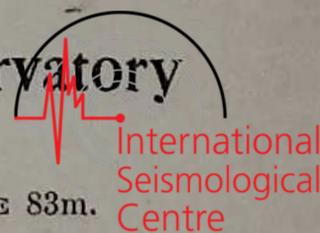


OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From Jan. 1st to Jan. 31st, 1914 No. 1

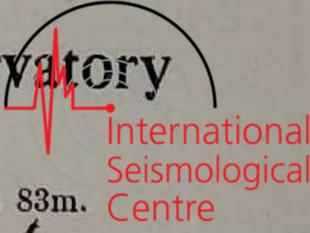
| No. | DATE | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|---------|--|--|---|---|----------------------|----------------------|----------|------------------------------|
| | | | | | <i>A_E</i> | <i>A_N</i> | <i>A_Z</i> | | |
| | 1914 | | h. m. s. | s. | μ | μ | μ | km. | |
| 467 | Jan. 20 | e e L L F | 12-22 12-36 12-41 13-00 | 30 26 | Time somewhat uncertain, electric contact failed at time for recording minutes. Time interpolated. | | | | |
| 468 | " 30 | 1 P _N PR _{1E} ? 1 SE S _N e L _E e L _N M _N L F | 3-48-14 3-52-00 3-58-12 3-58-15 4-11 4-13 4-25.8 4-30 to 5-00 5-59 | 3 5 14 2 40 26 20 18 to 15 | 2 superposed 45 | | | 8750 | E shows no distinct maximum. |
| 469 | " 30 | P _N ? S _N ? L _N L _N F? | 7-57-50 8-08-00 8-23-00 8-30 9-00 | 4 6 20 16 | | | | 9000? | E is masked by micro-seisms. |

O. H. Ross

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Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From February 1st

to February 28, 1914 No. 2

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|--------------|--------|----------------------|--------|----------------|----------------|----------------|--|----------|
| | | | | | A _E | A _N | A _Z | | |
| 470 | Feb. 7 | P NE | 23-04-03 | 3 | | | | Storn sways obser- vatory nash F. A. 100 micro mag 100 | |
| | | P NE | 23-10-10 | 3 | μ | μ | μ | | |
| | | P NE | 23-13-55 | 3 | | | | | |
| | | L NE | 23-19.1 | 17 | | | | | |
| | | L NE | 23-20.3 | 17 | | | | | |
| | | F NE | 23-25 | | | | | | |
| 471 | Feb. 10 | H S | 16-30-04 | 2 | | | 4150 | | |
| | | S NE | 16-35-59 | | | | | | |
| | | S NE | 16-36-00 | | | | | | |
| | | S NE | 16-41.0 | 20 | | | | | |
| | | L | 16-45 to | 28 to | | | | | |
| | | L | 16-48 | 19 | | | | | |
| | | M NE | 16-45.5 | 18 | 20 | | | | |
| | | F NE | 17-08 | | | | | | |
| 472 | Feb. 10 | P | 18-30-59.5 | .5 | 15 | 20 | 200 | Local quake. Felt over 500, 000 sq. km. | |
| | | M P | 18-31-03.8 | | 28 | 38 | | | |
| | | S NE | 18-31-11.8 | | | | | | |
| | | S NE | 18-31-13.0 | | | | | | |
| | | P | 18-40 | | | | | | |
| | | P V | 18-31-00 | .5 | | | | | |
| | | S V | 18-31-12.3 | 1 | | | | | |
| | | M F | 18-31-13.7 | 1 | | | | | |
| | | F | 18-38 | | | | | | |
| 473 | Feb. 14 | P NE | 9-34-14.8 | 1 | | | 225 | Local quake. | |
| | | | continued to 29.2 | 1 | | | | | |
| | | S NE | 9-34-39.0 | 3 | | | | | |
| | | F N | 9-37 | | | | | | |
| 474 | Feb. 28 | e P N | 5-08-22 | 2 | | | 2500 | | |
| | | i P NE | 5-08-36 | 3 | | | | | |
| | | S NE | 5-12-52 | | | | | | |
| | | S NE | 5-13-00 | 10 | | | | | |
| | | e LN | 5-16.5 | 20 | | | | | |
| | | e LN | 5-16.7 | 20 | | | | | |
| | | M NE | 5-17.5 | | 100 | | | | |
| | | M N | 5-20 | 12 | | 25 | | | |
| | | F | 6-15 | | | | | | |

