SEISMOLOGICAL SERIES

of the

DOMINION OBSERVATORY

Seismological Bulletin
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1960

Seismological Service
of Canada

OTTAWA, CANADA

Department of Mines and Technical Surveys

DOMINION OBSERVATORIES

SEISMOLOGICAL BULLETIN - 1960

This report lists the instrumental results obtained at the seismological stations maintained by the Seismological Service of Canada. These are divided into two divisions.

Eastern Division

Ottawa, Ontario -
Dominion Observatory, Department of Mines and Technical Surveys.

Halifax, Nova Scotia -
Operated by Dalhousie University for the Dominion Observatory.

Seven Falls, Quebec -
Owned by the Quebec Power Company; operated by the Company for the Dominion Observatory.

Shawinigan Falls, Quebec -
Owned by the Shawinigan Water and Power Co.; operated by the Company for the Dominion Observatory.

Resolute, Northwest Territories -
Owned and operated by the Dominion Observatory.
R. Bourgoin in charge.

Local earthquakes are interpreted by means of travel-time curves based on rockburst studies. (See J. H. Hodgson, Publications of the Dominion Observatory, XVI, Nos. 5 and 6.)

DOMINION OBSERVATORIES

Western Division

Victoria, British Columbia -
Dominion Astrophysical Observatory, Department of Mines and Technical Surveys, Royal Oak, B.C.

Saskatoon, Saskatchewan -
Operated by the University of Saskatchewan for the Dominion Observatory.

Banff, Alberta -
Operated by the Banff School of Fine Arts for the Dominion Observatory.

Horseshoe Bay, British Columbia -
Owned and operated by the Dominion Observatory.
W. S. Blacklock in charge.

Alberni, British Columbia -
Owned and operated by the Dominion Observatory.
W. N. Burgess in charge.

Lillooet, British Columbia -
Owned and operated by the Dominion Observatory.
R. Roschard in charge.

Penticton -
Owned and operated by the Dominion Observatory.

Local earthquakes are interpreted by means of travel-time curves based on blast studies. (See W. G. Milne and W. R. H. White, Publications of the Dominion Observatories, XXIV, No. 7.) Records for all stations of the Seismological Service of Canada are stored on microfilm in Ottawa. Positive microfilm copies, or full-scale prints, will be sent on request. Beginning in 1960 records of the station at Brebeuf College, Montreal, are included in the microfilm file through the courtesy of M. Buist, S.J., Director.

Magnification curves for the various instruments operated at the above stations will be found on the following pages.

John H. Hodgson,
Chief, Division of Seismology.

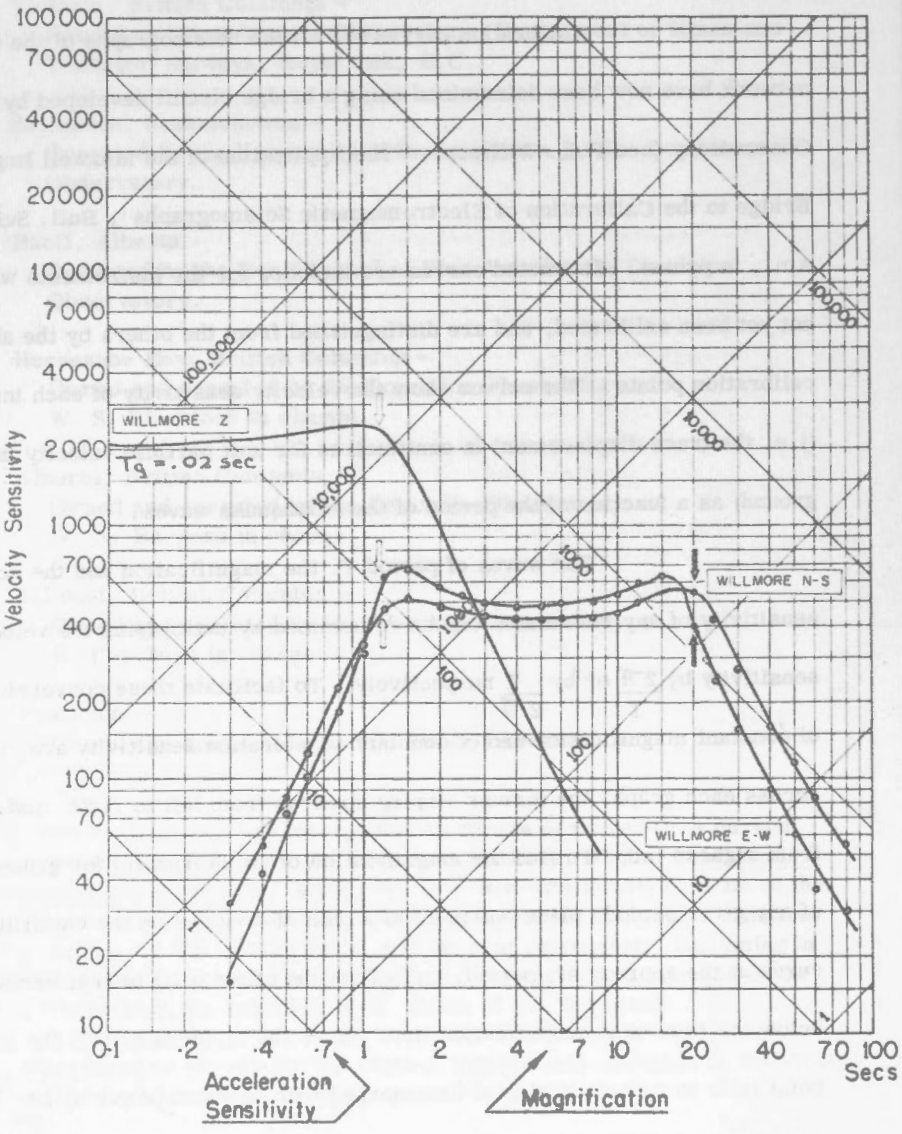
Explanation of Calibration Curves

Calibration curves for all the seismographs of the Canadian network have now been determined using a bridge circuit developed by this Observatory (see P.L. Willmore, "The Application of the Maxwell Impedence Bridge to the Calibration of Electromagnetic Seismographs", Bull. Seis. Soc. Am., in press). Estimated curves are included for the instruments which have not yet been calibrated, and are distinguished from the others by the absence of calibration points. The curves show the velocity sensitivity of each instrument (i.e. the trace displacement in centimetres for unit particle velocity in the ground) as a function of the period of the earthquake waves.

For waves of period T, the magnification and the acceleration sensitivity of any instrument can be determined by multiplying the velocity sensitivity by $\frac{2\pi}{T}$ or by $\frac{T}{2\pi}$ respectively. To facilitate these conversions, lines of constant magnification and of constant acceleration sensitivity are ruled across each graph, the former sloping upwards from left to right, and the latter from right to left. To find the magnification of an instrument for ground waves of any given period, place one point of a pair of dividers on the calibration curve at the appropriate period, and adjust the other point to rest vertically below the first on a magnification line. Move the dividers so that the lower point falls on a horizontal grid line marked with an exact power of 10. The upper point of the dividers will then indicate the magnification. The decimal multiplier will be determined by the fact that the magnification must lie between the values indicated on the datum lines above and below the calibration point. The acceleration sensitivity can be found in the same way as the magnification, starting with an acceleration datum line.

CALIBRATION CURVES

STATION: ALBERNI



ϕ = 49° 16'14"N λ = 124°49'18"W Altitude

Foundation : Basic volcanic rock

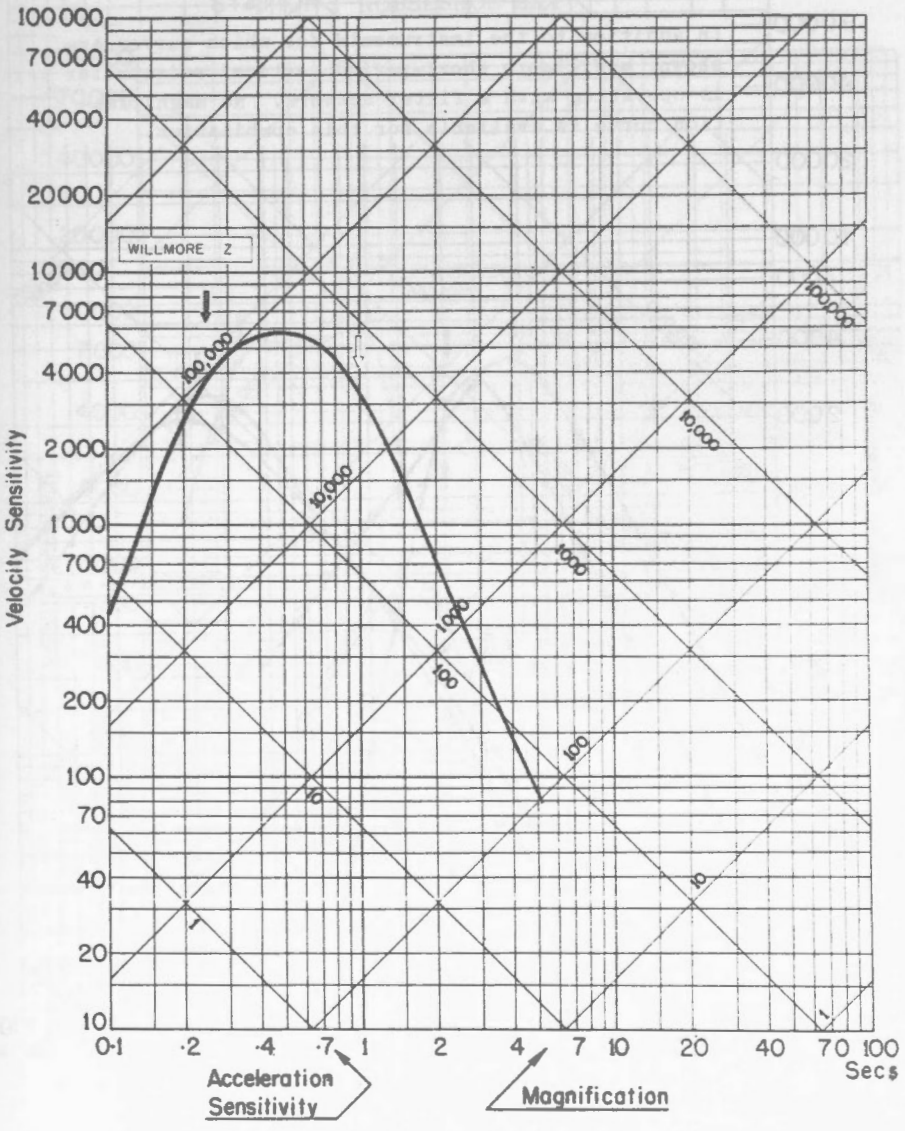
T_s ↑ T_g ↑

Date of Calibration: July 9 1957

Read from start of minute mark.

CALIBRATION CURVES

STATION: BANFF



ϕ = 51° 10.3'N λ = 115° 33.5'W Altitude

Foundation : Bedrock

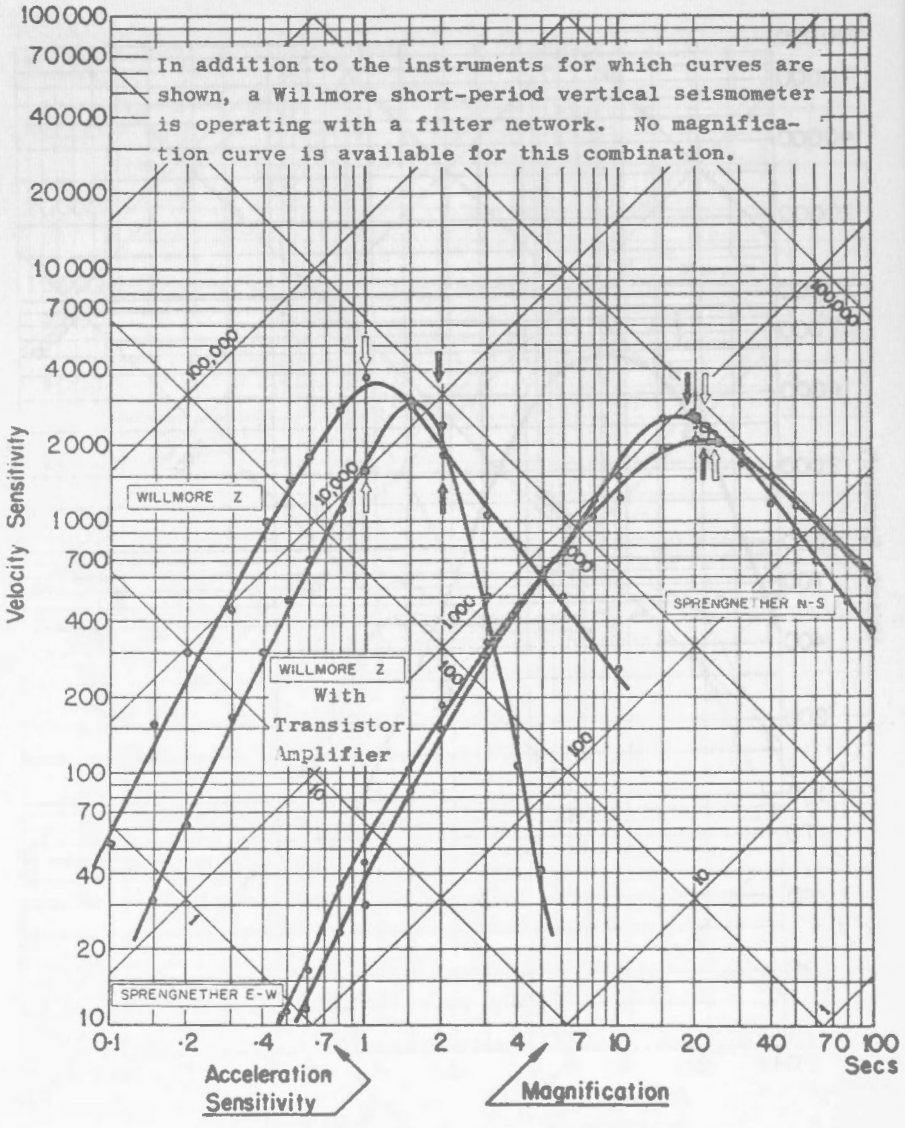
T_s ⇑ T_g ⇑

Date of Calibration: Estimated September 1959

Read from start of minute mark.

CALIBRATION CURVES

STATION: HALIFAX



ϕ = 44° 38' N λ = 68° 36' W Altitude 56 M

Foundation : Carbonaceous slate

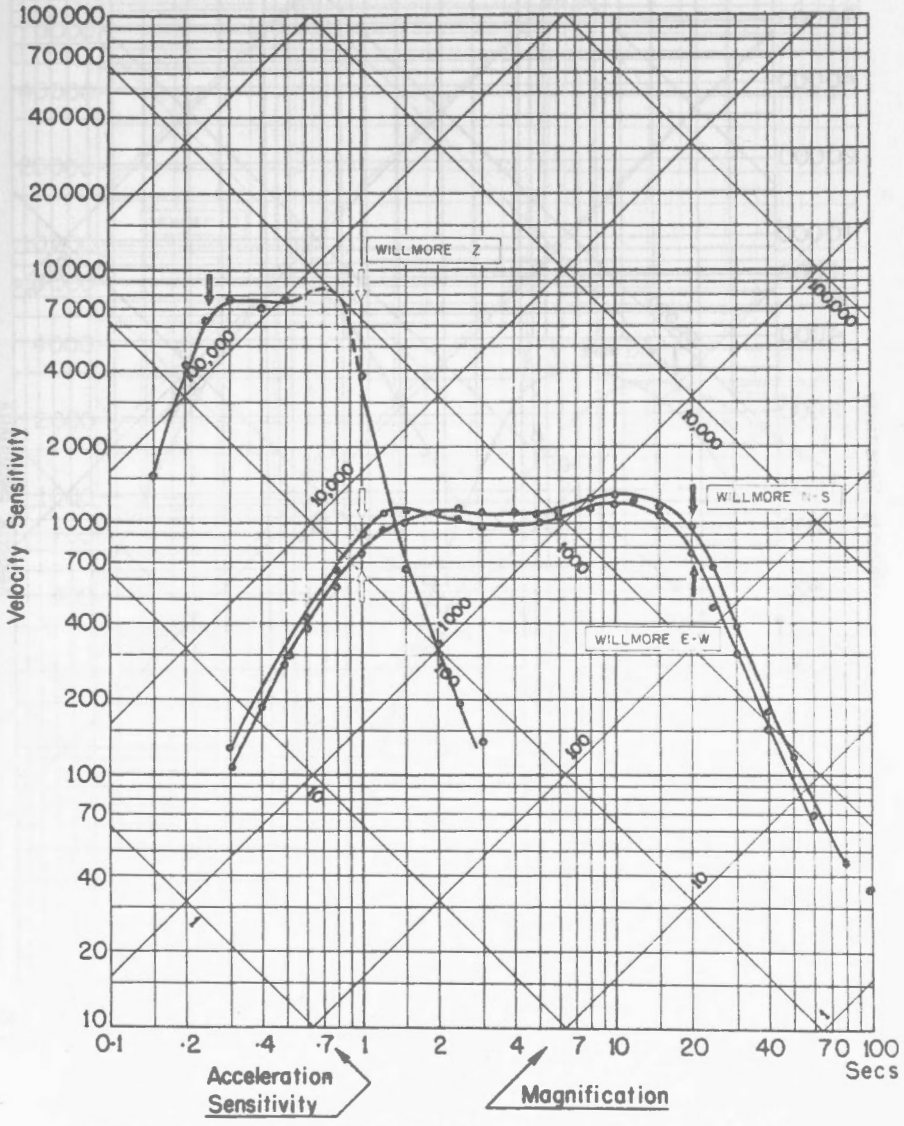
T_s ⇕ T_g ⇕

Date of Calibration: October, 1959

Read from end of minute mark.

