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Seismological Bulletin

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of Canada*

**Eastern Division
1954**

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SEISMOLOGICAL BULLETIN

Eastern Division - 1954

This report lists the instrumental results obtained at the seismological stations of the Eastern Division, Seismological Service of Canada. These are:

- Ottawa, Ontario -
Dominion Observatory, Dept. 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 Company; operated by the Company for the Dominion Observatory.
- Kirkland Lake, Ontario -
Owned and operated by the Dominion Observatory.
F. J. Hallick in charge.
- Resolute Bay, Northwest Territories -
Owned and operated by the Dominion Observatory.
F. Cook in charge to August 1954.
J. Eyres in charge after August 1954.

The records of all the above stations are stored at Ottawa.

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

John H. Hodgson,
Chief, Division of Seismology.

STATION	POSITION AND ELEVATION	FOUNDATION	INSTRUMENT	T ₀	T _g	MAGNIFICATION	DAMPING	PAPER SPEED mm/min.	TIME MARK ZERO	GROUND MOTION-TRACE UP	
Halifax	44° 38' N	Carbonaceous slate	Benloff Z	1.0	0.2	50,000	Critical	60	End	Up	
	63° 36' W			1.0	60	1 sec - 2,300	Critical	30	End	Up	
	h= 46 m.		Sprengnether NS	20	20	60 secs - 38	Critical	30	End	North	
			Sprengnether EW	20	20	6,000	Critical	30	End	East	
Kirkland Lake	48° 08' 41" N	Precambrian basement rock	Sprengnether Z	1.4	1.4	10,000	Critical	60	Start	Up	
	80° 01' 45" W										
	h= 310 m.										
Ottawa	45° 23' 38" N	Boulder clay over limestone	Milne-Shaw NS	12		300	20:1	30	End	South	
	75° 42' 57" W		Milne-Shaw EW	12		300	20:1	30	End	West	
	h= 83 m.		Benloff Z	1.0	0.2	70,000	Critical	60	End	Up	
			Leet-Blumberg Z	1.5	0.06	100,000 ca.	Under-damped	60	End	Up	
		Leet-Blumberg NS	1.5	0.06	100,000 ca.	"	60	End	South		
		Leet-Blumberg EW	1.5	0.06	100,000 ca.	"	60	End	West		
Resolute Bay	74° 41' N	Early Palaeozoic limestone Permafrost	Sprengnether Z	1.4	1.4	10,000	Critical	60	End	Up	
	94° 54' W		Sprengnether NS	14.1	14.1	1,600	Critical	60	End	North	
	h= 5 m.										
	At a point 1000' N15° W of above		Sprengnether EW	16.0	16.0	1,600	Critical	60	End	East	
			Press Z	12.2	12.5			60	End	Up	
Seven Falls	47° 07.4' N	Precambrian basement rock	Wood-Anderson EW	1.0		2,200	15:1	60	End	East	
	70° 49.6' W		Milne-Shaw EW	12.0		300	20:1	15	End	East	
	h= 232 m.		Benloff Z	1.0	0.2	70,000	Critical	60	End	Up	
Shawinigan Falls	46° 33.1' N	Precambrian basement rock	Wood-Anderson NS	1.0		2,200	15:1	60	End	North	
	72° 45.8' W		Willmore Z	1.0	0.25	6,000	Critical	60	End	Down	
	h= 60 m.										

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JANUARY 1	Seven Falls	Ottawa
U.S.C.G.S.	eS ₁ 02 31 29	eP 11 23 47 c
8 1/2S, 124E	D = 1,350 km	Resolute Bay
Sawoe Sea		eP 11 27 23
h = 100 km		Seven Falls
Halifax	JANUARY 2	iP 11 24 10 c
eP' 13 23 40	U.S.C.G.S.	
Kirkland Lake	43N, 147E	JANUARY 4
eP' 13 23 34	Off coast of Hokkaido,	U.S.C.G.S.
ePKS 13 26 57	Japan.	Bouvet Islands Region
Ottawa	H = 13 52 27	South Atlantic Ocean.
iP' 13 23 36	Resolute Bay	H = 12 08 49
iPKS 13 27 07	eP 14 02 04	Ottawa
Resolute Bay		iP' 12 27 53 d
eP' 13 22 39		Resolute Bay
	JANUARY 2	iP' 12 28 20 d?
	U.S.C.G.S.	
JANUARY 1	54N, 165W	
Seven Falls	Fox Islands, Aleutian	JANUARY 5
iP ₁ 19 39 57.5	Island.	U.S.C.G.S.
iP _n 19 39 59.2	H = 20 17 25	43N, 147E
iP ₁ P ₁ 19 40 00.7	Ottawa	Off east coast of
iS ₁ 19 40 08.1	eP 20 26 57 d	Hokkaido, Japan.
D = 85 km	ePP 20 28 58	H = 03 18 00
H = 19 39 43.5	Resolute Bay	Resolute Bay
	eP 20 24 11 c?	e 03 27 39
	Seven Falls	
JANUARY 2	iP 20 27 04.5 c	
Resolute Bay		JANUARY 5
eP 01 23 49 c?		U.S.C.G.S.
	JANUARY 3	76°N, 6E
JANUARY 2	U.S.C.G.S.	Foreshock of Spitzbergen
The following inter-	43 1/2N, 145E	earthquake.
pretation of the records	Near east coast of	Resolute Bay
suggests an epicentre	Hokkaido, Japan.	e 07 23 13
at 38 1/2N, 82 1/2W,	H = 17 30 31	
in the southern tip of	Ottawa	
Ohio at H = 02 25 12.	iP 17 43 06 c	JANUARY 6
However the U.S.C.G.S.	Resolute Bay	U.S.C.G.S.
does not list any earth-	iP 17 40 10 c	76N, 7E
quake in this area.		Southwest of Spitzbergen.
Kirkland Lake	JANUARY 4	H = 15 53 59
eS ₁ 02 30 19	U.S.C.G.S.	Kirkland Lake
D = 1,100 km	9N, 85W	eP 16 02 07 c
Ottawa	Near southwest coast	Ottawa
eS _n 02 28 38	of Costa Rica.	iP 16 02 19 d
eS ₁ 02 29 39	H = 11 16 29	
D = 950 km		

DOMINION OBSERVATORIES

Resolute Bay	Seven Falls	Seven Falls
eP 15 59 00	eL 07 45.2	eP 01 51 17 c
eS 16 03 11		iP 01 51 18 d
eSS 16 04 16		
eL 16 05.5	JANUARY 7	
F 16.3	Ottawa	JANUARY 9
D = 2,550 km	eP 07 27 45	Ottawa
Seven Falls	e 07 28 29	iP 02 58 19 d
eP 16 01 51 c		Seven Falls
i 16 01 56 c		eP 02 58 43 d
	JANUARY 7	
	Ottawa	
JANUARY 7	iP _n 18 09 52	JANUARY 9
U.S.C.G.S.	eS _n 18 10 09	U.S.C.G.S.
25S, 179 1/2E	L 18 10 17	34 1/2N, 141E
South of Fiji Islands.	D = 148 km	Off coast of Honshu,
H = 04 08 24	H = 18 09 28.5	Japan.
Ottawa		H = 08 06 30
iP' 04 27 02 c		Resolute Bay
Resolute Bay	JANUARY 8	eP 08 17 11
eP' 04 26 55	U.S.C.G.S.	
Seven Falls	Near north coast of	
iP' 04 27 09 c	Honshu, Japan.	JANUARY 9
	H = 04 13 45	Resolute Bay
	Resolute Bay	eP 16 35 54 c
JANUARY 7	eP 04 23 53 c	
Kirkland Lake		
eP ₁ 05 34 01		JANUARY 9
e 05 34 02	JANUARY 8	Resolute Bay
iP ₁ P ₁ 05 34 04.6	Ottawa	eP 18 19 51 d
iS ₁ 05 34 05.6	eP _n 19 54 28	
iS ₁ S ₁ 05 34 12.8	eS _n 19 54 45	
i 05 34 19	L 19 54 53	JANUARY 10
D = 37 km	D = 148 km	U.S.C.G.S.
H = 05 33 54.5	H = 19 54 04.5	65 1/2N, 136 1/2W
		Yukon, Canada.
		H = 08 59 58
JANUARY 7	JANUARY 9	Ottawa
U.S.C.G.S.	U.S.C.G.S.	iP 09 07 17 d
About 500 miles south	5 1/2N, 83W	Resolute Bay
of the Fiji Islands.	South of Panama.	e 09 03 43
H = 06 48 50	Kirkland Lake	eP 09 03 48 d
Halifax	eP 01 51 14	e 09 04 57
eL 07 50.1	Ottawa	e 09 06 39
Resolute Bay	iP 01 50 54 c	eS 09 08 30
eP 07 03 43	Resolute Bay	eL 09 10.2
eG 07 34 15	eP 01 54 27	F 09.3
eL 07 42.0	eL 02 18.1	



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JANUARY 10	Halifax	Halifax
Seven Falls	iP' No time	i No time
eP _n 21 05 15	marks d	marks d
iS ₁ P _n P ₁ 21 05 17	Ottawa	eL 01 22.9
iS _n 21 05 42	iP' 14 39 52 c	Kirkland Lake
iS ₁ 21 05 51.5	Seven Falls	eP' 00 32 28 c?
iS ₁ S ₁ 21 05 53	iP' 14 39 56 c	i 00 33 49 c
D = 265 km	eL 15.5	Ottawa
H = 21 04 37		iP' 00 32 38 c
		ePP 00 35 30
		PKS 00 36 14
JANUARY 11	JANUARY 12	SKKS 00 42 36
Resolute Bay	U.S.C.G.S.	PS 00 45 46
eP 13 42 24 c	35.0N, 119.1W	PPS 00 47 30
	Near Wheeler Ridge,	e 00 49 16
	California.	SS 00 54 00
	H = 23 33 46.5	SSS 00 59 00
JANUARY 11	Mag. = 5.7 (Pasadena)	Resolute Bay
U.S.C.G.S.	Kirkland Lake	eP' 00 32 31 c
23N, 126E	eP 23 40 13 d?	F 02.7
Ryukyu Islands region.	e 23 40 19	Seven Falls
H = 17 09 02	Ottawa	eP' 00 32 43
Resolute Bay	iP 23 40 35	eG 01 24.0
eP 17 21.1	i 23 41 20	eL 01 27.0
	i 23 41 35	
	ePP 23 41 50	
JANUARY 12	ePPP 23 42 22	
U.S.C.G.S.	eP _c P 23 43 20	JANUARY 13
49S, 165E	eS 23 46 00	Ottawa
Off coast of South	eSS 23 48 30	iP 21 23 33 c
Island, New	eS _c S 23 51 00	
Zealand.	Resolute Bay	JANUARY 14
H = 14 16 22	eP 23 41 35	Halifax
Halifax	Seven Falls	iP ₁ 14 56 46
iP' No time	eP 23 41 06	iS ₁ 14 56 52
marks d	eL 23 55 33	D = 50 km
Seven Falls		H = 14 56 38
eP' 14 35 57 c		Probably an explosion.
	JANUARY 13	
	U.S.C.G.S.	
	49°S, 165°E	
JANUARY 12	Off coast of South	JANUARY 14
U.S.C.G.S.	Island, New	Halifax
49S, 165E	Zealand.	iP ₁ 14 58 09
Off coast of South	H = 00 13 06	iS ₁ 14 58 13
Island, New	Mag. = 7 1/4	D = 35 km
Zealand.	(Pasadena)	H = 14 58 07.5
H = 14 20 26		Probably an explosion.

DOMINION OBSERVATORIES

JANUARY 14 U.S.C.G.S. Celebes Sea H = 02 11 25 Ottawa eP' 02 30 42 c ePP 02 32 39 Resolute Bay eP 02 25 05 c ePP 02 29 09 Seven Falls eiP' 02 30 41 c	Seven Falls eP _n 19 56 44.8 iS _n 19 57 17.5 D = 336 km Shawinigan Falls eP _n 19 56 34.5 e(S _n) 19 56 58.7 D = 225 km	Seven Falls eP 22 52 51 eL 23 05.3 Max.! 23 08.8
JANUARY 14 U.S.C.G.S. Fox Islands, Aleutian Islands. H = 19 37 38 Ottawa eP 19 47 08 Resolute Bay iP 19 44 32 d	JANUARY 16 Halifax iP _n 13 36 39.5 iS _n 13 37 03.5 D = 230 km H = 13 36 06	JANUARY 17 U.S.C.G.S. 36N, 139 1/2E Central Honshu, Japan. Felt in Tokyo. H = 11 46 10 Ottawa iP 11 59 20 d Resolute Bay eP 11 56 39 c
JANUARY 15 U.S.C.G.S. Kermadec Islands Ottawa eP' 03 42 50	JANUARY 16 Ottawa iP _n 18 23 20 iS _n 18 23 36.5 iS ₁ S ₁ 18 23 39.5 e 18 23 43 D = 142 km H = 18 22 57	JANUARY 17 U.S.C.G.S. 52N, 178 1/2E Rat Islands, Aleutian Islands. H = 20 43 43 Ottawa eP 20 54 04 d Resolute Bay eP 20 51 07 c? Seven Falls iP 20 54 10 c
JANUARY 15 Seven Falls e(P) 14 20 20 d	JANUARY 16 U.S.C.G.S. 49N, 129 1/2W Off coast of Vancouver Island, B.C. H = 22 45 27 Kirkland Lake eP 22 52.1 eL 23 02 47 Ottawa eP 22 52 23 c S _c S 23 03 08 Resolute Bay eP 22 51 34 eS 22 56 23 eL 23 00.7 F 23.2	JANUARY 17 U.S.C.G.S. Kirkland Lake eP 23 32 43 c e 23 33 10 Seven Falls eP 23 32 34 e 23 33 00
JANUARY 15 Preliminary Ottawa Epicentre. 48 1/2N, 75W H = 19 55 58 Ottawa iP _n 19 56 41 iS ₁ P _n P ₁ 19 56 44 eS _n 19 57 14 L 19 57 34 D = 338 km		



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JANUARY 18 U.S.C.G.S. Banda Sea H = 10 47 07 Kirkland Lake eiP' 11 06 23 i(PP) 11 09 37 Ottawa iP' 11 06 30 d PKS 11 09 50 Resolute Bay eP' 11 05 35 d iP' 11 05 36 c Seven Falls eP' 11 06 21 e 11 06 30 d i 11 09 52	JANUARY 18 Resolute Bay eP 16 54 13 c	JANUARY 20 Seven Falls eP 09 33 31 d?
JANUARY 18 U.S.C.G.S. Near west coast of Greece. H = 14 16 05 Ottawa eP 14 27 45 d Resolute Bay eP 14 26 19 Seven Falls eP 14 26 53 d	JANUARY 18 Resolute Bay eP 19 22 11 c?	JANUARY 20 Ottawa iP 14 50 28 c Resolute Bay eP 14 45 19 c? Seven Falls eP 14 50 16 c
JANUARY 18 U.S.C.G.S. 52 1/2N, 159E Near east coast of Kamchatka. H = 14 45 10 Ottawa eP 14 56 32 d Resolute Bay eP 14 55 52 c	JANUARY 19 Resolute Bay eP 09 14 38 c?	JANUARY 20 Ottawa iP 16 27 39 c Seven Falls iP 16 27 28 c i 16 27 34 c
JANUARY 18 Halifax iP ₁ 15 34 06 iS ₁ 15 34 10.5 D = 35 km H = 15 34 00.5 Probably an explosion.	JANUARY 20 U.S.C.G.S. 8 1/2N, 103 1/2W Pacific Ocean, south of Mexico. H = 04 16 25 Halifax eS 04 32 38 eL 04 40 08 Kirkland Lake eP 04 24 40 Ottawa iP 04 24 39 d eS 04 31 04 S _c S 04 34 48 SSS 04 35 11 e 04 39 00 Resolute Bay eP 04 27 19 eS 04 36 06 eS _c S 04 37 14 eSSS 04 43 44 eL 04 45.5 F 05.5	JANUARY 20 U.S.C.G.S. 41 1/2°N, 105 1/2W Southeastern Wyoming H = 20 50 01 Ottawa eLg 21 01 38 Resolute Bay eLg 21 07 45
		JANUARY 21 Resolute Bay eP 09 15 22 c

DOMINION OBSERVATORIES

JANUARY 22
Resolute Bay
eP 05 59 39 d

JANUARY 24
Resolute Bay
eP₁ 16 59 41
eS₁ 16 59 44
D = 25 km
H = 16 59 37

JANUARY 26
Halifax
i 08 50 48
i 08 51 13

JANUARY 22
U.S.C.G.S.
54°N, 163°W
Near Unimak Islands.
H = 11 16 07
h = 60 km
Halifax
eL 11 47 10
Ottawa
eP 11 25 27
i 11 25 40
Resolute Bay
eP 11 22 36 c?
eL 11 37.0
F 11.9

JANUARY 25
U.S.C.G.S.
33N, 40W
North Atlantic Ocean.
H = 16 03 45
Halifax
i 16 08 36 d
eL 16 13 28
Resolute Bay
eP 16 12 39 c?

JANUARY 26
Ottawa
eP 23 27 22

JANUARY 27
Halifax
iP_n 14 36 12
iS_n 14 36 35
D = 210 km
H = 14 35 41

JANUARY 28
U.S.C.G.S.
Near coast of New Britain
H = 08 58 59
Ottawa
eP' 09 18 01 d
Seven Falls
eP' 09 18 06 d?

JANUARY 27
Ottawa
eP₁ 03 55 27
eS₁ 03 55 40
D = 105 km
H = 03 55 10

JANUARY 27
U.S.C.G.S.
56 1/2N, 157W
Near coast of Alaska
Peninsula.
H = 10 30 00
Ottawa
iP 10 38 50 d
Seven Falls
eP 10 39 00 c

JANUARY 27
Halifax
iP_n 14 36 12
iS_n 14 36 35
D = 210 km
H = 14 35 41

JANUARY 27
U.S.C.G.S.
Near coast of Guerrero,
Mexico.
H = 18 16 07
h = 60 km

JANUARY 25
U.S.C.G.S.
37 1/2N, 72 1/2E
Tadzhik S.S.R.
H = 16 06 30
Ottawa
eP 16 19 44 c
Seven Falls
eP 16 19 27 c

JANUARY 26
Ottawa
eP 07 11 23 d

JANUARY 23
Ottawa
eP 17 23 01 d

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Ottawa
iP 18 22 57 c

Resolute Bay
eP 10 26 00 c

Seven Falls
eP 18 23 29 c

JANUARY 30
Resolute Bay
eP₁ 05 21 39
iS₁ 05 21 50
i 05 21 56
F 05.7
D = 90 km
H = 05 21 24.5

JANUARY 28
Resolute Bay
eP 08 49 55 d?

JANUARY 30
U.S.C.G.S.
54N, 163W
Near Unimak Isl.,
Alaska.
H = 18 27 44
Resolute Bay
eP 18 34 28
eL 18.2
F 19.0

JANUARY 28
U.S.C.G.S.
Near coast of Guerrero,
Mexico.
H = 22 14 54
h = 60 km
Ottawa
iP 22 21 46 c
i 22 21 56
Resolute Bay
eP 22 24 46 d?

Seven Falls
eP 22 22 19

JANUARY 31
Resolute Bay
eP 08 14 17 c
e 08 14 24

JANUARY 29
Resolute Bay
eP₁ 03 43 28
e 03 43 34
iS₁ 03 43 38
i 03 43 45
F 03.0
D = 83 km
H = 03 43 15

JANUARY 31
U.S.C.G.S.
52N, 160E
Off east coast of
Kamchatka.
H = 11 43 27
Halifax
eL 12 25 00
Resolute Bay
eP 11 51 44
eS 11 58 27
eL 12 07.3
F 12.5

JANUARY 29
U.S.C.G.S.
8 1/2S, 159E
Solomon Islands
H = 08 00 14
h = 100 km
Ottawa
iP' 08 10 58 c
Seven Falls
iP' 08 19 03 c

JANUARY 31
Resolute Bay
eP 01 20 35 c?
e 01 33 35
F 02.2
Ottawa
eP 01 20 52 d
i 01 23 50
PP 01 25 22
PPP 01 27 38
SKS 01 31 30
e 01 31 44
PS 01 34 12
SS 01 40 08
SSS 01 44 04
G 01 49 30
Resolute Bay
iP 01 18 33 d
iP_CP 01 19 02
iPP 01 21 17
iS 01 28 17
S_CS 01 28 51
F 03.0
Seven Falls
eP 01 20 54 c?
e 01 24 30
e 01 25 21
e 01 30 23
eSKS 01 31 43
ePS 01 34 27
e 01 39 55
eSS 01 40 35

FEBRUARY 1
U.S.C.G.S.
Volcano Islands
Kirkland Lake
eP 01 20 35 c?
e 01 33 35
F 02.2
Ottawa
eP 01 20 52 d
i 01 23 50
PP 01 25 22
PPP 01 27 38
SKS 01 31 30
e 01 31 44
PS 01 34 12
SS 01 40 08
SSS 01 44 04
G 01 49 30
Resolute Bay
iP 01 18 33 d
iP_CP 01 19 02
iPP 01 21 17
iS 01 28 17
S_CS 01 28 51
F 03.0
Seven Falls
eP 01 20 54 c?
e 01 24 30
e 01 25 21
e 01 30 23
eSKS 01 31 43
ePS 01 34 27
e 01 39 55
eSS 01 40 35

FEBRUARY 1
U.S.C.G.S.
Volcano Islands
aftershock
H = 01 20 07
Resolute Bay
iP 01 31 52 d

DOMINION OBSERVATORIES

FEBRUARY 1 U.S.C.G.S. Volcano Islands aftershock H = 02 23 13 Resolute Bay iP 02 34 58 d	FEBRUARY 1 U.S.C.G.S. Volcano Islands aftershock Resolute Bay iP 06 32 43 d	Resolute Bay e 04 54 30
FEBRUARY 1 U.S.C.G.S. Volcano Islands aftershock H = 04 03 11 Resolute Bay iP 04 14 56 d Seven Falls e 04 31 04	FEBRUARY 1 U.S.C.G.S. California aftershock H = 13 05 27.5 Ottawa eP 13 12 08 c Seven Falls eP 13 12 38 d	FEBRUARY 2 Kirkland Lake eP 16 59 41 Ottawa eP 16 59 37
FEBRUARY 1 U.S.C.G.S. 32 1/2N, 115 1/4W Lower California H = 04 31 59.5 Kirkland Lake eP 04 38 20 eL 04 48 32 Ottawa iP 04 38 39 c Resolute Bay eP 04 40 08 Seven Falls eP 04 39 10 c e(Lg) 04 51 26	FEBRUARY 1 U.S.C.G.S. Greenland foreshock H = 14 00 44 Ottawa eP 14 08 49 c Resolute Bay iP 14 04 35 d i 14 12 40 Seven Falls eP 14 08 26	FEBRUARY 2 U.S.C.G.S. 83°N, 7°E Off northeast coast of Greenland. H = 17 45 45 Kirkland Lake eP 17 53 31 c Ottawa eP 17 53 45 c PP 17 55 34 S 18 00 12 SS 18 03 18 S _c S 18 03 44 SSS 18 04 22 Resolute Bay iP 17 49 35 c iS 17 52 30 L 17 54 00 F 18 15 Seven Falls eP 17 53 26 c? eS 17 59 40
FEBRUARY 1 U.S.C.G.S. Volcano Islands aftershock H = 05 46 41 Resolute Bay iP 05 58 25 d	FEBRUARY 1 U.S.C.G.S. Greenland foreshock H = 15 46 00 Resolute Bay iP 15 49 50 d i 15 57 56	FEBRUARY 3 U.S.C.G.S. Off east coast of Honshu, Japan. H = 08 04 06 Resolute Bay e 08 14 53
FEBRUARY 2 U.S.C.G.S. 6 1/2S, 81W Near coast of Peru H = 04 42 12	FEBRUARY 3 U.S.C.G.S. 45 1/2N, 148 1/2E Kurile Islands H = 18 23 53 h = 100 km	

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Kirkland Lake eP 18 35 48 d	Ottawa eP' 10 38 40 c PP 09 40 27 iP 18 36 02 d Resolute Bay iP 18 33 xx c Time correction doubtful.	Resolute Bay iP 15 27 44 c S 15 35 48 L 15 52.0 Seven Falls eP 15 24 44 eS 15 29 20 eL 15 34 16 F 16.7 Shawinigan Falls i 15 24 39 e 15 32.8
Seven Falls eP 18 36 03 c	Resolute Bay eP 09 33 34 iSKS 09 44 07 iS 09 45 05 SS 09 52 12 (PSPS) 09 52 28 L 10 08 F 12 Seven Falls (eP') 09 38 47 iP' 09 38 54 c e 09 41 27 c eSKS 09 45 57 F 12.0	FEBRUARY 7 U.S.C.G.S. 15°S, 167 1/2E New Hebrides Islands H = 06 15 21 h = 100 km Kirkland Lake eP' 06 34 09 c Ottawa iP' 06 34 03 c i 06 44 18 SS 06 52 14 Resolute Bay e 06 33 42 e 06 44 58 Seven Falls iP' 06 34 08 c i 06 44 04 c
FEBRUARY 3 Ottawa iP _n 21 55 33 iS _n 21 55 57 eL 21 56 07 D = 225 km Note: A trace, too small to read was recorded at Seven Falls.	FEBRUARY 4 Seven Falls eP 02 00 41 c	FEBRUARY 5 U.S.C.G.S. 17 1/2N, 92 1/2W Chiapas, Mexico. H = 15 17 59 h = 100 km Halifax S 15 30 45 SS 15 33 37 SSS 15 34 04 S _c S 15 35 17 Kirkland Lake eP 15 24 32 c? epP 15 24 41 d? Ottawa eP 15 24 16 d i 15 24 59 P _c P 15 27 17 S 15 29 20 e 15 30 12 SSS 15 31 47 e 15 34 40
FEBRUARY 4 U.S.C.G.S. Off east coast of Honshu, Japan. H = 03 43 21 Resolute Bay e 03 54 09	FEBRUARY 5 U.S.C.G.S. 4 1/2S, 153E Off coast of New Britain. H = 09 19 42 Halifax iPKS 09 42 16 SKS 09 46 00 SS 09 58 47 L 10 14.4 F 11.6	FEBRUARY 7 Kirkland Lake e 12 44 09 Ottawa e 12 44 58 Resolute Bay e 12 39 00 Seven Falls e 12 43 54 FEBRUARY 7 Ottawa i 20 26 16 i(S ₁) 20 26 30 i(S _n) 20 26 32 i 20 26 37



DOMINION OBSERVATORIES

Resolute Bay iP 03 33 56 d L 03 57.0 Seven Falls iP 03 30 46 d?	Kirkland Lake eP 20 00 23 c? Ottawa eP 20 00 04 d e 20 06 36 S 20 07 28 e 20 09 08 S _c S 20 09 54 SSS 20 13 10 L 20 16.5 Resolute Bay eP 20 03 13 iS 20 13 23 S _c S 20 13 49 SS 20 18 37 L 20 24 00 F 21 10 Seven Falls iP 20 00 20 c eS 20 07 59	Seven Falls iP 01 50 28 c FEBRUARY 17 U.S.C.G.S. 51 1/2N, 160E Off east coast of Kamchatka. H = 08 57 54 Resolute Bay e 09 06 13 FEBRUARY 17 Ottawa eP 11 30 30 c iP 11 30 42 c i 11 30 48 d FEBRUARY 17 U.S.C.G.S. 46 1/2N, 151E Kurile Islands. H = 11 36 18 h = 100 km Kirkland Lake e 01 49 51 Ottawa iP 11 48 17 c PP 11 52 10 Resolute Bay eP 11 45 20 Seven Falls iPP 17 52 29 d FEBRUARY 17 U.S.C.G.S. Off southeast coast of Kamchatka H = 01 38 50 Kirkland Lake eP 01 49 51 Ottawa eP 01 50 15 d Resolute Bay iP 01 47 03 c S 01 53 38 L 02 04 00
FEBRUARY 15 U.S.C.G.S. 16 1/2N, 100W Near coast of Mexico. H = 12 03 06 Kirkland Lake eP 12 10 05 c Ottawa iP 12 10 03 c i 12 10 13 Resolute Bay e 12 13 03	FEBRUARY 15 U.S.C.G.S. 6 1/2S, 81W Near coast of northern Peru. H = 15 40 37 Kirkland Lake eP 15 50 07 e 15 50 15 Ottawa iP 15 49 49 d Resolute Bay e 15 53 01 Seven Falls iP 15 50 06 d	FEBRUARY 15 U.S.C.G.S. 6 1/2S, 81W Near coast of northern Peru. H = 15 40 37 Kirkland Lake eP 15 50 07 e 15 50 15 Ottawa iP 15 49 49 d Resolute Bay e 15 53 01 Seven Falls iP 15 50 06 d
FEBRUARY 15 U.S.C.G.S. 6 1/2S, 81W Near coast of northern Peru. H = 19 50 52	FEBRUARY 15 U.S.C.G.S. 6 1/2S, 81W Near coast of northern Peru. H = 19 50 52	FEBRUARY 15 U.S.C.G.S. 6 1/2S, 81W Near coast of northern Peru. H = 19 50 52

