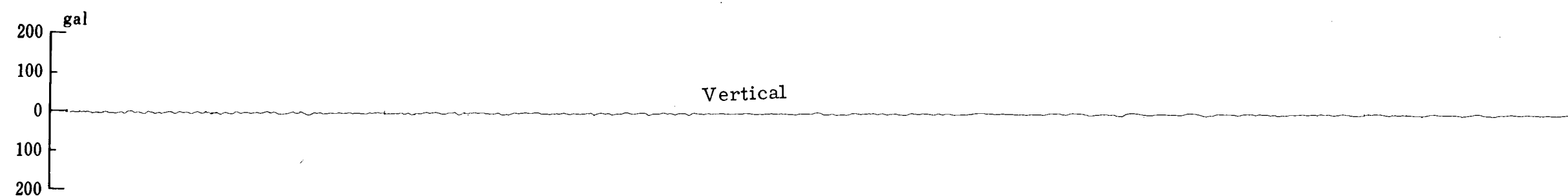
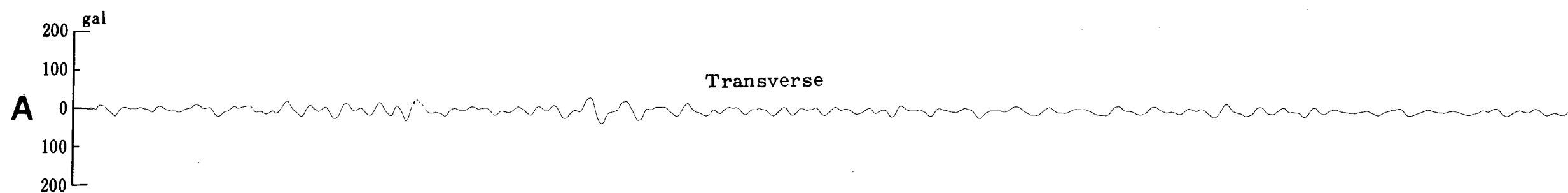
Soka Bridge 106-Gr - 21  
1972. 12. 4 19 : 17

1sec

Soka Bridge 106-Gr - 21  
1972. 12. 4 19 : 17

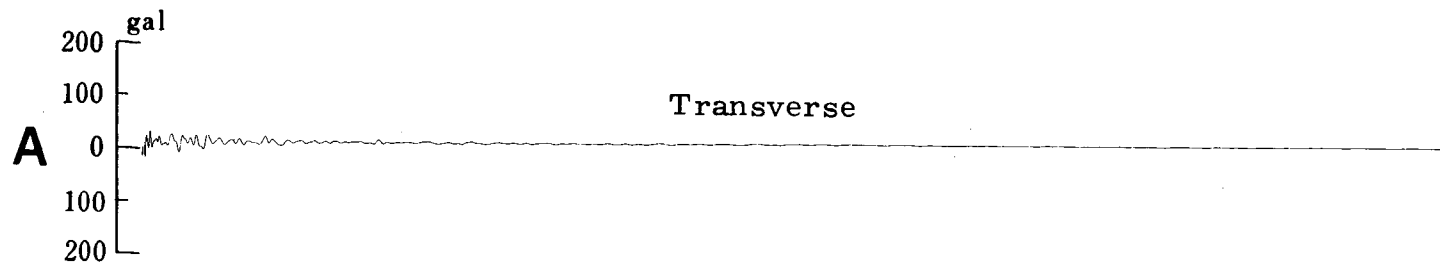


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Soka Bridge 106-P-20  
1972. 12. 4 19:17

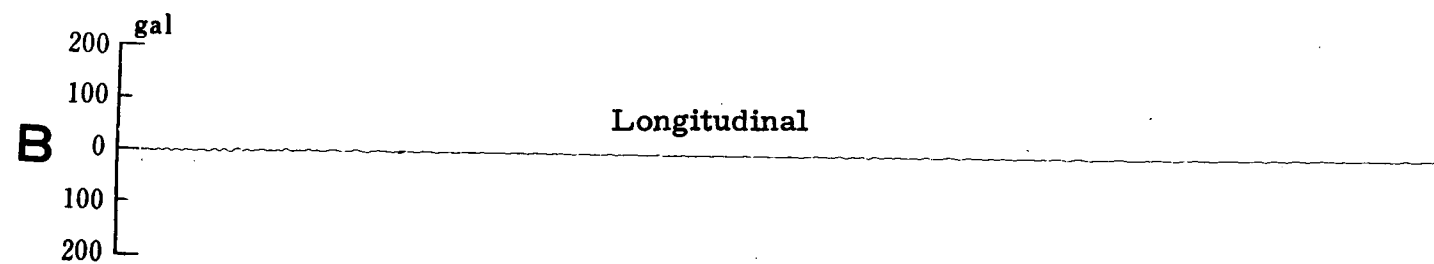
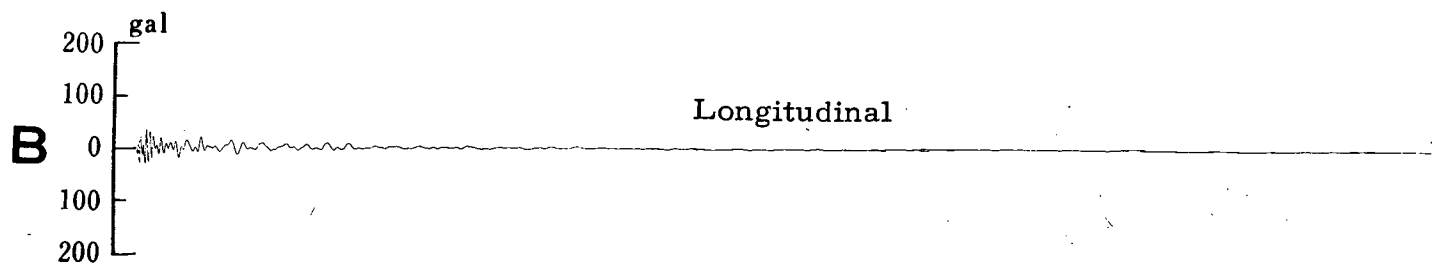
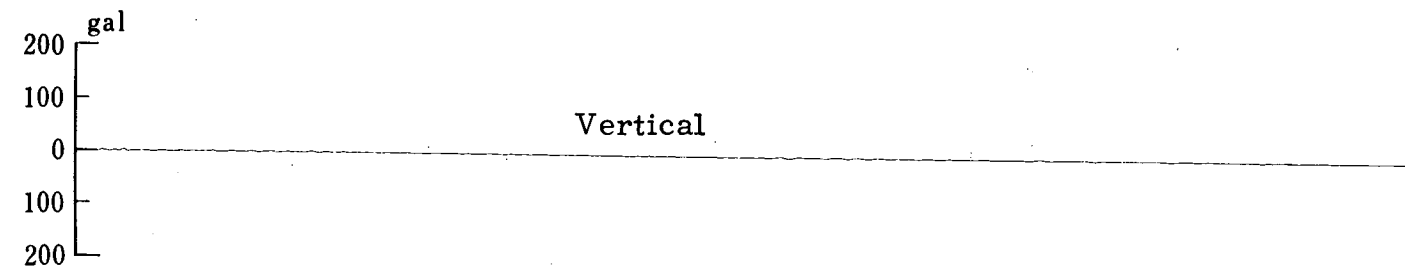
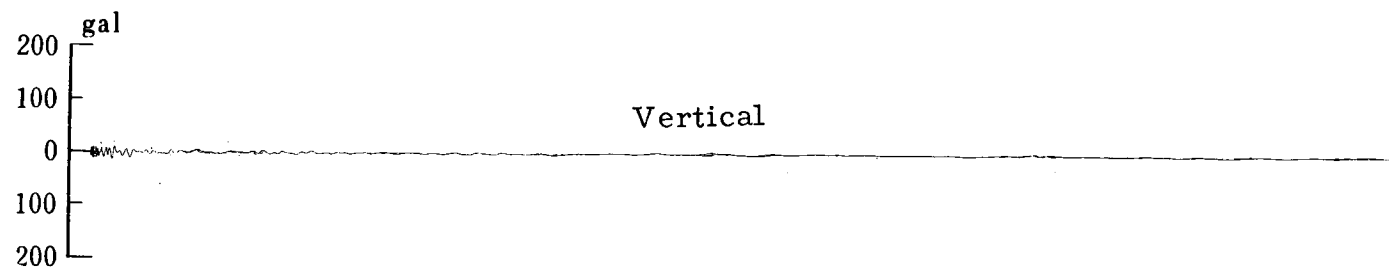
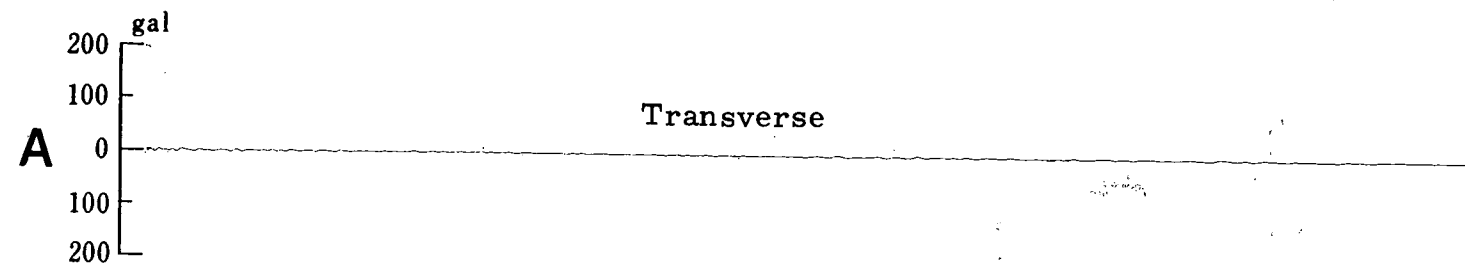
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Kinokawa Bridge 112-Gr-24  
1972. 4. 28 23 : 53

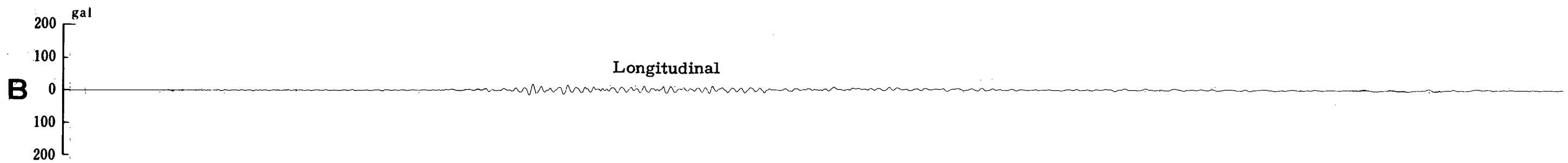
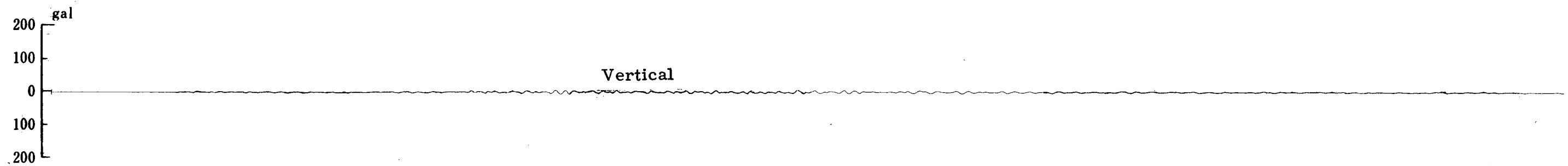
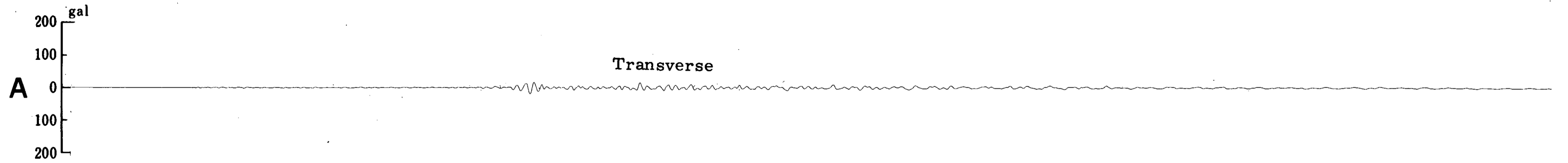


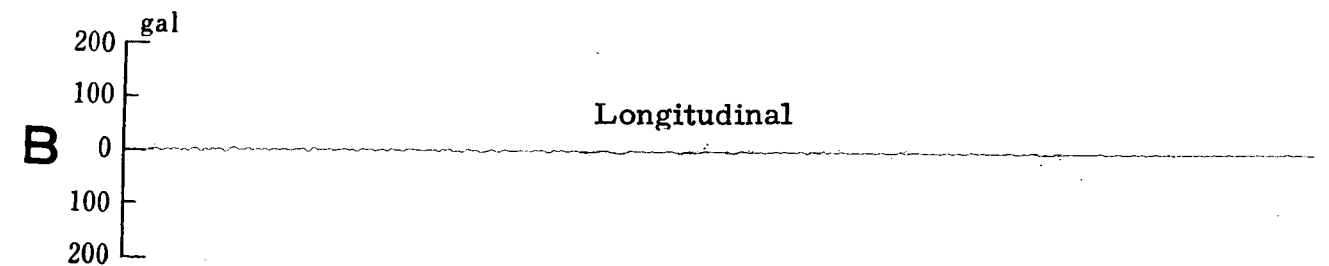
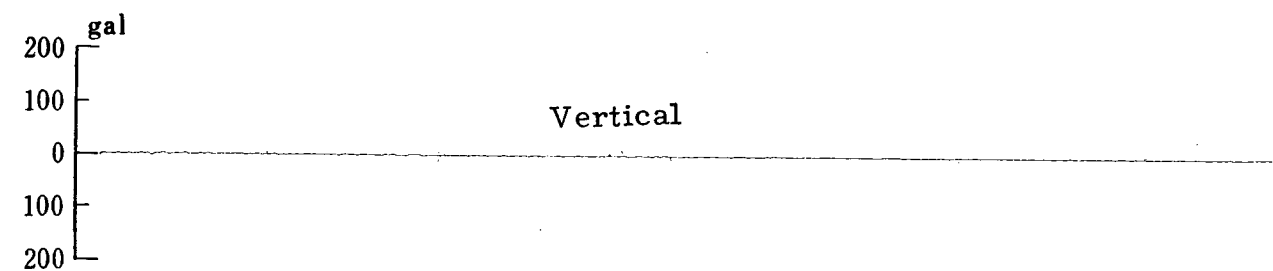
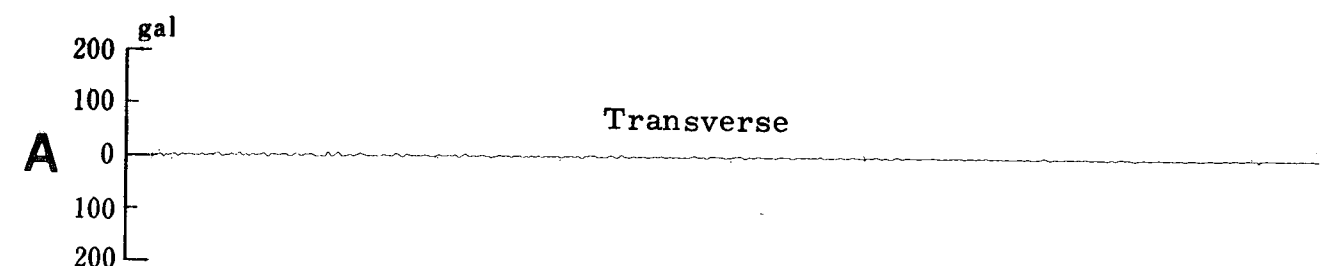
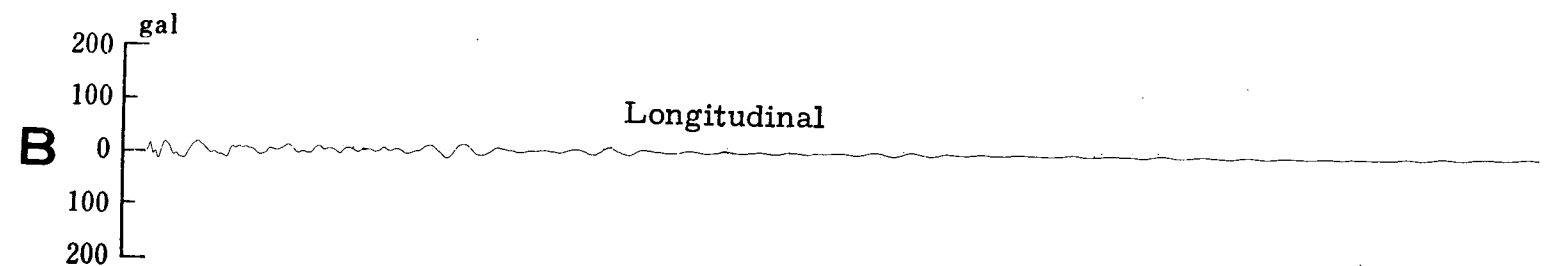
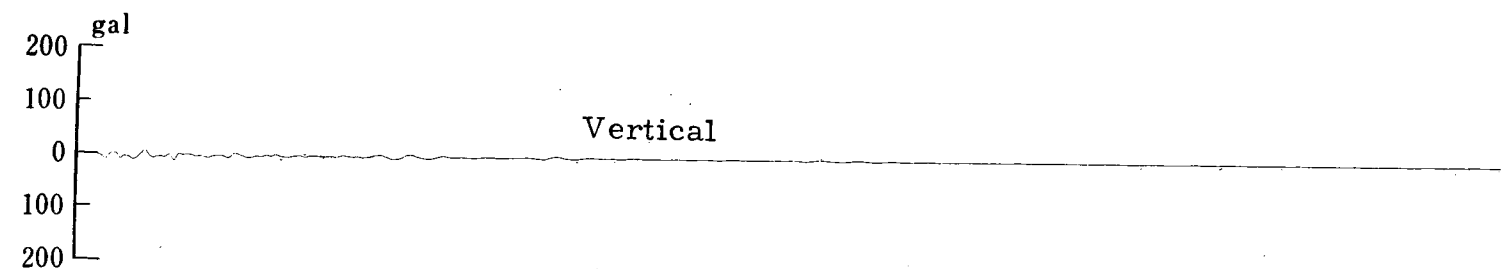
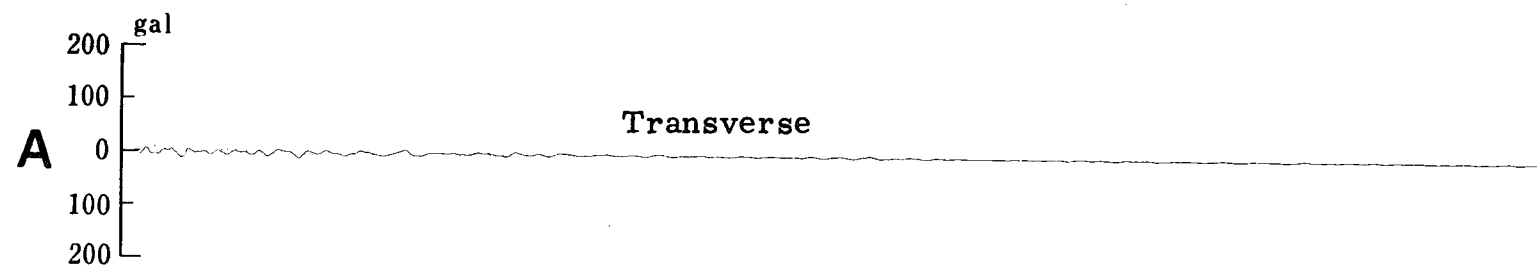
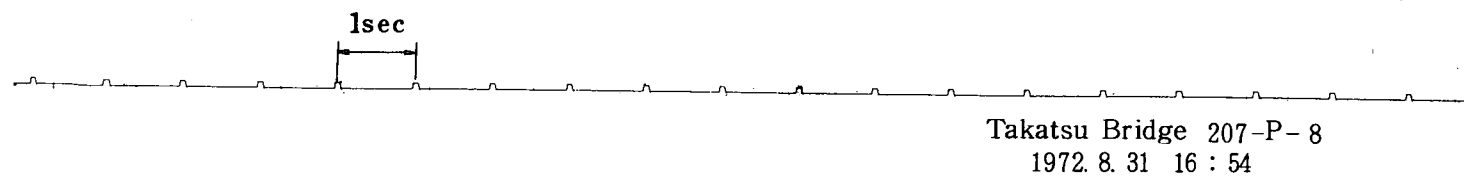
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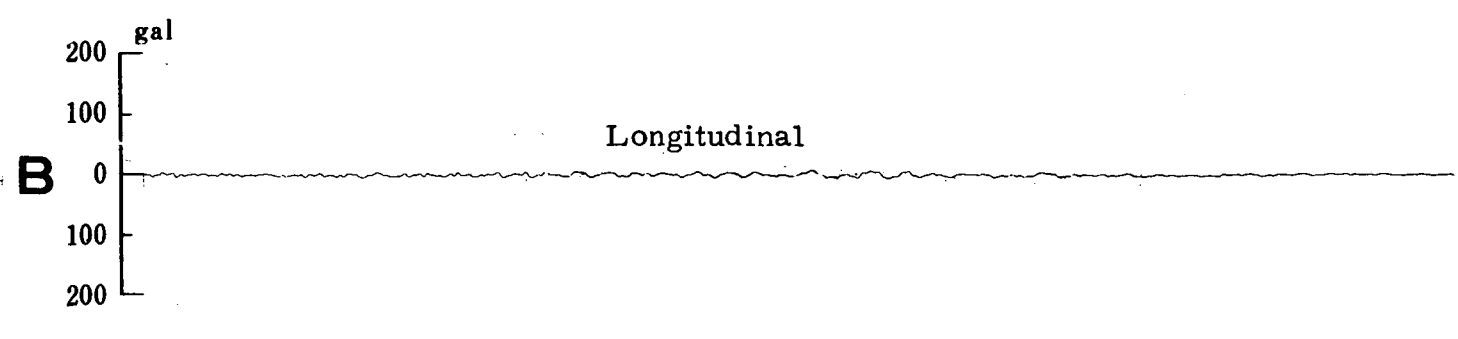
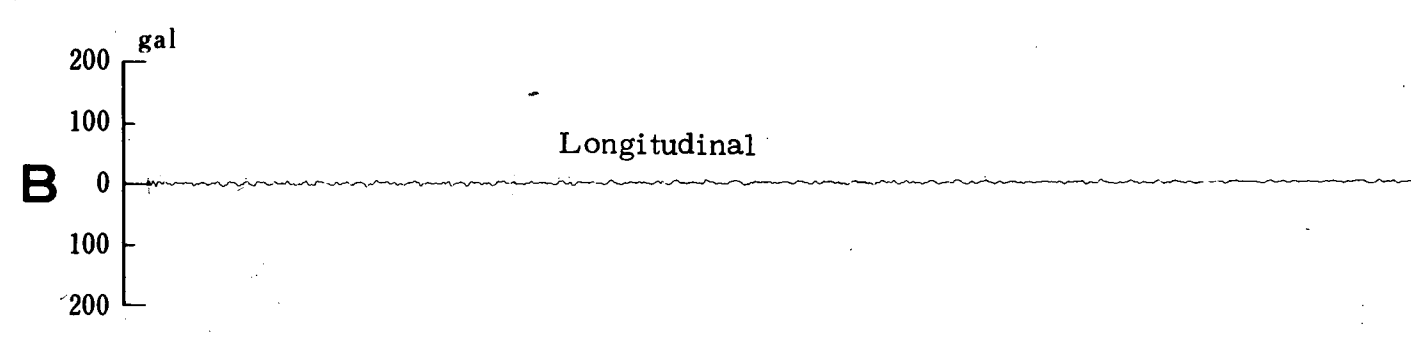
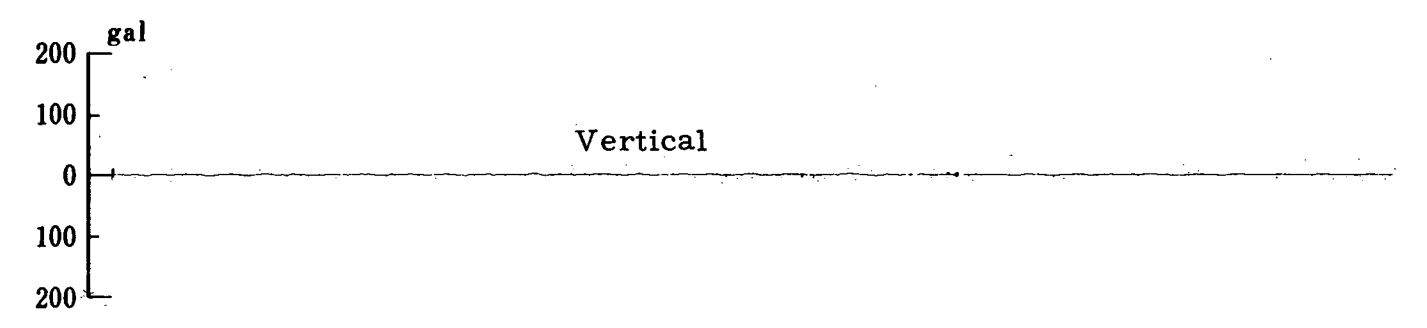
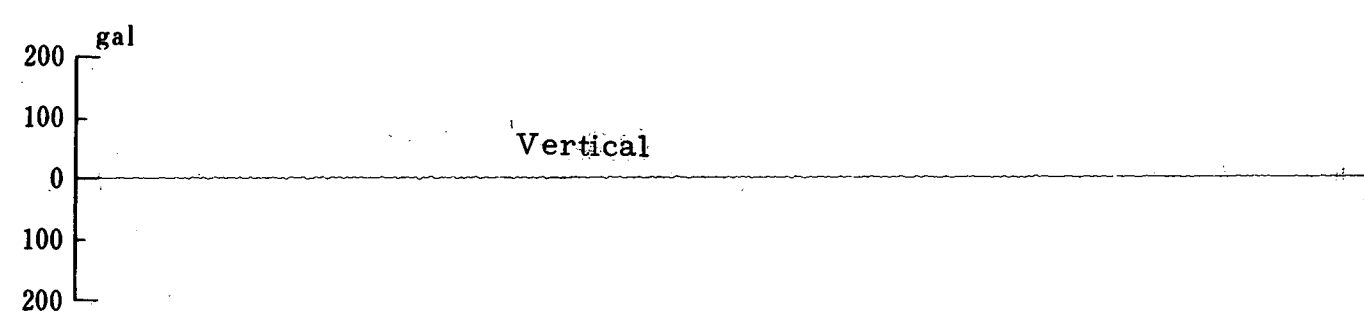
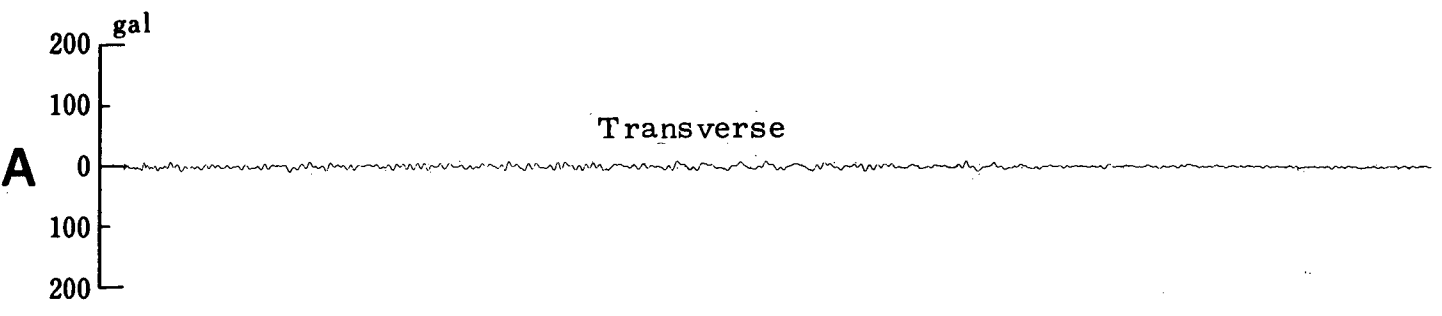
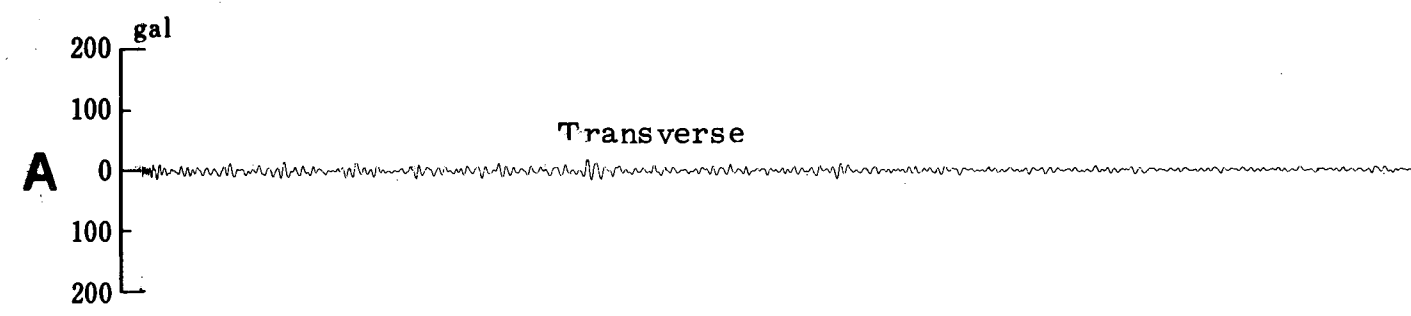
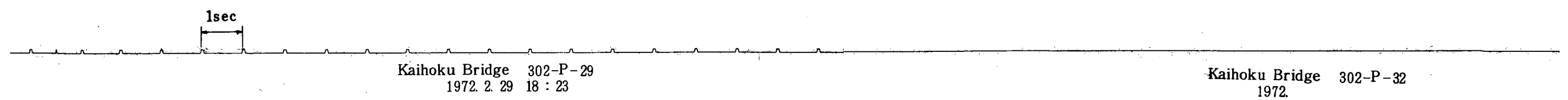
Ishiseto Bridge 205-Gr-12  
1972. 2. 21 23 : 55

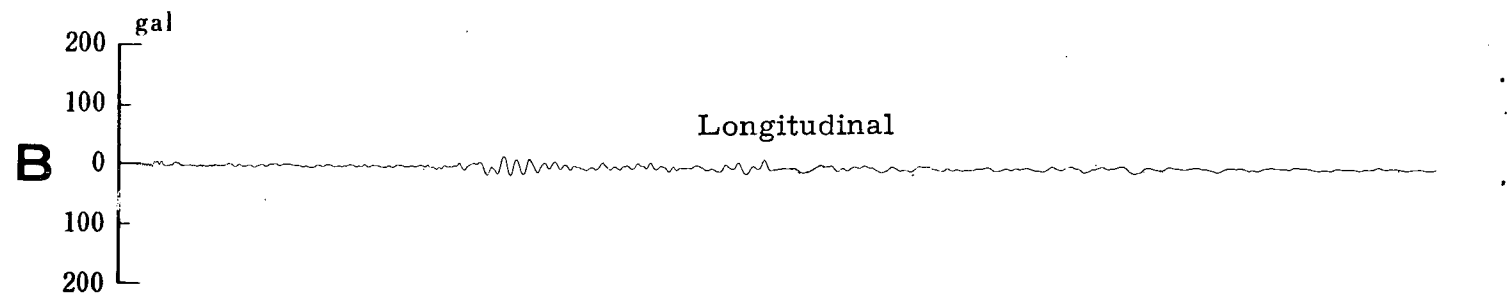
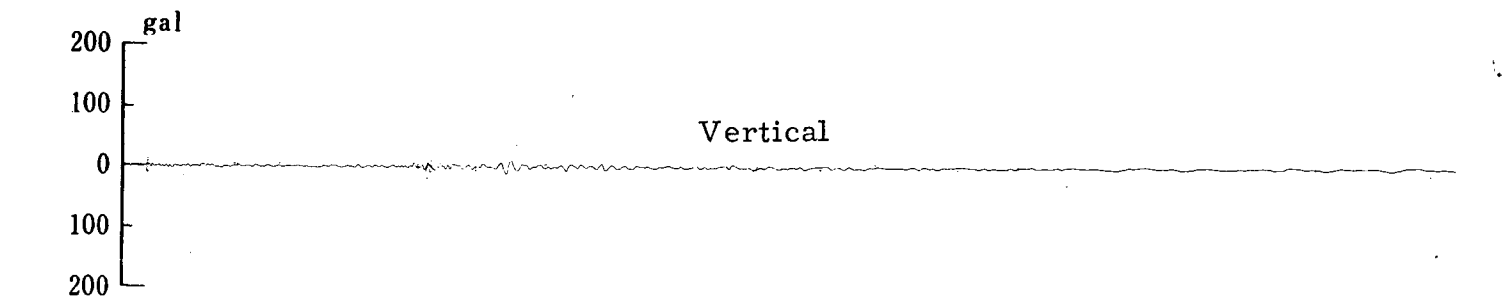
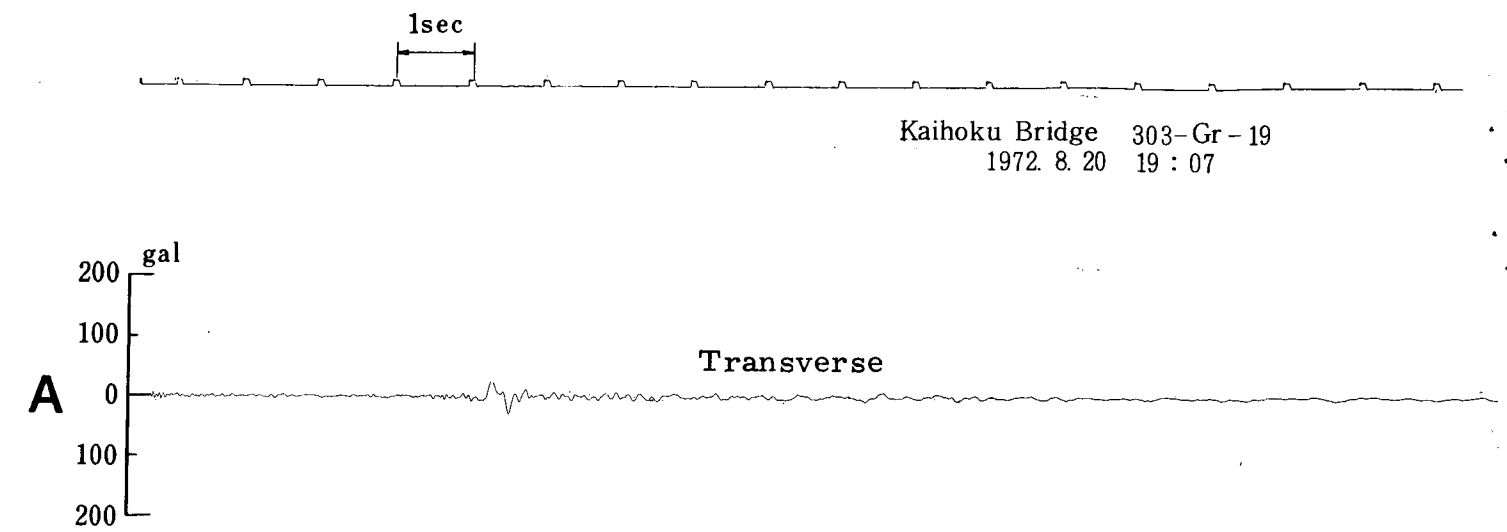
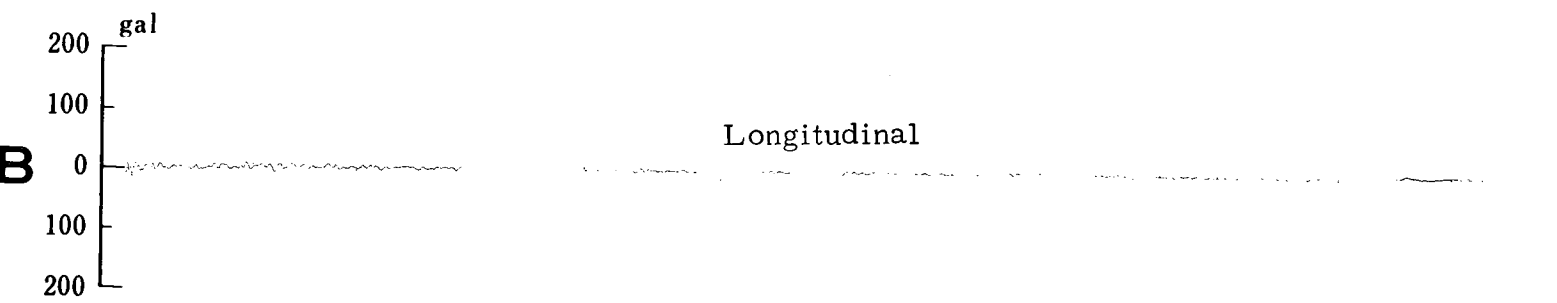
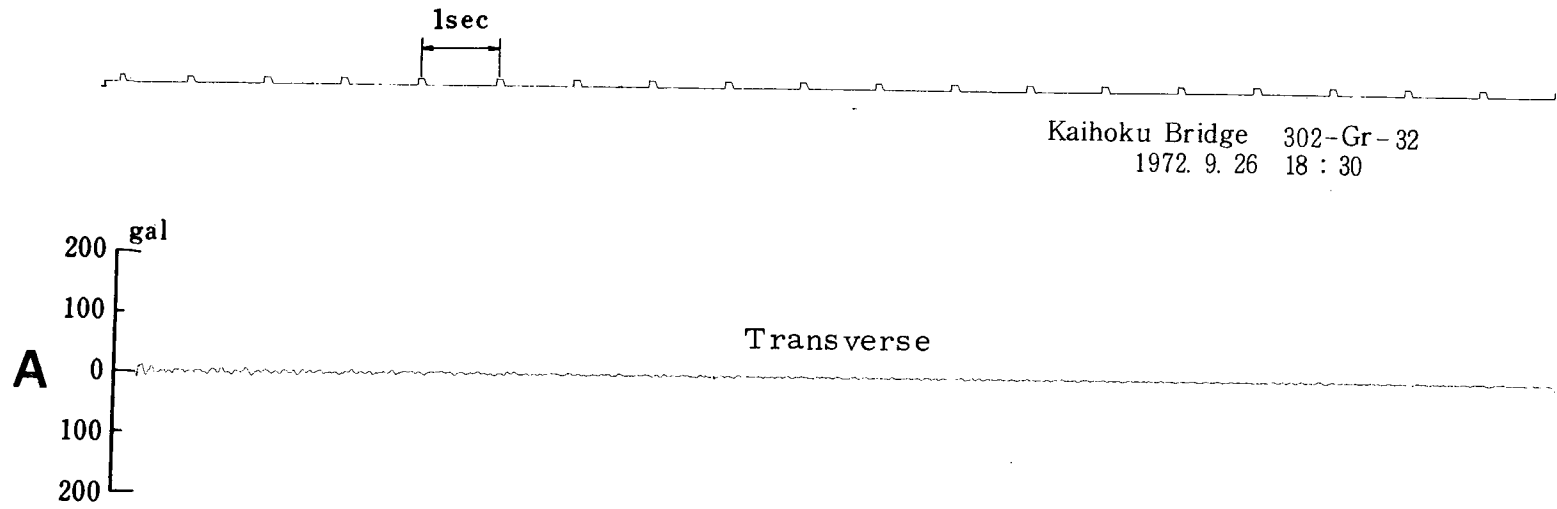


Shinyawata Bridge 204-Gr-16  
1972.



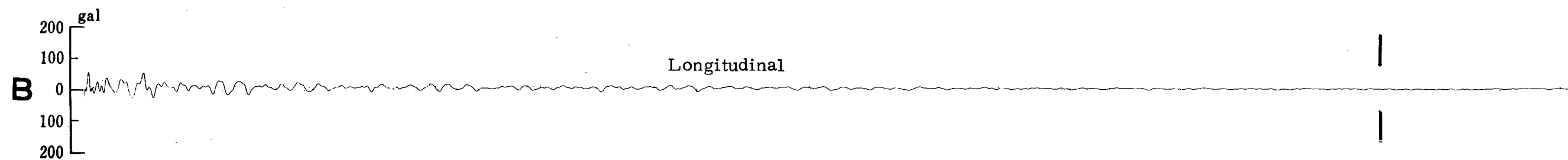
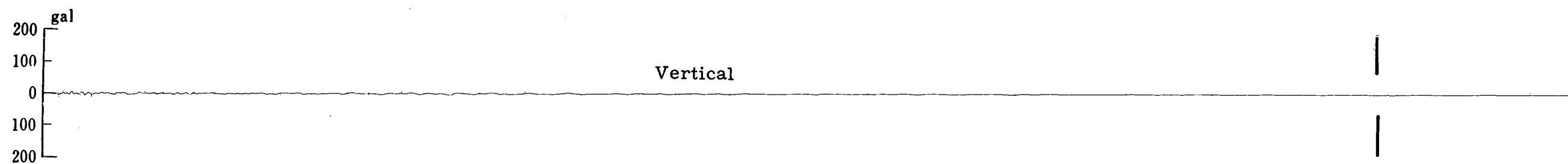
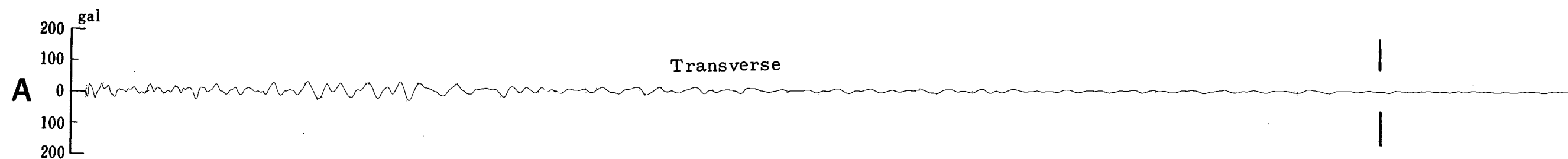




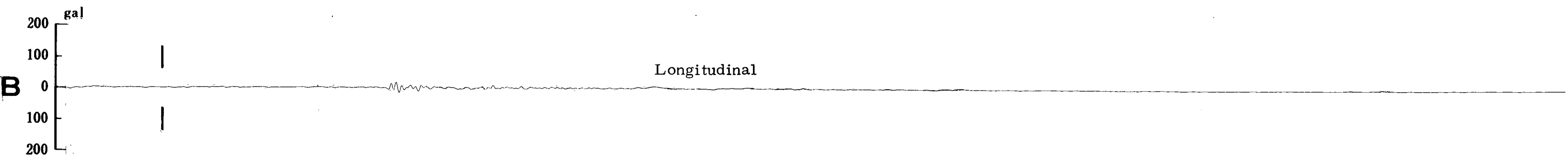
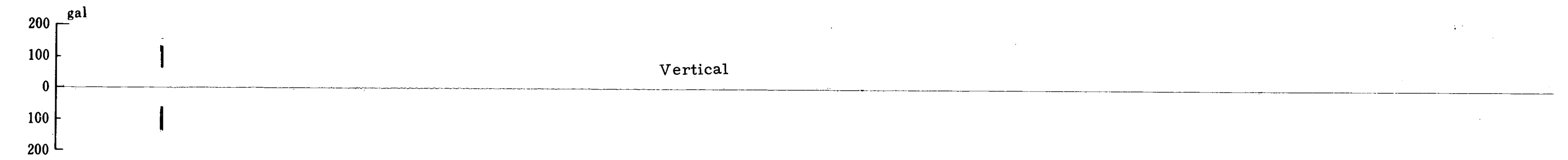
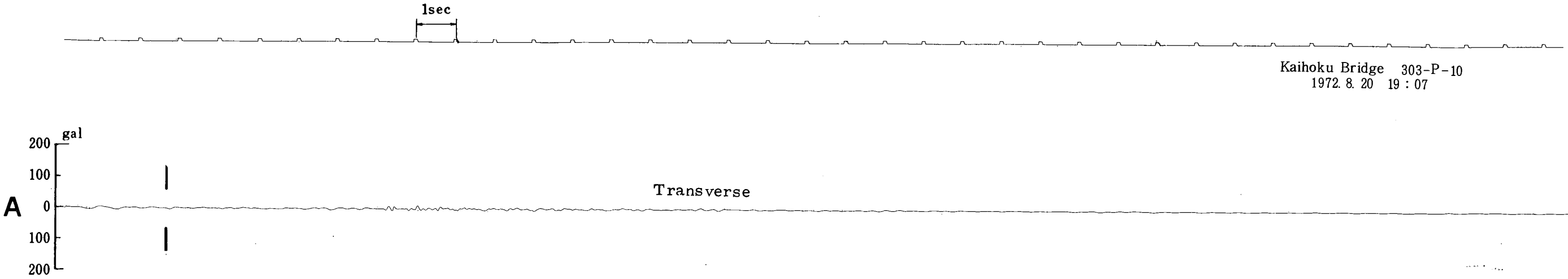


1sec

Kaihoku Bridge 303-P-10  
1972. 8. 20 19 : 07

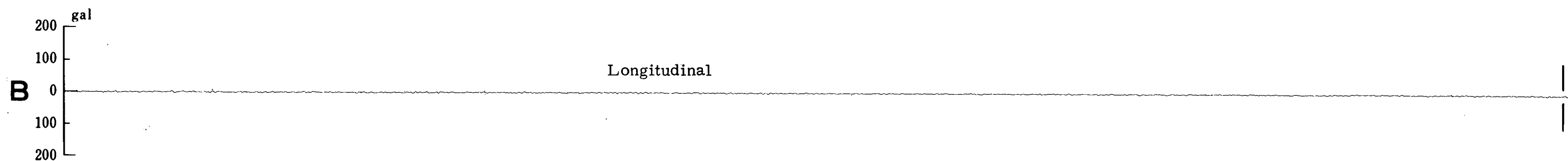
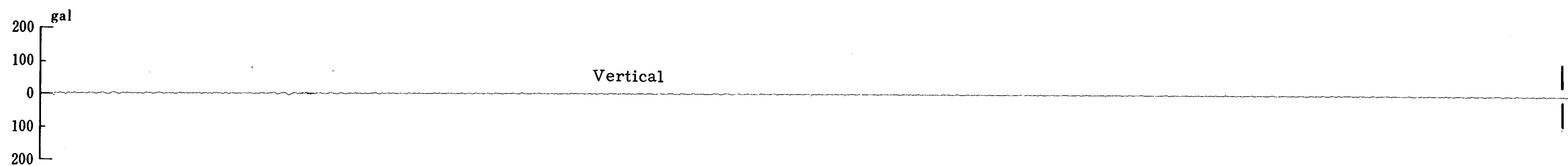
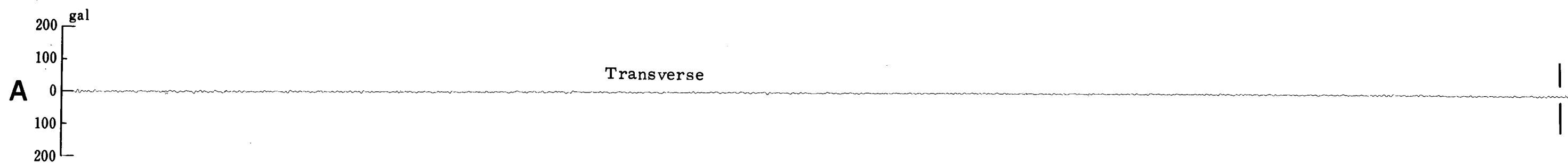


Kaihoku Bridge 303-P-10  
1972. 8. 20 19 : 07



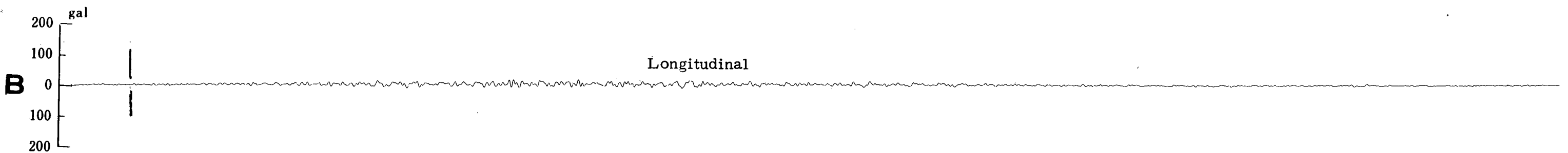
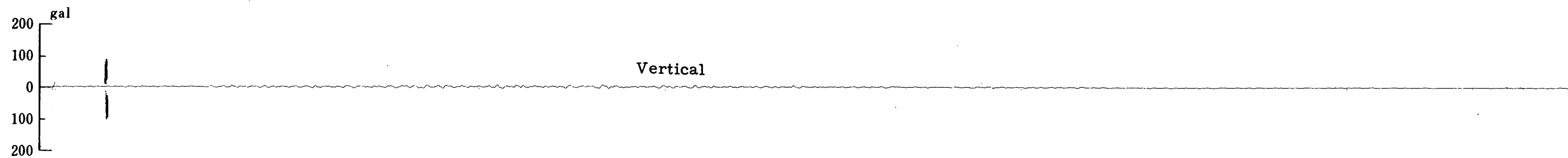
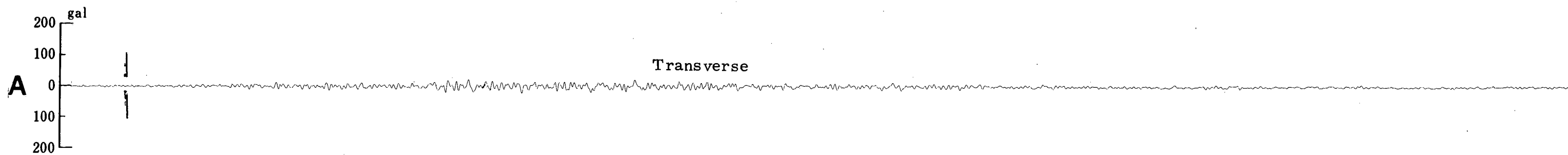
Date Bridge 304-Gr-31  
1972. 2. 29 18 : 23