CALIBRATION CURVES

STATION: HORSESHOE BAY



ϕ = 49° 22'39"N λ = 123° 16'33"W Altitude

Foundation : Quartz diorite

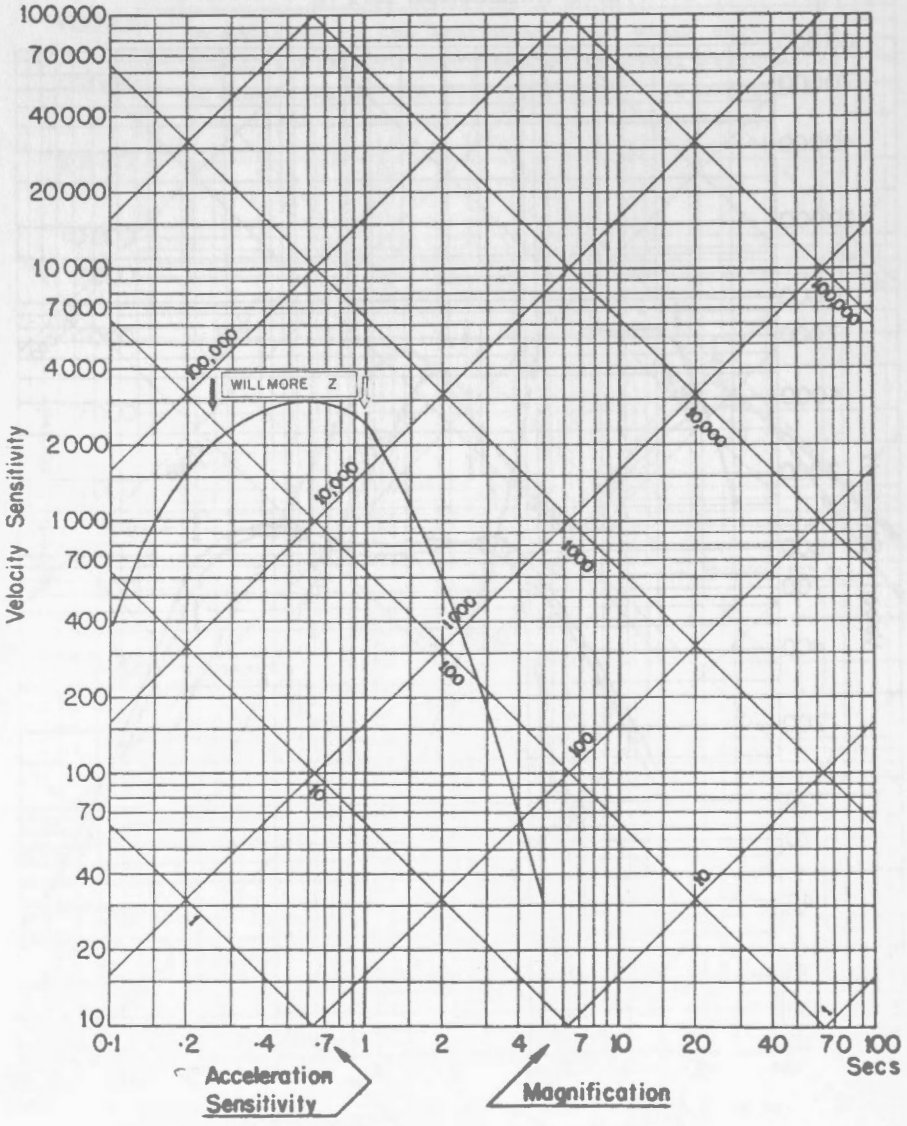
T_s ↑ T_g ↑

Date of Calibration: July 17 1957

Read from start of minute mark.

CALIBRATION CURVES

STATION: LILLOOET



ϕ = 50° 41.73' λ = 121° 54.97' Altitude

Foundation : Shallow overburden on acid intrusives

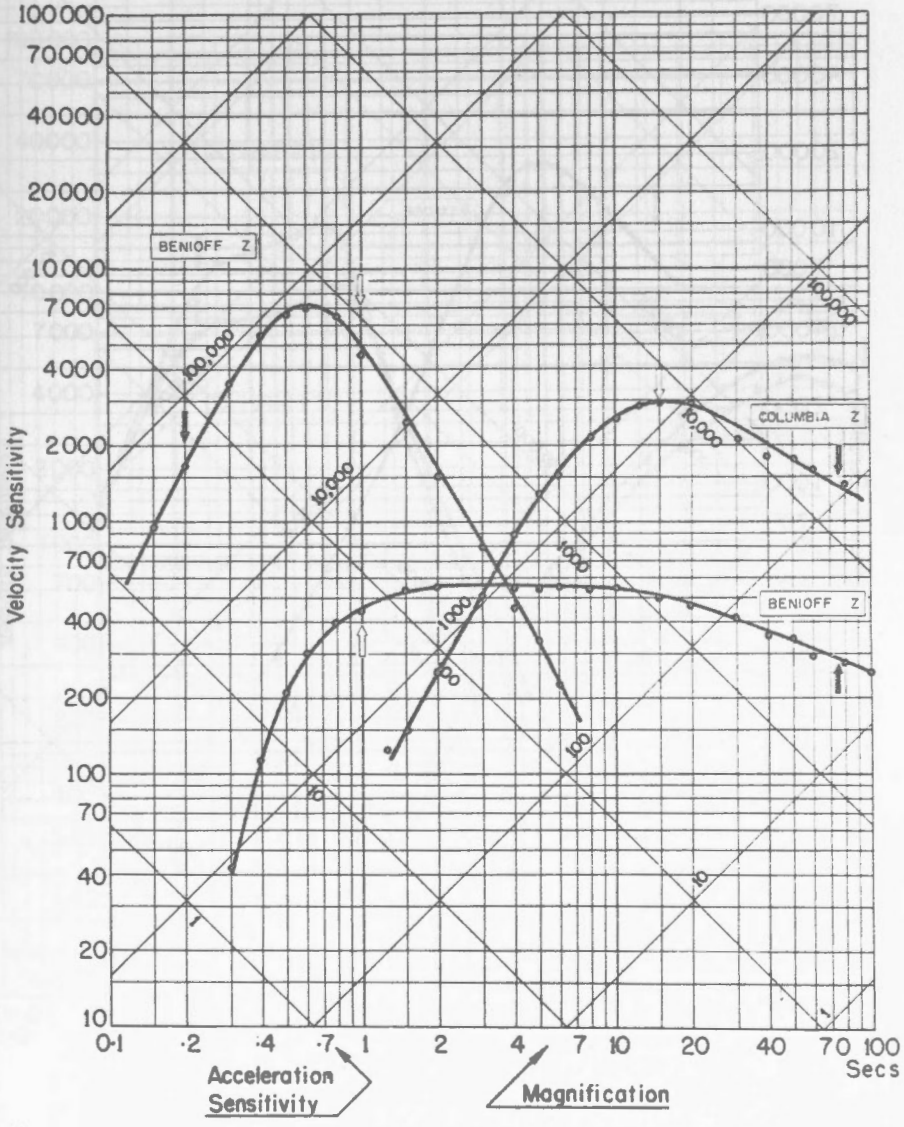
T_s ↑ T_g ↑

Date of Calibration: Estimated

Read from start of minute mark.

CALIBRATION CURVES

STATION: OTTAWA



ϕ = 45° 23' 38" N λ = 75° 42' 57" W Altitude 83 M

Foundation : Boulder clay on limestone

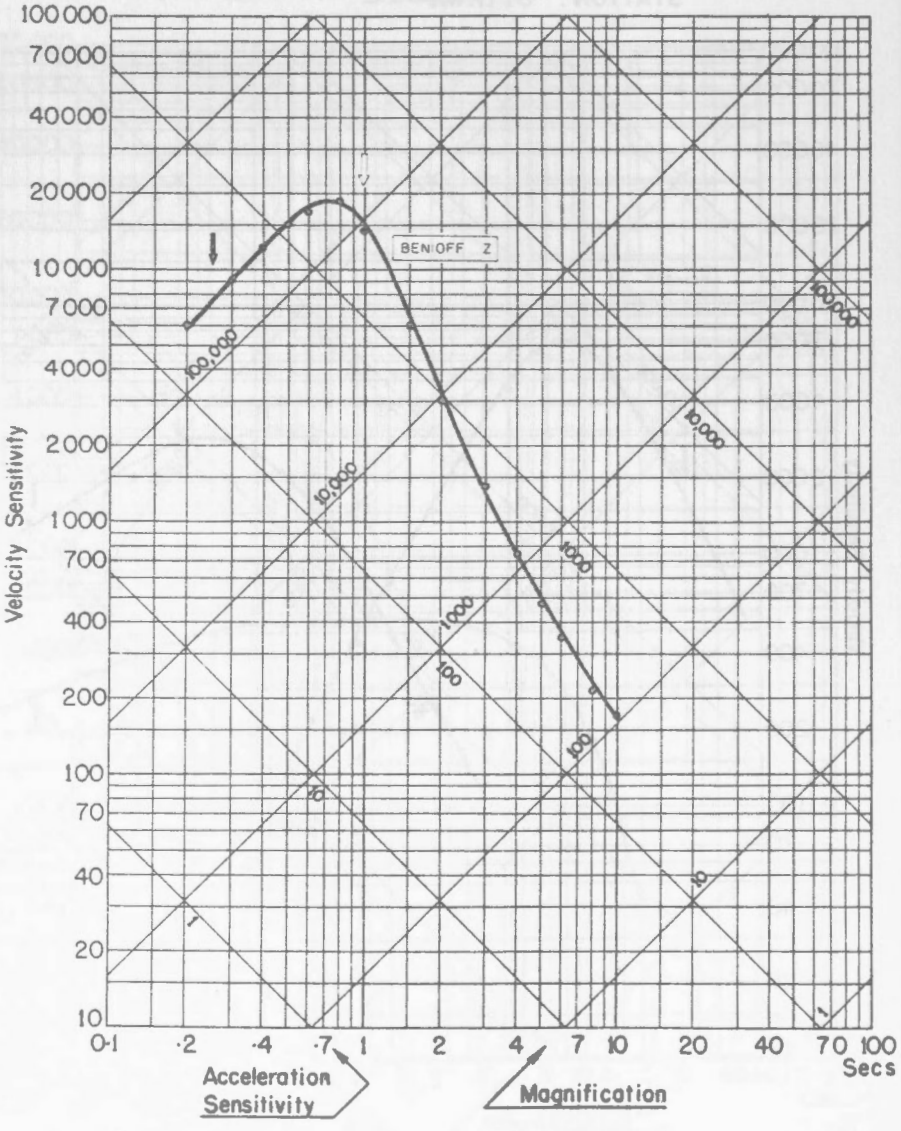
T_s ↑ T_g ↑

Date of Calibration: May 28, 1958

Read from end of minute mark.

CALIBRATION CURVES

STATION : PENTICTON



ϕ = 49° 19'N λ = 119° 37'W Altitude

Foundation :

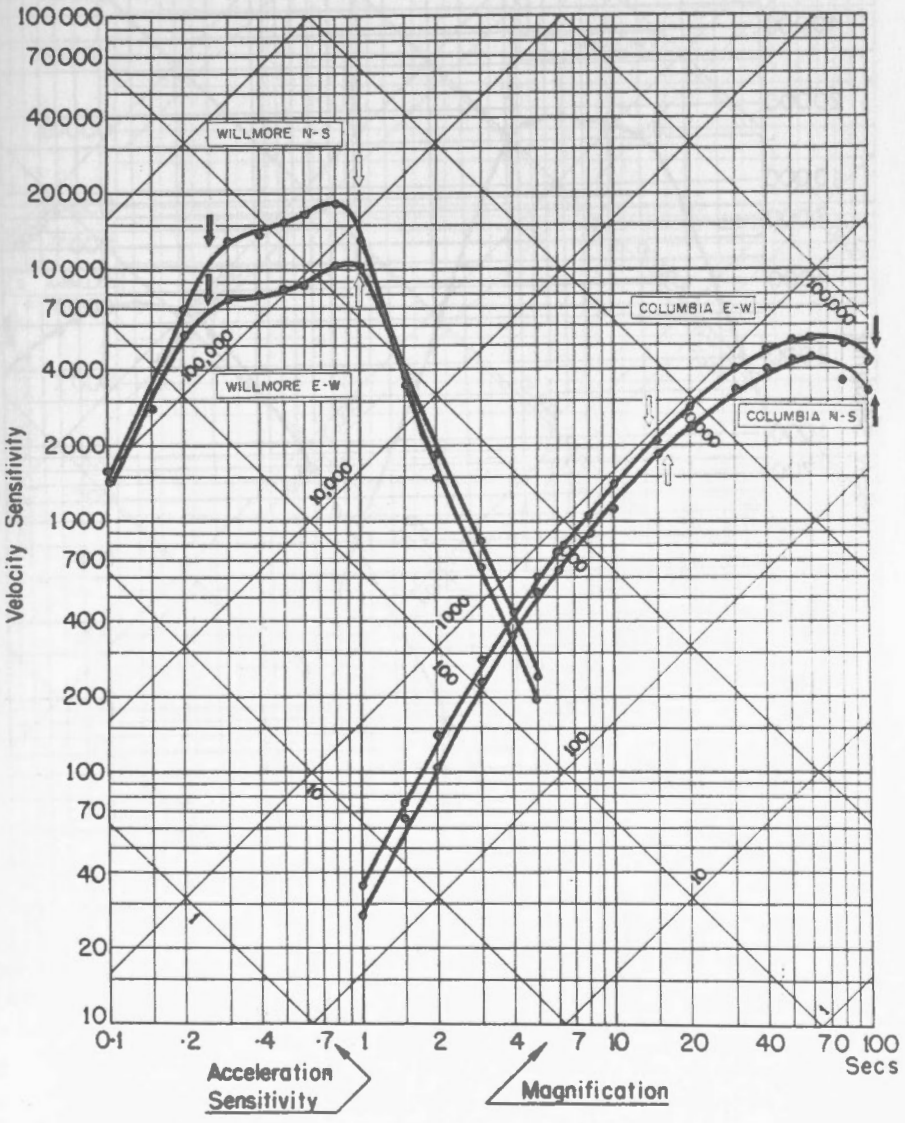
T_s T_g

Date of Calibration: Estimated

Read from start of minute mark.

CALIBRATION CURVES

STATION: RESOLUTE HORIZONTALS



ϕ = 74° 41.2'N λ = 94° 54.0'W Altitude 15M

Foundation : Early Palaeozoic limestone

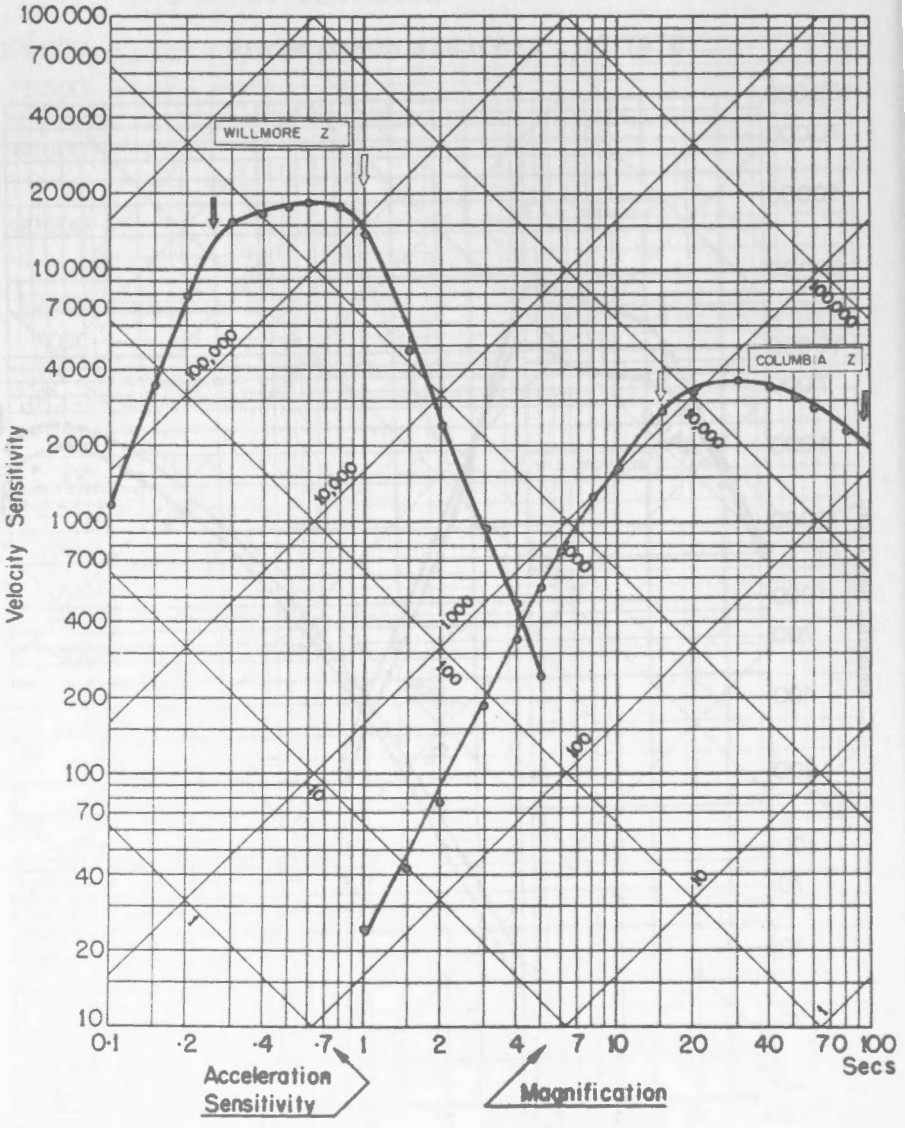
T_s ↕ T_g ↕

Date of Calibration: September 1958

Read from end of minute mark.