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FEBRUARY 19 U.S.C.G.S. 11 1/2N, 87 1/2W Off coast of Nicaragua H = 00 40 25 Kirkland Lake e(P) 00 47 39 c iP 00 47 41 d Ottawa iP 00 47 23 d i 00 48 00 PP 00 48 55 PPP 00 49 10 i 00 51 16 e 00 52 40 S 00 53 00 e 00 53 30 e 00 53 40 SS 00 55 02 S _c S 00 58 12 Resolute Bay iP 00 50 58 iPP 00 53 24 PPP 00 54 47 iS 00 59 26 S _c S 01 00 49 SS 01 03 37 L 01 07.0 Seven Falls eP 00 47 58 ePP 00 49 27 eS 00 54 02 iPS 00 54 22 SS 00 56 18 Shawinigan Falls eP 00 47 45.1 e 00 47 46.6 c? PP 00 49 06.7	H = 13 28 26 Resolute Bay eP 13 38 40 L 14 40.0 FEBRUARY 19 Ottawa eP 19 01 15 c FEBRUARY 19 Ottawa eP 19 26 32 FEBRUARY 19 U.S.C.G.S. 30°S, 178° W Kermadec Islands. H = 19 07 44 Ottawa eP' 19 26 35 d PP 19 28 06 SKS 19 33 38 SKKS 19 34 52 e 19 35 57 PS 19 37 32 PPS 19 39 00 e 19 40 48 SSS 19 50 40 Resolute Bay iP' 19 26 31 c Other phases lost in changing records. eP' 19 26 43 c eSKS 19 33 49 eSKKS 19 35 21 ePS 19 38 11 eSS 19 45 13 eL 20.1 FEBRUARY 19 U.S.C.G.S. 45N, 91 1/2E Sinkiang, China.	FEBRUARY 19 Ottawa eP 20 13 07 FEBRUARY 19 Ottawa iP 20 51 02 c FEBRUARY 19 Ottawa iP _n 21 06 02 iS _n 21 06 26 L 21 06 37 D = 225 km FEBRUARY 19 U.S.C.G.S. 12 1/2°N, 87 1/2W Near coast of Nicaragua. H = 21 34 41 Kirkland Lake iP 21 41 51 c Ottawa eP 21 41 35 c PP 21 42 54 P _c P 21 44 16 e 21 45 24 S 21 47 08 i 21 47 36 e 21 49 00 SS 21 49 52 Resolute Bay iP 21 45 05 c iP _c P 21 45 49 iPP 21 47 19 ePPP 21 48 50 eS 21 53 29 eS _c S 21 54 07 iSS 21 57 44 L 22 02.0 Seven Falls iP 21 42 00 c i 21 42 57 c ePP 21 43 43 eS 21 48 15 eSS 21 50 17
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DOMINION OBSERVATORIES

Shawinigan Falls iP 21 41 51 d	FEBRUARY 20 U.S.C.G.S. Near coast of Nicaragua H = 04 27 47	epP' iSKP iPP'	18 55 35 c? 18 56 00 c? 18 56 08 c PP is a very large phase
FEBRUARY 19 U.S.C.G.S. 18N, 101 1/2W Near coast of Mexico H = 23 36 00	Kirkland Lake eP 04 35 02	Ottawa eP'	18 53 18 c 18 53 30
Kirkland Lake eP 23 42 54	Resolute Bay e 04 38 20	i PKS	18 56 13 18 56 22
Ottawa iP 23 42 53 d i 23 44 05	Seven Falls e 04 35 21	i i i	18 57 11 18 57 39 18 57 57
Resolute Bay e 23 45 47	FEBRUARY 20 Resolute Bay	PPP SKS	18 59 08 19 00 46
Seven Falls iP 23 43 25 c	e 06 34 07	SKKS PPS e SS e SSS	19 02 26 19 07 40 19 11 12 19 12 32 19 14 20 19 17 18
FEBRUARY 20 Resolute Bay e 02 01 21	FEBRUARY 20 U.S.C.G.S. 7S, 124 1/2E Flores Sea. H = 18 35 05 h = 600 km	Resolute Bay iP ipP esP iPP	18 48 34 d 18 50 33 18 51 33 18 53 09
FEBRUARY 20 U.S.C.G.S. 11 1/2N, 87 1/2W Off coast of Nicaragua H = 02 00 43	Halifax iP' 18 53 32 d e 18 53 39	epPP ePPP iSKS	18 54 54 18 57 23 18 58 23
Kirkland Lake iP 02 07 58 c	SKP 18 56 25 i 18 56 28	iS sSP L	18 59 09 19 05 08 19 28 00
Ottawa iP 02 07 41 c PP 02 09 04 PPP 02 09 28 PcP 02 10 14 S 02 13 12 e 02 17 28	PP 18 56 55 PKS 18 57 17 i 18 58 35 i 18 58 43 pPKS 18 59 31 SKS 18 59 53 i 19 02 48 SKKP 19 04 45 i 19 08 41 SS 19 14 23 i 19 15 24 sSS 19 08 02 G 19 33 47	Seven Falls e 18 53 19 c? iP' 18 53 21 c isP 18 53 32 ipP' 18 55 40 c? iSKP 18 56 13 ePP 18 56 21 esP' 18 56 30 ePKS 18 57 07 e 19 02 28 e 19 10 10 e 19 11 18 e(sSS) 19 17 14 e(SSS) 19 18 50	
Resolute Bay iP 02 11 14 c i(S) 02 21 26 L 02 35.0	PKS 18 57 17 i 18 58 35 i 18 58 43 pPKS 18 59 31 SKS 18 59 53 i 19 02 48 SKKP 19 04 45 i 19 08 41 SS 19 14 23 i 19 15 24 sSS 19 08 02 G 19 33 47		
Seven Falls iP 02 08 06 c	Kirkland Lake eP' 18 53 19 c? i 18 53 22 c isP 18 53 29 c		
Shawinigan Falls iP 02 07 57 c?			

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Shawinigan Falls eP' 18 53 17 i 18 53 25 c e 18 53 33 PP 18 56 13 e 18 56 18	Kirkland Lake eP 01 36 17 c iP 01 36 18 d Ottawa iP 01 36 01 d Resolute Bay e 01 39 35 Seven Falls eP 01 36 25 c iP 01 36 26 d	FEBRUARY 21 U.S.C.G.S. Off south coast of Kamchatka. H = 18 43 35 Resolute Bay e 18 52 36
FEBRUARY 20 U.S.C.G.S. Windward Islands Region. H = 19 53 00 h = 100 km	FEBRUARY 21 U.S.C.G.S. Northern Kurile H = 04 21 55 Resolute Bay e 04 30 25	FEBRUARY 21 Ottawa iP 19 18 21 c
Kirkland Lake eP 20 00 30 c Ottawa iP 19 59 59 c iPcP 20 02 19 Resolute Bay iP 20 03 41 c	FEBRUARY 21 Ottawa e(Lg) 09 02 45 Seven Falls iP ₁ 09 00 46 iP ₁ P ₁ 09 00 49.2 iS ₁ P ₁ 09 00 53.1 iS ₁ 09 00 53.8 D = 60 km H = 09 00 36	FEBRUARY 21 Ottawa iP 20 33 40
Seven Falls iP 20 00 03 c i 20 00 30 c? e 20 02 31	FEBRUARY 21 Ottawa e(Lg) 09 02 45 Seven Falls iP ₁ 09 00 46 iP ₁ P ₁ 09 00 49.2 iS ₁ P ₁ 09 00 53.1 iS ₁ 09 00 53.8 D = 60 km H = 09 00 36	FEBRUARY 21 U.S.C.G.S. 12 1/2N, 87W Near coast of Nicaragua H = 23 39 25 h = 60 km
Shawinigan Falls iP 20 00 02 c e 20 00 27	Shawinigan Falls iP _n 09 01 09.2 S _n 09 01 34.2 D = 240 km	Kirkland Lake iP 23 46 29 c i(pP) 23 47 05 c i 23 48 00 c
FEBRUARY 20 U.S.C.G.S. 28S, 177 1/2W Kermadec Islands H = 21 28 28 Ottawa eP' 21 47 17 d ePP 21 48 29 Resolute Bay e 21 47 08 L 22 25 00 Seven Falls eP 21 47 29	FEBRUARY 21 U.S.C.G.S. 52N, 175 1/2W Andreanof Islands H = 16 09 11 Ottawa iP 16 19 28 d Resolute Bay eP 16 16 38 Seven Falls eP 16 19 35 d?	Ottawa iP 23 46 11 c PP 23 47 30 i 23 47 33 PcP 23 48 42 SS 23 51 26 e 23 52 24 ScS 23 56 12 Resolute Bay iP 23 49 44 c Seven Falls iP 23 46 34 c iPP 23 48 06 c Shawinigan Falls iP 23 46 25 c
FEBRUARY 21 U.S.C.G.S. Near coast of Nicaragua H = 01 29 06 h = 60 km	FEBRUARY 22 U.S.C.G.S. 34 1/2N, 141E Off coast of Honshu, Japan. H = 06 11 26	

DOMINION OBSERVATORIES

Kirkland Lake eP 06 24 07	Resolute Bay eP' 12 22 42	Seven Falls eL 07.5
Ottawa iP 06 24 45 c	iPP 12 24 26	
Resolute Bay iP 06 22 10 d	iPKS 12 26 08	FEBRUARY 24
eS 06 30 56	iP'P' 12 43 50	Resolute Bay
L 06 36 00	L 12 53 00	e 12 25 45
F 06 55 00	Seven Falls e 12 21 42	Ottawa iP 12 27 31 c
Seven Falls eP 06 24 46 c	e 12 22 25	
	e 12 32 58 c?	
	Shawinigan Falls e 12 21.5	FEBRUARY 24
	i 12 22 25	Ottawa eP 17 38 27 c
FEBRUARY 22		
U.S.C.G.S.		
Aftershock of Honshu quake. H = 10 26 39	FEBRUARY 22 Ottawa iP 13 14 55 d	FEBRUARY 24 U.S.C.G.S. 35 1/2N, 139 1/2E Honshu, Japan. H = 17 27 52 Ottawa eP 17 41 09 c
Kirkland Lake eP 10 39 46		
Ottawa iP 10 40 03	FEBRUARY 22 Resolute Bay eP 15 01 59	
i 10 40 18		
Resolute Bay iP 10 37 27		
L 11 04 00	FEBRUARY 22 Ottawa iP 18 46 32 c	FEBRUARY 24 U.S.C.G.S. 13N, 144E Marianas Islands H = 19 36 15 Resolute Bay iP 19 49.1 c (Chronometer relay sticking)
Seven Falls eP 10 40 05	Resolute Bay iP 18 43 26	
	Seven Falls eP 18 46 34 c	
FEBRUARY 22		
U.S.C.G.S.		
66 1/2S, 26 1/2W Sandwich Islands. H = 12 03 23	FEBRUARY 22 Resolute Bay iP 22 28 40 c	FEBRUARY 25 U.S.C.G.S. 39oS, 91°W South Pacific H = 11 09 44 Kirkland Lake eP 11 22 39 c Ottawa eP 11 22 27 c Seven Falls eP 11 22 44 c
Kirkland Lake eP' 12 22 03		
ePP 12 22 54		
Ottawa eP' 12 21 51 d	FEBRUARY 23 U.S.C.G.S. 28 1/2N, 91 1/2E Southeastern Tibet H = 06 40 35 Halifax eL 07 30.0 Resolute Bay iP 06 52 31 d	
i 12 22 20		
PP 12 22 31		
i 12 23 42		
PPP 12 25 15		
SKS 12 28 16		
SKKS 12 29 22		
PS 12 31 38		
PPS 12 33 15		
SS 12 37 41		
SSS 12 41 00		
	iS 07 02 23	
	iScS 07 02 51	
	L 07 11 00	

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FEBRUARY 25 U.S.C.G.S. 52 1/2N, 34W North Atlantic Ocean H = 11 50 42 Ottawa iP 11 56 34 d Resolute Bay iP 11 57 15 d Seven Falls eP 11 55 59 d	FEBRUARY 26 U.S.C.G.S. 45N, 148E Kurile Islands H = 03 21 12 h = 100 km Ottawa iP 03 33 23 d Resolute Bay e 03 30 27	Ottawa ePP 01 13 45 PPP 01 16 07 Resolute Bay iP 01 07 04 d S 01 16 38 L 01 18 00 FEBRUARY 28 Ottawa iP 05 35 10 c
FEBRUARY 25 Ottawa iP _n 21 47 57.5 iS _n 21 48 21.5 eL 21 48 32.0 D = 225 km	FEBRUARY 26 U.S.C.G.S. 37N, 71 1/2E Hindu Kush H = 18 46 04 Kirkland Lake eP 18 59 13 Ottawa iP 18 59 19 d Seven Falls e(?) 18 59 00 eP 18 59 04	FEBRUARY 28 Ottawa iP 18 29 46 c Seven Falls eP 18 29 46 e 18 29 55 d
FEBRUARY 25 U.S.C.G.S. 5 1/2N, 83W South of Panama H = 22 15 15 Kirkland Lake eP 22 23 14 c Ottawa iP 22 22 55 c Resolute Bay e 22 26 29 Seven Falls eP 22 23 17 c iP 22 23 18 d Shawinigan Falls e 22 23.6	FEBRUARY 26 Ottawa iP 19 11 18 c i 19 11 52 FEBRUARY 26 Seven Falls eP ₁ 22 24 45 eS ₁ 22 25 00 D = 120 km H = 22 24 25	MARCH 2 Resolute Bay e 06 03 58 MARCH 3 U.S.C.G.S. 5 1/2S, 142 1/2E Central New Guinea H = 06 02 55 Kirkland Lake eP' 06 21 56 iP' 06 22 01 d iPP 06 23 45 d F 07.5 Ottawa iP' 06 22 04 d PP 06 24 10 PKS 06 25 28 i 06 25 37 PPP 06 27 06 SS 06 41.6 Resolute Bay eP 06 16 57 i 06 21 18 iPP 06 21 44 iSKS 06 27 44 S 06 29 00
FEBRUARY 26 Kirkland Lake eP 00 04 41 Ottawa eP 00 05 00 Resolute Bay iP 00 02 26 d Seven Falls eP 00 05 02	FEBRUARY 28 Resolute Bay eL 00 30.0 FEBRUARY 28 U.S.C.G.S. 27N, 131E Ryukyu Islands Region H = 00 55 22	

DOMINION OBSERVATORIES

MARCH 10 Seven Falls iP 11 07 22 c	Resolute Bay iP 10 40 14 d Seven Falls iP 10 37 13 c pP 10 37 30 S 10 42 59 SSS 10 45 59 L 10 49 44 Shawinigan Falls iP 10 37 05 c i 10 37 21	Resolute Bay L 09 46.2 F 10.3 Seven Falls ePS 09 21 56 e 09 23 02 PPS 09 23 30 e 09 27 31 SS 09 28 24 SSS 09 32 25 e 09 36 24 G 09 38 50 L 09 42 53
MARCH 10 U.S.C.G.S. 2S, 78W Ecuador H = 14 09 07 h = 100 km Kirkland Lake e(pP) 14 18 21 Ottawa iP 14 17 36 d e 14 18 00 PP 14 19 30 Resolute Bay e 14 20 54 Seven Falls iP 14 17 53 d i 14 18 18 Shawinigan Falls iP 14 17 46 i 14 18 10	MARCH 12 Resolute Bay e 03 54 46	MARCH 14 U.S.C.G.S. 51 1/2N, 160E Off southeast coast of Kamchatka. H = 17 44 28 Resolute Bay iP 17 52 46 d iS 17 59 25 L 18 09.7 Seven Falls eS 18 04 27 PPS 18 05 16 ScS 18 05 36 G 18 13.6
MARCH 11 Resolute Bay e 05 26 07	MARCH 12 U.S.C.G.S. Sandwich Islands Region H = 11 12 10 Ottawa iP' 11 30 43 d e 11 31 11 iPPP 11 34 07 Resolute Bay e 11 31 31 i 11 35 01 Seven Falls iP' 11 31 11 d PPP 11 34 23	MARCH 16 U.S.C.G.S. 7 1/2N, 82W Off coast of Panama H = 01 02 57 Ottawa eP 01 10 21 d Seven Falls iP 01 10 42 c
MARCH 11 U.S.C.G.S. 14 1/2N, 90 1/2W Guatemala H = 10 30 10 h = 100 km Kirkland Lake iP 10 37 00 c e 10 37 14 ipP 10 37 24 c Ottawa iP 10 36 47 c ipP 10 37 03 PP 10 38 03 PcP 10 39 24 S 10 42 08 SSS 10 44 40	MARCH 13 Seven Falls eP 16 23 17	MARCH 16 U.S.C.G.S. Northern Kuriles H = 05 27 04 h = 60 km



SEISMOLOGICAL BULLETIN

Ottawa iP 05 38 40 c iPcP 05 38 56 Resolute Bay e 05 35 34 Seven Falls iP 05 38 40 d	MARCH 19 U.S.C.G.S. 33°3N, 116°1W Santa Rosa Mountains, California. H = 09 54 27 Kirkland Lake eP 10 00 49 c? eL 10 10 22 Ottawa iP 10 01 08 c e 10 03 12 iPcP 10 03 52 S 10 06 30 SSS 10 09 24 ScS 10 11 38 Resolute Bay eP 10 02 29 S 10 08 52 L 10 16.5 Seven Falls iP 10 01 38 c PP 10 03 12 S 10 07 22 SS 10 10 19 SSS 10 10 51 e 10 12 51 Shawinigan Falls iP 10 01 26 L 10 12 54	MARCH 20 Resolute Bay e 11 02 41 MARCH 20 U.S.C.G.S. 47N, 154E Kurile Islands H = 14 04 07 h = 100 km Resolute Bay iP 14 12 58 d S 14 20 13 L 14 33 45 MARCH 20 Ottawa iPn 18 45 56 iP1P1 18 45 58 Sn 18 46 13 L 18 46 22 D = 148 km MARCH 21 U.S.C.G.S. 52N, 158 1/2E Near southeast coast of Kamchatka H = 06 09 23 h = 60 km Kirkland Lake eP 06 20 20 Ottawa iP 06 20 44 d Resolute Bay iP 06 17 34 d S (?) 06 24 01 Seven Falls eP 06 20 47 d?
MARCH 16 U.S.C.G.S. 34N, 27E Eastern Mediterranean Sea H = 09 54 18 Seven Falls iP 10 05 39 d	MARCH 16 Kirkland Lake iP 15 29 24 Resolute Bay e 15 32 00	MARCH 19 U.S.C.G.S. Aftershock of California quake. H = 10 21 17 Ottawa iP 10 27 56 d Resolute Bay e 10 29 16 Seven Falls iP 10 28 28 c
MARCH 17 U.S.C.G.S. Off coast of Mexico, near Acapulco H = 13 00 50 Kirkland Lake eP 13 07 58 c Ottawa eP 13 07 45 c e 13 07 54 Resolute Bay e 13 10 44 Seven Falls iP 13 08 27 d	MARCH 17 Resolute Bay e 22 27 21	MARCH 20 Resolute Bay e 03 28 38
MARCH 18 Resolute Bay e 17 27 52	MARCH 21 U.S.C.G.S. Off coast of Guatemala H = 20 43 10 Ottawa iP 20 50 12 d	

DOMINION OBSERVATORIES

MARCH 21	MARCH 22	MARCH 22
U.S.C.G.S.	Resolute Bay	Resolute Bay
24 1/2N, 95E	e 00 20 47	e 17 50 30
Northwestern Burma	e 00 23 57	
H = 23 42 05		
h = 150 km		
Mag. = 7 1/4	MARCH 22	MARCH 22
Kirkland Lake	Resolute Bay	U.S.C.G.S.
eP 23 56 59 c?	e 07 11 19	55 1/2N, 157E
iP! 24 00 43 c		Near east coast of
ipP! 24 01 28 c		Kamchatka
i(sP) 24 11 32 c		H = 18 58 02
Ottawa	MARCH 22	Ottawa
eP 23 56 25	U.S.C.G.S.	iP 19 09 04 c
iP! 24 00 04	27S, 176 1/2W	PP 19 11 31
i 24 00 22	Kermadec Islands	Kirkland Lake
PP 24 00 56	H = 09 38 43	eP 19 08 39 c?
pPP 24 02 00	Resolute Bay	Resolute Bay
pPPP 24 04 11	e 09 57 22	iP 19 05 44 c
SKKS 24 07 42	L 10 40.0	
S 24 08 20	F 12.0	
pS 24 09 40		MARCH 23
sPP 24 11 24	MARCH 22	Resolute Bay
e 24 15 42	Resolute Bay	e 05 36 41
SS 24 16 12	e 16 42 25	
sSS 24 17 24		MARCH 24
e 24 24 20		Kirkland Lake
Resolute Bay	MARCH 22	eP 00 16 06
iP 23 54 06 c	U.S.C.G.S.	Ottawa
ipP 23 54 42	17N, 95 1/2W	eP 00 16 06
isP 23 54 52	Southern Mexico	Resolute Bay
PP 23 57 15	H = 17 10 50	e 00 16 00
iS 24 03 57	h = 60 km	
SS 24 09 09	Kirkland Lake	
L 24 13.0	iP! 17 17 31 c	MARCH 24
Seven Falls	i 17 17 38 c	U.S.C.G.S.
eP 23 56 18 c	Ottawa	Marianas Islands
iP! 24 00 20 c	iP 17 17 22 c	H = 01 31 39
ePP 24 00 46	PP 17 18 45	h = 100 km
iSKS 24 06 49	PcP 17 20 25	Resolute Bay
Shawinigan Falls	S 17 22 42	iP 01 44 10 d
eP 23 56 21	e 17 26 02	
P! 24 00 22	Resolute Bay	
PP 24 00 44	e 17 20 26	MARCH 24
PPS 24 11 27	Seven Falls	Resolute Bay
e 24 14 57	iP 17 17 52 c	e 12 35 16
	i 17 18 05 d	
	Shawinigan Falls	
	iP 17 17 42 c	

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MARCH 24	Seven Falls	MARCH 27
Ottawa	eP 09 47 57 d	U.S.C.G.S.
eP 17 33 12		8°S, 75 1/2W
Resolute Bay		Central Peru
e 17 29 50	MARCH 26	H = 18 21 05
	U.S.C.G.S.	h = 150 km
	44N, 146 1/2E	Kirkland Lake
MARCH 24	Southern Kurile Islands.	eP 18 30 48 c?
Resolute Bay	H = 10 47 12	epP 18 31 08 d?
e 23 02 22	Resolute Bay	Ottawa
	e 10 56 45	iP 18 30 12 c
		pP 18 30 44
MARCH 25		PcP 18 31 19
Resolute Bay	MARCH 26	S 18 37 36
e 18 02 08	Resolute Bay	Resolute Bay
e 18 08 32	e 17 29 00	e 18 33 20
		Seven Falls
		iP 18 30 38 c
		ipP 18 30 59
MARCH 26	MARCH 26	Shawinigan Falls
U.S.C.G.S.	Resolute Bay	e 18 30 20
42N, 142E	iP 18 42 18 c	i 18 30 29
Off south coast of		ipP 18 30 49 d
Hokkaido, Japan.		
H = 04 35 25	MARCH 27	
h = 60 km	Resolute Bay	
Ottawa	e 10 58 48	MARCH 27
iP 04 48 07 d		U.S.C.G.S.
Resolute Bay		9N, 84W
iP 04 45 15 c	MARCH 27	Near coast of Costa Rica
i 04 45 31	U.S.C.G.S.	H = 18 40 55
iS 04 53 45	44 1/2N, 141 1/2E	h = 100 km
Seven Falls	Near west coast of	Kirkland Lake
eP 04 48 08 c?	Hokkaido, Japan.	eP 18 48 17 d?
	H = 11 33 33	Ottawa
	Ottawa	iP 18 47 59 d
	iP 11 46 07 c	Resolute Bay
MARCH 26	Resolute Bay	iP 18 51 34 d
Resolute Bay	iP 11 43 10 c	
e 07 51 25	Seven Falls	
	iP 11 46 07 c	MARCH 28
	Shawinigan Falls	Seven Falls
	iP 11 46 06	iP ₁ 00 58 15.5
MARCH 26		iP ₁ P ₁ 00 58 18.5
U.S.C.G.S.		iS ₁ 00 58 24.2
2S, 79 1/2W		iS ₁ S ₁ 00 58 29.4
Near coast of Ecuador.	MARCH 27	D = 67 km
H = 09 39 06	Ottawa	H = 00 58 04.5
Ottawa	iP _n 18 24 57	
iP 09 47 39 d	iS _n 18 25 14	
Resolute Bay	L 18 25 22	
e 09 51 00	D = 148 km	

DOMINION OBSERVATORIES

MARCH 28	Ottawa	Ottawa
Kirkland Lake	eP 20 47 07 d	eP' 04 19 51 d
eP 09 28 08 c	e 20 48 07	Resolute Bay
Ottawa	S 20 55 48	iP 04 13 37 c
iP 09 28 04 c	S _C S 20 57 00	S 04 23 55
i 09 28 10	SS 21 00 06	L 04 46 00
	SSS 21 02 38	Seven Falls
	Resolute Bay	eP' 04 19 50 c
MARCH 28	iP 20 44 07 d	
U.S.C.G.S.	P _C P 20 45 51	MARCH 29
53N, 168W	S 20 50 04	U.S.C.G.S.
Fox Islands, Aleutian	L 20 53.0	37N, 3 1/2W
Isl.	Seven Falls	Near south coast of Spain
H = 17 10 40	eP 20 47 13 d	H = 06 17 05
Kirkland Lake	eS 20 56 01	h = 650 km
eP 17 20 00 c?	eSS 21 00 39	Mag. = 7 1/4
Ottawa	eL 21 08.9	Kirkland Lake
iP 17 20 28 c	Shawinigan Falls	iP 06 25 44 c
Resolute Bay	eP 20 47 09	e(S) 06 33 40
iP 17 17 42 c	i 20 47 40	Ottawa
L 17 33 45		iP 06 25 30 c
Seven Falls		pP 06 27 26
iP 17 20 36 c	MARCH 28	PP 06 27 44
	U.S.C.G.S.	sP 06 28 32
	52N, 175 1/2E	S _C P 06 29 32
MARCH 28	Near Islands, Aleutian	e 06 30 42
U.S.C.G.S.	Islands.	iS 06 32 18
7 1/2S, 73 1/2W	H = 20 58 09	iS _C S 06 34 10
Peru-Brazil border	h = 60 km	sS 06 35 46
H = 19 20 58	Kirkland Lake	G 06 38 40
h = 100 km	eP 21 08 21	Resolute Bay
Kirkland Lake	e 21 09 33	iP 06 25 42
eP 19 30 38 c?	Ottawa	pP 06 27 25
e 19 31 09	eP 21 08 45 c	iPP 06 27 45
Ottawa	e 21 09 59	iS _C P 06 29 26
iP 19 30 08 c	Resolute Bay	iS 06 32 20
Seven Falls	iP 21 05 48	S _C S 06 34 12
eP 19 30 22 c	Seven Falls	L 06 39.0
	eP 21 08 53 c	Seven Falls
		iP 06 25 02 c
MARCH 28		iS 06 31 25
U.S.C.G.S.	MARCH 29	Shawinigan Falls
52N, 176E	U.S.C.G.S.	iP 06 25 13 c
Rat Islands, Aleutian	19 1/2N, 121 1/2E	i 06 25 16 c
Islands.	Luzon Islands,	pP 06 27 15 c
H = 20 36 22	Philippine Isl.	S _C P 06 29 14
Kirkland Lake	H = 04 01 10	eS 06 31 48
eP 20 46 44 d	Kirkland Lake	
	eP' 04 19.8	