O. H. ...

OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^b 02^m 51.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

March 1st

to

March 18th, 1914

No. 3

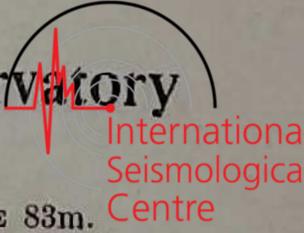
| No. | DATE | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|---------|-------|----------|--------|-----------|-------|-------|----------|---|
| | | | | | A_E | A_N | A_z | | |
| | 1914 | | h. m. s. | s. | μ | μ | μ | km. | |
| 475 | Mch. 6 | PN? | 19-13-22 | | | | | 10,000? | Small micro- seisms mask P. |
| | | PE? | 19-13-26 | | | | | | |
| | | PNE? | 19-14-30 | | | | | | |
| | | SE | 19-25-33 | | | | | | |
| | | SN | 19-25-36 | | | | | | |
| | | eLN | 19-42.0 | 40 | | | | | |
| | | eLE | 19-42.5 | 40 | | | | | |
| | | L | 19-52 | 18 | | | | | |
| F | 20-15 | | | | | | | | |
| 476 | Mch 13 | PN | 15-34-46 | 2 | | | | 3450 | |
| | | PR? | 15-35-17 | 2 | | | | | |
| | | S | 15-40-00 | 5 to 7 | | | | | |
| | | L | 15-41.4 | 12 | | | | | |
| | | F | 16-00 | | | | | | |
| 477 | Mch 14 | PN | 20-12-24 | | | | | 10200 | Report- ed in Japan. |
| | | PR? | 20-16-46 | 2 | | | | | |
| | | SE | 20-23-26 | | | | | | |
| | | SN | 20-23-35 | 10 | | | | | |
| | | LE | 20-44.0 | | | | | | |
| | | LN | 20-44.2 | 30 | | | | | |
| | | L | 20-47 | 20 | | | | | |
| | | L | 20-55 | 18 | | | | | |
| | | L | 21-02 | 16 | | | | | |
| F | 21-15 | | | | | | | | |
| 478 | Mch. 18 | PN? | 4-31-20 | | | | | 7550? | |
| | | SE? | 4-40-16 | 9 | | | | | |
| | | SN? | 4-40-18 | 4 | | | | | |
| | | eLN? | 4-55.2 | 20 | | | | | |
| | | L | 4-56.7 | 20 | | | | | |
| | | L | 5-01 to | 15 | | | | | |
| | | | 5-17 | | | | | | |
| | | F | 5-40 | | | | | | |

O. H. ...

OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **Mar. 18** ~~Mar.~~ **27th, 1914** No. **4**

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|--------------|--|--|---|----------------------|----------------------|----------------------|----------------------|---|
| | | | | | <i>A_E</i> | <i>A_N</i> | <i>A_Z</i> | | |
| 479 | Mar. 18 | PN? SNE L L L F | 6-28-46 6-37-36 6-54 6-56 7-04 to 7-11 7-29 | s. 20 16 16 to 14 | μ | μ | μ | 7400 ^{km} ? | |
| 480 | Mar. 21 | PN PE SE SN SR _{3N} ? SR _{3E} ? eLN LN F | 9-23-26 9-23-30 9-29-32 9-29-36 9-33.0 9-33.7 9-35.2 9-37 9-52 | 10 ^s 10 40 24 | | | | 4300 | P midst micro- seisms uncer- tain |
| 481 | Mar. 21 | eLN L F | 19-52 19-59 20-05 | 20 16 | | | | | |
| 482 | Mar. 27 | PE? PN eLN eLE L F | 1-15-44 1-15-52 1-32.2 1-32.6 1-35 to 1-53 2-00 | 22 20 16 to 14 | | | | 6200 | |

O. H. Wood

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **Mar. 28** to **Mar. 31, 1914** No. **5**