1sec



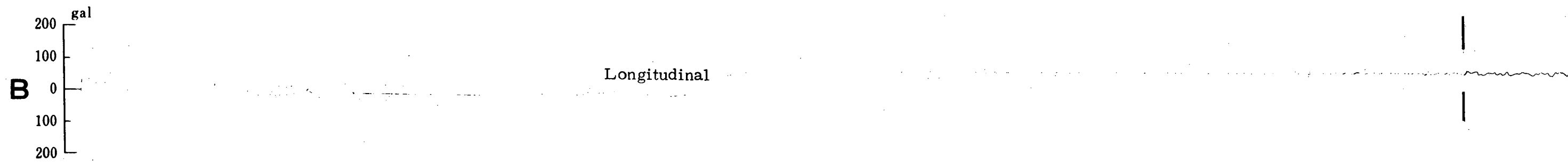
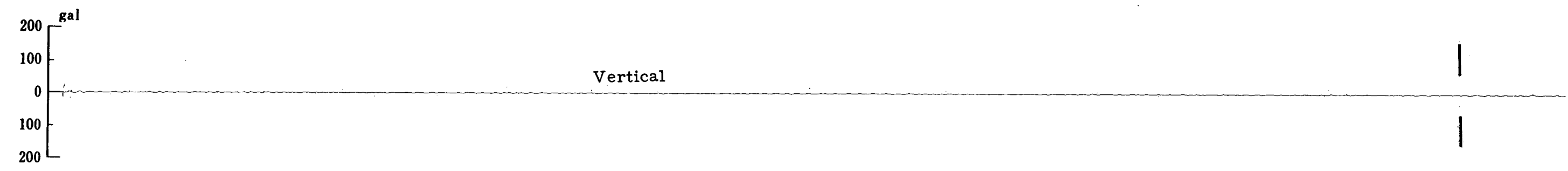
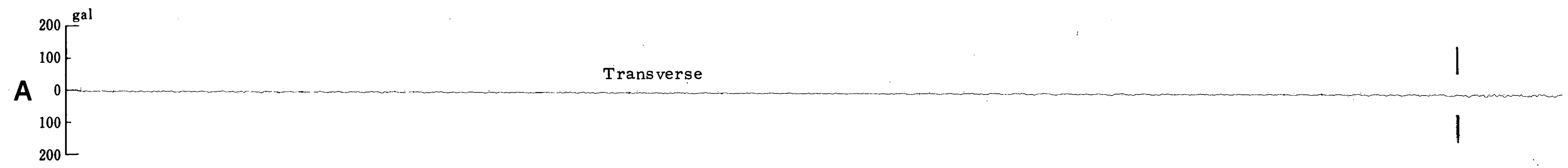
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Date Bridge 304-Gr-31  
1972. 2. 29 18 : 23



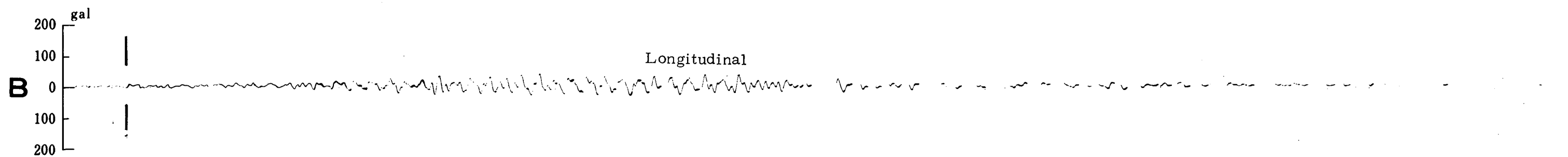
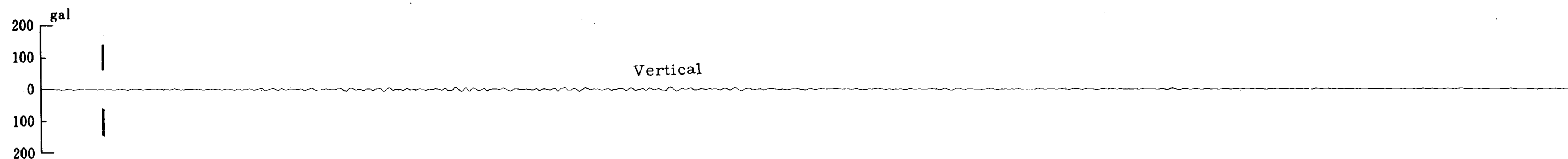
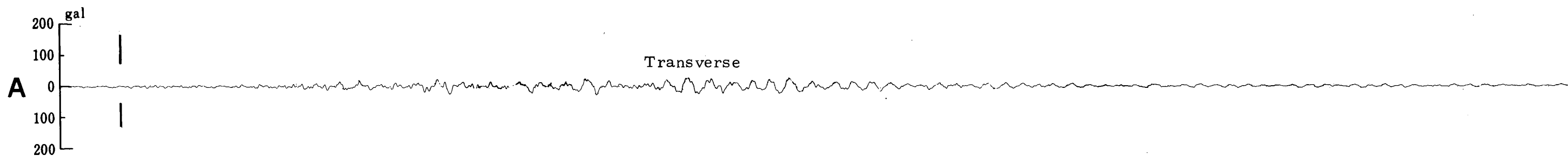
Date Bridge 304-PI-36  
1972. 2. 29 18 : 25

1sec



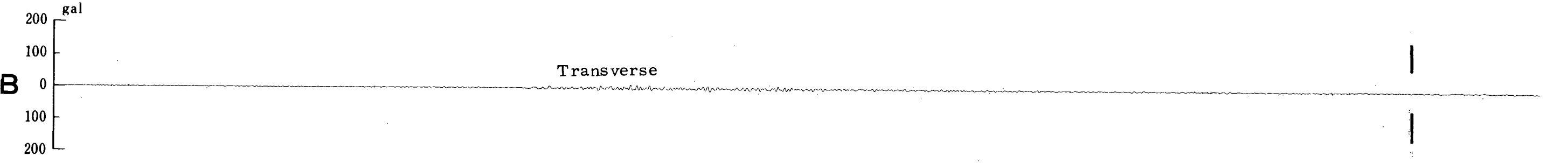
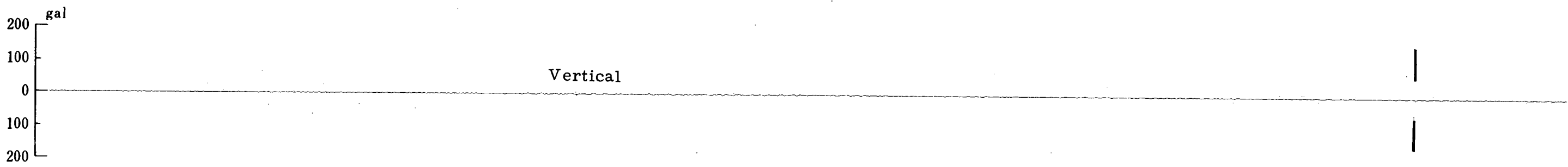
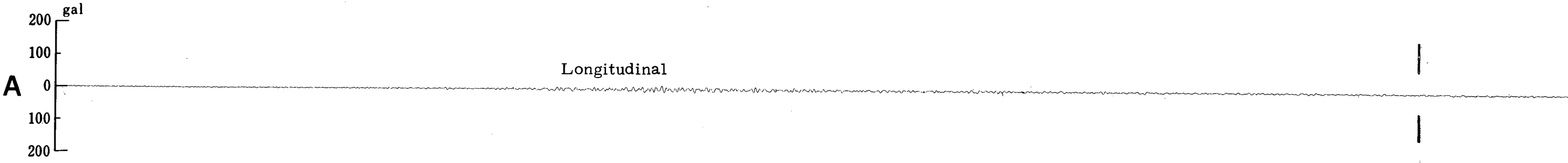
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Date Bridge 304-PI-36  
1972. 2. 29 18 : 25

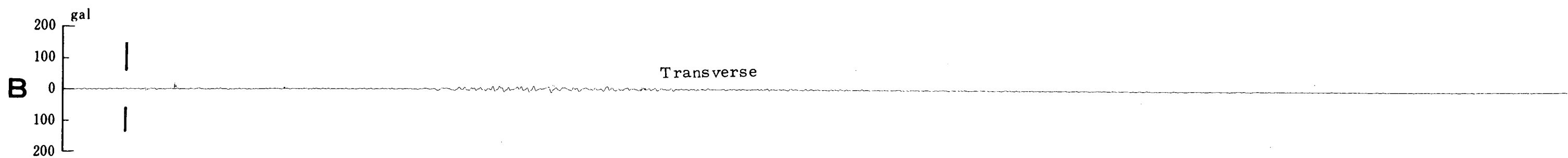
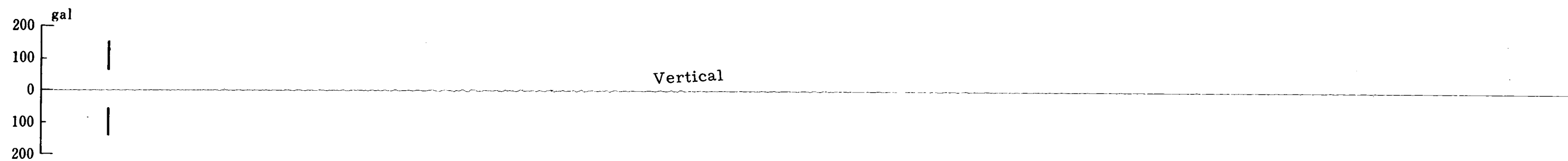
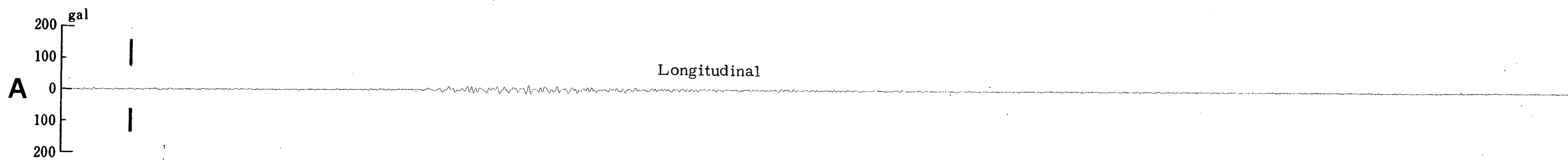


Date Bridge 304-Gr-32  
1972. 9. 25 18 : 27

1sec

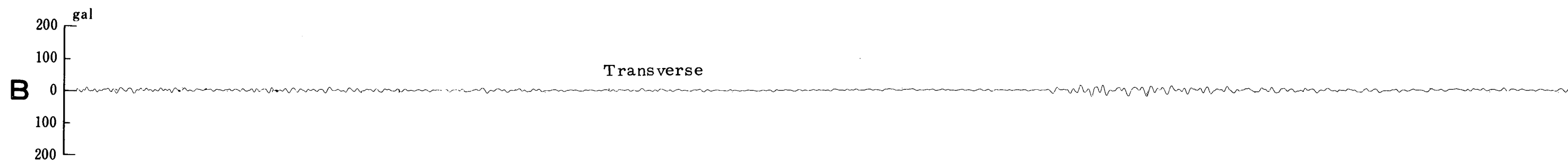
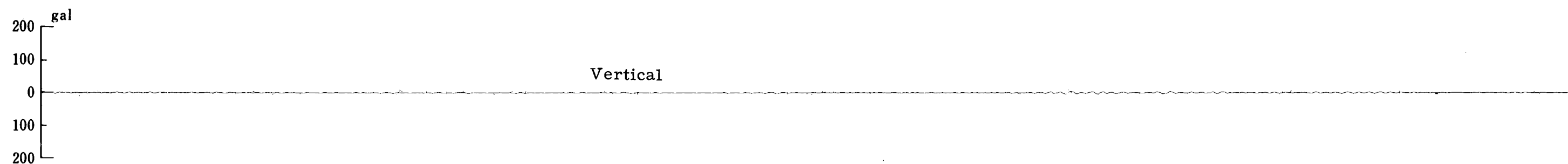
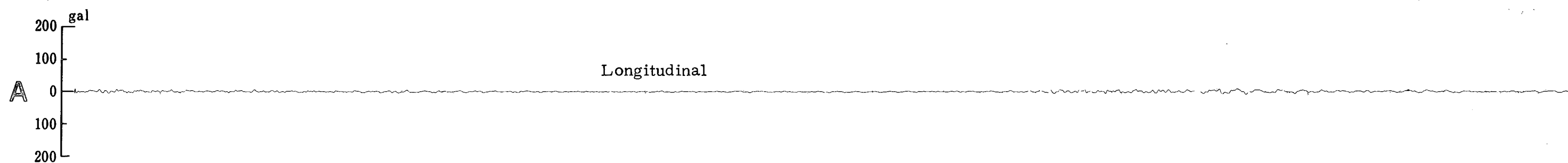


1sec

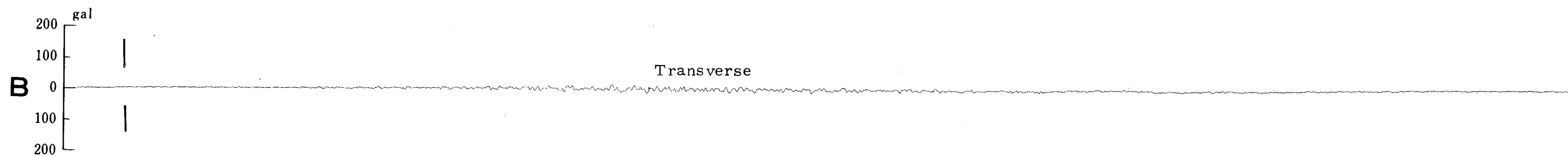
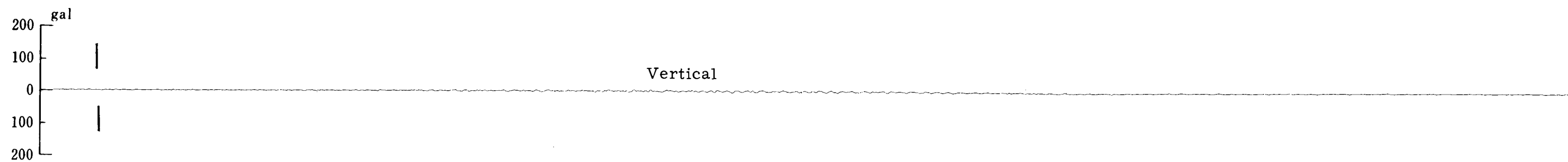
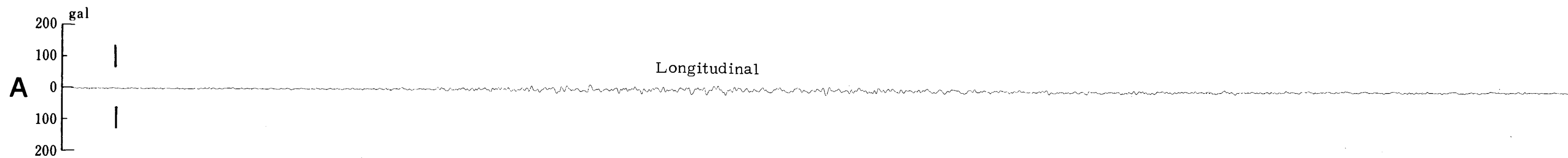
Date Bridge 304-Gr-32  
1972. 9. 25 18 : 27

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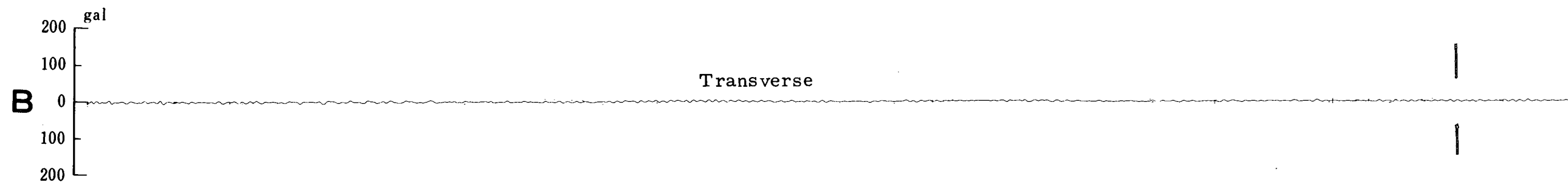
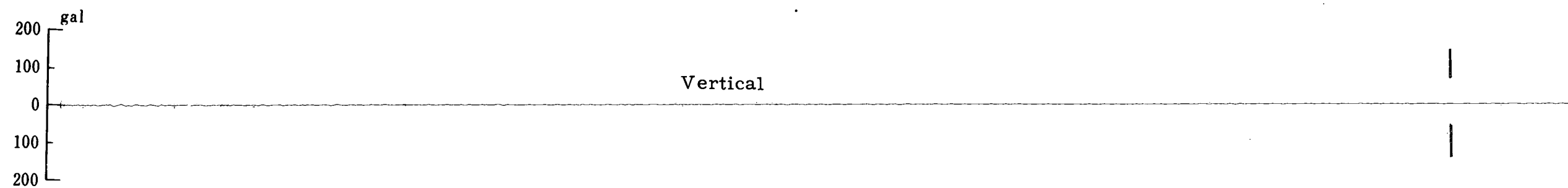
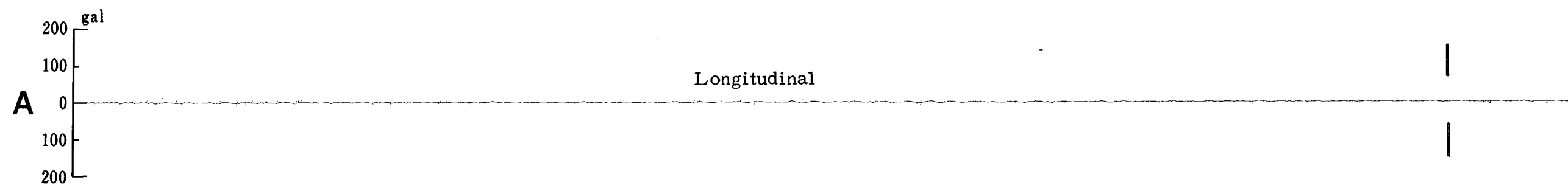
Date Bridge 304-P-37  
1972. 9. 25 18 : 27



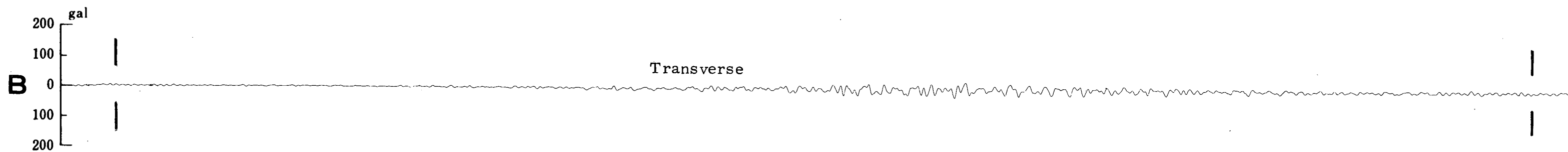
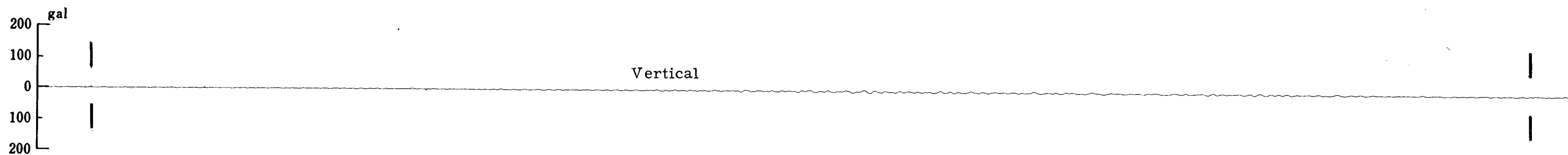
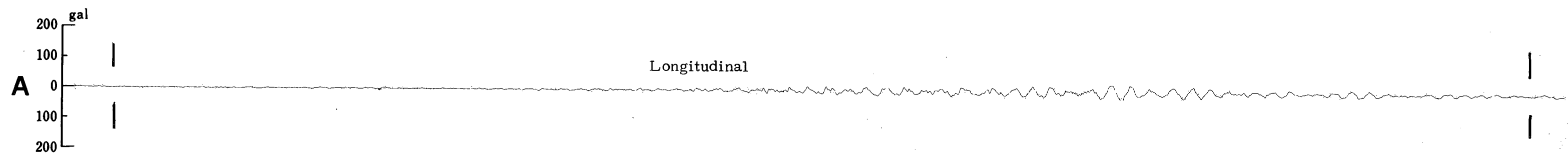
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Date Bridge 304-Gr-33  
1972. 12. 4 19:17

1sec

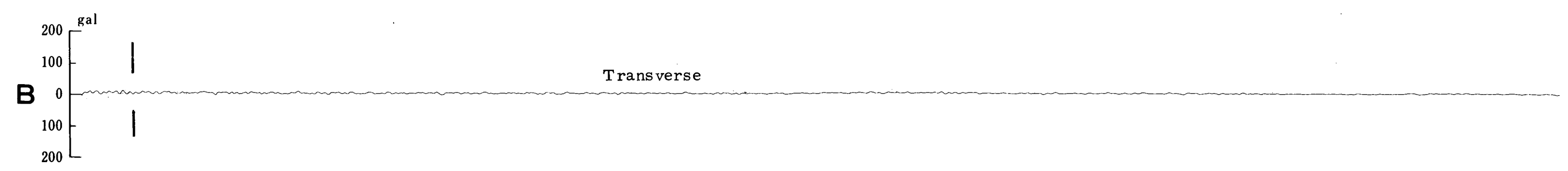
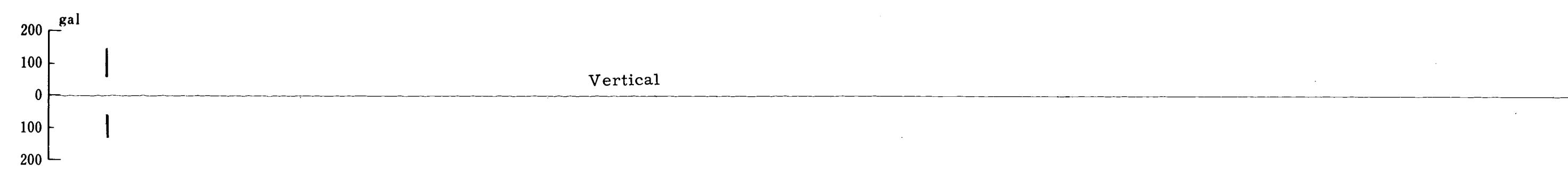
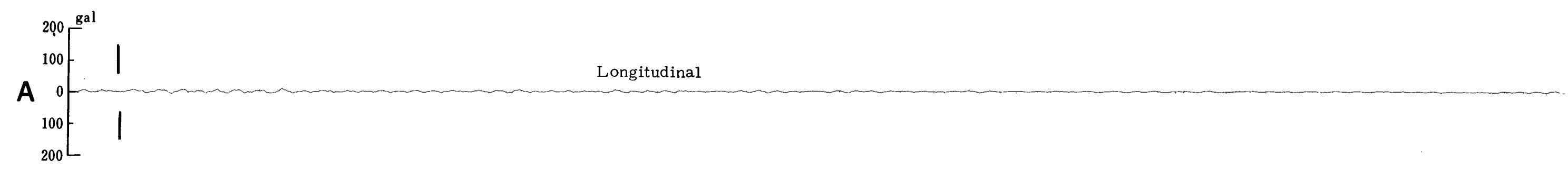
Date Bridge 304-P-30  
1972. 12. 4 19 : 17

1sec

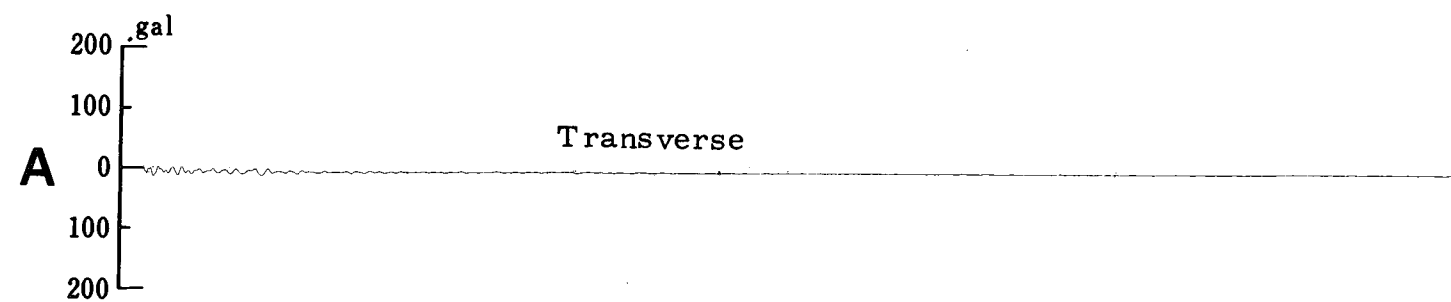
Date Bridge 304-P-30  
1972. 12. 4 19 : 17

1sec

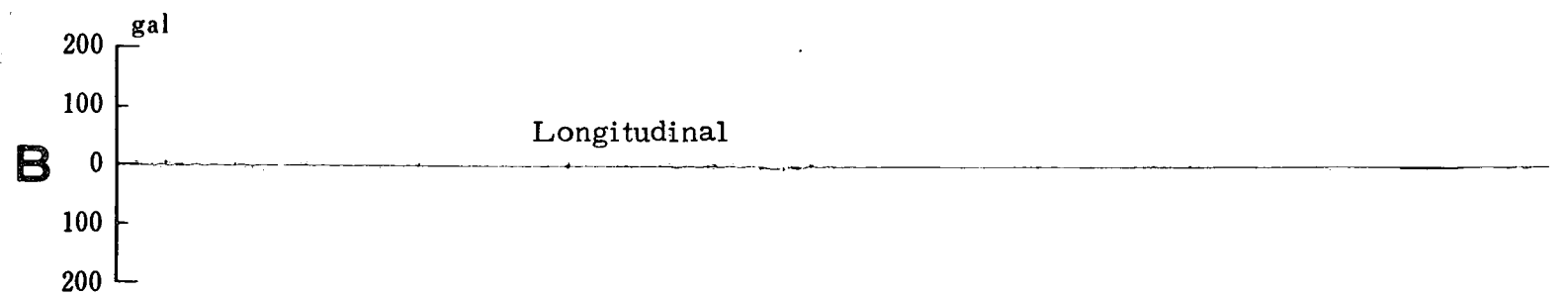
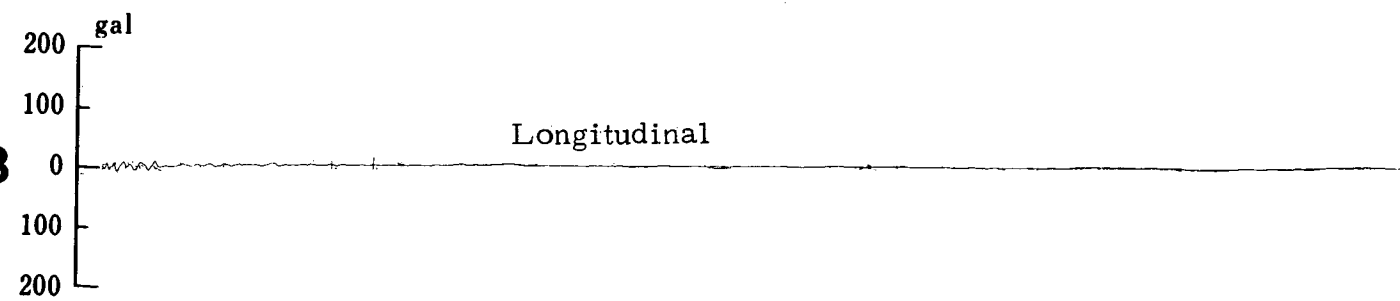
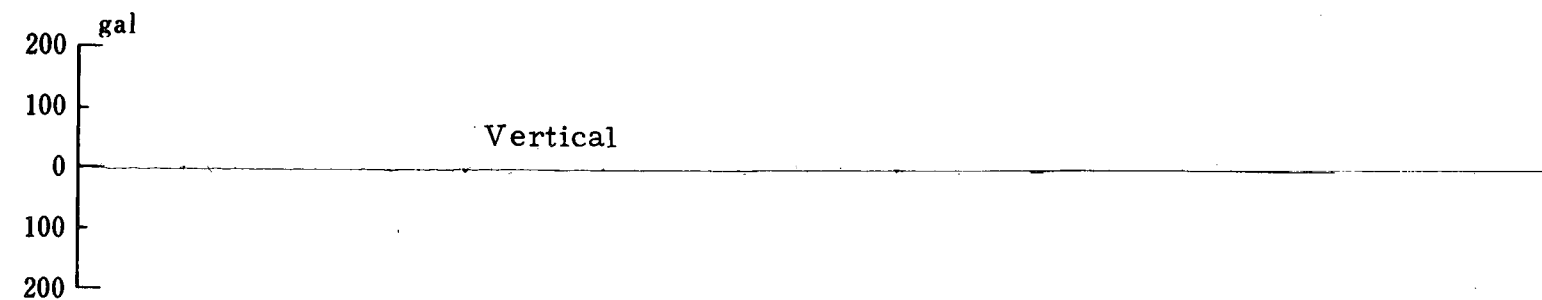
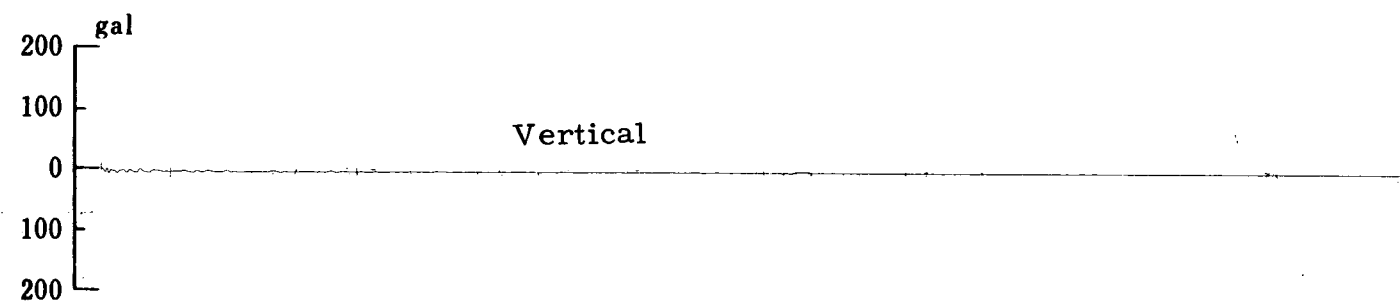
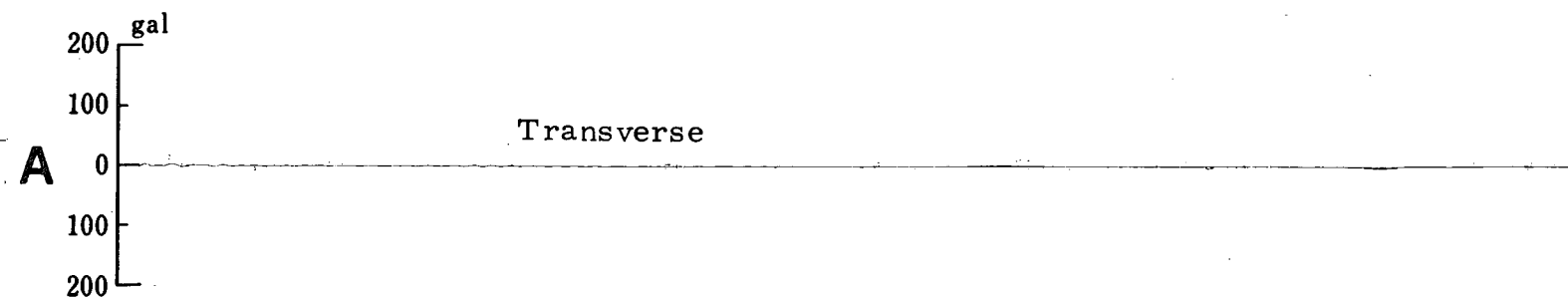
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1972. 12. 4 19:17



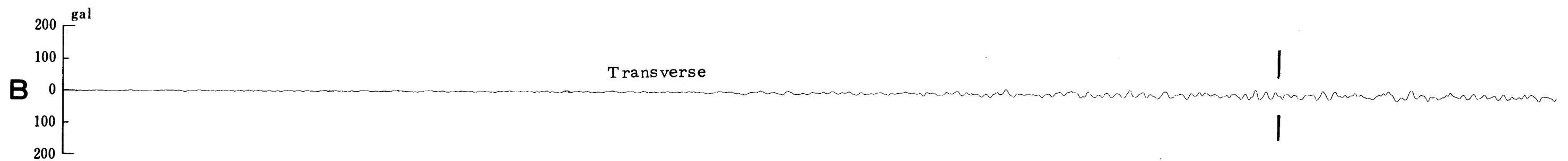
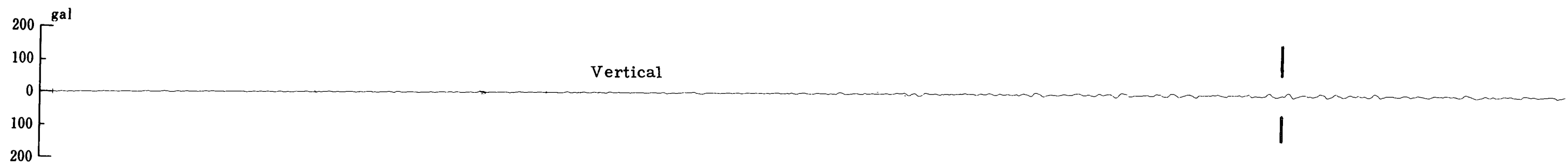
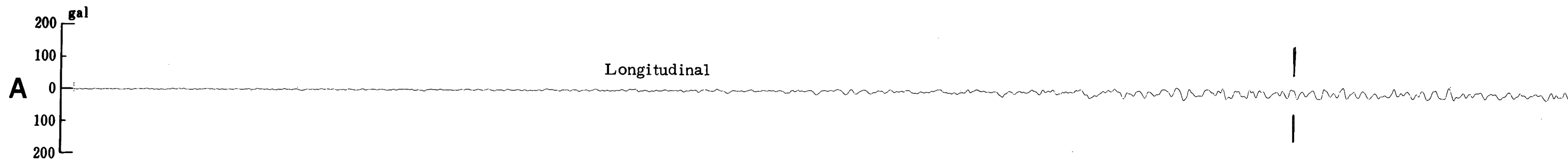
1sec

Godaisan Bridge 307-Gr-4  
1972.

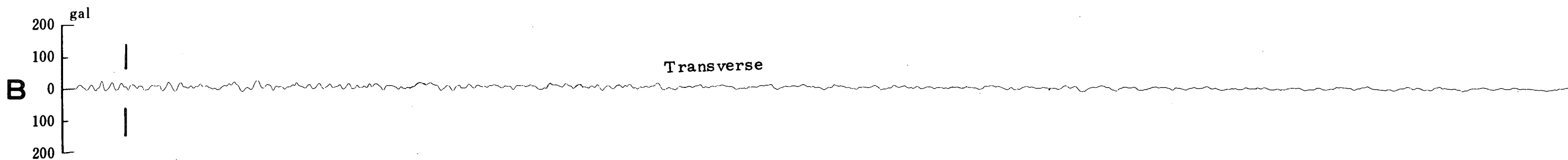
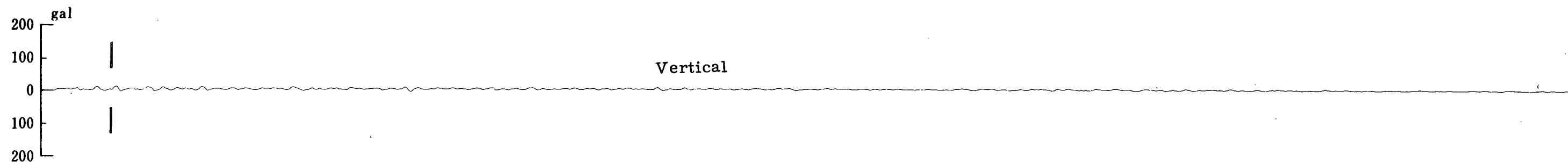
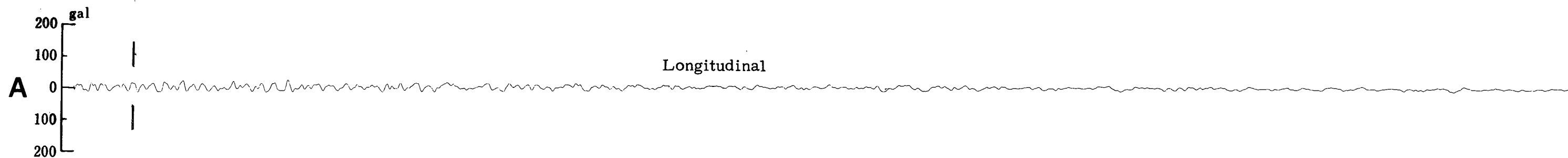
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Godaisan Bridge 307-P-16  
1972.

1sec

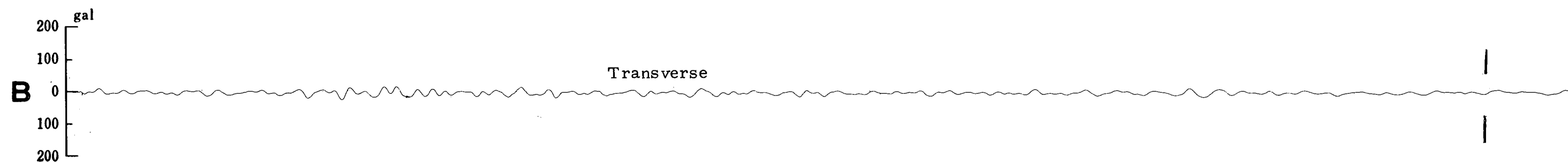
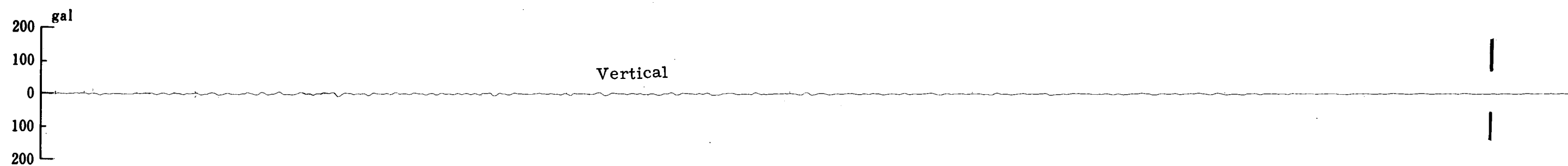
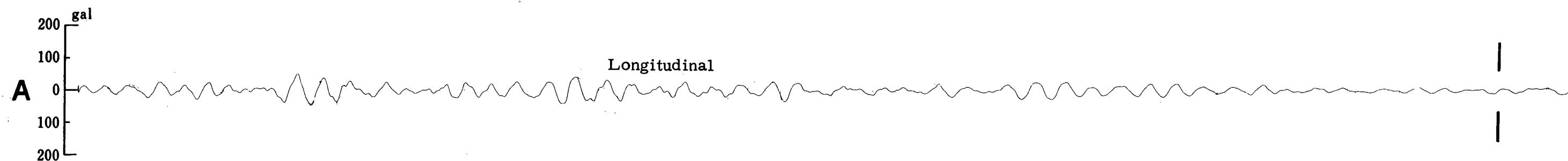
Hirai Bridge 310-Gr-17  
1972. 2. 18 18:23

1sec

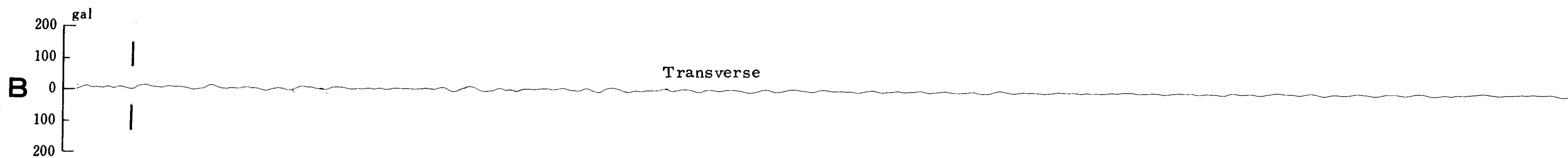
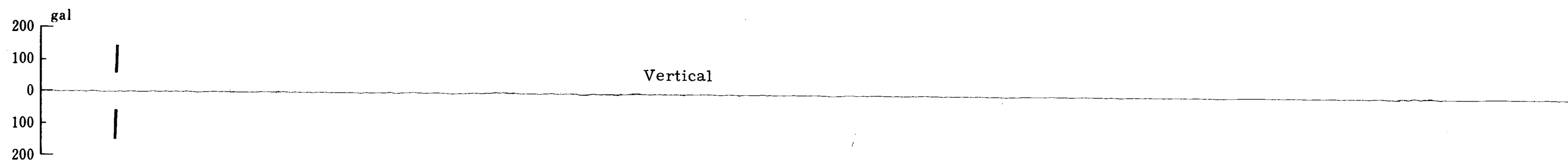
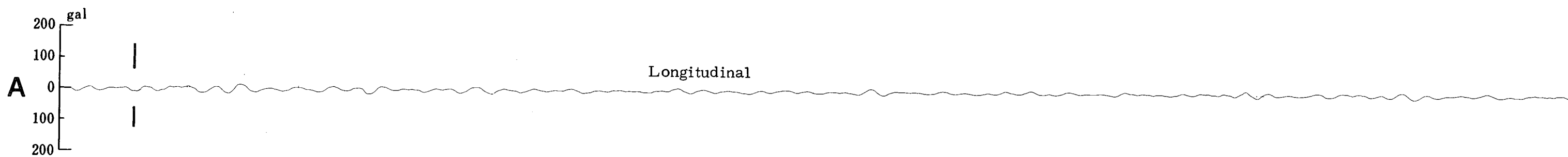
Hirai Bridge 310-Gr-17  
1972. 2. 29 18:23

1sec

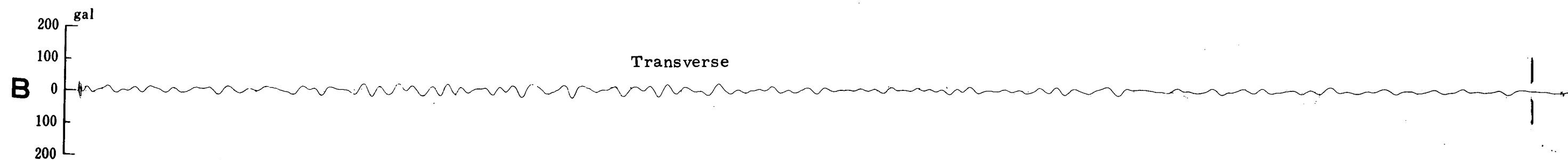
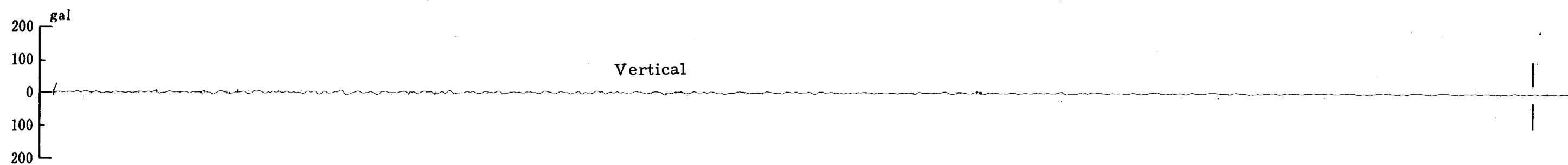
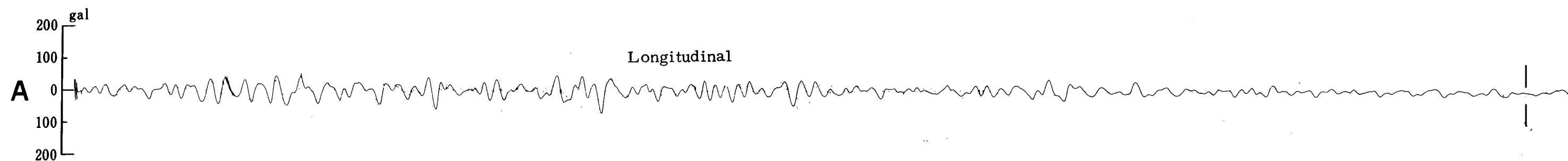
Hirai Bridge 310-P<sub>5</sub>-15  
1972. 2. 29 18 : 23



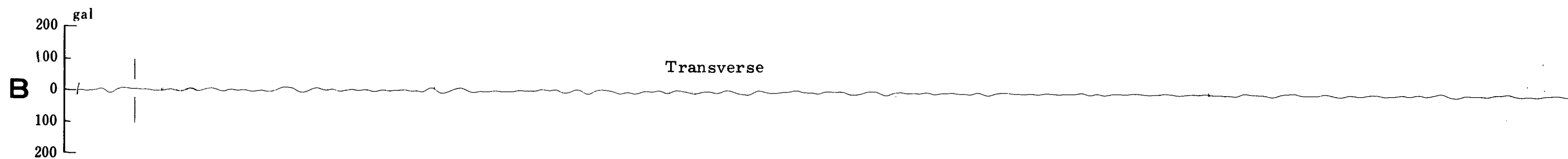
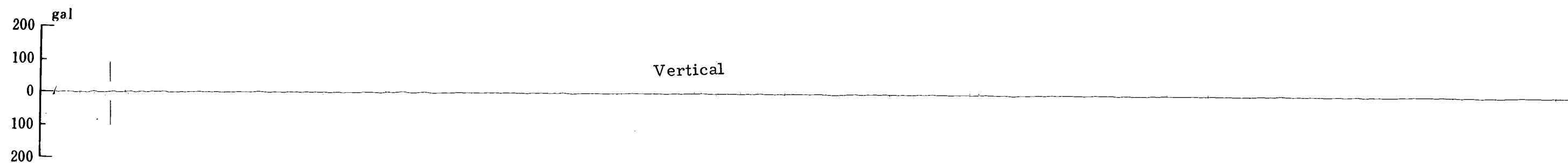
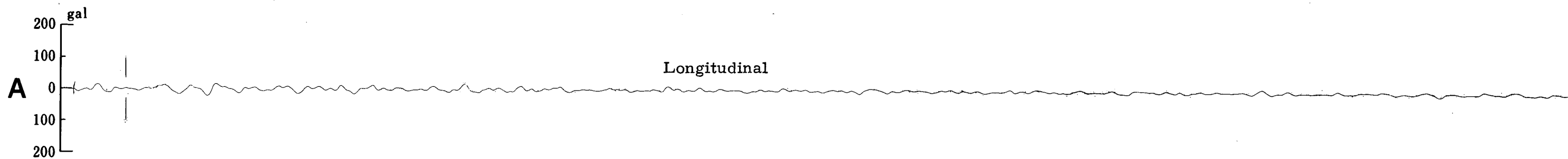
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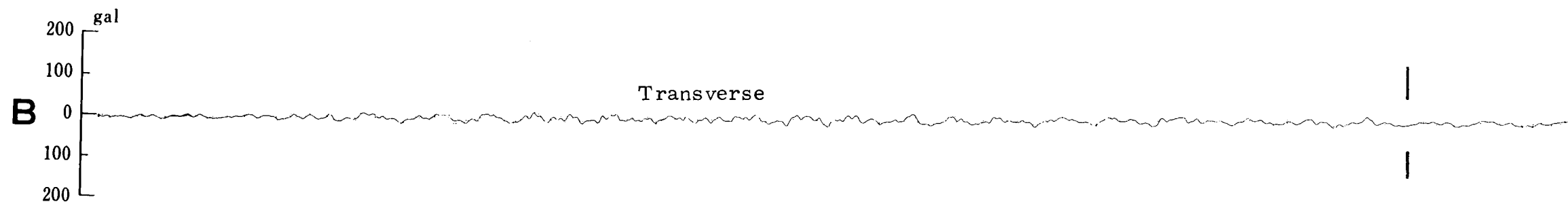
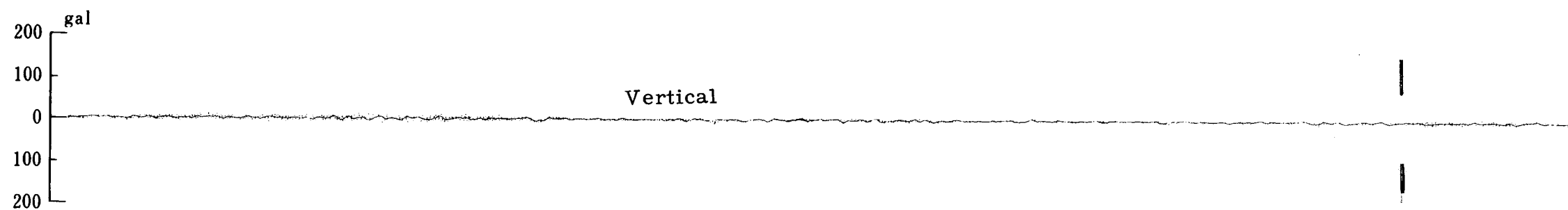
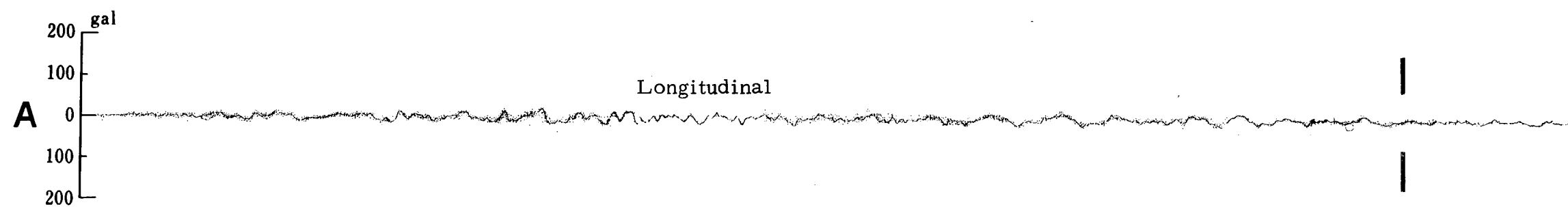
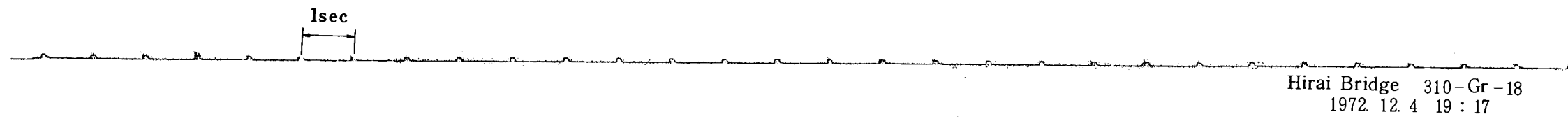
Hirai Bridge 310-P<sub>5</sub>-15  
1972. 2. 29 18:23