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MARCH 29	Resolute Bay	Shawinigan Falls
Kirkland Lake	iP 16 39 48 c	eP 18 53 13
eP 14 07 24 d	Seven Falls	
Ottawa	iP 16 42 52 d	MARCH 31
eP 14 07 03 d		Kirkland Lake
i 14 07 26		eP 02 20 47
Resolute Bay	MARCH 30	Ottawa
iP 14 10 19 d	U.S.C.G.S.	iP 02 21 18 d
Shawinigan Falls	20N, 155W	Resolute Bay
eP 14 07 15	Near northeast coast of	e 02 18 09
	Hawaii	Seven Falls
	H = 16 40 03	iP 02 21 26 c
MARCH 30	Kirkland Lake	
U.S.C.G.S.	eP 16 50 50 d	MARCH 31
46 1/2N, 153 1/2E	Ottawa	U.S.C.G.S.
Kurile Islands	eP 16 51 09 d	13 1/2N, 58E
H = 10 46 48	S 17 00 18	Arabian Sea
Kirkland Lake	Resolute Bay	H = 18 25 48
eP 10 58 32	iP 16 50 36 c	Mag. = 7 1/4 - 7 1/2
Ottawa	iS 16 59 15	Kirkland Lake
eP 10 58 52 d	L 17 09.5	e 18 43 53
Resolute Bay	Seven Falls	Ottawa
iP 10 55 54 c	eP 16 51 29 d	eP' 18 44 21
	Shawinigan Falls	i 18 44 47
	eP 16 51 22 d	SKS 18 51 00
MARCH 30		S 18 52 30
U.S.C.G.S.		PS 18 54 02
52N, 175 1/2E	MARCH 30	PPS 18 55 12
Rat Islands, Aleutian	U.S.C.G.S.	e 18 57 30
Isl.	20N, 155W	SS 19 00 12
H = 16 19 57	Near northeast coast of	SSS 19 04 00
Kirkland Lake	Hawaii	G 19 13 00
eP 16 30 15 c	H = 18 41 54	Resolute Bay
Ottawa	Kirkland Lake	iP 18 38 56 d
eP 16 30 40 c	eP 18 52 43 c?	iPP 18 42 39
Resolute Bay	Ottawa	PPP 18 43 09
eP 16 27 42 c	eP 18 53 02 c	iS 18 49 33
Seven Falls	S 19 02 06	iS _C S 18 50 04
eP 16 30 51 c	S _C S 19 03 02	PPS 18 51 15
	Resolute Bay	Seven Falls
MARCH 30	iP 18 52 27 c	eP 18 40 02
U.S.C.G.S.	P _C P 18 53 06	e 18 43 35
52N, 175 1/2E	iS 19 01 05	e 18 43 50
Rat Islands, Aleutian Isl.	S _C S 19 02 21	e 18 44 08
H = 16 32 03	SS 19 05 09	iP' 18 44 25
Kirkland Lake	L 19 09 15	eSKS 18 50 43
eP 16 42 20	Seven Falls	ePS 18 53 41
Ottawa	eP 18 53 20	
eP 16 42 47 d	eL 19 17.1	



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eSS	18 58 59	Kirkland Lake	Resolute Bay
e	19 07 16	eP 18 30 25 c	iP 20 34 16 c
eG	19 14.7	Ottawa	
eL	19 19.8	eP 18 30 43	
		S 18 40 40	
APRIL 1		Resolute Bay	APRIL 3
U.S.C.G.S.		iP 18 27 46	U.S.C.G.S.
19 1/2N, 65 1/2W		iP _c P 18 29 02	52 1/2N, 159 1/2E
Off north coast of		iPP 18 29 43	Off east coast of
Puerto Rico		iS 18 35 02	Kamchatka
H = 02 22 16		S _c S 18 37 35	H = 00 04 40
Ottawa		SS 18 38 32	Kirkland Lake
eP 02 28 37 c		L 18 39 45	eP 00 15 39
PP 02 29 45		Seven Falls	Ottawa
PPP 02 30 05		iS 18 40 42	iP 00 16 03 d
S 02 33 24			Resolute Bay
Seven Falls			e 00 12 50
eP 02 28 41	APRIL 1		
S 02 33 42	U.S.C.G.S.	APRIL 3	
	17 1/2N, 92W	U.S.C.G.S.	
	Southern Mexico	53 1/2N, 163 1/2E	
	H = 23 11 22	Off east coast of	
	h = 150 km	Kamchatka	
APRIL 1		H = 01 20 55	
U.S.C.G.S.		Kirkland Lake	
19 1/2N, 67W		eP 01 31 43	
North of Puerto Rico		Ottawa	
H = 14 08 59		iP 23 17 32 d	
h = 60 km		Resolute Bay	
Kirkland Lake		iP 23 21 01 c	
eP 14 15 15 c			
Ottawa			
eP 14 14 40 c	APRIL 2		
S 14 19 24	U.S.C.G.S.		
Resolute Bay	28 1/2S, 177W		
e 14 18 47	Kermadec Islands		
L 14 37 15	H = 14 58 26		
Seven Falls	h = 60 km		
iP 14 14 50 c	Ottawa		
S 14 19 17	eP' 15 17 07 d		
SSS 14 21 02	PS 15 27 31		
L 14 21 44	Resolute Bay		
	iP' 15 17 02		
	L 15 57.0		
APRIL 1			
U.S.C.G.S.			
46 1/2N, 153 1/2E	APRIL 2		
Kurile Islands	U.S.C.G.S.		
H = 18 18 47	50 1/2N, 156E		
h = 60 km	Near south coast of		
	Kamchatka		
	H = 20 25 45		

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APRIL 5	H = 16 34 25	APRIL 9
U.S.C.G.S.	Seven Falls	U.S.C.G.S.
23S, 67 1/2W	eP 16 45 21 d	27N, 139 1/2E
Argentina-Bolivia-		Bonin Islands
Chile border		H = 13 55 20
H = 17 52 22	APRIL 8	Resolute Bay
h = 150 km	Seven Falls	e 14 06 51
Kirkland Lake	iP 04 29 16 c	
iP 18 03 33 d		
ipP 18 04 00 d		
Ottawa	APRIL 8	APRIL 10
iP 18 03 13 d	U.S.C.G.S.	U.S.C.G.S.
Seven Falls	23 1/2S, 116W	Off east coast of
iP 18 03 22 d	Easter Islands Region	Kamchatka
i 18 03 49	H = 16 39 52	H = 03 07 47
	Kirkland Lake	Resolute Bay
	eP 16 51 56	e 03 15 44
	Ottawa	
APRIL 5	eP 16 52 03	
U.S.C.G.S.	S 17 01 36	APRIL 10
48N, 129W	PS 17 02 16	U.S.C.G.S.
Off Vancouver Island,	SS 17 06 18	New Hebrides Islands
B.C.	Seven Falls	H = 08 05 06
H = 19 26 00	eP 16 52 37 d	h = 60 km
Ottawa		Ottawa
eP 19 33 04 c		eP' 08 24 06
		Seven Falls
		eP' 08 24 01
	APRIL 9	
	U.S.C.G.S.	
APRIL 6	Southern Peru-Bolivia	
U.S.C.G.S.	border	
Southern Iran	H = 06 17 30	APRIL 10
H = 14 35 10	h = 200 km	U.S.C.G.S.
Ottawa	Kirkland Lake	10 1/2N, 78W
eP 14 48 26 d	eP 06 27 46	Off north coast of
Seven Falls	Ottawa	Panama
iP 14 48 10 c	eP 06 27 25	H = 10 15 46
	Resolute Bay	Ottawa
	iP 06 30 17 c	iP 10 22 43 c
	Seven Falls	S 10 23 26
	iP 06 27 35 d	Resolute Bay
		e 10 26 27
APRIL 6		
U.S.C.G.S.		
New Hebrides Islands		
H = 20 24 08		
Ottawa		
eP' 20 43 03 d	APRIL 9	APRIL 10
Seven Falls	U.S.C.G.S.	Resolute Bay
iP' 20 43 09 d	19 1/2N, 121 1/2E	e 13 03 11
	Off north coast of	
	Luzon, P.I.	
	H = 07 15 03	APRIL 10
APRIL 7	Resolute Bay	Resolute Bay
U.S.C.G.S.	e 07 27 32	e 15 01 03
Rat Islands, Aleutian		
Isl.		

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<p>APRIL 11 U.S.C.G.S. 7S, 155E Solomon Islands H = 03 03 03 Ottawa iP' 03 22 01 c SKS 03 29 16 PS 03 33 32 e 03 39 22 Resolute Bay e 03 33 26 L 04 10.0 Seven Falls eP' 03 22 06 c</p>	<p>Ottawa ePP 10 44 34 PPP 10 46 49 PS 10 54 00 SS 11 00 00 Resolute Bay eP 10 38 42 iS 10 49 22 SS 10 55 49 L 11 03.0 Seven Falls eP 10 39 49 c PP 10 43 53 PPP 10 45 53 SKS 10 49 46 PS 10 52 44 SS 10 58 47</p>	<p>APRIL 12 Resolute Bay e 03 07 37 APRIL 12 Preliminary Ottawa Epicentre about 47N, 76W H = 21 22 00 Kirkland Lake e 21 22 51 e 21 22 54 eS₁ 21 23 29 d = 310 km Ottawa iP_n 21 22 29 d iS_n 21 22 50 S₁S₁ 21 22 57 d = 195 km Seven Falls eP_n 21 23 02 S_n 21 23 38 i 21 23 51.5 d = 385 km Shawinigan Falls eP_n 21 22 38.6 iS₁P₁ 21 22 47.7 S_n 21 23 08.5 i 21 23 12.6 S₁S₁ 21 23 19.2 d = 270 km</p>
<p>APRIL 11 U.S.C.G.S. Solomon Islands H = 03 15 51 Ottawa eP' 03 34 48 Seven Falls eP' 03 34 53 c</p>	<p>APRIL 11 U.S.C.G.S. 37N, 70 1/2E Hindu Kush H = 10 53 20 h = 60 km Kirkland Lake iP 11 06 20 c Ottawa iP 11 06 25 c i 11 07 19 iPP 11 10 17 Resolute Bay iP 11 04 15 c PP 11 06 40 PPP 11 08 19 iS 11 13 03 iS_cS 11 14 01 Seven Falls iP 11 06 11 c PP 11 09 44</p>	<p>APRIL 13 U.S.C.G.S. 27 1/2S, 66W Catamarca Province, Argentina H = 07 36 23 h = 200 km Kirkland Lake iP 07 47 57 d epP 07 48 37 Ottawa iP 07 47 37 d ipP 07 48 18 sS 07 56 51 Seven Falls iP 07 47 45 d ipP 07 48 26 sS 07 57 06</p>
<p>APRIL 11 U.S.C.G.S. 12N, 58E Arabian Sea H = 10 25 27 Kirkland Lake ePP 10 44 42 d</p>	<p>APRIL 11 Ottawa iP 15 18 31 d APRIL 12 Resolute Bay e 01 25 47</p>	



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<p>Shawinigan Falls iP 07 47 42.4 d</p>	<p>Seven Falls iP 08 05 28 c pP 08 05 51</p>	<p>APRIL 17 Resolute Bay e 15 05 11</p>
<p>APRIL 13 Resolute Bay e 15 19 40</p>	<p>APRIL 14 Resolute Bay iP 13 37 14 c</p>	<p>APRIL 17 U.S.C.G.S. 51 1/2N, 179W Andreanof Islands, Aleutian Isl. H = 20 10 37 Kirkland Lake eP 20 20 41 Ottawa eP 20 21 12 c P_cP 20 22 02 PPP 20 25 02 e 20 28 22 S 20 29 34 S_cS 20 31 08 SSS 20 36 20 Resolute Bay Beginning lost in changing record iS 20 24 16 L 20 27 00 Seven Falls iP 20 21 14 d P_cP 20 21 52 PPP 20 25 11 S 20 29 34 PS 20 29 47 PPS 20 29 59 S_cS 20 31 19 SS 20 33 45 G 20 36 59 Shawinigan Falls iP 20 21 11 i 20 21 19</p>
<p>APRIL 13 U.S.C.G.S. 34 1/2N, 133 1/2E Near south coast of Honshu, Japan. H = 15 25 48</p>	<p>APRIL 15 Seven Falls eP 05 25 21 c i 05 25 51</p>	
<p>APRIL 14 Ottawa iP 04 07 09 d</p>	<p>APRIL 15 Resolute Bay iP 13 52 45 d</p>	
<p>APRIL 14 U.S.C.G.S. 52 1/2N, 158 1/2E Near east coast of Kamchatka H = 07 45 27 Ottawa iP 07 56 50 c Resolute Bay iP 07 53 38 c Seven Falls eP 07 56 52 d</p>	<p>APRIL 16 U.S.C.G.S. 43N, 142 1/2E Hokkaido, Japan H = 10 30 25 h = 60 km Ottawa iP 10 43 15 c Resolute Bay iP 10 40 05 c</p>	
<p>APRIL 14 U.S.C.G.S. 22 1/2S, 70W Northern Chile H = 07 54 24 h = 100 km Kirkland Lake eP 08 05 37 c? epP 08 06 01 c Ottawa iP 08 05 18 c ipP 08 05 41</p>	<p>APRIL 17 Resolute Bay e 07 49 37</p>	
<p>APRIL 14 U.S.C.G.S. 22 1/2S, 70W Northern Chile H = 07 54 24 h = 100 km Kirkland Lake eP 08 05 37 c? epP 08 06 01 c Ottawa iP 08 05 18 c ipP 08 05 41</p>	<p>APRIL 17 U.S.C.G.S. 43N, 141E Hokkaido, Japan H = 12 09 59 h = 60 km Ottawa eP 12 22 37 Resolute Bay iP 12 19 44 d Seven Falls eP 12 22 36 d</p>	<p>APRIL 17 Kirkland Lake eP 21 04 04 Ottawa eP 21 03 57 Resolute Bay iP 21 02 58 d Seven Falls iP 21 03 34 Shawinigan Falls iP 21 03 33 d</p>

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<p>APRIL 18 U.S.C.G.S. 31S, 178W Kermadec Islands H = 03 03 26 Resolute Bay e 03 22 14</p>	<p>Resolute Bay iP 20 35 47 c Seven Falls iP 20 33 05 c S 20 41 09 Shawinigan Falls iP 20 33 00 i 20 33 18 d</p>	<p>Shawinigan Falls eP 08 41 02 c</p> <p>APRIL 24 U.S.C.G.S. 34N, 140 1/2E Near east coast of Honshu, Japan. H = 17 33 50 Resolute Bay e 17 44 33</p>
<p>APRIL 19 Resolute Bay e 07 36 18</p>	<p>APRIL 22 U.S.C.G.S. 22N, 142 1/2E Marianas Islands region H = 14 53 22 Resolute Bay iP 15 05 17 S 15 15 04</p>	<p>APRIL 24 U.S.C.G.S. 43N, 141 1/2E Central Hokkaido, Japan H = 18 32 52 Ottawa eP 18 45 32 c Resolute Bay iP 18 42 37 c</p>
<p>APRIL 21 U.S.C.G.S. 43N, 46E Dagestan A.S.S.R. H = 09 57 40 Kirkland Lake eP 10 09 39 Ottawa eP 10 09 40 Seven Falls iP 10 09 18 d</p>	<p>APRIL 23 U.S.C.G.S. Near south coast of Costa Rica H = 01 21 20 h = 100 km Ottawa eP 01 28 30 d Resolute Bay e 01 32 06</p>	<p>APRIL 25 U.S.C.G.S. 0°Lat., 15 1/2W Mid Atlantic Ocean H = 00 27 54 Kirkland Lake eP 00 39 31 Ottawa eP 00 39 06 c S 00 48 23 L 00 56 20 Resolute Bay e 00 40 46 iS 00 51 27 L 01 14.0 Seven Falls eS 00 48 00 L 00 55 55</p>
<p>APRIL 21 U.S.C.G.S. Windward Islands H = 18 40 45 Ottawa iP 18 47 33 d Resolute Bay e 18 51 24 Seven Falls iP 18 47 36 d</p>	<p>APRIL 24 U.S.C.G.S. 63N, 148W Southern Alaska H = 08 33 04 h = 100 km Kirkland Lake eP 08 40 28 d iP 08 40 29 c Ottawa e 08 53 10 L 08 54 50 Resolute Bay iP 08 37 48 d pP 08 38 10 sP 08 38 18 S 08 41 44 P_cP 08 41 49</p>	<p>APRIL 25 U.S.C.G.S. 15 56 52 iS₁ 15 56 56 d = 25 km</p>
<p>APRIL 21 U.S.C.G.S. 13S, 77W Near cost of Peru H = 20 23 05 h = 100 km Kirkland Lake eP 20 33 09 Ottawa eP 20 32 51 c P_cP 20 33 38 S 20 40 44</p>	<p>APRIL 24 U.S.C.G.S. 63N, 148W Southern Alaska H = 08 33 04 h = 100 km Kirkland Lake eP 08 40 28 d iP 08 40 29 c Ottawa e 08 53 10 L 08 54 50 Resolute Bay iP 08 37 48 d pP 08 38 10 sP 08 38 18 S 08 41 44 P_cP 08 41 49</p>	<p>APRIL 25 U.S.C.G.S. 15 56 52 iS₁ 15 56 56 d = 25 km</p>



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<p>APRIL 25 U.S.C.G.S. 36.8N, 121.8W Near coast of Central California H = 20 33 26.5 Ottawa eP 20 40 22 e 20 48 35 L 20 52.2 Resolute Bay e 20 41 06 L 20 55.0</p>	<p>APRIL 26 U.S.C.G.S. 51N, 158 1/2E Off southeast coast of Kamchatka H = 20 24 44 h = 60 km Kirkland Lake iP 20 35 46 c Ottawa iP 20 36 09 c PP 20 38 48 PPP 20 40 40 S 20 45 25 PS 20 46 10 SS 20 50 14 SSS 20 53 24 L 20 57 12 Resolute Bay iP 20 32 58 c iPP 20 34 41 iS 20 39 31 S_cS 20 42 42 L 20 50 00 Seven Falls iP 20 36 11 c PP 20 38 48 PPP 20 40 34 S 20 45 31 SSS 20 53 31 L 20 56 31 Shawinigan Falls iP 20 36 10 c</p>	<p>APRIL 27 U.S.C.G.S. 6N, 82 1/2W South of Panama H = 10 06 24 Kirkland Lake iP 10 14 19 c Ottawa iP 10 14 00 c PP 10 15 40 PPP 10 16 08 S 10 20 08 SS 10 22 50 Resolute Bay iP 10 17 32 c iS 10 26 39 S_cS 10 27 26 L 10 34.0 Seven Falls iP 10 14 21 c S 10 20 45 Shawinigan Falls iP 10 14 14 c</p>
<p>APRIL 25 Kirkland Lake e 21 40 01</p>	<p>APRIL 26 U.S.C.G.S. 42N, 143E Near south coast of Hokkaido, Japan H = 02 11 04 Kirkland Lake eP 02 23 29 Ottawa eP 02 23 48 Resolute Bay iP 02 20 54 c</p>	<p>APRIL 27 U.S.C.G.S. 56S, 147E South of Tasmania H = 21 21 35 Kirkland Lake eP' 21 41 26 Ottawa eP' 21 41 23 SSS 22 04 30 G 22 10 22 Resolute Bay iP' 21 41 28 d Seven Falls eP' 21 41 25 d PPS 21 58 46 SS 22 04 43</p>
<p>APRIL 26 U.S.C.G.S. 1/2S, 91 1/2W Galapagos Islands H = 09 17 20 Kirkland Lake eP 09 26 12 Ottawa iP 09 25 59 c S 09 33 02 L 09 40 30 Resolute Bay iP 09 29 02 Seven Falls eP 09 26 21 c S 09 33 38 L 09 41 33</p>	<p>APRIL 26 Kirkland Lake e 21 04.0</p> <p>APRIL 27 Ottawa eP_N 02 15 22 eS_N 02 15 47 eL 02 15 55 d = 238 km Shawinigan Falls eL 02 17 06</p>	<p>APRIL 28 U.S.C.G.S. 51 1/2N, 175E Near Islands, Aleutian Isl. H = 04 50 51 Resolute Bay e 04 58 39</p>

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<p>APRIL 28 Ottawa iP 17 13 57</p> <p>APRIL 29 U.S.C.G.S. Gulf of California aftershock H = 11 34 34 Kirkland Lake eP 11 41 01 Ottawa iP 11 41 16 c S 11 46 43 SS 11 48 55 e 11 50 40 S_cS 11 51 40 L 11 52 08 Resolute Bay iP 11 43 04 d Seven Falls eP 11 41 47 S 11 47 40 SS 11 50 16 e 11 51 34 S_cS 11 52 01 L 11 52 46 e 11 54 07 Shawinigan Falls iP 11 41 36 L 11 52 54</p> <p>APRIL 29 U.S.C.G.S. 29 1/2N, 112 1/2W Gulf of California H = 10 49 27 Kirkland Lake eP 10 55 55 eL 11 06 07 Ottawa iP 10 56 09 c i 10 57 07 PP 10 57 18 PPP 10 57 57 i 10 58 25 i 10 59 23 S 11 01 35 e 11 02 55 SS 11 03 28 e 11 05 34 S_cS 11 06 36 iL 11 07 03 Resolute Bay iP 10 57 57 d P_cP 10 59 24 PP 10 59 48 PPP 11 00 46 iS 11 04 52 S_cS 11 08 11 Seven Falls iP 10 56 40 c PP 10 58 09 PPP 10 58 27 P_cP 10 59 04 S 11 02 31 i 11 03 52 SSS 11 05 17 i 11 06 27 S_cS 11 06 53 L 11 07 35 e 11 09 12 Shawinigan Falls eP 10 56 29 e 10 56 50</p> <p>APRIL 29 U.S.C.G.S. 39 1/2N, 22E Central Greece H = 13 02 36 Kirkland Lake eP 13 13 44.5 d? i 13 13 48.5 c i 13 13 53 d eS 13 22 58 Ottawa iP 13 13 39 d i 13 13 57 i 13 14 10 i 13 14 40 PP 13 16 12 e 13 17 00 e 13 18 38 e 13 20 16 i 13 20 30 S 13 22 42 e 13 23 02 PS 13 23 32 S_cS 13 23 44 SS 13 27 02 e 13 27 28 SSS 13 30 24 G 13 32 06 Resolute Bay iP 13 12 40 d iP_cP 13 13 30 ePP 13 14 34 iPPP 13 16 09 iS 13 20 49 S_cS 13 22 34 L 13 27 00 Seven Falls eP 13 13 13 PP 13 15 28 S 13 21 53 PS 13 22 31 S_cS 13 23 05 SS 12 26 33 e 13 28 25 SSS 13 29 09 G 13 30 48 Shawinigan Falls eP 13 13 25</p>	<p>APRIL 29 U.S.C.G.S. Gulf of California aftershock H = 11 34 34 Kirkland Lake eP 11 41 01 Ottawa iP 11 41 16 c S 11 46 43 SS 11 48 55 e 11 50 40 S_cS 11 51 40 L 11 52 08 Resolute Bay iP 11 43 04 d Seven Falls eP 11 41 47 S 11 47 40 SS 11 50 16 e 11 51 34 S_cS 11 52 01 L 11 52 46 e 11 54 07 Shawinigan Falls iP 11 41 36 L 11 52 54</p> <p>APRIL 29 U.S.C.G.S. 39 1/2N, 22E Central Greece H = 13 02 36 Kirkland Lake eP 13 13 44.5 d? i 13 13 48.5 c i 13 13 53 d eS 13 22 58 Ottawa iP 13 13 39 d i 13 13 57 i 13 14 10 i 13 14 40 PP 13 16 12 e 13 17 00 e 13 18 38 e 13 20 16 i 13 20 30 S 13 22 42 e 13 23 02 PS 13 23 32 S_cS 13 23 44 SS 13 27 02 e 13 27 28 SSS 13 30 24 G 13 32 06 Resolute Bay iP 13 12 40 d iP_cP 13 13 30 ePP 13 14 34 iPPP 13 16 09 iS 13 20 49 S_cS 13 22 34 L 13 27 00 Seven Falls eP 13 13 13 PP 13 15 28 S 13 21 53 PS 13 22 31 S_cS 13 23 05 SS 12 26 33 e 13 28 25 SSS 13 29 09 G 13 30 48 Shawinigan Falls eP 13 13 25</p>
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<p>APRIL 30 U.S.C.G.S. Greek aftershock H = 19 33 30 Kirkland Lake eP 19 44 40 Ottawa eP 19 44 31</p> <p>APRIL 30 U.S.C.G.S. 1/2N, 19W Mid-Atlantic ocean H = 23 04 30 Kirkland Lake eP 23 15 52 Ottawa eP 23 15 28 PP 23 18 11 S 23 24 30 G 23 32 00 Resolute Bay eP 23 17 18 eS 23 27 53 iS_cS 23 28 16 L 23 45 00</p> <p>APRIL 30 Ottawa eP 23 44 05</p> <p>MAY 1 Ottawa eP 00 20 38 c</p> <p>MAY 1 U.S.C.G.S. 36 1/2N, 26E Aegean Sea H = 20 53 16 Ottawa eP 21 04 51 d Resolute Bay e 21 03 43</p>	<p>MAY 2 U.S.C.G.S. 4N, 94 1/2E Off northwest coast of Sumatra H = 17 48 02 Kirkland Lake eP' 18 07 12 Ottawa eP' 18 07 16 d e 18 07 24 PP 18 09 35 PKS 18 10 38 Resolute Bay eP 18 01 55 i 18 12 34</p> <p>MAY 2 U.S.C.G.S. 53 1/2N, 160 1/2E Near east coast of Kamchatka H = 18 27 20 Resolute Bay e 18 35 23</p> <p>MAY 3 U.S.C.G.S. 6N, 35 1/2W Mid-Atlantic ocean H = 03 58 24 Ottawa eP 04 07 36 d</p> <p>MAY 3 U.S.C.G.S. 36 1/2N, 26E Near south coast of Greece H = 05 24 55 Ottawa eP 05 36 14</p>	<p>Resolute Bay e 05 35 16</p> <p>MAY 3 U.S.C.G.S. 36N, 21 1/2E Near south coast of Greece H = 08 51 17 Ottawa eP 09 02 30 Resolute Bay e 09 01 39</p> <p>MAY 3 U.S.C.G.S. Near east coast of Kamchatka H = 11 03 50 Resolute Bay e 11 11 45</p> <p>MAY 3 U.S.C.G.S. 36N, 27E Dodecanese Islands H = 13 29 42 Ottawa eP 13 41 22</p> <p>MAY 3 U.S.C.G.S. 51 1/2N, 159 1/2E Off southeast coast of Kamchatka H = 15 29 40 Halifax iP 15 41 38 c i 15 48 39 d G 16 01 31 Kirkland Lake eP 15 40 46 Ottawa eP 15 41 09 d PP 15 43 46</p>
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MAY 10 Ottawa iP 07 00 10 c	MAY 11 U.S.C.G.S. 41N, 141E Off north coast of Honshu, Japan H = 22 50 02 Resolute Bay iP 23 00 01 c	Resolute Bay iP 14 56 19 c sPP 14 59 20 PPP 15 06 13 iS 15 04 20 i 15 04 52 iS _c S 15 06 05 L 15 20.0 Seven Falls eP 14 53 39 PP 14 55 09 PPP 14 55 32 S 14 59 21 SSS 15 02 36 e 15 03 36 Shawinigan Falls eP 14 53 28 c i 14 53 30 d eS 14 59 02
MAY 10 U.S.C.G.S. 26N, 125E Ryukyu Islands H = 07 58 48 Resolute Bay iP 08 10 40 c	MAY 12 U.S.C.G.S. Near east coast of Mindanao, P.I. H = 06 22 14 Ottawa iP' 06 41 18 c Resolute Bay e 06 35 41	MAY 14 U.S.C.G.S. 36N, 137E Near coast of Honshu, Japan H = 22 39 25 h = 250 km Halifax iP 22 52 34 d pP 22 53 33 sP 22 54 00 PP 22 56 38 pPP 22 57 30 sPP 22 57 57 SKS 23 02 42 S 23 03 36 i 23 04 35 SP 23 04 56 (pPS) 23 05 27 i 23 06 05 sSP 23 06 39 SS 23 11 57 Kirkland Lake iP 22 51 59 d i(pP) 22 53 25 c Ottawa iP 22 52 16 d PP 22 55 55
MAY 10 U.S.C.G.S. 17 1/2S, 179W Fiji Islands H = 14 30 38 h = 600 km Ottawa iP' 14 48 09 d e(SKKS) 14 54 42	MAY 12 Resolute Bay e 17 50 45	
MAY 11 U.S.C.G.S. Arctic ocean northwest of Spitsbergen H = 04 26 45 Ottawa iP 04 35 24 c Resolute Bay iP 04 30 52 c	MAY 13 U.S.C.G.S. 17N, 95 1/2W Oaxaca, Mexico H = 14 46 38 h = 100 km Halifax iP 14 53 59 PP 14 55 35 S 14 59 51 G 15 02.9 Kirkland Lake iP 14 53 15 c eS 14 58 36 Ottawa iP 14 53 09 c i 14 53 50 PP 14 54 27 PPP 14 54 52 iS 14 58 28 sS 14 58 56 SSS 15 01 08	
MAY 11 Ottawa iP _n 17 55 47 eS _n 17 56 19 L 17 56 39 d = 330 km Shawinigan Falls i 17 55 33 i 17 56 03		



