

EARTHQUAKE CATALOGUES FOR 1881-1885.

In 1881 the Seismological Society of Japan published observation-books furnished with general directions for reporting on earthquakes. These were distributed to various observers throughout Japan with a request that copies of these observations should from time to time be forwarded to the Secretary of the Seismological Society. The following catalogue is the summary of all communications we have received since that time. Although they are not the most complete records of earthquakes which have been made in this country, we hope they will be of some assistance to those engaged in the compilation of earthquake catalogues. The following catalogues are arranged in chronological order, and the occurrence of shocks are recorded in local times. The latitudes and longitudes of the chief stations are given in the following list so that time corrections may be made. The society express their sincere obligation to the observers who have sent these reports, and are glad to mention their names and the number of observations they have forwarded as given in the following list:—

| LOCALITY. | LATITUDE. | LONGITUDE. | NAMES OF OBSERVERS. | No. OF OBSERVATIONS. | |
|--|-----------------------------|------------------|--|-----------------------|---|
| Nemuro, Yezo | 43° 20' 16" N. | 145° 44' 25" E. | S. Shibuya, Y. Sagsaka, Y. Hoshino, T. Tzujuki | 115 | |
| Sapporo, Yezo | 43° 3' 57" N. | 141° 22' 37" E. | S. Kimura, J. Summers, Wm. P. Brooks | 16 | |
| Hakodate, Yezo..... | 41° 46' 30" N. | 140° 40' 24" E. | Y. Sōma | 5 | |
| Kamaishi..... | 39° 10' 30" N. | 140° 52' 50" E. | T. Shishido, S. Sugiyama | 29 | |
| Innai Mines | 39° 2' 0" N. | 130° 3' 0" E. | T. Matsushita | 9 | |
| Yahiko, Yechigo..... | — | — | K. Futami | 1 | |
| Mito, Hidachi..... | 36° 23' 0" N. | 140° 44' 25" E. | M. Katagi | 19 | |
| Koguremura, Kozuke | — | — | Y. Watanabe | 2 | |
| Saitama | 35° 52' 0" N. | 139° 30' 0" E. | Normal School | 7 | |
| Gifu, Mino | 35° 27' 5" N. | 136° 40' 52" E. | R. Takasu | 3 | |
| Ogaki, Mino | 35° 27' 6" N. | 136° 31' 0" E. | K. Kishi | 3 | |
| Hiroshima | 34° 20' 0" N. | 132° 20' 0" E. | T. Hayami | 13 | |
| Wakayama, Kii..... | 34° 14' 0" N. | 135° 9' 0" E. | Meteorological Observatory | 21 | |
| Matzuye, Izumo..... | — | — | Meteorological Observatory | 1 | |
| Nagasaki | 32° 44' 17" N. | 129° 52' 20" E. | F. Ringer, Takibayashi..... | 14 | |
| Philippine Islands. | Talacogon | 8° 7' 30" N. | 131° 24' 0" E.* | R. F. Heras..... | 1 |
| | Bislig | 8° 12' 15" N. | 132° 29' 0" E.* | R. F. Heras..... | 2 |
| | Louto | 8° 31' 25" N. | 131° 28' 40" E.* | R. F. Heras..... | 1 |
| | Banawan | 8° 32' 20" N.* | 131° 56' 25" E. | R. F. Heras..... | 1 |
| | Butuan | 8° 50' 40" N. | 131° 51' 10" E.* | R. F. Heras..... | 1 |
| | Manit | 9° 2' 0" N. | 131° 50' 25" E.* | R. F. Heras..... | 1 |
| | Lurigao | 9° 42' 20" N. | 131° 40' 30" E.* | R. F. Heras..... | 1 |
| | Yloilo | 10° 42' 30" N.* | 128° 46' 30" E.* | The Observatory | 1 |
| | Albay | 13° 9' 0" N. | 129° 54' 0" E.* | The Observatory | 4 |
| | Batagas | 13° 58' 0" N. | 127° 7' 0" E.* | The Observatory | 1 |
| | Taal | 13° 50' 0" N. | 127° 15' 0" E.* | The Observatory | 1 |
| | Sta Cruz de la Laguna | 14° 18' 0" N. | 127° 37' 0" E.* | The Observatory | 1 |
| | Manila | 14° 35' 25" N. | 127° 9' 33" E.* | F. Faura | 1 |
| | San Veydro | 14° 20' 30" N. | 127° 6' 0" E.* | The Observatory | 2 |
| | Cabanatuan..... | 15° 31' 50" N. | 127° 10' 6" E.* | The Observatory | 1 |
| | Lingayen | 16° 2' 30" N. | 126° 26' 25" E.* | The Observatory | 1 |
| | Tuguegarao..... | 17° 36' 42" N. | 8h. 31m. 29s. E. | Jose L. de Yratorza.. | 1 |
| Alcala | 17° 48' 0" N. | 127° 45' 40" E.* | The Observatory | 1 | |
| Bukeley, Alameda Co., California | — | — | — | 1 | |