1sec

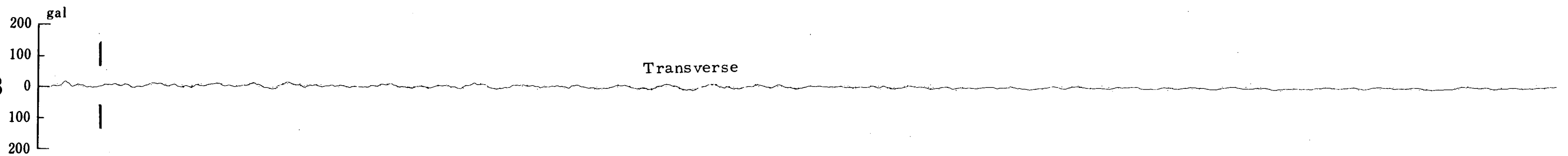
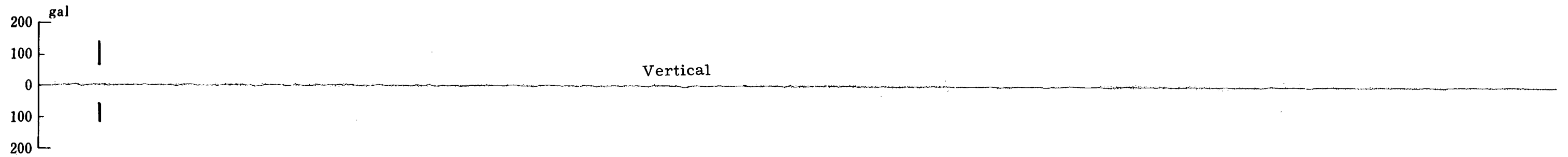
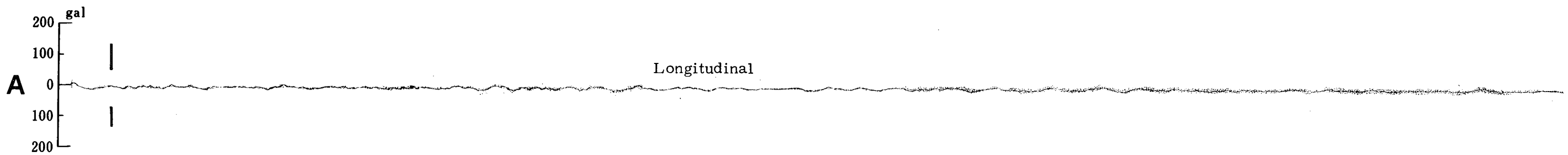
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1972. 2. 29 18 : 23

1sec

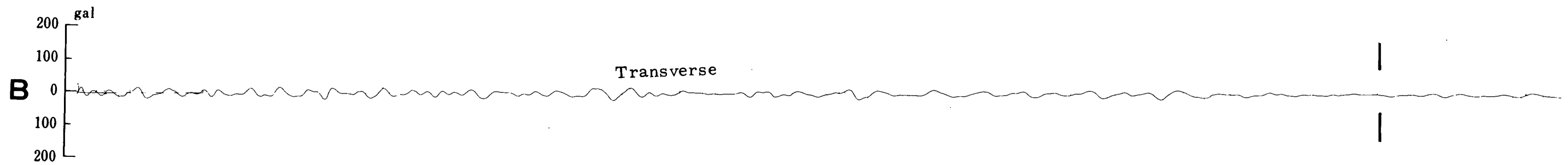
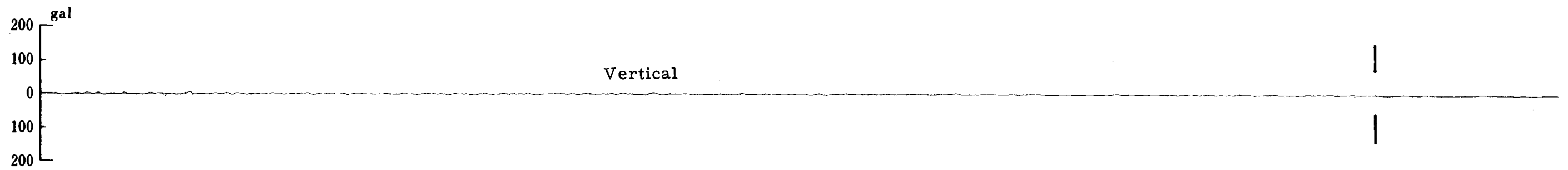
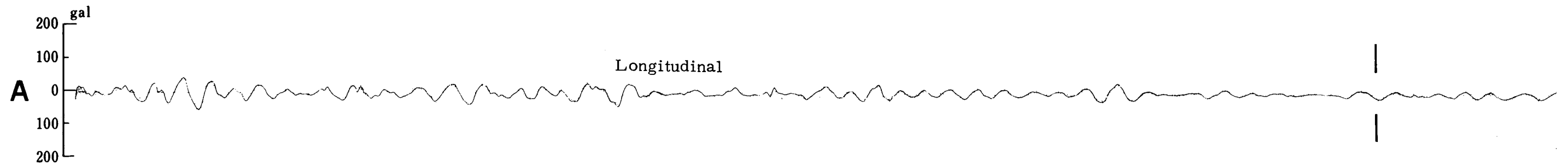
Hirai Bridge 310-P<sub>6</sub>-15  
1972. 2. 29 18 : 23



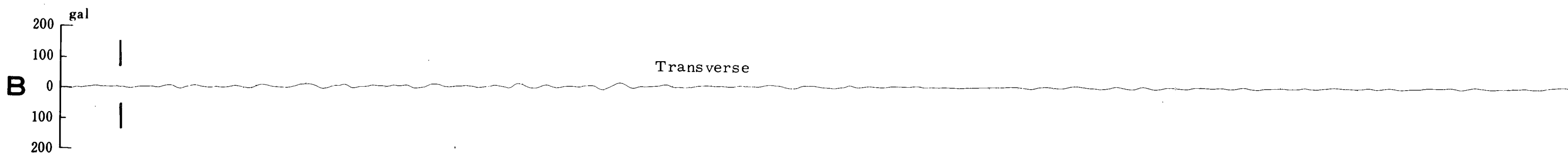
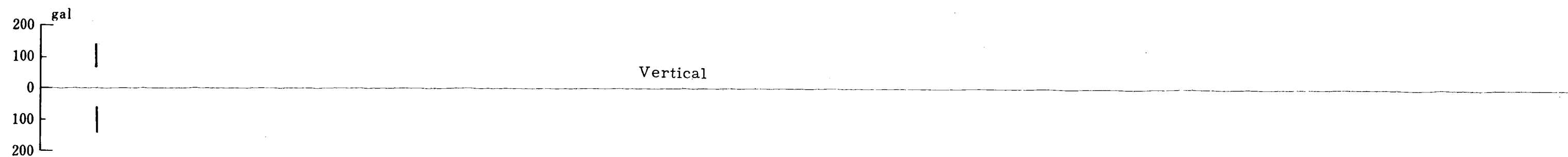
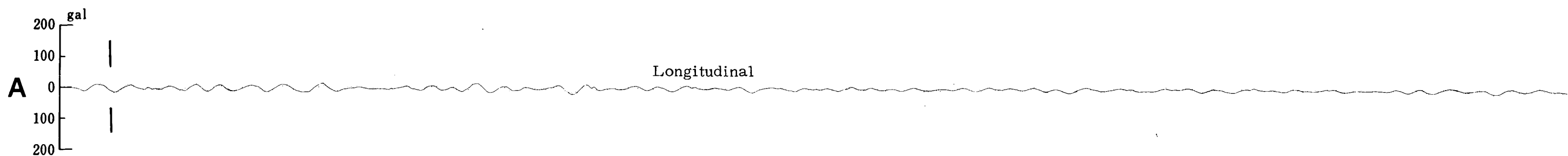
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Hirai Bridge 310-Gr-18  
1972. 12. 4 19 : 17

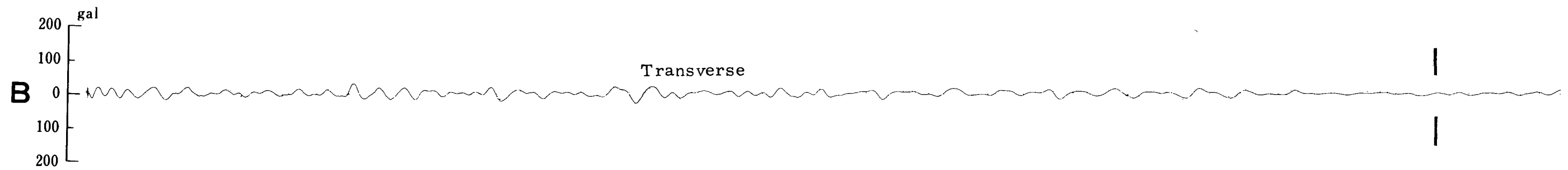
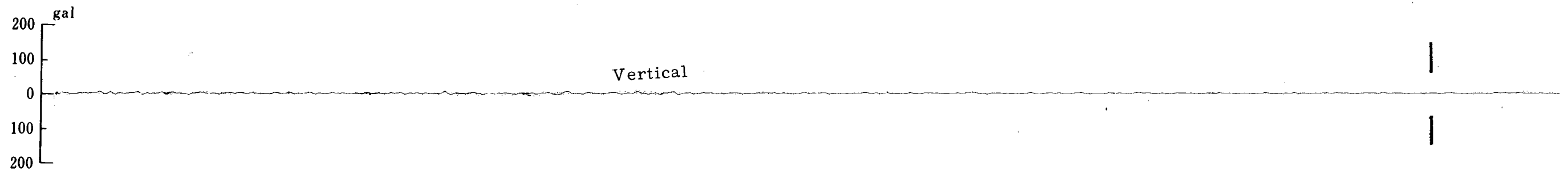
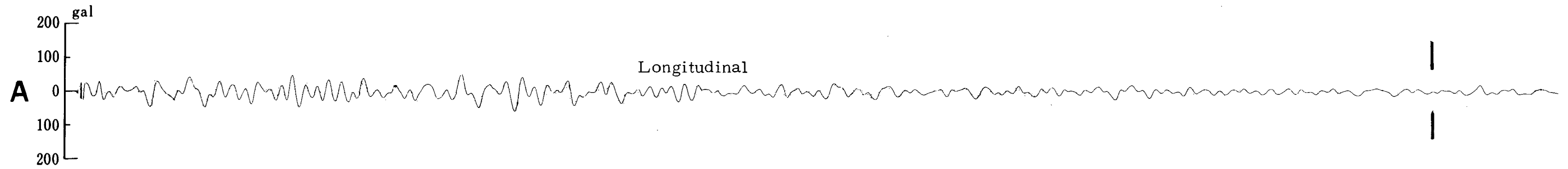
Hirai Bridge 310-P<sub>5</sub>-16  
1972. 12. 4 19:17



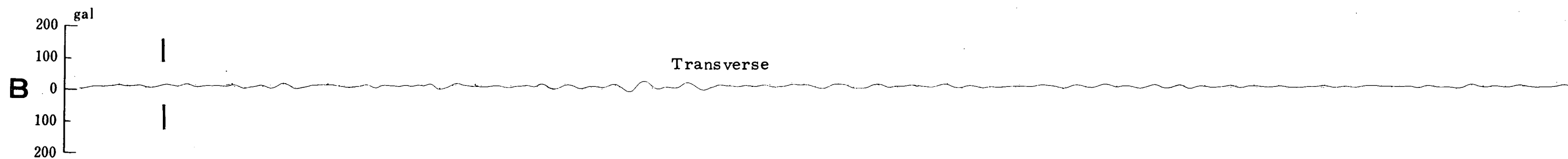
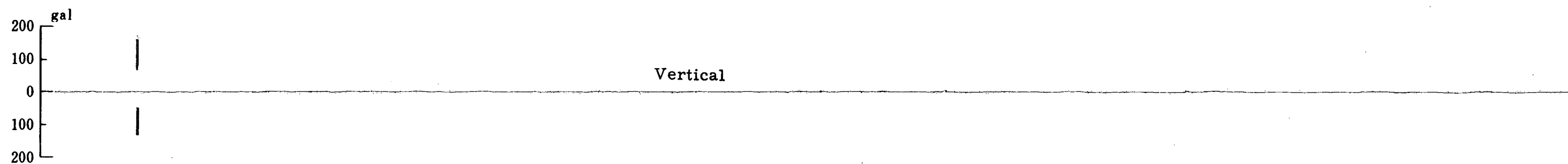
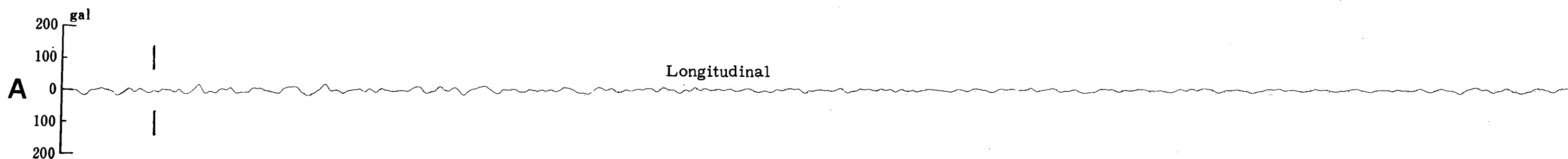
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1972. 12. 4 19:17



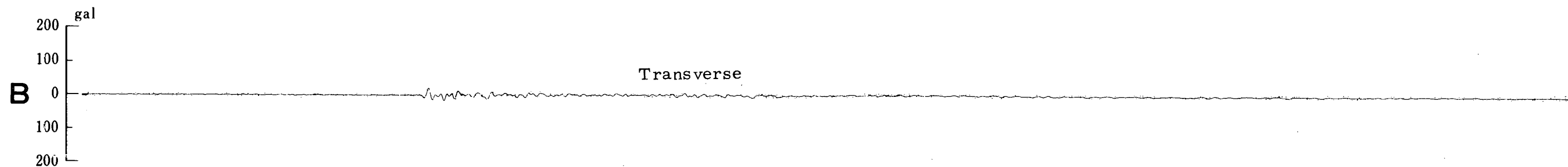
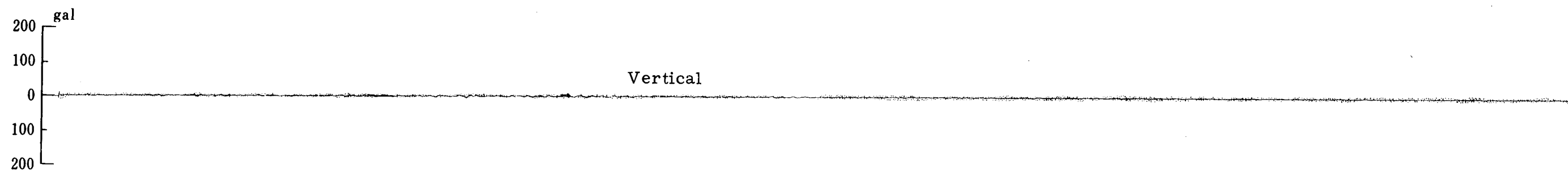
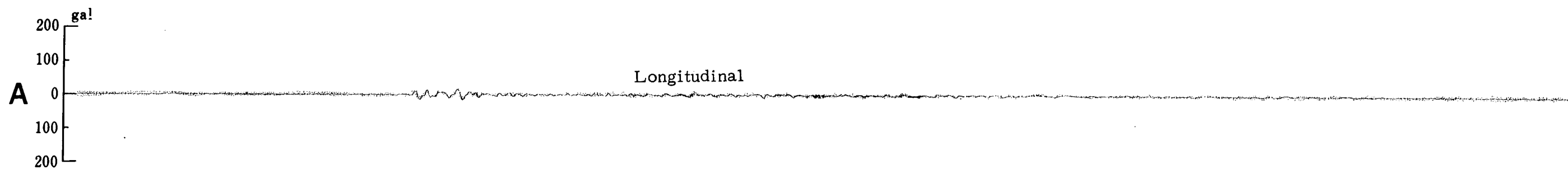
Hirai Bridge 310-P<sub>6</sub>-16  
1972. 12. 4 19 : 17



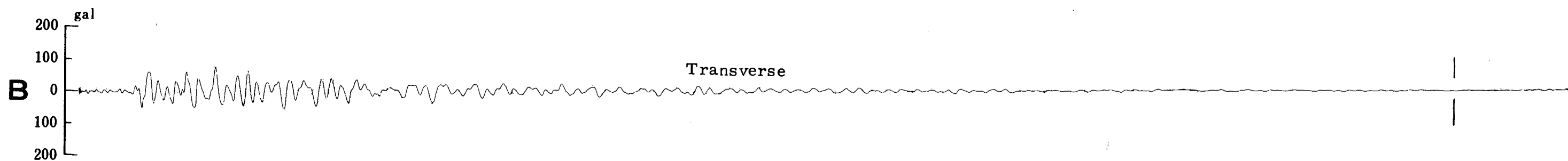
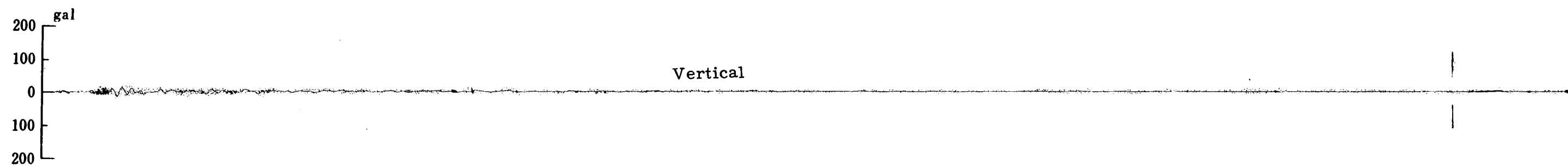
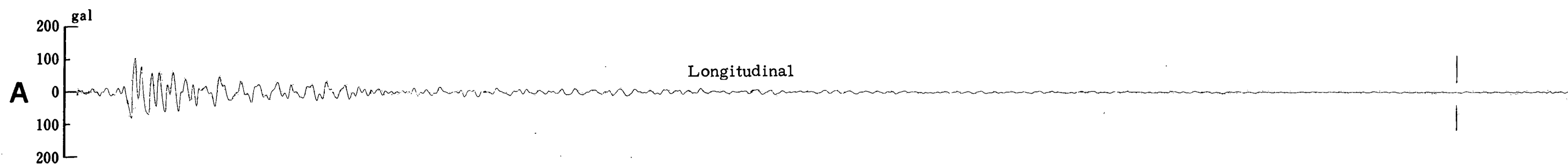
Hirai Bridge 310-P<sub>6</sub>-16  
1972. 12. 4 19 : 17

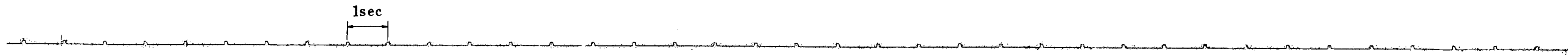


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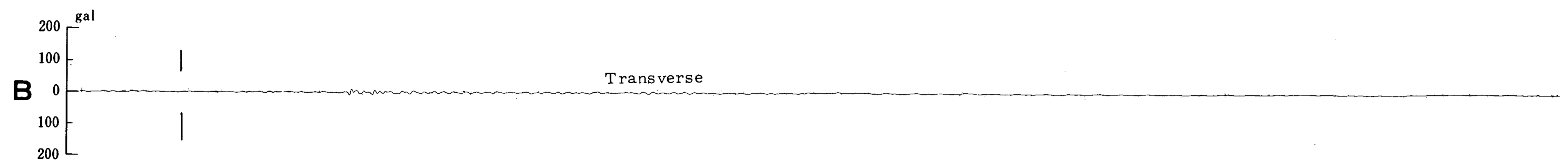
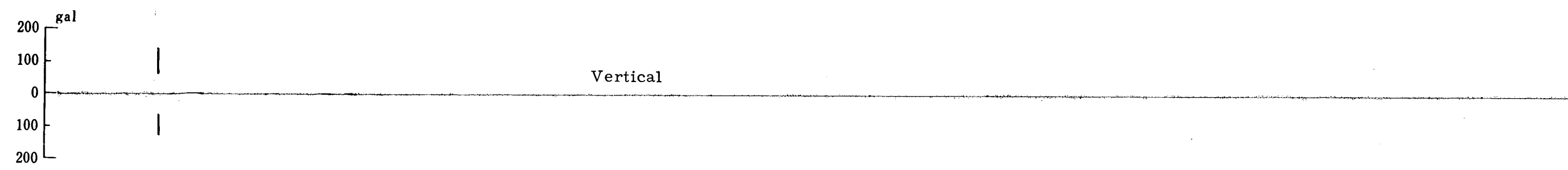
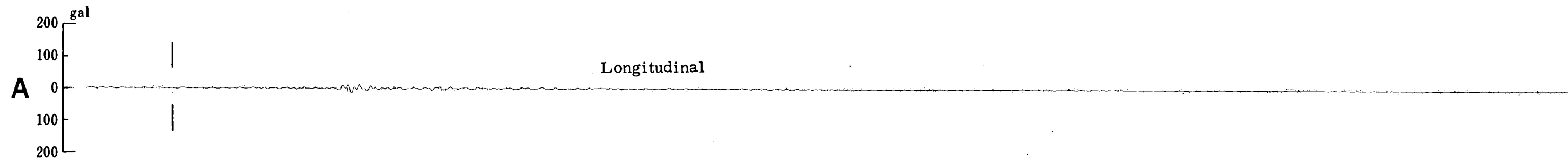
Hirai Bridge 310-Gr-19  
1972. 12. 8 8 : 38

1sec

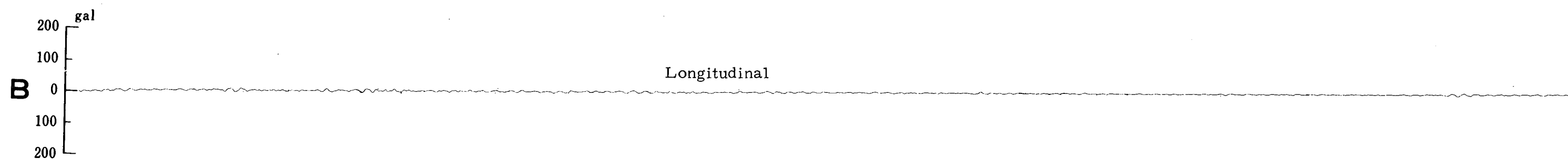
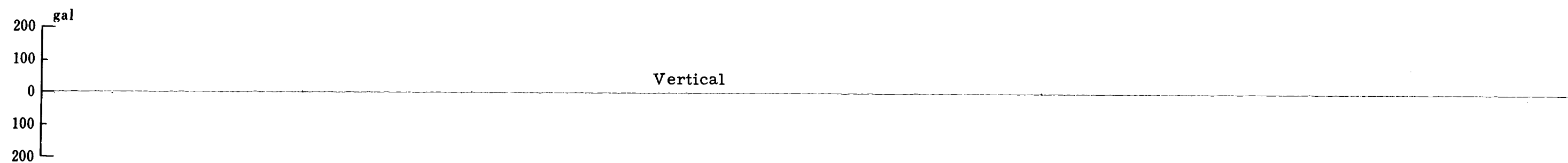
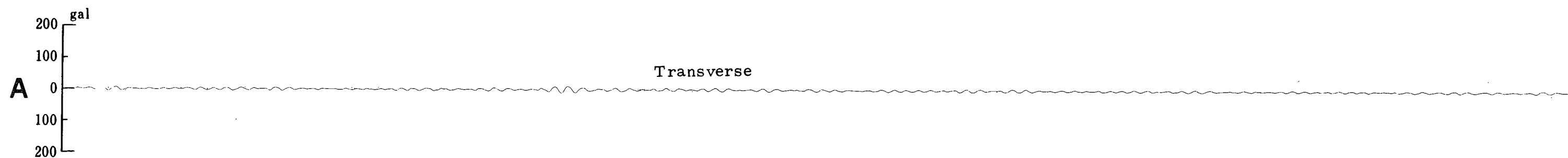
Kiyokawa Bridge 314-P-1  
1972. 8 20 19:07



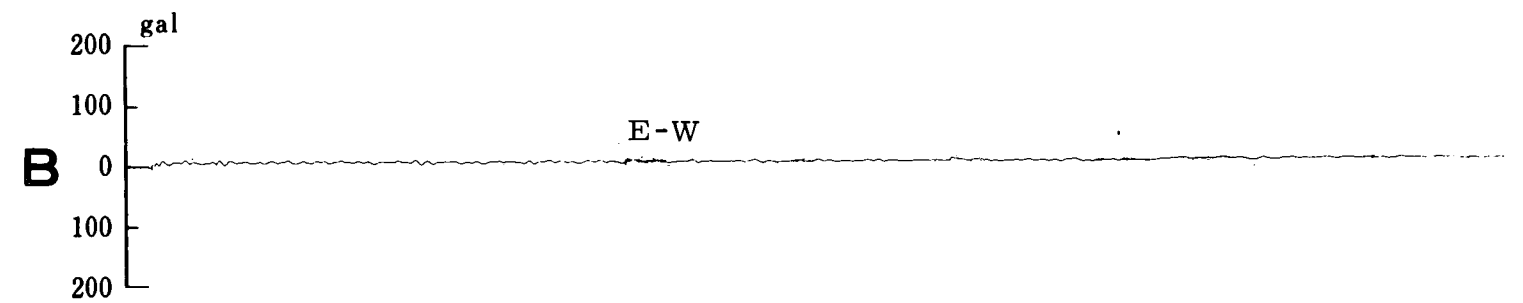
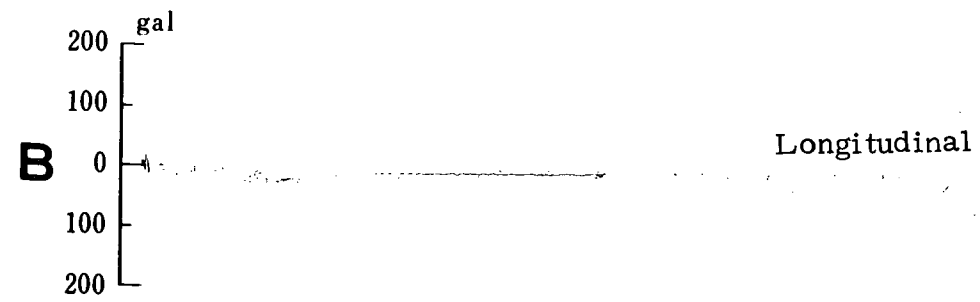
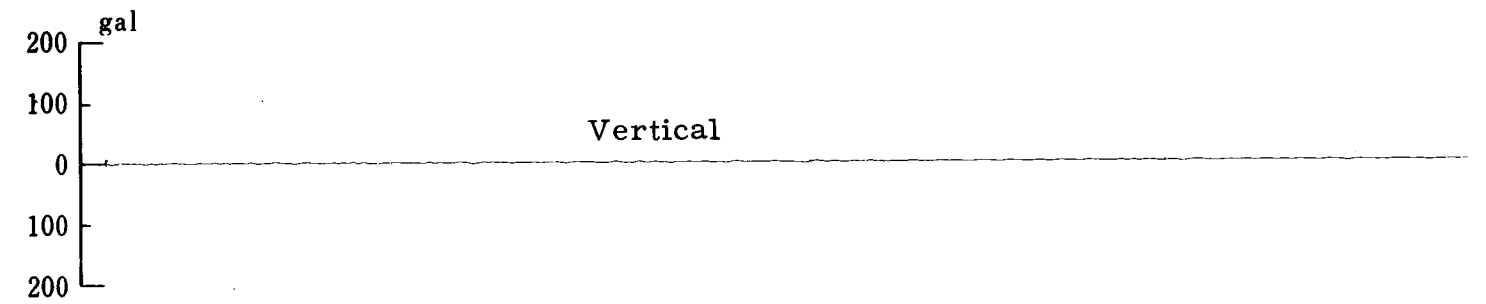
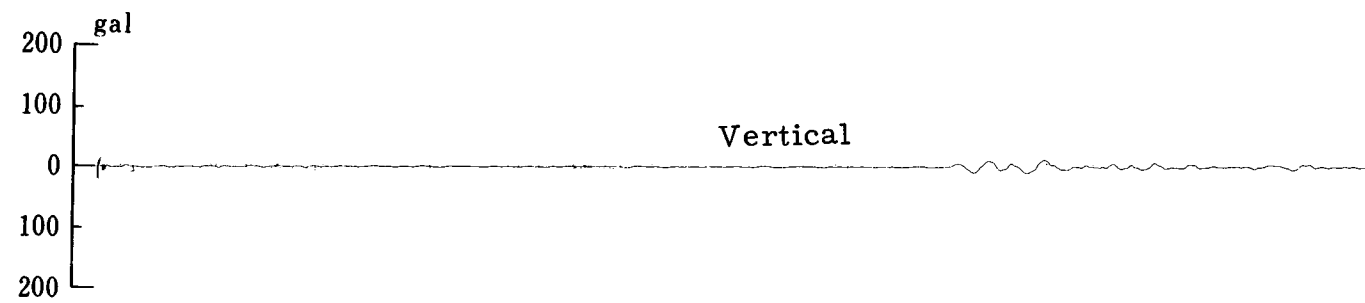
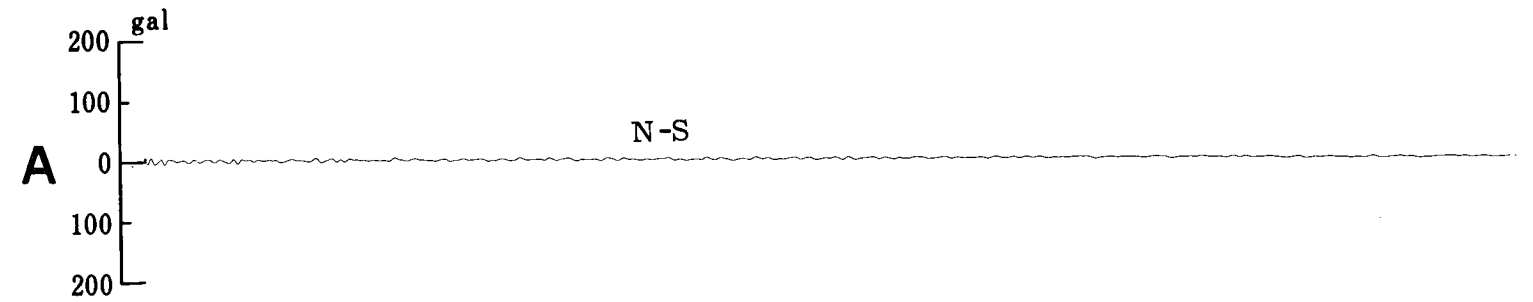
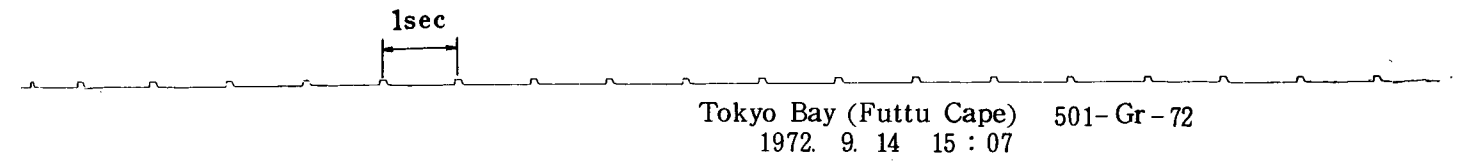
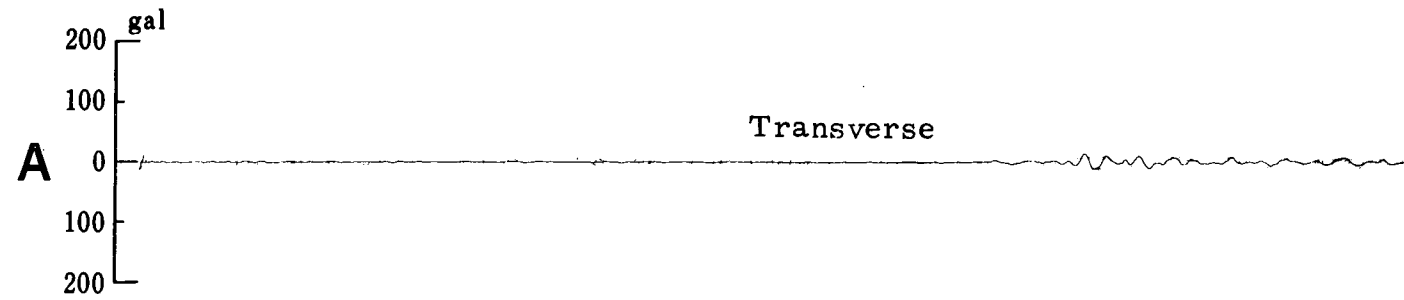
Kiyokawa Bridge 314-P-1  
1972. 8. 20 19:07



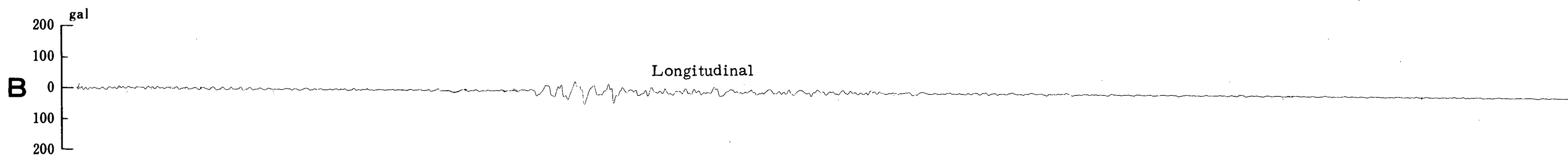
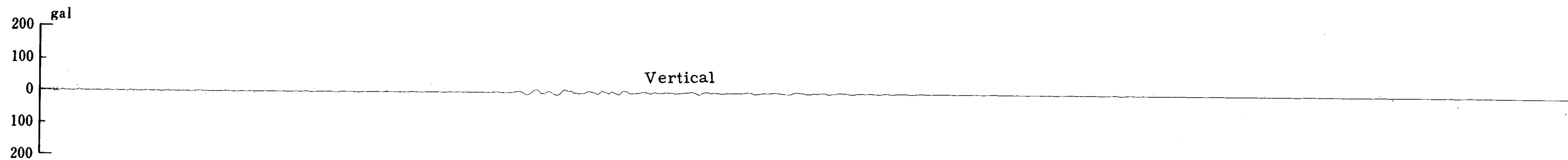
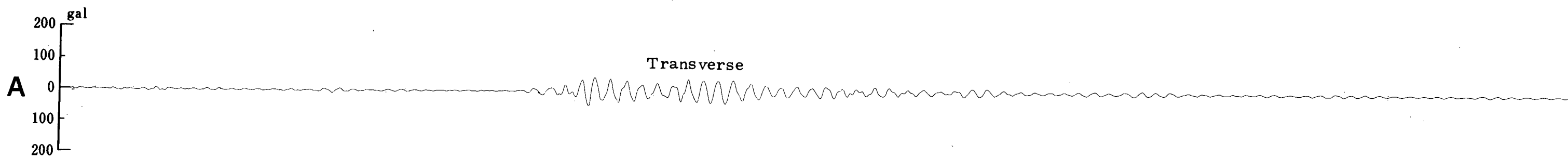
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Shitoku Bridge 319-P-6  
1972. 2. 29 18:23

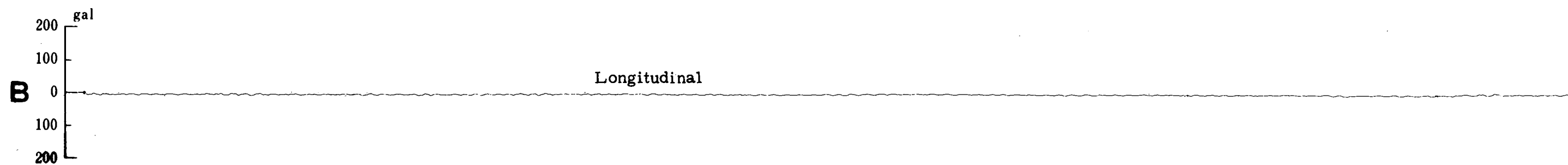
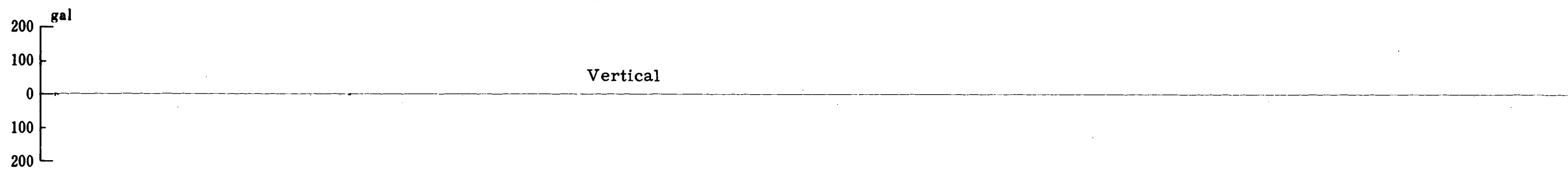
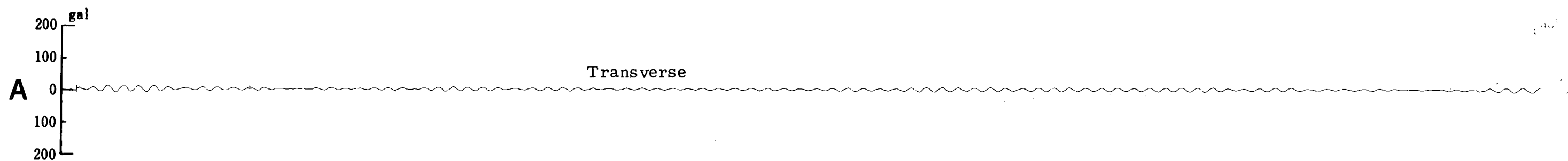
Shitoku Bridge 319-P-7  
1972. 9. 14 15:07



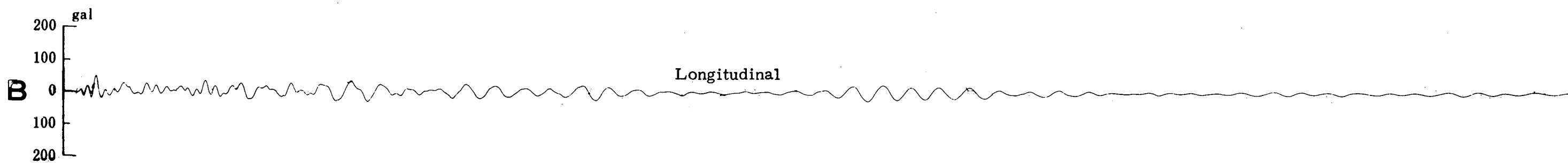
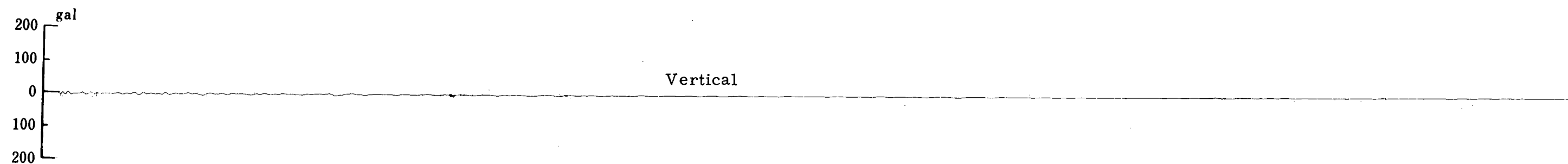
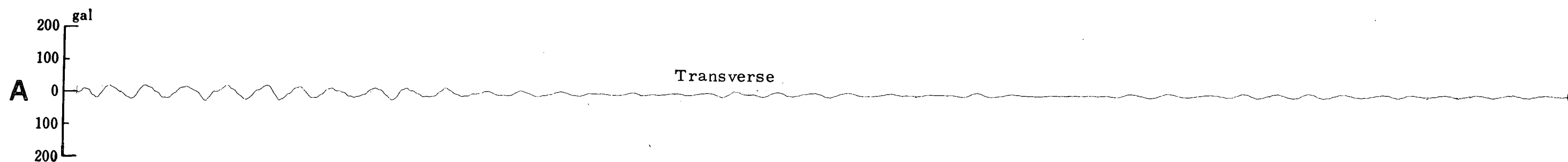
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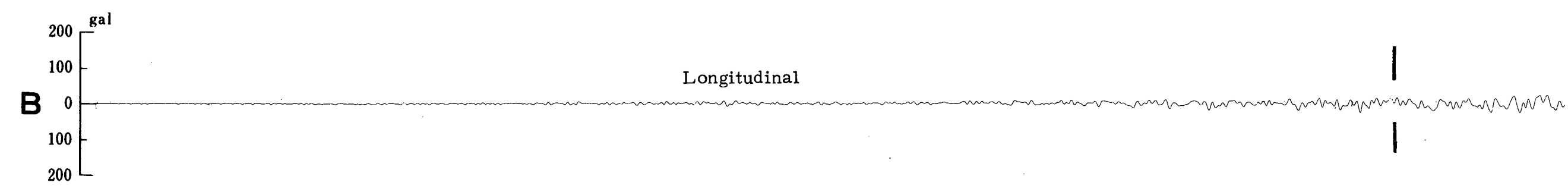
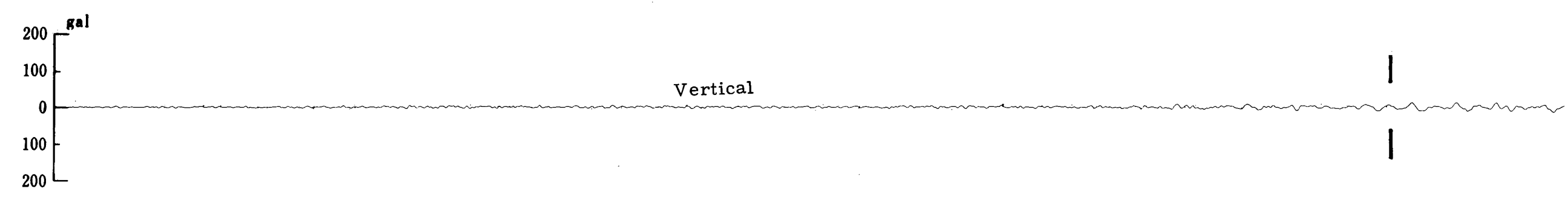
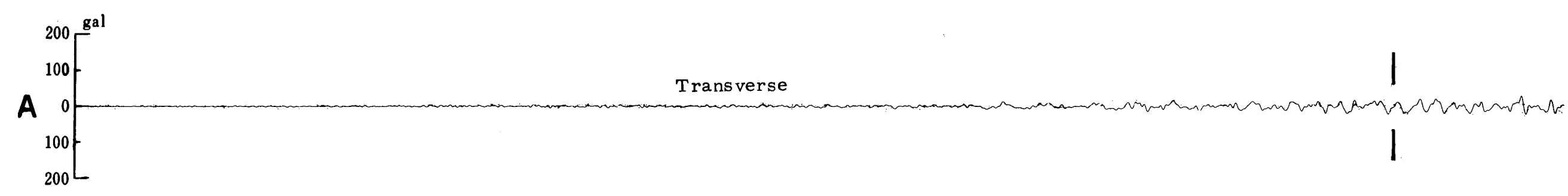
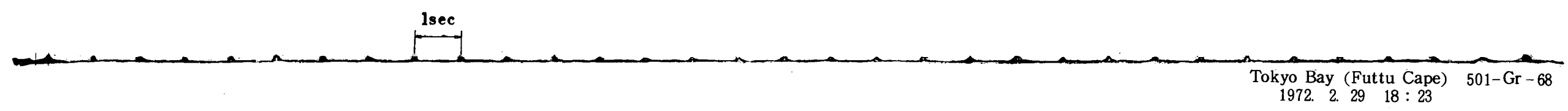
Shitoku Bridge 319-P-7  
1972. 9. 14 15:07

1sec

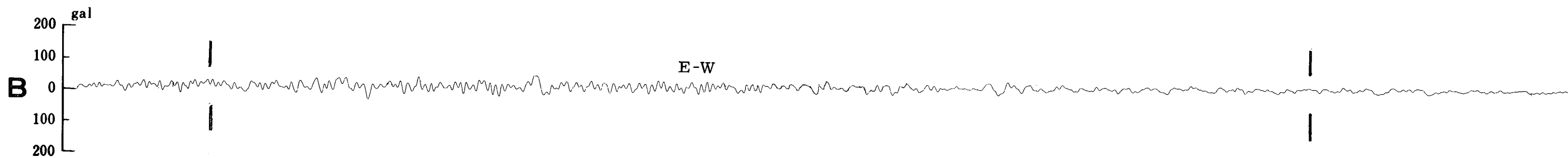
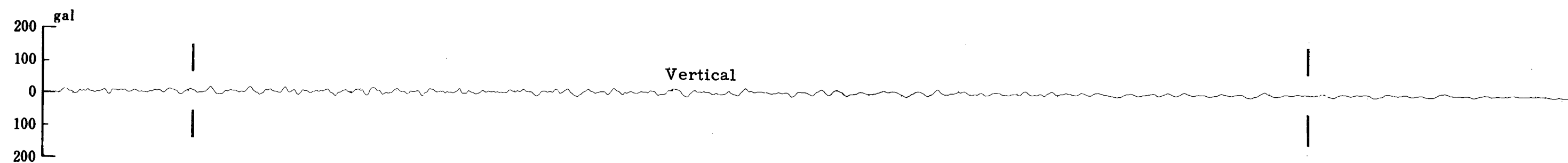
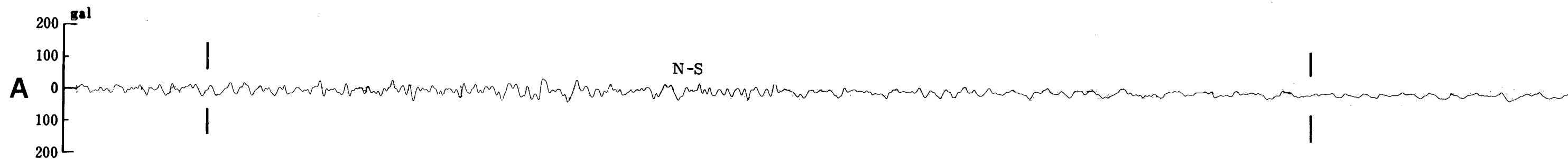
Shitoku Bridge 319-P-8  
1972. 12. 4 19:17

Biwako Bridge 401-P-2  
1972. 10. 28 03:11



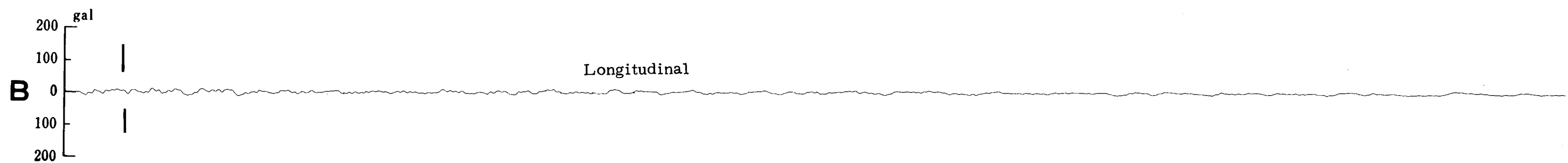
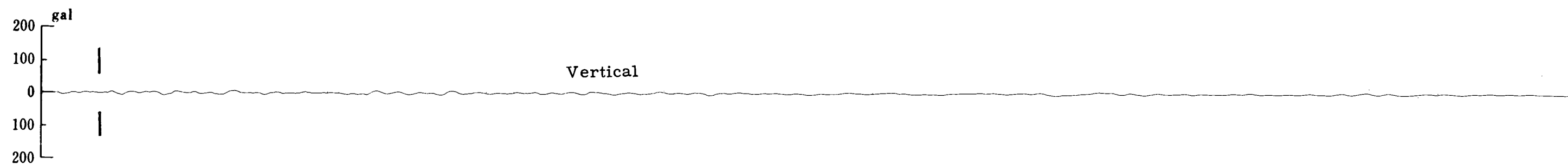
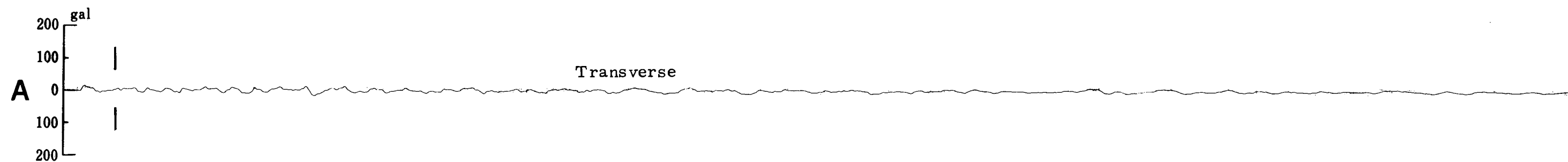


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Tokyo Bay (Futtu Cape) 501-Gr-68  
1972. 2. 29 18:23