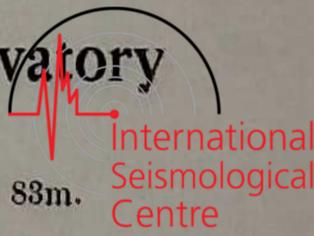
| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|--------------|-------|----------|--------|----------------|----------------|----------------|----------|----------|
| | | | | | A _E | A _N | A _Z | | |
| | | | h. m. s. | s. | μ | μ | μ | km. | |
| 483 | Mar. 28 | PN | 1-57-32 | 3 | | | | | |
| | | PE | 1-57-33 | 3 | | | | | |
| | | F | 2-01 | | | | | | |
| 484 | Mar. 28 | eLE | 11-38.3 | 40 | | | | | |
| | | L | 11-44 | 20 | | | | | |
| | | eLN | 11-46 | 60 | | | | | |
| | | LE | 11-49 | 18 | | | | | |
| | | LE | 11-51 | 15 | | | | | |
| | | LN | 11-56 | 40 | | | | | |
| | | F | 12-05 | | | | | | |
| 485 | Mar. 30 | ePN | 0-47-46 | | | | | 3800 | |
| | | ePE | 0-47-48 | | | | | | |
| | | 1PN | 0-47-50 | | | | | | |
| | | 1PE | 0-47-51 | | | | | | |
| | | PN, N | 0-48-49 | | | | | | |
| | | SE | 0-53-24 | 8 | | | | | |
| | | SN | 0-53-25 | | | | | | |
| | | eL | 0-57.4 | 40 | | | | | |
| | | M | 1-03.3 | 20 | | 160 | 100 | | |
| | | L | 1-15 to | 14 to | | | | | |
| | | F | 2-25 | 12 | | | | | |
| | | F | 3-00 | | | | | | |

O. H. ...

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Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From Apr. 1st to Apr. 11, 1914. No. 6

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|--------------|---|--|--|----------------------|----------------------|----------------------|----------|--|
| | | | | | <i>A_E</i> | <i>A_N</i> | <i>A_Z</i> | | |
| 486 | Apr. 9 | e P E? SN? SE e LN? LE L L LE LE F | 4-05-34 4-15-36 4-16-15 4-23.2 4-32.5 4-36 4-44 4-52 to 57 5-00 5-05 | s. 6 24 27 20 17 15 13 | μ | μ | μ | 9600 | Maximum not well marked. |
| 487 | Apr. 11 | e PN? e P E? P R ₂ E? LN SE? SN? LNE LNE LE L L L | 16-41-09 16-43-36 16-50-35 16-51-08 16-56-07 16-56-09 17-16 17-27 17-31 17-40 17-53 18-09 | 10 14-10 13-16 24 17 16 16 | | | | 12000? | L 16-37 to 16-45 fine sinusoidal waves. P and S uncertain. |
| 488 | Apr. 11 | Merges into other quake PN PE SN SE LE LN LE LN L L LE F | 18-04-06 18-04-08 18-11-46 18-11-51 18-20.2 18-20.7 18-25 18-27 18-32 18-40 18-45 19-05 | 16 16 15 15 24 22 19 | | | | 6100 | P & S not well marked. |

O. H. ...

OTTAWA

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Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **Apr. 12**

to **Apr. 30, 1914.**

No. **7**

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|--------------|--------|------------|--------------|----------------------|----------------------|----------------------|---------------------|----------|
| | | | | | <i>A_E</i> | <i>A_N</i> | <i>A_Z</i> | | |
| 489 | Apr. 20 | i PN | 13-37-38.5 | 2 | 19 | 10 | 4450 km. | | |
| | | PE | 13-37-40 | _s | | | | | |
| | | iN | 13-39-15 | | | | | | |
| | | SE | 13-43-51 | 7 | | | | | |
| | | SN | 13-43-54 | 10 | | | | | |
| | | ME | 13-43-56 | 7 | | | | | |
| | | MN | 13-43-58 | 10 | | | | | |
| | | s R, E | 13-46-32 | 20 | | | | | |
| | | e L E | 13-49.4 | 44 | | | | | |
| | | e L N | 13-49.7 | 40 | | | | | |
| | | L | 13-55 | 20-16 | | | | | |
| | | L | 13-58 | 14-13 | | | | | |
| | | L | 14-05 | 13 | | | | | |
| | | L | 14-31 to | | | | | | |
| F | 14-42 | 13 | | | | | | | |
| F | 15-20 | | | | | | | | |
| 490 | Apr. 24 | e P | 8-45-52 | | | | 3500 | L poorly expressed. | |
| | | SN | 8-51-07 | | | | | | |
| | | SE | 8-51-13 | | | | | | |
| | | LN ? | 8-53 | 9 | | | | | |
| | | LE | 8-53.3 | 28 | | | | | |
| F | 9-15 | | | | | | | | |
| 491 | Apr. 29 | PE | 4-13-32 | 2 | | | 1730 | | |
| | | PN | 4-13-35 | 2 | | | | | |
| | | SE | 4-16-32 | 10 | | | | | |
| | | SN | 4-16-33 | 8 | | | | | |
| | | LE | 4-19 | 6 | | | | | |
| | | F | 4-27 | | | | | | |