* Longitude east of Fernando.

1881.

| No. | LOCALITY. | MONTH. | DAY. | TIME. | DURATION. | DIRECTION. | INTENSITY. | NATURE. | REMARKS. |
|-----|--------------------|--------|------|----------|-----------|-------------|-------------|-------------|---|
| 1 | Sapporo | IV | 18 | 15 30 0 | in 3s | NE and SW | Slight | Oscillatory | Wire of hanging lamp 4 feet long described an arc of 12 inches. Not personally observed. Was walking on the street and nothing was noticed. At the time of the shock, shaking noises were first audible on the western corner of the building; the observing station is 189 ft. about the sea level. |
| 2 | Nagasaki | V | 22 | 19 22 0 | About 30s | From W (?) | Slight | — | — |
| 3 | Nagasaki | V | 22 | 19 31 0 | — | From W (?) | Slight | — | — |
| 4 | Nagasaki | V | 22 | 10 42 0 | — | From W (?) | Very slight | — | — |
| 5 | Nagasaki | V | 22 | 20 17 0 | — | From W (?) | Slight | — | — |
| 6 | Nagasaki | V | 23 | 18 17 0 | — | From W (?) | Very slight | — | — |
| 7 | Nagasaki | V | 23 | 22 8 0 | 10s | From W (?) | Slight | — | — |
| 8 | Nagasaki | V | 24 | 0 38 0 | — | From W (?) | Very slight | — | Asleep. |
| 9 | Nagasaki | V | 26 | 4 50 0 | — | From SW (?) | Very slight | — | — |
| 10 | Nagasaki | V | 27 | 8 16 27 | 4s | From SW (?) | Slight | — | Six or seven shocks. Houses slightly shaken. |
| 11 | Nagasaki | V | 31 | 8 48 0 | — | From SW (?) | Slight | — | Trees feebly moved. |
| 12 | Saitama | VI | 18 | 10 20 0 | — | N-S | Slight | — | No sound. The observing station is built on sand bed 48 feet above the sea level. |
| 13 | Wakayama | VI | 30 | 14 17 20 | — | ENE and WSW | Very slight | Only tremor | The office is situated on a feldspar rock about a mile from the Pacific coast and 60 feet above the mean water level. About the same time or a few minutes before the shock pheasants screamed. We have always a rolling sound just before the earthquake. The natives talk about the occurrence of earthquakes when long rain begins after fine weather. |
| 14 | Kamaishi [Mine] | VII | 8 | 10 30 0 | 30s | NNW and SSE | — | Rolling | Only a tremor, and no sound. Barometer 30.247 reduced to 32° F. Very dull sound. Storms. Rolling after shocks. |
| 15 | Hiroshima | VII | 10 | 15 45 0 | — | From W | Very slight | — | — |
| 16 | Wakayama | VII | 11 | 11 27 30 | — | NE and SW | Slight | — | — |
| 17 | Nagasaki | VII | 11 | 10 19 0 | 4s | From E | Strong | Oscillatory | — |
| 18 | Wakayama | VII | 17 | 12 43 30 | 2m | E-W | Very slight | — | — |
| 19 | Kamaishi | VII | 20 | 15 10 0 | 1½s | From N | — | — | — |
| 20 | Hiroshima | VII | 21 | 21 0 0 | — | From N | Very slight | — | — |