CALIBRATION CURVES

STATION: RESOLUTE VERTICALS



ϕ = 74° 41.2'N λ = 94° 54.0'W Altitude 15M

Foundation : Early Palaeozoic limestone

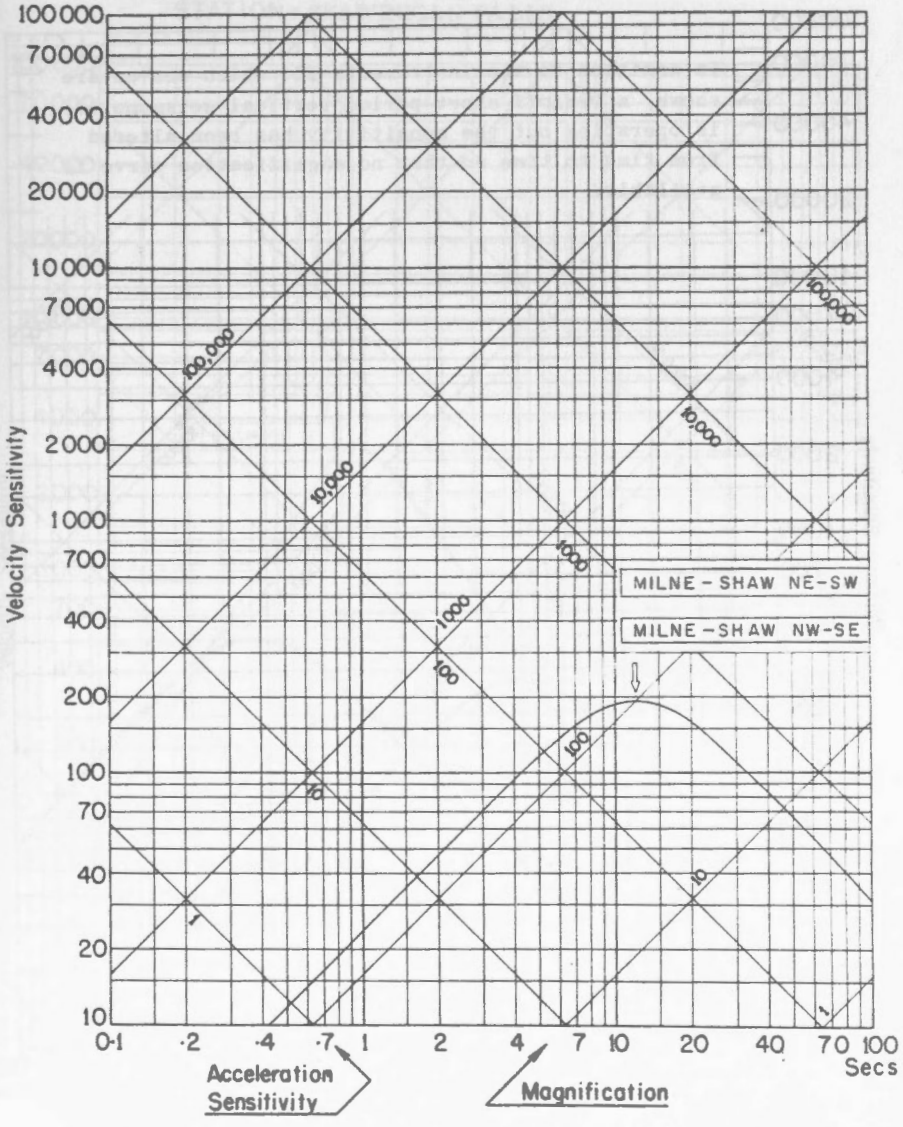
T_s ↑ T_g ↑

Date of Calibration: September 1958

Read from end of minute mark.

CALIBRATION CURVES

STATION: SASKATOON



ϕ = 52° 08' N λ = 106° 38' W Altitude 515 m

Foundation : Clay and Sand

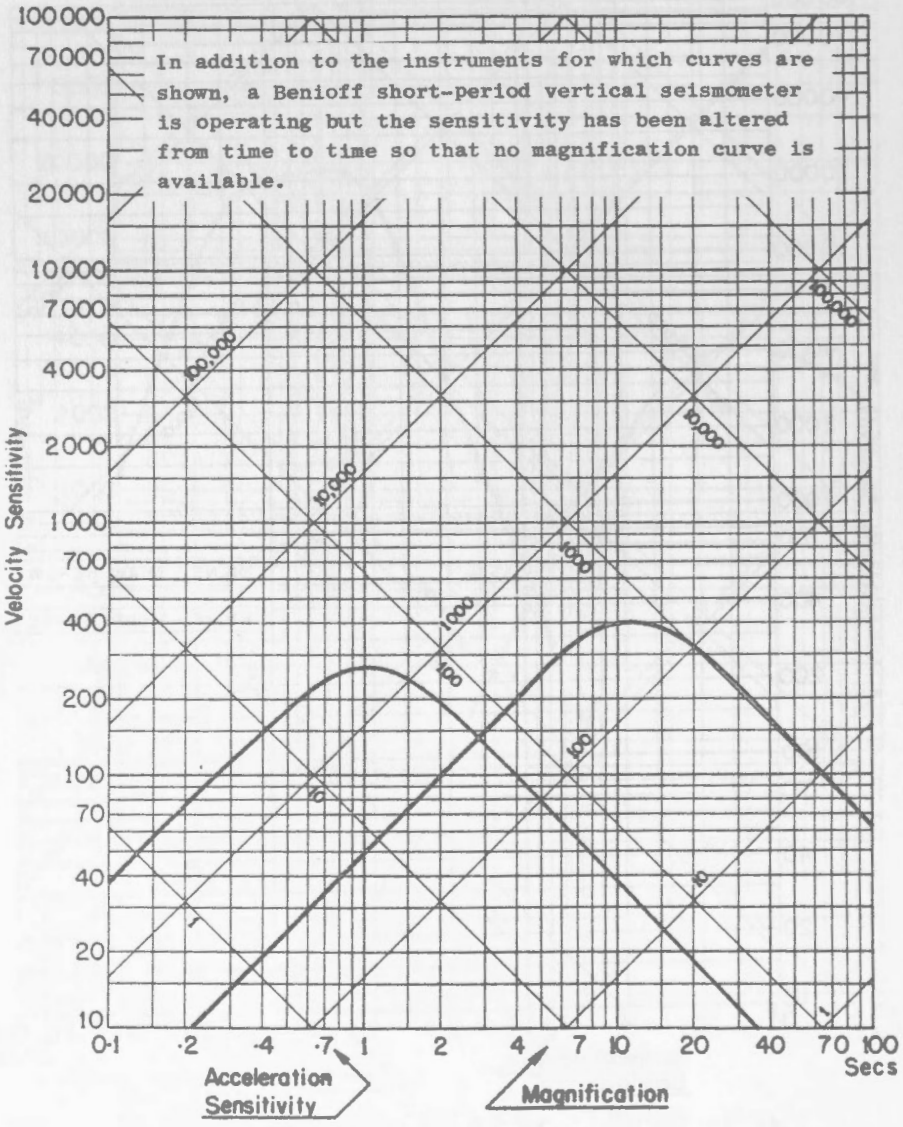
T_s ⇑ T_g ⇑

Date of Calibration: -

Read from start of minute mark.

CALIBRATION CURVES

STATION: SEVEN FALLS



ϕ = 47° 07.4'N λ = 70° 49.6'W Altitude 232M

Foundation : Precambrian basement rock

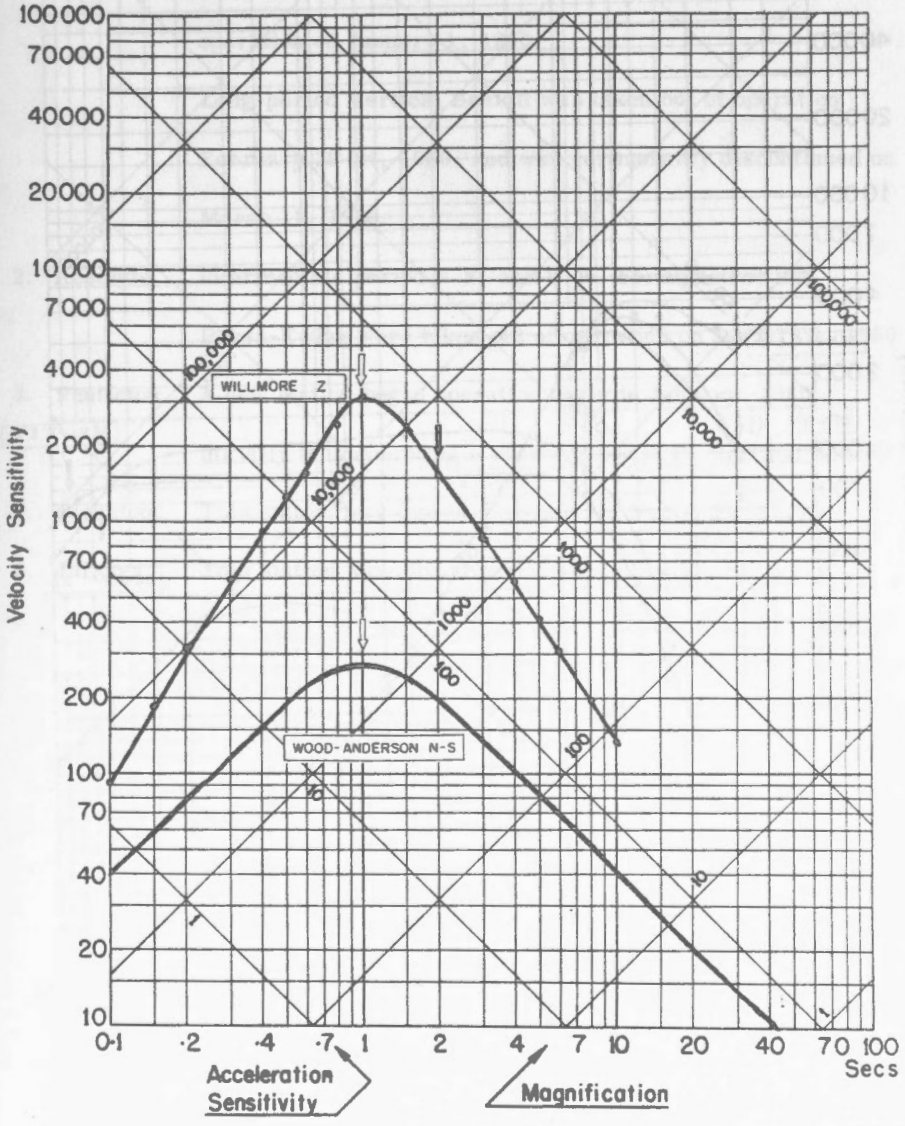
T_s ↑ T_g ↑

Date of Calibration: Estimated

Read from end of minute mark.

CALIBRATION CURVES

STATION : SHAWINIGAN FALLS



ϕ = 46° 33.1' N λ = 72° 45.8' W Altitude 60 M

Foundation : Precambrian basement

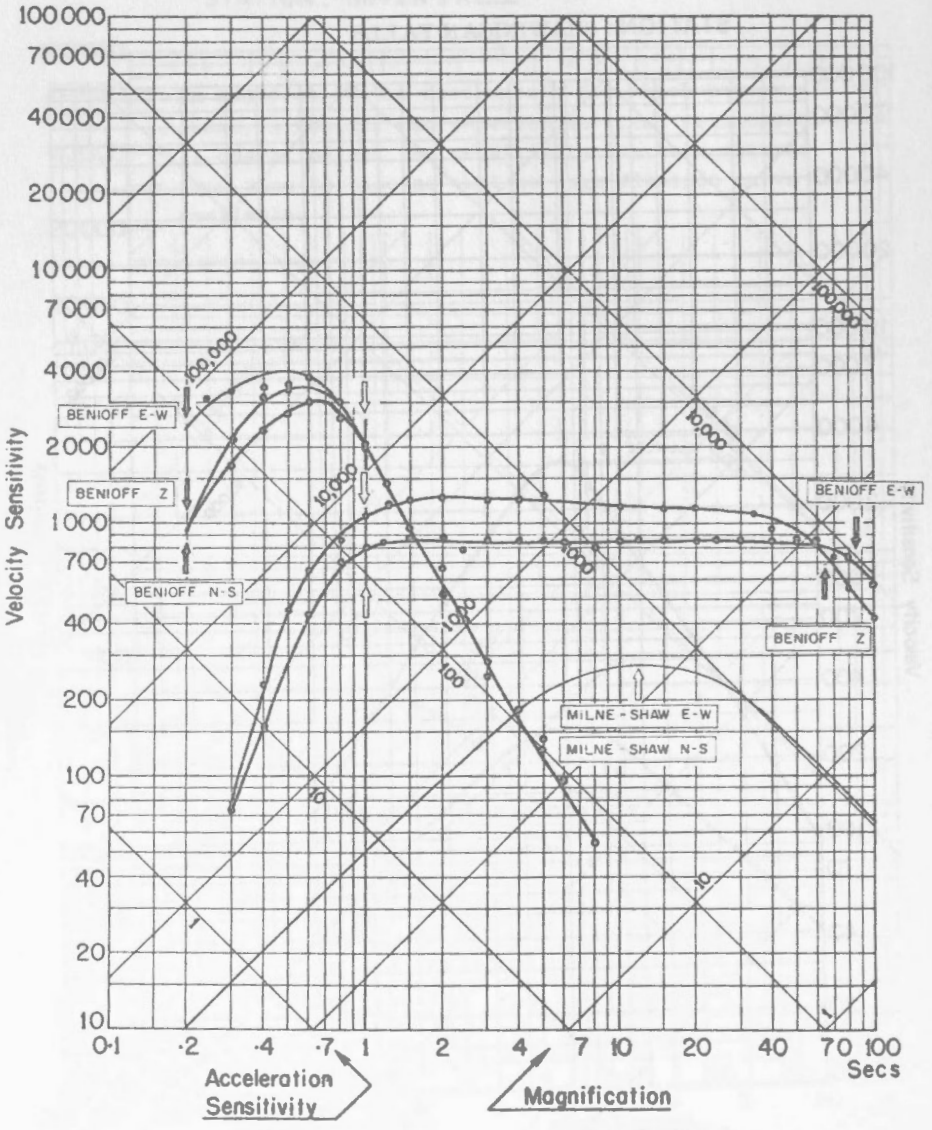
T_s ↑ T_g ↑

Date of Calibration: November 6, 1959

Read from end of minute mark.

CALIBRATION CURVES

STATION: VICTORIA



ϕ = 48° 31'10"N λ = 123°24'55"W Altitude 197M

Foundation : Quartz diorite

T_s ⇕ T_g ⇕

Date of Calibration: July 4 1957

NOTE: Calibration for Benioff L.P.-N.S. not available.
Use mean of Benioff L.P.Z. and E.W.

Read from start of minute mark.

DOMINION OBSERVATORIES

NOTES

1. Ottawa — N.S. and E.W. Milne-Shaw seismographs were taken out of operation on January 1, 1960.

   Long-period Vertical Benioff was taken out of operation February 22-24, 1960, and was permanently discontinued on March 11, 1960.

2. Resolute — Intermediate period N.S. and E.W. Sprengnether and Press-Ewing were taken out of operation on January 1, 1960.

3. Penticton — A new station began operation early in January 1960. Initially it is operating a short-period S.P. Vertical Benioff.

4. Saskatoon — This station was closed permanently March 31, 1960.

5. Lillooet — This station was closed permanently January 31, 1960.

DOMINION OBSERVATORIES

JANUARY 1
Resolute
eP 02 44 48

JANUARY 1
U.S.C.G.S.
49N, 153 1/2E
Kurile Islands,
H = 04 11 40
Ottawa
iP 04 23 28 d
Resolute
iP 04 20 24 d

JANUARY 1
U.S.C.G.S.
27 1/2N, 142E
Bonin Islands,
H = 04 17 32
Resolute
P 04 28 58

JANUARY 1
U.S.C.G.S.
13 1/2N, 147E
Mariana Islands,
H = 05 57 26
Resolute
P 06 09 37

JANUARY 1
Resolute
P 11 09 06

JANUARY 1
U.S.C.G.S.
56N, 162 1/2E
Near east coast of
Kamchatka
H = 23 12 31
Horseshoe Bay
eP 23 20 22
Ottawa
eP 23 23 29 c
Resolute
eP 23 20 09 c
i 23 22 13
eS 23 26 16
Victoria
eP 23 20 35

JANUARY 2
Resolute
P 01 51 11

JANUARY 2
U.S.C.G.S.
15 1/2S, 68W
Bolivia
H = 03 21 52
h = 150 km
Mag 6 1/4
Horseshoe Bay
i 03 33 38
Ottawa
eP 03 31 59
Resolute
P 03 34 46
Victoria
iP 03 33 49
i 34 27

JANUARY 2
U.S.C.G.S.
2 1/2N, 96E
Off coast of Sumatra
H = 05 06 54
Resolute
P 05 21 02

JANUARY 2
U.S.C.G.S.
56 1/2 N, 163E
Near east coast of
Kamchatka
H = 06 59 36
Resolute
P 07 07 13
Ottawa
eP 07 10 35

JANUARY 2
U.S.C.G.S.
Sandwich Islands
H = 08 27 14
Resolute
P' 08 46 32

JANUARY 2
Resolute
P 11 26 12

JANUARY 2
Off coast of Washington
H = 12 08 02
Mag 3.5
Alberni
eP 12 08 43.3
eS 09 18.2
Horseshoe Bay
eP 12 09 06.5
Victoria
eP 12 08 57.2
eS 09 36.8

JANUARY 2
Alberni
iP 12 42 09.8
iS 19.6

JANUARY 2
U.S.C.G.S.
South Atlantic ocean,
west of Bouvet Island
H = 12 21 51
Alberni
eP' 12 41 45
Resolute
P' 12 41 22
Victoria
eP' 12 41 30

JANUARY 2
48° 45'N, 123° 16'W
South Pender Island
H = 18 34 09.4
Mag 2.2
Alberni
iP_1 18 35 30.0
P_n 30.5
iS 47.3
Horseshoe Bay
iP 18 35 29.0
iS 38.8
Victoria
iP 18 34 13.4
iS 17.1

JANUARY 2
U.S.C.G.S.
5S, 152 1/2E
New Britain
H = 21 22 51
Ottawa
P 21 41 51

JANUARY 2
Resolute
P 23 03 11

JANUARY 3
Ottawa
eP 07 02 30
Resolute
P 07 05 25

JANUARY 3
Horseshoe Bay
eP 10 16 36
Resolute
P 10 13 38

JANUARY 3
U.S.C.G.S.
44N, 84 1/2E
Sinkiang Province, China
H = 11 24 00
Resolute
eP 11 34 23 c
eS 11 42 44

JANUARY 3
U.S.C.G.S.
61N, 152W
South Central Alaska
H = 11 38 30
Ottawa
eP 11 46 47
Resolute
P 11 43 45

