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**SEISMOLOGICAL SERIES**

of the

**DOMINION OBSERVATORY**

APR 5 1961

**Seismological Bulletin**  
**October - December**  
**1959**

**Seismological Service**  
**of Canada**

OTTAWA, CANADA

Department of Mines and Technical Surveys

DOMINION OBSERVATORIES

1960

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SEISMOLOGICAL BULLETIN

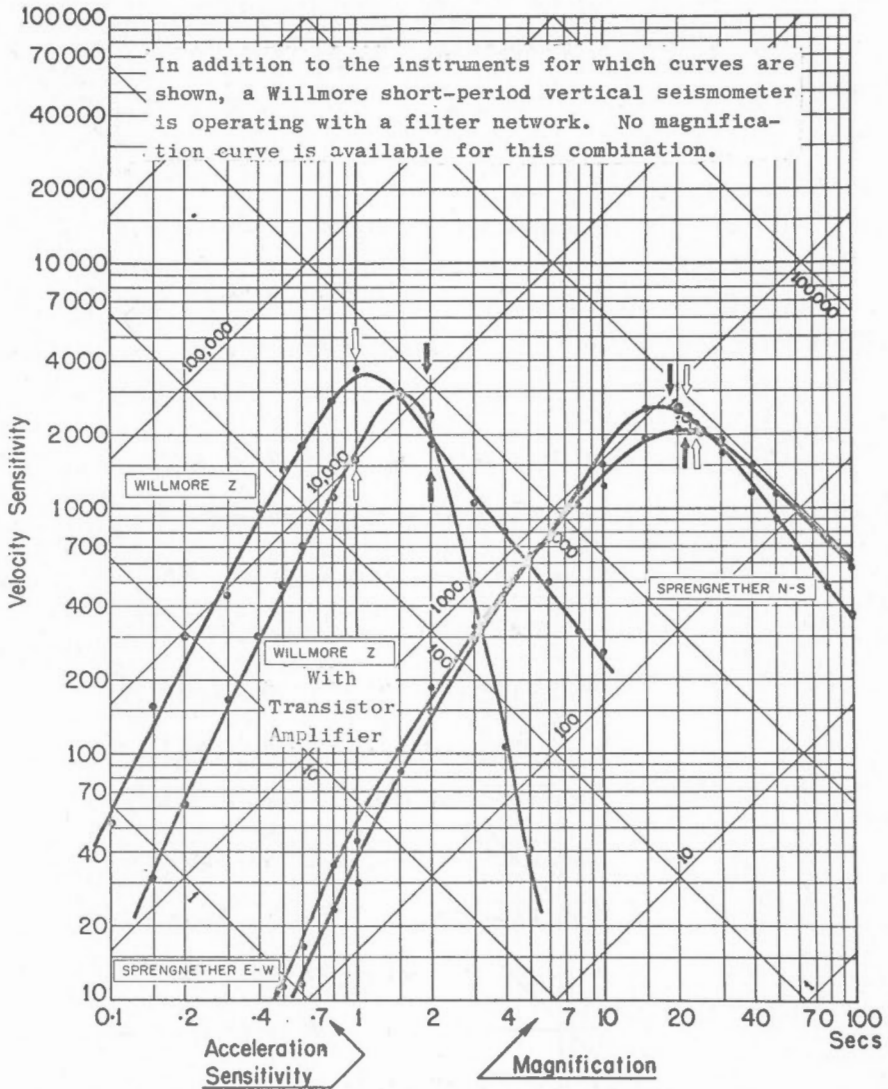
OCTOBER - DECEMBER - 1959

NOTES .

1. I. G. Y. microseismic data starting page 198.
2. Earthquakes in the Canadian Arctic may be found in their respective chronological position in the bulletin with epicentre locations found on pages 193 and 194.
3. Earthquakes in Eastern Canada and Adjacent areas may be found in their respective chronological position in the bulletin with epicentre locations found on page 195 .
4. Earthquakes in Western Canada and Adjacent areas may be found in their respective chronological position in the bulletin with epicentre locations found on pages 196 and 197.
5. The Seismographs at the Halifax, Seven Falls and Shawinigan Falls stations were recalibrated with the curves and dates of calibration shown on pages 148, 149 and 150.

CALIBRATION CURVES

STATION: HALIFAX



$\phi = 44^\circ 38' N$        $\lambda = 68^\circ 36' W$       Altitude 56 M

Foundation : Carbonaceous slate

$T_s \uparrow$

$T_g \uparrow$

Date of Calibration: Spring, N.S. Oct. 29/59

Spring, E.W. Oct 28/59

Read from end of minute mark.

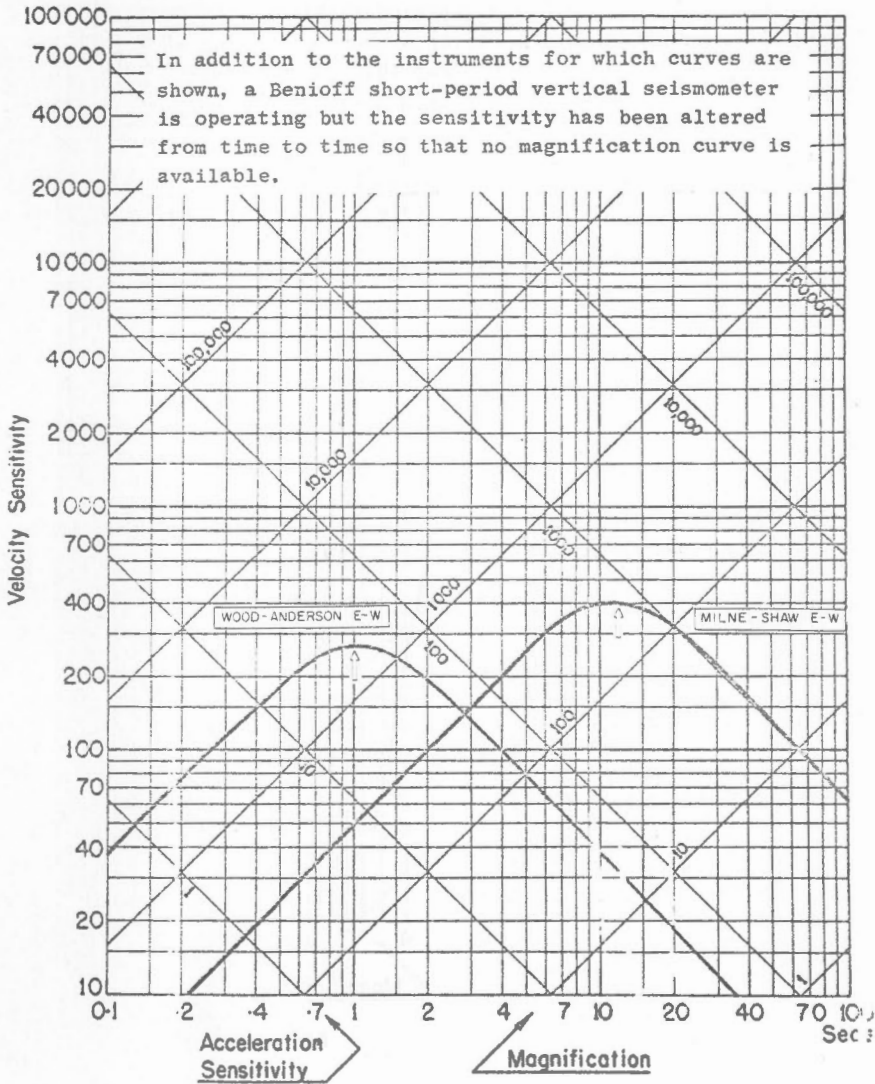
Willmore Oct.30/59

Willmore Nov. 3/59

+ AMP.

CALIBRATION CURVES

STATION: SEVEN FALLS



$\phi = 47^{\circ} 07.4'N$      $\lambda = 70^{\circ} 49.6'W$     Altitude 232M

Foundation : Precambrian basement rock

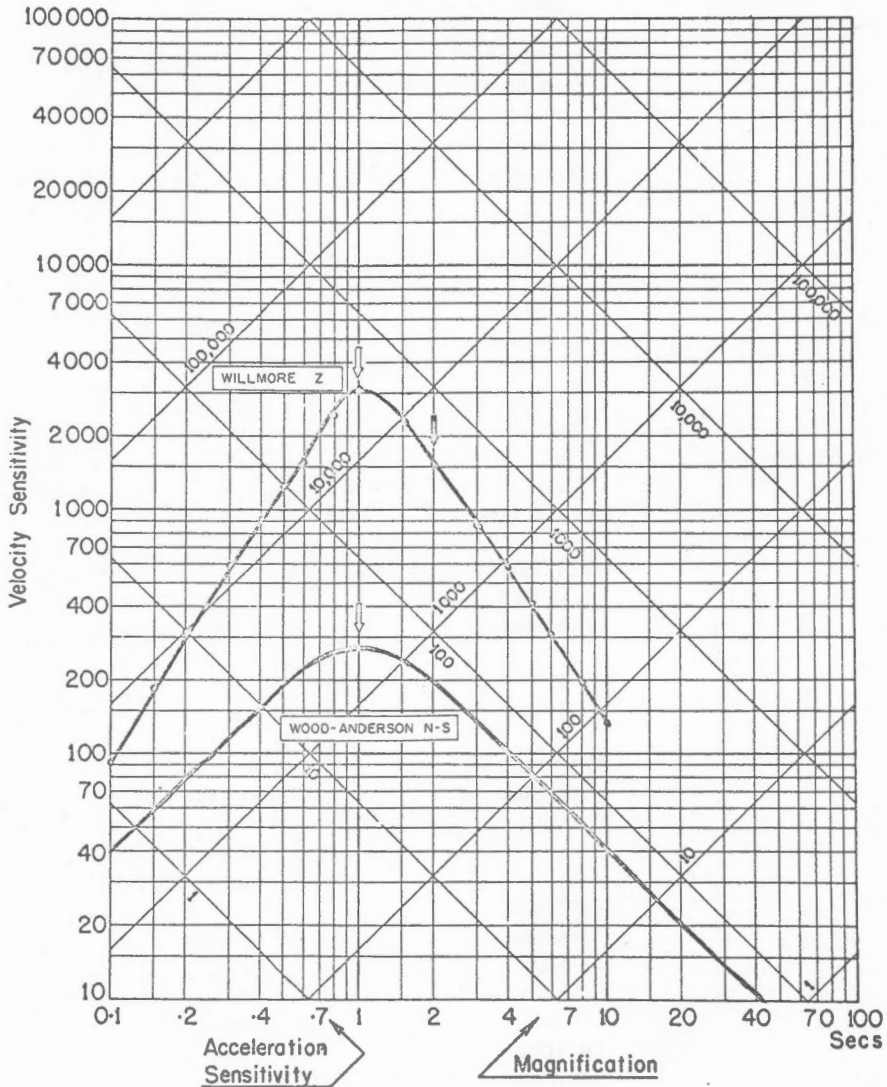
$T_s \uparrow$

$T_g \uparrow$

Date of Calibration: Estimated

Calibration Curves

STATION : SHAWINIGAN FALLS



$\phi = 46^{\circ} 33.1' N$      $\lambda = 72^{\circ} 45.8' W$     Altitude 60 M

Foundation : PRECAMBRIAN BASEMENT

$T_s \uparrow$

$T_g \uparrow$

Date of Calibration: November 6, 1959

SEISMOLOGICAL BULLETIN - 1959

OCTOBER 1

Horseshoe Bay  
eS 03 55 21  
Victoria  
eP 03 52 39.9  
eS 03 55 05  
Local shock

OCTOBER 1

U. S. C. G. S.  
34N, 121W  
Off coast of Southern  
California  
H = 04 35 30  
Mag 4.8  
Banff  
e 04 39 46  
Horseshoe Bay  
eP 04 39 12 c  
Resolute  
eP 04 43 27

OCTOBER 1

Canadian Arctic  
H = 05 41 39.1  
Mag 2.9  
Resolute  
iP<sub>1</sub> 05 41 57.8  
iS<sub>1</sub> 05 42 12.0  
D = 116 km

OCTOBER 1

Resolute  
e(P) 07 24 49 c  
i(P) 07 24 49.5 d

OCTOBER 1

Canadian Arctic  
H = 11 00 50.6  
Mag 2.4  
Resolute  
iP<sub>1</sub> 11 01 09  
iS<sub>1</sub> 11 01 23  
D = 115 km

OCTOBER 1

Resolute  
e(P) 13 20 42

OCTOBER 2

Canadian Arctic  
H = 05 55 40.4  
Mag 2.7  
Resolute  
iP<sub>1</sub> 05 55 58.8  
iS<sub>1</sub> 05 56 12.8  
D = 115 km

OCTOBER 2

Canadian Arctic  
H = 06 57 33.5  
Mag 2.7  
Resolute  
iP<sub>1</sub> 06 57 51.9  
iS<sub>1</sub> 06 58 05.9  
D = 115 km

OCTOBER 2

H = 10 51 52.2  
Horseshoe Bay  
iP 10 52 17.6 c  
iS 10 52 37.4  
Local shock

OCTOBER 2

Resolute  
i(P) 20 14 26.5 c  
e 20 14 44

OCTOBER 3

Resolute  
e(P) 00 38 (35)  
e 00 39 29

OCTOBER 3

Horseshoe Bay  
eP 12 17 35

OCTOBER 3

Victoria  
iP 17 27 19.5 d,N,W

OCTOBER 3

U. S. C. G. S.  
42N, 146E  
Off east coast of  
Hokkaido, Japan  
H = 20 02 40  
Resolute  
iP 20 12 24 c  
P<sub>c</sub>P 20 13 26

OCTOBER 4

Resolute  
e(P) 15 41 36

OCTOBER 4

Resolute  
e(P) 16 32 11  
e 16 36.1  
L 16 37.2

OCTOBER 5

Resolute  
e(P) 04 20 53  
e 04 23 45  
e 04 25 32

OCTOBER 5

Alberni  
eP 09 (32) (20)  
Saskatoon  
iP 09 33 30  
Victoria  
eP 09 28 48

OCTOBER 5

U. S. C. G. S.  
45N, 111 1/2W  
Hebgen Lake aftershock  
H = 11 33 14  
Banff  
e 11 34 49  
Horseshoe Bay  
eP 11 34 58.6  
Resolute  
eL 11 47 08

DOMINION OBSERVATORIES

Victoria		Resolute		Horseshoe Bay	
eP	11 35 23	eP	18 16 (13)	eP	20 45 39
eS	11 37 37	eS	18 19 50	Ottawa	
		eL	18 22.0	eP	20 44 52
		Shawinigan Falls		Resolute	
OCTOBER 5		eP	18 20 14	eP	20 43 (52)
U.S. C. G. S.				eS	20 51.6
52 1/2N, 171W		OCTOBER 5		Shawinigan Falls	
Fox Islands,		U.S. C. G. S.		eP	20 44 35
Aleutian Islands		83 1/2N, 112 1/2E		Victoria	
H = 11 34 01		North Polar region		eP	20 46 44 d
Ottawa		H = 18 27 47			
eP	11 44 01	Mag 5 3/4 - 6		OCTOBER 6	
Resolute		Banff		Banff	
eP	11 41 13	eP	18 35 52	eP	01 42 58
eP <sub>C</sub> P	11 43 32	Halifax		Horseshoe Bay	
Seven Falls		eP	18 36 54	eP	01 43 32
eP	11 44 10	eS	18 43 23	eS	01 46 03
Shawinigan Falls		e(SSS)	18 48.2	Victoria	
eP	11 44 06	Ottawa		eP	01 45 26
		eP	18 36 51	e	01 47 52
		Resolute			
OCTOBER 5		eP	18 32 (35)		
U.S. C. G. S.		i	18 32 42	OCTOBER 6	
84N, 113E		iS	18 36 24	Resolute	
North Polar region		iL	18 37.8	eP	01 57 (26)
H = 17 56 25		Shawinigan Falls			
Ottawa		eP	18 36 42	OCTOBER 6	
eP	18 05 28	Victoria		U.S. C. G. S.	
Resolute		e	18 36 07 c	1/2N, 122 1/2E	
eP	18 01 10	eL	18 49.0	Celebes	
i	18 01 17			H = 05 44 37	
eS	18 05 12			h = 200 km	
eL	18 06.4			Ottawa	
		OCTOBER 5		eP'	06 03 32
		Resolute		SKP	06 06 46
OCTOBER 5		e(P)	20 32 54	Resolute	
Resolute		e(S)	20 36 46	eS	06 09.5
eP	18 09 41	e(L)	20 38.7	PS	06 11.2
				SS	06 16 52
OCTOBER 5				Shawinigan Falls	
U.S. C. G. S.		OCTOBER 5		eP'	06 03 33
84N, 113E		U.S. C. G. S.		SKP	06 06 45
North Polar region		41N, 20E			
H = 18 11 18		Albania			
Ottawa		H = 20 34 04			
eP	18 20 23	Banff			
		eP	20 46 19		

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OCTOBER 6

H = 10 04 15.8  
Mag 1.5  
Horseshoe Bay  
P 10 04 32.8 c  
S 10 05 46.5  
D = 110 km

OCTOBER 6

H = 10 06 00.2  
Mag 1.3  
Victoria  
eP 10 06 07.4 d  
e(S) 10 06 13.0  
D = 45 km

OCTOBER 6

U.S.C.G.S.  
45N, 111 1/2W  
Hebgen Lake aftershock  
H = 11 37 21  
Alberni  
eP 11 (36) (22)  
Banff  
eP 11 39 06  
eS 11 41 00  
Horseshoe Bay  
iP 11 39 36  
e 11 42 37  
Resolute  
e 11 53 (19)  
e 11 53 30  
Victoria  
eP 11 41 17  
e 11 43 43

OCTOBER 6

Resolute  
e 17 31 10  
e 17 33 30  
e 17 37 31

OCTOBER 6

H = 21 47 13  
Mag 1.9  
Banff  
iP 21 47 18.0  
iS 21 47 22.2  
D = 34 km

OCTOBER 6

49.6N, 114.7W  
Crownsnest Area  
Mag 2.4  
Banff  
eP 22 04 00.2  
eS 22 04 21.7

OCTOBER 7

Canadian Arctic  
H = 03 02 21.0  
Mag 2.7  
Resolute  
iP<sub>1</sub> 03 02 39.4  
iS<sub>1</sub> 03 02 53.4  
D = 115 km

OCTOBER 7

Canadian Arctic  
H = 03 49 09.6  
Mag 2.1  
Resolute  
iP<sub>1</sub> 03 49 28.0  
iS<sub>1</sub> 03 49 42.1  
D = 115 km