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PPP 22 57 34 pPPP 22 58 09 SKS 23 02 25 S 23 03 00 PS 23 04 16 PPS 23 04 50 pPS 23 05 25 SS 23 09 28 G 23 17 14 Resolute Bay iP 22 49 37 d iP _c P 22 50 09 ipP 22 50 34 isP 22 51 00 pPP 22 53 21 iS 22 57 53 isPS 23 00 54 Seven Falls iP 22 52 15 d pP 22 53 22 PP 22 56 03 S 23 03 01 PPS 23 05 58 sSS 23 11 08 SSS 23 14 53 Shawinigan Falls iP 22 52 15 d	MAY 18 U.S.C.G.S. 10 1/2S, 75 1/2W Central Peru H = 05 11 05 Kirkland Lake eP 05 21 03 Ottawa iP 05 20 44 c P _c P 05 21 38 S 05 28 20 Shawinigan Falls eP 05 20 53	MAY 18 Halifax iP ₁ 20 44 23 iS ₁ 20 44 27.5 d = 37.5 km Probably blast
MAY 15 Kirkland Lake e 13 16 37 Ottawa e 13 18 47	MAY 18 U.S.C.G.S. 25N, 125E Ryukyu Islands H = 10 13 55 Resolute Bay e 10 25 52	MAY 19 U.S.C.G.S. 3 1/2N, 126E Molucca Passage H = 06 31 05 h = 100 km Ottawa iP' 06 50 04 d PP 06 52 06 Resolute Bay e 06 44 48
MAY 15 Kirkland Lake eP 23 31 11	MAY 18 Halifax iP ₁ 16 29 06 iS ₁ 16 29 10.5 d = 37.5 Probably blast	MAY 19 U.S.C.G.S. 46 1/2N, 7 1/2E Southern Switzerland H = 09 34 56 Kirkland Lake eP 09 44.6 Ottawa eP 09 44 27
MAY 16 Resolute Bay e 03 57 02	MAY 18 Kirkland Lake eP 16 02 44	MAY 19 U.S.C.G.S. 5S, 151E New Britain H = 23 07 12 Halifax iP' 23 26 29 d Ottawa iP' 23 26 13 c Resolute Bay e 23 21 09 Shawinigan Falls eP' 23 26 15
MAY 17 Resolute Bay e 17 09 10	MAY 18 Halifax iP ₁ 20 34 41 i 20 34 45 iS ₁ 20 34 46.5 d = 47 km Probably blast	MAY 20 Kirkland Lake eP 02 36 23

DOMINION OBSERVATORIES

MAY 31		Resolute Bay
U.S.C.G.S.	JUNE 2	iP 07 02 26 c
8S, 118 1/2E	Kirkland Lake	iS 07 12 06
Flores Sea	eP 19 47 41	L 07 27 00
H = 15 48 48		Seven Falls
h = 150 km	JUNE 3	eS 07 07 12
Halifax	Halifax	e 07 09 14
eP' 16 08 11 d	iP 21 33 10 d	SS 07 10 47
PP 16 11 30		L 07 13 16
SS 16 30 00		Shawinigan Falls
Kirkland Lake	JUNE 4	eP 06 59 38
eP' 16 08 02	U.S.C.G.S.	
PP 16 10 48	45N, 148E	
PKS 16 11 34	Kurile Islands	JUNE 4
Ottawa	H = 00 45 18	Ottawa
iP' 16 08 03 c	Kirkland Lake	iP 07 32 50
i 16 08 08	eP 00 57 18	
PP 16 10 52	Ottawa	
PKS 16 11 41	iP 00 57 38 c	JUNE 4
i 16 16 15	Resolute Bay	U.S.C.G.S.
SS 16 19 28	iP 00 54 39 c	Java Sea
		H = 10 41 37
		Ottawa
		eP' 11 01 04 c
MAY 31	JUNE 4	
Ottawa	U.S.C.G.S.	
iP 22 38 14 c	1/2S, 91 1/2W	JUNE 4
	Galapagos Islands	U.S.C.G.S.
	H = 06 50 42	Gulf of California
JUNE 1	Halifax	H = 20 42 25
U.S.C.G.S.	iP 06 59 48 c	Halifax
12S, 74W	ePP 07 01 48	eS 16 16 00
Central Peru	ePPP 07 02 56	SS 16 19.1
H = 20 32 38	iPS 07 07 14	e ₁ 16 22.0
Halifax	iPPS 07 07 29	Kirkland Lake
e 20 42 26	S _C S 07 09 42	eP 16 08 22
iP _C P 20 43 22	SSS 07 12 28	eL 16 18.8
Kirkland Lake	Kirkland Lake	Ottawa
eP 20 42 46 c	iP 06 59 35 c	eP 16 08 31 d
Ottawa	e 07 00 56	S 16 14 00
iP 20 42 26 c	e 07 01 32	SSS 16 16 30
iP _C P 20 43 04	Ottawa	S _C S 16 18 50
S 20 50 18	iP 06 59 21 c	L 16 19 10
Shawinigan Falls	P _C P 07 00 33	Resolute Bay
eP 20 42 35	PP 07 01 17	eL 16 28 00
	PPP 07 02 06	
	S 07 06 24	
	PS 07 06 38	
	SS 07 10 00	
	G 07 12 00	

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JUNE 4	JUNE 5	JUNE 6
U.S.C.G.S.	U.S.C.G.S.	U.S.C.G.S.
Kermadec Islands	22S, 69W	3 1/2S, 136 1/2E
H = 16 56 46	Northern Chile	Western New Guinea
Halifax	H = 04 31 26	H = 16 50 33
iP' 17 15 51 c	h = 200 km	Halifax
Ottawa	Kirkland Lake	eP' 17 09 57
iP' 17 15 36 c	eP 04 42 25 c?	PKS 17 13 33
	Ottawa	SKKS 17 19 28
	iP 04 42 05 c	SS 17 30 24
		SSS 17 35 44
JUNE 4	JUNE 5	Kirkland Lake
U.S.C.G.S.	U.S.C.G.S.	eP' 17 09 45
Gulf of California	36N, 139 1/2E	Ottawa
H = 20 42 25	Central Honshu, Japan	iP' 17 09 48 d
Halifax	H = 13 14 24	i 17 09 54
eL 21 03.0	h = 60 km	PP 17 11 58
Kirkland Lake	Resolute Bay	PKS 17 13 15
eL 21 00.2	iP 13 24 56 c	PPP 17 14 30
Ottawa		SS 17 29 26
eP 20 49 08 d		Resolute Bay
e 20 52 07		eP 17 04 37
L 20 59 40		iS 17 15 18
Seven Falls	JUNE 5	eL 17 45 00
e 21 01 56	U.S.C.G.S.	Seven Falls
	39 1/2N, 21 1/2E	ePKS 17 13 20
	Central Greece	SKS 17 17 16
	H = 14 05 32	PS 17 22 15
	Halifax	SS 17 29 15
	eP 14 15 45	L 17 44 09
JUNE 4		
Ottawa		
eP 21 21 36 d		
JUNE 5	JUNE 5	JUNE 6
U.S.C.G.S.	Halifax	U.S.C.G.S.
18N, 102 1/2W	eP ₁ 20 51 47	32N, 140E
Near coast of Guerrero,	iS ₁ 20 51 50	Off south coast of
Mexico	d = 25 km	Honshu, Japan
H = 01 48 20		H = 21 58 37
Halifax		Ottawa
iP 01 56 11 d	JUNE 5	eP 22 12 07 d
Kirkland Lake	Halifax	Resolute Bay
eP 01 55 17	e 21 11 54	iP 22 09 35 c
Ottawa	Ottawa	
iP 01 55 16 c	iP 21 11 39 d	
e 01 56 38		
Resolute Bay		
e 01 59 21	JUNE 5	JUNE 7
eL 02 19.0	Halifax	U.S.C.G.S.
	iP 21 15 06 c	3 1/2S, 152 1/2E
		New Britain region
		H = 10 15 33
		h = 540 km

DOMINION OBSERVATORIES

Halifax iP' 10 33 44 c PP 10 35 43 e 10 36 31 e 10 42 14 SS 10 52 33	JUNE 9 Halifax iP ₁ 17 00 12.5 i 17 00 16.5 iS ₁ 17 00 17.2	JUNE 11 U.S.C.G.S. 52N, 172 1/2E Near Islands, Aleutian Isl. H = 16 55 45 h = 60 km Halifax iP 17 07 07.5 c eL 17 32.0 Kirkland Lake eP 17 06 09 c? Ottawa iP 17 06 32 c Resolute Bay iP 17 03 29 c Seven Falls eP 17 06 38
Kirkland Lake eP' 10 33 33	JUNE 9 Ottawa iP 21 39 26 d	
Ottawa iP' 10 33 39 d PP 10 35 13 i 10 35 29 pPP 10 36 28 sPP 10 37 12 SKKS 10 41 28 S 10 42 28 PS 10 44 28 SPP 10 45 40 PPS 10 46 44 SS 10 51 14 sSS 10 53 38	JUNE 10 U.S.C.G.S. 33 1/2N, 38W North Atlantic Ocean H = 04 39 38 Halifax eP 04 44 32 Kirkland Lake eP 04 46 29	JUNE 12 U.S.C.G.S. 18S, 179W Fiji Islands H = 05 35 13 h = 550 km Halifax iP' 05 53 05 c Kirkland Lake e 05 52 44 Ottawa iP' 05 52 49 d PP 05 53 36 i 05 53 46 pPP 05 55 32
Resolute Bay iP 10 28 30 c pP 10 30 20 eP' 10 32 21 ePP 10 32 40 iSKS 10 38 23 iS 10 39 22 pS 10 41 48	JUNE 10 Halifax iP ₁ 15 32 24	
Seven Falls e 10 45 49 SS 10 50 55	JUNE 10 Halifax iP ₁ 18 54 27 iS ₁ 18 54 29.2 d = 20 km	
Shawinigan Falls iP' 10 33 37 d		
JUNE 8 Halifax eL 17 27.0	JUNE 10 U.S.C.G.S. 29 1/2N, 139 1/2E South of Honshu H = 22 37 56 h = 400 km Resolute Bay iP 22 48 35 c iS 22 57 16 SP 22 57 58	JUNE 12 Kirkland Lake eP 19 42 41 d
JUNE 9 U.S.C.G.S. 18 1/2N, 121 1/2E Luzon, P.I. H = 10 02 50 Resolute Bay iP 10 15 29 c		JUNE 13 Kirkland Lake eP 01 04 25
		JUNE 13 Kirkland Lake e(P) 17 41 10

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Ottawa e(P) 17 44 36 d	PP 13 40 55 PPP 13 41 14 i 13 43 52 iS 13 45 59 sS(?) 13 46 55 SS 13 49 40 G 13 51 00	JUNE 16 Halifax iP ₁ 15 34 29.5 iS ₁ 15 34 32.5 d = 25 km
JUNE 14 Kirkland Lake eP 10 14 23	Kirkland Lake iP 13 39 13 d e(pP) 13 39 30 i(sP) 13 39 43	JUNE 16 Halifax eP 21 46 50
JUNE 14 Halifax iP ₁ 15 06 43 iS ₁ 15 06 45 d = 17 km	Ottawa iP 13 38 50 d sP 13 39 20 P _c P 13 40 01 PP 13 40 55 sPP 13 41 20 S _c P 13 43 40 P _c S 13 43 50 S 13 45 56 sS 13 46 45 S _c S 13 48 17 SS 13 49 25 sSS 13 50 00 G 13 50 50	JUNE 17 U.S.C.G.S. 56N, 154 1/2W Off south coast of Kodiak Island H = 01 42 22 Halifax iP 01 51 53 d S 01 59 36 SS 02 03 44 SSS 02 06 00
JUNE 14 U.S.C.G.S. Sandwich Islands H = 16 18 45 Kirkland Lake eP' 16 37 30 Ottawa iP' 16 37 22 d Resolute Bay iP' 16 38 16	Resolute Bay iP 13 42 02 d i 13 42 33 iS 13 51 58 iPS 13 52 57	Kirkland Lake iP 01 50 35 d e 01 52 15 eL 02 06 35
JUNE 14 Resolute Bay iP 13 40 31 c	Seven Falls iP 13 39 05 d sP 13 39 37 PP 13 41 05 sPP 13 41 34 e 13 41 50 S 13 46 27 sS 13 47 17	Ottawa iP 01 51 05 d P _c P 01 52 32 PP 01 52 58 PPP 01 53 52 S 01 58 04 PS 01 58 18 S _c S 02 02 01
JUNE 14 Kirkland Lake eP 19 52 56	Shawinigan Falls iP 13 39 01	Resolute Bay iP 01 48 25 d iPP 01 49 21 iS 01 53 16 L 01 55 00
JUNE 15 U.S.C.G.S. 5S, 77W Northern Peru H = 13 29 59 h = 100 km Halifax iP 13 38 53 d pP 13 39 20 e 13 39 52 P _c P 13 40 07	JUNE 16 iP ₁ 14 37 16 iS ₁ 14 37 19 d = 25 km	Seven Falls iP 01 51 14 d P _c P 01 52 36 PP 01 53 10 i 01 53 16 S 01 58 20 S _c S 02 01 02 e 02 02 22 e 02 03 04 L 02 07.1

DOMINION OBSERVATORIES

Shawinigan Falls iP 01 51 10	Seven Falls eP' 18 14 01 d i 18 14 10 ePP 18 16 50 e 18 17 02 iPKS 18 17 40 i 18 17 44	Halifax ePP 21 08 13 d Ottawa iP' 21 04 48 d iPP 21 07 48 Seven Falls ePP 21 07 55
JUNE 17 U.S.C.G.S. Kodiak Isl. aftershock H = 18 39 03 Resolute Bay e 18 45 04	JUNE 18 Halifax eP 20 54 34 c?	JUNE 20 U.S.C.G.S. 1/2N, 18W Mid Atlantic Ocean H = 22 07 54 Kirkland Lake eP 22 19 20 iP _c P 22 19 42 d Ottawa iP 22 18 55 d P _c P 22 19 18
JUNE 17 Ottawa iP _n 19 46 21 S _n 19 46 45 L 19 46 56 d = 230 km H = 19 45 47	JUNE 18 Halifax iP 21 03 19 i 21 03 34.5 i 21 03 43 i 21 03 45.5 Local Earthquake ?	JUNE 20 Ottawa eP 22 47 26
JUNE 18 U.S.C.G.S. Kodiak Isl. aftershock H = 02 01 46 Resolute Bay e 02 07 55	JUNE 18 Halifax i 21 20 49 c	JUNE 21 U.S.C.G.S. 23S, 68 1/2W Northern Chile H = 01 48 44 h = 150 km Halifax iP 01 59 27 c i 01 59 39 e 01 59 56 e 02 00 03 pP 02 00 18 sP 02 00 42 e 02 00 53 iS 02 08 10 sS 02 09 15 sSS 02 13 45 Kirkland Lake eP 01 59 53 eS 02 09 03 Ottawa iP 01 59 33 c P _c P 02 00 02 i 02 00 15 i 02 01 42
JUNE 18 Halifax i 12 36 36.5 i 12 36 38.5 i 12 36 48 i 12 36 52.5 i 12 36 59	JUNE 19 U.S.C.G.S. 30 1/2N, 130E Off south coast of Kyushu, Japan H = 01 56 30 Resolute Bay iP 02 07 52 c eS 02 17 14	JUNE 21 U.S.C.G.S. 1 1/2N, 84W Pacific Ocean, west of Ecuador H = 08 59 20
JUNE 18 U.S.C.G.S. Sunda Strait H = 17 54 40 Kirkland Lake eP' 18 14 08 ePP 18 16 35 i(PKS) 18 17 37 d Ottawa iP' 18 14 11 PP 18 17 13 PKS 18 17 45	JUNE 20 Kirkland Lake e 05 32 49 e 05 33 19 c	JUNE 21 U.S.C.G.S. 6S, 129E Banda Sea H = 02 06 53 Halifax iP' 02 26 18 c i 02 26 24 Kirkland Lake e 02 26 09 c e 02 27 30 d Ottawa iP' 02 26 04 c i 02 26 16 i 02 27 49 PP 02 28 35 PKS 02 29 29 Seven Falls eP' 02 26 04 c i 02 26 18 i 02 28 41 PKS 02 29 33 PPP 02 30 55

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PP 02 02 10 S 02 08 28 PPS 02 09 20 e 02 10 11 Resolute Bay e 02 02 41 i 02 12 38 S 02 13 20 Seven Falls iP 01 59 42 c P _c P 02 00 12 i 02 00 26 i 02 00 40 iS 02 08 43 PPS 02 09 30 Shawinigan Falls iP 01 59 39	Ottawa eP 09 07 31 d Seven Falls iP 09 07 52 c PP 09 09 48	Seven Falls e 07 46 10.5 i 07 46 17.5 i 07 46 25.5
JUNE 21 U.S.C.G.S. 6S, 129E Banda Sea H = 02 06 53 Halifax iP' 02 26 18 c i 02 26 24 Kirkland Lake e 02 26 09 c e 02 27 30 d Ottawa iP' 02 26 04 c i 02 26 16 i 02 27 49 PP 02 28 35 PKS 02 29 29 Seven Falls eP' 02 26 04 c i 02 26 18 i 02 28 41 PKS 02 29 33 PPP 02 30 55	JUNE 22 Kirkland Lake eP 19 27 23	JUNE 22 Halifax iP _n 10 09 44.5 iS ₁ P ₁ 10 09 49.5 iS ₁ S ₁ 10 10 08.0 d = 165 km
JUNE 21 U.S.C.G.S. 6S, 129E Banda Sea H = 02 06 53 Halifax iP' 02 26 18 c i 02 26 24 Kirkland Lake e 02 26 09 c e 02 27 30 d Ottawa iP' 02 26 04 c i 02 26 16 i 02 27 49 PP 02 28 35 PKS 02 29 29 Seven Falls eP' 02 26 04 c i 02 26 18 i 02 28 41 PKS 02 29 33 PPP 02 30 55	JUNE 24 U.S.C.G.S. 18 1/2N, 145 1/2E Marianas Islands H = 07 58 12 h = 200 km Resolute Bay iP 08 10 01 d	JUNE 24 Kirkland Lake eP 15 44 05 c e 15 44 25 e 15 45 43
JUNE 21 U.S.C.G.S. 1 1/2N, 84W Pacific Ocean, west of Ecuador H = 08 59 20	JUNE 24 Kirkland Lake eP 05 28 22 d e 05 28 41 Ottawa iP 05 28 33 d Seven Falls eP 05 28 10 c	JUNE 24 U.S.C.G.S. 73 1/2N, 8E Arctic Ocean H = 05 20 11 Kirkland Lake eP 05 28 22 d e 05 28 41 Ottawa iP 05 28 33 d Seven Falls eP 05 28 10 c
JUNE 21 U.S.C.G.S. 1 1/2N, 84W Pacific Ocean, west of Ecuador H = 08 59 20	JUNE 26 Ottawa P _n 07 45 12 S _n 07 45 31 d = 170 km	JUNE 26 U.S.C.G.S. 17S, 67 1/2W West central Bolivia H = 01 10 50 Halifax iP 01 21 14 c
JUNE 21 U.S.C.G.S. 1 1/2N, 84W Pacific Ocean, west of Ecuador H = 08 59 20	JUNE 28 Halifax iP ₁ 15 15 05.5 iS ₁ 15 15 07.5 d = 17 km	JUNE 28 U.S.C.G.S. 0, 91 1/2W Galapagos Islands H = 23 24 34 Ottawa iP 23 33 13 d

DOMINION OBSERVATORIES

Ottawa iP 01 21 21 c	JUNE 30 U.S.C.G.S. 24N, 109W Gulf of California H = 15 18 20	Halifax iP' 03 04 11.5 c PP 03 05 40 PS 03 15 31 PPS 03 17 35 SS 03 22 30 e 03 31 50
JUNE 30 Kirkland Lake e 07 44 32	Kirkland Lake eP 15 25 01 e(S _c S) 15 36 05	Kirkland Lake e 03 03.8 e 03 04.8
Ottawa e(S _n) 07 42 41.0 e(S ₁ S ₁) 07 43 02.0 i 07 43 15.5 i 07 43 17.0 i 07 43 19.0 d = 405 km	Ottawa iP 15 25 11 d	Ottawa iP' 03 03 59 c PP 03 05 19 e 03 06 30 PPP 03 08 06 e 03 10 16 SKKS 03 12 14 PS 03 15 10 SS 03 21 42 SSS 03 26 00
Seven Falls iP ₁ 07 41 16 iS ₁ 07 41 23 d = 52 km H = 07 41 07	JUNE 30 Kirkland Lake e 15 50 14	Resolute Bay eP 02 58 05 ePP 03 01 36 eS 03 08 34 eL 03 37.2
Shawinigan Falls iP 07 41 41 i 07 42 04 i 07 42 06	JUNE 30 Ottawa iP 22 29 59 d	Seven Falls eP' 03 03 57 PP 03 05 05 PPP 03 07 32 SS 03 21 11 G 03 33 16
JUNE 30 U.S.C.G.S. 7N, 37E Southwestern Ethiopia H = 13 26 50	JULY 1 U.S.C.G.S. 52N, 159 1/2E Off east coast of Kamchatka H = 03 15 16	Shawinigan Falls eP' 03 04 01
Halifax e(SS) 13 57 32 eL 14 11 28	Ottawa iP 03 26 40 d Resolute Bay eP 03 23 31	
JUNE 30 U.S.C.G.S. 51 1/2N, 158E Near southeast coast of Kamchatka H = 15 05 26	JULY 1 U.S.C.G.S. 23 1/2N, 122E Off east coast of Formosa H = 05 23 57 Resolute Bay iP 05 36 04	JULY 2 U.S.C.G.S. 5S, 77W Northern Peru H = 09 06 19 Kirkland Lake eP 09 15 47 c Ottawa iP 09 15 26 c eS 09 22 36
Halifax eL 15 40.7		Seven Falls eP 09 15 40
Ottawa iP 15 16 54 d	JULY 2 U.S.C.G.S. 13N, 124 1/2E Southeastern Luzon, P.I. H = 02 45 08	
Resolute Bay iP 15 13 38 d L 15 45		

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JULY 2 U.S.C.G.S. 38.2N, 116.4W South central Nevada H = 10 43 13	i 23 04 15 i 23 09 05 sSS 23 12 30	Seven Falls e 16 47 08
Ottawa eP 10 49 30 e 10 59 02	Kirkland Lake eP' 22 50 34 ipP' 22 50 45 c i 22 50 46 d isP' 22 50 48 c ePP 22 53 32 c?	JULY 4 Seven Falls iP _n 18 36 15.5 i 18 36 17.5 S _n 18 36 32.0 i 18 36 36.0 d = 140 km H = 18 35 50.5
Resolute Bay e 11 03 55	Ottawa eP' 22 50 40 c i 22 50 45 i 22 50 52 PP 22 53 48 PKS 22 54 25 PPP 22 56 44 PS 23 04 08 PPS 23 04 36	JULY 5 Halifax iP ₁ 01 30 46.5 iS ₁ 01 30 48.0 d = 17 km
JULY 2 Halifax e 21 24 22 c	Resolute Bay eP 22 45 53 iPP 22 50 32 ePPP 22 52 53	JULY 5 U.S.C.G.S. 50 1/2N, 156 1/2E Near south coast of Kamchatka H = 13 52 18 h = 60 km
JULY 3 U.S.C.G.S. 3 1/2S, 29E Belgian Congo H = 00 32 53	Halifax eL 01 18	Halifax iP 14 04 20 epP 14 04 36 esP 14 04 47
JULY 3 U.S.C.G.S. 19 1/2N, 121 1/2E Luzon, P.I. H = 21 15 00	Halifax eL 01 18	Ottawa iP 14 03 51 d PP 14 06 38
Resolute Bay eP 21 27 29 c eS 21 37 46	Seven Falls eP' 22 50 39 c PP 22 53 40 PKS 22 54 08 i 22 54 38 SKS 22 57 43 SS 23 11 51 SSS 23 17 45	Resolute Bay eP 14 00 43 d eS 14 07 26 eSS 14 10 54
JULY 3 U.S.C.G.S. 6 1/2S, 105 1/2E Near southwest coast of Java H = 22 31 25 h = 100 km	Shawinigan Falls eP' 22 50 42 e 22 53 23	Seven Falls iP 14 03 53 d i 14 04 06
Halifax eP' 22 50 45 i 22 50 52 SKP 22 53 50 sPP 22 54 30 pPKS 22 54 50	JULY 4 U.S.C.G.S. 44.9N, 110.8W Yellowstone Park H = 16 32 50 Kirkland Lake eP 16 37 45 e(S) 16 43 57 Ottawa eP 16 38 31 PP 16 39 08 e 16 44 08 e 16 45 40	JULY 5 Halifax iP ₁ 22 14 50 iS ₁ 22 14 51.5 d = 15 km
	Resolute Bay e 16 48.7	

DOMINION OBSERVATORIES

JULY 6
 U.S.C.G.S. S 08 26 34
 3S, 14SE e 08 28 16
 Bismarck Sea e 08 30 56
 H = 04 00 13 SSS 08 34 44
 Halifax
 eL 04 59
 Ottawa
 eP' 04 19 13
 PP 04 20 50
 Seven Falls
 eP' 04 19 17

JULY 6
 U.S.C.G.S.
 46N, 153E
 Kurile Islands
 H = 10 14 00
 Resolute Bay
 iP 10 23 10

JULY 6
 U.S.C.G.S.
 39 1/2N, 118 1/2W
 Near Fallon, Nevada
 H = 11 13 19
 Halifax
 iP 11 21 00 c
 PP 11 22 37
 S 11 27 10
 SS 11 29 06
 SSS 11 30 13
 eL 11 32
 Kirkland Lake
 eP 11 19 18 d?
 Ottawa
 eP 11 19 44 c
 Resolute Bay
 eP 11 20 29 c
 eS 11 26 18
 e 11 32 44
 Seven Falls
 iP 11 20 12 c
 i 11 20 16
 PP 11 21 35
 P_cP 11 22 33
 i 11 24 30
 S 11 25 49
 SS 11 28 25
 SSS 11 29 03
 S_cS 11 30 15
 L 11 31.2
 Shawinigan Falls
 eP 11 20 02
 e 11 28 18
 (S_cS) 11 30 44
 e 11 31 06

JULY 6
 U.S.C.G.S.
 Fallon, Nevada, after-
 shock
 H = 13 15 11
 Resolute Bay
 eP 13 22 20

JULY 6
 U.S.C.G.S.
 Arctic ocean, 200
 miles west of
 Spitzbergen
 H = 15 47 02
 Resolute Bay
 eP 15 51 24

JULY 6
 U.S.C.G.S.
 Near coast of
 Guatemala
 H = 15 56 25
 h = 150 km
 Ottawa
 eP 16 03 00 d

JULY 6
 U.S.C.G.S.
 Fallon, Nevada, after-
 shock
 H = 22 07 41
 Halifax
 iP 22 15 24 c
 PP 22 17 00
 iS 22 21 30
 iSS 22 24 34
 eL 22 27
 Kirkland Lake
 eP 22 13 44 d?
 eS 22 19 40
 Ottawa
 eP 22 14 08
 PP 22 15 05
 i 22 16 17
 P_cP 22 16 58
 S 22 19 22
 SS 22 21 10

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SSS 22 21 40
 e 22 24 00
 S_cS 22 24 32
 Resolute Bay
 eP 22 14 54 c
 ePP 22 16 28
 iS 22 20 43
 eSS 22 22 49
 eL 22 25.5
 Seven Falls
 eP 22 14 35 d
 PP 22 15 55
 S 22 20 09
 SSS 22 22 42
 S_cS 22 25 34
 L 22 25 54
 Shawinigan Falls
 eP 22 14 25
 S 22 19 50
 SS 22 22 08
 S_cS 22 25 14

JULY 7
 U.S.C.G.S.
 Northern Kurile Islands
 H = 01 21 24
 Ottawa
 eP 01 33 12
 Resolute Bay
 eP 01 30 21

JULY 8
 Resolute Bay
 e 02 33 09
 e 02 34 19

JULY 8
 Halifax
 iP_n 07 25 49.5
 S₁P_nP₁ 07 25 52.5
 iS_n 07 26 09.5
 iS₁ 07 26 12.5
 iS₁S₁ 07 26 14
 d = 175 km

JULY 8
 Ottawa
 iP 18 41 17 c
 PP 18 44 42
 Resolute Bay
 iP 18 38 28
 eP_cP 18 39 14
 ePP 18 40 49
 Seven Falls
 iP 18 41 16 c

JULY 8
 U.S.C.G.S.
 Fallon, Nevada,
 aftershock
 H = 19 31 57
 Halifax
 eP 19 39 40
 eL 19 53

JULY 8
 Resolute Bay
 e 19 51 28
 i 19 52 36
 e 19 53 59

JULY 9
 U.S.C.G.S.
 16S, 174 1/2W
 Tonga Island
 H = 12 20 38
 h = 100 km
 Resolute Bay
 eS 12 45 02
 eSP 12 46 08

JULY 9
 U.S.C.G.S.
 43 1/2N, 147E
 Off east coast of
 Hokkaido, Japan
 H = 15 38 18
 Ottawa
 eP 15 50 48
 Resolute Bay
 eP 15 47 53 d

JULY 9
 U.S.C.G.S.
 41N, 138 1/2E
 Off northwest coast of
 Honshu, Japan
 H = 18 28 22
 Halifax
 iP 18 41 37 c
 Kirkland Lake
 iP 18 41 00 c

JULY 10
 U.S.C.G.S.
 38S, 73 1/2W
 Near coast of Central
 Chile
 H = 16 00 40
 Halifax
 e 16 13 08
 Kirkland Lake
 eP 16 13 24 d?
 i(pP) 16 13 32 c
 Ottawa
 iP 16 13 09 d
 i 16 13 17