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|-----|-----------------|--------|------|----------|------------|------------|-------------|-----------------|--|
| 21 | Ogaki..... | VII | 22 | 4 30 0 | Short | — | Feeble | — | The earthquake was at first sharp and people felt it as a vertical movement. The same earthquake was also felt in Gifu 5/4 from Ogaki. |
| 22 | Kamaishi | VII | 24 | 3 0 0 | 40s | — | — | Rolling | These cities are situated on an alluvial plain. I was sleeping in a small house 2 c/16 from my office and was awakened by a loud noise; however, the shaking was not large. The house stands on an alluvial plain. The river bed, now retained by rubble masonry, rolling sound from the mountains was considerable before the earthquake. |
| 23 | Kamaishi | VII | 27 | 11 35 0 | 10s | NNW by SSE | — | — | The city stands on the west side of a hill. |
| 24 | Gifu | VIII | 14 | 10 5 0 | momentary | — | Very slight | Only tremor | The city stands on the west side of a hill. |
| 25 | Nagasaki | VIII | 25 | 10 47 0 | 15s | From NW | Sharp | — | 15 or 16 shocks. Furniture rattled. |
| 26 | Saitama | IX | 4 | 10 45 0 | — | E-W | — | — | Only a shock and no sound. |
| 27 | Kamaishi | IX | 5 | 22 50 0 | — | — | — | — | A feeble shock, but awakened from sleeping. |
| 28 | Kamaishi | IX | 7 | 22 0 0 | — | W | — | — | |
| 29 | Hiroshima | IX | 10 | 18 30 0 | — | SSE to NNW | Very slight | Rolling | The rolling sound proceeded from SSE toward NNW. |
| 30 | Kamaishi | IX | 20 | 15 8 0 | 50s | — | — | — | |
| 31 | Hiroshima | IV | 30 | 10 25 0 | — | W | Very slight | — | |
| 32 | Nemuro..... | X | 2 | 21 30 0 | — | — | — | — | |
| 33 | Kamaishi | X | 2 | 22 5 0 | 4m | NNW by SSE | — | — | 3 large shocks during the rolling. |
| 34 | Kamaishi | X | 9 | 17 10 0 | 2m | NNW by SSE | — | Rolling | At the same time pigeons cried out. |
| 35 | Kamaishi | X | 10 | 21 3 0 | 3m | NNW by SSE | — | Rolling | |
| 36 | Kamaishi | X | 19 | 21 23 0 | 1m 30s | NNW by SSE | — | Rolling | 3 considerable shocks, the middle one being the largest. |
| 37 | Nemuro..... | X | 19 | 21 28 0 | — | — | — | — | One jump. |
| 38 | Hakodate | X | 19 | 21 20 15 | 20s | — | Slight | — | One jump. |
| 39 | Sapporo..... | X | 22 | 6 20 0 | Very short | — | Slight | — | Two jumps. |
| 40 | Hakodate | X | 24 | 14 57 32 | 1 or 2s | — | Very slight | Undulatory | A hanging lamp 4 shaku long vibrated half a sun; pigeons cried loudly one or two minutes before the earthquake and also after it. |
| 41 | Sapporo..... | X | 25 | 21 30 0 | 3m | SSE to NNW | Rough | Rolling | The observer's house is situated on the slope of hills, built on stone foundation, wooden frame. |
| 42 | Kamaishi | X | 25 | 21 30 0 | 3m | — | Strong | — | |
| 43 | Hakodate | X | 25 | 21 41 0 | 1m 45s | From SE | Slight | Oscillatory | |
| 44 | Kamaishi | X | 20 | 3 20 0 | 3s | SSE-NNW | — | Rolling | |
| 45 | Kamaishi | XI | 2 | 3 14 0 | 1s | — | — | Momentary shock | |