OCTOBER 7

U.S.C.G.S.  
41N, 20E  
Albania  
H = 08 30 39  
Banff  
iP 08 42 55 d  
Halifax  
iP 08 40 41 c  
i 08 40 48 d  
i 08 40 52 d  
eS 08 48 31  
Horseshoe Bay  
iP 08 -- -- c  
Ottawa  
eP 08 41 28 c  
Resolute  
iP 08 40 28 c  
P<sub>c</sub>P 08 41 23  
eS 08 48 22  
e 08 48 47  
S<sub>c</sub>S 08 50 16  
SS 08 52 08  
eL 08 54.3  
Shawinigan Falls  
iP 08 41 12 c  
Victoria  
eP 08 44 16 cSW

OCTOBER 7

Resolute  
e(P) 14 19 53  
eL 14 39.0

OCTOBER 7

Resolute  
e(P) 17 55 53

OCTOBER 7

Resolute  
e(P) 23 18 45



DOMINION OBSERVATORIES

OCTOBER 8	OCTOBER 8	OCTOBER 10
U. S. C. G. S.	U. S. C. G. S.	Banff
19S, 169E	52 1/2N, 107E	eP 13 31 55
New Hebrides	Lake Baikal,	Horseshoe Bay
Island	U. S. S. R.	eP 13 34 54
H = 00 03 28	H = 14 14 10	Victoria
Resolute	Resolute	eP 13 (33) (52)
PS 00 32.0	eP 14 23 20 d	
SS 00 38.5	iP 14 23 21 c	OCTOBER 10
e 00 41.0	eS 14 30.5	Resolute
eL 00 48.2	(SS) 14 34 40	e(P) 13 46 21
	L 14 37.5	e 13 47 01
OCTOBER 8	OCTOBER 9	OCTOBER 10
U. S. C. G. S.	Resolute	Resolute
52 1/2N, 171W	e 04 14 16	e(P) 16 35.0
Fox Islands	e 04 16 40	
Aleutian Islands	e 04 17.5	
H = 02 35 20		
Banff	OCTOBER 9	OCTOBER 10
eP 02 41 03	Resolute	Resolute
Ottawa	e(P) 04 57 18	e(P) 19 05 18
iP 02 45 19 c		
Resolute	OCTOBER 9	OCTOBER 11
eP 02 42 31	Resolute	Resolute
iP 02 42 45	e(P) 11 15 38	i 00 53 01.5
P <sub>c</sub> P 02 44 53		
eS 02 48 36		
L 02 50.6		
S <sub>c</sub> S 02 52.6		
Shawinigan Falls	OCTOBER 9	OCTOBER 11
eP 02 45 24	U. S. C. G. S.	Resolute
	9N, 126E	i 03 50 52
	Near north coast	i 03 50 55
	of Mindanao, Philippine	
	Islands	OCTOBER 11
	H = 11 09 27	U. S. C. G. S.
	Resolute	41 1/2N, 142E
	eP 11 22 (41)	Near coast of
		northern Honshu,
		Japan
		H = 09 33 44
		Ottawa
		eP 09 46 33
		Resolute
		iP 09 43 41 c
		iP 09 43 59
		eS 09 51.5
		e 09 52 08
		SS 09 55 40
OCTOBER 8	OCTOBER 9	
U. S. C. G. S.	Resolute	
19 1/2N, 73 1/2W	e(P) 19 12 17	
Haiti		
H = 10 55 12		
Ottawa	OCTOBER 10	
eP 11 00 54	Resolute	
Resolute	e(P) 02 16 49	
eP 11 04 58.5 c		
iP 11 04 59 d		
e(S) 11 13.2		
eL 11 20.7		
Shawinigan Falls		
eP 11 01 02		

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OCTOBER 11 Resolute e(P) 12 27 47	OCTOBER 12 U. S. C. G. S. 2N, 98 1/2E Near coast of Sumatra H = 03 21 52 Banff eP' 03 40 45 Resolute eP 03 35 54 d eP 03 36 10 PP 03 40 10 PPP 03 42.4 SKS 03 46 30 S 03 47.5 PS 03 49.2 e 03 49 32 SS 03 54 32 Shawinigan Falls eP' 03 41 06 SKP 03 44 27	OCTOBER 12 Resolute e(P) 08 50 08 c
OCTOBER 11 U. S. C. G. S. 5 1/2S, 147E Near north coast of New Guinea H = 20 03 10 Resolute PS 20 30.5 SS 20 36.0		OCTOBER 12 Resolute e(P) 10 09 16 c
OCTOBER 11 U. S. C. G. S. 28 1/2S, 176 1/2W Kermadec Islands region H = 20 03 25 Resolute PS 20 33 06		OCTOBER 12 Resolute e 14 06 26 e 14 08 22 e 14 09.0
OCTOBER 11 Resolute e(P) 21 50 23 e 21 50 34	OCTOBER 12 U. S. C. G. S. 19S, 68 1/2W Northern Chile - Bolivia border H = 03 43 44 h = 150 km Banff eP 03 55 46 Halifax iP 03 54 01 c i(SP) 03 54 33 c e 04 01 10 eS 04 02.4 Ottawa iP 03 54 07 c Resolute eP 03 56 53 pP 03 57 26 Seven Falls eP 03 54 19 Shawinigan Falls eP 03 54 14	OCTOBER 12 U. S. C. G. S. 7S, 155 1/2E Solomon Islands H = 19 21 50 Resolute e 19 39 (03) PS 19 49.1 SS 19 55 04 L 20 03.4
OCTOBER 12 Resolute e(P) 01 17 29 e 01 23.6 e 01 27.0 e 01 31.6 e 01 35.5		OCTOBER 12 Resolute e 22 24 30 e 22 27 15 e 22 29 11
OCTOBER 12 Resolute e(P) 01 50 02		OCTOBER 13 Resolute e(P) 13 12 25
		OCTOBER 13 Resolute e(P) 13 36 54

DOMINION OBSERVATORIES

OCTOBER 13	OCTOBER 15	Resolute
U. S. C. G. S.	48°48'N, 125°45'W	eP 06 29 39
9S, 79 1/2W	West coast of	e 06 31 02
Near coast of	Vancouver Island	e 06 32 18
Peru	H = 04 51 12.2	e 06 33.0
H = 20 52 25	Mag 2	PP 06 33 46
Resolute	Alberni	(PPP) 06 35 26
eP 21 04 59	iP 04 51 20.3	e 06 38.7
	e 04 51 28.1	SKS 06 40.1
	D = 64 km	iS 06 40.9
OCTOBER 13	Horseshoe Bay	PS 06 42 16
Resolute	iP 04 51 32.3	i 06 42.7
e 23 38 15	e 04 51 49.4	(PPS) 06 43.7
	D = 138 km	SS 06 47.8
	Victoria	(PSPS) 06 49.0
OCTOBER 14	iP 04 51 30.6	L 06 56.6
U. S. C. G. S.	e 04 51 44.7	Seven Falls
51 1/2N, 176W	D = 128 km	eP' 06 34 52
Andreanof Islands		PP 06 37 08
Aleutian Islands		PKS 06 38 15
H = 08 01 04	OCTOBER 15	Shawinigan Falls
Banff	U. S. C. G. S.	eP' 06 34 53
eP 08 08 14	1/2N, 120 1/2E	PP 06 37 08
Resolute	Celebes	PKS 06 38 15
eP 08 08 30	H = 06 15 32	
P <sub>c</sub> P 08 10 40	Mag 6 1/2	
	Halifax	OCTOBER 15
	iP' 06 35 00 d	Resolute
OCTOBER 14	ePP 06 37 24	eP 07 25 00
Resolute	e(PPP) 06 41 10	
i 11 25 03	eSS 06 54.9	
	eSSS 07 00 49	OCTOBER 15
	Ottawa	U. S. C. G. S.
OCTOBER 15	eP' 06 34 52	Tonga Islands region
U. S. C. G. S.	PP 06 37 12	H = 07 31 47
19N, 104W	PKS 06 38 16	Resolute
Jalisco, Mexico	PS 06 47 38	e(P) 07 43 22
H = 04 22 49	SS 06 54 00	e 07 44 05
h = 200 km		
Resolute		
eP 04 32 11		
e 04 40 28		
e 04 44 20		
		OCTOBER 15
		U. S. C. G. S.
		44N, 148E
		Kurile Islands
		H = 07 40 20
		Ottawa
		iP 07 52 48 d

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Resolute eP 07 49 50.5 c iP 07 49 51 d i 07 50 25	Shawinigan Falls eP 09 00 41	OCTOBER 17 Resolute i(P) 07 32 21.5 d
OCTOBER 15 Resolute e(P) 14 13 25	OCTOBER 16 U. S. C. G. S. 6N, 125E Near south coast of Mindanao, Philippine Islands H = 16 14 53 Resolute PP 16 33 20 PPP 16 35 40 SKS 16 39 46 S 16 40.8 PS 16 42 10 e 16 45 10 SS 16 48.5	OCTOBER 17 U. S. C. G. S. 57 1/2S, 161W South Pacific Ocean H = 08 35 00 Resolute SS 09 16 32 SSS 09 21 08 e(L) 09 39.3
OCTOBER 15 U. S. C. G. S. Fox Islands Aleutian Islands H = 20 33 45 Resolute eP 20 40 54 e 20 41 37		OCTOBER 17 Resolute e(P) 13 27 17 e 13 27 29 e 13 34 16 e 13 39 04
OCTOBER 16 Resolute e(P) 00 05 36	OCTOBER 16 48.5N, 124.7W North of Cape Flattery H = 17 54 23.8 Mag 2.2 Alberni iP 17 54 37.5 d e 17 54 47.5 D = 86 km Victoria eP 17 54 39.5 d, SW S 17 54 51.9 D = 98 km	OCTOBER 17 U. S. C. G. S. 60N, 138 1/2W Yukon - British Columbia border H = 20 27 35 Banff eP 20 31 16 Ottawa eP 20 35 05 Resolute eP 20 32 26 (d) iP 20 32 27 d iS 20 36 23 e 20 39 00 i 20 39 10 e 20 40.7 Victoria eP 20 32 02
OCTOBER 16 U. S. C. G. S. 30 1/2S, 69W San Juan Province, Argentina H = 01 15 08 h = 100 km Resolute (sPS) 01 43.4 Seven Falls iP 01 26 56 pP 01 27 25 Shawinigan Falls eP 01 26 53 pP 01 27 21		
OCTOBER 16 Resolute e(P) 08 20.0 e 08 28.2	OCTOBER 17 Resolute eP 01 43 00 e 02 06.5 e 02 11.2	
OCTOBER 16 Ottawa eP 09 00 32 c Resolute eP 09 04 (11)	OCTOBER 17 Canadian Arctic H = 05 11 48.8 Mag 2.4 Resolute iP <sub>1</sub> 05 12 07.2 iS <sub>1</sub> 05 12 21.2 D = 115 km	

DOMINION OBSERVATORIES

OCTOBER 18	OCTOBER 18	Seven Falls
U. S. C. G. S.	Resolute	eP 02 59 16
South of Honshu	eP 19 49 54 c	Shawinigan Falls
Japan	(PP) 19 51 48	iP 02 59 16 c
H = 05 44 04	eS 19 56.3°	Victoria
Resolute	SS 19 59.4	eP 02 (57) (57)
eP 05 55 06	L 20 01.7	
OCTOBER 18	OCTOBER 19	OCTOBER 19
45°54'N, 75°07'W	U. S. C. G. S.	U. S. C. G. S.
Near Cheneville,	30S, 178W	27 1/2S, 177W
Quebec	Kermadec Islands	Kermadec Islands
H = 07 47 21.7	H = 01 25 26	H = 08 27 21
Mag 2.6	h = 60 km	Mag 6 1/4
Montreal	Ottawa	Resolute
S <sub>1</sub> 07 47 57.7	eP' 01 44 22	eP' 08 46 02
D = 126 km	Resolute	eS 08 54 54
Ottawa	eP' 01 44 17	PS 08 56.3
P <sub>1</sub> 07 47 33.4		SS 09 02 48
S <sub>1</sub> 07 47 42.3		SSS 09 06 44
D = 73.0 km		L 09 13.9
Shawinigan Falls	OCTOBER 19	G 09 14.4
S <sub>1</sub> 07 48 14.9	U. S. C. G. S.	Victoria
D = 195 km	25 1/2S, 177 1/2W	eP 08 (41) (34)
	South of Fiji Islands	
	H = 02 12 55	
	Resolute	
	eP' 02 31 28	OCTOBER 19
OCTOBER 18	Victoria	U. S. C. G. S.
Resolute	eP 02 26 59	22S, 179 1/2W
i 11 59 36		Fiji Islands region
i 11 59 55.5		H = 13 52 40
		h = 600 km
		Banff
		eP 14 04 49
		Resolute
		eP' 14 10 06
		SS 14 25 28
		(SSS) 14 29 26
		Victoria
		eP 14 (05) (36)
OCTOBER 18	OCTOBER 19	
U. S. C. G. S.	U. S. C. G. S.	
50 1/2N, 156E	44 1/2N, 148E	
Off south coast	Kurile Islands	
of Kamchatka	H = 02 46 49	
H = 17-06 13	Ottawa	
Ottawa	iP 02 59 15 c	
iP 17 17 54 c	Resolute	
Resolute	eP 02 56 18 c	
eP 17 14 44 d	iP 02 56 19.5 d	
iP 17 14 44.5 c	iP <sub>c</sub> P 02 57 22	
i 17 15 16	PP 02 58 33	
i(P <sub>c</sub> P) 17 16 21	e 03 01 31	
	eS 03 04 10	
	e 03 04.5	
	(S <sub>c</sub> S) 03 06.5	
	SS 03 07.7	

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OCTOBER 19

U. S. C. G. S.  
54 1/2S, 29W  
Sandwich Islands  
region  
H = 15 55 30  
Alberni  
eP 16 (07) (45)  
e 16 (10) (10)  
Halifax  
iSS 16 28 43  
Ottawa  
eP' 16 14 11  
Resolute  
eP' 16 14 (41)  
iP' 16 14 55  
i 16 15 35  
PP 16 17 32  
PKS 16 18 25  
SKKKS 16 24.5  
SKSP 16 27 32  
PPS 16 29.5  
PPPS 16 30.6  
SS 16 35.5  
(PSPS) 16 36 20  
SSS 16 40.0  
L 16 53.4  
Victoria  
eP 16 (15) (56)  
eL 17 01.7

OCTOBER 19

Resolute  
e 16 27 13

OCTOBER 19

Resolute  
e(P) 17 01 45

OCTOBER 19

Resolute  
e 20 05 45

OCTOBER 20

U. S. C. G. S.  
44 1/2N, 140E  
Sea of Japan  
H = 08 00 46  
Resolute  
iP 08 10 31 d

OCTOBER 20

Resolute  
e(P) 17 37 (12)

OCTOBER 20

Resolute  
e 19 02 24

OCTOBER 20

Canadian Arctic  
H = 23 29 19.8  
h = 26 km  
Mag 3.4  
Resolute  
P<sub>n</sub> 23 29 56.0  
P<sub>1</sub> 23 30 01.3  
S<sub>n</sub> 23 30 22.9  
S<sub>1</sub> 23 30 33  
D = 258 km

OCTOBER 21

Resolute  
e 06 26 34

OCTOBER 21

65°N, 87°W (Ottawa)  
Near Southampton  
Island, N. W. T.  
H = 07 46 17  
Mag 5.3 (Ottawa)  
Montreal  
L<sub>g</sub> 07 56 47  
D = 2350 km

Ottawa

S<sub>n</sub> 07 54 16  
L<sub>g</sub> 07 56 33  
D = 2300

Resolute

P<sub>n</sub> 07 48 52  
S<sub>n</sub> 07 50 48  
L<sub>g</sub> 07 51 50  
D = 1200 km

Seven Falls

L<sub>g</sub> 07 56 03.3  
D = 2194 km

Shawinigan Falls

L<sub>g</sub> 07 56 07.9  
D = 2210 km

OCTOBER 21

48.9N, 125.7W  
H = 08 04 36.5  
Mag 1  
Alberni  
P 08 04 48.6 c  
S 08 04 57.8  
D = 76 km  
Victoria  
eP 08 05 10.4  
S 08 05 26.1  
D = 176 km

OCTOBER 22

50.2N, 124.1W  
Head of Jervis Inlet  
H = 01 10 03.8  
Mag 2.5

Alberni

P 01 10 22.5  
S 01 10 37.7  
D = 117 km

Victoria

iP 01 10 33.9 c  
S 01 10 56.4  
D = 193 km

DOMINION OBSERVATORIES

OCTOBER 22  
 48.0N, 122.1W  
 Everett, Washington  
 State  
 H = 03 37 27.6  
 Mag 2.7  
 Alberni  
 P<sub>1</sub> 03 38 02.5  
 P<sub>n</sub> 03 38 03.0  
 S 03 38 32.3  
 D = 244 km  
 Horseshoe Bay  
 S - P = 22.2 "  
 D = 182 km  
 Victoria  
 iP 03 37 46.3  
 e 03 37 51.5  
 D = 130 km

OCTOBER 22  
 Resolute  
 e 03 58 (42)  
 e 04 01 35  
 e 04 01 47  
 e 04 03 09

OCTOBER 22  
 Resolute  
 eP 10 31 41

OCTOBER 22  
 Resolute  
 i 14 14 53  
 i 14 29 53

OCTOBER 22  
 Resolute  
 e 16 15 (23)

OCTOBER 22  
 Resolute  
 e 16 32 (45)

OCTOBER 22  
 U. S. C. G. S.  
 52 1/2N, 170 1/2W  
 Fox Islands  
 Aleutian Islands  
 H = 19 27 08  
 Resolute  
 eP 19 34 19

OCTOBER 23  
 U. S. C. G. S.  
 20 1/2S, 68 1/2W  
 Chile - Bolivia border  
 H = 06 17 54  
 h = 200 km  
 Ottawa  
 eP 06 28 25  
 Seven Falls  
 eP 06 28 34

OCTOBER 23  
 Resolute  
 e(P) 07 45 30  
 e 07 47 02

OCTOBER 23  
 Resolute  
 e(P) 11 10 (51)

OCTOBER 24  
 48°17'N, 124°38'W  
 Due south of Neah Bay,  
 Washington  
 H = 00 34 47.1  
 Mag 2.1  
 Alberni  
 eP 00 35 04.9  
 S 00 35 19.4  
 D = 111 km  
 Horseshoe Bay  
 eP 00 35 12.5  
 iS 00 35 31.7  
 D = 158 km  
 Victoria  
 eP 00 35 02.4  
 eS 00 35 14.0  
 D = 95 km