JULY 10
 Halifax
 iP₁ 19 06 09
 iS₁ 19 06 13
 d = 35 km

JULY 10
 U.S.C.G.S.
 37N, 70 1/2E
 Hindu Kush
 h = 200 km
 H = 22 56 53
 Halifax
 iP 23 09 29 c
 i 23 13 01
 Kirkland Lake
 eP 23 09 39 c?
 Ottawa
 eP 23 09 46 d
 PP 23 13 28

DOMINION OBSERVATORIES

Resolute Bay iP 23 07 36 iP _c P 23 07 49 esP 23 08 46 eS 23 16 25	JULY 13 U.S.C.G.S. Northern Kurile Islands H = 22 07 40 Ottawa eP 22 19 22 Resolute Bay eP 22 16 17 eS 22 23 16	JULY 16 Ottawa e 09 26 12
JULY 11 Ottawa e 05 15 06 e 05 16 04	JULY 15 U.S.C.G.S. 13S, 177W Wallis Island region H = 00 03 44 Halifax eL 00 54 Resolute Bay eS 00 29 30 e 00 33 39 eSS 00 36 19 eSSS 00 49 59 G 00 53.1	JULY 16 U.S.C.G.S. 40N, 144 1/2E Off east coast of Honshu, Japan H = 12 41 38 Kirkland Lake eP 12 54 11 Ottawa iP 12 54 29 c Resolute Bay eP 12 51 42 d
JULY 12 U.S.C.G.S. 46N, 153E Kurile Islands H = 17 30 10 Resolute Bay eP 17 41 18 d eS 17 48 40	JULY 15 U.S.C.G.S. 54N, 138W Queen Charlotte Islands region H = 13 24 35 Ottawa e 13 44 01 L 13 46 40 Resolute Bay e 13 38 17 e 13 38 28 Seven Falls eL 13 44 49 Shawinigan Falls e 13 44 29	JULY 17 Halifax iP ₁ 23 33 19 iS ₁ 23 33 21 d = 17 km
JULY 13 U.S.C.G.S. 3S, 151E New Britain region H = 08 04 44 Halifax e 08 24.0 e(SSS) 08 57 eG 09 07 Ottawa iP' 08 23 46 c i 08 23 54 PP 08 25 13 SKKS 08 32 04 SS 08 41 00 SSS 08 45.5 Resolute Bay eP 08 18 34 L 08 57.7 Seven Falls eP' 08 23 50 c	JULY 15 U.S.C.G.S. 54N, 138W Queen Charlotte Islands region H = 13 24 35 Ottawa e 13 44 01 L 13 46 40 Resolute Bay e 13 38 17 e 13 38 28 Seven Falls eL 13 44 49 Shawinigan Falls e 13 44 29	JULY 17 Halifax iP ₁ 23 33 19 iS ₁ 23 33 21 d = 17 km
	JULY 16 Ottawa eP 03 11 31 c	JULY 18 U.S.C.G.S. 55N, 161 1/2E Near east coast of Kamchatka H = 06 34 35

SEISMOLOGICAL BULLETIN

Halifax iP 06 46 11 c eL 07 10 Kirkland Lake iP 06 45 17 c Ottawa iP 06 45 41 c PP 06 48 04 Resolute Bay eP 06 42 22 c ePP 06 43 57 eP _c P 06 44 21 eS 06 48 33 eL 06 54.8 Seven Falls eP 06 45 43	JULY 18 U.S.C.G.S. 37 1/2N, 23E Near south coast of Greece H = 13 18 55 Ottawa eP 13 30 08 d	Ottawa eP 02 26 12 d Seven Falls eP 02 26 22 d
JULY 18 U.S.C.G.S. 38 1/2N, 20 1/2E Near west coast of Greece H = 14 42 38 Halifax eP 14 52 50 d Ottawa eP 14 53 37 d Seven Falls eP 14 53 11 c	JULY 19 Halifax iP ₁ 21 08 46.5 iS ₁ 21 08 48.5 d = 17 km	JULY 20 Halifax eP 07 16 34 Kirkland Lake eP 07 17 44 Ottawa iP 07 17 23 d Seven Falls eP 07 17 08 d
JULY 18 U.S.C.G.S. 35 1/2N, 140 1/2E Near east coast of Honshu, Japan H = 09 07 44 Halifax eS 09 32 29 eL 09 47 Kirkland Lake eP 09 20 33 Ottawa iP 09 20 51 c PP 09 24 24 PPP 09 26 29 SKS 09 31 20 S 09 31 48 PS 09 33 00 SS 09 38 08 Resolute Bay eP 09 18 12 ePP 09 20 44 ePPP 09 21 47 eS 09 26 48 iS _c S 09 28 03 eSS 09 31 03 Seven Falls eP 09 20 55	JULY 18 U.S.C.G.S. 30S, 180 Kermadec Islands H = 19 53 22 h = 400 km Ottawa eP' 20 11 30 d Seven Falls eP' 20 11 37 d	JULY 20 Ottawa iP 11 16 08 c
	JULY 19 Seven Falls e(P) 00 20 03 i 00 20 12	JULY 20 Ottawa i 17 56 07 c
	JULY 19 U.S.C.G.S. Near coast of northern Chile H = 02 15 16 h = 60 km	JULY 20 Ottawa e 19 25 25
	JULY 19 U.S.C.G.S. Near coast of northern Chile H = 02 15 16 h = 60 km	JULY 20 Ottawa iP _n 19 59 44.0 P ₁ P ₁ 19 59 46.0 S _n 20 00 02.0 i 20 00 03.0 S ₁ 20 00 04.5 L 20 00 19.0 d = 157 km H = 19 59 19

DOMINION OBSERVATORIES

JULY 20 Kirkland Lake eP 22 29 35 c Ottawa eP 22 29 21 d Seven Falls e 22 29 47	JULY 23 U.S.C.G.S. 30 1/2S, 71 1/2W Central Chile H = 04 33 30 h = 60 km Halifax eS 04 54 46 eG 05 04 30 Kirkland Lake eP 04 45 30 c? i 04 45 31.5 d Ottawa iP 04 45 13 c i 04 47 24 PP 04 48 14 S 04 54 52 S _c S 04 55 14 PPS 04 55 46 Resolute Bay e(PP) 04 52 02 eS 04 59 39 epPS 05 01 28 eL 05 06.2 Seven Falls iP 04 45 22 c pP 04 45 33 S 04 55 09 S _c S 04 55 32 Shawinigan Falls iP 04 45 19	JULY 23 Halifax eP 20 46 41 e 20 47 10 Ottawa iP 20 46 47 d i 20 47 16 JULY 24 U.S.C.G.S. New Hebrides Isl. H = 09 41 16 Ottawa eP' 10 00 07 d JULY 24 Ottawa e 12 45 12 JULY 25 U.S.C.G.S. 10N, 72 1/2W Northwestern Venezuela H = 11 00 15 Kirkland Lake eP 11 07 42 Ottawa iP 11 07 15 d i 11 07 29 JULY 25 Resolute Bay e 15 10.5 i 15 10 37 e 15 12 51 JULY 26 Ottawa e 00 59 40 JULY 26 Ottawa e 08 58 08 e 09 08 44
JULY 21 U.S.C.G.S. 27 1/2N, 101E Szechwan province, China H = 04 38 51 Resolute Bay eL 05.3 F 05.8	JULY 21 Ottawa iP _n 19 57 41 S _n 19 58 05 L 19 58 16 d = 230 km H = 19 57 07 JULY 22 Seven Falls iP ₁ 07 34 51.5 P ₁ P ₁ 07 34 53.5 S ₁ 07 35 02.5 S _n 07 35 05.5 d = 90 km JULY 22 Ottawa iP 12 23 10 d JULY 22 Ottawa iP 18 27 46 d i 18 33 30 JULY 23 Ottawa e(P) 20 31 06	JULY 21 Ottawa eP 20 46 41 e 20 47 10 Ottawa iP 20 46 47 d i 20 47 16 JULY 24 U.S.C.G.S. New Hebrides Isl. H = 09 41 16 Ottawa eP' 10 00 07 d JULY 24 Ottawa e 12 45 12 JULY 25 U.S.C.G.S. 10N, 72 1/2W Northwestern Venezuela H = 11 00 15 Kirkland Lake eP 11 07 42 Ottawa iP 11 07 15 d i 11 07 29 JULY 25 Resolute Bay e 15 10.5 i 15 10 37 e 15 12 51 JULY 26 Ottawa e 00 59 40 JULY 26 Ottawa e 08 58 08 e 09 08 44



SEISMOLOGICAL BULLETIN

JULY 26 Ottawa e 15 55 39	SKS 20 38 48 i 20 39 00 PPS 20 40 02 SS 20 44 20 Resolute Bay eSKS 20 41 14 eS 20 43 16 ePS 20 45 10 eSSS 20 56 04 eL 21.0 Seven Falls eP 20 28 37 S 20 39 13 i 20 39 19 Shawinigan Falls iP 20 28 33 c (SKS) 20 38 51	Shawinigan Falls eP 22 17 50 JULY 27 U.S.C.G.S. 12 1/2N, 44W Mid Atlantic Ocean, aftershock H = 06 46 44 Halifax eL 07 04 Kirkland Lake eP 06 55 19 Ottawa iP 06 54 47 d PP 06 56 35 PPP 06 57 07 S 07 01 18 SS 07 04 50 L 07 07.5 Seven Falls eP 06 54 36 d PP 06 56 14 PPP 06 56 43 JULY 27 Ottawa iP _n 19 27 54 S _n 19 28 26 L 19 28 46 d = 315 km H = 19 27 09 Seven Falls i(P _n) 19 27 58 Shawinigan Falls iP _n 19 27 45.6 iS _n 19 28 09.8 d = 230 km JULY 27 U.S.C.G.S. Mid Atlantic Ocean, aftershock H = 20 57 45 Halifax eL 21 14
JULY 26 Ottawa e 16 23 07	JULY 26 Ottawa i 17 17 48 d	JULY 26 Kirkland Lake eP 18 16 31
JULY 26 U.S.C.G.S. 12 1/2N, 44W Mid Atlantic Ocean H = 22 09 57 Halifax eP 22 17 08 eS 22 23 00 eL 22 27 00 Kirkland Lake eP 22 18 31 Ottawa eP 22 18 00 PP 22 19 43 i 22 20 07 PPP 22 20 30 S 22 24 35 SS 22 28 00 L 22 30 40 Resolute Bay eP 22 21.0 eS 22 30 12 eL 22 44.5 Seven Falls eP 22 17 49 c PP 22 19 32 e 22 19 56 PPP 22 20 18 S 22 24 26 e 22 27 52 L 22 29 56		
JULY 26 U.S.C.G.S. 1 1/2S, 79W Central Ecuador H = 19 09 00 Ottawa iP 19 17 29 d Seven Falls eP 19 17 47	JULY 26 U.S.C.G.S. 41S, 73W Central Chile H = 20 15 45 Halifax iP 20 28 27 c i 20 28 52 iS 20 38 57 eL 20 54 Kirkland Lake iP 20 28 42 c e 20 29 05 Ottawa iP 20 28 27 c i 20 30 41 PPP 20 33 40 S 20 38 33	JULY 26 U.S.C.G.S. 12 1/2N, 44W Mid Atlantic Ocean H = 22 09 57 Halifax eP 22 17 08 eS 22 23 00 eL 22 27 00 Kirkland Lake eP 22 18 31 Ottawa eP 22 18 00 PP 22 19 43 i 22 20 07 PPP 22 20 30 S 22 24 35 SS 22 28 00 L 22 30 40 Resolute Bay eP 22 21.0 eS 22 30 12 eL 22 44.5 Seven Falls eP 22 17 49 c PP 22 19 32 e 22 19 56 PPP 22 20 18 S 22 24 26 e 22 27 52 L 22 29 56

DOMINION OBSERVATORIES

Kirkland Lake eP 21 06 27	Kirkland Lake eP 03 45 37 d	S ₁ 19 59 14 e 19 59 31
Ottawa eP 21 05 56 c e 21 12 35	i 03 45 38 c	d = 420 km H = 19 57 16
Seven Falls eP 21 05 47	Ottawa iP 03 46 00 d	Seven Falls eP _n 19 58 13.0 e 19 58 45.0 e 19 58 48.5
	PP 03 48 46 PPP 03 50 40 S 03 55 43	iS _n 19 58 50.5 i 19 59 03.5 iS ₁ 19 59 11.0 e 19 59 16.0
JULY 28 Ottawa eP 16 05 01	Resolute Bay iP 03 42 55 ePP 03 44 46 iS 03 49 49 e 03 53 25 eSSS 03 54 04 eL 03 57.9	d = 410 km H = 19 57 17 Shawinigan Falls e(P ₁) 19 58 24.7 eS _n 19 58 56.6
JULY 29 U.S.C.G.S. 16 1/2S, 70 1/2W Southern Peru H = 03 23 46 h = 100 km Halifax eP 03 33 43 esP 03 34 19 e 03 34 41	Seven Falls eP 03 46 02 d e 03 46 26 S 03 55 38	JULY 29 U.S.C.G.S. 17 1/2N, 92 1/2W Tabasco, Mexico H = 22 23 54
Kirkland Lake eP 03 34 18 epP 03 34 45	Shawinigan Falls iP 03 46 02	Halifax eL 22 42
Ottawa iP 03 33 58 c e 03 42 28	JULY 29 U.S.C.G.S. Western Switzerland H = 04 42 27	Kirkland Lake eP 22 30 27
Seven Falls eP 03 34 07 c i 03 34 34 iP _c P 03 34 56	Seven Falls eP 04 51 34	Ottawa eP 22 30 18 e 22 38 10
JULY 29 U.S.C.G.S. 49 1/2N, 158E Off south coast of Kamchatka H = 03 34 20 Halifax eP 03 46 29 e 03 46 44 e 03 46 54 eS 03 56 32 eL 04 14	JULY 29 U.S.C.G.S. 28S, 179W Kermadec Island region H = 06 27 59 Halifax eP' 06 47 04 d Ottawa eP' 06 46 46 d	Seven Falls eP 22 30 50
	JULY 29 Kirkland Lake e 20 00 51	JULY 30 U.S.C.G.S. 35 1/2S, 97 1/2W Pacific Ocean, south- east of Easter Island H = 08 46 11 h = 100 km Halifax eP 08 58 47 iS 09 09 11 PS 09 10 16 SS 09 15 00
	Ottawa eP _n 19 58 13 eS _n 19 58 53 e 19 59 07	Kirkland Lake eP 08 58 42

SEISMOLOGICAL BULLETIN

Ottawa eP 08 58 30 c S 09 08 54 PS 09 09 50 SS 09 14 20 G 09 21 00	Seven Falls eP 01 13 18 c e 01 13 55 i 01 14 05 i 01 15 11 PP 01 17 13 PPP 01 19 24 S 01 24 35 G 01 38 29	AUGUST 2 U.S.C.G.S. 39 1/2N, 118 1/2W Near Fallon, Nevada H = 10 18 53 Halifax eL 10 40.1 Kirkland Lake e 10 24.9 Ottawa eP 10 25 22 d Resolute Bay eP 10 26 03 eL 10 38.5
Seven Falls eP 08 58 45 d e 08 59 41 S 09 09 16 PS 09 10 20 e 09 12 17 SS 09 15 10	Shawinigan Falls eP 01 13 26 d?	JULY 31 U.S.C.G.S. Bolivia-Chile border H = 23 22 27 h = 100 km
Shawinigan Falls eP 08 58 41 S 09 09 10	JULY 31 U.S.C.G.S. 39N, 104E Ningsia province, China H = 00 59 57 Halifax eP 01 13 26 SKS 01 24 04 S 01 24 36 PS 01 26 04 SS 01 31 20 SSS 01 35 05	AUGUST 2 Ottawa iP 11 48 59 d Seven Falls iP 11 48 46 d
JULY 31 U.S.C.G.S. 39N, 104E Ningsia province, China H = 00 59 57 Halifax eP 01 13 26 SKS 01 24 04 S 01 24 36 PS 01 26 04 SS 01 31 20 SSS 01 35 05	Kirkland Lake eP 01 13 13	AUGUST 1 U.S.C.G.S. 20S, 69 1/2W Northern Chile h = 100 km H = 06 00 48 Ottawa iP 06 11 51 c
Kirkland Lake eP 01 13 13	Ottawa iP 01 13 26 d PP 01 17 17 e 01 18 39 PPP 01 19 25 SKS 01 24 02 e 01 25 30 SS 01 31 00	AUGUST 2 U.S.C.G.S. 37S, 99 1/2W Southeast of Easter Island H = 23 28 33 Kirkland Lake e 23 41 18 Ottawa eP 23 41 08 d e 23 51 40 Resolute Bay e 24 06 38 eL 24 21 Shawinigan Falls eP 23 41 18
Resolute Bay eP 01 10 46 d? eP _c P 01 11 24 i 01 12 54 ePP 01 13 03 e 01 13 34 ePPP 01 14 40 eS _c S 01 20 54 eSSS 01 26 33	Halifax i 21 54 25 d Ottawa iP' 21 51 09 c	AUGUST 1 U.S.C.G.S. Loyalty Islands H = 21 32 11 Halifax i 21 54 25 d Ottawa iP' 21 51 09 c
	AUGUST 2 Kirkland Lake eP 09 09 22	AUGUST 3 Halifax e 01 07 59 c
	AUGUST 2 Kirkland Lake eP 09 09 22	AUGUST 3 Halifax iP ₁ 14 08 07 iS ₁ 14 08 09 d = 17 km

DOMINION OBSERVATORIES

AUGUST 3 U.S.C.G.S. 40N, 25E Northern Greece H = 18 18 11 Halifax eP 18 28 36 eL 18 48 Ottawa iP 18 29 21 c S 18 38 24 Resolute Bay eP 18 28 17 d eS 18 36 11 eL 18 45 Shawinigan Falls iP 18 29 06 c Seven Falls iP 18 28 56 c P _c P 18 29 42	Ottawa iP 03 59 26 c Seven Falls iP 03 59 01 c	AUGUST 5 U.S.C.G.S. 52N, 176E Rat Islands, Aleutian Isl. H = 08 49 52 h = 60 km Halifax eP 09 01 02 eS 09 10 20 eSS 09 14 40 eSSS 09 18 37 eL 09 22.5 Kirkland Lake eP 09 00 04 Ottawa iP 09 00 28 c i 09 02 28 S 09 09 09 S _c S 09 10 20 G 09 16 10 Resolute Bay eP 08 57 30 c i(pP) 08 57 54 d ePP 08 59 13 eS 09 03 40 eL 09.1 Shawinigan Falls eP 09 00 22 e 09 02 10 Seven Falls eP 09 00 34 c P _c P 09 01 29	AUGUST 5 U.S.C.G.S. Dodecanese Islands H = 20 39 05 Halifax eP 20 50 01 Kirkland Lake eP 20 50 49 Ottawa eP 20 50 43 c Shawinigan Falls eP 20 50 30 Seven Falls iP 20 50 22 d	AUGUST 5 Ottawa i(P) 22 50 56 c e 22 51 17	AUGUST 6 Halifax eL 00 49 Ottawa e(P) 00 03 31 e 00 05 31 Resolute Bay e 00 11 43 eL 00 37.5	AUGUST 6 Halifax iP _n 07 44 43 iS ₁ 07 45 06 iS ₁ S ₁ 07 45 07.5 d = 160 km	AUGUST 6 U.S.C.G.S. 26 1/2N, 23E Near south coast of Greece Ottawa iP 11 44 59 d
AUGUST 4 U.S.C.G.S. 54N, 169W Fox Islands, Aleutian Isl. H = 13 52 25 h = 200 km Ottawa eP 14 01 49 e 14 09 16 Resolute Bay eL 14 10 e 14 16 00	AUGUST 4 U.S.C.G.S. Kurile Islands H = 21 35 18 Ottawa eP 21 47 37	AUGUST 5 Ottawa P _n 14 47 28.5 P ₁ P ₁ 14 47 30.0 S _n 14 47 45.5 L 14 47 54.0 d = 150 km	AUGUST 6 Halifax eL 00 49 Ottawa e(P) 00 03 31 e 00 05 31 Resolute Bay e 00 11 43 eL 00 37.5	AUGUST 6 Halifax eL 00 49 Ottawa e(P) 00 03 31 e 00 05 31 Resolute Bay e 00 11 43 eL 00 37.5	AUGUST 6 Halifax eL 00 49 Ottawa e(P) 00 03 31 e 00 05 31 Resolute Bay e 00 11 43 eL 00 37.5	AUGUST 6 Halifax iP _n 07 44 43 iS ₁ 07 45 06 iS ₁ S ₁ 07 45 07.5 d = 160 km	AUGUST 6 U.S.C.G.S. 26 1/2N, 23E Near south coast of Greece Ottawa iP 11 44 59 d
AUGUST 4 U.S.C.G.S. Kurile Islands H = 21 35 18 Ottawa eP 21 47 37	AUGUST 4 U.S.C.G.S. Kurile Islands H = 21 35 18 Ottawa eP 21 47 37	AUGUST 5 Ottawa P _n 14 47 28.5 P ₁ P ₁ 14 47 30.0 S _n 14 47 45.5 L 14 47 54.0 d = 150 km	AUGUST 6 Halifax eL 00 49 Ottawa e(P) 00 03 31 e 00 05 31 Resolute Bay e 00 11 43 eL 00 37.5	AUGUST 6 Halifax eL 00 49 Ottawa e(P) 00 03 31 e 00 05 31 Resolute Bay e 00 11 43 eL 00 37.5	AUGUST 6 Halifax eL 00 49 Ottawa e(P) 00 03 31 e 00 05 31 Resolute Bay e 00 11 43 eL 00 37.5	AUGUST 6 Halifax iP _n 07 44 43 iS ₁ 07 45 06 iS ₁ S ₁ 07 45 07.5 d = 160 km	AUGUST 6 U.S.C.G.S. 26 1/2N, 23E Near south coast of Greece Ottawa iP 11 44 59 d

SEISMOLOGICAL BULLETIN

AUGUST 6 U.S.C.G.S. 1S, 23 1/2W Mid Atlantic Ocean H = 16 19 45 Halifax eP 16 29 41 eS 16 37 40 eSSS 16 43 45 Kirkland Lake eP 16 30 57 Ottawa eP 16 30 31 S 16 39 20 S _c S 16 40 28 Resolute Bay eP 16 32 32 c eSKS 16 42 50 eL 17 02.1 Shawinigan Falls eP 16 30 25 d?	Halifax e 19 39 13 eP 09 47 47 sP or P _c P 09 48 25 Kirkland Lake eP 09 48 13 epP 09 48 52 Ottawa eP 09 47 52 d P _c P 09 48 30 S _c S 09 57 26 Resolute Bay eS 10 02 40 Shawinigan Falls eP 09 48 01 P _c P 09 48 38 d Seven Falls eP 09 48 02 d P _c P 09 48 40	SS 19 41.5 SSS 19 44.3 Resolute Bay eP 19 24 47 d i 19 24 48 c ePP 19 26 30 iS 19 31 10 e(S _c S) 19 34 45 Shawinigan Falls iP 19 28 02 d? i 19 28 11 d e 19 31 55 Seven Falls iP 19 28 03 d i 19 28 15 S 19 37 14 i 19 37 28 PS 19 37 57	AUGUST 7 Kirkland Lake eP 11 45 51 i 11 46 00 d	AUGUST 9 U.S.C.G.S. Southern Kurile Islands H = 21 24 13 h = 150 km Ottawa eP 21 36 22 e 21 37 04 iPP 21 39 20	AUGUST 9 53N, 161E Off east coast of Kamchatka H = 19 16 48 H = 60 km Halifax iP 19 28 30 c iS 19 38 11 iSSS 19 46 23 eL 19 52.3 Kirkland Lake eP 19 27 37 d i 19 27 38 d ipP 19 27 49 d Ottawa iP 19 28 01 d i 19 28 13 PP 19 30 41 PPP 19 32 22 S 19 37 09 PPS 19 38 02	AUGUST 10 U.S.C.G.S. Oaxaca, Mexico H = 01 00 38 Ottawa iP 01 07 23 d i 01 07 30 i 01 07 36 Shawinigan Falls i 01 07 42	AUGUST 10 U.S.C.G.S. 32 1/2S, 178W Kermadec Islands H = 13 44 52
AUGUST 6 U.S.C.G.S. 41N, 16E Southern Italy H = 19 21 14 Ottawa eP 19 31 41 Seven Falls eP 19 31 16	AUGUST 6 U.S.C.G.S. 41N, 16E Southern Italy H = 19 21 14 Ottawa eP 19 31 41 Seven Falls eP 19 31 16	AUGUST 6 U.S.C.G.S. 41N, 16E Southern Italy H = 19 21 14 Ottawa eP 19 31 41 Seven Falls eP 19 31 16	AUGUST 7 U.S.C.G.S. 18 1/2S, 69W Bolivia - Chile border H = 09 37 24 h = 100 km	AUGUST 7 U.S.C.G.S. 18 1/2S, 69W Bolivia - Chile border H = 09 37 24 h = 100 km	AUGUST 7 U.S.C.G.S. 18 1/2S, 69W Bolivia - Chile border H = 09 37 24 h = 100 km	AUGUST 10 U.S.C.G.S. Oaxaca, Mexico H = 01 00 38 Ottawa iP 01 07 23 d i 01 07 30 i 01 07 36 Shawinigan Falls i 01 07 42	AUGUST 10 U.S.C.G.S. 32 1/2S, 178W Kermadec Islands H = 13 44 52

DOMINION OBSERVATORIES

Halifax	Shawinigan Falls	Ottawa
eL 14 54	iP 23 29 38 c	eP' 23 15 27
Resolute Bay		PKS 23 18 52
eL 14 32		Resolute Bay
	AUGUST 12	e 23 20 49
	U.S.C.G.S.	eL 23 45.5
	2N, 118E	
AUGUST 11	Near east coast of	
U.S.C.G.S.	Borneo	AUGUST 15
19 1/2N, 69 1/2W	H = 23 42 32	U.S.C.G.S.
Near north coast of	Halifax	Salta province, Argentina
Dominican Republic	eL 25 02	H = 05 38 35
H = 11 12 36	Resolute Bay	Ottawa
h = 100 km	eL 24 36	iP 05 49 59 c
Halifax		Seven Falls
eP 11 18 15		eP 05 50 07 d
isP 11 18 30		e 05 50 54
iS 11 23 05	AUGUST 14	
Kirkland Lake	U.S.C.G.S.	
eP 11 18 42 c	51N, 160 1/2E	AUGUST 15
Seven Falls	Off southeast coast of	U.S.C.G.S.
eP 11 18 47	Kamchatka	Near east coast of
S 11 24 07	H = 01 36 43	Kamchatka
	Kirkland Lake	H = 05 40 10
	eP 01 47 36	Kirkland Lake
AUGUST 12	Ottawa	eP 05 50 36 d
Halifax	iP 01 48 09 d	e 05 51 06
eP ₁ 15 31 55	PP 01 50 44	Ottawa
iS ₁ 15 32 13	PPP 01 52 15	iP 05 51 31 d
d = 155 km	Resolute Bay	i 05 51 42
	iP 01 45 00 d	ePP 05 54 08
	eL 02 01	Seven Falls
AUGUST 12	Seven Falls	iP 05 51 33 d
eP ₁ 15 33 06	iP 01 48 13 d	
iS ₁ 15 33 24		
	AUGUST 14	
	Ottawa	AUGUST 16
AUGUST 12	e(P) 20 58 12	Ottawa
U.S.C.G.S.		eP 05 14 08
53N, 159E		e 05 21 02
Near east coast of		
Kamchatka	AUGUST 14	
H = 23 18 14	Ottawa	AUGUST 16
Halifax	iP 22 04 10 d	Ottawa
eP 23 30 05	e 22 18 36	e 22 32 17
Kirkland Lake		Resolute Bay
eP 23 29 13		iP 22 16 18
Ottawa	AUGUST 14	i(S) 22 16 43
iP 23 29 36 c	U.S.C.G.S.	Appears to be local shock
Resolute Bay	Ceram Sea	
iP 23 26 13 c	H = 22 56 08	
i 23 27 57		