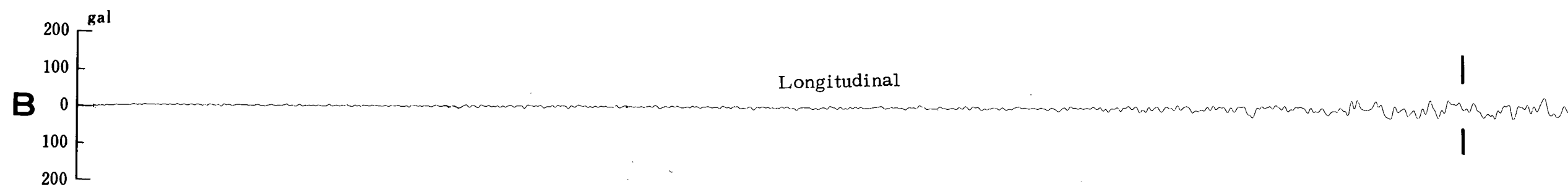
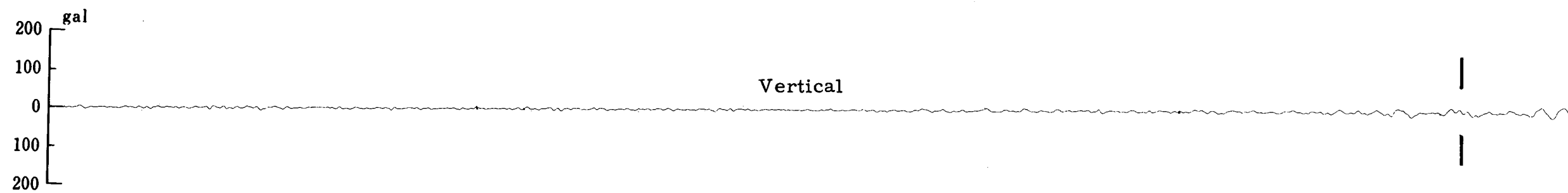
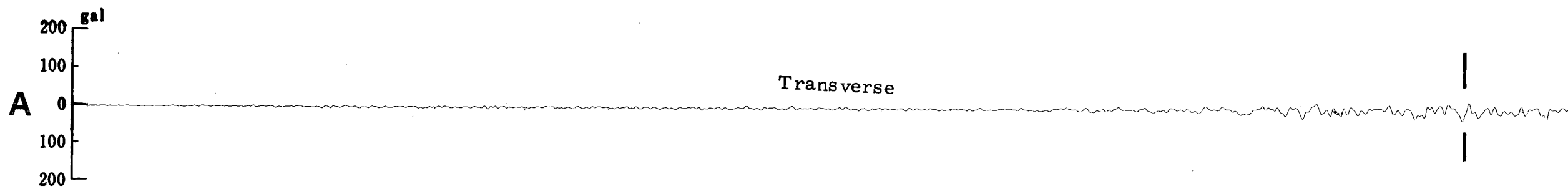
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Tokyo Bay (Futtu Cape) 501-Gr-68  
1972. 2. 29 18:23

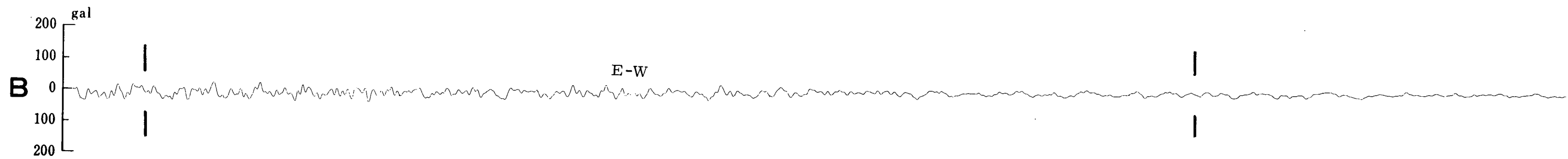
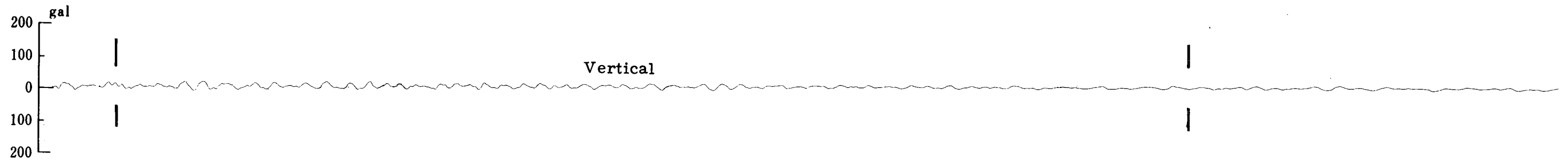
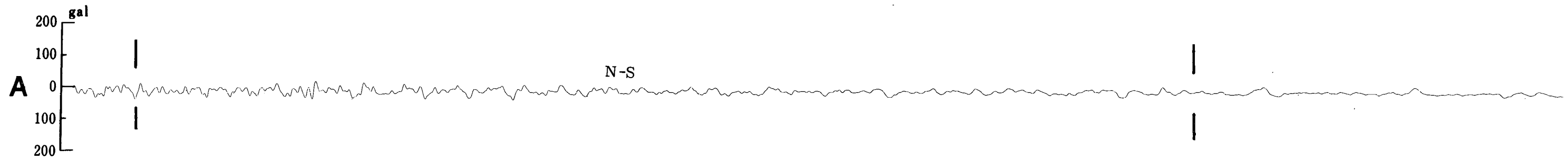


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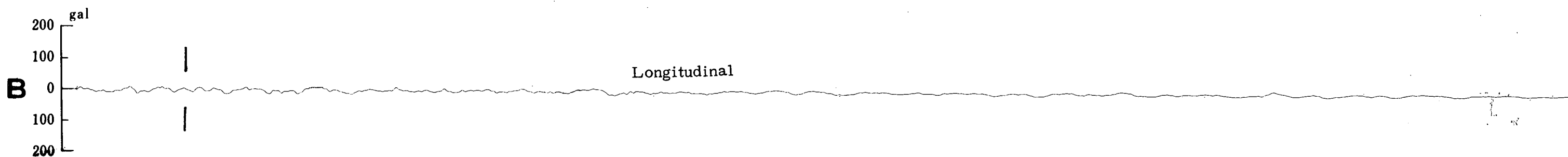
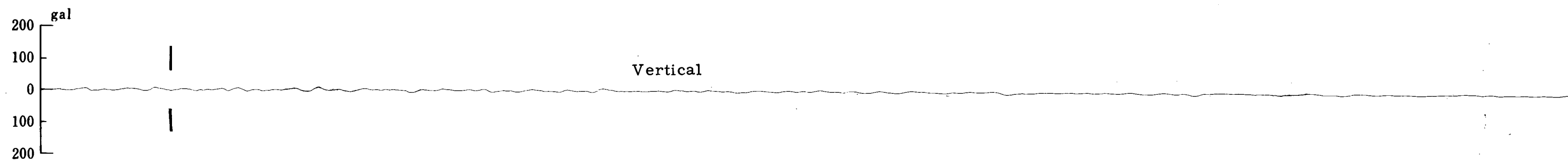
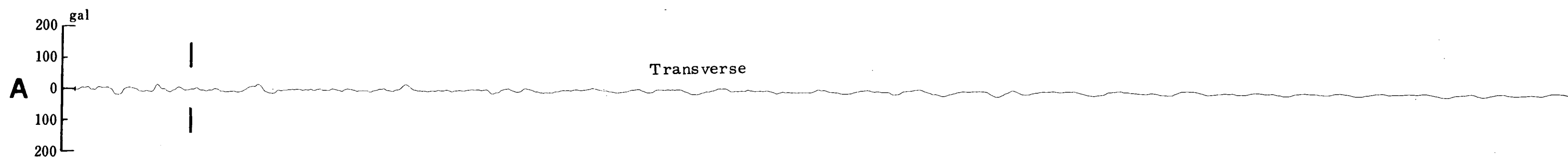
Tokyo Bay (Futtu Cape) 501-Gr-74  
1972. 12. 4 19:17



1sec

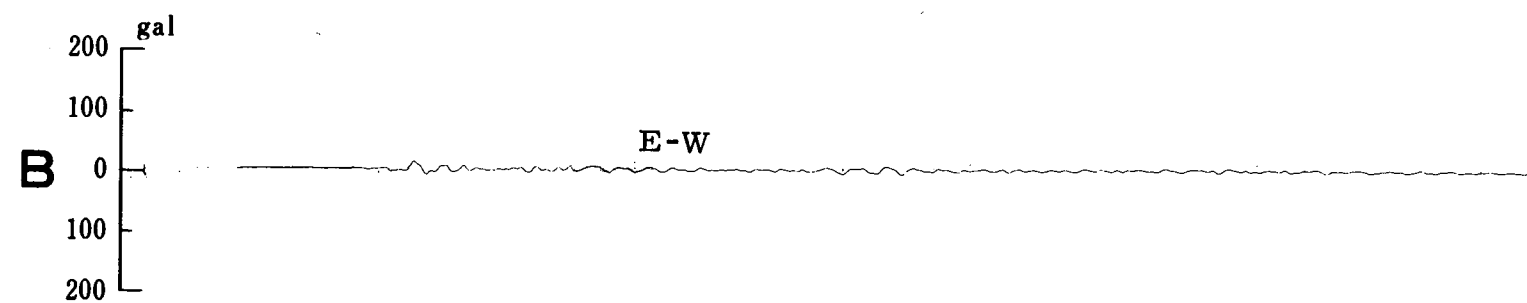
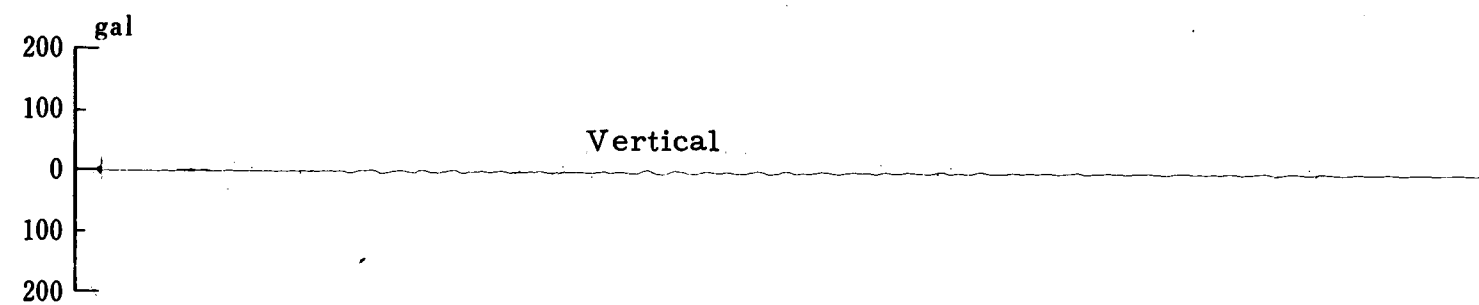
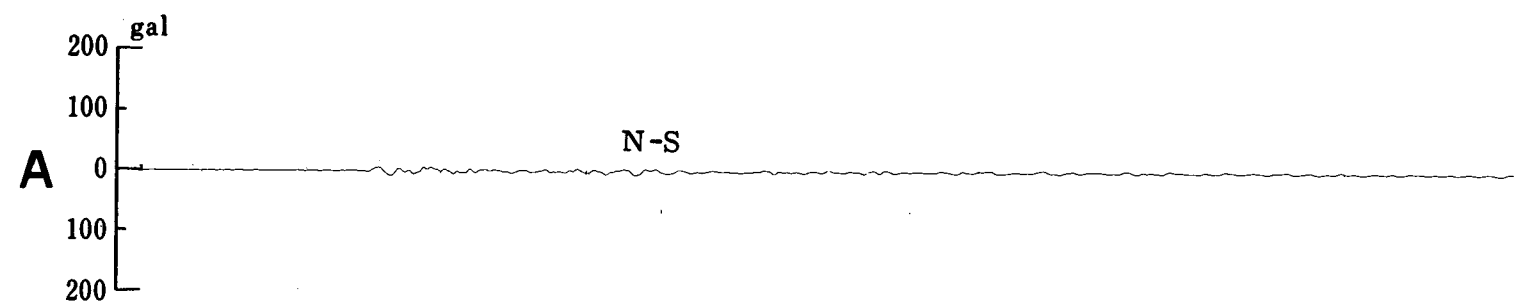
Tokyo Bay (Futtu Cape) 501-Gr-74  
1972. 12. 4 19:17

1sec

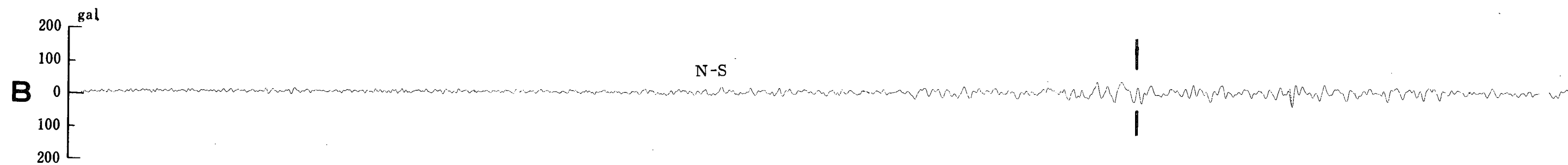
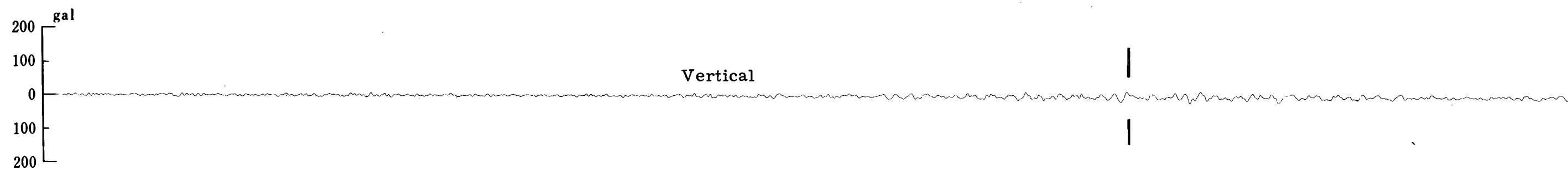
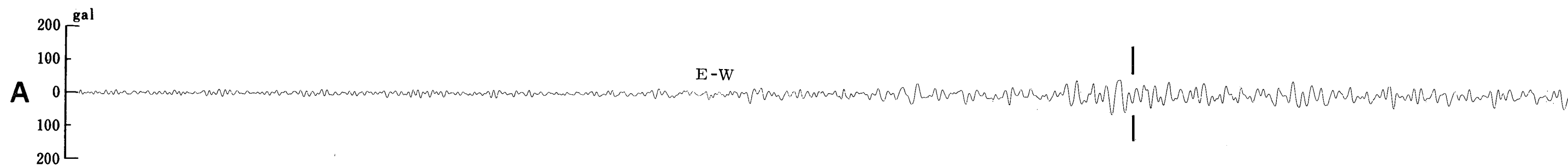
Tokyo Bay (Futtu Cape) 501-Gr-74  
1972. 12. 4 19:17

1sec

Tokyo Bay (Futtu Cape) 501-Gr-75  
1972. 12. 8 08 : 38

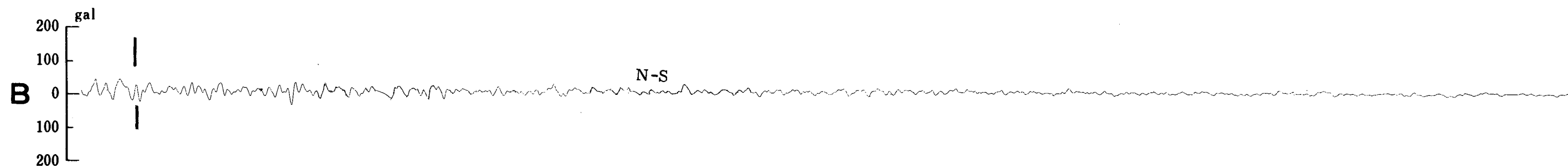
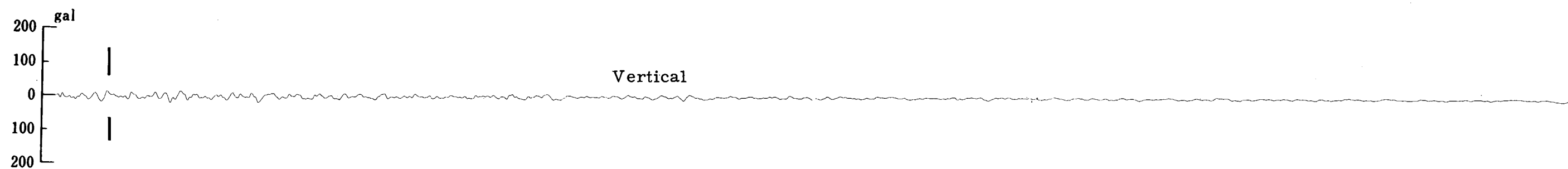
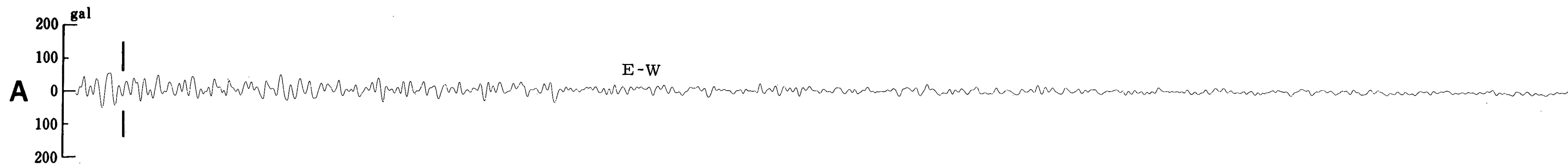


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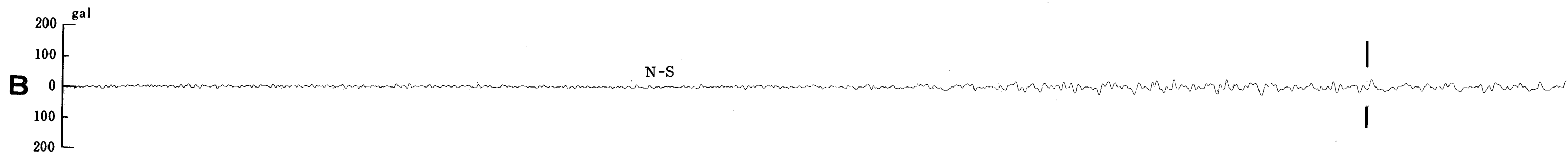
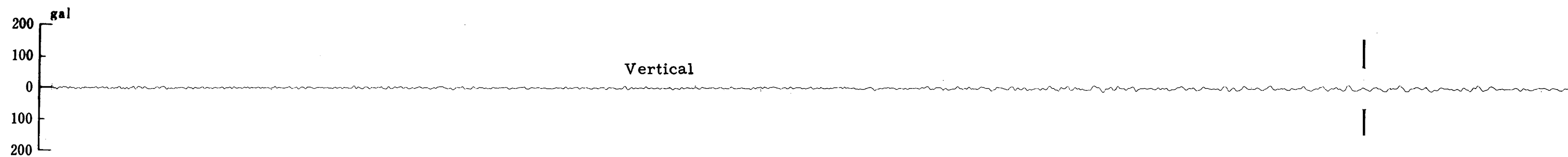
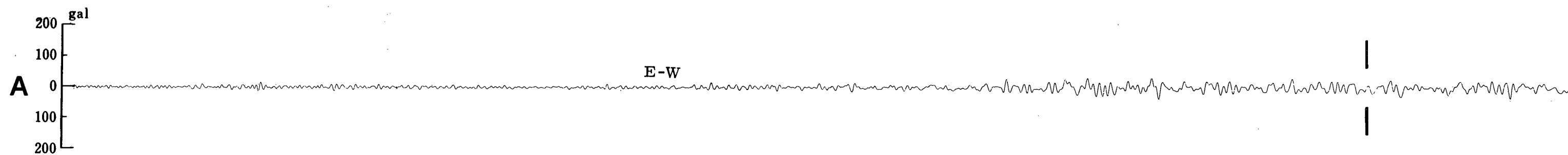
Tokyo Bay (Kannon Cape) 503-Gr-16  
1972. 2. 29 18 : 23

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Tokyo Bay (Kannon Cape) 503-Gr-16  
1972. 2. 29 18:23

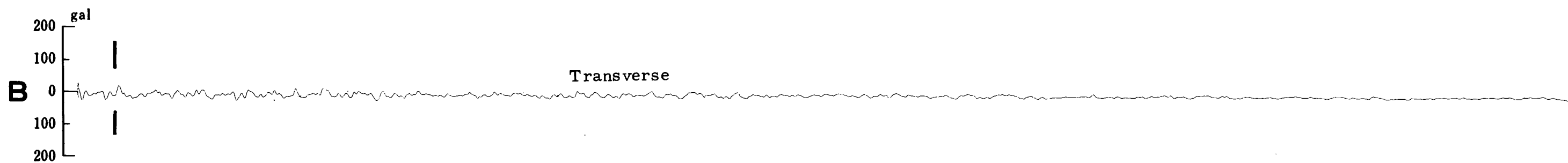
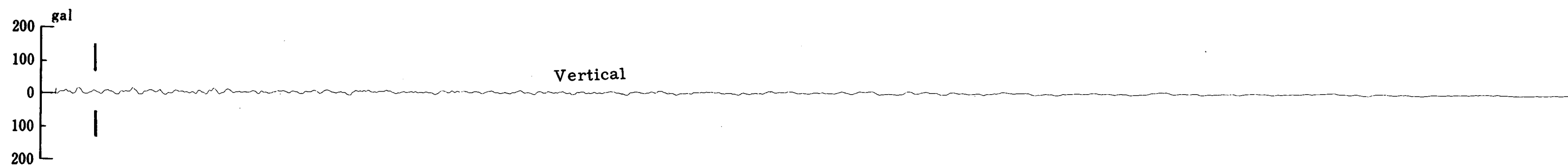
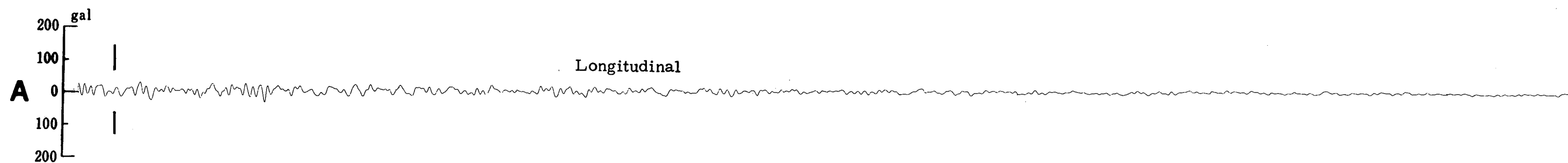


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Tokyo Bay (Kannon Cape) 503-Gr-17  
1972. 12. 4 19:17

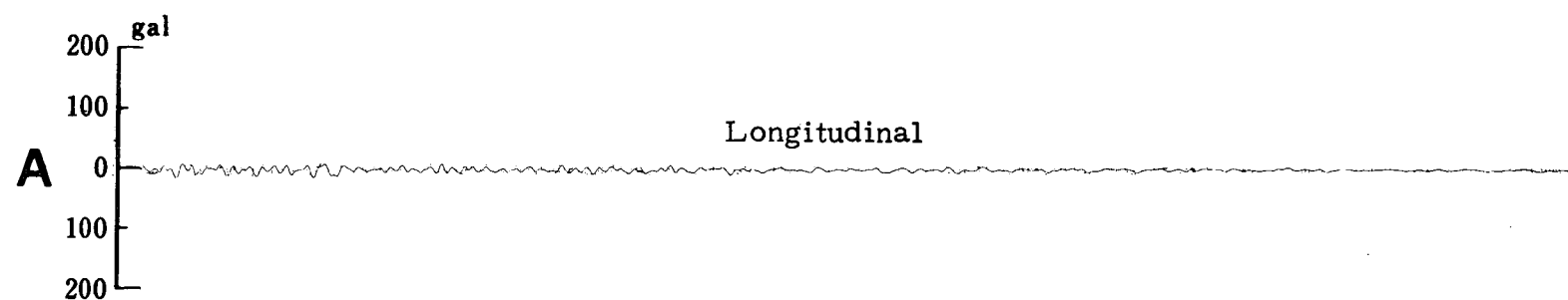
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Tokyo Bay (Kannon Cape) 503-Gr-17  
1972. 12. 4 19:17



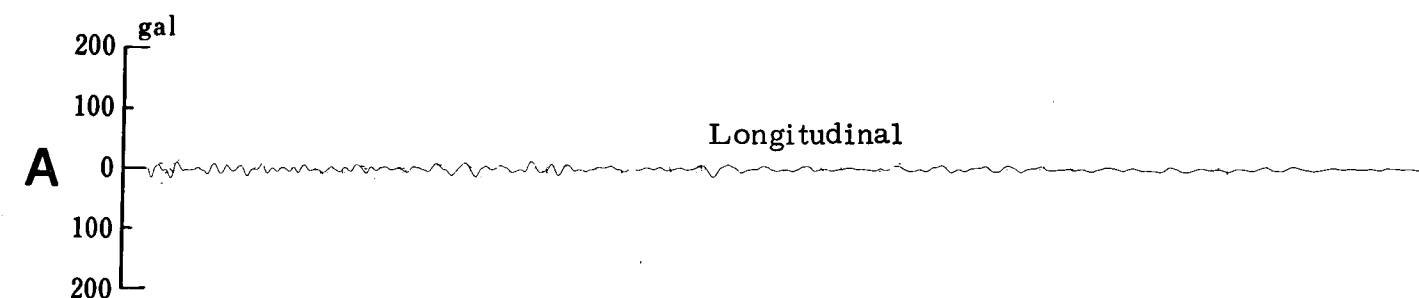
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Yodogawa Embankment 701-Gr-8  
1972. 8. 31 16:54



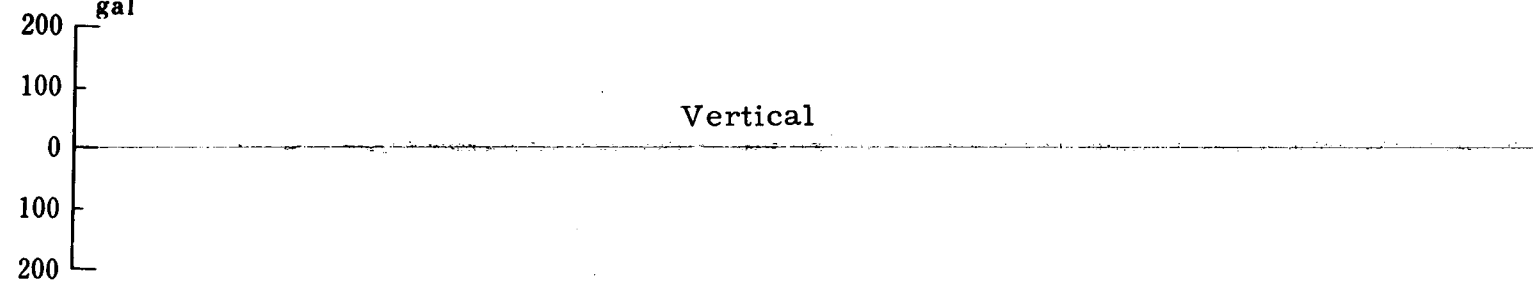
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Yodogawa Embankment 701-E-8  
1972. 8. 31 16:54



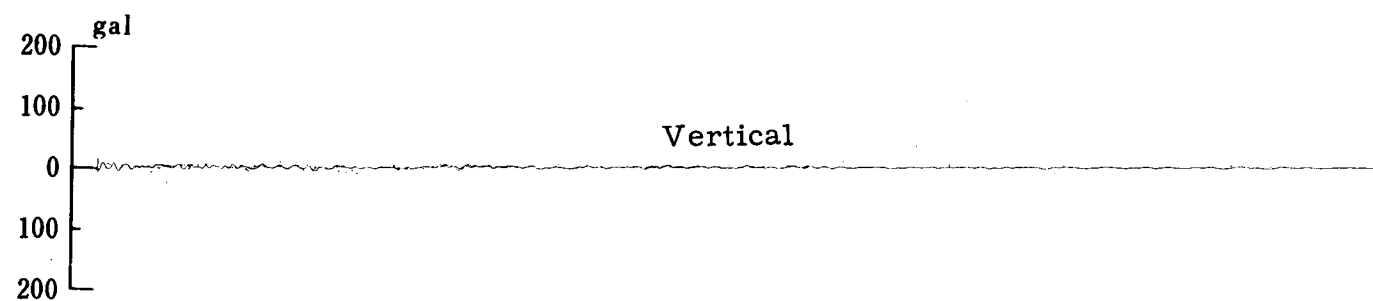
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Vertical



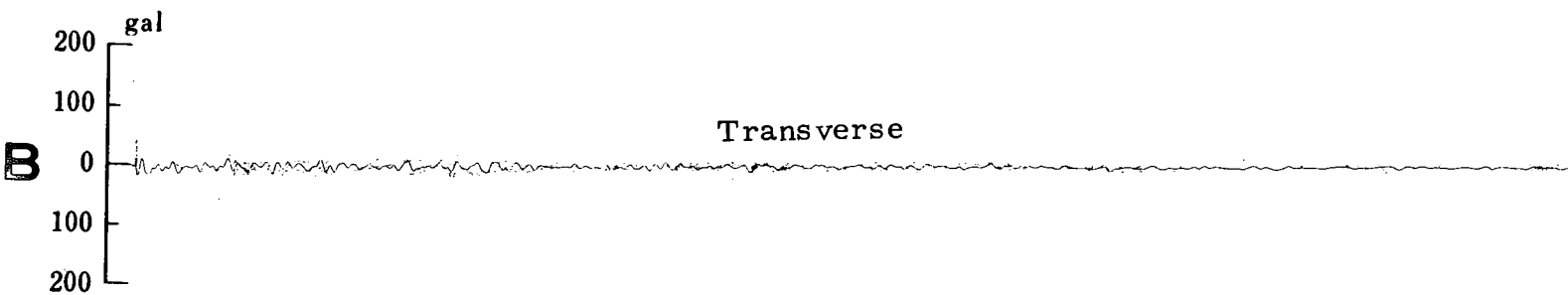
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Vertical



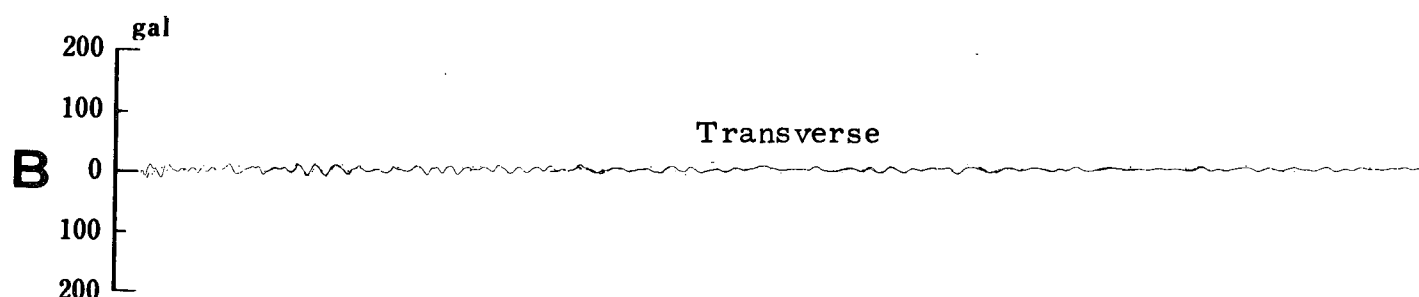
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Transverse



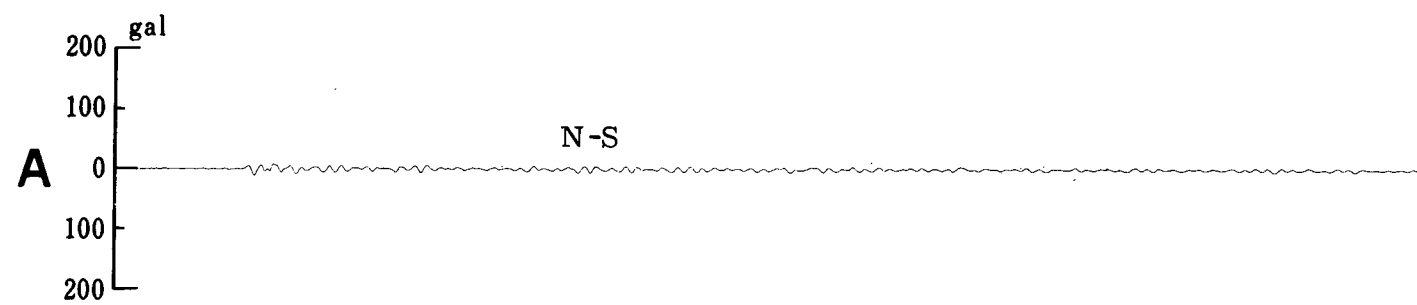
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Transverse



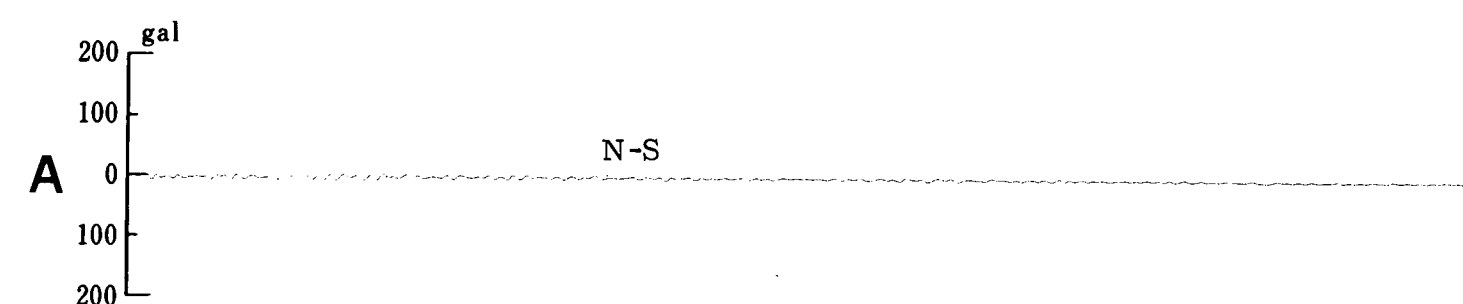
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The Public Works Research Institute, Chiba Branch 901-Gr-51  
1972.01.27 23:41

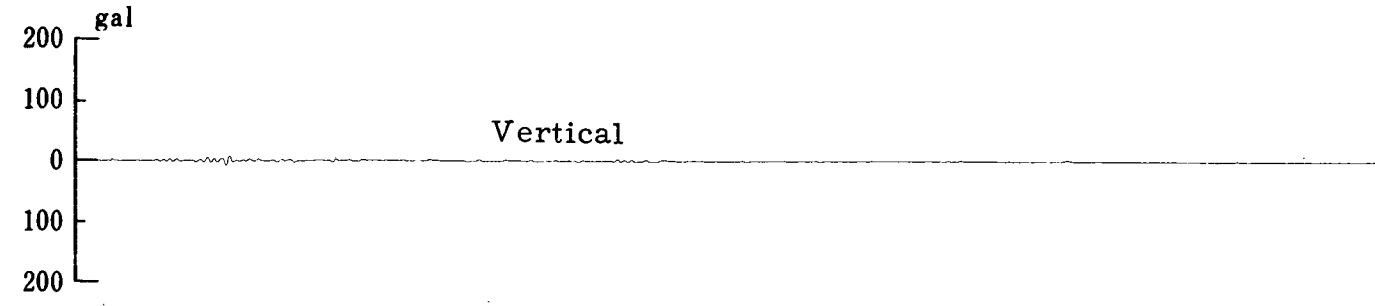


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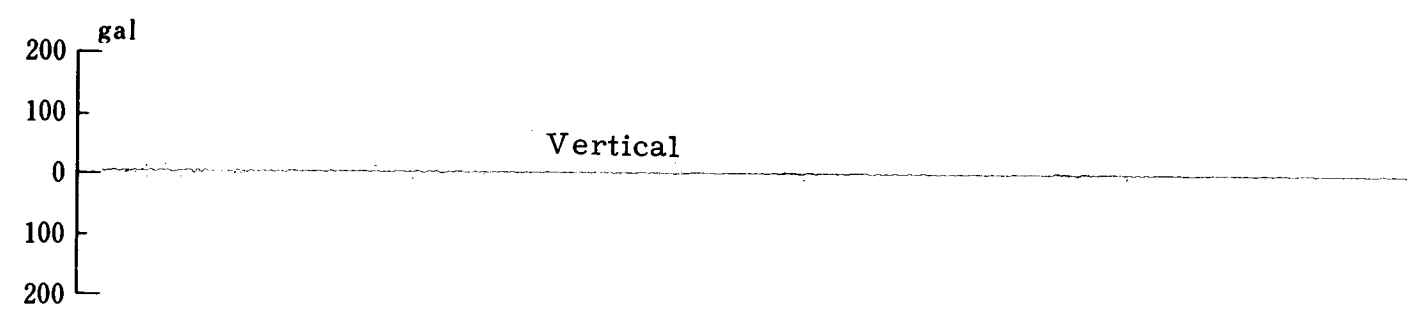
The Public Works Research Institute, Chiba Branch 901-Gr-53  
1972.10.18



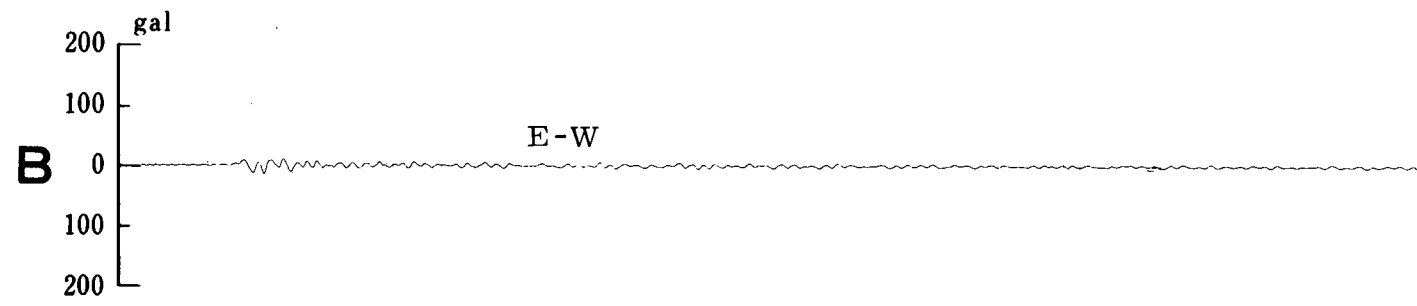
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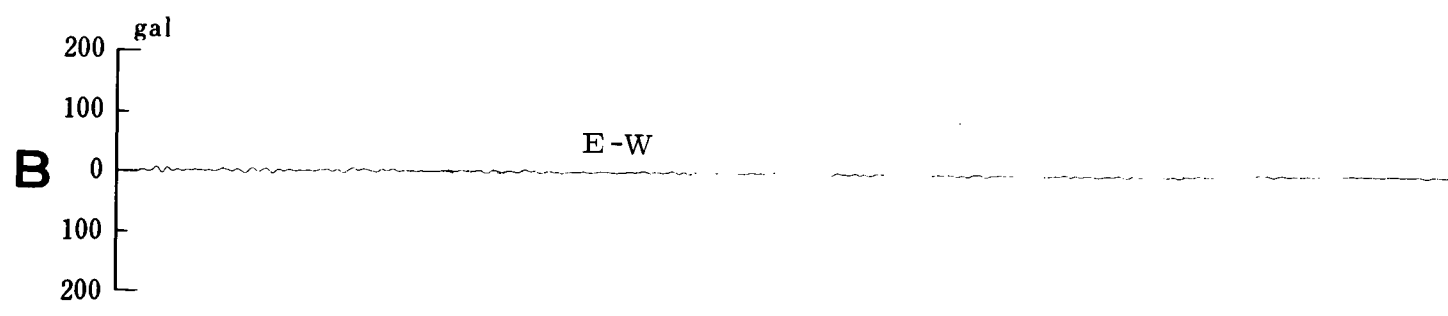
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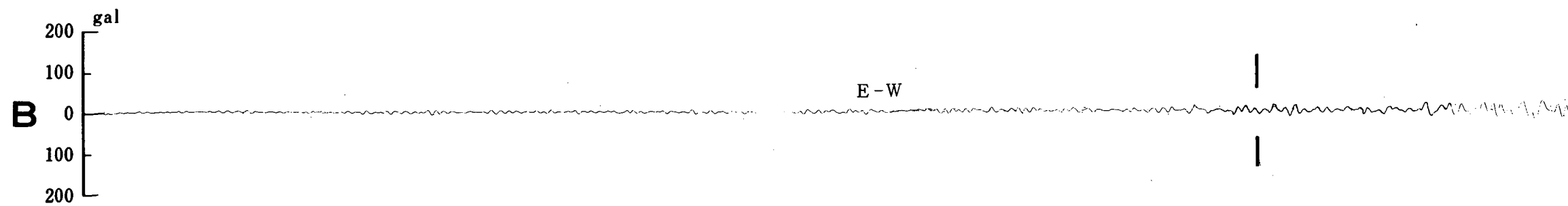
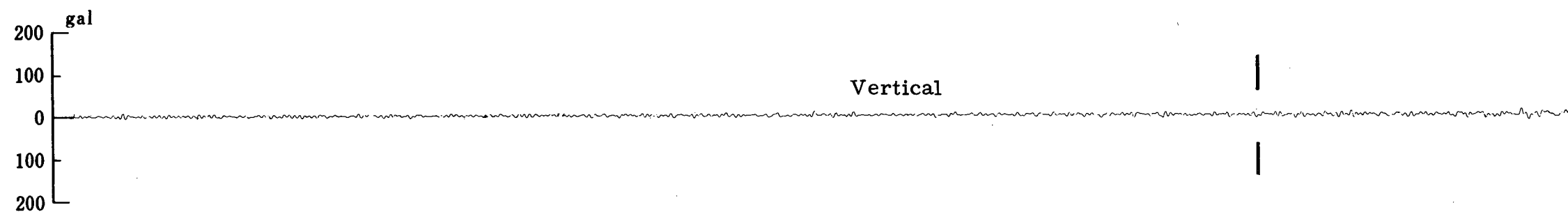
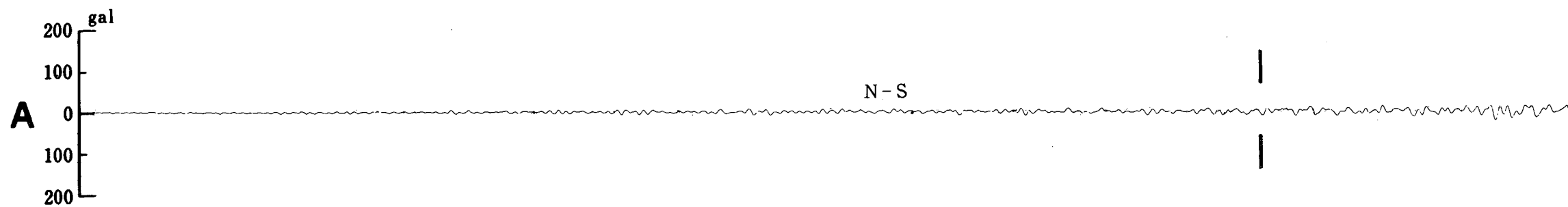
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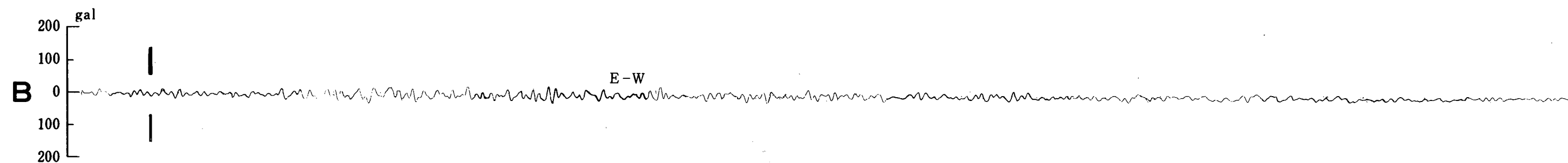
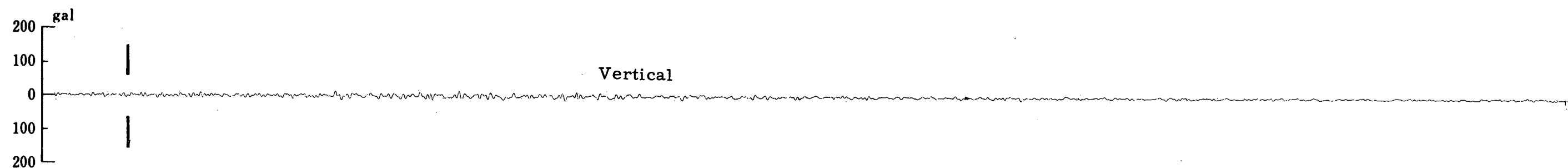
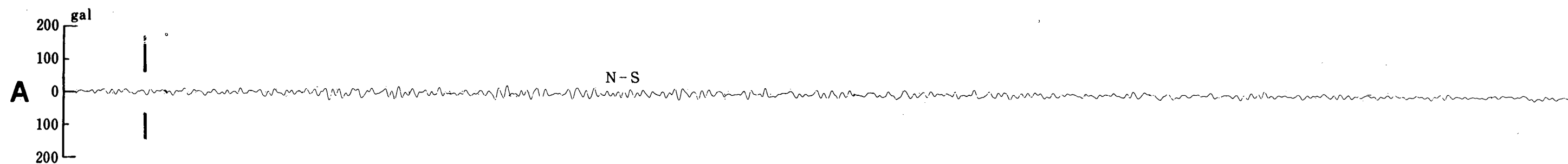


The Public Works Research Institute, Chiba Branch 901-Gr-52  
1972. 2. 29 18:23



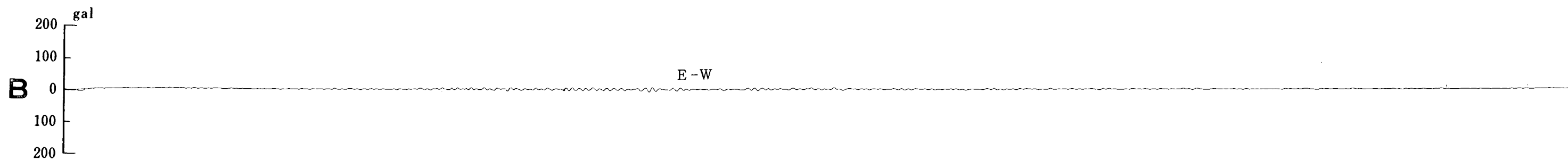
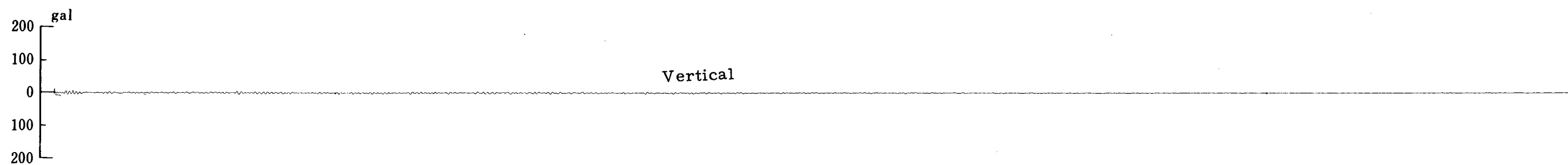
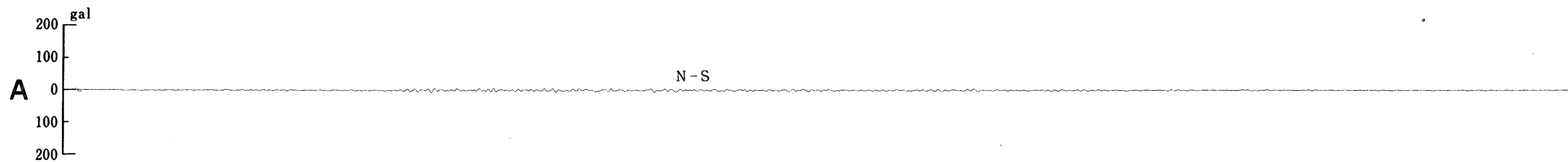
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Public Works Research Institute, Chiba Branch 901-Gr-52  
1972. 2. 29 18:23



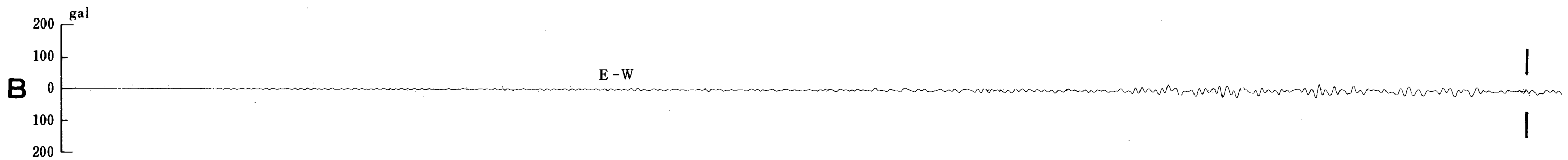
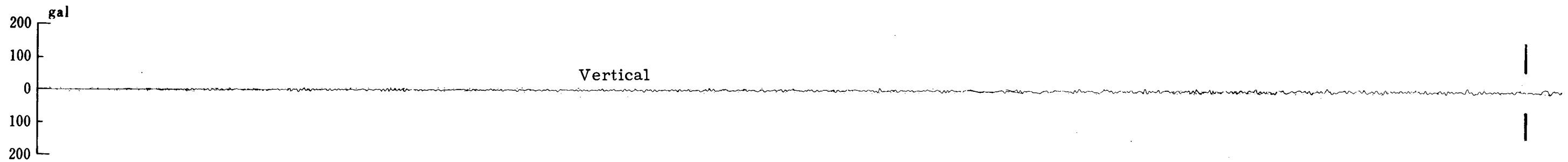
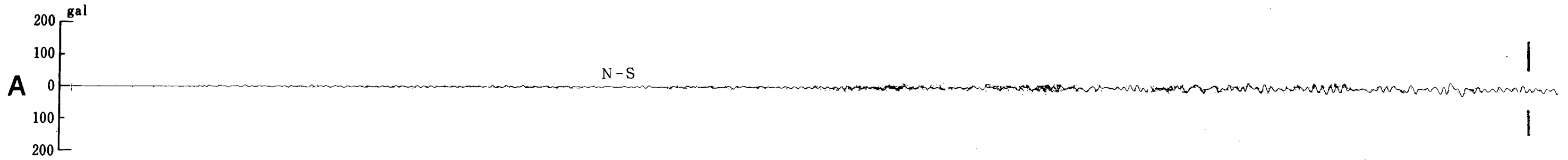
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The Public Works Research Institute, Chiba Branch 901-Gr-54  
1972. 11. 6 20:42