O. H. ...

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Earthquake Station, Dominion Astronomical Observatory



International
Seismological
Centre

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From May 1

to May 26, 1914 No. 8

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|--------------|---------|----------|--------|-----------|-------|-------|----------|---|
| | | | | | A_E | A_N | A_z | | |
| 492 | May 15 | 1 P N | 19-54-22 | s. | μ | μ | μ | 3740 | L diff- icult to read. Ampli- tude very minute. |
| | | 1 E | 20-03-11 | | | | | | |
| | | 1 SE | 20-04-18 | 6 | | | | | |
| | | SN | 20-04-19 | | | | | | |
| | | L N ? | 20-15.0 | 40 | | | | | |
| | | L N | 20-20.2 | 20 | | | | | |
| | | L E | 20-20.2 | 52 | | | | | |
| | | L E | 20-22.2 | 28 | | | | | |
| | | L E | 20-24.0 | 20 | | | | | |
| | | F | 20-35 | | | | | | |
| 493 | " 19 | 1 P N | 0-33-10 | | | | | 4400 | |
| | | 1 N | 0-34-51 | | | | | | |
| | | 1 SE | 0-39-19 | | | | | | |
| | | SN | 0-39-24 | | | | | | |
| | | e L N | 0-42.2 | 16 | | | | | |
| | | e L E | 0-42.3 | 18 | | | | | |
| | | L E | 0-46.2 | 20 | | | | | |
| | | L | 0-48 to | | | | | | |
| | 1-11 | 18 | | | | | | | |
| | 1-17 | | | | | | | | |
| 494 | " 26 | e | 14-42-03 | | | | | 9200 ? | |
| | | 1 SE | 14-46-06 | 6 | | | | | |
| | | 1 SN | 14-46-07 | 8 | | | | | |
| | | e L E ? | 15-01.4 | 50 | | | | | |
| | | e L N ? | 15-01.6 | 60 | | | | | |
| | | L E | 15-20 | 38 | | | | | |
| | | L N | 15-25 | 43 | | | | | |
| | | L | 15-52 | 20 | 40 | 50 | | | |
| | | L | 16-11 | 21 | | | | | |
| | | L | 16-41 | 19 | | | | | |
| F | 17-25 | | | | | | | | |

O. H. ...

Earthquake Station, Dominion Astronomical Observatory



International
Seismological
Centre

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From May 27

to May 28, 1914.

No. 9

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS. |
|-----|--------------|---|---|--|-----------------------------|-----------------------------|---|--|----------|
| | | | | | A _E | A _N | A _Z | | |
| 495 | May 28 | 1 P N 1 P E P R, N 1 S N 1 S E e L N e L E L L F | 3-31-09 3-31-22 3-32-18 3-36-44 3-36-57 3-40.4 3-42.5 3-45 3-50 4-30 | 3 ^s 30 26 16-20 13-14 | μ 40 | μ 23 | μ 3800 ^{km} | near Panama. Shutter not work- ing. only diff- erence of times reliable. | |
| 496 | May 28 | e P N e S N e S E e L E e L N L L F | 18-04-54 18-10-13 18-10-26 18-14.3 18-15.4 18-19 18-25 18-51 | 40 22 10 | | | 3600 | Time inter- polated from preced- ing hour & minute marks. Shutter not work- ing. | |
| 497 | May 28 | e P N e L N L L L F | 19-00-04 19-11.5 19-14 19-20 19-34 19-44 | 24 20 8 14 | | | 4800? | Time inter- polated as above. | |

Handwritten signature: Otto Klob

OTTAWA

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

to

May 29

May 31st, 1914.