JANUARY 3
U.S.C.G.S.
39 1/2N, 15 1/2E
Tyrrhenian Sea
H = 20 19 30
h = 250 km
Halifax
iP 20 28 51 d
Horseshoe Bay
iP 20 31 42
Ottawa
iP 20 29 40 d
Resolute
iP 20 28 55 d
S 20 36 32
Victoria
iP 20 31 41

JANUARY 3
U.S.C.G.S.
45N, 148E
Kurile Islands
H = 21 20 13
h = 150 km
Alberni
iP 21 29 43
Ottawa
eP 21 32 21
Resolute
P 21 29 21
Victoria
eP 21 29 50

JANUARY 3
Halifax
iP 23 09 47 c

JANUARY 3
Resolute
P 23 33 24

JANUARY 4
U.S.C.G.S.
26N, 90E
India-Pakistan border
H = 03 57 03
Resolute
eP 04 09 11

JANUARY 4
U.S.C.G.S.
4 1/2S, 153 1/2E
New Britain
H = 06 19 49
Ottawa
eP' 06 33 42
Resolute
i 06 33 11
i 06 37 52
i 06 41 38
i 06 46 31

JANUARY 4
U.S.C.G.S.
45N, 27E
Romania
H = 12 51 52
Resolute
eP 13 01 22 d

DOMINION OBSERVATORIES

JANUARY 4
U.S.C.G.S.
18N, 120 1/2E
Luzon Island,
Philippine Islands,
H = 13 34 20
Resolute
P 13 46 56

JANUARY 4
U.S.C.G.S.
5 1/2S, 77 1/2W
Northern Peru,
H = 15 05 39
Ottawa
iP 15 14 43 d
Resolute
eP 15 17 55 (c)
i 15 28 06
Shawinigan Falls
P 15 15 07

JANUARY 4
H = 21 02 57.2
Mag 2.0
Ottawa
iP_1 21 03 15.0
iS_1 21 03 28.5
D = 111 km

JANUARY 5
U.S.C.G.S.
19S, 69 1/2 W
Northern Chile
H = 05 13 48
Shawinigan Falls
P 05 24 36

JANUARY 5
Resolute
P 10 40 01

JANUARY 6
Resolute
P 09 48 16

JANUARY 6
U.S.C.G.S.
10 1/2 S, 167E
Santa Cruz Islands
H = 13 11 00
Resolute
iSS 13 44 04

JANUARY 6
U.S.C.G.S.
23 1/2N, 95E
Burma
H = 18 45 08
Resolute
P 18 57 29

JANUARY 6
U.S.C.G.S.
6 1/2S, 133E
Banda Sea
H = 20 16 29
Resolute
P 20 34 56

JANUARY 6
Resolute
P 23 08 45

JANUARY 7
U.S.C.G.S.
6 1/2N, 94E
Nicobar Islands
H = 08 15 21
Resolute
P 08 29 04

JANUARY 7
46° 56'N, 122° 30'W
Southern Puget Sound,
near Olympia, Wash.
H = 09 16 04.4
Mag 3.6
Alberni
eP 09 16 50.1
S 17 23.0
Horseshoe Bay
iP 09 16 49.1
iS 17 25.7
Victoria
iP 09 16 34.3
S 58.0

JANUARY 7
Resolute
P 13 15 42

JANUARY 7
U.S.C.G.S.
Sandwich Islands
H = 13 28 16
Mag 6 1/4 - 6 1/2
Horseshoe Bay
eP' 13 47 31
Resolute
P' 13 47 28
Victoria
eP' 13 47 27

JANUARY 7
Resolute
P 14 55 24

JANUARY 7
U.S.C.G.S.
6 1/2N, 94 1/2E
Nicobar Islands
H = 23 17 18
Resolute
P 23 31 03

JANUARY 8
Resolute
eP 02 18 53 c

JANUARY 8
U.S.C.G.S.
58 1/2S, 26W
Sandwich Islands
H = 02 35 00
Resolute
P' 02 54 24

JANUARY 8
Resolute
P 10 23 53

JANUARY 8
U.S.C.G.S.
55S, 27 1/2W
Sandwich Islands
H = 11 29 18
Resolute
P' 11 48 34

JANUARY 8
U.S.C.G.S.
55 1/2S, 27 1/2W
Sandwich Islands
H = 14 45 53
Horseshoe Bay
(ePP) 15 08 20
Resolute
P' 15 05 05
Victoria
(iPP) 15 08 29

JANUARY 8
Resolute
eP 15 16 45 c

JANUARY 8
Resolute
P 15 24 15

JANUARY 8
Resolute
P 15 47 56

JANUARY 8
Resolute
P 22 01 38

JANUARY 9
Resolute
P 01 40 35

JANUARY 9
Resolute
P 03 13 22

JANUARY 9
Resolute
P 03 58 19

JANUARY 9
U.S.C.G.S.
37N, 29E
Southwestern Turkey
H = 03 58 45
Resolute
eP 04 09 12 d
Shawinigan Falls
eP 04 10 07

JANUARY 9
U.S.C.G.S.
36N, 69E
Hindu Kush
H = 07 23 50
h = about 150 km
Alberni
eP 07 36 56
Halifax
iP 07 36 34 c
Ottawa
iP 07 36 51 c
Resolute
iP 07 34 43
Shawinigan Falls
iP 07 36 44 c
Victoria
iP 07 36 59

JANUARY 9
U.S.C.G.S.
1S, 124E
Celebes
H = 07 41 57
Resolute
P' 08 00 03
Shawinigan Falls
eP' 08 01 20

JANUARY 9
Resolute
(P) 10 23 40

JANUARY 9
Resolute
(P) 13 24 04

JANUARY 9
Resolute
eP 17 23 54 c

JANUARY 9
U.S.C.G.S.
55 1/2N, 165W
Unimak Island region
H = 17 49 07
Resolute
P 17 55 40

JANUARY 10
Resolute
P 05 39 47

DOMINION OBSERVATORIES

JANUARY 10
U.S.C.G.S.
12N, 145E
Mariana Island region
H = 06 26 00
h = 100 km
Resolute
eP 06 38 37 d

JANUARY 10
Resolute
P 07 43 01

JANUARY 10
Resolute
eP 23 01 13 c

JANUARY 10
Resolute
P 23 33 18

JANUARY 11
Resolute
(P) 00 07 38

JANUARY 11
U.S.C.G.S.
28 1/2N, 131E
Ryukyu Islands
H = 02 27 38
Resolute
iP 02 39 11 d

JANUARY 11
U.S.C.G.S.
13 1/2N, 120 1/2E
Off coast of Luzon, Philippine Islands
H = 02 51 07
Resolute
P 03 04 05

JANUARY 11
Resolute
(P) 03 22 11

JANUARY 11
U.S.C.G.S.
16N, 96 1/2E
Near south coast of Burma
H = 03 10 14
Resolute
eP 03 23 13
e 03 34.3

JANUARY 11
Resolute
(P) 12 14 00

JANUARY 11
U.S.C.G.S.
29S, 176W
Kermadec Islands
H = 17 49 58
Resolute
iSS 18 25 44

JANUARY 11
Resolute
P 22 44 29

JANUARY 11
U.S.C.G.S.
2S, 140 1/2E
Near north coast of New Guinea
H = 22 54 03
Resolute
P 23 07 54

JANUARY 12
U.S.C.G.S.
23 1/2N, 122 E
Near east coast of Formosa
H = 01 52 37
Resolute
eP 02 04 43 c

JANUARY 12
U.S.C.G.S.
55 1/2S, 27W
Sandwich Islands region
H = 03 09 10
Resolute
P' 03 28 24

JANUARY 12
Resolute
(P) 06 50 04

JANUARY 12
Resolute
(P) 07 47 12

JANUARY 12
48.2N, 124.9W
Off coast of Washington
H = 07 52 55
Mag 2.3
Alberni
eP 07 53 10.6
Horseshoe Bay
iP 08 53 22.0
42.2
Victoria
iP 07 53 09.5
S 20.6

JANUARY 12
Resolute
(P) 15 14 24

JANUARY 13
Resolute
P 01 34 46

JANUARY 13
Resolute
(P) 07 34 58

JANUARY 13
U.S.C.G.S.
16S, 72W
Southern Peru
H = 15 40 34
h = 200 km
Mag 7 1/2 - 7 3/4
Alberni
eP 15 52 29
Halifax
iP 15 50 31 d
Horseshoe Bay
iP 15 52 22
Ottawa
iP 15 50 31 d
Resolute
eP 15 53 25 d
Saskatoon
iP 15 51 59
iS 16 01 11
Seven Falls
P 15 50 44
S 15 59 11
Shawinigan Falls
iP 15 50 41 d
Victoria
eP 15 52 18
eS 16 02 14

JANUARY 13
U.S.C.G.S.
51 1/2N, 180
Andreanof Islands,
Aleutian Islands,
H = 16 29 41
Horseshoe Bay
eP 16 37 43
Ottawa
iP 16 40 13 c
Resolute
iP 16 37 20 c
Shawinigan Falls
eP 16 40 18

JANUARY 13
Resolute
(P) 18 55 33

JANUARY 13
Resolute
(P) 21 27 38

JANUARY 14
U.S.C.G.S.
Near coast of northern
Sumatra
H = 02 41 24
Resolute
eP 02 55 14

JANUARY 14
Resolute
e (P) 07 50 36

JANUARY 14
Resolute
P 08 42 33

JANUARY 14
Resolute
eP 09 34 10 c

JANUARY 14
U.S.C.G.S.
37N, 140E
Honshu, Japan
H = 10 25 52
Resolute
eP 10 36 22 c

JANUARY 14
U.S.C.G.S.
57N, 162 1/2E
Near east coast of
Kamchatka
H = 12 49 07
Ottawa
eP 13 00 06
Resolute
eP 12 56 45 c
i 12 58 49
Shawinigan Falls
eP 13 00 07

JANUARY 14
Resolute
P 13 12 10

JANUARY 14
Ottawa
eP 14 45 06
Resolute
P 14 46 37

JANUARY 14
Resolute
P 18 55 32
Shawinigan Falls
iP 18 50 21 c

JANUARY 14
Resolute
P 19 16 23

JANUARY 14
U.S.C.G.S.
44 1/2N, 148E
Kurile Islands
H = 20 55 10
Resolute
eP 21 04 38 c

DOMINION OBSERVATORIES

JANUARY 14
U.S.C.G.S.
11N, 43W
Atlantic Ocean
H= 21 25 15
Ottawa
eP 21 33 28
Resolute
P 21 36 29
S 21 45 40
iSS 21 50 10
Shawinigan Falls
eP 21 33 23 d

JANUARY 15
Resolute
P 03 13 33

JANUARY 15
Resolute
P 04 51 27

JANUARY 15
U.S.C.G.S.
15S, 75W
Near coast of
Southern Peru
H = 09 30 24
h = 150 km
Mag 6 1/2 - 7
Alberni
eP 09 42 11
Halifax
iP 09 40 21 c
Ottawa
iP 09 40 20 c
Resolute
iP 09 43 14 c
i 09 46 48
i 09 53 43
iS 09 54 04
Saskatoon
iP 09 50 58
Seven Falls
P 09 40 35
S 09 48 56
Shawinigan Falls
iP 09 40 29 c
Victoria
iP 09 42 02

JANUARY 15
Resolute
P 10 51 13

JANUARY 15
Resolute
P 16 46 32

JANUARY 15
Resolute
P 17 22 10

JANUARY 15
Resolute
P 21 40 13
Shawinigan Falls
iP 21 37 11 c

JANUARY 16
U.S.C.G.S.
59 1/2S, 149 1/2E
About 500 miles
southwest of Macquarie
Islands
H = 06 59 00
Ottawa
iP' 07 19 57 d
Resolute
P' 07 18 56

* JANUARY 16
46°45'N, 121°47'W
Southern Puget Sound
Area, southwest corner
of Mt. Rainier National
Park, Washington
H = 07 31 01
Mag 3.5
Horseshoe Bay
iP 07 31 45.4
iS 32 20.1
Victoria
eP 07 31 32.6
31 52.4

JANUARY 16
U.S.C.G.S.
20 1/2S, 178W
Fiji Islands region
H = 12 30 56
h = 600 km
Resolute
eS 12 55 38

JANUARY 16
Resolute
P 14 34 10

JANUARY 16
Resolute
P 15 09 39

JANUARY 16
Resolute
(P) 17 28 12

JANUARY 16
Resolute
(P) 13 45 04

JANUARY 16
U.S.C.G.S.
63N, 151W
Alaska
H = 20 49 31
h = 150 km
Alberni
iP 20 53 53
Halifax
iP 20 58 10
Horseshoe Bay
iP 20 54 00
i 58 07
Ottawa
iP 20 57 28 c
Resolute
iP 20 54 14 d
S 20 58 04
Shawinigan Falls
iP 20 57 31 d
Victoria
iP 20 54 05
i 58 09

JANUARY 17
Resolute
eP 01 13 01 c

JANUARY 17
U.S.C.G.S.
14 1/2S, 74 1/2W
Near coast of Southern Peru
H = 02 57 58
h = 150 km
Mag 6 1/4
Horseshoe Bay
eP 03 09 39
Ottawa
eP 03 07 52 c
Resolute
eP 03 10 45 c
i 03 21 36
Shawinigan Falls
iP 03 08 01 c
Victoria
eP 03 09 35

JANUARY 17
Resolute
P 03 24 06

JANUARY 17
U.S.C.G.S.
40 1/2N, 142E
Off coast of northern Honshu, Japan
H = 04 19 07
Resolute
eP 04 29 07 c

JANUARY 17
Resolute
P 05 26 40

JANUARY 18
U.S.C.G.S.
About 650 miles southwest of Prince Edward Islands
H = 01 04 11
Resolute
P_1' 01 23 51
P_2' 01 23 58

JANUARY 18
Canadian Arctic
H = 05 20 59
Mag 1.4
Resolute
iP_1 05 21 07
iS_1 05 21 13
D = 49.2 km

JANUARY 18
U.S.C.G.S.
5N, 126 1/2E
Off south coast of Mindanao, P.I.
H = 09 04 43
Resolute
P 09 18 17
eS 09 29 34

JANUARY 18
Resolute
(P) 14 50 16

JANUARY 18
U.S.C.G.S.
9N, 77W
Off coast of Panama
H = 19 30 18
h = 100 km
Halifax
ip 19 37 33 d
Ottawa
iP 19 37 22 d
Resolute
eP 19 41 05 d
S 19 49 50
Shawinigan Falls
iP 19 37 35 d
Victoria
eP 19 39 50

JANUARY 19
U.S.C.G.S.
52N, 158E
Near southeast coast of Kamchatka
H = 02 16 52
Mag 6 1/4 - 6 1/2
Halifax
ip 02 28 50 c
Alberni
eP 02 25 26
Ottawa
eP 02 28 21 c
Resolute
iP 02 25 12 c
i 02 27 00
S 02 31 42
Shawinigan Falls
iP 02 28 23 c
Victoria
iP 02 25 35

DOMINION OBSERVATORIES

JANUARY 19
Resolute
P 06 17 10

JANUARY 19
U.S.C.G.S.
17N, 98W
Near coast of Oaxaca
Mexico
H = 08 50 24
Halifax
eP 08 57 21
Ottawa
eP 08 57 11
Resolute
P 09 00 17
S 09 08 14
Shawinigan Falls
eP 08 57 31

JANUARY 19
51°06'N, 124°29'W
Southwest of Chilko
Lake, B.C.
H = 09 00 54
Mag 3.3
Alberni
eP_1 09 01 25.1
P_n 25.9
S 50.3
Horseshoe Bay
S-P = 25.7 sec.
No time correction
Victoria
eP 09 01 36.7
iS 02 13.1

JANUARY 19
U.S.C.G.S.
23S, 180
South of Fiji Islands
H = 09 15 04
h = 600 km
Resolute
P 09 32 34
S 09 40 14

JANUARY 19
Resolute
P 12 10 35

JANUARY 19
Resolute
P 16 18 08

JANUARY 19
U.S.C.G.S.
24N, 142E
Volcano Islands
H = 16 10 36
h = 100 km
Resolute
eP 16 22 10 c

JANUARY 19
Resolute
(P) 19 51 08

JANUARY 19
Resolute
(P) 20 48 29

JANUARY 19
U.S.C.G.S.
Southwestern Turkey
H = 21 26 39
Resolute
P 21 37 06

JANUARY 20
U.S.C.G.S.
3 1/2N, 31W
Mid-Atlantic Ocean
H = 01 03 25
Resolute
eP 01 15 35 d

JANUARY 20
U.S.C.G.S.
17 1/2S, 178W
Fiji Islands
H = 02 50 02
h = 500 km
Resolute
e 03 09 40

JANUARY 20
Victoria
eP 03 26 59
e 03 33 24
e 34 17

JANUARY 20
U.S.C.G.S.
36 1/2N, 122W
Near coast of Central
California
H = 03 25 50
Mag 5
Resolute
P 03 33 29

JANUARY 20
Canadian Arctic
H = 06 20 58.8
Mag 1.3
Resolute
iP_1 06 21 08
iS_1 06 21 15
D = 54.4 km

JANUARY 20
46°58'N, 75°40'W
About 5 miles east of
the northern arm of
Lake Baskatong, Quebec
H = 20 07 40.0
h = 15 km ?
Mag 3.7

Montreal
e 20 08 15.6
iP_1 20 08 16.3
i 20 08 18.7
i 20 08 21.7
iS_1 20 08 44
D = 224 km
Ottawa
$e(P_n)$ 20 08 07.1
iP_1 20 08 07.9
i 20 08 14.8
iS_1 20 03 29
D = 175 km
Seven Falls
eS_1 20 09 24.6
D = 369 km
Shawinigan Falls
iP_1 20 08 16.3
i 20 08 18.8
i 20 08 21.7
iS_1 20 08 44
D = 226 km

JANUARY 20
Canadian Arctic
H = 23 18 22.7
Mag 2.0
Resolute
iP_1 23 18 30.2
iS_1 23 18 35.9
D = 46.7 km

JANUARY 21
Resolute
P 04 14 18

JANUARY 21
Resolute
P 04 43 15

JANUARY 21
U.S.C.G.S.
18S, 179 1/2E
Fiji Islands
H = 10 43 33
h = 600 km
Resolute
e 11 10 06