| | | | | | | | | | |
|-------|-------------------|-----|----|----------|-----------------|---------|---------------|--|--|
| 41 | Ogaki | XI | 4 | 4 40 0 | From N | Slight | — | Accompanied by a slight sound. | |
| 42 | Hiroshima | XI | 6 | 10 40 0 | — | Slight | — | | |
| 43 | Gifu | XI | 11 | 3 12 1 | Moderately long | Slight | — | A few oscillations. | |
| 44 | Kamaishi | XI | 11 | 0 10 0 | 1½s | — | Rolling | Three prominent shocks. | |
| 45 | Kamaishi | XI | 12 | 3 30 0 | 4s | — | — | More than ten shocks. | |
| 46 | Saitama | XI | 15 | 22 10 0 | — | E-W | — | | |
| 47 | Yahiko (Ye-chigo) | XI | 15 | 22 30 0 | 1m | From NW | Pretty large | The village stands on the foot of Asakusayama. | |
| 48 | Saitama | XI | 18 | 19 29 0 | — | From N | — | Houses made a little sound, and trees little vibrated. Some 67 oscillations were counted. | |
| 49 | Hiroshima | XI | 27 | 21 10 5 | — | From W | Slight | | |
| 50 | Gifu | XII | 5 | 14 28 0 | 20s | From SW | Pretty strong | | |
| 51 | Kamaishi | XII | 5 | 13 30 2 | 12s | — | Pretty strong | Loud sound was audible at the time of the earthquake. | |
| 52 | Kamaishi | XII | 9 | 22 15 0 | 2m | — | Rolling | | |
| 53 | Kamaishi | XII | 25 | 15 0 0 | 30s | — | Rolling | | |
| 54 | Kamaishi | XII | 25 | 22 0 0 | 1m 30s | — | Rolling | | |
| 54 | Kamaishi | XII | 26 | 14 0 0 | 1m 30s | — | Rolling | | |
| 1882. | | | | | | | | | |
| 1 | Innai (Mine) | I | 6 | 5 30 0 | — | — | Very slight | It was so feeble that those who were asleep did not feel it. The mine passes through the tertiary tuffa. | |
| 2 | Kamaishi | I | 7 | 22 30 0 | 1m | — | — | | |
| 3 | Kamaishi | I | 9 | 17 20 0 | 1m 30s | — | — | | |
| 4 | Nagasaki | I | 10 | 7 2 0 | 3s | From S | — | | |
| 5 | Nagasaki | I | 10 | 7 10 5 | Very short | N and S | Rather | Very short and sharp concussions like a big gun. | |
| 6 | Innai | I | 11 | 6 40 0 | — | — | Very slight | | |
| 7 | Innai | I | 11 | 7 0 0 | — | — | Feeble | Glass windows rattled. Nothing occurred to the mine. | |
| 8 | Nemuro | I | 15 | 16 40 50 | 2½s | SSE | Feeble | | |
| 9 | Nemuro | I | 16 | 4 33 0 | — | — | Very slight | | |
| 10 | Nemuro | I | 16 | 15 27 25 | 27s | NNE | Violent | | |
| 11 | Nemuro | I | 22 | 9 41 35 | 40s | NNE | Violent | | |
| 12 | Nemuro | I | 22 | 11 36 20 | — | NNE | Very slight | | |

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|-----|-----------------|--------|------|----------|--------------------|---------------|-------------|-------------------------|---|
| 13 | Kamashi | I | 25 | 3 10 0 | 2m 30s | — | — | Rolling | This was the largest earthquake that I have experienced here. People who were asleep did not feel it. |
| 14 | Kamashi | I | 26 | 7 40 0 | 1m 30s | — | — | Rolling after a shock | |
| 15 | Hiroshima | I | 26 | 9 45 0 | — | From W | Slight | Oscillatory | |
| 16 | Kamashi | I | 30 | 2 30 0 | 2m | — | — | Rolling | |
| 17 | Kamashi | I | 31 | 17 30 0 | 30s | — | — | Rolling | |
| 18 | Innai | I | 31 | 17 35 10 | 15 ^s | — | — | — | |
| 18 | Nemuro | II | 3 | 6 20 0 | 1m 45 ^s | NNE | Violent | Horizontal oscillations | |
| 19 | Nemuro | II | 4 | 10 15 0 | — | NNE | Very slight | Vertical motion | |
| 20 | Nemuro | II | 9 | 10 3 0 | — | NNE | Very slight | Vertical motion | |
| 21 | Nemuro | II | 9 | 17 37 0 | 28s | NNE | Strong | Undulatory | |
| 22 | Hiroshima | II | 11 | 9 0 0 | — | — | Very slight | — | |
| 23 | Innai | II | 11 | 23 55 0 | — | — | Slight | — | |
| 24 | Nemuro | II | 13 | 0 18 15 | 1m 10s | From SSE | Violent | Undulatory | |
| 25 | Innai | II | 14 | 11 15 0 | — | — | Slight | — | |
| 26 | Nemuro | II | 16 | 5 1 18 | 1m 27 ^s | SSE | Feeble | Undulatory | |
| 27 | Nemuro | II | 20 | 17 10 0 | — | — | Feeble | Vertical motion | |
| 28 | Nemuro | II | 27 | 11 5 15 | 1m 40s | SE | Feeble | Undulatory | |
| 29 | Nemuro | II | 27 | 20 25 0 | — | — | Very feeble | — | |
| 30 | Saitama | III | 1 | 2 0 0 | — | NNW and SSE | — | — | |
| 31 | Saitama | III | 1 | 4 0 0 | — | NNW and SSE | — | — | |
| 32 | Nemuro | III | 3 | 10 29 45 | 7 ^s | SSE | Feeble | Vertical motion | |
| 33 | Nemuro | III | 7 | 12 54 0 | — | — | Feeble | Oscillatory | |
| | Kamashi | III | 8 | 16 0 0 | 4m | From SW to NE | Strong | — | |
| | Hakodate | III | 8 | 16 16 10 | 2m 30s | N-S? | Feeble | — | |
| | Innai | III | 8 | 16 20 0 | About 10s | — | — | — | |