SEISMOLOGICAL BULLETIN

AUGUST 17	Shawinigan Falls	Seven Falls
Ottawa	ePP 05 01 21	eP 21 14 44
iP 16 04 35 d	Seven Falls	
e 16 07 31	eP' 05 00 50 d	
	e 05 01 23	AUGUST 20
	PP 05 01 31	Ottawa
AUGUST 17	sPP 05 01 51	i(P) 17 38 11 c
Shawinigan Falls	i 05 02 02	i 17 38 21
eP 16 42 00	SKS 05 07 24	i 17 38 28
	SKKS 05 08 34	
	S 05 09 31	
AUGUST 17	PS 05 11 18	AUGUST 20
Kirkland Lake	PPS 05 12 15	U.S.C.G.S.
eP 19 47 23	e 05 13 15	70 1/2N, 15W
		Jan Mayen foreshock
		H = 19 21 33
		Resolute Bay
AUGUST 18	AUGUST 18	eL 19 33.4
U.S.C.G.S.	U.S.C.G.S.	Seven Falls
21 1/2S, 176W	350 miles northwest of	eP 19 28 31
Tonga Islands	the Galapagos Islands	
H = 04 42 20	H = 15 04 48	
h = 150 km	Kirkland Lake	
Kirkland Lake	e 15 13 16	AUGUST 20
e(P') 05 00 27	Ottawa	U.S.C.G.S.
e 05 01 06	eP 15 13 07 d	Jan Mayen foreshock
e 05 06 56	Resolute Bay	H = 20 24 15
Ottawa	eL 15 38.0	Resolute Bay
eP' 05 00 43 d		eP 20 28 53
PP 05 01 17		eS 20 33 31
i 05 01 25	AUGUST 18	eL 20 35.8
sPP 05 02 00	U.S.C.G.S.	Seven Falls
SKS 05 07 10	Off southeast coast of	eP 20 31 12
SKKS 05 08 12	Kamchatka	
S 05 09 00	H = 17 58 06	
SP 05 10 16	Ottawa	AUGUST 20
PS 05 10 48	e 18 09 51	Resolute Bay
PPS 05 11 48		e 21 16.0
e 05 15 40		
SS 05 16 42	AUGUST 18	
Resolute Bay	Ottawa	AUGUST 20
isP 04 57 11	eP 23 00 12 d	Resolute Bay
isPP 05 00 56		e(S) 21 56 38
iSKKS 05 06 54		eL 21 59.2
eS 05 07 41	AUGUST 19	
epS 05 08 10	U.S.C.G.S.	
isSP 05 11 05	Near north coast of	AUGUST 20
eSS 05 14 49	Turkey	Resolute Bay
eL 05 37.0	H = 21 03 23	eL 22 20.9

DOMINION OBSERVATORIES

AUGUST 20
U.S.C.G.S.
Jan Mayen foreshock
H = 22 59 16
Ottawa
eP 23 06 40
Resolute Bay
eP 23 04 10
eS 23 08 26
eL 23 10.8
Seven Falls
eP 23 06 12

AUGUST 21
U.S.C.G.S.
7N, 126 1/2E
Near east coast of
Mindanao, P.I.
H = 06 38 33
Ottawa
eP! 06 57 34
Seven Falls
eP! 06 57 35 d
e 06 57 53

AUGUST 21
Kirkland Lake
eP 07 10 44
Ottawa
iP 07 10 27 c
Seven Falls
iP 07 10 36 d
e 07 11 04

AUGUST 21
U.S.C.G.S.
Jan Mayen foreshock
H = 07 19 46
Ottawa
eP 07 27 11 d
S 07 33 12
Resolute Bay
eP 07 24 47
eS 07 28 45
iSS 07 29 22
eL 07 31.6
Seven Falls
eP 07 26 46 c

AUGUST 21
Resolute Bay
e 09 02 11
e 09 03 42

AUGUST 21
Resolute Bay
e 10 59 44
e 11 00 19

AUGUST 21
U.S.C.G.S.
Resolute Bay
e 13 02.4

AUGUST 21
U.S.C.G.S.
Jan Mayen foreshock
H = 13 05 05
Resolute Bay
eP 13 10 07
eS 13 14 23
eL 13 16.9
Seven Falls
eP 13 12 03

AUGUST 21
Resolute Bay
e 14 12 50

AUGUST 21
U.S.C.G.S.
Jan Mayen foreshock
H = 17 40 05
Ottawa
eP 17 47 27
ePPP 17 49 30
e 17 49 41
S 17 53 33
Resolute Bay
eP 17 45 06
eS 17 49 16
eL 17 51.9
Seven Falls
iP 17 47 05 c

AUGUST 21
U.S.C.G.S.
72N, 13W
Jan Mayen Islands region
H = 22 51 00
Kirkland Lake
eP 22 58 20
Ottawa
eP 22 58 28 d
PPP 23 00 40
S 23 04 32

SEISMOLOGICAL BULLETIN

Resolute Bay
eP 22 56 02
eS 23 00 19
eL 23 02.9
Shawinigan Falls
eP 22 58 11
Seven Falls
iP 22 58 03 c
i 22 58 05
PcP 23 00 33
L 23 11 44

AUGUST 22
U.S.C.G.S.
Jan Mayen aftershock
H = 02 51 42
Ottawa
eP 02 59 07 c
Resolute Bay
iP 02 56 42 d
eS 03 00 56
eL 03 03.6
Seven Falls
eP 02 58 40 c

AUGUST 22
Resolute Bay
eP 08 51 52
eS 08 56 04
eL 08 58.2

AUGUST 22
U.S.C.G.S.
Jan Mayen aftershock
H = 10 08 02
Ottawa
eP 10 15 26 c
Resolute Bay
eP 10 13 02
eS 10 17 16
eL 10 19.4
Seven Falls
eP 10 14 59 c

AUGUST 22
U.S.C.G.S.
Jan Mayen aftershock
H = 12 39 38
Ottawa
eP 12 47 04 d
S 12 53 04
Resolute Bay
eP 12 44 39
eS 12 48 55
eL 12 51.2
Seven Falls
iP 12 46 37 c

AUGUST 22
U.S.C.G.S.
Samoa Islands region
H = 14 09 05
Ottawa
iP 14 22 50 c

AUGUST 22
U.S.C.G.S.
Jan Mayen aftershock
H = 18 21 12
Ottawa
eP 18 28 39 d
Resolute Bay
e 18 34.6
Seven Falls
eP 18 28 09 d

AUGUST 22
Resolute Bay
eP 23 57 12
eS 24 01 24
eL 24 03.8

AUGUST 23
U.S.C.G.S.
Jan Mayen aftershock
H = 09 32 37
Resolute Bay
eP 09 37 39
eS 09 41 56
eL 09 44.5

AUGUST 23
Seven Falls
eP 10 15 25 c

AUGUST 23
U.S.C.G.S.
Jan Mayen aftershock
H = 11 39 18
Resolute Bay
eP 11 44 18
eS 11 48 31
eL 11 50.5
Seven Falls
eP 11 46 18 c

AUGUST 23
Ottawa
eP 12 11 47 d
Resolute Bay
e 12 15 21
eL 12 35
Seven Falls
eP 12 12 08 d

AUGUST 23
Ottawa
eP 12 11 47 d

AUGUST 23
U.S.C.G.S.
61N, 148 1/2W
Kenai Peninsula, Alaska
H = 14 57 34
Kirkland Lake
eP 15 05 20
Ottawa
eP 15 05 40
PP 15 07 17
PcP 15 07 29
PPP 15 07 40
e 15 15 38
Resolute Bay
iP 15 02 43 d
eS 15 07 01
eL 15 10.5



DOMINION OBSERVATORIES

Seven Falls
eP 15 05 48
eL 15 21 10

Shawinigan Falls
eP 05 58 13 d?
e(Lg) 06 08 36

Ottawa
iP' 18 59 18 d
Shawinigan Falls
iP' 18 59 21 d?

AUGUST 23
Ottawa
iP_n 16 19 26.0
P₁P₁ 16 19 27.5
S_n 16 19 43.5
L 16 19 52.0
d = 150 km

Seven Falls
eP 05 58 24 d
PP 05 59 45
PPP 06 00 15
P_cP 06 01 15
eS 06 03 54
e 06 04 51
e 06 05 25
SS 06 06 19
e 06 07 25
G 06 08 41

AUGUST 26
U.S.C.G.S.
New Britain aftershock
H = 19 17 22
Ottawa
iP 19 36 20 d
Resolute Bay
eL 20 09.2
Shawinigan Falls
eP' 19 36 22

AUGUST 23
Kirkland Lake
e 19 44 32
Ottawa
iP_n 19 36 52
i 19 36 53
S_n 19 37 16
e 19 37 29

AUGUST 24
Ottawa
iP 06 25 35 d
Shawinigan Falls
eP 06 25 18
Seven Falls
iP 06 25 17 d

AUGUST 27
U.S.C.G.S.
24N, 143E
Volcano Islands
H = 10 55 00
h = 100 km
Halifax
eL 11 43
Ottawa
ePP 11 13 05
SKKS 11 19 22
SKKS 11 19 40
PS 11 22 04
Resolute Bay
iP 11 06 34 d
iPP 11 09 00
iS_cS 11 16 09
e 11 19 04
eL 11 31.0

AUGUST 24
U.S.C.G.S.
39.5N, 118.5W
Near Fallon, Nevada
H = 05 51 31.5
Kirkland Lake
eP 05 57 29 d?
eLg 06 06 36
Ottawa
eP 05 57 56 d
PP 05 59 08
PPP 05 59 20
P_cP 06 00 35
S 06 03 18
SS 06 05 31
G 06 08 00
Resolute Bay
iP 05 58 40 d
iPP 05 59 53
ePPP 06 00 12
eP_cP 06 01 15
iS 06 04 34
eSS 06 06 33
eL 06 09.6

AUGUST 24
Shawinigan Falls
iP 22 03 20 c
S 22 03 21
eL 22 03 23
d = 10 km
May be blast
AUGUST 25
U.S.C.G.S.
Fallon, Nevada, after-
shock
H = 02 17 13
Resolute Bay
eL 02 36.5

AUGUST 26
U.S.C.G.S.
5S, 153E
Off east coast of New
Britain
H = 18 40 20

AUGUST 27
U.S.C.G.S.
Jan Mayen aftershock
H = 12 21 27
Resolute Bay
eP 12 26 34
eS 12 30 43
eL 12 32.9

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AUGUST 27
Ottawa
iP_n 17 26 24.5
P₁P₁ 17 26 26.0
S_n 17 26 41.0
S₁S₁ 17 26 44.5
e 17 26 49.0
d = 140 km

Shawinigan Falls
i 15 25 37
i 15 27 40
i 15 27 44
Seven Falls
iP_n 15 25 22
e(S) 15 27 08
e 15 27 12
e 15 27 31
L 15 27 38

AUGUST 29
U.S.C.G.S.
39 1/2N, 118 1/2W
Fallon aftershock
H = 03 58 05
Halifax
eL 04 19
Ottawa
eP 04 04 41
Resolute Bay
eL 04 18

AUGUST 28
U.S.C.G.S.
24N, 142E
Volcano Islands
H = 03 47 58
h = 60 km
Resolute Bay
iP 03 59 36 c

AUGUST 28
U.S.C.G.S.
300 miles south of
Tierra del Fuego
H = 23 04 25
Halifax
eL 23 53

AUGUST 30
Shawinigan Falls
e 23 35 26

AUGUST 28
U.S.C.G.S.
37N, 141E
Near east coast of
Honshu, Japan
H = 10 01 20
Kirkland Lake
e 10 14 10
Ottawa
iP 10 14 30 d
i 10 14 45
Resolute Bay
eP 10 11 46 c
Shawinigan Falls
i 10 14 31

Ottawa
eP 23 18 35
PP 23 22 45
S 23 29 04
PS 23 31 46
Resolute Bay
iP' 23 23 40 d
eL 24 10.6

AUGUST 30
U.S.C.G.S.
44N, 147 1/2E
Kurile Islands
H = 07 57 23
h = 60 km
Halifax
eP 08 10 10
iS 08 20 46
e 08 21 05
eG 08 32 47
eL 08 38

AUGUST 28
Halifax
iP_n 15 24 12.5
iS₁ 15 25 07.5
d = 375 km
Kirkland Lake
eP 15 26 44
e 15 29 37
Ottawa
iP_n 15 26 07
e_n 15 26 31
e 15 27 09
e 15 27 54
e(S) 15 28 12

AUGUST 29
Halifax
iP₁ 00 27 18
iS₁ 00 27 20
d = 17 km
AUGUST 29
U.S.C.G.S.
39 1/2N, 118 1/2W
Fallon aftershock
H = 03 41 06
Halifax
eL 04 02
Resolute Bay
eL 04 00.2

Kirkland Lake
eP 08 09 26
i 08 09 36
Ottawa
iP 08 09 46 c
i 08 10 02
PP 08 13 38
S 08 20 00
Resolute Bay
eL 08 27.0
Shawinigan Falls
eP 08 09 40
Seven Falls
eP 08 10 03
S 08 20 05

AUGUST 30
Halifax
e(P) 15 28 04 c

DOMINION OBSERVATORIES

AUGUST 30	Kirkland Lake	Ottawa
U.S.C.G.S.	e 05 20	eP' 19 10 06 d
49 1/2N, 155 1/2E	Ottawa	e 19 23 00
Kurile Islands	eP 05 25 14 c	SS 19 27 04
H = 21 15 52	PP 05 26 24	Resolute Bay
Kirkland Lake	PPP 05 26 31	eL 19 23.7
eP 21 27 14	PcP 05 28 06	Shawinigan Falls
Ottawa	S 05 30 29	eP 19 10 11 d?
iP 21 27 36 c	e 05 34 48	
	Resolute Bay	
	eL 05 37.4	
AUGUST 31		SEPTEMBER 2
Ottawa		Ottawa
e(P) 18 31 41 c		iP _n 20 37 44
i 18 33 27	SEPTEMBER 1	i 20 37 45
	U.S.C.G.S.	S _n 20 38 08
	Fallon, Nevada,	eL 20 38 19
	aftershock	d = 230 km
	H = 11 29 25	
AUGUST 31	Resolute Bay	SEPTEMBER 3
Halifax	eL 11.8	Ottawa
i(P) 20 28 18		iP _n 14 22 51
		i 14 22 53
AUGUST 31		S _n 14 23 08
U.S.C.G.S.	SEPTEMBER 1	e 14 23 16
39 1/2N, 118 1/2W	U.S.C.G.S.	d = 145 km
Near Fallon, Nevada	Northern Kurile Islands	
H = 22 20 32	H = 12 25 40	SEPTEMBER 3
Halifax	Ottawa	Halifax
eS 22 34 18	iP 12 37 35 c	iP ₁ 15 19 41.0
eG 22 39.6	Shawinigan Falls	iS ₁ 15 19 47.0
Kirkland Lake	eP 12 37 37 d?	d = 25 km
eP 22 26 33		
Ottawa	SEPTEMBER 2	SEPTEMBER 4
iP 22 26 59 d	U.S.C.G.S.	U.S.C.G.S.
PcP 22 29 48	42N, 20E	3S, 139 1/2E
S 22 32 02	Albania - Yugoslavia	Northern New Guinea
Resolute Bay	border	H = 03 28 32
eP 22 27 43	H = 01 54 32	h = 60 km
eS 22 33 30	Ottawa	Halifax
	iP 02 05 18 c	eP' 03 47 48
SEPTEMBER 1		ePKS 03 51 15
U.S.C.G.S.	SEPTEMBER 2	e(SKKS) 03 57 45
39 1/2N, 118 1/2W	U.S.C.G.S.	ISS 04 07 55
Near Fallon, Nevada	10S, 166E	iSSS 04 13 00
H = 05 18 46.5	Santa Cruz Isl.	e 04 20 10
Halifax	H = 18 51 29	eG 04 25
eL 05 39	h = 100 km	

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Kirkland Lake	SEPTEMBER 4	ePS 08 13 50
eP' 03 47 28	U.S.C.G.S.	e 08 15 32
Ottawa	11 1/2S, 166E	eSS 08 19 56
eP' 03 47 31 c	Santa Cruz Islands	eL 08 35.4
PKKS 03 51 02	H = 13 11 49	Seven Falls
SKKS 03 56 30	Halifax	SKS 08 11 24
PS 03 59 16	eL 14 15	SKKS 08 12 50
SS 04 06 46	Ottawa	G 08 37 09
Resolute Bay	eP' 13 30 56	Shawinigan Falls
eP' 03 45 56	Resolute Bay	eP 08 04 19
ePP 03 46 34	eL 14 02.2	
eSKS 03 53 01		SEPTEMBER 6
ePS 03 55 59	SEPTEMBER 4	Ottawa
eSS 04 01 15	Kirkland Lake	iP _n 12 41 54
eL 04 12.6	eP 20 22 14	i 12 41 56
Shawinigan Falls		S _n 12 42 10
e 03 47 38 c?		eL 12 42 19
		d = 130 km
SEPTEMBER 4	SEPTEMBER 4	
U.S.C.G.S.	Ottawa	
28N, 83 1/2E	eP 21 19 37	
Nepal foreshock		SEPTEMBER 6
H = 06 43 46		U.S.C.G.S.
Resolute Bay	SEPTEMBER 5	21N, 121E
iP 06 55 42 d	U.S.C.G.S.	Off north coast of
	19S, 176E	Luzon, P.I.
	Fiji Isl.	H = 16 46 58
	H = 07 45 31	Halifax
SEPTEMBER 4	Halifax	eL 17 42
U.S.C.G.S.	eP' 08 04 35	Resolute Bay
28N, 83 1/2E	iSKS 08 11 40	iP 16 59 23 c
Nepal	iSKKS 08 13 22	eL 17 36.7
H = 06 45 14	IPS 08 16 26	
Resolute Bay	e(SS) 08 22.3	SEPTEMBER 6
iP 06 57 10 c	eSSS 08 28 10	U.S.C.G.S.
eL 07 30.4	Ottawa	51N, 158E
	eP' 08 04 17 c	Near southeast coast of
SEPTEMBER 4	PP 08 05 23	Kamchatka
U.S.C.G.S.	SKS 08 11 13	H = 18 30 48
21 1/2N, 122 1/2E	SKKS 08 12 20	h = 60 km
Southeast of Formosa	S 08 13 22	Halifax
H = 08 53 20	PS 08 15 14	iP 18 42 44 c
Resolute Bay	PPS 08 16 40	isP 18 43 02
eS 09 15 13	SS 08 21 36	iS 18 52 34
eL 09 32.1	SSS 08 25 12	iScS 18 52 55
	Resolute Bay	eSS 18 59 10
	eSKS 08 10 37	eSSS 19 01 50
	eSKKS 08 11 38	eL 19 09
	eS 08 12 09	



DOMINION OBSERVATORIES

Kirkland Lake	SEPTEMBER 7	SEPTEMBER 8
eP 18 41 52	U.S.C.G.S.	U.S.C.G.S.
i 18 41 55 d	Luzon, P.I. aftershock	Southern Peru
i 18 42 09 c	H = 00 35 13	H = 17 31 03
i 18 42 10 d	Resolute Bay	h = 100 km
Ottawa	eP 00 47 33 c	Kirkland Lake
iP 18 42 16 d	eL 01 17.8	eP 17 41 25 d?
PP 18 45 01		e 17 41 54
PPP 18 46 50		Ottawa
S 18 51 38	SEPTEMBER 7	eP 17 41 05 d
e 18 52 04	U.S.C.G.S.	Shawinigan Falls
PPS 18 52 44	17S, 179E	eP 17 41 13 c?
SS 18 56 08	Fiji Islands	
Resolute Bay	H = 07 14 59	
iP 18 39 07 d	h = 600 km	SEPTEMBER 8
i 18 40 48	Ottawa	Halifax
iPP 18 40 58	eP' 07 32 30 c	e 18 20 59
iS 18 45 48		
esS 18 46 11	SEPTEMBER 7	SEPTEMBER 8
iSS 18 49 15	Ottawa	Shawinigan Falls
eL 18 55.5	iP _n 18 21 02	iP ₁ 18 30 12.2
Seven Falls	i 18 21 04	iS ₁ 18 30 23.6
eP 18 42 21	S _n 18 21 19	S _n 18 30 26.3
eS 18 51 47	eL 18 21 28	S ₁ S ₁ 18 30 27.3
e 18 52 12	d = 145 km	d = 85 km
PPS 18 52 49		H = 18 29 57
G 19 01 35		
Shawinigan Falls	SEPTEMBER 8	SEPTEMBER 8
eP 18 42 18	Kirkland Lake	Halifax
i 18 42 20 d	e 01 33 58	i 19 01 01 d
e 18 43 32	e(S) 01 32 37.5	
i 18 43 35 d	e 01 32 59.5	
	e 01 33 05.0	
SEPTEMBER 6	Seven Falls	SEPTEMBER 8
Kirkland Lake	e 01 30 56	Halifax
eP 19 10 03 c	e 01 31 05	iP ₁ 20 17 38.5
iP 19 10 04 d		iS ₁ 20 17 39.5
	Note: No time marks on	Probably blast
	Short-period	
	vertical. Follow-	SEPTEMBER 8
	ing intervals	Halifax
	could be read.	iP ₁ 21 02 47.5
SEPTEMBER 7		iS ₁ 21 02 49.5
U.S.C.G.S.		d = 17 km
21N, 121E		
Luzon, P.I. aftershock	P _n -S _n 23 Sec.	
H = 00 11 46	P _n -S ₁ 30 Sec.	
Resolute Bay	d = 225 km	
eP 00 24 10	Shawinigan Falls	
eL 00 55.1	eP _n 01 31 53	
	eS _n 01 32 31	
	eS ₁ 01 32 38	



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SEPTEMBER 9	SEPTEMBER 9	SEPTEMBER 9
U.S.C.G.S.	U.S.C.G.S.	U.S.C.G.S.
36N, 1 1/2E	20 1/2S, 177W	Algerian aftershock
Northern Algeria	Tonga Islands	H = 09 28 41
H = 01 04 37	H = 01 02 16	Kirkland Lake
Halifax	h = 200 km	eP 09 38 42
iP 01 13 28 c	Ottawa	Ottawa
iPP 01 15 25	iP' 01 20 30 d	iP 09 38 31 c
iPPP 01 16 00	i 01 20 39	Resolute Bay
iS 01 20 32	PP 01 21 13	eP 09 38 30
i 01 21 12		
eSS 01 24 20	SEPTEMBER 9	SEPTEMBER 10
eSSS 01 27 49	Ottawa	U.S.C.G.S.
Kirkland Lake	eP 01 43 38	Algerian aftershock
eP 01 14 39 c?		H = 05 44 04
i 01 14 43 c		Kirkland Lake
i ! 01 14 43.5 d	SEPTEMBER 9	eP 05 54 05
Ottawa	U.S.C.G.S.	Ottawa
iP 01 14 27 c	Algerian aftershock	eP 05 53 52 d
i(pP) 01 14 52	H = 01 49 48	P _c P 05 54 49
P _c P 01 15 22	Ottawa	PPP 05 57 27
PP 01 16 47	iP 01 59 38 d	S 06 01 47
PPP 01 18 06		S _c S 06 03 43
S 01 22 24	SEPTEMBER 9	SSS 06 08 16
PPS 01 23 06	U.S.C.G.S.	Resolute Bay
S _c S 01 24 22	Algerian aftershock	eP 05 53 52
SS 01 26 14	H = 02 52 22	ePPP 05 57 24
SSS 01 28.5	Ottawa	iS 06 02 00
Resolute Bay	eP 03 02 11 c	eSS 06 05 52
iP 01 14 26 c	Resolute Bay	eL 06 12.5
iPP 01 16 34	eP 03 02 13	Shawinigan Falls
ePPP 01 18 00	eL 03 32.7	eP 05 53 35 d
eS 01 22 23		eP _c P 05 54 40
e 01 24 18		
eSS 01 26 26	SEPTEMBER 9	SEPTEMBER 10
eL 01 32.0	U.S.C.G.S.	Shawinigan Falls
Seven Falls	Central Nicaragua	eP 16 14 46.5
eP 01 13 58	H = 03 43 55	S 16 14 48.5
e(pP) 01 14 21	Kirkland Lake	Probably blast
PP 01 16 05	eP 03 51 02	
S 01 21 31	Ottawa	
S _c S 01 23 51	iP 03 50 45 d	SEPTEMBER 11
SS 01 25 18		Kirkland Lake
Shawinigan Falls		iP _n 18 56 43
eP 01 14 10		iS _n 18 57 18
i 01 14 12 d		iS ₁ 18 57 30
		i 18 57 37
		d = 330 km
		H = 18 55 57

DOMINION OBSERVATORIES

Ottawa	SEPTEMBER 12	SEPTEMBER 13
iP _n 18 56 25	Ottawa	Resolute Bay
i 18 56 26	iP 17 32 04 c	e 12 10 20
i 18 56 30		e 12 13 23
S _n 18 56 46		i 12 15 06
d = 190 km		May be local shock
Seven Falls	SEPTEMBER 12	
eP _n 18 56 43	U.S.C.G.S.	
i 18 56 50	23 1/2S, 178W	
S _n 18 57 21	Tonga Island region	SEPTEMBER 13
e 18 57 32	H = 02 00 26	U.S.C.G.S.
S ₁ 18 57 38	h = 150 km	Luzon, P.I. aftershock
d = 390 km	Kirkland Lake	H = 18 12 37
	eP' 02 28 22	Resolute Bay
Shawinigan Falls	Ottawa	eP 18 24 58 d?
iP _n 18 56 31.8	iP' 02 28 18 c	
e 18 56 33.8	PP 02 29 01	
eS _n 18 56 55.6	e 02 29 40	SEPTEMBER 13
iS _n 18 56 56.8	SKS 02 34 44	U.S.C.G.S.
iS ₁ 18 56 59.4	SKKS 02 35 42	Luzon, P.I. aftershock
The U.S.C.G.S. has	S 02 36 36	H = 18 19 16
supplied the following	SS 02 37 22	Resolute Bay
additional readings	PS 02 38 20	eP 18 31 37 c
Buffalo	PPS 02 39 23	
iP 18 57 13	e 02 40 02	
Fayetteville	SS 02 44 27	SEPTEMBER 14
eP 19 03 20	SSS 02 48 36	U.S.C.G.S.
Dallas	G 02 55 08	Luzon, P.I. aftershock
iP 19 07 11	Resolute Bay	H = 00 48 18
Cleveland	esP 02 24 46	Resolute Bay
iP 18 58 50	ePP 02 28 36	eP 01 00 39 d
	eSKS 02 34 26	eL 01 34.4
	iS 02 35 54	
SEPTEMBER 12	ISS 02 43 25	
U.S.C.G.S.	eL 02 55.0	SEPTEMBER 14
41N, 143E	Seven Falls	U.S.C.G.S.
Off south coast of	SKS 02 34 57	Ryukyu Isl. region
Hokkaido, Japan	SKKS 02 36 09	H = 07 20 07
H = 07 43 50	S 02 37 12	Resolute Bay
Kirkland Lake	PS 02 39 02	eP 07 32 02 c
eP 07 56 20	e 02 39 49	eL 07 58.6
Ottawa	SS 02 45 15	
eP 07 56 37 c	Shawinigan Falls	
PP 08 00 06	eP' 02 28 25	SEPTEMBER 14
S 08 07 16	PP 02 29 17	U.S.C.G.S.
Resolute Bay		Oaxaca, Mexico
iP 07 53 47 c		H = 16 21 59
iS 08 01 51	SEPTEMBER 13	Kirkland Lake
eSS 08 05 47	Ottawa	eP 16 28 51 d?
eL 08 12.1	iP 02 39 20 c	i 16 28 51.5 c
		i 16 29 01 c



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Ottawa	Shawinigan Falls	Shawinigan Falls
iP 16 28 47 c	iP _n 17 49 07.4	iP' 18 13 45
i 16 28 57	S _n 17 49 30.3	
	iS ₁ 17 49 32.6	
	d = 200 km	SEPTEMBER 16
SEPTEMBER 14		Resolute Bay
Ottawa		eL 05 11.2
iP 18 04 10 d	SEPTEMBER 15	
	U.S.C.G.S.	SEPTEMBER 16
	18S, 178 1/2W	Halifax
SEPTEMBER 15	Fiji Islands	iP ₁ 15 03 38
Halifax	H = 17 56 08	iS ₁ 15 03 40
iP ₁ 01 24 18	h = 600 km	d = 15 km
iS ₁ 01 24 24	Halifax	
	iP' 18 13 57 c	
	ipP' 18 16 42	
SEPTEMBER 15	i 18 21 32	SEPTEMBER 17
U.S.C.G.S.	iS 18 22 35	U.S.C.G.S.
4 1/2S, 82W	ISP 18 24 10	4 1/2S, 153 1/2E
Near coast of Peru	iPS 18 25 30	New Ireland region
H = 06 38 04	isS 18 26 20	H = 01 13 08
h = 60 km	i 18 27 00	Halifax
Kirkland Lake	isPS 18 28 05	eL 02 12
eP 06 47 13 c	e 18 29 25	Ottawa
Ottawa	iSS 18 31 16	eP' 01 32 05
iP 06 46 54 c	isSS 18 34 20	i 01 32 27
	eSSS 18 35 15	PP 01 33 48
	Kirkland Lake	SKKS 01 40 04
SEPTEMBER 15	eP' 18 13 35	PS 01 43 24
U.S.C.G.S.	e 18 14 14	SS 01 50 02
26N, 110W	Ottawa	Resolute Bay
Gulf of California	iP' 18 13 41 d	eSKS 01 37 24
H = 13 20 15	PP 18 14 31	ePS 01 39 56
Kirkland Lake	pPP 18 16 25	eSS 01 45 11
e 13 36 10	SKKS 18 20 36	eL 02 00.3
e 13 40 55	S 18 21 24	
Ottawa	SP 18 23 14	
eP 13 26 59 d	PS 18 24 22	SEPTEMBER 17
Resolute Bay	sPS 18 26 44	U.S.C.G.S.
eL 13 46.4	e 18 27 50	24 1/2N, 122E
	SS 18 29.5	Near northeast coast
	Resolute Bay	of Formosa
SEPTEMBER 15	iSKS 18 19 07	H = 07 33 21
Ottawa	iS 18 20 26	Ottawa
iP _n 17 49 15	ePS 18 23 30	ePP 07 52 15
eS _n 17 49 45	esPS 18 25 28	Resolute Bay
i 17 49 51	eL 18 45.0	iP 07 45 24 c
L 17 50 08	Seven Falls	eS 07 55 12
d = 310 km	eSKKS 18 20 58	eL 08 11.1