JANUARY 21
Resolute
(P) 11 16 25

JANUARY 21
Resolute
(P) 11 47 31

JANUARY 21
Resolute
eP 21 34 48 c

JANUARY 22
Resolute
P 01 48 34

JANUARY 22
U.S.C.G.S.
42N, 142 1/2E
Near south coast of
Hokkaido, Japan
H = 02 14 11
Ottawa
P 02 26 59
Resolute
iP 02 24 03 c

JANUARY 22
U.S.C.G.S.
0, 125E
Molucca Passage
H = 13 35 54
Resolute
P 13 49 51

JANUARY 22
Ottawa
iP 13 58 31 d

JANUARY 22
Resolute
(P) 16 36 40

JANUARY 22
41 1/2N, 75 1/2W
North of Scranton,
Pennsylvania
H = 20 53 22
Mag 3.4
Montreal
eS_n 20 55 14.5
eS_1 20 55 34.5
D = 470 km
Ottawa
eS_n 20 55 06.0
eS_1 20 55 24.0
D = 435 km
Shawinigan Falls
eS_1 20 56 12
D = 602 km

JANUARY 23
Resolute
(P) 01 31 02

JANUARY 23
U.S.C.G.S.
Off northwest coast of
Luzon, Philippine
Islands
H = 04 24 45
Resolute
P 04 37 17

JANUARY 23
U.S.C.G.S.
4S, 127 1/2E
Ceram Island region
H = 04 40 56
Mag 6 1/2
Halifax
iP' 05 00 17 c
Ottawa
eP' 05 00 19 c

DOMINION OBSERVATORIES

Resolute
eP 04 55 09 c
iPP 04 59 34
iSKS 05 05 50
Shawinigan Falls
P' 05 00 17

JANUARY 23
U.S.C.G.S.
4S, 127 1/2E
Ceram Island region
H = 07 31 14
Mag 6 3/4
Halifax
eP' 07 50 45
Ottawa
eP' 07 50 39
Resolute
P 07 45 27
i 07 49 52
i 07 56 10
Shawinigan Falls
P' 07 50 38

JANUARY 23
Resolute
(P) 13 32 01

JANUARY 23
U.S.C.G.S.
4S, 127 1/2E
Ceram Island region
H = 17 56 30
Mag 6 1/2 - 6 3/4
Halifax
iP' 18 15 53
e 18 16 08
Ottawa
P' 18 15 55
Resolute
P 18 10 44
iPP 18 15 08
iSKS 18 21 26
iPS 18 24 23
Shawinigan Falls
P' 18 15 57

JANUARY 23
U.S.C.G.S.
5 1/2S, 152 E
New Britain
H = 21 57 08
Resolute
P 22 11 01

JANUARY 24
U.S.C.G.S.
43 1/2N, 127 1/2W
Off coast of Oregon
H = 00 39 33
Mag 4 1/2
Ottawa
P 00 46 39
Resolute
eP 00 46 24 d
Shawinigan Falls
P 00 46 54

JANUARY 24
U.S.C.G.S.
15 1/2S, 179W
Fiji Islands
H = 04 21 42
Mag 6 - 6 1/2
Resolute
P 04 35 46
iSKS 04 46 26
iS 04 47 32
iPS 04 49 10
Victoria
iP 04 34 03
iS 44 26

JANUARY 24
Resolute
P 15 01 19

JANUARY 24
Resolute
P 15 56 55

JANUARY 24
U.S.C.G.S.
52 1/2N, 160 E
Near east coast of
Kamchatka
H = 18 33 45
Resolute
eP 18 41 55 c

JANUARY 24
Resolute
P 21 25 40

JANUARY 25
Resolute
P 00 25 34

JANUARY 25
U.S.C.G.S.
52 1/2N, 160E
Near east coast of
Kamchatka
H = 08 46 25
Resolute
eP 08 54 35 c
S 09 01 04
i 09 04 32

JANUARY 25
U.S.C.G.S.
52 1/2N, 160E
Near east coast of
Kamchatka
H = 11 26 31
Resolute
P 11 34 40

JANUARY 25
U.S.C.G.S.
16S, 179W
Fiji Islands
H = 16 29 26
Mag 6 1/4

Resolute
iSKS 16 54 14
S 16 55.4
iPS 16 56 50

JANUARY 26
Resolute
P 03 20 23

JANUARY 26
Ottawa
eP 03 29 30 d

JANUARY 26
U.S.C.G.S.
44 1/2N, 149 1/2E
Kurile Islands
H = 09 37 00
Resolute
P 09 46 27

JANUARY 26
U.S.C.G.S.
39 1/2N, 39 1/2E
Turkey
H = 09 52 00
Resolute
ep 10 02 27

JANUARY 26
Resolute
P 10 43 03

JANUARY 26
U.S.C.G.S.
38N, 29E
Turkey
H = 13 05 40
Resolute
eP 13 16 00 d

JANUARY 26
U.S.C.G.S.
13N, 87 1/2W
Near coast of
Nicaragua
H = 18 19 55
h = 60 km
Horseshoe Bay
eP 18 28 19
Ottawa
P 18 26 39
Resolute
P 18 30 11
Shawinigan Falls
P 18 26 55 d

JANUARY 26
U.S.C.G.S.
30S, 178W
Kermadec Islands
H = 22 21 19
Halifax
eP' 22 40 26
Ottawa
P' 22 40 10
Resolute
P' 22 40 03
Seven Falls
eP' 22 40 17
Shawinigan Falls
P' 22 40 13

JANUARY 27
Victoria
eP 09 12 17
eS 16 25

JANUARY 27
Resolute
P 01 50 55

JANUARY 27
Resolute
P 10 33 17

JANUARY 27
Resolute
(P) 13 14 39

JANUARY 28
Resolute
(P) 00 03 39

JANUARY 28
Resolute
P 08 58 38

JANUARY 28
Resolute
(P) 22 04 06

JANUARY 29
Resolute
P 07 44 27

JANUARY 29
Resolute
P 08 05 49
Victoria
eP 08 06 11

JANUARY 29
Resolute
(P) 08 40 19

JANUARY 29
Resolute
P 15 43 18

JANUARY 29
U.S.C.G.S.
Mariana Islands
region
H = 22 47 20
Resolute
P 22 59 13

DOMINION OBSERVATORIES

JANUARY 30
Resolute
P 00 21 15

JANUARY 30
Resolute
P 01 16 39

JANUARY 30
Resolute
P 03 54 52

JANUARY 30
Resolute
P 04 00 38

JANUARY 30
Resolute
P 04 57 06

JANUARY 30
Resolute
P 09 09 46

JANUARY 30
Resolute
P 11 21 52

JANUARY 30
Resolute
P 12 30 30

JANUARY 30
Resolute
P 12 42 25 c

JANUARY 30
Resolute
P 14 33 25

JANUARY 30
Resolute
eP 15 09 19 c

JANUARY 30
Resolute
P 15 39 18

JANUARY 30
Resolute
P 15 58 44

JANUARY 30
Resolute
P 17 12 04

JANUARY 30
Resolute
P 17 47 26

JANUARY 30
Resolute
P 17 53 54

JANUARY 30
U.S.C.G.S.
21 1/2N, 142 1/2E
Mariana Islands region
H = 17 56 05
Resolute
P 18 08 02 c

JANUARY 30
U.S.C.G.S.
22N, 144E
Mariana Islands region
H = 18 38 10
Resolute
P 18 50 07

JANUARY 30
Resolute
P 19 04 34

JANUARY 30
Resolute
P 20 02 39

JANUARY 30
Resolute
P 21 42 58

JANUARY 30
Resolute
P 22 07 14 c

JANUARY 30
Resolute
P 22 14 32

JANUARY 31
U.S.C.G.S.
21 1/2N, 143 1/2E
Mariana Islands region
H = 03 34 42
Resolute
eP 03 46 38 d

JANUARY 31
U.S.C.G.S.
33 1/2N, 134 1/2E
Near east coast of
Shikoku, Japan
H = 05 08 18
Resolute
eP 05 19 15 c
S 05 28 12

JANUARY 31
U.S.C.G.S.
21 1/2N, 143 1/2E
Mariana Islands region
H = 08 19 50
Resolute
P 08 31 47

JANUARY 31
Resolute
P 12 21 03

JANUARY 31
Resolute
eP 15 16 31 d

JANUARY 31
U.S.C.G.S.
Mariana Islands region
H = 16 12 29
Resolute
P 16 24 26

JANUARY 31
U.S.C.G.S.
Near east coast of
Kamchatka,
H = 17 26 38
Resolute
P 17 34 17

JANUARY 31
U.S.C.G.S.
21 1/2N, 143 1/2E
Mariana Island region
H = 20 28 14
Resolute
P 20 40 11 q

FEBRUARY 1
Banff
eP 01 12 13

FEBRUARY 1
U.S.C.G.S.
43N, 132W
Pacific Ocean
H = 02 08 37
Ottawa
eP 02 16 14
Resolute
eP 02 15 41 c
S 02 21 22
Seven Falls
eP 02 16 37
Shawinigan Falls
eP 02 16 28
Victoria
iP 02 09 46

FEBRUARY 1
U.S.C.G.S.
35N, 140 1/2E
Near east coast of
Honshu, Japan
H = 02 41 37
Resolute
P 02 52 14

FEBRUARY 1
Resolute
P 10 27 46

FEBRUARY 1
U.S.C.G.S.
35N, 23 1/2E
Near west coast of
Crete
H = 11 59 34
Halifax
ip 12 10 13
Resolute
P 12 10 09
Ottawa
eP 12 11 02
Seven Falls
iP 12 10 39
Shawinigan Falls
eP 12 10 50

FEBRUARY 1
U.S.C.G.S.
50 1/2N, 160E
Off east coast of
Kamchatka
H = 13 56 08
Resolute
iP 14 04 33 d
Victoria
iP 14 04 50

FEBRUARY 1
Resolute
eP 21 46 45 d

FEBRUARY 2
U.S.C.G.S.
33 1/2S, 179W
Kermadec Islands
region
H = 06 29 52
Resolute
P' 06 48 45
Seven Falls
eP' 06 48 57

FEBRUARY 2
U.S.C.G.S.
39N, 140E
Near west coast of
Honshu, Japan
H = 08 10 15
Resolute
eP 08 21 02 c

FEBRUARY 2
U.S.C.G.S.
28 1/2S, 69W
San Juan Province
Argentina
H = 09 12 52
Ottawa
eP 09 24 32
Seven Falls
eP 09 24 42

DOMINION OBSERVATORIES

FEBRUARY 2
45°03'N, 128°00'W
Off coast of Oregon
H = 09 51 59.5
Mag 4.3
Alberni
iP 09 53 13.6
iS 09 54 18.6
Victoria
iP 09 53 10.5
iS 09 54 17.1

FEBRUARY 2
U.S.C.G.S.
2N, 126E
Molucca Passage
H = 23 40 01
Resolute
eP 23 53 51 d

FEBRUARY 2
U.S.C.G.S.
34 1/2N, 104 1/2E
Kansu Province China
H = 23 51 57
Resolute
eP 24 03 15 c

FEBRUARY 3
U.S.C.G.S.
37S, 179E
Off coast of North Island
New Zealand
H = 02 20 55
Ottawa
eP' 02 40 01
Resolute
P' 02 39 55
Seven Falls
eP' 02 40 08
e 02 43 24
Shawinigan Falls
eP' 02 40 04

FEBRUARY 3
44°31'N, 126°28'W
Off coast of Oregon
H = 04 18 36.5
Mag 4.0
Alberni
eP 04 19 51.4
eS 04 20 55.7
Resolute
P 04 25 08
Victoria
iP 04 19 44.7
iS 04 20 46.3

FEBRUARY 3
U.S.C.G.S.
24N, 108 1/2W
Gulf of California
H = 11 29 55
Resolute
P 11 38 59
S 11 46 10

FEBRUARY 3
U.S.C.G.S.
43N, 138 1/2E
Off west coast of
Hokkaido Japan
H = 12 48 53
Resolute
P 12 58 44

FEBRUARY 3
Resolute
P 13 22 33

FEBRUARY 4
U.S.C.G.S.
4 1/2S, 153 1/2E
New Ireland Region
H = 03 46 30
Halifax
eP' 04 05 55
Ottawa
eP' 04 05 23
e 04 15 27
Resolute
P 04 00 15
i 04 10 48
Seven Falls
eP' 04 05 28
Shawinigan Falls
eP' 04 05 26
i 04 05 39
Victoria
eP 03 59 35

FEBRUARY 4
Resolute
P 04 16 58

FEBRUARY 4
Resolute
eP 07 04 07 c

FEBRUARY 4
U.S.C.G.S.
Southern Iran
H = 07 07 20
Resolute
eP 07 19 06 c

FEBRUARY 4
U.S.C.G.S.
35 1/2N, 78E
Northern India
H = 10 20 39
h = about 100 km
Resolute
P 10 31 45

FEBRUARY 4
U.S.C.G.S.
4 1/2S, 153 1/2E
New Britain region
H = 11 01 18
Victoria
iP' 11 18 28

FEBRUARY 4
Resolute
eP 15 16 41 d

FEBRUARY 4
U.S.C.G.S.
39N, 143E
Off east coast of
Honshu, Japan
H = 16 50 30
Ottawa
eP 17 03 24
Resolute
eP 17 00 39 d
S 17 08 56
Shawinigan Falls
eP 17 03 27

FEBRUARY 4
Resolute
P 17 48 11

FEBRUARY 4
Resolute
P 18 09 28

FEBRUARY 4
U.S.C.G.S.
18 1/2S, 178W
Fiji Islands
H = 20 38 20
h = about 600 km
Resolute
P' 20 55 40

FEBRUARY 4
U.S.C.G.S.
39 1/2N, 142 1/2E
Near coast of Honshu
Japan
H = 20 57 55
Resolute
eP 21 08 05 c
S 21 16 22

FEBRUARY 4
Resolute
P 23 03 08

FEBRUARY 4
Resolute
P 23 53 35

FEBRUARY 5
U.S.C.G.S.
32 1/2N, 131 1/2E
Near coast of Kyushu
Japan
H = 08 43 36
Resolute
eP 08 54 42 c

FEBRUARY 5
Resolute
P 22 04 58
Shawinigan Falls
eP 22 04 36

FEBRUARY 6
47°48'N, 70°23'W
About 15 miles up Riviere
Malboie, Quebec
H = 00 44 02.0
Mag 3.3
Montreal
iP_1 00 44 59.0
iS_1 00 45 42.5
D = 357 km
Ottawa
S_1 00 46 18
D = 490 km
Seven Falls
iP_1 00 44 15.8
iS_1 00 44 26.1
D = 83 km
Shawinigan Falls
iP_1 00 44 38.8
iS_1 00 45 06.8
D = 230 km

FEBRUARY 6
48°44'N, 121°32'W
Southeast of Mt. Baker
Washington
H = 01 10 35.4
Mag 2.4
Alberni
iP 01 11 12.0
iS 01 11 34.2
Victoria
iP 01 10 58.0
iS 01 11 08.1

FEBRUARY 6
Resolute
P 01 18 24

FEBRUARY 6
Resolute
P 14 05 14

FEBRUARY 6
U.S.C.G.S.
31 1/2N, 91E
Tibet
H = 17 01 18
Resolute
P 17 12 55

FEBRUARY 6
U.S.C.G.S.
6S, 104E
Near coast of
Sumatra
H = 17 10 45
Resolute
P' 17 29 19

FEBRUARY 7
U.S.C.G.S.
7 1/2N, 71 1/2W
Venezuela
H = 04 24 50
Resolute
P 04 35 56

DOMINION OBSERVATORIES

FEBRUARY 7
U.S.C.G.S.
17N, 145E
Mariana Islands
H = 10 00 34
Resolute
P 10 12 53

FEBRUARY 7
U.S.C.G.S.
5N, 123E
Celebes Sea
H = 10 07 50
h = about 600 km
Resolute
P 10 20 26
Seven Falls
eP' 10 25 54

FEBRUARY 7
U.S.C.G.S.
15 1/2S, 173 1/2W
Samoa Islands region
H = 11 16 54
Resolute
P 11 30 51

FEBRUARY 7
Resolute
P 16 54 32

FEBRUARY 8
Resolute
P 02 29 14

FEBRUARY 8
U.S.C.G.S.
58 1/2N, 152W
Kodiak Islands,
Alaska
H = 03 37 20
Resolute
eP 03 42 58 d
Shawinigan Falls
eP 03 45 49

FEBRUARY 8
U.S.C.G.S.
36 1/2N, 70 1/2E
Afghanistan
H = 18 54 23
h = about 150 km
Resolute
eP 19 05 16 c

FEBRUARY 8
U.S.C.G.S.
8 1/2S, 74 1/2W
Peru
H = 19 06 16
h = about 200 km
Ottawa
iP 19 15 20 c
Resolute
eP 19 18 26 d
Seven Falls
eP 19 15 32
Shawinigan Falls
iP 19 15 27 c

FEBRUARY 9
Resolute
iP 11 18 43 c

FEBRUARY 9
U.S.C.G.S.
4S, 128E
Banda Sea
H = 11 56 12
Ottawa
eP' 12 15 33 d
Resolute
P 12 10 22
Shawinigan Falls
eP' 12 15 32 c

FEBRUARY 9
Shawinigan Falls
eP 20 38 43

FEBRUARY 9
U.S.C.G.S.
4S, 128E
Ceram
H = 23 55 49
Mag 6 1/2 - 6 3/4
Banff
eP' 24 14 13
Halifax
iP' 24 15 09 c
Ottawa
eP' 24 15 00
Resolute
P 24 10 00
i 24 14 24
i 24 20 38
Seven Falls
eP' 24 14 56
Shawinigan Falls
eP' 24 15 02

FEBRUARY 10
Banff
eP 00 32 20

FEBRUARY 10
48°51'N, 123°00'W
Strait of Georgia
H = 16 48 15.0
Mag 1.9
Alberni
iP 16 48 38.1
iS 16 48 53.5
Victoria
iP 16 48 22.7
S 16 48 27.8
compression

FEBRUARY 10
U.S.C.G.S.
15 1/2S, 173W
Samoa Islands region
H = 23 19 55
Victoria
eP 23 31 53

FEBRUARY 11
49°49'N, 123°46'W
Near entrance to Jervis Inlet
H = 12 35 08.6
Mag 2.5
Alberni
eP 12 35 18.8
Victoria
eP 12 35 34.0
eS 12 35 49.5

