# SEISMOLOGICAL BULLETINS RECEIVED

## January,

## 1935.

We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED |
|---|---|---|
| Sydney | October, 1934 | January 2 |
| Algiers | November, 1934 | " 3 |
| Melbourne | July to September, 1934 | " 3 |
| St. Louis | Preliminaries for November 27, 30th, and December 3, 1934 | " 7 |
| Chiufeng | November, 1934 | " 9 |
| Rome | December 3 - 16, 1934 | " 11 |
| Zinsen | July to September, 1934 | " 11 |
| Strasbourg, Paris, Bureau Central | November, 1934 | " 12 |
| Toledo, Cartuja, Alicante, Almeria, Malaga | November and December, 1933 | " 14 |
| Pasadena | November/34 and Local Shocks | " 14 |
| Riverview | November, 1934 | " 16 |
| Wellington | Preliminary for November, 1934 | " 16 |
| Zi-Ka-Wei | September 4 to November 11, 1934 | " 16 |
| Cape Town | October 18 to November 30, 1934 | " 17 |
| Georgetown | December, 1934 and Seismological Despatches | " 17 |
| Ithaca | March 5 to July 10, 1934 | " 24 |
| Richmond | December, 1934 | " 25 |
| Rome | December 17 - 31, 1934 | " 25 |
| Tananarive | June, July and August, 1934 | " 26 |
| Zagreb | March 24 to June 29, 1934 | " 26 |
| Apia | October to December, 1934 | " 30 |
| Rome | January 1 - 14, 1935 | " 31 |

DOMINION OBSERVATORY,
OTTAWA, CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGIC STATION, DOMINION OBSERVATORY
## OTTAWA


R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*


$\varphi = 45°\ 23'\ 38''$ N. $\lambda = 75°\ 42'\ 57''$ W. h. = 83m.

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°$ [illegible] W. h. = 515m.

38'

Foundation: clay and sand.
Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44°\ 38'$ N. $\lambda = 63°\ 36'$ W. h. = 46m.

Foundation: carbonaceous slate.
Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46°\ 33'{\cdot}1$ N. $\lambda = 72°\ 45'{\cdot}8$ W. h. = 60m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47°\ 07'{\cdot}4$ N. $\lambda = 70°\ 49'{\cdot}6$ W. h. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | V | $\epsilon$ | COMP. | DISPLACEMENT FOR 1" ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.6 | | 120 | 15:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Vert. | |
| HN | 9.8 | | 110 | Aperiodic | NS | |
| HE | 7.1 | | 147 | " | EW | |
| SN | 9.0 | | 61 | " | NS | |
| SE | 9.0 | | 44 ? | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |


DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM January 1, 1935 to January 17, 1935 No. 1

| NO. AND DATE | PHASE | TIME | AMP. μ | DISTANCE km. | REMARKS |
|---|---|---|---|---|---|
| | | h m s | | | |

Beginning with this issue of the Bulletin, the direction and magnitude of the first motion in the case of the P phase are given in the "amplitude" column. The plus sign will be used to indicate a true earth movement north, east, or of rarefaction and the negative sign south, west, or of condensation, respectively. Where possible to measure the magnitude, this will be given in microns immediately following the plus or minus sign.

| | | | | | |
|---|---|---|---|---|---|
| 5571 Jan. 1 | $e_E$ | 13 - 39 | | | USCGS gives: |
| | $i_E$ | 13 - 45 - 05 | | | $\phi$ = 17° S. |
| | $i_E$ | 13 - 47 - 12 | | | $\lambda$ = 174° W. |
| | $e_N$ | 13 - 54.2 | | | |
| | $i_E$ | 13 - 48 - 44 | | | |
| | eL | 13 - 55 | | | |
| | F | 14 - 50 | | | |
| 5572 Jan. 2 | i | 22 - 53 - 48 | | | |
| | eL | 22 - 59 | | | |
| | F | 23 - 44 | | | |
| 5573 Jan. 3 | $e_E$ | 2 - 33 | | | |
| | $e_N$ | 2 - 38 | | | |
| | eL | 2 - 41 | | | |
| | F | 3 - 23 | | | |
| 5574 Jan. 4 | $e_E$ | 14 - 55.5 | | | |
| | i | 15 - 02 - 05 | | | |
| | e | 15 - 06.6 | | | |
| | eL | 15 - 13 | | | |
| | F | 16 - 28 | | | |
| 5575 Jan. 4 | i | 16 - 40 - 46 | | | |
| | eL | 16 - 52 | | | |
| | F | 17 - 45 | | | |
| 5578 Jan. 17 | $e_E$ | 2 - 29 | | | Early phases masked by micros. |
| | $e_E$ | 2 - 38.3 | | | |
| | e | 2 - 45 | | | |
| | eL | 2 - 59 | | | |
| | F | 4 - 35 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM January 18, 1935 to January 31, 1935 No. 2

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5581 Jan. 19 | e | 12 - 56 | | | |
| | eL | 13 - 03 | | | |
| | F | 13 - 35 | | | |
| 5584 Jan. 23 | H | 7 - 24 - 20 | | 6230 | USCGS gives: |
| | $eP_N$ | 7 - 33 - 56 | -2 | | |
| | $eP_E$ | 7 - 33 - 56 | +2 | | $\phi$ = 52° N. |
| | $eP_Z$ | 7 - 33 - 56 | -1 | | $\lambda$ = 170° W. |
| | $PR_1$ | 7 - 36 - 06 | | | |
| | iS | 7 - 41 - 50 | | | |
| | $SR_1$ | 7 - 45.7 | | | |
| | eL | 7 - 52 | | | |
| | F | 11 - 04 | | | |
| 5587 Jan. 31 | $e_E$ | 18 - 15.5 | | | |
| | $e_N$ | 18 - 31 | | | |
| | L | 18 - 50 | | | |
| | F | 19 - 43 | | | |

W. W. Doxsee

# CORRELATION TABLE

This tabulation not only provides a serially numbered list of all earthquakes recorded at the Ottawa station but also shows a correlation of the entire Ottawa series with those obtained in each of the three Quebec series (Shawinigan-Wood-Anderson: Seven Falls-Wood-Anderson: Seven Falls-Milne-Shaw). The entries for each of the four series show in hours and minutes the time of beginning of the tremors in Greenwich Mean Time. The appearance of entries for two or more series in the same line indicates that these are known to be concerned with the same earthquake even though the times of beginning may differ slightly. The figures after the plus sign show the duration of the record in hours and minutes. The Ottawa serial number of the earthquake and the day of the month on which it occurred are listed in the first and second columns respectively, while the extreme right hand column is reserved for index letters to a series of notes following the tabulation. Certain letters are reserved for the purpose of classifying the entries; these are as follows:

d (domesticus) epicentre less than 100 km.
v (vicinus) epicentre between 100 and 1000 km.
r (remotus) epicentre between 1000 and 5000 km.
u (ultimus) epicentre beyond 5000 km.

(above lower-case letters apply to earthquakes of the lowest order of intensity on a scale of three).

D, V, R, U : distance as above, intensity intermediate.
D, V, R, U : distance as above, intensity - top of scale.
L Long (or surface waves) alone recorded.
Q Questionable (may not be seismic).
T Time uncertain.
P Preliminary tremors alone recorded.

# EARTHQUAKE CORRELATION TABLE

January, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5571 | 1 | 13-39+1-12u | ..... | ..... | 13-49+0-50u | .. |
| 5572 | 2 | 22-54+0-50u | 23-01+0-07L | 22-48+0-20u | ..... | .. |
| 5573 | 3 | 2-33+0-50u | ..... | ..... | ..... | .. |
| 5574 | 4 | 14-56+1-32u | ..... | ..... | 15-02+1-20u | .. |
| 5575 | 4 | 16-41+1-04u | ..... | ..... | 16-42+0-46u | .. |
| 5576 | 12 | 19-08+0-16L | ..... | ..... | 19-08+0-11L | .. |
| 5577 | 14 | 22-11+0-18L | ..... | ..... | 22-13+0-11L | .. |
| 5578 | 17 | 2-29+0-06u | ..... | ..... | 3-06+0-27L | .. |
| 5579 | 17 | 8-43+0-15L | ..... | ..... | ..... | A |
| 5580 | 18 | 12-00+0-51L | ..... | ..... | ..... | .. |
| | 18 | ..... | 19-14+0-03P | 19-14+0-03P | ..... | .. |
| 5581 | 19 | 12-56+0-39u | ..... | ..... | ..... | .. |
| 5582 | 20 | 16-41+0-08L | ..... | ..... | ..... | .. |
| | 21 | ..... | 15-42+0-02P | ..... | ..... | .. |
| 5583 | 22 | 15-57+0-47L | ..... | ..... | ..... | .. |
| 5584 | 23 | 7-34+3-30U | 7-34+1-17U | 7-34+1-03U | ..... | B |
| 5585 | 26 | 18-03+0-24L | ..... | ..... | ..... | .. |
| 5586 | 27 | 16-58+0-25L | ..... | ..... | ..... | .. |
| | 28 | ..... | 9-03+0-0.3d | ..... | ..... | C |
| | 31 | ..... | 16-58+0-0.3d | ..... | ..... | C |
| | 31 | ..... | 17-08+0-0.3d | ..... | ..... | C |
| 5587 | 31 | 18-16+1-27u | ..... | ..... | ..... | .. |
| | 31 | ..... | 23-05+0-0.8d | ..... | ..... | C |

# CORRELATION OF EARTHQUAKES
January, 1935.

## N O T E S

A : Seven Falls Milne-Shaw not in operation during the period January 17 to January 31.

B : Ottawa $\Delta$ = 6230 km. H = 7-24.3 G.M.T.
Shawinigan Falls $\Delta$ = 6250 km. H = 7-24.4 G.M.T.
Seven Falls $\Delta$ = 6350 km. H = 7-24.4 G.M.T.

C : Local shock recorded at Shawinigan Falls only. Epicentre probably within 50 km. of Shawinigan Falls.

Dominion Observatory,
Ottawa, Canada,
February 13, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED

## February,

## 1935.



We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATION | BULLETINS | RECEIVED | |
|---|---|---|---|
| Sydney | November, 1934 | February | 4 |
| Perth | September 8 to December 15, 1934 | " | 4 |
| Zurich | December, 1934 | " | 4 |
| Taihoku | Preliminary for December, 1934 | " | 4 |
| Paris<br>Strasbourg<br>Bureau Central | December, 1934 | " | 7 |
| Manila | November, 1934 | " | 7 |
| Hamburg | August to December, 1934 | " | 9 |
| San Fernando | November and December, 1934 | " | 11 |
| Toledo<br>Cartuja<br>Alicante<br>Almeria<br>Malaga | January and February, 1934 | " | 11 |
| Riverview | December, 1934 | " | 13 |
| Wellington | Preliminary for December, 1934 | " | 13 |
| Georgetown | January, 1935 and Seismological Despatches | " | 15 |
| Helwan | November, 1934 | " | 18 |
| St. Louis | Preliminary for September 15, 1934 | | 19 |
| " | August 31 to September 21, 1934 | " | 19 |
| Florissant | August, 1934 | " | 19 |
| Little Rock | Corrigenda in Bulletin for 1934 | " | 19 |
| De Bilt | Year 1932 | " | 19 |
| St. Louis | Preliminary for December 4, 1934 | " | 20 |
| " | November, 1934 | " | 20 |
| Florissant | October, 1934 | " | 20 |
| Little Rock | November, 1934 | " | 20 |
| Pasadena | December, 1934 and Local Shocks | " | 20 |
| Osaka | November 8 to December 31, 1934 | " | 20 |
| " | July to September, 1933 | " | 21 |
| Prague | January 1 to May 31, 1934 | " | 22 |
| " | October 1 to December 31, 1934 | " | 22 |
| Rome | January 15 - 28, 1935 | " | 22 |
| Richmond | January, 1935 | " | 23 |
| Zurich | January, 1935 | " | 25 |
| Riverview | January, 1935 | " | 28 |
| Balboa<br>Bozeman<br>Charlottesville<br>Chicago<br>Columbia<br>Honolulu<br>Huancayo<br>Montezuma<br>Philadelphia<br>Pittsburg<br>San Juan<br>Seattle<br>Sitka<br>Tucson<br>Ukiah | January, February and March, 1934 | " | 28 |

DOMINION OBSERVATORY
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1" ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.6 | | 120 | 15:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Vert. | |
| HN | 9.8 | | 110 | Aperiodic | NS | |
| HE | 7.1 | | 147 | " | EW | |
| SN | 9.0 | | 61 | " | NS | |
| SE | 9.0 | | 44? | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM February 1, 1935 to February 28, 1935 No. 3

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5589 Feb. 4 | H | 17 - 41.9 | | (6030) | |
| | $eP_N$? | 17 - 51,3 | | | |
| | $eE$ | 17 - 53.0 | | | |
| | eS | 17 - 59.0 | | | |
| | eL | 18 - 07 | | | |
| | F | 19 - 33 | | | |
| 5592 Feb. 6 | H | 1 - 54.0 | | 3280 | |
| | $ePE$ | 2 - 00 - 10 | +1 | | |
| | eS | 2 - 05 - 12 | | | |
| | $SR_{1N}$ | 2 - 06 - 40 | | | |
| | eL | 2 - 08 | | | |
| | F | 2 - 43 | | | |
| 5598 Feb. 13 | e | 17 - 42 - 12 | | | |
| | eL | 17 - 47 | | | |
| | F | 18 - 14 | | | |
| 5602 Feb. 22 | H | 17 - 06.2 | | 7200 | Saskatoon Record: |
| | eP | 17 - 16 - 45 | | | $eP_E$ = 17-14-27 |
| | $PR_{1E}$ | 17 - 19 - 20 | | | iS = 17-21-12 |
| | $PR_{2E}$ | 17 - 20 - 48 | | | Δ = 5010 |
| | S | 17 - 25 - 33 | | | H = 17-06.2 |
| | $SR_1$ | 17 - 32.6 | | | |
| | eL | 17 - 37 | | | |
| | F | 21 - 25 | | | |
| 5607 Feb. 25 | H | 2 - 52.3 | | 7410 | |
| | eP | 3 - 03 - 04 | | | |
| | iS | 3 - 12 - 02 | | | |
| | $PS_E$ | 3 - 12 - 36 | | | |
| | $SR_2$ | 3 - 19 - 08 | | | |
| | eL | 3 - 25 | | | |
| | F | 4 - 05 | | | |
| 5609 Feb. 27 | e | 15 - 43 - 34 | | | |
| | eL | 15 - 46 | | | |
| | F | 16 - 03 | | | |

W. W. Doxsee.

# EARTHQUAKE CORRELATION TABLE

February, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| | 1 | ..... | 16-31+0-0.5d | ..... | ..... | A |
| | 1 | ..... | 22-58+0-0.4d | ..... | ..... | A |
| 5588 | 2 | 19-23+0-07L | 18-24+0-01P | ..... | ..... | .. |
| | 2 | ..... | 23-04+0-0.4d | ..... | ..... | A |
| 5589 | 4 | 17-51+1-42u | ..... | ..... | ..... | B |
| 5590 | 4 | 23-23+0-11L | ..... | ..... | ..... | .. |
| 5591 | 6 | 0-19+0-15L | ..... | ..... | ..... | .. |
| 5592 | 6 | 2-00+0-42r | 2-00+0-01P | 2-00+0-01P | ..... | C |
| 5593 | 9 | 19-10+0-08L | ..... | ..... | ..... | .. |
| 5594 | 9 | 20-09+0-38L | ..... | ..... | ..... | .. |
| 5595 | 10 | 19-58+0-10L | ..... | ..... | ..... | .. |
| 5596 | 10 | 20-13+0-28u | ..... | ..... | ..... | .. |
| 5597 | 13 | 9-56+0-10L | ..... | ..... | ..... | .. |
| 5598 | 13 | 17-42+0-32u | 17-33+0-15u | ..... | ..... | .. |
| 5599 | 19 | 19-33+0-35u | ..... | ..... | 19-39+0-26L | .. |
| 5600 | 20 | 11-39+0-33u | ..... | ..... | 11-40+0-27u | .. |
| | 20 | ..... | 23-09+0-0.3d | ..... | ..... | A |
| 5601 | 22 | 10-01+0-14L | ..... | ..... | ..... | .. |
| 5602 | 22 | 17-17+4-08U | 17-17+2-04U | 17-17+1-50U | 17-17+4-07U | E |
| 5603 | 23 | 4-03+1-00L | ..... | ..... | 4-04+1-04L | .. |
| 5604 | 24 | 0-48+0-14L | ..... | ..... | ..... | .. |
| 5605 | 24 | 2-03+0-11L | ..... | ..... | 2-03+0-10L | .. |
| 5606 | 24 | 11-48+0-17L | ..... | ..... | 11-55+0-11L | .. |
| 5607 | 25 | 3-03+1-02u | 3-03+0-05P | 3-03+0-04P | 3-12+0-36u | F |
| 5608 | 27 | 10-15+0-17L | ..... | ..... | 10-15+0-13L | .. |
| 5609 | 27 | 15-44+0-19L | ..... | ..... | 15-46+0-16L | .. |
| 5610 | 28 | 1-26+0-23L | ..... | ..... | 1-29+0-19L | .. |
| 5611 | 28 | 7-30+0-10L | 7-21+0-02P | 7-21+0-10P | 7-30+0-05L | G |

# CORRELATION OF EARTHQUAKES
February, 1935.

## N O T E S

A : Local shock recorded at Shawinigan Falls with origin probably within 50 km. of that station.