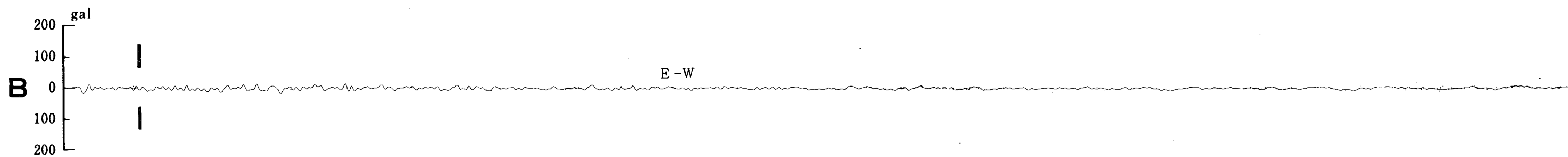
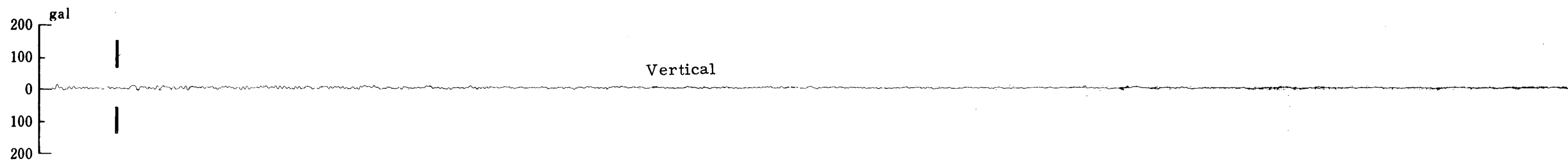
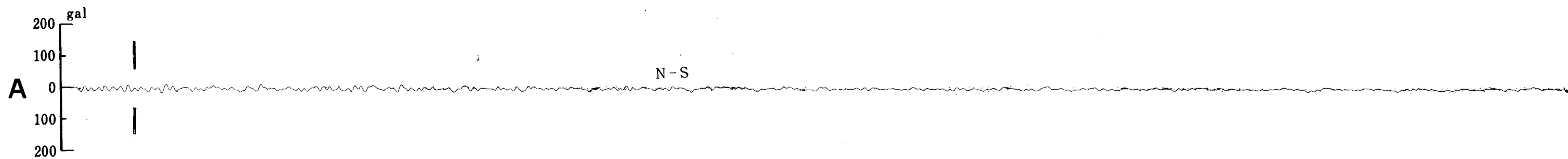
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The Public Works Research Institute, Chiba Branch 901-Gr-56  
1972. 12. 4 19:17



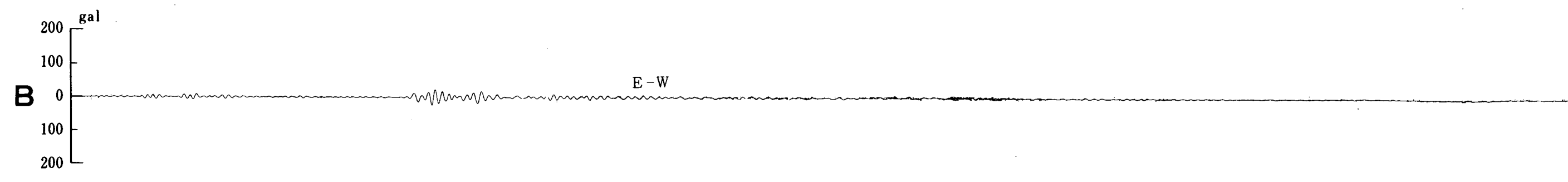
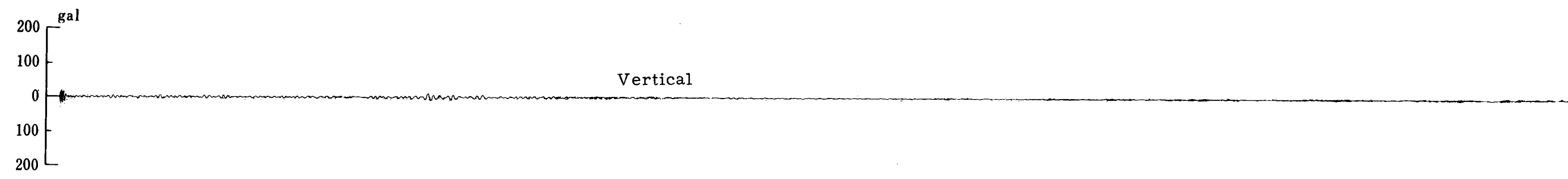
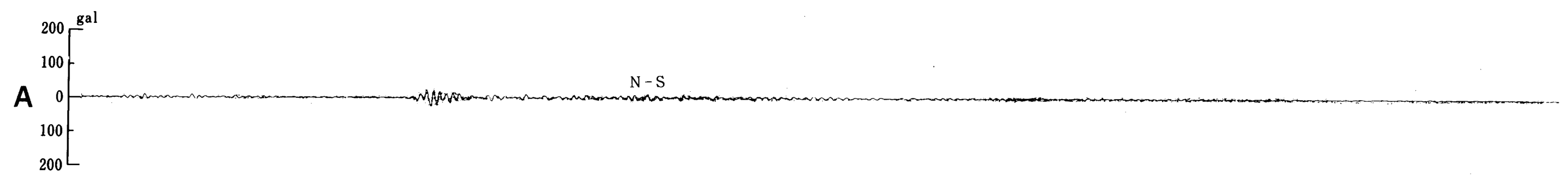
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The Public Works Research Institute, Chilba Branch 901-Gr-56  
1972. 12. 4 19:17

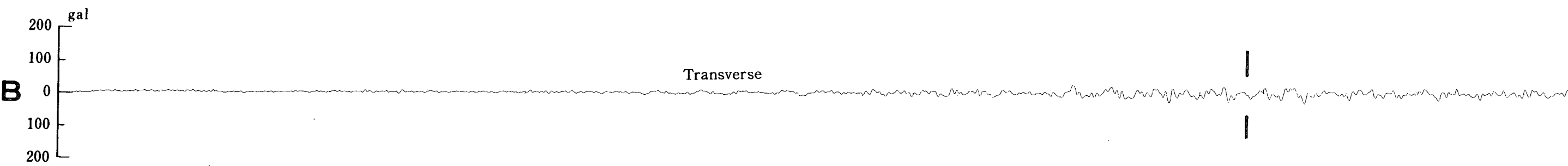
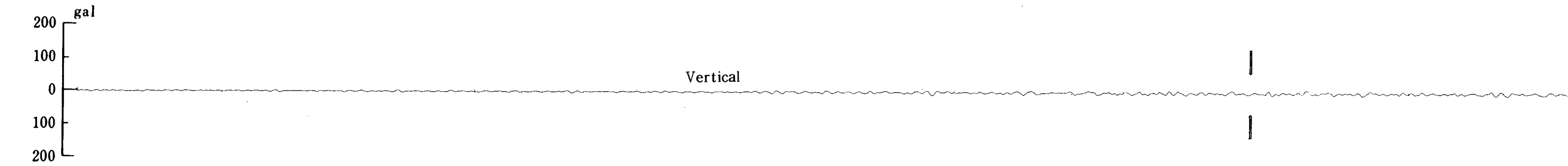
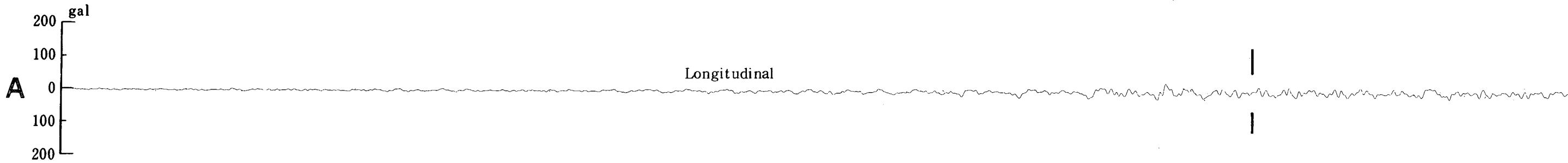


Public Works Research Institute, Chilba Branch 901-Gr-57  
1972. 12. 8 08:38

1sec

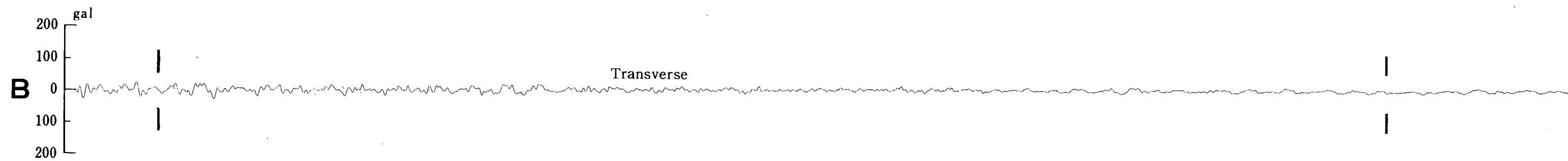
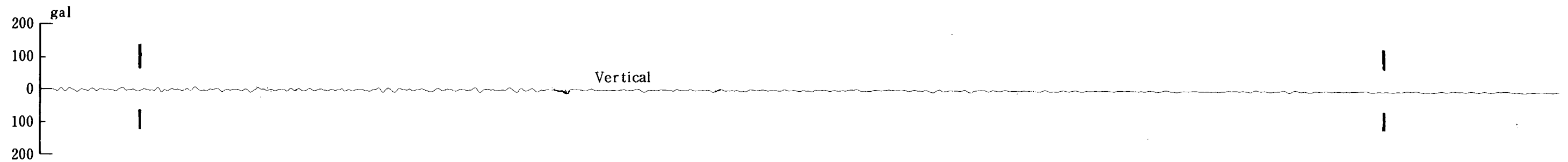
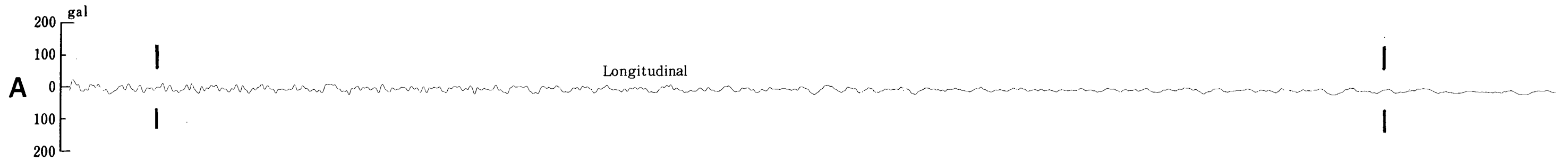


Nishiarai Bridge 902-Gr-28  
1972. 2. 29 18 : 23



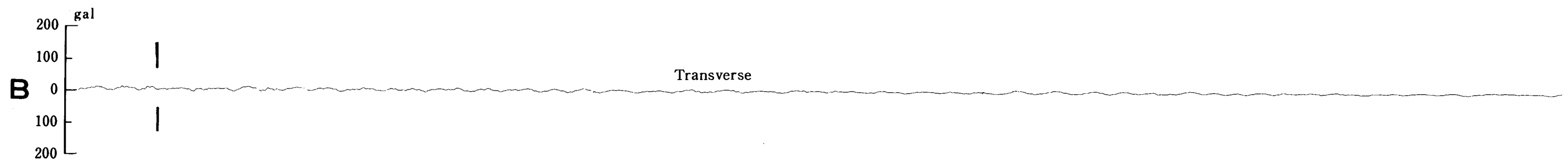
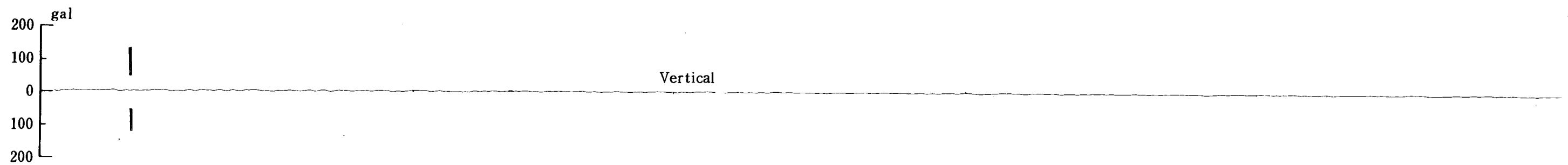
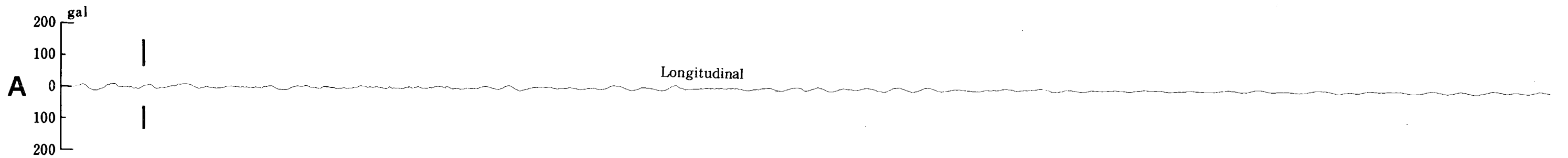
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Nishiarai Bridge 902-Gr-28  
1972. 2. 29 18:23



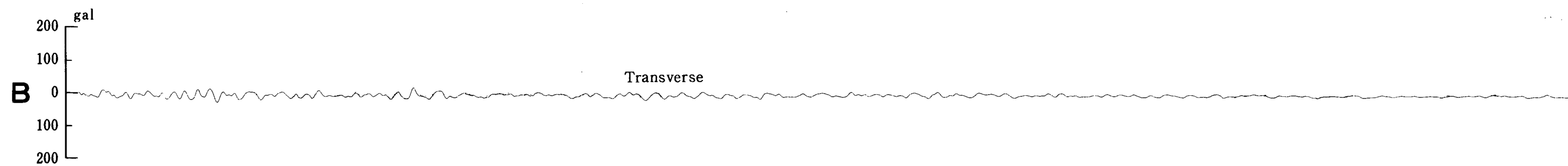
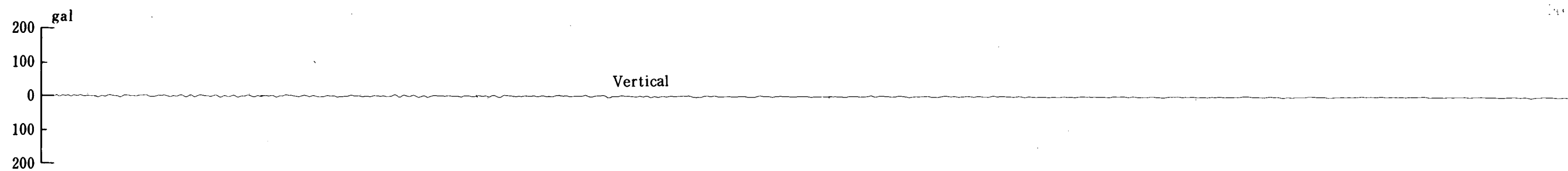
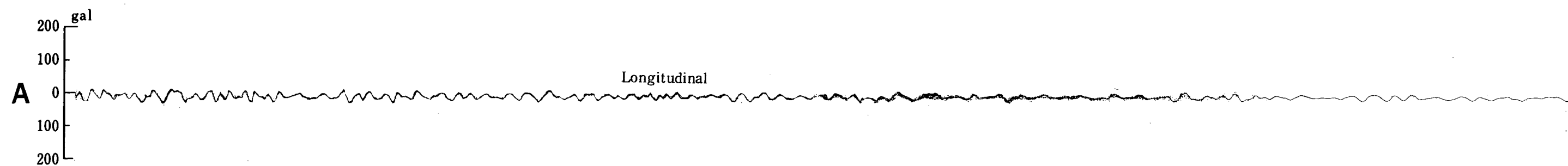
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Nishiarai Bridge 902-Gr-28  
1972. 2. 29 18:23



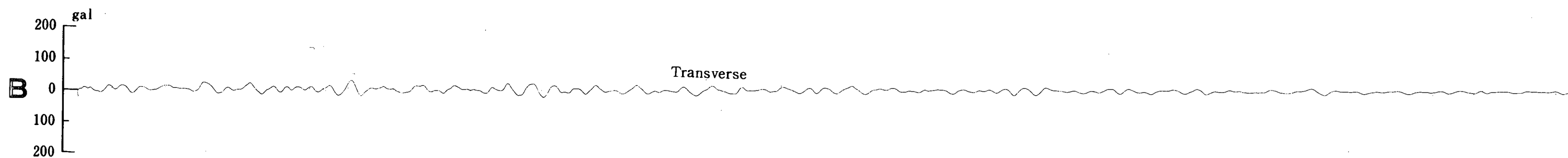
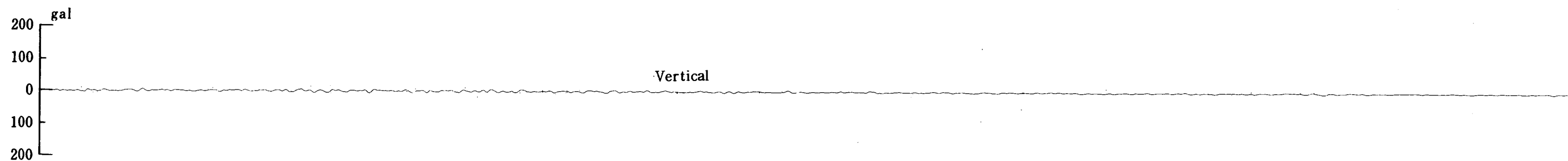
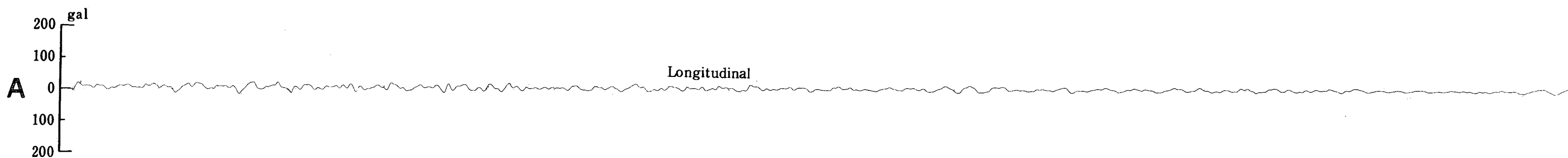
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Nishiarai Bridge 902-P<sub>7</sub>-49  
1972. 2. 29 18 : 23

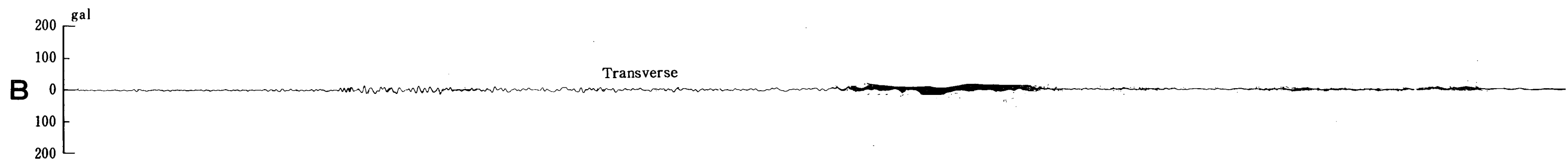
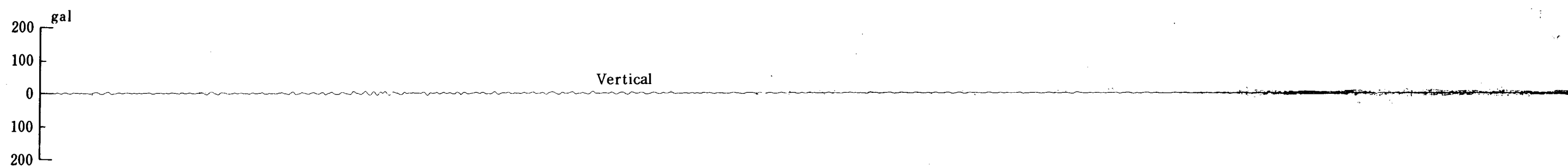
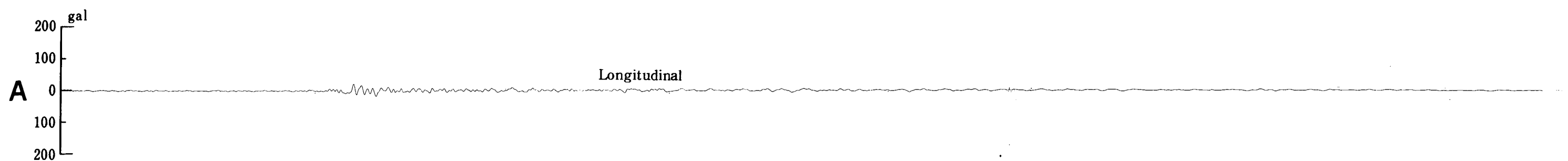


1sec

Nishiarai Bridge 902-P<sub>9</sub>-25  
1972. 2. 29 18:23

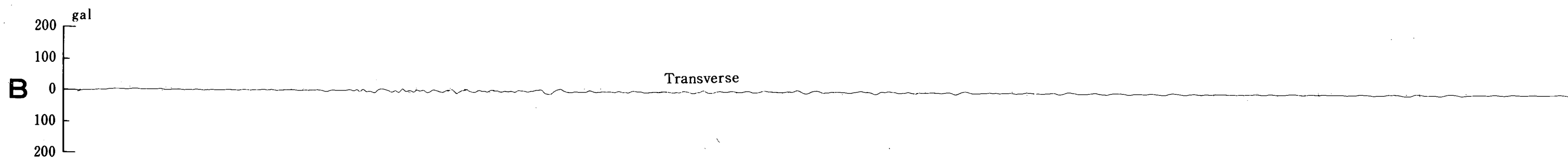
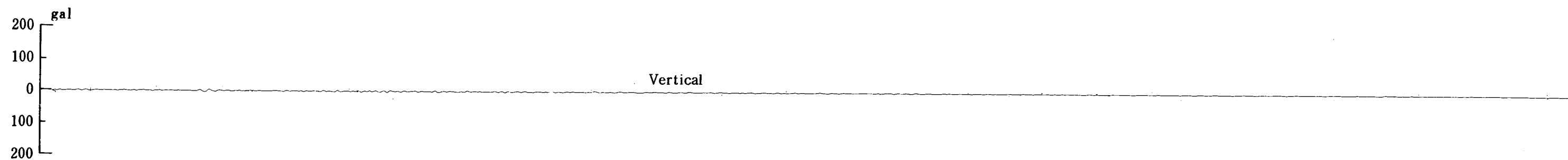
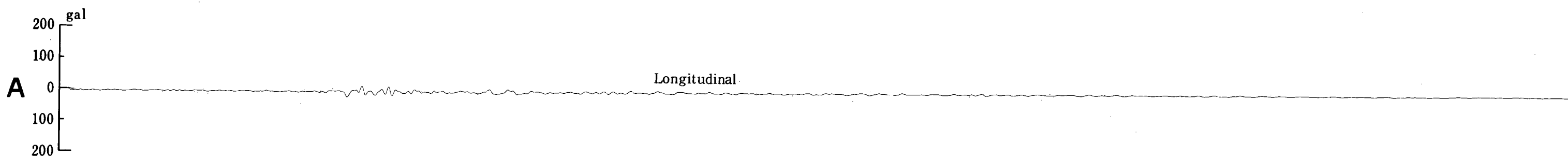


Nishiarai Bridge 902-Gr-29  
1972. 10. 18 10:48



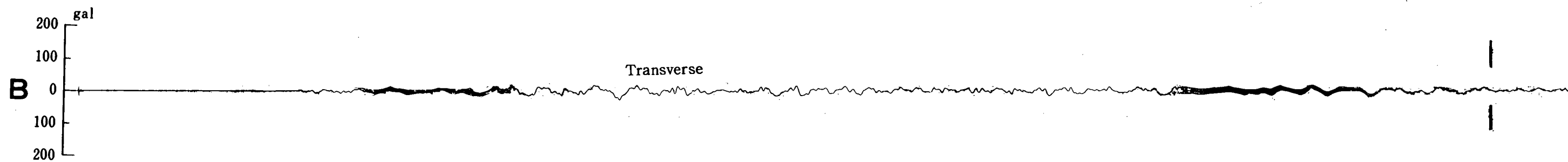
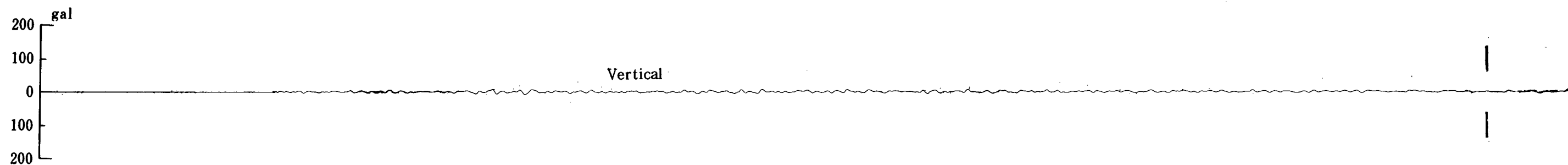
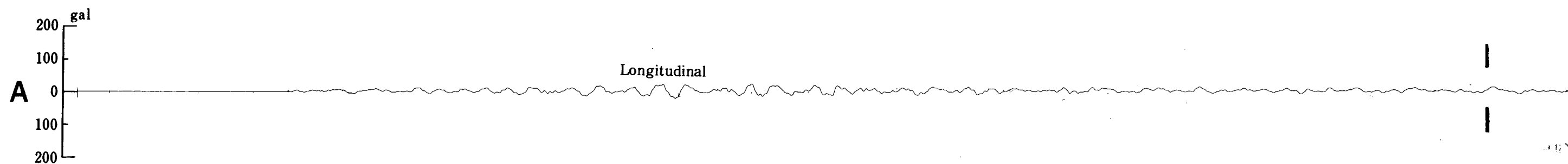
1sec

Nishiarai Bridge 902-P<sub>7</sub>-50  
1972. 10. 18 10 : 48



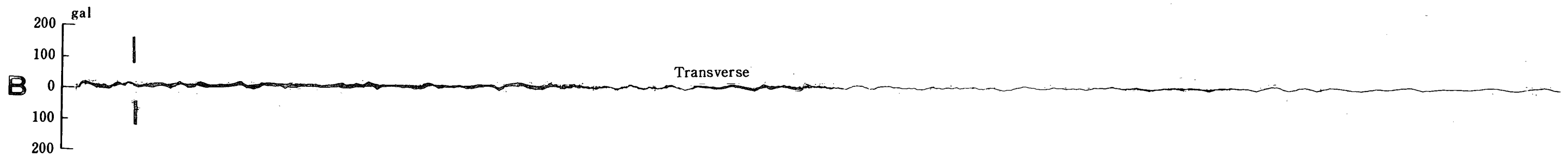
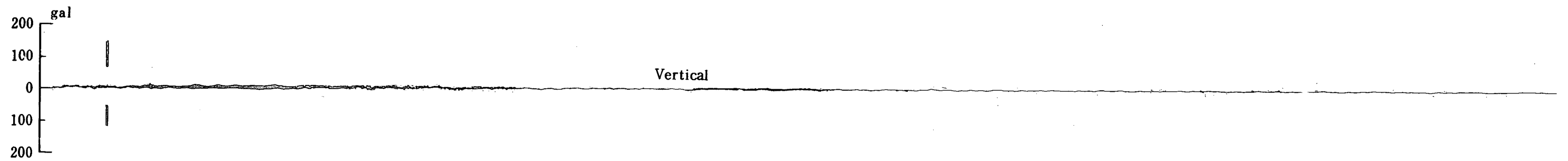
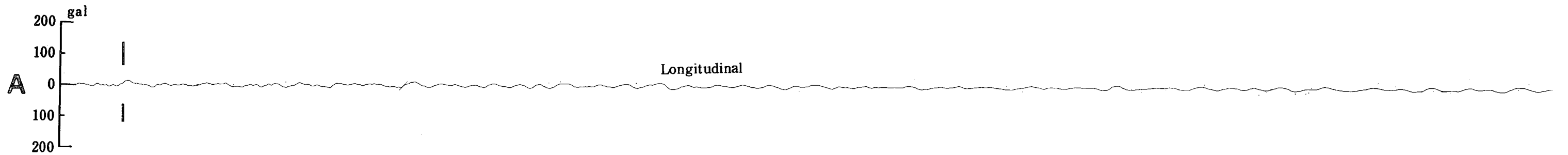
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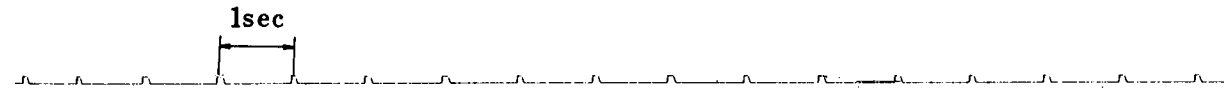
Nishiarai Bridge 902-Gr-30  
1972. 12. 4 19:17



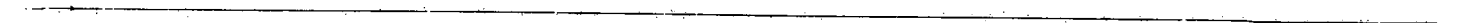
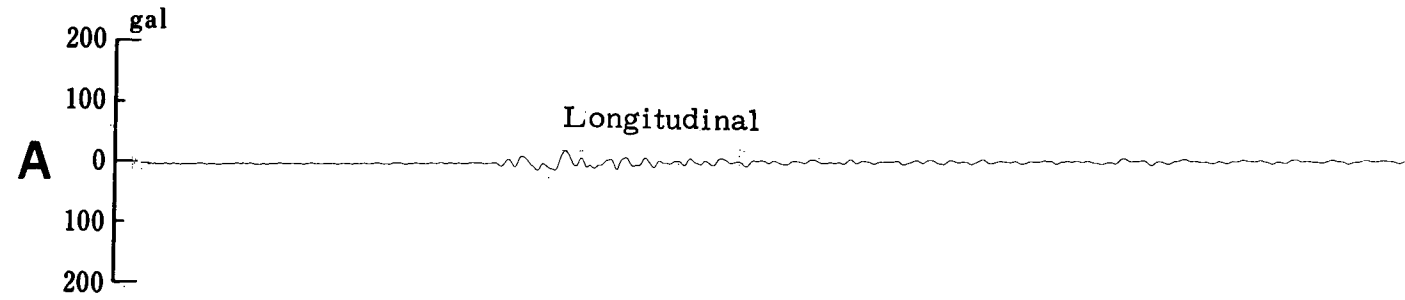
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Nishiarai Bridge 902-Gr-30  
1972. 12. 4 19:17

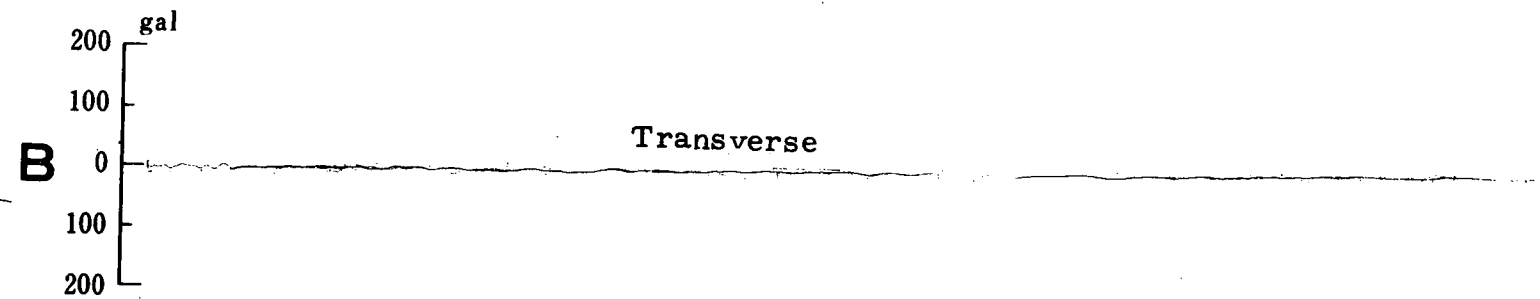
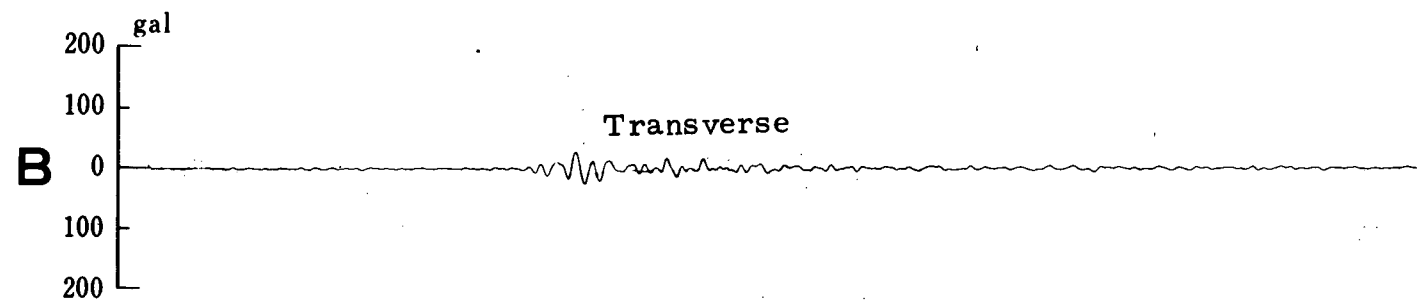
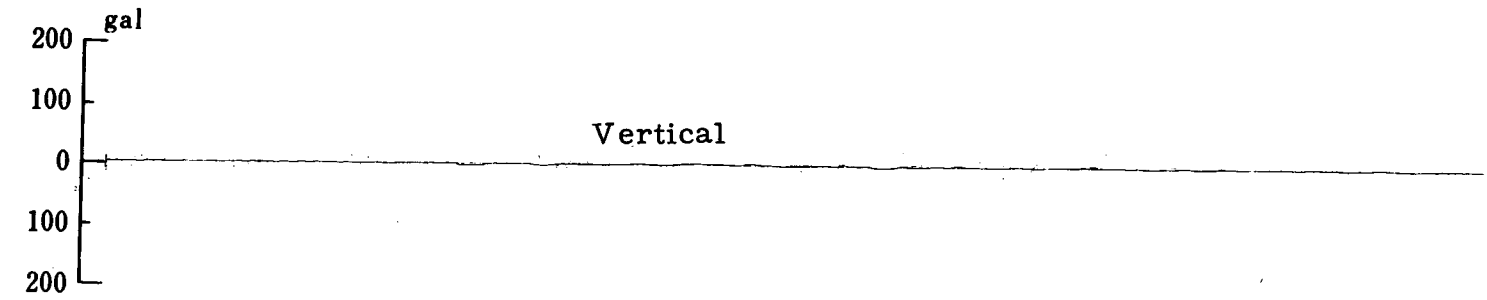
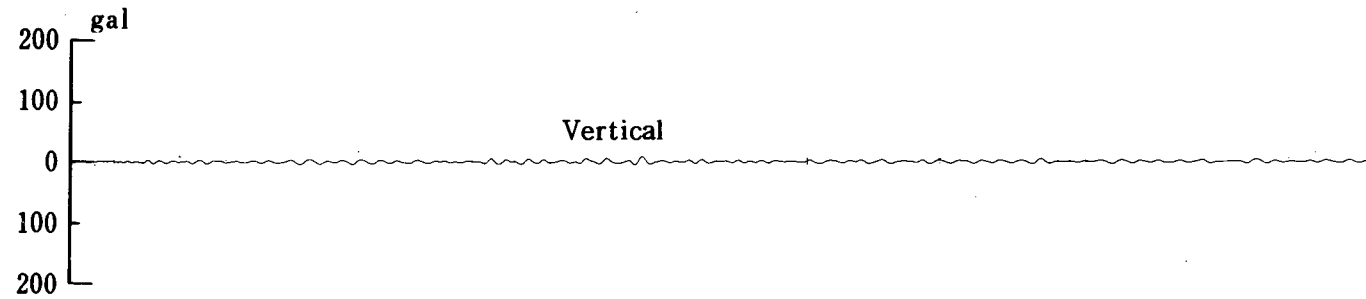
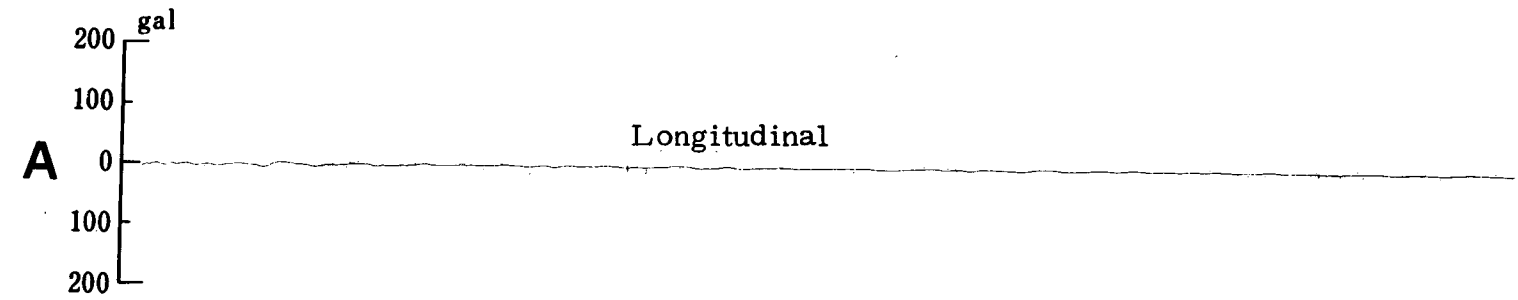




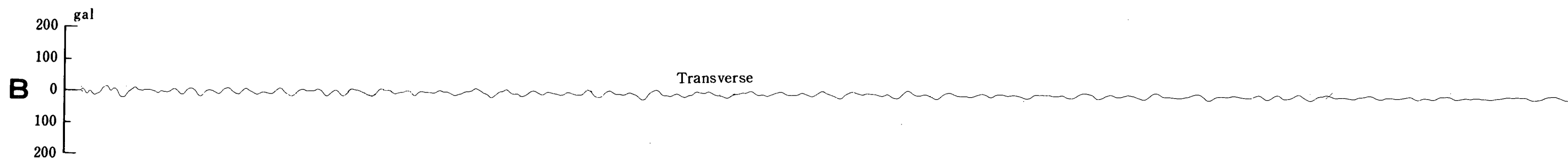
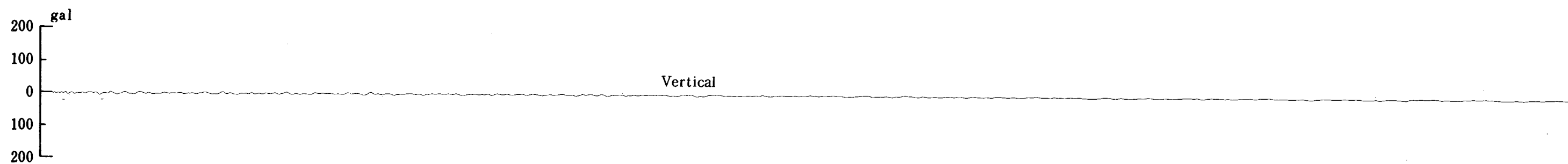
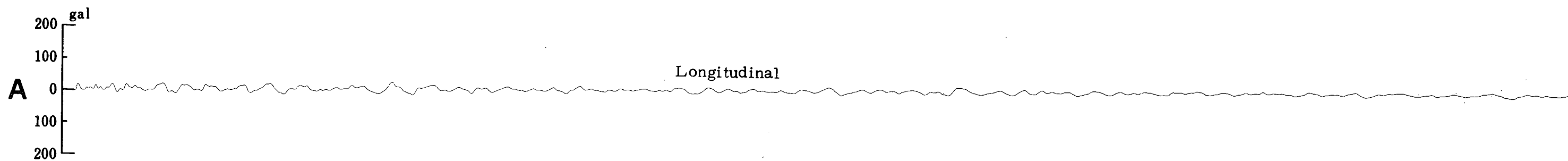
Nishiarai Bridge 902-Gr-31  
1972. 12. 8 08:38



Shintenryugawa Bridge 904-Gr-9  
1972. 8. 31 17:07

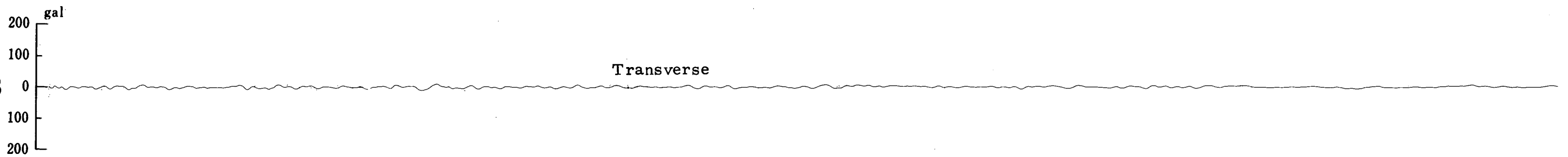
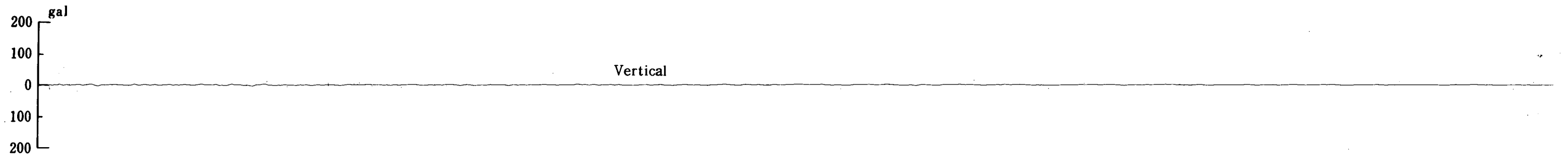
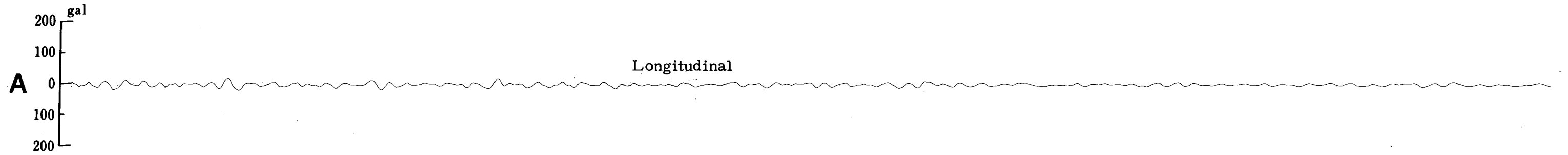


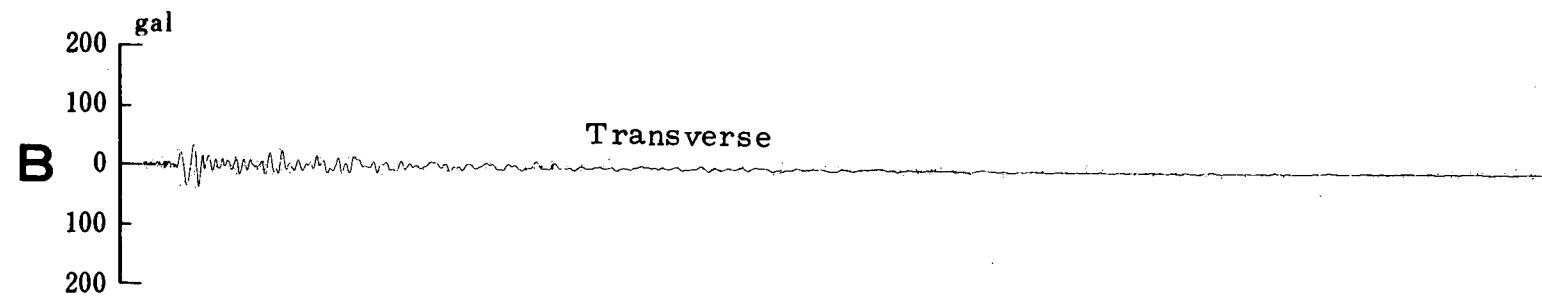
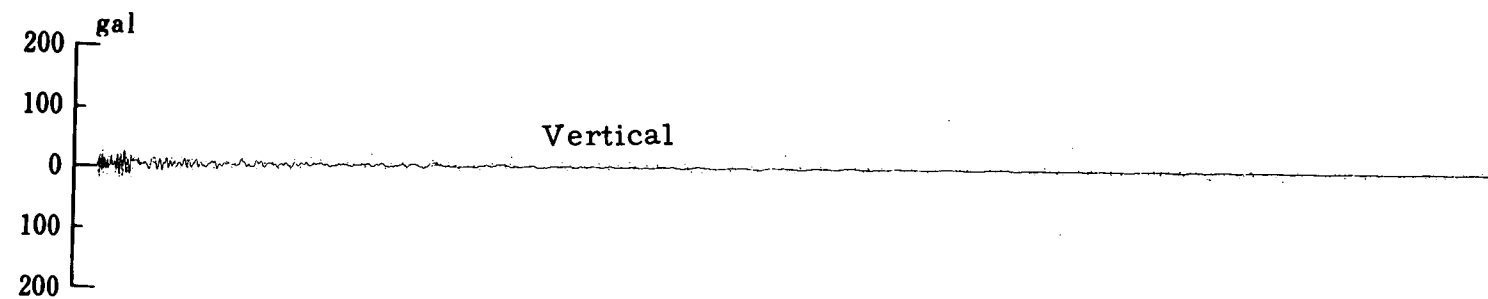
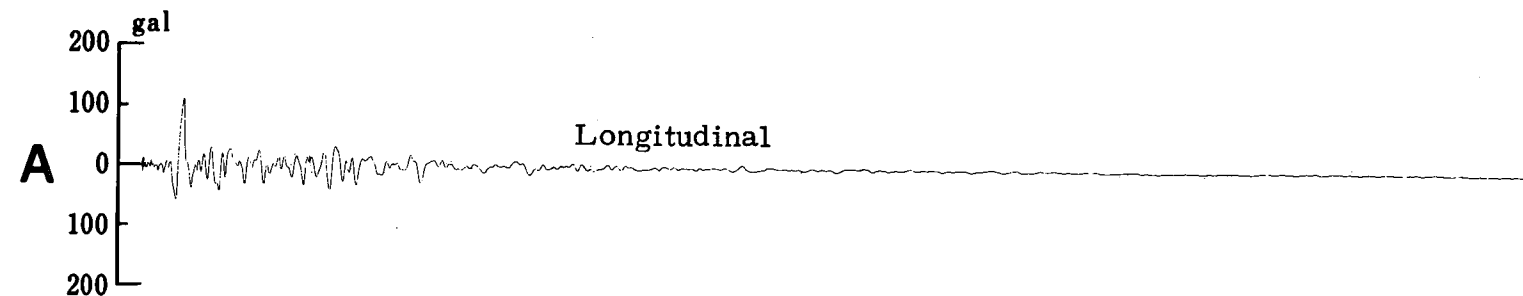
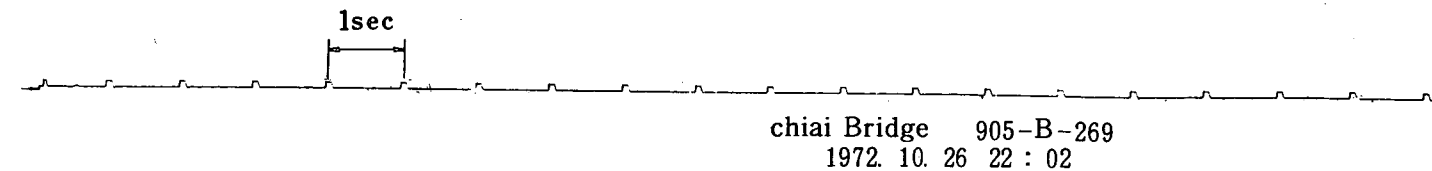
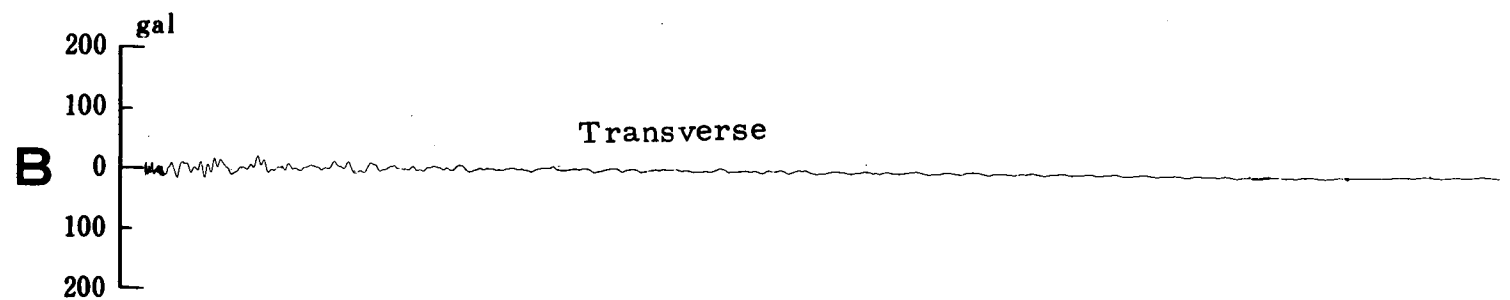
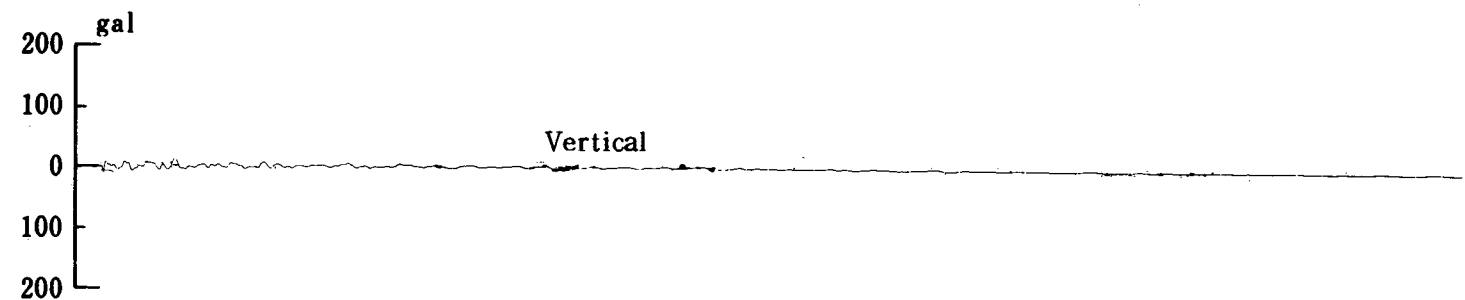
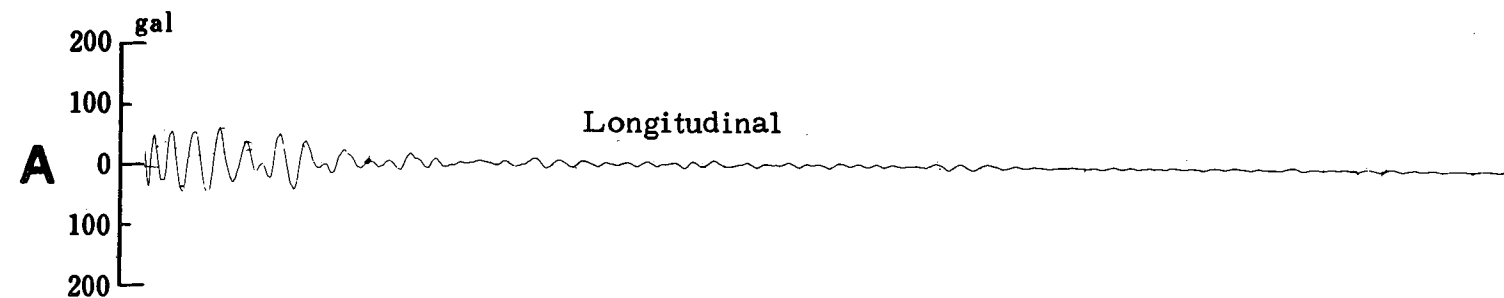
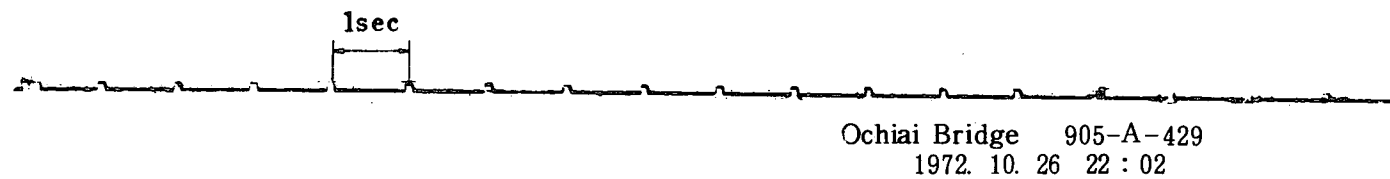
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Nishiarai Bridge 902-P<sub>7</sub>-51  
1972. 12. 4 19 : 17