DOMINION OBSERVATORIES

<p>SEPTEMBER 17 U.S.C.G.S. 21 1/2S, 176 1/2W Tonga Islands region H = 11 03 14 h = 250 km Halifax iP' 11 21 43 c? epP' 11 22 50 d? e 11 23 57 epPP 11 24 05 i(sPP) 11 24 30 i 11 30 56 i 11 31 48 iPS 11 32 55 i 11 34 21 isPS 11 34 39 i 11 35 28 iSS 11 39 35 i 11 39 52 isSS 11 41 07 i 11 41 40 Ottawa iP' 11 21 27 d PP 11 22 13 e 11 23 14 e 11 23 38 PPP 11 24 15 SKS 11 28 00 SKKS 11 28 56 S 11 29 42 PS 11 31 42 PPS 11 32 42 i 11 33 10 SS 11 37 44 e 11 39 20 SSS 11 41 40 G 11 48 42 Resolute Bay eP 11 17 15 c? eP' 11 21 16 iPP 11 21 46 epPP 11 22 56 iSKS 11 27 34 iS 11 29 00 iSP 11 30 42 iPS 11 31 06 iPPS 11 32 23 eSS 11 36 45 eSSS 11 40 47 eL 11 52.0</p>	<p>Seven Falls ePP 11 22 44 e 11 24 03 SKS 11 28 04 S 11 29 54 PS 11 32 19 PPS 11 33 23 SS 11 38 31 e 11 39 53 Shawinigan Falls e(P') 11 21 31 e 11 22 34 e 11 32 11</p> <p>SEPTEMBER 17 Resolute Bay iP 12 01 38 d</p> <p>SEPTEMBER 17 Ottawa eP 11 32 16 i 11 33 32 e 11 36 01</p> <p>SEPTEMBER 17 U.S.C.G.S. Bonin Islands H = 14 45 00 Resolute Bay eP 14 56 22</p> <p>SEPTEMBER 17 Halifax e 18 58 35</p> <p>SEPTEMBER 17 U.S.C.G.S. Colombia-Venezuela border H = 19 01 52 Ottawa eP 19 09 18</p>	<p>SEPTEMBER 17 Halifax e 21 56 37</p> <p>SEPTEMBER 18 U.S.C.G.S. 16N, 60W Leeward Isl. region H = 04 55 20 Ottawa eP 05 01 52 d</p> <p>SEPTEMBER 18 U.S.C.G.S. 14N, 145E Marianas Islands H = 15 31 06 Resolute Bay iP 15 43 41 d</p> <p>SEPTEMBER 18 U.S.C.G.S. Kurile Islands H = 18 24 50 Kirkland Lake eP 18 36 17 Ottawa eP 18 36 41 d</p> <p>SEPTEMBER 18 Kirkland Lake eP 20 22 14</p> <p>SEPTEMBER 20 U.S.C.G.S. 53N, 35 1/2W North Atlantic Ocean H = 00 10 09 Halifax eP 00 14 50 eL 00 23 Ottawa eP 00 15 59 d eL 00 25.0</p>
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SEISMOLOGICAL BULLETIN

<p>Resolute Bay eL 00 27.0 Seven Falls eP 00 15 19 eL 00 23.1 Shawinigan Falls iP 00 15 32 d</p> <p>SEPTEMBER 20 U.S.C.G.S. 1 1/2S, 120 1/2E Celebes H = 00 39 28 Halifax eP' 00 59 05 ePKS 01 02 24 ePPS 01 14 20 eG 01 41 eL 01 51 Kirkland Lake eP' 00 58 45 c? Ottawa iP' 00 58 53 c PP 01 01 26 PKS 01 02 17 SKS 01 06 02 SKKS 01 08 10 Resolute Bay eSKS 01 04 11 ePS 01 07 00 eL 01 32.0</p> <p>SEPTEMBER 21 U.S.C.G.S. Sumbawa Islands H = 03 40 22 h = 150 km Halifax iP' 03 59 40 c Kirkland Lake eP' 03 59 26 e 04 02 44 Ottawa iP' 03 59 30 c i 03 59 38 PKS 04 02 54</p>	<p>Shawinigan Falls e 03 59 23 iPKS 04 02 55 d</p> <p>SEPTEMBER 21 U.S.C.G.S. Marianas Islands H = 09 41 50 Resolute Bay iP 09 54 22 d</p> <p>SEPTEMBER 21 Halifax iP₁ 17 35 56.0 iS₁ 17 36 01.5 d = 37 km</p> <p>SEPTEMBER 22 Halifax iP_n 04 20 14.0 iS₁P_nP₁ 04 20 17 i 04 20 18.5 iS₁P₁ 04 20 20 i 04 20 27.5 iS₁ 04 20 36.5 iS₁S₁ 04 20 38.5 d = 170 km</p> <p>SEPTEMBER 22 Shawinigan Falls e 11 16 10</p> <p>SEPTEMBER 23 U.S.C.G.S. 49N, 156E Kurile Isl. region H = 21 43 36 Halifax iP 21 55 50 c iS 22 05 54 iSSS 22 14 18 eL 22 27 Kirkland Lake eP 21 55 00 d?</p>	<p>Ottawa iP 21 55 22 d iP_cP 21 55 34 PP 21 58 23 S 22 05 00 SS 22 10 08 SSS 22 13 46 Resolute Bay eP 21 52 19 c ePP 21 54 12 iS 21 59 14 eS_cS 22 01 44 eL 22 06.1 Seven Falls eS 22 05 08 Shawinigan Falls eP 21 55 24 eP_cP 21 55 38</p> <p>SEPTEMBER 25 U.S.C.G.S. 17N, 100W Near coast of Mexico H = 07 05 48 Ottawa eP 07 12 44 d Resolute Bay eL 07 36.8</p> <p>SEPTEMBER 25 Kirkland Lake eP 11 34 16 Resolute Bay eP 11 33 43 d? eL 12 01.9</p> <p>SEPTEMBER 25 Resolute Bay eL 12 24.0 Halifax eL 12 23</p> <p>SEPTEMBER 25 U.S.C.G.S. 19N, 70W Dominican Republic H = 19 22 17</p>
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DOMINION OBSERVATORIES

Halifax	SEPTEMBER 28	Ottawa
eP 19 27 49	U.S.C.G.S.	iP _n 20 42 48.5
e 19 32 34	52N, 160E	i 20 43 19.5
Ottawa	Off southeast coast of	S _n 20 43 25.5
eP 19 28 04	Kamchatka	i 20 43 37.5
eS 19 32 50	H = 00 25 00	i 20 43 41.5
	Halifax	i 20 43 51.5
	eL 01 04.5	Shawinigan Falls
SEPTEMBER 26	Ottawa	eS ₁ 20 44 18
Halifax	eP 00 36 22 d	
eP _n 01 00 47	Resolute Bay	SEPTEMBER 30
eS ₁ P ₁ 01 01 05	eP 00 33 02	Ottawa
iS _n 01 01 33.5	eS 00 39 42	iP _n 22 03 25.5
iS ₁ 01 01 59.5	e(SS) 00 43 04	iS _n 22 03 49.5
iS ₁ S ₁ 01 02 00	eL 00 47.1	eL 22 03 59.0
d = 430 km		d = 225 km
	SEPTEMBER 28	Shawinigan Falls
SEPTEMBER 27	U.S.C.G.S.	eS ₁ 22 04 15.2
U.S.C.G.S.	15 1/2S, 173W	
Fiji Isl. region	Samoa Isl. region	OCTOBER 1
H = 04 07 40	H = 12 53 06	U.S.C.G.S.
Ottawa	Halifax	11S, 166E
iP' 04 26 10 c	eL 13 44.8	Santa Cruz Islands
	Resolute Bay	H = 02 55 31
	eS 13 18 47	Halifax
	e 13 38 17	iPP 03 16 35
	eL 13 46.9	i 03 17 10
SEPTEMBER 27		iSKS 03 21 47
Halifax	SEPTEMBER 28	iPPS 03 28 07
iP ₁ 12 35 39.5	U.S.C.G.S.	eSS 03 33 20
iS ₁ 12 35 44.0	Pacific Ocean, about	i 03 34 10
d = 60 km	500 miles southeast	i(SSS) 03 36 25
	of Easter Island	eG 03 42 00
SEPTEMBER 27	H = 23 25 10	Ottawa
U.S.C.G.S.	Kirkland Lake	eP' 03 14 20 c
42 1/2N, 142E	eP 23 37 39	i 03 14 29
Southern Hokkaido,	i 23 37 46 c	ePP 03 15 37
Japan	Ottawa	PPP 03 18 12
H = 16 38 20	eP 23 37 38 c	SKS 03 21 16
h = 60 km	Shawinigan Falls	SKKS 03 22 40
Kirkland Lake	eP 23 37 53	PS 03 25 28
eP 16 50 46		PPS 03 26 40
Ottawa		SS 03 31 52
eP 16 50 56 c		SSS 03 37 00
Resolute Bay	SEPTEMBER 29	G 03 43 34
eP 16 48 02 d	Kirkland Lake	Seven Falls
eL 17 10.9	iP=H= 20 41 24	PP 03 15 54
	Large rockburst	SKS 03 21 36
		PS 03 25 33
		PPS 03 26 50

SEISMOLOGICAL BULLETIN

Shawinigan Falls	OCTOBER 3	OCTOBER 3
eP' 03 14 24	U.S.C.G.S.	U.S.C.G.S.
i 03 14 32.6	10S, 165 1/2E	Eastern Wyoming
	Santa Cruz Islands	H = 08 51 23
	H = 02 47 17	Resolute Bay
OCTOBER 1	Halifax	eP 08 58 24
Ottawa	ePP 03 08 22	
e(P) 03 24 47	iPS 03 18 17	
	ePPS 03 20 11	OCTOBER 3
	eSS 03 25 30	U.S.C.G.S.
OCTOBER 1	e 03 33 14	54N, 168 1/2E
U.S.C.G.S.	eL 03 42 25	Komandorski Islands
Solomon Isl. region	Ottawa	H = 08 50 45
H = 03 41 34	eP' 03 06 09 d	Ottawa
Ottawa	PP 03 07 21	eP 09 01 17
eP' 04 00 27	e 03 08 49	PcP 09 01 36
	SKS 03 13 16	
	SKKS 03 14 24	
	PS 03 17 00	OCTOBER 3
OCTOBER 1	PPS 03 18 08	U.S.C.G.S.
U.S.C.G.S.	SS 03 23 40	60 1/2N, 151W
14 1/2S, 173W	Resolute Bay	Kenai Peninsula, Alaska
Samoa Isl.	ePP 03 05 43	H = 11 18 46
H = 06 50 24	eSKS 03 11 54	h = 100 km
Halifax	eSKKS 03 12 42	Halifax
eL 07 50	eS 03 13 21	iP 11 27 44 c
	ePS 03 14 44	i 11 28 04
	eSS 03 20 14	i 11 28 07
OCTOBER 2	eL 03 36.0	i 11 28 12
U.S.C.G.S.	Seven Falls	i 11 28 17
29N, 140E	PS 03 17 32	i 11 28 23
Bonin Islands region	e 03 18 59	ipPP 11 30 00
H = 10 00 52	SS 03 24 31	i 11 34 15
h = 450 km	SSS 03 29 07	iS 11 34 56
Resolute Bay	L 03 43 29	i 11 35 18
iP 10 11 25 d		i 11 37 47
		eSS 11 38 30
		esSS 11 39 00
OCTOBER 2	OCTOBER 3	Kirkland Lake
U.S.C.G.S.	Ottawa	iP 11 26 23 d
10 1/2S, 75W	eP 03 16 37 c	Ottawa
Central Peru		iP 11 26 56 d, N.W
H = 19 48 50		i 11 27 10
Ottawa	OCTOBER 3	PP 11 28 36
eP 19 58 30	Resolute Bay	S 11 33 12
	eP 05 16 36 c	e 11 35 58
		SS 11 36 46
		L 11 38 54

DOMINION OBSERVATORIES

OCTOBER 16	Shawinigan Falls	Resolute Bay
U.S.C.G.S.	eP 23 03 32	eP 14 06 57
Jan Mayen aftershock	eL 23 16 18	
H = 20 15 32		
Resolute Bay		OCTOBER 20
eP 20 20 39		Resolute Bay
i 20 23 05	OCTOBER 19	eP 19 12 06
eS 20 24 55	Halifax	
eL 20 27.2	iP 05 41 21 c	
		OCTOBER 20
OCTOBER 17	OCTOBER 19	U.S.C.G.S.
Kirkland Lake	Resolute Bay	31N, 141E
eP 15 13 51 d?	eP 17 02 45	South of Honshu, Japan
Ottawa		H = 23 41 43
iP 15 13 32 c	OCTOBER 19	Resolute Bay
	U.S.C.G.S.	eP 23 52 48 c?
	57 1/2N, 32 1/2W	eL 24 18 55
	North Atlantic Ocean	
OCTOBER 17	H = 17 48 14	OCTOBER 21
U.S.C.G.S.	Halifax	U.S.C.G.S.
31 1/2N, 116 1/2W	i 17 53 31 d	41S, 80 1/2E
Lower California	Kirkland Lake	South Indian Ocean
H = 22 57 18	eP 17 54 24 c	H = 00 10 07
Halifax	Ottawa	Halifax
iS 23 11 44	eP 17 54 20	iSS 00 53 50
i(PPS) 23 12 29	eS 17 59 02	iSSS 00 59 27
iSS 23 15 16	e 18 00 02	eL 01 21
eG 23 18	SSS 18 01 30	Kirkland Lake
Ottawa	eL 18 02 50	e 00 30 12
iP 23 04 13 d	Resolute Bay	Ottawa
i 23 05 17	eP 17 54 11	eP ₂ ' 00 31 09
PP 23 05 32	iPP 17 54 52	e 00 39 30
PPP 23 05 53	eS 17 59 02	PPS 00 47 04
P _c P 23 06 51	eSS 18 00 45	SS 00 55 14
S 23 09 42	eL 18 02.6	Resolute Bay
e 23 11 14	Seven Falls	eP' 00 29 49 c
iSS 23 11 52	eP 17 53 44	e 00 30 01
e 23 13 02	SS 17 58 33	ePSKS 00 43 40
ScS 23 14 36	eL 18 00 57	eSS 00 52 27
L 23 15 08	Shawinigan Falls	eSSS 00 57 55
Resolute Bay	eP 17 54 02	eL 01 23.3
eP 23 05 35	ePP 17 55 03	
eS 23 12 15		
eSS 23 15 25		
eL 23 19.0		
Seven Falls	OCTOBER 20	OCTOBER 21
eP 23 04 55	U.S.C.G.S.	U.S.C.G.S.
e 23 15 27	U.S.C.G.S.	14N, 90 1/2W
eL 23 16 20	Central Formosa	Guatemala
	H = 13 54 51	H = 06 51 48
		h = 60 km

SEISMOLOGICAL BULLETIN

Halifax	OCTOBER 21	Shawinigan Falls
iPP 07 00 43	U.S.C.G.S.	eP 09 51 17
iS 07 04 55	10S, 75W	e 10 03 06
eSS 07 08 05	Central Peru	
eL 07 10	H = 20 03 00	
Kirkland Lake	h = 100 km	OCTOBER 24
eP 06 58 41 c?	Kirkland Lake	U.S.C.G.S.
iP 06 58 42 d	eP 20 12 58	Lower California
i 06 58 58 d	Ottawa	aftershock
Ottawa	eP 20 12 28 c	H = 11 21 18
eP 06 58 28	Resolute Bay	Ottawa
i 06 58 46	eP 20 15 32	eP 11 28 17
PPP 07 00 12		
S 07 03 52	OCTOBER 23	OCTOBER 27
e 07 04 28	U.S.C.G.S.	Ottawa
e 07 05 24	45N, 148E	iP 02 51 17 d
SS 07 06 05	Kurile Islands	
SSS 07 06 30	H = 00 45 08	OCTOBER 27
e 07 06 54	h = 100 km	U.S.C.G.S.
L 07 10 30	Resolute Bay	51N, 176 1/2W
Resolute Bay	eP 00 54 13	Andreanof Islands
eP 07 01 55		H = 03 22 54
eS 07 10 01	OCTOBER 24	Ottawa
ePS 07 10 36	U.S.C.G.S.	eP 03 33 16 d
eSS 07 13 58	31 1/2N, 116W	
eL 07 20.2	Lower California	OCTOBER 27
Seven Falls	H = 09 44 05	U.S.C.G.S.
e 06 59 01	Halifax	40N, 77E
eS 07 04 37	eG 10 04	Sinkiang province, China
SS 07 06 53	Kirkland Lake	H = 21 48 41
e 07 08 30	eL 10 01.1	Resolute Bay
L 07 09 53	Ottawa	eP 21 59 30 c
Shawinigan Falls	eP 09 50 55 d	
eP 06 58 47	PP 09 52 10	OCTOBER 27
e 06 59 02	PPP 09 52 35	U.S.C.G.S.
eS 07 04 22	P _c P 09 53 32	Kodiak Islands region
e 07 09 39	S 09 56 22	H = 23 52 06
	SSS 09 59 38	Resolute Bay
OCTOBER 21	S _c S 10 01 18	eP 23 58 19
Shawinigan Falls	L 10 02 04	
e 16 06 30	Resolute Bay	OCTOBER 29
e 16 06 41	eP 09 52 01	Resolute Bay
	e 09 52 19	eP 15 57 42
	e 09 57 29	
OCTOBER 21	eL 10 05.9	
Halifax	Seven Falls	
i(P) 16 38 36	eP 09 51 24	
	e 10 00 45	
	eL 10 04 03	

DOMINION OBSERVATORIES

Ottawa	NOVEMBER 13	Resolute Bay
iP 12 33 34 c	U.S.C.G.S.	iP 16 38 28 d
i 12 34 40	30N, 131 1/2E	i(pP) 16 39 08 c
PP 12 35 01	Ryukyu Isl.	iSKS 16 48 11
PPP 12 35 18	H = 14 46 31	eL 17 03.0
P _c P 12 36 13	Resolute Bay	
S 12 39 07	eP 14 57 59	
e 12 39 50		
SS 12 41 00		
SSS 12 41 40	NOVEMBER 15	NOVEMBER 15
S _c S 12 44 00	U.S.C.G.S.	Ottawa
e 12 44 30	Guerrero, Mexico	eP 18 22 08
i 12 44 44	H = 01 38 12	
Resolute Bay	Ottawa	NOVEMBER 16
eP 12 35 00 c	eP 01 45 06 c	U.S.C.G.S.
e 12 35 01 d		7N, 83W
ePP 12 36 41	NOVEMBER 15	Off south coast of
iPPP 12 37 04 c	U.S.C.G.S.	Panama
eS 12 41 37	20S, 68 1/2W	H = 12 03 58
eSS 12 44 58	Chile-Bolivia border	Ottawa
eL 12 46.5	H = 04 53 39	eP 12 11 26 d
Seven Falls	Kirkland Lake	Resolute Bay
eP 12 34 06	eP 05 04 49 c	ePP 12 18 57
e 12 35 25	Ottawa	
PP 12 35 36	eP 05 04 24 c	NOVEMBER 16
PPP 12 36 04		Resolute Bay
S 12 39 59	NOVEMBER 15	eP 16 18 17 d
e 12 45 18	U.S.C.G.S.	
L 12 46 25	34N, 141E	NOVEMBER 17
Shawinigan Falls	Off south coast of	Resolute Bay
e 12 33 52	Honshu, Japan	eP 09 58 40
i 12 33 57	H = 11 30 23	
e 12 45 29	Resolute Bay	NOVEMBER 17
	eP 11 41 11 d	U.S.C.G.S.
NOVEMBER 12		31 1/2N, 116W
U.S.C.G.S.		Lower California
15S, 173 1/2W		aftershock
Samoa Isl.	NOVEMBER 15	H = 11 55 12
H = 21 48 34	U.S.C.G.S.	Ottawa
Halifax	19N, 145 1/2E	iP 12 02 06 d
eL 22 43	Marianas Isl.	
Resolute Bay	H = 16 26 40	NOVEMBER 17
eL 22 37.8	h = 200 km	U.S.C.G.S.
	Ottawa	19N, 145E
	e(P') 16 44 50	Marianas Islands
		H = 17 18 15
		h = 600 km



SEISMOLOGICAL BULLETIN

Halifax	NOVEMBER 18	NOVEMBER 19
iP' 17 35 41 d	U.S.C.G.S.	Kirkland Lake
Resolute Bay	39N, 142E	eP 14 58 12
iP 17 29 24 d	Honshu, Japan	e 14 58 44
e(pP) 17 32 14	H = 20 44 55	Ottawa
	Kirkland Lake	iP 14 57 53 d
	eP 20 57 35	i 14 58 25
	Ottawa	
NOVEMBER 18	iP 20 57 53 d	NOVEMBER 20
U.S.C.G.S.	Resolute Bay	Resolute Bay
49N, 155E	iP 20 55 07 c	eP 04 13 37
Kurile Islands	eL 21 16.4	
H = 05 20 04		
h = 100 km		
Halifax	NOVEMBER 19	NOVEMBER 20
eP 05 32 10	U.S.C.G.S.	U.S.C.G.S.
iS 05 42 15	41N, 131 1/2E	22S, 69W
eSSS 05 51 00	Sea of Japan	Northern Chile
eL 06 01 10	H = 05 56 03	H = 07 01 52
Kirkland Lake	h = 600 km	h = 150 km
eP 05 31 20	Halifax	Kirkland Lake
Ottawa	iP 06 08 22 c	eP 07 12 59 c?
eP 05 31 43 c	iS 06 18 39	Ottawa
P _c P 05 31 55	i(sS) 06 22 08	iP 07 12 34 c
pP 05 32 09	iSS 06 25 15	
S 05 41 22	eSSS 06 28 20	NOVEMBER 20
SSS 05 50 00		Ottawa
Resolute Bay	Kirkland Lake	iP _n 14 17 39
iP 05 28 38 c	iP 06 07 50 c	eS _n 14 17 56
ePP 05 30 36	epP 06 09 50 d?	L 14 18 04
eS 05 35 34	ePP 06 11 26 c?	d = 150 km
eSS 05 40 11	e(SKs) 06 17 42	
eL 05 43.1	Ottawa	NOVEMBER 20
Shawinigan Falls	eP 06 08 06 c	Ottawa
iP 05 31 44 d?	i 06 08 26	iP _n 19 18 19.0
	i 06 09 57	i 19 18 20.5
	sP 06 11 25	S _n 19 18 36.0
NOVEMBER 18	PP 06 11 55	L 19 18 44.0
Halifax	S 06 18 11	d = 150 km
i 06 58 11	sS 06 21 35	
e 06 59 07	SS 06 24 36	NOVEMBER 21
	Resolute Bay	Resolute Bay
	iP 06 05 20 c	eP 03 41 05
NOVEMBER 18	iP _c P 06 05 59	e 03 44 13
Seven Falls	eS 06 12 52	e 03 46 08
e(S ₁) 13 14 40	iS _c S 06 14 16	e 03 46 40
i 13 14 41	SS 06 18 00	
F 13 14 59	Seven Falls	
Local shock ?	eP 06 08 05	
Benioff not operating	S 06 18 10	
	sS 06 21 42	

DOMINION OBSERVATORIES

NOVEMBER 21 U.S.C.G.S. 2S, 126E Ceram Sea H = 04 48 32 Ottawa eP' 05 07 47 Resolute Bay ePP 05 06 55	NOVEMBER 22 Ottawa iP _n 20 04 04.0 i 20 04 05.5 S _n 20 04 21.5 L 20 04 29.0 d = 150 km	Kirkland Lake eP 10 10 36 c? Ottawa iP 10 11 00 d i 10 11 25 Resolute Bay iP 10 07 48 c eL 10 24.0
NOVEMBER 21 U.S.C.G.S. 29S, 178W Kermadec Islands H = 07 37 27 Halifax i(P') 07 56 59 e 08 18 34 e 08 32 11 eL 08 38.5 Ottawa iPP 07 57 46 i 08 02 29 SKS 08 03 11 SKKS 08 04 32 e 08 05 30 PS 08 07 24 SS 08 13 40 Resolute Bay eP' 07 56 01 eS 08 05 09 ePS 08 06 59 eSS 08 13 33 eL 08 31.5	NOVEMBER 23 U.S.C.G.S. Assam-China border H = 02 30 48 Resolute Bay eP 02 42 40	NOVEMBER 23 U.S.C.G.S. 52 1/2N, 160E Off coast of Kamchatka H = 10 17 35 h = 60 km Halifax iP 10 29 22 d Kirkland Lake eP 10 28 29 c? Ottawa iP 10 28 53 d i 10 29 20 Resolute Bay iP 10 25 42 c ipP 10 26 06 eL 10 42 Seven Falls e(P) 10 29 10
NOVEMBER 21 U.S.C.G.S. 51N, 159 1/2E Near south coast of Kamchatka H = 16 15 26 Resolute Bay eP 16 23 45	NOVEMBER 23 U.S.C.G.S. Northern Kurile Isl. H = 06 24 10 Resolute Bay eP 06 32 55	NOVEMBER 23 U.S.C.G.S. 38N, 15E Near north coast of Sicily H = 12 59 36 Ottawa eP 13 10 17 Resolute Bay eP 13 09 35 c
NOVEMBER 21 Resolute Bay e 21 04 00 i 21 07 32	NOVEMBER 23 U.S.C.G.S. 53N, 159 1/2E Off coast of Kamchatka H = 09 59 45 h = 60 km	NOVEMBER 23 U.S.C.G.S. 19 1/2S, 69W Chile-Bolivia border H = 15 52 29

SEISMOLOGICAL BULLETIN

Kirkland Lake iP 16 03 30 d i! 16 03 30.5 c Ottawa eP 16 03 10 d	NOVEMBER 24 U.S.C.G.S. 20S, 169E Loyalty Islands H = 00 33 42 Ottawa eP' 00 52 38 c	iPPP 11 25 36 iS 11 29 38 eL 11 33 Seven Falls eP 11 24 11 pP 11 24 30 PP 11 25 44 PPP 11 26 15 S 11 30 15 SS 11 32 52 SSS 11 33 28 e 11 34 53 L 11 37 30 Shawinigan Falls eP 11 23 56 i! 11 24 04 d i 11 24 30 e 11 24 53 e 11 24 24 e 11 26 12 e 11 36 48 e 11 36 41
NOVEMBER 23 Halifax e(P) 19 10 53	NOVEMBER 24 Halifax iP ₁ 19 58 46.0 iS ₁ 19 58 48.0 d = 17 km	NOVEMBER 25 Halifax i(P) 09 10 42 c
NOVEMBER 23 Halifax e(P) 19 29 04	NOVEMBER 25 U.S.C.G.S. 40 1/2N, 126W Off Cape Mendocino, California H = 11 16 36 Halifax iP 11 24 53 c iP _c P 11 26 41 c iS 11 31 42 iPS 11 31 54 Ottawa iP 11 23 41 d PP 11 25 11 i 11 25 20 PPP 11 25 37 P _c P 11 26 11 e 11 28 40 S 11 29 22 e 11 29 30 SS 11 31 55 SSS 11 32 18 S _c S 11 34 00 L 11 35 50 Resolute Bay eP 11 23 46 d? i 11 23 50 c i 11 25 11	NOVEMBER 25 U.S.C.G.S. Off coast of Hokkaido, Japan H = 12 05 00 Ottawa eP 12 17 40 ipP 12 17 55 Resolute Bay iP 12 14 43 c Shawinigan Falls iP 12 17 55 d
NOVEMBER 23 Halifax iP _n 19 39 58.5 iS ₁ 19 40 21.5 d = 175 km	NOVEMBER 25 U.S.C.G.S. 72N, 1 1/2W Jan Mayen Island region H = 04 25 33 Resolute Bay eP 04 30 57 eL 04 38.7	NOVEMBER 25 U.S.C.G.S. 15N, 94 1/2W Off coast of Chiapas, Mexico H = 20 48 50 Halifax ePP 20 58 07 eS 21 02 40 eL 21 08
NOVEMBER 23 Halifax iP 21 24 43 c ipP 21 24 55 d eL 21 54 Kirkland Lake eP 21 23 44 Ottawa eP 21 24 15 d epP 21 24 43 ePP 21 27 04 Resolute Bay eP 21 21 00 c? i 21 21 15 c e 21 26 37 eS 21 27 30 eL 21 32	NOVEMBER 25 U.S.C.G.S. 15N, 94 1/2W Off coast of Chiapas, Mexico H = 20 48 50 Halifax ePP 20 58 07 eS 21 02 40 eL 21 08	

DOMINION OBSERVATORIES

Ottawa
 eP 20 55 33
 ePPP 20 57 10
 SSS 21 04 02
 S_cS 21 06 02
 L 21 06 24
 Resolute Bay
 eP 20 58 55 d?
 eS 21 07 16
 eL 21 21.2

NOVEMBER 25
 U.S.C.G.S.
 21 1/2S, 179E
 Fiji Isl. region
 H = 21 33 38
 h = 650 km
 Ottawa
 iP' 21 51 14 d
 PP 21 52 26
 pP' 21 53 51
 S 21 59 20
 e 22 03 20
 sS 22 03 34
 SS 22 07 20
 Resolute Bay
 eP' 21 51 01
 ePP 21 51 45
 eS 21 58 13

NOVEMBER 27
 U.S.C.G.S.
 12N, 87W
 Near coast of
 Nicaragua
 H = 16 02 22
 Halifax
 eP 16 09 43
 eS 16 15 45
 eL 16 22.5
 Kirkland Lake
 eP 16 09 31
 Ottawa
 eP 16 09 14 c
 i 16 09 23
 Shawinigan Falls
 eP 16 09 28
 e 16 09 44

NOVEMBER 29
 U.S.C.G.S.
 53 1/2N, 160E
 Near east coast of
 Kamchatka
 H = 01 39 02
 Halifax
 iP 01 50 49 c
 Kirkland Lake
 iP 01 49 55 c
 Ottawa
 iP 01 50 20 c
 Resolute Bay
 iP 01 47 03 c
 i 01 47 15 c
 i 01 48 14 c
 i(PP) 01 48 54
 Shawinigan Falls
 eP 01 50 20 c

NOVEMBER 30
 Resolute Bay
 eP 06 48 34

NOVEMBER 30
 Resolute Bay
 eP 20 33 00
 eL 20 40.0

DECEMBER 2
 U.S.C.G.S.
 Off east coast of
 Kamchatka
 H = 17 15 01
 Resolute Bay
 eP 17 23 10

DECEMBER 2
 U.S.C.G.S.
 12N, 86 1/2W
 Near coast of Nicaragua
 H = 23 13 29
 h = 100 km
 Halifax
 iP 23 20 47 d
 Kirkland Lake
 iP 23 20 33 d?
 Ottawa
 eP 23 20 16 c
 Resolute Bay
 eP 23 23 50 c

DECEMBER 3
 U.S.C.G.S.
 Off coast of Nicaragua
 H = 02 10 45
 Kirkland Lake
 eP 02 18 05 d
 Ottawa
 eP 02 17 47 d
 Resolute Bay
 eP 02 21 21

DECEMBER 3
 Resolute Bay
 eP 02 56 10

SEISMOLOGICAL BULLETIN

DECEMBER 3
 U.S.C.G.S.
 44N, 127W
 Off coast of Oregon
 H = 08 46 02
 Halifax
 iP 08 54 22 c
 eL 09 08 35
 Ottawa
 eP 08 53 15 c
 eS 08 58 48
 eL 09 04.5
 Resolute Bay
 eP 08 52 50 c
 ePP 08 53 52
 eS 08 58 18
 eL 09 01

DECEMBER 3
 U.S.C.G.S.
 67 1/2N, 136W
 Yukon, Canada
 H = 19 09 02
 Ottawa
 i 19 28 31
 e 19 29 16
 Resolute Bay
 eP 19 12 35
 eS 19 15 11
 eL 19 17
 Shawinigan Falls
 i 19 27 46 c
 i 19 28 45 c

DECEMBER 3
 U.S.C.G.S.
 41 1/2N, 74 1/2E
 Kirgiz, S.S.R.
 H = 21 38 12
 Resolute Bay
 eP 21 48 49
 e 21 49 04
 eL 22 11.3
 Shawinigan Falls
 i 21 51 06 d?