B : Ottawa Δ = 6030 km. H = 17-41.9 G.M.T.

C : Ottawa Δ = 3280 km. H = 1-54.0 G.M.T.

E : Ottawa Δ = 7200 km. H = 17-06.2 G.M.T.
Shawinigan Falls Δ = 7330 km. H = 17-06.0 G.M.T.
Seven Falls Δ = 7335 km. H = 17-06.1 G.M.T.

F : Ottawa Δ = 7410 km. H = 2-52.3 G.M.T.

G : Seven Falls Δ = 8160 km. H = 7-09.8 G.M.T.

General:- Seven Falls Milne-Shaw not in operation for the period February 1 to February 14.

Dominion Observatory,
Ottawa, Canada,
March 15, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED
March,
1935.



We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED |
|---|---|---|
| Taihoku | Preliminary for January '35 | March 5 |
| Toronto | December '34 and January '35 | " 5 |
| Victoria | December, 1934 | " 5 |
| Manila | December, 1934 | " 6 |
| Chiufeng | January, 1935 | " 7 |
| Rome | January 29 to February 11 '35 | " 8 |
| Algiers | December '34 and January '35 | " 11 |
| Graz | August 31 to December 31 '34 | " 11 |
| Wien | June 29 to November 30 '34 | " 11 |
| Lemberg | February 25 to August 31 '34 | " 11 |
| Bureau Central, Paris, Strasbourg | January, 1935 | " 12 |
| Wellington | Preliminary for January '35 | " 15 |
| Helwan | December, 1934 | " 15 |
| Cape Town | December, 1934 | " 15 |
| Zi-Ka-Wei | November 16 to December 31 '34 | " 18 |
| Ithaca | October 10 to December 31 '34 | " 18 |
| St. Louis | Preliminary for June 29, 1934 | " 20 |
| Georgetown | February, 1935 and Seismological Despatches | " 21 |
| Pasadena | January, 1935 | " 21 |
| Richmond | February, 1935 | " 21 |
| Karlsruhe | Year 1934 | " 22 |
| Rome | February 12 - 25, 1935 | " 22 |
| St. Louis | Preliminaries for December 22 and December 30, 1934 | " 23 |
| Uccle | August 1 to December 31, 1934 | " 23 |
| Helwan | January, 1935 | " 25 |
| Perth | December 15 - 31, 1934 | " 26 |
| Sydney | December '34 and January '35 | " 27 |
| St. Louis | Preliminaries for December 31 '34; January 1, 2, 23 and February 22 '35 | " 28 |
| " | December, 1934 | " 28 |
| Florissant | November 5 - 30, 1934 | " 29 |
| Little Rock | December, 1934 | " 29 |
| Melbourne | October to December, 1934 | " 29 |
| Leningrad and Auxiliary Stations | February to August and October 1934 | " 29 |
| Crimean Stations | Year 1932 and January to December, 1933 | " 29 |
| Trieste | April to September, 1934 | " 29 |
| Algiers | February, 1935 | " 29 |
| Cape Town | January, 1935 | " 29 |
| Zi-Ka-Wei | January 1 - 2, 1935 | " 30 |
| Zurich | February, 1935 | " 30 |
| Peichiko | July to September, 1934 | " 30 |

DOMINION OBSERVATORY,
OTTAWA - CANADA.
R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.
W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA


R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*


$\varphi = 45°\ 23'\ 38''$ N. $\lambda = 75°\ 42'\ 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°\ 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44°\ 38'$ N. $\lambda = 63°\ 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46°\ 33'.1$ N. $\lambda = 72°\ 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47°\ 07'.4$ N. $\lambda = 70°\ 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1″ ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.6 | | 120 | 15:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Vert. | |
| HN | 9.8 | | 110 | Aperiodic | NS | |
| HE | 7.1 | | 147 | " | EW | |
| SN | 9.0 | | 61 | " | NS | |
| SE | 9.0 | | 44? | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY

FROM March 1, 1935 to March 31, 1935 No. 4

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5617 Mar. 14 | $e_E$ | 16 - 02.0 | | | |
| | $e_E$ | 16 - 08.3 | | | |
| | eL | 16 - 24 | | | |
| | F | 17 - 27 | | | |
| 5619 Mar. 17 | H | 21 - 33.4 | | 3520 | |
| | $iP_N$ | 21 - 39 - 54 | +0.5 | | |
| | $iP_E$ | 21 - 39 - 54 | +0.5 | | |
| | i | 21 - 40 - 18 | | | |
| | PP | 21 - 41 - 10 | | | |
| | eS | 21 - 45 - 11 | | | |
| | $e_E$ | 21 - 47.5 | | | |
| | eL | 21 - 50 | | | |
| | F | 22 - 22 | | | |
| 5621 Mar. 20 | $e_E$ | 23 - 25 | | | |
| | e | 23 - 34 | | | |
| | eL | 23 - 52 | | | |
| | F | 1 - 29 | | | |
| 5622 Mar. 26 | e | 21 - 43 | | | |
| | eL | 21 - 47 | | | |
| | F | 22 - 11 | | | |
| 5623 Mar. 29 | $e_E$? | 12 - 51.5 | | | |
| | e | 12 - 54 | | | |
| | $e_N$ | 13 - 04 | | | |
| | eL | 13 - 24 | | | |
| | F | 15 - 00 | | | |
| 5625 Mar. 30 | e | 21 - 43 - 08 | | | |
| | $e_N$ | 21 - 44 - 40 | | | |
| | e | 21 - 53.4 | | | |
| | eL | 22 - 04 | | | |
| | F | 23 - 10 | | | |
| 5626 Mar. 31 | $e_N$ | 3 - 41 | | | |
| | eL | 3 - 51 | | | |
| | F | 4 - 20 | | | |

W. W. Doxsee

# EARTHQUAKE CORRELATION TABLE

## March, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| | 1 | ..... | 11-08+0-04P | 11-09+0-05P | ..... | .. |
| 5612 | 2 | 13-26+0-11L | 13-27+0-04L | ..... | 13-29+0-07L | .. |
| 5613 | 4 | 11-11+0-34L | ..... | ..... | ..... | .. |
| 5614 | 5 | 23-03+0-29L | ..... | ..... | 23-19+0-12L | .. |
| | 7 | ..... | ..... | ..... | 1-13+0-09L | .. |
| 5615 | 13 | 19-34+0-38L | ..... | ..... | 19-43+0-20L | .. |
| 5616 | 14 | 12-36+0-43L | ..... | ..... | 12-49+0-13L | .. |
| 5617 | 14 | 16-02+1-25u | ..... | ..... | 16-02+1-24u | .. |
| 5618 | 17 | 10-13+0-23L | ..... | ..... | 10-20+0-06L | .. |
| 5619 | 17 | 21-40+0-42r | 21-40+0-19r | 21-40+0-16r | 21-40+0-40r | A |
| 5620 | 18 | 9-02+0-09L | ..... | ..... | ..... | .. |
| 5621 | 20 | 23-25+1-04u | ..... | ..... | 23-34+1-48u | .. |
| 5622 | 26 | 21-43+0-28L | ..... | ..... | 21-44+0-28L | .. |
| | 29 | ..... | 0-09+0-0.5P | 0-09+0-0.1P | ..... | .. |
| 5623 | 29 | 12-52+2-08u | ..... | ..... | 13-27+1-47u | .. |
| 5624 | 30 | 3-09+0-35L | ..... | ..... | 3-22+0-18L | .. |
| 5625 | 30 | 21-43+1-25u | ..... | ..... | 21-43+1-25u | .. |
| 5626 | 31 | 3-41+0-39L | ..... | ..... | 3-50+0-26L | .. |

# CORRELATION OF EARTHQUAKES

March, 1935.

## N O T E S

A : Ottawa Δ = 3520 km. H = 21-33.4 G.M.T.

Seven Falls Δ = 3850 km. H = 21-33.4 G.M.T.

Dominion Observatory,
Ottawa, Canada,
April 13, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED

## April,

## 1935.

We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATION | BULLETINS | RECEIVED |
|---|---|---|
| Taihoku | February, 1935 | April 1 |
| Rome | February 26 to March 11, 1935 | " 4 |
| Eger | Year 1934 | " 6 |
| Paris<br>Bureau Central<br>Strasbourg | February, 1935 | " 6 |
| Chiufeng | February, 1935 | " 8 |
| La Plata | September, 1934 to February, 1935 | " 8 |
| Manila | January, 1935 | " 8 |
| Zinsen | October to December, 1934 | " 8 |
| Toronto | February and March, 1935 | " 10 |
| Cape Town | February, 1935 | " 11 |
| Osaka | January 1 to March 18, 1935 | " 11 |
| Rome | March 12 - 25, 1935 | " 15 |
| Toledo<br>Cartuja<br>Almeria<br>Alicante<br>Malaga | March and April, 1934 | " 15 |
| Pasadena | February, 1935 and Local Shocks | " 16 |
| Saint Louis | Preliminary for March 17, 1935 | " 17 |
| " | January and February, 1935 | " 17 |
| Florissant | December, 1934 and January, 1935 | " 17 |
| Little Rock | February 13 - 28, 1935 | " 17 |
| San Fernando | January and February, 1935 | " 18 |
| Tananarive | September and October, 1934 | " 18 |
| Richmond | March, 1935 | " 20 |
| U.S.C.G.S. | April, May and June, 1934 | " 20 |
| Cartuja | April, May and June, 1934 | " 23 |
| Wellington | February, 1935 | " 24 |
| Colaba | Year 1934 | " 25 |
| Riverview | February, 1935 | " 25 |
| Perth | January, 1935 | " 25 |
| Algiers | March, 1935 | " 27 |

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1" ARC TILT |
|---|---|---|---|---|---|---|
| | 5.3 | | 120 | 2:1 | NS | |
| I | 6.5 | | 120 | 14:1 | EW | |
| II | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 17 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| 23 | 5.6 | | 160 | 10:1 | Z | |
| W | 9.8 | | 110 | Aperiodic | NS | |
| HN | 7.1 | | 147 | " | EW | |
| HE | 8.5 | | 57 | " | NS | |
| SN | 8.5 | | 55 | " | EW | |
| SE | 0.9 | | 2000 | | NS | |
| SA | 1.1 | | 1750 | | EW | |
| SF | 12.0 | | 250 | 20:1 | EW | 43 mm. |
| SM | | | | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM April 1, 1935 to April 18, 1935 No. 5

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5628 Apr. 1 | $e_N$ | 3 .. 13 | | | |
| | e | 3 - 16 | | | |
| | eL | 3 - 20 | | | |
| | F | 4 - 07 | | | |
| 5631 Apr. 3 | e | 12 - 23 | | | |
| | $e_E$ | 12 - 29 | | | |
| | eL | 12 .. 35 | | | |
| | F | 13 - 31 | | | |
| 5632 Apr. 3 | e | 21 - 29.3 | | | |
| | eL | 21 - 49 | | | |
| | F | 22 - 31 | | | |
| 5634 Apr. 5 | $e_E$ | 3 - 24 | | | |
| | eL | 3 - 50 | | | |
| | F | 4 - 18 | | | |
| 5637 Apr. 5 | e | 17 - 56 - 44 | | | |
| | eL | 17 - 59 | | | |
| | F | 18 - 20 | | | |
| 5643 Apr. 11 | H | 23 - 14.9 | | 9500 | |
| | eP | 23 - 27 - 32 | | | |
| | PP | 23 - 30.7 | | | |
| | PPP | 23 - 32 - 48 | | | |
| | eS | 23 - 38 - 05 | | | |
| | $i_N$ | 23 - 39 - 16 | | | |
| | $SS_N$ | 23 - 43 - 44 | | | |
| | $SSS_N$ | 23 - 48.0 | | | |
| | eL | 23 - 54 | | | |
| | F | 1 - 20 | | | |
| 5648 Apr. 18 | H | 22 - 15.5 | | 2855 | Saskatoon Record: |
| | eP | 22 - 21 - 03 | | | eP = 22-20-41 |
| | eS | 22 - 25 - 36 | | | eS = 22-25-00 |
| | $e_E$ | 22 - 26 - 08 | | | Δ = 2660 |
| | eL | 22 - 28 | | | H = 22-15.4 |
| | F | 23 - 00 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM April 18, 1935 to April 30, 1935 No. 6

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5650 Apr. 19 | H | 15 - 23.6 | | 7550 | Halifax Record: |
| | $eP_N$ | 15 - 34 - 30 | + 1 | | eP = 15-33-40 |
| | $eP_Z$ | 15 - 34 - 30 | -.5 | | iS = 15-41-54 |
| | PP | 15 - 37 - 06 | | | Δ = 6580 |
| | iS | 15 - 43 - 34 | | | H = 15-23.7 |
| | i | 15 - 44 - 15 | | | |
| | SS | 15 - 48 - 12 | | | |
| | SSS | 15 - 50 - 42 | | | |
| | eL | 15 - 56.0 | | | |
| | F | 19 - 21 | | | |
| 5652 Apr. 20 | H | 5 - 11.3 | | 7460 | |
| | eP | 5 - 22 - 09 | | | |
| | $PP_E$ | 5 - 24.5 | | | |
| | eS | 5 - 31 - 09 | | | |
| | eL | 5 - 42 | | | |
| | F | 8 - 12 | | | |
| 5653 Apr. 20 | $e_N$ | 22 - 27.0 | | | Formosa |
| | $e_E$ | 22 - 28.6 | | | |
| | $e_N$ | 22 - 30.3 | | | |
| | $e_E$ | 22 - 36.0 | | | |
| | $e_E$ | 22 - 49 | | | |
| | eL | 22 - 58 | | | |
| | F | 0 - 42 | | | |
| 5657 Apr. 24 | e | 19 - 03.7 | | | |
| | e | 19 - 07.1 | | | |
| | eL | 19 - 09 | | | |
| | F | 19 - 34 | | | |

W W Doxsee.