OCTOBER 24  
 Resolute  
 eP 05 13 13

OCTOBER 24  
 U. S. C. G. S.  
 50 1/2N, 130W  
 Vancouver Island  
 region  
 H = 13 43 39  
 Resolute  
 eP 13 49 (53)  
 e(S) 13 53.2  
 e 13 54 32  
 eL 13 56.4

OCTOBER 24  
 Resolute  
 e 16 33 04

OCTOBER 24  
 Resolute  
 e 19 54 (13)

OCTOBER 24  
 Horseshoe Bay  
 eP 22 53 29 c

OCTOBER 24  
 U. S. C. G. S.  
 41 1/2N, 70E  
 Kazakh, S. S. R.  
 H = 23 40 34  
 Halifax  
 iP 23 53 15  
 Ottawa  
 eP 23 53 28  
 Resolute  
 eP 23 51 07 c  
 PP 23 53.4  
 e 23 56.0  
 eS 23 59 40  
 (SS) 24 03.2

SEISMOLOGICAL BULLETIN - 1959

Seven Falls eP 23 53 14 Shawinigan Falls iP 23 53 19 c	OCTOBER 26 Resolute i 05 57 16	OCTOBER 26 Resolute eP 08 30 41.5 (d)
OCTOBER 25 Canadian Arctic H = 02 07 42 Mag 2.9 Resolute P <sub>n</sub> 02 08 42 S <sub>1</sub> 02 09 43 D = 430 km	OCTOBER 26 U.S. C. G. S. 37 1/2N, 142 1/2E Near east coast of Honshu, Japan H = 07 35 12 h = 60 km Mag 6 1/2 Alberni eP 07 (37) (08) Halifax eS 07 59.6 eSS 08 06.3 e 08 13.3 eL 08 18.1 Horseshoe Bay eP 07 45 47 Ottawa eP 07 48 11 Resolute eP 07 45 27.5 (c) iP 07 45 31 d iPP 07 47 51 e 07 48 11 PPP 07 49 14 eS 07 53 40 i 07 53 52 S <sub>c</sub> S 07 55.3 SS 07 57.2 eL 08 02.2 Seven Falls eP 07 48 14 Shawinigan Falls eP 07 48 13 Victoria eP 07 45 52 c eS 07 54 34	OCTOBER 26 Resolute e 09 44 (14)  OCTOBER 26 U.S. C. G. S. 51 1/2N, 157 1/2E Near east coast of Kamchatka H = 10 29 09 h = 150 km Alberni iP 10 (29) (55) c Horseshoe Bay eP 10 37 33 c Ottawa eP 10 40 26 Resolute iP 10 37 15 d P <sub>c</sub> P 10 38 53 PP 10 39 04 pPP 10 39 25 eS 10 43 44 sS 10 44 32 S <sub>c</sub> S 10 47.0 G 10 47.6 Shawinigan Falls eP 10 40 30 Victoria iP 10 37 43 c
OCTOBER 25 Resolute e 06 46 55		
OCTOBER 25 U.S. C. G. S. Atlantic Ocean north of Azores H = 06 51 09 Resolute eP 06 59 09.5 d eS 07 05 26 L 07 08.2		
OCTOBER 25 Resolute i 07 59 28		
OCTOBER 25 U.S. C. G. S. 39N, 42E Eastern Turkey H = 15 57 51 Resolute eP 16 08 (21) eS 16 16.7 (SS) 16 21 22 eL 16 23.8 Shawinigan Falls eP 16 09 48		
	OCTOBER 26 Resolute eP 11 02 40	
		OCTOBER 26 Resolute eP 10 42 34 d





SEISMOLOGICAL BULLETIN - 1959

OCTOBER 29

U.S. C. G. S.  
29 1/2S, 176 1/2W  
Kermadec Islands  
H = 14 19 51  
h = 60 km  
Mag 5 3/4

Alberni  
iP 14 32 55  
Banff  
iP 14 33 20  
Ottawa  
eP' 14 38 39  
Resolute  
eP' 14 38 34  
PS 14 49.3  
SS 14 55.8  
SSS 15 00.2  
Victoria  
eP 14 32 57

OCTOBER 29

U.S. C. G. S.  
43N, 131E  
China - Korea border  
H = 14 30 24  
h = 550 km  
Mag 6 1/4

Alberni  
eP 14 40 25 d,SE  
Banff  
eP 14 40 43 d  
Horseshoe Bay  
iP 14 40 26  
Ottawa  
iP 14 42 23 c  
Resolute  
iP 14 39 33 c  
iP<sub>C</sub>P 14 40 16  
iPP 14 41 24  
S<sub>C</sub>P 14 43 22  
iS 14 46 55  
e 14 47 06  
S<sub>C</sub>S 14 48 22  
sS 14 50 20  
SS 14 51.4  
G 14 54.4

Seven Falls

eP 14 42 19 c  
Shawinigan Falls  
iP 14 42 21 c  
pP 14 44 21  
Victoria  
iP 14 40 32 c,SE

OCTOBER 29

U.S. C. G. S.  
Off coast of southern  
Honshu, Japan  
H = 19 49 45  
Resolute  
eP 20 00 32 c  
iP 20 00 32.5 d

OCTOBER 29

Resolute  
e 22 22 (52)

OCTOBER 30

U.S. C. G. S.  
8 1/2N, 138E  
Caroline Islands  
H = 00 32 29  
Resolute  
eP 00 45 34  
eS 00 56.6  
PS 00 57 40  
SS 01 03.0  
SSS 01 06.5  
L 01 09.7

OCTOBER 30

49°19'N, 124°07'W  
South of Lasqueti Island  
H = 01 25 20.7  
Mag 1.3  
Alberni  
eP 01 25 29.4  
e 01 25 36.0  
D = 55 km  
Horseshoe Bay  
iP 01 25 30.2 c  
e 01 25 37.4  
D = 60 km  
Victoria  
S 01 25 53.2  
D = 103 km

OCTOBER 30

U.S. C. G. S.  
66N, 136 1/2E  
Yakutsk U.S.S.R.  
H = 04 00 26  
Halifax  
iP 04 11 32 c  
Horseshoe Bay  
iP 04 09 20 c  
Ottawa  
eP 04 11 15  
Resolute  
eP 04 07 27 c  
iP 04 07 27.5 d  
P<sub>C</sub>P 04 09 54  
eS 04 13.1  
eL 04 15.5  
Seven Falls  
eP 04 11 09  
Shawinigan Falls  
eP 04 11 12 c

OCTOBER 30

U.S. C. G. S.  
4S, 80 1/2W  
Peru - Ecuador border  
H = 05 20 36  
Halifax  
eP<sub>C</sub>P 05 30 54  
Ottawa  
eP 05 29 28  
Resolute  
eP 05 32 41

DOMINION OBSERVATORIES

OCTOBER 30	OCTOBER 30	Resolute
U.S. C.G.S.	U.S. C.G.S.	eP 04 40 29.5 d
7S, 123 1/2E	23 1/2 S, 175 1/2W	iP 04 40 30 c
Flores Sea	Tonga Islands	sP 04 43 02
H = 06 24 38	region	pPP 04 46.6
Resolute	H = 13 58 25	e 04 47.0
PS 06 53.2	Resolute	PPP 04 47.3
PPS 06 54.2	SKS 14 23 42	SKS 04 50.5
SS 06 59 10	eS 14 25.2	S 04 51 40
SSS 07 03 15	PS 14 27 08	SP 04 53 28
eL 07 09.9	e 14 27.5	PS 04 54 34
	e 14 29.9	pPS 04 55 15
	SS 14 32.9	sPS 04 56.1
	PSPS 14 33 40	e 04 58.5
	SSS 14 37 02	SS 04 59 10
	eL 14 43 20	sSS 05 01 16
		e 05 02.1
		G 05 09.0
OCTOBER 30	OCTOBER 30	Victoria
U.S. C.G.S.	U.S. C.G.S.	eP 04 38 42
19S, 177 1/2W	19S, 177 1/2W	
Fiji Islands	Fiji Islands	
H = 07 04 48	H = 21 37 35	OCTOBER 31
h = 450 km	h = 600 km	Resolute
Banff	Ottawa	e 17 10 58
eP 07 17 04	eP' 21 54 50	
Horseshoe Bay		
iP 07 16 31 d		
Victoria		
eP 07 16 31 d		
OCTOBER 30	OCTOBER 30	OCTOBER 31
U.S. C.G.S.	U.S. C.G.S.	U.S. C.G.S.
Solomon Islands	Resolute	2N, 77 1/2W
H = 11 10 16	e 22 46 28	Southern Colombia
Ottawa		H = 18 31 18
eP' 11 29 29		h = 100 km
Shawinigan Falls	OCTOBER 31	Banff
eP' 11 29 32	U.S. C.G.S.	iP 18 41 07 d
	16 1/2S, 178W	Horseshoe Bay
	Fiji Islands	P 18 41 26
	H = 04 27 12	Ottawa
	h = 450 km	eP 18 39 17 c
	Mag 6 1/2 - 6 3/4	Resolute
	Alberni	eP 18 42 42 c
	eP 04 (31) (15)	Seven Falls
	Banff	eP 18 39 33
	iP 04 38 39 c	Victoria
	Horseshoe Bay	eP 18 41 23
	eP 04 38 44 c	
	Ottawa	
	eP' 04 44 56	
OCTOBER 30		
Resolute		
e(P) 13 23 (22)		
e 13 26 (42)		



DOMINION OBSERVATORIES

S	20 29.2	SSS	10 19.9	Victoria	
PS	20 30 20	e	10 21.3	iP	07 48 06.8
pPS	20 30.5	(SKPP')	10 23.1	S	07 48 30.9
SS	20 36.1	L	10 26.7	D = 190 km	
sSS	20 36 46	Seven Falls			
SSS	20 40.0	eP'	09 59 41(c)	NOVEMBER 5	
G	20 45 52	ePP	10 02 54 d	U.S.C.G.S.	
		Victoria		13S, 166 1/2E	
NOVEMBER 3		iP'	09 59 03 d	New Hebrides region	
U.S.C.G.S.				H = 11 50 17	
3 1/2N, 126 1/2E		NOVEMBER 3		h = 100 km	
Molucca Passage		Resolute		Banff	
H = 00 32 19		e	10 09 (26)	e	12 03 24
Resolute				Horseshoe Bay	
eP	00 46 00	NOVEMBER 3		iP	12 (04) (23) d
		Resolute		Ottawa	
NOVEMBER 3		iP	19 08 27 c	eP'	12 09 21
Resolute				Resolute	
e(P)	02 02 20	NOVEMBER 3		PP	12 08.6
		Resolute		SKS	12 14.9
NOVEMBER 3		eP	20 40 44	eS	12 16.1
Resolute				PS	12 17.8
e(P)	06 07 24	NOVEMBER 4		PPS	12 18 56
		Resolute		SS	12 23.5
NOVEMBER 3		e(P)	05 36 36	sSS	12 24.0
U.S.C.G.S.				G	12 33.3
10 1/2S, 111E		NOVEMBER 5		Victoria	
South of Java		U.S.C.G.S.		e	12 03 07
H = 09 40 05		41 1/2S, 153E			
Halifax		New Britain Islands		NOVEMBER 5	
iP'	09 59 53 d	region		U.S.C.G.S.	
i	10 00 01	H = 05 45 23		30N, 129E	
iPP	10 03 09	Ottawa		Ryukyu Islands region	
Horseshoe Bay		eP'	06 04 10	H = 14 59 37	
iP'	10 (00) (25) d			Resolute	
Ottawa		NOVEMBER 5		eP	15 10 32 d
iP'	09 59 45 d	47.1N, 124.8W		(PcP)	15 10 41
PP	10 03 03	Off coast of Washington		pP	15 11 34
Resolute		H = 07 47 36.2		eS	15 19 20
eP'	09 58 48 d	Alberni		sSP	15 21 40
iP'	09 58 48.5c	eP	07 48 13.7	(SS)	15 24 26
PP	09 59 48	eS	07 48 45.2	G	15 29.1
eS	10 07 20	D = 239 km			
PS	10 09 14	Horseshoe Bay		NOVEMBER 5	
PPS	10 10 28	iP	07 48 19.5 d	U.S.C.G.S.	
e	10 11.6	eS	07 48 53.3	9S, 158E	
SS	10 15 34	D = 277 km		Solomon Islands	
PSPS	10 16.4			H = 17 37 40	
ScSScS	10 19.6			Resolute	
				SS	18 10 26



DOMINION OBSERVATORIES

NOVEMBER 9 U. S. C. G. S. 18 1/2N, 103W Mexico H = 00 05 36 Ottawa eP 00 12 31 Resolute eP 00 15 17 (P <sub>c</sub> P) 00 16 24 eS 00 23 16 SS 00 27.2 L 00 29.3 i 00 35 38 i 00 40.0	NOVEMBER 10 Resolute eP 18 20 42  NOVEMBER 11 48.4N, 122.5W Mount Vernon, Washington H = 02 38 39.5 Mag 2.1 Horseshoe Bay iP 02 38 59.3 S 02 39 14.8 D = 124 km Victoria eP 02 38 50.7 iS 02 38 58.9 D = 70 km  NOVEMBER 13 Banff eP 04 08 05  NOVEMBER 14 Resolute eP 02 23 24  NOVEMBER 14 Resolute eP 06 31 28 e 06 31 40  NOVEMBER 14 U. S. C. G. S. 3S, 148 1/2E Bismarck Sea H = 10 33 56 Resolute eS 10 59 16 SS 11 05.5 e 11 11 38 eL 11 14 --	NOVEMBER 14 U. S. C. G. S. Guatemala - El Salvador border H = 12 13 27 Resolute eP 12 23 41 eS 12 32.1 eL 12 38.5  NOVEMBER 14 Alberni iP 17 (50) (49) Victoria iP 17 59 59 cN  NOVEMBER 15 Resolute e 00 04 52  NOVEMBER 15 U. S. C. G. S. 38N, 74 1/2E Tadzhik S. S. R. H = 10 25 03 Banff eP 10 38 11 Halifax ePS 10 48 30 Ottawa eP 10 38 24 Resolute eP 10 36 02 iP 10 36 14 PP 10 38 31 PPP 10 40.5 S 10 44.8 S <sub>c</sub> S 10 46 15 SS 10 49.5 L 10 52.0 Shawinigan Falls iP 10 38 15 d
NOVEMBER 9 Resolute eP 02 24 32		
NOVEMBER 9 Resolute eP 02 52 49		
NOVEMBER 9 Resolute e 04 58 12 e 04 58 44		
NOVEMBER 10 Resolute eP 10 55 41		
NOVEMBER 10 U. S. C. G. S. 7S, 156E Solomon Islands H = 16 40 45 Resolute eP 16 54 40		

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NOVEMBER 15

U. S. C. G. S.  
 37 1/2N, 20 1/2E  
 Near west coast of  
 Greece  
 H = 17 08 41  
 Banff  
 eP 17 21 13 c  
 Halifax  
 iP 17 18 58 c  
 iS 17 27 14  
 Horseshoe Bay  
 eP 17 (23) (11)  
 Ottawa  
 eP 17 19 46  
 S 17 28 48  
 ScS 17 29 44  
 e 17 32 12  
 SS 17 33 10  
 e 17 34 05  
 SSS 17 36 22  
 G 17 38 20  
 Resolute  
 eP 17 18 52 c  
 iP 17 18 55  
 PP 17 21.1  
 PPP 17 22.4  
 e 17 23 22  
 iS 17 27 04  
 ScS 17 28.7  
 SS 17 31.0  
 Seven Falls  
 eP 17 19 20  
 PP 17 21 51  
 S 17 27 58  
 ScS 17 29 09  
 SSS 17 34 32  
 G 17 35.9  
 Shawinigan Falls  
 iP 17 19 32 c  
 Victoria  
 eP 17 21 38 c  
 eS 17 32 09

NOVEMBER 15

U. S. C. G. S.  
 Greece aftershock  
 H = 17 31 25  
 Resolute  
 eP 17 41 38

NOVEMBER 16

U. S. C. G. S.  
 35S, 70W  
 Chile Argentina  
 border  
 H = 00 59 22  
 h = 100 km  
 Resolute  
 PS 01 28 04  
 SS 01 34.1  
 SSS 01 38.0

NOVEMBER 16

Resolute  
 e 09 56 08

NOVEMBER 16

U. S. C. G. S.  
 1N, 26 1/2W  
 Mid-Atlantic Ocean  
 H = 10 21 17  
 Banff  
 eP 10 34 12  
 Ottawa  
 eP 10 31 39  
 Resolute  
 eP 10 33 47  
 eS 10 44 10  
 PPS 10 45.1  
 eL 11 00.5

NOVEMBER 16

Canadian Arctic  
 H = 11 48 56.9  
 Mag 3.6  
 Resolute  
 P<sub>1</sub> 11 49 32  
 S<sub>1</sub> 11 49 56  
 L 11 50 04  
 D = 197 km

NOVEMBER 16

Resolute  
 eP 22 49 58

NOVEMBER 16

U. S. C. G. S.  
 4N, 126 1/2E  
 Talaud Islands  
 H = 23 43 40  
 Resolute  
 eP 23 57 (24)

NOVEMBER 16

U. S. C. G. S.  
 18N, 147E  
 Mariana Islands  
 H = 23 50 35  
 Resolute  
 eP 24 02 44 (c)  
 e 24 03 13

NOVEMBER 17

U. S. C. G. S.  
 11S, 66 1/2E  
 Indian Ocean  
 H = 02 32 37  
 Resolute  
 SS 03 08.5



DOMINION OBSERVATORIES

NOVEMBER 17 Resolute eP 04 35 20	NOVEMBER 18 U. S. C. G. S. Northern Mariana Islands region H = 13 32 08 h = 200 km Resolute eP 13 43 48 c	NOVEMBER 19 U. S. C. G. S. 5 1/2S, 146E Near north coast of New Guinea H = 11 08 32 Mag 7 Alberni eP 11 21 49 d Halifax iPP 11 30 17 c iPKS 11 31 10 ePPS 11 42 55 eSS 11 48 11 eSSS 11 53.6 Horseshoe Bay iP 11 21 56 c Ottawa eP 11 27 37 PP 11 29 31 Resolute eP 11 22 30 e 11 23 10 PP 11 26 40 e 11 27 52 PPP 11 28.8 SKS 11 33.0 S 11 34.1 PS 11 35.8 PPS 11 36.6 PKKP 11 38 34 SS 11 41.5 Seven Falls eP 11 27 40 e 11 28 33 e(PS) 11 40.8 SS 11 48.5 G 12 02.1 Shawinigan Falls iP 11 27 38 d i 11 28 14 c i 11 28 31 c i 11 29 32 e 11 30 44 Victoria iP 11 21 54 c
NOVEMBER 17 Resolute eP 12 37 (05)	NOVEMBER 18 Resolute eP 14 13 06	
NOVEMBER 17 Resolute eP 15 04 41	NOVEMBER 18 Resolute eP 14 13 06	
NOVEMBER 17 U. S. C. G. S. 30 1/2N, 94E Sikang Province, China H = 23 55 01 Resolute eP 24 06 44	NOVEMBER 19 Resolute e(P) 03 15 (31)	
NOVEMBER 18 48.5N, 121.8W Near Concrete, Washington H = 00 10 19.6 Mag 2.2 Horseshoe Bay eP 00 10 40.1 iS 00 11 00.4 D = 145 km Victoria iP 00 10 38.9 c iS 00 10 53.7 D = 121 km	NOVEMBER 19 U. S. C. G. S. 51 1/2N, 175 1/2W Andreanof Islands, Aleutian Islands H = 04 34 57 Alberni iP 04 38 20.2 d e 04 38 42.1 Horseshoe Bay eP 04 38 12.4 e 04 38 26.8 Resolute eP 04 42 (36) eL 04 51.3 Victoria iP 04 38 01.5 d,SE e 04 38 10.5	
NOVEMBER 18 Resolute eP 08 32 10		