FEBRUARY 11
U.S.C.G.S.
34S, 70 1/2W
Chile
H = 12 53 59
h = about 100 km
Halifax
ip 13 05 54 (d)
Ottawa
eP 13 05 57 d
Seven Falls
eP 13 06 06 d
Shawinigan Falls
eP 13 06 03 d

FEBRUARY 11
Canadian Arctic
H = 21 07 05.3
Mag 0.9
Resolute
iP_1 21 07 11.0
iS_1 21 07 15.3
D = 35.3 km

FEBRUARY 13
U.S.C.G.S.
52 1/2N, 169W
Fox Islands
H = 09 36 46
Resolute
P 09 43 49

FEBRUARY 13
48°20'N, 123°41'W
Strait of Juan da Fuca
H = 11 33 49.5
Mag 1.2
Alberni
eP 11 34 11.1
eS 11 34 27.2
Victoria
iP 11 33 53.5
iS 11 33 57.0

FEBRUARY 13
U.S.C.G.S.
1 1/2N, 127 1/2E
Halmahera
H = 15 41 04
Resolute
P 15 54 53
i 16 05 10

FEBRUARY 13
Ottawa
eP 17 20 23
Resolute
P 17 23 31
Shawinigan Falls
eP 17 20 41

FEBRUARY 13
U.S.C.G.S.
17 1/2S, 70W
Peru
H = 20 40 06
h = 150 km
Banff
eP 20 51 55
Halifax
iP 20 50 11 c
Ottawa
eP 20 50 17
Resolute
P 20 53 06
i 21 03 59
Shawinigan Falls
eP 20 50 24
Victoria
iP 20 52 09

FEBRUARY 14
U.S.C.G.S.
La Rioja Province
Argentina
Halifax
ip 05 32 53 d
i 05 33 28
Shawinigan Falls
iP 05 33 05 d

FEBRUARY 14
U.S.C.G.S.
29S, 177W
Kermadec Islands
H = 15 39 43
Resolute
P' 15 58 28

FEBRUARY 14
U.S.C.G.S.
6S, 75 1/2W
Northern Peru
H = 18 20 46
h = 150 km
Resolute
P 18 32 51
Seven Falls
eP 18 29 56
Shawinigan Falls
eP 18 29 50

FEBRUARY 14
U.S.C.G.S.
Indian Ocean about 800 miles southeast of Mascarene Islands
Ottawa
iP' 19 48 40 c

DOMINION OBSERVATORIES

FEBRUARY 14
U.S.C.G.S.
18 1/2N, 145 1/2E
Mariana Islands
H = 21 04 36
h = about 200 km
Resolute
P 21 16 25

FEBRUARY 14
U.S.C.G.S.
52N, 171 1/2W
Fox Islands
H = 22 17 54
Resolute
P 22 25 04
Seven Falls
eP 22 28 02

FEBRUARY 15
Resolute
P 04 04 58

FEBRUARY 15
U.S.C.G.S.
12N, 87W
Near coast of Nicaragua
H = 07 36 08
Ottawa
iP 07 43 04 c
Resolute
eP 07 46 36 c
Seven Falls
eP 07 43 28
Shawinigan Falls
eP 07 43 10

FEBRUARY 16
Canadian Arctic
H = 06 46 17.0
h = 11 km ?
Mag 2.7
Resolute
eP_n 06 47 13.5
eP_1 06 47 22.8
eS_n 06 47 55.0
iS_1 06 47 12.9
D = 410 km

FEBRUARY 16
U.S.C.G.S.
32 1/2S, 179 1/2W
Kermadec Islands region
Resolute
P' 05 40 36
Seven Falls
eP' 05 40 50 d
Shawinigan Falls
eP' 05 40 46

FEBRUARY 16
U.S.C.G.S.
22N, 45 1/2W
Atlantic Ocean
H = 13 14 31
Seven Falls
eP 13 21 06
Shawinigan Falls
eP 13 21 11

FEBRUARY 16
U.S.C.G.S.
36N, 141 1/2E
Off east coast of
Honshu, Japan
H = 15 06 14
Resolute
P 15 16 45

FEBRUARY 16
197 km from
Victoria
H = 16 26 48
Victoria
eP 16 27 06.8
iS 16 27 30.9

FEBRUARY 17
U.S.C.G.S.
30S, 112 1/2W
Easter Islands region
H = 12 32 10
Mag 6 1/2
Seven Falls
eP 12 44 51
S 12 55 24
Shawinigan Falls
eP 12 44 45
Victoria
eP 12 44 18

FEBRUARY 17
U.S.C.G.S.
43 1/2N, 145 1/2E
Near east coast of
Hokkaido Japan
H = 16 27 40
Ottawa
eP 16 40 12
Resolute
P 16 37 15
Shawinigan Falls
eP 16 40 12

FEBRUARY 18
U.S.C.G.S.
52 1/2N, 159 E
Near east coast of
Kamchatka
Resolute
P 19 29 59
Shawinigan Falls
eP 19 33 13

FEBRUARY 18
U.S.C.G.S.
52 1/2N, 160E
Near east coast of
Kamchatka
H = 21 35 11
Halifax
ip 21 46 59 d
Ottawa
eP 21 46 31

Resolute
iP 21 43 18 c
S 21 49 46
Shawinigan Falls
eP 21 46 32

FEBRUARY 18
U.S.C.G.S.
52N, 170W
Fox Islands
H = 22 26 10
Halifax
ep 22 37 03
Resolute
P 22 33 19
Shawinigan Falls
eP 22 36 10

FEBRUARY 19
48.7N, 123.7W
Southern Vancouver Island
H = 00 05 55.5
Mag 2.1
Horseshoe Bay
S - P = 10.1Sec.
Victoria
iP 00 06 00.5
iS 00 06 04.5

FEBRUARY 19
U.S.C.G.S.
60 1/2N, 151 W
Kenai Peninsula
H = 05 09 23
Halifax
ip 05 18 25 c
Ottawa
ip 05 17 37
Resolute
P 05 14 38
Seven Falls
eP 05 17 46
Shawinigan Falls
eP 05 17 40
Victoria
iP 05 13 56

FEBRUARY 19
Canadian Arctic
H = 06 04 29.7
Mag 1.9
Resolute
eP_1 06 05 03.5
eS_1 06 05 28.5
D = 205 km

FEBRUARY 19
U.S.C.G.S.
36 N, 70 1/2E
Hindu Kush
H = 10 36 46
h = 200 km
Alberni
iP 10 49 54
ipP 50 46
Halifax
ep 10 49 27
i 50 22
Ottawa
iP 10 49 44
Resolute
iP 10 47 34 c
i 10 48 24
S 10 56 10
Seven Falls
eP 10 49 30
Shawinigan Falls
eP 10 49 34 c
Victoria
iP 10 49 50
ipP 50 43

FEBRUARY 19
238 km from Victoria
H = 23 13 02
Mag 2.4
Victoria
iP 23 13 37.3
eS 23 14 06

FEBRUARY 20
U.S.C.G.S.
52N, 159E
Near east coast of Kamchatka
H = 14 27 10
Resolute
P 14 35 25

FEBRUARY 21
U.S.C.G.S.
42S, 173E
South Island, New Zealand
H = 00 46 56
h = about 60 km
Ottawa
eP' 01 06 04 c
i 01 09 25
Seven Falls
eP' 01 06 13 c
ePKS 01 09 37
Shawinigan Falls
eP' 01 06 09 c
PKS 01 09 33

FEBRUARY 21
Ottawa
eP 02 22 06
Resolute
P 02 25 31
Seven Falls
eP 02 22 34
Shawinigan Falls
eP 02 22 25

FEBRUARY 21
U.S.C.G.S.
36N, 4 1/2E
Northern Algeria
H = 08 13 31
Ottawa
eP 08 23 36
Resolute
P 08 23 28
Seven Falls
eP 08 23 09

DOMINION OBSERVATORIES

Shawinigan Falls
eP 08 23 19
Victoria
eP 08 26 08

FEBRUARY 21
U.S.C.G.S.
52N, 175W
Aleutian Islands
H = 17 21 59
Ottawa
eP 17 32 15
Resolute
P 17 29 23

FEBRUARY 21
U.S.C.G.S.
2 1/2N, 128 1/2E
Halmahera
H = 22 43 11
Resolute
P 22 56 49

FEBRUARY 22
U.S.C.G.S.
20S, 178 1/2W
Fiji Islands
H = 09 39 26
h = about 600 km
Resolute
P 01 11 51

FEBRUARY 22
Ottawa
eP 01 39 43
Resolute
P 01 42 24

FEBRUARY 23
U.S.C.G.S.
36N, 70E
Afghanistan
H = 02 09 42
Resolute
P 02 20 31
i 02 21 20
Shawinigan Falls
eP 02 22 32

FEBRUARY 23
U.S.C.G.S.
39N, 20E
Greece
H = 07 34 30
Halifax
ip 07 44 43 c
Ottawa
eP 07 45 29
Seven Falls
eP 07 45 03
Shawinigan Falls
eP 07 45 14

FEBRUARY 23
U.S.C.G.S.
39N, 20 1/2E
Greece
H = 07 47 51
Halifax
ep 07 58 05
Ottawa
eP 07 58 50
Seven Falls
eP 07 58 25
Shawinigan Falls
eP 07 58 36

FEBRUARY 23
U.S.C.G.S.
23 1/2N, 121 1/2E
Formosa
H = 08 10 28
Resolute
eP 08 22 33
Victoria
eP 08 23 22

FEBRUARY 23
U.S.C.G.S.
34 1/2N, 139 1/2E
Near south coast of
Honshu, Japan
H = 09 23 37
h = about 100 km
Resolute
eP 09 34 14 c

FEBRUARY 24
U.S.C.G.S.
21 1/2N, 142E
Mariana Islands regio
H = 00 03 00
h = about 300 km
Resolute
P 00 14 26

FEBRUARY 24
Canadian Arctic
H = 08 31 38
h = 15 km
Mag 3.6 ?
Resolute
iP_n 08 32 17 d
S_1 08 32 54 ?
D = 270 km ?

FEBRUARY 24
U.S.C.G.S.
7 1/2S, 156E
Solomon Islands
H = 21 37 04
Mag 6 1/2 - 6 3/4
Halifax
ip' 21 56 16
Ottawa
eP' 21 55 59 c
Resolute
P 21 50 59
i 22 04 18
Seven Falls
eP' 21 56 04
Shawinigan Falls
eP' 21 56 02
Victoria
eP 21 50 02

FEBRUARY 25
198 km from
Alberni
H = 11 29 58.3
Alberni
eP 11 30 29.2
S 11 30 53.5

FEBRUARY 25
U.S.C.G.S.
11N, 124E
Cebu, Philippine
Islands
H = 12 45 44
Resolute
P 12 58 46

FEBRUARY 26
U.S.C.G.S.
2 1/2S, 128E
Ceram Sea
H = 01 06 23
Resolute
P 01 20 49

FEBRUARY 26
U.S.C.G.S.
1S, 138E
New Guinea
H = 02 08 31
Resolute
P 02 22 24
i 02 33 01

FEBRUARY 26
48.8N, 123.6W
Southern Vancouver
Island
H = 05 48 46.6
Mag 1.5
Victoria
iP 05 48 51.5 d
iS 05 48 55.2

FEBRUARY 26
U.S.C.G.S.
Chiapas Mexico
H = 21 29 05
Resolute
P 21 38 58
Seven Falls
eP 21 35 39
Shawinigan Falls
eP 21 36 28

FEBRUARY 26
U.S.C.G.S.
51 1/2N, 178W
Aleutian Islands
H = 23 29 25
Alberni
iP 23 36 10
iS 41 21
Banff
eP 23 37 02 d
Halifax
iP 23 40 33 d
Ottawa
P 23 39 52
Resolute
P 23 36 58
i 23 38 34
S 23 43 00
Seven Falls
eP 23 39 59
Shawinigan Falls
eP 23 39 54
Victoria
iP 23 36 18

FEBRUARY 27
U.S.C.G.S.
51 1/2N, 178W
Aleutian Islands
H = 00 07 10
Alberni
eP 00 13 53
Ottawa
P 00 17 37
Resolute
P 00 14 44
i 00 16 50
Seven Falls
eP 00 17 43
Shawinigan Falls
eP 00 17 41
Victoria
iP 00 14 02

FEBRUARY 27
U.S.C.G.S.
51 1/2N, 178W
Aleutian Islands
H = 08 10 03
Banff
eP 08 17 23
Halifax
ip 08 21 12
Ottawa
P 08 20 30
Resolute
P 08 17 38
i 08 19 45
Seven Falls
eP 08 20 36
Shawinigan Falls
eP 08 20 36 d

FEBRUARY 28
Victoria
iP 08 16 55

FEBRUARY 28
U.S.C.G.S.
44 1/2N, 147 1/2E
Kurile Islands
H = 09 34 12
Resolute
P 09 43 41

FEBRUARY 28
U.S.C.G.S.
3S, 142E
New Guinea
H = 23 05 39
Ottawa
P' 23 24 48

DOMINION OBSERVATORIES

Resolute
P 23 19 35
Seven Falls
eP' 23 24 50
Shawinigan Falls
eP' 23 24 50

FEBRUARY 29
U.S.C.G.S.
7 1/2N, 80W
Near south coast of Panama
H = 02 12 04
Ottawa
P 02 19 30
Seven Falls
eP 02 19 51

FEBRUARY 29
U.S.C.G.S.
14N, 120E
Near southwest coast of Luzon P.I.
H = 05 22 53
h = about 150 km
Resolute
iP 05 35 35 c

FEBRUARY 29
U.S.C.G.S.
23 1/2N, 94 1/2E
Western Burma
H = 08 34 30
Resolute
P 08 46 51

FEBRUARY 29
Canadian Arctic
H = 17 49 29.1
Mag 2.0
Resolute
iP_1 17 50 03
eS_1 17 50 28
D = 205 km

FEBRUARY 29
48.8N, 123.6 W
Southern Vancouver Island
H = 18 53 49
Mag 1.5
Victoria
iP 18 53 52.6
iS 18 53 55.4

FEBRUARY 29
U.S.C.G.S.
30N, 9W
Morocco
H = 23 40 12
Alberni
eP 23 52 43
Halifax
eP 23 48 27
Ottawa
eP 23 49 33
Resolute
P 23 50 21
Seven Falls
eP 23 49 06
Shawinigan Falls
eP 23 49 20
Victoria
eP 23 52 40

MARCH 2
U.S.C.G.S.
19N, 101 1/2W
Michoacan, Mexico
H = 00 10 26
Alberni
eP 00 17 30
Ottawa
eP 00 17 10
Resolute
P 00 20 04
S 00 28 08
Seven Falls
eP 00 17 45
Shawinigan Falls
eP 00 17 32
Victoria
iP 00 17 19

MARCH 2
U.S.C.G.S.
17N, 93W
Chiapas, Mexico
H = 04 34 46
Resolute
P 04 44 42

MARCH 2
U.S.C.G.S.
52N, 30W
North Atlantic Ocean
H = 21 56 25
Ottawa
eP 22 02 39
Resolute
P 22 03 13
S 22 08 32
Seven Falls
eP 22 02 05
Shawinigan Falls
eP 22 02 18

MARCH 3
U.S.C.G.S.
7S, 156E
Solomon Islands
H = 01 02 20
Ottawa
eP' 01 21 15
Shawinigan Falls
eP' 01 21 17

MARCH 3
U.S.C.G.S.
11N, 62 1/2W
Near coast of Venezuela
H = 01 42 46
h = 100 km
Resolute
P 01 53 27
Seven Falls
eP 01 49 50
Shawinigan Falls
eP 01 49 49

MARCH 3
U.S.C.G.S.
64 1/2N, 150W
Central Alaska
H = 04 59 20
Ottawa
eP 05 07 23
Resolute
P 05 03 58
Shawinigan Falls
eP 05 07 27

MARCH 3
Resolute
P 11 46 12

MARCH 3
U.S.C.G.S.
40N, 70E
Sinkiang Province China
H = 14 15 02
Resolute
P 14 25 44

MARCH 4
Seven Falls
eP 01 16 52
i 01 23 36

MARCH 4
Resolute
P 01 20 32

MARCH 4
U.S.C.G.S.
50 1/2N, 177W
Andreanof Islands
H = 02 15 56
Alberni
eP 02 22 39
Banff
iP 02 23 16
Halifax
iP 02 27 05 d
Ottawa
iP 02 26 25 d
Resolute
P 02 23 35
Seven Falls
eP 02 26 32
Shawinigan Falls
eP 02 26 29 d
Victoria
eP 02 22 53

MARCH 4
U.S.C.G.S.
31N, 129E
Near south coast
of Kyushu, Japan
H = 03 53 00
h = about 100 km
Mag 6 1/2
Alberni
eP 04 04 44
Banff
iP 04 05 03
dilatation
Resolute
P 04 04 09
i 04 04 42
S 04 13 10
Seven Falls
eP 04 06 40
Victoria
iP 04 04 50

MARCH 4
U.S.C.G.S.
Hokkaido, Japan
H = 11 55 12
Resolute
P 12 05 04

MARCH 4
U.S.C.G.S.
7 1/2N, 94E
Nicobar Islands
H = 21 05 45
Resolute
P 21 19 24

MARCH 5
Canadian Arctic
H = 10 42 41.6
h = 16
Mag 4.5
Resolute
eP_n 10 44 18.0
iP_1 10 44 40.2
iS_n 10 45 25.5
eS_1 10 46 00

MARCH 5
U.S.C.G.S.
29N, 81E
Nepal
H = 11 25 00
Resolute
iP 11 36 52 c

MARCH 5
U.S.C.G.S.
1N, 129E
Halmahera Island
H = 13 49 16
Mag 6 3/4
Resolute
P 14 03 06
Seven Falls
eP' 14 08 29
Shawinigan Falls
eP' 14 08 34

MARCH 5
Resolute
P 14 47 56

MARCH 5
U.S.C.G.S.
1N, 129E
Halmahera aftershock
H = 15 49 53
Resolute
P 16 03 42

DOMINION OBSERVATORIES

MARCH 5
U.S.C.G.S.
29N, 81E
Nepal
H = 23 50 38
Resolute
P 24 02 28

MARCH 6
U.S.C.G.S.
1N, 129E
Halmahera aftershock
H = 02 22 06
Resolute
P 02 35 55
Seven Falls
eP' 02 41 21
Shawinigan Falls
eP' 02 41 21

MARCH 6
U.S.C.G.S.
24N, 108W
Gulf of California
H = 04 11 54
Mag 5 - 5 1/4
Ottawa
eP 04 18 39
Resolute
P 04 20 59
S 04 28 20
Seven Falls
eP 04 19 15
Shawinigan Falls
eP 04 19 06
Victoria
eP 04 17 41

MARCH 6
Resolute
P 06 31 10

MARCH 6
Resolute
P 07 04 20

MARCH 6
U.S.C.G.S.
Kurile Islands
H = 07 56 28
Resolute
P 08 05 55

MARCH 6
Resolute
P 10 32 52

MARCH 6
Canadian Arctic
H = 10 50 56.3
Mag 2.3 ?
Resolute
iP_1 10 51 09.5 c
S_1 10 51 19.5 ?
D = 32 km ?