# EARTHQUAKE CORRELATION TABLE

April, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5627 | 1 | 0-03+0-15L | ..... | ..... | 0-00+0-20L | .. |
| 5628 | 1 | 3-13+0-54u | ..... | ..... | 3-21+0-41u | .. |
| 5629 | 1 | 9-36+0-26L | ..... | ..... | 9-38+0-21L | .. |
| 5630 | 3 | 11-35+0-36L | ..... | ..... | 11-35+0-37L | .. |
| 5631 | 3 | 12-23+1-08u | ..... | ..... | 12-23+1-23u | .. |
| 5632 | 3 | 21-29+1-02u | ..... | ..... | 21-48+0-33L | .. |
| | 3 | ..... | 23-18+0-0.2d | ..... | ..... | A |
| 5633 | 4 | 10-44+0-42u | ..... | ..... | 10-52+0-20L | .. |
| | 4 | ..... | 10-50+0-0.2d | ..... | ..... | A |
| | 4 | ..... | 10-51+0-0.2d | ..... | ..... | A |
| 5634 | 5 | 3-24+0-54u | ..... | ..... | 3-50+0-23L | .. |
| 5635 | 5 | 6-26+0-06L | ..... | ..... | 6-31+0-02L | .. |
| 5636 | 5 | 9-44+0-11L | ..... | ..... | 9-44+0-06L | .. |
| 5637 | 5 | 17-57+0-23u | ..... | ..... | 18-05+0-11L | .. |
| 5638 | 9 | 10-22+0-53L | ..... | ..... | 10-25+0-52L | .. |
| 5639 | 10 | 21-18+0-16L | ..... | ..... | ..... | ... |
| 5640 | 10 | 22-45+0-18L | 22-40+0-03P | 22-40+0-02P | 22-48+0-09L | .. |
| 5641 | 11 | 0-44+0-04L | 0-32+0-01P | 0-32+0-0.5P | ..... | .. |
| 5642 | 11 | 2-13+0-37L | ..... | ..... | 2-20+0-30L | .. |
| 5643 | 11 | 23-27+2-00u | 23-27+0-18u | 23-27+0-12u | 23-27+2-00u | B |
| 5644 | 12 | 13-44+0-03L | ..... | ..... | 13-35+0-12L | .. |
| 5645 | 13 | 4-46+0-12L | ..... | ..... | ..... | .. |
| 5646 | 15 | 7-23+0-13L | ..... | ..... | 7-21+0-23L | .. |
| 5647 | 17 | 4-54+0-13L | ..... | ..... | 4-54+0-15L | .. |
| 5648 | 18 | 22-21+0-39r | 22-21+0-27r | 22-21+0-22r | 22-25+0-38r | C |
| 5649 | 19 | 8-24+0-23L | ..... | ..... | 8-33+0-25L | .. |
| 5650 | 19 | 15-34+3-47U | 15-34+1-15U | 15-34+1-16U | 15-34+3-57U | E |
| 5651 | 19 | 20-52+1-13u | ..... | ..... | 20-51+1-00u | .. |
| 5652 | 20 | 5-22+2-50u | 5-22+0-13P | 5-22+0-12P | 5-22+2-47u | F |
| 5653 | 20 | 22-27+2-15U | 23-01+0-22L | 22-59+0-17L | 22-28+2-21U | .. |
| 5654 | 21 | 8-30+0-50L | ..... | ..... | 8-34+0-49L | .. |
| 5655 | 22 | 18-56+0-14L | ..... | ..... | 18-57+0-29L | .. |
| 5656 | 24 | 17-06+0-24L | ..... | ..... | ..... | .. |
| 5657 | 24 | 19-04+0-30u | ..... | ..... | 19-00+0-29u | .. |
| 5658 | 27 | 19-17+0-23L | ..... | ..... | 19-16+0-18L | .. |
| 5659 | 29 | 20-25+0-12L | ..... | ..... | 20-28+0-11L | .. |

# CORRELATION OF EARTHQUAKES
April, 1935.

## N O T E S

A : Slight local disturbance, recorded at Shawinigan Falls only.

B : Ottawa Δ = 9500 km. H = 23-15.0 G.M.T.
Shawinigan Falls Δ = 9390 km. H = 23-14.9 G.M.T.
Seven Falls Δ = 9470 km. H = 23-14.7 G.M.T.

C : Ottawa Δ = 2855 km. H = 22-15.5 G.M.T.
Shawinigan Falls Δ = 2735 km. H = 22-15.5 G.M.T.
Seven Falls Δ = 2780 km. H = 22-15.5 G.M.T.

E : Ottawa Δ = 7550 km. H = 15-23.6 G.M.T.
Shawinigan Falls Δ = 7220 km. H = 15-23.7 G.M.T.
Seven Falls Δ = 7100 km. H = 15-23.6 G.M.T.

F : Ottawa Δ = 7460 km. H = 55-11.3 G.M.T.
Seven Falls Δ = 7100 km. H = 5-11.2 G.M.T.

Dominion Observatory,
Ottawa, Canada,
May 15, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED
May,
1935.



We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED | |
|---|---|---|---|
| Rome | March 26 to April 8, 1935 | May | 2 |
| Taihoku | February, 1935 | " | 2 |
| Cape Town | March, 1935 | " | 2 |
| La Paz | January to May, 1934 | " | 3 |
| U.S.C.G.S. | May and June, 1934 | " | 6 |
| Manila | February, 1935 | " | 6 |
| La Plata | March, 1935 | " | 7 |
| Tokyo | July 1 to September 30, 1934 | " | 7 |
| Chiufeng | March, 1935 | " | 7 |
| Nagoya | July to December, 1934 | " | 8 |
| Wellington | Preliminary for March, 1935 | " | 8 |
| Riverview | March, 1935 | " | 9 |
| Zurich | March, 1935 | " | 10 |
| Osaka | October to December, 1933 | " | 14 |
| Zi-Ka-Wei | January 31 to March 11, 1935 | " | 14 |
| Hukuoka | January to December, 1934 | " | 15 |
| Bureau Central, Paris, Strasbourg | March, 1935 | " | 16 |
| Apia | January to March, 1935 | " | 17 |
| Rome | April 9 - 22nd, 1935 | " | 18 |
| Chiufeng | January to June, 1933 | " | 18 |
| Zinsen (Tyôsen) | Year 1933 | " | 18 |
| Pasadena | March, 1935 | " | 18 |
| Colaba | Year 1934 | " | 20 |
| Cartuja | April to June, 1934 | " | 20 |
| Copenhagen | October/32 to September/33 | " | 20 |
| Göttingen | October to December, 1934 | " | 20 |
| Prague | January 1 to March 31, 1935 | " | 20 |
| Melbourne | January to March, 1935 | " | 23 |
| Richmond | April, 1935 | " | 23 |
| Perth | January 28 to February 28, 1935 | " | 25 |
| Toledo, Cartuja, Alicante, Almeria, Malaga | May and June, 1934 | " | 25 |
| Zurich | April, 1935 | " | 27 |
| Rome | April 23 to May 6, 1935 | " | 28 |
| Georgetown | March, 1935 and Seismological Despatches | " | 29 |
| San Fernando | March and April, 1935 | " | 29 |
| Algiers | April, 1935 | " | 30 |

DOMINION OBSERVATORY,
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA


R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*


$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $\gamma/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1" ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| | 6.5 | | 120 | 14:1 | EW | |
| II | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 17 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| 23 | 5.6 | | 160 | 10:1 | Z | |
| W | 9.8 | | 110 | Apericdic | NS | |
| HN | 7.1 | | 147 | " | EW | |
| HE | 8.5 | | 57 | " | NS | |
| SN | 8.5 | | 55 | " | EW | |
| SE | 0.9 | | 2000 | | NS | |
| SA | 1.1 | | 1750 | | EW | |
| SF | 12.0 | | 250 | 20:1 | EW | 43 mm. |
| SM | | | | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM May 1, 1935 to May 24, 1935 No. 7

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5660 May 1 | e | 10 - 46 - 44 | | | |
| | eL | 10 - 57 | | | |
| | F | 12 - 16 | | | |
| 5666 May 13 | $e_E$ | 20 - 41 | | | |
| | eL | 20 - 47 | | | |
| | F | 21 - 50 | | | |
| 5667 May 14 | $e_E$ | 0 - 12 | | | |
| | eL | 0 - 38 | | | |
| | F | 1 - 53 | | | |
| 5668 May 14 | e | 23 - 42.2 | | | |
| | $e_E$ | 23 - 47.6 | | | |
| | $e_N$ | 23 - 48 - 02 | | | |
| | $e_E$ | 23 - 49.6 | | | |
| | e | 23 - 52 - 14 | | | |
| | $e_E$ | 23 - 57 - 40 | | | |
| | eL | 0 - 09 - 16 | | | |
| | F | 2 - 12 | | | |
| 5671 May 16 | e | 21 - 15.8 | | | |
| | eL | 21 - 26 | | | |
| | F | 23 - 16 | | | |
| 5678 May 21 | $e_E$? | 7 - 12.6 | | | |
| | e | 7 - 22.7 | | | |
| | e | 7 - 29.6 | | | |
| | eL | 7 - 47 | | | |
| | F | 9 - 15 | | | |
| 5679 May 23 | H | (17 - 59 - 02) | | (3645) | |
| | $eP_E$? | 18 - 05 - 40 | | | |
| | $PR_{1E}$ | 18 - 06 - 43 | | | |
| | $eS_{1E}$ | 18 - 11 - 05 | | | |
| | eL | 18 - 14.5 | | | |
| | F | 19 - 03 | | | |
| 5680 May 24 | e | 5 - 56 - 50 | | | |
| | $e_E$ | 6 - 04.5 | | | |
| | $e_N$ | 6 - 09.7 | | | |
| | $e_E$ | 6 - 13.0 | | | |
| | eL | 6 - 27 | | | |
| | F | 8 - 47 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM May 24, 1935 to May 31, 1935 No. 8

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5681 May 25 | e | 0 - 43.3 | | | |
| | eL | 0 - 55 | | | |
| | F | 2 - 08 | | | |
| 5682 May 26 | e | 22 - 34 | | | |
| | e | 22 - 40.4 | | | |
| | eL | 22 - 56 | | | |
| | F | 0 - 21 | | | |
| 5683 May 27 | $e_E$ | 3 - 37 | | | |
| | $e_E$ | 3 - 41 | | | |
| | $e_E$ | 3 - 47.5 | | | |
| | eL? | 4 - 05 | | | |
| | F | 5 - 12 | | | |
| 5684 May 30 | H | 21 - 32.9 | | 10900 | Saskatoon Record:- |
| | eP | 21 - 46 - 38 | | | eP = 21-46.8 |
| | $PR_{1N}$ | 21 - 50.4 | | | $S_cP_cS$ = 21-57-16 |
| | $PR_{2N}$ | 21 - 52.5 | | | $SR_{1E}$ = 22-05 |
| | $iS_cP_cP_cS$ | 21 - 57 - 32 | | | eL = 22-20 |
| | $SR_{1E}$ | 22 - 04.4 | | | Δ = 11000 ca. |
| | e | 22 - 12.4 | | | H = 21-33ca. |
| | e | 22 - 15.2 | | | Halifax Record:- |
| | eL | 22 - 20 | | | eP? = 21-46.2 |
| | F | 3 - 42 | | | $PR_{1E}$ = 21-49.8 |
| | | | | | $S_cP_cP_cS$ = 21-57-11 |
| 5685 May 31 | $e_E$ | 8 - 40.8 | | | i = 22-00.0 |
| | $e_E$ | 8 - 41.6 | | | $SR_{1E}$ = 22-03.9 |
| | $e_E$ | 8 - 44 - 20 | | | L = 22-18 |
| | F | 9 - 22 | | | Δ = 10350 ca. |
| | | | | | H = 21-33ca. |

W. W. Doxsee

# EARTHQUAKE CORRELATION TABLE

May, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5660 | 1 | 10-47+1-29u | ..... | ..... | 10-46+1-20u | .. |
| 5661 | 2 | 21-32+0-08L | ..... | ..... | 21-35+0-04L | .. |
| | 4 | ..... | ..... | ..... | 23-59+0-18L | .. |
| 5662 | 5 | 23-51+0-10L | ..... | ..... | 23-54+0-09L | .. |
| 5663 | 6 | 20-06+0-18L | ..... | ..... | 20-06+0-17L | .. |
| 5664 | 7 | 6-30+1-07u | ..... | ..... | 6-32+1-03u | .. |
| | 11 | ..... | ..... | ..... | 19-35+0-15L | .. |
| 5665 | 12 | 20-45+0-33L | ..... | ..... | 20-42+0-50L | .. |
| 5666 | 13 | 20-41+1-09u | ..... | ..... | 20-28+1-22u | .. |
| 5667 | 14 | 0-12+1-41u | ..... | ..... | 0-12+1-30u | .. |
| 5668 | 14 | 23-42+2-30u | 23-42+0-13u | 23-42+0-14u | 23-42+2-49u | .. |
| 5669 | 15 | 2-43+0-50L | ..... | ..... | 2-42+1-01L | .. |
| 5670 | 16 | 5-32+0-19L | ..... | ..... | 5-35+0-22L | .. |
| 5671 | 16 | 21-16+2-00u | ..... | ..... | 21-16+2-09u | .. |
| 5672 | 17 | 12-51+0-07L | ..... | ..... | 12-53+0-04L | .. |
| 5673 | 18 | 8-41+0-08L | ..... | ..... | 8-45+0-05L | .. |
| 5674 | 18 | 17-44+0-20r | 17-43+0-08r | 17-42+0-10r | 17-44+0-24r | .. |
| 5675 | 18 | 22-30+0-42L | ..... | ..... | 22-30+0-35L | .. |
| 5676 | 19 | 17-28+0-05L | ..... | ..... | 17-30+0-07L | .. |
| 5677 | 20 | 6-21+0-39L | ..... | ..... | 6-18+0-47L | .. |
| | 20 | ..... | ..... | ..... | 18-25+0-11L | .. |
| 5678 | 21 | 7-13+2-03u | ..... | ..... | 7-23+2-00u | .. |
| 5679 | 23 | 18-06+0-57r | ..... | ..... | 18-06+0-58r | A |
| 5680 | 24 | 5-57+2-50U | 5-56+0-04P | 5-56+0-02P | 5-57+3-19U | .. |
| 5681 | 25 | 0-43+1-25u | ..... | ..... | 0-44+1-43u | .. |
| 5682 | 26 | 22-34+1-47u | ..... | ..... | 22-34+1-44u | .. |
| 5683 | 27 | 3-37+1-35u | ..... | ..... | 3-42+2-09u | .. |
| 5684 | 30 | 21-46+5-56U | 21-46+1-39U | 21-46+1-48U | 21-46+5-53U | B |
| 5685 | 31 | 8-41+0-41u | 8-41+0-02P | ..... | 8-41+0-43u | .. |

# CORRELATION OF EARTHQUAKES

May, 1935.

## N O T E S

A : Ottawa Δ = 3645 km. H = 17-59.0 G.M.T.

B : Ottawa Δ = 10900 km. ca H = 21-32.9 ca G.M.T.
Shawinigan Falls Δ = 10700 km. ca H = 21-32.9 ca G.M.T.
Seven Falls Δ = 10500 km. ca H = 21-33.0 ca G.M.T.