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|-------|--------------|--------|------|----------|-----------|------------|---------------|-------------------------|--|
| 62 | Nemuro..... | VIII | 18 | 23 40 0 | 3os | — | — | Rotatory motion | |
| 63 | Nemuro..... | IX | 5 | 5 59 0 | 4m | S-E | Violent | Oscillation | |
| 64 | Sapporo..... | X | 1 | 19 10 15 | 20 or 3os | W-E(?) | Moderate | | The intensity increased like a wave swell. Preceded and followed by tremors. |
| 65 | Nemuro..... | X | 8 | 17 50 0 | — | ENE | Feeble | — | |
| 66 | Nemuro..... | X | 14 | 15 35 0 | — | — | Feeble | — | |
| 67 | Kogure..... | X | 20 | 3 35 0 | 15s | — | — | — | |
| 68 | Hiroshima .. | X | 24 | 20 10 0 | — | S(?) | Very slight | Sudden jerk | |
| 69 | Nemuro..... | XI | 18 | 15 35 0 | — | N-E | Violent | — | |
| 70 | Hiroshima .. | XI | 26 | 14 25 0 | 1m | NW(?) | Slight | — | |
| 71 | Hiroshima .. | XI | 26 | 16 15 0 | — | — | Very slight | — | |
| 72 | Nemuro..... | XII | 6 | 5 45 0 | 1m 3os | From NW | Violent | Rotatory oscillations | The rumbling of the earth was heard before the earthquake. |
| 73 | Mito | XII | 23 | 11 45 0 | 2s | WE | Slight | Horizontal oscillations | |
| 74 | Nemuro..... | XII | 27 | 0 10 0 | — | N-E | Feeble | Undulatory | |
| 1883. | | | | | | | | | |
| 1 | Sapporo..... | I | 3 | 15 55 0 | 7s | W-E | Very slight | Gentle oscillations | |
| 2 | Mito | I | 4 | 5 23 0 | 2m | E-W | Slight | Horizontal oscillation | By seismograph it was only a slight shock. |
| 3 | Mito | I | 7 | 10 0 0 | 1m | N-W | Feeble | Horizontal oscillation | |
| 4 | Mito | I | 12 | 1 4 0 | 5m | N-E | Pretty strong | Horizontal oscillation | |
| 5 | Mito | I | 12 | 14 20 0 | 5m | N-W | Pretty strong | Horizontal oscillation | |
| 6 | Mito | I | 14 | 2 8 0 | 3m | E-W | Weak | Horizontal oscillation | |
| 7 | Mito | I | 18 | 4 40 0 | 13s | S-E | Strong | Horizontal oscillation | |
| 8 | Mito | I | 18 | 19 56 0 | 2m | S | Weak | Horizontal oscillation | |
| 9 | Mito | I | 19 | 8 14 0 | 4m | E | Strong | Horizontal oscillation | |