Nishiarai Bridge 902-P<sub>9</sub>-26  
1972. 12. 4 19:17

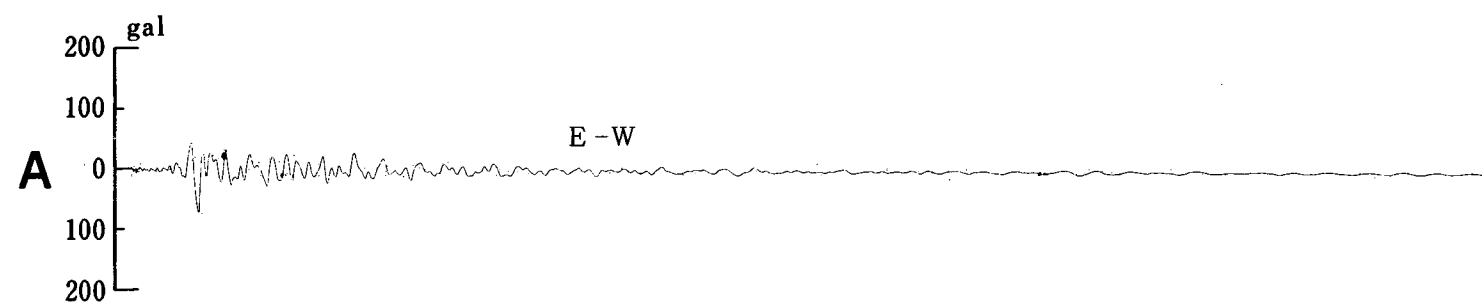
1sec





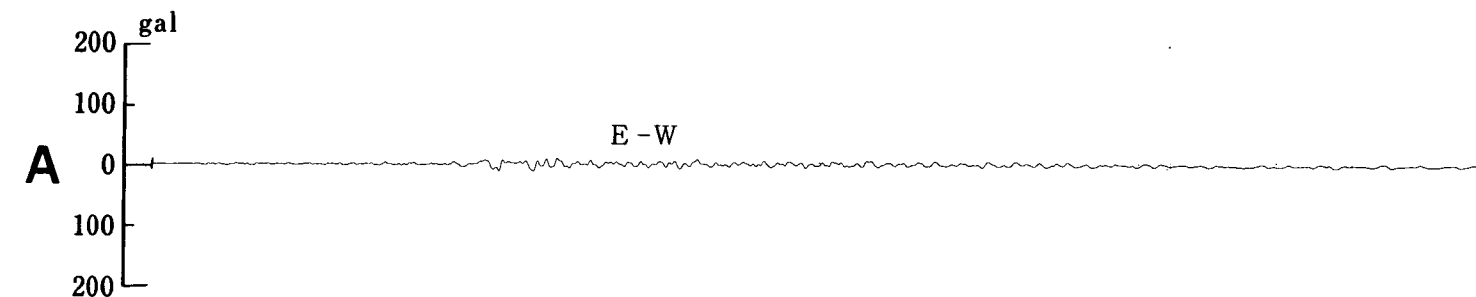
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Ochiai Bridge 905-C-122  
1972. 10. 26 22 : 02

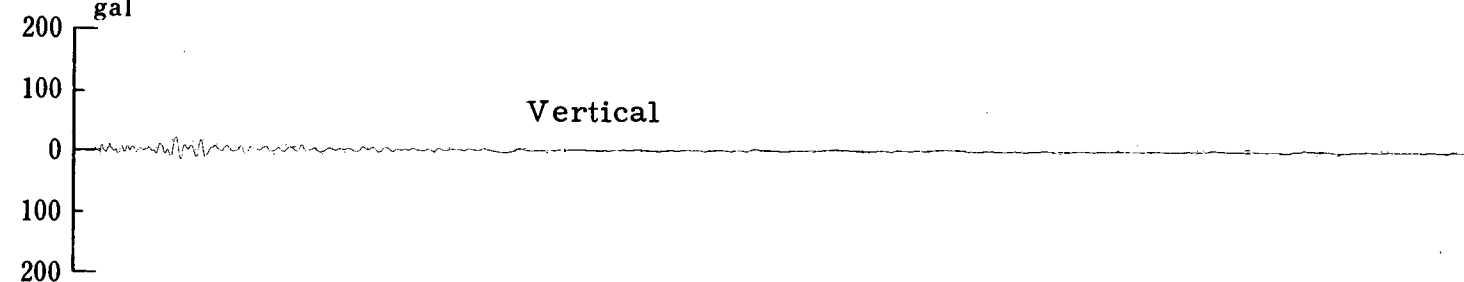


1sec

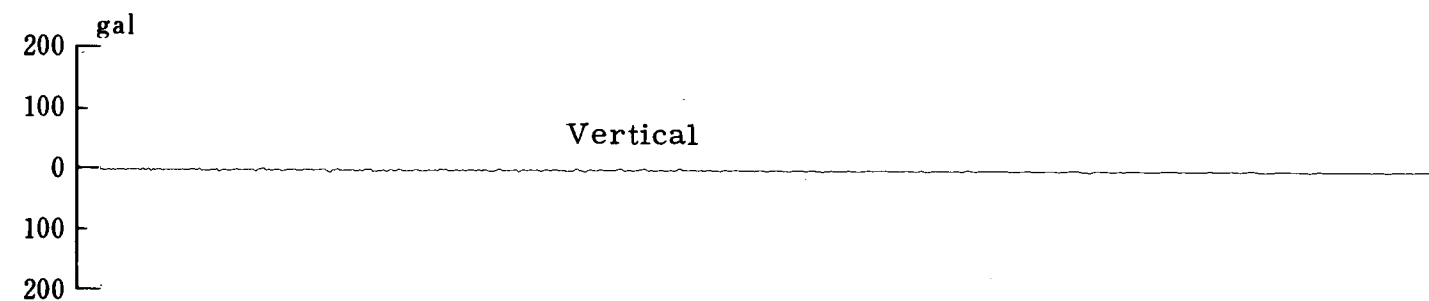
The P. W. R. I. Kashima E. L 906-Gr-13  
1972. 01. 04 09 : 20



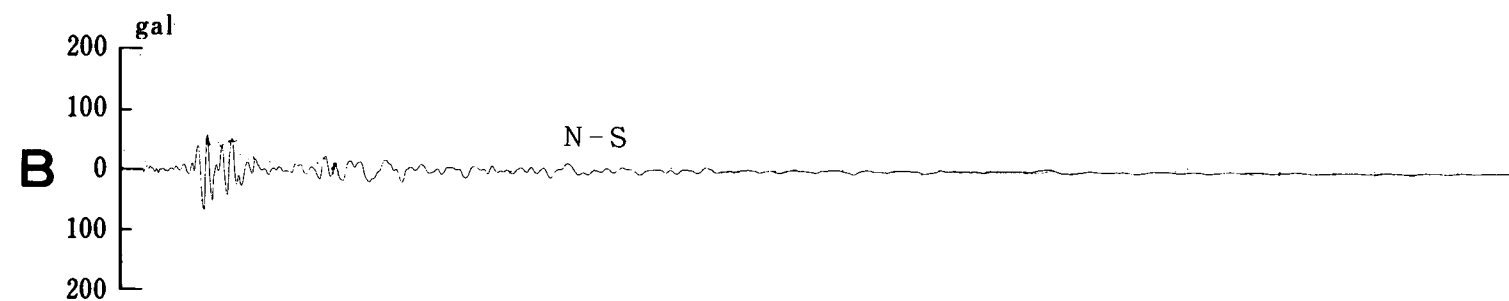
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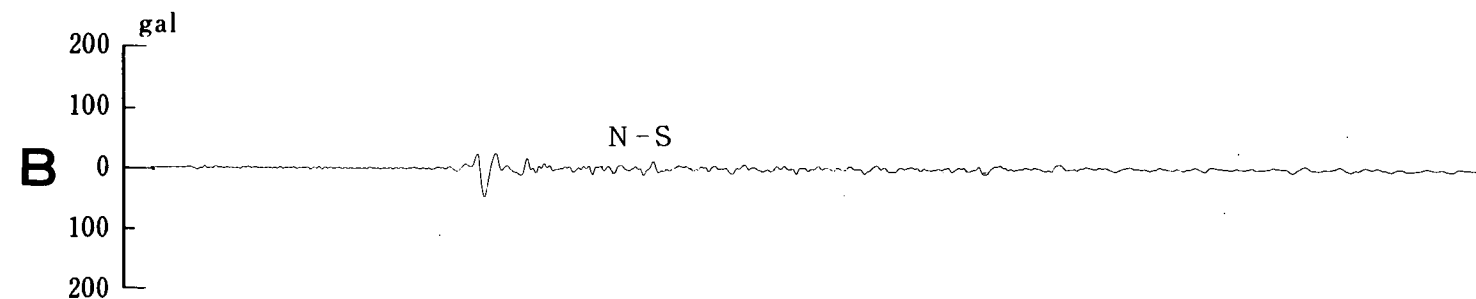
gal



gal

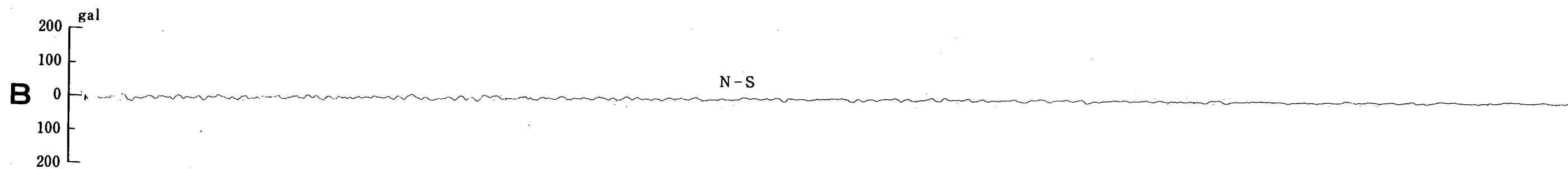
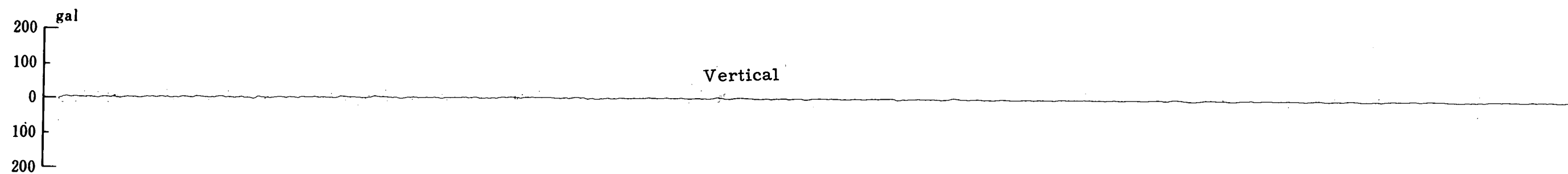
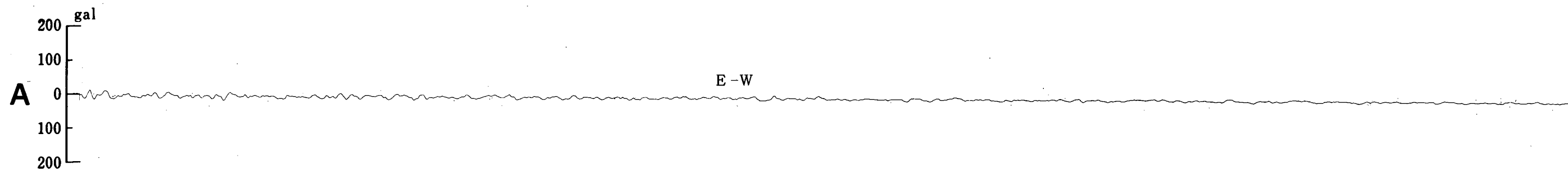


gal



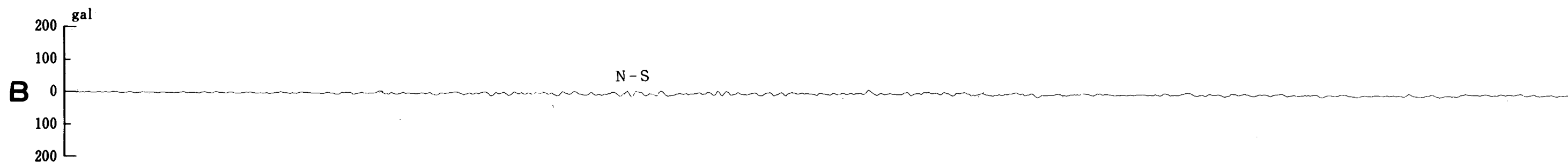
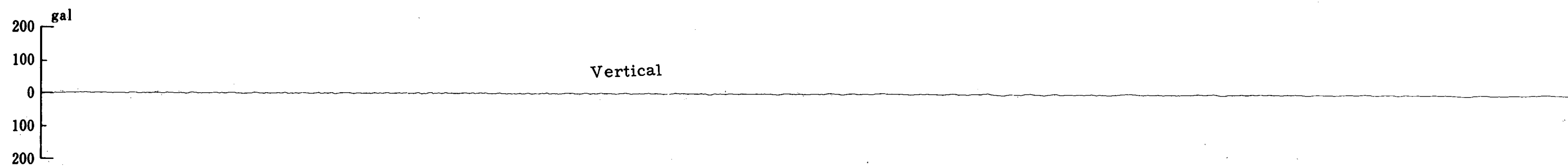
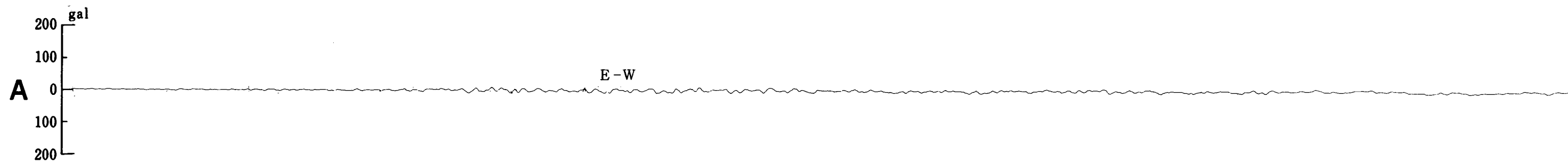
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P. W. R. I. Cashima E. L. 906-Gr-14  
1972. 2. 29 18:23



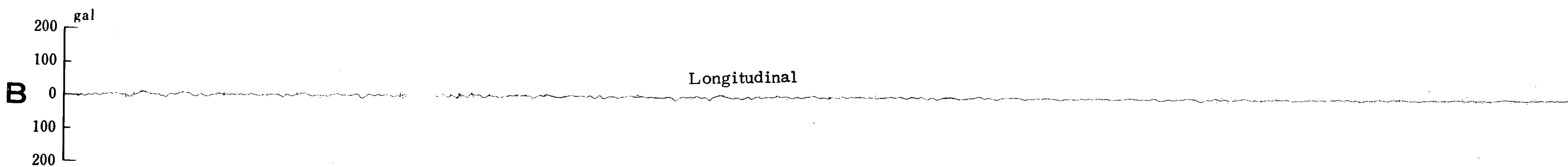
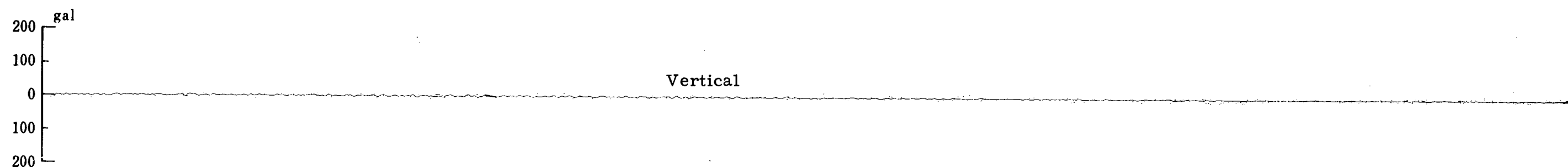
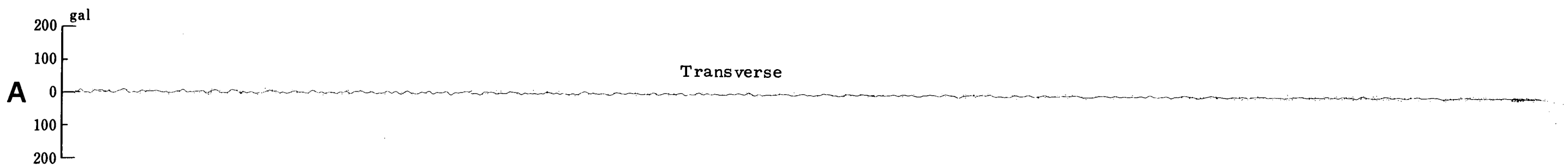
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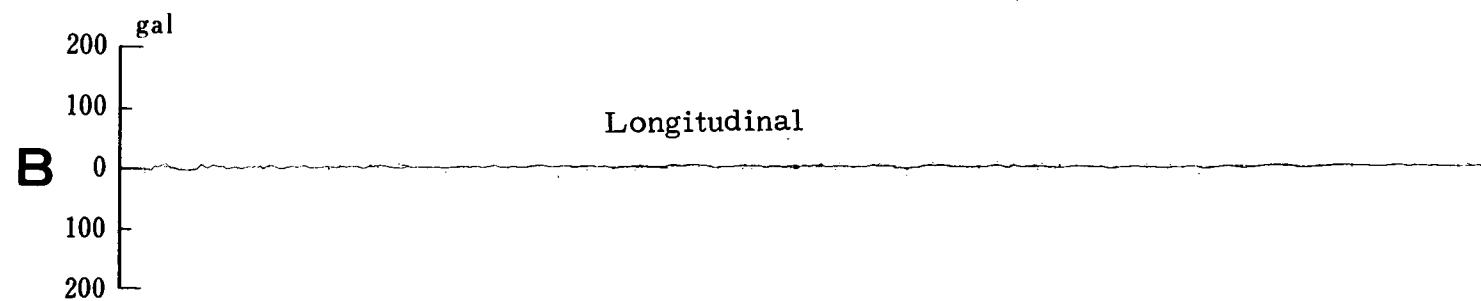
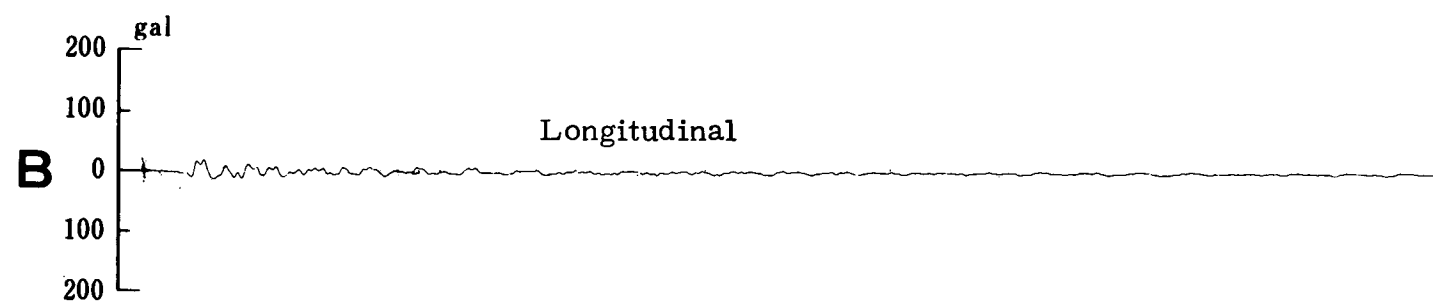
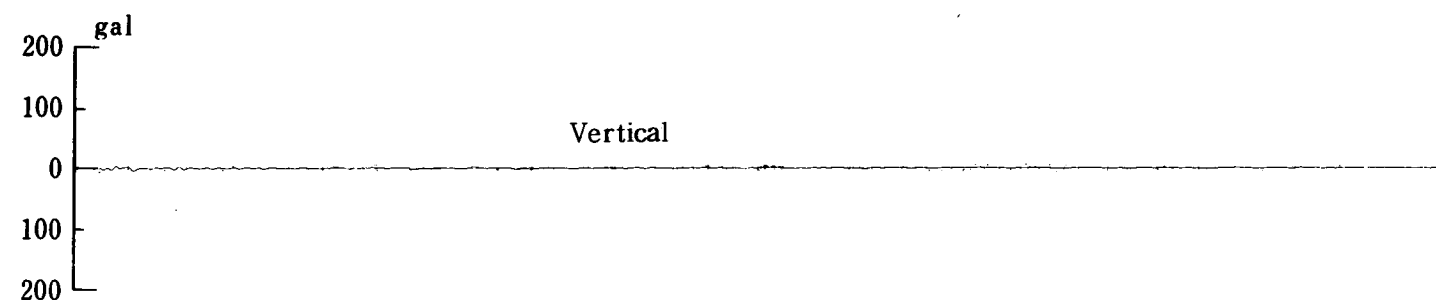
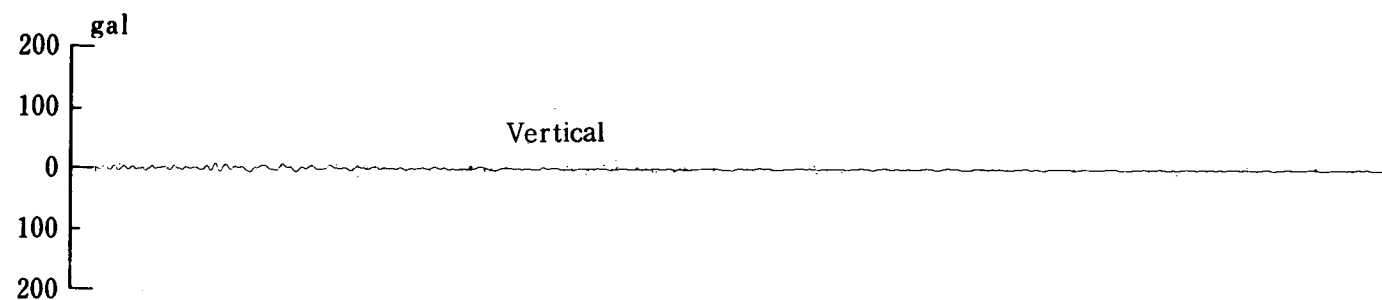
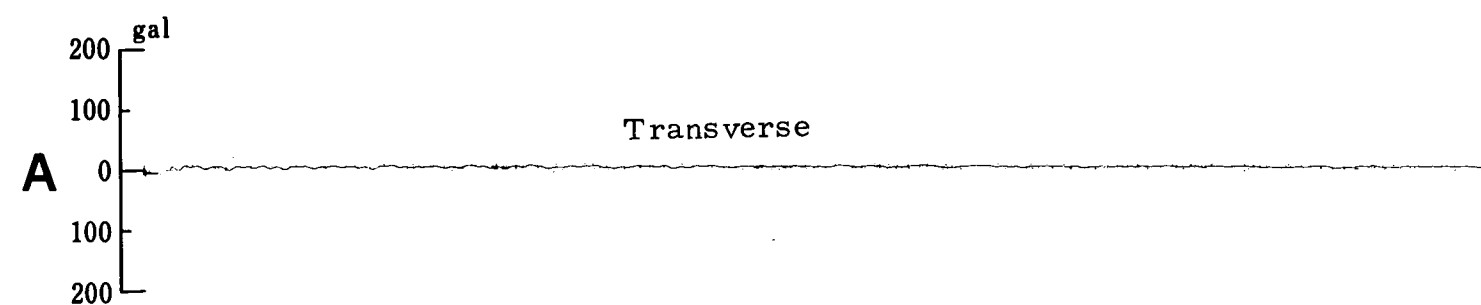
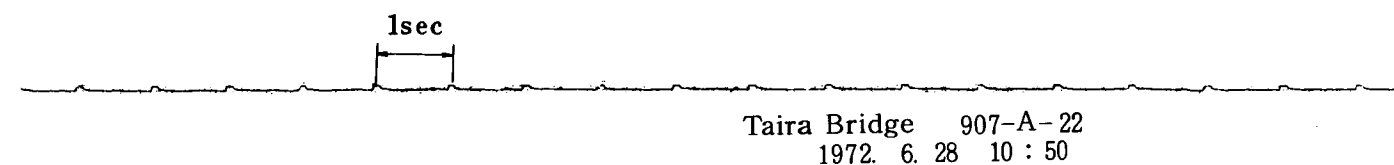
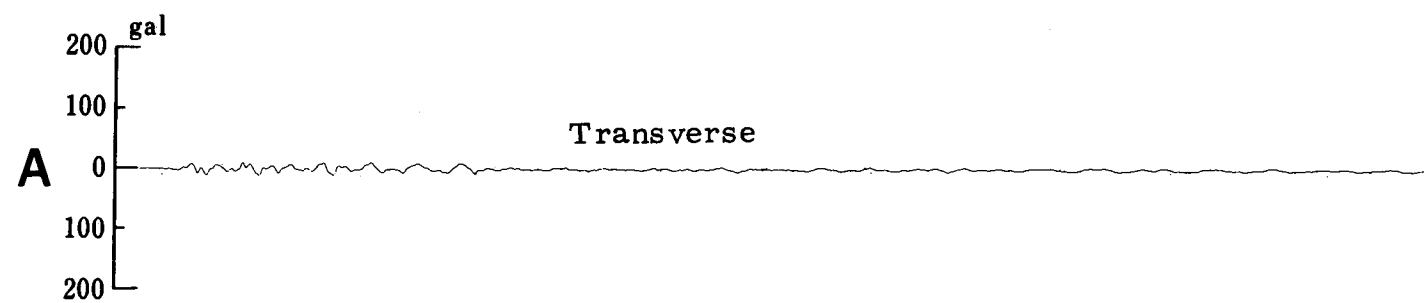
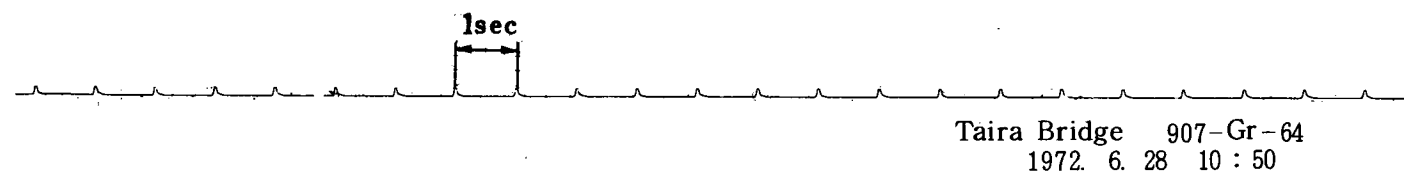
P. W. R. I. Kashima E. L. 906-Gr-15  
1972. 12. 4 19:17



1sec

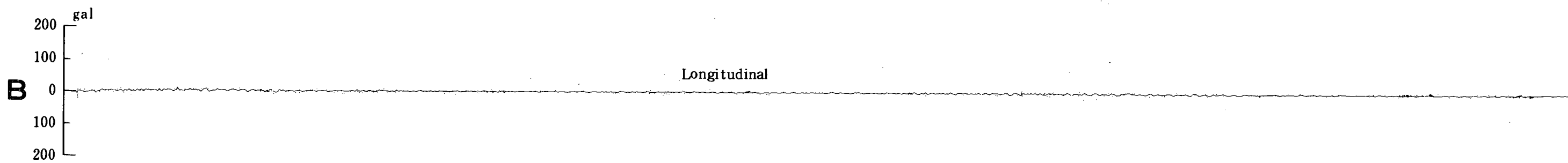
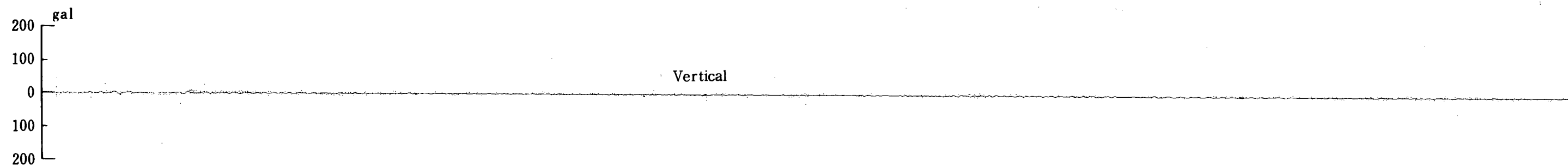
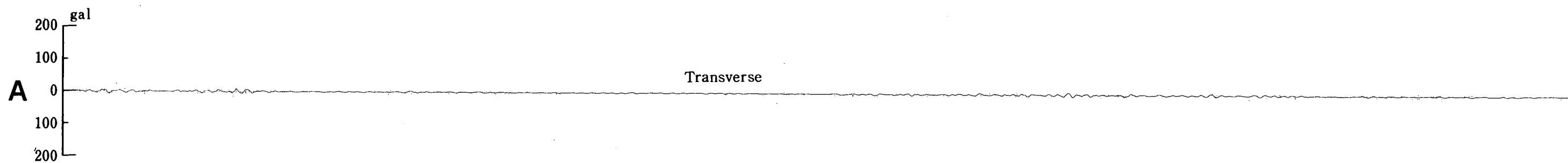
Taira Bridge 907-A-21  
1972. 2. 29 18:23

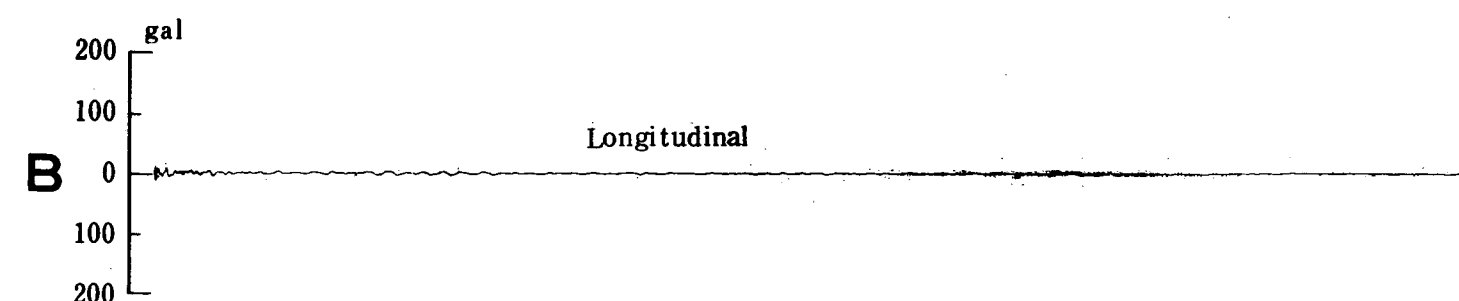
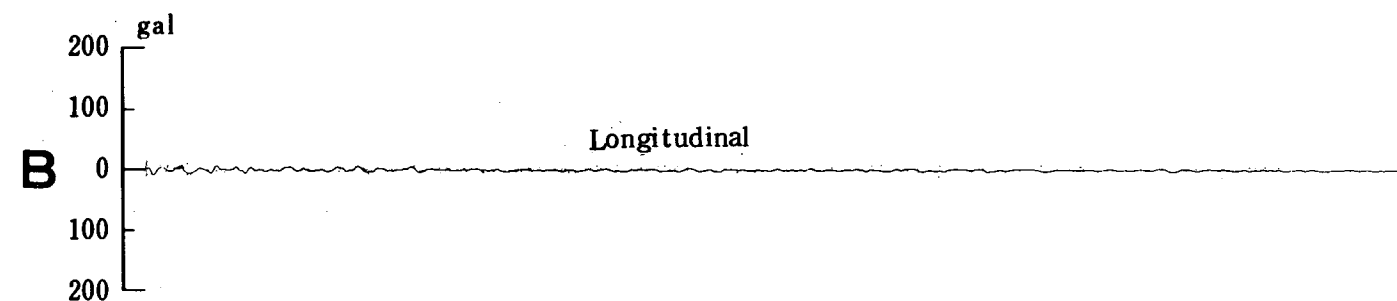
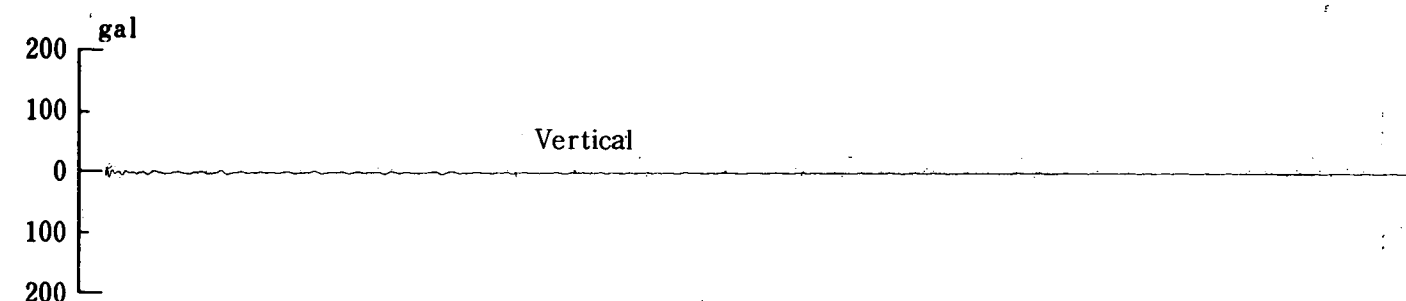
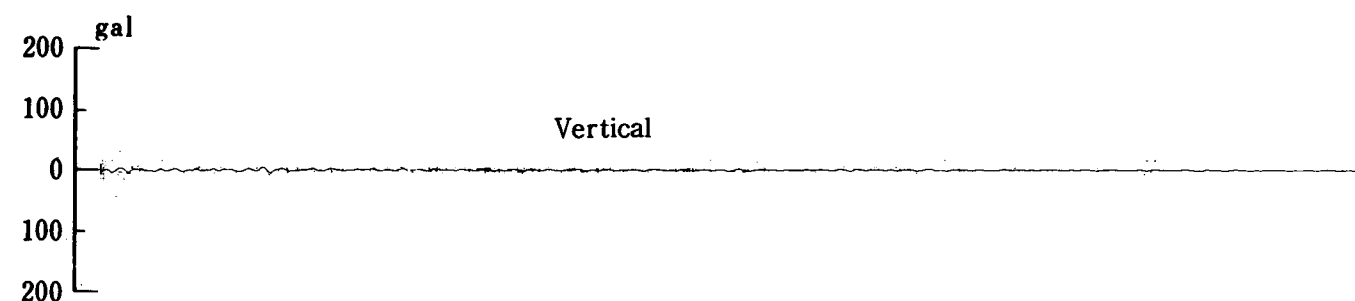
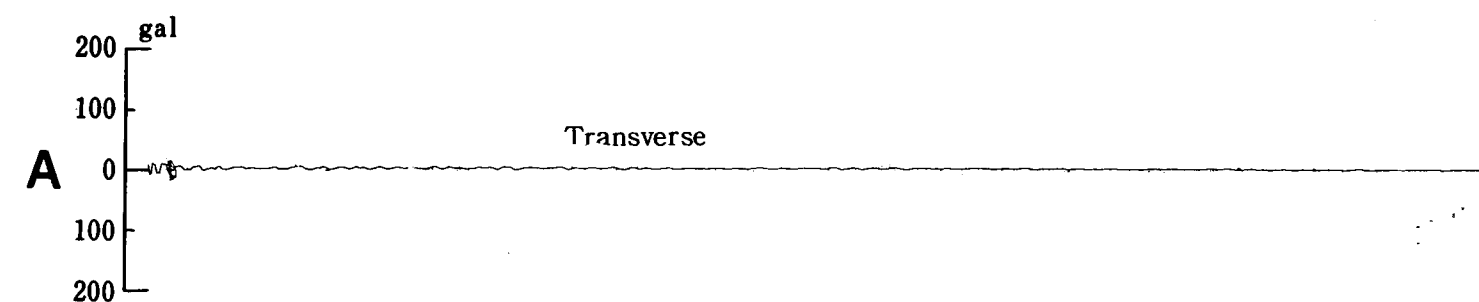
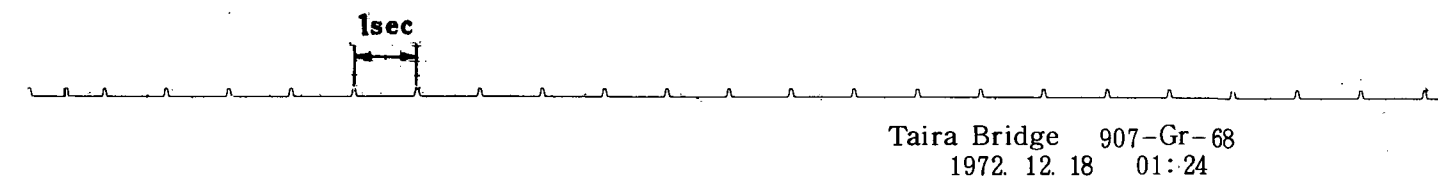
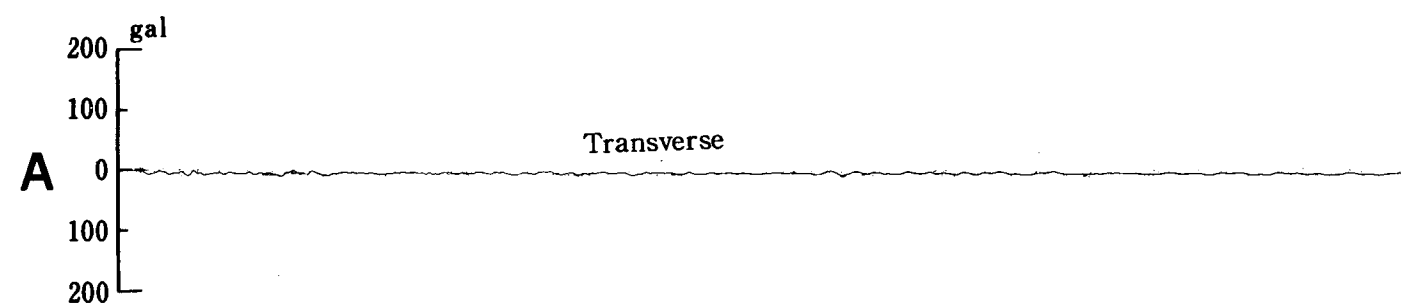
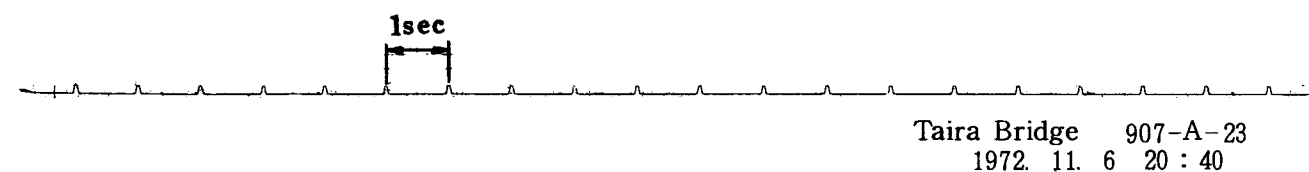




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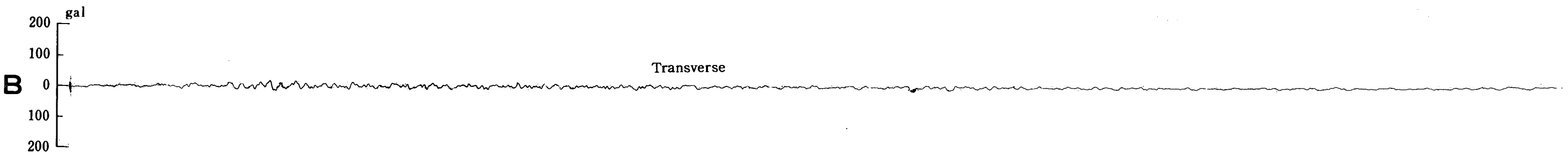
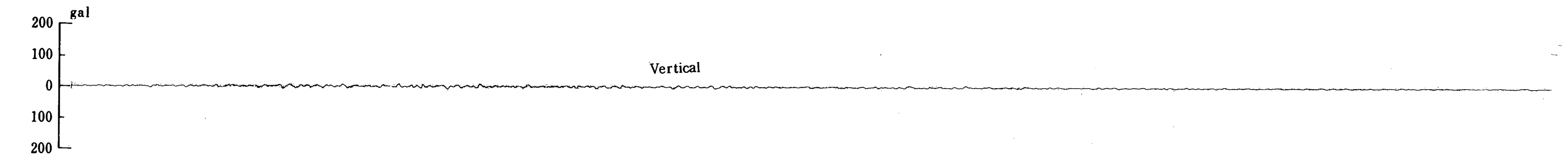
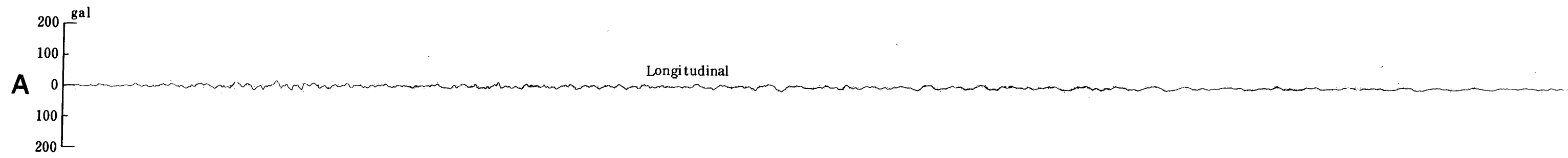
Taira Bridge 907-Gr-66  
1972. 9. 25 18:27



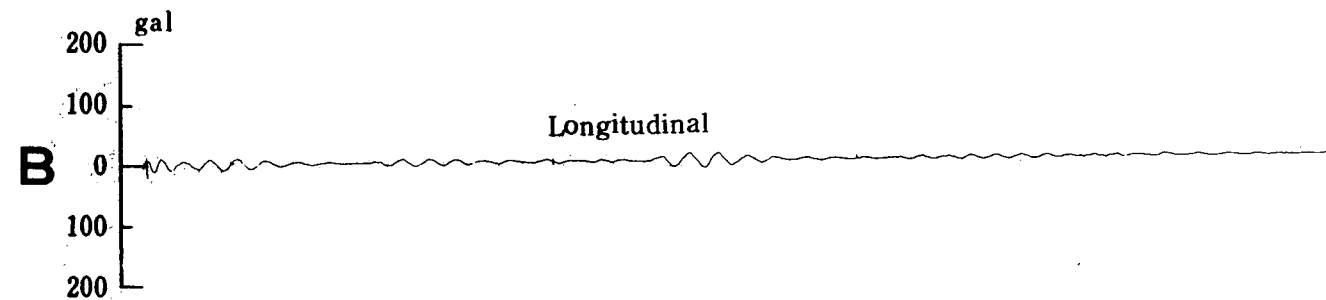
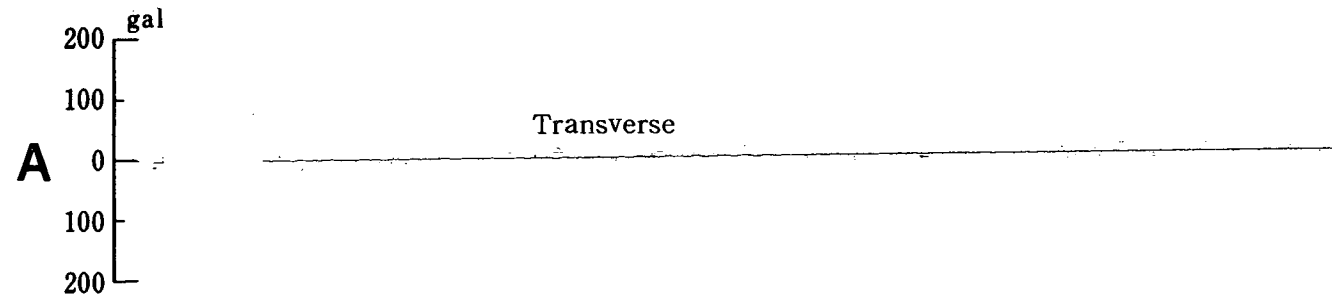


1sec

Taira Bridge 907-Gr-67  
1972. 12. 4 19 : 16

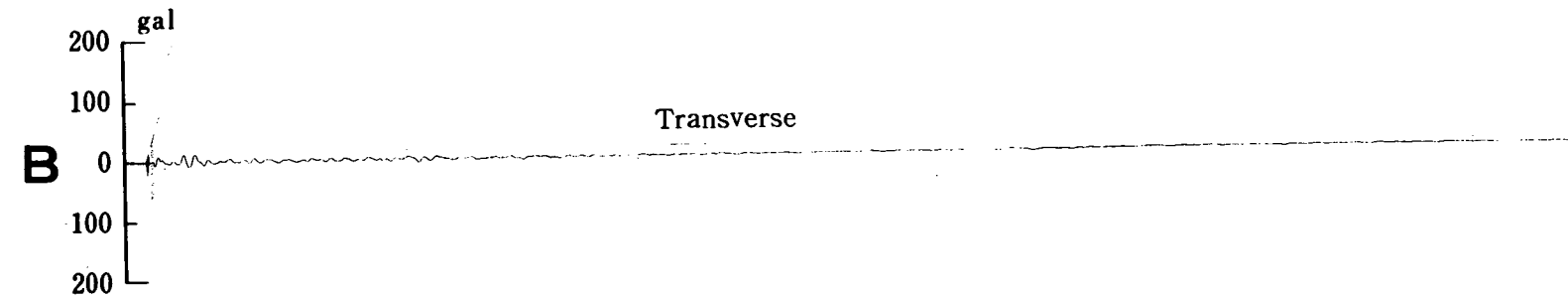
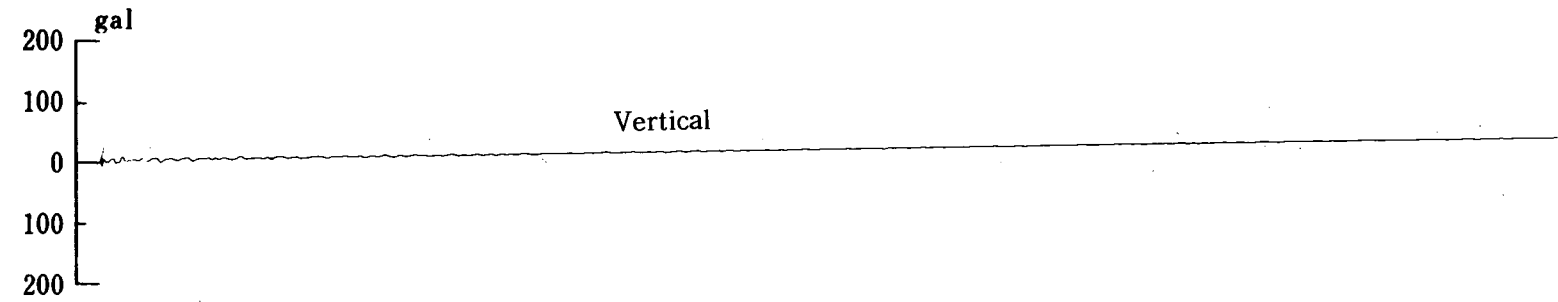