Dominion Observatory,
Ottawa, Canada,
June 24, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED

## JUNE,

## 1935.

We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED |
|---|---|---|
| Osaka | March 29 to May 5, 1935 | June 4 |
| Manila | March, 1935 | " 4 |
| Pasadena | April, 1935 and Local Shocks | " 4 |
| Sydney | February and March, 1935 | " 5 |
| Perth | February 28 to April 1, 1935 | " 5 |
| Wellington | Preliminary for April, 1935 | " 5 |
| ChristChurch | April, 1935 | " 5 |
| Cartuja | July to September, 1934 | " 6 |
| Firenze | July to December, 1934 | " 6 |
| Cape Town | April, 1935 | " 6 |
| Rome | May 7 - 20th, 1935 | " 8 |
| Zinsen | January to March, 1935 | " 8 |
| Taihoku | Preliminary for April, 1935 | " 8 |
| Chiufeng | April, 1935 | " 10 |
| Strasbourg, Paris, Bureau Central | April, 1935 | " 13 |
| Riverview | April, 1935 | " 17 |
| Zi-Ka-Wei | March 11 to April 20, 1935 | " 18 |
| Perth | April 1 - 19th, 1935 | " 19 |
| Helwan | February and March, 1935 | " 24 |
| Richmond | May, 1935 | " 24 |
| Kobe | January 1 to March 31, 1934 | " 24 |
| Barcelona | June 3 to December 31, 1934 | " 27 |
| Georgetown | May, 1935 and Seismological Despatches | " 28 |
| St. Louis | Preliminary for March 17, 1935 | " 28 |
| Denver | July 6, 1934 to January 1, 1935 | " 28 |
| St. Louis | March, 1935 | " 28 |
| Florissant | February and March, 1935 | " 28 |
| Koenigsberg | Years 1931 and 1932 and January to April, 1935 | " 29 |

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.
W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA


R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*


$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1″ ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.5 | | 120 | 14:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Z | |
| HN | 9.8 | | 110 | Aperiodic | NS | |
| HE | 7.1 | | 147 | " | EW | |
| SN | 8.5 | | 57 | " | NS | |
| SE | 8.5 | | 55 | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM June 1, 1935 to June 24, 1935 No. 9

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5686 June 2 | e | 9 - 40.7 | | | |
| | e | 9 - 48 | | | |
| | $e_N$ | 9 - 52.2 | | | |
| | e | 10 - 01.5 | | | |
| | eL | 10 - 07 | | | |
| | F | 11 - 09 | | | |
| 5689 June 11 | H | 21 - 56.3 | | 4450 | |
| | $eP_N$ | 22 - 03 - 52 | | | |
| | $PPP_N$ | 22 - 05 - 44 | | | |
| | iS | 22 - 10 - 07 | | | |
| | $SSS_E$ | 22 - 13 - 16 | | | |
| | eL | 22 - 16 | | | |
| | F | 23 - 02 | | | |
| 5695 June 18 | e | 22 - 53.5 | | | |
| | $e_N$ | 22 - 57.8 | | | |
| | $e_E$ | 23 - 04.3 | | | |
| | eL | 23 - 19 | | | |
| | F | 0 - 30 | | | |
| 5697 June 22 | $e_N$ | 16 - 11 | | | |
| | eL | 16 - 35 | | | |
| | F | 18 - 13 | | | |
| 5699 June 24 | H | 23 - 23ca | | 13000ca | |
| | $P_E$? | 23 - 38.3 | | | |
| | $P'_z$ | 23 - 41 - 50 | | | |
| | PP | 23 - 43 - 14 | | | |
| | i | 23 - 49 - 42 | | | |
| | S | 23 - 51 - 02 | | | |
| | i | 23 - 52 - 02 | | | |
| | $PS_E$ | 23 - 53 - 00 | | | |
| | $SS_N$ | 0 - 00 - 12 | | | |
| | eL | 0 - 16 | | | |
| | F | 3 - 00 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM June 24, 1935 to June 30, 1935 No. 10

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5700 June 25 | e | 12 - 56 | | | |
| | eL | 13 - 10 | | | |
| | F | 14 - 34 | | | |
| 5701 June 28 | H | 2 - 00.7 | | 8840 | |
| | eP | 2 - 12 - 44 | | | |
| | eS | 2 - 22.8 | | | |
| | eL | 2 - 37 | | | |
| | F | 3 - 38 | | | |
| 5703 June 29 | H | 6 - 49.1 | | 3750 | Saskatoon Record:- |
| | $eP_N$ | 6 - 55 - 50 | +1 | | H = 6-48.8ca |
| | $eP_E$ | 6 - 55 - 50 | +1 | | Δ = 3910 km. |
| | PP | 6 - 57 - 10 | | | eP = 6-55-42 |
| | eS | 7 - 01 - 22 | | | PPP = 6-57.0 |
| | $SS_N$ | 7 - 03 - 16 | | | S = 7-01-24 |
| | eL | 7 - 05.5 | | | $SS_E$ = 7-03-12 |
| | F | 10 - 11 | | | eL = 7-07 |

W. H. Doxsee.

# CORRELATION OF EARTHQUAKES

June, 1935.

## N O T E S

| | | | | |
|---|---|---|---|---|
| | | | h | m |
| A | : Ottawa | Δ = 4450 km. | H = 21 | -56.3 G.M.T. |
| B | : Ottawa | Δ = 13000 km. ca | H = 23 | -23 ca G.M.T. |
| C | : Ottawa | Δ = 8840 km. | H = 2 | -00.7 G.M.T. |
| E | : Ottawa | Δ = 3750 km. | H = 6 | -49.1 G.M.T. |
| | Seven Falls | Δ = 4200 km. | H = 6 | -49.1 G.M.T. |

Dominion Observatory,
Ottawa, Canada,
July 12, 1935.

# EARTHQUAKE CORRELATION TABLE

June, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5686 | 2 | 9-41+1-28u | ..... | ..... | 9-43+1-31u | .. |
| 5687 | 7 | 12-58+0-12L | ..... | ..... | 12-47+0-14L | .. |
| 5688 | 8 | 1-00+0-43L | ..... | ..... | 1-03+0-41L | .. |
| 5689 | 11 | 22-04+1-00r | ..... | ..... | ..... | A |
| 5690 | 12 | 2-08+0-13L | ..... | ..... | ..... | .. |
| 5691 | 15 | 0-38+0-19L | ..... | ..... | 0-40+0-15L | .. |
| 5692 | 16 | 7-15+0-33L | ..... | ..... | 7-15+0-31L | .. |
| 5693 | 16 | 8-21+0-18L | ..... | ..... | 8-24+0-07L | .. |
| 5694 | 18 | 18-14+0-32L | ..... | ..... | 18-25+0-21L | .. |
| 5695 | 18 | 22-54+1-36u | ..... | ..... | 23-03+1-05u | .. |
| 5696 | 19 | 23-11+0-39L | ..... | ..... | 23-11+1-09L | .. |
| 5697 | 22 | 16-11+2-02u | ..... | ..... | 16-31+1-44u | .. |
| 5698 | 23 | 16-12+0-34L | ..... | ..... | 16-14+0-34L | .. |
| 5699 | 24 | 23-38+3-22U | 23-42+1-30U | 23-42+1-13U | 23-43+3-26U | B |
| 5700 | 25 | 12-56+1-36u | 12-46+0-13P | ..... | 12-56+1-42u | .. |
| 5701 | 28 | 2-13+1-25u | 2-13+0-03P | ..... | 2-23+1-29u | C |
| 5702 | 28 | 19-50+0-47u | ..... | ..... | 20-05+0-37L | .. |
| 5703 | 29 | 6-56+3-15R | 6-56+1-01R | 6-56+0-55R | 6-56+3-19R | E |
| | 29 | ..... | ..... | ..... | 19-43+0-35L | .. |

# SEISMOLOGICAL BULLETINS RECEIVED

July,

1935.



We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED | |
|---|---|---|---|
| Zurich | May, 1935 | July | 2 |
| La Plata | April, 1935 | " | 2 |
| Wellington | January to June, 1933 | " | 3 |
| Taihoku | May, 1935 | " | 3 |
| Zi-Ka-Wei | April 20 - 24th, 1935 | " | 3 |
| St. Louis | Preliminaries for April 11; 19th; and 20th, 1935 | " | 3 |
| Peichiko | October to December, 1934 | " | 5 |
| Osaka | January to March, 1934 | " | 5 |
| Ksara | May, 1935 | " | 6 |
| Toronto | April and May, 1935 | " | 6 |
| Victoria | January to March, 1935 | " | 6 |
| Bucarest | January to May, 1935 | " | 8 |
| Cartuja | October to December, 1934 | " | 8 |
| Manila | April, 1935 | " | 8 |
| Hamburg | January to May, 1935 | " | 8 |
| Stuttgart | Year 1934 | " | 8 |
| Rome | June 4 - 17th, 1935 | " | 8 |
| Chiufeng | May, 1935 | " | 9 |
| Zagreb | July to September, 1934 | " | 11 |
| Cape Town | May, 1935 | " | 11 |
| Tananarive | November and December, 1934 | " | 11 |
| Reykjavik | January 15 to December 31, 1934 | " | 13 |
| Pasadena | May, 1935 and Local Shocks | " | 16 |
| Riverview | May, 1935 | " | 16 |
| Berkeley, Mt. Hamilton, Palo Alto, San Francisco | October to March, 1933 (1932) | " | 17 |
| Wellington | Preliminary for May, 1935 | " | 18 |
| Christchurch | May, 1935 | " | 18 |
| Zi-Ka-Wei | May 1 - 13th, 1935 | " | 19 |
| Sofia | January to March, 1935 | " | 23 |
| Rome | June 18 to July 1, 1935 | " | 23 |
| Georgetown | June, 1935 and Seismological Despatches | " | 24 |
| Strasbourg, Paris, Bureau Central | May, 1935 | " | 25 |
| USCGS. | July to September, 1934 | " | 25 |
| Richmond | June, 1935 | " | 26 |
| Algiers | May and June, 1935 | " | 26 |
| Uccle | January 1 to April 3, 1935 | " | 26 |
| St. Louis | Preliminaries for May 14; 23rd; and 24th, 1935 | " | 27 |
| St. Louis | April, 1935 | " | 29 |
| Peichiko | January to March, 1935 | " | 29 |
| Florissant | April, 1935 | " | 29 |
| San Fernando | May and June, 1935 | " | 29 |

DOMINION OBSERVATORY
OTTAWA - CANADA.
R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.
W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA


R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*


$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

**Foundation:** boulder clay over limestone (Ordovician). **Time:** Mean Greenwich, midnight to midnight. **Time correction:** with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

**Foundation:** clay and sand. **Time correction:** from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

**Foundation:** carbonaceous slate. **Time correction:** from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

**Foundation:** solid granite of Canadian Shield. **Time correction:** from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

**Foundation:** solid granite of Canadian Shield. **Time correction:** from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1" ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.5 | | 120 | 14:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Z | |
| HN | 9.8 | | 110 | Aper. | NS | |
| HE | 7.1 | | 147 | " | EW | |
| SN | 8.7 | | 57 | " | NS | |
| SE | 9.2 | | 58 | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM July 1, 1935 to July 15, 1935 No. 11

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5704 July 5 | e | 18 - 16.5 | | | |
| | $e_N$? | 18 - 23 | | | |
| | $e_E$ | 18 - 27.2 | | | |
| | eL | 18 - 31 | | | |
| | F | 19 - 44 | | | |
| 5705 July 6 | $e_E$? | 3 - 48 | | | |
| | $e_N$ | 3 - 50.5 | | | |
| | eL | 3 - 52 | | | |
| | F | 4 - 16 | | | |
| 5707 July 7 | e | 13 - 43 | | | |
| | e | 13 - 50 | | | |
| | eL | 14 - 14 | | | |
| | F | 15 - 25 | | | |
| 5708 July 9 | $e_N$? | 6 - 52.5 | | | |
| | e | 7 - 01.8 | | | |
| | eL | 7 - 10 | | | |
| | F | 8 - 02 | | | |
| 5709 July 9 | e | 12 - 33 | | | |
| | e | 12 - 42 - 16 | | | |
| | eL | 12 - 53 | | | |
| | F | 14 - 37 | | | |
| 5711 July 10 | e | 9 - 54.4 | | | |
| | e | 10 - 01.3 | | | |
| | L | 10 - 05 | | | |
| | F | 10 - 15 | | | |
| 5712 July 11 | e | 8 - 48.7 | | | |
| | e | 8 - 54.4 | | | |
| | eL | 9 - 11 | | | |
| | F | 10 - 03 | | | |
| 5718 July 15 | $e_E$ | 14 - 37.0 | | | |
| | $e_N$ | 14 - 39.1 | | | |
| | $e_N$ | 14 - 47.3 | | | |
| | eL | 14 - 50 | | | |
| | F | 15 - 36 | | | |
| 5719 July 15 | e | 18 - 26.2 | | | |
| | eL | 18 - 40 | | | |
| | F | 19 - 26 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM July 15, 1935 to July 26, 1935 No. 12

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5720 July 16 | $e_N$ | 16 - 38 | | | |
| | e | 16 - 47.4 | | | |
| | eL | 17 - 00 | | | |
| | F | 18 - 23 | | | |
| 5721 July 17 | e | 0 - 31 | | | |
| | e | 0 - 41 | | | |
| | eL | 0 - 49 | | | |
| | F | 2 - 02 | | | |
| 5722 July 17 | e | 4 - 51.5 | | | |
| | eL | 4 - 59 | | | |
| | F | 5 - 51 | | | |
| 5723 July 17 | $e_N$? | 11 - 04.6 | | | |
| | e | 11 - 05.6 | | | |
| | e | 11 - 11.5 | | | |
| | e | 11 - 15.0 | | | |
| | eL | 11 - 22 | | | |
| | F | 13 - 40 | | | |
| 5724 July 17 | e | 21 - 56 - 29 | | | Local. Felt in Ottawa. |
| | F | 21 - 56 - 32 | | | |
| 5725 July 19 | H | 0 - 50ca | | 10,300ca | |
| | eP | 1 - 03.0 | | | |
| | PP | 1 - 06.5 | | | |
| | ScPcS | 1 - 13 - 26 | | | |
| | ScPcPcS | 1 - 13 - 54 | | | |
| | $S_N$ | 1 - 14 - 06 | | | |
| | $PS_N$ | 1 - 15.0 | | | |
| | SS | 1 - 20.0 | | | |
| | e | 1 - 27.5 | | | |
| | eL | 1 - 34 | | | |
| | F | 3 - 48 | | | |
| 5726 July 20 | $e_N$ | 10 - 32.8 | | | |
| | e | 10 - 40.9 | | | |
| | eL | 10 - 46 | | | |
| | F | 11 - 03 | | | |
| 5729 July 26 | H | 4 - 43.6 | | 4000 | |
| | $eP_N$ | 4 - 50 - 42 | | | |
| | PP | 4 - 52 - 14 | | | |
| | S | 4 - 56 - 30 | | | |
| | eL | 5 - 00 | | | |
| | F | 5 - 55 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM July 26, 1935 to July 31, 1935 No. 13

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5730 July 26 | e | 8 - 24 - 25 | | | |
| | e | 8 - 27 - 28 | | | |
| | eL | 8 - 36 | | | |
| | F | 8 - 54 | | | |
| 5732 July 20 | e | 4 - 36 - 50 | | | |
| | eL | 4 - 45 | | | |
| | F | 5 - 24 | | | |
| 5733 July 29 | $e_E$ | 7 - 52.8 | | | USCGS. gives;- |
| | $e_E$ | 7 - 54.7 | | | |
| | i | 7 - 57 - 40 | | | $\phi$ = 23° S. |
| | $e_E$ | 8 - 00.1 | | | $\lambda$ = 178° W. |
| | $i_N$ | 8 - 04 - 44 | | | $\mathbb{H}$ = 7-38-52 |
| | $e_E$ | 8 - 06 - 32 | | | Focus depth 500 km. ca. |
| | e | 8 - 07.5 | | | |
| | i | 8 - 08 - 05 | | | |
| | e | 8 - 09.6 | | | |
| | e | 8 - 12.7 | | | |
| | e | 8 - 15.9 | | | |
| | L | 8 - 43 | | | |
| | F | 11 - 06 | | | |