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NOVEMBER 19 U. S. C. G. S. 38 1/2N, 26E Off west coast of Turkey H = 14 00 24 Resolute eP 14 10 39	Saskatoon P 24 01 00 Victoria eP 23 55 26 d	Victoria iP 01 10 09.5 iS 01 10 14.8 D = 67 km
NOVEMBER 19 U. S. C. G. S. Near coast of Nicaragua H = 14 08 20 h = 60 km Ottawa eP 14 15 12 Resolute eP 14 18 44 Seven Falls eP 14 15 37	NOVEMBER 20 Resolute eP 00 39 26 (d)	NOVEMBER 21 48.4N; 121.3W North west of Glacie Peak, Washington H = 03 32 48.8 Mag 2.2 Horseshoe Bay iP 03 33 16.9 c eS 03 33 39.1 D = 176 km
NOVEMBER 19 U. S. C. G. S. 42 1/2N, 126 1/2W Off coast of Oregon H = 23 53 49 Alberni eP 23 55 33 Banff P 23 56 33 c Halifax iP 24 02 03 d eSS 24 11 58 eL 24 15.6 Horseshoe Bay e 23 55 40 Ottawa eP 24 00 54 Resolute eP 24 00 46 e 24 01 18 PP 24 02 01 PPP 24 02 23 eS 24 06 18 eL 24 08.4	NOVEMBER 20 U. S. C. G. S. 1N, 26 1/2W Mid Atlantic Ocean H = 19 29 38 Halifax eP 19 39 10 e 19 39 17.5 Ottawa eP 19 40 02 Resolute eP 19 42 09	NOVEMBER 21 Resolute eP 10 55 50. NOVEMBER 21 Resolute eP 14 55 05 NOVEMBER 21 Resolute eP 15 25 12 NOVEMBER 22 Resolute eP 02 30 25 c e 02 31 29
	NOVEMBER 20 Resolute eP 10 44 (36)	NOVEMBER 21 Victoria eP 03 33 12.7 eS 03 33 30.6 D = 154 km
	NOVEMBER 20 Resolute eP 10 44 (36)	NOVEMBER 21 Resolute eP 10 55 50.
	NOVEMBER 21 48°24'N, 122°39'W Near Anacortes, Washington H = 01 09 58.8 Mag 2.3 Alberni iP 01 10 27.9 eS 01 10 39.2 D = 190 km Horseshoe Bay iP 01 10 08.7 c eS 01 10 23.1 D = 115 km	

DOMINION OBSERVATORIES

NOVEMBER 22  
U. S. C. G. S.  
3S, 140E  
Near north coast  
of New Guinea  
H = 12 47 56  
Resolute  
eP 13 01 50

NOVEMBER 22  
Resolute  
e 13 08 56

NOVEMBER 22  
Resolute  
eP 14 39 06.5

NOVEMBER 22  
U. S. C. G. S.  
54S, 136W  
South Pacific Ocean  
H = 16 26 34  
Resolute  
eP' 16 45 (50)  
SS 17 05.6  
L 17 21.0

NOVEMBER 22  
Resolute  
eP 19 01 09

NOVEMBER 22  
U. S. C. G. S.  
21 1/2S, 178 1/2W  
Fiji Islands region  
H = 19 34 35  
h = 550 km  
Halifax  
iP' 19 52 33.5 (c)  
Ottawa  
iP 19 52 16 c  
Resolute  
eP 19 48 06  
eP' 19 52 05  
e 20 03 03  
PKKP 20 03 31

NOVEMBER 23  
Resolute  
eP 05 07 28

NOVEMBER 23  
Resolute  
eP 14 13 04

NOVEMBER 23  
U. S. C. G. S.  
1/2S, 128 1/2E  
Spice Islands  
H = 14 41 42  
Resolute  
e(P) 14 56 (03)

NOVEMBER 23  
U. S. C. G. S.  
20S, 174 1/2E  
Fiji Islands region  
H = 16 14 47  
Resolute  
SS 16 49.2  
L 16 59.7

NOVEMBER 23  
Alberni  
eP 19 31 42.1 d

NOVEMBER 23  
U. S. C. G. S.  
24 1/2N, 122E  
Near coast of Formosa  
H = 21 05 18  
Alberni  
eP 21 18 57  
Banff  
eP 21 18 16  
Horseshoe Bay  
eP 21 18 03 d  
Resolute  
eP 21 17 18 c  
e 21 17 47  
Victoria  
eP 21 18 21 d

NOVEMBER 23  
Resolute  
iP 21 06 37 d

NOVEMBER 24  
46°55'N, 121°47'W  
Mount Rainier  
H = 06 15 44.9  
Mag 3.1

Alberni  
eP 06 16 32.4  
D = 345 km  
Horseshoe Bay  
iP 06 16 12.6  
eS 06 16 50.5  
D = 291 km  
Victoria  
eP 06 16 18.1 c  
eS 06 16 45.3  
D = 215 km

NOVEMBER 24  
Resolute  
eP 13 37 01

NOVEMBER 24  
U. S. C. G. S.  
17 1/2N, 120E  
Off west coast of Luzon  
Islands, Philippine Islands  
H = 14 57 15

Resolute  
eP 15 09 55 c  
e 15 10 19

NOVEMBER 24  
Resolute  
eP 15 49 20 (c)  
e 15 49 37  
e 15 50 54

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NOVEMBER 24  
Resolute  
e 19 04 48

NOVEMBER 24  
Resolute  
eP 19 55 59

NOVEMBER 24  
U. S. C. G. S.  
7 1/2N, 37W  
Atlantic Ocean  
H = 20 06 35  
Resolute  
eP 20 18 (15)  
e 20 18 26  
e 20 18 44  
eS 20 27 44  
SS 20 32 22  
SSS 20 36 16  
L 20 37.7

NOVEMBER 25  
Resolute  
e(P) 10 57 42

NOVEMBER 25  
Resolute  
eP 17 43 51  
e 17 57.0  
e 18 03.0

NOVEMBER 25  
U. S. C. G. S.  
6N, 127E  
South of Mindanao,  
Philippine Islands  
H = 19 04 20  
Resolute  
eP 19 17 47 d

NOVEMBER 25  
Resolute  
e(P) 20 25 27

NOVEMBER 26-  
U. S. C. G. S.  
1 1/2N, 127 1/2E  
Halmahera  
H = 00 41 35  
Resolute  
eP 00 55 (28)

NOVEMBER 26  
Resolute  
e(P) 06 19 09  
e 06 19 55

NOVEMBER 26  
U. S. C. G. S.  
5 1/2S, 102 1/2E  
Near coast of  
Sumatra  
H = 07 06 19  
Mag 6 1/2  
Horseshoe Bay  
eP' 07 25 16  
Ottawa  
eP' 07 25 32  
SKP 07 28 47  
Resolute  
eP 07 20 56  
eP' 07 24 (57)  
PP 07 25 28  
PPP 07 27.6  
e 07 30 04  
SKS 07 31.4  
e(S) 07 32 40  
PS 07 34 50  
e 07 37 08  
(SS) 07 40 10  
Shawinigan Falls  
eP' 07 25 51 (d)  
ePP 07 28 41  
Victoria  
eP 07 25 43

NOVEMBER 26  
Resolute  
eP 08 21 40

NOVEMBER 26  
U. S. C. G. S.  
5 1/2S, 103E  
Near coast of  
Sumatra  
H = 23 09 23  
Mag 6 3/4

Banff  
eP' 23 28 25  
Horseshoe Bay  
eP 23 28 20  
Ottawa  
eP' 23 28 59  
SKP 23 31 47

Resolute  
eP 23 23 59  
eP' 23 27 58  
e 23 28.2  
PP 23 28 28  
e 23 29 40  
PPP 23 30 46  
e 23 33.2  
SKS 23 34.5  
(S) 23 35.5  
PS 23 38 04  
SS 23 44.1

Seven Falls  
eP' 23 29 03  
Shawinigan Falls  
eP' 23 28 43  
iPP 23 31 41 c  
Victoria  
eP' 23 28 50

NOVEMBER 27  
U. S. C. G. S.  
38 1/2N, 20 1/2E  
Greece  
H = 00 22 30  
Banff  
eP 00 35 03

DOMINION OBSERVATORIES

Halifax		NOVEMBER 28	NOVEMBER 29
iP	00 32 41 (d)	U. S. C. G. S.	U. S. C. G. S.
Resolute		28 1/2S, 71W	21S, 177W
eP	00 32 31.5 c	Chile	Tonga Islands
eP	00 32 32 d	H = 12 34 53	H = 01 30 52
		Mag 6 1/2	Resolute
		Halifax	eP' 01 49 18
NOVEMBER 27		iP 12 46 31 c	
Resolute		Horseshoe Bay	NOVEMBER 29
eP	00 36 22	iP 12 48 58.2 c	U. S. C. G. S.
		Ottawa	26 1/2S, 178W
NOVEMBER 27		eP 12 46 31	Kermadec Islands
U. S. C. G. S.		Resolute	region
5 1/2S, 103E		eP 12 49 00	H = 05 46 56
Off west coast of		PP 12 53 16	h = 300 km
Sumatra		SKS 12 59 50	Resolute
H = 18 51 27		eS 13 00 50	eP' 06 05 04
Resolute		PS 13 02.2	
eP' 19 10 01		e 13 02.6	
		PPS 13 03 28	NOVEMBER 29
		PKKP 13 04 47	Resolute
		e 13 06.8	e(P) 14 36 46
NOVEMBER 27		SS 13 07 32	
50.1N, 123.9W		SSS 13 11.9	
Head of Jervis		eL 13 15.7	
Inlet		Seven Falls	NOVEMBER 29
H = 22 53 09.4		eP 12 46 41 c	U. S. C. G. S.
Mag 2.0		eS 12 56.5	57S, 147 1/2W
Alberni		Shawinigan Falls	South Pacific Ocean
eP 22 53 28.1		iP 12 46 37 c	H = 19 17 40
e 22 53 42.3		Victoria	Resolute
D = 117 km		eP 12 48 34 d	eP' 19 37 (03)
Horseshoe Bay			SS 19 57.8
iP 22 53 24.6			e 19 58.8
iS 22 53 35.3		NOVEMBER 28	e 20 03 03
D = 95 km		Resolute	L 20 12.1
Victoria		e(P) 15 43 11	
iP 22 53 47.8			NOVEMBER 29
iS 22 53 50.8			Resolute
D = 182 km			e 21 56 00
NOVEMBER 28		NOVEMBER 28	
Resolute		U. S. C. G. S.	
e(P) 10 08 27		13S, 167 1/2E	
		New Hebrides Islands	
		H = 22 39 13	
		Resolute	
		PP 22 57 34	
		eS 23 05.0	
		e 23 08 28	
		SS 23 12 16	
		L 23 28.4	

SEISMOLOGICAL BULLETIN - 1959

NOVEMBER 29  
U. S. C. G. S.  
Near south coast  
of Greece  
H = 23 49 42  
Resolute  
eP 00 00 08

NOVEMBER 30  
Resolute  
e(P) 08 05 05

NOVEMBER 30  
Resolute  
eP 08 33 38 c

NOVEMBER 30  
U. S. C. G. S.  
44 1/2N, 80 1/2E  
Sinkiang Province,  
China  
H = 11 12 43  
Resolute  
eP 11 23 12  
eP 11 23 23  
PPP 11 27 05  
eS 11 31 28  
ScS 11 33.0  
e 11 33.8  
SS 11 35.9  
L 11 38.1

NOVEMBER 30  
Resolute  
e(P) 13 07 49

NOVEMBER 30  
Resolute  
eP 14 48 (31)

NOVEMBER 30  
U. S. C. G. S.  
59 1/2N, 152W  
Kenai Peninsula,  
Alaska  
H = 15 18 37  
Alberni  
eP 15 22 56  
Banff  
eP (14) (58) (45) c  
Halifax  
iP 15 27 48 d  
i 15 27 54 c  
Horseshoe Bay  
eP 15 23 03 c  
Ottawa  
iP 15 26 58

Resolute  
iP 15.24 05 d  
PP 15 24 40  
eS 15 28 34  
iS 15 28 46  
eL 15 30 22  
i 15 32.0  
Seven Falls  
eP 15 27 08 c  
Shawinigan Falls  
iP 15 27 03 c  
i 15 27 08 c  
ePP 15 28 57  
Victoria  
eP 15 23 55

DECEMBER 1  
Horseshoe Bay  
iP 05 48 55.1 c

DECEMBER 1  
Resolute  
e 09 26 22

DECEMBER 1  
U. S. C. G. S.  
38N, 21 1/2E  
Near west coast of  
Greece  
H = 12 38 46  
Halifax  
iP 12 49 00 d  
i 12 49 05 c  
Ottawa  
iP 12 49 50 c  
Resolute  
eP 12 48 55 c  
i 12 49 02  
eS 12 57 14  
eL 13 05.7

DECEMBER 1  
U. S. C. G. S.  
38N, 21E  
Greece aftershock  
H = 12 51 58  
Resolute  
eP 13 02 07 c

DECEMBER 1  
U. S. C. G. S.  
Caribbean Sea about  
250 miles west of  
Jamaica  
H = 14 19 30  
Resolute  
eP 14 29 22  
G 14 44.4

DECEMBER 1  
U. S. C. G. S.  
63S, 154E  
Bally Islands region  
H = 14 59 40  
Ottawa  
eP' 15 19 27

DOMINION OBSERVATORIES

Resolute		DECEMBER 2		Seven Falls	
eP'	15 19 36	U.S.C.G.S.		eP'	09 53 21
eP'	15 20 08	5S, 104E		e	09 53 33
PP	15 23.5	Near coast of		ePKS	09 56 47
SKKKS	15 30.6	Sumatra		Shawinigan Falls	
SKSP	15 34.0	H = 07 30 05		iP	09 53 21 d
PPS	15 36 (40)	h = 150 km		i	09 54 01
SS	15 42.9	Resolute		iPKS	09 56 46
SS	15 43.9	eP'	07 48 22	i	09 57 03
Seven Falls		SKS	07 55.0	Victoria	
eP <sub>2</sub> '	15 19 38	PS	07 58.4	eP'	10 52 26
		SS	08 04.4		
		SSS	08 08.6		
DECEMBER 1		DECEMBER 2		DECEMBER 2	
U.S.C.G.S.		Resolute		U.S.C.G.S.	
5N, 125E		eP	07 56 12 c	52N, 174E	
Near south coast of		e	07 56 39	Near Islands, Aleutian	
Mindanao, Philippine		e	08 13 28	Islands	
Islands				H = 22 52 45	
H = 18 11 49				Resolute	
h = 400 km				eP	23 00 29
Resolute				P <sub>c</sub> P	23 02 30
eP	18 24 40.5 d	DECEMBER 2			
		U.S.C.G.S.			
DECEMBER 1		1S, 123E		DECEMBER 3	
Resolute		Celebes		Resolute	
eP	23 16 (50)	H = 09 34 00		eP	02 14 (32)
		Mag 6 1/2 - 6 3/4		e	02 15 50
		Halifax			
		PP	09 53 28	DECEMBER 3	
DECEMBER 2		PPP	09 56 08	Resolute	
Horseshoe Bay		Ottawa		e	02 54 40
iP	00 23 24 d	eP'	09 53 21	e	02 58 40
i	00 24 13	PKS	09 56 47		
		Resolute			
		eP	09 48 02	DECEMBER 3	
DECEMBER 2		e	09 48 32	Resolute	
Resolute		e	09 51 20	e(P)	12 47 (07)
eP	04 27 09 c	PP	09 52 17	e	12 48 11
e	04 28 40	e	09 54.2		
		SKS	09 58 32		
		eS	09 59 40		
DECEMBER 2		e	10 00.0	DECEMBER 3	
U.S.C.G.S.		PS	10 01 20	U.S.C.G.S.	
9S, 80W		PPS	10 02.2	16 1/2S, 177 1/2W	
Off coast of		e	10 03.6	Fiji Islands region	
Peru		e	10 05 24	H = 13 16 26	
H = 07 02 52		SS	10 07 20	Resolute	
Resolute		SSS	10 11 16	SS	13 49 40
eP	07 15 23	e	10 13.6	L	13 59.1
e	07 15 33	L	10 17.0		

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DECEMBER 3  
Resolute  
eP 19 55 13

DECEMBER 4  
Halifax  
iP 09 11 39 d  
Resolute  
eP 09 11 29

DECEMBER 4  
U. S. C. G. S.  
21S, 178 1/2W  
Fiji Islands region  
H = 09 24 04  
h = 650 km  
Resolute  
eP' 09 41 27

DECEMBER 4  
Resolute  
eP 10 00 28.5

DECEMBER 4  
Resolute  
eP 12 05 38

DECEMBER 4  
Resolute  
eP 21 12 (18)

DECEMBER 5  
U. S. C. G. S.  
40 1/2N, 126W  
Off coast of  
Northern California  
H = 08 13 36  
Mag 5  
Halifax  
P 08 22 01  
Ottawa  
eP 08 20 47

Resolute  
eP 08 20 55.5  
iP 08 20 56.5 c  
PP 08 22 24  
eS 08 26 40  
L 08 28.8  
Seven Falls  
eP 08 21 13  
Shawinigan Falls  
iP 08 21 04 d