MARCH 6
Resolute
P 11 46 11

MARCH 7
Resolute
P 02 36 34

MARCH 7
U.S.C.G.S.
1 1/2N, 125 1/2E
Celebes
H = 05 13 10
Halifax
ep' 05 32 28
Ottawa
eP' 05 32 21
Resolute
iP 05 26 58 c
Seven Falls
eP' 05 32 20
Shawinigan Falls
eP' 05 32 21

MARCH 7
U.S.C.G.S.
52N, 153E
Off southwest coast
of Kamchatka
H = 06 11 38
h = 100 km

Halifax
ip 06 23 31.0 c
ip 06 23 31.2 d
Ottawa
iP 06 23 06 d
Resolute
iP 06 19 57 d
Seven Falls
eP 06 23 07 d
Shawinigan Falls
eP 06 23 07

MARCH 7
U.S.C.G.S.
23 1/2N, 123 1/2E
Ryukyu Islands
H = 11 34 23
Resolute
P 11 46 27

MARCH 7
U.S.C.G.S.
24 1/2N, 125E
Ryukyu Islands
H = 15 47 50
Resolute
P 15 59 46

MARCH 8
U.S.C.G.S.
65S, 179 1/2E
Antarctic Ocean
H = 11 51 10
Resolute
P_1' 12 10 58

MARCH 8
Banff
eP 14 15 23

MARCH 8
U.S.C.G.S.
16 1/2S, 168 1/2E
New Hebrides Islands
H = 16 33 38
Alberni
iP 16 46 06
Banff
iP 16 46 33 c
Halifax
ip' 16 52 18 d
i 16 55 37
Ottawa
eP 16 48 34
i 16 51 55
i 17 02 10
Resolute
iP 16 47 33 d
i 16 51 38
i 16 53 24
i 16 57 50
i 16 58 42
Seven Falls
eP 16 48 47
i 16 52 27 d
i 17 02 01
Shawinigan Falls
iP' 16 52 04 d
i 16 53 37
Victoria
iP 16 46 09
ePP 16 49 30
iS 16 56 34

MARCH 8
Resolute
iP 17 02 53 d
i 17 03 07

MARCH 8
Victoria
eP 17 11 52

MARCH 9
Ottawa
eP 22 26 14

MARCH 9
U.S.C.G.S.
16S, 72W
Southern Peru
H = 23 54 20
h = 150 km
Banff
eP 24 06 07
Halifax
iP 24 04 28
Ottawa
eP 24 04 30
Resolute
P 24 07 21
i 24 18 12
Seven Falls
eP 24 04 43 d
Shawinigan Falls
ip 24 04 38 d
Victoria
iP 24 06 20

MARCH 10
Alberni
eP 00 15 25

MARCH 10
U.S.C.G.S.
64N, 149W
Central Alaska
H = 00 24 20
Banff
eP 00 29 13
Ottawa
eP 00 32 24
Resolute
P 00 29 02
Shawinigan Falls
eP 00 32 26

MARCH 10
Resolute
P 01 00 22

MARCH 10
Alberni
iP 02 06 49
iS 07 15
Banff
eP 02 08 09
Resolute
P 02 11 46
Victoria
iP 02 07 06
e 44
e 08 39

MARCH 10
U.S.C.G.S.
7 1/2N, 126E
Mindanao, P.I.
H = 09 10 47
Resolute
P 09 24 11

MARCH 10
U.S.C.G.S.
10S, 161E
Solomon Islands
H = 09 44 57
Ottawa
eP' 10 03 52

MARCH 10
U.S.C.G.S.
15S, 174W
Samoa Islands region
H = 13 44 25
Alberni
eP 13 56 21
Banff
iP 13 56 52 d
Resolute
eP 13 58 18 c
Victoria
iP 13 56 23

DOMINION OBSERVATORIES

MARCH 10
U.S.C.G.S.
47N, 152E
Kurile Islands
H = 14 32 39
h = 100 km
Alberni
eP 14 41 49
Banff
iP 14 42 17
Ottawa
eP 14 44 35
Resolute
P 14 41 33
Seven Falls
eP 14 44 36
Victoria
eP 14 41 59

MARCH 10
U.S.C.G.S.
14 1/2N, 91 1/2W
Guatemala
H = 18 55 55
h = 100 km
Ottawa
eP 19 02 31
Resolute
P 19 05 56
Victoria
eP 19 03 45

MARCH 11
Resolute
P 04 52 38
Victoria
iP 04 52 05

MARCH 11
Resolute
P 12 05 33

MARCH 11
U.S.C.G.S.
18 1/2N, 145E
Mariana Islands
H = 13 11 10
h about 200 km
Resolute
P 13 23 00

MARCH 12
Victoria
eP 02 12 46

MARCH 12
52 km from Alberni
H = 07 22 44
Mag 2.0
Alberni
iP 07 22 52.0
iS 58.3

MARCH 12
Horseshoe Bay
iP 11 06 32

MARCH 12
U.S.C.G.S.
42N, 21E
Southern Yugoslavia
H = 11 54 00
Banff
eP 12 06 08
Ottawa
iP 12 04 49 c
Resolute
P 12 03 42
Seven Falls
eP 12 04 23
Shawinigan Falls
ep 12 04 30
Victoria
eP 12 06 37

MARCH 12
U.S.C.G.S.
South Carolina,
U.S.A.
H = 12 47 40
Ottawa
iP 12 50 42 d
Seven Falls
eP 12 51 30

MARCH 12
U.S.C.G.S.
36 1/2S, 71W
Chile-Argentina
border
H = 13 47 52
h about 150 km
Shawinigan Falls
ep 14 00 02

MARCH 12
Nova Scotia
H = 16 17 35.6
Halifax
iP_1 16 17 58.8
iS_1 16 18 16.3
D = 144 km

MARCH 12
Canadian Arctic
H = 18 49 50.5
Mag 1.6
Resolute
iP_1 18 50 03.5
iS_1 18 50 13.4
D = 81.2 km

MARCH 12
Resolute
P 19 55 32

MARCH 12
U.S.C.G.S.
6S, 152E
New Britain
H = 20 30 39
Mag 6 1/2
Alberni
iP 20 43 45
Banff
iP 20 44 12
Halifax
P' 20 49 57
Horseshoe Bay
eP 20 43 48
Ottawa
eP' 20 49 40
Resolute
P 20 44 36
i 20 48 40
i 20 55 12
Seven Falls
eP' 20 49 44
Shawinigan Falls
eP' 20 49 43 (c)
Victoria
eP 20 43 48

MARCH 13
U.S.C.G.S.
42N, 143E
Near south coast of
Hokkaido Japan
H = 02 23 37
Resolute
P 02 33 19

MARCH 13
U.S.C.G.S.
Near coast of
Oaxaca Mexico
H = 11 46 40
Ottawa
eP 11 53 33

MARCH 13
Resolute
P 19 04 04

MARCH 13
U.S.C.G.S.
7 1/2N, 77W
Panama-Columbia
border
H = 23 53 32
h about 60 km
Mag 6 - 6 1/4
Ottawa
eP 24 00 48
Resolute
P 24 04 27
Seven Falls
eP 24 01 05
Shawinigan Falls
eP 24 00 59

MARCH 14
U.S.C.G.S.
42 1/2N, 143E
Hokkaido Japan
H = 00 52 57
Ottawa
eP 01 05 39
Resolute
P 01 02 44

MARCH 14
U.S.C.G.S.
41 1/2N, 142E
Near coast of
Northern Honshu
Japan
H = 19 01 35
Resolute
P 19 11 33

MARCH 14
U.S.C.G.S.
44 1/2N, 129 1/2W
Off coast of Oregon
H = 19 17 45
19 17 27 USCGS
Mag 4.1
Alberni
eP 19 18 57.1
e 19 02.8
Horseshoe Bay
iP 19 19 06.8
S 20 22.0
Resolute
P 19 24 14
Seven Falls
eP 19 25 05

MARCH 14
45N, 128W
Off coast of Oregon
H = 20 57 23
Mag 4.4
Alberni
iP 20 58 34.4
S 59 39.6
Horseshoe Bay
iP 20 58 43.6
iS 59 57.2
Resolute
P 21 03 49
Victoria
iP 20 58 31.8
S 59 39.3

MARCH 15
U.S.C.G.S.
51N, 174 1/2W
Andreanof Islands
H = 09 20 56
Halifax
ip 09 31 58
Ottawa
iP 09 31 15 d
Resolute
P 09 28 27
i 09 30 35

Seven Falls
eP 09 31 22
Shawinigan Falls
ip 09 31 19 (c)

MARCH 15
Nova Scotia
H = 16 07 43.2
Halifax
iP_1 16 07 49.5
iS_1 16 07 54.3
D = 39.4 km

MARCH 15
Resolute
P 22 43 37

MARCH 16
U.S.C.G.S.
59 1/2S, 26W
Sandwich Islands
H = 00 33 05
Resolute
P' 00 52 26

MARCH 16
U.S.C.G.S.
15 1/2S, 173 1/2W
Samoa Islands region
H = 17 39 16
Resolute
P 17 53 12
i 18 04 54
i 18 11 44

MARCH 16
Horseshoe Bay
eP 18 51 12

MARCH 16
Resolute
P 21 09 40

MARCH 17
Resolute
P 01 17 55

MARCH 17
47.6N, 122.1W
East of Seattle
Washington
H = 18 08 10
Mag 2.1
Horseshoe Bay
iP 18 08 42.5
S 09 08.2
Victoria
eP 18 08 32.5
S 49.9

MARCH 17
U.S.C.G.S.
51N, 180
Andreanof Islands
H = 20 13 58
Resolute
P 20 21 38

MARCH 18
U.S.C.G.S.
15N, 90W
Guatemala
H = 01 14 53
h = 150 km
Horseshoe Bay
iP 01 22 47
dilatation
Ottawa
eP 01 21 17
Resolute
P 01 24 45
Seven Falls
eP 01 21 45
Shawinigan Falls
ep 01 21 34
Victoria
eP 01 22 43

MARCH 18
Horseshoe Bay
eP 14 21 23
Victoria
eP 14 21 20

MARCH 19
Resolute
P 00 01 25

MARCH 19
Resolute
P 01 37 21

MARCH 19
U.S.C.G.S.
2 1/2N, 127E
Molucca Passage
H = 09 20 51
Resolute
P 09 34 40

MARCH 19
U.S.C.G.S.
3S, 138E
New Guinea
H = 19 15 37
Resolute
P 19 29 35
S 19 43 10

MARCH 20
Resolute
P 13 29 04

MARCH 20
Resolute
eP 13 44 29 c

MARCH 20
U.S.C.G.S.
40N, 143 1/2E
Off northeast coast
of Honshu Japan
H = 13 36 54
h about 60 km
Resolute
eP 13 46 56 c

MARCH 20
U.S.C.G.S.
Near east coast
of Honshu Japan
H = 13 44 25
Resolute
P 13 54 40

MARCH 20
Resolute
P 14 11 15

MARCH 20
U.S.C.G.S.
40N, 143 1/2E
Off northeast coast
of Honshu, Japan
H = 17 07 30
h about 60 km
Mag 7
Alberni
eP 17 17 53
Banff
eP 17 17 23
Horseshoe Bay
eP 17 18 01
Ottawa
eP 17 20 21
Resolute
eP 17 17 32 c
iS 17 25 40
Seven Falls
eP 17 20 22
Shawinigan Falls
ep 17 20 20
Victoria
eP 17 18 00
eS 26 23
i 27 50
eL 34.6

MARCH 20
Resolute
P 18 56 55

MARCH 20
Resolute
eP 20 28 10 c

MARCH 20
U.S.C.G.S.
40N, 143E
Near east coast of
Honshu Japan
H = 21 36 38
Resolute
P 21 46 42

MARCH 20
Resolute
P 23 01 02

MARCH 20
Resolute
P 23 09 50

MARCH 20
U.S.C.G.S.
17N, 46 1/2W
North Atlantic Ocean
H = 23 28 28
Resolute
P 23 39 01
Seven Falls
eP 23 35 37
Shawinigan Falls
ep 23 35 41

MARCH 20
Resolute
P 23 46 01

MARCH 21
Resolute
P 00 01 07

MARCH 21
U.S.C.G.S.
39 1/2N, 143E
Near east coast of
Honshu Japan
H = 00 34 50
Mag 6 1/2
Ottawa
eP 00 47 45
Resolute
iP 00 44 56 c
S 00 53 08
Seven Falls
eP 00 47 47

MARCH 21
U.S.C.G.S.
40N, 142 1/2E
Near east coast of
Honshu Japan
H = 04 43 22
Resolute
P 04 53 24

MARCH 21
Resolute
P 05 10 10

MARCH 21
U.S.C.G.S.
40N, 143 1/2E
Near east coast of
Honshu Japan
H = 05 54 16
Resolute
P 06 04 21

DOMINION OBSERVATORIES

MARCH 21
U.S.C.G.S.
40N, 143 1/2E
Near east coast of
Honshu Japan
H = 06 51 29
Resolute
P 07 01 32

MARCH 21
Resolute
P 08 32 08

MARCH 21
Resolute
P 09 22 58

MARCH 21
U.S.C.G.S.
40N, 143E
Near east coast of
Honshu, Japan
H = 09 18 22
Horseshoe Bay
eP 09 28 47
Ottawa
eP 09 31 16
Resolute
eP 09 28 27 c
S 09 36 36
Seven Falls
eP 09 31 16
Shawinigan Falls
ep 09 31 18
Victoria
eP 09 28 56

MARCH 21
Resolute
P 11 15 20

MARCH 21 40
U.S.C.G.S.
21S, 70 1/2W 54
Near coast of
Chile 50
H = 19 48 56

Halifax
P 19 59 40
Seven Falls
eP 19 59 54
Shawinigan Falls
ep 19 59 50

MARCH 21
Horseshoe Bay
iP 20 07 28

MARCH 21
Resolute
P 22 09 47

MARCH 21
U.S.C.G.S.
39 1/2N, 143 1/2E
Near east coast of
Honshu, Japan
H = 22 56 58
Resolute
P 23 07 05

MARCH 21
U.S.C.G.S.
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 23 21 43
Penticton
eP 23 32 29
Resolute
P 23 31 50 c

MARCH 22
Resolute
P 00 31 05

MARCH 22
U.S.C.G.S.
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 00 51 52

Resolute
P 01 01 59

MARCH 22
49°03'N, 122°14'W
Sumas Region
H = 01 13 48
Mag 1.8
Alberni
eP 01 14 18.4
eS 40.9
Horseshoe Bay
iP 01 14 02
S 29
Victoria
eP 01 14 04.4
eS 16.8

MARCH 22
U.S.C.G.S.
16N, 97 1/2W
Near coast of Oaxaca
Mexico
H = 01 48 24
Banff
eP 01 55 45
Halifax
P 01 56 11
Ottawa
eP 01 55 19
Penticton
eP 01 55 45
Resolute
eP 01 58 26 c
Seven Falls
eP 01 55 52
Shawinigan Falls
ep 01 55 40

MARCH 22
U.S.C.G.S.
61 1/2S, 154E
About 400 miles north
west of Balleny Islands
H = 02 31 17

Ottawa
eP$_1$' 02 51 02
Resolute
P$_1$' 02 51 08
Seven Falls
eP$_1$' 02 51 12
Shawinigan Falls
eP$_1$' 02 51 08

MARCH 22
48°44'N, 123°15'W
South Pender Island
H = 10 31 51.9
Mag 1.9
Alberni
eP 10 32 12.7
iS 23.9
Horseshoe Bay
iP 10 32 03.2
iS 12.8
Victoria
iP 10 31 56.2
iS 32 00.2
i 03.7

MARCH 22
U.S.C.G.S.
Jalisco Mexico
H = 13 19 52
Mag 5 1/2 - 5 3/4
Banff
eP 13 26 15
Penticton
eP 13 26 09
Resolute
P 13 29 14
S 13 37 07

MARCH 22
Resolute
P 20 03 57

MARCH 22
Penticton
eP 20 14 52

MARCH 22
Banff
eP 20 15 00

MARCH 22
Shawinigan Falls
eP 20 32 33

MARCH 22
U.S.C.G.S.
Near coast of
Western Java
H = 21 12 42
h = about 150 km
Penticton
eP' 21 31 27

MARCH 23
U.S.C.G.S.
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 00 23 22
Alberni
eP 00 33 55
Banff
eP 00 34 17
Halifax
ep 00 36 38
Horseshoe Bay
eP 00 33 55
Ottawa
eP 00 36 18
Penticton
eP 00 34 05
Resolute
P 00 33 27
S 00 41 40
Seven Falls
eP 00 36 21
Shawinigan Falls
ep 00 36 17
ip 00 36 24
Victoria
eP 00 33 58

MARCH 23
U.S.C.G.S.
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 01 07 15
Alberni
iP 01 17 43
Banff
eP 01 18 07
Halifax
ep 01 20 35
Horseshoe Bay
eP 01 17 47
Ottawa
eP 01 20 10
Penticton
eP 01 18 00
Resolute
P 01 17 21
Seven Falls
eP 01 20 12
Victoria
iP 01 17 59

MARCH 23
Resolute
P 01 36 20

MARCH 23
Banff
eP 01 47 07
Halifax
ip 01 50 37
Horseshoe Bay
eP 01 46 42
Ottawa
eP 01 50 19
Resolute
P 01 47 44
Seven Falls
eP 01 50 27