W. W. Doxsee.

# EARTHQUAKE CORRELATION TABLE

## July, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5704 | 5 | 18-16+1-28u | ..... | ..... | 18-16+1-32u | .. |
| 5705 | 6 | 3-48+0-28r | 3-51+0-13r | 3-51+0-09r | 3-51+0-32r | .. |
| 5706 | 6 | 22-53+0-22L | ..... | ..... | 22-54+0-21L | .. |
| 5707 | 7 | 13-43+1-42u | ..... | ..... | 13-50+1-52u | .. |
| 5708 | 9 | 6-53+1-09u | ..... | ..... | 7-02+0-46u | .. |
| 5709 | 9 | 12-33+2-04u | ..... | ..... | 12-34+1-52u | .. |
| 5710 | 9 | 21-56+0-25L | ..... | ..... | 22-00+0-27L | .. |
| 5711 | 10 | 9-55+0-20r | ..... | ..... | 10-03+0-13r | .. |
| 5712 | 11 | 8-49+1-14u | ..... | ..... | 8-49+1-14u | .. |
| 5713 | 11 | 13-58+0-51L | ..... | ..... | ..... | .. |
| 5714 | 12 | 2-24+0-26L | ..... | ..... | ..... | .. |
| 5715 | 13 | 15-43+0-14r | 15-43+0-05r | 15-44+0-04r | 15-43+0-06r | .. |
| 5716 | 13 | 16-01+0-16r | 16-01+0-08r | 16-05+0-04r | 16-01+0-05r | .. |
| | 14 | ..... | ..... | ..... | 14-30+0-30L | .. |
| 5717 | 15 | 12-57+0-43L | ..... | ..... | 13-03+0-40L | .. |
| 5718 | 15 | 14-37+1-00u | ..... | ..... | 14-37+1-00u | .. |
| 5719 | 15 | 18-26+1-05u | ..... | ..... | 18-30+0-40L | .. |
| 5720 | 16 | 16-38+1-45u | ..... | ..... | 16-43+1-07u | .. |
| 5721 | 17 | 0-31+1-31u | ..... | ..... | 0-31+1-51u | .. |
| 5722 | 17 | 4-52+1-00u | ..... | ..... | 5-00+1-19u | .. |
| 5723 | 17 | 11-05+2-35u | 11-05+0-03P | 11-05+0-02P | 11-07+2-50u | .. |
| 5724 | 17 | 21-56+0-0.1d | ..... | ..... | ..... | A |
| 5725 | 19 | 1-03+2-45U | 1-03+1-05U | 1-03+0-48U | 1-03+3-20U | B |
| 5726 | 20 | 10-33+0-33u | ..... | ..... | 10-41+0-20u | .. |
| 5727 | 21 | 15-30+0-05L | ..... | ..... | 15-30+0-05L | .. |
| 5728 | 24 | 4-26+0-25L | ..... | ..... | 4-27+0-28L | .. |
| 5729 | 26 | 4-51+1-04r | ..... | ..... | 4-51+1-23r | C |
| 5730 | 26 | 8-24+0-30u | 8-24+0-02P | 8-15+0-11P | 8-24+0-32u | .. |
| 5731 | 26 | 10-08+2-17u | ..... | ..... | 11-08+1-10u | .. |
| 5732 | 29 | 4-37+0-48u | ..... | ..... | 4-37+0-48u | .. |
| 5733 | 29 | 7-53+3-13U | 7-57+0-31U | 7-57+0-32U | 7-53+3-18U | .. |
| 5734 | 30 | 0-00+0-30L | ..... | ..... | 0-03+0-19L | .. |
| 5735 | 30 | 6-20+1-46L | ..... | ..... | 6-18+1-51L | .. |
| 5736 | 30 | 12-23+0-31L | ..... | ..... | 12-28+0-25L | .. |
| 5737 | 31 | 10-44+0-26L | ..... | ..... | 10-44+0-25L | .. |

# CORRELATION OF EARTHQUAKES

July, 1935.

## N O T E S

A : Local, tremors perceptible in some parts of the city of Ottawa.

B : Ottawa Δ = 10,300 km. H = $0^h 50^m$ G.M.T.

C : Ottawa Δ = 4,000 km. H = $4^h 43.6^m$ G.M.T.

Seven Falls Δ = 4,350 km. H = $4^h 43.5^m$ G.M.T.

Dominion Observatory,
Ottawa, Canada,
August 19, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED
## August,
## 1935.

We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED |
|---|---|---|
| Helwan | April, 1935 | August 1 |
| La Paz | June 9 to November 30, 1934 | " 1 |
| Perth | April 19 - 30th, 1935 | " 2 |
| Taihoku | Preliminary for June, 1935 | " 3 |
| Manila | May, 1935 | " 6 |
| Bergen | Year 1934 | " 6 |
| La Plata | May, 1935 | " 7 |
| Mizasaki | Years 1931 and 1932 | " 7 |
| Chiufeng | June, 1930 | " 7 |
| Cartuja | December, 1934 to February, 1935 | " 8 |
| Zurich | June, 1935 | " 8 |
| Rome | July 2 - 15th, 1935 | " 8 |
| Ksara | June, 1935 | " 8 |
| Toledo<br>Cartuja<br>Alicante<br>Almeria<br>Malaga | July to December, 1934 | " 9 |
| St. Louis | Preliminaries for May 30; June 24 and June 29. | " 12 |
| Perth | April 30 to May 18, 1935 | " 12 |
| Kobe | April 1 to June 30, 1934 | " 12 |
| Berkeley | April 1, 1933 to September 30, 1933 | " 13 |
| Trieste | October to December, 1934 | " 14 |
| Firenze | January to March, 1935 | " 14 |
| Wellington | Preliminary for June, 1935 | " 14 |
| Christchurch | June, 1935 | " 14 |
| Göttingen | January to March, 1935 | " 14 |
| Apia | April to June, 1935 | " 14 |
| Stuttgart<br>Hohenheim<br>Ravensburg | July to December, 1931 | " 15 |
| Sydney | April and May, 1935 | " 15 |
| Riverview | June, 1935 | " 15 |
| Zi-Ka-Wei | May 14 to June 9, 1935 | " 16 |
| Victoria | March to July, 1934 | " 17 |
| Paris<br>Strasbourg<br>Bureau Central | June, 1935 | " 19 |
| La Plata | June, 1935 | " 21 |
| Batavia | January to March, 1935 | " 22 |
| Rome | July 16 - 22nd, 1935 | " 23 |

# SEISMOLOGICAL BULLETINS RECEIVED

| STATIONS | BULLETINS | RECEIVED | |
|---|---|---|---|
| Richmond | July, 1935 | August | 23 |
| Pasadena | June, 1935 and Local Shocks | " | 27 |
| Stuttgart | Year 1933 | " | 28 |
| Helwan | May, 1935 | " | 29 |
| Ksara | July, 1935 | " | 29 |
| Pasadena | July, 1935 and Local Shocks | " | 29 |
| Kobe | October 1 to December 31, 1933 | " | 29 |
| Manila | January to June, 1934 | " | 29 |
| United States Coast and Geodetic Survey | Year 1933 | " | 30 |
| St. Louis | May, 1935 | " | 30 |
| Florissant | May, June, and July, 1935 | " | 31 |
| Wien | December 1 34 to March 31, 1935 | " | 31 |
| Lemberg | January 1 to April 20, 1935 | " | 31 |
| Graz | January 1 to June 29, 1935 | " | 31 |

DOMINION OBSERVATORY,
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgsón,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA


R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*


$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1″ ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.5 | | 120 | 14:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Z | |
| HN | 9.8 | | 110 | Aper. | NS | |
| HE | 7.1 | | 147 | " | EW | |
| SN | 8.7 | | 57 | " | NS | |
| SE | 9.2 | | 58 | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM August 1, 1935 to August 17, 1935 No. 14

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5738 Aug. 1 | e | 14 - 27 | | | |
| | $eL_N$? | 14 - 37 | | | |
| | F | 16 - 02 | | | |
| 5739 Aug. 1 | H | 16 - 08.4 | | 3810 | USCGS. gives:- $\phi$ = 10° N. $\lambda$ = 86° W. H = 1-08.3 |
| | eP | 16 - 15 - 16 | | | |
| | eS | 16 - 20 - 52 | | | |
| | $SS_N$ | 16 - 23 - 08 | | | |
| | $SSS_E$ | 16 - 23 - 30 | | | |
| | eL | 16 - 25 | | | |
| | F | 18 - 07 | | | |
| 5740 Aug. 3 | $e_N$ | 1 - 31.4 | | | USCGS. gives:- $\phi$ = 5° N. $\lambda$ = 96° E. H = 1-10.1 |
| | e | 1 - 32.6 | | | |
| | $e_E$ | 1 - 39.7 | | | |
| | e | 1 - 49.2 | | | |
| | e | 1 - 54 | | | |
| | e | 2 - 07 | | | |
| | eL | 2 - 13 | | | |
| | F | 5 - 05 | | | |
| 5742 Aug. 4 | e | 2 - 31.0 | | | |
| | e | 2 - 36.8 | | | |
| | eL | 2 - 42 | | | |
| | F | 3 - 30 | | | |
| 5743 Aug. 4 | e | 9 - 51.3 | | | |
| | e | 9 - 54.6 | | | |
| | eL? | 9 - 57 | | | |
| | F | 10 - 28 | | | |
| 5749 Aug. 7 | $e_N$ | 9 - 10.4 | | | USCGS. gives:- $\phi$ = 1° N. $\lambda$ = 77° W. H = 9-02.1 |
| | e | 9 - 16.7 | | | |
| | eL | 9 - 21 | | | |
| | F | 10 - 18 | | | |
| 5750 Aug. 10 | e | 17 - 58 | | | |
| | e | 18 - 01 | | | |
| | e | 18 - 07 | | | |
| | eL? | 18 - 21 | | | |
| | F | 19 - 16 | | | |
| 5751 Aug. 11 | e | 7 - 50 | | | |
| | eL | 7 - 58 | | | |
| | F | 8 - 55 | | | |
| 5755 Aug. 17 | $e_E$ | 2 - 04 | | | USCGS. gives:- $\phi$ = 20° S. $\lambda$ = 172° E. H = 1-44.7 |
| | $e_{EZ}$ | 2 - 05 - 07 | | | |
| | $e_E$ | 2 - 10 - 28 | | | |
| | $e_N$ | 2 - 13 - 00 | | | |
| | $e_E$ | 2 - 15.1 | | | |
| | $e_N$ | 2 - 21 - 40 | | | |
| | $e_E$ | 2 - 22.3 | | | |
| | eL | 2 - 36 | | | |
| | F | 6 - 08 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM August 17, 1935 to August 31, 1935 No. 15

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5757 Aug. 20 | e | 0 - 12.4 | | | |
| | e | 0 - 14 | | | |
| | e | 0 - 21 | | | |
| | F | 0 - 43 | | | |
| 5759 Aug. 21 | $e_E$ | 9 - 51.0 | | | |
| | eL | 9 - 58 | | | |
| | F | 10 - 13 | | | |
| 5760 Aug. 21 | $e_E$ | 14 - 07.3 | | | |
| | e | 14 - 13.4 | | | |
| | $e_E$ | 14 - 14.1 | | | |
| | e | 14 - 16.6 | | | |
| | eL | 14 - 33 | | | |
| | F | 15 - 14 | | | |
| 5762 Aug. 22 | H | 20 - 31.0 | | 3080 | Saskatoon Record:- |
| | $eP_{NZ}$ | 20 - 36 - 46 | | | $eP_N$ = 20-36-28 |
| | $eS$ | 20 - 41 - 30 | | | eS = 20-41.1 |
| | eL | 20 - 45 | | | Δ = 2990 |
| | F | 21 - 54 | | | H = 20-30.8 |
| 5766 Aug. 23 | H | 14 - 01.3 ca | | 120°ca | |
| | $P_N$ | 14 - 20 - 06 | | | |
| | $ScPcS_N$ | 14 - 27.0 | | | |
| | $PPS_N$ | 14 - 32.5 | | | |
| | SS | 14 - 38.4 | | | |
| | eL | 14 - 57 | | | |
| | F | 16 - 27 | | | |
| 5768 Aug. 25 | H | 5 - 08.5 | | 4570 | |
| | $eP_N$ | 5 - 16 - 14 | | | |
| | PP | 5 - 17.7 | | | |
| | eS | 5 - 22 - 35 | | | |
| | $SS_E$ | 5 - 25 - 42 | | | |
| | eL | 5 - 28 | | | |
| | F | 6 - 53 | | | |
| 5773 Aug. 31 | e | 18 - 02.4 | | | |
| | $e_E$ | 18 - 08 | | | |
| | eL | 18 - 17 | | | |
| | F | 19 - 21 | | | |

W. W. Doxsee.

# EARTHQUAKE CORRELATION TABLE

## August, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5738 | 1 | 14-27+1-35u | ..... | ..... | 14-35+1-34u | .. |
| 5739 | 1 | 16-15+1-52R | 16-15+0-27R | 16-15+0-32R | 16-15+2-16R | A |
| 5740 | 3 | 1-31+3-33U | 1-30+1-30U | 2-15+0-34L | 1-31+3-42U | .. |
| 5741 | 3 | 12-54+0-29L | ..... | ..... | 12-53+0-33L | .. |
| 5742 | 4 | 2-31+1-00u | ..... | ..... | 2-32+0-53u | .. |
| 5743 | 4 | 9-51+0-37r | 10-00+0-04r | 9-46+0-20r | 9-52+0-29r | .. |
| 5744 | 5 | 14-36+0-27L | ..... | ..... | 14-44+0-19L | .. |
| 5745 | 5 | 20-53+0-16L | ..... | ..... | 20-55+0-12L | .. |
| 5746 | 6 | 0-12+1-08u | ..... | ..... | 0-13+1-04u | .. |
| 5747 | 6 | 7-02+0-59L | ..... | ..... | 7-03+1-07L | .. |
| 5748 | 6 | 17-15+0-05L | ..... | ..... | 17-18+0-04L | .. |
| 5749 | 7 | 9-10+1-08u | 9-10+0-03P | 9-10+0-02P | 9-18+1-11u | .. |
| 5750 | 10 | 17-58+2-18u | ..... | ..... | 18-01+1-20u | .. |
| 5751 | 11 | 7-50+1-05u | ..... | ..... | 7-52+1-05u | .. |
| 5752 | 12 | 4-07+0-28L | ..... | ..... | 4-14+0-14L | .. |
| 5753 | 15 | 14-51+0-38L | ..... | ..... | 14-45+0-44L | .. |
| 5754 | 16 | 16-06+0-18L | ..... | ..... | ..... | .. |
| 5755 | 17 | 2-04+4-04U | 2-04+1-16U | 2-04+1-16U | 2-05+4-19U | .. |
| | 17 | ..... | ..... | ..... | 10-24+0-13L | .. |
| 5756 | 18 | 9-47+0-07L | ..... | ..... | 9-47+0-08L | .. |
| 5757 | 20 | 0-12+0-31r | ..... | ..... | 0-13+0-43r | .. |
| 5758 | 20 | 23-57+0-08L | ..... | ..... | 23-58+0-14L | .. |
| 5759 | 21 | 9-51+0-22r | ..... | ..... | 9-51+0-26r | .. |
| 5760 | 21 | 14-07+1-07u | ..... | ..... | 14-07+1-09u | .. |
| 5761 | 22 | 5-47+0-10L | ..... | ..... | 5-50+0-09L | .. |
| 5762 | 22 | 20-37+1-18R | ..... | 20-37+0-32R | 20-41+1-19R | B |
| 5763 | 23 | 10-28+0-14r | ..... | 10-31+0-06r | 10-28+0-21r | C |
| 5764 | 23 | 11-10+0-54L | ..... | ..... | 11-18+0-41L | .. |
| 5765 | 23 | 12-05+0-14r | ..... | 12-04+0-05r | 12-04+0-13r | C |
| 5766 | 23 | 14-20+2-07 | ..... | ..... | ..... | E |
| 5767 | 24 | 9-53+0-05L | ..... | ..... | ..... | .. |
| 5768 | 25 | 5-16+1-37R | 5-16+0-34R | ..... | 5-17+1-16R | F |
| 5769 | 26 | 13-28+0-26L | ..... | ..... | ..... | .. |
| 5770 | 26 | 16-53+0-58L | ..... | ..... | 16-50+0-54L | .. |
| 5771 | 27 | 13-56+0-07L | ..... | ..... | 13-58+0-05L | .. |
| 5772 | 29 | 11-22+0-23L | ..... | ..... | 11-22+0-26L | .. |
| 5773 | 31 | 18-02+1-19u | ..... | ..... | 18-02+1-24u | .. |

# CORRELATION OF EARTHQUAKES

August, 1935.

## N O T E S

A : Ottawa $\Delta$ = 3,810 km. H = 16$^h$-08$^m$.4 G.M.T.
Seven Falls $\Delta$ = 4,100 km. H = 16-08.5 G.M.T.

B : Ottawa $\Delta$ = 3,080 km. H = 20-31.0 G.M.T.
Seven Falls $\Delta$ = 2,950 km. H = 20-30.9 G.M.T.
Shawinigan Falls seismograph dismantled for calibration tests at time of this earthquake.

C : Aftershock of earthquake No. 5762.

E : Ottawa $\Delta$ = 13,300 km.ca H = 14-01 G.M.T.
Seven Falls seismographs dismantled for calibration tests at time of this earthquake.