Ajigawa Bridge 1001-P<sub>2</sub>-3  
1972. 8. 31 16:54



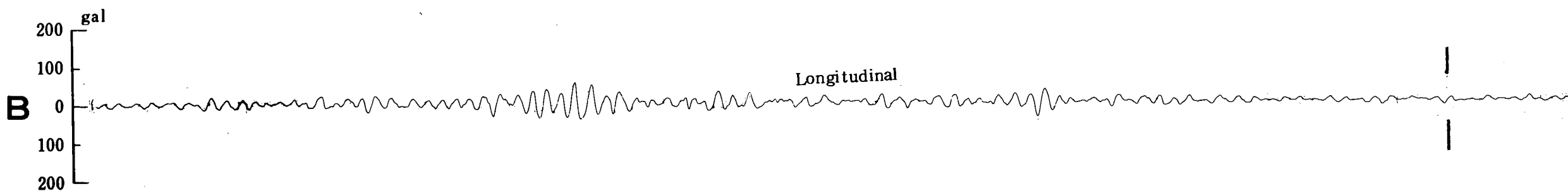
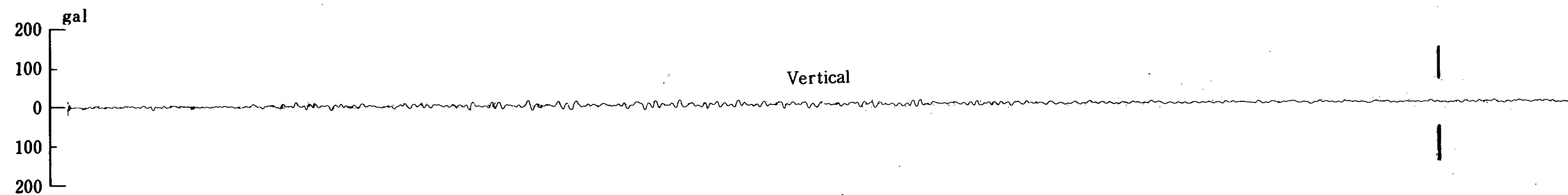
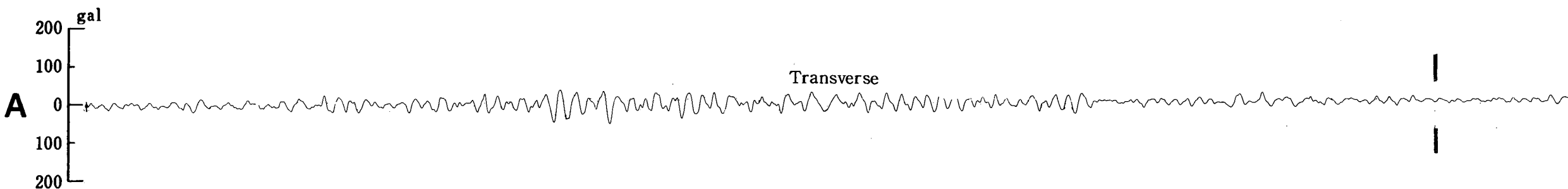
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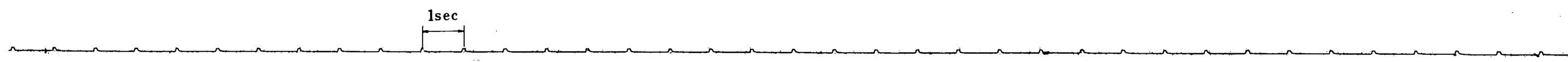
Nishiyokobori Bridge 1201-Gr-7  
1972. 7. 27



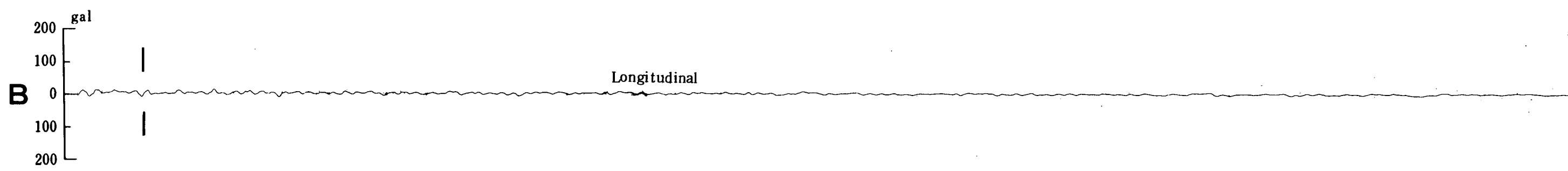
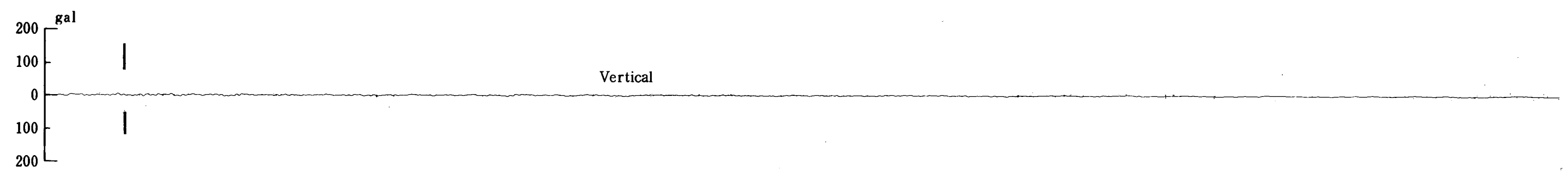
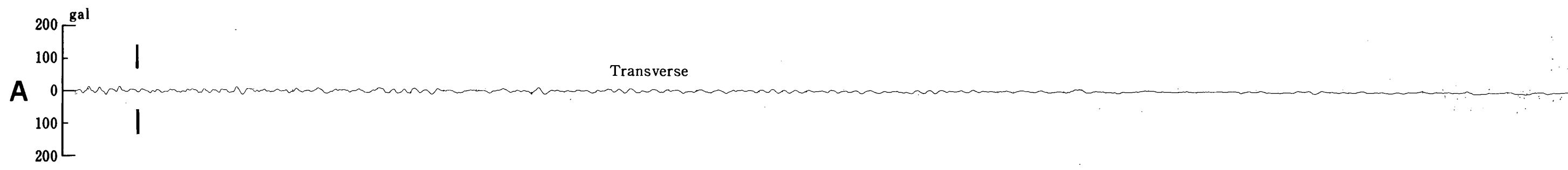
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Ichinohashi Bridge 1108-Gr-8  
1972. 2. 29 18:23



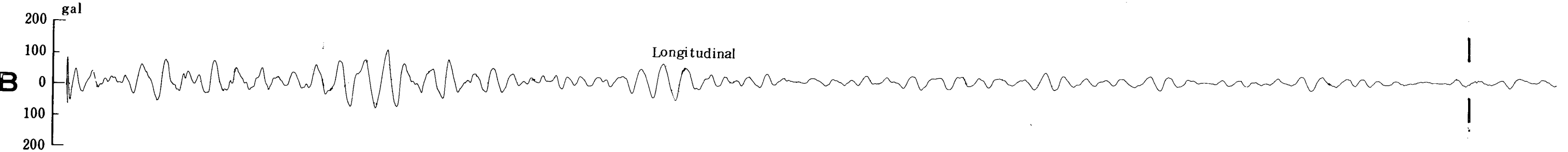
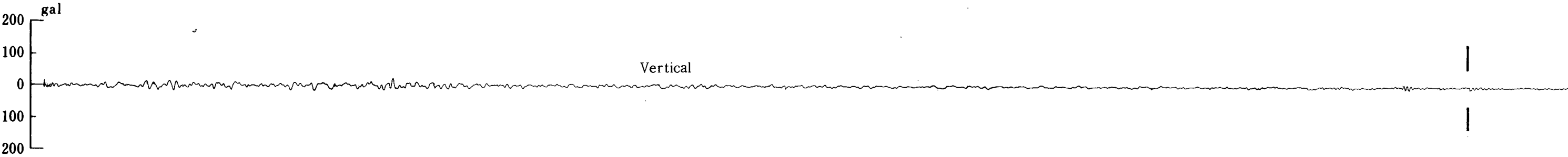
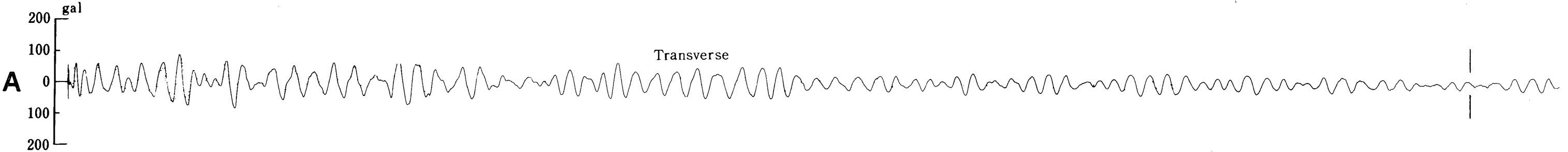


Ichinohashi Bridge 1108-Gr-8 (Cont)  
1972. 2. 29 18:23



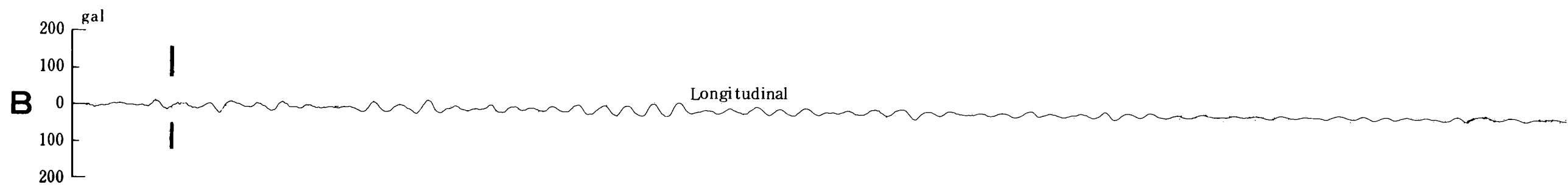
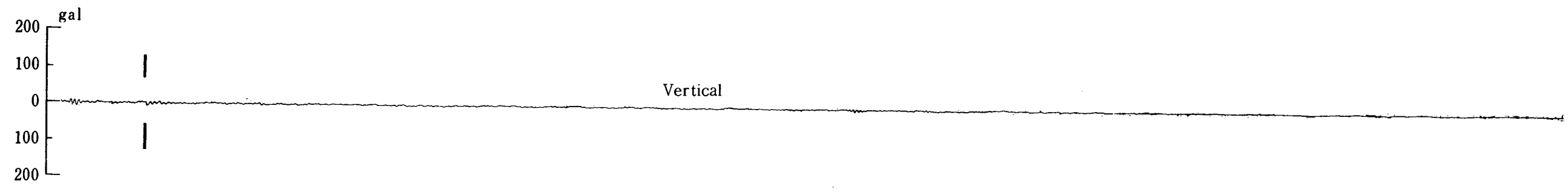
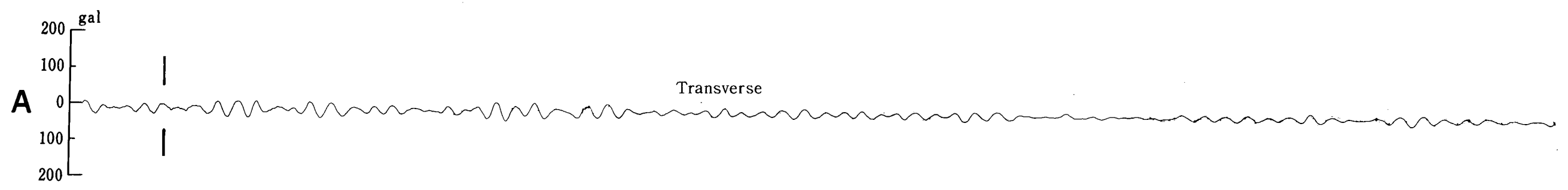
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Ichinohashi Bridge 1108-P-4  
1972. 2. 29 18:23



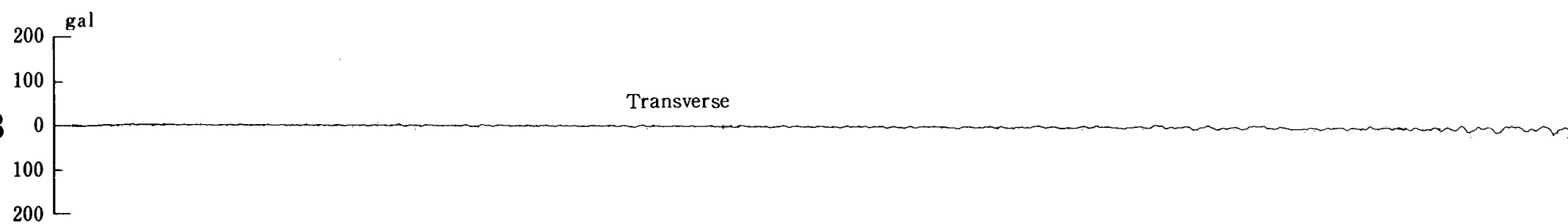
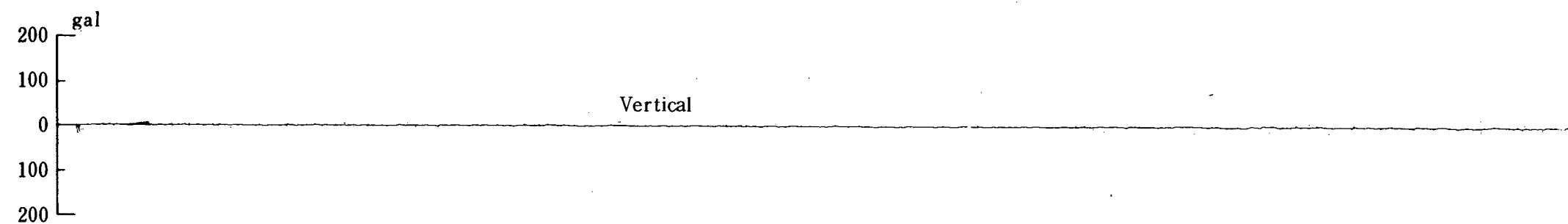
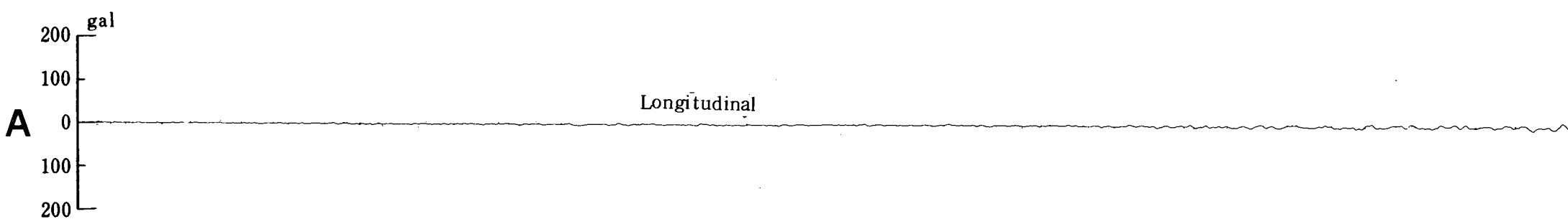
1sec

Ichinohashi Bridge 1108-P-4 (Cont)  
1972. 2. 29 18:23

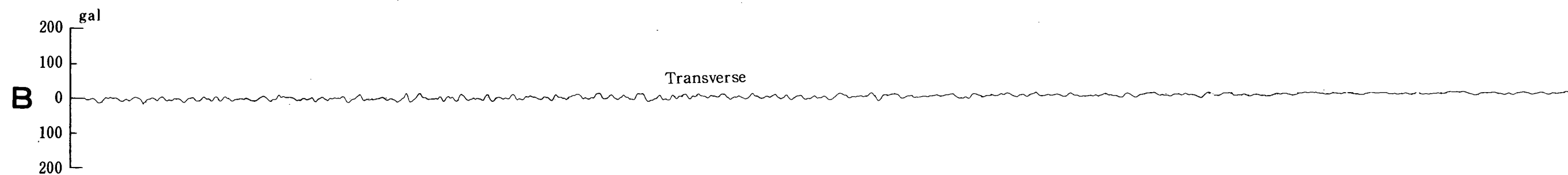
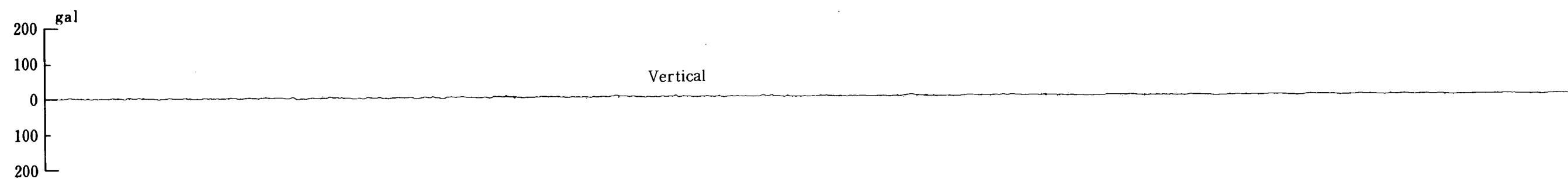
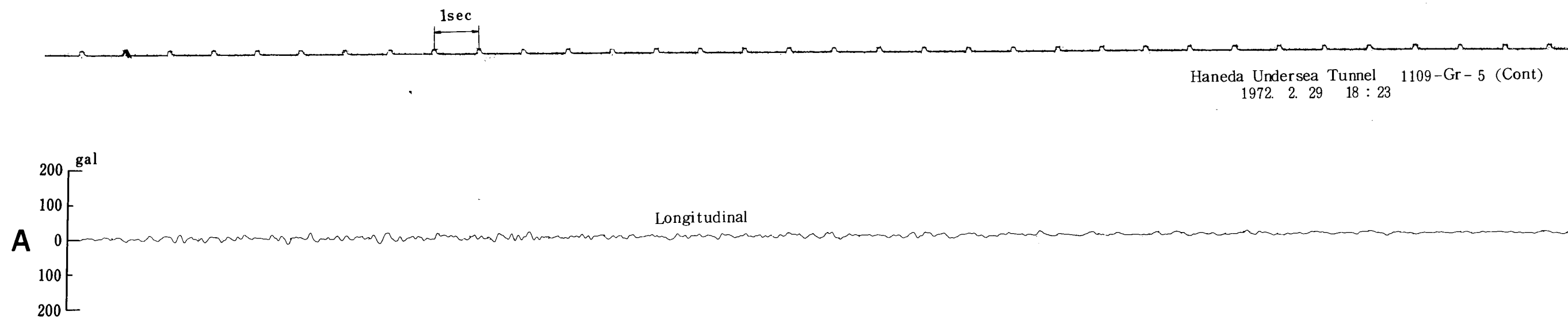


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Haneda Undersea Tunnel 1109-Gr-5  
1972. 2. 29 18:23

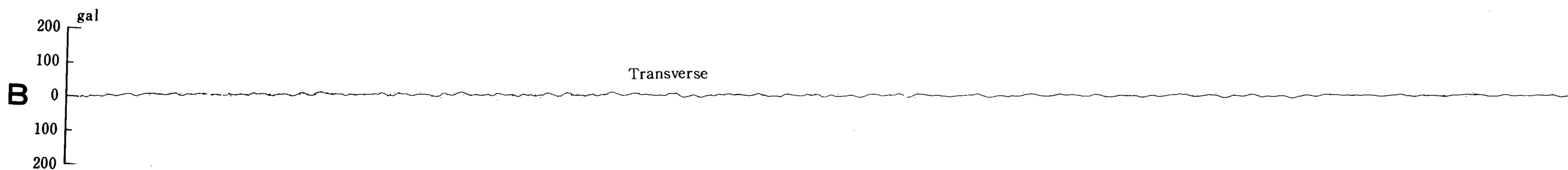
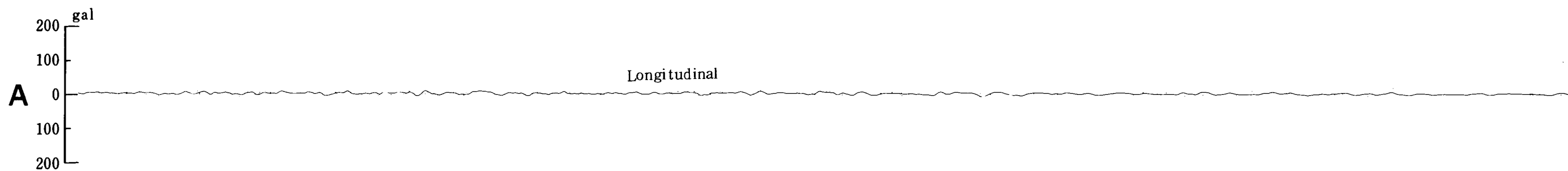


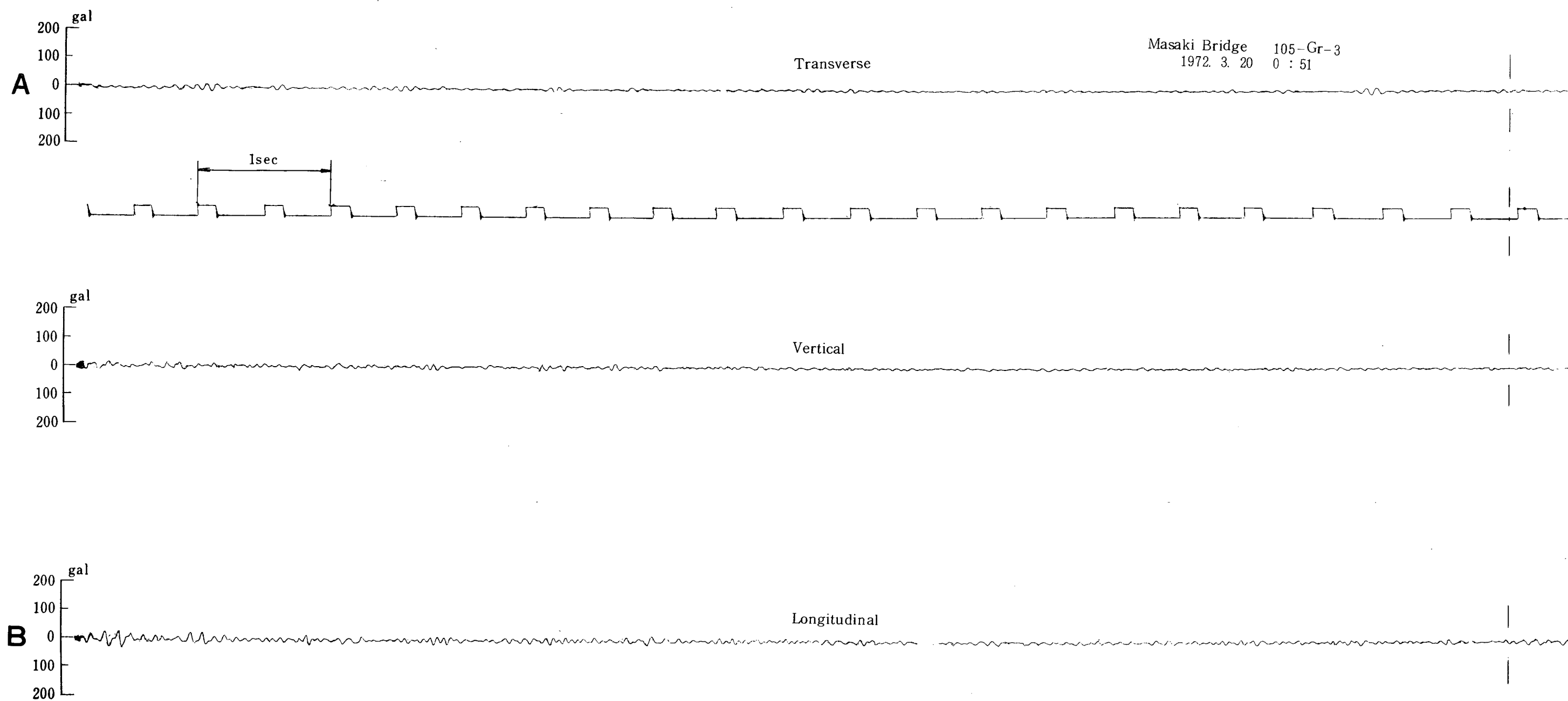
Haneda Undersea Tunnel 1109-Gr-5 (Cont)  
1972. 2. 29 18:23

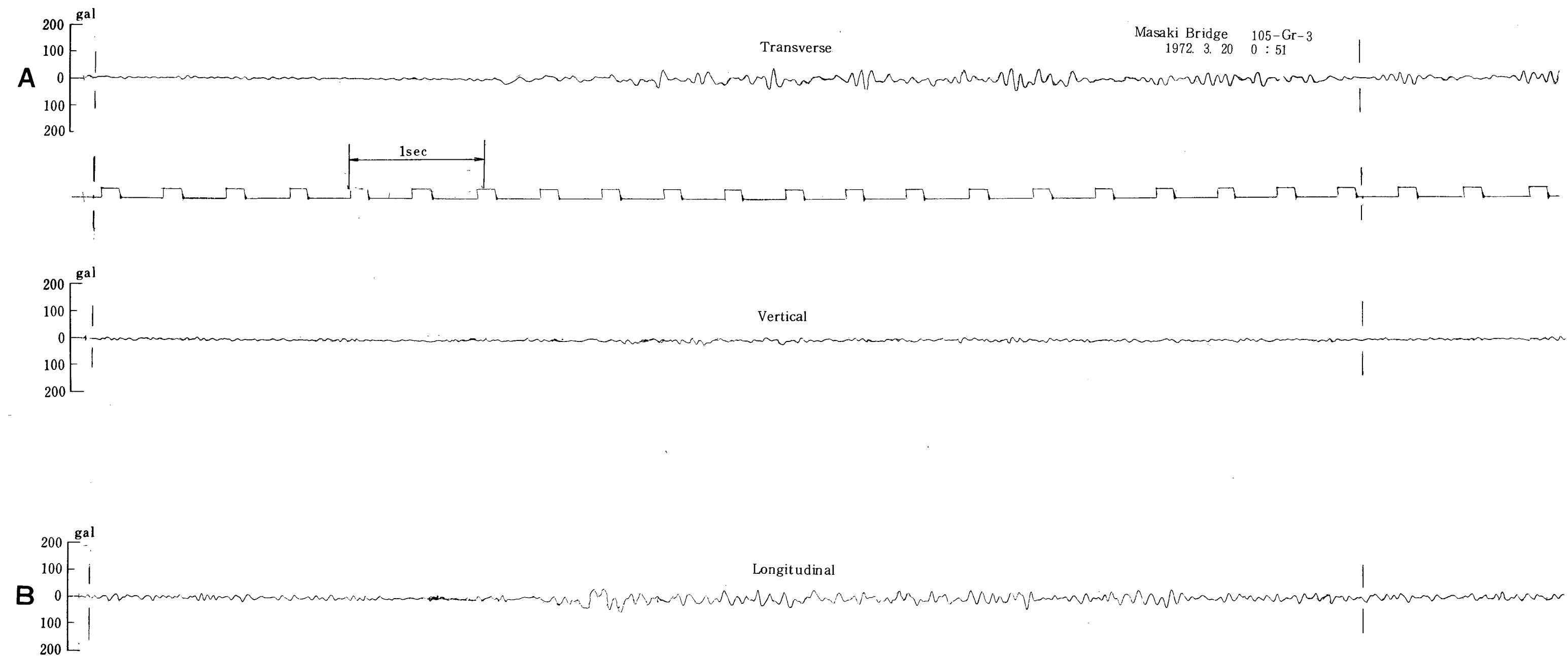


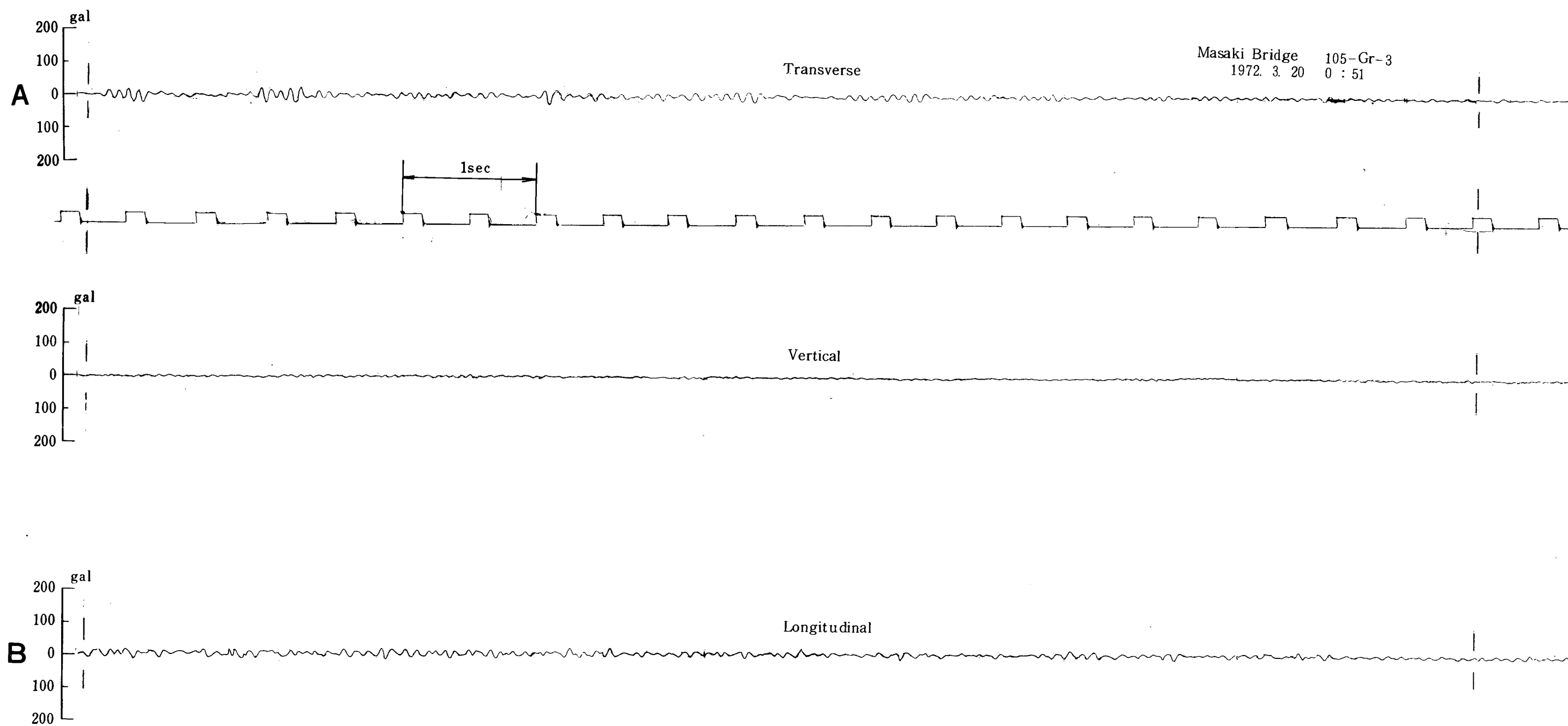
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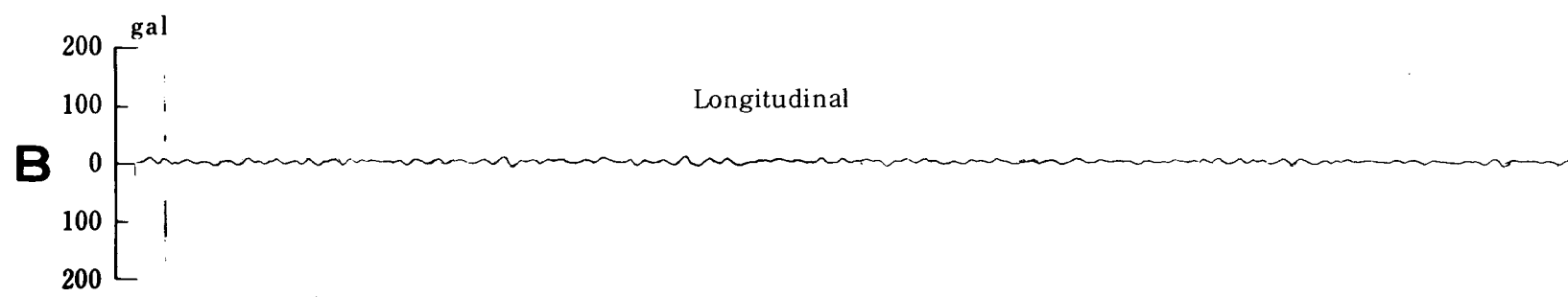
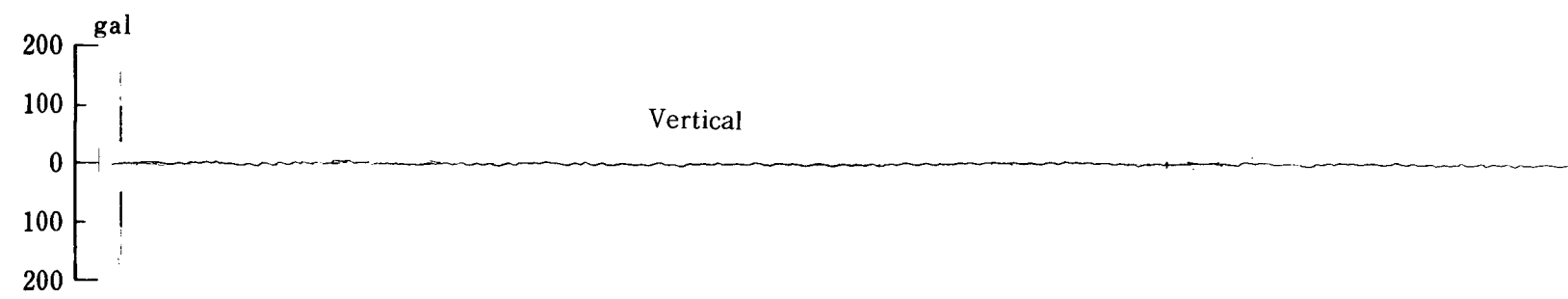
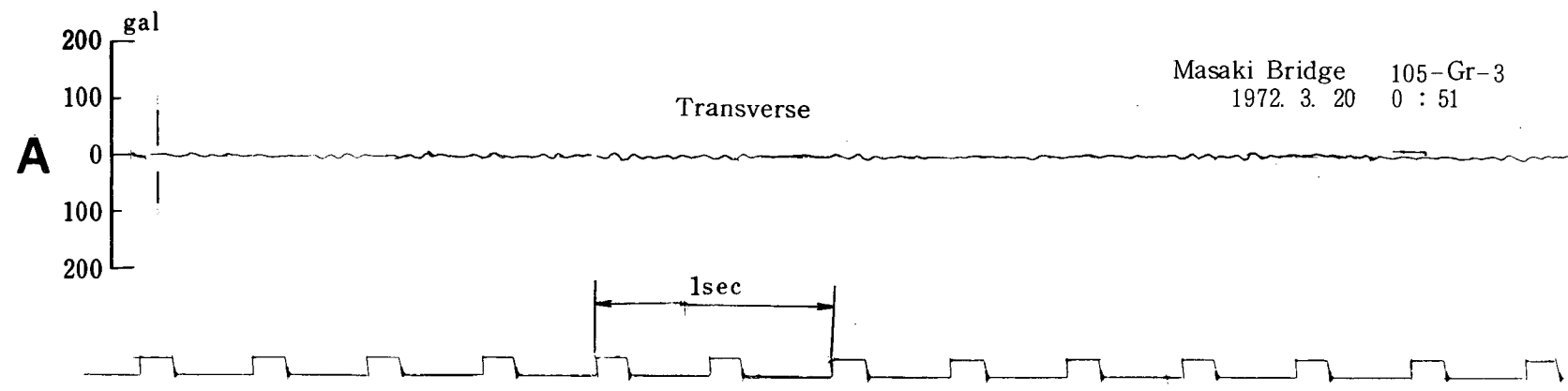
Haneda Undersea Tunnel 1109-Tu-5  
1972. 2. 29 18:23

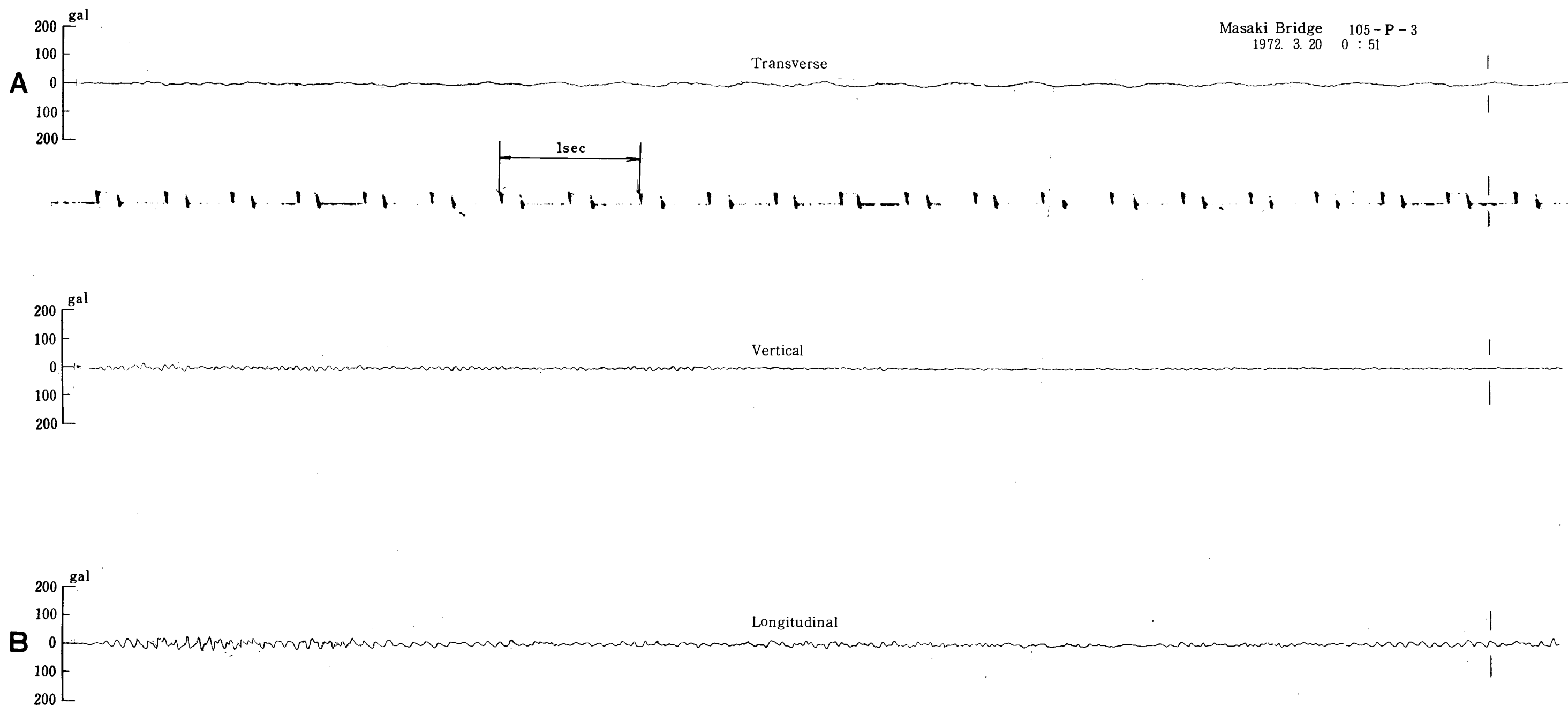


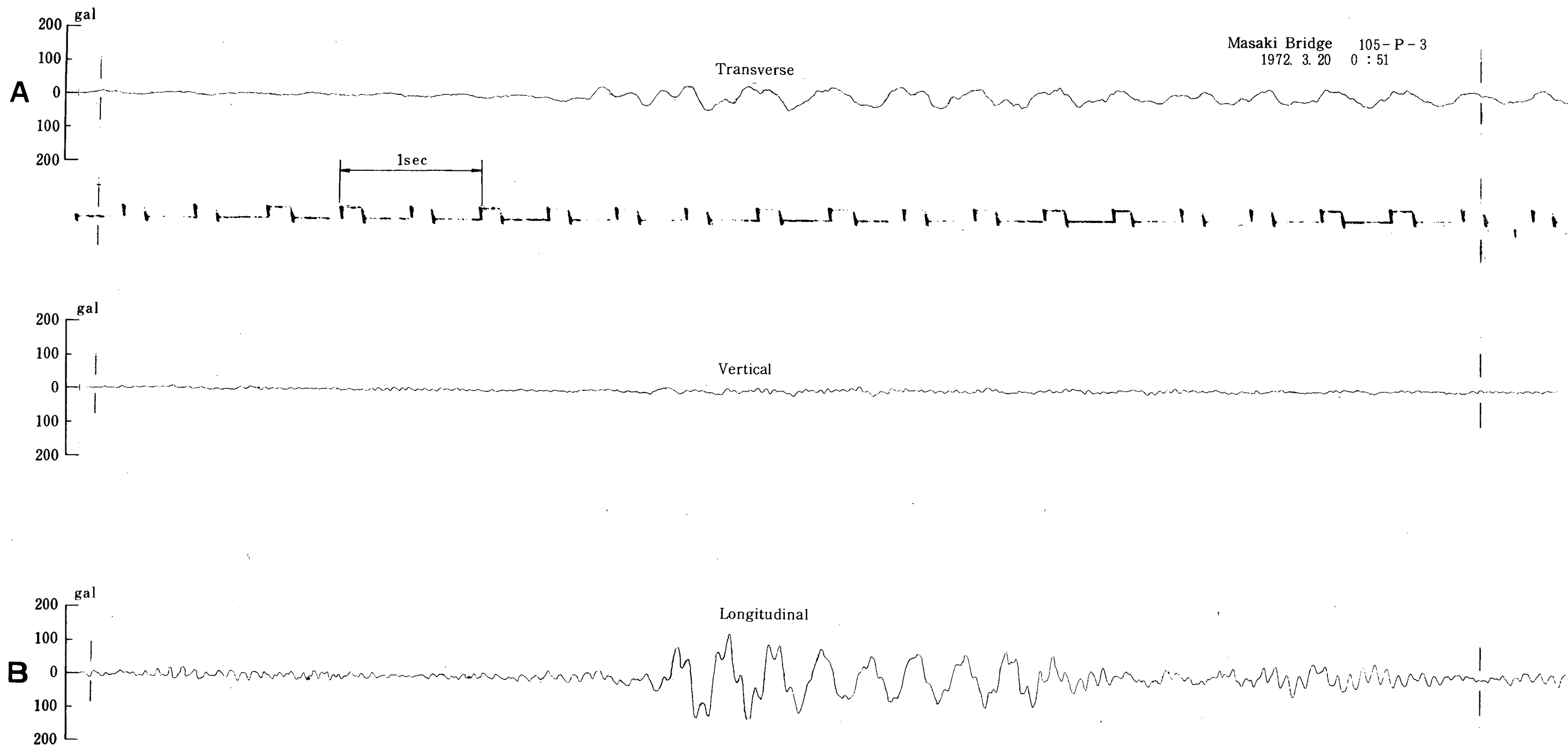


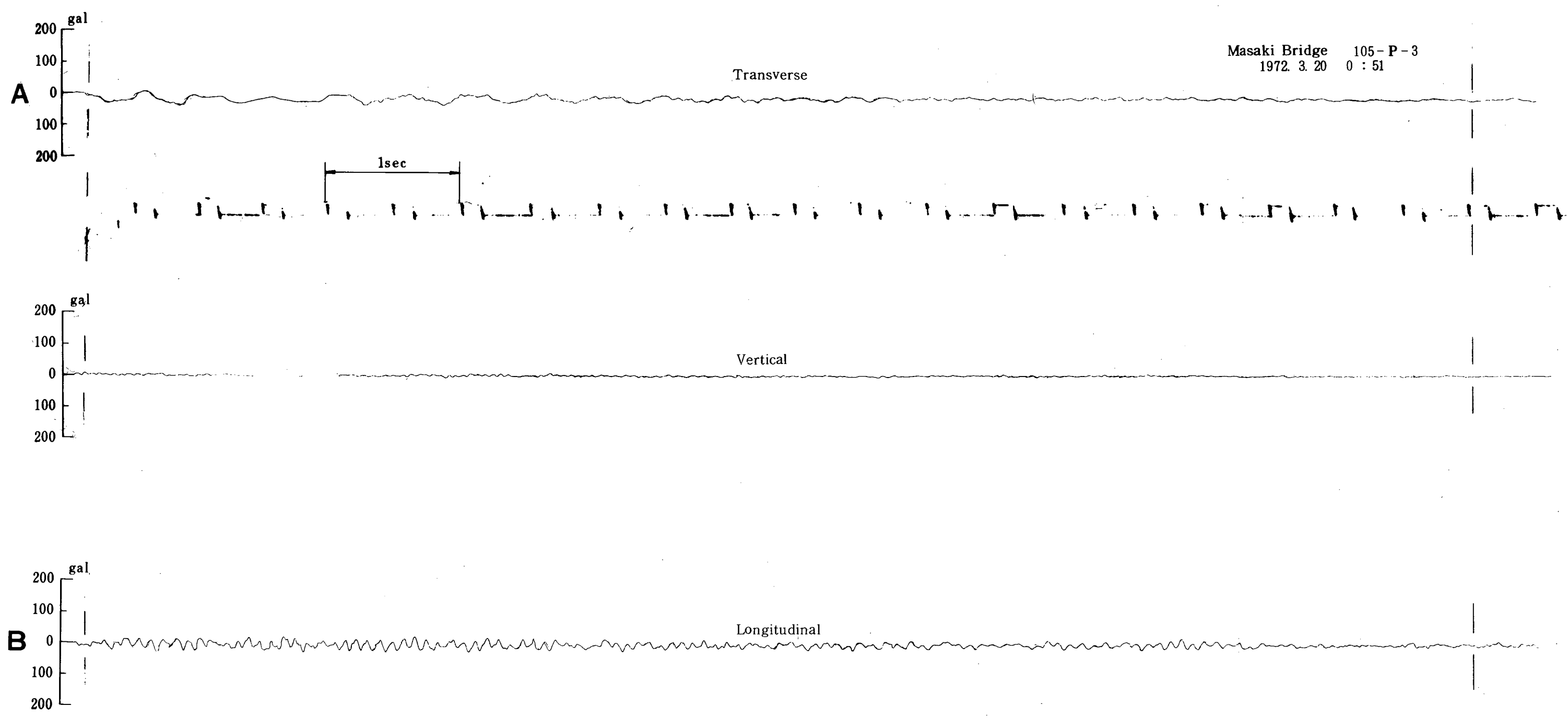




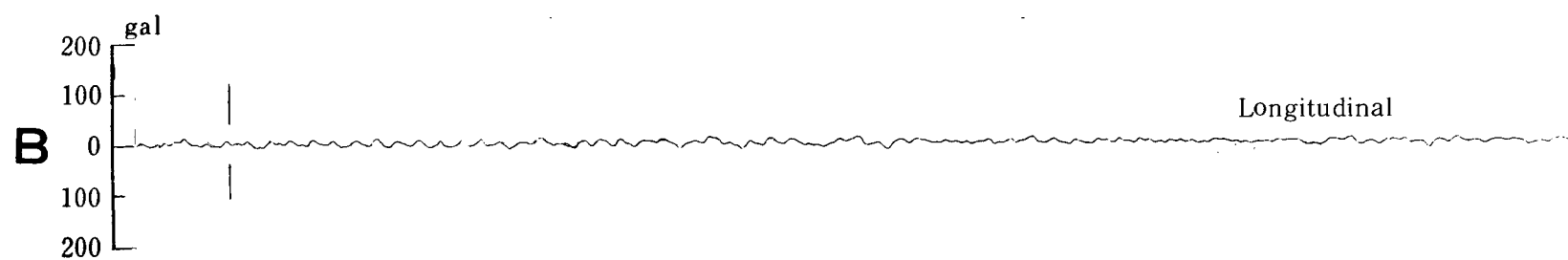
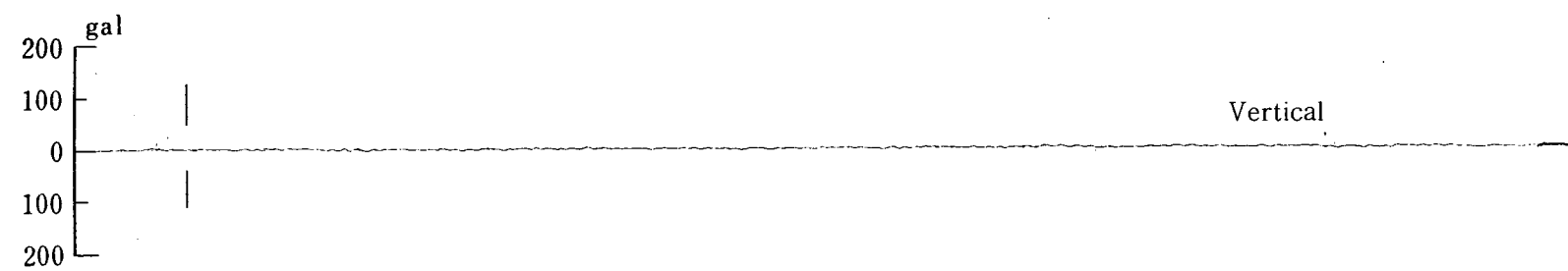
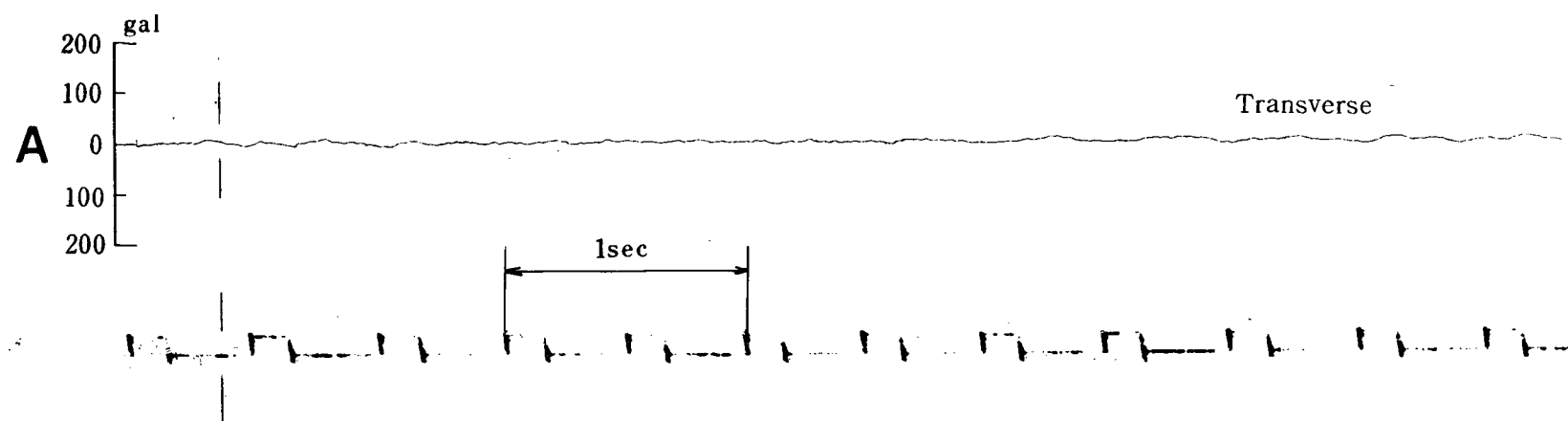