No. 10

| No. | DATE | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS |
|-----|--------|--------------------|----------|--------|-----------|-------|-------|----------|--|
| | | | | | A_E | A_N | A_z | | |
| | 1914 | | h. m. s. | s. | μ | μ | μ | km. | |
| 498 | May 29 | P _N | 5-10-06 | | | | | 5600? | Time interpolated. Shutter not working. Absolute time uncertain. Differential time reliable. |
| | | 1 _N | 5-11-06 | | | | | | |
| | | 8 _N ? | 5-17-20 | | | | | | |
| | | e L _N ? | 5-20.3 | 20 | | | | | |
| | | L | 5-28 | 20 | | | | | |
| | | L | 5-42 | 22 | | | | | |
| | | L | 6-10 | 20 | | | | | |
| | | L | 6-15 | 20 | | | | | |
| | | L | 6-20 | 18 | | | | | |
| | | L | 6-43 | 16 | | | | | |
| | | L | 6-53 | 16 | | | | | |
| F | 7-13 | | | | | | | | |
| 499 | May 29 | e P | 16-24-58 | | | | 1900 | | |
| | | 1 P E | 16-25-06 | 3 | | | | | |
| | | 1 P N | 16-25-08 | 3 | | | | | |
| | | 8 N | 16-28-17 | | | | | | |
| | | L | 16-30 | 14 | | | | | |
| | | F | 16-35 | | | | | | |
| 500 | May 31 | 1 P E | 13-55-00 | 3 | | | 2300 | | |
| | | 1 PR N | 13-55-24 | | | | | | |
| | | 8 _N ? | 13-58-44 | 10 | | | | | |
| | | L E | 14-01 | 20 | | | | | |
| | | L N | 14-15 | 16 | | | | | |
| | | F | 14-25 | | | | | | |

O. H. Roberts

OTTAWA

No. 1

Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.



TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From June 1914 to June 21 1914. No. 11

| No. | DATE | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS |
|-----|---------|-------|----------|--------|----------------|----------------|----------------|--------------------|------------------------|
| | | | | | A _E | A _N | A _Z | | |
| | 1914 | | h. m. s. | s. | μ | μ | μ | km. | |
| 501 | June 20 | PE | 7-39-00 | 3 | | | | 10400 | No marked maximum. |
| | | PN ? | 7-40-00 | | | | | | |
| | | SE | 7-50-03 | 17 | | | | | |
| | | SN ? | 7-50-12 | 18 | | | | | |
| | | eLN ? | 8-10.4 | 60 | | | | | |
| | | LE | 8-15.6 | 32 | | | | | |
| | | L | 8-18 | 23-30 | | | | | |
| | | LE | 8-23 to | | | | | | |
| | | | 8-30 | 13 | | | | | |
| | | L | 8-37 | 20-17 | | | | | |
| 502 | " 20 | PE | 10-44-22 | 4 | | | | 3700? | Fine sinusoidal waves. |
| | | SE ? | 10-50-04 | 6 | | | | | |
| | | SN ? | 10-50-06 | | | | | | |
| | | e | 10-54-18 | 6 | | | | | |
| | | eL ? | 11-01.0 | 22-20 | | | | | |
| | | LN | 11-13 | 22 | | | | | |
| | | LE | 11-21 | 20 | | | | | |
| | | L | 11-24 | 24 | | | | | |
| | | L | 11-31 | 18 | | | | | |
| | | F | 11-50 | | | | | | |
| 503 | " 21 | PE | 0-01-12 | | | | 10,000? | Midst micro-seisms | |
| | | eLN | 0-30.0 | 24 | | | | | |
| | | eLE | 0-39.0 | 20 | | | | | |
| | | L | 0-48 | 17-16 | | | | | |
| | | L | 0-54 | 16-15 | | | | | |
| | | L | 1-02 | 16-15 | | | | | |
| | | F | 1-21 | | | | | | |