F : Ottawa $\Delta$ = 4,570 km. H = 5-08.5 G.M.T.
Shawinigan Falls $\Delta$ = 4,570 km. H = 5-08.4 G.M.T.
Seven Falls Wood-Anderson seismograph undergoing calibration tests at time of this earthquake.

Dominion Observatory,
Ottawa, Canada,
September 23, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED

September,

1935.

We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED | |
|---|---|---|---|
| Stuttgart | Year 1934 | September | 3 |
| Taihoku | July, 1935 | " | 3 |
| Manila | June, 1935 | " | 3 |
| St. Louis | Preliminaries for July 29th and August 1st, 1935 | " | 3 |
| St. Louis | June, 1935 | " | 3 |
| Algiers | July, 1935 | " | 4 |
| Rome | August 6 - 19, 1935 | " | 5 |
| Zurich | July, 1935 | " | 6 |
| Chiufeng | July, 1935 | " | 7 |
| Sydney | June, 1935 | " | 12 |
| Cape Town | May, June, and July, 1935 | " | 12 |
| Strasbourg, Paris, Bureau Central) | July, 1935 | " | 12 |
| State College, Pa. | January to June, 1935 | " | 12 |
| Riverview | July, 1935 | " | 12 |
| Toronto | June and July, 1935 | " | 12 |
| Melbourne | April, May, and June, 1935 | " | 13 |
| Wellington | Preliminary for July, 1935 | " | 13 |
| Christchurch | July, 1935 | " | 13 |
| La Plata | July, 1935 | " | 13 |
| St. Louis | Preliminaries for August 3rd, 7th, June 24th and August 17th, 1935 | " | 18 |
| St. Louis | July, 1935 | " | 21 |
| Little Rock | March 26 to June 2nd, 1935 | " | 23 |
| La Paz | November 30, 1934 to May 31, 1935 | " | 23 |
| Richmond | August, 1935 | " | 23 |
| Cartuja | March, 1935 | " | 23 |
| Zi-Ka-Wei | June 18 to July 7, 1935 | " | 23 |
| Mizusawa | Year 1934 | " | 24 |
| Rome | August 20 to September 2, 1935 | " | 25 |
| Sydney | July, 1935 | " | 26 |
| San Fernando | July and August, 1935 | " | 30 |
| Zinsen | April, 1935 | | |

DOMINION OBSERVATORY
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA



R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1" ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.5 | | 120 | 14:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Z | |
| HN | 9.8 | | 110 | Aper. | NS | |
| HE | 7.1 | | 147 | " | EW | |
| SN | 8.7 | | 57 | " | NS | |
| SE | 9.2 | | 58 | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM September 1, 1935 to September 18, 1935 No. 16

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5774 Sept. 1 | $e_N$ | 0 - 57.0 | | | |
| | e | 1 - 00.9 | | | |
| | eL | 1 - 06 | | | |
| | F | 1 - 23 | | | |
| 5777 Sept. 4 | H | 1 - 27.9 | | 4890 | Saskatoon Record: |
| | eP | 1 - 36 - 00 | | | eP = 1-32-57 |
| | PP | 1 - 37.7 | | | eS = 1-37-18 |
| | eS | 1 - 42 - 38 | | | H = 1-27.7 |
| | SS | 1 - 46 - 06 | | | Δ = 2700 km. |
| | eL | 1 - 50 | | | |
| | F | 5 - 25 | | | |
| 5778 Sept. 9 | e | 6 - 37.5 | | | |
| | $e_E$ | 6 - 42.0 | | | |
| | e | 6 - 47.2 | | | |
| | eL | 7 - 07 | | | |
| | F | 9 - 05 | | | |
| 5782 Sept. 11 | e | 12 - 13.6 | | | |
| | $e_E$ | 12 - 22.0 | | | |
| | eL | 12 - 47 | | | |
| | F | 13 - 26 | | | |
| 5783 ept. 11 | H | 14 - 04.1 | | 9165 | Saskatoon Record: |
| | $iP_N$ | 14 - 16 - 28 | -1.5 | | iP = 14-14-26 |
| | $iP_E$ | 14 - 16 - 28 | +1.0 | | eS = 14-23-06 |
| | $iP_z$ | 14 - 16 - 28 | -1.0 | | H = 14-04.0 |
| | $PP_E$ | 14 - 19.8 | | | Δ = 7050 km. |
| | iS | 14 - 26 - 46 | | | |
| | eL | 14 - 41 | | | |
| | F | 17 - 46 | | | |
| 5788 Sept. 15 | e | 11 - 43 | | | |
| | e | 11 - 52.5 | | | |
| | eL | 12 - 07 | | | |
| | F | 13 - 45 | | | |
| 5789 Sept. 15 | H | 14 - 09.0 | | 9000 | USCGS. gives: |
| | eP | 14 - 21 - 13 | | | φ = 29° S. |
| | eS | 14 - 31 - 24 | | | λ = 114° W. |
| | e | 14 - 36.5 | | | H = 14-08.9 |
| | e | 14 - 42.5 | | | |
| | eL | 14 - 48 | | | |
| | F | 17 - 14 | | | |
| 5790 Sept. 18 | H | 4 - 58.0 | | 4340 | USCGS. gives: |
| | eP | 5 - 05 - 30 | | | φ = 5° N. |
| | eS | 5 - 11 - 38 | | | λ = 76° W. |
| | $e_E$ | 5 - 14.6 | | | H = 4-57.9 |
| | eL | 5 - 16 | | | |
| | F | 6 - 13 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM September 18, 1935 to September 24, 1935 No. 17

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5791 Sept. 18 | e | 8 - 46.9 | | | |
| | eL | 9 - 03 | | | |
| | F | 10 - 04 | | | |
| 5793 Sept. 19 | $e_E$ | 2 - 47 | | | |
| | e | 2 - 56 | | | |
| | e | 3 - 03.7 | | | |
| | eL | 3 - 18 | | | |
| | F | 4 - 54 | | | |
| 5794 Sept. 20 | e | 2 - 05 - 50 | | | USCGS. gives: |
| | e | 2 - 07 - 37 | | | $\phi$ = 1.5° S. |
| | e | 2 - 19.4 | | | $\lambda$ = 142° E. |
| | i | 2 - 25 - 06 | | | H = 1-46.8 |
| | eL | 2 - 45 | | | |
| | F | 5 - 43+ | | | |
| 5795 Sept. 20 | e | 5 - 44.0 | | | |
| | $e_E$ | 5 - 54.2 | | | |
| | e | 5 - 56.0 | | | |
| | e | 6 - 01.1 | | | |
| | eL | 6 - 22 | | | |
| | F | 9 - 49 | | | |
| 5796 Sept. 20 | $e_N$ | 21 - 25.5 | | | |
| | e | 21 - 36.8 | | | |
| | e | 21 - 42.4 | | | |
| | eL | 22 - 01 | | | |
| | F | 23 - 38 | | | |
| 5798 Sept. 23 | e | 9 - 39.1 | | | USCGS. gives: |
| | e | 9 - 44 - 26 | | | $\phi$ = 1.5° S. |
| | $e_N$ | 9 - 51 | | | $\lambda$ = 142° E. |
| | e | 9 - 56 - 26 | | | H = 9-18.3 |
| | eL | 10 - 17 | | | |
| | F | 12 - 50 | | | |
| 5799 Sept. 24 | e | 5 - 22 | | | |
| | $e_E$ | 5 - 39 | | | |
| | eL | 6 - 00 | | | |
| | F | 7 - 15 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM September 24, 1935 to September 30, 1935 No. 18

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5801 Sept. 24 | e | 14 - 49 - 44 | | | |
| | eL | 14 - 59 | | | |
| | F | 15 - 21 | | | |
| 5802 Sept. 24 and 25 | H | 22 - 12.4 | | 3930 | USCGS. gives: |
| | eP | 22 - 19 - 20 | | | $\phi$ = 50° N. |
| | eS | 22 - 25 - 03 | | | $\lambda$ = 130° W. |
| | e | 22 - 27 - 28 | | | H = 22-12.4 |
| | eL | 22 - 30 | | | |
| | F | 0 - 31 | | | |
| 5803 Sept 25 | e | 10 - 42 | | | |
| | eL | 11 - 11 | | | |
| | F | 12 - 44 | | | |
| 5807 Sept. 30 | e | 19 - 10 - 40 | | | |
| | e | 19 - 15 - 20 | | | |
| | $e_E$ | 19 - 18.5 | | | |
| | eL | 19 - 22 | | | |
| | F | 20 - 03 | | | |

W. W. Doxsee.

# EARTHQUAKE CORRELATION TABLE

## September, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5774 | 1 | 0-57+0-26u | ..... | ..... | 1-05+0-22u | .. |
| 5775 | 2 | 7-53+0-50u | ..... | ..... | 7-54+1-04u | .. |
| 5776 | 3 | 16-56+0-10L | ..... | ..... | 16-59+0-07L | .. |
| 5777 | 4 | 1-36+3-49R | 1-36+1-20R | 1-38+0-29R | 1-36+3-46R | A |
| 5778 | 9 | 6-38+2-27u | ..... | ..... | 6-46+2-17u | .. |
| 5779 | 10 | 6-43+0-36r | 6-51+0-05L | 6-58+0-04L | 6-51+0-19L | .. |
| 5780 | 10 | 7-25+0-22L | 7-27+0-09L | ..... | 7-25+0-17L | .. |
| 5781 | 10 | 7-54+0-12L | ..... | ..... | 7-55+0-12L | .. |
| 5782 | 11 | 12-14+1-12u | ..... | ..... | 12-51+0-31L | .. |
| 5783 | 11 | 14-16+3-30U | 14-16+1-00U | 14-16+0-58U | 14-19+2-27U | B |
| 5784 | 12 | 3-49+0-05L | ..... | ..... | ..... | .. |
| | 13 | ..... | 18-56+0-13d | ..... | ..... | C |
| 5785 | 14 | 21-01+0-31L | ..... | ..... | 21-06+0-25L | .. |
| 5786 | 14 | 23-26+0-08L | ..... | ..... | 23-27+0-10L | .. |
| 5787 | 15 | 4-12+0-55L | ..... | ..... | 4-12+0-43L | .. |
| 5788 | 15 | 11-43+2-02u | ..... | ..... | 11-45+2-00u | .. |
| 5789 | 15 | 14-21+2-53u | 14-21+0-42u | ..... | 14-32+2-45u | E |
| 5790 | 18 | 5-05+1-08r | 5-06+0-08r | 5-08+0-05r | 5-07+1-12r | F |
| 5791 | 18 | 8-47+1-17u | ..... | ..... | 8-47+1-13u | .. |
| 5792 | 18 | 21-00+0-13L | ..... | ..... | ..... | .. |
| 5793 | 19 | 2-47+2-07u | ..... | ..... | 2-49+2-25u | .. |
| 5794 | 20 | 2-06+3-37U | 2-06+3-35U | 2-06+2-18U | 2-06+3-38U | .. |
| 5795 | 20 | 5-44+4-05U | 5-44+1-17U | 5-44+1-16U | 5-44+4-21U | .. |
| 5796 | 20 | 21-26+2-12u | ..... | ..... | 21-26+2-05u | .. |
| 5797 | 21 | 22-22+0-08L | ..... | ..... | ..... | .. |
| 5798 | 23 | 9-39+3-11U | 9-38+1-07U | 9-39+0-57U | ..... | .. |
| 5799 | 24 | 5-22+1-53u | ..... | ..... | 5-23+2-01u | .. |
| 5800 | 24 | 8-55+0-24L | ..... | ..... | 8-54+0-27L | .. |
| 5801 | 24 | 14-49+0-32r | ..... | ..... | 14-50+0-25r | .. |
| 5802 | 24 | 22-19+2-18R | 22-19+0-52R | 22-20+0-50R | ..... | G |
| 5803 | 25 | 10-42+2-02u | ..... | ..... | ..... | .. |
| 5804 | 26 | 3-04+0-20L | ..... | ..... | 3-12+0-12L | .. |
| 5805 | 26 | 22-59+1-27L | ..... | ..... | 23-17+1-13L | .. |
| 5806 | 27 | 14-07+0-26L | ..... | ..... | 14-09+0-20L | .. |
| 5807 | 30 | 19-11+0-52u | ..... | ..... | 19-15+0-50u | .. |

CORRELATION OF EARTHQUAKES

September, 1935.

N O T E S

A : Ottawa Δ = 4890 km. H = 1-27.9 G.M.T.
Shawinigan Falls Δ = 4920 km. H = 1-27.8 G.M.T.
Seven Falls Δ = 5010 km. H = 1-27.8 G.M.T.

B : Ottawa Δ = 9165 km. H = 14-04.1 G.M.T.
Shawinigan Falls Δ = 9140 km. H = 14-04.1 G.M.T.
Seven Falls Δ = 9220 km. H = 14-04.1 G.M.T.

C : Recorded at Shawinigan Falls. Origin probably within 50 km. of that station.

E : Ottawa Δ = 9000 km. H = 14-09.0 G.M.T.
Shawinigan Falls Δ = 9030 km. H = 14-09.3 G.M.T.

F : Ottawa Δ = 4340 km. H = 4-58.0 G.M.T.

G : Ottawa Δ = 3930 km. H = 22-12.4 G.M.T.

Dominion Observatory,
Ottawa, Canada,
October 25, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED

## October,

## 1935.



We acknowledge, with thanks, the receipt of the following seismological publications and bulletins;-

| STATIONS | BULLETINS | RECEIVED | |
|---|---|---|---|
| Karlsruhe | January to June, 1935 | October | 2 |
| Taihoku | August, 1935 | " | 5 |
| Chiufeng | August, 1935 | " | 7 |
| St. Louis | Preliminaries for August 22; September 4, 9th, 11th, 1935 | " | 7 |
| Nagasaki | June 5 to December 25, 1934 | " | 7 |
| Perth | May 20 - 24th, 1935 | " | 7 |
| Ksara | August, 1935 | " | 8 |
| Perth | May 24 to July 16, 1935 | " | 8 |
| Sydney | August, 1935 | " | 9 |
| Rome | September 3 - 10th, 1935 | " | 10 |
| Leningrad and Auxiliary Stations | September 34 to March, 1935 | " | 10 |
| Crimean Stations | Year 1932 and January 33 to June, 1934 | " | 10 |
| Asiatic Group | Year 1932 | " | 10 |
| St. Louis | Preliminaries for September 15, 18th, 20th, 1935. | " | 15 |
| Zurich | August and September, 1935 | " | 17 |
| Manila | July, 1935 | " | 17 |
| La Plata | August, ~~1935~~ | " | 19 |
| Rome | September 17 - 30th, 1935 | " | 21 |
| Wellington | Preliminary for August, 1935 | " | 25 |
| Christchurch | August, 1935 | " | 25 |
| Batavia | April to June, 1935 | " | 25 |
| Richmond | September, 1935 | " | 25 |
| Pasadena | August, 1935 and Local Shocks | " | 26 |
| Uccle | April 4 to May 31, 1935 | " | 26 |
| Strasbourg, Paris, Bureau Central | August, 1935 | " | 28 |
| St. Louis | Preliminaries for September 20, 23rd, 24th; October 2, 12th, 1935 | " | 28 |
| Peichiko | April to June, 1935 | " | 29 |
| Pasadena | September, 1935 and Local Shocks | " | 29 |

DOMINION OBSERVATORY
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA



R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1″ ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.5 | | 120 | 14:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Z | |
| HN | 10.3 | | 92 | Aper. | NS | |
| HE | 9.4 | | 155 | " | EW | |
| SN | 8.7 | | 57 | " | NS | |
| SE | 9.2 | | 58 | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA
SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM October 1, 1935 to October 13, 1935 No. 19