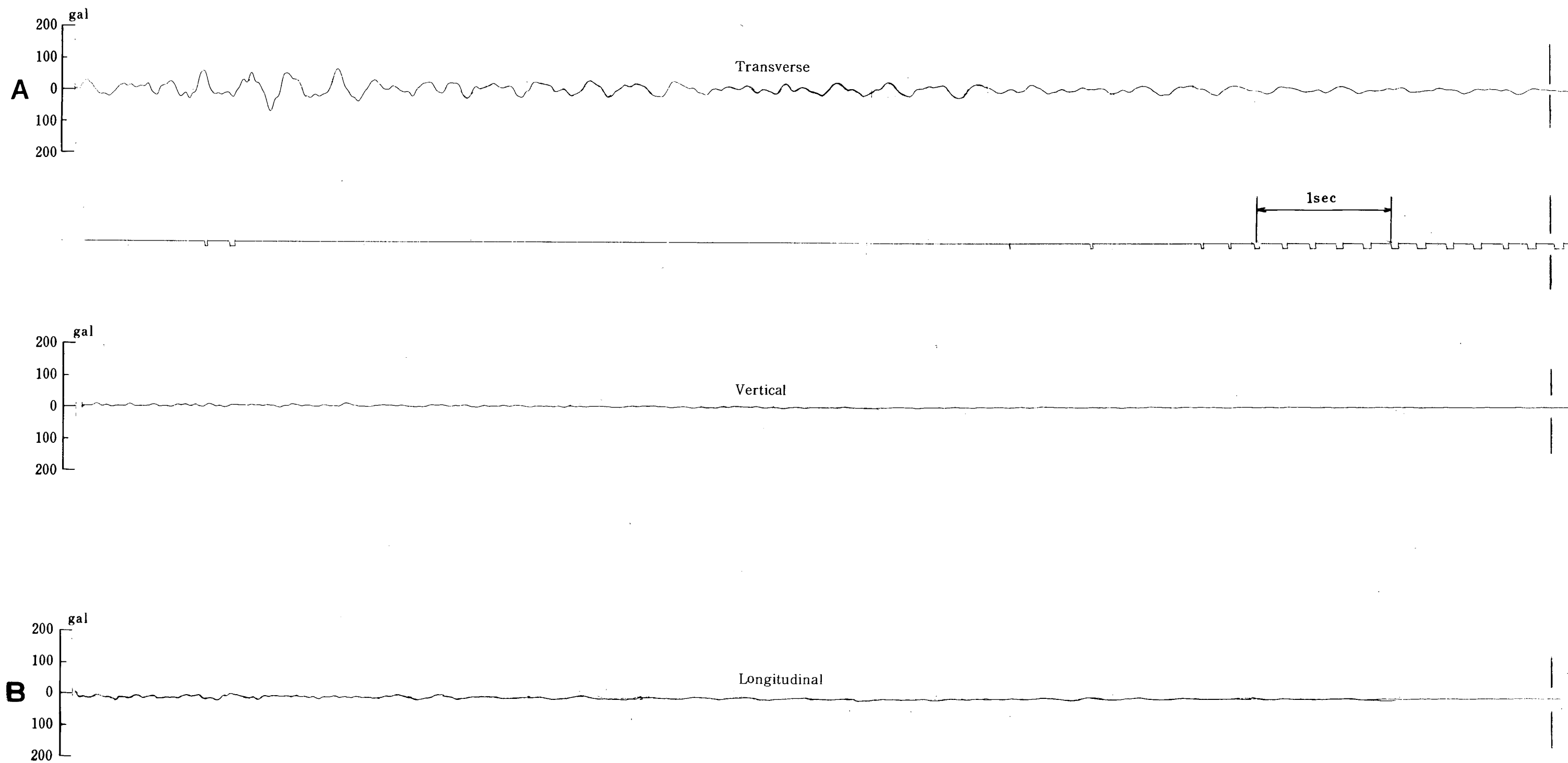




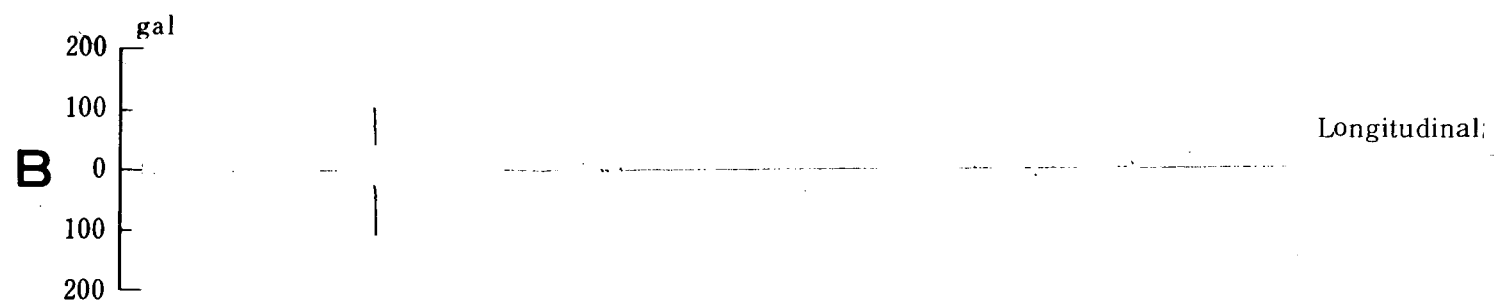
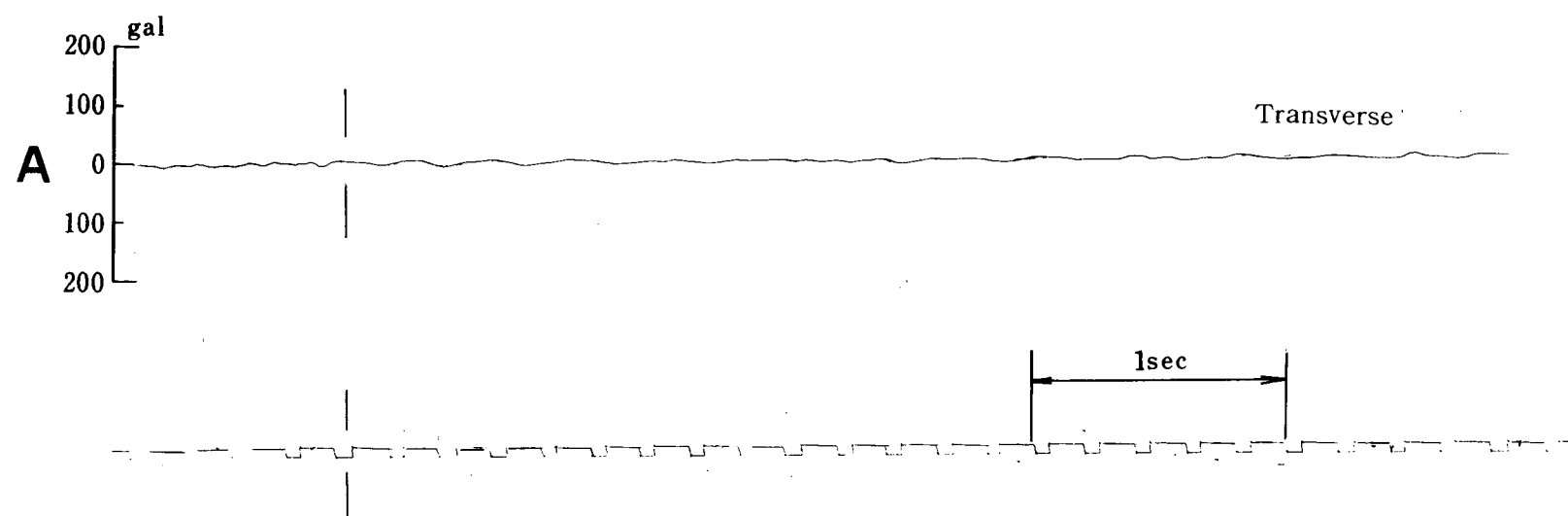
Masaki Bridge 105-P-3  
1972. 3. 20 0 : 51



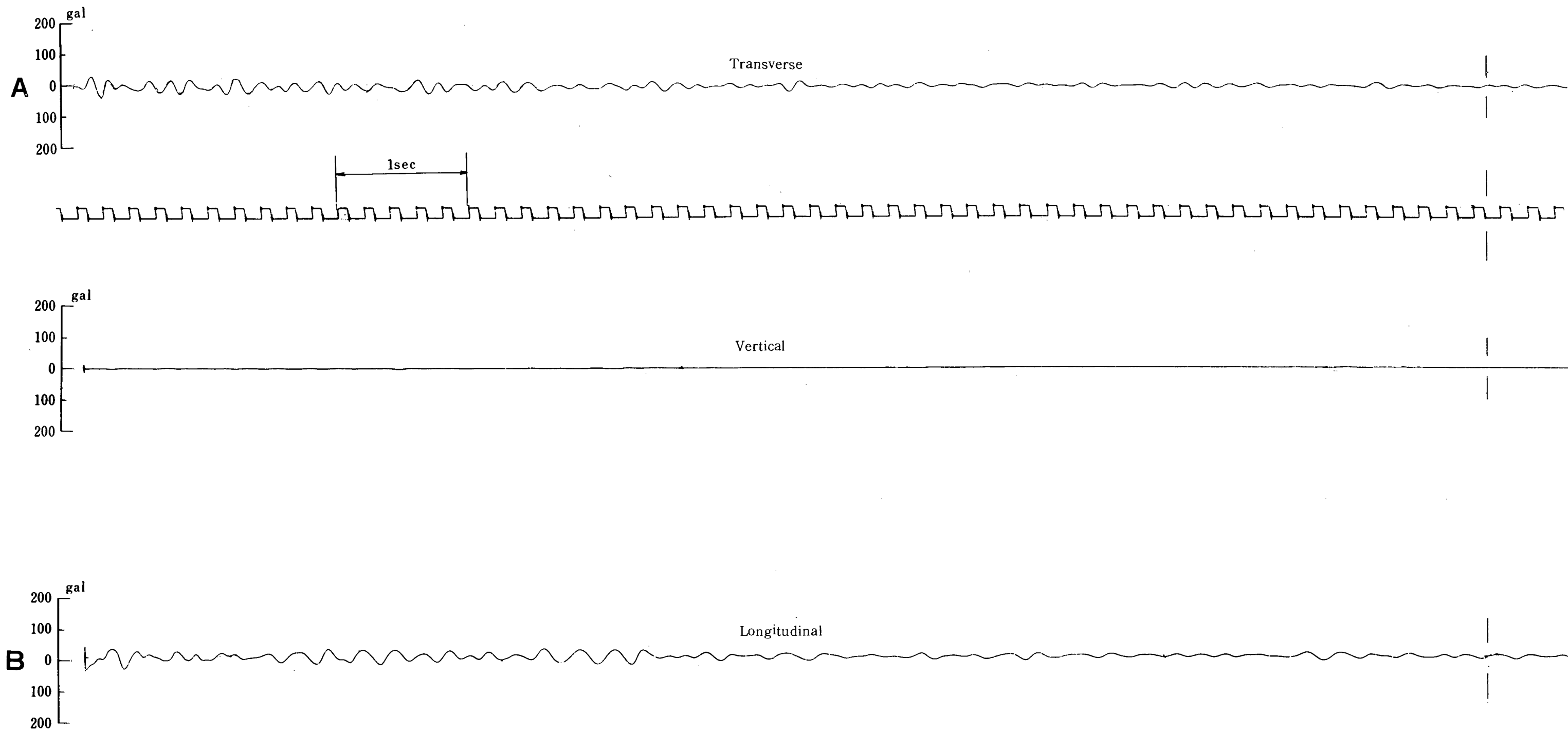
Koshiu Dam 610-D-2  
1972. 8. 31 17:07



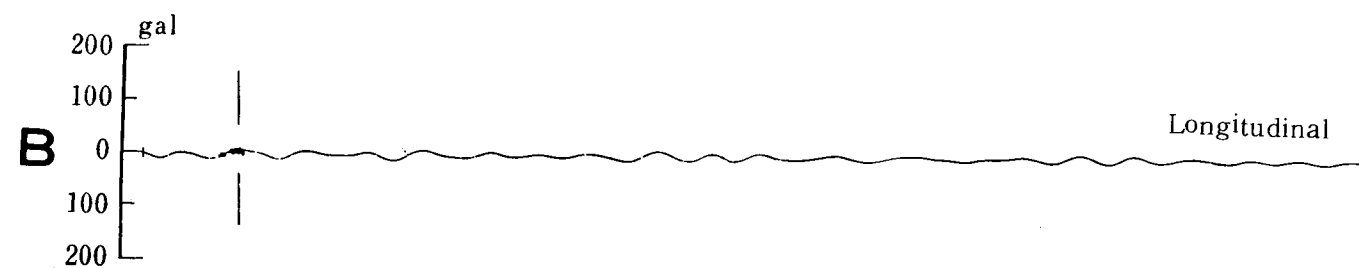
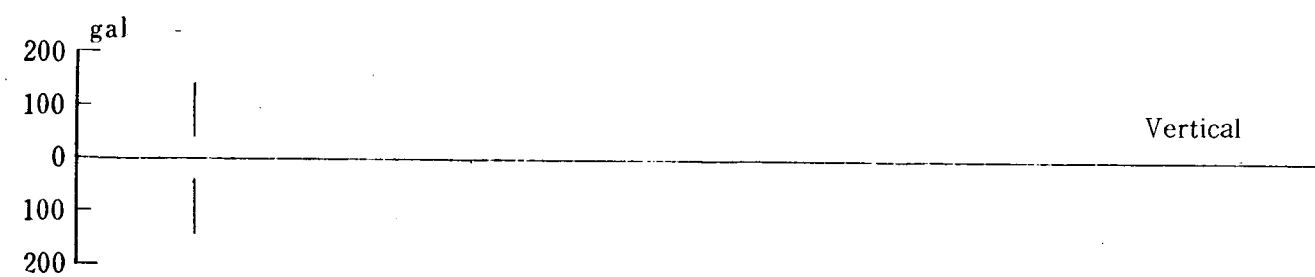
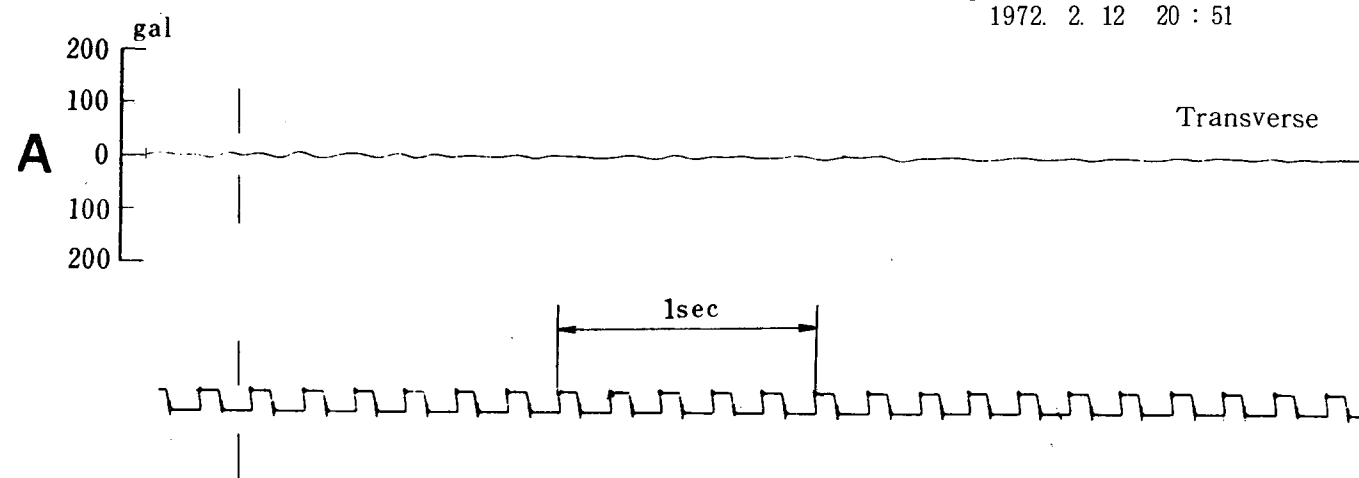
Koshiu Dam 610-D-2  
1972. 8. 31 17:07

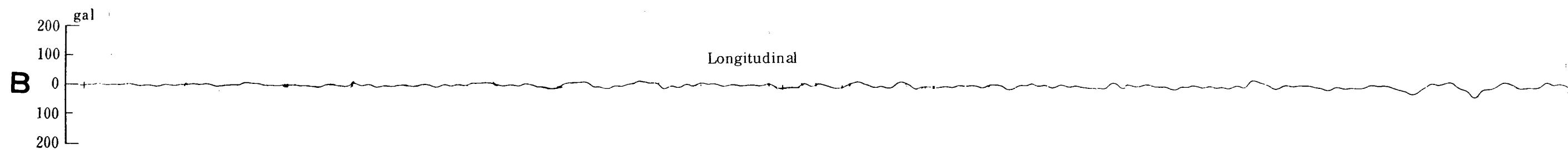
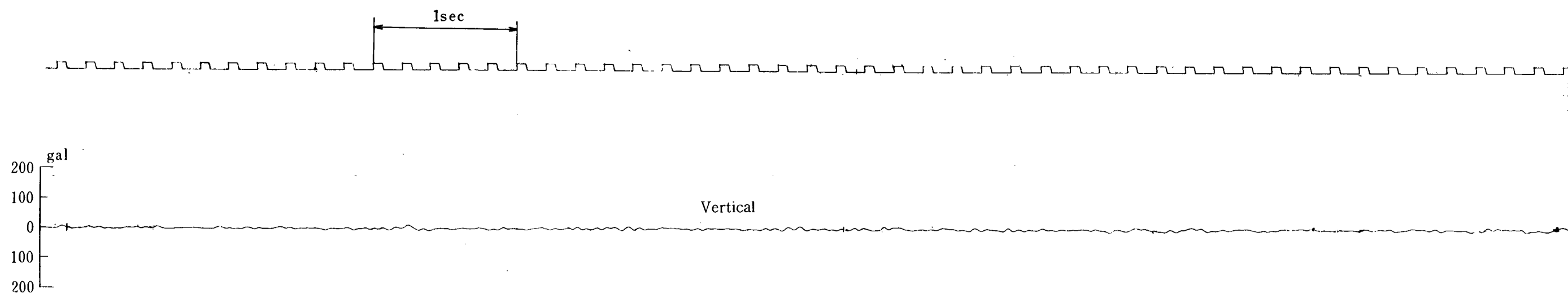
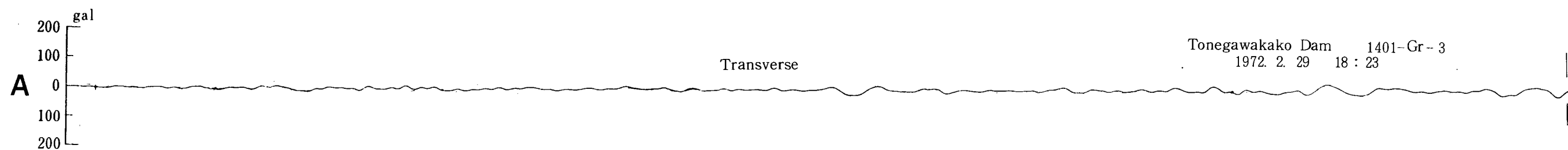


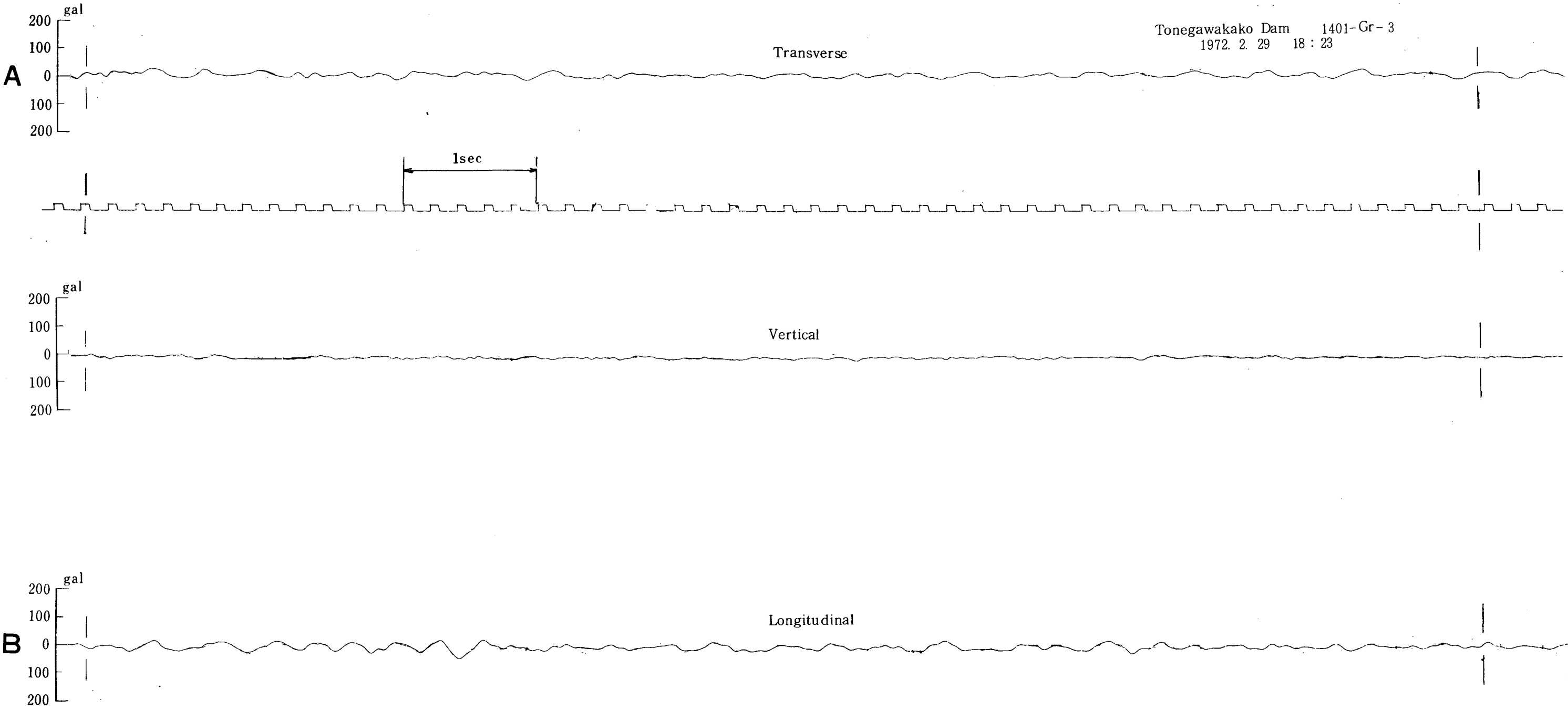
Tonegawakako Dam 1401-D-1  
1972. 2. 12 20 : 51

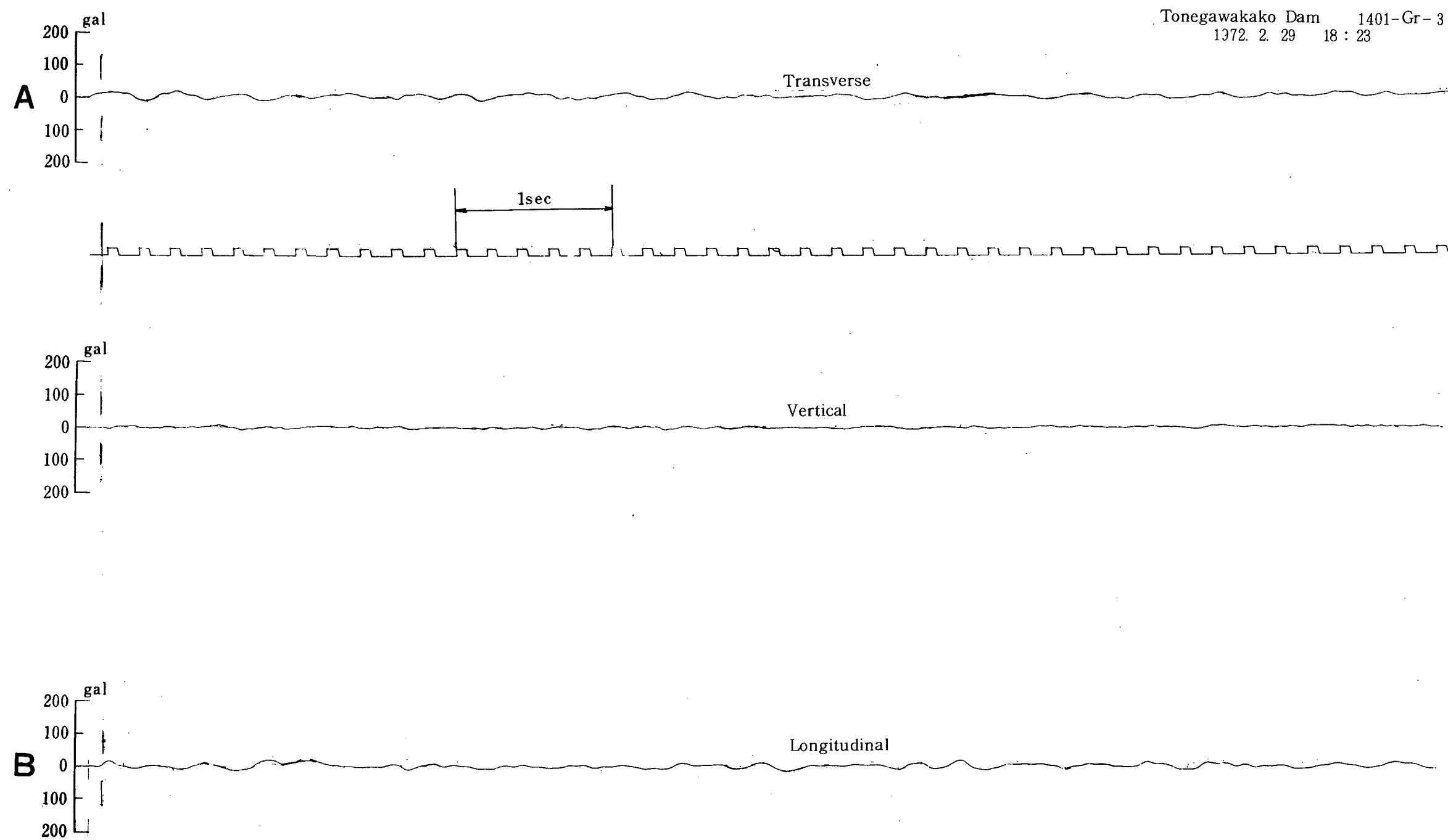


Tonegawakako Dam 1401-D-1  
1972. 2. 12 20 : 51

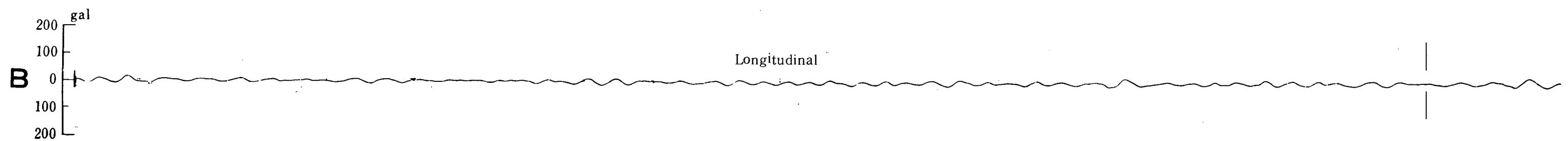
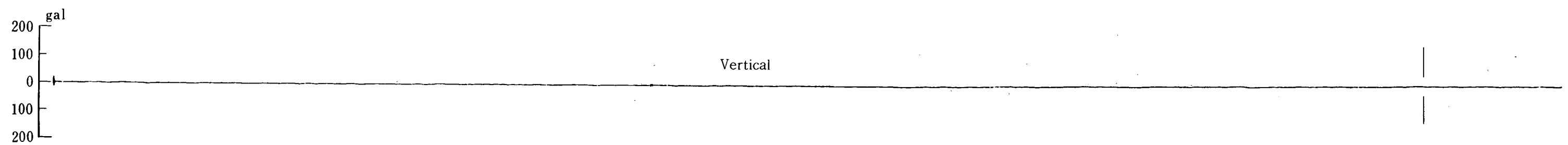
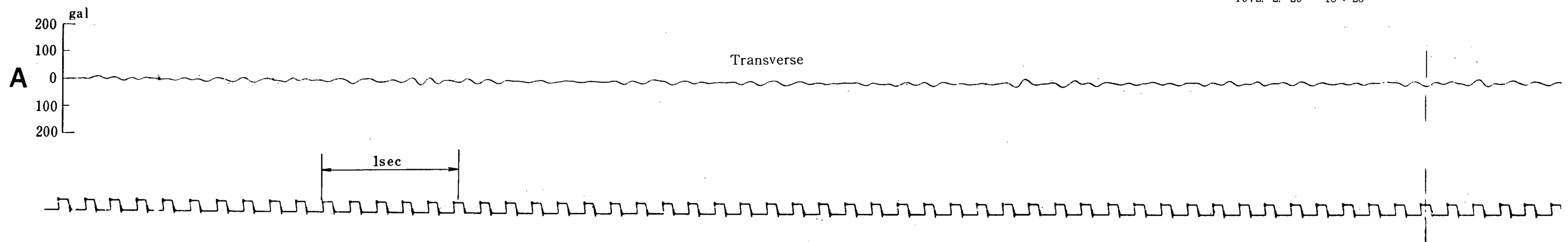




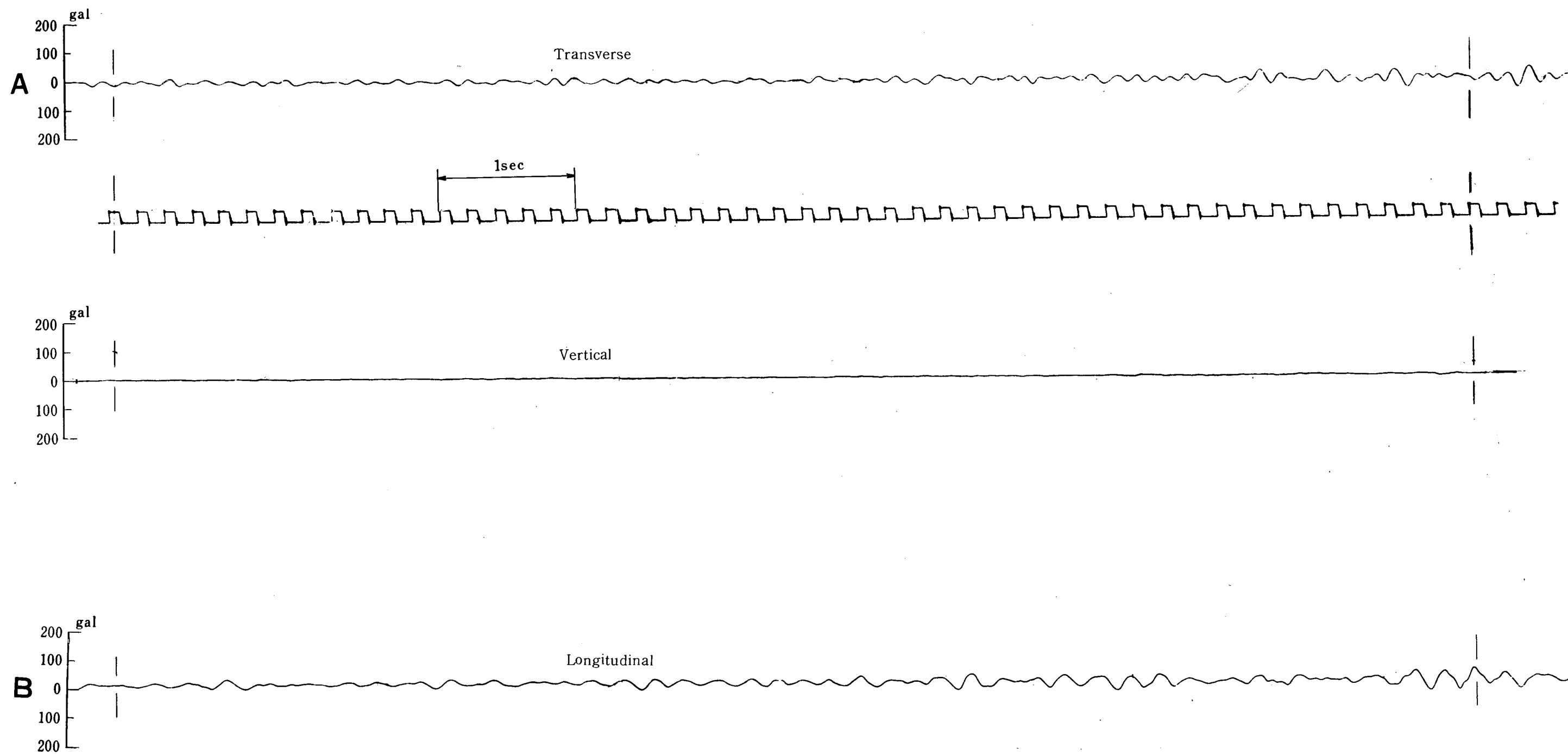




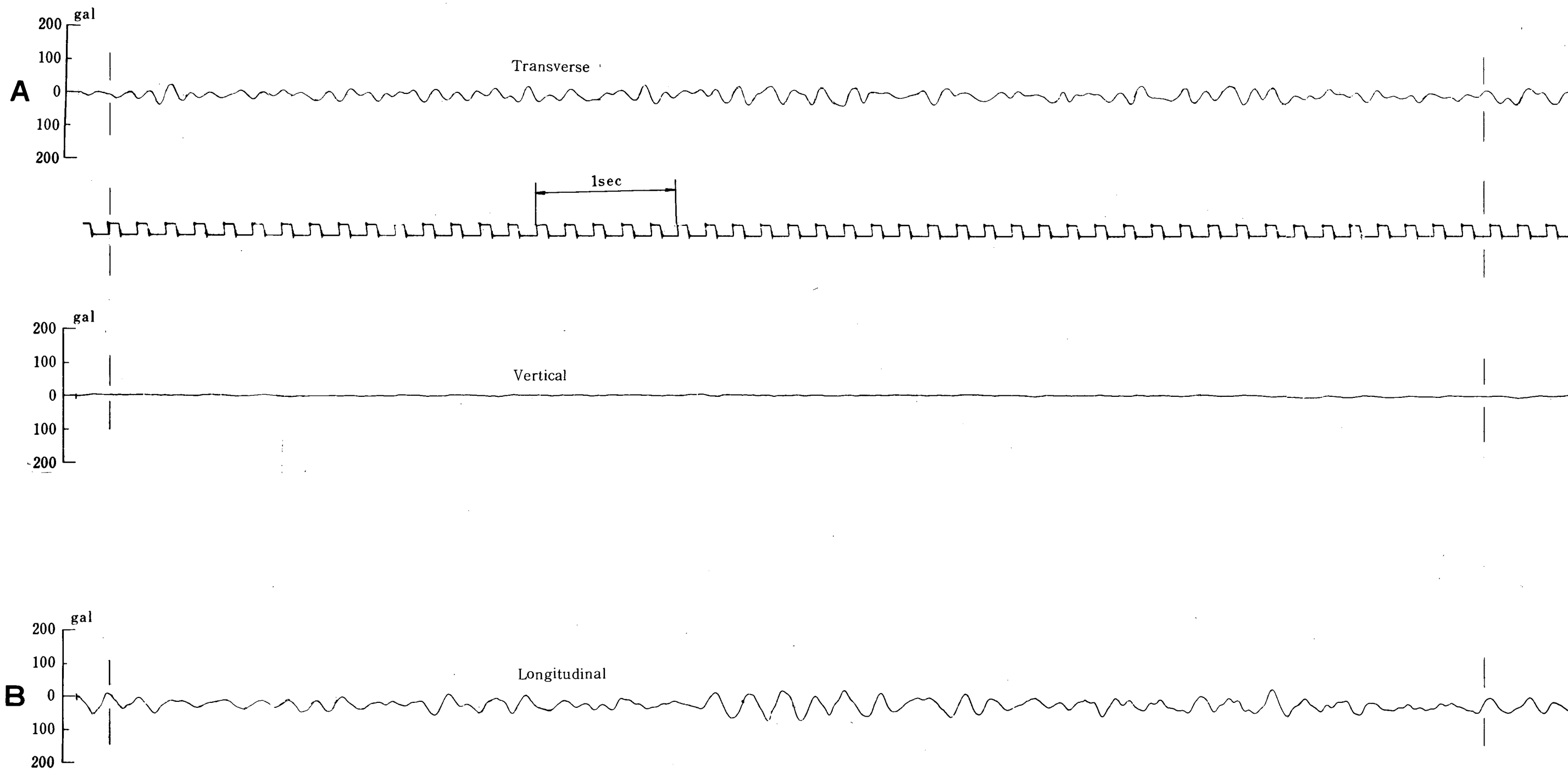
Tonegawakako Dam 1401-D-2  
1972. 2. 29 18:23



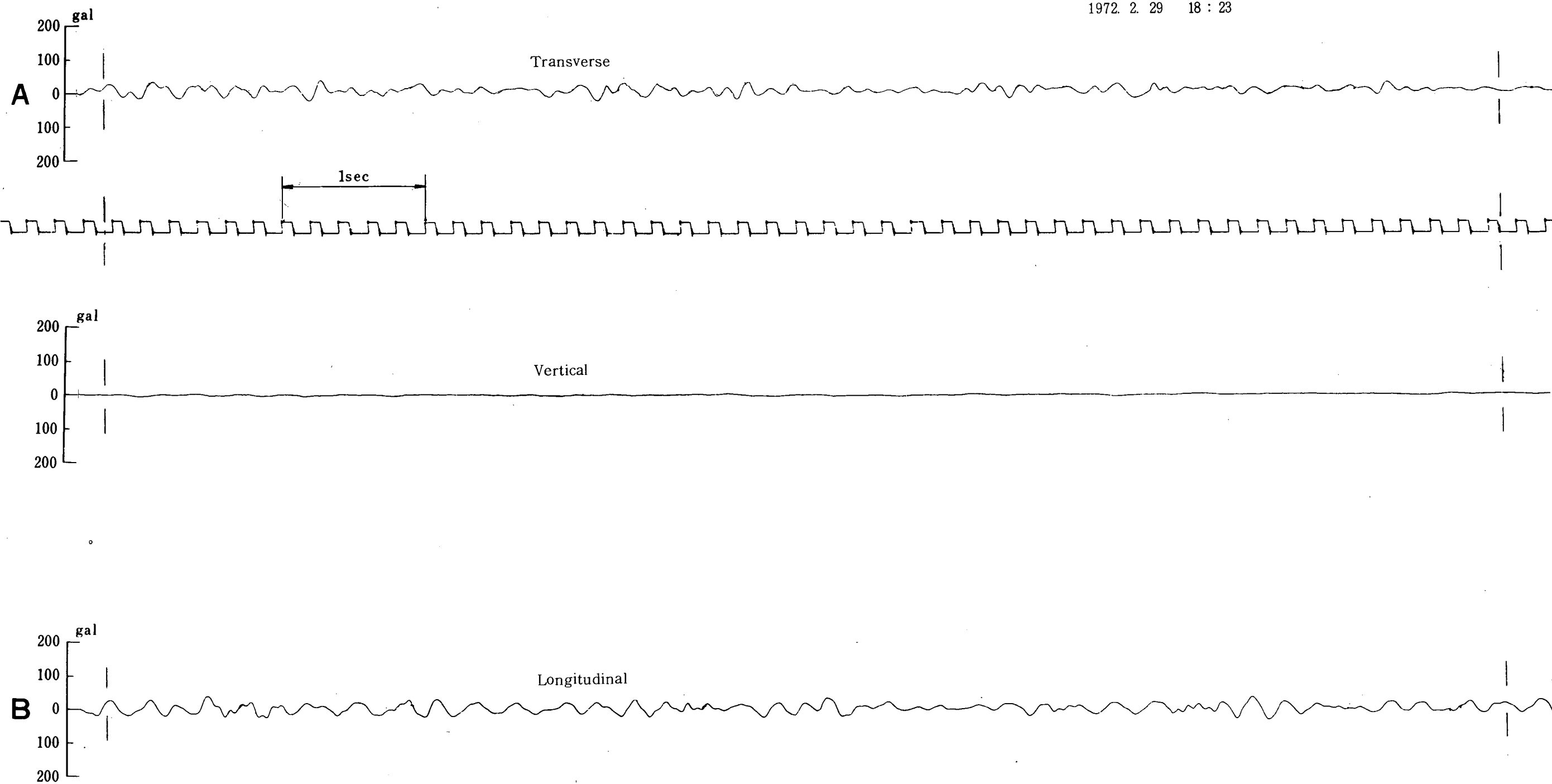
Tonegawakako Dam 1401-D-2  
1972. 2. 29 12:23



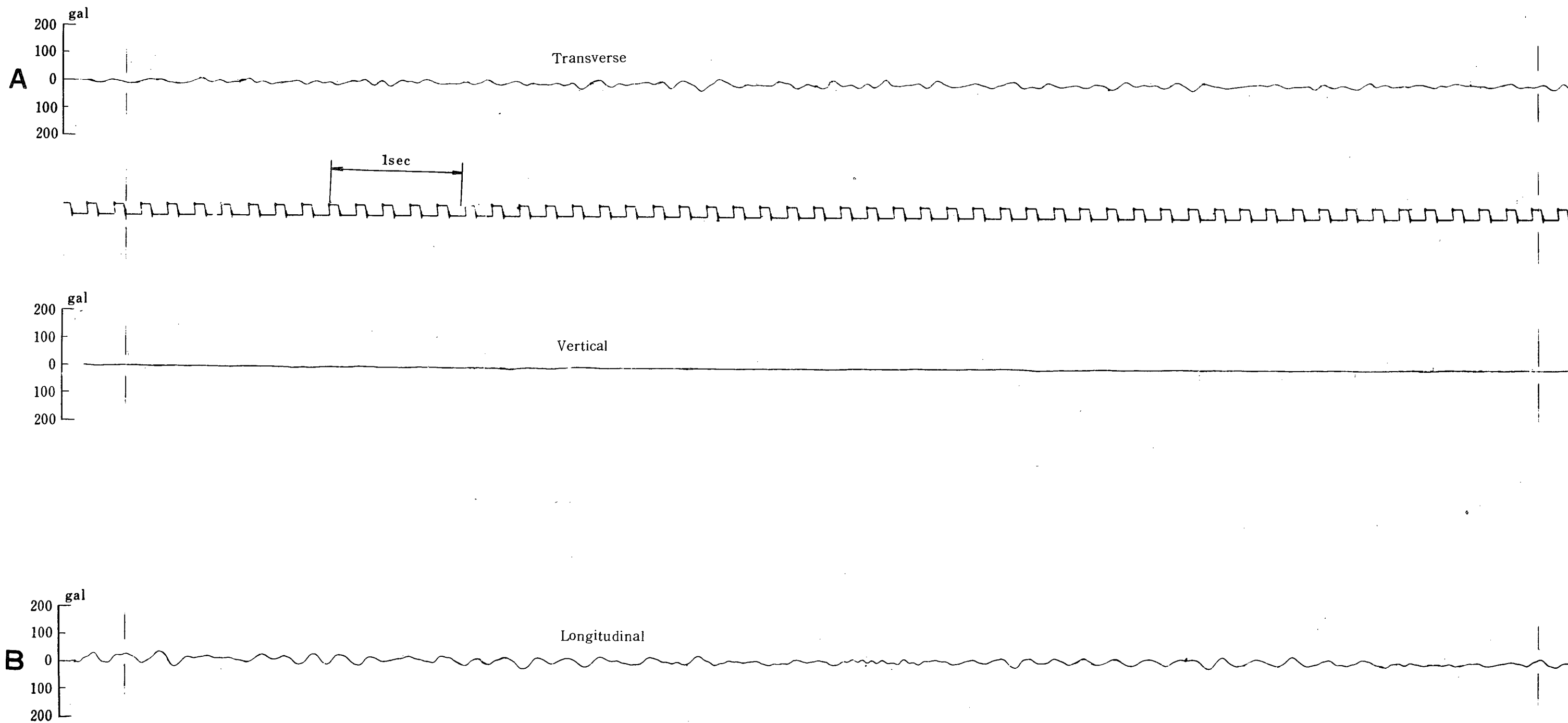
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1972. 2. 29 18:23



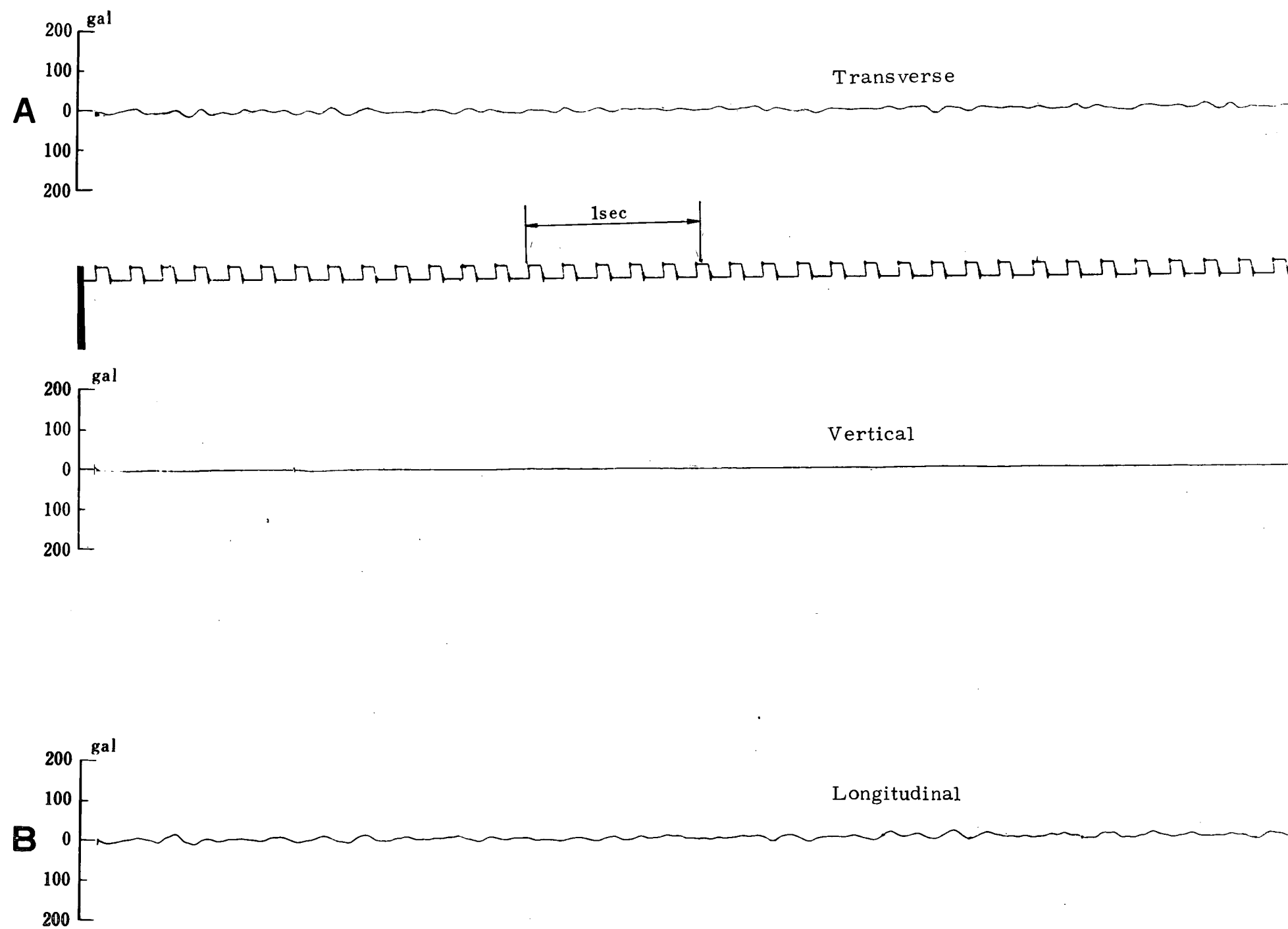
Tonegawakako Dam 1401-D-2  
1972. 2. 29 18:23



Tonegawakako Dam 1401-D-2  
1972. 2. 29 18:23



Tonegawakako Dam 1401-D-2  
1972. 2. 29 18:23



土木構造物における強震記録  
(1972)

土木研究所資料第913号  
昭和49年3月(1974)

栗林栄一, 岩崎敏男  
若林 進, 川島一彦  
若月高晴, 高木義和

キーワード: 強震記録

要 旨 この報告は, 土木構造物およびその近傍地盤に設置  
した強震計により昭和47年1月から同年12月ま  
での間に得られた記録を原寸大に複写印刷し, 各記録の最大  
値等を表にまとめたものである。



郵便はがき

十円切手  
をはって  
下さい

2 8 0 - □ □

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No. 398

No. \_\_\_\_\_

配布先氏名

配布先住所





土木研究所資料第913号 部

上記のとおり受領しました。

所 属 (住所)

氏 名

印