MARCH 23
Resolute
P 01 55 46

MARCH 23
U.S.C.G.S.
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 01 51 37
Horseshoe Bay
eP 02 02 10
Penticton
eP 02 02 23

DOMINION OBSERVATORIES

Resolute
P 02 01 44
Victoria
eP 02 02 13

MARCH 23
Resolute
eP 02 19 15 c

MARCH 23
Banff
eP 03 17 03
Horseshoe Bay
eP 03 17 34
Penticton
eP 03 17 02
e 18 39
i 19 05
Victoria
eP 03 17 30

MARCH 23
Resolute
P 05 15 33

MARCH 23
Resolute
P 06 48 45

MARCH 23
Resolute
P 07 00 44

MARCH 23
Resolute
P 07 29 41

MARCH 23
Resolute
P 08 00 51

MARCH 23
U.S.C.G.S.
40N, 142 1/2E
Near east coast of
Honshu, Japan
H = 08 46 44
Horseshoe Bay
eP 08 57 14
Penticton
eP 08 57 27
Resolute
eP 08 56 48 c
Victoria
eP 08 57 26

MARCH 23
U.S.C.G.S
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 10 29 01
Resolute
P 10 39 00
S 10 47 15

MARCH 23
U.S.C.G.S
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 11 51 00
Resolute
P 12 01 07

MARCH 23
U.S.C.G.S.
39N, 144E
Near east coast of
Honshu, Japan
H = 16 01 13
Penticton
eP 16 11 50
Resolute
P 16 11 14

MARCH 23
Resolute
P 17 02 51

MARCH 23
U.S.C.G.S.
32 1/2N, 103 1/2E
Szechwan Province
China
H = 20 03 47
Penticton
eP 20 16 45
Resolute
eP 20 15 12 c

MARCH 23
U.S.C.G.S.
39 1/2N, 143 1/2E
Near east coast of
Honshu, Japan
H = 21 34 19
Penticton
eP 21 45 04
Resolute
eP 21 44 27 c

MARCH 23
U.S.C.G.S.
39 1/2N, 143E
Near east coast of
Honshu, Japan
H = 22 22 36
Mag 6
Ottawa
eP 22 35 36
Penticton
eP 22 33 24
Resolute
P 22 32 44
S 22 40 58
Victoria
eP 22 33 09

MARCH 23
U.S.C.G.S.
40N, 143E
Near east coast of
Honshu, Japan
H = 22 51 41
Resolute
P 23 01 46

MARCH 23
Resolute
P 23 29 58

MARCH 23
U.S.C.G.S.
39N, 143E
Near east coast of
Honshu, Japan
H = 23 26 15
Resolute
P 23 33 25

MARCH 24
Resolute
P 02 36 07

MARCH 24
U.S.C.G.S.
50N, 175 1/2W
Andreanof Islands
H = 02 57 01
Halifax
ip 03 08 07
Horseshoe Bay
iP 03 03 43
Ottawa
eP 03 07 25 d
Penticton
eP 03 04 01

MARCH 24
U.S.C.G.S.
47N, 152 1/2E
Kurile Islands
H = 05 54 28
Horseshoe Bay
iP 06 03 51 d
Penticton
iP 06 04 05
Resolute
eP 06 03 39 d
Victoria
iP 06 03 54

MARCH 24
U.S.C.G.S.
50 1/2N, 173W
Andreanof Islands
H = 09 56 00
Horseshoe Bay
eP 10 02 25
Ottawa
eP 10 06 14
Penticton
eP 10 02 43
Seven Falls
eP 10 06 20

MARCH 24
Resolute
P 10 08 47

MARCH 24
Horseshoe Bay
iP 10 40 46

MARCH 24
Resolute
P 12 31 35

MARCH 24
Banff
eP 14 13 03
Horseshoe Bay
iP 14 13 23
Penticton
eP 14 13 09
Resolute
P 14 15 08

MARCH 24
U.S.C.G.S.
40N, 142 1/2W
Near east coast of
Honshu, Japan
H = 20 02 44
Resolute
eP 20 12 49c

MARCH 25
U.S.C.G.S.
19S, 177 1/2W
Fiji Islands
H = 02 28 56
Banff
eP 02 41 03
Horseshoe Bay
iP 02 40 45
Penticton
eP 02 40 53
Victoria
iP 02 40 42

MARCH 25
41 km from Victoria
H = 07 01 51.2
Mag 1.3
Victoria
iP 07 01 57.8
iS 02 02.8

MARCH 25
Resolute
eP 11 13 56 c

DOMINION OBSERVATORIES

MARCH 25
Resolute
eP 11 26 21 c

MARCH 26
Resolute
P 12 02 18

MARCH 27
48°54'N, 123°18'W
Strait of Georgia
H = 01 39 21.3
Mag 2.5
Alberni
iP_1 01 39 37.4
iP_n 40.3
iS 52.6
Victoria
iP 01 39 25.0
iS 31.4

MARCH 27
U.S.C.G.S.
13 1/2S, 166E
New Hebrides
H = 03 48 27
Mag 6 1/4
Alberni
iP 04 01 15
Banff
iP 04 01 46
Halifax
iP' 04 07 35
Ottawa
ip' 04 07 19 c
Penticton
eP 04 01 31
Resolute
P 04 02 38
i 04 13 18
S 04 14 32
Seven Falls
eP' 04 07 25
Shawinigan Falls
ip' 04 07 19 c
Victoria
iP 04 01 20

MARCH 27
U.S.C.G.S.
13 1/2S, 166 1/2E
New Hebrides
H = 08 57 53
Mag 6 1/2
Alberni
iP 09 10 43
Banff
eP 09 11 13
Halifax
iP' 09 17 02
Ottawa
ep' 09 16 45.5
i 09 28 06
Penticton
eP 09 10 59
Resolute
P 09 12 06
S 09 24 04
Seven Falls
eP' 09 16 51
Shawinigan Falls
ep' 09 16 46
Victoria
iP 09 10 47

MARCH 27
U.S.C.G.S.
30 1/2S, 178W
Kermadec Islands
H = 17 24 41
Resolute
P' 17 43 26

MARCH 27
U.S.C.G.S.
13S, 166E
New Hebrides
H = 19 35 25
Penticton
eP 19 48 27

MARCH 27
U.S.C.G.S.
20N, 104 1/2W
Jalisco Mexico
H = 20 15 46
Mag 6
Banff
eP 20 22 14
Halifax
ip 20 23 39.5 d
Horseshoe Bay
iP 20 22 24
Ottawa
ip 20 22 41 d
e 20 35 18
Penticton
eP 20 22 15
Resolute
P 20 25 17
S 20 33 10
Seven Falls
eP 20 23 13
Shawinigan Falls
ip 20 23 01 d
Victoria
eP 20 22 15

MARCH 27
Ottawa
ip 21 25 33
Seven Falls
eP 21 26 04

MARCH 27
37 1/2S, 177E
Off coast of north island N.Z.
H = 23 28 04
Ottawa
ip' 23 47 06 c
Seven Falls
eP' 23 46 56
e 23 47 13
Shawinigan Falls
ep' 23 47 09
i 23 49 30
i 23 50 09

MARCH 28
Resolute
P 00 17 45

MARCH 28
U.S.C.G.S.
7 1/2N, 82W
Off south coast of
Panama
H = 00 13 38
Mag 6 1/4 - 6 1/2
Banff
eP 00 22 44
Halifax
ip 00 21 19 c
Horseshoe Bay
eP 00 23 10
Ottawa
ip 00 21 00 c
i 00 22 34
Penticton
eP 00 22 52
Resolute
eP 00 24 35 c
S 00 33 32
Seven Falls
eP 00 21 21
Shawinigan Falls
ip 00 21 13 c
Victoria
eP 00 23 08

MARCH 28
U.S.C.G.S.
13 1/2S, 165E
New Hebrides Islands
H = 06 36 27
h = 300 km
Horseshoe Bay
iP 06 48 54
Ottawa
eP' 06 54 50 c
Penticton
eP 06 49 04
Seven Falls
eP' 06 54 56
Shawinigan Falls
eP' 06 54 52 c

MARCH 28
U.S.C.G.S.
13 1/2S, 166E
New Hebrides Islands
H = 06 39 32
Alberni
eP 06 52 28
Horseshoe Bay
iP 06 52 26
Ottawa
eP' 06 58 24
Seven Falls
eP' 06 58 32
Shawinigan Falls
eP' 06 58 27

MARCH 28
U.S.C.G.S.
13 1/2S, 166E
New Hebrides Islands
H = 06 42 44
Alberni
eP 06 55 35
Horseshoe Bay
iP 06 55 39
Ottawa
eP' 07 01 37
Penticton
eP 06 55 48
Resolute
eP' 07 02 06
Seven Falls
eP' 07 01 43
Shawinigan Falls
eP' 07 01 37

MARCH 28
48°44'N, 123°12'W
South Pender Island
H = 07 25 44.6
Mag 1.2
Horseshoe Bay
iP 07 25 56.0
iS 26 04.6
Victoria
iP 07 25 49.1
iS 52.6

MARCH 28
U.S.C.G.S.
23S, 176W
Tonga Islands region
H = 12 37 50
Penticton
eP 12 50 43

MARCH 28
U.S.C.G.S.
58N, 32 1/2W
North Atlantic Ocean
H = 20 48 45
Halifax
ip 20 54 03
Ottawa
ip 20 54 51 c
Penticton
eP 20 57 35
Resolute
P 20 54 39
Seven Falls
eP 20 54 17
Shawinigan Falls
ep 20 54 30 c

MARCH 29
U.S.C.G.S.
33 1/2S, 177 1/2W
Kermadec Island region
H = 00 10 45
Resolute
P' 00 29 36

MARCH 29
Resolute
P 05 22 47

MARCH 29
U.S.C.G.S.
17S, 167E
New Hebrides Islands
H = 06 30 54
Mag 6 3/4
Halifax
iP' 06 50 (07)

Horseshoe Bay
eP 06 44 05
Ottawa
ip' 06 49 50 (c)
e 06 51.2
Resolute
P 06 45 25
e 06 49 26
e 06 56 02
eS 06 57 30
Seven Falls
eP' 06 49 57 c
Shawinigan Falls
ep' 06 49 56 c
Victoria
eP 06 43 44

MARCH 29
Resolute
P 16 13 01

MARCH 29
Resolute
P 20 44 26

MARCH 29
Resolute
P 21 18 57

MARCH 29
U.S.C.G.S.
6S, 147E
East coast of
New Guinea
H = 22 10 20
Ottawa
e(P') 22 29 (26)
e 22 43.1
Shawinigan Falls
e(P') 22 29 (26)

MARCH 30
Resolute
P 00 44 50

MARCH 30
U.S.C.G.S.
51N, 178 1/2W
Andreanof Islands
H = 06 58 36
Penticton
eP 07 05 47

MARCH 30
U.S.C.G.S.
17S, 167 1/2E
New Hebrides Islands
H = 09 38 08
Resolute
e 09 58 42
Shawinigan Falls
ep' 09 57 07

MARCH 30
U.S.C.G.S.
13 1/2S, 166E
New Hebrides Islands
H = 10 49 47
Mag 6
Alberni
eP 11 02 38
Banff
eP 11 03 09
Halifax
ip' 11 08 57
Horseshoe Bay
iP 11 02 43
Ottawa
ip' 11 08 39 d
Penticton
eP 11 02 52
Seven Falls
eP' 11 08 44
Shawinigan Falls
ep' 11 08 42
Victoria
eP 11 02 41

MARCH 30
Resolute
P 12 52 10

MARCH 30
U.S.C.G.S.
69N, 17W
Off east coast of
Greenland
H = 12 58 57
Resolute
P 13 04 05

MARCH 30
U.S.C.G.S.
3 1/2S, 102E
Near coast of
Sumatra
H = 14 11 40
Penticton
eP' 14 30 37

MARCH 30
U.S.C.G.S.
22 1/2S, 174E
Loyalty Islands regio
H = 15 19 30
Halifax
ip' 15 38 39
Horseshoe Bay
eP 15 33 37
Penticton
eP 15 32 46
Resolute
P' 15 38 05
Shawinigan Falls
ep' 15 38 27 d
Victoria
iP 15 33 36

MARCH 31
Penticton
eP 00 51 41
Resolute
P 00 51 42

MARCH 31
Resolute
P 01 58 02
Shawinigan Falls
ep 01 55 37

MARCH 31
U.S.C.G.S.
39 1/2N, 143E
Off northeast coast of
Honshu, Japan
H = 03 02 03
Resolute
ep 03 12 10 c

MARCH 31
U.S.C.G.S.
40N, 143 1/2E
Off northeast coast
Honshu, Japan
H = 06 13 35
Resolute
P 06 23 39

MARCH 31
49.2N, 128.6W
Off west coast of
Vancouver Island
H = 11 41 49
Mag 3.9
Alberni
iP 11 42 29.6
eS 43 03.0
Horseshoe Bay
iP 11 42 45.2
Ottawa
P 11 48 47.5
Resolute
P 11 47 52
Seven Falls
eP 11 49 08
Shawinigan Falls
ep 11 49 01
Victoria
iP 11 42 43.8
eS 43 40

MARCH 31
U.S.C.G.S.
Pacific Ocean about
900 miles southwest of
Galapagos Islands
H = 15 04 36
Resolute
P 15 16 39

MARCH 31
U.S.C.G.S.
39 1/2N, 143E
Off northeast coast of
Honshu, Japan
H = 15 48 13
Resolute
P 15 58 19

MARCH 31
U.S.C.G.S.
40N, 143E
Off northeast coast of
Honshu, Japan
H = 17 29 40
Resolute
ep 17 39 45 c

MARCH 31
U.S.C.G.S.
26N, 110W
Gulf of California
H = 19 56 14
Mag 5 1/2 - 5 3/4
Alberni
eP 20 01 14
Banff
eP 20 01 33
Horseshoe Bay
iP 20 01 21
Ottawa
ip 20 03 02 c
i 20 08 35.5
Penticton
eP 20 01 35
Resolute
P 20 05 04
eS 20 12 09
Seven Falls
eP 20 03 33
Shawinigan Falls
ep 20 03 23
Victoria
iP 20 02 40

MARCH 31
U.S.C.G.S.
41 1/2N, 142E
Near north coast of
Honshu, Japan
H = 21 32 44
Resolute
ip 21 42 37 c

DOMINION OBSERVATORY

EARTHQUAKES IN THE CANADIAN ARCTIC

The following disturbances were recorded during the first quarter of 1960. The times of observed phases are given at their respective chronological positions in the text of this bulletin. Some of these events, such as those of February 16 and March 5, are, almost certainly, small earthquakes. Many minor disturbances are well recorded because of the great sensitivity of the short period vertical seismograph (see calibration curves near the front). Most or all of these minor events may be caused by ice cracking etc. However, they will be included in these lists unless further research shows them to be unimportant.

JANUARY 18 at 05 20 59 U.T. Magnitude 1.4. Originated 49.2 km from Resolute, N.W.T.

JANUARY 20 at 06 20 59 U.T. Magnitude 1.3. Originated 54.4 km from Resolute, N.W.T.

JANUARY 20 at 23 18 23 U.T. Magnitude 2.0. Originated 46.7 km from Resolute, N.W.T.

FEBRUARY 11 at 21 07 05 U.T. Magnitude 0.9. Originated 35.3 km from Resolute, N.W.T.

FEBRUARY 16 at 06 46 17 U.T. Magnitude 2.7. Originated 410 km from Resolute, N.W.T. at a depth of about 11 km.

FEBRUARY 19 at 06 04 30 U.T. Magnitude 1.9. Originated 205 km from Resolute, N.W.T.

FEBRUARY 24 at 08 31 38 U.T. Magnitude 3.6. Originated 270 km from Resolute, N.W.T.

FEBRUARY 29 at 17 49 29 U.T. Magnitude 2.0. Originated 205 km from Resolute, N.W.T.

MARCH 5 at 10 42 42 U.T. Magnitude 4.5. Originated 720 km from Resolute, N.W.T. at a depth of about 16 km.

MARCH 6 at 10 50 56 U.T. Magnitude 2.3. Originated 82 km from Resolute, N.W.T.

MARCH 12 at 18 49 51 U.T. Magnitude 1.6. Originated 81 km from Resolute, N.W.T.

EARTHQUAKES IN EASTERN CANADA AND ADJACENT AREAS

The following disturbances were recorded during the first quarter of 1960. The times of observed phases are given at their respective chronological positions in the text of this bulletin. Some of these events, such as those of January 20 and February 6, are almost certainly small earthquakes. Others, such as that on January 4, are almost certainly blasts. During 1960 an intensive effort is being made to identify blast sources with a view to eliminating such data from these lists and assisting in the re-evaluation of past records. Ottawa records (S_1-P_1 = 17.2 sec.) of blasts from a single mine in neighbouring New York State have accounted for up to twenty entries herein each year. Such data can greatly distort the earthquake statistics for the area. Accordingly, suspected blasts will be so designated, and when their source has been satisfactorily established, future occurrences will not be listed.

JANUARY 4 at 21 02 57 U.T. Magnitude 2.0. Originated 111 km from Ottawa, Ontario. May be a blast.

JANUARY 20 at 20 07 40 U.T. Magnitude 3.7. Epicentre at 46°58'N; 75°40'W. About five miles east of the northern arm of Baskatong Lake, Quebec. There is some evidence to suggest that the focus may have been at a depth of about 15 km.

JANUARY 22 at 20 53 22 U.T. Magnitude 3.4. Epicentre at 41 1/2°N; 75 1/2°W. North of Scranton, Pennsylvania. May be a large blast.

FEBRUARY 6 at 00 44 02 U.T. Magnitude 3.3 Epicentre at 47°48'N; 70°23'W. This position is about 15 miles up Riviere Malbaie, Quebec. However because of uncertainties in the location it may actually be in the Saint Lawrence at the mouth of Riviere Malbaie.

MARCH 12 at 16 17 36 U.T. Small Originated 144 km from Halifax, N.S. Probably a blast. The distance corresponds to that of one quarry and several salt mines.

MARCH 16 at 16 07 43 U.T. Very small. Originated 39 km from Halifax, N.S. Probably a blast.