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5811 Oct. 2 | H | 5 - 33.1 | | 9070 | |
| | eP | 5 - 45 - 24 | | | |
| | iS | 5 - 55 - 38 | | | |
| | eL | 6 - 12 | | | |
| | F | 7 - 13 | | | |
| 5814 Oct. 6 | eE | 5 - 06 | | | |
| | eN | 5 - 19 | | | |
| | eL | 5 - 30 | | | |
| | F | 6 - 27 | | | |
| 5816 Oct. 7 | e | 5 - 11 | | | |
| | eL | 5 - 18 | | | |
| | F | 6 - 03 | | | |
| 5817 Oct. 8 | e | 9 - 43 | | | |
| | eL | 9 - 56 | | | |
| | F | 10 - 58 | | | |
| 5818 Oct. 9 | e | 22 - 21 - 16 | | | |
| | e | 22 - 23 - 22 | | | |
| | eL | 22 - 26 | | | |
| | F | 23 - 23 | | | |
| 5819 Oct. 11 | e | 22 - 36.7 | | | |
| | e | 22 - 53.5 | | | |
| | e | 22 - 58 | | | |
| | eL | 23 - 08 | | | |
| | F | 1 - 26 | | | |
| 5820 Oct. 12 | e | 8 - 00.5 | | | |
| | eL | 8 - 04 | | | |
| | F | 8 - 32 | | | |
| 5821 Oct. 12 | H | 16 - 47.2 | | 8560 | |
| | eP | 16 - 59 - 00 | | | |
| | eS | 17 - 08 - 52 | | | |
| | SS | 17 - 14 - 08 | | | |
| | e | 17 - 21 - 28 | | | |
| | eL | 17 - 24 | | | |
| | F | 20 - 13 | | | |
| 5822 Oct. 13 | e | 2 - 20.6 | | | |
| | eL ? | 2 - 33 | | | |
| | F | 3 - 38 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM October 13, 1935 to October 31, 1935 No. 29

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5827 Oct. 18 | H | 0 - 13.0 | | 8940 | |
| | eP | 0 - 25 - 10 | | | |
| | S | 0 - 35 - 18 | | | |
| | eL | 0 - 51 | | | |
| | F | 3 - 16 | | | |
| 5829 Oct. 18 | e | 11 - 24 - 52 | | | |
| | $e_N$ | 11 - 27 - 18 | | | |
| | e | 11 - 34 - 18 | | | |
| | eL | 11 - 55 | | | |
| | F | 13 - 41 | | | |
| 5830 Oct. 18 | $e_N$ | 15 - 17 - 08 | | | |
| | $i_E$ | 15 - 17 - 19 | | | |
| | eL ? | 15 - 37 | | | |
| | F | 17 - 04 | | | |
| 5834 Oct. 19 | H | 4 - 48.2 | | 2750 | Saskatoon Record:- |
| | eP | 4 - 53 - 28 | | | eP = (4-49-33) |
| | eS | 4 - 57 - 48 | | | iS = (4-51-20) |
| | $SS_N$ | 4 - 58 - 50 | | | Δ = 1025 km. |
| | $i_N$ | 4 - 59 - 28 | | | H = (4-47.3 |
| | eL | 5 - 00 | | | |
| | F | 6 - 06 | | | Clock correction uncertain |
| 40 5838 Oct. 31 | H | 18 - 38.0 | | 2700 | Saskatoon Record:- |
| | eP | 18 - 43 - 18 | | | eP = (18-39-24) |
| | eS | 18 - 47 - 40 | | | iS = (18-41-08) |
| | $SS_N$ | 18 - 48 - 52 | | | Δ = 995 km. |
| | $e_{NZ}$ | 18 - 49 - 20 | | | H = (18-37.2) |
| | eL | 18 - 50 | | | Clock correction uncertain. |
| | F | 20 - 16 | | | |

W. W. Doxsee.

International Seismological Centre

# EARTHQUAKE CORRELATION TABLE

October, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5808 | 1 | 5-54+0-09L | ..... | ..... | 5-53+0-09L | .. |
| 5809 | 1 | 10-58+0-31r | ..... | ..... | ..... | .. |
| 5810 | 1 | 11-48+0-12L | ..... | ..... | 11-48+0-10L | .. |
| 5811 | 2 | 5-45+1-28u | 5-45+0-15u | 5-45+0-17u | 5-56+1-20u | A |
| 5812 | 4 | 5-52+0-43u | ..... | ..... | 6-04+0-17L | .. |
| 5813 | 5 | 21-46+0-17L | ..... | ..... | 21-48+0-13L | .. |
| 5814 | 6 | 5-06+1-21u | ..... | ..... | 5-30+0-54L | .. |
| 5815 | 6 | 22-10+0-08r | ..... | ..... | 22-12+0-08r | .. |
| 5816 | 7 | 5-11+0-53r | ..... | ..... | 5-08+1-05r | .. |
| 5817 | 8 | 9-43+1-15u | ..... | ..... | 9-42+1-20u | .. |
| 5818 | 9 | 22-21+1-02r | 22-24+0-12r | 22-29+0-07r | 22-21+1-02r | .. |
| 5819 | 11 | 22-37+2-49u | 23-23+0-07L | ..... | 22-38+2-44u | .. |
| 5820 | 12 | 8-01+0-31r | 8-02+0-23r | 8-03+0-10r | 8-05+0-33r | .. |
| 5821 | 12 | 16-59+3-14U | 16-59+0-59U | 16-59+0-56U | 17-09+3-22U | B |
| 5822 | 13 | 2-21+1-17u | ..... | ..... | 2-26+1-08u | .. |
| 5823 | 14 | 10-45+0-17L | ..... | ..... | 10-44+0-11L | .. |
| 5824 | 14 | 17-48+0-24L | ..... | ..... | 17-50+0-26L | .. |
| 5825 | 15 | 21-02+0-34L | ..... | ..... | ..... | .. |
| 5826 | 17 | 15-44+0-16L | ..... | ..... | ..... | .. |
| 5827 | 18 | 0-25+2-50U | 0-25+1-01U | 0-35+0-46U | 0-28+2-48U | C |
| 5828 | 18 | 3-24+0-48L | ..... | ..... | 3-29+0-25L | .. |
| 5829 | 18 | 11-25+2-16u | 11-25+0-52u | ..... | 11-25+2-20u | .. |
| 5830 | 18 | 15-17+1-47u | ..... | ..... | 15-18+2-00u | .. |
| 5831 | 18 | 22-35+0-29L | ..... | ..... | 22-38+0-24L | .. |
| 5832 | 19 | 0-56+0-40u | ..... | ..... | 0-53+0-37u | .. |
| 5833 | 19 | 1-42+0-07L | ..... | ..... | 1-40+0-19L | .. |
| 5834 | 19 | 4-53+1-13R | 4-54+0-38R | 4-54+0-40R | 4-58+1-09R | E |
| 5835 | 24 | 15-04+0-21r | ..... | ..... | 15-07+0-10rT | .. |
| 5836 | 25 | 0-51+0-54L | ..... | ..... | 0-59+0-50L | .. |
| 5837 | 25 | 18-19+0-20L | ..... | ..... | 18-19+0-20L | .. |
| 5838 | 27 | 1-24+0-34L | ..... | ..... | 1-25+0-30L | .. |
| 5839 | 29 | 10-36+0-27r | 10-36+0-09r | ..... | 10-39+0-09rT | .. |
| 5840 | 31 | 18-43+1-33R | 18-43+0-33R | 18-43+0-36R | 18-43+1-06RT | F |

# CORRELATION OF EARTHQUAKES

October, 1935.

.....

## N O T E S

A : Ottawa Δ = 9070 km. H = 5-33.1 G.M.T.
Shawinigan Falls Δ = 9160 km. H = 5-33.1 G.M.T.
Seven Falls Δ = 9050 km. H = 5-33.3 G.M.T.

B : Ottawa Δ = 8560 km. H = 16-47.2 G.M.T.

C : Ottawa Δ = 8940 km. H = 0-13.0 G.M.T.

E ; Ottawa Δ = 2750 km. H = 4-48.2 G.M.T.

F : Ottawa Δ = 2700 km. H = 18-38.0 G.M.T.
Seven Falls Δ = 3160 km. H = (18-37.8) G.M.T.

Dominion Observatory,
Ottawa, Canada,
November 29, 1935.

# SEISMOLOGICAL BULLETINS RECEIVED

November, 1935



We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATIONS | BULLETINS | RECEIVED | |
|---|---|---|---|
| Ksara | September, 1935 | November | 1 |
| Rome | October 1 - 14, 1935 | " | 1 |
| Manila | August, 1935 and corrections to May | " | 4 |
| Chiufeng | September, 1935 | " | 4 |
| Hamburg | June 14 to October 8, 1935 | " | 4 |
| Apia | July to September, 1935 | " | 6 |
| Wellington, Christchurch | September, 1935 | " | 7 |
| Perth | July 16 - 30, 1935 | " | 8 |
| Riverview | August and September, 1935 | " | 12 |
| Uccle | June 1 to August 2, 1935 | " | 15 |
| Tananarive | January to April, 1935 | " | 16 |
| Cartuja | April and May, 1935 | " | 16 |
| Taihcku | September, 1935 | " | 19 |
| Richmond | October, 1935 | " | 21 |
| Paris, Strasbourg, Bureau Central | September, 1935 | " | 21 |
| Zagreb | October, 1934 to March, 1935 | " | 22 |
| Helwan | June and July, 1935 | " | 25 |
| Toronto | August and September, 1935 | " | 26 |
| Victoria | April, 1935 | " | 26 |
| Kobe | July to September, 1934 | " | 26 |
| Osaka | April to June, 1934 and May 7 to September 4, 1935 | " | 26 |
| Helwan | August and September, 1935 | " | 29 |
| Algiers | August to October, 1935 | " | 30 |

DOMINION OBSERVATORY,
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA



R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

$\varphi = 45°\ 23'\ 38''$ N. $\lambda = 75°\ 42'\ 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°\ 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44°\ 38'$ N. $\lambda = 63°\ 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46°\ 33'.1$ N. $\lambda = 72°\ 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47°\ 07'.4$ N. $\lambda = 70°\ 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_0$ | $r/T_0^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1″ ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.5 | | 120 | 14:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Z | |
| HN | 10.3 | | 92 | Aper. | NS | |
| HE | 9.4 | | 155 | " | EW | |
| SN | 8.7 | | 57 | " | NS | |
| SE | 9.2 | | 58 | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM November 1, 1935 to November 7, 1935 No. 21

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5841 Nov. 1 | H | 6 - 03.7 | | 300 | Felt throughout Eastern Canada and United States. |
| | $iP_N$ | 6 - 04 - 20 | -1.3 | | |
| | $iP_E$ | 6 - 04 - 20 | +1.5 | | |
| | $iP_Z$ | 6 - 04 - 20 | -0.5 | | |
| | iS | 6 - 04 - 53 | | | Halifax Record: |
| | F | 8 - 09 | | | Δ = 1110 km. |
| | | | | | H = 6-03.8 |
| | | | | | eP = 6-06-14 |
| | | | | | eS = 6-08-10 |
| | | | | | Saskatoon Record: |
| | | | | | Δ = 1880 km. |
| | | | | | H = 6-03.8 |
| | | | | | eP = 6-07-45 |
| | | | | | eS = 6-11-00 |
| 5843 Nov. 1 | e | 16 - 51.3 | | | |
| | eL | 17 - 21 | | | |
| | F | 18 - 44 | | | |
| 5844 Nov. 2 | e | 13 - 52 - 45 to | | | Aftershock of No. 5841 |
| | F | 13 - 52 - 48 | | | |
| 5845 Nov. 2 | e | 13 - 57 - 06 to | | | Aftershock of No. 5841 |
| | F | 13 - 57 - 09 | | | |
| 5846 Nov. 2 | H | 14 - 32.0 | | 270 | Aftershock of No. 5841 |
| | eP | 14 - 32 - 37 | | | |
| | eS | 14 - 33 - 07 | | | |
| | F | 14 - 35 - 20 | | | |
| 5849 Nov. 4 | e | 14 - 08 | | | |
| | eL | 14 - 10.5 | | | |
| | F | 14 - 29+ | | | |
| 5857 Nov. 7 | $e_E$ | 21 - 16.5 | | | |
| | $e_E$ | 21 - 17.5 | | | |
| | $e_E$ | 21 - 20.4 | | | |
| | e | 21 - 21.7 | | | |
| | eL | 21 - 24 | | | |
| | F | 21 - 52 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM November 7, 1935 to November 30, 1935 No. 22

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5858 Nov. 10 | e | 18 - 34.0 | | | USCGS. gives: $\phi$ = 16.7° N. $\lambda$ = 62.2° W. H = 18-27.5 |
| | e | 18 - 39.0 | | | |
| | eL | 18 - 41 | | | |
| | F | 20 - 25 | | | |
| 5861 Nov. 11 | $e_E$ | 13 - 51 | | | |
| | eL | 14 - 03 | | | |
| | F | 15 - 00 | | | |
| 5865 Nov. 14 | $e_E$ | 20 - 17 | | | |
| | e | 20 - 23 | | | |
| | e | 20 - 34 | | | |
| | eL | 20 - 48 | | | |
| | F | 22 - 19 | | | |
| 5866 Nov. 15 | e | 16 - 12 - 44 to | | | Aftershock of No. 5841 |
| | F | 16 - 12 - 47 | | | |
| 5868 Nov. 17 | $e_E$ | 8 - 10 | | | |
| | $e_N$ | 8 - 16 | | | |
| | eL | 8 - 29 | | | |
| | F | 9 - 36 | | | |
| 5869 Nov. 23 | H | 7 - 52.4 | | 5000 | USCGS. gives: $\phi$ = 1° N. $\lambda$ = 86° W. H = 7-52.5 |
| | eP | 8 - 00.6 | | | |
| | eS | 8 - 07 - 20 | | | |
| | eL | 8 - 13 | | | |
| | F | 9 - 52 | | | |
| 5870 Nov. 25 | e | 10 - 41 | | | |
| | eL | 11 - 03 | | | |
| | F | 12 - 19 | | | |
| 5872 Nov. 30 | H | 3 - 39.9 | | 3900 | USCGS. gives: $\phi$ = 10.1° N. $\lambda$ = 79.5° W. H = 3-39-45 |
| | eP | 3 - 46 - 46 | | | |
| | $PP_N$ | 3 - 48 - 02 | | | |
| | S | 3 - 52 - 26 | | | |
| | eL | 3 - 57 | | | |
| | F | 5 - 37 | | | |

W. W. Doxsee.

# EARTHQUAKE CORRELATION TABLE

## November, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5841 | 1 | 6-04+2-05V | 6-04+1-00V | 6-05+0-33V | 6-05+1-15V | A |
| 5842 | 1 | 13-53+0-05L | ..... | ..... | ..... | .. |
| 5843 | 1 | 16-51+1-53u | ..... | 17-28+0-05L | 16-51+1-41u | .. |
| | 1 | ..... | 17-04+0-02v | ..... | ..... | B |
| | 2 | ..... | 0-44+0-02v | ..... | ..... | B |
| 5844 | 2 | 13-53+0-0.1v | ..... | ..... | ..... | B |
| 5845 | 2 | 13-57+0-0.1v | ..... | ..... | ..... | B |
| 5846 | 2 | 14-33+0-03v | 14-33+0-11v | 14-33+0-05v | 14-33+0-0.5v | BC |
| 5847 | 4 | 4-14+0-14L | 4-14+0-04L | ..... | 4-14+0-14L | .. |
| 5848 | 4 | 10-28+0-40L | 10-32+0-06L | 10-33+0-05L | 10-30+0-36L | .. |
| 5849 | 4 | 14-08+0-21r | 14-11+0-08L | 14-13+0-06L | 14-07+0-42r | .. |
| 5850 | 4 | 14-19+0-35r | 14-20+0-07r | 14-36+0-06L | ..... | .. |
| 5851 | 5 | 2-36+0-15L | ..... | ..... | ..... | .. |
| | 5 | ..... | 10-13+0-0.6v | ..... | ..... | B |
| 5852 | 5 | 10-14+1-18L | ..... | ..... | 10-34+0-33L | .. |
| 5853 | 5 | 13-54+0-56L | ..... | ..... | 13-54+0-25L | .. |
| 5854 | 5 | 21-08+1-38L | ..... | ..... | 21-29+1-34L | .. |
| 5855 | 7 | 5-02+0-27L | ..... | ..... | 5-07+0-11L | .. |
| 5856 | 7 | 11-48+0-0.3v | ..... | ..... | ..... | B |
| 5857 | 7 | 21-17+0-36u | ..... | ..... | 21-17+0-30u | .. |
| 5858 | 10 | 18-34+1-51R | 18-34+0-26R | 18-34+0-16R | 18-34+1-38R | .. |
| 5859 | 11 | 6-26+0-17L | ..... | ..... | 6-26+0-12L | .. |
| 5860 | 11 | 7-12+0-17L | ..... | ..... | 7-13+0-10L | .. |
| 5861 | 11 | 13-51+1-09u | ..... | ..... | 14-04+0-52L | .. |
| 5862 | 11 | 19-22+0-16L | ..... | ..... | ..... | .. |
| 5863 | 12 | 22-26+0-38L | ..... | ..... | 22-28+0-37L | .. |
| 5864 | 14 | 1-12+0-42L | ..... | ..... | 1-12+0-37L | .. |
| 5865 | 14 | 20-17+2-02u | ..... | ..... | 20-18+1-52u | .. |
| 5866 | 15 | 16-13+0-0.1v | ..... | ..... | ..... | B |
| 5867 | 16 | 0-21+0-20L | ..... | ..... | ..... | .. |
| 5868 | 17 | 8-10+1-26u | ..... | ..... | 8-36+0-45L | .. |
| 5869 | 23 | 8-01+1-51R | ..... | ..... | 8-08+1-37R | E |
| | 25 | ..... | 6-21+0-01.5v | ..... | ..... | B |
| 5870 | 25 | 10-41+1-28u | ..... | ..... | 10-41+1-20u | .. |
| | 27 | ..... | 19-34+0-01v | ..... | ..... | B |
| 5871 | 28 | 14-54+0-07r | 14-51+0-10r | 14-55+0-08r | ..... | .. |
| 5872 | 30 | 3-47+1-48R | 3-47+0-37R | ..... | 3-47+1-38R | F |

# CORRELATION OF EARTHQUAKES

November, 1935.