DECEMBER 5  
47.3N, 123.5W  
Olympic Peninsula,  
Washington  
H = 08 15 21.7  
Mag 2.8  
Banff  
iP 08 16 48 d  
D = 720 km  
Horseshoe Bay  
eP 08 15 57.7  
iP 08 15 58.9  
S 08 17 32.7  
D = 236 km  
Victoria  
iP 08 15 44.7  
iS 08 16 10.1

DECEMBER 6  
Resolute  
eP 17 41 51.5 c  
iP 17 41 52  
e 17 43 30

DECEMBER 7  
Resolute  
eP 01 41 51.5

DECEMBER 7  
U. S. C. G. S.  
Northern Gulf of  
California  
H = 04 10 45  
Ottawa  
eP 04 17 28  
Resolute  
eS 04 26.0  
eL 04 29 40

DECEMBER 7  
U. S. C. G. S.  
32 1/2N, 139 1/2E  
South of Honshu,  
Japan  
H = 05 15 24  
Resolute  
eP 05 26 22.5 c  
e 05 26 46  
e 05 27 08

DECEMBER 8  
U. S. C. G. S.  
36 1/2N, 141 1/2E  
Near east coast of  
Honshu, Japan  
H = 02 59 56  
Resolute  
eP 03 10 21 c

DECEMBER 8  
U. S. C. G. S.  
1S, 124E  
Celebes region  
H = 04 30 06  
Resolute  
eP 04 44 (09)  
PP 04 48 10



DOMINION OBSERVATORIES

DECEMBER 8  
 47.6N, 122.8W  
 West of Bremerton,  
 Washington  
 H = 04 32 05.3  
 Mag 2.6  
 Horseshoe Bay  
 eP 04 32 37.2  
 e 04 33 01.2  
 D = 207 km  
 Victoria  
 eP 04 32 24.0  
 e 04 32 39.3  
 D = 117 km

DECEMBER 8  
 U.S.C.G.S.  
 67N, 18W  
 Off north coast of  
 Iceland,  
 H = 08 08 21  
 Resolute  
 eP 08 13 39  
 PP 08 14 21  
 eS 08 18.2  
 eL 08 21.6  
 e 08 23.0

DECEMBER 8  
 Resolute  
 eP 08 55 07 d

DECEMBER 8  
 Resolute  
 eP 09 35 (13)

DECEMBER 8  
 Resolute  
 eP 09 45 35 c

DECEMBER 8  
 Resolute  
 e 11 32 (02)

DECEMBER 8  
 U.S.C.G.S.  
 37 1/2N, 72 1/2E  
 Afghanistan -  
 Tadjik border  
 H = 12 20 55  
 Resolute  
 eP 12 31 55

DECEMBER 8  
 U.S.C.G.S.  
 Southern Iran  
 H = 12 50 45  
 Resolute  
 eP 13 02 19 c  
 e 13 03.4  
 SS 13.16.2

DECEMBER 8  
 U.S.C.G.S.  
 42N, 44 1/2E  
 Georgia S.S.R.  
 H = 13 33 59  
 Resolute  
 eP 13 44 13  
 (P<sub>c</sub>P) 13 45 04  
 eS 13 52 34  
 e 13 55.3  
 SS 13 56.5  
 L 13 59 22  
 Shawinigan Falls  
 iP 13 45 51 c

DECEMBER 8  
 Ottawa  
 eP 17 20 07  
 Resolute  
 eP 17 16 45  
 e 17 20 42  
 e 17 24 32  
 e 17 30 16

DECEMBER 8  
 Resolute  
 eP 18 20 02  
 e 18 21 24

DECEMBER 9  
 U.S.C.G.S.  
 17S, 177 1/2W  
 Fiji Islands  
 H = 14 04 28  
 h = 450 km  
 Banff  
 iP 14 16 32 d  
 Horseshoe Bay  
 iP 14 18 04  
 Victoria  
 iP 14 18 23

DECEMBER 9  
 Resolute  
 e(P) 17 04 (21)

DECEMBER 9  
 Resolute  
 e(P) 18 35 42

DECEMBER 9  
 Horseshoe Bay  
 eP 19 39 55.8  
 eS 19 40 45.4  
 Victoria  
 eP 20 40 34.0  
 eS 20 41 22  
 Local shock

DECEMBER 9  
 48.6N, 123.1W  
 San Juan Island,  
 Washington  
 H = 20 54 41.8  
 Alberni  
 iP 20 55 04.8  
 S 20 55 22.2  
 D = 144 km  
 Horseshoe Bay  
 P 20 54 56.1  
 S 20 55 07.0  
 D = 89 km

SEISMOLOGICAL BULLETIN - 1959

Victoria iP 20 54 51.1 c,S,W iS 20 54 58.3 D = 17 km	DECEMBER 11 Resolute e(P) 07 45 29	DECEMBER 12 U.S.C.G.S. 48 1/2N, 123 1/2W Puget Sound, Washington H = 06 24 20 Resolute eP 06 30 18
DECEMBER 9 Resolute eP 22 46 24	DECEMBER 11 Resolute e(P) 10 04 (39)	DECEMBER 12 48.7N, 123.1W Near San Juan Island H = 06 25 32.6 Mag 3.1 Alberni P 06 25 55.3 S 06 26 12.0 D = 143 km
DECEMBER 9 Resolute eP 23 27 43	DECEMBER 11 Resolute e 13 56 (55) e 13 57 (36)	Victoria iP 06 25 37.4 S 06 25 41.1 D = 25 km
DECEMBER 10 Resolute eP 01 20 (03)	DECEMBER 11 Resolute e(P) 15 11 41 e 15 11 57 e 15 12 08	DECEMBER 12 Resolute e 06 38 (08)
DECEMBER 10 Resolute e(P) 07 12 19	DECEMBER 12 Resolute eP 04 58 05	DECEMBER 12 Resolute e 06 38 (08)
DECEMBER 10 Resolute e(P) 08 14 10 c	DECEMBER 12 Resolute eP 05 54 (17) e 05 57 53	DECEMBER 12 48.7N, 123.1W San Juan Island region H = 06 38 56.6 Mag 0.5 Victoria P 06 39 01.4 d,S,E e 06 39 05.0 D = 25 km
DECEMBER 10 Resolute eP 14 19.0 e 14 19 23	DECEMBER 12 48.7N, 123.1W Near San Juan Island H = 06 21 53.3 Mag 1.4 Alberni iP 06 22 15.7 S 06 22 32.6 D = 143 km Horseshoe Bay iP 06 22 07.0 iS 06 22 17.2 D = 80 km Victoria iP 06 21 58.1 c,N,W S 06 22 01.8 D = 25 km	DECEMBER 12 48.7N, 123.1W San Juan Island region H = 06 51 30.1 Mag 3.3 Alberni P 06 51 51.9 S 06 52 08.6 D = 138 km
DECEMBER 11 U.S.C.G.S. 5S, 130E Banda Sea H = 00 31 40 Resolute eP 00 45 55 PP 00 50 09 PKKP 00 50 16 SS 01 15.1 L 01 22.6		

DOMINION OBSERVATORIES

Victoria  
iP 06 51 34.9  
D = 28 km

DECEMBER 12  
48.7N, 123.1W  
San Juan aftershock  
H = 07 38 23.3  
Mag 0.7

Victoria  
iP 07 38 28.1  
S 07 38 31.8

DECEMBER 12  
48.6N, 123.3W  
San Juan Island region  
H = 10 29 56.9  
Mag 2.4

Alberni  
P 10 30 18.8  
e 10 30 34.7  
D = 137 km

Horseshoe Bay  
P 10 30 11.2 d  
e 10 30 22.3  
D = 89 km

Victoria  
iP 10 30 04.4

DECEMBER 12  
Resolute  
eP 17 55 11

DECEMBER 12  
Resolute  
eP 18 44 (43)

DECEMBER 12  
Resolute  
e 19 52 (08)

DECEMBER 13  
U.S.C.G.S.  
42N, 142E  
Hokkaido, Japan  
H = 03 20 38  
Resolute  
eP 03 30 27  
e 03 30 49

DECEMBER 13  
U.S.C.G.S.  
9 1/2S, 106 1/2E  
Off south coast of  
Java  
H = 05 39 31  
Resolute  
eP' 05 58 (07)

DECEMBER 13  
Montana earthquake  
Banff  
eP 07 52 14  
Victoria  
eP 07 52 43.8 d  
S 07 55 21.0

DECEMBER 13  
Resolute  
eP 08 (03) (10)

DECEMBER 13  
Resolute  
eP 09 38 10  
e 09 40 51

DECEMBER 13  
U.S.C.G.S.  
18S, 173 1/2W  
Tonga Islands  
H = 17 36 07  
Resolute  
eS 18 02.1  
PS 18 03 50  
SS 18 02.2  
SSS 18 13 14

DECEMBER 13  
48.6N, 123.1W  
San Juan Area  
H = 21 32 42.7  
Mag 2.1

Alberni  
eP 21 33 07.0  
e 21 33 22.5  
D = 148 km

Horseshoe Bay  
P 21 32 55.7  
e 21 33 05.3  
D = 84 km

Victoria  
iP 21 32 47.3 d,N  
e 21 32 51.1  
D = 24 km

DECEMBER 13  
Resolute  
e(P) 23 31 48 d

DECEMBER 14  
Resolute  
eP 00 28 41

DECEMBER 14  
Local shock  
H = 15 42 57.2  
Mag 2.4

Alberni  
iP 15 43 06.2  
iS 15 43 13.0  
D = 56 km

DECEMBER 14  
U.S.C.G.S.  
5 1/2N, 125 1/2E  
Off south coast of  
Mindanao, Philippine  
Islands  
H = 17 58 33  
h = 200 km

Halifax  
PKS 18 20 35

SEISMOLOGICAL BULLETIN - 1959

Ottawa  
eP' 18 17 20 c  
PP 18 18 16  
PPP 18 20 27  
Resolute  
iP 18 11 47 d  
i 18 11 57  
pP 18 12 23  
SKS 18 22 09  
eS 18 22 52  
sS 18 23.9  
SP 18 24.2  
SS 18 29.5  
sSS 18 30 22  
SSS 18 33 10  
e 18 35 10  
G 18 38.0  
Seven Falls  
eP' 18 17 19  
Shawinigan Falls  
iP' 18 17 19 d  
pP' 18 17 58  
sPP 18 20 31

DECEMBER 14  
Victoria  
iP 19 35 10.5  
Local shock

DECEMBER 14  
Victoria  
iP 19 36 39.2  
Local shock

DECEMBER 14  
U.S.C.G.S.  
1N, 125E  
Celebes  
h = 21 49 10  
Ottawa  
eP' 22 08 22  
Resolute  
eP 22 03 03  
Shawinigan Falls  
eP' 22 08 26 (d)

DECEMBER 14  
U.S.C.G.S.  
52 1/2N, 168W  
Fox Islands,  
Aleutian Islands  
H = 22 00.50  
Mag 6  
Halifax  
PPS 22 20 04  
Ottawa  
eP 22 10 38  
Resolute  
eP 22 07 53  
PPP 22 09 28  
e 22 11.7  
e(S) 22 13 08  
iS 22 13 40  
eL 22 15.2  
Saskatoon  
e 22 13 47.5  
Seven Falls  
eP 22 10 53  
PP 22 13 19  
S 22 18 46  
(SS) 22 24.1  
eL 22 28.6  
Shawinigan Falls  
iP 22 10 46d

DECEMBER 14  
U.S.C.G.S.  
59 1/2S, 31W  
Sandwich Islands  
H = 23 21 56  
Mag 7  
Alberni  
eP' 23 41 17.8  
e 23 44 48.1  
Banff  
eP' 23 41 10  
e 23 44 35  
Horseshoe Bay  
iP' 23 41 16.9  
(S) 23 44 45  
Ottawa  
eP' 23 40 32

Resolute  
eP' 23 41 21  
iP' 23 41 32  
e 23 42 20  
iPP 23 44 44  
iPKS 23 45 04  
i 23 48.0  
i 23 50.0  
SKKS 23 50 44  
SKKKS 23 51 20  
e 23 53 20  
SKSP 23 54.6  
i 23 55 (40)  
e(S) 23 56.6  
PPS 23 57.1  
PPPS 23 58 20  
SS 24 03 08  
i 24 04 16  
Seven Falls  
eP' 23 40 36  
PS 23 50 54  
SS 23 57 24  
G 24 09.1  
Shawinigan Falls  
iP' 23 40 36 d  
Victoria  
eP' 23 41 17  
e 23 44 41

DECEMBER 14  
48.7N, 123.1W  
San Juan Islands  
H = 23 39 58.3  
Mag 1.1  
Horseshoe Bay  
P 23 40 22.4  
Victoria  
iP' 23 40 03.1  
S 23 40 06.9  
D = 25 km

DECEMBER 14  
Ottawa  
eP 23 51 25  
Seven Falls  
eP 23 51 26  
Shawinigan Falls  
eP 23 51 23

DOMINION OBSERVATORIES

DECEMBER 15  
Resolute  
eP 00 14 23

DECEMBER 15  
U. S. C. G. S.  
17 1/2N, 145E  
Mariana Islands  
H = 01 35 23  
Resolute  
eP 01 47 41

DECEMBER 15  
Resolute  
e(P) 02 46 33

DECEMBER 15  
U. S. C. G. S.  
17N, 145E  
Mariana Islands  
H = 05 04 14  
Resolute  
eP 05 16 32

DECEMBER 15  
Resolute  
e 05 42 (35)  
e(P) 05 46 14

DECEMBER 15  
Canadian Arctic  
H = 07 10 27.5  
Mag 2.1  
h = 35 km  
Resolute  
P<sub>n</sub> 07 10 58.5  
P<sub>1</sub> 07 11 03.5  
S<sub>n</sub> 07 11 21.0  
S<sub>1</sub> 07 11 31.0  
D = 222 km

DECEMBER 15  
U. S. C. G. S.  
17 1/2N, 145E  
Mariana Islands  
H = 08 56 20  
Resolute  
eP 09 08 36

DECEMBER 15  
U. S. C. G. S.  
5 1/2N, 125 1/2E  
Near south coast of  
Mindanao Philippine  
Islands  
H = 09 30 22  
Resolute  
eP 09 43 51 c

DECEMBER 15  
Resolute  
eP 09 (53) (43)

DECEMBER 15  
U. S. C. G. S.  
37N, 70E  
Hindu Kush  
H = 10 47 42  
Resolute  
eP 10 58 (46)

DECEMBER 15  
U. S. C. G. S.  
17N, 145E  
Mariana Islands  
H = 11 25 07  
Resolute  
eP 11 37 (23)

DECEMBER 15  
U. S. C. G. S.  
59S, 24W  
Sandwich Islands  
H = 12 15 45  
Resolute  
eP' 12 35 14  
PKS 12 38 56  
ePKS 12 39 19

DECEMBER 15  
Resolute  
e(P) 17 13 (14)  
(P<sub>c</sub>P) 17 15 20

DECEMBER 15  
Resolute  
eP 19 07 (11)

DECEMBER 15  
Resolute  
e(P) 20 01 47.5 d

DECEMBER 16  
U. S. C. G. S.  
38 1/2N, 122W  
California  
H = 02 28 44  
Mag 4 1/2  
Resolute  
eP 02 36 04

DECEMBER 16  
Resolute  
eP 05 24 36

DECEMBER 16  
Resolute  
eP 05 53 51

SEISMOLOGICAL BULLETIN - 1959

DECEMBER 16

U. S. C. G. S.

47 1/2N, 152E

Kurile Islands

H = 11 21 47

Resolute

eP 11 30 46

DECEMBER 16

Resolute

eP 13 23 (54)

DECEMBER 17

U. S. C. G. S.

21 1/2N, 121E

Off south coast of

Formosa

H = 02 31 02

Resolute

eP 02 43 19.5 c

iP 02 43 30

e 02 59.5

eL 03 08.3

Victoria

eP 02 45 04

DECEMBER 17

Resolute

eP 02 59 15 c

DECEMBER 17

U. S. C. G. S.

24S, 177W

Tonga Islands

region

H = 02 55 58

h = 100 km

Resolute

eP' 03 14 (24)

DECEMBER 17

U. S. C. G. S.

40 1/2N, 142 1/2E

Near east coast of

Honshu, Japan

H = 05 04 46

Resolute

eP 05 14 48.5 c

iP 05 14 57

P<sub>c</sub>P 05 15 36

DECEMBER 17

Resolute

eP 05 24 25 c

DECEMBER 17

U. S. C. G. S.

5 1/2S, 102 1/2E

Off south coast of

Sumatra

H = 05 53 46

Resolute

eP' 06 12 30

SKS 06 19.0

PS 06 22 32

PPS 06 23 (46)

(SS) 06 28 44

SSS 06 32.9

DECEMBER 17

Canadian Arctic

H = 12 46 59.8

Mag 1.3

Resolute

P<sub>1</sub> 12 47 09

S<sub>1</sub> 12 47 16

D = 57.5 km

DECEMBER 17

U. S. C. G. S.

36 1/2S, 101 1/2W

South Pacific Ocean

H = 16 48 55

Resolute

SS 17 23.7

SSS 17 27 44

DECEMBER 17

Resolute

eP 18 01 (02)

Shawinigan Falls

eP 18 01 41

DECEMBER 17

Canadian Arctic

H = 19 13 25

Mag 2.1

h = 34 km

Resolute

eP<sub>n</sub> 19 13 57.0

iP<sub>1</sub> 19 14 02.0

iS<sub>1</sub> 19 14 19.5

iS<sub>1n</sub> 19 14 30.0

D = 228 km

DECEMBER 17

Canadian Arctic

H = 21 36 18.5

Mag 2.1

h = 27 km

Resolute

P<sub>n</sub> 21 36 53

P<sub>1</sub> 21 36 58

S<sub>n</sub> 21 37 18

S<sub>1</sub> 21 37 28

D = 246 km

DECEMBER 18

Resolute

eP 07 12 55 d

DOMINION OBSERVATORIES

DECEMBER 18  
Resolute  
e(P) 09 04 36 c

DECEMBER 18  
Resolute  
eP 09 28.2

DECEMBER 18  
U. S. C. G. S.  
18S, 178 1/2E  
Fiji Islands  
H = 09 57 07  
h = 600 km  
Resolute  
eP' 10 14 39

DECEMBER 18  
Canadian Arctic  
H = 15 37 25.4  
Mag 2.6  
Resolute  
iP<sub>1</sub> 15 37 35  
iS<sub>1</sub> 15 37 42.3  
D = 60 km

DECEMBER 18  
U. S. C. G. S.  
53N, 168 1/2W  
Fox Islands,  
Aleutian Islands  
H = 16 24 50  
Mag 6 1/2  
Alberni  
eP 16 30 39  
Halifax  
iP 16 35 23 c  
Ottawa  
eP 16 34 38 c  
S 16 42 35