| | | | | | | | | | |
|----|---------|-----|----|----------|-----------|-----------------|--------------------------|--------------------------------|--|
| 10 | Innai | I | 22 | 0 10 0 | About 10s | N-S | Very slight oscillations | Horizontal oscillations | Both water in a basin and a hanging lamp oscillated N-S. The offices of the mine are situated on decomposed tuffa at a junction of two valleys. The windows rattled. |
| | Mito | I | 22 | 0 24 0 | 3m | N-S | Violent | Horizontal oscillations | |
| 11 | Nemuro | I | 23 | 11 41 0 | 1m | S-W | Strong | Undulatory | |
| 12 | Sapporo | I | 23 | 10 48 0 | 5s | From SSW to NNE | Very slight | Gentle oscillations | |
| 13 | Mito | I | 25 | 5 25 0 | 2m | S-E | Feeble | Horizontal oscillations | A seismograph registered small motion. |
| 14 | Mito | I | 26 | 8 25 0 | 1m | S | Very feeble | Horizontal oscillations | |
| 15 | Mito | I | 27 | 18 33 0 | 3m | E | Feeble | Horizontal oscillations | |
| 16 | Mito | I | 31 | 12 10 0 | 5m | N-W | Rather weak | Horizontal oscillations | |
| 17 | Mito | I | 31 | 12 45 0 | 2m | W | Weak | Horizontal oscillations | Stormy weather. |
| 18 | Mito | I | 31 | 13 3 0 | 8s | From S | Strong | Undulatory | |
| 19 | Nemuro | II | 6 | 12 16 20 | 52s | From SW | Feeble | Horizontal oscillations | |
| 20 | Mito | II | 9 | 12 0 0 | 3s | E | Feeble | Horizontal oscillations | Stormy weather. |
| 21 | Mito | II | 14 | 21 35 0 | 2s | S | Feeble | Horizontal oscillations | |
| 22 | Mito | II | 21 | 1 50 0 | 2s | S-E | Feeble | Horizontal oscillations | |
| 23 | Sapporo | II | 26 | 11 20 0 | About 6s | From SSE to NNW | Very slight | Gentle horizontal oscillations | No damage. |
| | Sapporo | II | 28 | 14 2 0 | About 9s | From W to E | Very slight | Gentle horizontal oscillations | |
| 24 | Nemuro | II | 28 | 14 25 0 | 1m | — | Strong | Vertical motion | |
| 25 | Nemuro | III | 13 | 22 25 0 | 1m 30s | S-W | Very strong | Upheaving | |
| 26 | Nemuro | III | 25 | 22 11 39 | 55s | From SE | Strong | Undulatory | |
| 27 | Nemuro | III | 25 | 22 32 35 | 55s | | Strong | Upheaving | |
| 28 | Nemuro | III | 26 | 12 52 15 | 43s | SE | Violent | Undulatory | |
| 29 | Nemuro | III | 26 | 0 10 0 | 15s | SE | Slight | Undulatory | |
| 30 | Nemuro | III | 26 | 19 15 5 | 5s | SE | Slight | Undulatory | |
| 31 | Nemuro | III | 29 | 19 15 5 | 5s | SSE | Slight | Upheaving | |

| No. | LOCALITY. | MONTH. | DAY. | TIME. | DURATION. | DIRECTION. | INTENSITY. | NATURE. | REMARKS. |
|-----|---------------|--------|------|----------|-----------|------------|------------------|--|--|
| 32 | Nemuro..... | IV | 14 | 10 30 20 | — | SSW | Slight | Undulatory | Shocks of different intensities came in succession : at first slight, then strong, then slight, strong again, and so on. No damage. |
| 33 | Hakodate..... | IV | 20 | 2 35 0 | 1m 4s | — | Rough | — | |
| 34 | Sapporo..... | IV | 20 | 3 5 0 | 1m | From NNE | Rough Slight | Gentle oscillation | |
| 35 | Nemuro..... | IV | 25 | 20 18 0 | — | W | Slight | Undulatory | No damage. |
| 36 | Nemuro..... | VII | 4 | 2 57 0 | 15m (?) | From NE | Slight | Undulatory | |
| 37 | Nemuro..... | VII | 8 | 3 20 0 | 25m (?) | NNE | Strong | Undulatory | |
| 38 | Nemuro..... | VII | 9 | 15 22 0 | — | NNW | Feeble | Undulatory | |
| 39 | Nemuro..... | VII | 14 | 21 7 0 | — | — | — | — | |
| 40 | Nemuro..... | VII | 26 | 1 22 0 | 1m 50s | WNW | Violent | Undulatory | |
| 41 | Nemuro..... | VII | 29 | 11 57 0 | 1m | SSE | Strong | Undulatory | |
| 42 | Nemuro..... | VIII | 2 | 9 4 40 | 1m 40s | — | Strong | Undulatory | |
| 43 | Nemuro..... | X | 5 | 13 47 0 | 1m 30s | N | Strong | Rotatory | |
| 44 | Nemuro..... | X | 5 | 15 19 0 | — | — | — | — | |
| 45 | Nemuro..... | X | 8 | 18 16 0 | — | — | Slight | — | |
| 46 | Nemuro..... | X | 10 | 12 10 40 | — | — | — | — | |
| 47 | Sapporo..... | X | 14 | Night | 7s | E-W | Slight | Gentle oscillations | No damage. |
| 48 | Nemuro..... | X | 20 | 15 15 0 | 40s | — | — | — | No damage. |
| 49 | Nemuro..... | X | 22 | 22 12 0 | — | — | — | — | |
| 50 | Sapporo..... | X | 28 | 14 0 0 | 5s | W-E | Strong Slight | Gentle oscillations sudden jerks | No damage. No damage. |
| 51 | Sapporo..... | XI | 10 | 7 5 15 | 45s | S-W | — | — | No damage. |
| 52 | Nemuro..... | XI | 10 | 7 30 0 | 2m 30s | — | Strong | — | |
| 53 | Sapporo..... | XI | 10 | 12 40 0 | 1m 30s | NW-S | Slight | Gentle oscillations | |
| 54 | Sapporo..... | XI | 11 | 9 0 0 | 5s | S | Slight | Gentle oscillations | No damage. No damage. |
| 55 | Nemuro..... | XI | 12 | 2 10 0 | — | — | Strong | — | No damage. |
| 56 | Nemuro..... | XI | 13 | 19 2 0 | — | — | — | — | |
| 57 | Nemuro..... | XI | 30 | 19 35 0 | — | — | Strong | — | |
| 58 | Nemuro..... | XII | 9 | 10 55 0 | — | — | Strong | — | |
| 59 | Nemuro..... | XII | 20 | 18 0 0 | — | — | — | — | |
| 60 | Nemuro..... | XII | 26 | 18 30 0 | — | — | — | — | |