.....

## N O T E S

A : Timiskaming Earthquake

| | | |
|---|---|---|
| Ottawa | Δ = 300 km. | H = 6-03.6 G.M.T. |
| Shawinigan Falls | Δ = 440 km. | H = 6-03.6 G.M.T. |
| Seven Falls | Δ = 575 km. | H = 6-03.6 G.M.T. |

B : Aftershocks of Timiskaming earthquake.

| | | |
|---|---|---|
| C : Ottawa | Δ = 270 km. | H = 14-31.9 G.M.T. |
| Shawinigan Falls | Δ = 420 km. | H = 14-31.9 G.M.T. |
| Seven Falls | Δ = 535 km. | H = 14-32.0 G.M.T. |
| E : Ottawa | Δ = 5000 km. | H = 7-52.3 G.M.T. |
| F : Ottawa | Δ = 3890 km. | H = 3-39.8 G.M.T. |

Dominion Observatory,
Ottawa, Canada,
January 3, 1936.

# SEISMOLOGICAL BULLETINS RECEIVED

## December,

## 1935.



We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

| STATION | BULLETINS | RECEIVED |
|---|---|---|
| San Fernando | September, and October, 1935 | Dec. 2 |
| Sydney | July 6 to September 30, 1935 | " 3 |
| Perth | July 16 to August 17, 1935 | " 4 |
| Riverview | October, 1935 | " 4 |
| Manila | September, 1935 and Corrections to July and August | " 4 |
| Ksara | October, 1935 | " 6 |
| La Plata | September, 1935 | " 7 |
| Pasadena | October, 1935 and local Shocks | " 7 |
| Chiufeng | October, 1935 | " 7 |
| Osaka | September 4 to October 31, 1935 | " 11 |
| San Fernando | Year 1934 | " 11 |
| Nagasaki | January to October, 1935 | " 14 |
| Taihoku | October, 1935 | " 16 |
| Paris, Strasbourg, Bureau Central | October, 1935 | " 16 |
| Prague | April to September, 1935 | " 19 |
| Wellington, Christchurch | October, 1935 | " 19 |
| Zi-Ka-Wei | September 19 to October 2, 1935 | " 23 |
| Ksara | November, 1935 | " 23 |
| Algiers | November, 1935 | " 26 |
| Zurich | October and November, 1935 | " 27 |
| La Plata | October, 1935 | " 28 |
| Richmond | November, 1935 | " 28 |
| Berkeley | October 1, 1933 to March 31, 1934 | " 30 |

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

# SEISMOLOGICAL STATION, DOMINION OBSERVATORY
## OTTAWA


R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*




$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: with 0·25s.

## AUXILIARY STATIONS

### SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

### HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

### SHAWINIGAN FALLS

$\varphi = 46° 33'.1$ N. $\lambda = 72° 45'.8$ W. $h = 60$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

### SEVEN FALLS

$\varphi = 47° 07'.4$ N. $\lambda = 70° 49'.6$ W. $h = 232$ m. ca.

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

## INSTRUMENTS—FIXED CONSTANTS

| STATION | INSTRUMENT | SYMBOL | REGISTRATION | DAMPING | PAPER SPEED | MASS |
|---|---|---|---|---|---|---|
| Ottawa | Bosch | I | Photographic | Air | 15 mm. per min. | 200 g. |
| Ottawa | Bosch | II | Photographic | Magnetic | 15 mm. per min. | 200 g. |
| Ottawa | Milne-Shaw | 17 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Milne-Shaw | 23 | Photographic | Magnetic | 15 mm. per min. | 1 lb. |
| Ottawa | Spindler-Hoyer | W | Smoked Sheet | Air | 15 mm. per min. | 80 kg. |
| Halifax | Mainka | HN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Halifax | Mainka | HE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SN | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Saskatoon | Mainka | SE | Smoked Sheet | Air | 15 mm. per min. | 139 kg. |
| Shawinigan Falls | Wood-Anderson | SA | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Wood-Anderson | SF | Photographic | Magnetic | 60 mm. per min. | 15 g. |
| Seven Falls | Milne-Shaw | SM | Photographic | Magnetic | 6 mm. per min. | 1 lb. |

## INSTRUMENTS—DETERMINED CONSTANTS

| INSTRUMENT | $T_o$ | $r/T_o^2$ | $V$ | $\epsilon$ | COMP. | DISPLACEMENT FOR 1" ARC TILT |
|---|---|---|---|---|---|---|
| I | 5.3 | | 120 | 2:1 | NS | |
| II | 6.5 | | 120 | 14:1 | EW | |
| 17 | 12.0 | | 250 | 20:1 | EW | 44 mm. |
| 23 | 12.0 | | 250 | 20:1 | NS | 44 mm. |
| W | 5.6 | | 160 | 10:1 | Z | |
| HN | 10.3 | | 92 | Aper. | NS | |
| HE | 9.4 | | 155 | " | EW | |
| SN | 8.7 | | 57 | " | NS | |
| SE | 9.2 | | 58 | " | EW | |
| SA | 0.9 | | 2000 | | NS | |
| SF | 1.1 | | 1750 | | EW | |
| SM | 12.0 | | 250 | 20:1 | EW | 43 mm. |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM December 1, 1935 to December 20, 1935 No. 23

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5882 Dec. 14 | H | 1 - 31.4 | | 5140 | USCGS. gives:- |
| | $iP_N$ | 1 - 39 - 48 | | | $\phi$ = 6.5° S. |
| | iS | 1 - 46 - 40 | | | $\lambda$ = 72.5° W. |
| | i | 1 - 48 - 30 | | | |
| | e | 1 - 50 - 12 | | | |
| | eLE | 1 - 53.7 | | | |
| | F | 3 - 11 | | | |
| 5883 Dec. 14 | H | 22 - 05.4 | | 3650 | Saskatoon Record:- |
| | eP | 22 - 12 - 04 | | | eP = 22-12-45 |
| | PPP | 22 - 13 - 24 | | | eS = 22-18-45 |
| | iS | 22 - 17 - 29 | | | $\Delta$ = 4200 |
| | i | 22 - 19 - 42 | | | H = 22-05.4 |
| | $i_E$ | 22 - 20 - 26 | | | |
| | $i_N$ | 22 - 20 - 48 | | | USCGS. gives:- |
| | L | 22 - 21.2 | | | $\phi$ = 14° N. |
| | F | 1 - 06 | | | $\lambda$ = 92.5° W. |
| 5884 Dec. 15 | $e_E$ | 7 - 28 | | | |
| | e | 7 - 33 - 38 | | | USCGS. gives:- |
| | e | 7 - 35.5 | | | $\phi$ = 12.5° S. |
| | e | 7 - 38.5 | | | $\lambda$ = 161° E. |
| | eL | 8 - 04 | | | |
| | F | 11 - 00 ca | | | |
| 5885 Dec. 16 | $e_N$ | 17 - 05 - 56 | | | |
| | $e_N$ | 17 - 12 - 48 | | | |
| | F | 17 - 35 | | | |
| 5888 Dec. 17 | e | 19 - 36.8 | | | |
| | $e_N$ | 19 - 42.6 | | | |
| | e | 19 - 46 - 04 | | | |
| | e | 19 - 52 | | | |
| | eL | 20 - 04 | | | |
| | F | 21 - 41 | | | |
| 5890 Dec. 20 | $e_N$ | 8 - 00 | | | |
| | $e_E$ | 8 - 03.3 | | | |
| | L | 8 - 03.6 | | | |
| | F | 8 - 27 | | | |
| 5891 Dec. 20 | e | 19 - 03 | | | |
| | e | 19 - 07 | | | |
| | e | 19 - 13.5 | | | |
| | eL | 19 - 28 | | | |
| | F | 21 - 09 | | | |

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY



FROM December 20, 1935 to December 31, 1935 No. 24

| NO. AND DATE | PHASE | TIME | AMP. | DISTANCE | REMARKS |
|---|---|---|---|---|---|
| | | h m s | μ | km. | |
| 5894 | e | 11 - 59 - 24 | | | |
| Dec. | e | 12 - 03 - 36 | | | |
| 21 | eL | 12 - 09 | | | |
| | F | 13 - 02 | | | |
| 5895 | H | 12 - 24.4 | | 4580 | |
| Dec. | $eP_N$ | 12 - 32 - 08 | | | |
| 24 | PPP | 12 - 33 - 54 | | | |
| | eS | 12 - 38 - 30 | | | |
| | SSS | 12 - 41 - 48 | | | |
| | eL | 12 - 44 | | | |
| | F | 13 - 50 | | | |
| 5898 | H | 2 - 35 | | 142° | USCGS. gives:- |
| Dec. | eP' | 2 - 54.6 | | | $\phi$ = 3° S. |
| 28 | iPP | 2 - 57 - 24 | | | $\lambda$ = 97° E. |
| | i | 2 - 58 - 20 | | | |
| | PPS | 3 - 09 - 18 | | | Saskatoon Record:- |
| | SS | 3 - 15 - 24 | | | PP = 2-56.2 |
| | SSS | 3 - 20 - 42 | | | PS = 3-06.4 |
| | $L_E$ | 3 - 33.4 | | | SS = 3-13.3 |
| | $L_N$ | 3 - 40.5 | | | L = 3-19 |
| | F | 7 - 30 | | | |
| | | | | | Halifax Record:- |
| | | | | | PP = 2-57-12 |
| | | | | | i = 2-58-14 |
| | | | | | PPS = 3-09-16 |
| | | | | | L = 3-32 |
| 5900 | e | 0 - 00 - 07 | | | |
| Dec. | e | 0 - 22.0 | | | |
| 30 | $e_N$ | 0 - 36.5 | | | |
| | eL | 0 - 41 | | | |
| | F | 1 - 51 | | | |

NOTE:-

Please note the following corrections to be made in the Preliminary Report of the Earthquake of November 1, 1935.

Page 3, line 3, change epicentre to focus. Page 9, line 5 of the last section, change epicentral to focal.

W. W. Doxsee.

# EARTHQUAKE CORRELATION TABLE

December, 1935.

| No. | Date | Ottawa | Shawinigan | Seven Falls | | ** |
|---|---|---|---|---|---|---|
| | | | | W. A. | M. S. | |
| 5873 | 2 | 0-26+0-55L | ..... | ..... | ..... | .. |
| 5874 | 2 | 17-27+0-44L | ..... | ..... | ..... | .. |
| 5875 | 3 | 2-36+0-23r | 2-36+0-06r | ..... | ..... | .. |
| 5876 | 3 | 6-13+0-11r | 6-13+0-08r | ..... | ..... | .. |
| 5877 | 3 | 23-40+0-12L | ..... | ..... | 23-38+0-12L | .. |
| 5878 | 5 | 18-39+0-47L | ..... | ..... | 18-40+1-32u | .. |
| 5879 | 8 | 18-37+0-12L | ..... | ..... | ..... | .. |
| 5880 | 8 | 22-48+0-24L | ..... | ..... | 22-52+0-22L | .. |
| 5881 | 9 | 8-06+1-17u | 7-43+0-03P | 7-43+0-02P | 8-37+0-34L | .. |
| 5882 | 14 | 1-40+1-31u | 1-40+0-28u | ..... | 1-45+1-40u | A |
| 5883 | 14 | 22-12+2-54R | 22-12+1-15R | 22-12+1-18R | 22-12+3-20R | B |
| 5884 | 15 | 7-28+3-32U | 7-28+2-11U | 7-28+2-08U | 7-28+3-44U | .. |
| 5885 | 16 | 17-06+0-29u | 17-06+0-03P | 17-06+0-03P | 17-17+0-14u | .. |
| 5886 | 17 | 12-14+0-04L | ..... | ..... | ..... | .. |
| 5887 | 17 | 14-14+0-42L | ..... | ..... | 14-14+0-50L | .. |
| 5888 | 17 | 19-37+2-04u | 19-37+0-58u | 20-08+0-21L | 19-45+1-50u | .. |
| | 18 | ..... | 5-48+0-01P | ..... | ..... | .. |
| 5889 | 18 | 8-06+0-37L | ..... | ..... | 8-01+0-28L | .. |
| | 19 | ..... | 2-12+0-02P | ..... | ..... | .. |
| 5890 | 20 | 8-00+0-27r | 8-03+0-08r | 8-06+0-05r | 8-06+0-17r | .. |
| 5891 | 20 | 19-03+2-06u | ..... | ..... | 19-01+2-17u | .. |
| 5892 | 21 | 5-45+0-24L | ..... | ..... | 5-44+0-16L | .. |
| 5893 | 21 | 7-41+0-31L | ..... | ..... | 7-43+0-17L | .. |
| 5894 | 21 | 11-59+1-03u | ..... | ..... | 11-58+0-50u | .. |
| 5895 | 24 | 12-32+1-19r | 12-32+0-12r | 12-39+0-05r | 12-38+1-11r | C |
| 5896 | 26 | 21-09+0-28L | ..... | ..... | 21-06+0-31L | .. |
| 5897 | 26 | 23-42+0-23L | ..... | ..... | ..... | .. |
| 5898 | 28 | 2-55+4-35U | 2-55+2-17U | 2-55+2-00U | 2-55+4-32U | E |
| 5899 | 28 | 19-05+0-26L | ..... | ..... | 19-08+0-26L | .. |
| 5900 | 30 | 0-00+1-51u | ..... | ..... | 0-16+1-35u | .. |

# CORRELATION OF EARTHQUAKES

December, 1935.

## N O T E S

| | | | |
|---|---|---|---|
| A : | Ottawa | Δ = 5140 km. | H = 1-31.4 G.M.T. |
| | Shawinigan Falls | Δ = 5300 km. | H = 1-31.3 G.M.T. |
| B : | Ottawa | Δ = 3650 km. | H = 22-05.4 G.M.T. |
| | Shawinigan Falls | Δ = 3880 km. | H = 22-05.5 G.M.T. |
| | Seven Falls | Δ = 3720 km. | H = 22-05.4 G.M.T. |
| C : | Ottawa | Δ = 4580 km. | H = 12-24.4 G.M.T. |
| E : | Ottawa | Δ = 15,800 km. ca | H = 2-35 G.M.T. ca |

Dominion Observatory,
Ottawa, Canada,
January 30, 1936.