Resolute  
eP 16 31 52 c  
iP 16 32 06  
PP 16 33 18  
PPP 16 33 34  
P<sub>c</sub>P 16 34 19  
eS 16 37 28  
e 16 38 04  
eL 16 39.4  
S<sub>c</sub>S 16 42.0

Saskatoon  
e 16 37 44  
Seven Falls  
eP 16 34 46 c  
eS 16 42 52  
eL 16 54.1  
Shawinigan Falls  
iP 16 34 43 c  
e(P<sub>c</sub>P) 16 35 17  
Victoria  
eP 16 30 50

DECEMBER 18  
Resolute  
eP 21 40 44

DECEMBER 19  
Resolute  
eP 03 35 (09)  
e 04 07.3

DECEMBER 19  
Resolute  
eP 12 39 29

DECEMBER 19  
Resolute  
eP 13 56 01 (c)

DECEMBER 19  
Ottawa  
eP 15 13 43  
Resolute  
eP 15 15 43  
eS 15 22 40  
SS 15 26 16  
eL 15 30.0

DECEMBER 19  
Resolute  
eP 23 06 16  
DECEMBER 20  
U. S. C. G. S.  
South of Kermadec  
Islands  
H = 08 05 34  
Resolute  
eP' 08 24 26

DECEMBER 20  
Resolute  
e(P) 09 15 31  
e 09 19 06

DECEMBER 20  
U. S. C. G. S.  
10 1/2N, 126 1/2E  
North of Mindanao,  
Philippine Islands  
H = 12 53 37  
Resolute  
eP 13 06 50 c

DECEMBER 20  
U. S. C. G. S.  
17 1/2S, 174 1/2W  
Tonga Islands region  
H = 14 16 52  
Resolute  
eP 14 31 03

SEISMOLOGICAL BULLETIN - 1959

DECEMBER 20 Resolute e(P) 16 47 56 e 17 05 16	DECEMBER 21 Resolute iP 09 30 08.5 i 09 30 13 i 09 30 15	DECEMBER 21 Resolute e(P) 12 05 58 c
DECEMBER 21 Canadian Arctic H = 00 06 59.2 Mag 2.2 h = 17 km Resolute P <sub>n</sub> 00 07 24.7 P <sub>1</sub> 00 07 25.5 S <sub>n</sub> 00 07 44.3 S <sub>1</sub> 00 07 45.3 D = 164 km	DECEMBER 21 U. S. C. G. S. 27 1/2S, 176W Kermadec Islands region H = 10 20 33 Mag 6 Resolute eP' 10 39 16 eS 10 48 09 PS 10 50.0 PPS 10 51.0 SS 10 56.3 (SSS) 11 00.0 eL 11 06.4 Victoria eP 10 33 32	DECEMBER 21 Resolute e(P) 12 49 15  DECEMBER 21 Resolute e(P) 17 36 02  DECEMBER 21 Resolute eP 19 46 53 e 19 51 30  DECEMBER 21 Resolute e(P) 22 18 49 d e 22 19 03
DECEMBER 21 Canadian Arctic H = 01 26 52.4 Mag 1.9 Resolute P <sub>1</sub> 01 27 20 S <sub>1</sub> 01 27 41 D = 172 km	DECEMBER 21 U. S. C. G. S. 27 1/2S, 176W Kermadec Islands region H = 11 14 17 Mag 6 1/2 Victoria eP 11 27 14	DECEMBER 22 U. S. C. G. S. 40 1/2N, 124W California H = 02 39 02 Mag 4 1/2 Ottawa eP 02 45 56 Resolute eP 02 46 07 c e(S) 02 52.1 e 02 55.0 eL 02 56.0 Seven Falls eP 02 46 22
DECEMBER 21 Resolute e(P) 01 47 18	DECEMBER 21 U. S. C. G. S. 14N, 52E Gulf of Aden H = 11 19 14 Mag 6 1/2 - 6 3/4 Resolute eP 11 32 13.5 d iPP 11 35 53 iS 11 42 46 i 11 43 03 PS 11 44.0 e 11 45 16 SS 11 49 04 L 11 55.5	DECEMBER 22 Resolute eP 05 14 59 d
DECEMBER 21 Horseshoe Bay e 02 25 37 Victoria eP 02 25 44	DECEMBER 21 Resolute eP 05 05 (00)	
DECEMBER 21 Resolute e(P) 07 12 14 e 07 22.8		



DOMINION OBSERVATORIES

DECEMBER 22 Resolute e(P) 13 02 33	DECEMBER 23 U.S.C.G.S. 56 1/2N, 158 W Alaska Peninsula H = 03 49 00	DECEMBER 23 Resolute e(P) 21 49 35
DECEMBER 22 U.S.C.G.S. 37 1/2N, 141 1/2E Off east coast of Honshu, Japan H = 17 20 19 Resolute eP 17 30 38 c eS 17 39.1 S <sub>c</sub> S 17 40.4	Alberni eP 03 54 07 Ottawa iP 03 57 55 d Resolute eP 03 55 08 c e 04 01 48 eL 04 02.2 Victoria eP 03 54 02	DECEMBER 24 Resolute eP 02 19 38
DECEMBER 23 Local shock H = 00 47 53.2 Mag 2.0 Horseshoe Bay P 00 48 05.7 c S 00 48 15.2 D = 78 km	DECEMBER 23 Resolute eP 06 38 (24)	DECEMBER 24 Ottawa eP 07 37 12 Resolute e(P) 07 36 (03)
DECEMBER 23 Resolute eP 00 57 44 e 01 00 01	DECEMBER 23 U.S.C.G.S. 38N, 14 1/2E Near north coast of Italy H = 09 28 56 Ottawa iP 09 39 33 c Resolute eP 09 38 54.5	DECEMBER 24 U.S.C.G.S. 18 1/2N, 95W Vera Cruz, Mexico H = 08 09 32 h = 200 km Resolute eP 08 18 55
DECEMBER 23 Canadian Arctic H = 01 26 44 Mag 4.6 Resolute P <sub>n</sub> 01 28 23 S <sub>n</sub> 01 29 35 L <sub>g</sub> 01 30 11 D = 750 km	DECEMBER 23 Resolute e(P) 12 46 (58)	DECEMBER 24 Resolute eP 09 43 32
	DECEMBER 23 U.S.C.G.S. 27 1/2S, 176W Kermadec Islands region H = 13 59 02 Resolute eP' 14 17 (44)	DECEMBER 24 U.S.C.G.S. 13 1/2S, 74 1/2W Southern Peru H = 12 50 35 Ottawa eP 13 00 35 Resolute eP 13 03 31 eS 13 14 16 PS 13 15.0 SS 13 20.5 SSS 13 24.5 eL 13 32.2

SEISMOLOGICAL BULLETIN - 1959

Seven Falls eP 13 00 49 Shawinigan Falls eP 13 00 43	DECEMBER 25 U. S. C. G. S. 27 1/2S, 176W Kermadec Islands region H = 03 48 58 Resolute eP' 04 07 38 eS 04 16 32 PS 04 18.2 SS 04 24.2 e 04 27.5	Resolute eP 10 32 31 d PP 10 36 59 SKS 10 42.9 eS 10 43.9 e 10 44 51 PS 10 45 20 PKKP 10 48 40 SS 10 50.9 PSPS 10 51.7 eL 11 00.0
DECEMBER 24 U. S. C. G. S. 9N, 126 1/2E Near north coast of Mindanao, Philippine Islands H = 13 08 34 Resolute eP 13 21 48 eS 13 32 50	DECEMBER 25 Resolute e(P) 05 56 (28)	Seven Falls eP 10 30 08 d e 10 30 35 c e 10 31 01 S 10 39 16 PS 10 40 08
DECEMBER 24 Resolute e(P) 13 53 44	DECEMBER 25 Resolute e(P) 06 29 30	Shawinigan Falls iP 10 30 03 d i 10 30 31 d i 10 30 56 c ePP 10 32 42 e(PPP) 10 35.2
DECEMBER 25 Resolute e(P) 00 31 49	DECEMBER 25 U. S. C. G. S. 25 1/2S, 67W Chile - Argentina border region H = 10 18 35 Mag 6 1/2 - 6 3/4 Alberni eP 10 31 39	Victoria eP 10 31 34
DECEMBER 25 Resolute eP 00 58 35 c	Halifax iP 10 29 53 d iS 10 38 56 PPS 10 39 44	DECEMBER 25 Resolute eP 18 03 (21)
DECEMBER 25 Resolute eP 01 08 09 e 01 14.7	Horseshoe Bay iP 10 31 40 e 10 32 10	DECEMBER 25 Resolute eP 21 28 23
DECEMBER 25 Resolute e(P) 03 30 04	Ottawa iP 10 29 58 d pP 10 30 26	DECEMBER 26 Canadian Arctic H = 09 56 01.9 Mag 1.8 Resolute P <sub>1</sub> 09 56 09 S <sub>1</sub> 09 56 14.4 D = 44.3 km

DOMINION OBSERVATORIES

DECEMBER 26	Ottawa	DECEMBER 26
51.1N, 129.6W	eP 18 27 30 c	Halifax
Off northwest tip	Resolute	iP 22 42 41 d
of Vancouver Island	eP 18 24 35.5 c	Resolute
H = 10 59 55.8	PP 18 25 10	eP 22 42 37
Mag 3.8	i 18 25 56	e 22 42 56
Horseshoe Bay	(P <sub>C</sub> P) 18 27 20	e 22 44 25
iP 11 00 56.1 d	eS 18 29 02	
S 11 01 14.7	iS 18 29 07	
D = 495 km	Saskatoon	DECEMBER 27
Victoria	e 18 22 26	Resolute
iP 11 01 00.7 d,N,W	Seven Falls	e(P) 00 02 53
iS 11 02 05.6	eP 18 27 39	
D = 532 km	e 18 35.4	
	eL 18 43.4	DECEMBER 27
	Shawinigan Falls	Resolute
	iP 18 27 33 c	e(P) 00 18 37
DECEMBER 26	eL 18 42.7	
Resolute	Victoria	
e(P) 12 31 03.5	eP 18 23 38 d	DECEMBER 27
e 12 31 14		Resolute
e 12 31 32		eP 01 32 09.5 d
Victoria		
eP 12 31 06	DECEMBER 26	
	Resolute	
	e(P) 20 22 53.5	DECEMBER 27
		U. S. C. G. S.
DECEMBER 26		52 1/2N, 160 1/2E
Resolute	DECEMBER 26	Kamchatka foreshock
e(P) 13 11 24	Resolute	H = 04 47 45
	eP 21 59 21	Halifax
DECEMBER 26		P 04 59 37
Resolute	DECEMBER 26	Ottawa
eP 15 11 36	U. S. C. G. S.	eP 04 59 08
	53N, 160E	Resolute
DECEMBER 26	Kamchatka foreshock	eP 04 55 55 c
U. S. C. G. S.	H = 22 02 35	eS 05 02 16
59 1/2N, 151 1/2W	Halifax	eL 05 05 28
Kenai Peninsula,	iP 22 14 23 d	Seven Falls
Alaska	Ottawa	eP 04 59 11
H = 18 19 10	eP 22 13 54 d	
Alberni	Resolute	DECEMBER 27
eP 18 23 28	iP 22 10 41 d	U. S. C. G. S.
Halifax	i 22 10 50	52 1/2N, 160E
iP 18 28 18 c	eS 22 17 15	Kamchatka foreshock
iS 18 35 40	S <sub>C</sub> S 22 20.7	H = 05 01 55
Horseshoe Bay		Resolute
P 18 23 30		eP 05 10 04

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DECEMBER 27  
U. S. C. G. S.  
52 1/2N, 160E  
Near southeast coast  
of Kamchatka  
H = 05 06 14  
Resolute  
eP 05 14 22 c  
P<sub>c</sub>P 05 15 47

DECEMBER 27  
U. S. C. G. S.  
35N, 26E  
Near east coast of  
Crete  
H = 05 22 39

Halifax  
iP 05 33 32 d  
Ottawa  
eP 05 34 14  
Resolute  
eP 05 33 13  
Seven Falls  
eP 05 33 51  
e(PP) 05 36 01

DECEMBER 27  
Resolute  
e(P) 05 59 21

DECEMBER 27  
U. S. C. G. S.  
Near southeast coast  
of Kamchatka  
H = 06 18 08  
Resolute  
eP 06 26 17

DECEMBER 27  
Resolute  
eP 06 52 43 c

DECEMBER 27  
U. S. C. G. S.  
52 1/2N, 159 1/2E  
Kamchatka foreshock  
H = 06 51 35

Halifax  
P 07 03 24  
Ottawa  
eP 07 02 55  
Resolute  
eP 06 59 43.5 c  
P<sub>c</sub>P 07 01 17  
PP 07 01 27  
eS 07 06.3  
eL 07 09.7

DECEMBER 27  
U. S. C. G. S.  
52 1/2N, 159 1/2E  
Near southeast coast  
of Kamchatka  
H = 07 45 25  
Resolute  
eP 07 53 33 c

DECEMBER 27  
Resolute  
eP 08 03 03  
e(S) 08 09.5

DECEMBER 27  
U. S. C. G. S.  
52 1/2N, 160E  
Near southeast coast  
of Kamchatka  
H = 08 05 30  
Resolute  
eP 08 13 40  
e 08 14 19

DECEMBER 27  
Resolute  
e(P) 11 14 21

DECEMBER 27  
U. S. C. G. S.  
52 1/2N, 160E  
Near southeast coast  
of Kamchatka  
H = 11 48 55  
Resolute  
eP 11 57 03 c  
e 11 57 17  
eS 12 03 46  
eL 12 07.0

DECEMBER 27  
U. S. C. G. S.  
52 1/2N, 160E  
Kamchatka foreshock  
H = 11 54 48  
Ottawa  
eP 12 06 10  
Resolute  
eP 12 02 58 c  
e 12 04 55  
eS 12 09.4  
eL 12 12.8

DECEMBER 27  
U. S. C. G. S.  
28S, 63W  
Santiago del Estero  
Province, Argentina  
H = 12 39 09  
h = 650 km  
Halifax  
iP 12 49 39  
iS 12 58 16  
Ottawa  
eP 12 49 48  
S 12 58 36  
Resolute  
eP 12 54 14 d  
PP 12 56 34  
SS 13 10.6  
SSS 13 15.0

DOMINION OBSERVATORIES

Seven Falls		DECEMBER 27		DECEMBER 28	
iP	12 49 55 d	U. S. C. G. S.		U. S. C. G. S.	
iS	12 58 49	56N, 162E		52 1/2N, 160E	
Shawinigan Falls		Near east coast		Near east coast of	
iP	12 49 52.5 c	of Kamchatka		Kamchatka	
pP	12 51 54	H = 19 28 39		H = 07 20 32	
		Resolute		Mag 6 1/2	
		eP	19 35 39	Alberni	
DECEMBER 27		e	19 36 15	eP	07 29 06
U. S. C. G. S.				Halifax	
56N, 162 1/2E				iP	07 32 26 c
Kamchatka		DECEMBER 27		iS	07 42 05
H = 15 52 55		Resolute		Horseshoe Bay	
Alberni		eP	21 04 17 c	P	07 29 03
eP	16 01 01			Ottawa	
Banff				eP	07 31 54
eP	15 (47) (57)	DECEMBER 27		Resolute	
Halifax		Local shock		eP	07 28 41 c
iP	16 04 23	H = 21 14 22.8		i	07 28 54
iS	16 13 44	Mag 1.9		iPP	07 30 38
Horseshoe Bay		Horseshoe Bay		eS	07 35 15
eP	16 01 00	iP	21 14 34.6 d	eL	07 38.0
Ottawa		iS	21 14 45.2	S <sub>C</sub> S	07 38.6
eP	16 03 53 c	D = 74 km		Seven Falls	
S	16 12 48	Victoria		eS	07 41 12
Resolute		iP	21 14 28.7	eL	07 52.7
eP	16 00 32 d	iS	21 14 31.6	Shawinigan Falls	
i	16 00 (52)	D = 37 km		eP	07 31 54
e	16 01.6			Victoria	
PP	16 02.0			eP	07 29 02
i	16 02.2				
eS	16 06 20	DECEMBER 27			
iS	16 06 40	Resolute		DECEMBER 28	
i	16 08.2	e(P)	22 57 03	Resolute	
L	16 09.5			eP	07 49 30
Saskatoon					
P	16 01 00	DECEMBER 28			
Seven Falls		Resolute			
eP	16 03 56	eP	00 03 08	DECEMBER 28	
iS	16 12 58			U. S. C. G. S.	
e(S <sub>C</sub> S)	16 13 53	DECEMBER 28		22 1/2S, 67 1/2W	
eSSS	16 20 38	Resolute		Chile - Bolivia border	
eG	16 25.4	eP	01 49 04	H = 10 03 08	
Shawinigan Falls		e	01 51 34	h = 100 km	
iP	16 03 52 c			Halifax	
Victoria				iP	10 13 57 d
eP	16 01 05	DECEMBER 28		Ottawa	
		Resolute		eP	10 14 02
		eP	02 23 02	pP	10 14 28

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Resolute  
 eP 10 16 (40)  
 Shawinigan Falls  
 eP 10 14 06 d  
 iP 10 14 07 c  
 ipP 10 14 33 d

DECEMBER 28  
 Resolute  
 e(P) 10 18 (20)

DECEMBER 28  
 Resolute  
 e(P) 10 48 55

DECEMBER 28  
 Resolute  
 e(P) 12 08 39

DECEMBER 28  
 U.S.C.G.S.  
 52 1/2N, 160E  
 Near southeast coast  
 of Kamchatka  
 H = 13 04 30  
 Mag 6  
 Resolute  
 eP 13 12 40 c  
 i 13 12 53  
 P<sub>c</sub>P 13 14 06  
 PP 13 14 26  
 eS 13 19 14  
 eL 13 22.0  
 (S<sub>c</sub>S) 13 22.5  
 Shawinigan Falls  
 eP 13 16 05

DECEMBER 28  
 Resolute  
 e(P) 13 18 12

DECEMBER 28  
 Resolute  
 e(P) 19 50 (37)  
 e 19 57.1  
 e 20 00.6

DECEMBER 28  
 Resolute  
 e(P) 19 54 30

DECEMBER 28  
 Resolute  
 eP 21 37 37  
 e 21 37 47

DECEMBER 28  
 Resolute  
 e(P) 23 39 31

DECEMBER 29  
 U.S.C.G.S.  
 37N, 121 1/2W  
 California  
 H = 02 32 53  
 Mag 4 3/4  
 Resolute  
 eP 02 40 (31)

DECEMBER 29  
 Resolute  
 e(P) 03 01 33

DECEMBER 29  
 U.S.C.G.S.  
 2S, 126E  
 Spice Islands  
 H = 07 04 14  
 Resolute  
 eP 07 18 19 c

DECEMBER 29  
 Canadian Arctic  
 H = 09 17 28  
 Mag 4.0  
 h = 9 km  
 Resolute  
 eP<sub>n</sub> 09 19 03.5  
 iP<sub>1</sub> 09 19 24  
 i 09 19 44  
 S<sub>n</sub> 09 20 12  
 e 09 20 40  
 L<sub>g</sub> 09 20 51  
 D = 730 km

DECEMBER 29  
 Resolute  
 e(P) 17 35 08

DECEMBER 29  
 U.S.C.G.S.  
 21 1/2S, 174W  
 Tonga Islands  
 H = 17 14 40  
 Resolute  
 eS 17 41.3  
 SS 17 48.6  
 eL 18 02.9

DECEMBER 29  
 U.S.C.G.S.  
 18N, 145E  
 Mariana Islands  
 H = 20 35 08  
 h = 350 km  
 Mag 6 - 6 1/4  
 Alberni  
 iP 20 46 27 d  
 Horseshoe Bay  
 iP 20 46 27 d  
 Resolute  
 iP 20 46 45 d  
 eS 20 56 18  
 (PS) 20 58.0  
 (sS) 20 58.9  
 SS 21 01 40  
 sSS 21 03.6  
 G 21 07.5

DOMINION OBSERVATORIES

Victoria  
eP 20 46 32 d

DECEMBER 31  
Resolute  
eP 19 56 01

DECEMBER 29  
U. S. C. G. S.  
8 1/2S, 122E  
Flores Islands  
H = 21 27 17  
Resolute  
eP' 21 45 50

DECEMBER 31  
U. S. C. G. S.  
37 1/2N, 25W  
Azores Islands  
H = 20 52 55  
Resolute  
eP 21 01 43  
eS 21 08 50  
S S 21 11.4  
eL 21 12.5

DECEMBER 30  
49°08'N, 124°13'W  
West of Nanaimo, B.C.  
H = 02 05 25.7  
Mag 1.8  
Alberni  
iP 02 05 33.2  
D = 47 km  
Horseshoe Bay  
eP 02 05 37.6  
D = 73 km  
Victoria  
iP 02 05 40.4  
e 02 05 52.5  
D = 92 km

DECEMBER 30  
Resolute  
eP 11 34 06

DECEMBER 31  
Resolute  
e(P) 02 59 20

DECEMBER 31  
U. S. C. G. S.  
3S, 139 1/2E  
Northern New Guinea  
H = 10 29 23  
Resolute  
eP 10 43 18

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EARTHQUAKES IN THE CANADIAN ARCTIC

The following disturbances were recorded during the last quarter of 1959. The times of observed phases are given at their respective chronological positions in the text of this bulletin.