1885.

| No. | LOCALITY. | MONTH. | DAY. | TIME. | DURATION. | DIRECTION. | INTENSITY. | NATURE. | REMARKS. |
|-----|--------------|--------|------|----------|-----------|------------|------------|-------------------------|---|
| 1 | Wakayama ... | II | 12 | 16 26 45 | 5s | E and W | Weak | — | |
| 2 | Wakayama ... | II | 28 | 20 15 5 | 15s | E and W | Moderate | Horizontal oscillations | |
| 3 | Nemuro ... | III | 8 | 5 40 0 | 2m 30s | NNW | Strong | Undulatory | |
| | Sapporo ... | III | 8 | morning | — | S-W | Moderate | Gentle oscillations | No damage. |
| 4 | Nemuro ... | III | 23 | 5 54 0 | 1m | — | Moderate | — | |
| 5 | Nemuro ... | III | 24 | 23 50 0 | 49s | W-E | Moderate | — | |
| 6 | Wakayama ... | III | 31 | 7 55 0 | 13s | W-E | Slight | Horizontal oscillations | No sound. |
| 7 | Nemuro ... | IV | 21 | 15 45 0 | — | — | Feeble | — | |
| 8 | Wakayama ... | V | 1 | 2 43 5 | 4s | E and W | — | Horizontal oscillations | No sound. |
| 9 | Wakayama ... | V | 3 | 3 57 5 | 25s | N and S | — | — | No sound. There were three periods in this earthquake; in the first two seconds the motion was feeble, it then augmented for 3 seconds, after which the shaking was again slight till the end. |
| 10 | Nemuro ... | V | 9 | 11 25 0 | 25s | — | Strong | — | |
| 11 | Wakayama ... | V | 23 | 3 4 45 | 7s | E and W | Slight | — | |
| 12 | Nemuro ... | VI | 8 | 13 20 0 | — | SE-NW | Moderate | — | |
| 13 | Sapporo ... | VI | 11 | 9 24 0 | 59s | SE-NW | Moderate | Gentle oscillations | No damage. |
| 14 | Wakayama ... | VI | 14 | 21 33 21 | 25s | E-W | Weak | Horizontal oscillations | [direction. |
| 15 | Wakayama ... | VII | 14 | 20 17 0 | 10s | N-S | Feeble | Horizontal oscillations | Underground noise was audible in an eastern |
| 16 | Wakayama ... | VII | 28 | 8 50 45 | 5s | SW and EN | Feeble | — | Noises like distant thunder were heard in the south. |
| 17 | Wakayama ... | VIII | 8 | 8 4 0 | 6s | S-W | — | Horizontal oscillations | |
| 18 | Wakayama ... | VIII | 29 | 0 23 20 | 28s | E-W | Weak | Horizontal oscillations | No sound. |
| 19 | Wakayama ... | IX | 18 | 12 33 23 | 6s | SW-NE | Feeble | Horizontal oscillations | No sound. |
| 20 | Wakayama ... | X | 16 | 5 58 0 | — | — | Weak | — | |