O. H. ...

OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m



TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **June 21st** to **June 25th, 1914.** No. 12

| No. | 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS |
|-----|---------|-----------------|----------|--------|----------------|----------------|----------------|----------------------|---------|
| | | | | | A _E | A _N | A _Z | | |
| 504 | June 21 | eP _E | 18-33-40 | s. | μ | μ | μ | 4700 ^{km} ? | |
| | | eP _N | 18-34-18 | | | | | | |
| | | 1 | 18-35-20 | | | | | | |
| | | SE? | 18-40-06 | | | | | | |
| | | LN | 18-47 | 24 | | | | | |
| | | F | 18-55 | | | | | | |
| 505 | " 23 | P | 3-35-20 | | | | 3350 | | |
| | | S _N | 3-40-27 | | | | | | |
| | | SE | 3-40-28 | | | | | | |
| | | LN | 3-44.1 | 20 | | | | | |
| | | L | 3-48 | 20 | | | | | |
| | | L | 3-51 | 24 | | | | | |
| | | L | 3-56 | 16 | | | | | |
| | | F | 4-15 | | | | | | |
| 506 | " 25 | e | 19-26-45 | | | | 5000 | | |
| | | 1P _N | 19-29-42 | 2 | | | | | |
| | | PE | 19-29-51 | | | | | | |
| | | S _N | 19-36-24 | | | | | | |
| | | SE | 19-36-34 | | | | | | |
| | | LN | 19-40 | 30 | | | | | |
| | | ME | 19-48 | 14 | 80 | | | | |
| | | MN | 19-49 | 16 | | 38 | | | |
| | | LN | 19-51 | 60 | | | | | |
| | | LE | 19-53 | 26 | | | | | |
| | | LN | 20-01 | 16 | | | | | |
| | | LE | 20-12 | 33 | | | | | |
| | | L | 20-24 | 30-25 | | | | | |
| | | L | 20-37 | 18-20 | | | | | |
| | | L | 21-04 | 24-20 | | | | | |
| | | F | 22-05 | | | | | | |

O. H. Roberts

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m

TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **June 26** to **June 30 1914, No. 13**

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS |
|-----|--------------|-----------------------|----------|--------|----------------------|----------------------|----------------------|-----------------------------|---------|
| | | | | | <i>A_E</i> | <i>A_N</i> | <i>A_Z</i> | | |
| | | | h. m. s. | s. | μ | μ | μ | km. | |
| 507 | June 26 | PE | 5-10-24 | | | | | 3600? | |
| | | SN ? | 5-20-13 | | | | | | |
| | | SE ? | 5-20-15 | | | | | | |
| | | LN ? | 5-27 | 20 | | | | | |
| | | LN | 5-42 | 24 | | | | | |
| | | LE | 5-46 | 36 | | | | | |
| | | L | 5-52 | 20-24 | | | | | |
| | | L | 6-01 | 16 | | | | | |
| | | Another quake sets in | | | | | | | |
| 508 | " 26 | PE | 6-12-52 | | | | | Possibly Coda of preceding. | |
| | | LE | 6-19 | 16 | | | | | |
| | | LN | 6-20 | 17 | | | | | |
| | | LE | 6-51 | 24 | | | | | |
| | | L | 6-57 | 20 | | | | | |
| | | LE | 7-22 | 16 | | | | | |
| | | F | 7-35 | | | | | | |
| 509 | " 29 | en | 6-52-15 | | | | | | |
| | | le | 6-52-15 | 6 | | | | | |
| | | F | 7-30 | | | | | | |

O. H. Roberts

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No.

Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.



TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **Aug. 1** to **Aug. 8, 1914** No. **17**