OCTOBER 1 at 05 41 39 U.T. Magnitude 2.9. Originated 116 km from Resolute, N.W.T.

OCTOBER 1 at 11 00 51 U.T. Magnitude 2.4. Originated 115 km from Resolute, N.W.T.

OCTOBER 2 at 05 55 40 U.T. Magnitude 2.7. Originated 115 km from Resolute, N.W.T.

OCTOBER 2 at 06 57 34 U.T. Magnitude 2. . Originated 115 km from Resolute, N.W.T.

OCTOBER 7 at 03 02 21 U.T. Magnitude 2.7. Originated 115 km from Resolute, N.W.T.

OCTOBER 7 at 03 49 10 U.T. Magnitude 2.1. Originated 115 km from Resolute, N.W.T.

OCTOBER 17 at 05 11 49 U.T. Magnitude 2.4. Originated 115 km. from Resolute, N.W.T.

OCTOBER 20 at 23 29 20 U.T. Magnitude 3.4. Originated 258 km from Resolute, N.W.T., at a depth of about 26 km.

OCTOBER 21 at 07 46 17 U.T. Magnitude 5.3. Epicentre at 65°N; 87°W. Near Southampton Island, N.W.T.

OCTOBER 25 at 02 07 42 U.T. Magnitude 2.9. Originated 430 km from Resolute, N.W.T.

OCTOBER 31 at 19 20 24 U.T. Magnitude 3.1. Originated 270 km from Resolute, N.W.T.

NOVEMBER 16 at 11 48 57 U.T. Magnitude 3.6. Originated 197 km from Resolute, N.W.T.

DECEMBER 15 at 07 10 28 U.T. Magnitude 2.1. Originated 222 km from Resolute, N.W.T., at a depth of about 35 km.

DECEMBER 17 at 12 47 00 U.T. Magnitude 1.3. Originated 57.5 km from Resolute, N.W.T.



DOMINION OBSERVATORIES

DECEMBER 17 at 19 13 25 U. T. Magnitude 2.1. Originated 228 km from Resolute, N. W. T., at a depth of about 34 km.

DECEMBER 17 at 21 36 19 U. T. Magnitude 2.1. Originated 246 km from Resolute, N. W. T., at a depth of about 27 km.

DECEMBER 18 at 15 37 25 U. T. Magnitude 2.6. Originated 60 km from Resolute, N. W. T.

DECEMBER 21 at 00 06 59 U. T. Magnitude 2.2. Originated 164 km from Resolute, N. W. T., at a depth of about 17 km.

DECEMBER 21 at 01 26 52 U. T. Magnitude 1.9. Originated 172 km from Resolute, N. W. T.

DECEMBER 23 at 01 26 44 U. T. Magnitude 4.6. Originated 750 km from Resolute, N. W. T.

DECEMBER 26 at 09 56 02 U. T. Magnitude 1.8. Originated 44 km from Resolute, N. W. T.

DECEMBER 29 at 09 17 28 U. T. Magnitude 4.0. Originated 730 km from Resolute, N. W. T., at a depth of about 9 km.

SEISMOLOGICAL BULLETIN - 1959

EARTHQUAKES IN EASTERN CANADA  
AND ADJACENT AREAS

The following disturbances was recorded during the last quarter of 1959. The times of observed phases are given at their respective chronological positions in the text of this bulletin.

OCTOBER 18 at 07 47 22 U. T. Magnitude 2.6. Epicentre at 45°54'N;  
75°07'W. Near Chénéville, Que.

DOMINION OBSERVATORIES  
EARTHQUAKES IN WESTERN CANADA  
AND ADJACENT AREAS

The following disturbances were recorded during the fourth quarter of 1959. The times of observed phases are given at their respective chronological positions in the text of this bulletin.

OCTOBER 6 Magnitude 2.4. Epicentre at 49.6N, 114.7W.  
Crowsnest Area.

OCTOBER 15 at 04 51 12.2 U.T. Magnitude 2. Epicentre at 48 48N,  
125 45W. West Coast of Vancouver Island.

OCTOBER 16 at 17 54 23.8 U.T. Magnitude 2.2. Epicentre at  
48.5N, 124.7W. North of Cape Flattery.

OCTOBER 21 at 08 04 36.5 U.T. Magnitude 1. Epicentre at 48.9N,  
125.7W.

OCTOBER 22 at 01 10 03.8 U.T. Magnitude 2.5. Epicentre at  
50.2N, 124.1W. Head of Jervis Inlet.

OCTOBER 22 at 03 37 27.6 U.T. Magnitude 2.7. Epicentre at  
48.0N, 122.1W. Everett Washington.

OCTOBER 24 at 00 34 47.1 U.T. Magnitude 2.1. Epicentre at  
48 17N, 124 38W. Due south of Neah Bay, Washington.

OCTOBER 27 at 06 12 17 U.T. Epicentre at 42.5N, 127W. Off coast  
of Oregon.

OCTOBER 30 at 01 25 20.7 U.T. Magnitude 1.3. Epicentre at  
49 19N, 124 07W. South of Lasqueti Island.

OCTOBER 31 at 19 22 24.2 U.T. Magnitude 4.0. Epicentre at 44N,  
125W. Off Coast of Oregon.

OCTOBER 31 at 19 43 56.7 U.T. Magnitude 2.0. Epicentre at  
48.3N, 123.0W. Strait of Juan de Fuca.

NOVEMBER 5 at 07 47 36.2 U.T. Magnitude 2.9. Epicentre at  
47.1N, 124.8W. Off coast of Washington.

NOVEMBER 11 at 02 38 39.5 U.T. Magnitude 2.1. Epicentre at  
48.4N, 122.5W. Mount Vernon, Washington.

NOVEMBER 18 at 00 10 19.6 U.T. Magnitude 2.2. Epicentre at  
48.5N, 121.8W. Near Concrete, Washington.

SEISMOLOGICAL BULLETIN - 1959

NOVEMBER 21 at 01 09 58.8 U. T. Magnitude 2.3. Epicentre at 48°24'N, 122°39'W. Near Anacortes, Washington.

NOVEMBER 21 at 03 32 48.8 U. T. Magnitude 2.2. Epicentre at 48.4N, 121.3W. Northwest of Glacie Peak, Washington.

NOVEMBER 24 at 06 05 44.9 U. T. Magnitude 3.1 Epicentre at 46°55'N, 121°47'W. Mount Rainier.

NOVEMBER 27 at 22 53 09.4 U. T. Magnitude 2.0. Epicentre at 50.1N, 123.9W. Head of Jervis Inlet.

DOMINION OBSERVATORIES

I. G. Y. MICROSEISMIC BULLETIN

OCTOBER - DECEMBER - 1959

NOTES

Three stations only have been read,

An inland station - Ottawa,  
An Arctic station - Resolute, and  
A Pacific station - Victoria

The following instruments are used:

Ottawa - Benioff Z  $T_s = 1$  sec.  $T_g = 75$  sec.  
Resolute - Columbia Z  $T_s = 10.2$  sec.  $T_g = 20$  sec.  
Victoria - Benioff Z  $T_s = 1$  sec.  $T_g = 75$  sec.

SEISMOLOGICAL BULLETIN - 1959

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA			
		K	A	T	K	A	T	K	A	T	
		October	1	0	1	1.5	5.0	1	0.81	5.0	3
		6	1	1.6	4.5	1	1.40	6.0	3	0.35	4.0
		12	1	1.9	4.7	1	1.90	6.3	3	0.38	3.5
		18	1	1.5	4.8	1	1.20	5.5	3	0.32	3.5
	2	0	3	1.1	4.3	1	0.74	6.2	3	0.30	3.5
		6	3	0.7	4.0	1	0.49	6.0	3	0.28	3.5
		12	3	0.4	3.0	1	0.48	6.0	3	0.24	3.0
		18	1	0.9	3.3	1	0.43	6.4	3	0.13	2.5
	3	0	...			1	0.50	4.8	3	0.15	2.5
		6	...			3	0.30	5.1	3	0.11	2.5
		12	...			3	0.35	4.7	3	0.11	2.5
		18	...			3	0.30	4.1	3	0.09	2.5
	4	0	...			3	0.35	4.1	3	0.09	2.5
		6	...			3	0.24	3.9	0,0		
		12	...			3	0.23	4.6	3	0.07	2.0
		18	...			3	0.16	4.5	0,0		
	5	0	...			1	0.16	4.4	0,0		
		6	...			1	0.43	4.2	0,0		
		12	...			...			0,0		
		18	...			...			3	.25	3.0
	6	0	...			1	0.32	3.7	3	.20	3.0
		6	...			1	0.28	3.8	3	.35	4.0
		12	...			...			...		
		18	...			1	0.40	4.0	3	.28	4.0
	7	0	...			1	0.45	3.8	3	.32	3.5
		6	...			1	0.35	4.0	3	.32	3.5
		12	...			1	0.50	4.0	3	.30	3.5
		18	...			1	0.20	4.0	3	.40	4.0
	8	0	...			1	0.40	3.9	3	.32	3.0
		6	...			1	0.43	4.0	3	.40	3.5
		12	...			...			3	.60	4.0
		18	...			1	0.27	4.5	3	.50	3.0
	9	0	...			1	0.13	5.5	3	.75	4.0
		6	...			1	0.50	6.4	3	.86	4.5
		12	...			1	0.80	7.2	3	.80	4.5
		18	...			1	1.10	6.8	3	.75	4.5
	10	0	...			1	1.10	6.5	3	.50	4.0
		6	...			1	1.00	6.4	3	.40	3.5
		12	...			1	1.00	6.0	3	.45	3.5
		18	...			1	0.70	5.9	3	.61	5.5
	11	0	...			1	0.70	6.0	3	.45	3.5
		6	...			1	0.45	5.4	3	.57	3.5
		12	...			1	0.32	5.5	3	.53	3.5
		18	...			1	0.29	5.2	...		
	12	0	...			1	0.21	5.4	...		
		6	...			1	0.20	5.4	...		

DOMINION OBSERVATORIES

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
		...								
October 12	12	...			1	0.23	5.2	...		
	18	...			1	0.20	5.5	...		
13	0	...			3	0.20	5.3	...		
	6	...			3	0.26	4.6	...		
	12	...			3	0.23	4.6	...		
14	18	...			3	0.30	6.7	...		
	0	...			1	0.40	7.5	3	.80	5.0
	6	...			1	0.50	7.4	3	.75	5.0
	12	...			1	0.48	7.3	3	.53	4.0
	18	...			1	0.48	6.4	3	.6	4.5
15	0	...			3	0.53	6.3	3	.7	4.5
	6	...			1	0.53	5.7	3	.6	4.5
	12	...			1	0.47	5.0	3	.6	4.5
16	18	...			1	0.44	5.2	3	1.4	6.5
	0	...			...			3	1.2	6.0
	6	...			1	0.50	4.9	3	1.1	6.0
	12	...			1	0.52	4.6	3	.9	6.0
	18	...			1	0.45	4.8	3	.8	6.0
17	0	...			1	0.40	5.1	3	.6	5.5
	6	...			1	0.65	5.1	3	.6	5.5
	12	...			1	0.68	5.1	3	.5	5.5
18	18	...			1	0.60	4.9	3	.6	5.0
	0	...			1	0.75	5.7	3	.6	5.0
	6	...			1	0.93	5.7	3	.7	5.0
19	12	...			1	0.85	5.4	3	.7	5.0
	18	...			1	0.82	5.4	3	.7	5.0
	0	...			1	0.63	5.3	3	.6	5.0
	6	...			1	0.60	5.3	3	.6	5.0
	12	...			1	0.65	5.2	3	.6	5.0
20	18	...			...			3	0.6	3.0
	0	...			1	1.00	5.5	3	0.4	2.5
	6	...			1	1.50	5.6	3	0.5	2.5
	12	...			1	1.50	5.9	3	0.5	2.5
	18	...			1	1.90	5.9	3	0.5	2.0
21	0	...			...			3	0.6	6.0
	6	...			1	1.50	5.7	3	0.7	6.0
	12	...			1	2.00	6.1	3	0.4	5.0
22	18	1	2.9	5.5	1	1.90	6.8	3	0.6	5.0
	0	1	2.2	5.0	1	2.00	6.7	3	0.6	5.0
	6	3	2.2	5.0	1	2.10	7.0	3	0.7	5.0
	12	3	1.4	5.0	1	1.80	6.7	3	0.8	6.0
	18	3	1.7	5.0	1	1.20	6.1	3	0.7	5.0
23	0	3	4.6	8.0	1	4.00	8.9	3	2.6	8.5
	6	3	3.9	8.0	1	3.00	8.1	3	2.1	8.0
	12	3	3.5	8.0	1	1.60	7.5	3	2.0	8.0
	18	3	0.9	4.0	1	1.70	7.5	3	1.8	7.0

SEISMOLOGICAL BULLETIN - 1959

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
October 24	0	3	0.8	4.0	1	0.90	7.0	3	1.6	7.0
	6	3	0.8	4.0	1	0.73	6.8	3	1.6	7.0
	12	3	0.9	4.0	1	0.70	6.6	3	1.7	7.0
	18	3	0.8	4.0	3	0.65	6.6	3	1.6	6.5
25	0	3	0.7	3.7	...			3	1.3	6.5
	6	3	1.5	5.0	3	0.50	5.8	3	1.0	6.0
	12	3	1.2	4.2	3	0.33	6.0	3	1.0	6.0
26	18	3	1.1	4.0	3	0.43	4.6	3	.7	5.0
	0	3	0.8	4.0	3	0.53	4.5	3	.7	4.5
	6	3	0.8	4.0	3	0.53	4.5	3	.7	4.5
	12	3	0.8	4.0	3	0.60	4.9	3	.4	4.5
27	18	3	1.0	4.4	3	0.65	4.7	3	.4	4.5
	0	3	1.0	4.4	3	0.52	5.3	3	.4	4.5
	6	3	0.9	4.5	3	0.60	5.3	...		
	12	3	1.0	4.5	1	0.71	7.6	3	.8	6.0
28	18	3	0.9	4.0	1	0.72	7.5	...		
	0	3	0.9	4.0	3	0.75	5.0	3	1.0	7.0
	6	1	1.2	4.1	3	1.20	4.6	3	.9	6.5
	12	1	1.5	4.4	1	1.80	5.5	3	1.0	6.5
29	18	1	2.4	4.2	1	2.00	5.7	3	.7	5.0
	0	1	2.3	4.2	1	2.30	5.7	3	.7	5.0
	6	1	3.0	5.1	1	2.10	5.9	3	.9	5.0
	12	1	2.5	5.2	1	2.00	5.5	3	.6	5.0
30	18	1	2.4	5.4	1	1.30	5.6	3	.6	5.0
	0	1	2.5	5.7	1	1.00	5.1	...		
	6	1	2.2	5.4	1	0.70	5.4	3	.6	5.0
	12	1	2.0	5.4	1	0.70	5.3	3	.6	4.0
31	18	1	2.1	5.5	1	0.69	5.0	3	.7	5.0
	0	1	1.2	5.0	1	0.50	5.7	3	0.5	4.5
	6	1	1.2	5.0	1	0.48	4.7	3	0.5	4.5
	12	1	1.0	5.0	1	0.30	5.6	3	0.4	4.5
November 1	18	3	0.9	5.0	1	0.30	5.7	3	0.4	4.5
	0	3	0.4	3.5	1	0.27	5.6	3	0.5	4.5
	6	3	0.5	3.5	1	0.21	5.6	3	0.5	4.5
	12	3	0.4	3.0	3	0.21	5.6	3	0.4	4.5
2	18	3	0.4	3.0	3	0.25	6.1	3	0.6	5.0
	0	3	0.4	3.0	3	0.35	5.5	3	0.6	5.0
	6	3	0.6	3.5	1	0.43	5.5	3	0.4	5.0
	12	3	0.8	3.6	1	0.45	5.6	3	0.5	5.0
3	18	3	1.0	4.0	1	0.46	5.5	3	0.5	5.0
	0	3	1.3	4.4	1	0.51	4.8	3	0.4	5.0
	6	3	1.8	4.5	1	1.00	5.7	3	0.4	5.0
	12	3	2.9	5.0	...			3	0.5	3.5
4	18	1	2.5	5.0	1	2.00	6.1	3	0.7	4.0
	0	1	2.2	5.0	1	2.20	6.1	3	0.8	4.0
	6	1	1.7	4.7	1	2.00	6.2	3	0.8	4.0