| No. | Locality | Month | Day | Time | Duration | Direction | S-N NE and SW | Slight Feeble | Gentle Horizontal oscillations | No damage. Feeble underground noise was audible like distant firing of guns. |
|-----|--------------|-------|-----|----------|----------|-----------|------------------|------------------|--------------------------------------|--|
| 21 | Sapporo..... | X | 30 | 20 33 58 | 18s | | S-N | Slight | Gentle Horizontal oscillations | No damage. |
| 22 | Wakayama ... | XI | 12 | 21 7 15 | 11s | NE to SW | NE and SW | Feeble | Horizontal oscillations | Feeble underground noise was audible like distant firing of guns. |
| 23 | Wakayama ... | XII | 22 | 11 15 50 | 6s | E-W | E-W | Weak | Horizontal oscillations | |

1881.

| No. | Locality | Month | Day | Time | Duration | Direction | Intensity | Nature | Remarks |
|-----|--|-------|-----|---------|-----------|-----------|-------------------|--------------|---|
| | Iuguegarao ... | I | 21 | 5 31 0 | 5s | | Small | Trepidation | |
| | Manila | II | 2 | 9 15 0 | 25s | NE to SW | Small | Oscillation | |
| | Taal | II | 3 | 5 30 0 | Short | | Sudden | — | |
| | Batangas ... | II | 3 | 5 36 0 | 15s | N-S | Strong | Oscillation | |
| | Surigao | II | 7 | 0 0 0 | — | | — | — | |
| | Albay | II | 12 | 18 12 0 | 2s | | Slight | Oscillation | |
| | Albay | II | 12 | 19 9 0 | — | | Slight | Oscillation | |
| | Talacogon ... | II | 18 | 21 30 0 | — | | Strong | Oscillation | |
| | Lingayen ... | II | 21 | 4 0 0 | — | | Strong | — | |
| | Albay | III | 4 | — | — | N-S | — | Oscillation | |
| | Banauan | III | 7 | 23 0 0 | — | | — | — | |
| | Yloilo | III | 12 | 13 40 0 | Short | | — | — | |
| | Bislig | III | 14 | 13 30 0 | — | | — | — | |
| | Bislig | III | 14 | 22 0 0 | — | | — | — | |
| | Alcala | III | 16 | 4 45 0 | 9s | E-W | Quick | Oscillations | |
| | Butuan | III | 23 | 15 30 0 | — | | Very strong | — | |
| | Loreto | III | 23 | 15 30 0 | — | | Very strong | — | |
| | Maitit | III | 23 | 15 30 0 | — | | Very strong | — | |
| | Berkeley, Al- meda Co., California .. | V | 14 | 13 9 0 | 2s or 3s | SE-NW | Slight tremors | — | Preceded and accompanied by a rumbling sound. |
| | San Yeidro ... | V | 16 | 11 37 0 | Momentary | | Moderate | — | |
| | Cabanatuan ... | V | 16 | 11 37 0 | Momentary | NE-SW | Moderate | — | |
| | San Yeidro ... | V | 16 | 11 39 0 | 4s | | Moderate | — | |

| No. | LOCALITY. | MONTH. | DAY. | TIME. | DURATION. | DIRECTION. | INTENSITY. | NATURE. | REMARKS. |
|-------|--------------------------------------|--------|------|---------|-----------|---------------|------------|-------------|--|
| | Sta Cruz de la Laguna | V | 17 | 2 15 0 | Short | NE-SW | — | Oscillation | |
| | Albay | V | 20 | 7 35 0 | — | — | Slight | Trepidation | |
| | Paltod | V | 25 | 10 9 0 | 20s | — | Slight | Oscillation | |
| | Talaban | V | 25 | 10 20 0 | 10s | N-S | Slight | Oscillation | |
| 1883. | | | | | | | | | |
| | Berkeley, Alameda Co., California .. | I | 23 | 23 40 0 | 15-25 | NE and SW (?) | Slight | — | First concussion; then tremor accompanied by rumbling sound. |