DECEMBER 3
 Shawinigan Falls
 i 22 03 46 d

DECEMBER 3
 U.S.C.G.S.
 5N, 125 1/2E
 Near south coast of
 Mindanao, P.I.
 H = 22 06 20
 h = 250 km
 Seven Falls
 iP' 22 24 56 d

DECEMBER 3
 U.S.C.G.S.
 3 1/2S, 148E
 Bismarck Sea
 H = 22 27 38
 Ottawa
 iP' 22 46 32 d
 Seven Falls
 iP' 22 46 34 d

DECEMBER 4
 Resolute Bay
 e 01 35 49
 e 01 36 08

DECEMBER 4
 Shawinigan Falls
 i 02 04 16 c?

DECEMBER 4
 U.S.C.G.S.
 5S, 152 1/2E
 New Britain region
 H = 07 00 29
 Halifax
 iP' 07 19 43 c
 iPKS 07 23 02
 eL 07 56
 Kirkland Lake
 eP' 07 19 21

Ottawa
 iP 07 19 27 c
 PP 07 20 59
 SKS 07 26 27
 SKKS 07 28 04
 PS 07 30 48
 PPS 07 32 26
 SS 07 38 12

Resolute Bay
 iP 07 14 21 d
 ePP 07 18 24
 iSKS 07 24 56
 ePS 07 27 20
 eSS 07 32 38
 eL 07 46

Shawinigan Falls
 iP' 07 19 29 d
 ePP 07 21 01

DECEMBER 4
 U.S.C.G.S.
 20N, 69W
 Near north coast of
 Dominion Republic
 H = 18 10 23
 Ottawa
 eP 18 16 10 d
 e 18 16 49
 PP 18 17 01
 PPP 18 17 21
 S 18 20 52

Resolute Bay
 eP 18 20 11

Seven Falls
 eP 18 16 15
 PP 18 17 18
 PPP 18 17 29
 e 18 21 39

Shawinigan Falls
 iP 18 16 13

DECEMBER 4
 U.S.C.G.S.
 11N, 61W
 Near Trinidad
 H = 18 31 07



DOMINION OBSERVATORIES

Halifax
 iP 18 37 51 c
 epP 18 38 26
 esP 18 38 32
 i 18 39 00
 ePP 18 39 14
 iS 18 43 12
 isS 18 43 48
 i 18 44 12
 eL 18 47 00
 Kirkland Lake
 eP 18 38 47 c?
 Ottawa
 eP 18 38 14 c
 PP 18 39 34
 e 18 39 49
 PPP 18 40 02
 P_cP 18 40 20
 e 18 43 23
 S 18 43 50
 G 18 46 20
 Resolute Bay
 iP 18 41 57 d
 ipP 18 42 13 c
 isP 18 42 20 c
 ePP 18 44 17 c
 epPP 18 44 25 c
 ePPP 18 46 19
 iS 18 50 42
 epS 18 51 09
 eS_cS 18 51 46
 eSS 18 54 57
 eSSS 18 58 15
 eL 19 00
 Seven Falls
 eP 18 38 14 d
 e 18 39 10
 PP 18 39 42
 e 18 39 58
 P_cP 18 40 36
 S 18 44 01
 sS 18 44 36
 G 18 46 48
 Shawinigan Falls
 iP 18 38 18 d
 DECEMBER 5
 Resolute Bay
 e 00 39 46

DECEMBER 6
 U.S.C.G.S.
 3 1/2S, 151E
 New Ireland region
 H = 02 51 40
 Halifax
 eL 03 48.5
 Ottawa
 eP' 03 10 45 c
 Resolute Bay
 eP 03 05 29
 eSS 03 24 02
 eL 03 36
 DECEMBER 6
 Shawinigan Falls
 i 03 49 37
 e 03 49 50
 DECEMBER 6
 Resolute Bay
 eP 03 53 16
 DECEMBER 6
 U.S.C.G.S.
 54 1/2N, 161E
 Near east coast of
 Kamchatka
 H = 11 56 24
 Kirkland Lake
 eP 12 07 08 d?
 Ottawa
 iP 12 07 32 d
 Resolute Bay
 eP 12 04 14
 DECEMBER 6
 U.S.C.G.S.
 11S, 166E
 Santa Cruz Islands
 H = 23 45 51
 Ottawa
 iP' 24 04 39 c
 Resolute Bay
 eL 24 38.6

DECEMBER 7
 U.S.C.G.S.
 54N, 164 1/2W
 Near Unimak Island,
 Alaska
 H = 06 21 33
 Resolute Bay
 eP 06 28 08
 eL 06 43.2
 DECEMBER 7
 Resolute Bay
 e 09 25 15
 i 09 25 34
 Probably local
 disturbance
 DECEMBER 7
 U.S.C.G.S.
 3 1/2N, 125 1/2E
 Celebes Sea region
 H = 14 48 30
 h = 100 km
 Ottawa
 eP' 15 07 31 d
 Resolute Bay
 eP 15 02 02
 DECEMBER 7
 Ottawa
 iP_n 20 48 08
 i 20 48 10
 S_n 20 48 25
 L 20 48 34
 d = 150 km
 DECEMBER 8
 Halifax
 iP 04 31 31.0
 Probably local
 disturbance
 DECEMBER 9
 Resolute Bay
 eP 12 26 09

SEISMOLOGICAL BULLETIN

DECEMBER 9
 U.S.C.G.S.
 15 1/2S, 76W
 Off coast of Peru
 H = 14 13 27
 Ottawa
 iP 14 23 40 d
 Resolute Bay
 eP 14 26 34 c
 Seven Falls
 iP 14 23 52 d
 Shawinigan Falls
 i 14 23 50 c
 DECEMBER 9
 U.S.C.G.S.
 12N, 144E
 Marianas Islands
 H = 14 30 26
 Resolute Bay
 eP 14 43 11 d?
 DECEMBER 10
 U.S.C.G.S.
 18 1/2N, 81 1/2W
 West of Jamaica
 H = 13 00 27
 Halifax
 eP 13 06 36
 iPP 13 07 31
 iS 13 11 54
 eG 13 13 05
 Kirkland Lake
 eP 13 06 48 c
 Ottawa
 iP 13 06 21 c
 PP 13 07 12
 S 13 11 05
 e 13 11 36
 SS 13 12 24
 L 13 14 00
 Resolute Bay
 eP 13 10 20 c
 eS 13 18 11
 eSS 13 22 17
 eSSS 13 23 15
 eL 13 27

Seven Falls
 iP 13 06 45 c
 S 13 11 53
 L 13 15 21
 Shawinigan Falls
 eP 13 06 35
 DECEMBER 10
 Resolute Bay
 e 16 35 53
 DECEMBER 11
 U.S.C.G.S.
 1 1/2S, 13 1/2W
 Off coast of Liberia
 H = 03 32 15
 Kirkland Lake
 eP 03 44 11
 Ottawa
 iP 03 43 41 c
 DECEMBER 11
 U.S.C.G.S.
 52 1/2N, 32W
 North Atlantic Ocean
 H = 12 57 07
 Halifax
 Beginning lost in
 changing records
 iS 13 06 08
 iSS 13 06 50
 iSSS 13 07 08
 Kirkland Lake
 eP 13 03 30 c?
 i 13 03 30.5 d
 Ottawa
 iP 13 03 12 c
 pP 13 03 37
 PP 13 04 14
 sPP 13 04 37
 e 13 05 33
 P_cP 13 06 16
 S 13 08 05
 sS 13 08 38
 SSS 13 10 20

Resolute Bay
 iP 13 03 36 d?
 i(PPP) 13 05 01
 iS 13 09 01
 eL 13 12
 Seven Falls
 iP 13 02 37 c
 i 13 02 44
 pP 13 02 53
 PPP 13 03 35
 e 13 04 16
 e 13 05 04
 S 13 07 03
 Shawinigan Falls
 iP 13 02 50 c
 e 13 03 00
 e 13 07 29
 DECEMBER 12
 U.S.C.G.S.
 Kermadec Islands
 H = 10 39 32
 Resolute Bay
 eP' 10 58 31
 DECEMBER 12
 eP 13 37 38
 DECEMBER 13
 U.S.C.G.S.
 Southern Kurile Islands
 H = 01 29 50
 Resolute Bay
 iP 01 39 14 d?
 DECEMBER 13
 Preliminary Ottawa
 epicentre
 44.7N, 74.5W
 H = 03 53 53.5
 Halifax
 e(S₁) 03 57 53
 d = 850 km
 Kirkland Lake
 e 03 56 06.5
 e 03 56 21
 eS₁ 03 56 33
 d = 570 km



DOMINION OBSERVATORIES

Ottawa	DECEMBER 13	DECEMBER 16
iP ₁ 03 54 13	Resolute Bay	U.S.C.G.S.
iS ₁ 03 54 28	iP 16 09 43 c	24S, 175W
d = 120 km		Tonga Islands region
Seven Falls		H = 06 57 57
eP _n 03 54 48.0	DECEMBER 13	Ottawa
e(S _n) 03 55 30.5	U.S.C.G.S.	iP' 07 16 37 d
i 03 55 32.0	19N, 101W	Resolute Bay
i 03 55 34.5	Guerro, Mexico	eP' 07 16 34
iS ₁ 03 55 45.5	H = 16 10 10	Seven Falls
d = 390 km	Resolute Bay	iP' 07 16 44 c
Shawinigan Falls	eP 16 19 46	
i 03 54 31.2		DECEMBER 16
i 03 54 53.6		U.S.C.G.S.
e 03 55 02.3	DECEMBER 13	39.3N, 118.0W
e 03 55 04.3	U.S.C.G.S.	Near Fallon, Nevada
i 03 55 11.7	27N, 93E	H = 11 07 12
	Assam	Halifax
	H = 20 38 50	eP 11 14 51
DECEMBER 13	Resolute Bay	ePP 11 16 35
U.S.C.G.S.	eP 20 50 52 c?	i 11 19 17
Off south coast of		eS 11 20 50
Kodiak Island	DECEMBER 13	Ottawa
H = 04 06 46	Halifax	eP 11 13 35 d
Halifax	Halifax	i 11 14 24
eL 04 36 55	e 22 30 54 c	PP 11 14 40
Resolute Bay		PPP 11 15 03
eP 04 12 37 c?	DECEMBER 13	i 11 15 35
eL 04 22	U.S.C.G.S.	i 11 15 48
	2N, 126E	P _c P 11 16 10
DECEMBER 13	Molucca Passage	e 11 17 11
Halifax	H = 22 38 43	e 11 17 58
iP 04 43 48 c	Halifax	S 11 18 48
	e(P') 22 58 04	SS 11 20 22
	Resolute Bay	SSS 11 21 08
	eP 22 52 31	e 11 22 06
DECEMBER 13		L 11 24.2
U.S.C.G.S.	DECEMBER 15	Resolute Bay
7N, 126 1/2E	Resolute Bay	eP 11 14 23 d
Near east coast of	eP 21 29 38	i 11 15 06
Mindanao, P.I.		e 11 16 13
H = 09 20 09		iS 11 20 09
Resolute Bay		iSS 11 22 26
eP 09 42 24	DECEMBER 15	eL 11 25.1
	U.S.C.G.S.	Seven Falls
DECEMBER 13	Near west coast of	eP 11 14 03 d
Resolute Bay	Greece	e 11 15 21
eP 14 21 54	H = 23 35 59	P _c P 11 16 30
	Seven Falls	e 11 18 20
	iP 23 46 40 c	S 11 19 42



SEISMOLOGICAL BULLETIN

SS 11 21 52	DECEMBER 16	Halifax
e 11 22 05	U.S.C.G.S.	iP 10 34 12 c?
SSS 11 22 28	Fallon, Nevada,	i 10 34 18 d
e 11 23 10	aftershock	epP 10 35 12
L 11 25	H = 15 09 42	iS 10 42 47
Shawinigan Falls	Resolute Bay	eS _c S 10 43 47
eP 11 13 56	eP 15 16 54	isS 10 44 21
e 11 18 12	eL 15 28.5	e 10 45 27
eS 11 19 15		eSSS 10 50 20
eG 11 21 58		Kirkland Lake
	DECEMBER 16	eP 10 34 41 d?
	Ottawa	iP 10 34 41.5 c
	iP 20 53 04 d	e 10 35 37
DECEMBER 16		i(pP) 10 35 41 c
U.S.C.G.S.		eS 10 43 42
Fallon, Nevada	DECEMBER 17	Ottawa
aftershock	Resolute Bay	iP 10 34 20 d
H = 11 11 29	eP 00 54 21	i 10 34 24
Resolute Bay		i 10 35 45
iP 11 18 45		PP 10 36 40
	DECEMBER 17	PPP 10 38 12
DECEMBER 16	Resolute Bay	S 10 43 04
Ottawa	eP 05 43 32	e 10 44 00
iP 12 12 53 d	eL 06 00.6	S _c S 10 44 36
		eL 10 52
DECEMBER 16	DECEMBER 17	Resolute Bay
Resolute Bay	Resolute Bay	eP 10 36 57
e 12 18 33	eL 10 52.7	ePP 10 41 06
e 12 35 55		eS 10 48 02
		esS 10 49 06
DECEMBER 16	DECEMBER 18	eSSS 10 59 20
U.S.C.G.S.	Resolute Bay	e 11 00 07
Fallon, Nevada,	e 20 23 12	eL 11 11.7
aftershock	e 20 25 42	Seven Falls
H = 13 15 03		iP 10 34 27 d
Resolute Bay	DECEMBER 19	i 10 34 30
eP 13 22 15	Resolute Bay	i 10 35 26
eL 13 34.3	e 05 22 59	i 10 36 19
		PP 10 37 03
DECEMBER 16	DECEMBER 19	e 10 38 18
U.S.C.G.S.	U.S.C.G.S.	S 10 43 17
Fallon, Nevada,	23S, 66 1/2W	e 10 43 53
aftershock	Jujuy province,	e 10 44 04
H = 14 16 57	Argentina	S _c S 10 44 54
Resolute Bay	H = 10 23 40	L 10 52.4
eP 14 24 11	h = 250 km	Shawinigan Falls
eS 14 30 20		iP 10 34 25 c?
eL 14 36		iP _c P 10 35 23 c

DOMINION OBSERVATORIES

DECEMBER 19 Resolute Bay e 18 11 37	DECEMBER 21 Resolute Bay e 03 00 20	S 20 08 56 P _c S 20 09 20 SS 20 11 30 S _c S 20 13 45 L 20 14 30
DECEMBER 20 U.S.C.G.S. Central Argentina Chile border H = 01 38 01 h = 100 km Kirkland Lake iP 01 50 10 c Ottawa iP 01 49 53 c e 01 50 11	DECEMBER 21 U.S.C.G.S. 3 1/2S, 145 1/2E Bismarck Sea H = 11 57 19 Halifax eL 13 01 Resolute Bay eL 12 41	Resolute Bay iP 20 03 33 c i(PP) 20 04 52 iPPP 20 05 22 iS 20 09 15 eSS 20 11 25 eL 20 13.0 Seven Falls iP 20 03 44 c PP 20 05 10 P _c P 20 06 00 S 20 09 30 e 20 10 22 SS 20 11 45 SSS 20 12 16 S _c S 20 14 04 L 20 14 53 Shawinigan Falls eP 20 03 28 e 20 04 47 e(S _c S) 20 13 34 e 20 15 31
DECEMBER 20 Resolute Bay e 03 35 20	DECEMBER 21 U.S.C.G.S. Near coast of Guatemala H = 10 06 10 h = 150 km Ottawa eP 10 12 44 c	
DECEMBER 20 Ottawa iP 09 03 20 d		
DECEMBER 20 U.S.C.G.S. Fallon, Nevada, aftershock H = 17 36 47 Resolute Bay eP 17 43 56 eL 17.9	DECEMBER 21 U.S.C.G.S. 40.9N, 123.9W Humboldt county, California H = 19 56 27.5 Halifax iP 20 04 31 c i 20 06 03 iPP 20 06 15 iS 20 11 04 iSS 20 14 24 eL 20 19.4	DECEMBER 21 U.S.C.G.S. 22 1/2N, 146E Marianas Islands region H = 22 04 05 Resolute Bay eP 22 15 55 eL 22 47.3
DECEMBER 21 U.S.C.G.S. 20N, 121 1/2E Off north coast of Luzon, P.I. H = 01 22 17 Resolute Bay eP 01 34 43	Kirkland Lake iP 20 02 51 c Ottawa iP 20 03 20 c (pP) 20 03 42 PP 20 04 31 (sPP) 20 05 20 P _c P 20 05 45 e 20 08 26 e 20 08 38	DECEMBER 22 U.S.C.G.S. 5 1/2S, 154 1/2E Soloman Islands H = 04 18 16 Ottawa eP' 04 37 14 d

SEISMOLOGICAL BULLETIN

DECEMBER 23 Halifax eP 14 37 35	DECEMBER 24 U.S.C.G.S. 16 1/2N, 96W Oaxaca, Mexico H = 12 26 11 Kirkland Lake eP 12 33 03 Ottawa iP 12 32 56 d i 12 33 04 Resolute Bay eP 12 36 08 Seven Falls eP 12 33 33 d	DECEMBER 26 U.S.C.G.S. El Salvador H = 18 10 35 h = 200 km Resolute Bay eP 18 20 31
DECEMBER 23 U.S.C.G.S. 38N, 21E Near west coast of Greece H = 16 27 16 Ottawa iP 16 38 25 c Resolute Bay eP 16 37 27 c eL 16 58 Seven Falls iP 16 37 57 c i 16 38 07 Shawinigan Falls iP 16 38 08	DECEMBER 24 Resolute Bay e 20 08 06	DECEMBER 26 Resolute Bay e 19 14 43 c e 19 19 30
DECEMBER 24 U.S.C.G.S. Santa Cruz Island H = 00 56 17 h = 150 km Ottawa iP' 01 14 46 d Seven Falls iP' 01 14 50 d	DECEMBER 24 Resolute Bay e 01 38 01 Ottawa e(P) 01 38 35 c Resolute Bay e 01 37 50	DECEMBER 27 Resolute Bay e 04 04 34
DECEMBER 24 U.S.C.G.S. Bonin Islands H = 02 34 53 Resolute Bay eP 02 46 09	DECEMBER 25 Kirkland Lake e 01 38 01 Ottawa e(P) 01 38 35 c Resolute Bay e 01 37 50	DECEMBER 27 U.S.C.G.S. 19S, 178W Fiji Islands H = 05 32 45 h = 500 km Resolute Bay eP' 05 49 58
DECEMBER 24 U.S.C.G.S. 20N, 121 1/2E Off north coast of Luzon, P.I. H = 01 22 17 Resolute Bay eP 01 34 43	DECEMBER 25 Resolute Bay e 17 50 52	DECEMBER 27 U.S.C.G.S. 5 1/2S, 130E Banda Sea H = 06 47 23 Kirkland Lake eP' 07 06 37 Ottawa eP' 07 06 45 d Resolute Bay eP 07 01 39 Seven Falls eP' 07 06 44 d i 07 06 46
DECEMBER 24 Resolute Bay e 12 05 15	DECEMBER 26 U.S.C.G.S. 30N, 141 1/2E South of Honshu, Japan H = 03 41 01 h = 200 km Resolute Bay eP 03 51 51 e(pP) 03 52 46 ePS 04 01 46 eL 04 15	DECEMBER 27 Ottawa i(P) 07 09 55 d



DOMINION OBSERVATORIES

Seven Falls
i(P) 07 09 56 d

DECEMBER 27
U.S.C.G.S.
30 1/2N, 141E
Off south coast of
Honshu, Japan
H = 07 19 16
Resolute Bay
eP 07 30 25

DECEMBER 27
U.S.C.G.S.
12N, 146 1/2E
Marianas Islands
region
H = 19 03 06
Resolute Bay
eP 19 15 39 d
i 19 15 39.5 c

DECEMBER 28
U.S.C.G.S.
5S, 152 1/2E
New Britain region
H = 01 00 37
Halifax
eP' 01 19 51
ePKS 01 23 13
ePPP 01 25 23
eSKS 01 27 00
eSS 01 38 42
e(SSS) 01 41 55
Kirkland Lake
eP' 01 19 30
Ottawa
iP' 01 19 36 d
i 01 20 18
PP 01 21 16
PPP 01 23 49
SKS 01 26 38
SKKS 01 28 06
SS 01 37 40
SSS 01 42 12

Resolute Bay
eP 01 14 29 c?
eSKS 01 25 07
ePS 01 27 31
ePPS 01 28 20
eSS 01 33 14
eSSS 01 37 21
eL 01 48

Seven Falls
eP' 01 19 39 c
i 01 20 20
PP 01 21 56
PKS 01 23 30
PPP 01 24 49
SKS 01 26 53
SKKS 01 28 38
e 01 30 54
PS 01 31 50
PPS 01 33 01
SS 01 38 26
e 01 40 10
SSS 01 42 38

Shawinigan Falls
iP' 01 19 38

DECEMBER 28
U.S.C.G.S.
New Britain aftershock
H = 01 09 20
Ottawa
eP' 01 28 17 c
Resolute Bay
e 01 31 16
Seven Falls
eP' 01 28 20 d
Shawinigan Falls
iP' 01 28 19

DECEMBER 28
U.S.C.G.S.
New Britain aftershock
H = 02 14 13
Halifax
iP' 02 33 28 c
Ottawa
eP' 02 33 13 d

Resolute Bay
eP 02 28 05 c?
eL 02 49

Seven Falls
eP' 02 33 16 d

Shawinigan Falls
eP' 02 33 15

DECEMBER 28
Halifax
iP₁ 02 35 20
iS₁ 02 35 28
d = 65 km
H = 02 35 09.5

DECEMBER 28
Kirkland Lake
eP 02 35 42 c?
e 02 35 50

Seven Falls
eP 02 35 33 c
i 02 35 41

Shawinigan Falls
eP 02 35 30

DECEMBER 28
U.S.C.G.S.
300 miles off south
coast of Honshu, Japan
H = 02 47 20
Resolute Bay
eL 03 30.0

DECEMBER 28
Resolute Bay
e 07 21 10
e 07 29 58

DECEMBER 28
Kirkland Lake
eP 07 17 54 c
e 07 18 02 c

Ottawa
iP 07 17 38 d

SEISMOLOGICAL BULLETIN

Seven Falls
eP 07 18 02 d
i 07 18 11

DECEMBER 28
Ottawa
eP 07 35 05 c
Seven Falls
eP 07 35 07 d

DECEMBER 28
Resolute Bay
e 14 01 01

DECEMBER 28
U.S.C.G.S.
100 miles off coast of
Chiapas, Mexico
H = 22 18 20
Resolute Bay
eP 22 28 28

DECEMBER 28
Ottawa
iP_n 15 17 46
i 15 17 48
S_n 15 18 03
L 15 18 11
d = 150 km

DECEMBER 29
U.S.C.G.S.
56N, 160 1/2E
Kamchatka
H = 09 39 59
Kirkland Lake
iP 09 51 05 c
Ottawa
iP 09 51 30 c
Resolute Bay
eP 09 47 53 d?
Seven Falls
eP 09 51 31 c
Shawinigan Falls
eP 09 51 30

DECEMBER 29
Halifax
eL 12 41
Ottawa
eP 11 59 46 c
Resolute Bay
e 11 54 40
eL 12 30
Seven Falls
eP 11 59 55 c

DECEMBER 29
Ottawa
eP 20 29 40 d

DECEMBER 29
Kirkland Lake
eP 20 56 45 d

DECEMBER 30
Resolute Bay
e 02 17 16
Seven Falls
iP 02 17 56 c

DECEMBER 30
U.S.C.G.S.
41N, 124W
Humboldt county,
California
H = 09 16 08
Resolute Bay
eP 09 23 15 d
eL 09 34.6
Seven Falls
eP 09 23 28 c

DECEMBER 30
U.S.C.G.S.
37N, 22E
Near south coast of
Greece
H = 11 05 58

DECEMBER 29
Ottawa
iP 11 17 13 d
i 11 17 19

Resolute Bay
eP 11 16 20

Seven Falls
eP 11 16 46 c
i 11 16 53

DECEMBER 30
U.S.C.G.S.
53N, 168W
Fox Islands, Aleutian
Isl.
H = 11 32 28
h = 60 km
Halifax
eP 11 42 56
eL 12 06.5
Ottawa
iP 11 42 12 d
P_cP 11 43 06
i 11 43 48
PP 11 44 22
S 11 50 08
S_cS 11 52 00
Resolute Bay
iP 11 39 26 d
ipP 11 39 41
e(S) 11 45 02
eL 11 48
Seven Falls
iP 11 42 20 d
P_cP 11 43 17
PP 11 44 23
S 11 50 27
PS 11 50 50
SS 11 54 56
Shawinigan Falls
iP 11 42 16 d

DECEMBER 31
U.S.C.G.S.
52N, 159E
Near east coast of
Kamchatka
H = 14 27 21



DOMINION OBSERVATORIES

Resolute Bay
eP 14 35 34

DECEMBER 31
Resolute Bay
e 17 10 46

DECEMBER 31
Resolute Bay
e 21 44 03
e 21 44 31