DOMINION OBSERVATORIES

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
		November 4	12	1	1.3	4.2	1	1.30	6.3	3
	18	3	1.2	4.0	1	0.73	5.8	3	0.4	4.5
5	0	3	0.9	4.0	1	0.68	5.9	3	0.4	4.5
	6	3	0.9	4.0	1	0.60	5.8	3	0.4	4.5
	12	3	1.2	4.8	1	0.55	5.7	3	0.4	4.5
	18	3	1.2	4.8	1	0.43	6.1	3	0.4	4.5
6	0	3	0.9	4.3	1	0.37	6.2	3	0.4	4.5
	6	3	0.7	3.5	1	0.31	5.8	3	0.4	4.5
	12	3	0.8	4.4	1	0.43	5.5	3	0.4	4.5
	18	3	0.7	4.0	1	0.35	5.5	...		
7	0	3	0.6	4.0	1	0.18	6.0	3	0.4	4.5
	6	3	0.4	3.0	1	0.20	5.1	3	0.4	4.5
	12	1	0.8	3.5	1	0.25	5.4	3	0.4	4.5
	18	1	1.0	3.6	1	0.47	5.8	...		
8	0	1	1.6	3.8	...			...		
	6	1	1.1	3.8	1	0.53	6.5	...		
	12	1	1.4	3.7	1	0.68	6.3	...		
	18	1	0.9	3.8	1	1.00	6.3	...		
9	0	1	1.3	4.0	1	1.00	6.1	...		
	6	1	0.7	3.8	1	1.10	6.4	...		
	12	1	0.7	3.8	1	1.60	7.0	...		
	18	3	0.5	3.7	1	1.50	6.6	3	1.5	7.0
10	0	3	0.4	3.4	1	1.10	6.8	3	0.8	5.0
	6	3	0.4	3.0	1	1.00	6.6	3	0.8	5.0
	12	3	0.5	3.2	1	0.74	6.6	3	0.8	5.0
	18	3	0.5	3.3	1	0.36	6.6	3	0.7	5.0
11	0	3	0.5	3.2	1	0.31	6.3	3	0.7	5.0
	6	3	0.8	4.0	1	0.22	5.4	3	0.7	5.0
	12	3	1.4	4.7	1	0.44	4.9	3	0.7	5.0
	18	1	1.5	5.0	1	0.70	5.1	...		
12	0	3	1.0	4.4	1	0.44	5.1	...		
	6	3	0.6	4.0	1	0.41	4.9	...		
	12	3	0.7	4.0	1	0.48	4.9	...		
	18	3	0.7	4.0	1	0.32	4.8	3	0.5	3
13	0	3	0.6	3.4	1	0.30	4.5	3	0.4	3
	6	3	0.5	3.4	1	0.35	5.2	3	0.4	3
	12	3	0.5	3.4	1	0.19	4.8	3	0.5	4.5
	18	3	0.5	3.5	1	0.21	5.1	3	0.4	4.0
14	0	3	0.8	4.0	1	0.18	4.3	3	0.4	4.0
	6	3	0.7	4.0	1	0.21	5.1	3	0.5	4.0
	12	3	0.6	4.0	1	0.22	4.8	3	0.5	4.0
	18	3	0.5	4.0	1	0.16	4.7	3	0.5	3.5
15	0	3	0.4	3.0	...			3	0.5	3.5
	6	3	0.5	3.5	1	0.15	5.0	3	0.5	3.5
	12	3	1.2	3.7	...			3	0.7	3.0
	18	...			...			...		

SEISMOLOGICAL BULLETIN - 1959

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
		November 16	0	1	3.0	4.0	1	0.67	4.7	3
	6	1	3.0	4.2	1	0.82	4.9	3	0.4	3.5
	12	1	3.2	4.5	1	0.90	5.1	3	0.4	3.5
	18	1	3.5	4.9	1	0.70	5.8	3	0.6	5.0
17	0	1	3.5	4.8	1	0.80	6.2	3	1.5	6.0
	6	1	2.9	5.0	1	0.92	6.8	3	1.5	5.0
	12	1	1.7	4.0	1	1.10	7.4	3	1.6	5.0
	18	3	1.7	4.0	1	1.10	7.1	3	1.8	6.0
18	0	3	1.7	4.0	1	0.70	6.7	3	1.5	6.0
	6	1	1.7	4.0	1	0.94	6.9	3	1.4	6.0
	12	1	2.5	4.5	1	0.80	7.1	3	1.4	6.0
	18	1	1.5	4.3	...			3	0.9	5.0
19	0	1	1.7	5.0	...			3	0.9	5.0
	6	1	2.1	4.9	...			3	1.0	5.0
	12	1	2.0	5.0	...			...		
	18	1	2.2	5.0	1	0.8	5.1	3	.8	4.5
20	0	1	2.6	5.0	...			...		
	6	1	2.7	5.0	1	1.20	6.1	3	0.7	3.0
	12	1	3.3	6.0	1	1.80	6.4	3	1.0	4.0
	18	1	5.0	7.0	1	3.00	6.6	3	2.0	4.5
21	0	1	5.0	7.0	1	2.90	7.6	3	3.6	7.0
	6	1	5.0	7.0	1	3.40	7.7	3	3.1	7.0
	12	1	4.0	7.0	1	2.50	7.6	3	3.2	7.0
	18	1	3.6	7.0	1	1.80	7.6	3	2.6	7.0
22	0	1	4.0	7.0	...			3	2.1	7.0
	6	1	3.4	7.0	1	2.20	7.5	3	1.8	5.0
	12	1	5.1	7.2	1	2.20	7.4	3	1.6	4.0
	18	1	5.0	7.8	1	3.50	7.6	3	1.8	4.0
23	0	1	5.1	8.0	1	3.80	8.0	3	3.4	6.5
	6	1	4.0	7.0	1	3.20	7.7	3	2.6	6.5
	12	1	3.0	7.0	1	2.40	7.2	3	2.2	6.5
	18	3	1.6	6.0	1	1.50	7.1	3	1.4	6.5
24	0	3	1.8	6.0	1	0.90	6.6	3	1.8	6.5
	6	3	1.4	6.0	1	0.80	6.6	3	2.2	6.0
	12	3	1.1	6.0	1	0.77	6.4	3	2.1	6.0
	18	3	0.6	4.0	1	0.65	6.4	3	1.4	6.0
25	0	3	0.6	4.0	1	0.50	6.4	3	0.8	5.0
	6	3	0.8	4.0	1	0.57	6.0	3	0.8	5.0
	12	3	0.7	4.0	1	0.37	6.2	3	0.8	5.0
	18	3	1.6	5.5	1	0.55	5.7	3	0.7	5.0
26	0	1	2.7	5.5	1	0.58	5.8	3	0.7	5.0
	6	1	2.5	5.0	1	0.65	5.8	3	0.6	5.0
	12	1	3.3	5.1	1	0.80	6.4	3	0.6	5.0
	18	1	3.1	5.2	1	0.78	6.2	3	0.7	5.5
27	0	1	8.0	5.5	...			...		
	6	1	10.4	5.5	1	4.60	6.0	3	2.8	6.0

DOMINION OBSERVATORIES

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
		November 27	12	1	9.6	6.0	1	3.80	6.3	3
	18	1	5.0	5.8	1	2.00	5.9	3	1.3	7.0
28	0	1	3.4	5.6	1	1.20	5.3	3	0.8	6.0
	6	1	2.6	5.5	1	0.90	5.3	3	0.6	6.0
	12	1	2.4	5.5	1	0.60	6.1	3	0.6	6.0
	18	3	2.0	5.0	1	0.45	5.8	3	0.6	6.0
29	0	3	1.4	5.0	1	0.50	5.9	3	0.5	5.0
	6	3	1.3	4.4	1	0.70	6.8	3	1.0	6.0
	12	3	1.7	4.0	1	1.05	6.7	3	1.2	7.0
	18	3	1.3	4.0	1	1.00	6.7	3	1.0	6.0
30	0	3	1.1	4.0	1	0.90	6.7	3	0.8	4.0
	6	3	1.3	4.0	1	0.85	6.7	3	1.1	6.0
	12	3	1.3	4.0	...			3	0.8	6.0
	18	3	1.3	4.0	1	0.60	6.1	3	0.7	5.0
December 1	0	3	1.3	4.0	1	0.60	5.8	3	1.0	5.0
	6	3	1.3	4.0	1	0.68	6.0	3	1.1	6.0
	12	3	1.5	4.0	1	0.68	6.3	3	1.0	5.0
	18	1	2.2	5.0	1	1.00	6.2	3	1.2	6.0
2	0	1	1.9	5.0	1	0.68	6.2	3	1.3	6.0
	6	1	1.8	5.2	1	0.62	6.4	3	1.3	6.0
	12	1	1.8	5.5	...			3	1.4	6.0
	18	1	2.0	5.2	1	0.65	6.5	3	1.8	5.5
3	0	1	1.5	5.0	1	0.44	5.9	3	2.0	6.0
	6	1	1.2	5.0	1	0.67	6.2	3	2.1	7.0
	12	1	1.2	5.0	1	0.52	6.2	3	2.0	5.5
	18	3	0.8	4.0	1	0.65	6.2	3	0.6	4.0
4	0	3	0.7	4.0	1	0.62	6.3	3	0.5	4.0
	6	3	0.7	4.0	1	0.55	6.0	3	0.6	3.5
	12	3	0.9	4.0	1	0.62	6.3	3	0.6	4.0
	18	3	0.9	4.0	1	0.50	6.1	3	1.4	5.5
5	0	3	1.0	4.0	1	0.55	6.5	3	1.5	6.0
	6	3	1.0	4.5	1	0.64	7.1	3	1.3	5.5
	12	3	1.0	5.0	1	1.10	7.2	3	1.3	5.5
	18	3	0.8	4.0	1	0.80	6.9	3	1.3	5.0
6	0	3	0.9	4.0	1	0.73	6.8	3	0.6	3.5
	6	3	0.9	4.0	1	0.75	6.5	3	0.8	5.0
	12	3	0.8	4.0	1	0.72	6.6	3	0.6	4.0
	18	3	0.8	4.0	1	0.66	6.7	...		
7	0	3	0.8	4.0	1	0.53	6.2	3	3.0	5.5
	6	1	1.5	5.0	1	0.52	5.9	3	1.6	6.0
	12	1	1.1	3.7	1	0.47	5.7	3	2.2	6.0
	18	1	2.0	4.5	1	0.68	6.1	3	1.4	6.0
8	0	1	2.0	4.5	1	1.70	7.2	3	1.4	6.0
	6	1	1.9	4.3	1	1.90	7.1	3	1.3	5.5
	12	1	2.2	5.0	1	1.20	7.0	3	1.4	6.0
	18	1	2.5	5.0	1	1.30	7.2	...		

SEISMOLOGICAL BULLETIN - 1959

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
December 9	0	1	3.2	5.5	1	1.40	6.0	3	0.7	6.0
	6	1	4.1	5.7	1	1.80	6.2	3	1.5	6.0
	12	...			1	2.40	6.0	3	1.5	6.0
10	18	...			1	2.60	6.1	3	1.1	6.0
	0	...			1	2.30	6.0	3	0.9	5.5
	6	...			1	1.50	6.1	3	1.1	6.0
11	12	...			1	1.10	6.1	3	1.2	6.0
	18	3	1.2	4.0	3	1.40	7.4	3	2.0	7.0
	0	3	1.2	4.0	1	2.50	8.1	3	2.0	8.0
12	6	3	1.2	4.0	1	2.30	7.8	3	1.1	8.0
	12	3	1.2	4.0	1	1.50	7.8	3	1.2	5.0
	18	3	1.2	4.0	1	1.60	7.7	...		
13	0	3	0.8	4.0	1	2.10	7.7	...		
	6	3	0.8	4.0	1	1.50	7.7	...		
	12	3	0.7	4.0	1	0.90	7.0	...		
14	18	3	0.8	4.0	1	0.70	6.7	...		
	0	3	0.8	4.0	1	0.66	7.1	3	1.8	6.0
	6	3	0.8	4.0	1	0.52	6.6	3	1.5	6.0
15	12	3	1.2	4.0	1	0.62	6.4	3	1.3	6.0
	18	3	1.2	4.0	1	0.78	6.3	3	1.5	6.0
	0	3	1.7	4.0	1	0.88	6.6	3	1.5	6.0
16	6	1	1.7	4.0	1	1.80	6.5	3	1.7	5.0
	12	1	2.4	4.1	1	1.40	7.1	3	1.6	5.0
	18	1	1.5	4.3	1	1.40	7.1	3	3.0	6.0
17	0	1	1.5	4.0	...			...		
	6	1	1.2	4.0	1	2.20	7.3	3	2.3	6.0
	12	1	1.2	4.1	1	2.20	7.2	3	2.3	6.0
18	18	3	1.7	5.0	1	1.80	7.1	3	1.6	6.0
	0	3	2.3	5.3	1	0.90	6.7	3	1.4	6.0
	6	3	1.4	5.0	1	1.50	6.7	2	1.5	7.0
19	12	3	1.7	4.6	1	1.10	6.6	2	1.2	7.0
	18	3	1.5	5.0	1	0.90	6.3	2	1.7	7.0
	0	3	1.3	4.5	1	0.80	6.0	2	1.5	6.5
20	6	3	1.1	4.2	1	0.55	6.2	2	1.4	6.0
	12	3	1.0	4.5	1	1.50	6.9	2	1.4	6.0
	18	3	1.4	4.9	...			2	1.1	5.0
21	0	3	1.7	4.5	1	1.50	6.8	2	1.1	4.5
	6	1	2.9	4.8	1	1.30	6.5	2	2.2	5.0
	12	1	2.9	5.5	1	1.40	6.5	2	2.2	6.0
22	18	1	3.7	6.0	...			2	2.4	6.0
	0	1	7.5	6.5	1	1.40	6.4	2	2.6	7.0
	6	1	4.4	6.0	1	1.50	6.3	2	3.0	6.0
23	12	1	3.5	6.0	1	1.60	6.8	2	2.5	5.5
	18	1	3.5	6.0	1	2.60	7.1	2	3.0	6.0

DOMINION OBSERVATORIES

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
December 20	0	1	3.0	5.1	1	1.60	6.4	2	3.0	6.5
	6	1	2.3	5.0	1	1.10	6.3	2	2.3	6.0
	12	1	2.3	5.0	1	1.20	6.4	2	1.5	6.0
	18	3	2.2	5.0	1	1.10	6.2	2	2.6	7.0
21	0	3	2.0	5.0	1	0.95	6.6	2	2.5	7.5
	6	1	3.2	6.0	1	1.45	7.1	2	2.7	7.0
	12	1	3.9	6.3	...			2	2.2	7.0
22	18	1	3.7	6.3	1	3.70	8.2	2	2.7	9.0
	0	1	5.0	7.0	1	2.85	8.1	2	2.3	8.0
	6	1	3.0	6.0	1	2.40	8.0	2	2.3	8.0
	12	3	1.7	5.4	1	2.05	7.7	2	2.0	7.0
23	18	3	1.9	5.4	1	1.50	7.5	2	1.6	5.0
	0	3	1.9	5.5	1	1.10	7.1	...		
	6	1	2.7	5.5	1	1.10	6.9	3	0.7	4.5
24	12	1	2.7	5.5	1	1.05	6.5	3	1.1	5.0
	18	1	2.7	5.5	1	1.30	6.7	3	0.7	4.5
	0	1	3.2	5.8	1	1.45	6.5	3	0.9	4.5
	6	1	2.7	5.5	1	1.20	5.8	3	1.2	5.0
25	12	1	2.4	5.5	1	0.70	6.1	3	0.8	4.5
	18	1	2.0	5.8	1	0.65	5.9	...		
	0	1	1.8	6.0	3	0.65	6.3	3	0.6	4.0
	6	3	1.8	6.0	1	0.54	7.6	3	1.0	5.5
26	12	3	1.8	6.0	1	1.30	7.8	3	1.9	6.5
	18	3	1.2	5.0	1	1.45	7.5	3	1.4	8.0
	0	3	1.8	6.0	1	1.10	7.5	3	2.0	7.0
	6	3	1.5	5.0	1	0.80	7.8	3	1.5	6.0
27	12	3	1.2	5.0	1	0.55	6.9	3	1.0	4.0
	18	3	0.9	5.0	1	0.45	6.1	...		
	0	3	1.3	5.0	1	1.00	6.4	2	1.7	5.5
	6	3	1.6	6.0	1	1.50	6.5	2	2.8	5.5
28	12	3	1.4	6.0	1	1.10	6.4	2	2.2	5.0
	18	3	0.6	4.0	...			...		
	0	3	0.6	4.0	1	0.42	5.8	2	1.4	5.5
	6	3	0.6	4.0	1	0.48	6.5	2	1.3	5.0
29	12	3	0.6	4.0	1	0.57	6.8	3	1.0	5.0
	18	3	0.4	3.0	1	0.45	5.9	3	0.9	6.0
	0	3	0.5	3.1	1	0.51	5.6	3	0.9	6.0
	6	3	0.6	3.1	1	1.10	8.1	3	1.0	6.0
30	12	1	2.3	4.0	1	1.15	7.5	3	1.0	6.0
	18	1	4.3	5.0	1	1.00	7.1	3	0.9	6.0
	0	1	4.4	5.1	1	1.00	5.8	3	0.9	5.5
	6	1	3.1	5.1	1	1.10	5.5	3	0.9	5.5
31	12	1	3.0	5.1	1	0.68	5.7	3	1.0	5.5
	18	1	2.6	5.0	1	0.93	5.7	3	1.4	6.0
	0	1	2.3	5.0	1	0.85	5.8	3	1.5	6.0
	6	1	2.6	5.0	1	0.55	5.9	3	1.0	5.5

SEISMOLOGICAL BULLETIN - 1959

DATE	H O U R	OTTAWA			RESOLUTE			VICTORIA		
		K	A	T	K	A	T	K	A	T
		December 31	12	1	1.7	5.0	1	0.62	5.5	3
	18	1	1.2	4.0	1	0.47	5.8	3	1.0	5.5



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QUEEN'S PRINTER AND CONTROLLER OF STATIONERY  
OTTAWA, 1961