| No. | 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS | |
|-----|--------|-------|----------|--------|----------------------|----------------------|----------------------|----------|--|-----|
| | | | | | <i>A_E</i> | <i>A_N</i> | <i>A_Z</i> | | | |
| 521 | Aug. 3 | ePN | 11-31-22 | s. | μ | μ | μ | 2540? | | |
| | | PE | 11-31-28 | | | | | | | |
| | | PR, N | 11-31-46 | | | | | | | |
| | | es ? | 11-35.5 | | | | | | | |
| | | eLN | 11-36-48 | | | | | | | |
| | | eLE | 11-36-40 | | | | | | | |
| | | ME | 11-42.2 | | | | | | | |
| | | F | 12-10. | | | | | | | |
| 522 | Aug. 4 | ePN | 22-54-44 | | | | | 9560 | | |
| | | ePE | 22-54-40 | | | | | | | |
| | | IS | 23-05-12 | | | | | | | |
| | | eLN | 23-23-13 | | | | | | | |
| | | eLE | 23-23-21 | | | | | | | |
| | | MN | 23-35.3 | | | | | | | |
| | | ME | 23-30 | | | | | | | |
| | | F | 24-39 | | | | | | | |
| 523 | Aug. 8 | ePN | 19-16-07 | | | | | 4100 | At 21-25-48 the amplitude increases suddenly & remains large for 20 mins. This appears to be the L waves arriving by the opposite side of the earth. It may be a second quake if so phases not marked. | |
| | | 1PE | 19-16-07 | | | | | | | |
| | | 1SN | 19-21-57 | | | | | | | |
| | | esE | 19-21-48 | | | | | | | |
| | | eLN | 19-24-27 | | | | | | | |
| | | eLE | 19-24-32 | | | | | | | |
| | | LN | 19-33-15 | | | | | | | 7 |
| | | LE | 19-29-30 | | | | | | | 5.3 |
| | | LE | 19-32-30 | | | | | | | 6 |
| | | LE | 19-33-30 | | | | | | | 7 |
| | | LE | 19-39- | | | | | | | 6 |
| F | 21-47 | | | | | | | | | |

OTTAWA

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Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.



TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **September 1st** to **Sept. 30, 1914** — No. **19**

| No. | DATE 1914 | PHASE | TIME h. m. s. | PERIOD s. | AMPLITUDE | | | DISTANCE km. | REMARKS |
|-----|--------------|--------------------------|---------------------|--------------|----------------|----------------|----------------|---------------------------|---------|
| | | | | | A_E μ | A_N μ | A_z μ | | |
| 527 | Sep. 10 | P _N | 1-57-14 | | | | | | |
| | | L _N | 1-57-51 | 12 | | | | | |
| | | L _E | 1-57-57 | 12 | | | | | |
| | | F | 2-07 | | | | | | |
| 528 | Sep. 10 | eP _E | 10-11-35 | | | | 340 | | |
| | | eP _N | 10-11-38 | | | | | | |
| | | I _N | 10-12-16 | | | | | | |
| | | L | 10-12.6 | 11-12 | | | | | |
| | | L | 10-15 | 8-9 | | | | | |
| | | F | 10-29 | | | | | | |
| 529 | Sep. 25 | P | 10-39-37 | | | | 5440 | Quake reported in Ecuador | |
| | | S_N | 10-46-40 | | | | | | |
| | | S_E | 10-46-42 | | | | | | |
| | | L | 10-52.2 | 20 | | | | | |
| | | L | 10-55 | 20 | | | | | |
| | | L | 11-01 | 20 | | | | | |
| F | 11-15 | | | | | | | | |

Otto Wilson

OTTAWA

No.

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.



TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From October 1 to Oct. 31, 1914 No. 20

| No. | DATE 1914 | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS |
|-----|--------------|-------|----------|--------|----------------|----------------|----------------|----------|---|
| | | | | | A _E | A _N | A _Z | | |
| | | | h. m. s. | s. | μ | μ | μ | km. | |
| 530 | Oct. 1 | PN | 6-31-08 | | | | | 4200 | During quake minute breaks missing. Breaks on sheet before and after. Time interpolated. Relative correct, but absolute time may be in error a few seconds. |
| | | PN | 6-32-34 | | | | | | |
| | | SE | 6-37-06 | | | | | | |
| | | L | 6-40.2 | 20 | | | | | |
| | | L | 6-43 | 26 | | | | | |
| | | F | 7-05 | | | | | | |
| 531 | Oct. 3 | P | 17-28-39 | | | | | 3120 | |
| | | S | 17-33-51 | | | | | | |
| | | eL | 17-36.2 | 20 | | | | | |
| | | M | 17-38.3 | 26 | 85 | 90 | | | |
| | | L | 17-44 | 11 | | | | | |
| | | L | 18-01 | 12 | | | | | |
| | | L | 18-20 | 11 | | | | | |
| | | L | 18-44 | 11 | | | | | |
| 532 | Oct. 3 | P | 22-18-40 | 2 | | | | 8200 | Reported east of Bayona. |
| | | S | 22-26-10 | | | | | | |
| | | SE ? | 22-33.2 | 28 | | | | | |
| | | SE ? | 22-35.5 | 28 | | | | | |
| | | eLN | 22-42.0 | 26 | | | | | |
| | | eLN | 22-42.4 | 30 | | | | | |
| | | L | 22-54 | 16 | | | | | |
| 533 | Oct. 22 | ePN | 7-00-46 | 2 | | | | 1780 | Not well marked in phase. |
| | | SN | 7-03-49 | 10 | | | | | |
| | | LN | 7-05 | 8 | | | | | |
| | | F | 7-15 | | | | | | |
| 534 | Oct. 23 | ePN | 6-37-57 | 2 | | | | 6300 | |
| | | LN | 6-39-43 | | | | | | |
| | | SE ? | 6-45-19 | | | | | | |
| | | LN | 6-57.0 | 20 | | | | | |
| | | LE | 6-57.5 | 40 | | | | | |
| | | L | 7-20 | 36-30 | | | | | |
| | | L | 7-28 | 25 | | | | | |
| | | L | 7-40 | 20 | | | | | |

Otto Roby

OTTAWA

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.



TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

to

Nov. 30, 1914

Nov. 30, 1914

No. 21

| No. | DATE | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS |
|-----|---------|------------------|----------|--------|-----------|-------|-------|----------|---------|
| | | | | | A_E | A_N | A_z | | |
| | 1914 | | h. m. s. | s. | μ | μ | μ | km. | |
| 535 | Nov. 9 | L | 1-31.0 | 9 | | | | 900 | |
| 536 | " 10 | ePN | 11-22-06 | 2 | | | | | |
| | | S | 11-23-43 | 2 | | | | | |
| | | ME | 11-24.0 | 4 | 10 | | | | |
| | | L | 11-26.5 | 9 | | | | | |
| | | F | 11-39 | | | | | | |
| 537 | Nov. 18 | PN | 9-46-14 | 2 | | | | 5030 | |
| | | SE | 9-52-58 | 5 | | | | | |
| | | LN | 9-56.2 | 18 | | | | | |
| | | LE | 9-56.5 | 20 | | | | | |
| | | L | 10-08 | 16 | | | | | |
| | | F | 10-25 | | | | | | |
| 538 | Nov. 24 | PN | 12-11-37 | 2 | | | | 4030 | |
| | | S | 12-17-26 | 4 | 24 | 17 | | | |
| | | 1SR ₂ | 12-20-19 | 6 | 23 | 13 | | | |
| | | L | 12-21.3 | 30 | | | | | |
| | | L | 12-41 to | 26 to | | | | | |
| | | | 12-43 | 20 | | | | | |
| | | L | 12-47 to | 18 to | | | | | |
| | | | 13-09 | 16 | | | | | |
| | | L | 13-23 to | 14 | | | | | |
| | | | 13-26 | | | | | | |
| | | F | 14-00 | | | | | | |

Handwritten signature

OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.



TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

to

Dec. 1st

Dec. 31st, 1914. No. 22.

| No. | DATE | PHASE | TIME | PERIOD | AMPLITUDE | | | DISTANCE | REMARKS |
|-----|--------|--|--|---------------------------------------|----------------------|----------------------|----------------------|----------|---|
| | | | | | <i>A_E</i> | <i>A_N</i> | <i>A_Z</i> | | |
| | 1914 | | h. m. s. | s. | μ | μ | μ | km. | |
| 539 | Dec. 4 | 1P _N S ? F | 22-46-14 22-48-38 23-0 | 3 10 | | | | 1360? | |
| 540 | " 20 | F PR _{3E} ? PR _{3N} ? SE ? SN ? LN LN LE F | 14-28-08 14-35-02 14-35-48 14-38-04 14-38-43 14-54 15-00 15-06 16-00 | 2 12 40 16 20 | | | | 9200 | Time interpolated |
| 541 | " 25 | P 1SE LE PN ME F | 3-47-38 3-52-05 3-54.8 3-55-35 3-57.1 4-20 | 2 20 5 | 8 | | | 2800 | N seems to show a second shock at 3-55-35. Time interpolation |
| 542 | " 28 | L L F | 2-56 3-01 3-11 | 10 10 | | | | | |

O. H. ...